

Prepared for:

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

## Preliminary Site Assessment Report

SFF Holdings LLC Property (Parcel PIN #11711158 and 11710301 – ROW and Northeast Remnant)  
Parcel # 2  
3600 Primrose Avenue  
Charlotte, Mecklenburg County, North Carolina  
Charlotte Wye Track Improvements  
TIP Number: P-5705A  
WBS Element: 44475.1.1  
Revision #2

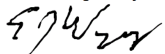


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**April 29, 2019**

*not considered final unless all signatures are completed*

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## 1.0 INTRODUCTION

This report presents the results of a Preliminary Site Assessment (PSA) for the North Carolina Department of Transportation (NCDOT) SFF Holdings LLC (SFF Holdings) Property performed by Apex Companies, LLC (Apex) (dba Apex Engineering, PC) on behalf of the NCDOT. The subject site of this PSA report will be affected by the Charlotte Wye Track improvements. The Site is comprised of a portion of two parcels (Parcel PINs #11711158 and 11710301) located at 3600 Primrose Ave and is identified as Parcel 2, SFF Holdings Property, within the NCDOT P-5705A design project. The property is located at the western end of Primrose Avenue, northwest of the existing Norfolk Southern Rail-line and south of the Norfolk Southern Mainline train tracks, west of the Charlotte junction in Charlotte, Mecklenburg County, North Carolina, as shown in the attached Site Location Map (**Figure 1**). The site investigation was conducted in accordance with Apex's Technical and Cost proposal dated June 13, 2018.

NCDOT contracted Apex to perform the PSA within the existing right-of-way (ROW) and/or easement and Remnant of the Parcel 2, SFF Holdings property due to the potential presence of contamination at the site and because excavation and grading may occur within the area. The PSA was performed to evaluate if soils have been impacted as a result of past and present uses of the property within the proposed investigation area, especially around the storm drain structure lines, excavation areas, utility lines and slope stake cuts. Additionally, the PSA was performed to determine if groundwater is impacted.

The following report presents the results of an electromagnetic (EM) and ground penetrating radar (GPR) evaluation to identify underground storage tanks (USTs) in the investigation area and describes the subsurface field investigation at the site. The report includes the evaluation of field screening, as well as field and laboratory analyses with regards to the presence or absence of soil and groundwater contamination within the area of investigation across SFF Holdings property. **Appendix A** includes a Photograph log for the site.

### 1.1 Site History

The SFF Holding property has been identified as Parcel 2 located at 3600 Primrose Avenue, in Charlotte North Carolina. This parcel is located at the intersection of Primrose Avenue and the Norfolk Southern Rail-Line. The site was historically utilized as United Scrap, Inc. which was a scrap metal recycling and storage facility. The facility was identified on the North Carolina

Department of Environmental Quality's (NCDEQ's) Incident Management Database (UST# MO-2453) with a documented UST closure in 1989, however, this facility does not appear in the UST Section Registry and no Facility ID number was found to be associated with this parcel. Danial Bowser of NCDEQ stated in an email correspondence with Apex personnel that most USTs installed prior to 1988 will not appear in the UST registration database. According to the NCDEQ Laserfiche website, the site was closed in 1990 with no contamination on-site. Buildings on-site were demolished between 2013 and 2014. The location of the former UST bed is depicted in a site map dated February 19, 1990 found on the NCDEQ Laserfiche website. Historical documentation is presented in **Appendix B**.

## 1.2 Site Description

As described above, the site was formerly utilized as a United Scrap, Inc. facility, but currently consists of multiple vacant concrete slabs that are located in the central portion of the property. An asphalt driveway was observed on the southeastern portion of the property and the remaining portions of the parcel were observed to be undeveloped land. The site is located within a mixed commercial, industrial and residential area of Charlotte in Mecklenburg County, North Carolina. The adjacent and surrounding properties include single-family residential homes, a church, commercial buildings and storage, a rail yard, industrial buildings and undeveloped land. The site is bordered to the north by Norfolk Southern Mainline followed by industrial buildings. An additional Norfolk Southern rail-line and Fern (a commercial business) is located adjacent to the east of the site. Moore's Sanctuary AME Zion Church, 48Fourty Solutions (a commercial business), and residential properties are located to the west of the site. A Norfolk Southern rail-line followed by residential properties and undeveloped land are located to the south of the site.

## 2.0 GEOLOGY

### 2.1 Regional Geology

Parcel 2, the SFF Holdings property, is located within the Charlotte Belt of the Piedmont Physiographic Province. According to the US Geological Survey Hydrogeological framework of the North Carolina Charlotte Belt, the geology consists of mostly 300 to 500 million year old igneous rocks such as granite, diorite, and gabbro. The igneous rocks are good sources for crushed and dimension stone for road aggregate and buildings (M.D. Winner Jr. and R.W.

Coble, 1996, *Hydrogeologic Framework of the North Carolina Coastal Plain, Regional Aquifer-System Analysis – Northern Atlantic Coastal Plain*, USGS Professional Paper 1404-I).

## 2.2 Site Geology

Site geology was observed through the on-site drilling and sampling of 34 direct push technology (DPT) soil borings (SB) and four off-site DPT background soil borings. **Figure 2** presents the boring locations and site layout. **Figure 3** presents the background boring locations located offsite. Borings did not exceed a total depth of 13 feet below ground surface (bgs) since this is a shallow cut and fill area of the design project. Water was encountered as shallow as 3 feet bgs. Soil consisting predominantly of brown silt to yellow and orange marbled clayey silt was observed across the parcel (see Boring logs included in **Appendix C**). According to the topographical maps found on the Mecklenburg County Geographic Information System (GIS) site, the parcel is located in an area of little topographic relief. Although groundwater does not always follow topographic changes, based on the topography of surrounding parcels, groundwater flow is likely to be toward branches of Taggart Creek located west and southwest.

## 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 prepared to include the site-specific health and safety information necessary for the field activities. North Carolina-One Call was contacted on June 28, 2018 to report the proposed drilling activities and potential affected utilities.

Apex subcontracted ESP Associates, Inc. (ESP) to locate subsurface utilities, potential subsurface drilling hazards and complete a geophysical survey. Carolina Soil Investigations, LLC (CSI) was retained by Apex to perform DPT borings for soil sampling. All soil samples were submitted to Prism Laboratories, Inc. (Prism) of Charlotte, North Carolina for analysis under standard chain-of-custody protocol. Evo Corporation (Evo) of Winston Salem, North Carolina was retained by Apex to perform the removal of potentially contaminated soil. Eastern Solutions provided a calibrated Flame Ionization/Photoionization Detector (FID/PID). Boring locations were strategically placed in a pattern within the area of investigation to maximize the opportunity to encounter potentially contaminated soil.

### 3.2 Site Reconnaissance

Apex personnel performed a site reconnaissance on June 22<sup>nd</sup> of 2018 to investigate the presence of USTs or areas/obstructions that could potentially affect the subsurface investigation. Apex observed multiple mounds of debris and overgrown vegetation throughout Parcel 2. Prior to the commencement of testing, the debris and vegetation were removed from Parcel 2.

### 3.3 Geophysics Survey Results

The geophysical survey of the site was conducted between June 22<sup>nd</sup> and July 5<sup>th</sup> of 2018. ESP performed an electromagnetic (EM) induction metal survey which identified several EM anomalies throughout the investigation area. ESP concluded these areas were associated with surficial and partially buried miscellaneous metallic objects and reinforced concrete. To confirm the current anomalies, a Ground Penetrating Radar (GPR) survey was completed. ESP concluded there were no underground storage tanks (USTs) present in the investigation area. A copy of the Geophysical Report is presented in **Appendix D**.

### 3.4 Well Survey

No water supply wells were observed on site, however three monitoring wells (MW-2, MW-3 and MW-4) were observed. Monitoring well MW-4 is located in the southwestern portion of the parcel within the ROW near the end of Primrose Street with the GPS coordinates 35,221159, -80.908414). Monitoring well MW-3 is located in the central western portion of the property, west of the ROW and west of the former scrap metal facility and has the GPS coordinates of 35.222003, -80.90654. Monitoring well MW-2 is located in the north central portion of the parcel with the GPS coordinates of 35.222003, -80.90654.

### 3.5 Soil Sampling

The purpose of soil sampling was to conduct a soil and groundwater assessment of potentially contaminated areas and potential source objects inside the investigated area. The soil and groundwater assessment was completed within 13 feet below ground surface (bgs), and occurred along storm drain structure lines, excavation areas, utility lines, and slope stake cuts. This procedure was completed to estimate the volume of impacted soil that might require special handling during construction activities.

Soil sampling was performed utilizing hand auger and direct push methods accompanied by field screening of volatile organic vapors with the FID/PID unit. One to two intervals of each soil boring, exhibiting the most elevated FID/PID readings, were selected for offsite analysis of total volatile organic compounds (VOCs) by EPA Method 8260B, semi-volatile organic compounds (SVOCs) by EPA Method 8270D, priority pollutant metals by EPA Method 6010D, mercury by EPA Method 7471B and polychlorinated biphenyls (PCBs) by EPA Method 8082A.

Apex conducted drilling activities on July 9, July 10, and October 25, of 2018. The drilling subcontractor, CSI, advanced 34 direct push soil borings within the proposed investigation area, placed in a pattern to maximize the likelihood of identifying potential soil contamination. **Figure 2** presents the Site Map with boring locations and site structures.

Apex personnel returned to the site on August 17, 2018 to collect a toxicity characteristic leaching procedure (TCLP) sample for the investigative derived waste drum that was located on-site. The drum was properly disposed off-site of as non-hazardous waste in accordance with regulatory requirements by Evo Corporation. Soil Manifests and Disposal Certificates are provided in **Appendix E**.

On September 11, 2018, Apex personnel utilized a hand augur to complete four soil borings outside of the investigation area. Borings were advanced outside of the investigation area to collect background soil samples that would be representative of background metal concentrations. The background soil samples were analyzed for priority pollutant metals by EPA Method 6010D. **Figure 3** presents the Site Map with background boring and boring locations.

### **3.6 Groundwater Sampling**

Groundwater was encountered on site at depths ranging from three feet bgs to 9.5 feet bgs. A ground water grab sample was collected from an existing monitoring well (MW-4) on July 10, 2018 and analyzed for VOCs by EPA Method 8260B, SVOCs by EPA Method 8270D, priority pollutant metals by EPA Method 6010D and mercury by EPA Method 7471B. Apex returned to the site on March 19, 2019 to sample existing monitoring wells MW-2 and MW-3. Each well was sampled using low flow sampling protocols. Samples were collected and analyzed for VOCs, SVOCs, priority pollutant metals, mercury and PCBs by EPA Method 8052A.



## 4.0 SAMPLING RESULTS

### 4.1 Soil Sampling Results

Based on FID/PID field screening and laboratory analysis from the June and October 2018 soil sampling events there is evidence of impact, within the area of investigation.

Elevated PID and FID readings, above ten parts per million (ppm), were observed in 16 of the 34 borings conducted at the site. PID detections ranged from <0.1 ppm to 10,200 ppm. FID detections ranged from <0.1 ppm to 12,800 ppm. The PID/FID field screening results are provided on the boring logs in **Appendix C**.

The samples collected during the assessment were submitted for analysis for VOCs according to EPA Method 8260B, SVOCs by 8270D, priority pollutant metals by EPA Method 6010D and mercury by EPA Method 7471B. Six of the 34 onsite soil borings were also analyzed for PCBs by EPA Method 8082A. The four background samples were analyzed for priority pollutant metals by EPA Method 6010D. For profiling purposes, a drum of soil cuttings was analyzed for TCLP metals mercury, cadmium, chromium and lead. The samples were submitted to Prism Laboratories, Inc. in Charlotte, North Carolina for analysis.

Based on the analytical data, none of the soil borings analyzed for VOCs or SVOCs exceed the Industrial/Commercial Health Based Preliminary Soil Remediation Goals (PSRG). Each of the 34 soil borings onsite and the four offsite background soil borings exceeded the Industrial Commercial Health Based PSRGs for total chromium. The background samples for total chromium ranged in concentration from 28 mg/kg to 130 mg/kg, giving an average concentration for the background samples of 72.75 mg/kg. Twenty-six of the total chromium exceedances are within this range. Many naturally-occurring background metals are commonly found elevated above the respective North Carolina SG-MCC values. Thus, the analytical results were evaluated to determine whether the levels are representative of elevated natural/background chromium concentrations in the area. The evaluation was used for screening purposes only and does not represent a thorough background metals study. A statistically significant upper threshold background concentration was established using an Upper Confidence Limit (UCL) and Upper Tolerance Limit (UTL). The UCL represents the upper limit of the confidence interval of the population mean while the UTL represents the upper confidence limit of a percentile of the population.

The UCL is the upper boundary or limit within which the mean of a sample data set, e.g., future sample results, is expected to fall. The US Environmental Protection Agency (EPA) suggests analyzing with a confidence level of no less than 90%; our analysis was performed with a 95% confidence interval.

The UTL is the upper boundary within which a percentage (e.g., 95%) of a population is expected to fall; it is meant to encompass a range of expected sampling values. If the value "X" represents a 95% UTL with 90% confidence, then 95% of the sample population values are expected to be below the value of "X" 90% of the time.

Historical background total chromium concentration results from nine nearby counties (Cabarrus, Catawba, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly, and Union) were analyzed to determine a UCL and UTL for total chromium. North Carolina background metals concentrations were obtained from the NCDEQ Division of Water Quality (DWQ) Groundwater Section, Mooresville Regional Office from a 1998 study. ProUCL 5.1, software designed by the US Environmental Protection Agency (USEPA), was used to analyze the historical background total chromium concentrations dataset.

The historical background dataset consisted of 44 data points with values ranging from 2 mg/kg to 150 mg/kg and a mean of 28.95 mg/kg. Based on adjoining county background total chromium data, the 95% UCL was determined to be 37.26 mg/kg; the 95% UTL with 95% coverage (i.e. confidence) was 97.49 mg/kg. In other words, a cursory statistical analysis suggests that total chromium concentrations below 97.49 mg/kg may be attributable to naturally occurring total chromium for the area.

Furthermore, the off-Site total chromium background samples collected near the site on September 11, 2018 consisted of four data points – the data set had values ranging from 28 mg/kg to 130 mg/kg, with an average concentration of 72.75 mg/kg, and a standard deviation of 42.84.

Based on calculated total chromium UTL of 97.49 mg/kg, 6 of the 34 samples collected at Parcel 2 exceed the threshold UTL value and do not initially appear to be inclusive of background total chromium levels based on the limited exercise. Samples P2SB-1 (1-5), P2SB-2 (1-5), P2SB-6 (1-3), P2SB-7 (3-7), P2SB-9 (1-5), and P2SB-28 (1-2) had total chromium

concentrations of 440 mg/kg, 190 mg/kg, 300 mg/kg, 100 mg/kg, 170 mg/kg, and 190 mg/kg respectively.

Exceedances of other analyzed metals and PCBs are shown below by soil sample location. Analytical results are summarized within **Tables 1A, 1B, 1C, and 1D**. The analytical results are provided in **Appendix F**. Soil sample locations are shown in **Figure 2** and **Figure 3**. Exceedances are presented in **Figures 4 through 9**.

- **P2SB-1 (1-5)** exceeded Industrial Commercial Health Based PSRG for arsenic;
- **P2SB-2 (1-5)** exceeded Industrial Commercial Health Based PSRG for PCBs (Aroclor 1254), arsenic and copper;
- **P2SB-6 (1-3)** exceeded Industrial Commercial Health Based PSRG for arsenic and thallium;
- **P2SB-15 (1-3)** exceeded Industrial Commercial Health Based PSRG for PCBs (Aroclor 1248, 1254, and 1260);
- **P2SB-20 (4-7)** exceeded Industrial Commercial Health Based PSRG for thallium;
- **P2SB-21 (1-4)** exceeded Industrial Commercial Health Based PSRG for PCBs (Aroclor 1254 and 1260);
- **P2SB-28 (1-2)** exceeded Industrial Commercial Health Based PSRG for arsenic;
- **P2SB-29 (2-5)** exceeded Industrial Commercial Health Based PSRG for thallium;
- **P2SB-32 (0-2)** exceeded Industrial Commercial Health Based PSRG for thallium;
- **P2SB-32 (4-6)** exceeded Industrial Commercial Health Based PSRG for thallium;
- **P2SB-33 (0-2)** exceeded Industrial Commercial Health Based PSRG for arsenic and thallium;
- **P2SB-34 (0-2)** exceeded Industrial Commercial Health Based PSRG for thallium; and
- **BGOSC-1 (2.5')** exceeded Industrial Commercial Health Based PSRG for arsenic.

## 4.2 Groundwater Sampling Results

Apex personnel collected a groundwater grab sample from MW-4 on July 10, 2018, which was analyzed by a North Carolina certified laboratory for the presence of VOCs in accordance with Method 8260B, SVOCs in accordance with Method 8270D, Metals in accordance with 6010D Method and Mercury in accordance with Method 7470A.

The groundwater sample from MW-4 did not contain mercury or SVOCs above detectable limits. Priority pollutant metals were reported above detectable limits, however, were not reported above the 15A NCAC 02L .0202 Groundwater Quality Standards (2L Standards) or the 15A NCAC 02B Surface Water Quality Standards (2B Standards).

Three VOC constituents were reported above detectable limits, including cis-1,2-dichloroethylene, tetrachloroethylene and trichloroethylene. Tetrachloroethylene was identified in sample MW-4 at a concentration of 1.9 micrograms per liter ( $\mu\text{g/L}$ ), exceeding the 2L Standard of 0.7  $\mu\text{g/L}$ , but below the 2B Standard of 3.3  $\mu\text{g/L}$ . The remaining VOC constituents' concentrations were below their respective standards.

Apex personnel returned to the site to collect groundwater samples, using low flow sampling procedures on monitoring wells MW-2 and MW-3. In addition to sampling for VOCs, SVOC, priority pollutant metals and mercury, MW-2 and MW-3 were also analyzed for PCBs by EPA Method 8052A. Several VOC constituents and metals were reported above detectable limits; however, only tetrachloroethylene and vinyl chloride were detected at concentrations exceeding regulatory limits. Tetrachloroethylene was identified in sample MW-3 at a concentration of 0.83  $\mu\text{g/L}$ , exceeding the 2L Standard of 0.7  $\mu\text{g/L}$ , but below the 2B Standard of 3.3  $\mu\text{g/L}$ . Vinyl chloride was identified in sample MW-3 at a concentration of 1.4 micrograms per liter ( $\mu\text{g/L}$ ), exceeding the 2L Standard of 0.03  $\mu\text{g/L}$ , but below the 2B Standard of 2.4  $\mu\text{g/L}$ . The remaining VOC constituents and metals concentrations were below their respective standards.

Analytical results are summarized within **Table 2**. The analytical results are provided in **Appendix F** and the groundwater sampling logs are included in **Appendix G**. The groundwater analytical results and estimated area of impact are summarized on **Figure 10 and Figure 11**.

Based on the three groundwater samples collected at monitoring wells (MW-2, MW-3 and MW-4), Apex estimates the area of groundwater contamination within the area of investigation to be a minimum of 11,499 square feet. The potential source area for the groundwater contamination is unknown and groundwater data was limited to three monitoring wells spaced across the site. The actual size of the groundwater contamination area is likely to exceed the minimum estimate of 11,499 square feet. The area of soil contamination is estimated to be 4.5 feet thick. This depth was derived from the average depth to water across the site, therefore the potential contaminated soil volume is estimated to be 430,868 square feet or 71,811 cubic yards within

the ROW, easement and remnant. Total Chromium indicated exceedances of the applicable PSRG in every soil sample, so chromium is expected to be a contaminant across the entire parcel. However, chromium concentrations observed in all but six of the soil samples appear to be generally consistent with naturally-occurring concentrations identified in Mecklenburg and nearby counties. The estimated area of chromium contamination exceeding the calculated background UTL within the area of investigation is 104,765 square feet. The estimated area of contamination for arsenic within the area of investigation is 48,855 square feet, the estimated area of contamination for copper is 1,414 square feet, the estimated area of contamination for lead is 11,902 square feet, the estimated area of contamination for thallium is 26,947 square feet and the estimated area of contamination for PCBs is 3,826 square feet. This parcel is located at the western end of Primrose Avenue, northwest of the existing Norfolk Southern Rail-Line and south of the existing Norfolk Southern Mainline train tracks, west of the Charlotte Junction. The remnant portion of Parcel 2 includes the northeast remnant portion of parcel #11710301 and not the southwestern remnant outside of the landlocked area. The site is a former location of United Scrap, Inc. The facility does appear in NCDEQ's groundwater database (UST #MO-2453) with respect to a UST closure in 1989, however, this facility does not appear in the UST Section Registry. The location of the former UST bed is not documented in documents readily available at the DEQ Laserfiche website. According to the database, the site was closed out in 1990 with no contamination. The estimated area of groundwater and soil contamination is presented in **Figure 6**.

## 5.0 CONCLUSIONS

The following bulleted summary is based upon Apex's evaluation of field observations and onsite quantitative analyses of samples collected from the site on between July 9<sup>th</sup> and October 25<sup>th</sup> of 2018.

- Results of the geophysical survey did not produce evidence of anomalies characteristic of USTs. Anomalies were associated with surficial and partially buried miscellaneous metallic objects and reinforced concrete.
- Thirty-four soil borings were advanced onsite, and four background samples were advanced off-site.

- Soil samples were analyzed for VOCs, SVOCs, Priority Pollutant Metals, Mercury, and PCBs.
- Soil samples that were analyzed for VOCs, SVOCs and Mercury did not exceed the Industrial/Commercial Health Based PSRG.
- Soil samples that were analyzed for priority pollutant metals exceeded the Industrial/Commercial Health Based PSRG for arsenic, chromium, copper and thallium.
- Soil samples that were analyzed for PCBs exceeded the Industrial/Commercial Health Based PSRG for Aroclor 1248, Aroclor 1258, and Aroclor 1260.
- Groundwater samples MW-3 and MW-4 exceeded the 15A NCAC 02L .0202 Groundwater Quality Standard for tetrachloroethylene but did not exceed the 15A NCAC 02B Surface Water Quality Standard for tetrachloroethylene. Groundwater sample MW-3 also exceeded the 15A NCAC 02L .0202 Groundwater Quality Standard for vinyl chloride but did not exceed the 15A NCAC 02B Surface Water Quality Standard for vinyl chloride. No other VOC, SVOC, PCBs, metals, or mercury concentrations exceeded their respective 2L or 2B standards.
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## 6.0 RECOMMENDATIONS

The subject property is designed as both a fill and cut area. Based on these PSA results, the soil and groundwater onsite are impacted at concentrations exceeding applicable regulatory action levels. NCDOT will need to properly manage any soil and/or groundwater disturbed during excavation activities. Any soils and/or groundwater excavated from the site requiring disposal should be characterized and disposed of in accordance with regulatory requirements. Polychlorinated biphenyls (PCBs) were detected in each of the four samples they were analyzed for. Apex would recommend doing additional PCB sampling to get a better understanding of the extent of the PCB impact.

## **TABLES**

**Table 1A**  
**Soil Analytical Results - Metals**

Parcel #2  
SFF Holdings LLC Property  
Charlotte Wye Track Improvements  
Charlotte, NC

Sample ID	Date	Total Metals by 6010D													7471B
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Thallium	Zinc	Mercury
Residential Health Based PSRG		6.3	0.68	3,100	31	7.5	0.31	630	400	310	78	78	0.16	4,700	2.3
Industrial/Commercial Health Based PSRG		93	3.0	47,000	470	110	6.5	9,300	800	4,700	1,200	1,200	2.3	70,000	9.7
Protection of Groundwater PSRG		0.9	5.8	580	63	3.0	3.8	700	270	130	2.1	3.4	0.28	1,200	1.0
P2SB-1 (1-5)	7/9/2018	<b>15</b>	<b>4.1</b>	130	0.35 J	5.6	<b>440</b>	440	530	240	<3.0	1.8	<b>1.1</b>	1,200	0.14
P2SB-2 (1-5)	7/9/2018	4.6	<b>11</b>	260	0.31 J	<b>26</b>	<b>190</b>	<b>17,000</b>	740	130	2.5 J	<1.5	<b>2.2</b>	3,400	1.3
P2SB-3 (6-9)	7/9/2018	<0.32	<b>1.2</b>	30	0.67	0.11 J	<b>54</b>	43	11	9.5	1.3	<0.32	<b>0.72</b>	32	0.17
P2SB-4 (6-9)	7/9/2018	<0.31	0.38 J	29	0.45	0.072 J	<b>36</b>	34	8.6	8.1	0.42 J	<0.31	<b>0.52 J</b>	28	0.028
P2SB-5 (4-7)	7/9/2018	<0.31	<0.63	23	0.53	0.075 J	<b>42</b>	38	8.1	7.4	1.6	<0.31	<b>0.80</b>	21	0.12
P2SB-6 (1-3)	7/9/2018	<b>8.6</b>	<b>35</b>	540	0.49 J	<b>17</b>	<b>300</b>	<b>2,300</b>	<b>1,700</b>	150	<3.1	1.3 J	<b>3.5</b>	<b>3,800</b>	1.7
P2SB-7 (3-7)	7/9/2018	<0.32	<b>0.77</b>	21	0.67	0.091 J	<b>100</b>	42	9.6	8.0	0.33 J	<0.32	<b>0.95</b>	28	0.11
P2SB-8 (4-7)	7/9/2018	<0.32	<0.65	25	0.78	0.14 J	<b>69</b>	49	11	15	1.4	<0.32	<b>1.5</b>	35	0.029
P2SB-9 (1-5)	7/9/2018	4.8	<b>14</b>	220	0.76 J	33	<b>170</b>	<b>1,200</b>	<b>1,100</b>	150	<3.1	0.56 J	<b>1.8</b>	3,000	<b>6.3</b>
P2SB-10 (4-8)	7/9/2018	<0.33	0.45 J	39	0.75	0.55	<b>40</b>	48	17	13	0.30 J	<0.33	<b>1.5</b>	33	0.028
P2SB-11 (4-7)	7/9/2018	<0.29	<b>0.71</b>	44	0.48	0.082 J	<b>30</b>	25	9.6	7.2	0.96	<0.29	<b>0.81</b>	24	0.052
P2SB-12 (1-3)	7/9/2018	<0.30	<b>2.5</b>	42	0.49	0.074 J	<b>27</b>	29	11	8.0	0.97	<0.30	<b>0.71</b>	28	0.089
P2SB-13 (3-6)	7/9/2018	<0.30	<b>1.3</b>	76	0.49	0.24 J	<b>25</b>	29	26	12	<0.60	<0.30	<b>1.1</b>	50	0.016 J
P2SB-14 (3-5)	7/9/2018	<0.34	<b>1.4</b>	60	0.48	0.17 J	<b>35</b>	73	52	8.5	0.55 J	<0.34	<b>0.86</b>	38	0.081
P2SB-15 (1-3)	7/9/2018	<0.29	<b>2.1</b>	85	0.53	4.5	<b>87</b>	230	180	47	<0.59	<0.29	<b>1.9</b>	570	0.45
P2SB-16 (5-8)	7/9/2018	<0.30	<0.60	31	0.29 J	0.096 J	<b>34</b>	18	10	5.8	<0.60	<0.30	<b>0.39 J</b>	26	0.057
P2SB-17 (4-7)	7/10/2018	0.28 J	<b>2.6</b>	52	0.42	0.88	<b>44</b>	130	300	36	<0.59	0.15 J	<b>1.4</b>	540	0.044
P2SB-18 (3-6)	7/10/2018	<0.31	<b>1.8</b>	85	0.68	0.12 J	<b>34</b>	33	14	11	0.53 J	<0.31	<b>1.4</b>	32	0.0091 J
P2SB-19 (3-6)	7/10/2018	<0.29	<b>2.0</b>	56	0.5	0.92	<b>37</b>	50	120	12	0.85	<0.29	<b>1.3</b>	22	0.044
P2SB-20 (4-7)	7/10/2018	<0.33	0.40 J	85	1.5	0.24 J	<b>51</b>	53	6.0	29	<0.67	<0.33	<b>5.9</b>	66	0.0083 J
P2SB-21 (1-4)	7/10/2018	<0.29	<b>1.9</b>	60	0.45	1.2	<b>92</b>	200	190	51	<0.57	0.11 J	<b>1.7</b>	360	0.025
P2SB-22 (4-7)	7/10/2018	<0.31	<b>0.96</b>	18	0.45	0.21 J	<b>47</b>	26	6.9	6.4	1.5	<0.31	<b>0.73</b>	15	0.1



**Table 1A**  
**Soil Analytical Results - Metals**

Parcel #2  
SFF Holdings LLC Property  
Charlotte Wye Track Improvements  
Charlotte, NC

Sample ID	Date	Total Metals by 6010D													7471B
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Thallium	Zinc	
Residential Health Based PSRG		6.3	0.68	3,100	31	7.5	0.31	630	400	310	78	78	0.16	4,700	2.3
Industrial/Commercial Health Based PSRG		93	3.0	47,000	470	110	6.5	9,300	800	4,700	1,200	1,200	2.3	70,000	9.7
Protection of Groundwater PSRG		0.9	5.8	580	63	3.0	3.8	700	270	130	2.1	3.4	0.28	1,200	1.0
P2SB-23 (1-4)	7/10/2018	<0.29	<b>1.8</b>	55	0.54	0.28 J	<u>45</u>	86	27	11	0.33 J	<0.29	<b>1.3</b>	51	0.03
P2SB-24 (1-4)	7/10/2018	<0.31	<b>2.1</b>	59	0.44	2.6	<u>38</u>	280	77	13	<0.61	<0.31	<b>1.0</b>	550	0.042
P2SB-25 (1-4)	7/10/2018	<0.31	<b>0.8</b>	17	0.57	0.30 J	<u>55</u>	47	9.8	7.8	1.0	<0.31	<b>1.4</b>	33	0.047
P2SB-26 (0.5-1)	7/10/2018	<0.27	<b>1.0</b>	27	0.28	0.31	<u>21</u>	19	9.4	8.6	0.25 J	<0.27	<b>0.7</b>	49	0.023
P2SB-27 (1-4)	7/10/2018	<0.31	<b>1.1</b>	15	0.52	0.19 J	<u>52</u>	37	8.2	6.5	1.2	<0.31	<b>1.3</b>	20	0.064
P2SB-28 (1-2)	7/10/2018	<b>9.5</b>	<b>8.4</b>	230	0.033 J	1.6	<u>190</u>	<b>3,900</b>	<u>1,400</u>	160	<0.57	0.20 J	<b>0.26 J</b>	<b>5,800</b>	0.85
P2SB-29 (2-5)	7/10/2018	<0.33	<b>1.6</b>	28	0.47	0.15 J	<u>72</u>	60	7.4	24	0.71	<0.33	<u>2.3</u>	28	0.0074 J
P2SB-30 (4-6)	10/25/2018	0.46	<b>2</b>	40	0.36	0.10 J	<u>30</u>	16	6.5	6.7	<0.57	<0.29	<b>1.8</b>	16	0.021 J
P2SB-31 (4-6)	10/25/2018	0.51	<b>1.4</b>	37	0.32	0.23 J	<u>54</u>	26	10	15	<0.57	<0.29	<b>1.5</b>	22	0.018 J
P2SB-32 (0-2)	10/25/2018	0.54	<b>2.9</b>	39	0.68	0.037 J	<u>30</u>	34	8.2	9.6	<0.60	<0.30	<u>3.2</u>	23	0.092
P2SB-32 (4-6)	10/25/2018	0.42	<b>2.2</b>	110	0.69	0.019 J	<u>54</u>	35	6.5	20	<0.61	<0.0076	<u>3</u>	28	0.020 J
P2SB-33 (0-2)	10/25/2018	1.5	<u>3</u>	92	0.96	1.9	<u>96</u>	130	70	40	0.58 J	<0.0077	<u>6.2</u>	290	0.13
P2SB-34 (0-2)	10/25/2018	2.3	<b>1.8</b>	110	0.71	0.22 J	<u>19</u>	230	16	10	1.1	<0.0065	<u>4.7</u>	160	0.029
BGPR-1 (3')	9/11/2018	<0.30	<b>2.7</b>	77	0.57	0.82	<u>98</u>	240	120	31	<0.59	<0.30	0.11 J	260	0.095
BGPR-2 (2')	9/11/2018	<0.30	<b>2.3</b>	120	0.44	2.4	<u>130</u>	260	330	62	<0.60	<0.30	<b>0.18 J</b>	510	0.1
BGOSC-1 (2.5')	9/11/2018	<0.29	<u>3.1</u>	140	0.89	0.37	<b>28</b>	52	83	15	0.41 J	<0.29	<b>&lt;0.29</b>	95	0.069
BGHG-1 (2')	9/11/2018	<0.28	<b>1.3</b>	64	0.54	0.51	<u>35</u>	46	110	15	<0.56	<0.28	0.13 J	120	0.037

**Notes:**

Only analytes detected above laboratory reporting limits shown

All concentrations reported in milligrams per kilogram (mg/kg)

**Bold** values represent concentrations that are above Residential Health Based PSRG

Underlined values represent concentrations that are above the Industrial/Commercial Health Based PSRG

Shaded values represent concentrations that are above Protection of Groundwater PSRG

VOCs - Volatile Organic Compounds

SVOCs - Semi Volatile Organic Compounds

NE - Not Established

< # - Results less than the laboratory reporting limit

J - Estimated concentration below the reporting limit

PSRG - Preliminary Soil Remediation Goals (February 2018)

**Table 1B**  
**Soil Analytical Results - VOCs**

Parcel #2  
SFF Holdings LLC Property  
Charlotte Wye Track Improvements  
Charlotte, NC

Sample ID	Date	VOCs by 8260B																				
		1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Isopropyltoluene	Acetone	Benzene	Bromomethane	Chloromethane	cis-1,2-Dichloroethylene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl Ethyl Ketone (2-Butanone)	Methyl Isobutyl Ketone	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Styrene	Trichloroethylene	Toluene	Xylenes, total	
Residential Health Based PSRG		63	56	NE	12,000	1.2	1.4	23	31	6.1	410	5,500	7,000	4.1	780	780	1,600	1,200	1	990	120	
Industrial/Commercial Health Based PSRG		370	320	NE	140,000	5.4	6.4	99	470	27	2,100	40,000	30,000	18	12,000	5,100	23,000	7,300	4	9,700	530	
Protection of Groundwater PSRG		12	11	1.24	25	0.01	0.05	0.015	0.41	13	2.3	17	0.45	0.39	4.5	2.6	4.1	1.5	0.021	8.3	9.9	
P2SB-1 (1-5)	7/9/2018	<0.011	<0.011	<0.011	0.39	<0.0066	<0.022	<0.011	<0.011	<0.011	<0.011	<0.22	<0.011	<0.022	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.033
P2SB-2 (1-5)	7/9/2018	<0.0054	<0.0054	<0.0054	0.24	<0.0033	0.0043 J	<0.0054	<0.0054	<0.0054	<0.0054	<0.11	<0.054	<0.011	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.016
P2SB-3 (6-9)	7/9/2018	<0.0051	<0.0051	<0.0051	0.048 J	<0.0031	<0.010	<0.0051	<0.0051	<0.0051	<0.0051	<0.10	<0.051	<0.10	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.015
P2SB-4 (6-9)	7/9/2018	<0.0047	<0.0047	<0.0047	0.0019 J	<0.0028	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.094	<0.047	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.014
P2SB-5 (4-7)	7/9/2018	<0.0057	<0.0057	<0.0057	0.0097 J	<0.0034	<0.011	<0.0057	<0.0057	<0.057	<0.057	<0.11	<0.057	<0.011	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.017
P2SB-6 (1-3)	7/9/2018	0.082	0.041	0.018	0.31	<0.0039	<0.013	<0.0064	<0.0064	4.7	0.13	<0.13	<0.064	<b>8.7</b>	0.0051 J	0.012	<0.0064	0.0026 J	<0.0064	0.022	0.20	
P2SB-7 (3-7)	7/9/2018	<0.0068	<0.0068	<0.0068	0.012 J	<0.0041	<0.014	<0.0068	<0.0068	<0.0068	<0.0068	<0.14	<0.068	<0.42	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.020
P2SB-8 (4-7)	7/9/2018	<0.0068	<0.0068	<0.0068	<0.068	<0.0041	<0.014	<0.0068	<0.0068	<0.0068	<0.0068	<0.14	<0.068	<0.014	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.020
P2SB-9 (1-5)	7/9/2018	<0.010	<0.010	<0.010	0.39	<0.0061	<0.020	<0.010	<0.010	<0.010	<0.010	<0.20	<0.10	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0068	<0.010	<0.030
P2SB-10 (4-8)	7/9/2018	<0.048	<0.0048	<0.0048	0.029 J	<0.0029	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.096	<0.048	<0.43	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.014
P2SB-11 (4-7)	7/9/2018	0.0036 J	<0.0059	<0.0059	0.058 J	<0.0035	<0.012	<0.0059	<0.0059	<0.0059	<0.0059	<0.12	<0.059	1.4	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.018
P2SB-12 (1-3)	7/9/2018	<0.0060	<0.0060	<0.0060	0.027 J	<0.0036	<0.012	<0.0060	<0.0060	<0.0060	<0.0060	<0.12	<0.060	<0.39	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.018
P2SB-13 (3-6)	7/9/2018	<0.0046	<0.0046	<0.0046	0.044 J	<0.0027	<0.0092	<0.0046	<0.0046	<0.0046	<0.0046	<0.092	<0.046	<0.40	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.014
P2SB-14 (3-5)	7/9/2018	<0.0080	<0.0080	<0.0080	0.18	<0.0048	<0.016	<0.0080	<0.0080	<0.0080	<0.0080	<0.16	<0.080	<0.44	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.024
P2SB-15 (1-3)	7/9/2018	<0.0064	<0.0064	<0.0064	0.14	<0.0038	0.0026 J	<0.0064	<0.0064	<0.0064	<0.0064	<0.13	<0.064	<0.39	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.019
P2SB-16 (5-8)	7/9/2018	<0.0042	<0.0042	<0.0042	0.017 J	<0.0025	<0.0042	<0.0042	<0.0042	<0.0042	0.0059	<0.0085	<0.042	<0.0085	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.013
P2SB-17 (4-7)	7/10/2018	<0.0063	<0.0063	<0.0063	<0.063	<0.0038	<0.013	<0.0063	<0.0063	<0.0063	<0.0063	<0.13	<0.063	0.0067 J	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.019
P2SB-18 (3-6)	7/10/2018	<0.0047	<0.0047	<0.0047	<0.047	<0.0028	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.094	<0.047	<0.0094	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.014
P2SB-19 (3-6)	7/10/2018	<0.0054	<0.0054	<0.0054	0.088	<0.0032	<0.011	<0.0054	<0.0054	<0.0054	<0.0054	<0.11	<0.054	<0.011	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.016
P2SB-20 (4-7)	7/10/2018	<0.0061	<0.0061	<0.0061	0.044 J	<0.0037	<0.012	<0.0061	<0.0061	<0.0061	<0.0061	<0.12	<0.061	<0.012	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.018
P2SB-21 (1-4)	7/10/2018	<0.0062	<0.0062	<0.0062	0.054 J	<0.0037	<0.012	<0.0062	0.0087	<0.0062	<0.0062	<0.12	<0.062	<0.012	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<0.019
P2SB-22 (4-7)	7/10/2018	<0.0048	<0.0048	<0.0048	<0.048	<0.0029	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.096	<0.048	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.014
P2SB-23 (1-4)	7/10/2018	<0.0045	<0.0045	<0.0045	0.043 J	<0.0027	<0.0091	<0.0045	<0.0045	<0.0045	<0.0045	<0.091	<0.045	<0.0091	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.014
P2SB-24 (1-4)	7/10/2018	0.011	0.0052	0.0064	0.085	0.0092	<0.0097	<0.0048	<0.0048	0.0052	0.082	<0.097	<0.048	<0.0097	<0.0048	0.0072	0.0026 J	<0.0048	<0.0048	<0.0048	0.0048 J	
P2SB-25 (1-4)	7/10/2018	<0.0054	<0.0054	<0.0054	<0.054	<0.0032	<0.011	<0.0054	<0.0054	<0.0054	<0.0054	<0.11	<0.054	<0.011	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.016
P2SB-26 (0.5-1)	7/10/2018	<0.0048	<0.0048	<0.0048	0.030 J	<0.0029	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.096	<0.048	<0.0096	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.014
P2SB-27 (1-4)	7/10/2018	<0.0060	<0.0060	<0.0060	<0.060	<0.0036	<0.012	<0.0060	<0.0060	<0.0060	<0.0060	<0.12	<0.060	<0.012	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.018
P2SB-28 (1-2)	7/10/2018	<0.0063	<0.0063	<0.0063	0.34	<0.0038	0.0062 J	0.015	<0.0063	<0.0063	0.0083	0.058 J	0.0054 J	<0.013	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.019
P2SB-29 (2-5)	7/10/2018	0.093	0.0045 J	0.0040 J	<0.063	0.03	<0.013	<0.0063	<0.0063	0.0031 J	0.024	<0.13	<0.063	0.074	0.011	0.03	0.0063	<0.0063	<0.0063	<0.0063	<0.0063	0.019
P2SB-30 (4-6)	10/25/2018	<0.0055	<0.0055	<0.0055	0.052 J	<0.0033	<0.011	<0.0055	<0.0055	<0.0055	<0.0055	<0.011	<0.0055	<0.011	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.016
P2SB-31 (4-6)	10/25/2018	0.0023 J	<0.0042	<0.0042	0.024 J	<0.0025	<0.0085	<0.0042	<0.0042	<0.0042	<0.0042	<0.0085	<0.0042	6.5	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.0042	<0.013
P2SB-32 (0-2)	10/25/2018	<0.0060	<0.0060	<0.0060	<0.060	<0.0036	<0.012	<0.0060	<0.0060	<0.0060	<0.0060	<0.12	<0.060	<0.012	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.018
P2SB-32 (4-6)	10/25/2018	<0.0053	<0.0053	<0.0053	<0.053	<0.0032	<0.011	<0.0053	<0.0053	<0.0053	<0.0053	<0.11	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.016
P2SB-33 (0-2)	10/25/2018	<0.0058	<0.0058	<0.0058	0.033 J	<0.0035	<0.012	<0.0058	0.0040 J	<0.0058	<0.0058	<0.12	<0.0058	<0.012	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	0.025	<0.0058	<0.018
P2SB-34 (0-2)	10/25/2018	<0.0048	<0.0048	<0.0048	0.059	<0.0029	<0.0095	<0.0048	<0.0048	<0.0048	<0.0048	<0.0095	<0.048	<0.0095	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.014

**Notes:**

**Table 1C**  
**Soil Analytical Results - SVOCs**

Parcel #2  
SFF Holdings LLC Property  
Charlotte Wye Track Improvements  
Charlotte, NC

Sample ID	Date	SVOCs by 8270D																						
		1-Methylnaphthalene	2-Methylnaphthalene	3/4-Methylphenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Bis(2-Ethylhexyl)phthalate	Chrysene	Dibenzofuran	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Residential Health Based PSRG		18	48	NE	720	NE	3,600	1.1	0.11	1.1	NE	11	51,000	39	110	15	1,300	130	480	480	1.1	4.1	NE	360
Industrial/Commercial Health Based PSRG		73	600	NE	9,000	NE	45,000	21	2.1	21	NE	210	660,000	160	2,100	210	16,000	1,600	6,000	6,000	21	18	NE	4,500
Protection of Groundwater PSRG		0.11	3.1	NE	16	41	1,300	0.35	0.12	1.2	15,600	12	120	14	36	10	35	560	670	110	3.9	0.39	134	440
P2SB-1 (1-5)	7/9/2018	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	4.4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
P2SB-2 (1-5)	7/9/2018	<0.41	<0.41	<0.41	<0.41	<0.41	0.28 J	0.20 J	<b>0.18 J</b>	0.33 J	0.16 J	<0.41	0.90	1.0	0.30 J	<0.41	0.26 J	<0.41	0.37 J	<0.41	0.15 J	<0.41	0.34 J	0.32 J
P2SB-3 (6-9)	7/9/2018	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42
P2SB-4 (6-9)	7/9/2018	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
P2SB-5 (4-7)	7/9/2018	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
P2SB-6 (1-3)	7/9/2018	0.29 J	0.57	0.15 J	0.42	0.23 J	1.2	0.95	<b>0.73</b>	1.1	<0.40	0.48	<0.40	4.6	0.9	0.51	<0.40	<0.40	2.4	0.68	<0.40	1.7	1.9	2.2
P2SB-7 (3-7)	7/9/2018	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42	<0.42
P2SB-8 (4-7)	7/9/2018	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
P2SB-9 (1-5)	7/9/2018	0.13 J	0.24 J	<0.40	<0.40	<0.40	0.33 J	0.54	<b>0.49</b>	0.67	0.38 J	0.27 J	0.21 J	0.59	0.62	<0.40	0.28 J	<0.40	1.2	<0.40	0.36 J	0.19 J	0.86	0.94
P2SB-10 (4-8)	7/9/2018	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43
P2SB-11 (4-7)	7/9/2018	0.18 J	0.32 J	<0.39	0.21 J	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.11 J	<0.39	<0.39	<0.39	<0.39	0.13 J	<0.39	0.63	<0.39
P2SB-12 (1-3)	7/9/2018	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39
P2SB-13 (3-6)	7/9/2018	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
P2SB-14 (3-5)	7/9/2018	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	0.16 J	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
P2SB-15 (1-3)	7/9/2018	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.15 J	0.25 J	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39
P2SB-16 (5-8)	7/9/2018	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
P2SB-17 (4-7)	7/10/2018	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	1.8	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39
P2SB-18 (3-6)	7/10/2018	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
P2SB-19 (3-6)	7/10/2018	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
P2SB-20 (4-7)	7/10/2018	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
P2SB-21 (1-4)	7/10/2018	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
P2SB-22 (4-7)	7/10/2018	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
P2SB-23 (1-4)	7/10/2018	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39
P2SB-24 (1-4)	7/10/2018	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
P2SB-25 (1-4)	7/10/2018	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
P2SB-26 (0.5-1)	7/10/2018	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36
P2SB-27 (1-4)	7/10/2018	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
P2SB-28 (1-2)	7/10/2018	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	0.16 J	<b>0.13 J</b>	0.24 J	0.21 J	<0.38	<0.38	6.4	<0.38	<0.38	0.15 J	2.0	0.36 J	<0.38	<0.38	<0.38	0.22 J	0.36 J
P2SB-29 (2-5)	7/10/2018	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
P2SB-30 (4-6)	10/25/2018	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
P2SB-31 (4-6)	10/25/2018	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	0.13 J	0.30 J	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	0.11 J	0.16 J
P2SB-32 (0-2)	10/25/2018	0.86	1.1	<0.40	0.4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.22 J	<0.40	<0.40	0.25 J	<0.40	<0.40	0.17 J	0.24 J	<0.40	2.4	0.35 J	0.12 J
P2SB-32 (4-6)	10/25/2018	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.19 J	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
P2SB-33 (0-2)	10/25/2018	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	0.35 J	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
P2SB-34 (0-2)	10/25/2018	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35

**Notes:**

Only analytes detected above laboratory reporting limits shown

All concentrations reported in milligrams per kilogram (mg/kg)

**Bold** values represent concentrations that are above Residential Health Based PSRGUnderlined values represent concentrations that are above the Industrial/Commercial Health Based PSRG

Shaded values represent concentrations that are above Protection of Groundwater PSRG

SVOCs - Semi Volatile Organic Compounds

NE - Not Established

&lt; # - Results less than the laboratory reporting limit

J - Estimated concentration below the reporting limit

PSRG - Preliminary Soil Remediation Goals (February 2018)

**Table 2  
Groundwater Analytical Results**

Parcel #2  
SFF Holdings LLC Property  
Charlotte Wye Track Improvements  
Charlotte, NC

Sample ID	Date	Total Metals by 6010D (mg/L)										7470A (mg/L)		VOCs by 8260B (µg/L)						PCBs (µg/L)	8270D (µg/L)
		Antimony	Barium	Cadmium	Chromium	Copper	Lead	Nickel	Silver	Thallium	Zinc	Mercury	Acetone	Chloromethane	cis-1,2-Dichloroethylene	Isopropylbenzene	Tetrachloroethylene	Trichloroethylene	Vinyl Chloride	PCBs	SVOCS
15A NCAC 2B Standards		640	21,000	NE	NE	NE	NE	4,600	NE	0.47	NE	0.012	1100000	96	720	11000	3.3	30	2.4	NE	NE
15A NCAC 2L Standards		NE	0.7	2000	0.01	1	0.015	0.1	0.02	NE	1	0.001	6000	3	70	70	0.7	3	0.03	NE	NE
MW-2	3/19/2019	0.0040 J	0.66	<0.0010	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.020	0.055	<0.00020	9.5	1.4	<0.50	7	<0.50	<0.50	<0.50	ND	ND
MW-3	3/19/2019	0.0040 J	0.058	0.00043 J	<0.0050	<0.010	<0.0050	0.0011 J	0.00046 J	<0.020	0.015 J	<0.00020	<5.0	2.3	5.5	1.6	<b>0.83</b>	2.4	<b>1.4</b>	ND	ND
MW-4	7/10/2018	0.0094 J	0.043	<0.0010	0.0025 J	0.012	0.0011 J	0.0052 J	<0.0050	0.0027 J	0.034	<0.00020	<5.0	<0.50	3.1	<0.50	<b>1.9</b>	0.7	<0.50	NA	ND

**Notes:**

Only analytes detected above laboratory reporting limits shown

**Bold** values represent concentrations that are above 2L Standards

VOCs - Volatile Organic Compounds

SVOCS - Semivolatile Organic Compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

NE - Not Established

ND - Not Detected

J - Estimated concentration below the reporting limit

NCAC - North Carolina Administrative Code

15A NCAC 02L .0202 Groundwater Quality Standards (May 21, 2013)

15A NCAC 02B Surface Water Quality Standards (September 22, 2017)

Note: When the 15 NCAC 02B Surface Water Quality Standard is not established the Environmental Protection Agency Nationally Recommended Water Quality Criteria for Aquatic Life and Human Health (EPA NRWQC) is used. When the NRWQC is not available the North Carolina Protective Values for Surface water is Used.

**Table 1D**  
**Soil Analytical Results - PCBs**

Parcel #2  
SFF Holdings LLC Property  
Charlotte Wye Track Improvements  
Charlotte, NC

Sample ID	Date	PCBs by 8082 (mg/kg)						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
Residential Health Based PSRG		0.82	0.2	0.18	0.23	0.23	0.23	0.24
Industrial/Commercial Health Based PSRG		10	0.84	0.73	0.95	0.96	0.97	0.99
Protection of Groundwater PSRG		0.94	0.0059	0.0059	0.055	0.054	0.091	0.24
P2SB-2 (0-1)	10/25/2018	<0.36	<2.6	<0.85	<0.87	<0.65	<b>15</b>	<b>25</b>
P2SB-4 (0-1)	10/25/2018	<0.0063	<0.046	<0.015	<0.015	<0.011	<b>0.64</b>	<b>0.42</b>
P2SB-7 (1')	10/25/2018	<0.064	<0.046	<0.015	<0.015	0.061	0.076	0.044J
P2SB-15 (0-1.5)	10/25/2018	<0.69	<2.5	<0.81	<0.83	<b>18</b>	<b>18</b>	<b>35</b>
P2SB-21 (0-1)	10/25/2018	<0.0067	<0.049	<0.016	<0.016	<b>0.44</b>	<b>1.3</b>	<b>0.79</b>
P2SB-31 (0-2)	10/25/2018	<0.0069	<0.050	<0.016	<0.017	<0.013	<0.016	<0.0079

**Notes:**

Only analytes detected above laboratory reporting limits shown

All concentrations reported in milligrams per kilogram (mg/kg)

**Bold** values represent concentrations that are above Residential Health Based PSRG

Underlined values represent concentrations that are above the Industrial/Commercial Health Based PSRG

Shaded values represent concentrations that are above Protection of Groundwater PSRG

PCBs - Polychlorinated biphenyls

NE - Not Established

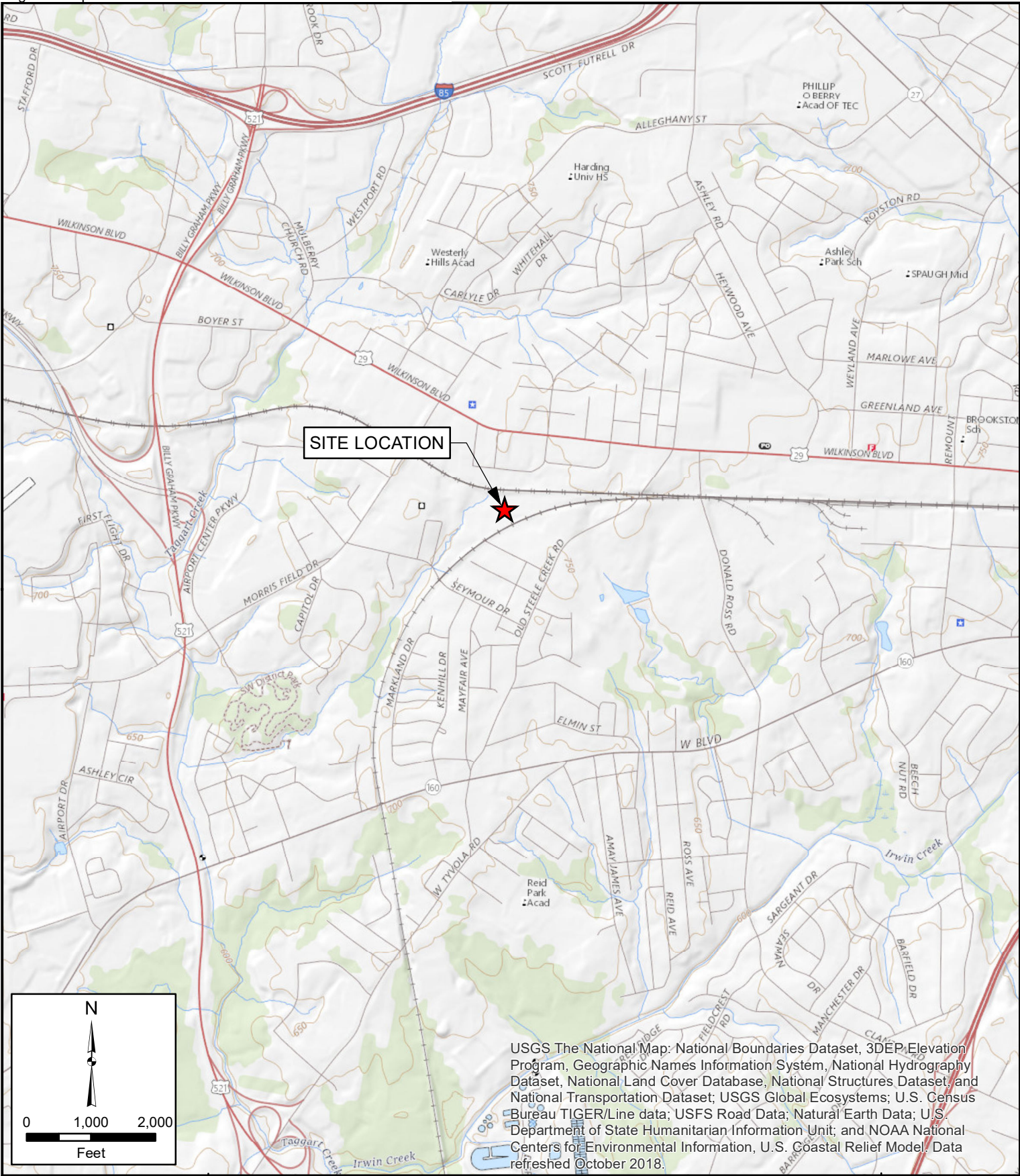
< # - Results less than the method detection limit

J - Estimated concentration below the reporting limit

PSRG - Preliminary Soil Remediation Goals (February 2018)

Italicized numbers exceed their respective PSRGs

## FIGURES



CHECK BY: KL
DRAWN BY: SP
DATE: 12/28/18
SCALE: AS SHOWN
CAD NO.: NCDOT-003
PRJ NO.: NCDOT-003

**SITE LOCATION MAP**  
  
**PARCEL 2**  
**3600 PRIMROSE AVENUE**  
**CHARLOTTE, NORTH CAROLINA**



FIGURE  
**1**

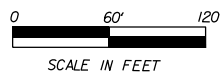
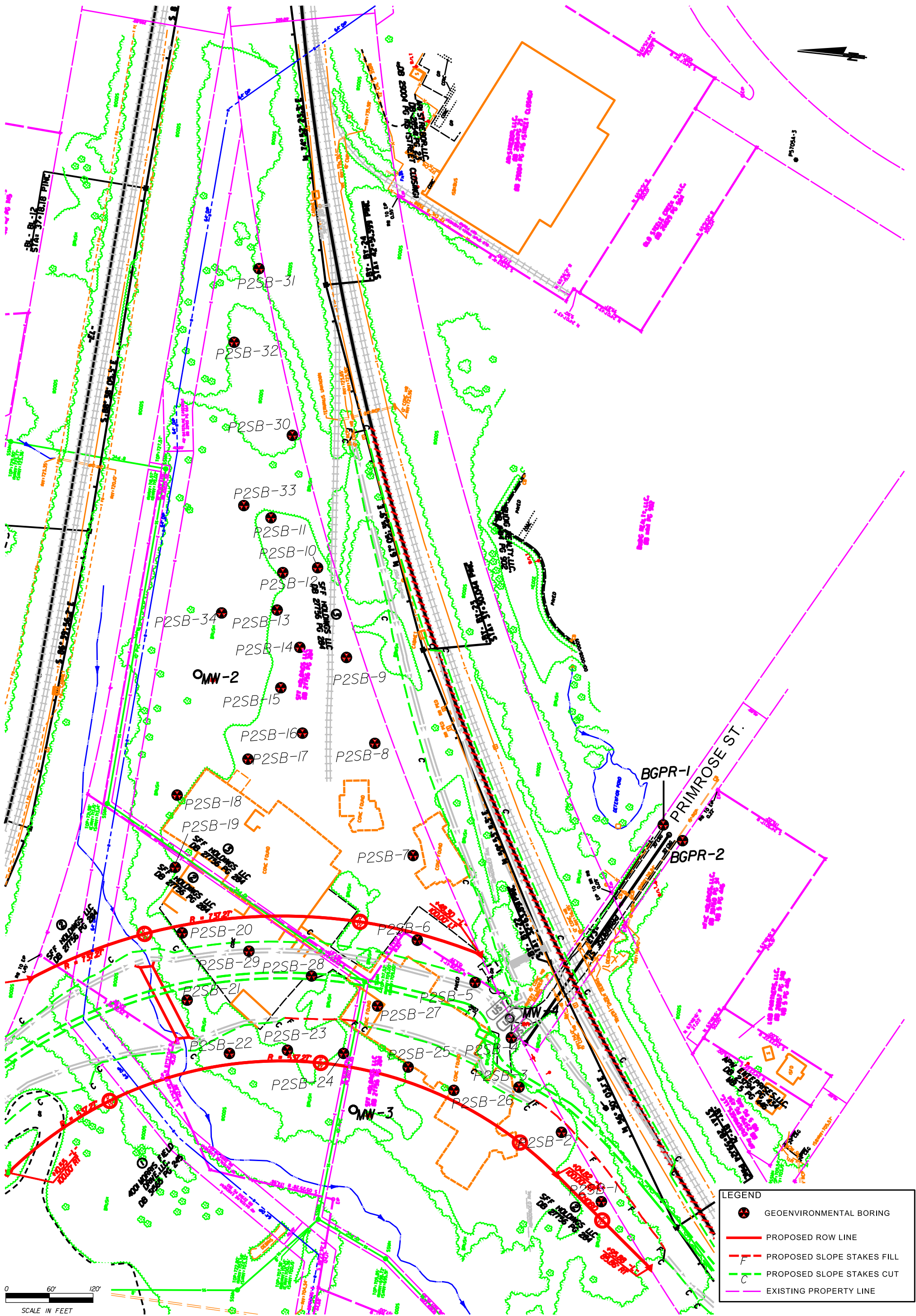


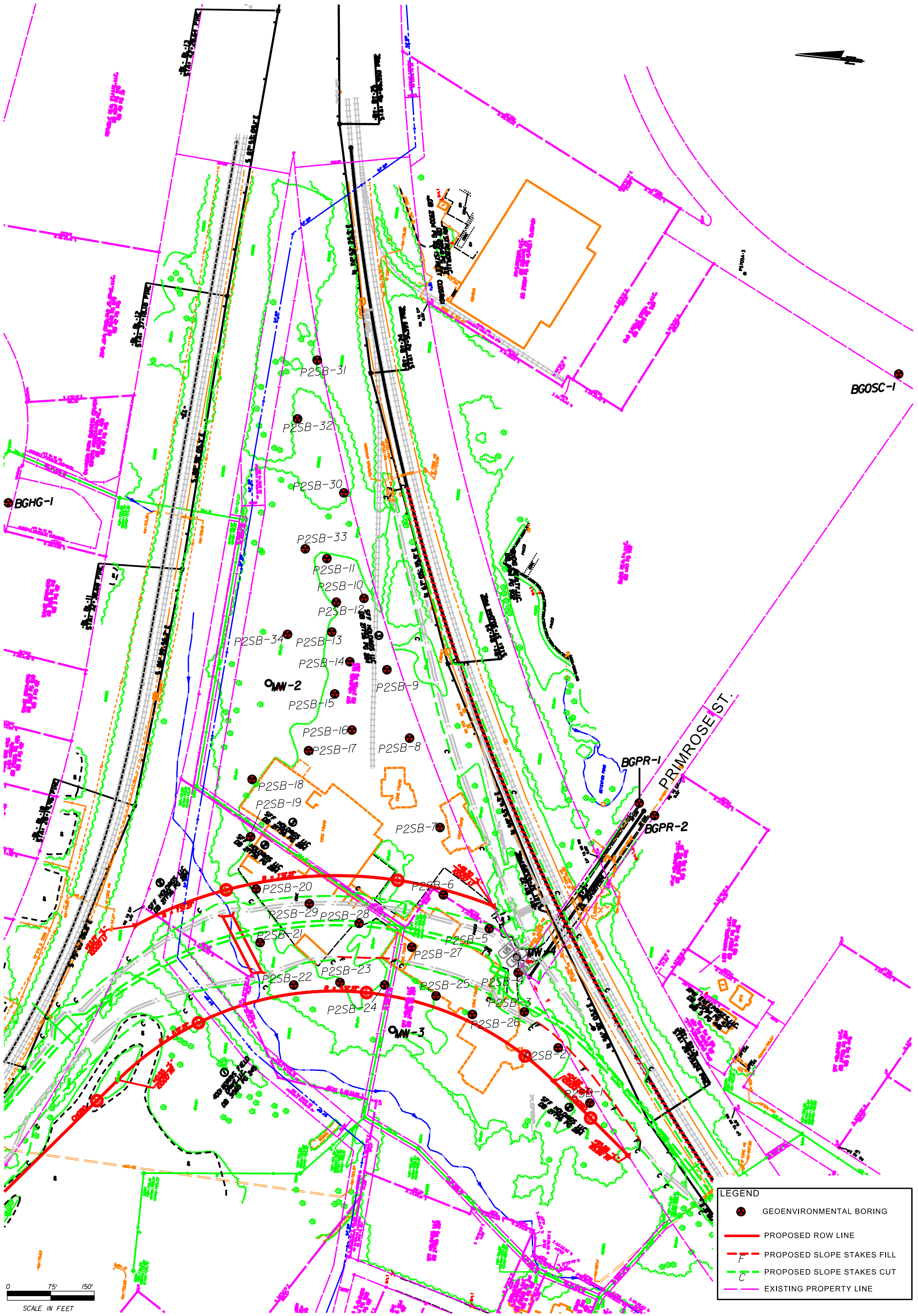
FIGURE 2  
PARCEL 2  
SITE MAP WITH SOIL BORING  
LOCATIONS



APEX COMPANIES, LLC  
10610 METROMONT PARKWAY  
SUITE 206  
CHARLOTTE, NC 28117  
PHONE: (704) 799-6390

Date:	11/29/18	P5705a		
Proj. #	NCDOT-003			
CAD File:	pc_2_fig 2.dgn	Project Title:		
Approx. Scale:	1" = 120'	Drawn by:	MJO	NC DOT
		Client:		





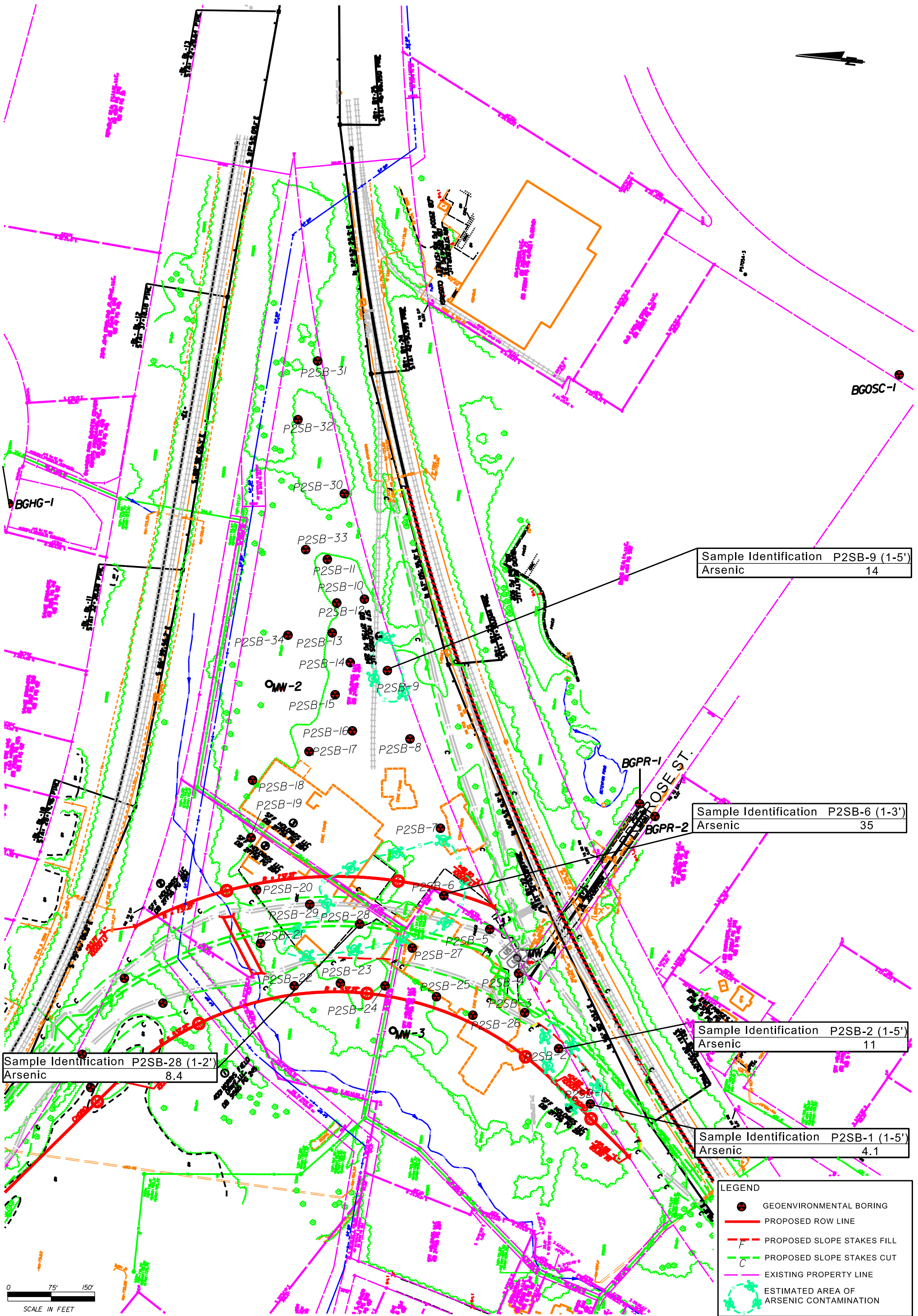
**FIGURE 3  
PARCEL 2  
SITE MAP WITH  
BACKGROUND SOIL BORING  
LOCATIONS**



APEX COMPANIES, LLC  
10610 METROMONT PARKWAY  
SUITE 206  
CHARLOTTE, NC 28117  
PHONE: (704) 799-6390

LEGEND	
	GEOENVIRONMENTAL BORING
	PROPOSED ROW LINE
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING PROPERTY LINE

Date:	12/3/18	P5705a
Proj. #	NCDOT-003	
pc_2_fig 3.dgn CAD File:	Project Title:	
1" = 150' Approx. Scale:	MJO Drawn by:	NC DOT Client:

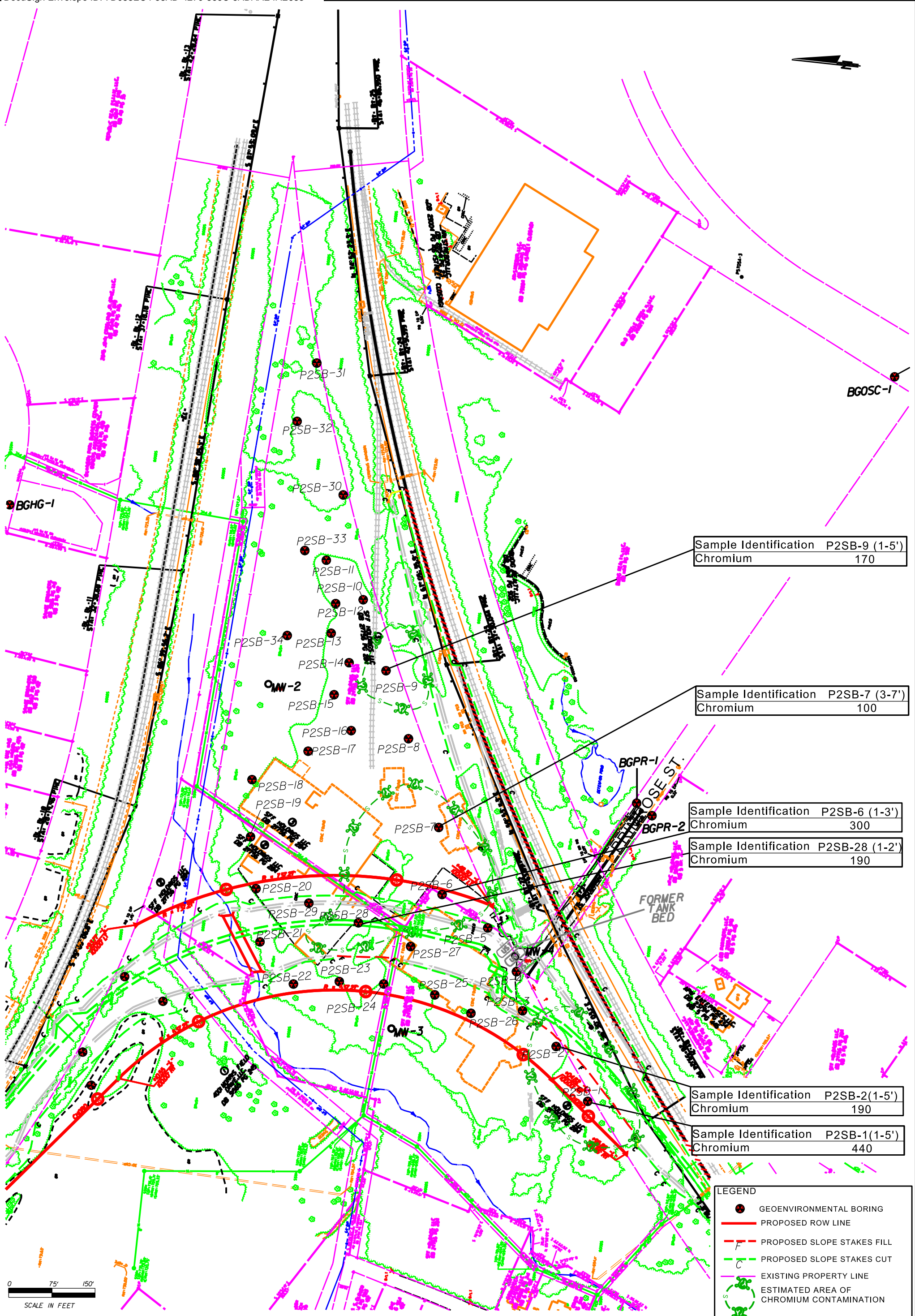


**FIGURE 4**  
**PARCEL 2**  
**ESTIMATED AREA OF ARSENIC CONTAMINATION IN SOIL**



APEX COMPANIES, LLC  
 10610 METROMONT PARKWAY  
 SUITE 206  
 CHARLOTTE, NC 28117  
 PHONE: (704) 799-6390

Date:	1/18/19	P5705a
Prof. #	NCDOT-003	
pc_2_fig 4.dgn		Project Title:
CAD File:		1" = 150'
Approx. Scale:		MJO
		NC DOT
		Client:



Sample Identification P2SB-9 (1-5')  
Chromium 170

Sample Identification P2SB-7 (3-7')  
Chromium 100

Sample Identification P2SB-6 (1-3')  
Chromium 300

Sample Identification P2SB-28 (1-2')  
Chromium 190

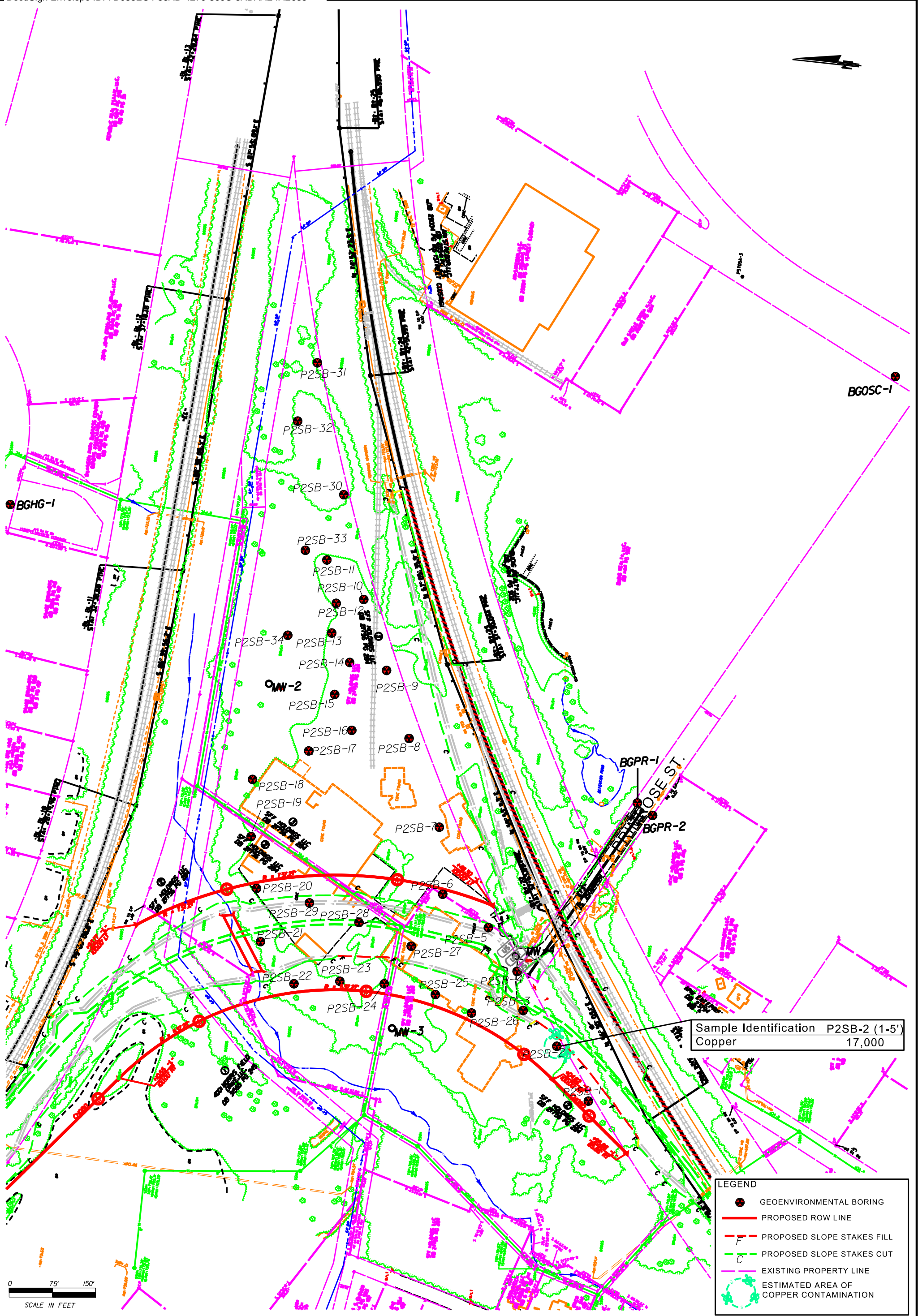
Sample Identification P2SB-2(1-5')  
Chromium 190

Sample Identification P2SB-1(1-5')  
Chromium 440

LEGEND	
	GEOENVIRONMENTAL BORING
	PROPOSED ROW LINE
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING PROPERTY LINE
	ESTIMATED AREA OF CHROMIUM CONTAMINATION

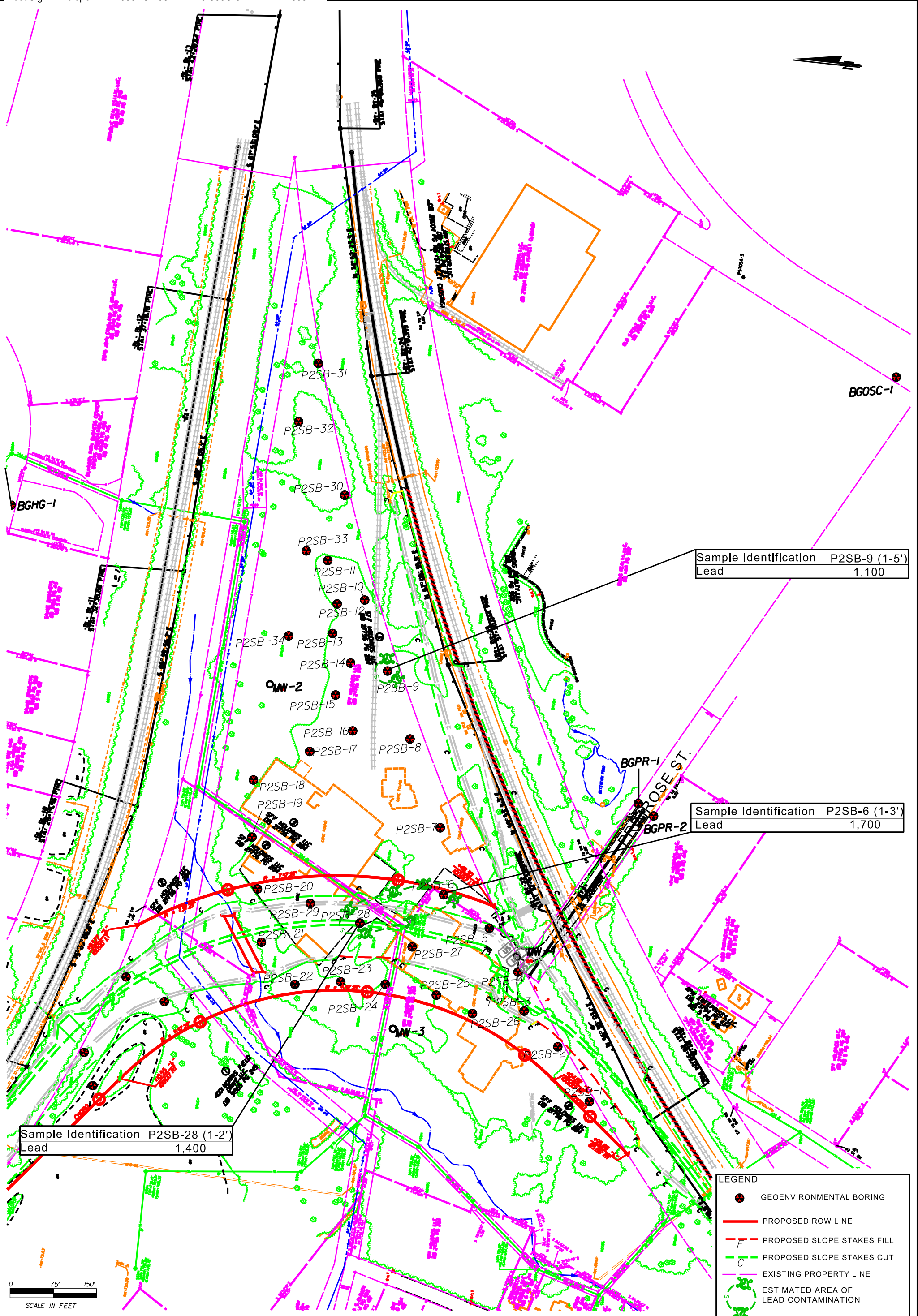
0 75' 150'  
SCALE IN FEET

**FIGURE 5**  
**PARCEL 2**  
**ESTIMATED AREA OF CHROMIUM ABOVE**  
**BACKGROUND CONCENTRATIONS IN SOIL**



**FIGURE 6**  
**PARCEL 2**  
**ESTIMATED AREA OF COPPER CONTAMINATION IN SOIL**

Date:	1/18/19	P5705a
Proj. #	NCDOT-003	
pc_2_fig 4.dgn		Project Title:
CAD File:		1" = 150'
Approx. Scale:		MJO
		NC DOT
		Client:



Sample Identification P2SB-9 (1-5')  
Lead 1,100

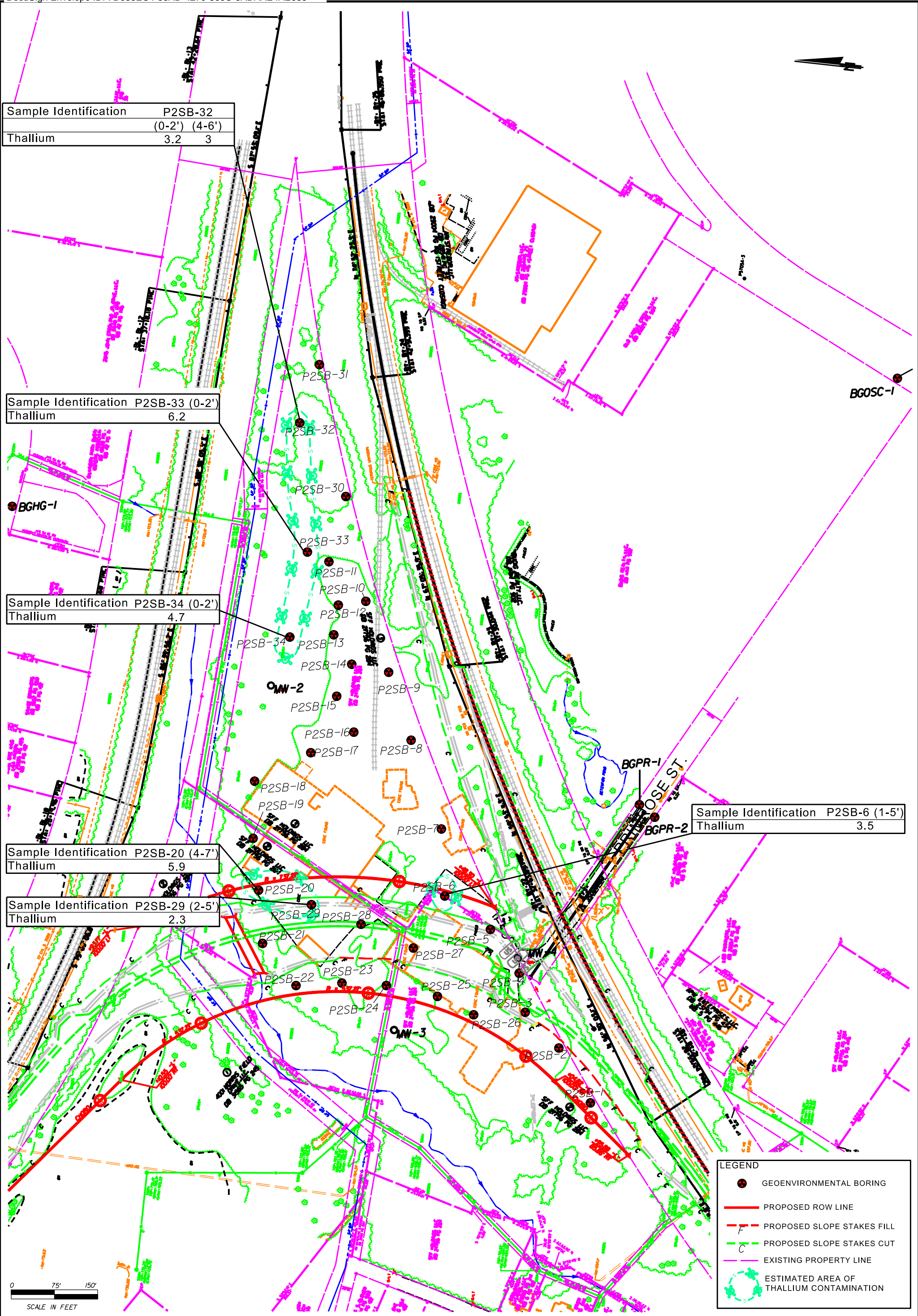
Sample Identification P2SB-6 (1-3')  
Lead 1,700

Sample Identification P2SB-28 (1-2')  
Lead 1,400

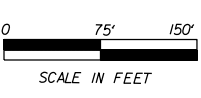
LEGEND	
	GEOENVIRONMENTAL BORING
	PROPOSED ROW LINE
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING PROPERTY LINE
	ESTIMATED AREA OF LEAD CONTAMINATION

FIGURE 7  
PARCEL 2  
ESTIMATED AREA OF LEAD CONTAMINATION IN SOIL

Date:	1/18/19	Project Title:	P5705a
Proj. #	NCDOT-003		
pc_2_fig 7.dgn		Drawn by:	MJO
CAD File:		Client:	NC DOT
Approx. Scale:	1" = 150'		



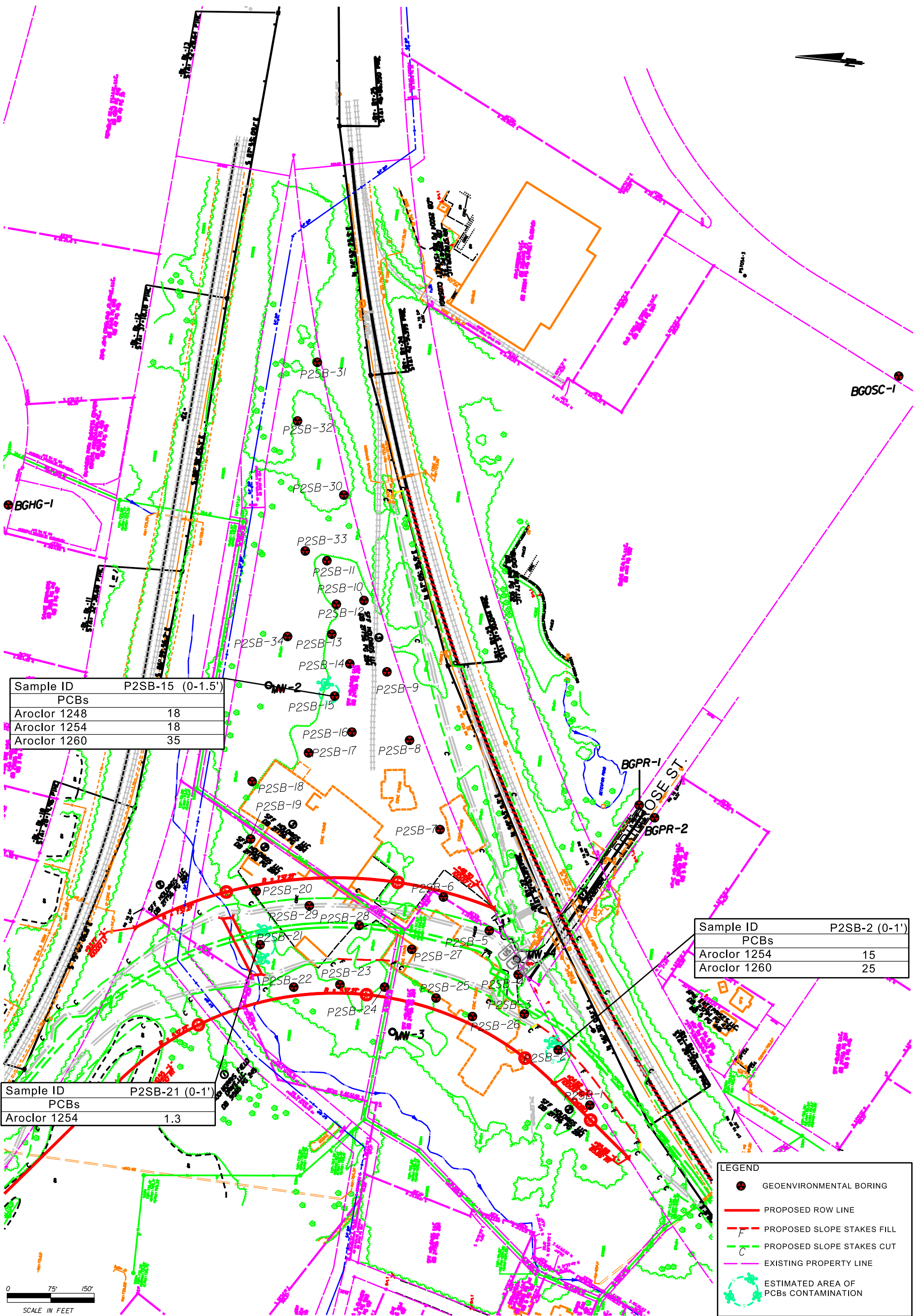
LEGEND	
	GEOENVIRONMENTAL BORING
	PROPOSED ROW LINE
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING PROPERTY LINE
	ESTIMATED AREA OF THALLIUM CONTAMINATION




**APEX**  
 APEX COMPANIES, LLC  
 10610 METROMONT PARKWAY  
 SUITE 206  
 CHARLOTTE, NC 28117  
 PHONE: (704) 799-6390

**FIGURE 8**  
**PARCEL 2**  
**ESTIMATED AREA OF THALLIUM CONTAMINATION IN SOIL**

Date:	1/18/19	P5705a
Proj. #	NCDOT-003	
CAD File:	pc_2_fig 8.dgn	Project Title:
Approx. Scale:	1" = 150'	Client:
Drawn by:	MJO	NC DOT



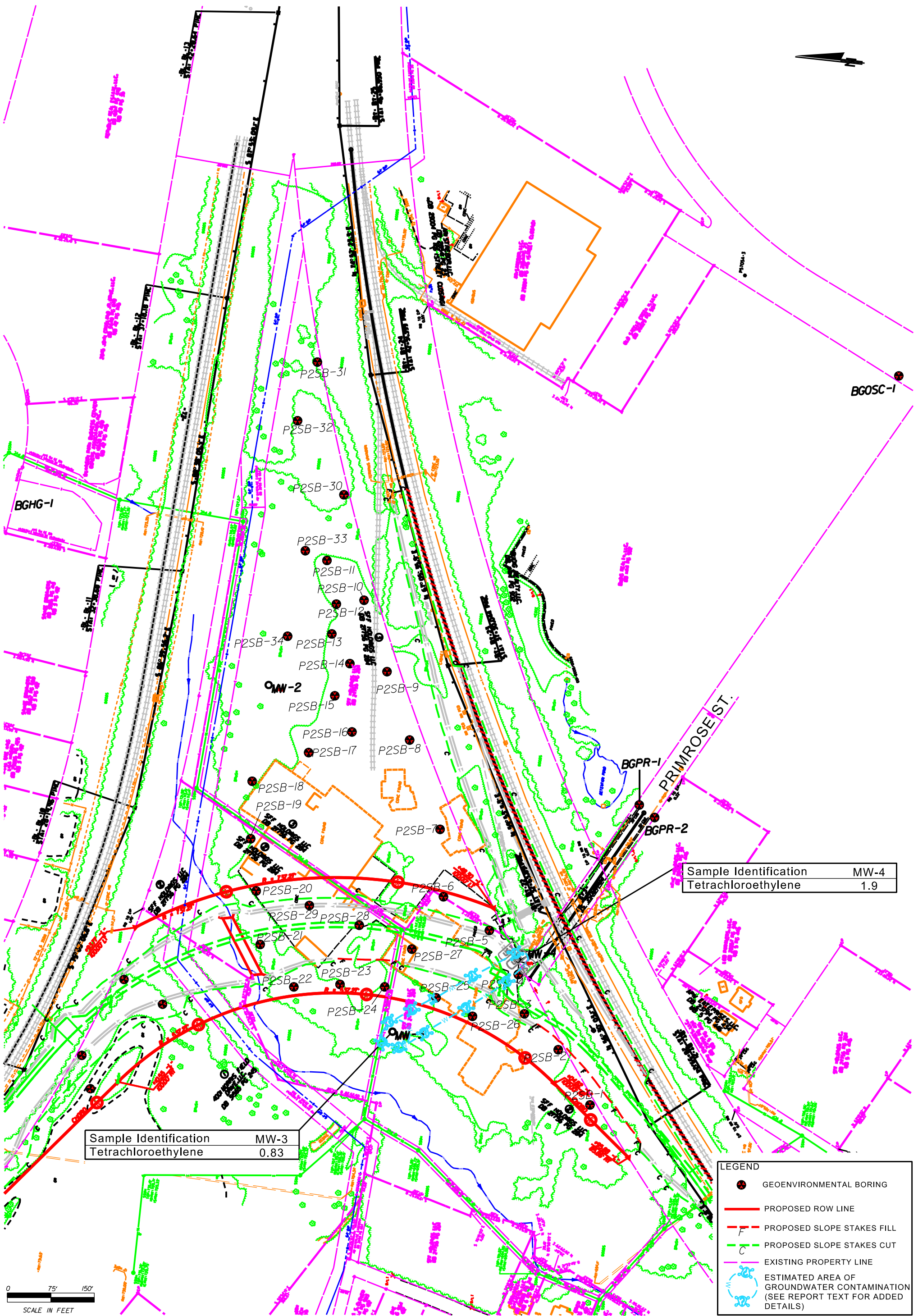


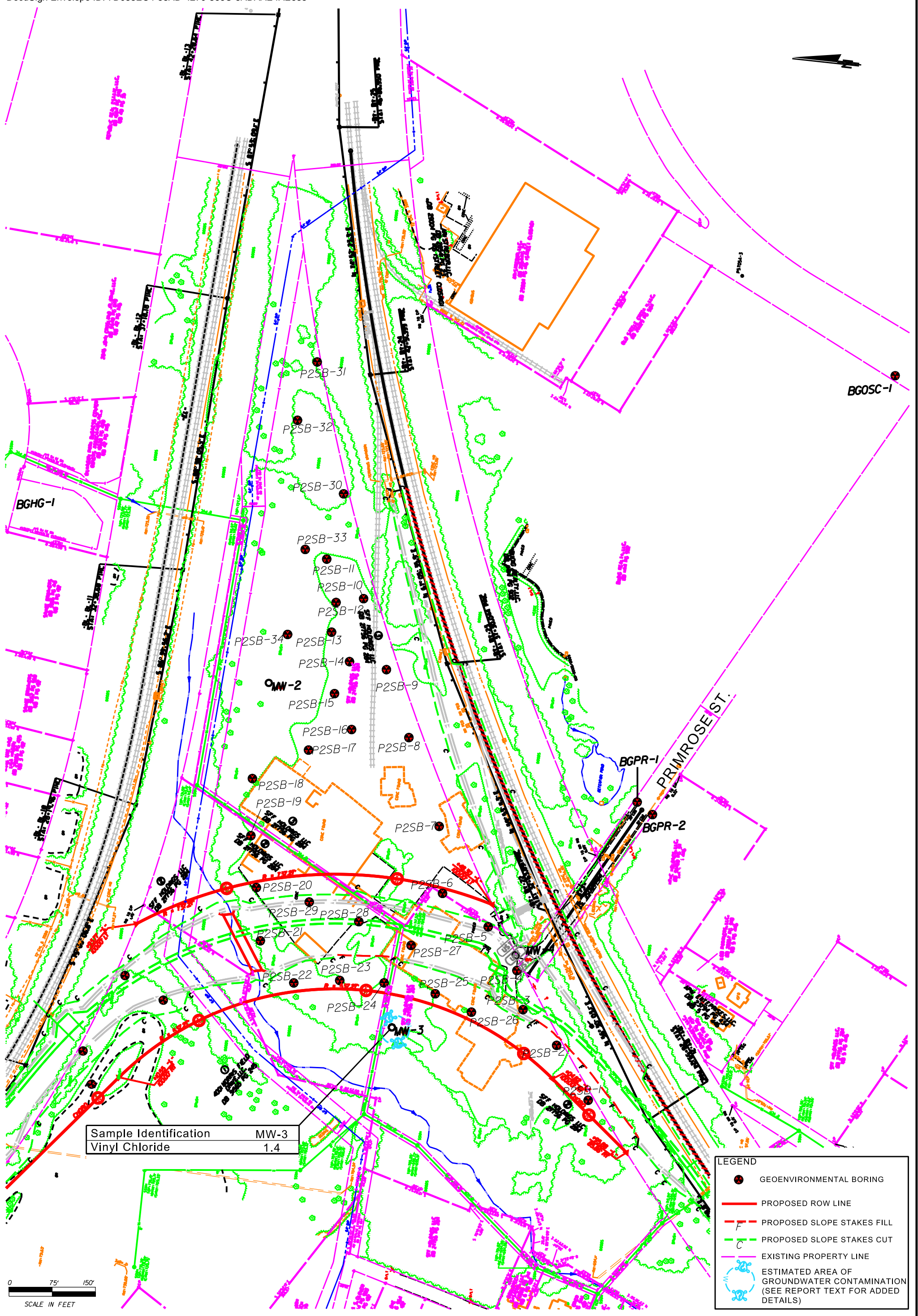
FIGURE 10  
PARCEL 2  
ESTIMATED AREA OF TETRACHLOROETHYLENE  
CONTAMINATION IN WATER



APEX COMPANIES, LLC  
10610 METROMONT PARKWAY  
SUITE 206  
CHARLOTTE, NC 28117  
PHONE: (704) 799-6390

Date:	4/5/19	P5705a			
Proj. #	NCDOT-003				
CAD File:	pc_2_fig 10.dgn	Project Title:			
Approx. Scale:	1" = 150'	Drawn by:	MJO	Client:	NC DOT





Sample Identification	MW-3
Vinyl Chloride	1.4

	GEOENVIRONMENTAL BORING
	PROPOSED ROW LINE
	PROPOSED SLOPE STAKES FILL
	PROPOSED SLOPE STAKES CUT
	EXISTING PROPERTY LINE
	ESTIMATED AREA OF GROUNDWATER CONTAMINATION (SEE REPORT TEXT FOR ADDED DETAILS)

FIGURE 11  
PARCEL 2  
ESTIMATED AREA OF VINYL CHLORIDE  
CONTAMINATION IN WATER

**APPENDIX A**  
**PHOTOGRAPH LOG**



**Photo 1**

Overview of Site prior to UST closure activities.



**Photo 2**

View of CSI personnel hand clearing boring location for utilities.



**Photo 3**

Photo shows CSI setting up use direct push rig to begin drilling.



**Photo 4**

Photo shows soil cuttings stored in 55 gallon drum.



**Photo 5**

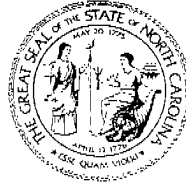
Photo shows skid steer positioning the barriers in a manner to block the drive.



**Photo 6**

Photo shows barriers in place after field activities were complete.

**APPENDIX B**  
**HISTORICAL DOCUMENTATION**



State of North Carolina  
Department of Environment, Health, and Natural Resources  
 Mooresville Regional Office

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

March 9, 1990

M-2453

Mr. Buddy Fisher  
United Scrap, Inc.  
Post Office Box 668647  
Charlotte, North Carolina 28266

RE: Soil Sample Results From UST Closure  
United Scrap - Primrose Avenue  
Mecklenburg County, N.C.

Dear Mr. Fisher:

The Groundwater Section of the Division of Environmental Management has received the additional information required for the closure of three underground storage tanks at the above referenced site. The report arrived on February 17, 1990. Based on the reported results, no further action is required at this time.

Should you have any questions, please do not hesitate to call me.

Sincerely,

A handwritten signature in cursive script that reads "Arlen Burney".

Arlen Burney  
Hydrogeological Technician

FAB/bb



# NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2284

**1. WELL CONTRACTOR:**

Steve Poloniewicz  
 Well Contractor (Individual) Name  
SAEDACCO Inc  
 Well Contractor Company Name  
9088 North Field Dr  
 Street Address  
Fort Mill SC 29707  
 City or Town State Zip Code

( ) (803) 548-2180  
 Area code Phone number

**2. WELL INFORMATION:**

WELL CONSTRUCTION PERMIT# \_\_\_\_\_  
 OTHER ASSOCIATED PERMIT#(if applicable) \_\_\_\_\_  
 SITE WELL ID #(if applicable) MW-1

**3. WELL USE (Check One Box) Monitoring**  **Municipal/Public**

Industrial/Commercial  Agricultural  Recovery  Injection   
 Irrigation  Other  (list use) \_\_\_\_\_  
 DATE DRILLED 6-10-2011

**4. WELL LOCATION:**

3600 Primrose Ave  
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: Charlotte COUNTY Mecklenburg

TOPOGRAPHIC / LAND SETTING: (check appropriate box)  
 Slope  Valley  Flat  Ridge  Other \_\_\_\_\_  
 LATITUDE 35.22049 " DMS OR 3X.XXXXXXXX DD  
 LONGITUDE 80.90754 " DMS OR 7X.XXXXXXXX DD  
 Latitude/longitude source:  GPS  Topographic map  
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

**5. FACILITY (Name of the business where the well is located.)**

Former United Scrap Site  
 Facility Name Facility ID# (if applicable)  
3600 Primrose Ave  
 Street Address  
Charlotte NC 28208  
 City or Town State Zip Code  
Mike Mc Dormott  
 Contact Name  
Enviro Assessments 9307 Monroe Rd Suite K  
 Mailing Address  
Charlotte NC  
 City or Town State Zip Code

(704) 846-8853  
 Area code Phone number

**6. WELL DETAILS:**

a. TOTAL DEPTH: 30'  
 b. DOES WELL REPLACE EXISTING WELL? YES  NO   
 c. WATER LEVEL Below Top of Casing: \_\_\_\_\_ FT.  
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface\*  
 \*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): \_\_\_\_\_ METHOD OF TEST \_\_\_\_\_

f. DISINFECTION: Type \_\_\_\_\_ Amount \_\_\_\_\_

g. WATER ZONES (depth):  
 Top \_\_\_\_\_ Bottom \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_  
 Top \_\_\_\_\_ Bottom \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_  
 Top \_\_\_\_\_ Bottom \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_

7. CASING: Depth	Diameter	Thickness/Weight	Material
Top <u>0.0</u> Bottom <u>10'</u>	<u>Ft. 2"</u>	<u>sch 40</u>	<u>pvc</u>
Top _____ Bottom _____	Ft. _____	_____	_____
Top _____ Bottom _____	Ft. _____	_____	_____

8. GROUT: Depth	Material	Method
Top <u>1'</u> Bottom <u>6'</u>	<u>Ft. portland cement</u>	<u>pour</u>
Top <u>6'</u> Bottom <u>8'</u>	<u>Ft. Bentonite chips</u>	<u>pour</u>
Top _____ Bottom _____	Ft. _____	_____

9. SCREEN: Depth	Diameter	Slot Size	Material
Top <u>10'</u> Bottom <u>30'</u>	<u>Ft. 2" in.</u>	<u>.010 in.</u>	<u>pvc</u>
Top _____ Bottom _____	Ft. _____ in.	_____ in.	_____
Top _____ Bottom _____	Ft. _____ in.	_____ in.	_____

10. SAND/GRAVEL PACK: Depth	Size	Material
Top <u>8'</u> Bottom <u>30'</u>	<u>Ft. #2</u>	<u>silica sand</u>
Top _____ Bottom _____	Ft. _____	_____
Top _____ Bottom _____	Ft. _____	_____

11. DRILLING LOG	Formation Description
Top	Bottom
<u>5'</u> / <u>12'</u>	<u>red silty clay</u>
<u>12'</u> / <u>20'</u>	<u>brown clay</u>
<u>20</u> / <u>23'</u>	<u>pwr</u>
<u>23'</u> / <u>30'</u>	<u>pwr</u>
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / <u>20'</u>	_____
_____ / _____	_____
_____ / _____	_____

**12. REMARKS:**  
 \_\_\_\_\_  
 \_\_\_\_\_

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Steve Poloniewicz 6-10-2011  
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Steve Poloniewicz  
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL









# NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2284

**1. WELL CONTRACTOR:**

Steve Poloniewicz

Well Contractor (Individual) Name  
SAEDACCO Inc  
Well Contractor Company Name  
9088 North Field Dr  
Street Address  
Fort Mill SC 29707  
City or Town State Zip Code

( ) (803) 548-2180  
Area code Phone number

**2. WELL INFORMATION:**

WELL CONSTRUCTION PERMIT#  
OTHER ASSOCIATED PERMIT#(if applicable)  
SITE WELL ID #(if applicable) MW-4

**3. WELL USE (Check One Box) Monitoring  Municipal/Public**

Industrial/Commercial  Agricultural  Recovery  Injection   
Irrigation  Other  (list use)

DATE DRILLED 6-10-2011

**4. WELL LOCATION:**

3600 Primrose Ave  
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: Charlotte COUNTY Mecklenburg

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope  Valley  Flat  Ridge  Other

LATITUDE 35.22049 " DMS OR 3X.XXXXXXXX DD

LONGITUDE 80.90754 " DMS OR 7X.XXXXXXXX DD

Latitude/longitude source:  GPS  Topographic map  
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

**5. FACILITY (Name of the business where the well is located.)**

Former United Scrap Site  
Facility Name Facility ID# (if applicable)  
3600 Primrose Ave  
Street Address  
Charlotte NC 28208  
City or Town State Zip Code  
Mike Mc Dormott  
Contact Name  
Enviro Assessments 9307 Monroe Rd Suite K  
Mailing Address  
Charlotte NC  
City or Town State Zip Code

( 704 ) 846-8853  
Area code Phone number

**6. WELL DETAILS:**

- a. TOTAL DEPTH: 23
- b. DOES WELL REPLACE EXISTING WELL? YES  NO
- c. WATER LEVEL Below Top of Casing: \_\_\_\_\_ FT.  
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface\*  
\*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): \_\_\_\_\_ METHOD OF TEST \_\_\_\_\_

f. DISINFECTION: Type \_\_\_\_\_ Amount \_\_\_\_\_

g. WATER ZONES (depth):  
Top \_\_\_\_\_ Bottom \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_  
Top \_\_\_\_\_ Bottom \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_  
Top \_\_\_\_\_ Bottom \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_

7. CASING:	Depth	Diameter	Thickness/Weight	Material
Top	<u>0.0</u>	Bottom <u>8'</u>	Ft. <u>2"</u>	<u>sch 40 pvc</u>
Top	_____	Bottom _____	Ft. _____	_____
Top	_____	Bottom _____	Ft. _____	_____

8. GROUT:	Depth	Material	Method
Top	<u>1'</u>	Bottom <u>4'</u>	Ft. <u>portland cement</u> <u>pour</u>
Top	<u>4'</u>	Bottom <u>6'</u>	Ft. <u>Bentonite chips</u> <u>pour</u>
Top	_____	Bottom _____	Ft. _____

9. SCREEN:	Depth	Diameter	Slot Size	Material
Top	<u>8'</u>	Bottom <u>23'</u>	Ft. <u>2" in.</u>	<u>.010 in. pvc</u>
Top	_____	Bottom _____	Ft. _____ in.	_____ in.
Top	_____	Bottom _____	Ft. _____ in.	_____ in.

10. SAND/GRAVEL PACK:	Depth	Size	Material
Top	<u>6'</u>	Bottom <u>23'</u>	Ft. <u>#2</u> <u>silica sand</u>
Top	_____	Bottom _____	Ft. _____
Top	_____	Bottom _____	Ft. _____

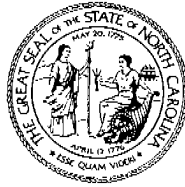
11. DRILLING LOG	Top	Bottom	Formation Description
	<u>5'</u>	<u>12'</u>	<u>red silty clay</u>
	<u>12'</u>	<u>23'</u>	<u>brown clay</u>
	/	/	/
	/	/	/
	/	/	/
	/	/	/
	/	/	/
	/	<u>23'</u>	/
	/	/	/
	/	/	/

12. REMARKS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Steve Poloniewicz 6-10-2011  
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

Steve Poloniewicz  
PRINTED NAME OF PERSON CONSTRUCTING THE WELL



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Mooresville Regional Office

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

January 5, 1990

Mr. Buddy Fisher  
United Scrap, Inc.  
Post Office Box 668647  
Charlotte, North Carolina 28266

RE: Soil Sample Results From UST Closure  
United Scrap, Inc. - Primrose Avenue  
Mecklenburg County, N. C.

Dear Mr. Fisher:

The Groundwater Section of the Division of Environmental Management at the Mooresville Regional Office has received the laboratory results from the six (6) soil samples collected during the closure of three (3) underground storage tanks at the above referenced site. The report arrived on May 11, 1989. A review of the submitted material found the following deficiencies:

1. No base map.
- ✓ 2. No map of UST excavation and sampling locations.
- ✓ 3. No tank dimensions.
- ✓ 4. No chain-of-custody.
- ✓ 5. No description of quality control measures.
- ✓ 6. No description of sample procedure.
- ✓ 7. No reference made to the type of test performed or sample preparation.

Please submit this additional information by January 23, 1990. Enclosed for your information is a copy of the Guidelines for Soil Sampling and Reporting at Underground Storage Tanks Closure Sites.

Page Two

Should you have any questions, please do not hesitate to call me.

Sincerely,

*Arlen Burney*

Arlen Burney  
Hydrogeological Technician

Enclosure

FAB:sju

cc: Mr. Richard Crosby

5/10/89

# EnviroSpec

## Environmental Specialists

P.O. Box 25610-188

• Charlotte, N.C. 28227 •

704-545-8577

NC DEPT. OF NATURAL  
RESOURCES AND  
COMMUNITY DEVELOPMENT

May 9, 1989

MAY 11 1989

RECEIVED  
MAY 11 1989

NC Department of Natural  
Resources and Development  
c/o Ms. Barbara Christian  
P.O. Box 950  
Mooresville, NC 28115

Reference: 30 Day Notification to Close Underground Storage Tanks

Dear Sirs:

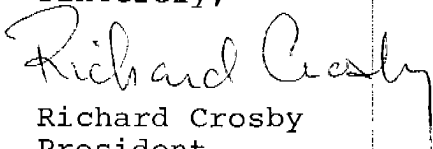
We, as agents for United Scrap Inc., wish to notify your department of our intent to remove (3) three (2,000) two thousand gallon underground storage tanks.

Owner, Location, Contents

Owner:	United Scrap Inc.
Location:	Primrose Ave., Charlotte, NC 28266
Contents:	(1) one (2,000) two thousand gallon tank - Gasoline
	(1) one (2,000) two thousand gallon tank - Diesel
	(1) one (2,000) two thousand gallon tank - Diesel

We wish to begin removal of the above stated underground storage tanks on June 9, 1989. If we can be of assistance on this matter, please feel free to call.

Sincerely,



Richard Crosby  
President

lv  
Enclosure  
cc: Buddy Fisher - United Scrap Inc.

# EnviroSpec

## Environmental Specialists

P.O. Box 25610-188

Charlotte, N.C. 28227

704-545-8577

July 13, 1989

N.C. Dept. of Natural Resources  
c/o Eric Klingel, Ph.D.  
P.O. Box 950  
Mooresville, N.C. 28115

N. C. DEPT. OF NATURAL  
RESOURCES AND  
COMMUNITY DEVELOPMENT

JUL 13 1989

Reference: Underground Storage Tank Closure

RECEIVED  
N. C. DEPT. OF NATURAL  
RESOURCES AND  
COMMUNITY DEVELOPMENT

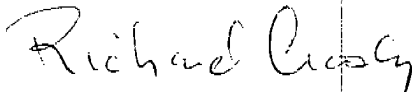
Dear Sirs:

We as agents for United Scrap Inc. performed the closure of 3 ea. two thousand (2000) gallon underground storage tanks by removal, as per our thirty (30) day notice to your department. At which time, soil samples were taken at the designated locations and no contamination was found.

Laboratory work was done by Bold Research Labs, Inc. Copies of lab results are enclosed.

If any additional information is needed, please feel free to contact our office.

Sincerely,



Richard Crosby  
EnviroSpec President

enclosures

RAC/js

# Bold Research Labs

Incorporated

ANALYTICAL TESTING & CONSULTING SERVICES

P.O. BOX 31486 • CHARLOTTE, NC 28231 • TELEPHONE (704) 342-3496 • FAX: (704) 342-9913

LAB SAMPLE NO.(s): 249B1-6

DATE OF REPORT: 06/27/89

P.O. NO.:

DATE RECEIVED: 06/09/89

RECEIVED FROM:

CUSTOMER NO.: 6115

NAME: RICHARD CROSBY  
 ORG. ENVIRO SPEC.  
 ADD: P.O. BOX 25610-188

TELEPHONE NO.: 704-545-8577

CHARLOTTE NC 28229

SAMPLE(s) of: SOIL  
 UNITED SCRAP  
 MARKED: A:TANK A #1 6/9/89  
 C:TANK B #1 6/9/89

B: TANK A #2 6/9/89  
 D: TANK B #2 6/9/89

SAMPLE/TEST NO.                    1                    A:B1                    B:B2                    C:B3                    D: B4

ANALYSIS	UNITS				
pH					
TOTAL RESIDUE	(mg/L)				
TOTAL VOLATILE RESIDUE	(mg/L)				
TOTAL NONFILT. RESIDUE	(mg/L)				
TOTAL DISSOLVED RESIDUE	(mg/L)				
BOD	(mg/L)				
COD	(mg/L)				
AMMONIA AS N	(mg/L)				
TOTAL KJELDAHL NITROGEN	(mg/L)				
NITRATE AS N	(mg/L)				
TOTAL PHOSPHATE AS P	(mg/L)				
CHLORIDE AS Cl-	(mg/L)				
OIL & GREASE	(mg/L)				
CYANIDE, TOTAL	(mg/L)				
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	<10	<10	<10	<10
METALS	UNITS				
ARSENIC	(mg/L)				
SELENIUM	(mg/L)				
CADMIUM	(mg/L)				
CHROMIUM	(mg/L)				
COPPER	(mg/L)				
LEAD	(mg/L)				
NICKEL	(mg/L)				
ZINC	(mg/L)				
MERCURY	(mg/L)				

APPROVED BY:

Jeffrey K. O'Ham, Manager

303 MEACHAM ST. • CHARLOTTE, NC 28203



# Bold Research Labs

Incorporated

ANALYTICAL TESTING & CONSULTING SERVICES

P.O. BOX 31486 • CHARLOTTE, NC 28231 • TELEPHONE (704) 342-3496 • FAX: (704) 342-9913

LAB SAMPLE NO.(s): 249B1-6

DATE OF REPORT: 06/27/89

P.O. NO.:

DATE RECEIVED: 06/09/89

RECEIVED FROM:

CUSTOMER NO.: 6115

NAME: RICHARD CROSBY  
 ORG. ENVIRO SPEC.  
 ADD: P.O. BOX 25610-188

TELEPHONE NO.: 704-545-8577

CHARLOTTE NC 28229

SAMPLE(s) of: SOIL  
 UNITED SCRAP  
 MARKED: A: TANK C #1 6/9/89  
 C:

B: TANK C #2 6/9/89  
 D:

SAMPLE/TEST NO.      1                      A: B5                      B: B6                      C:                      D:

ANALYSIS	UNITS				
pH					
TOTAL RESIDUE	(mg/L)				
TOTAL VOLATILE RESIDUE	(mg/L)				
TOTAL NONFILT. RESIDUE	(mg/L)				
TOTAL DISSOLVED RESIDUE	(mg/L)				
BOD	(mg/L)				
COD	(mg/L)				
AMMONIA AS N	(mg/L)				
TOTAL KJELDAHL NITROGEN	(mg/L)				
NITRATE AS N	(mg/L)				
TOTAL PHOSPHATE AS P	(mg/L)				
CHLORIDE AS Cl-	(mg/L)				
OIL & GREASE	(mg/L)				
CYANIDE, TOTAL	(mg/L)				
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	<10	<10		
METALS	UNITS				
ARSENIC	(mg/L)				
SELENIUM	(mg/L)				
CADMIUM	(mg/L)				
CHROMIUM	(mg/L)				
COPPER	(mg/L)				
LEAD	(mg/L)				
NICKEL	(mg/L)				
ZINC	(mg/L)				
MERCURY	(mg/L)				

APPROVED BY:

Jeffrey K. O'Ham, Manager

303 MEACHAM ST. • CHARLOTTE, NC 28203

# EnviroSpec

Environmental Specialists

RECEIVED  
DIVISION OF ENVIRONMENTAL MANAGEMENT  
FEB 19 1990  
MOORESVILLE  
REGIONAL OFFICE

P.O. Box 25610-188

Charlotte, N.C. 28227

704-545-8577

February 12, 1990

State Of North Carolina Department  
Of Environment, Health, And Natural Resources  
Division Of Environmental Management  
Attn: Mr. Arlen Burney  
Post Office Box 950  
Mooresville, North Carolina 28115

RE:      Underground Storage Tank  
          Report Resubmittal For  
          United Scrap Metal, Inc.  
          Primrose Avenue, Mecklenburg  
          County, N.C.

Dear Mr. Burney:

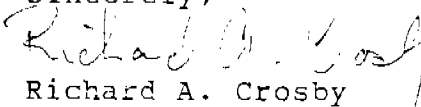
As agents for United Scrap Metal, Inc., we preformed the closure of the following Underground Storage Tanks: three-two thousand gallon gasoline (64" X 12').

Upon excavation of the tanks, soil samples were taken at the designated locations marked A through F in Figure 1. Two samples per tank, one on each end, were taken. These samples were obtained using a hand auger to retrieve an undisturbed sample approximately 24" below the excavation (beneath the bottom of the tank). The samples were then placed in glass sample jars and sealed with teflon lined caps and placed in a cooler with ice for transport to the laboratory (please see chain of custody record attached).

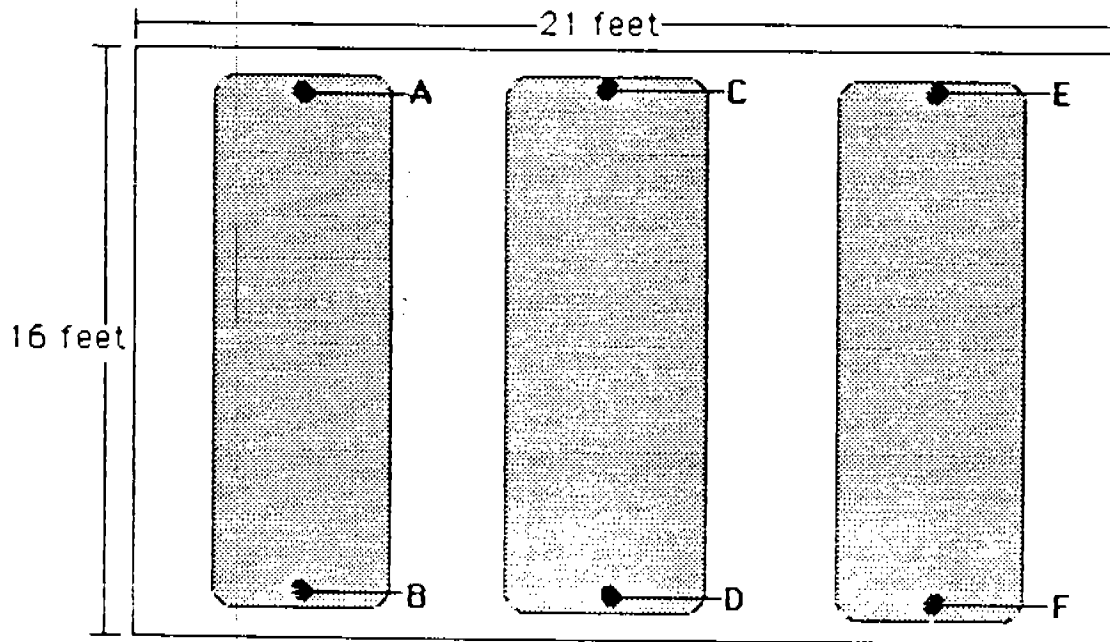
The hand auger was decontaminated after retrieving each sample using an Alconox scrub followed by two distilled water rinses.

Laboratory analysis using EPA method 5030 and EPA method 3550 G.C./E.I.D. showed the soil tested was below the detection limit of 10mg/Kg for Total Petroleum Hydrocarbons.

As a result of the laboratory analysis the site is considered closed. If any additional information is needed please feel free to contact our office.

Sincerely,  
  
Richard A. Crosby  
EnviroSpec

enclosure  
RAC:klr



3 EACH 2,000 GALLON U.S.T.'S 64" DIA X 12' LONG

Figure 1: UST Excavation Area

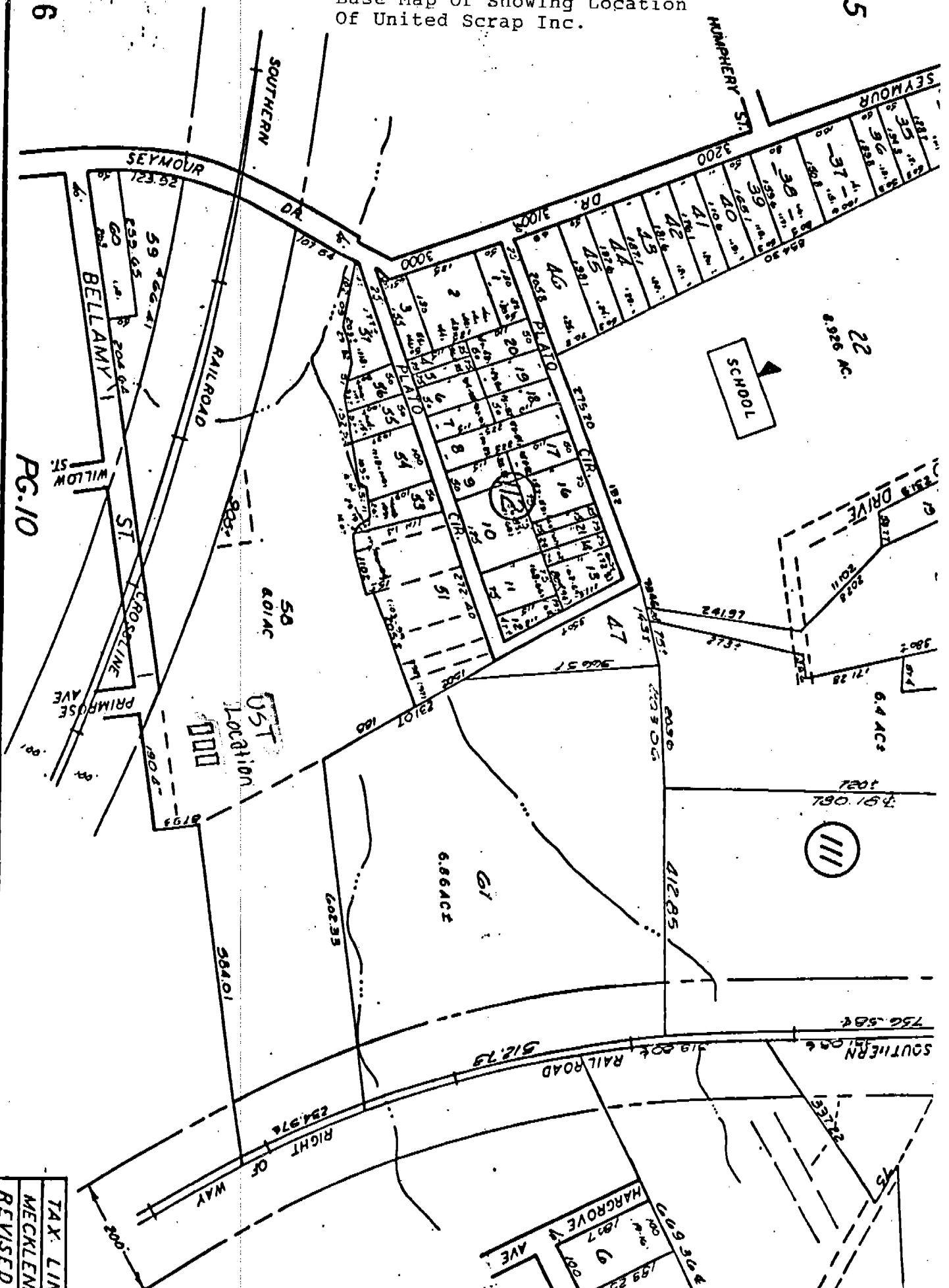
Base Map Of Showing Location Of United Scrap Inc.

526

115

FOR TAX PURPOSES ONLY

PG.10



TAX LINE
MECKLENBURG
REVISED



# Boyd Research Labs

Incorporated

ANALYTICAL TESTING & CONSULTING SERVICES

P.O. BOX 31486 • CHARLOTTE, NC 28231 • TELEPHONE (704) 342-3496 • FAX: (704) 342-9913

LAB SAMPLE NO.(s): 249B1-6

DATE OF REPORT: 06/27/89

P.O. NO.:

DATE RECEIVED: 06/09/89

RECEIVED FROM:

CUSTOMER NO: 6115

NAME: RICHARD CROSBY  
 ORG. ENVIRO SPEC.  
 ADD: P.O. BOX 25610-188

TELEPHONE NO: 704-545-8577

CHARLOTTE NC 28229

SAMPLE(s) of: SOIL  
 UNITED SCRAP

MARKED: A:TANK A #1 6/9/89

B: TANK A #2 6/9/89

C:TANK B #1 6/9/89

D: TANK B #2 6/9/89

SAMPLE/TEST NO.            I                    A: B1                    B: B2                    C: B3                    D: B4

ANALYSIS	UNITS				
pH					
TOTAL RESIDUE	(mg/L)				
TOTAL VOLATILE RESIDUE	(mg/L)				
TOTAL NONFILT. RESIDUE	(mg/L)				
TOTAL DISSOLVED RESIDUE	(mg/L)				
BOD	(mg/L)				
COD	(mg/L)				
AMMONIA AS N	(mg/L)				
TOTAL KJELDAHL NITROGEN	(mg/L)				
NITRATE AS N	(mg/L)				
TOTAL PHOSPHATE AS P	(mg/L)				
CHLORIDE AS CL	(mg/L)				
OIL & GREASE	(mg/L)				
CYANIDE, TOTAL	(mg/L)				
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	<10	<10	<10	<10
<i>S.D. Method 3550 and 5030 GC/FID</i>					
METALS	UNITS				
ARSENIC	(mg/L)				
SELENIUM	(mg/L)				
CADMIUM	(mg/L)				
CHROMIUM	(mg/L)				
COPPER	(mg/L)				
LEAD	(mg/L)				
NICKEL	(mg/L)				
ZINC	(mg/L)				
MERCURY	(mg/L)				

APPROVED BY: Jeffrey K. O'Ham Jeffrey K. O'Ham, Manager

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LAB SAMPLE NO.(s): 249B1-6

DATE OF REPORT: 06/27/89

P.O. NO.:

DATE RECEIVED: 06/09/89

RECEIVED FROM:

CUSTOMER NO.: 6115

NAME: RICHARD CROSBY  
 ORG. ENVIRO SPEC.  
 ADD: P.O. BOX 25610-188

TELEPHONE NO.: 704-545-8577

CHARLOTTE NC 28229

SAMPLE(s) of: SOIL  
 UNITED SCRAP  
 MARKED: A: TANK C #1 6/9/89  
 C:

B: TANK C #2 6/9/89  
 D:

SAMPLE/TEST NO.      1                      A: B5                      B: B6                      C:                      D:

ANALYSIS	UNITS				
pH					
TOTAL RESIDUE	(mg/L)				
TOTAL VOLATILE RESIDUE	(mg/L)				
TOTAL NONFILT. RESIDUE	(mg/L)				
TOTAL DISSOLVED RESIDUE	(mg/L)				
BOD	(mg/L)				
COD	(mg/L)				
AMMONIA AS N	(mg/L)				
TOTAL KJELDAHL NITROGEN	(mg/L)				
NITRATE AS N	(mg/L)				
TOTAL PHOSPHATE AS P	(mg/L)				
CHLORIDE AS CL-	(mg/L)				
OIL & GREASE	(mg/L)				
CYANIDE, TOTAL	(mg/L)				
TOTAL PETROLEUM HYDROCARBONS	mg/Kg	<10	<10		
<i>Method 3550 and 5030 G.C./FID</i>					
METALS	UNITS				
ARSENIC	(mg/L)				
SELENIUM	(mg/L)				
CADMIUM	(mg/L)				
CHROMIUM	(mg/L)				
COPPER	(mg/L)				
LEAD	(mg/L)				
NICKEL	(mg/L)				
ZINC	(mg/L)				
MERCURY	(mg/L)				

APPROVED BY:

Jeffrey K. O'Han, Manager

303 MEACHAM ST. • CHARLOTTE, NC 28203

**APPENDIX C**  
**BORING LOGS**





## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB1	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description		
1	<0.1	<0.1	P2SB-1 (1-5)	0-3' Brown, Silt with Glass and Metal Debris, Moist		
2						
3						
4	11.31	1.19			3-6' Yellow and Orange, Marbled, Clayey Silt, Moist	
5						
6						
7	<0.1	8.16			6-8' White, Clayey Silt, Wet at 6'	
8						
9	3.24	38.20				8-10' PWR - Gray
10						
11						Boring terminated at 10 feet due to refusal.
12						
13						
14						

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB2	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1	4.23	P2SB-2 (0-1)	0-3' Brown, Silt with Wire and Metal Debris, Moist
2			P2SB-2 (1-5)	
3				
4	<0.1	3.52	P2SB-2 (1-5)	3-7' Orange, Clayey Silt, Moist
5				
6				
7	<0.1	5.21	P2SB-2 (1-5)	7-10' Yellow, Clayey Silt, Wet at 9.5'
8				
9				
10	<0.1	1.43	P2SB-2 (1-5)	10-13' White, Clayey Silt, Moist
11				
12				
13				Boring terminated at 13 feet.
14				

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB3	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1	4.21		0-3' Brown, Silt with Debris, Moist
2				
3				
4	0.77	0.78		3-9' Orange, Clayey Silt, Moist
5				
6				
7	0.11	9.70	P2SB-3 (6-9)	10-13' Orange and White, Marbled, Clayey Silt, Moist
8				
9				
10	1.45	9.89		10-13' Orange and White, Marbled, Clayey Silt, Moist
11				
12				
13				
14				Boring terminated at 13 feet.

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> P2-SB4	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1	2.62	P2SB-4 (0-1)	0-0.5' ABC Stone
2				Brown, Clay Silt With Metal, Moist
3				
4	<0.1	3.7	P2SB-4 (6-9)	3-6.5' Yellowish Orange, Clayey Silt, Moist
5				
6				
7	<0.1	3.89	P2SB-4 (6-9)	6.5-13' Gray and Orange, Marbled, Clayey Silt , Moist
8				
9				
10	<0.1	1.37	P2SB-4 (6-9)	6.5-13' Gray and Orange, Marbled, Clayey Silt , Moist
11				
12				
13	<0.1	1.37		
14				Boring terminated at 13 feet.

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> P2-SB5	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				0-0.5' Asphalt and Rock
1	<0.1	2.62		Orange, Clayey Silt With Metal, Moist
2				
3				
4				
5	<0.1	3.7	P2SB-5 (4-7)	Orange and Yellow, Marbled, Clayey Silt
6				
7				
8	<0.1	3.89		
9				
10	<0.1	1.37		White and Yellow, Marbled, Clayey Silt with Black Veins
11				
12				
13				
				Boring terminated at 13 feet.
14				

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB6	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description	
1		2.71	28.83		0-1' Grass, Brown, Silt, Moist	
2				P2SB-6 (1-3)	1-3' Brown, Clayey Silt with Metal Debris and Glass, Moist	
3						
4		60.40	12.54		3-6' Orange, Clayey Silt, Moist	
5						
6						
7		4.9	3.32		6-13' Orange and White, Marbled, Clayey Silt , Moist	
8						
9						
10		3.91	1.3			
11						
12						
13						
14					Boring terminated at 13 feet.	

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> P2-SB7	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description	
1	<0.1	2.93	P2SB-7 (1')	0-1' Grass, Brown, Silt, Moist	
2				1-3' Orange, Clayey Silt, Moist	
3					
4	<0.1	3.59	P2SB-7 (3-7)	3-9' Orange and Yellow, Marbled, Clayey Silt, Moist	
5					
6					
7	<0.1	1.12			
8					
9					
10	<0.1	1.37		9-13' Yellow, Clayey Silt, Moist	
11					
12					
13					
14				Boring terminated at 13 feet.	

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB8	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1	<0.1		0-1' Grass, Brown, Silt, Moist
2	<0.1	3.54		1-4' Orange, Clayey Silt, Moist
3				
4				
5	<0.1	4.03	P2SB-8 (4-7)	4-7' Orange and Yellow, Marbled, Clayey Silt, Moist
6				
7				
8	0.40	4.13		7-13' Yellow and White, Marbled, Clayey Silt, Moist (Wet at 9')
9				
10				
11	<0.1	<0.1		
12				
13				
14				Boring terminated at 13 feet.

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:





## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB9	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1		0-1' Brown, Silt, Moist
2		1.09	4.15	P2SB-9 (1-5)	1-5' Black, Silt, Moist (Noticable Odor)
3					
4					
5					
6		39.82	1.65		5-8' Yellow and White, Marbled, Clayey Silt, Moist
7					
8					
9		34.57	1.59		8-12' White, Clayey Silt, Moist (Wet at 9')
10					
11					
12					
					Boring terminated at 12 feet.
13					
14					

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB10	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		1.37	1.73		0-1' Grass, Brown, Silt, Moist
2		28.41	1.05	P2SB-10 (4-8)	1-3' Orange, Clayey Silt, Moist
3					
4					
5					
6		1.71	<0.1		3-13' Gray, Clayey Silt, Moist (Wet at 8')
7					
8					
9					
10					
11					
12					
13					
14					Boring terminated at 13 feet.

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB11	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1		0-1' Brown, Silt, Moist
2		14.3	0.69		1-7' Orange, Clayey Silt, Moist
3					
4					
5					
6		517	0.58	P2SB-11 (4-7)	
7					
8		290	0.13		7-10' Gray, Clayey Silt, Moist
9					
10					
					Boring terminated at 10 feet due to refusal.
11					
12					
13					
14					

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB12	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1		0-1' Grass, Brown, Silt, Moist
2		7.6	1.53	P2SB-12 (1-3)	1-3' Orange, Clayey Silt, Moist
3					
4		5.48	0.73		3-10' Gray, Clayey Silt, Moist (Wet at 7')
5					
6					
7		1.93	2.2		
8					
9					
10					
					Boring terminated at 10 feet due to refusal.
11					
12					
13					
14					

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB13	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description	
1	<0.1	<0.1		0-1' Grass, Brown, Silt, Moist	
2	17.45	1.34	P2SB-13 (3-6)	1-5' Orange, Clayey Silt, Moist	
3					
4					
5	111	0.50			
6					
7					
8	1.37	1.92	5-10' Greenish Gray, Clayey Silt, Moist (Wet at 7')		
9					
10					
	0.39	0.87			Boring terminated at 10 feet due to refusal.
11					
12					
13					
14					

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB14	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1	<0.1		0-1' Grass, Brown, Silt, Moist
2	32.5	3.74		1-6' Brown, Clayey Silt, Moist
3				
4	102	4.07	P2SB-14 (3-5)	
5				
6	Poor Recovery	Poor Recovery		6-10' Gray, Clayey Silt, (Wet at 5.5', Poor Recovery)
7				
8				
9				
10				
				Boring terminated at 10 feet due to refusal.
11				
12				
13				
14				

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB15	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1	P2SB-15 (0-1.5)	0-1' Grass, Brown, Silt, Moist
2		3.44	2.41	P2SB-15 (1-3)	1-5' Brown, Clayey Silt with Metal Debris, Moist
3					
4					
5		0.88	2.02		
6		<0.1	<0.1		5-7' Orange, Clayey Silt, Moist
7					
8					
9					
10					7-10' Gray, Clayey Silt, (Wet at 7')
					Boring terminated at 10 feet due to refusal.
11					
12					
13					
14					

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB16	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/9/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description	
1					0-2' ABC Stone	
2						
3		33.06	0.52		2-5' Brown, Clayey Silt, Moist	
4						
5						
6		409	<0.1	P2SB-16 (5-8)	5-8' Yellow, Clayey Silt, Moist	
7						
8						
9		342	0.2		8-10' Gray, Clayey Silt, Moist (Wet at 8')	
10						
					Boring terminated at 10 feet due to refusal.	
11						
12						
13						
14						

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:





## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB17	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1	<0.1		0-1' Grass, Brown, Silt, Moist
2	12,800	<0.1		1-4' Brown, Clayey Silt, Moist
3				
4				
5	5,784	<0.1	PSB-17 (4-7)	4-7' Orange, Clayey Silt, Moist
6				
7				
8	427	784		7-13' Gray, Clayey Silt, Moist (Wet at 7.5')
9				
10				
11	3,501	185		
12				
13				
14				Boring terminated at 13 feet.

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB18	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1	<0.1		0-1' Grass, Brown, Silt, Moist
2	3,102	5,827		1-3' Orange and Brown, Clayey Silt, Moist
3				
4	70.64	8,344	P2SB-18 (3-6)	3-6' Orange, Clayey Silt, Moist (Wet at 6')
5				
6				
7	435	9,200		6-13' Gray, Clayey Silt, Moist
8				
9				
10				
11	1,257	10,200		
12				
13				
14				Boring terminated at 13 feet

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB19	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1		0-1' Brown, Silt, Moist
2		23.30	23.56		1-3' Orange and Brown, Clayey Silt, Moist
3					
4		429	23.47	P2SB-19 (3-6)	3-6' Yellow, Clayey Silt (Wet at 6')
5					
6					
7		24.51	21.55		6-12' Gray, Clayey Silt, Moist
8					
9					
10					
11		<0.1	12.46		
12					
13					Boring terminated at 12 feet due to refusal
14					

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB20	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1		0-1' Brown, Silt, Moist
2		<0.1	14.28		1-4' Yellow, Clayey Silt, Moist
3					
4					
5		<0.1	38.02	PSB-20 (4-7)	
6					
7					
8		0.54	69.26		7-13' Yellow, Clayey Silt, Moist
9					
10					
11		<0.1	17.09		
12					
13					
14					Boring terminated at 13 feet.

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB21	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1	P2SB-21 (0-1)	0-1' Brown, Silt, Moist
2		15.56	14.43	P2SB-21 (1-4)	1-4' Yellow, Clayey Silt, Moist
3					
4					
5		4.71	30.05		4-7' Gray, Sandy Clayey Silt, Moist (Wet at 5')
6					
7					
8		<0.1	14.4		7-13' Orange and Gray, Marbled, Clayey Silt, Moist
9					
10					
11		3.25	14.7		
12					
13					
14					Boring terminated at 13 feet.

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB22	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
		<0.1	<0.1		0-0.5' Brown, Silt, Moist
1		<0.1	25.74		0.5-4' Yellow, Clayey Silt, Moist
2					
3					
4					
5		0.44	26.43	P2SB-22 (4-7)	4-7' Yellow and White, Marbled, Clayey Silt, Moist
6					
7					
8		0.36	14.11		7-10' Gray, Clayey Silt, Moist
9					
10					
					Boring terminated at 10 feet due to refusal.
11					
12					
13					
14					

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB23	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1	<0.1		0-5' Brown and Orange, Marbled, Clayey Silt, Moist (Wet at 5')
2				
3	289	9.56	P2SB-23 (1-4)	
4				
5				5-8' Tan, Sand, Medium, Moist
6	22.06	11.35		
7				
8				6-13' Gray, Clayey Silt, Moist
9	2.86	9		
10				
11				
12	95	10.32		
13				
				Boring terminated at 13 feet
14				

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB24	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1		0-1' Brown, Silt, Moist
2		291	34.33	P2SB-24 (1-4)	1-4' Orange, Clayey Silt, Moist
3					
4					
5		134	22.07		4-7' Tan, Clayey Silt, Moist (Wet at 7')
6					
7					
8		15.27	20.45		7-13' Gray, Clayey Silt, Moist
9					
10					
11		<0.1	3.72		
12					
13					
14					Boring terminated at 13 feet.

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:





## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB25	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1	<0.1		0-1' Brown, Silt, Moist
2		<0.1	13.54	P2SB-25 (1-4)	1-10' Orange and Yellow, Marbled, Clayey Silt, Moist
3					
4					
5					
6		<0.1	6.70		
7					
8		<0.1	10.13		
9					
10					
11					
12					
13					
14					

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB26	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
	<0.1	15.76		0-0.5' Brown, Silt, Moist
1	<0.1	14.44	P2SB-26 (0.5-1)	0.5-1' Orange, Sand, Medium, Moist
2				
3				
4				
5				
6	<0.1	12.65		3-9' Orange and Yellow, Marbled, Clayey Silt, Moist
7				
8				
9				
				Boring terminated at 9 feet due to refusal.
10				
11				
12				
13				
14				

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB27	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
		<0.1	<0.1		0-0.5' Brown, Silt, Moist
1		7.15	94.46	P2SB-27 (1-4)	0.5-10' Orange and Yellow, Marbled, Clayey Silt, Moist
2					
3					
4					
5		2.04	10.88		
6					
7					
8		<0.1	17.01		
9					
10					
					Boring terminated at 10 feet due to refusal.
11					
12					
13					
14					

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> P2-SB28	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft) BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
	<0.1	<0.1		0-0.5' Brown, Silt, Moist
1	16.98	21.69	P2SB-28 (1-2)	0.5-4' Orange and Yellow, Marbled, Clayey Silt, Moist
2				
3	Poor Recovery	Poor Recovery		
4				
				Boring terminated at 4 feet due to refusal.
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> P2-SB29	<b>Site Name:</b> Parcel 2
<b>Date:</b> 7/10/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth (ft BLS)	FID Reading (ppm)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	2.05	11.69		0-2' Orange, Clayey Silt, Moist
2				
3	95	30.65	P2SB-29 (2-5)	2-4' Yellow, Clayey Silt, Moist
4				
5				Boring terminated at 4 feet due to refusal.
6				
7				
8				
9				
10				
11				
12				
13				
14				

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB30	<b>Site Name:</b> Parcel 2
<b>Date:</b> 10/25/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Tommy Fisher	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
				0-0.5' Brown, Sandy Clayey Silt With Metal Debris, Moist
1		0.4		
2				0.5-3' Orange with Black Mottles, Clay, Stiff, Plastic, Moist
3		0.1		
4				3-4' Brownish Red with Black Mottles, Clay, Moist
5		0.8	P2SB-30 (4-6)	4-6' Brownish Gray, Sandy Clay, Dry
6				
7		0.4		6-8' Gray, Sandy Clay, Wet
8				
				Boring terminated at 8 feet due to refusal.
9				
10				
11				
12				
13				
14				

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB31	<b>Site Name:</b> Parcel 2
<b>Date:</b> 10/25/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Tommy Fisher	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		1.0	P2SB-31 (0-2)	0-1' Brown, Sandy Clayey Silt With Metal Debris, Moist
2				
3		3.5		1-4' Brownish Red with Black Mottles, Clay (Wet at 3')
4				
5		3.1	P2SB-31 (4-6)	
6				
7				Boring Terminated at 6 feet.
8				
9				
10				
11				
12				
13				
14				

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB32	<b>Site Name:</b> Parcel 2
<b>Date:</b> 10/25/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Tommy Fisher	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description																																																			
1		0.7	P2SB-32 (0-2)	0-1' Red Orange Sandy Clay With Metal Debris, Dry																																																			
2					3		1.0		1-4' Gray and Orange, Sandy Clay, Moist	4		5		1.1	P2SB-32 (4-6)	4-6' Gray and Red, Sity Clay, Moist	6		7				Boring Terminated at 6 feet.	8					9					10					11					12					13					14	
3		1.0		1-4' Gray and Orange, Sandy Clay, Moist																																																			
4					5		1.1	P2SB-32 (4-6)	4-6' Gray and Red, Sity Clay, Moist	6		7				Boring Terminated at 6 feet.	8					9					10					11					12					13					14								
5		1.1	P2SB-32 (4-6)	4-6' Gray and Red, Sity Clay, Moist																																																			
6					7				Boring Terminated at 6 feet.	8					9					10					11					12					13					14															
7				Boring Terminated at 6 feet.																																																			
8																																																							
9																																																							
10																																																							
11																																																							
12																																																							
13																																																							
14																																																							

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:





# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> P2-SB33	<b>Site Name:</b> Parcel 2
<b>Date:</b> 10/25/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Tommy Fisher	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

Remarks:

Depth (ft BLS)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	0.7	P2SB-33 (0-2)	0-0.5' Brown, Sand, Medium, Dry
			0.5-1' Gravel
2			1-2' Reddish Orange, Sandy Clayey Silt, Moist
3			Boring terminated at 2' due to refusal
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> P2-SB34	<b>Site Name:</b> Parcel 2
<b>Date:</b> 10/25/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger and Direct Push
<b>Apex Rep:</b> Tommy Fisher	<b>Drilling Method:</b> Hand Auger and Direct Push
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Danny Summers/2579

**Remarks:**

Depth BLS)	(ft)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
		<0.1	P2SB-34 (0-2)	0-0.5' Brownish Yellow, Silt, Moist
1				0.5-1' Gravel
2				1-2' Reddish Orange, Silty Sandy Clay, Moist
				Boring terminated at 2' due to refusal
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

#### WELL CONSTRUCTION DETAILS (If Applicable)

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> BGPR-1	<b>Site Name:</b> Parcel 2 (Primrose Background Sample)
<b>Date:</b> 9/11/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Troy Holzschuh

**Remarks:**

Depth (ft BLS)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1		0-3' Orange, Clayey Silt, Moist
2			
3		BGPR-1 (3')	
4			Boring terminated at 3 feet.
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> BGPR-2	<b>Site Name:</b> Parcel 2 (Primrose Background Sample)
<b>Date:</b> 9/11/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Troy Holzschuh

**Remarks:**

Depth (ft BLS)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1		0-2' Orange, Clayey Silt, Moist
2		BGPR-2 (2')	
3			Boring terminated at 2 feet.
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



# Apex Companies, LLC

## Boring Log

<b>Boring/Well No.:</b> BGOSC-1	<b>Site Name:</b> Parcel 2 (Old Steele Creek Background Sample)
<b>Date:</b> 9/11/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Troy Holzschuh

Remarks:

Depth (ft BLS)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1	<0.1		0-3' Orange, Clayey Silt, Moist
2			
		BGOSC-1 (2.5')	
3			Boring terminated at 2.5 feet.
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:



## Apex Companies, LLC

### Boring Log

<b>Boring/Well No.:</b> BGHG-1	<b>Site Name:</b> Parcel 2 (Hargrove Background Sample)
<b>Date:</b> 9/11/2018	<b>Location:</b> Charlotte, Mecklenburg County, NC
<b>Job No.:</b> NCDOT-003	<b>Sample Method:</b> Hand Auger
<b>Apex Rep:</b> Troy Holzschuh	<b>Drilling Method:</b> Hand Auger
<b>Drilling Company:</b> Carolina Soil Investigations	<b>Driller Name/Cert #:</b> Troy Holzschuh

**Remarks:**

Depth BLS)	(ft)	PID Reading (ppm)	Lab Sample ID	Soil/Lithologic Description
1		<0.1		0-2' Orange, Clayey Silt, Moist
2			BGHG-1 (2')	
3				Boring terminated at 2 feet.
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

**WELL CONSTRUCTION DETAILS (If Applicable)**

Well Type/Diameter:	Outer Casing Interval:
Total Depth:	Outer Casing Diameter:
Screen Interval:	Bentonite Interval:
Sand Interval:	Slot Size:
Grout Interval:	Static Water Level:

**APPENDIX D**  
**GEOPHYSICAL REPORT**



July 23, 2018

Ms. Katie Lippard  
Apex Companies, LLC  
1071 Pemberton Hill Rd, Ste 203  
Apex, NC 27502

**Reference:      REPORT ON GEOPHYSICAL SERVICES FOR PARCEL 2**  
**SFF Holdings LLC Property**  
3600 Primrose Ave., Charlotte NC  
ESP Project No. EO73.302

State Project:      P-5705A  
WBS Element:      44475.1.1  
County:            Mecklenburg  
Description:        Charlotte Wye Track Improvements

Dear Ms. Lippard:

ESP Associates, Inc. (ESP) is pleased to present this report to Apex Companies, LLC (Apex) on the geophysical services we provided for the referenced project. This work was performed under our subconsultant agreement dated March 29, 2015 and in accordance with our cost proposal to you dated May 24, 2018.

## **1.0      UTILITY DESIGNATION**

ESP contacted NC811 to determine which utilities were listed as having facilities in the project location and then contacted the utility companies to request copies of their facility records. On June 28 and 29, 2018, ESP performed inductive sweeps and GPR scans in order to designate and attempt to identify known and unknown utility lines. There is a 64-inch Water Main paralleling the railroad right-of-way along the north side of the site before angling through to the south as shown on the attached Charlotte Water record maps (Appendix A). We were unable to locate this line using conventional methods and with GPR, as the area is completely overgrown with brush and trees. We investigated the open areas at the end of Primrose Ave. and did not find any existing utilities using conventional and GPR methods. We found the Sanitary Sewer (SS) manhole between the foundations but were unable to open it due to a nonstandard lid that had no access point for a manhole hook. We attempted to but could not designate the SS lines with either conventional conductive locators or GPR. We searched for but could not find the other manholes in the overgrown areas. A sketch of the results is provided in Appendix A, following by relative information from the utility companies.



## **2.0 GEOPHYSICAL DATA COLLECTION**

On June 22, 28, and 29, and July 2 and 5, 2018, ESP performed geophysical studies within the proposed easements of Parcel 2 located at 3600 Primrose Ave. in Charlotte, North Carolina. Parcel 1 is currently occupied by a vacant lot and was previously a metal scrapyards. The work consisted of metal detection using a Geonics EM61 MK2 instrument followed by GPR imaging at selected locations. Representative photographs of the geophysical study areas are provided on Figure 1.

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

## **3.0 DATA ANALYSIS AND PRESENTATION**

The EM61 data were gridded and contoured to produce plan view contour maps of the early time gate response (Figure 2) and the differential response (Figure 3). The differential response is calculated by subtracting the response of the bottom coil from the response of the top coil of the EM61. Typically, the differential response diminishes the response from smaller, near-surface metallic objects, thus emphasizing the response from deeper and larger metallic objects. The DGPS locations of observed site features were superimposed on the EM61 contour maps so that anomalies caused by site features such as metal objects on the ground surface could be recognized. Therefore, the figures mentioned above show the EM61 data and the site features that we observed and mapped in the field with DGPS; these figures do not necessarily show all existing site features.

The EM61 early time gate response and differential response were exported from Surfer as geo-referenced images and attached to the NCDOT plan sheet in MicroStation (Figures 4 and 5). The legend for the NCDOT line types and symbols is shown on Figure 6.

## **4.0 DISCUSSION OF RESULTS**

The EM61 differential contour plot indicates high amplitude responses (anomalies) that correspond to the many areas of surficial and partially buried miscellaneous metallic objects. The EM61 differential data indicated several anomalies that did not correspond to known metallic features. We collected GPR data over these EM61 anomalies and over areas of reinforced concrete. The GPR data collected over these areas does not indicate abandoned USTs; these EM61 anomalies were likely caused by buried metallic debris.

*Report on Geophysical Services for Parcel 2  
State Project P-5705A, Mecklenburg County, North Carolina*

*ESP Project No. EO73.302  
July 23, 2018*

## **5.0 SUMMARY AND CONCLUSIONS**

Our review of the geophysical data collected for this project does not indicate the presence of abandoned USTs in the geophysical study area. Please note that the presence of areas of heavy brush and piles of debris prevented us from collecting geophysical data in some areas.

## **6.0 LIMITATIONS**

These services have been provided to Apex in accordance with generally accepted guidelines for performing geophysical surveys. It is recognized that the results of geophysical surveys are non-unique and subject to interpretation. Further, the locations of data and features included in this report are approximate and were collected using a DGPS instrument. ESP makes no guarantee as to the accuracy of these locations. Also, due to the nature of utility installation, site conditions, and limitations of equipment, the results of the utility designation may not indicate all utilities within the project area.

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

Sincerely,

***ESP ASSOCIATES, Inc.***



Edward D. Billington, P.G.

EDB/DMN/PLD

Attachments: Figures 1 – 6  
Appendix A (Utility Designation Sketch and Relevant Information)



A. Photo from west side of site, looking east.




B. Photo from east side of site, looking west.

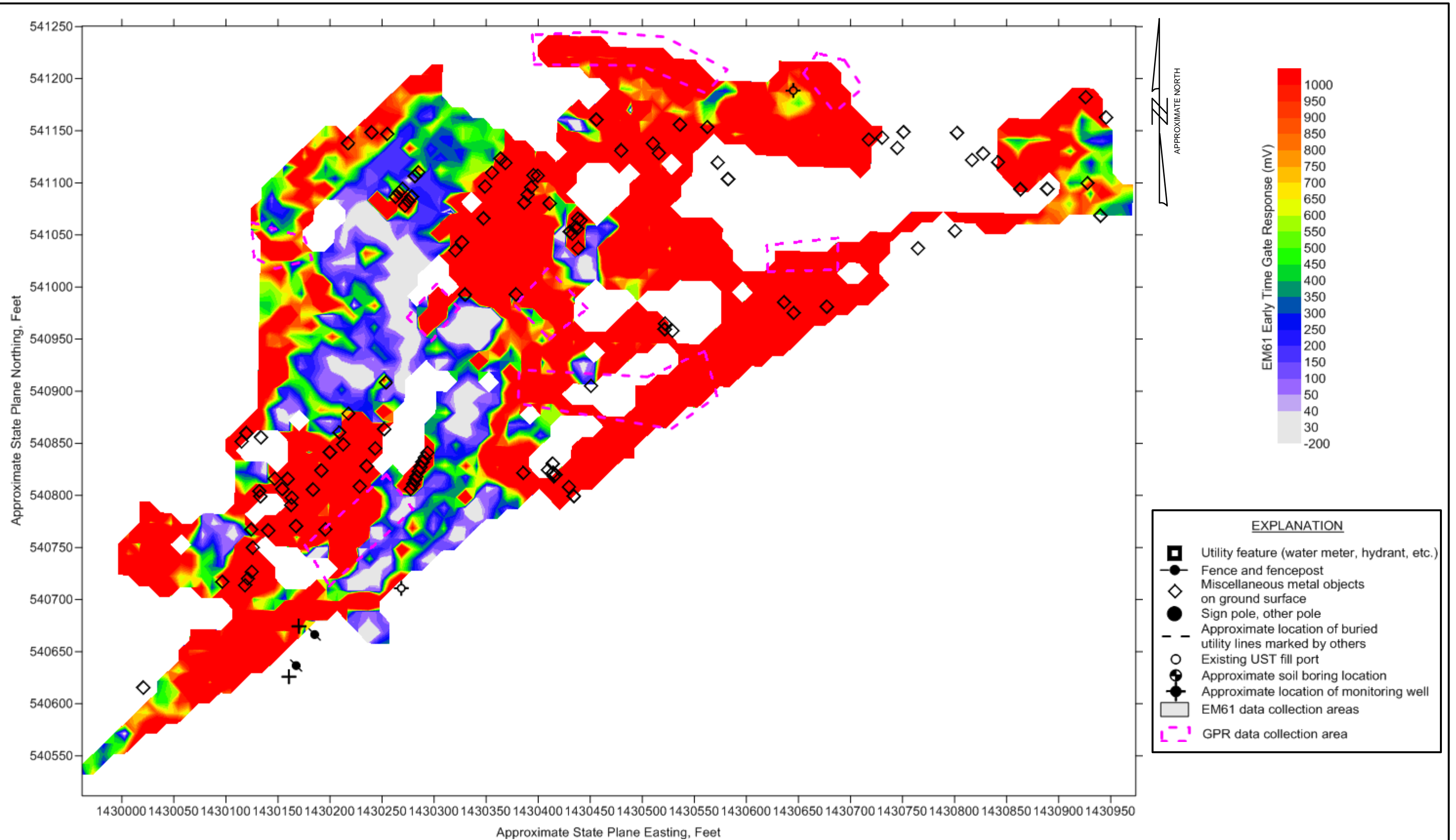


C. Photo from central portion of site showing typical building debris.



D. Photo from central portion of site showing typical building debris..

PROJECT NO. EO73.302	<b>FIGURE 1 – PARCEL 2 PHOTOS OF SITE</b>	<b>P-5705A, CHARLOTTE WYE TRACK IMPROVEMENTS MECKLENBURG COUNTY, NORTH CAROLINA</b>	 ESP Associates, Inc. 7011 Albert Pick Rd., Suite E Greensboro, NC 27409 336.334.7724 www.espassociates.com
SCALE NTS			
DATE 7/18/18			
BY DMN/EDB			



EXPLANATION	
	Utility feature (water meter, hydrant, etc.)
	Fence and fencepost
	Miscellaneous metal objects on ground surface
	Sign pole, other pole
	Approximate location of buried utility lines marked by others
	Existing UST fill port
	Approximate soil boring location
	Approximate location of monitoring well
	EM61 data collection areas
	GPR data collection area

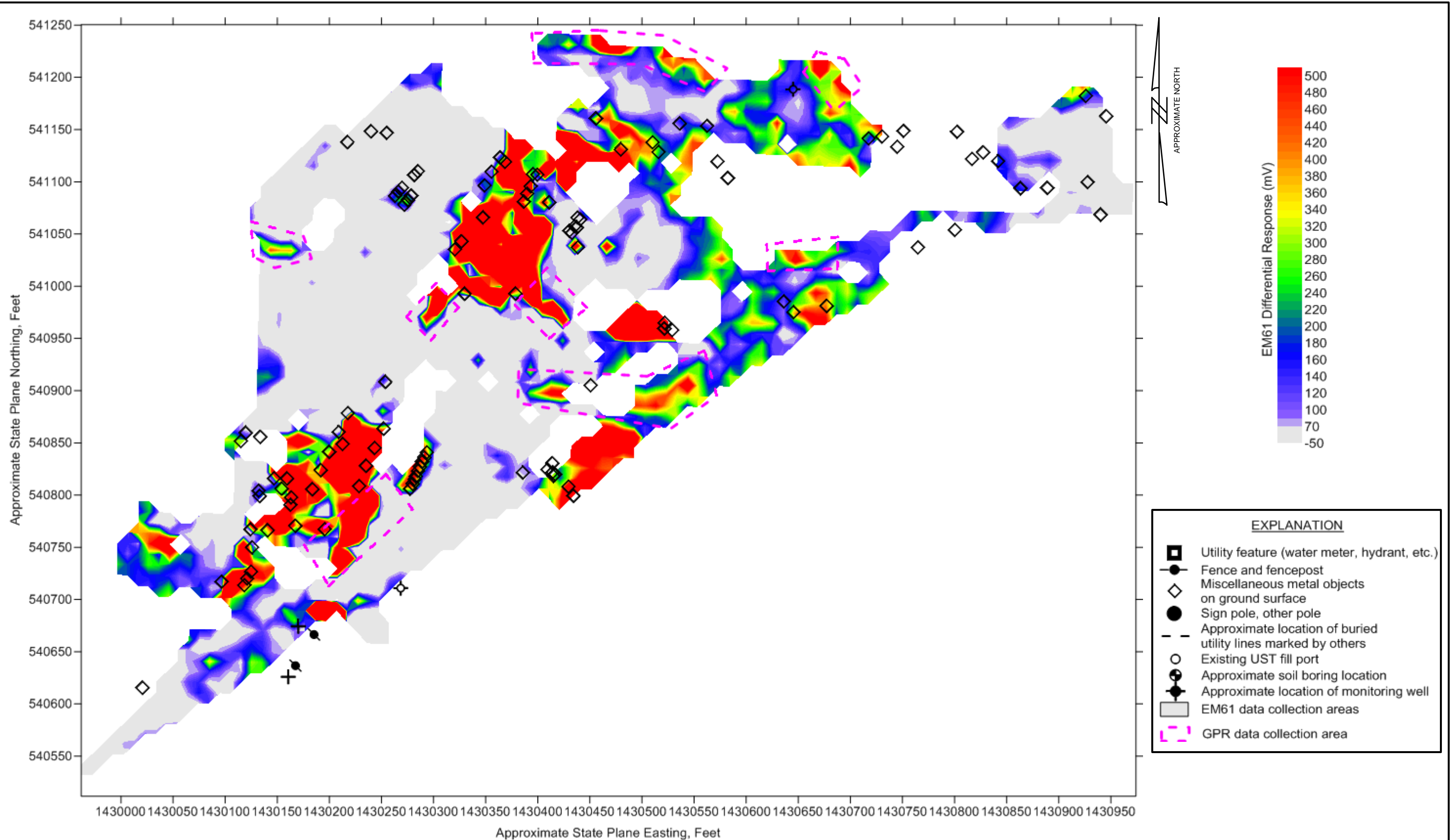
Note: Locations of data and features are approximate and were collected using a DGPS instrument. ESP make no guarantees as to the accuracy of these locations. Coordinates on the axes of the maps are approximate and provided for general reference only.

PROJECT NO.	EO73.302
SCALE	AS SHOWN
DATE	7/18/18
BY	DMN/EDB

**FIGURE 2 – PARCEL 2**  
**EM61 EARLY TIME GATE RESPONSE**  
**P-5705A, CHARLOTTE WYE TRACK IMPROVEMENTS**  
**MECKLENBURG COUNTY, NORTH CAROLINA**



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



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

PROJECT NO.	EO73.302
SCALE	AS SHOWN
DATE	7/18/18
BY	DMN/EDB

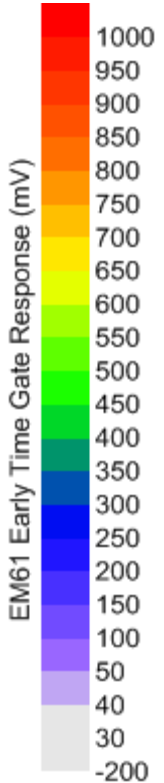
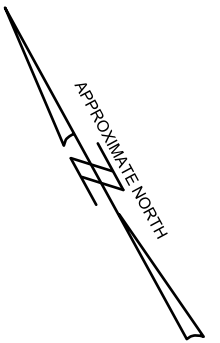
**FIGURE 3 – PARCEL 2**  
**EM61 DIFFERENTIAL RESPONSE**  
**P-5705A, CHARLOTTE WYE TRACK IMPROVEMENTS**  
**MECKLENBURG COUNTY, NORTH CAROLINA**



ESP Associates, Inc.  
 7011 Albert Pick Rd.,  
 Suite E  
 Greensboro, NC 27409  
 336.334.7724  
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**DATUM DESCRIPTION**  
 THE LOCALIZED RESPONSES SHOWN ON THIS PLAN SHEET ARE BASED ON THE DATA PROVIDED BY THE CLIENT. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED. THE LOCALIZED RESPONSES SHOWN ON THIS PLAN SHEET ARE BASED ON THE DATA PROVIDED BY THE CLIENT. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED.



List of NCDOT reference files

- p5705a\_rr\_dsn.dgn
- p5705a\_ncdot\_fs.dgn
- p5705a\_rr\_ss.dgn
- p5705a\_rr\_row.dgn
- p5705a\_rr\_aln.dgn

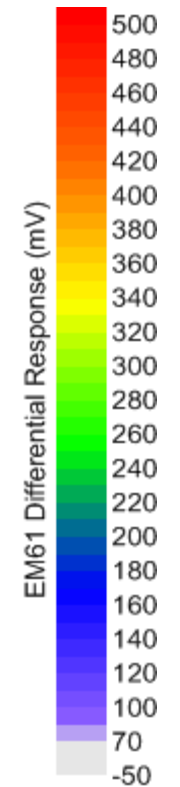
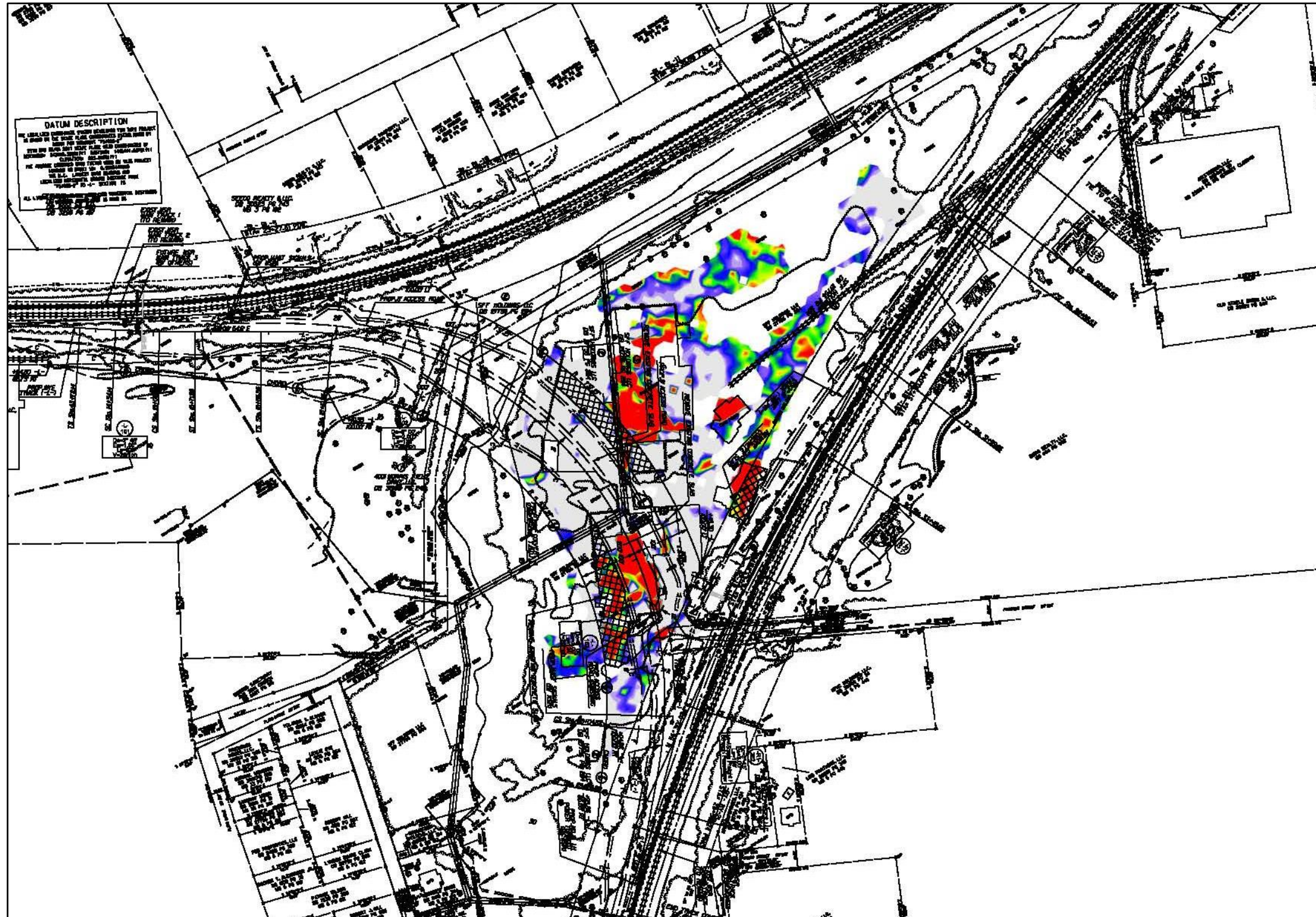
See Figure 6 for explanation of symbols and line types

PROJECT NO.	EO73.302
SCALE	1" = 200'
DATE	7/18/18
BY	DMN/EDB

**FIGURE 4 – PARCEL 1**  
**EM61 EARLY TIME GATE RESPONSE ON PLAN SHEET**  
**P-5705A, CHARLOTTE WYE TRACK IMPROVEMENTS**  
**MECKLENBURG COUNTY, NORTH CAROLINA**



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



List of NCDOT reference files

- p5705a\_rr\_dsn.dgn
- p5705a\_ncdot\_fs.dgn
- p5705a\_rr\_ss.dgn
- p5705a\_rr\_row.dgn
- p5705a\_rr\_aln.dgn

See Figure 6 for explanation of symbols and line types

PROJECT NO.	EO73.302
SCALE	1" = 200'
DATE	7/18/18
BY	DMN/EDB

**FIGURE 5 – PARCEL 1**  
**EM61 DIFFERENTIAL RESPONSE ON PLAN SHEET**  
**P-5705A, CHARLOTTE WYE TRACK IMPROVEMENTS**  
**MECKLENBURG COUNTY, NORTH CAROLINA**



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8/4/08/15

# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

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

**BOUNDARIES AND PROPERTY:**

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin	○
Property Corner	■
Property Monument	■
Parcel/Sequence Number	⊕
Existing Fence Line	—x—x—
Proposed Woven Wire Fence	—o—o—
Proposed Chain Link Fence	—□—□—
Proposed Barbed Wire Fence	—◇—◇—
Existing Wetland Boundary	—wavy—
Proposed Wetland Boundary	—wavy—
Existing Endangered Animal Boundary	—wavy—
Existing Endangered Plant Boundary	—wavy—
Existing Historic Property Boundary	—wavy—
Known Contamination Area: Soil	—X—X—
Potential Contamination Area: Soil	—X—X—
Known Contamination Area: Water	—X—X—
Potential Contamination Area: Water	—X—X—
Contaminated Site: Known or Potential	—X—X—

**BUILDINGS AND OTHER CULTURE:**

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

**HYDROLOGY:**

Stream or Body of Water	_____
Hydro, Pool or Reservoir	_____
Jurisdictional Stream	—JS—
Buffer Zone 1	—BZ 1—
Buffer Zone 2	—BZ 2—
Flow Arrow	→
Disappearing Stream	→
Spring	○
Wetland	—wavy—
Proposed Lateral, Tail, Head Ditch	—dashed—
False Sump	▭

**RAILROADS:**

Standard Gauge	_____
RR Signal Milepost	○
Switch	□
RR Abandoned	—dashed—
RR Dismantled	—dashed—

**RIGHT OF WAY:**

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	_____
Proposed Right of Way Line	_____
Proposed Right of Way Line with Iron Pin and Cap Marker	○
Proposed Right of Way Line with Concrete or Granite RW Marker	○
Proposed Control of Access Line with Concrete CA Marker	○
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	—E—
Proposed Temporary Construction Easement	—E—
Proposed Temporary Drainage Easement	—TDE—
Proposed Permanent Drainage Easement	—PDE—
Proposed Permanent Drainage / Utility Easement	—DUE—
Proposed Permanent Utility Easement	—PUE—
Proposed Temporary Utility Easement	—TUE—
Proposed Aerial Utility Easement	—AUE—
Proposed Permanent Easement with Iron Pin and Cap Marker	○

**ROADS AND RELATED FEATURES:**

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	—f—
Proposed Slope Stakes Fill	—f—
Proposed Curb Ramp	—CR—
Existing Metal Guardrail	—v—v—
Proposed Guardrail	—v—v—
Existing Cable Guiderail	—n—n—
Proposed Cable Guiderail	—n—n—
Equality Symbol	⊕
Pavement Removal	—X—X—

**VEGETATION:**

Single Tree	○
Single Shrub	○
Hedge	—wavy—
Woods Line	—wavy—

Orchard	⊕
Vineyard	⊕

**EXISTING STRUCTURES:**

MAJOR:	
Bridge, Tunnel or Box Culvert	—CONC—
Bridge Wing Wall, Head Wall and End Wall	—CONC—
MINOR:	
Head and End Wall	—CONC—
Pipe Culvert	—dashed—
Footbridge	—dashed—
Drainage Box: Catch Basin, DI or JB	□
Paved Ditch Gutter	—dashed—
Storm Sewer Manhole	○
Storm Sewer	—dashed—

**UTILITIES:**

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

**TELEPHONE:**

Existing Telephone Pole	⊕
Proposed Telephone Pole	⊕
Telephone Manhole	○
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	⊕
U/G Telephone Cable LOS B (S.U.E.*)	—dashed—
U/G Telephone Cable LOS C (S.U.E.*)	—dashed—
U/G Telephone Cable LOS D (S.U.E.*)	—dashed—
U/G Telephone Conduit LOS B (S.U.E.*)	—dashed—
U/G Telephone Conduit LOS C (S.U.E.*)	—dashed—
U/G Telephone Conduit LOS D (S.U.E.*)	—dashed—
U/G Fiber Optics Cable LOS B (S.U.E.*)	—dashed—
U/G Fiber Optics Cable LOS C (S.U.E.*)	—dashed—
U/G Fiber Optics Cable LOS D (S.U.E.*)	—dashed—

**WATER:**

Water Manhole	○
Water Meter	○
Water Valve	⊕
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	—dashed—
U/G Water Line LOS C (S.U.E.*)	—dashed—
U/G Water Line LOS D (S.U.E.*)	—dashed—
Above Ground Water Line	—A/G Water—

**TV:**

TV Pedestal	⊕
TV Tower	⊕
U/G TV Cable Hand Hole	⊕
U/G TV Cable LOS B (S.U.E.*)	—dashed—
U/G TV Cable LOS C (S.U.E.*)	—dashed—
U/G TV Cable LOS D (S.U.E.*)	—dashed—
U/G Fiber Optic Cable LOS B (S.U.E.*)	—dashed—
U/G Fiber Optic Cable LOS C (S.U.E.*)	—dashed—
U/G Fiber Optic Cable LOS D (S.U.E.*)	—dashed—

**GAS:**

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

**SANITARY SEWER:**

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

**MISCELLANEOUS:**

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

PROJECT NO.	EO73.302
SCALE	N/A
DATE	7/18/18
BY	DMN/EDB

**FIGURE 6  
LEGEND FOR PLAN SHEET FIGURES**  
  
**P-5705A, CHARLOTTE WYE TRACK IMPROVEMENTS  
MECKLENBURG COUNTY, NORTH CAROLINA**

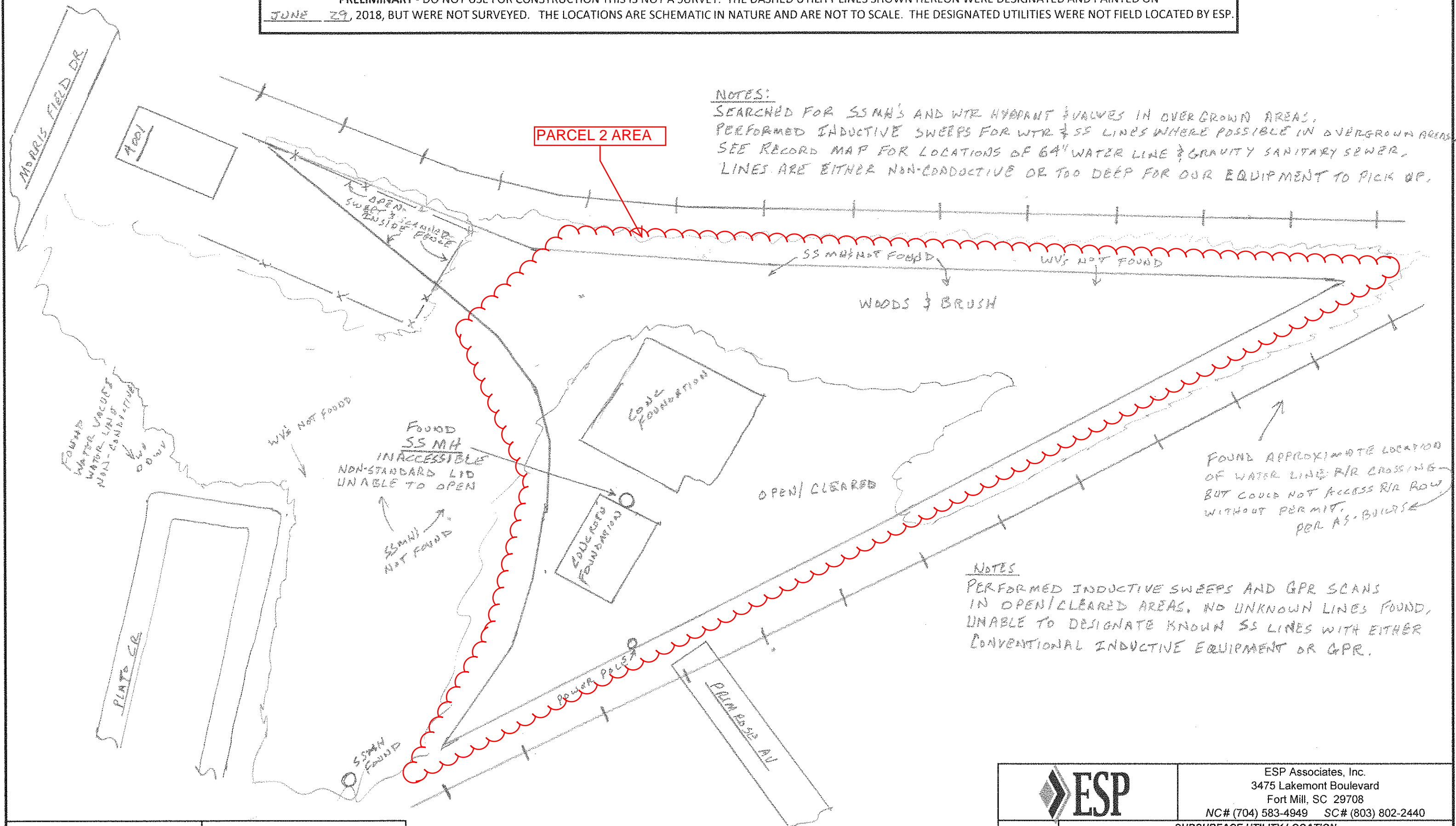


ESP Associates, Inc.  
7011 Albert Pick Rd.,  
Suite E  
Greensboro, NC 27409  
336.334.7724  
www.espassociates.com



**APPENDIX A  
UTILITY DESIGNATION**

**PRELIMINARY - DO NOT USE FOR CONSTRUCTION THIS IS NOT A SURVEY. THE DASHED UTILITY LINES SHOWN HEREON WERE DESIGNATED AND PAINTED ON JUNE 29, 2018, BUT WERE NOT SURVEYED. THE LOCATIONS ARE SCHEMATIC IN NATURE AND ARE NOT TO SCALE. THE DESIGNATED UTILITIES WERE NOT FIELD LOCATED BY ESP.**



**NOTES:**  
 SEARCHED FOR SS MH'S AND WTR HYDRANT & VALVES IN OVERGROWN AREAS. PERFORMED INDUCTIVE SWEEPS FOR WTR & SS LINES WHERE POSSIBLE IN OVERGROWN AREAS. SEE RECORD MAP FOR LOCATIONS OF 64" WATER LINE & GRAVITY SANITARY SEWER. LINES ARE EITHER NON-CONDUCTIVE OR TOO DEEP FOR OUR EQUIPMENT TO PICK UP.

**NOTES:**  
 PERFORMED INDUCTIVE SWEEPS AND GPR SCANS IN OPEN/CLEARED AREAS. NO UNKNOWN LINES FOUND. UNABLE TO DESIGNATE KNOWN SS LINES WITH EITHER CONVENTIONAL INDUCTIVE EQUIPMENT OR GPR.

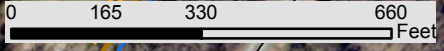
<b>QUALITY CONTROL CHECK</b>	<b>SURVEYING AND MAPPING</b>
PERFORMED BY: <u>TW/DP</u>	PERFORMED BY: <u>N/A</u>
DATE CHECKED: <u>6-29-18</u>	DATE CHECKED: <u>N/A</u>

	ESP Associates, Inc. 3475 Lakemont Boulevard Fort Mill, SC 29708 NC# (704) 583-4949 SC# (803) 802-2440
	SUBSURFACE UTILITY LOCATION SKETCH
2018	PROJECT NAME: <u>APEX ROAD P-5705A</u> PROJECT Number: <u>ED73.302</u> Sheet <u>1</u> of <u>1</u>



**Legend**

- Wastewater Manhole
- Gravity
- ForceMain
- Sludge
- LowPressure
- Water Valve
- Water Hydrant
- Distribution
- Transmission
- Raw
- HydrantService



**Project:** <PROJECT NAME>  
 Map Number: 1

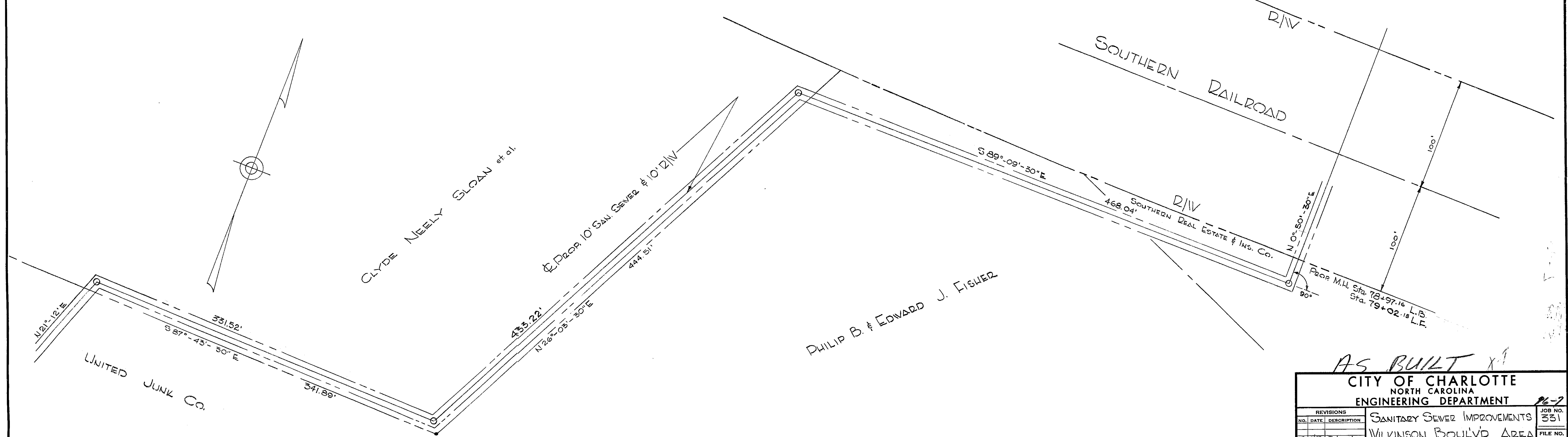
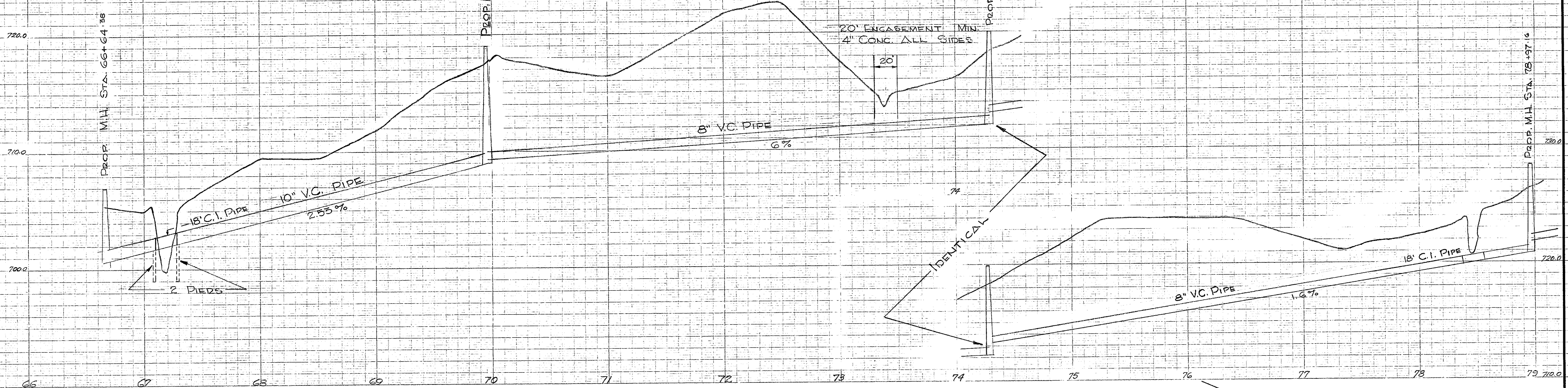
Created By: Abe Collins  
 Technology Services - GIS Group  
 6/15/2018

Charlotte Water geographic data and other records are provided for general information purposes only. While Charlotte Water makes every effort to confirm the accuracy of information, it does not warrant nor guarantee information provided is accurate, current or complete. Charlotte Water assumes no responsibility for the consequences of inappropriate uses or misinterpretations of released data.

M.S. & P. 20-4  
 100 Standard Invention  
 2000 North Third Street, Charlotte, N.C.

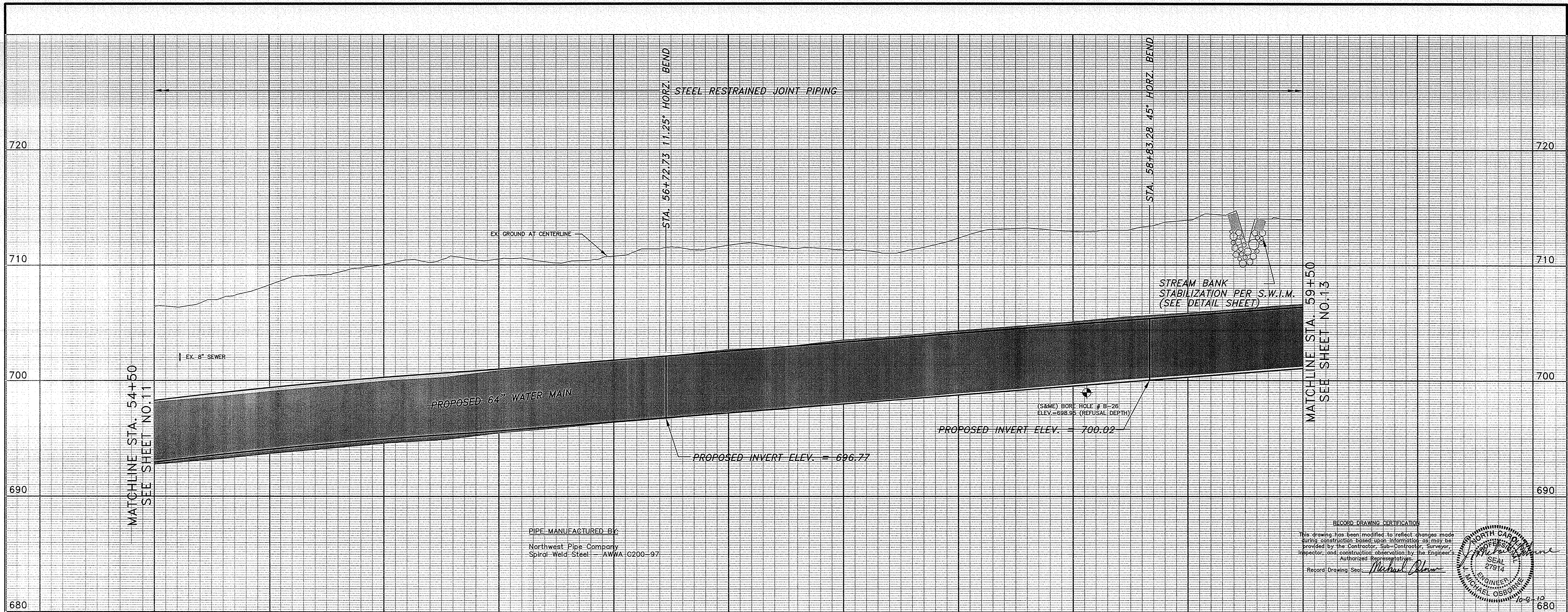
MADE IN U.S.A.  
 CLEARPRINT PAPER CO.  
 2000 North Third Street, Charlotte, N.C.

M.S. & P. 20-4  
 100 Standard Invention  
 2000 North Third Street, Charlotte, N.C.



*AS BUILT*

<b>CITY OF CHARLOTTE</b>		JOB NO. <b>331</b>
NORTH CAROLINA ENGINEERING DEPARTMENT		
REVISIONS	SANITARY SEWER IMPROVEMENTS	FILE NO.
NO. DATE DESCRIPTION	WILKINSON BOULV'D AREA	E-52
DRAWN BY SHAW	FROM	SHEET
CHECKED BY CDR	STA. 66+64.38 TO STA. 79+02.15	14
CITY ENGINEER	WILKINSON BOULV'D TRUNK	OF
	DATE JULY 22, 1965	SCALE 1"=40'



MATCHLINE STA. 54+50  
SEE SHEET NO.11

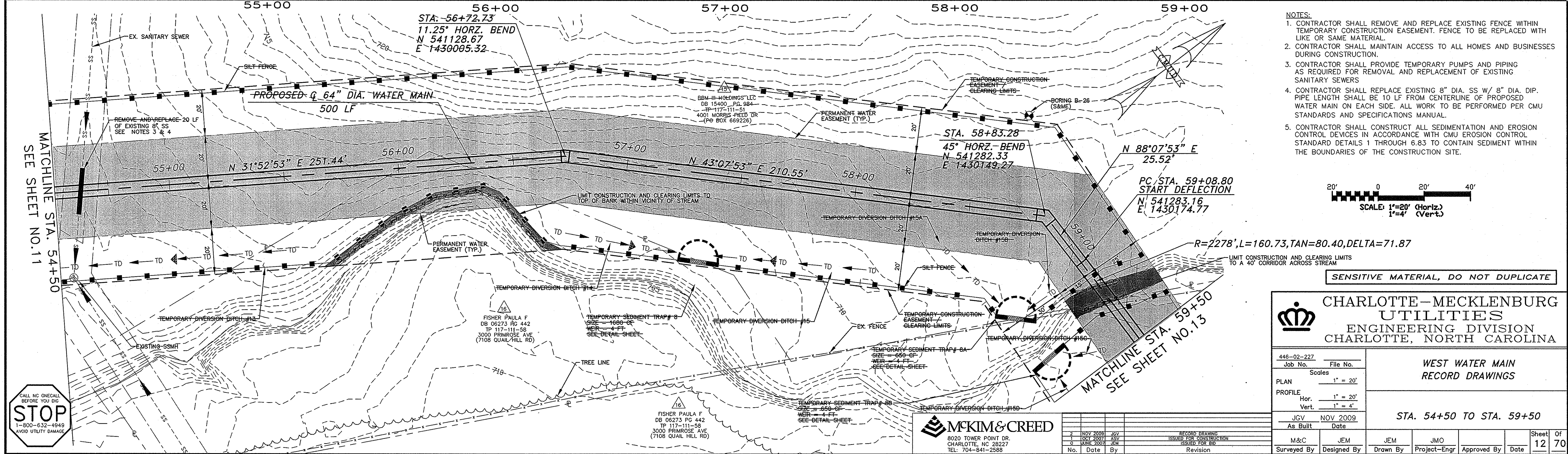
MATCHLINE STA. 59+50  
SEE SHEET NO.13

PIPE MANUFACTURED BY:  
Northwest Pipe Company  
Spiral Weld Steel - AWWA C200-97

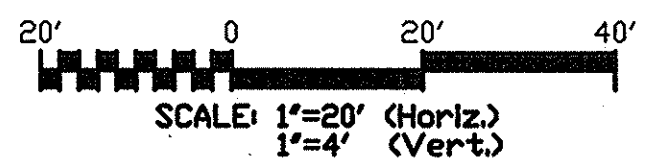
RECORD DRAWING CERTIFICATION

This drawing has been modified to reflect changes made during construction based upon information as may be provided by the Contractor, Sub-Contractor, Surveyor, Inspector, and construction observation by the Engineer's Authorized Representatives.

Record Drawing Seal: *Michael Osborn*



- NOTES:
- CONTRACTOR SHALL REMOVE AND REPLACE EXISTING FENCE WITHIN TEMPORARY CONSTRUCTION EASEMENT. FENCE TO BE REPLACED WITH LIKE OR SAME MATERIAL.
  - CONTRACTOR SHALL MAINTAIN ACCESS TO ALL HOMES AND BUSINESSES DURING CONSTRUCTION.
  - CONTRACTOR SHALL PROVIDE TEMPORARY PUMPS AND PIPING AS REQUIRED FOR REMOVAL AND REPLACEMENT OF EXISTING SANITARY SEWERS.
  - CONTRACTOR SHALL REPLACE EXISTING 8" DIA. SS W/ 8" DIA. DIP. PIPE LENGTH SHALL BE 10 LF FROM CENTERLINE OF PROPOSED WATER MAIN ON EACH SIDE. ALL WORK TO BE PERFORMED PER CMU STANDARDS AND SPECIFICATIONS MANUAL.
  - CONTRACTOR SHALL CONSTRUCT ALL SEDIMENTATION AND EROSION CONTROL DEVICES IN ACCORDANCE WITH CMU EROSION CONTROL STANDARD DETAILS 1 THROUGH 6.83 TO CONTAIN SEDIMENT WITHIN THE BOUNDARIES OF THE CONSTRUCTION SITE.



SENSITIVE MATERIAL, DO NOT DUPLICATE

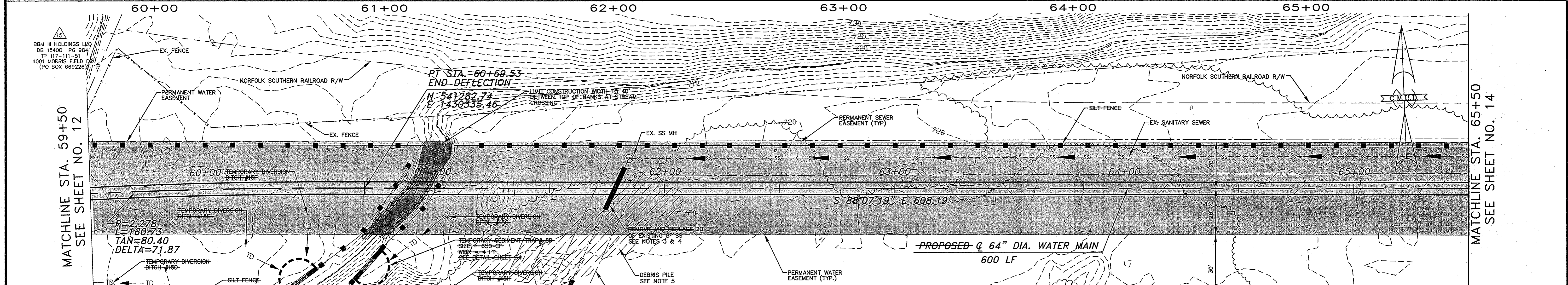
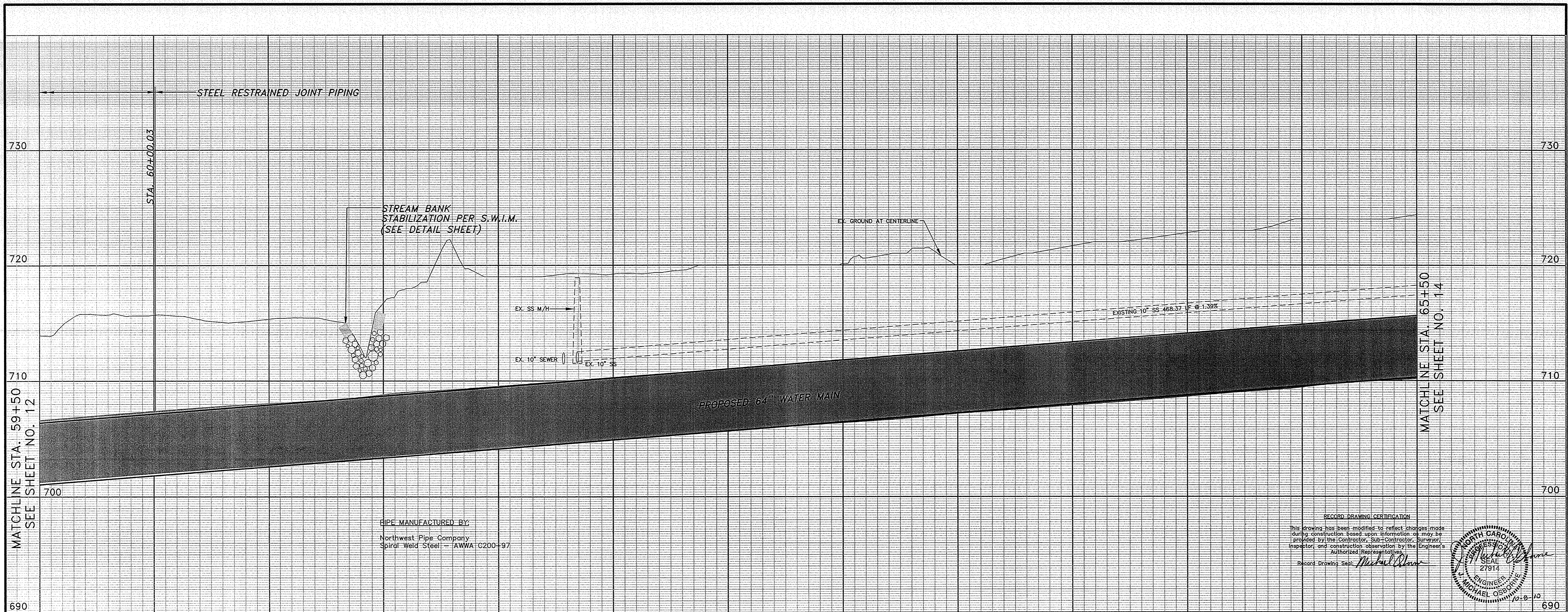
**CHARLOTTE-MECKLENBURG UTILITIES**  
ENGINEERING DIVISION  
CHARLOTTE, NORTH CAROLINA

446-02-227 Job No.	File No.	WEST WATER MAIN RECORD DRAWINGS	
PLAN	Scale: 1" = 20'		
PROFILE	Hor. 1" = 20' Vert. 1" = 4'		
JGV As Built	NOV 2009 Date	STA. 54+50 TO STA. 59+50	
M&C Surveyed By	JEM Designed By	JEM Drawn By	JMO Project-Engr
		Approved By	
		Date	
		Sheet 12 Of 70	

**MCKIM & CREED**  
8020 TOWER POINT DR.  
CHARLOTTE, NC 28227  
TEL: 704-841-2589

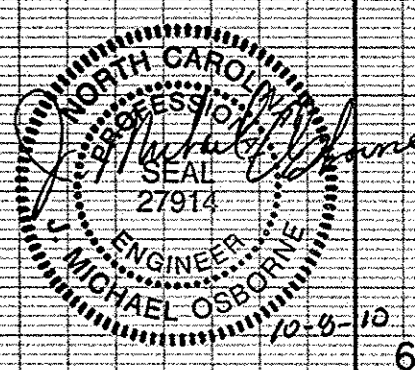
NOV 2009	JGV	RECORD DRAWING
OCT 2007	JGV	ISSUED FOR CONSTRUCTION
JUN 2007	JGV	ISSUED FOR BID
No.	Date	By
		Revision





PIPE MANUFACTURED BY:  
Northwest Pipe Company  
Spiral Weld Steel - AWWA C200-97

RECORD DRAWING CERTIFICATION  
This drawing has been modified to reflect changes made during construction based upon information as may be provided by the Contractor, Sub-Contractor, Surveyor, Inspector and construction observation by the Engineer's Authorized Representative.  
Record Drawing Seal: *Michael Obbiri*



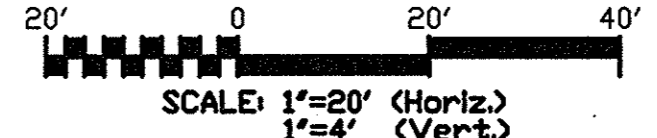
BBW III HOLDINGS LLC  
DB 15400 PG 984  
TP 117-111-51  
4001 MORRIS FIELD DR  
(PO BOX 669226)

PT STA. 60+69.53  
END DEFLECTION  
N 54°28'27.4"  
E 145°53'39.46"

MATCHLINE STA. 59+50  
SEE SHEET NO. 12

MATCHLINE STA. 65+50  
SEE SHEET NO. 14

- NOTES:
- CONTRACTOR SHALL REMOVE AND REPLACE EXISTING FENCE WITHIN TEMPORARY CONSTRUCTION EASEMENT. FENCE TO BE REPLACED WITH LIKE OR SAME MATERIAL.
  - CONTRACTOR SHALL MAINTAIN ACCESS TO ALL HOMES AND BUSINESSES DURING CONSTRUCTION.
  - CONTRACTOR SHALL PROVIDE TEMPORARY PUMPS AND PIPING AS REQUIRED FOR REMOVAL AND REPLACEMENT OF EXISTING SANITARY SEWERS
  - CONTRACTOR SHALL REPLACE EXISTING 8" DIA. SS W/ 8" DIA. DIP. PIPE LENGTH SHALL BE 10 LF FROM CENTERLINE OF PROPOSED WATER MAIN ON EACH SIDE. ALL WORK TO BE PERFORMED PER CMU STANDARDS AND SPECIFICATIONS MANUAL.
  - CONTRACTOR SHALL RELOCATE DEBRIS PILE WITHIN TRENCH LIMITS. COORDINATE WITH PROPERTY OWNER FOR RECOMMENDATION.
  - CONTRACTOR SHALL CONSTRUCT ALL SEDIMENTATION AND EROSION CONTROL DEVICES IN ACCORDANCE WITH CMU EROSION CONTROL STANDARD DETAILS 1 THROUGH 6.83 TO CONTAIN SEDIMENT WITHIN THE BOUNDARIES OF THE CONSTRUCTION SITE.



SENSITIVE MATERIAL, DO NOT DUPLICATE

**MCKIM & CREED**  
8020 TOWER POINT DR.  
CHARLOTTE, NC 28227  
TEL: 704-841-2689

No.	Date	By	Revision
2	NOV 2009	JGV	RECORD DRAWING
1	OCT 2007	ASV	ISSUED FOR CONSTRUCTION
0	JUN 2007	SEN	ISSUED FOR BID

**CHARLOTTE-MECKLENBURG UTILITIES**  
ENGINEERING DIVISION  
CHARLOTTE, NORTH CAROLINA

446-02-227 File No.  
Job No. Scales 1" = 20'

PLAN 1" = 20'

PROFILE Hor. 1" = 20'  
Vert. 1" = 4'

JGV NOV 2009 Date  
As Built

M&C JEM JEM JMO  
Surveyed By Designed By Drawn By Project-Engr

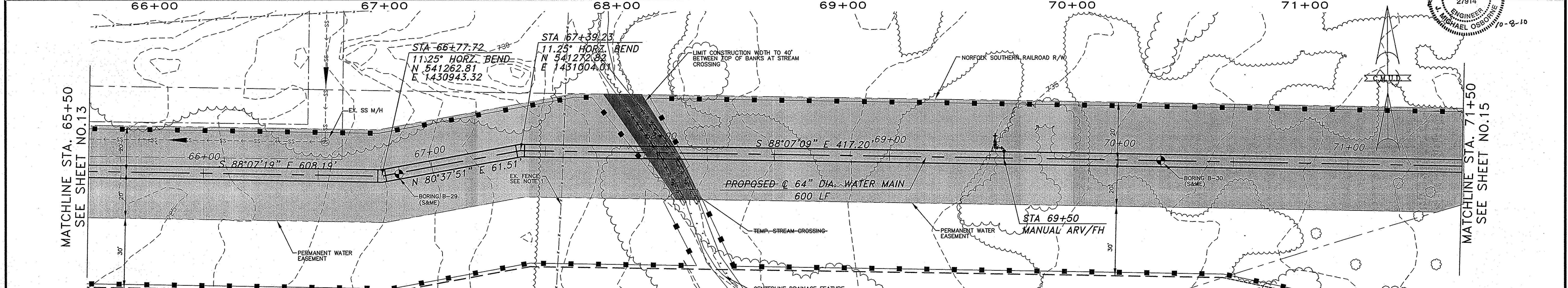
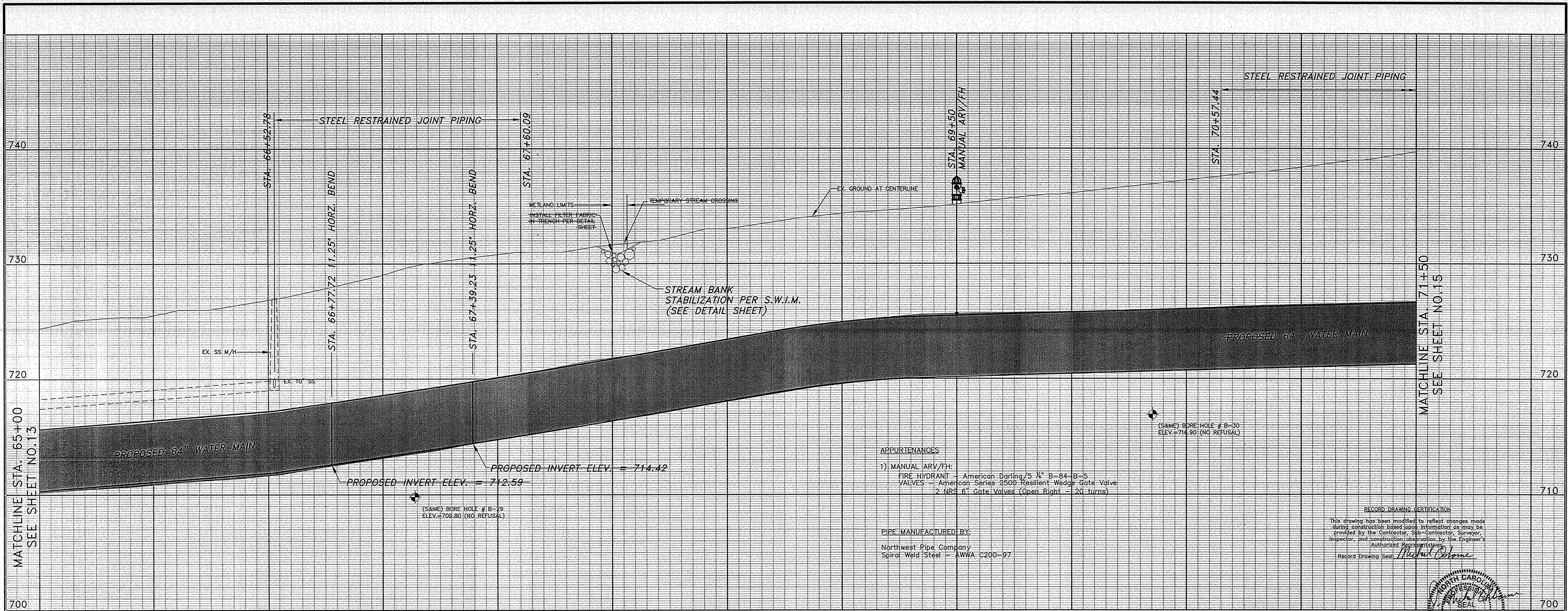
Approved By Date

WEST WATER MAIN  
RECORD DRAWINGS

STA. 59+50 TO STA. 65+50

Sheet 13 of 70





**NOTES:**

- CONTRACTOR SHALL REMOVE AND REPLACE EXISTING FENCE WITHIN TEMPORARY CONSTRUCTION EASEMENT. FENCE TO BE REPLACED WITH LIKE OR SAME MATERIAL.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL HOMES AND BUSINESSES DURING CONSTRUCTION.
- CONTRACTOR SHALL LIMIT AREA OF DISTURBANCE TO 40' WIDE ON EITHER SIDE OF WETLANDS AND STREAM CROSSINGS.
- CONTRACTOR SHALL MAINTAIN SS LINE SERVICE AT ALL TIMES.
- CONTRACTOR SHALL CONSTRUCT ALL SEDIMENTATION AND EROSION CONTROL DEVICES IN ACCORDANCE WITH CMU EROSION CONTROL STANDARD DETAILS 1 THROUGH 6.83 TO CONTAIN SEDIMENT WITHIN THE BOUNDARIES OF THE CONSTRUCTION SITE.

**SENSITIVE MATERIAL, DO NOT DUPLICATE**

**MCKIM & CREED**  
8020 TOWER POINT DR.  
CHARLOTTE, NC 28227  
TEL: 704-541-2588

**CHARLOTTE-MECKLENBURG UTILITIES ENGINEERING DIVISION CHARLOTTE, NORTH CAROLINA**

**WEST WATER MAIN RECORD DRAWINGS**

445-02-227 Job No. File No.  
Scales: 1" = 20'  
1" = 4'

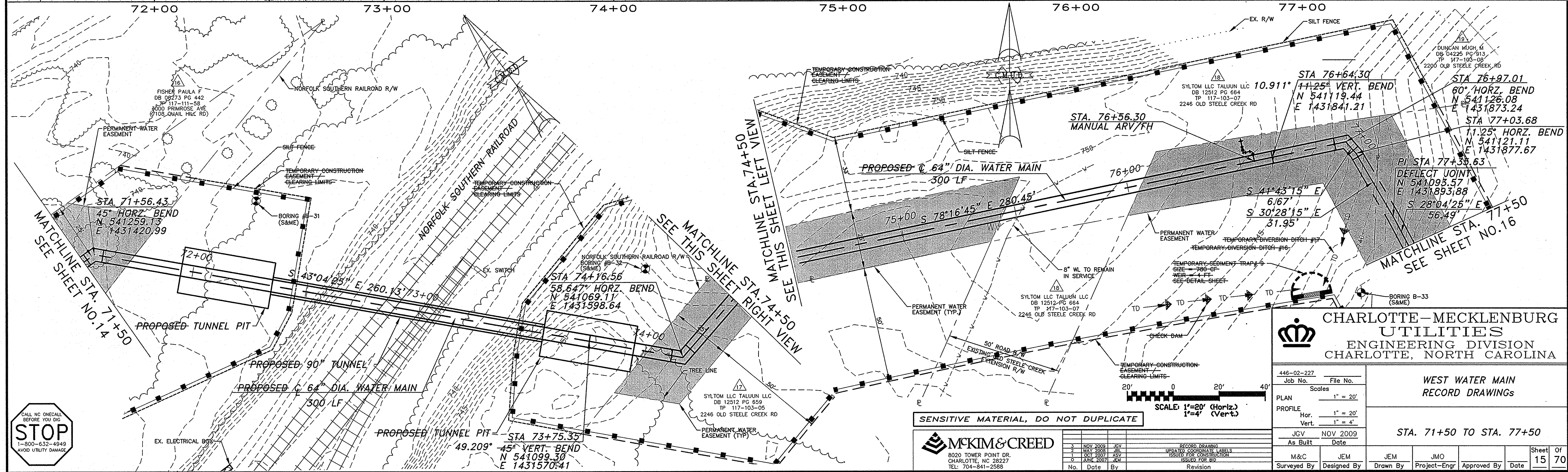
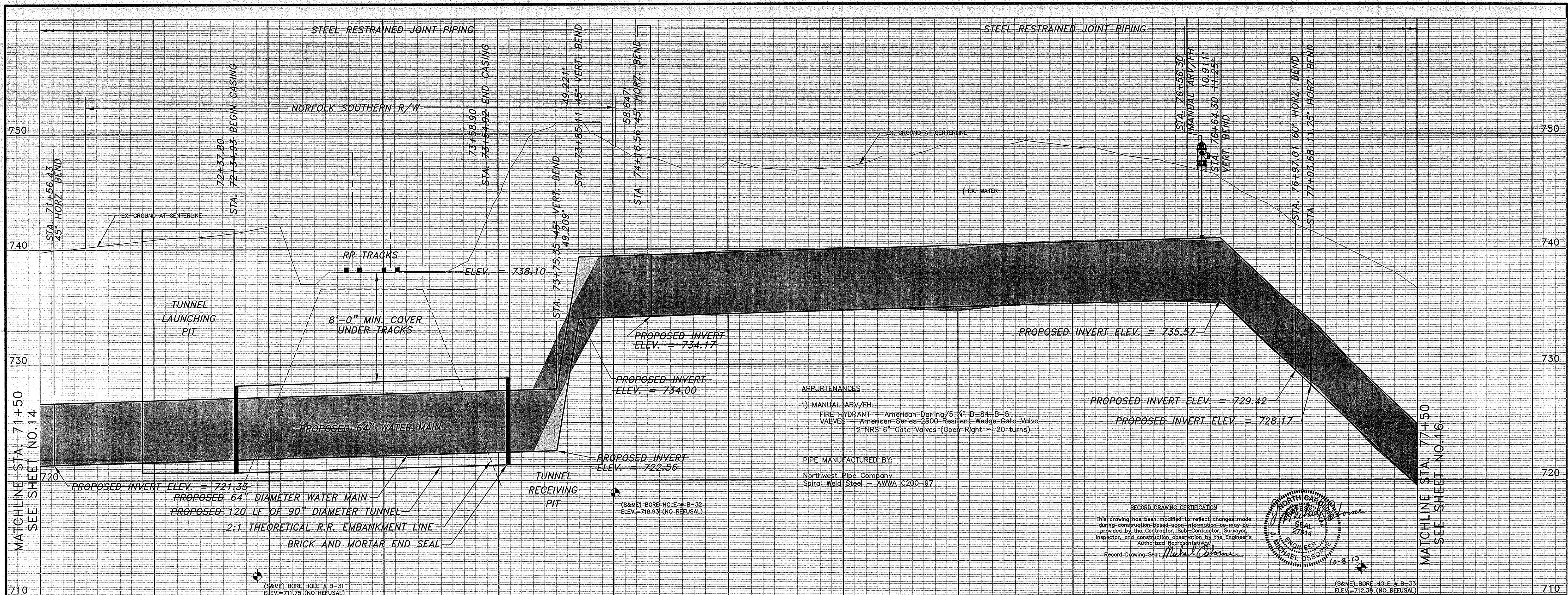
PROFILE: Hor. 1" = 20'  
Vert. 1" = 4'

JGV NOV 2009 Date  
As Built

M&C JEM JEM WSR  
Surveyed By Designed By Drawn By Project-Engr Approved By Date

STA. 65+50 TO STA. 71+50

Sheet 14 Of 70



SENSITIVE MATERIAL, DO NOT DUPLICATE

**MCKIM & CREED**  
8020 TOWER POINT DR.  
CHARLOTTE, NC 28227  
TEL: 704-841-2689

No.	Date	By	Revision
1	NOV 2009	JGV	RECORD DRAWING
2	NOV 2009	JGV	UPDATE COORDINATE LABELS
3	OCT 2007	ASV	ISSUED FOR CONSTRUCTION
4	JUNE 2002	JGL	ISSUED FOR BID

**CHARLOTTE-MECKLENBURG UTILITIES**  
ENGINEERING DIVISION  
CHARLOTTE, NORTH CAROLINA

446-02-227  
Job No. File No.  
Scales 1" = 20'

PLAN 1" = 20'  
PROFILE Hor. 1" = 20'  
Vert. 1" = 4'

JGV NOV 2009  
As Built Date

M&C JEM  
Surveyed By Designed By

JEM JMO  
Drawn By Project-Engr

Approved By Date

WEST WATER MAIN  
RECORD DRAWINGS

STA. 71+50 TO STA. 77+50

Sheet 15 of 70



**APPENDIX E**  
**MANIFESTS AND DISPOSAL CERTIFICATES**



1703 Vargrave Street  
Winston-Salem, NC 27107  
ph 336-725-5844  
fax 336-725-6244

---

## CERTIFICATE OF DISPOSAL

Evo Corporation does hereby certify that 1 drum of non-hazardous contaminated material received on 9/11/2018 from:

Generator: NCDOT  
Originating at: 3600 Prim Rose St.  
Charlotte, NC  
EC Waste ID #: 091814

has been disposed of by Evo Corporation in a manner approved by the North Carolina Department of Environmental Quality.

A handwritten signature in black ink, appearing to read "Thomas W. Hammett", is written over a horizontal line.

Signature

Thomas W. Hammett  
CEO  
Evo Corporation

# EVO CORPORATION

1703 Vargrave Street, Winston-Salem, NC 27107

www.evocorp.net

## NON-HAZARDOUS MATERIALS MANIFEST

Load #

Manifest No.

80815

### GENERATOR INFORMATION

Generator: NCDOT

Phone: 919-707-6859

Site Address: 3600 Prim Rose St

City/State: Charlotte NC

Contact: Gordon Box

### MATERIAL DESCRIPTION / QUANTITY / WEIGHT

Gross Weight (lbs): \_\_\_\_\_

Material: Soil

Empty Weight (lbs): \_\_\_\_\_

Contaminant: Non-Hazardous Metals

Net Weight (lbs): \_\_\_\_\_

Quantity

1

Tons Drums Pails Sacs Yards Other: 0

### TRANSPORTER INFORMATION

Transporter: Evo Corporation

Phone: 336-725-5844

Truck #: 103

Contact: Tony Disher

As the transporter, I certify that the materials described above being shipped under this non-hazardous materials manifest are properly classified, packaged, labeled, secured and are in proper condition for transport in commerce under the applicable regulations governing transportation, and I hereby receive this material for delivery to the facility designate.

Driver Signature: [Signature]

Date: 9-11-18

### FACILITY INFORMATION

EVO CORPORATION  
1703 Vargrave Street  
Winston-Salem, NC 27107

Evo Project #: 091814

Phone: (336) 725-5844

Contact: Tony Disher

I certify that the carrier has delivered the materials described above to this facility, and I hereby accept this material for treatment and/or disposal in a manner that has been authorized by the State of North Carolina.

Facility Signature: [Signature]

Date: 9-11-18

White/Facility

Canary/Invoice

Goldenrod/Generator

Pink/Carrier

**APPENDIX F**  
**SOIL AND GROUNDWATER ANALYTICAL RESULTS**



Full-Service Analytical &  
Environmental Solutions

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

## Case Narrative

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Lab Submittal Date: 07/10/2018  
Prism Work Order: 8070092

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:**

A	Re-analysis due to high surr. recovery resulted in lower recoveries, but IS were out. Matrix interference suspected. Initial result reported.
Aa	Surrogate recovery below range due to sample matrix.
BHL	MB greater than one half of the RL, but sample concentrations are either less than the RL or greater than 10x the MB.
CCV	CCV result is above the control limits. Analyte not detected in the sample. No further action taken.
D	RPD value outside of the control limits.
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).
L2	LCSD recovery outside of the QC limits. LCS recovery within the limits. No further action taken.
LH	High LCS recovery. Analyte not detected in the sample(s). No further action taken.
M	Matrix spike outside of the control limits.
MC	Sample concentration too high for recovery evaluation.
SR	Surrogate recovery outside the QC limits.
BRL	Below Reporting Limit
MDL	Method Detection Limit
RPD	Relative Percent Difference
*	Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

---

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

**Sample Receipt Summary**

07/13/2018

Prism Work Order: 8070092

Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P2SB-1 (1-5)	8070092-01	Solid	07/09/18 12:00	07/10/18 13:00
P2SB-2 (1-5)	8070092-02	Solid	07/09/18 12:30	07/10/18 13:00
P2SB-3 (6-9)	8070092-03	Solid	07/09/18 12:45	07/10/18 13:00
P2SB-4 (6-9)	8070092-04	Solid	07/09/18 13:00	07/10/18 13:00
P2SB-5 (4-7)	8070092-05	Solid	07/09/18 13:30	07/10/18 13:00
P2SB-6 (1-3)	8070092-06	Solid	07/09/18 14:20	07/10/18 13:00
P2SB-7 (3-7)	8070092-07	Solid	07/09/18 14:45	07/10/18 13:00
P2SB-8 (4-7)	8070092-08	Solid	07/09/18 15:15	07/10/18 13:00
P2SB-9 (1-5)	8070092-09	Solid	07/09/18 15:45	07/10/18 13:00
P2SB-10 (4-8)	8070092-10	Solid	07/09/18 16:15	07/10/18 13:00
P2SB-11 (4-7)	8070092-11	Solid	07/09/18 16:40	07/10/18 13:00
P2SB-12( 1-3)	8070092-12	Solid	07/09/18 17:05	07/10/18 13:00
P2SB-13 (3-6)	8070092-13	Solid	07/09/18 17:20	07/10/18 13:00
P2SB-14 (3-5)	8070092-14	Solid	07/09/18 17:40	07/10/18 13:00
P2SB-15( 1-3)	8070092-15	Solid	07/09/18 17:45	07/10/18 13:00
P2SB-16 (5-8)	8070092-16	Solid	07/09/18 17:50	07/10/18 13:00

Samples were received in good condition at 2.5 degrees C unless otherwise noted.



# Summary of Detections

07/13/2018

Prism Work Order: 8070092

Prism ID	Client ID	Parameter	Method	Result	Units
8070092-01	P2SB-1 (1-5)	Bis(2-Ethylhexyl)phthalate	8270D	4.4	mg/kg dry
8070092-01	P2SB-1 (1-5)	Mercury	7471B	0.14	mg/kg dry
8070092-01	P2SB-1 (1-5)	Antimony	6010D	15	mg/kg dry
8070092-01	P2SB-1 (1-5)	Arsenic	6010D	4.1	mg/kg dry
8070092-01	P2SB-1 (1-5)	Barium	6010D	130	mg/kg dry
8070092-01	P2SB-1 (1-5)	Beryllium	6010D	0.35	DM, J mg/kg dry
8070092-01	P2SB-1 (1-5)	Cadmium	6010D	5.6	mg/kg dry
8070092-01	P2SB-1 (1-5)	Chromium	6010D	440	mg/kg dry
8070092-01	P2SB-1 (1-5)	Copper	6010D	440	mg/kg dry
8070092-01	P2SB-1 (1-5)	Lead	6010D	530	mg/kg dry
8070092-01	P2SB-1 (1-5)	Nickel	6010D	240	mg/kg dry
8070092-01	P2SB-1 (1-5)	Silver	6010D	1.8	mg/kg dry
8070092-01	P2SB-1 (1-5)	Thallium	6010D	1.1	mg/kg dry
8070092-01	P2SB-1 (1-5)	Zinc	6010D	1200	mg/kg dry
8070092-01	P2SB-1 (1-5)	Acetone	8260B	0.39	mg/kg dry
8070092-02	P2SB-2 (1-5)	Anthracene	8270D	0.28	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Benzo(a)anthracene	8270D	0.20	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Benzo(a)pyrene	8270D	0.18	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Benzo(b)fluoranthene	8270D	0.33	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Benzo(g,h,i)perylene	8270D	0.16	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Benzoic Acid	8270D	0.90	mg/kg dry
8070092-02	P2SB-2 (1-5)	Bis(2-Ethylhexyl)phthalate	8270D	1.0	mg/kg dry
8070092-02	P2SB-2 (1-5)	Chrysene	8270D	0.30	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Di-n-butyl phthalate	8270D	0.26	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Fluoranthene	8270D	0.37	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Indeno(1,2,3-cd)pyrene	8270D	0.15	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Phenanthrene	8270D	0.34	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Pyrene	8270D	0.32	J mg/kg dry
8070092-02	P2SB-2 (1-5)	Mercury	7471B	1.3	mg/kg dry
8070092-02	P2SB-2 (1-5)	Antimony	6010D	4.6	mg/kg dry
8070092-02	P2SB-2 (1-5)	Arsenic	6010D	11	mg/kg dry
8070092-02	P2SB-2 (1-5)	Barium	6010D	260	mg/kg dry
8070092-02	P2SB-2 (1-5)	Beryllium	6010D	0.31	DM, J mg/kg dry
8070092-02	P2SB-2 (1-5)	Cadmium	6010D	26	mg/kg dry
8070092-02	P2SB-2 (1-5)	Chromium	6010D	190	mg/kg dry
8070092-02	P2SB-2 (1-5)	Copper	6010D	17000	mg/kg dry
8070092-02	P2SB-2 (1-5)	Lead	6010D	740	mg/kg dry
8070092-02	P2SB-2 (1-5)	Nickel	6010D	130	mg/kg dry
8070092-02	P2SB-2 (1-5)	Selenium	6010D	2.5	DM, J mg/kg dry
8070092-02	P2SB-2 (1-5)	Thallium	6010D	2.2	mg/kg dry
8070092-02	P2SB-2 (1-5)	Zinc	6010D	3400	mg/kg dry
8070092-02	P2SB-2 (1-5)	Acetone	8260B	0.24	mg/kg dry
8070092-02	P2SB-2 (1-5)	Bromomethane	8260B	0.0043	J mg/kg dry
8070092-03	P2SB-3 (6-9)	Mercury	7471B	0.17	mg/kg dry

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**Summary of Detections**

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Prism Work Order: 8070092

Prism ID	Client ID	Parameter	Method	Result		Units
8070092-03	P2SB-3 (6-9)	Arsenic	6010D	1.2		mg/kg dry
8070092-03	P2SB-3 (6-9)	Barium	6010D	30		mg/kg dry
8070092-03	P2SB-3 (6-9)	Beryllium	6010D	0.67		mg/kg dry
8070092-03	P2SB-3 (6-9)	Cadmium	6010D	0.11	J	mg/kg dry
8070092-03	P2SB-3 (6-9)	Chromium	6010D	54		mg/kg dry
8070092-03	P2SB-3 (6-9)	Copper	6010D	43		mg/kg dry
8070092-03	P2SB-3 (6-9)	Lead	6010D	11		mg/kg dry
8070092-03	P2SB-3 (6-9)	Nickel	6010D	9.5		mg/kg dry
8070092-03	P2SB-3 (6-9)	Selenium	6010D	1.3		mg/kg dry
8070092-03	P2SB-3 (6-9)	Thallium	6010D	0.72		mg/kg dry
8070092-03	P2SB-3 (6-9)	Zinc	6010D	32		mg/kg dry
8070092-03	P2SB-3 (6-9)	Acetone	8260B	0.048	J	mg/kg dry
8070092-04	P2SB-4 (6-9)	Mercury	7471B	0.028		mg/kg dry
8070092-04	P2SB-4 (6-9)	Arsenic	6010D	0.38	J	mg/kg dry
8070092-04	P2SB-4 (6-9)	Barium	6010D	29		mg/kg dry
8070092-04	P2SB-4 (6-9)	Beryllium	6010D	0.45		mg/kg dry
8070092-04	P2SB-4 (6-9)	Cadmium	6010D	0.072	J	mg/kg dry
8070092-04	P2SB-4 (6-9)	Chromium	6010D	36		mg/kg dry
8070092-04	P2SB-4 (6-9)	Copper	6010D	34		mg/kg dry
8070092-04	P2SB-4 (6-9)	Lead	6010D	8.6		mg/kg dry
8070092-04	P2SB-4 (6-9)	Nickel	6010D	8.1		mg/kg dry
8070092-04	P2SB-4 (6-9)	Selenium	6010D	0.42	J	mg/kg dry
8070092-04	P2SB-4 (6-9)	Thallium	6010D	0.52	J	mg/kg dry
8070092-04	P2SB-4 (6-9)	Zinc	6010D	28		mg/kg dry
8070092-04	P2SB-4 (6-9)	Acetone	8260B	0.0019	J	mg/kg dry
8070092-05	P2SB-5 (4-7)	Mercury	7471B	0.12		mg/kg dry
8070092-05	P2SB-5 (4-7)	Barium	6010D	23		mg/kg dry
8070092-05	P2SB-5 (4-7)	Beryllium	6010D	0.53		mg/kg dry
8070092-05	P2SB-5 (4-7)	Cadmium	6010D	0.075	J	mg/kg dry
8070092-05	P2SB-5 (4-7)	Chromium	6010D	42		mg/kg dry
8070092-05	P2SB-5 (4-7)	Copper	6010D	38		mg/kg dry
8070092-05	P2SB-5 (4-7)	Lead	6010D	8.1		mg/kg dry
8070092-05	P2SB-5 (4-7)	Nickel	6010D	7.4		mg/kg dry
8070092-05	P2SB-5 (4-7)	Selenium	6010D	1.6		mg/kg dry
8070092-05	P2SB-5 (4-7)	Thallium	6010D	0.80		mg/kg dry
8070092-05	P2SB-5 (4-7)	Zinc	6010D	21		mg/kg dry
8070092-05	P2SB-5 (4-7)	Acetone	8260B	0.0097	J	mg/kg dry
8070092-06	P2SB-6 (1-3)	1-Methylnaphthalene	8270D	0.29	J	mg/kg dry
8070092-06	P2SB-6 (1-3)	2-Methylnaphthalene	8270D	0.57		mg/kg dry
8070092-06	P2SB-6 (1-3)	3/4-Methylphenol	8270D	0.15	J	mg/kg dry
8070092-06	P2SB-6 (1-3)	Acenaphthene	8270D	0.42		mg/kg dry
8070092-06	P2SB-6 (1-3)	Acenaphthylene	8270D	0.23	J	mg/kg dry
8070092-06	P2SB-6 (1-3)	Anthracene	8270D	1.2		mg/kg dry
8070092-06	P2SB-6 (1-3)	Benzo(a)anthracene	8270D	0.95		mg/kg dry
8070092-06	P2SB-6 (1-3)	Benzo(a)pyrene	8270D	0.73		mg/kg dry

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Prism ID	Client ID	Parameter	Method	Result	Units
8070092-06	P2SB-6 (1-3)	Benzo(b)fluoranthene	8270D	1.1	mg/kg dry
8070092-06	P2SB-6 (1-3)	Benzo(k)fluoranthene	8270D	0.48	mg/kg dry
8070092-06	P2SB-6 (1-3)	Bis(2-Ethylhexyl)phthalate	8270D	4.6	mg/kg dry
8070092-06	P2SB-6 (1-3)	Chrysene	8270D	0.90	mg/kg dry
8070092-06	P2SB-6 (1-3)	Dibenzofuran	8270D	0.51	mg/kg dry
8070092-06	P2SB-6 (1-3)	Fluoranthene	8270D	2.4	mg/kg dry
8070092-06	P2SB-6 (1-3)	Fluorene	8270D	0.68	mg/kg dry
8070092-06	P2SB-6 (1-3)	Naphthalene	8270D	1.7	mg/kg dry
8070092-06	P2SB-6 (1-3)	Phenanthrene	8270D	1.9	mg/kg dry
8070092-06	P2SB-6 (1-3)	Pyrene	8270D	2.2	mg/kg dry
8070092-06	P2SB-6 (1-3)	Mercury	7471B	1.7	mg/kg dry
8070092-06	P2SB-6 (1-3)	Antimony	6010D	8.6	mg/kg dry
8070092-06	P2SB-6 (1-3)	Arsenic	6010D	35	mg/kg dry
8070092-06	P2SB-6 (1-3)	Barium	6010D	540	mg/kg dry
8070092-06	P2SB-6 (1-3)	Beryllium	6010D	0.49	DM, J mg/kg dry
8070092-06	P2SB-6 (1-3)	Cadmium	6010D	17	mg/kg dry
8070092-06	P2SB-6 (1-3)	Chromium	6010D	300	mg/kg dry
8070092-06	P2SB-6 (1-3)	Copper	6010D	2300	mg/kg dry
8070092-06	P2SB-6 (1-3)	Lead	6010D	1700	mg/kg dry
8070092-06	P2SB-6 (1-3)	Nickel	6010D	150	mg/kg dry
8070092-06	P2SB-6 (1-3)	Silver	6010D	1.3	DM, J mg/kg dry
8070092-06	P2SB-6 (1-3)	Thallium	6010D	3.5	mg/kg dry
8070092-06	P2SB-6 (1-3)	Zinc	6010D	3800	mg/kg dry
8070092-06	P2SB-6 (1-3)	1,2,4-Trimethylbenzene	8260B	0.082	mg/kg dry
8070092-06	P2SB-6 (1-3)	1,3,5-Trimethylbenzene	8260B	0.041	mg/kg dry
8070092-06	P2SB-6 (1-3)	4-Isopropyltoluene	8260B	0.018	mg/kg dry
8070092-06	P2SB-6 (1-3)	Acetone	8260B	0.31	mg/kg dry
8070092-06	P2SB-6 (1-3)	Isopropylbenzene (Cumene)	8260B	0.013	mg/kg dry
8070092-06	P2SB-6 (1-3)	m,p-Xylenes	8260B	0.14	mg/kg dry
8070092-06	P2SB-6 (1-3)	n-Butylbenzene	8260B	0.0051	J mg/kg dry
8070092-06	P2SB-6 (1-3)	n-Propylbenzene	8260B	0.012	mg/kg dry
8070092-06	P2SB-6 (1-3)	o-Xylene	8260B	0.054	mg/kg dry
8070092-06	P2SB-6 (1-3)	Styrene	8260B	0.0026	J mg/kg dry
8070092-06	P2SB-6 (1-3)	Toluene	8260B	0.022	mg/kg dry
8070092-06	P2SB-6 (1-3)	Xylenes, total	8260B	0.20	mg/kg dry
8070092-06	P2SB-6 (1-3)	Ethylbenzene	8260B	4.7	mg/kg dry
8070092-06	P2SB-6 (1-3)	Naphthalene	8260B	8.7	mg/kg dry
8070092-07	P2SB-7 (3-7)	Mercury	7471B	0.11	mg/kg dry
8070092-07	P2SB-7 (3-7)	Arsenic	6010D	0.77	mg/kg dry
8070092-07	P2SB-7 (3-7)	Barium	6010D	21	mg/kg dry
8070092-07	P2SB-7 (3-7)	Beryllium	6010D	0.67	mg/kg dry
8070092-07	P2SB-7 (3-7)	Cadmium	6010D	0.091	J mg/kg dry
8070092-07	P2SB-7 (3-7)	Chromium	6010D	100	mg/kg dry
8070092-07	P2SB-7 (3-7)	Copper	6010D	42	mg/kg dry
8070092-07	P2SB-7 (3-7)	Lead	6010D	9.6	mg/kg dry

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**Summary of Detections**

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Prism ID	Client ID	Parameter	Method	Result	Units
8070092-07	P2SB-7 (3-7)	Nickel	6010D	8.0	mg/kg dry
8070092-07	P2SB-7 (3-7)	Selenium	6010D	0.33 J	mg/kg dry
8070092-07	P2SB-7 (3-7)	Thallium	6010D	0.95	mg/kg dry
8070092-07	P2SB-7 (3-7)	Zinc	6010D	28	mg/kg dry
8070092-07	P2SB-7 (3-7)	Acetone	8260B	0.012 J	mg/kg dry
8070092-08	P2SB-8 (4-7)	Mercury	7471B	0.029	mg/kg dry
8070092-08	P2SB-8 (4-7)	Barium	6010D	25	mg/kg dry
8070092-08	P2SB-8 (4-7)	Beryllium	6010D	0.78	mg/kg dry
8070092-08	P2SB-8 (4-7)	Cadmium	6010D	0.14 J	mg/kg dry
8070092-08	P2SB-8 (4-7)	Chromium	6010D	69	mg/kg dry
8070092-08	P2SB-8 (4-7)	Copper	6010D	49	mg/kg dry
8070092-08	P2SB-8 (4-7)	Lead	6010D	11	mg/kg dry
8070092-08	P2SB-8 (4-7)	Nickel	6010D	15	mg/kg dry
8070092-08	P2SB-8 (4-7)	Selenium	6010D	1.4	mg/kg dry
8070092-08	P2SB-8 (4-7)	Thallium	6010D	1.5	mg/kg dry
8070092-08	P2SB-8 (4-7)	Zinc	6010D	35	mg/kg dry
8070092-09	P2SB-9 (1-5)	1-Methylnaphthalene	8270D	0.13 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	2-Methylnaphthalene	8270D	0.24 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Anthracene	8270D	0.33 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Benzo(a)anthracene	8270D	0.54	mg/kg dry
8070092-09	P2SB-9 (1-5)	Benzo(a)pyrene	8270D	0.49	mg/kg dry
8070092-09	P2SB-9 (1-5)	Benzo(b)fluoranthene	8270D	0.67	mg/kg dry
8070092-09	P2SB-9 (1-5)	Benzo(g,h,i)perylene	8270D	0.38 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Benzo(k)fluoranthene	8270D	0.27 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Benzoic Acid	8270D	0.21 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Bis(2-Ethylhexyl)phthalate	8270D	0.59	mg/kg dry
8070092-09	P2SB-9 (1-5)	Chrysene	8270D	0.62	mg/kg dry
8070092-09	P2SB-9 (1-5)	Di-n-butyl phthalate	8270D	0.28 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Fluoranthene	8270D	1.2	mg/kg dry
8070092-09	P2SB-9 (1-5)	Indeno(1,2,3-cd)pyrene	8270D	0.36 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Naphthalene	8270D	0.19 J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Phenanthrene	8270D	0.86	mg/kg dry
8070092-09	P2SB-9 (1-5)	Pyrene	8270D	0.94	mg/kg dry
8070092-09	P2SB-9 (1-5)	Mercury	7471B	6.3	mg/kg dry
8070092-09	P2SB-9 (1-5)	Antimony	6010D	4.8	mg/kg dry
8070092-09	P2SB-9 (1-5)	Arsenic	6010D	14	mg/kg dry
8070092-09	P2SB-9 (1-5)	Barium	6010D	220	mg/kg dry
8070092-09	P2SB-9 (1-5)	Beryllium	6010D	0.76 DM, J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Cadmium	6010D	33	mg/kg dry
8070092-09	P2SB-9 (1-5)	Chromium	6010D	170	mg/kg dry
8070092-09	P2SB-9 (1-5)	Copper	6010D	1200	mg/kg dry
8070092-09	P2SB-9 (1-5)	Lead	6010D	1100	mg/kg dry
8070092-09	P2SB-9 (1-5)	Nickel	6010D	150	mg/kg dry
8070092-09	P2SB-9 (1-5)	Silver	6010D	0.56 DM, J	mg/kg dry
8070092-09	P2SB-9 (1-5)	Thallium	6010D	1.8	mg/kg dry

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**Summary of Detections**

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Prism Work Order: 8070092

Prism ID	Client ID	Parameter	Method	Result		Units
8070092-09	P2SB-9 (1-5)	Zinc	6010D	3000		mg/kg dry
8070092-09	P2SB-9 (1-5)	Acetone	8260B	0.39		mg/kg dry
8070092-10	P2SB-10 (4-8)	Mercury	7471B	0.028		mg/kg dry
8070092-10	P2SB-10 (4-8)	Arsenic	6010D	0.45	J	mg/kg dry
8070092-10	P2SB-10 (4-8)	Barium	6010D	39		mg/kg dry
8070092-10	P2SB-10 (4-8)	Beryllium	6010D	0.75		mg/kg dry
8070092-10	P2SB-10 (4-8)	Cadmium	6010D	0.55		mg/kg dry
8070092-10	P2SB-10 (4-8)	Chromium	6010D	40		mg/kg dry
8070092-10	P2SB-10 (4-8)	Copper	6010D	48		mg/kg dry
8070092-10	P2SB-10 (4-8)	Lead	6010D	17		mg/kg dry
8070092-10	P2SB-10 (4-8)	Nickel	6010D	13		mg/kg dry
8070092-10	P2SB-10 (4-8)	Selenium	6010D	0.30	J	mg/kg dry
8070092-10	P2SB-10 (4-8)	Thallium	6010D	1.5		mg/kg dry
8070092-10	P2SB-10 (4-8)	Zinc	6010D	33		mg/kg dry
8070092-10	P2SB-10 (4-8)	Acetone	8260B	0.029	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	1-Methylnaphthalene	8270D	0.18	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	2-Methylnaphthalene	8270D	0.32	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	Acenaphthene	8270D	0.21	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	Dibenzofuran	8270D	0.11	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	Fluorene	8270D	0.13	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	Naphthalene	8270D	0.63		mg/kg dry
8070092-11	P2SB-11 (4-7)	Mercury	7471B	0.052		mg/kg dry
8070092-11	P2SB-11 (4-7)	Arsenic	6010D	0.71		mg/kg dry
8070092-11	P2SB-11 (4-7)	Barium	6010D	44		mg/kg dry
8070092-11	P2SB-11 (4-7)	Beryllium	6010D	0.48		mg/kg dry
8070092-11	P2SB-11 (4-7)	Cadmium	6010D	0.082	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	Chromium	6010D	30		mg/kg dry
8070092-11	P2SB-11 (4-7)	Copper	6010D	25		mg/kg dry
8070092-11	P2SB-11 (4-7)	Lead	6010D	9.6		mg/kg dry
8070092-11	P2SB-11 (4-7)	Nickel	6010D	7.2		mg/kg dry
8070092-11	P2SB-11 (4-7)	Selenium	6010D	0.96		mg/kg dry
8070092-11	P2SB-11 (4-7)	Thallium	6010D	0.81		mg/kg dry
8070092-11	P2SB-11 (4-7)	Zinc	6010D	24		mg/kg dry
8070092-11	P2SB-11 (4-7)	1,2,4-Trimethylbenzene	8260B	0.0036	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	Acetone	8260B	0.058	J	mg/kg dry
8070092-11	P2SB-11 (4-7)	Naphthalene	8260B	1.4		mg/kg dry
8070092-12	P2SB-12( 1-3)	Mercury	7471B	0.089		mg/kg dry
8070092-12	P2SB-12( 1-3)	Arsenic	6010D	2.5		mg/kg dry
8070092-12	P2SB-12( 1-3)	Barium	6010D	42		mg/kg dry
8070092-12	P2SB-12( 1-3)	Beryllium	6010D	0.49		mg/kg dry
8070092-12	P2SB-12( 1-3)	Cadmium	6010D	0.074	J	mg/kg dry
8070092-12	P2SB-12( 1-3)	Chromium	6010D	27		mg/kg dry
8070092-12	P2SB-12( 1-3)	Copper	6010D	29		mg/kg dry
8070092-12	P2SB-12( 1-3)	Lead	6010D	11		mg/kg dry
8070092-12	P2SB-12( 1-3)	Nickel	6010D	8.0		mg/kg dry

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Prism ID	Client ID	Parameter	Method	Result		Units
8070092-12	P2SB-12( 1-3)	Selenium	6010D	0.97		mg/kg dry
8070092-12	P2SB-12( 1-3)	Thallium	6010D	0.71		mg/kg dry
8070092-12	P2SB-12( 1-3)	Zinc	6010D	28		mg/kg dry
8070092-12	P2SB-12( 1-3)	Acetone	8260B	0.027	J	mg/kg dry
8070092-13	P2SB-13 (3-6)	Mercury	7471B	0.016	J	mg/kg dry
8070092-13	P2SB-13 (3-6)	Arsenic	6010D	1.3		mg/kg dry
8070092-13	P2SB-13 (3-6)	Barium	6010D	76		mg/kg dry
8070092-13	P2SB-13 (3-6)	Beryllium	6010D	0.49		mg/kg dry
8070092-13	P2SB-13 (3-6)	Cadmium	6010D	0.24	J	mg/kg dry
8070092-13	P2SB-13 (3-6)	Chromium	6010D	25		mg/kg dry
8070092-13	P2SB-13 (3-6)	Copper	6010D	29		mg/kg dry
8070092-13	P2SB-13 (3-6)	Lead	6010D	26		mg/kg dry
8070092-13	P2SB-13 (3-6)	Nickel	6010D	12		mg/kg dry
8070092-13	P2SB-13 (3-6)	Thallium	6010D	1.1		mg/kg dry
8070092-13	P2SB-13 (3-6)	Zinc	6010D	50		mg/kg dry
8070092-13	P2SB-13 (3-6)	Acetone	8260B	0.044	J	mg/kg dry
8070092-14	P2SB-14 (3-5)	Benzoic Acid	8270D	0.16	J	mg/kg dry
8070092-14	P2SB-14 (3-5)	Mercury	7471B	0.081		mg/kg dry
8070092-14	P2SB-14 (3-5)	Arsenic	6010D	1.4		mg/kg dry
8070092-14	P2SB-14 (3-5)	Barium	6010D	60		mg/kg dry
8070092-14	P2SB-14 (3-5)	Beryllium	6010D	0.48		mg/kg dry
8070092-14	P2SB-14 (3-5)	Cadmium	6010D	0.17	J	mg/kg dry
8070092-14	P2SB-14 (3-5)	Chromium	6010D	35		mg/kg dry
8070092-14	P2SB-14 (3-5)	Copper	6010D	73		mg/kg dry
8070092-14	P2SB-14 (3-5)	Lead	6010D	52		mg/kg dry
8070092-14	P2SB-14 (3-5)	Nickel	6010D	8.5		mg/kg dry
8070092-14	P2SB-14 (3-5)	Selenium	6010D	0.55	J	mg/kg dry
8070092-14	P2SB-14 (3-5)	Thallium	6010D	0.86		mg/kg dry
8070092-14	P2SB-14 (3-5)	Zinc	6010D	38		mg/kg dry
8070092-14	P2SB-14 (3-5)	Acetone	8260B	0.18		mg/kg dry
8070092-15	P2SB-15( 1-3)	Benzoic Acid	8270D	0.15	J	mg/kg dry
8070092-15	P2SB-15( 1-3)	Bis(2-Ethylhexyl)phthalate	8270D	0.25	J	mg/kg dry
8070092-15	P2SB-15( 1-3)	Mercury	7471B	0.45		mg/kg dry
8070092-15	P2SB-15( 1-3)	Arsenic	6010D	2.1		mg/kg dry
8070092-15	P2SB-15( 1-3)	Barium	6010D	85		mg/kg dry
8070092-15	P2SB-15( 1-3)	Beryllium	6010D	0.53		mg/kg dry
8070092-15	P2SB-15( 1-3)	Cadmium	6010D	4.5		mg/kg dry
8070092-15	P2SB-15( 1-3)	Chromium	6010D	87		mg/kg dry
8070092-15	P2SB-15( 1-3)	Copper	6010D	230		mg/kg dry
8070092-15	P2SB-15( 1-3)	Lead	6010D	180		mg/kg dry
8070092-15	P2SB-15( 1-3)	Nickel	6010D	47		mg/kg dry
8070092-15	P2SB-15( 1-3)	Thallium	6010D	1.9		mg/kg dry
8070092-15	P2SB-15( 1-3)	Zinc	6010D	570		mg/kg dry
8070092-15	P2SB-15( 1-3)	Acetone	8260B	0.14		mg/kg dry
8070092-15	P2SB-15( 1-3)	Bromomethane	8260B	0.0026	J	mg/kg dry

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# Summary of Detections

07/13/2018

Prism Work Order: 8070092

Prism ID	Client ID	Parameter	Method	Result	Units
8070092-16	P2SB-16 (5-8)	Mercury	7471B	0.057	mg/kg dry
8070092-16	P2SB-16 (5-8)	Barium	6010D	31	mg/kg dry
8070092-16	P2SB-16 (5-8)	Beryllium	6010D	0.29 J	mg/kg dry
8070092-16	P2SB-16 (5-8)	Cadmium	6010D	0.096 J	mg/kg dry
8070092-16	P2SB-16 (5-8)	Chromium	6010D	34	mg/kg dry
8070092-16	P2SB-16 (5-8)	Copper	6010D	18	mg/kg dry
8070092-16	P2SB-16 (5-8)	Lead	6010D	10	mg/kg dry
8070092-16	P2SB-16 (5-8)	Nickel	6010D	5.8	mg/kg dry
8070092-16	P2SB-16 (5-8)	Thallium	6010D	0.39 J	mg/kg dry
8070092-16	P2SB-16 (5-8)	Zinc	6010D	26	mg/kg dry
8070092-16	P2SB-16 (5-8)	Acetone	8260B	0.017 J	mg/kg dry
8070092-16	P2SB-16 (5-8)	Isopropylbenzene (Cumene)	8260B	0.0059	mg/kg dry

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-1 (1-5)  
Prism Sample ID: 8070092-01  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:00  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	83.0	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 15:32	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 15:32	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:32	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 15:32	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.40	0.077	1	8270D	7/11/18 15:32	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.40	0.075	1	8270D	7/11/18 15:32	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.40	0.077	1	8270D	7/11/18 15:32	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 15:32	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:32	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 15:32	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 15:32	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 15:32	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:32	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 15:32	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.40	0.051	1	8270D	7/11/18 15:32	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.40	0.072	1	8270D	7/11/18 15:32	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.40	0.079	1	8270D	7/11/18 15:32	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 15:32	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 15:32	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.40	0.068	1	8270D	7/11/18 15:32	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:32	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 15:32	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:32	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 15:32	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 15:32	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 15:32	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 15:32	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 15:32	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:32	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.40	0.043	1	8270D	7/11/18 15:32	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.40	0.046	1	8270D	7/11/18 15:32	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.40	0.044	1	8270D	7/11/18 15:32	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:32	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.40	0.034	1	8270D	7/11/18 15:32	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:32	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.40	0.069	1	8270D	7/11/18 15:32	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:32	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.40	0.068	1	8270D	7/11/18 15:32	JMV	P8G0123
<b>Bis(2-Ethylhexyl)phthalate</b>	<b>4.4</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.059</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 15:32</b>	<b>JMV</b>	<b>P8G0123</b>

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-1 (1-5)  
Prism Sample ID: 8070092-01  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:00  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 15:32	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.40	0.050	1	8270D	7/11/18 15:32	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 15:32	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 15:32	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.40	0.055	1	8270D	7/11/18 15:32	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 15:32	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 15:32	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 15:32	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.40	0.051	1	8270D	7/11/18 15:32	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 15:32	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.40	0.063	1	8270D	7/11/18 15:32	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.40	0.071	1	8270D	7/11/18 15:32	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.40	0.071	1	8270D	7/11/18 15:32	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.40	0.067	1	8270D	7/11/18 15:32	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.40	0.046	1	8270D	7/11/18 15:32	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 15:32	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 15:32	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 15:32	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.40	0.063	1	8270D	7/11/18 15:32	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 15:32	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.40	0.047	1	8270D	7/11/18 15:32	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:32	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.40	0.059	1	8270D	7/11/18 15:32	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 15:32	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	48 %	39-132
2-Fluorobiphenyl	49 %	44-115
2-Fluorophenol	51 %	35-115
Nitrobenzene-d5	26 %	37-122 Aa
Phenol-d5	47 %	34-121
Terphenyl-d14	44 %	54-127 Aa

**Total Metals**

Mercury	0.14	mg/kg dry	0.024	0.0023	1	7471B	7/11/18 13:09	JAB	P8G0125
Antimony	15	mg/kg dry	3.0	0.30	10	6010D	7/12/18 14:42	JAB	P8G0126
Arsenic	4.1	mg/kg dry	3.0	0.18	5	6010D	7/12/18 14:50	JAB	P8G0126
Barium	130	mg/kg dry	3.0	0.44	5	6010D	7/12/18 14:50	JAB	P8G0126
Beryllium	0.35 DM, J	mg/kg dry	1.5	0.033	5	6010D	7/12/18 14:50	JAB	P8G0126
Cadmium	5.6	mg/kg dry	3.0	0.081	10	6010D	7/12/18 14:42	JAB	P8G0126
Chromium	440	mg/kg dry	3.0	0.50	10	6010D	7/12/18 14:42	JAB	P8G0126
Copper	440	mg/kg dry	6.0	0.54	10	6010D	7/12/18 14:42	JAB	P8G0126
Lead	530	mg/kg dry	3.0	0.56	10	6010D	7/12/18 14:42	JAB	P8G0126
Nickel	240	mg/kg dry	6.0	0.22	10	6010D	7/12/18 14:42	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-1 (1-5)  
Prism Sample ID: 8070092-01  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:00  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL DM	mg/kg dry	3.0	0.71	5	6010D	7/12/18 14:50	JAB	P8G0126
<b>Silver</b>	<b>1.8</b>	<b>mg/kg dry</b>	<b>1.5</b>	<b>0.037</b>	<b>5</b>	<b>6010D</b>	<b>7/12/18 14:50</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Thallium</b>	<b>1.1</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.079</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 15:08</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>1200</b>	<b>mg/kg dry</b>	<b>30</b>	<b>1.1</b>	<b>10</b>	<b>6010D</b>	<b>7/12/18 14:42</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.011	0.00091	1	8260B	7/11/18 1:47	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.011	0.00054	1	8260B	7/11/18 1:47	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.011	0.00075	1	8260B	7/11/18 1:47	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.011	0.00098	1	8260B	7/11/18 1:47	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.011	0.00031	1	8260B	7/11/18 1:47	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.011	0.00049	1	8260B	7/11/18 1:47	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.011	0.00061	1	8260B	7/11/18 1:47	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.011	0.00063	1	8260B	7/11/18 1:47	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.011	0.0014	1	8260B	7/11/18 1:47	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.011	0.00082	1	8260B	7/11/18 1:47	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.011	0.00085	1	8260B	7/11/18 1:47	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.011	0.00045	1	8260B	7/11/18 1:47	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.011	0.00052	1	8260B	7/11/18 1:47	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.011	0.00066	1	8260B	7/11/18 1:47	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.011	0.00069	1	8260B	7/11/18 1:47	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.011	0.00084	1	8260B	7/11/18 1:47	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.011	0.00073	1	8260B	7/11/18 1:47	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.011	0.00056	1	8260B	7/11/18 1:47	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.011	0.00044	1	8260B	7/11/18 1:47	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.011	0.00053	1	8260B	7/11/18 1:47	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.011	0.00057	1	8260B	7/11/18 1:47	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.011	0.00066	1	8260B	7/11/18 1:47	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.011	0.00053	1	8260B	7/11/18 1:47	ANG	P8G0116
<b>Acetone</b>	<b>0.39</b>	<b>mg/kg dry</b>	<b>0.11</b>	<b>0.0027</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 1:47</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0066	0.00064	1	8260B	7/11/18 1:47	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.011	0.00092	1	8260B	7/11/18 1:47	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.011	0.00061	1	8260B	7/11/18 1:47	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.011	0.00062	1	8260B	7/11/18 1:47	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.011	0.0013	1	8260B	7/11/18 1:47	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.022	0.0014	1	8260B	7/11/18 1:47	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.011	0.00055	1	8260B	7/11/18 1:47	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.011	0.00059	1	8260B	7/11/18 1:47	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.022	0.00092	1	8260B	7/11/18 1:47	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.011	0.00080	1	8260B	7/11/18 1:47	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.011	0.00074	1	8260B	7/11/18 1:47	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.011	0.00047	1	8260B	7/11/18 1:47	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.011	0.00037	1	8260B	7/11/18 1:47	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.011	0.00046	1	8260B	7/11/18 1:47	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-1 (1-5)  
 Prism Sample ID: 8070092-01  
 Prism Work Order: 8070092  
 Time Collected: 07/09/18 12:00  
 Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.011	0.00050	1	8260B	7/11/18 1:47	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.011	0.00043	1	8260B	7/11/18 1:47	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.011	0.00045	1	8260B	7/11/18 1:47	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.011	0.00066	1	8260B	7/11/18 1:47	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.022	0.0010	1	8260B	7/11/18 1:47	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.11	0.0010	1	8260B	7/11/18 1:47	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.22	0.0010	1	8260B	7/11/18 1:47	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.11	0.00094	1	8260B	7/11/18 1:47	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.022	0.00062	1	8260B	7/11/18 1:47	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.022	0.00035	1	8260B	7/11/18 1:47	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.022	0.00035	1	8260B	7/11/18 1:47	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.011	0.00056	1	8260B	7/11/18 1:47	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.011	0.00066	1	8260B	7/11/18 1:47	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.011	0.00045	1	8260B	7/11/18 1:47	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.011	0.00054	1	8260B	7/11/18 1:47	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.011	0.00067	1	8260B	7/11/18 1:47	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.011	0.00037	1	8260B	7/11/18 1:47	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.011	0.00053	1	8260B	7/11/18 1:47	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.011	0.00064	1	8260B	7/11/18 1:47	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.011	0.00066	1	8260B	7/11/18 1:47	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.011	0.00058	1	8260B	7/11/18 1:47	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.011	0.00072	1	8260B	7/11/18 1:47	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.011	0.00072	1	8260B	7/11/18 1:47	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.055	0.0015	1	8260B	7/11/18 1:47	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.011	0.00054	1	8260B	7/11/18 1:47	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.033	0.0021	1	8260B	7/11/18 1:47	ANG	P8G0116
						Surrogate	Recovery	Control Limits	
						4-Bromofluorobenzene	110 %	70-130	
						Dibromofluoromethane	110 %	84-123	
						Toluene-d8	120 %	76-129	

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-2 (1-5)  
Prism Sample ID: 8070092-02  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:30  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	81.2	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.41	0.063	1	8270D	7/11/18 16:41	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.41	0.062	1	8270D	7/11/18 16:41	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.41	0.057	1	8270D	7/11/18 16:41	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 16:41	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.41	0.078	1	8270D	7/11/18 16:41	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.41	0.076	1	8270D	7/11/18 16:41	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.41	0.078	1	8270D	7/11/18 16:41	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.41	0.062	1	8270D	7/11/18 16:41	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/11/18 16:41	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.41	0.049	1	8270D	7/11/18 16:41	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 16:41	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 16:41	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 16:41	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/11/18 16:41	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.41	0.052	1	8270D	7/11/18 16:41	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.41	0.074	1	8270D	7/11/18 16:41	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.41	0.080	1	8270D	7/11/18 16:41	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 16:41	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.41	0.061	1	8270D	7/11/18 16:41	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/11/18 16:41	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/11/18 16:41	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.41	0.049	1	8270D	7/11/18 16:41	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.41	0.053	1	8270D	7/11/18 16:41	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/11/18 16:41	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.41	0.055	1	8270D	7/11/18 16:41	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Anthracene</b>	<b>0.28 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.065</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
Azobenzene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Benzo(a)anthracene</b>	<b>0.20 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.053</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
<b>Benzo(a)pyrene</b>	<b>0.18 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.044</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
<b>Benzo(b)fluoranthene</b>	<b>0.33 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.047</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
<b>Benzo(g,h,i)perylene</b>	<b>0.16 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.045</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
Benzo(k)fluoranthene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Benzoic Acid</b>	<b>0.90</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.034</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
Benzyl alcohol	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 16:41	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.41	0.070	1	8270D	7/11/18 16:41	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.41	0.057	1	8270D	7/11/18 16:41	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.41	0.069	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Bis(2-Ethylhexyl)phthalate</b>	<b>1.0</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.060</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-2 (1-5)  
Prism Sample ID: 8070092-02  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:30  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Chrysene</b>	<b>0.30 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.051</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.41	0.049	1	8270D	7/11/18 16:41	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.41	0.062	1	8270D	7/11/18 16:41	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.41	0.056	1	8270D	7/11/18 16:41	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Di-n-butyl phthalate</b>	<b>0.26 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.058</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
Di-n-octyl phthalate	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Fluoranthene</b>	<b>0.37 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.052</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
Fluorene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 16:41	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.41	0.064	1	8270D	7/11/18 16:41	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.41	0.073	1	8270D	7/11/18 16:41	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.41	0.072	1	8270D	7/11/18 16:41	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.41	0.068	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Indeno(1,2,3-cd)pyrene</b>	<b>0.15 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.047</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
Isophorone	BRL	mg/kg dry	0.41	0.055	1	8270D	7/11/18 16:41	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/11/18 16:41	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 16:41	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.41	0.064	1	8270D	7/11/18 16:41	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.41	0.062	1	8270D	7/11/18 16:41	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.41	0.048	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Phenanthrene</b>	<b>0.34 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.053</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
Phenol	BRL	mg/kg dry	0.41	0.060	1	8270D	7/11/18 16:41	JMV	P8G0123
<b>Pyrene</b>	<b>0.32 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.054</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 16:41</b>	<b>JMV</b>	<b>P8G0123</b>
						Surrogate	Recovery	Control Limits	
						2,4,6-Tribromophenol	59 %	39-132	
						2-Fluorobiphenyl	61 %	44-115	
						2-Fluorophenol	62 %	35-115	
						Nitrobenzene-d5	53 %	37-122	
						Phenol-d5	57 %	34-121	
						Terphenyl-d14	55 %	54-127	

## Total Metals

Mercury	1.3	mg/kg dry	0.12	0.012	5	7471B	7/11/18 13:29	JAB	P8G0125
Antimony	4.6	mg/kg dry	1.5	0.15	5	6010D	7/12/18 15:15	JAB	P8G0126
Arsenic	11	mg/kg dry	3.0	0.19	5	6010D	7/12/18 15:15	JAB	P8G0126
Barium	260	mg/kg dry	61	8.9	100	6010D	7/12/18 14:58	JAB	P8G0126
Beryllium	0.31 DM, J	mg/kg dry	1.5	0.034	5	6010D	7/12/18 15:15	JAB	P8G0126
Cadmium	26	mg/kg dry	1.5	0.041	5	6010D	7/12/18 15:15	JAB	P8G0126
Chromium	190	mg/kg dry	1.5	0.25	5	6010D	7/12/18 15:15	JAB	P8G0126
Copper	17000	mg/kg dry	120	11	200	6010D	7/13/18 13:38	JAB	P8G0126
Lead	740	mg/kg dry	3.0	0.57	10	6010D	7/12/18 15:07	JAB	P8G0126
Nickel	130	mg/kg dry	0.61	0.022	1	6010D	7/11/18 15:35	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-2 (1-5)  
Prism Sample ID: 8070092-02  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:30  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>2.5 DM, J</b>	<b>mg/kg dry</b>	<b>3.0</b>	<b>0.72</b>	<b>5</b>	<b>6010D</b>	<b>7/12/18 15:15</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL DM	mg/kg dry	1.5	0.038	5	6010D	7/12/18 15:15	JAB	P8G0126
<b>Thallium</b>	<b>2.2</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.080</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 15:35</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>3400</b>	<b>mg/kg dry</b>	<b>300</b>	<b>11</b>	<b>100</b>	<b>6010D</b>	<b>7/12/18 14:58</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0054	0.00045	1	8260B	7/11/18 2:15	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 2:15	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0054	0.00037	1	8260B	7/11/18 2:15	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0054	0.00048	1	8260B	7/11/18 2:15	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0054	0.00015	1	8260B	7/11/18 2:15	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00024	1	8260B	7/11/18 2:15	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00030	1	8260B	7/11/18 2:15	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0054	0.00031	1	8260B	7/11/18 2:15	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0054	0.00070	1	8260B	7/11/18 2:15	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0054	0.00041	1	8260B	7/11/18 2:15	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0054	0.00042	1	8260B	7/11/18 2:15	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/11/18 2:15	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 2:15	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 2:15	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0054	0.00034	1	8260B	7/11/18 2:15	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0054	0.00041	1	8260B	7/11/18 2:15	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00036	1	8260B	7/11/18 2:15	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0054	0.00027	1	8260B	7/11/18 2:15	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00021	1	8260B	7/11/18 2:15	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 2:15	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0054	0.00028	1	8260B	7/11/18 2:15	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 2:15	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 2:15	ANG	P8G0116
<b>Acetone</b>	<b>0.24</b>	<b>mg/kg dry</b>	<b>0.054</b>	<b>0.0013</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 2:15</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0033	0.00032	1	8260B	7/11/18 2:15	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0054	0.00045	1	8260B	7/11/18 2:15	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0054	0.00030	1	8260B	7/11/18 2:15	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0054	0.00030	1	8260B	7/11/18 2:15	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0054	0.00062	1	8260B	7/11/18 2:15	ANG	P8G0116
<b>Bromomethane</b>	<b>0.0043 J</b>	<b>mg/kg dry</b>	<b>0.011</b>	<b>0.00067</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 2:15</b>	<b>ANG</b>	<b>P8G0116</b>
Carbon Tetrachloride	BRL	mg/kg dry	0.0054	0.00027	1	8260B	7/11/18 2:15	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0054	0.00029	1	8260B	7/11/18 2:15	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.011	0.00045	1	8260B	7/11/18 2:15	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0054	0.00039	1	8260B	7/11/18 2:15	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0054	0.00037	1	8260B	7/11/18 2:15	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00023	1	8260B	7/11/18 2:15	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00018	1	8260B	7/11/18 2:15	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/11/18 2:15	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-2 (1-5)  
 Prism Sample ID: 8070092-02  
 Prism Work Order: 8070092  
 Time Collected: 07/09/18 12:30  
 Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0054	0.00025	1	8260B	7/11/18 2:15	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0054	0.00021	1	8260B	7/11/18 2:15	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/11/18 2:15	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 2:15	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.011	0.00050	1	8260B	7/11/18 2:15	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.054	0.00049	1	8260B	7/11/18 2:15	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.11	0.00049	1	8260B	7/11/18 2:15	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.054	0.00046	1	8260B	7/11/18 2:15	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.011	0.00031	1	8260B	7/11/18 2:15	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.011	0.00017	1	8260B	7/11/18 2:15	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.011	0.00017	1	8260B	7/11/18 2:15	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0054	0.00028	1	8260B	7/11/18 2:15	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 2:15	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/11/18 2:15	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 2:15	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0054	0.00033	1	8260B	7/11/18 2:15	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0054	0.00018	1	8260B	7/11/18 2:15	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 2:15	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0054	0.00031	1	8260B	7/11/18 2:15	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00033	1	8260B	7/11/18 2:15	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00029	1	8260B	7/11/18 2:15	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0054	0.00035	1	8260B	7/11/18 2:15	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0054	0.00035	1	8260B	7/11/18 2:15	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.027	0.00075	1	8260B	7/11/18 2:15	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 2:15	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.016	0.0010	1	8260B	7/11/18 2:15	ANG	P8G0116
			Surrogate			Recovery		Control Limits	
			4-Bromofluorobenzene			111 %		70-130	
			Dibromofluoromethane			117 %		84-123	
			Toluene-d8			119 %		76-129	

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-3 (6-9)  
Prism Sample ID: 8070092-03  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	78.9	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.42	0.065	1	8270D	7/11/18 11:22	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.42	0.063	1	8270D	7/11/18 11:22	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 11:22	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.42	0.061	1	8270D	7/11/18 11:22	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.42	0.080	1	8270D	7/11/18 11:22	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.42	0.078	1	8270D	7/11/18 11:22	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.42	0.081	1	8270D	7/11/18 11:22	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.42	0.064	1	8270D	7/11/18 11:22	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.42	0.058	1	8270D	7/11/18 11:22	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.42	0.051	1	8270D	7/11/18 11:22	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.42	0.056	1	8270D	7/11/18 11:22	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.42	0.060	1	8270D	7/11/18 11:22	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 11:22	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.42	0.067	1	8270D	7/11/18 11:22	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.42	0.054	1	8270D	7/11/18 11:22	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.42	0.076	1	8270D	7/11/18 11:22	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.42	0.083	1	8270D	7/11/18 11:22	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.42	0.052	1	8270D	7/11/18 11:22	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.42	0.063	1	8270D	7/11/18 11:22	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.42	0.072	1	8270D	7/11/18 11:22	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 11:22	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.42	0.050	1	8270D	7/11/18 11:22	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.42	0.054	1	8270D	7/11/18 11:22	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.42	0.064	1	8270D	7/11/18 11:22	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.42	0.057	1	8270D	7/11/18 11:22	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.42	0.060	1	8270D	7/11/18 11:22	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.42	0.067	1	8270D	7/11/18 11:22	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 11:22	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 11:22	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.42	0.045	1	8270D	7/11/18 11:22	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.42	0.048	1	8270D	7/11/18 11:22	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.42	0.046	1	8270D	7/11/18 11:22	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 11:22	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.42	0.035	1	8270D	7/11/18 11:22	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 11:22	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.42	0.073	1	8270D	7/11/18 11:22	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 11:22	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.42	0.071	1	8270D	7/11/18 11:22	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.42	0.062	1	8270D	7/11/18 11:22	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-3 (6-9)  
Prism Sample ID: 8070092-03  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 11:22	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.42	0.053	1	8270D	7/11/18 11:22	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.42	0.051	1	8270D	7/11/18 11:22	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.42	0.064	1	8270D	7/11/18 11:22	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.42	0.058	1	8270D	7/11/18 11:22	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 11:22	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 11:22	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.42	0.051	1	8270D	7/11/18 11:22	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.42	0.053	1	8270D	7/11/18 11:22	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.42	0.060	1	8270D	7/11/18 11:22	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.42	0.066	1	8270D	7/11/18 11:22	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.42	0.075	1	8270D	7/11/18 11:22	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.42	0.075	1	8270D	7/11/18 11:22	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.42	0.070	1	8270D	7/11/18 11:22	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.42	0.048	1	8270D	7/11/18 11:22	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.42	0.057	1	8270D	7/11/18 11:22	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.42	0.067	1	8270D	7/11/18 11:22	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 11:22	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.42	0.066	1	8270D	7/11/18 11:22	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.42	0.064	1	8270D	7/11/18 11:22	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.42	0.049	1	8270D	7/11/18 11:22	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.42	0.054	1	8270D	7/11/18 11:22	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.42	0.062	1	8270D	7/11/18 11:22	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 11:22	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	62 %	39-132
2-Fluorobiphenyl	61 %	44-115
2-Fluorophenol	64 %	35-115
Nitrobenzene-d5	51 %	37-122
Phenol-d5	59 %	34-121
Terphenyl-d14	63 %	54-127

**Total Metals**

Mercury	0.17	mg/kg dry	0.025	0.0023	1	7471B	7/11/18 13:33	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.32	0.032	1	6010D	7/11/18 15:44	JAB	P8G0126
Arsenic	1.2	mg/kg dry	0.63	0.039	1	6010D	7/11/18 15:44	JAB	P8G0126
Barium	30	mg/kg dry	0.63	0.092	1	6010D	7/11/18 15:44	JAB	P8G0126
Beryllium	0.67	mg/kg dry	0.32	0.0070	1	6010D	7/11/18 15:44	JAB	P8G0126
Cadmium	0.11 J	mg/kg dry	0.32	0.0085	1	6010D	7/11/18 15:44	JAB	P8G0126
Chromium	54	mg/kg dry	0.32	0.053	1	6010D	7/11/18 15:44	JAB	P8G0126
Copper	43	mg/kg dry	0.63	0.057	1	6010D	7/11/18 15:44	JAB	P8G0126
Lead	11	mg/kg dry	0.32	0.059	1	6010D	7/11/18 15:44	JAB	P8G0126
Nickel	9.5	mg/kg dry	0.63	0.023	1	6010D	7/11/18 15:44	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-3 (6-9)  
Prism Sample ID: 8070092-03  
Prism Work Order: 8070092  
Time Collected: 07/09/18 12:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>1.3</b>	<b>mg/kg dry</b>	<b>0.63</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 15:44</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.32	0.0079	1	6010D	7/11/18 15:44	JAB	P8G0126
<b>Thallium</b>	<b>0.72</b>	<b>mg/kg dry</b>	<b>0.63</b>	<b>0.083</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 15:44</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>32</b>	<b>mg/kg dry</b>	<b>3.2</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 15:44</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0051	0.00042	1	8260B	7/11/18 2:44	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0051	0.00025	1	8260B	7/11/18 2:44	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0051	0.00035	1	8260B	7/11/18 2:44	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0051	0.00046	1	8260B	7/11/18 2:44	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0051	0.00014	1	8260B	7/11/18 2:44	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0051	0.00023	1	8260B	7/11/18 2:44	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0051	0.00028	1	8260B	7/11/18 2:44	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0051	0.00029	1	8260B	7/11/18 2:44	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0051	0.00066	1	8260B	7/11/18 2:44	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0051	0.00038	1	8260B	7/11/18 2:44	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0051	0.00039	1	8260B	7/11/18 2:44	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0051	0.00021	1	8260B	7/11/18 2:44	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0051	0.00024	1	8260B	7/11/18 2:44	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0051	0.00031	1	8260B	7/11/18 2:44	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0051	0.00032	1	8260B	7/11/18 2:44	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0051	0.00039	1	8260B	7/11/18 2:44	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0051	0.00034	1	8260B	7/11/18 2:44	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0051	0.00026	1	8260B	7/11/18 2:44	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0051	0.00020	1	8260B	7/11/18 2:44	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0051	0.00024	1	8260B	7/11/18 2:44	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0051	0.00027	1	8260B	7/11/18 2:44	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0051	0.00031	1	8260B	7/11/18 2:44	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0051	0.00025	1	8260B	7/11/18 2:44	ANG	P8G0116
<b>Acetone</b>	<b>0.048 J</b>	<b>mg/kg dry</b>	<b>0.051</b>	<b>0.0013</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 2:44</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0031	0.00030	1	8260B	7/11/18 2:44	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0051	0.00043	1	8260B	7/11/18 2:44	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0051	0.00028	1	8260B	7/11/18 2:44	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0051	0.00029	1	8260B	7/11/18 2:44	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0051	0.00058	1	8260B	7/11/18 2:44	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.010	0.00063	1	8260B	7/11/18 2:44	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0051	0.00026	1	8260B	7/11/18 2:44	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0051	0.00027	1	8260B	7/11/18 2:44	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.010	0.00043	1	8260B	7/11/18 2:44	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0051	0.00037	1	8260B	7/11/18 2:44	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0051	0.00035	1	8260B	7/11/18 2:44	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0051	0.00022	1	8260B	7/11/18 2:44	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0051	0.00017	1	8260B	7/11/18 2:44	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0051	0.00021	1	8260B	7/11/18 2:44	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-3 (6-9)

Prism Sample ID: 8070092-03

Prism Work Order: 8070092

Time Collected: 07/09/18 12:45

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0051	0.00023	1	8260B	7/11/18 2:44	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0051	0.00020	1	8260B	7/11/18 2:44	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0051	0.00021	1	8260B	7/11/18 2:44	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0051	0.00030	1	8260B	7/11/18 2:44	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.010	0.00047	1	8260B	7/11/18 2:44	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.051	0.00047	1	8260B	7/11/18 2:44	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.10	0.00047	1	8260B	7/11/18 2:44	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.051	0.00044	1	8260B	7/11/18 2:44	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.010	0.00029	1	8260B	7/11/18 2:44	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.010	0.00016	1	8260B	7/11/18 2:44	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.010	0.00016	1	8260B	7/11/18 2:44	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0051	0.00026	1	8260B	7/11/18 2:44	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0051	0.00031	1	8260B	7/11/18 2:44	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0051	0.00021	1	8260B	7/11/18 2:44	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0051	0.00025	1	8260B	7/11/18 2:44	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0051	0.00031	1	8260B	7/11/18 2:44	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0051	0.00017	1	8260B	7/11/18 2:44	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0051	0.00024	1	8260B	7/11/18 2:44	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0051	0.00030	1	8260B	7/11/18 2:44	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0051	0.00031	1	8260B	7/11/18 2:44	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0051	0.00027	1	8260B	7/11/18 2:44	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0051	0.00033	1	8260B	7/11/18 2:44	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0051	0.00033	1	8260B	7/11/18 2:44	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.026	0.00070	1	8260B	7/11/18 2:44	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0051	0.00025	1	8260B	7/11/18 2:44	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.015	0.00096	1	8260B	7/11/18 2:44	ANG	P8G0116

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	103 %	70-130
Dibromofluoromethane	109 %	84-123
Toluene-d8	118 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-4 (6-9)  
 Prism Sample ID: 8070092-04  
 Prism Work Order: 8070092  
 Time Collected: 07/09/18 13:00  
 Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.7	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.41	0.064	1	8270D	7/11/18 11:45	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.41	0.062	1	8270D	7/11/18 11:45	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.41	0.057	1	8270D	7/11/18 11:45	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/11/18 11:45	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.41	0.079	1	8270D	7/11/18 11:45	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.41	0.077	1	8270D	7/11/18 11:45	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.41	0.079	1	8270D	7/11/18 11:45	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/11/18 11:45	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/11/18 11:45	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 11:45	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 11:45	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 11:45	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 11:45	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/11/18 11:45	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.41	0.052	1	8270D	7/11/18 11:45	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.41	0.074	1	8270D	7/11/18 11:45	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.41	0.081	1	8270D	7/11/18 11:45	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 11:45	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.41	0.061	1	8270D	7/11/18 11:45	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/11/18 11:45	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/11/18 11:45	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.41	0.049	1	8270D	7/11/18 11:45	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.41	0.053	1	8270D	7/11/18 11:45	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/11/18 11:45	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.41	0.056	1	8270D	7/11/18 11:45	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 11:45	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/11/18 11:45	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 11:45	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/11/18 11:45	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.41	0.044	1	8270D	7/11/18 11:45	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/11/18 11:45	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.41	0.045	1	8270D	7/11/18 11:45	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 11:45	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.41	0.034	1	8270D	7/11/18 11:45	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 11:45	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.41	0.071	1	8270D	7/11/18 11:45	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 11:45	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/11/18 11:45	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.41	0.061	1	8270D	7/11/18 11:45	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-4 (6-9)  
Prism Sample ID: 8070092-04  
Prism Work Order: 8070092  
Time Collected: 07/09/18 13:00  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 11:45	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.41	0.051	1	8270D	7/11/18 11:45	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 11:45	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.41	0.062	1	8270D	7/11/18 11:45	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.41	0.056	1	8270D	7/11/18 11:45	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 11:45	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 11:45	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 11:45	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.41	0.052	1	8270D	7/11/18 11:45	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 11:45	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/11/18 11:45	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.41	0.073	1	8270D	7/11/18 11:45	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.41	0.073	1	8270D	7/11/18 11:45	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.41	0.068	1	8270D	7/11/18 11:45	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/11/18 11:45	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.41	0.055	1	8270D	7/11/18 11:45	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/11/18 11:45	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 11:45	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.41	0.064	1	8270D	7/11/18 11:45	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.41	0.062	1	8270D	7/11/18 11:45	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.41	0.048	1	8270D	7/11/18 11:45	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/11/18 11:45	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.41	0.060	1	8270D	7/11/18 11:45	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 11:45	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	65 %	39-132
2-Fluorobiphenyl	62 %	44-115
2-Fluorophenol	60 %	35-115
Nitrobenzene-d5	51 %	37-122
Phenol-d5	57 %	34-121
Terphenyl-d14	65 %	54-127

**Total Metals**

Mercury	0.028	mg/kg dry	0.024	0.0023	1	7471B	7/11/18 13:38	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.31	0.031	1	6010D	7/11/18 15:53	JAB	P8G0126
Arsenic	0.38 J	mg/kg dry	0.61	0.037	1	6010D	7/11/18 15:53	JAB	P8G0126
Barium	29	mg/kg dry	0.61	0.089	1	6010D	7/11/18 15:53	JAB	P8G0126
Beryllium	0.45	mg/kg dry	0.31	0.0067	1	6010D	7/11/18 15:53	JAB	P8G0126
Cadmium	0.072 J	mg/kg dry	0.31	0.0082	1	6010D	7/11/18 15:53	JAB	P8G0126
Chromium	36	mg/kg dry	0.31	0.051	1	6010D	7/11/18 15:53	JAB	P8G0126
Copper	34	mg/kg dry	0.61	0.055	1	6010D	7/11/18 15:53	JAB	P8G0126
Lead	8.6	mg/kg dry	0.31	0.057	1	6010D	7/11/18 15:53	JAB	P8G0126
Nickel	8.1	mg/kg dry	0.61	0.022	1	6010D	7/11/18 15:53	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-4 (6-9)  
Prism Sample ID: 8070092-04  
Prism Work Order: 8070092  
Time Collected: 07/09/18 13:00  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.42 J</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 15:53</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.31	0.0076	1	6010D	7/11/18 15:53	JAB	P8G0126
<b>Thallium</b>	<b>0.52 J</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.080</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 15:53</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>28</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 15:53</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0047	0.00039	1	8260B	7/11/18 3:12	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/11/18 3:12	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0047	0.00032	1	8260B	7/11/18 3:12	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0047	0.00042	1	8260B	7/11/18 3:12	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0047	0.00013	1	8260B	7/11/18 3:12	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0047	0.00021	1	8260B	7/11/18 3:12	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00026	1	8260B	7/11/18 3:12	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0047	0.00027	1	8260B	7/11/18 3:12	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0047	0.00060	1	8260B	7/11/18 3:12	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0047	0.00035	1	8260B	7/11/18 3:12	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0047	0.00036	1	8260B	7/11/18 3:12	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0047	0.00019	1	8260B	7/11/18 3:12	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.00022	1	8260B	7/11/18 3:12	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/11/18 3:12	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0047	0.00029	1	8260B	7/11/18 3:12	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0047	0.00035	1	8260B	7/11/18 3:12	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.00031	1	8260B	7/11/18 3:12	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0047	0.00024	1	8260B	7/11/18 3:12	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.00018	1	8260B	7/11/18 3:12	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0047	0.00022	1	8260B	7/11/18 3:12	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0047	0.00024	1	8260B	7/11/18 3:12	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/11/18 3:12	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/11/18 3:12	ANG	P8G0116
<b>Acetone</b>	<b>0.0019 J</b>	<b>mg/kg dry</b>	<b>0.047</b>	<b>0.0011</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 3:12</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0028	0.00027	1	8260B	7/11/18 3:12	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0047	0.00039	1	8260B	7/11/18 3:12	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0047	0.00026	1	8260B	7/11/18 3:12	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0047	0.00026	1	8260B	7/11/18 3:12	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0047	0.00053	1	8260B	7/11/18 3:12	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.0094	0.00058	1	8260B	7/11/18 3:12	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/11/18 3:12	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0047	0.00025	1	8260B	7/11/18 3:12	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.0094	0.00039	1	8260B	7/11/18 3:12	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0047	0.00034	1	8260B	7/11/18 3:12	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0047	0.00031	1	8260B	7/11/18 3:12	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0047	0.00020	1	8260B	7/11/18 3:12	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00016	1	8260B	7/11/18 3:12	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0047	0.00019	1	8260B	7/11/18 3:12	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-4 (6-9)  
 Prism Sample ID: 8070092-04  
 Prism Work Order: 8070092  
 Time Collected: 07/09/18 13:00  
 Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0047	0.00021	1	8260B	7/11/18 3:12	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0047	0.00018	1	8260B	7/11/18 3:12	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0047	0.00019	1	8260B	7/11/18 3:12	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/11/18 3:12	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.0094	0.00043	1	8260B	7/11/18 3:12	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.047	0.00042	1	8260B	7/11/18 3:12	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.094	0.00042	1	8260B	7/11/18 3:12	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.047	0.00040	1	8260B	7/11/18 3:12	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.0094	0.00026	1	8260B	7/11/18 3:12	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0094	0.00015	1	8260B	7/11/18 3:12	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.0094	0.00015	1	8260B	7/11/18 3:12	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0047	0.00024	1	8260B	7/11/18 3:12	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/11/18 3:12	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0047	0.00019	1	8260B	7/11/18 3:12	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/11/18 3:12	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/11/18 3:12	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0047	0.00016	1	8260B	7/11/18 3:12	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0047	0.00022	1	8260B	7/11/18 3:12	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0047	0.00027	1	8260B	7/11/18 3:12	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/11/18 3:12	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00025	1	8260B	7/11/18 3:12	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0047	0.00030	1	8260B	7/11/18 3:12	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0047	0.00030	1	8260B	7/11/18 3:12	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.023	0.00064	1	8260B	7/11/18 3:12	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/11/18 3:12	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.014	0.00088	1	8260B	7/11/18 3:12	ANG	P8G0116

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	103 %	70-130
Dibromofluoromethane	111 %	84-123
Toluene-d8	119 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-5 (4-7)  
 Prism Sample ID: 8070092-05  
 Prism Work Order: 8070092  
 Time Collected: 07/09/18 13:30  
 Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.0	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.41	0.064	1	8270D	7/11/18 12:08	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.41	0.063	1	8270D	7/11/18 12:08	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 12:08	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/11/18 12:08	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.41	0.079	1	8270D	7/11/18 12:08	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.41	0.077	1	8270D	7/11/18 12:08	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.41	0.080	1	8270D	7/11/18 12:08	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/11/18 12:08	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 12:08	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 12:08	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.41	0.055	1	8270D	7/11/18 12:08	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/11/18 12:08	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 12:08	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/11/18 12:08	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.41	0.053	1	8270D	7/11/18 12:08	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.41	0.075	1	8270D	7/11/18 12:08	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.41	0.081	1	8270D	7/11/18 12:08	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.41	0.051	1	8270D	7/11/18 12:08	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.41	0.062	1	8270D	7/11/18 12:08	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.41	0.071	1	8270D	7/11/18 12:08	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 12:08	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 12:08	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 12:08	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.41	0.064	1	8270D	7/11/18 12:08	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.41	0.056	1	8270D	7/11/18 12:08	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/11/18 12:08	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/11/18 12:08	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 12:08	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 12:08	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.41	0.045	1	8270D	7/11/18 12:08	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.41	0.048	1	8270D	7/11/18 12:08	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.41	0.045	1	8270D	7/11/18 12:08	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 12:08	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.41	0.035	1	8270D	7/11/18 12:08	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 12:08	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.41	0.072	1	8270D	7/11/18 12:08	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.41	0.058	1	8270D	7/11/18 12:08	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/11/18 12:08	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.41	0.061	1	8270D	7/11/18 12:08	JMV	P8G0123

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-5 (4-7)  
Prism Sample ID: 8070092-05  
Prism Work Order: 8070092  
Time Collected: 07/09/18 13:30  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 12:08	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.41	0.052	1	8270D	7/11/18 12:08	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/11/18 12:08	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.41	0.063	1	8270D	7/11/18 12:08	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.41	0.057	1	8270D	7/11/18 12:08	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 12:08	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 12:08	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.41	0.051	1	8270D	7/11/18 12:08	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/11/18 12:08	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 12:08	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/11/18 12:08	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.41	0.074	1	8270D	7/11/18 12:08	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.41	0.074	1	8270D	7/11/18 12:08	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.41	0.069	1	8270D	7/11/18 12:08	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/11/18 12:08	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.41	0.056	1	8270D	7/11/18 12:08	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/11/18 12:08	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/11/18 12:08	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.41	0.065	1	8270D	7/11/18 12:08	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.41	0.063	1	8270D	7/11/18 12:08	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.41	0.049	1	8270D	7/11/18 12:08	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/11/18 12:08	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.41	0.061	1	8270D	7/11/18 12:08	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.41	0.055	1	8270D	7/11/18 12:08	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	58 %	39-132
2-Fluorobiphenyl	55 %	44-115
2-Fluorophenol	53 %	35-115
Nitrobenzene-d5	45 %	37-122
Phenol-d5	52 %	34-121
Terphenyl-d14	60 %	54-127

**Total Metals**

Mercury	0.12	mg/kg dry	0.024	0.0023	1	7471B	7/11/18 13:42	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.31	0.031	1	6010D	7/11/18 16:01	JAB	P8G0126
Arsenic	BRL	mg/kg dry	0.63	0.038	1	6010D	7/11/18 16:01	JAB	P8G0126
Barium	23	mg/kg dry	0.63	0.091	1	6010D	7/11/18 16:01	JAB	P8G0126
Beryllium	0.53	mg/kg dry	0.31	0.0069	1	6010D	7/11/18 16:01	JAB	P8G0126
Cadmium	0.075 J	mg/kg dry	0.31	0.0084	1	6010D	7/11/18 16:01	JAB	P8G0126
Chromium	42	mg/kg dry	0.31	0.052	1	6010D	7/11/18 16:01	JAB	P8G0126
Copper	38	mg/kg dry	0.63	0.057	1	6010D	7/11/18 16:01	JAB	P8G0126
Lead	8.1	mg/kg dry	0.31	0.058	1	6010D	7/11/18 16:01	JAB	P8G0126
Nickel	7.4	mg/kg dry	0.63	0.023	1	6010D	7/11/18 16:01	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-5 (4-7)  
Prism Sample ID: 8070092-05  
Prism Work Order: 8070092  
Time Collected: 07/09/18 13:30  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>1.6</b>	<b>mg/kg dry</b>	<b>0.63</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:01</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.31	0.0078	1	6010D	7/11/18 16:01	JAB	P8G0126
<b>Thallium</b>	<b>0.80</b>	<b>mg/kg dry</b>	<b>0.63</b>	<b>0.082</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:01</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>21</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:01</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0057	0.00047	1	8260B	7/11/18 3:40	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0057	0.00027	1	8260B	7/11/18 3:40	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0057	0.00038	1	8260B	7/11/18 3:40	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0057	0.00050	1	8260B	7/11/18 3:40	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0057	0.00016	1	8260B	7/11/18 3:40	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0057	0.00025	1	8260B	7/11/18 3:40	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0057	0.00031	1	8260B	7/11/18 3:40	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0057	0.00032	1	8260B	7/11/18 3:40	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0057	0.00072	1	8260B	7/11/18 3:40	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0057	0.00042	1	8260B	7/11/18 3:40	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0057	0.00043	1	8260B	7/11/18 3:40	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0057	0.00023	1	8260B	7/11/18 3:40	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0057	0.00027	1	8260B	7/11/18 3:40	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0057	0.00034	1	8260B	7/11/18 3:40	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0057	0.00035	1	8260B	7/11/18 3:40	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0057	0.00043	1	8260B	7/11/18 3:40	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0057	0.00038	1	8260B	7/11/18 3:40	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0057	0.00028	1	8260B	7/11/18 3:40	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0057	0.00022	1	8260B	7/11/18 3:40	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0057	0.00027	1	8260B	7/11/18 3:40	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0057	0.00029	1	8260B	7/11/18 3:40	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0057	0.00034	1	8260B	7/11/18 3:40	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0057	0.00027	1	8260B	7/11/18 3:40	ANG	P8G0116
<b>Acetone</b>	<b>0.0097 J</b>	<b>mg/kg dry</b>	<b>0.057</b>	<b>0.0014</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 3:40</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0034	0.00033	1	8260B	7/11/18 3:40	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0057	0.00047	1	8260B	7/11/18 3:40	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0057	0.00031	1	8260B	7/11/18 3:40	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0057	0.00032	1	8260B	7/11/18 3:40	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0057	0.00064	1	8260B	7/11/18 3:40	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.011	0.00070	1	8260B	7/11/18 3:40	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0057	0.00028	1	8260B	7/11/18 3:40	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0057	0.00030	1	8260B	7/11/18 3:40	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.011	0.00047	1	8260B	7/11/18 3:40	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0057	0.00041	1	8260B	7/11/18 3:40	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0057	0.00038	1	8260B	7/11/18 3:40	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0057	0.00024	1	8260B	7/11/18 3:40	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0057	0.00019	1	8260B	7/11/18 3:40	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0057	0.00023	1	8260B	7/11/18 3:40	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-5 (4-7)  
 Prism Sample ID: 8070092-05  
 Prism Work Order: 8070092  
 Time Collected: 07/09/18 13:30  
 Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0057	0.00026	1	8260B	7/11/18 3:40	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0057	0.00022	1	8260B	7/11/18 3:40	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0057	0.00023	1	8260B	7/11/18 3:40	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0057	0.00034	1	8260B	7/11/18 3:40	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.011	0.00052	1	8260B	7/11/18 3:40	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.057	0.00051	1	8260B	7/11/18 3:40	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.11	0.00051	1	8260B	7/11/18 3:40	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.057	0.00048	1	8260B	7/11/18 3:40	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.011	0.00032	1	8260B	7/11/18 3:40	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.011	0.00018	1	8260B	7/11/18 3:40	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.011	0.00018	1	8260B	7/11/18 3:40	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0057	0.00029	1	8260B	7/11/18 3:40	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0057	0.00034	1	8260B	7/11/18 3:40	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0057	0.00023	1	8260B	7/11/18 3:40	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0057	0.00027	1	8260B	7/11/18 3:40	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0057	0.00034	1	8260B	7/11/18 3:40	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0057	0.00019	1	8260B	7/11/18 3:40	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0057	0.00027	1	8260B	7/11/18 3:40	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0057	0.00033	1	8260B	7/11/18 3:40	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0057	0.00034	1	8260B	7/11/18 3:40	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0057	0.00030	1	8260B	7/11/18 3:40	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0057	0.00037	1	8260B	7/11/18 3:40	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0057	0.00037	1	8260B	7/11/18 3:40	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.028	0.00078	1	8260B	7/11/18 3:40	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0057	0.00027	1	8260B	7/11/18 3:40	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.017	0.0011	1	8260B	7/11/18 3:40	ANG	P8G0116
			Surrogate			Recovery		Control Limits	
			4-Bromofluorobenzene			105 %		70-130	
			Dibromofluoromethane			110 %		84-123	
			Toluene-d8			121 %		76-129	

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-6 (1-3)  
Prism Sample ID: 8070092-06  
Prism Work Order: 8070092  
Time Collected: 07/09/18 14:20  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	81.6	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.40	0.063	1	8270D	7/11/18 17:04	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 17:04	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:04	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.40	0.059	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>1-Methylnaphthalene</b>	<b>0.29 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.078</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.40	0.076	1	8270D	7/11/18 17:04	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.40	0.078	1	8270D	7/11/18 17:04	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 17:04	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 17:04	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 17:04	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 17:04	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.40	0.059	1	8270D	7/11/18 17:04	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>2-Methylnaphthalene</b>	<b>0.57</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.065</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
2-Methylphenol	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 17:04	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.40	0.074	1	8270D	7/11/18 17:04	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.40	0.080	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>3/4-Methylphenol</b>	<b>0.15 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.050</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 17:04	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.40	0.069	1	8270D	7/11/18 17:04	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:04	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 17:04	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:04	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Acenaphthene</b>	<b>0.42</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.055</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
<b>Acenaphthylene</b>	<b>0.23 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.059</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
<b>Anthracene</b>	<b>1.2</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.065</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
Azobenzene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Benzo(a)anthracene</b>	<b>0.95</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.053</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
<b>Benzo(a)pyrene</b>	<b>0.73</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.044</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
<b>Benzo(b)fluoranthene</b>	<b>1.1</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.047</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.40	0.044	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Benzo(k)fluoranthene</b>	<b>0.48</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.053</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
Benzoic Acid	BRL	mg/kg dry	0.40	0.034	1	8270D	7/11/18 17:04	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:04	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.40	0.070	1	8270D	7/11/18 17:04	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:04	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.40	0.069	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Bis(2-Ethylhexyl)phthalate</b>	<b>4.6</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.060</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-6 (1-3)  
Prism Sample ID: 8070092-06  
Prism Work Order: 8070092  
Time Collected: 07/09/18 14:20  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Chrysene</b>	<b>0.90</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.051</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Dibenzofuran</b>	<b>0.51</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.061</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
Diethyl phthalate	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 17:04	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:04	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:04	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.40	0.050	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Fluoranthene</b>	<b>2.4</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.052</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
<b>Fluorene</b>	<b>0.68</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.058</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
Hexachlorobenzene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 17:04	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.40	0.073	1	8270D	7/11/18 17:04	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.40	0.072	1	8270D	7/11/18 17:04	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.40	0.068	1	8270D	7/11/18 17:04	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.40	0.046	1	8270D	7/11/18 17:04	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.40	0.055	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Naphthalene</b>	<b>1.7</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.065</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
Nitrobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:04	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 17:04	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 17:04	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Phenanthrene</b>	<b>1.9</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.053</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
Phenol	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 17:04	JMV	P8G0123
<b>Pyrene</b>	<b>2.2</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.054</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:04</b>	<b>JMV</b>	<b>P8G0123</b>
						Surrogate	Recovery	Control Limits	
						2,4,6-Tribromophenol	20 %	39-132	Aa
						2-Fluorobiphenyl	19 %	44-115	Aa
						2-Fluorophenol	19 %	35-115	Aa
						Nitrobenzene-d5	13 %	37-122	Aa
						Phenol-d5	19 %	34-121	Aa
						Terphenyl-d14	21 %	54-127	Aa

**Total Metals**

Mercury	1.7	mg/kg dry	0.12	0.011	5	7471B	7/11/18 13:53	JAB	P8G0125
Antimony	8.6	mg/kg dry	1.5	0.15	5	6010D	7/12/18 15:42	JAB	P8G0126
Arsenic	35	mg/kg dry	6.1	0.37	10	6010D	7/12/18 15:33	JAB	P8G0126
Barium	540	mg/kg dry	3.1	0.45	5	6010D	7/12/18 15:42	JAB	P8G0126
Beryllium	0.49 DM, J	mg/kg dry	1.5	0.034	5	6010D	7/12/18 15:42	JAB	P8G0126
Cadmium	17	mg/kg dry	3.1	0.082	10	6010D	7/12/18 15:33	JAB	P8G0126
Chromium	300	mg/kg dry	1.5	0.26	5	6010D	7/12/18 15:42	JAB	P8G0126
Copper	2300	mg/kg dry	31	2.8	50	6010D	7/12/18 15:25	JAB	P8G0126
Lead	1700	mg/kg dry	15	2.8	50	6010D	7/12/18 15:25	JAB	P8G0126
Nickel	150	mg/kg dry	0.61	0.022	1	6010D	7/11/18 16:09	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-6 (1-3)

Prism Sample ID: 8070092-06

Prism Work Order: 8070092

Time Collected: 07/09/18 14:20

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL DM	mg/kg dry	3.1	0.73	5	6010D	7/12/18 15:42	JAB	P8G0126
<b>Silver</b>	<b>1.3 DM, J</b>	<b>mg/kg dry</b>	<b>1.5</b>	<b>0.038</b>	<b>5</b>	<b>6010D</b>	<b>7/12/18 15:42</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Thallium</b>	<b>3.5</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.080</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>3800</b>	<b>mg/kg dry</b>	<b>150</b>	<b>5.5</b>	<b>50</b>	<b>6010D</b>	<b>7/12/18 15:25</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0064	0.00053	1	8260B	7/11/18 7:56	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 7:56	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0064	0.00043	1	8260B	7/11/18 7:56	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0064	0.00057	1	8260B	7/11/18 7:56	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0064	0.00018	1	8260B	7/11/18 7:56	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0064	0.00028	1	8260B	7/11/18 7:56	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0064	0.00035	1	8260B	7/11/18 7:56	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0064	0.00036	1	8260B	7/11/18 7:56	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0064	0.00082	1	8260B	7/11/18 7:56	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0064	0.00048	1	8260B	7/11/18 7:56	ANG	P8G0116
<b>1,2,4-Trimethylbenzene</b>	<b>0.082</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00049</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
1,2-Dibromoethane	BRL	mg/kg dry	0.0064	0.00026	1	8260B	7/11/18 7:56	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0064	0.00030	1	8260B	7/11/18 7:56	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0064	0.00038	1	8260B	7/11/18 7:56	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0064	0.00040	1	8260B	7/11/18 7:56	ANG	P8G0116
<b>1,3,5-Trimethylbenzene</b>	<b>0.041</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00049</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0064	0.00043	1	8260B	7/11/18 7:56	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0064	0.00032	1	8260B	7/11/18 7:56	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0064	0.00025	1	8260B	7/11/18 7:56	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 7:56	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0064	0.00033	1	8260B	7/11/18 7:56	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0064	0.00038	1	8260B	7/11/18 7:56	ANG	P8G0116
<b>4-Isopropyltoluene</b>	<b>0.018</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00031</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
<b>Acetone</b>	<b>0.31</b>	<b>mg/kg dry</b>	<b>0.064</b>	<b>0.0016</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0039	0.00037	1	8260B	7/11/18 7:56	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0064	0.00054	1	8260B	7/11/18 7:56	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0064	0.00035	1	8260B	7/11/18 7:56	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0064	0.00036	1	8260B	7/11/18 7:56	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0064	0.00073	1	8260B	7/11/18 7:56	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.013	0.00079	1	8260B	7/11/18 7:56	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0064	0.00032	1	8260B	7/11/18 7:56	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0064	0.00034	1	8260B	7/11/18 7:56	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.013	0.00054	1	8260B	7/11/18 7:56	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0064	0.00046	1	8260B	7/11/18 7:56	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0064	0.00043	1	8260B	7/11/18 7:56	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0064	0.00027	1	8260B	7/11/18 7:56	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0064	0.00022	1	8260B	7/11/18 7:56	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0064	0.00026	1	8260B	7/11/18 7:56	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-6 (1-3)

Prism Sample ID: 8070092-06

Prism Work Order: 8070092

Time Collected: 07/09/18 14:20

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0064	0.00029	1	8260B	7/11/18 7:56	ANG	P8G0116
Ethylbenzene	See 8260ML	mg/kg dry	0.0064	0.00025	1	8260B	7/11/18 7:56	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0064	0.00026	1	8260B	7/11/18 7:56	ANG	P8G0116
<b>Isopropylbenzene (Cumene)</b>	<b>0.013</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00038</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
<b>m,p-Xylenes</b>	<b>0.14</b>	<b>mg/kg dry</b>	<b>0.013</b>	<b>0.00059</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.064	0.00058	1	8260B	7/11/18 7:56	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.13	0.00058	1	8260B	7/11/18 7:56	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.064	0.00055	1	8260B	7/11/18 7:56	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.013	0.00036	1	8260B	7/11/18 7:56	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.013	0.00021	1	8260B	7/11/18 7:56	ANG	P8G0116
Naphthalene	See 8260ML	mg/kg dry	0.013	0.00020	1	8260B	7/11/18 7:56	ANG	P8G0116
<b>n-Butylbenzene</b>	<b>0.0051 J</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00033</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
<b>n-Propylbenzene</b>	<b>0.012</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00038</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
<b>o-Xylene</b>	<b>0.054</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00026</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
sec-Butylbenzene	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 7:56	ANG	P8G0116
<b>Styrene</b>	<b>0.0026 J</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00039</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
tert-Butylbenzene	BRL	mg/kg dry	0.0064	0.00022	1	8260B	7/11/18 7:56	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 7:56	ANG	P8G0116
<b>Toluene</b>	<b>0.022</b>	<b>mg/kg dry</b>	<b>0.0064</b>	<b>0.00037</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0064	0.00038	1	8260B	7/11/18 7:56	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0064	0.00034	1	8260B	7/11/18 7:56	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0064	0.00042	1	8260B	7/11/18 7:56	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0064	0.00041	1	8260B	7/11/18 7:56	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.032	0.00088	1	8260B	7/11/18 7:56	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 7:56	ANG	P8G0116
<b>Xylenes, total</b>	<b>0.20</b>	<b>mg/kg dry</b>	<b>0.019</b>	<b>0.0012</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:56</b>	<b>ANG</b>	<b>P8G0116</b>

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	128 %	70-130
Dibromofluoromethane	105 %	84-123
Toluene-d8	133 %	76-129 A

## Volatile Organic Compounds by GC/MS (Medium Level)

Ethylbenzene	4.7	mg/kg dry	0.32	0.073	50	8260B	7/12/18 4:25	ANG	P8G0158
Naphthalene	8.7	mg/kg dry	0.64	0.049	50	8260B	7/12/18 4:25	ANG	P8G0158

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	124 %	70-130
Dibromofluoromethane	95 %	70-130
Toluene-d8	94 %	70-130

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-7 (3-7)  
Prism Sample ID: 8070092-07  
Prism Work Order: 8070092  
Time Collected: 07/09/18 14:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	78.3	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.42	0.066	1	8270D	7/11/18 12:30	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.42	0.064	1	8270D	7/11/18 12:30	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 12:30	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.42	0.062	1	8270D	7/11/18 12:30	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.42	0.081	1	8270D	7/11/18 12:30	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.42	0.079	1	8270D	7/11/18 12:30	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.42	0.081	1	8270D	7/11/18 12:30	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.42	0.065	1	8270D	7/11/18 12:30	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 12:30	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.42	0.051	1	8270D	7/11/18 12:30	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.42	0.056	1	8270D	7/11/18 12:30	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.42	0.061	1	8270D	7/11/18 12:30	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.42	0.060	1	8270D	7/11/18 12:30	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.42	0.067	1	8270D	7/11/18 12:30	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.42	0.054	1	8270D	7/11/18 12:30	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.42	0.077	1	8270D	7/11/18 12:30	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.42	0.083	1	8270D	7/11/18 12:30	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.42	0.052	1	8270D	7/11/18 12:30	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.42	0.063	1	8270D	7/11/18 12:30	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.42	0.072	1	8270D	7/11/18 12:30	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 12:30	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.42	0.051	1	8270D	7/11/18 12:30	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 12:30	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.42	0.065	1	8270D	7/11/18 12:30	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.42	0.057	1	8270D	7/11/18 12:30	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.42	0.061	1	8270D	7/11/18 12:30	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.42	0.068	1	8270D	7/11/18 12:30	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.42	0.056	1	8270D	7/11/18 12:30	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 12:30	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.42	0.046	1	8270D	7/11/18 12:30	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.42	0.049	1	8270D	7/11/18 12:30	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.42	0.046	1	8270D	7/11/18 12:30	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 12:30	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.42	0.035	1	8270D	7/11/18 12:30	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 12:30	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.42	0.073	1	8270D	7/11/18 12:30	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.42	0.059	1	8270D	7/11/18 12:30	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.42	0.072	1	8270D	7/11/18 12:30	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.42	0.062	1	8270D	7/11/18 12:30	JMV	P8G0123

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-7 (3-7)  
Prism Sample ID: 8070092-07  
Prism Work Order: 8070092  
Time Collected: 07/09/18 14:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.42	0.060	1	8270D	7/11/18 12:30	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.42	0.053	1	8270D	7/11/18 12:30	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.42	0.051	1	8270D	7/11/18 12:30	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.42	0.064	1	8270D	7/11/18 12:30	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.42	0.058	1	8270D	7/11/18 12:30	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.42	0.056	1	8270D	7/11/18 12:30	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.42	0.060	1	8270D	7/11/18 12:30	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.42	0.052	1	8270D	7/11/18 12:30	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.42	0.054	1	8270D	7/11/18 12:30	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.42	0.060	1	8270D	7/11/18 12:30	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.42	0.067	1	8270D	7/11/18 12:30	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.42	0.076	1	8270D	7/11/18 12:30	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.42	0.075	1	8270D	7/11/18 12:30	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.42	0.071	1	8270D	7/11/18 12:30	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.42	0.048	1	8270D	7/11/18 12:30	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.42	0.057	1	8270D	7/11/18 12:30	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.42	0.068	1	8270D	7/11/18 12:30	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.42	0.060	1	8270D	7/11/18 12:30	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.42	0.066	1	8270D	7/11/18 12:30	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.42	0.064	1	8270D	7/11/18 12:30	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.42	0.050	1	8270D	7/11/18 12:30	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.42	0.055	1	8270D	7/11/18 12:30	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.42	0.062	1	8270D	7/11/18 12:30	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.42	0.056	1	8270D	7/11/18 12:30	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	62 %	39-132
2-Fluorobiphenyl	60 %	44-115
2-Fluorophenol	61 %	35-115
Nitrobenzene-d5	51 %	37-122
Phenol-d5	56 %	34-121
Terphenyl-d14	64 %	54-127

**Total Metals**

Mercury	0.11	mg/kg dry	0.025	0.0023	1	7471B	7/11/18 13:57	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.32	0.032	1	6010D	7/11/18 16:19	JAB	P8G0126
Arsenic	0.77	mg/kg dry	0.64	0.039	1	6010D	7/11/18 16:19	JAB	P8G0126
Barium	21	mg/kg dry	0.64	0.093	1	6010D	7/11/18 16:19	JAB	P8G0126
Beryllium	0.67	mg/kg dry	0.32	0.0070	1	6010D	7/11/18 16:19	JAB	P8G0126
Cadmium	0.091 J	mg/kg dry	0.32	0.0085	1	6010D	7/11/18 16:19	JAB	P8G0126
Chromium	100	mg/kg dry	0.32	0.053	1	6010D	7/11/18 16:19	JAB	P8G0126
Copper	42	mg/kg dry	0.64	0.057	1	6010D	7/11/18 16:19	JAB	P8G0126
Lead	9.6	mg/kg dry	0.32	0.059	1	6010D	7/11/18 16:19	JAB	P8G0126
Nickel	8.0	mg/kg dry	0.64	0.023	1	6010D	7/11/18 16:19	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-7 (3-7)

Prism Sample ID: 8070092-07

Prism Work Order: 8070092

Time Collected: 07/09/18 14:45

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.33 J</b>	<b>mg/kg dry</b>	<b>0.64</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:19</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.32	0.0079	1	6010D	7/11/18 16:19	JAB	P8G0126
<b>Thallium</b>	<b>0.95</b>	<b>mg/kg dry</b>	<b>0.64</b>	<b>0.083</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:19</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>28</b>	<b>mg/kg dry</b>	<b>3.2</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:19</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0068	0.00056	1	8260B	7/11/18 4:09	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0068	0.00033	1	8260B	7/11/18 4:09	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0068	0.00046	1	8260B	7/11/18 4:09	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0068	0.00060	1	8260B	7/11/18 4:09	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0068	0.00019	1	8260B	7/11/18 4:09	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0068	0.00030	1	8260B	7/11/18 4:09	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0068	0.00037	1	8260B	7/11/18 4:09	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0068	0.00039	1	8260B	7/11/18 4:09	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0068	0.00087	1	8260B	7/11/18 4:09	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0068	0.00051	1	8260B	7/11/18 4:09	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0068	0.00052	1	8260B	7/11/18 4:09	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0068	0.00027	1	8260B	7/11/18 4:09	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0068	0.00032	1	8260B	7/11/18 4:09	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0068	0.00041	1	8260B	7/11/18 4:09	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0068	0.00042	1	8260B	7/11/18 4:09	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0068	0.00052	1	8260B	7/11/18 4:09	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0068	0.00045	1	8260B	7/11/18 4:09	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0068	0.00034	1	8260B	7/11/18 4:09	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0068	0.00027	1	8260B	7/11/18 4:09	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0068	0.00032	1	8260B	7/11/18 4:09	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0068	0.00035	1	8260B	7/11/18 4:09	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0068	0.00041	1	8260B	7/11/18 4:09	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0068	0.00033	1	8260B	7/11/18 4:09	ANG	P8G0116
<b>Acetone</b>	<b>0.012 J</b>	<b>mg/kg dry</b>	<b>0.068</b>	<b>0.0017</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 4:09</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0041	0.00040	1	8260B	7/11/18 4:09	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0068	0.00057	1	8260B	7/11/18 4:09	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0068	0.00038	1	8260B	7/11/18 4:09	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0068	0.00038	1	8260B	7/11/18 4:09	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0068	0.00077	1	8260B	7/11/18 4:09	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.014	0.00084	1	8260B	7/11/18 4:09	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0068	0.00034	1	8260B	7/11/18 4:09	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0068	0.00036	1	8260B	7/11/18 4:09	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.014	0.00057	1	8260B	7/11/18 4:09	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0068	0.00049	1	8260B	7/11/18 4:09	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0068	0.00046	1	8260B	7/11/18 4:09	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0068	0.00029	1	8260B	7/11/18 4:09	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0068	0.00023	1	8260B	7/11/18 4:09	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0068	0.00028	1	8260B	7/11/18 4:09	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-7 (3-7)

Prism Sample ID: 8070092-07

Prism Work Order: 8070092

Time Collected: 07/09/18 14:45

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0068	0.00031	1	8260B	7/11/18 4:09	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0068	0.00026	1	8260B	7/11/18 4:09	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0068	0.00028	1	8260B	7/11/18 4:09	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0068	0.00040	1	8260B	7/11/18 4:09	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.014	0.00063	1	8260B	7/11/18 4:09	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.068	0.00062	1	8260B	7/11/18 4:09	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.14	0.00062	1	8260B	7/11/18 4:09	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.068	0.00058	1	8260B	7/11/18 4:09	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.014	0.00038	1	8260B	7/11/18 4:09	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.014	0.00022	1	8260B	7/11/18 4:09	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.014	0.00022	1	8260B	7/11/18 4:09	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0068	0.00035	1	8260B	7/11/18 4:09	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0068	0.00041	1	8260B	7/11/18 4:09	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0068	0.00028	1	8260B	7/11/18 4:09	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0068	0.00033	1	8260B	7/11/18 4:09	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0068	0.00041	1	8260B	7/11/18 4:09	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0068	0.00023	1	8260B	7/11/18 4:09	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0068	0.00032	1	8260B	7/11/18 4:09	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0068	0.00039	1	8260B	7/11/18 4:09	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0068	0.00041	1	8260B	7/11/18 4:09	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0068	0.00036	1	8260B	7/11/18 4:09	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0068	0.00044	1	8260B	7/11/18 4:09	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0068	0.00044	1	8260B	7/11/18 4:09	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.034	0.00093	1	8260B	7/11/18 4:09	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0068	0.00033	1	8260B	7/11/18 4:09	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.020	0.0013	1	8260B	7/11/18 4:09	ANG	P8G0116

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	106 %	70-130
Dibromofluoromethane	99 %	84-123
Toluene-d8	120 %	76-129

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-8 (4-7)  
Prism Sample ID: 8070092-08  
Prism Work Order: 8070092  
Time Collected: 07/09/18 15:15  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	77.0	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.43	0.067	1	8270D	7/11/18 12:53	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.43	0.065	1	8270D	7/11/18 12:53	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.43	0.060	1	8270D	7/11/18 12:53	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.43	0.063	1	8270D	7/11/18 12:53	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.43	0.082	1	8270D	7/11/18 12:53	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.43	0.080	1	8270D	7/11/18 12:53	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.43	0.083	1	8270D	7/11/18 12:53	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.43	0.066	1	8270D	7/11/18 12:53	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.43	0.060	1	8270D	7/11/18 12:53	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.43	0.052	1	8270D	7/11/18 12:53	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.43	0.057	1	8270D	7/11/18 12:53	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.43	0.062	1	8270D	7/11/18 12:53	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 12:53	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.43	0.068	1	8270D	7/11/18 12:53	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.43	0.055	1	8270D	7/11/18 12:53	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.43	0.078	1	8270D	7/11/18 12:53	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.43	0.084	1	8270D	7/11/18 12:53	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.43	0.053	1	8270D	7/11/18 12:53	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.43	0.064	1	8270D	7/11/18 12:53	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.43	0.073	1	8270D	7/11/18 12:53	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.43	0.060	1	8270D	7/11/18 12:53	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.43	0.051	1	8270D	7/11/18 12:53	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 12:53	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.43	0.066	1	8270D	7/11/18 12:53	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.43	0.058	1	8270D	7/11/18 12:53	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.43	0.062	1	8270D	7/11/18 12:53	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.43	0.069	1	8270D	7/11/18 12:53	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 12:53	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 12:53	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.43	0.046	1	8270D	7/11/18 12:53	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.43	0.050	1	8270D	7/11/18 12:53	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.43	0.047	1	8270D	7/11/18 12:53	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 12:53	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.43	0.036	1	8270D	7/11/18 12:53	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 12:53	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.43	0.074	1	8270D	7/11/18 12:53	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.43	0.060	1	8270D	7/11/18 12:53	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.43	0.073	1	8270D	7/11/18 12:53	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.43	0.063	1	8270D	7/11/18 12:53	JMV	P8G0123

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-8 (4-7)  
Prism Sample ID: 8070092-08  
Prism Work Order: 8070092  
Time Collected: 07/09/18 15:15  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 12:53	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.43	0.054	1	8270D	7/11/18 12:53	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.43	0.052	1	8270D	7/11/18 12:53	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.43	0.065	1	8270D	7/11/18 12:53	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.43	0.059	1	8270D	7/11/18 12:53	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 12:53	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 12:53	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.43	0.053	1	8270D	7/11/18 12:53	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.43	0.055	1	8270D	7/11/18 12:53	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 12:53	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.43	0.068	1	8270D	7/11/18 12:53	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.43	0.077	1	8270D	7/11/18 12:53	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.43	0.076	1	8270D	7/11/18 12:53	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.43	0.072	1	8270D	7/11/18 12:53	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.43	0.049	1	8270D	7/11/18 12:53	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.43	0.058	1	8270D	7/11/18 12:53	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.43	0.069	1	8270D	7/11/18 12:53	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 12:53	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.43	0.067	1	8270D	7/11/18 12:53	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.43	0.065	1	8270D	7/11/18 12:53	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.43	0.051	1	8270D	7/11/18 12:53	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 12:53	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.43	0.063	1	8270D	7/11/18 12:53	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.43	0.057	1	8270D	7/11/18 12:53	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	58 %	39-132
2-Fluorobiphenyl	56 %	44-115
2-Fluorophenol	57 %	35-115
Nitrobenzene-d5	48 %	37-122
Phenol-d5	54 %	34-121
Terphenyl-d14	61 %	54-127

## Total Metals

Mercury	0.029	mg/kg dry	0.026	0.0025	1	7471B	7/11/18 14:02	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.32	0.032	1	6010D	7/11/18 16:28	JAB	P8G0126
Arsenic	BRL	mg/kg dry	0.65	0.039	1	6010D	7/11/18 16:28	JAB	P8G0126
Barium	25	mg/kg dry	0.65	0.094	1	6010D	7/11/18 16:28	JAB	P8G0126
Beryllium	0.78	mg/kg dry	0.32	0.0071	1	6010D	7/11/18 16:28	JAB	P8G0126
Cadmium	0.14 J	mg/kg dry	0.32	0.0087	1	6010D	7/11/18 16:28	JAB	P8G0126
Chromium	69	mg/kg dry	0.32	0.054	1	6010D	7/11/18 16:28	JAB	P8G0126
Copper	49	mg/kg dry	0.65	0.058	1	6010D	7/11/18 16:28	JAB	P8G0126
Lead	11	mg/kg dry	0.32	0.060	1	6010D	7/11/18 16:28	JAB	P8G0126
Nickel	15	mg/kg dry	0.65	0.023	1	6010D	7/11/18 16:28	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-8 (4-7)

Prism Sample ID: 8070092-08

Prism Work Order: 8070092

Time Collected: 07/09/18 15:15

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>1.4</b>	<b>mg/kg dry</b>	<b>0.65</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:28</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.32	0.0080	1	6010D	7/11/18 16:28	JAB	P8G0126
<b>Thallium</b>	<b>1.5</b>	<b>mg/kg dry</b>	<b>0.65</b>	<b>0.085</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:28</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>35</b>	<b>mg/kg dry</b>	<b>3.2</b>	<b>0.12</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:28</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0068	0.00056	1	8260B	7/11/18 4:37	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0068	0.00033	1	8260B	7/11/18 4:37	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0068	0.00046	1	8260B	7/11/18 4:37	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0068	0.00060	1	8260B	7/11/18 4:37	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0068	0.00019	1	8260B	7/11/18 4:37	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0068	0.00030	1	8260B	7/11/18 4:37	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0068	0.00037	1	8260B	7/11/18 4:37	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0068	0.00039	1	8260B	7/11/18 4:37	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0068	0.00087	1	8260B	7/11/18 4:37	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0068	0.00051	1	8260B	7/11/18 4:37	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0068	0.00052	1	8260B	7/11/18 4:37	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0068	0.00027	1	8260B	7/11/18 4:37	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0068	0.00032	1	8260B	7/11/18 4:37	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0068	0.00040	1	8260B	7/11/18 4:37	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0068	0.00042	1	8260B	7/11/18 4:37	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0068	0.00051	1	8260B	7/11/18 4:37	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0068	0.00045	1	8260B	7/11/18 4:37	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0068	0.00034	1	8260B	7/11/18 4:37	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0068	0.00027	1	8260B	7/11/18 4:37	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0068	0.00032	1	8260B	7/11/18 4:37	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0068	0.00035	1	8260B	7/11/18 4:37	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0068	0.00040	1	8260B	7/11/18 4:37	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0068	0.00033	1	8260B	7/11/18 4:37	ANG	P8G0116
Acetone	BRL	mg/kg dry	0.068	0.0017	1	8260B	7/11/18 4:37	ANG	P8G0116
Benzene	BRL	mg/kg dry	0.0041	0.00040	1	8260B	7/11/18 4:37	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0068	0.00057	1	8260B	7/11/18 4:37	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0068	0.00037	1	8260B	7/11/18 4:37	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0068	0.00038	1	8260B	7/11/18 4:37	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0068	0.00077	1	8260B	7/11/18 4:37	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.014	0.00084	1	8260B	7/11/18 4:37	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0068	0.00034	1	8260B	7/11/18 4:37	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0068	0.00036	1	8260B	7/11/18 4:37	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.014	0.00057	1	8260B	7/11/18 4:37	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0068	0.00049	1	8260B	7/11/18 4:37	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0068	0.00046	1	8260B	7/11/18 4:37	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0068	0.00029	1	8260B	7/11/18 4:37	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0068	0.00023	1	8260B	7/11/18 4:37	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0068	0.00028	1	8260B	7/11/18 4:37	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-8 (4-7)

Prism Sample ID: 8070092-08

Prism Work Order: 8070092

Time Collected: 07/09/18 15:15

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0068	0.00031	1	8260B	7/11/18 4:37	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0068	0.00026	1	8260B	7/11/18 4:37	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0068	0.00028	1	8260B	7/11/18 4:37	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0068	0.00040	1	8260B	7/11/18 4:37	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.014	0.00063	1	8260B	7/11/18 4:37	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.068	0.00061	1	8260B	7/11/18 4:37	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.14	0.00061	1	8260B	7/11/18 4:37	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.068	0.00058	1	8260B	7/11/18 4:37	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.014	0.00038	1	8260B	7/11/18 4:37	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.014	0.00022	1	8260B	7/11/18 4:37	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.014	0.00021	1	8260B	7/11/18 4:37	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0068	0.00035	1	8260B	7/11/18 4:37	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0068	0.00040	1	8260B	7/11/18 4:37	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0068	0.00028	1	8260B	7/11/18 4:37	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0068	0.00033	1	8260B	7/11/18 4:37	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0068	0.00041	1	8260B	7/11/18 4:37	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0068	0.00023	1	8260B	7/11/18 4:37	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0068	0.00032	1	8260B	7/11/18 4:37	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0068	0.00039	1	8260B	7/11/18 4:37	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0068	0.00041	1	8260B	7/11/18 4:37	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0068	0.00036	1	8260B	7/11/18 4:37	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0068	0.00044	1	8260B	7/11/18 4:37	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0068	0.00044	1	8260B	7/11/18 4:37	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.034	0.00093	1	8260B	7/11/18 4:37	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0068	0.00033	1	8260B	7/11/18 4:37	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.020	0.0013	1	8260B	7/11/18 4:37	ANG	P8G0116

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	104 %	70-130
Dibromofluoromethane	114 %	84-123
Toluene-d8	123 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-9 (1-5)  
Prism Sample ID: 8070092-09  
Prism Work Order: 8070092  
Time Collected: 07/09/18 15:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	81.7	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.40	0.063	1	8270D	7/11/18 17:26	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 17:26	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:26	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.40	0.059	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>1-Methylnaphthalene</b>	<b>0.13 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.078</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.40	0.076	1	8270D	7/11/18 17:26	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.40	0.078	1	8270D	7/11/18 17:26	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 17:26	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 17:26	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 17:26	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 17:26	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 17:26	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>2-Methylnaphthalene</b>	<b>0.24 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.065</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
2-Methylphenol	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 17:26	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.40	0.073	1	8270D	7/11/18 17:26	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.40	0.080	1	8270D	7/11/18 17:26	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.40	0.050	1	8270D	7/11/18 17:26	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 17:26	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.40	0.069	1	8270D	7/11/18 17:26	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:26	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 17:26	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 17:26	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 17:26	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.40	0.055	1	8270D	7/11/18 17:26	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>Anthracene</b>	<b>0.33 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.065</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
Azobenzene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:26	JMV	P8G0123
Benzo(a)anthracene	0.54	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:26	JMV	P8G0123
Benzo(a)pyrene	0.49	mg/kg dry	0.40	0.044	1	8270D	7/11/18 17:26	JMV	P8G0123
Benzo(b)fluoranthene	0.67	mg/kg dry	0.40	0.047	1	8270D	7/11/18 17:26	JMV	P8G0123
Benzo(g,h,i)perylene	0.38 J	mg/kg dry	0.40	0.044	1	8270D	7/11/18 17:26	JMV	P8G0123
Benzo(k)fluoranthene	0.27 J	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:26	JMV	P8G0123
Benzoic Acid	0.21 J	mg/kg dry	0.40	0.034	1	8270D	7/11/18 17:26	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:26	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.40	0.070	1	8270D	7/11/18 17:26	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:26	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.40	0.069	1	8270D	7/11/18 17:26	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	0.59	mg/kg dry	0.40	0.060	1	8270D	7/11/18 17:26	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-9 (1-5)  
Prism Sample ID: 8070092-09  
Prism Work Order: 8070092  
Time Collected: 07/09/18 15:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>Chrysene</b>	<b>0.62</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.051</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 17:26	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 17:26	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 17:26	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>Di-n-butyl phthalate</b>	<b>0.28 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.057</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
Di-n-octyl phthalate	BRL	mg/kg dry	0.40	0.050	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>Fluoranthene</b>	<b>1.2</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.051</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
Fluorene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 17:26	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 17:26	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.40	0.072	1	8270D	7/11/18 17:26	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.40	0.072	1	8270D	7/11/18 17:26	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.40	0.068	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>Indeno(1,2,3-cd)pyrene</b>	<b>0.36 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.046</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
Isophorone	BRL	mg/kg dry	0.40	0.055	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>Naphthalene</b>	<b>0.19 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.065</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
Nitrobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 17:26	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 17:26	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 17:26	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>Phenanthrene</b>	<b>0.86</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.052</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
Phenol	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 17:26	JMV	P8G0123
<b>Pyrene</b>	<b>0.94</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.053</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:26</b>	<b>JMV</b>	<b>P8G0123</b>
						Surrogate	Recovery	Control Limits	
						2,4,6-Tribromophenol	57 %	39-132	
						2-Fluorobiphenyl	54 %	44-115	
						2-Fluorophenol	59 %	35-115	
						Nitrobenzene-d5	21 %	37-122	Aa
						Phenol-d5	54 %	34-121	
						Terphenyl-d14	56 %	54-127	

**Total Metals**

Mercury	6.3	mg/kg dry	0.36	0.034	15	7471B	7/11/18 15:16	JAB	P8G0125
Antimony	4.8	mg/kg dry	3.1	0.31	10	6010D	7/12/18 15:59	JAB	P8G0126
Arsenic	14	mg/kg dry	6.1	0.37	10	6010D	7/12/18 15:59	JAB	P8G0126
Barium	220	mg/kg dry	3.1	0.45	5	6010D	7/12/18 16:07	JAB	P8G0126
Beryllium	0.76 DM, J	mg/kg dry	1.5	0.034	5	6010D	7/12/18 16:07	JAB	P8G0126
Cadmium	33	mg/kg dry	15	0.41	50	6010D	7/12/18 15:50	JAB	P8G0126
Chromium	170	mg/kg dry	1.5	0.26	5	6010D	7/12/18 16:07	JAB	P8G0126
Copper	1200	mg/kg dry	31	2.8	50	6010D	7/12/18 15:50	JAB	P8G0126
Lead	1100	mg/kg dry	3.1	0.57	10	6010D	7/12/18 15:59	JAB	P8G0126
Nickel	150	mg/kg dry	0.61	0.022	1	6010D	7/11/18 16:36	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-9 (1-5)  
Prism Sample ID: 8070092-09  
Prism Work Order: 8070092  
Time Collected: 07/09/18 15:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL DM	mg/kg dry	3.1	0.73	5	6010D	7/12/18 16:07	JAB	P8G0126
<b>Silver</b>	<b>0.56 DM, J</b>	<b>mg/kg dry</b>	<b>1.5</b>	<b>0.038</b>	<b>5</b>	<b>6010D</b>	<b>7/12/18 16:07</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Thallium</b>	<b>1.8</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.080</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:36</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>3000</b>	<b>mg/kg dry</b>	<b>150</b>	<b>5.5</b>	<b>50</b>	<b>6010D</b>	<b>7/12/18 15:50</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.010	0.00083	1	8260B	7/11/18 5:06	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.010	0.00049	1	8260B	7/11/18 5:06	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.010	0.00068	1	8260B	7/11/18 5:06	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.010	0.00090	1	8260B	7/11/18 5:06	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.010	0.00028	1	8260B	7/11/18 5:06	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.010	0.00045	1	8260B	7/11/18 5:06	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.010	0.00056	1	8260B	7/11/18 5:06	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.010	0.00058	1	8260B	7/11/18 5:06	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.010	0.0013	1	8260B	7/11/18 5:06	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.010	0.00075	1	8260B	7/11/18 5:06	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.010	0.00077	1	8260B	7/11/18 5:06	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.010	0.00041	1	8260B	7/11/18 5:06	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.010	0.00048	1	8260B	7/11/18 5:06	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.010	0.00060	1	8260B	7/11/18 5:06	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.010	0.00063	1	8260B	7/11/18 5:06	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.010	0.00077	1	8260B	7/11/18 5:06	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.010	0.00067	1	8260B	7/11/18 5:06	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.010	0.00051	1	8260B	7/11/18 5:06	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.010	0.00040	1	8260B	7/11/18 5:06	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.010	0.00048	1	8260B	7/11/18 5:06	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.010	0.00052	1	8260B	7/11/18 5:06	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.010	0.00060	1	8260B	7/11/18 5:06	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.010	0.00049	1	8260B	7/11/18 5:06	ANG	P8G0116
<b>Acetone</b>	<b>0.39</b>	<b>mg/kg dry</b>	<b>0.10</b>	<b>0.0025</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 5:06</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0061	0.00059	1	8260B	7/11/18 5:06	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.010	0.00084	1	8260B	7/11/18 5:06	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.010	0.00056	1	8260B	7/11/18 5:06	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.010	0.00057	1	8260B	7/11/18 5:06	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.010	0.0012	1	8260B	7/11/18 5:06	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.020	0.0013	1	8260B	7/11/18 5:06	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.010	0.00050	1	8260B	7/11/18 5:06	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.010	0.00054	1	8260B	7/11/18 5:06	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.020	0.00084	1	8260B	7/11/18 5:06	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.010	0.00073	1	8260B	7/11/18 5:06	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.010	0.00068	1	8260B	7/11/18 5:06	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.010	0.00043	1	8260B	7/11/18 5:06	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.010	0.00034	1	8260B	7/11/18 5:06	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.010	0.00042	1	8260B	7/11/18 5:06	ANG	P8G0116

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-9 (1-5)  
Prism Sample ID: 8070092-09  
Prism Work Order: 8070092  
Time Collected: 07/09/18 15:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.010	0.00046	1	8260B	7/11/18 5:06	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.010	0.00039	1	8260B	7/11/18 5:06	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.010	0.00041	1	8260B	7/11/18 5:06	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.010	0.00060	1	8260B	7/11/18 5:06	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.020	0.00093	1	8260B	7/11/18 5:06	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.10	0.00092	1	8260B	7/11/18 5:06	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.20	0.00092	1	8260B	7/11/18 5:06	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.10	0.00086	1	8260B	7/11/18 5:06	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.020	0.00057	1	8260B	7/11/18 5:06	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.020	0.00032	1	8260B	7/11/18 5:06	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.020	0.00032	1	8260B	7/11/18 5:06	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.010	0.00052	1	8260B	7/11/18 5:06	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.010	0.00060	1	8260B	7/11/18 5:06	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.010	0.00042	1	8260B	7/11/18 5:06	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.010	0.00049	1	8260B	7/11/18 5:06	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.010	0.00061	1	8260B	7/11/18 5:06	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.010	0.00034	1	8260B	7/11/18 5:06	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.010	0.00048	1	8260B	7/11/18 5:06	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.010	0.00058	1	8260B	7/11/18 5:06	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.010	0.00061	1	8260B	7/11/18 5:06	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.010	0.00053	1	8260B	7/11/18 5:06	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.010	0.00066	1	8260B	7/11/18 5:06	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.010	0.00065	1	8260B	7/11/18 5:06	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.051	0.0014	1	8260B	7/11/18 5:06	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.010	0.00049	1	8260B	7/11/18 5:06	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.030	0.0019	1	8260B	7/11/18 5:06	ANG	P8G0116
			Surrogate			Recovery		Control Limits	
			4-Bromofluorobenzene			108 %		70-130	
			Dibromofluoromethane			113 %		84-123	
			Toluene-d8			123 %		76-129	

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-10 (4-8)

Prism Sample ID: 8070092-10

Prism Work Order: 8070092

Time Collected: 07/09/18 16:15

Time Submitted: 07/10/18 13:00

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	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.43	0.068	1	8270D	7/11/18 13:16	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.43	0.066	1	8270D	7/11/18 13:16	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 13:16	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.43	0.063	1	8270D	7/11/18 13:16	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.43	0.083	1	8270D	7/11/18 13:16	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.43	0.081	1	8270D	7/11/18 13:16	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.43	0.084	1	8270D	7/11/18 13:16	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.43	0.066	1	8270D	7/11/18 13:16	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.43	0.060	1	8270D	7/11/18 13:16	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.43	0.053	1	8270D	7/11/18 13:16	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.43	0.058	1	8270D	7/11/18 13:16	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.43	0.063	1	8270D	7/11/18 13:16	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 13:16	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.43	0.069	1	8270D	7/11/18 13:16	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.43	0.055	1	8270D	7/11/18 13:16	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.43	0.079	1	8270D	7/11/18 13:16	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.43	0.085	1	8270D	7/11/18 13:16	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.43	0.053	1	8270D	7/11/18 13:16	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.43	0.065	1	8270D	7/11/18 13:16	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.43	0.074	1	8270D	7/11/18 13:16	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 13:16	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.43	0.052	1	8270D	7/11/18 13:16	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 13:16	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.43	0.067	1	8270D	7/11/18 13:16	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.43	0.059	1	8270D	7/11/18 13:16	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.43	0.063	1	8270D	7/11/18 13:16	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.43	0.070	1	8270D	7/11/18 13:16	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.43	0.057	1	8270D	7/11/18 13:16	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.43	0.057	1	8270D	7/11/18 13:16	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.43	0.047	1	8270D	7/11/18 13:16	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.43	0.050	1	8270D	7/11/18 13:16	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.43	0.047	1	8270D	7/11/18 13:16	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.43	0.057	1	8270D	7/11/18 13:16	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.43	0.036	1	8270D	7/11/18 13:16	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.43	0.057	1	8270D	7/11/18 13:16	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.43	0.075	1	8270D	7/11/18 13:16	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 13:16	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.43	0.074	1	8270D	7/11/18 13:16	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.43	0.064	1	8270D	7/11/18 13:16	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-10 (4-8)

Prism Sample ID: 8070092-10

Prism Work Order: 8070092

Time Collected: 07/09/18 16:15

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.43	0.062	1	8270D	7/11/18 13:16	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.43	0.055	1	8270D	7/11/18 13:16	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.43	0.053	1	8270D	7/11/18 13:16	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.43	0.066	1	8270D	7/11/18 13:16	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.43	0.060	1	8270D	7/11/18 13:16	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.43	0.057	1	8270D	7/11/18 13:16	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 13:16	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.43	0.053	1	8270D	7/11/18 13:16	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.43	0.055	1	8270D	7/11/18 13:16	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.43	0.062	1	8270D	7/11/18 13:16	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.43	0.069	1	8270D	7/11/18 13:16	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.43	0.078	1	8270D	7/11/18 13:16	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.43	0.077	1	8270D	7/11/18 13:16	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.43	0.072	1	8270D	7/11/18 13:16	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.43	0.050	1	8270D	7/11/18 13:16	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.43	0.059	1	8270D	7/11/18 13:16	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.43	0.070	1	8270D	7/11/18 13:16	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.43	0.061	1	8270D	7/11/18 13:16	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.43	0.068	1	8270D	7/11/18 13:16	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.43	0.066	1	8270D	7/11/18 13:16	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.43	0.051	1	8270D	7/11/18 13:16	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.43	0.056	1	8270D	7/11/18 13:16	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.43	0.064	1	8270D	7/11/18 13:16	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.43	0.057	1	8270D	7/11/18 13:16	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	62 %	39-132
2-Fluorobiphenyl	59 %	44-115
2-Fluorophenol	62 %	35-115
Nitrobenzene-d5	49 %	37-122
Phenol-d5	57 %	34-121
Terphenyl-d14	61 %	54-127

**Total Metals**

Mercury	0.028	mg/kg dry	0.026	0.0025	1	7471B	7/11/18 14:13	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.33	0.033	1	6010D	7/11/18 16:46	JAB	P8G0126
Arsenic	0.45 J	mg/kg dry	0.65	0.040	1	6010D	7/11/18 16:46	JAB	P8G0126
Barium	39	mg/kg dry	0.65	0.095	1	6010D	7/11/18 16:46	JAB	P8G0126
Beryllium	0.75	mg/kg dry	0.33	0.0072	1	6010D	7/11/18 16:46	JAB	P8G0126
Cadmium	0.55	mg/kg dry	0.33	0.0087	1	6010D	7/11/18 16:46	JAB	P8G0126
Chromium	40	mg/kg dry	0.33	0.055	1	6010D	7/11/18 16:46	JAB	P8G0126
Copper	48	mg/kg dry	0.65	0.059	1	6010D	7/11/18 16:46	JAB	P8G0126
Lead	17	mg/kg dry	0.33	0.061	1	6010D	7/11/18 16:46	JAB	P8G0126
Nickel	13	mg/kg dry	0.65	0.023	1	6010D	7/11/18 16:46	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-10 (4-8)

Prism Sample ID: 8070092-10

Prism Work Order: 8070092

Time Collected: 07/09/18 16:15

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.30 J</b>	<b>mg/kg dry</b>	<b>0.65</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:46</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.33	0.0081	1	6010D	7/11/18 16:46	JAB	P8G0126
<b>Thallium</b>	<b>1.5</b>	<b>mg/kg dry</b>	<b>0.65</b>	<b>0.085</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:46</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>33</b>	<b>mg/kg dry</b>	<b>3.3</b>	<b>0.12</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 16:46</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00039	1	8260B	7/11/18 5:34	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 5:34	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/11/18 5:34	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0048	0.00042	1	8260B	7/11/18 5:34	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0048	0.00013	1	8260B	7/11/18 5:34	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00021	1	8260B	7/11/18 5:34	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00026	1	8260B	7/11/18 5:34	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/11/18 5:34	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0048	0.00061	1	8260B	7/11/18 5:34	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	7/11/18 5:34	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0048	0.00037	1	8260B	7/11/18 5:34	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/11/18 5:34	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00022	1	8260B	7/11/18 5:34	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/11/18 5:34	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00030	1	8260B	7/11/18 5:34	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	7/11/18 5:34	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/11/18 5:34	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/11/18 5:34	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/11/18 5:34	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 5:34	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/11/18 5:34	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/11/18 5:34	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 5:34	ANG	P8G0116
<b>Acetone</b>	<b>0.029 J</b>	<b>mg/kg dry</b>	<b>0.048</b>	<b>0.0012</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 5:34</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0029	0.00028	1	8260B	7/11/18 5:34	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0048	0.00040	1	8260B	7/11/18 5:34	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0048	0.00026	1	8260B	7/11/18 5:34	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/11/18 5:34	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0048	0.00054	1	8260B	7/11/18 5:34	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.0096	0.00059	1	8260B	7/11/18 5:34	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/11/18 5:34	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/11/18 5:34	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.0096	0.00040	1	8260B	7/11/18 5:34	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0048	0.00034	1	8260B	7/11/18 5:34	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/11/18 5:34	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/11/18 5:34	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	7/11/18 5:34	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/11/18 5:34	ANG	P8G0116

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-10 (4-8)  
Prism Sample ID: 8070092-10  
Prism Work Order: 8070092  
Time Collected: 07/09/18 16:15  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0048	0.00022	1	8260B	7/11/18 5:34	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0048	0.00018	1	8260B	7/11/18 5:34	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/11/18 5:34	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/11/18 5:34	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.0096	0.00044	1	8260B	7/11/18 5:34	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.048	0.00043	1	8260B	7/11/18 5:34	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.096	0.00043	1	8260B	7/11/18 5:34	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.048	0.00041	1	8260B	7/11/18 5:34	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.0096	0.00027	1	8260B	7/11/18 5:34	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0096	0.00015	1	8260B	7/11/18 5:34	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.0096	0.00015	1	8260B	7/11/18 5:34	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/11/18 5:34	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/11/18 5:34	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/11/18 5:34	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 5:34	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/11/18 5:34	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	7/11/18 5:34	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 5:34	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/11/18 5:34	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/11/18 5:34	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/11/18 5:34	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0048	0.00031	1	8260B	7/11/18 5:34	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0048	0.00031	1	8260B	7/11/18 5:34	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.024	0.00065	1	8260B	7/11/18 5:34	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 5:34	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.014	0.00090	1	8260B	7/11/18 5:34	ANG	P8G0116
			Surrogate			Recovery		Control Limits	
			4-Bromofluorobenzene			104 %		70-130	
			Dibromofluoromethane			112 %		84-123	
			Toluene-d8			125 %		76-129	

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-11 (4-7)  
Prism Sample ID: 8070092-11  
Prism Work Order: 8070092  
Time Collected: 07/09/18 16:40  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	85.2	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.39	0.060	1	8270D	7/11/18 13:39	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 13:39	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 13:39	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/11/18 13:39	JMV	P8G0123
<b>1-Methylnaphthalene</b>	<b>0.18 J</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.075</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 13:39</b>	<b>JMV</b>	<b>P8G0123</b>
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.39	0.073	1	8270D	7/11/18 13:39	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.39	0.075	1	8270D	7/11/18 13:39	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 13:39	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.39	0.054	1	8270D	7/11/18 13:39	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.39	0.047	1	8270D	7/11/18 13:39	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 13:39	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 13:39	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 13:39	JMV	P8G0123
<b>2-Methylnaphthalene</b>	<b>0.32 J</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.062</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 13:39</b>	<b>JMV</b>	<b>P8G0123</b>
2-Methylphenol	BRL	mg/kg dry	0.39	0.050	1	8270D	7/11/18 13:39	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.39	0.070	1	8270D	7/11/18 13:39	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.39	0.076	1	8270D	7/11/18 13:39	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.39	0.048	1	8270D	7/11/18 13:39	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.39	0.058	1	8270D	7/11/18 13:39	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.39	0.066	1	8270D	7/11/18 13:39	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.39	0.054	1	8270D	7/11/18 13:39	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.39	0.047	1	8270D	7/11/18 13:39	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.39	0.050	1	8270D	7/11/18 13:39	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.39	0.060	1	8270D	7/11/18 13:39	JMV	P8G0123
<b>Acenaphthene</b>	<b>0.21 J</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.053</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 13:39</b>	<b>JMV</b>	<b>P8G0123</b>
Acenaphthylene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 13:39	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.39	0.062	1	8270D	7/11/18 13:39	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 13:39	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 13:39	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.39	0.042	1	8270D	7/11/18 13:39	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.39	0.045	1	8270D	7/11/18 13:39	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.39	0.042	1	8270D	7/11/18 13:39	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 13:39	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.39	0.033	1	8270D	7/11/18 13:39	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 13:39	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.39	0.067	1	8270D	7/11/18 13:39	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 13:39	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.39	0.066	1	8270D	7/11/18 13:39	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.39	0.057	1	8270D	7/11/18 13:39	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-11 (4-7)

Prism Sample ID: 8070092-11

Prism Work Order: 8070092

Time Collected: 07/09/18 16:40

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 13:39	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.39	0.049	1	8270D	7/11/18 13:39	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.39	0.047	1	8270D	7/11/18 13:39	JMV	P8G0123
<b>Dibenzofuran</b>	<b>0.11 J</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.059</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 13:39</b>	<b>JMV</b>	<b>P8G0123</b>
Diethyl phthalate	BRL	mg/kg dry	0.39	0.053	1	8270D	7/11/18 13:39	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 13:39	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 13:39	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.39	0.048	1	8270D	7/11/18 13:39	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.39	0.049	1	8270D	7/11/18 13:39	JMV	P8G0123
<b>Fluorene</b>	<b>0.13 J</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.056</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 13:39</b>	<b>JMV</b>	<b>P8G0123</b>
Hexachlorobenzene	BRL	mg/kg dry	0.39	0.061	1	8270D	7/11/18 13:39	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.39	0.070	1	8270D	7/11/18 13:39	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.39	0.069	1	8270D	7/11/18 13:39	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.39	0.065	1	8270D	7/11/18 13:39	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.39	0.044	1	8270D	7/11/18 13:39	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 13:39	JMV	P8G0123
<b>Naphthalene</b>	<b>0.63</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.062</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 13:39</b>	<b>JMV</b>	<b>P8G0123</b>
Nitrobenzene	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 13:39	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.39	0.061	1	8270D	7/11/18 13:39	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 13:39	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.39	0.046	1	8270D	7/11/18 13:39	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.39	0.050	1	8270D	7/11/18 13:39	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.39	0.057	1	8270D	7/11/18 13:39	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 13:39	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	58 %	39-132
2-Fluorobiphenyl	57 %	44-115
2-Fluorophenol	57 %	35-115
Nitrobenzene-d5	47 %	37-122
Phenol-d5	53 %	34-121
Terphenyl-d14	59 %	54-127

**Total Metals**

<b>Mercury</b>	<b>0.052</b>	<b>mg/kg dry</b>	<b>0.023</b>	<b>0.0022</b>	<b>1</b>	<b>7471B</b>	<b>7/11/18 14:26</b>	<b>JAB</b>	<b>P8G0125</b>
Antimony	BRL	mg/kg dry	0.29	0.029	1	6010D	7/11/18 17:09	JAB	P8G0126
<b>Arsenic</b>	<b>0.71</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.035</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Barium</b>	<b>44</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.085</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Beryllium</b>	<b>0.48</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.0064</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Cadmium</b>	<b>0.082 J</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.0078</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Chromium</b>	<b>30</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.049</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Copper</b>	<b>25</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.053</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Lead</b>	<b>9.6</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.054</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Nickel</b>	<b>7.2</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.021</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-11 (4-7)

Prism Sample ID: 8070092-11

Prism Work Order: 8070092

Time Collected: 07/09/18 16:40

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.96</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.14</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.29	0.0072	1	6010D	7/11/18 17:09	JAB	P8G0126
<b>Thallium</b>	<b>0.81</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.076</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>24</b>	<b>mg/kg dry</b>	<b>2.9</b>	<b>0.10</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:09</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0059	0.00048	1	8260B	7/11/18 21:34	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0059	0.00028	1	8260B	7/11/18 21:34	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0059	0.00040	1	8260B	7/11/18 21:34	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0059	0.00052	1	8260B	7/11/18 21:34	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0059	0.00016	1	8260B	7/11/18 21:34	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0059	0.00026	1	8260B	7/11/18 21:34	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0059	0.00032	1	8260B	7/11/18 21:34	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0059	0.00033	1	8260B	7/11/18 21:34	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0059	0.00075	1	8260B	7/11/18 21:34	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0059	0.00044	1	8260B	7/11/18 21:34	ANG	P8G0154
<b>1,2,4-Trimethylbenzene</b>	<b>0.0036 J</b>	<b>mg/kg dry</b>	<b>0.0059</b>	<b>0.00045</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 21:34</b>	<b>ANG</b>	<b>P8G0154</b>
1,2-Dibromoethane	BRL	mg/kg dry	0.0059	0.00024	1	8260B	7/11/18 21:34	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0059	0.00028	1	8260B	7/11/18 21:34	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0059	0.00035	1	8260B	7/11/18 21:34	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0059	0.00036	1	8260B	7/11/18 21:34	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0059	0.00044	1	8260B	7/11/18 21:34	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0059	0.00039	1	8260B	7/11/18 21:34	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0059	0.00029	1	8260B	7/11/18 21:34	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0059	0.00023	1	8260B	7/11/18 21:34	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0059	0.00028	1	8260B	7/11/18 21:34	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0059	0.00030	1	8260B	7/11/18 21:34	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0059	0.00035	1	8260B	7/11/18 21:34	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0059	0.00028	1	8260B	7/11/18 21:34	ANG	P8G0154
<b>Acetone</b>	<b>0.058 J</b>	<b>mg/kg dry</b>	<b>0.059</b>	<b>0.0014</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 21:34</b>	<b>ANG</b>	<b>P8G0154</b>
Benzene	BRL	mg/kg dry	0.0035	0.00034	1	8260B	7/11/18 21:34	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0059	0.00049	1	8260B	7/11/18 21:34	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0059	0.00032	1	8260B	7/11/18 21:34	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0059	0.00033	1	8260B	7/11/18 21:34	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0059	0.00067	1	8260B	7/11/18 21:34	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.012	0.00072	1	8260B	7/11/18 21:34	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0059	0.00029	1	8260B	7/11/18 21:34	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0059	0.00031	1	8260B	7/11/18 21:34	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.012	0.00049	1	8260B	7/11/18 21:34	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0059	0.00042	1	8260B	7/11/18 21:34	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0059	0.00039	1	8260B	7/11/18 21:34	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0059	0.00025	1	8260B	7/11/18 21:34	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0059	0.00020	1	8260B	7/11/18 21:34	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0059	0.00024	1	8260B	7/11/18 21:34	ANG	P8G0154

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-11 (4-7)

Prism Sample ID: 8070092-11

Prism Work Order: 8070092

Time Collected: 07/09/18 16:40

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0059	0.00027	1	8260B	7/11/18 21:34	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0059	0.00023	1	8260B	7/11/18 21:34	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0059	0.00024	1	8260B	7/11/18 21:34	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0059	0.00035	1	8260B	7/11/18 21:34	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.012	0.00054	1	8260B	7/11/18 21:34	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.059	0.00053	1	8260B	7/11/18 21:34	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.12	0.00053	1	8260B	7/11/18 21:34	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.059	0.00050	1	8260B	7/11/18 21:34	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.012	0.00033	1	8260B	7/11/18 21:34	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.012	0.00019	1	8260B	7/11/18 21:34	ANG	P8G0154
Naphthalene	See 8260ML	mg/kg dry	0.012	0.00019	1	8260B	7/11/18 21:34	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0059	0.00030	1	8260B	7/11/18 21:34	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0059	0.00035	1	8260B	7/11/18 21:34	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0059	0.00024	1	8260B	7/11/18 21:34	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0059	0.00028	1	8260B	7/11/18 21:34	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0059	0.00035	1	8260B	7/11/18 21:34	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0059	0.00020	1	8260B	7/11/18 21:34	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0059	0.00028	1	8260B	7/11/18 21:34	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0059	0.00034	1	8260B	7/11/18 21:34	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0059	0.00035	1	8260B	7/11/18 21:34	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0059	0.00031	1	8260B	7/11/18 21:34	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0059	0.00038	1	8260B	7/11/18 21:34	ANG	P8G0154
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0059	0.00038	1	8260B	7/11/18 21:34	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.029	0.00080	1	8260B	7/11/18 21:34	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0059	0.00028	1	8260B	7/11/18 21:34	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.018	0.0011	1	8260B	7/11/18 21:34	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	101 %	70-130
Dibromofluoromethane	103 %	84-123
Toluene-d8	95 %	76-129

#### Volatile Organic Compounds by GC/MS (Medium Level)

Naphthalene	1.4	mg/kg dry	0.52	0.040	50	8260B	7/12/18 13:24	ANG	P8G0166
			Surrogate		Recovery		Control Limits		
			4-Bromofluorobenzene		93 %		70-130		
			Dibromofluoromethane		94 %		70-130		
			Toluene-d8		93 %		70-130		



Apex Companies, LLC (Charlotte Office)  
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Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-12( 1-3)  
Prism Sample ID: 8070092-12  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:05  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	83.4	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.39	0.062	1	8270D	7/11/18 14:01	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.39	0.060	1	8270D	7/11/18 14:01	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:01	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.39	0.058	1	8270D	7/11/18 14:01	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.39	0.076	1	8270D	7/11/18 14:01	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.39	0.074	1	8270D	7/11/18 14:01	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.39	0.076	1	8270D	7/11/18 14:01	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.39	0.061	1	8270D	7/11/18 14:01	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 14:01	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.39	0.048	1	8270D	7/11/18 14:01	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.39	0.053	1	8270D	7/11/18 14:01	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/11/18 14:01	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:01	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/11/18 14:01	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:01	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.39	0.072	1	8270D	7/11/18 14:01	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.39	0.078	1	8270D	7/11/18 14:01	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.39	0.049	1	8270D	7/11/18 14:01	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 14:01	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.39	0.068	1	8270D	7/11/18 14:01	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 14:01	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.39	0.048	1	8270D	7/11/18 14:01	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:01	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.39	0.061	1	8270D	7/11/18 14:01	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.39	0.054	1	8270D	7/11/18 14:01	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/11/18 14:01	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.39	0.064	1	8270D	7/11/18 14:01	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 14:01	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 14:01	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.39	0.043	1	8270D	7/11/18 14:01	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.39	0.046	1	8270D	7/11/18 14:01	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.39	0.043	1	8270D	7/11/18 14:01	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 14:01	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.39	0.033	1	8270D	7/11/18 14:01	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 14:01	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.39	0.069	1	8270D	7/11/18 14:01	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:01	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.39	0.067	1	8270D	7/11/18 14:01	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 14:01	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-12( 1-3)  
Prism Sample ID: 8070092-12  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:05  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:01	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.39	0.050	1	8270D	7/11/18 14:01	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.39	0.048	1	8270D	7/11/18 14:01	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.39	0.060	1	8270D	7/11/18 14:01	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.39	0.054	1	8270D	7/11/18 14:01	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 14:01	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:01	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.39	0.049	1	8270D	7/11/18 14:01	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.39	0.050	1	8270D	7/11/18 14:01	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/11/18 14:01	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/11/18 14:01	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.39	0.071	1	8270D	7/11/18 14:01	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.39	0.070	1	8270D	7/11/18 14:01	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.39	0.066	1	8270D	7/11/18 14:01	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.39	0.045	1	8270D	7/11/18 14:01	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.39	0.053	1	8270D	7/11/18 14:01	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.39	0.064	1	8270D	7/11/18 14:01	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:01	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.39	0.062	1	8270D	7/11/18 14:01	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.39	0.060	1	8270D	7/11/18 14:01	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.39	0.047	1	8270D	7/11/18 14:01	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:01	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.39	0.058	1	8270D	7/11/18 14:01	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 14:01	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	57 %	39-132
2-Fluorobiphenyl	54 %	44-115
2-Fluorophenol	55 %	35-115
Nitrobenzene-d5	46 %	37-122
Phenol-d5	50 %	34-121
Terphenyl-d14	60 %	54-127

**Total Metals**

Mercury	0.089	mg/kg dry	0.024	0.0022	1	7471B	7/11/18 14:31	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.30	0.030	1	6010D	7/11/18 17:17	JAB	P8G0126
Arsenic	2.5	mg/kg dry	0.60	0.036	1	6010D	7/11/18 17:17	JAB	P8G0126
Barium	42	mg/kg dry	0.60	0.087	1	6010D	7/11/18 17:17	JAB	P8G0126
Beryllium	0.49	mg/kg dry	0.30	0.0066	1	6010D	7/11/18 17:17	JAB	P8G0126
Cadmium	0.074 J	mg/kg dry	0.30	0.0080	1	6010D	7/11/18 17:17	JAB	P8G0126
Chromium	27	mg/kg dry	0.30	0.050	1	6010D	7/11/18 17:17	JAB	P8G0126
Copper	29	mg/kg dry	0.60	0.054	1	6010D	7/11/18 17:17	JAB	P8G0126
Lead	11	mg/kg dry	0.30	0.055	1	6010D	7/11/18 17:17	JAB	P8G0126
Nickel	8.0	mg/kg dry	0.60	0.021	1	6010D	7/11/18 17:17	JAB	P8G0126

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-12( 1-3)  
Prism Sample ID: 8070092-12  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:05  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.97</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.14</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:17</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.30	0.0074	1	6010D	7/11/18 17:17	JAB	P8G0126
<b>Thallium</b>	<b>0.71</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.078</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:17</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>28</b>	<b>mg/kg dry</b>	<b>3.0</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:17</b>	<b>JAB</b>	<b>P8G0126</b>

## Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0060	0.00049	1	8260B	7/11/18 21:07	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/11/18 21:07	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0060	0.00041	1	8260B	7/11/18 21:07	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0060	0.00053	1	8260B	7/11/18 21:07	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0060	0.00017	1	8260B	7/11/18 21:07	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00026	1	8260B	7/11/18 21:07	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00033	1	8260B	7/11/18 21:07	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0060	0.00034	1	8260B	7/11/18 21:07	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0060	0.00076	1	8260B	7/11/18 21:07	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0060	0.00045	1	8260B	7/11/18 21:07	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0060	0.00046	1	8260B	7/11/18 21:07	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0060	0.00024	1	8260B	7/11/18 21:07	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00028	1	8260B	7/11/18 21:07	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/11/18 21:07	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0060	0.00037	1	8260B	7/11/18 21:07	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0060	0.00045	1	8260B	7/11/18 21:07	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00040	1	8260B	7/11/18 21:07	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0060	0.00030	1	8260B	7/11/18 21:07	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00024	1	8260B	7/11/18 21:07	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/11/18 21:07	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0060	0.00031	1	8260B	7/11/18 21:07	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/11/18 21:07	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/11/18 21:07	ANG	P8G0154
<b>Acetone</b>	<b>0.027 J</b>	<b>mg/kg dry</b>	<b>0.060</b>	<b>0.0015</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 21:07</b>	<b>ANG</b>	<b>P8G0154</b>
Benzene	BRL	mg/kg dry	0.0036	0.00035	1	8260B	7/11/18 21:07	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0060	0.00050	1	8260B	7/11/18 21:07	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0060	0.00033	1	8260B	7/11/18 21:07	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0060	0.00033	1	8260B	7/11/18 21:07	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0060	0.00068	1	8260B	7/11/18 21:07	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.012	0.00074	1	8260B	7/11/18 21:07	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0060	0.00030	1	8260B	7/11/18 21:07	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0060	0.00032	1	8260B	7/11/18 21:07	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.012	0.00050	1	8260B	7/11/18 21:07	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0060	0.00043	1	8260B	7/11/18 21:07	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0060	0.00040	1	8260B	7/11/18 21:07	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00026	1	8260B	7/11/18 21:07	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00020	1	8260B	7/11/18 21:07	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0060	0.00025	1	8260B	7/11/18 21:07	ANG	P8G0154

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Full-Service Analytical &  
Environmental Solutions**Laboratory Report**

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-12( 1-3)  
Prism Sample ID: 8070092-12  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:05  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0060	0.00027	1	8260B	7/11/18 21:07	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0060	0.00023	1	8260B	7/11/18 21:07	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0060	0.00024	1	8260B	7/11/18 21:07	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0060	0.00035	1	8260B	7/11/18 21:07	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.012	0.00055	1	8260B	7/11/18 21:07	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.060	0.00054	1	8260B	7/11/18 21:07	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.12	0.00054	1	8260B	7/11/18 21:07	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.060	0.00051	1	8260B	7/11/18 21:07	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.012	0.00034	1	8260B	7/11/18 21:07	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.012	0.00019	1	8260B	7/11/18 21:07	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.012	0.00019	1	8260B	7/11/18 21:07	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0060	0.00031	1	8260B	7/11/18 21:07	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/11/18 21:07	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0060	0.00025	1	8260B	7/11/18 21:07	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/11/18 21:07	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/11/18 21:07	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0060	0.00020	1	8260B	7/11/18 21:07	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/11/18 21:07	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0060	0.00034	1	8260B	7/11/18 21:07	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/11/18 21:07	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00032	1	8260B	7/11/18 21:07	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0060	0.00039	1	8260B	7/11/18 21:07	ANG	P8G0154
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0060	0.00039	1	8260B	7/11/18 21:07	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.030	0.00082	1	8260B	7/11/18 21:07	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/11/18 21:07	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.018	0.0011	1	8260B	7/11/18 21:07	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	99 %	70-130
Dibromofluoromethane	100 %	84-123
Toluene-d8	96 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-13 (3-6)

Prism Sample ID: 8070092-13

Prism Work Order: 8070092

Time Collected: 07/09/18 17:20

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	82.5	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 14:24	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 14:24	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 14:24	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 14:24	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.40	0.077	1	8270D	7/11/18 14:24	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.40	0.075	1	8270D	7/11/18 14:24	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.40	0.077	1	8270D	7/11/18 14:24	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 14:24	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 14:24	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 14:24	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 14:24	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 14:24	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 14:24	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 14:24	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.40	0.051	1	8270D	7/11/18 14:24	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.40	0.073	1	8270D	7/11/18 14:24	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.40	0.079	1	8270D	7/11/18 14:24	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 14:24	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 14:24	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.40	0.069	1	8270D	7/11/18 14:24	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 14:24	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 14:24	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 14:24	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 14:24	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 14:24	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 14:24	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 14:24	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 14:24	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 14:24	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.40	0.043	1	8270D	7/11/18 14:24	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.40	0.046	1	8270D	7/11/18 14:24	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.40	0.044	1	8270D	7/11/18 14:24	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 14:24	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.40	0.034	1	8270D	7/11/18 14:24	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 14:24	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.40	0.069	1	8270D	7/11/18 14:24	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 14:24	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.40	0.068	1	8270D	7/11/18 14:24	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.40	0.059	1	8270D	7/11/18 14:24	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-13 (3-6)

Prism Sample ID: 8070092-13

Prism Work Order: 8070092

Time Collected: 07/09/18 17:20

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 14:24	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.40	0.050	1	8270D	7/11/18 14:24	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 14:24	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 14:24	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.40	0.055	1	8270D	7/11/18 14:24	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 14:24	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 14:24	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 14:24	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.40	0.051	1	8270D	7/11/18 14:24	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 14:24	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.40	0.063	1	8270D	7/11/18 14:24	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.40	0.072	1	8270D	7/11/18 14:24	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.40	0.071	1	8270D	7/11/18 14:24	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.40	0.067	1	8270D	7/11/18 14:24	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.40	0.046	1	8270D	7/11/18 14:24	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 14:24	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 14:24	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 14:24	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.40	0.063	1	8270D	7/11/18 14:24	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 14:24	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.40	0.047	1	8270D	7/11/18 14:24	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 14:24	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.40	0.059	1	8270D	7/11/18 14:24	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 14:24	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	58 %	39-132
2-Fluorobiphenyl	56 %	44-115
2-Fluorophenol	57 %	35-115
Nitrobenzene-d5	47 %	37-122
Phenol-d5	53 %	34-121
Terphenyl-d14	60 %	54-127

**Total Metals**

Mercury	0.016 J	mg/kg dry	0.024	0.0023	1	7471B	7/11/18 14:35	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.30	0.030	1	6010D	7/11/18 17:26	JAB	P8G0126
Arsenic	1.3	mg/kg dry	0.60	0.037	1	6010D	7/11/18 17:26	JAB	P8G0126
Barium	76	mg/kg dry	0.60	0.088	1	6010D	7/11/18 17:26	JAB	P8G0126
Beryllium	0.49	mg/kg dry	0.30	0.0066	1	6010D	7/11/18 17:26	JAB	P8G0126
Cadmium	0.24 J	mg/kg dry	0.30	0.0081	1	6010D	7/11/18 17:26	JAB	P8G0126
Chromium	25	mg/kg dry	0.30	0.050	1	6010D	7/11/18 17:26	JAB	P8G0126
Copper	29	mg/kg dry	0.60	0.055	1	6010D	7/11/18 17:26	JAB	P8G0126
Lead	26	mg/kg dry	0.30	0.056	1	6010D	7/11/18 17:26	JAB	P8G0126
Nickel	12	mg/kg dry	0.60	0.022	1	6010D	7/11/18 17:26	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-13 (3-6)  
Prism Sample ID: 8070092-13  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:20  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.60	0.14	1	6010D	7/11/18 17:26	JAB	P8G0126
Silver	BRL	mg/kg dry	0.30	0.0075	1	6010D	7/11/18 17:26	JAB	P8G0126
<b>Thallium</b>	<b>1.1</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.079</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:26</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>50</b>	<b>mg/kg dry</b>	<b>3.0</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:26</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0046	0.00038	1	8260B	7/11/18 6:03	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0046	0.00022	1	8260B	7/11/18 6:03	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0046	0.00031	1	8260B	7/11/18 6:03	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0046	0.00041	1	8260B	7/11/18 6:03	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0046	0.00013	1	8260B	7/11/18 6:03	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0046	0.00020	1	8260B	7/11/18 6:03	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0046	0.00025	1	8260B	7/11/18 6:03	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0046	0.00026	1	8260B	7/11/18 6:03	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0046	0.00058	1	8260B	7/11/18 6:03	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0046	0.00034	1	8260B	7/11/18 6:03	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0046	0.00035	1	8260B	7/11/18 6:03	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0046	0.00018	1	8260B	7/11/18 6:03	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0046	0.00022	1	8260B	7/11/18 6:03	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0046	0.00027	1	8260B	7/11/18 6:03	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0046	0.00028	1	8260B	7/11/18 6:03	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0046	0.00035	1	8260B	7/11/18 6:03	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0046	0.00030	1	8260B	7/11/18 6:03	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0046	0.00023	1	8260B	7/11/18 6:03	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0046	0.00018	1	8260B	7/11/18 6:03	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0046	0.00022	1	8260B	7/11/18 6:03	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0046	0.00024	1	8260B	7/11/18 6:03	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0046	0.00027	1	8260B	7/11/18 6:03	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0046	0.00022	1	8260B	7/11/18 6:03	ANG	P8G0116
<b>Acetone</b>	<b>0.044 J</b>	<b>mg/kg dry</b>	<b>0.046</b>	<b>0.0011</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 6:03</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0027	0.00027	1	8260B	7/11/18 6:03	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0046	0.00038	1	8260B	7/11/18 6:03	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0046	0.00025	1	8260B	7/11/18 6:03	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0046	0.00026	1	8260B	7/11/18 6:03	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0046	0.00052	1	8260B	7/11/18 6:03	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.0092	0.00057	1	8260B	7/11/18 6:03	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0046	0.00023	1	8260B	7/11/18 6:03	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0046	0.00024	1	8260B	7/11/18 6:03	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.0092	0.00038	1	8260B	7/11/18 6:03	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0046	0.00033	1	8260B	7/11/18 6:03	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0046	0.00031	1	8260B	7/11/18 6:03	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0046	0.00020	1	8260B	7/11/18 6:03	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0046	0.00015	1	8260B	7/11/18 6:03	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0046	0.00019	1	8260B	7/11/18 6:03	ANG	P8G0116

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-13 (3-6)  
Prism Sample ID: 8070092-13  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:20  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0046	0.00021	1	8260B	7/11/18 6:03	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0046	0.00018	1	8260B	7/11/18 6:03	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0046	0.00019	1	8260B	7/11/18 6:03	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0046	0.00027	1	8260B	7/11/18 6:03	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.0092	0.00042	1	8260B	7/11/18 6:03	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.046	0.00041	1	8260B	7/11/18 6:03	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.092	0.00041	1	8260B	7/11/18 6:03	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.046	0.00039	1	8260B	7/11/18 6:03	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.0092	0.00026	1	8260B	7/11/18 6:03	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0092	0.00015	1	8260B	7/11/18 6:03	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.0092	0.00014	1	8260B	7/11/18 6:03	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0046	0.00023	1	8260B	7/11/18 6:03	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0046	0.00027	1	8260B	7/11/18 6:03	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0046	0.00019	1	8260B	7/11/18 6:03	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0046	0.00022	1	8260B	7/11/18 6:03	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0046	0.00028	1	8260B	7/11/18 6:03	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0046	0.00015	1	8260B	7/11/18 6:03	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0046	0.00022	1	8260B	7/11/18 6:03	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0046	0.00026	1	8260B	7/11/18 6:03	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0046	0.00027	1	8260B	7/11/18 6:03	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0046	0.00024	1	8260B	7/11/18 6:03	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0046	0.00030	1	8260B	7/11/18 6:03	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0046	0.00030	1	8260B	7/11/18 6:03	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.023	0.00063	1	8260B	7/11/18 6:03	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0046	0.00022	1	8260B	7/11/18 6:03	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.014	0.00086	1	8260B	7/11/18 6:03	ANG	P8G0116

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	106 %	70-130
Dibromofluoromethane	112 %	84-123
Toluene-d8	123 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-14 (3-5)  
Prism Sample ID: 8070092-14  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:40  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	74.1	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.44	0.069	1	8270D	7/11/18 17:49	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.44	0.067	1	8270D	7/11/18 17:49	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.44	0.063	1	8270D	7/11/18 17:49	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.44	0.065	1	8270D	7/11/18 17:49	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.44	0.086	1	8270D	7/11/18 17:49	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.44	0.083	1	8270D	7/11/18 17:49	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.44	0.086	1	8270D	7/11/18 17:49	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.44	0.068	1	8270D	7/11/18 17:49	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.44	0.062	1	8270D	7/11/18 17:49	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.44	0.054	1	8270D	7/11/18 17:49	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.44	0.059	1	8270D	7/11/18 17:49	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.44	0.064	1	8270D	7/11/18 17:49	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.44	0.063	1	8270D	7/11/18 17:49	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.44	0.071	1	8270D	7/11/18 17:49	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.44	0.057	1	8270D	7/11/18 17:49	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.44	0.081	1	8270D	7/11/18 17:49	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.44	0.088	1	8270D	7/11/18 17:49	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.44	0.055	1	8270D	7/11/18 17:49	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.44	0.067	1	8270D	7/11/18 17:49	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.44	0.076	1	8270D	7/11/18 17:49	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.44	0.062	1	8270D	7/11/18 17:49	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.44	0.053	1	8270D	7/11/18 17:49	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.44	0.058	1	8270D	7/11/18 17:49	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.44	0.069	1	8270D	7/11/18 17:49	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.44	0.060	1	8270D	7/11/18 17:49	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.44	0.064	1	8270D	7/11/18 17:49	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.44	0.072	1	8270D	7/11/18 17:49	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.44	0.059	1	8270D	7/11/18 17:49	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/11/18 17:49	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.44	0.048	1	8270D	7/11/18 17:49	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.44	0.052	1	8270D	7/11/18 17:49	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.44	0.049	1	8270D	7/11/18 17:49	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/11/18 17:49	JMV	P8G0123
<b>Benzoic Acid</b>	<b>0.16 J</b>	<b>mg/kg dry</b>	<b>0.44</b>	<b>0.037</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 17:49</b>	<b>JMV</b>	<b>P8G0123</b>
Benzyl alcohol	BRL	mg/kg dry	0.44	0.059	1	8270D	7/11/18 17:49	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.44	0.077	1	8270D	7/11/18 17:49	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.44	0.063	1	8270D	7/11/18 17:49	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.44	0.076	1	8270D	7/11/18 17:49	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.44	0.066	1	8270D	7/11/18 17:49	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-14 (3-5)

Prism Sample ID: 8070092-14

Prism Work Order: 8070092

Time Collected: 07/09/18 17:40

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.44	0.063	1	8270D	7/11/18 17:49	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.44	0.056	1	8270D	7/11/18 17:49	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.44	0.054	1	8270D	7/11/18 17:49	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.44	0.068	1	8270D	7/11/18 17:49	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.44	0.061	1	8270D	7/11/18 17:49	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.44	0.059	1	8270D	7/11/18 17:49	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.44	0.063	1	8270D	7/11/18 17:49	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.44	0.055	1	8270D	7/11/18 17:49	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.44	0.057	1	8270D	7/11/18 17:49	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.44	0.064	1	8270D	7/11/18 17:49	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.44	0.071	1	8270D	7/11/18 17:49	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.44	0.080	1	8270D	7/11/18 17:49	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.44	0.079	1	8270D	7/11/18 17:49	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.44	0.074	1	8270D	7/11/18 17:49	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.44	0.051	1	8270D	7/11/18 17:49	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.44	0.060	1	8270D	7/11/18 17:49	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.44	0.071	1	8270D	7/11/18 17:49	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.44	0.063	1	8270D	7/11/18 17:49	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.44	0.070	1	8270D	7/11/18 17:49	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.44	0.068	1	8270D	7/11/18 17:49	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.44	0.052	1	8270D	7/11/18 17:49	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/11/18 17:49	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.44	0.066	1	8270D	7/11/18 17:49	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.44	0.059	1	8270D	7/11/18 17:49	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	62 %	39-132
2-Fluorobiphenyl	60 %	44-115
2-Fluorophenol	60 %	35-115
Nitrobenzene-d5	46 %	37-122
Phenol-d5	55 %	34-121
Terphenyl-d14	58 %	54-127

**Total Metals**

Mercury	0.081	mg/kg dry	0.027	0.0026	1	7471B	7/11/18 14:40	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.34	0.034	1	6010D	7/11/18 17:34	JAB	P8G0126
Arsenic	1.4	mg/kg dry	0.67	0.041	1	6010D	7/11/18 17:34	JAB	P8G0126
Barium	60	mg/kg dry	0.67	0.098	1	6010D	7/11/18 17:34	JAB	P8G0126
Beryllium	0.48	mg/kg dry	0.34	0.0074	1	6010D	7/11/18 17:34	JAB	P8G0126
Cadmium	0.17 J	mg/kg dry	0.34	0.0090	1	6010D	7/11/18 17:34	JAB	P8G0126
Chromium	35	mg/kg dry	0.34	0.056	1	6010D	7/11/18 17:34	JAB	P8G0126
Copper	73	mg/kg dry	0.67	0.061	1	6010D	7/11/18 17:34	JAB	P8G0126
Lead	52	mg/kg dry	0.34	0.062	1	6010D	7/11/18 17:34	JAB	P8G0126
Nickel	8.5	mg/kg dry	0.67	0.024	1	6010D	7/11/18 17:34	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-14 (3-5)

Prism Sample ID: 8070092-14

Prism Work Order: 8070092

Time Collected: 07/09/18 17:40

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.55 J</b>	<b>mg/kg dry</b>	<b>0.67</b>	<b>0.16</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:34</b>	<b>JAB</b>	<b>P8G0126</b>
Silver	BRL	mg/kg dry	0.34	0.0083	1	6010D	7/11/18 17:34	JAB	P8G0126
<b>Thallium</b>	<b>0.86</b>	<b>mg/kg dry</b>	<b>0.67</b>	<b>0.088</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:34</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>38</b>	<b>mg/kg dry</b>	<b>3.4</b>	<b>0.12</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:34</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0080	0.00066	1	8260B	7/11/18 6:31	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0080	0.00039	1	8260B	7/11/18 6:31	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0080	0.00054	1	8260B	7/11/18 6:31	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0080	0.00071	1	8260B	7/11/18 6:31	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0080	0.00022	1	8260B	7/11/18 6:31	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0080	0.00035	1	8260B	7/11/18 6:31	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0080	0.00044	1	8260B	7/11/18 6:31	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0080	0.00045	1	8260B	7/11/18 6:31	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0080	0.0010	1	8260B	7/11/18 6:31	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0080	0.00059	1	8260B	7/11/18 6:31	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0080	0.00061	1	8260B	7/11/18 6:31	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0080	0.00032	1	8260B	7/11/18 6:31	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0080	0.00037	1	8260B	7/11/18 6:31	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0080	0.00048	1	8260B	7/11/18 6:31	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0080	0.00049	1	8260B	7/11/18 6:31	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0080	0.00060	1	8260B	7/11/18 6:31	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0080	0.00053	1	8260B	7/11/18 6:31	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0080	0.00040	1	8260B	7/11/18 6:31	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0080	0.00031	1	8260B	7/11/18 6:31	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0080	0.00038	1	8260B	7/11/18 6:31	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0080	0.00041	1	8260B	7/11/18 6:31	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0080	0.00048	1	8260B	7/11/18 6:31	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0080	0.00038	1	8260B	7/11/18 6:31	ANG	P8G0116
<b>Acetone</b>	<b>0.18</b>	<b>mg/kg dry</b>	<b>0.080</b>	<b>0.0019</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 6:31</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0048	0.00046	1	8260B	7/11/18 6:31	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0080	0.00066	1	8260B	7/11/18 6:31	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0080	0.00044	1	8260B	7/11/18 6:31	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0080	0.00044	1	8260B	7/11/18 6:31	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0080	0.00091	1	8260B	7/11/18 6:31	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.016	0.00098	1	8260B	7/11/18 6:31	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0080	0.00040	1	8260B	7/11/18 6:31	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0080	0.00042	1	8260B	7/11/18 6:31	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.016	0.00066	1	8260B	7/11/18 6:31	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0080	0.00058	1	8260B	7/11/18 6:31	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0080	0.00054	1	8260B	7/11/18 6:31	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0080	0.00034	1	8260B	7/11/18 6:31	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0080	0.00027	1	8260B	7/11/18 6:31	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0080	0.00033	1	8260B	7/11/18 6:31	ANG	P8G0116

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-14 (3-5)

Prism Sample ID: 8070092-14

Prism Work Order: 8070092

Time Collected: 07/09/18 17:40

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0080	0.00036	1	8260B	7/11/18 6:31	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0080	0.00031	1	8260B	7/11/18 6:31	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0080	0.00033	1	8260B	7/11/18 6:31	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0080	0.00047	1	8260B	7/11/18 6:31	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.016	0.00074	1	8260B	7/11/18 6:31	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.080	0.00072	1	8260B	7/11/18 6:31	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.16	0.00072	1	8260B	7/11/18 6:31	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.080	0.00068	1	8260B	7/11/18 6:31	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.016	0.00045	1	8260B	7/11/18 6:31	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.016	0.00026	1	8260B	7/11/18 6:31	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.016	0.00025	1	8260B	7/11/18 6:31	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0080	0.00041	1	8260B	7/11/18 6:31	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0080	0.00047	1	8260B	7/11/18 6:31	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0080	0.00033	1	8260B	7/11/18 6:31	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0080	0.00039	1	8260B	7/11/18 6:31	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0080	0.00048	1	8260B	7/11/18 6:31	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0080	0.00027	1	8260B	7/11/18 6:31	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0080	0.00038	1	8260B	7/11/18 6:31	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0080	0.00046	1	8260B	7/11/18 6:31	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0080	0.00048	1	8260B	7/11/18 6:31	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0080	0.00042	1	8260B	7/11/18 6:31	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0080	0.00052	1	8260B	7/11/18 6:31	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0080	0.00052	1	8260B	7/11/18 6:31	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.040	0.0011	1	8260B	7/11/18 6:31	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0080	0.00039	1	8260B	7/11/18 6:31	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.024	0.0015	1	8260B	7/11/18 6:31	ANG	P8G0116

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	110 %	70-130
Dibromofluoromethane	114 %	84-123
Toluene-d8	124 %	76-129

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-15( 1-3)  
Prism Sample ID: 8070092-15  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:45  
Time Submitted: 07/10/18 13:00

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	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.39	0.061	1	8270D	7/11/18 14:47	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 14:47	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 14:47	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/11/18 14:47	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.39	0.075	1	8270D	7/11/18 14:47	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.39	0.073	1	8270D	7/11/18 14:47	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.39	0.075	1	8270D	7/11/18 14:47	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.39	0.060	1	8270D	7/11/18 14:47	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.39	0.054	1	8270D	7/11/18 14:47	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.39	0.047	1	8270D	7/11/18 14:47	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 14:47	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:47	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 14:47	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.39	0.062	1	8270D	7/11/18 14:47	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.39	0.050	1	8270D	7/11/18 14:47	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.39	0.071	1	8270D	7/11/18 14:47	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.39	0.077	1	8270D	7/11/18 14:47	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.39	0.048	1	8270D	7/11/18 14:47	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 14:47	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.39	0.067	1	8270D	7/11/18 14:47	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 14:47	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.39	0.047	1	8270D	7/11/18 14:47	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:47	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.39	0.060	1	8270D	7/11/18 14:47	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.39	0.053	1	8270D	7/11/18 14:47	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:47	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/11/18 14:47	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:47	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:47	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.39	0.042	1	8270D	7/11/18 14:47	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.39	0.045	1	8270D	7/11/18 14:47	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.39	0.043	1	8270D	7/11/18 14:47	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:47	JMV	P8G0123
<b>Benzoic Acid</b>	<b>0.15 J</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.033</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 14:47</b>	<b>JMV</b>	<b>P8G0123</b>
Benzyl alcohol	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:47	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.39	0.068	1	8270D	7/11/18 14:47	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 14:47	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.39	0.067	1	8270D	7/11/18 14:47	JMV	P8G0123
<b>Bis(2-Ethylhexyl)phthalate</b>	<b>0.25 J</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.058</b>	<b>1</b>	<b>8270D</b>	<b>7/11/18 14:47</b>	<b>JMV</b>	<b>P8G0123</b>

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-15( 1-3)  
Prism Sample ID: 8070092-15  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:47	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.39	0.049	1	8270D	7/11/18 14:47	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.39	0.047	1	8270D	7/11/18 14:47	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 14:47	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.39	0.054	1	8270D	7/11/18 14:47	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:47	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 14:47	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.39	0.048	1	8270D	7/11/18 14:47	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.39	0.050	1	8270D	7/11/18 14:47	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/11/18 14:47	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.39	0.062	1	8270D	7/11/18 14:47	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.39	0.070	1	8270D	7/11/18 14:47	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.39	0.070	1	8270D	7/11/18 14:47	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.39	0.065	1	8270D	7/11/18 14:47	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.39	0.045	1	8270D	7/11/18 14:47	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.39	0.053	1	8270D	7/11/18 14:47	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/11/18 14:47	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.39	0.055	1	8270D	7/11/18 14:47	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.39	0.061	1	8270D	7/11/18 14:47	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.39	0.059	1	8270D	7/11/18 14:47	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.39	0.046	1	8270D	7/11/18 14:47	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/11/18 14:47	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.39	0.058	1	8270D	7/11/18 14:47	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/11/18 14:47	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	66 %	39-132
2-Fluorobiphenyl	68 %	44-115
2-Fluorophenol	66 %	35-115
Nitrobenzene-d5	56 %	37-122
Phenol-d5	61 %	34-121
Terphenyl-d14	65 %	54-127

**Total Metals**

Mercury	0.45	mg/kg dry	0.023	0.0022	1	7471B	7/11/18 15:02	JAB	P8G0125
Antimony	BRL	mg/kg dry	0.29	0.030	1	6010D	7/11/18 17:42	JAB	P8G0126
Arsenic	2.1	mg/kg dry	0.59	0.036	1	6010D	7/11/18 17:42	JAB	P8G0126
Barium	85	mg/kg dry	0.59	0.086	1	6010D	7/11/18 17:42	JAB	P8G0126
Beryllium	0.53	mg/kg dry	0.29	0.0065	1	6010D	7/11/18 17:42	JAB	P8G0126
Cadmium	4.5	mg/kg dry	0.29	0.0079	1	6010D	7/11/18 17:42	JAB	P8G0126
Chromium	87	mg/kg dry	0.29	0.049	1	6010D	7/11/18 17:42	JAB	P8G0126
Copper	230	mg/kg dry	2.9	0.27	5	6010D	7/12/18 16:16	JAB	P8G0126
Lead	180	mg/kg dry	1.5	0.27	5	6010D	7/12/18 16:16	JAB	P8G0126
Nickel	47	mg/kg dry	0.59	0.021	1	6010D	7/11/18 17:42	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-15( 1-3)

Prism Sample ID: 8070092-15

Prism Work Order: 8070092

Time Collected: 07/09/18 17:45

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.59	0.14	1	6010D	7/11/18 17:42	JAB	P8G0126
Silver	BRL	mg/kg dry	0.29	0.0073	1	6010D	7/11/18 17:42	JAB	P8G0126
<b>Thallium</b>	<b>1.9</b>	<b>mg/kg dry</b>	<b>0.59</b>	<b>0.077</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:42</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>570</b>	<b>mg/kg dry</b>	<b>15</b>	<b>0.53</b>	<b>5</b>	<b>6010D</b>	<b>7/12/18 16:16</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0064	0.00053	1	8260B	7/11/18 6:59	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 6:59	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0064	0.00043	1	8260B	7/11/18 6:59	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0064	0.00057	1	8260B	7/11/18 6:59	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0064	0.00018	1	8260B	7/11/18 6:59	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0064	0.00028	1	8260B	7/11/18 6:59	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0064	0.00035	1	8260B	7/11/18 6:59	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0064	0.00036	1	8260B	7/11/18 6:59	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0064	0.00082	1	8260B	7/11/18 6:59	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0064	0.00048	1	8260B	7/11/18 6:59	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0064	0.00049	1	8260B	7/11/18 6:59	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0064	0.00026	1	8260B	7/11/18 6:59	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0064	0.00030	1	8260B	7/11/18 6:59	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0064	0.00038	1	8260B	7/11/18 6:59	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0064	0.00040	1	8260B	7/11/18 6:59	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0064	0.00048	1	8260B	7/11/18 6:59	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0064	0.00042	1	8260B	7/11/18 6:59	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0064	0.00032	1	8260B	7/11/18 6:59	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0064	0.00025	1	8260B	7/11/18 6:59	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0064	0.00030	1	8260B	7/11/18 6:59	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0064	0.00033	1	8260B	7/11/18 6:59	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0064	0.00038	1	8260B	7/11/18 6:59	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 6:59	ANG	P8G0116
<b>Acetone</b>	<b>0.14</b>	<b>mg/kg dry</b>	<b>0.064</b>	<b>0.0016</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 6:59</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0038	0.00037	1	8260B	7/11/18 6:59	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0064	0.00053	1	8260B	7/11/18 6:59	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0064	0.00035	1	8260B	7/11/18 6:59	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0064	0.00036	1	8260B	7/11/18 6:59	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0064	0.00073	1	8260B	7/11/18 6:59	ANG	P8G0116
<b>Bromomethane</b>	<b>0.0026 J</b>	<b>mg/kg dry</b>	<b>0.013</b>	<b>0.00079</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 6:59</b>	<b>ANG</b>	<b>P8G0116</b>
Carbon Tetrachloride	BRL	mg/kg dry	0.0064	0.00032	1	8260B	7/11/18 6:59	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0064	0.00034	1	8260B	7/11/18 6:59	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.013	0.00053	1	8260B	7/11/18 6:59	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0064	0.00046	1	8260B	7/11/18 6:59	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0064	0.00043	1	8260B	7/11/18 6:59	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0064	0.00027	1	8260B	7/11/18 6:59	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0064	0.00021	1	8260B	7/11/18 6:59	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0064	0.00026	1	8260B	7/11/18 6:59	ANG	P8G0116

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

07/13/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-15( 1-3)  
Prism Sample ID: 8070092-15  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:45  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0064	0.00029	1	8260B	7/11/18 6:59	ANG	P8G0116
Ethylbenzene	BRL	mg/kg dry	0.0064	0.00025	1	8260B	7/11/18 6:59	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0064	0.00026	1	8260B	7/11/18 6:59	ANG	P8G0116
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0064	0.00038	1	8260B	7/11/18 6:59	ANG	P8G0116
m,p-Xylenes	BRL	mg/kg dry	0.013	0.00059	1	8260B	7/11/18 6:59	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.064	0.00058	1	8260B	7/11/18 6:59	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.13	0.00058	1	8260B	7/11/18 6:59	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.064	0.00054	1	8260B	7/11/18 6:59	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.013	0.00036	1	8260B	7/11/18 6:59	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.013	0.00020	1	8260B	7/11/18 6:59	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.013	0.00020	1	8260B	7/11/18 6:59	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0064	0.00033	1	8260B	7/11/18 6:59	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0064	0.00038	1	8260B	7/11/18 6:59	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0064	0.00026	1	8260B	7/11/18 6:59	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 6:59	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0064	0.00039	1	8260B	7/11/18 6:59	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0064	0.00022	1	8260B	7/11/18 6:59	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0064	0.00030	1	8260B	7/11/18 6:59	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0064	0.00037	1	8260B	7/11/18 6:59	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0064	0.00038	1	8260B	7/11/18 6:59	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0064	0.00034	1	8260B	7/11/18 6:59	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0064	0.00041	1	8260B	7/11/18 6:59	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0064	0.00041	1	8260B	7/11/18 6:59	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.032	0.00088	1	8260B	7/11/18 6:59	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0064	0.00031	1	8260B	7/11/18 6:59	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.019	0.0012	1	8260B	7/11/18 6:59	ANG	P8G0116
			Surrogate			Recovery		Control Limits	
			4-Bromofluorobenzene			107 %		70-130	
			Dibromofluoromethane			111 %		84-123	
			Toluene-d8			121 %		76-129	

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-16 (5-8)  
Prism Sample ID: 8070092-16  
Prism Work Order: 8070092  
Time Collected: 07/09/18 17:50  
Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	83.4	% by Weight	0.100	0.100	1	SM2540 G	7/11/18 14:36	TJY	P8G0153
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 15:10	JMV	P8G0123
1,2-Dichlorobenzene	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 15:10	JMV	P8G0123
1,3-Dichlorobenzene	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:10	JMV	P8G0123
1,4-Dichlorobenzene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 15:10	JMV	P8G0123
1-Methylnaphthalene	BRL	mg/kg dry	0.40	0.076	1	8270D	7/11/18 15:10	JMV	P8G0123
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.40	0.074	1	8270D	7/11/18 15:10	JMV	P8G0123
2,4-Dichlorophenol	BRL	mg/kg dry	0.40	0.076	1	8270D	7/11/18 15:10	JMV	P8G0123
2,4-Dimethylphenol	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 15:10	JMV	P8G0123
2,4-Dinitrophenol	BRL	mg/kg dry	0.40	0.055	1	8270D	7/11/18 15:10	JMV	P8G0123
2,4-Dinitrotoluene	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 15:10	JMV	P8G0123
2,6-Dinitrotoluene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/11/18 15:10	JMV	P8G0123
2-Chloronaphthalene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 15:10	JMV	P8G0123
2-Chlorophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:10	JMV	P8G0123
2-Methylnaphthalene	BRL	mg/kg dry	0.40	0.063	1	8270D	7/11/18 15:10	JMV	P8G0123
2-Methylphenol	BRL	mg/kg dry	0.40	0.051	1	8270D	7/11/18 15:10	JMV	P8G0123
2-Nitrophenol	BRL	mg/kg dry	0.40	0.072	1	8270D	7/11/18 15:10	JMV	P8G0123
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.40	0.078	1	8270D	7/11/18 15:10	JMV	P8G0123
3/4-Methylphenol	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 15:10	JMV	P8G0123
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.40	0.059	1	8270D	7/11/18 15:10	JMV	P8G0123
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.40	0.068	1	8270D	7/11/18 15:10	JMV	P8G0123
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.40	0.055	1	8270D	7/11/18 15:10	JMV	P8G0123
4-Chloroaniline	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 15:10	JMV	P8G0123
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.40	0.051	1	8270D	7/11/18 15:10	JMV	P8G0123
4-Nitrophenol	BRL	mg/kg dry	0.40	0.061	1	8270D	7/11/18 15:10	JMV	P8G0123
Acenaphthene	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 15:10	JMV	P8G0123
Acenaphthylene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 15:10	JMV	P8G0123
Anthracene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 15:10	JMV	P8G0123
Azobenzene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:10	JMV	P8G0123
Benzo(a)anthracene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:10	JMV	P8G0123
Benzo(a)pyrene	BRL	mg/kg dry	0.40	0.043	1	8270D	7/11/18 15:10	JMV	P8G0123
Benzo(b)fluoranthene	BRL	mg/kg dry	0.40	0.046	1	8270D	7/11/18 15:10	JMV	P8G0123
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.40	0.043	1	8270D	7/11/18 15:10	JMV	P8G0123
Benzo(k)fluoranthene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:10	JMV	P8G0123
Benzoic Acid	BRL	mg/kg dry	0.40	0.033	1	8270D	7/11/18 15:10	JMV	P8G0123
Benzyl alcohol	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:10	JMV	P8G0123
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.40	0.069	1	8270D	7/11/18 15:10	JMV	P8G0123
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:10	JMV	P8G0123
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.40	0.068	1	8270D	7/11/18 15:10	JMV	P8G0123
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.40	0.059	1	8270D	7/11/18 15:10	JMV	P8G0123

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-16 (5-8)

Prism Sample ID: 8070092-16

Prism Work Order: 8070092

Time Collected: 07/09/18 17:50

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:10	JMV	P8G0123
Chrysene	BRL	mg/kg dry	0.40	0.050	1	8270D	7/11/18 15:10	JMV	P8G0123
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.40	0.048	1	8270D	7/11/18 15:10	JMV	P8G0123
Dibenzofuran	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 15:10	JMV	P8G0123
Diethyl phthalate	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 15:10	JMV	P8G0123
Dimethyl phthalate	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:10	JMV	P8G0123
Di-n-butyl phthalate	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:10	JMV	P8G0123
Di-n-octyl phthalate	BRL	mg/kg dry	0.40	0.049	1	8270D	7/11/18 15:10	JMV	P8G0123
Fluoranthene	BRL	mg/kg dry	0.40	0.050	1	8270D	7/11/18 15:10	JMV	P8G0123
Fluorene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/11/18 15:10	JMV	P8G0123
Hexachlorobenzene	BRL	mg/kg dry	0.40	0.063	1	8270D	7/11/18 15:10	JMV	P8G0123
Hexachlorobutadiene	BRL	mg/kg dry	0.40	0.071	1	8270D	7/11/18 15:10	JMV	P8G0123
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.40	0.071	1	8270D	7/11/18 15:10	JMV	P8G0123
Hexachloroethane	BRL	mg/kg dry	0.40	0.066	1	8270D	7/11/18 15:10	JMV	P8G0123
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.40	0.045	1	8270D	7/11/18 15:10	JMV	P8G0123
Isophorone	BRL	mg/kg dry	0.40	0.054	1	8270D	7/11/18 15:10	JMV	P8G0123
Naphthalene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/11/18 15:10	JMV	P8G0123
Nitrobenzene	BRL	mg/kg dry	0.40	0.056	1	8270D	7/11/18 15:10	JMV	P8G0123
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.40	0.062	1	8270D	7/11/18 15:10	JMV	P8G0123
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.40	0.060	1	8270D	7/11/18 15:10	JMV	P8G0123
Pentachlorophenol	BRL	mg/kg dry	0.40	0.047	1	8270D	7/11/18 15:10	JMV	P8G0123
Phenanthrene	BRL	mg/kg dry	0.40	0.051	1	8270D	7/11/18 15:10	JMV	P8G0123
Phenol	BRL	mg/kg dry	0.40	0.058	1	8270D	7/11/18 15:10	JMV	P8G0123
Pyrene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/11/18 15:10	JMV	P8G0123

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	71 %	39-132
2-Fluorobiphenyl	68 %	44-115
2-Fluorophenol	70 %	35-115
Nitrobenzene-d5	58 %	37-122
Phenol-d5	65 %	34-121
Terphenyl-d14	70 %	54-127

**Total Metals**

<b>Mercury</b>	<b>0.057</b>	<b>mg/kg dry</b>	<b>0.024</b>	<b>0.0023</b>	<b>1</b>	<b>7471B</b>	<b>7/11/18 14:44</b>	<b>JAB</b>	<b>P8G0125</b>
Antimony	BRL	mg/kg dry	0.30	0.030	1	6010D	7/11/18 17:51	JAB	P8G0126
Arsenic	BRL	mg/kg dry	0.60	0.037	1	6010D	7/11/18 17:51	JAB	P8G0126
<b>Barium</b>	<b>31</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.087</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Beryllium</b>	<b>0.29 J</b>	<b>mg/kg dry</b>	<b>0.30</b>	<b>0.0066</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Cadmium</b>	<b>0.096 J</b>	<b>mg/kg dry</b>	<b>0.30</b>	<b>0.0080</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Chromium</b>	<b>34</b>	<b>mg/kg dry</b>	<b>0.30</b>	<b>0.050</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Copper</b>	<b>18</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.054</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Lead</b>	<b>10</b>	<b>mg/kg dry</b>	<b>0.30</b>	<b>0.056</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Nickel</b>	<b>5.8</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.022</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>
Selenium	BRL	mg/kg dry	0.60	0.14	1	6010D	7/11/18 17:51	JAB	P8G0126

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-16 (5-8)

Prism Sample ID: 8070092-16

Prism Work Order: 8070092

Time Collected: 07/09/18 17:50

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Silver	BRL	mg/kg dry	0.30	0.0074	1	6010D	7/11/18 17:51	JAB	P8G0126
<b>Thallium</b>	<b>0.39 J</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.078</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>
<b>Zinc</b>	<b>26</b>	<b>mg/kg dry</b>	<b>3.0</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/11/18 17:51</b>	<b>JAB</b>	<b>P8G0126</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0042	0.00035	1	8260B	7/11/18 7:28	ANG	P8G0116
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0042	0.00021	1	8260B	7/11/18 7:28	ANG	P8G0116
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0042	0.00029	1	8260B	7/11/18 7:28	ANG	P8G0116
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0042	0.00038	1	8260B	7/11/18 7:28	ANG	P8G0116
1,1-Dichloroethane	BRL	mg/kg dry	0.0042	0.00012	1	8260B	7/11/18 7:28	ANG	P8G0116
1,1-Dichloroethylene	BRL	mg/kg dry	0.0042	0.00019	1	8260B	7/11/18 7:28	ANG	P8G0116
1,1-Dichloropropylene	BRL	mg/kg dry	0.0042	0.00023	1	8260B	7/11/18 7:28	ANG	P8G0116
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0042	0.00024	1	8260B	7/11/18 7:28	ANG	P8G0116
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0042	0.00054	1	8260B	7/11/18 7:28	ANG	P8G0116
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0042	0.00032	1	8260B	7/11/18 7:28	ANG	P8G0116
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0042	0.00032	1	8260B	7/11/18 7:28	ANG	P8G0116
1,2-Dibromoethane	BRL	mg/kg dry	0.0042	0.00017	1	8260B	7/11/18 7:28	ANG	P8G0116
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0042	0.00020	1	8260B	7/11/18 7:28	ANG	P8G0116
1,2-Dichloroethane	BRL	mg/kg dry	0.0042	0.00025	1	8260B	7/11/18 7:28	ANG	P8G0116
1,2-Dichloropropane	BRL	mg/kg dry	0.0042	0.00026	1	8260B	7/11/18 7:28	ANG	P8G0116
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0042	0.00032	1	8260B	7/11/18 7:28	ANG	P8G0116
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0042	0.00028	1	8260B	7/11/18 7:28	ANG	P8G0116
1,3-Dichloropropane	BRL	mg/kg dry	0.0042	0.00021	1	8260B	7/11/18 7:28	ANG	P8G0116
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0042	0.00017	1	8260B	7/11/18 7:28	ANG	P8G0116
2,2-Dichloropropane	BRL	mg/kg dry	0.0042	0.00020	1	8260B	7/11/18 7:28	ANG	P8G0116
2-Chlorotoluene	BRL	mg/kg dry	0.0042	0.00022	1	8260B	7/11/18 7:28	ANG	P8G0116
4-Chlorotoluene	BRL	mg/kg dry	0.0042	0.00025	1	8260B	7/11/18 7:28	ANG	P8G0116
4-Isopropyltoluene	BRL	mg/kg dry	0.0042	0.00020	1	8260B	7/11/18 7:28	ANG	P8G0116
<b>Acetone</b>	<b>0.017 J</b>	<b>mg/kg dry</b>	<b>0.042</b>	<b>0.0010</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:28</b>	<b>ANG</b>	<b>P8G0116</b>
Benzene	BRL	mg/kg dry	0.0025	0.00025	1	8260B	7/11/18 7:28	ANG	P8G0116
Bromobenzene	BRL	mg/kg dry	0.0042	0.00035	1	8260B	7/11/18 7:28	ANG	P8G0116
Bromochloromethane	BRL	mg/kg dry	0.0042	0.00023	1	8260B	7/11/18 7:28	ANG	P8G0116
Bromodichloromethane	BRL	mg/kg dry	0.0042	0.00024	1	8260B	7/11/18 7:28	ANG	P8G0116
Bromoform	BRL	mg/kg dry	0.0042	0.00048	1	8260B	7/11/18 7:28	ANG	P8G0116
Bromomethane	BRL	mg/kg dry	0.0085	0.00052	1	8260B	7/11/18 7:28	ANG	P8G0116
Carbon Tetrachloride	BRL	mg/kg dry	0.0042	0.00021	1	8260B	7/11/18 7:28	ANG	P8G0116
Chlorobenzene	BRL	mg/kg dry	0.0042	0.00022	1	8260B	7/11/18 7:28	ANG	P8G0116
Chloroethane	BRL	mg/kg dry	0.0085	0.00035	1	8260B	7/11/18 7:28	ANG	P8G0116
Chloroform	BRL	mg/kg dry	0.0042	0.00031	1	8260B	7/11/18 7:28	ANG	P8G0116
Chloromethane	BRL	mg/kg dry	0.0042	0.00028	1	8260B	7/11/18 7:28	ANG	P8G0116
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0042	0.00018	1	8260B	7/11/18 7:28	ANG	P8G0116
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0042	0.00014	1	8260B	7/11/18 7:28	ANG	P8G0116
Dibromochloromethane	BRL	mg/kg dry	0.0042	0.00017	1	8260B	7/11/18 7:28	ANG	P8G0116
Dichlorodifluoromethane	BRL	mg/kg dry	0.0042	0.00019	1	8260B	7/11/18 7:28	ANG	P8G0116

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-16 (5-8)

Prism Sample ID: 8070092-16

Prism Work Order: 8070092

Time Collected: 07/09/18 17:50

Time Submitted: 07/10/18 13:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	mg/kg dry	0.0042	0.00016	1	8260B	7/11/18 7:28	ANG	P8G0116
Isopropyl Ether	BRL	mg/kg dry	0.0042	0.00017	1	8260B	7/11/18 7:28	ANG	P8G0116
<b>Isopropylbenzene (Cumene)</b>	<b>0.0059</b>	<b>mg/kg dry</b>	<b>0.0042</b>	<b>0.00025</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 7:28</b>	<b>ANG</b>	<b>P8G0116</b>
m,p-Xylenes	BRL	mg/kg dry	0.0085	0.00039	1	8260B	7/11/18 7:28	ANG	P8G0116
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.042	0.00038	1	8260B	7/11/18 7:28	ANG	P8G0116
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.085	0.00038	1	8260B	7/11/18 7:28	ANG	P8G0116
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.042	0.00036	1	8260B	7/11/18 7:28	ANG	P8G0116
Methylene Chloride	BRL	mg/kg dry	0.0085	0.00024	1	8260B	7/11/18 7:28	ANG	P8G0116
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0085	0.00014	1	8260B	7/11/18 7:28	ANG	P8G0116
Naphthalene	BRL	mg/kg dry	0.0085	0.00013	1	8260B	7/11/18 7:28	ANG	P8G0116
n-Butylbenzene	BRL	mg/kg dry	0.0042	0.00022	1	8260B	7/11/18 7:28	ANG	P8G0116
n-Propylbenzene	BRL	mg/kg dry	0.0042	0.00025	1	8260B	7/11/18 7:28	ANG	P8G0116
o-Xylene	BRL	mg/kg dry	0.0042	0.00017	1	8260B	7/11/18 7:28	ANG	P8G0116
sec-Butylbenzene	BRL	mg/kg dry	0.0042	0.00021	1	8260B	7/11/18 7:28	ANG	P8G0116
Styrene	BRL	mg/kg dry	0.0042	0.00026	1	8260B	7/11/18 7:28	ANG	P8G0116
tert-Butylbenzene	BRL	mg/kg dry	0.0042	0.00014	1	8260B	7/11/18 7:28	ANG	P8G0116
Tetrachloroethylene	BRL	mg/kg dry	0.0042	0.00020	1	8260B	7/11/18 7:28	ANG	P8G0116
Toluene	BRL	mg/kg dry	0.0042	0.00024	1	8260B	7/11/18 7:28	ANG	P8G0116
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0042	0.00025	1	8260B	7/11/18 7:28	ANG	P8G0116
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0042	0.00022	1	8260B	7/11/18 7:28	ANG	P8G0116
Trichloroethylene	BRL	mg/kg dry	0.0042	0.00027	1	8260B	7/11/18 7:28	ANG	P8G0116
Trichlorofluoromethane	BRL CCV	mg/kg dry	0.0042	0.00027	1	8260B	7/11/18 7:28	ANG	P8G0116
Vinyl acetate	BRL	mg/kg dry	0.021	0.00058	1	8260B	7/11/18 7:28	ANG	P8G0116
Vinyl chloride	BRL	mg/kg dry	0.0042	0.00021	1	8260B	7/11/18 7:28	ANG	P8G0116
Xylenes, total	BRL	mg/kg dry	0.013	0.00079	1	8260B	7/11/18 7:28	ANG	P8G0116

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	111 %	70-130
Dibromofluoromethane	103 %	84-123
Toluene-d8	126 %	76-129

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0116 - 5035</b>										
<b>Blank (P8G0116-BLK1)</b>										
Prepared & Analyzed: 07/10/18										
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	0.0050	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.0050	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	0.050	mg/kg wet							
Benzene	BRL	0.0030	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	0.0050	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	0.0050	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	0.050	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.10	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.050	mg/kg wet							

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0116 - 5035</b>										
<b>Blank (P8G0116-BLK1)</b>										
Prepared & Analyzed: 07/10/18										
Methylene Chloride	BRL	0.010	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.010	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	0.0050	mg/kg wet							CCV
Vinyl acetate	BRL	0.025	mg/kg wet							
Vinyl chloride	BRL	0.0050	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	53.7		ug/L	50.00		107	84-123			
Surrogate: Toluene-d8	57.0		ug/L	50.00		114	76-129			
<b>LCS (P8G0116-BS1)</b>										
Prepared & Analyzed: 07/10/18										
1,1,1,2-Tetrachloroethane	0.0446	0.0050	mg/kg wet	0.05000		89	72-115			
1,1,1-Trichloroethane	0.0386	0.0050	mg/kg wet	0.05000		77	67-131			
1,1,2,2-Tetrachloroethane	0.0478	0.0050	mg/kg wet	0.05000		96	56-126			
1,1,2-Trichloroethane	0.0435	0.0050	mg/kg wet	0.05000		87	70-133			
1,1-Dichloroethane	0.0380	0.0050	mg/kg wet	0.05000		76	74-127			
1,1-Dichloroethylene	0.0440	0.0050	mg/kg wet	0.05000		88	67-149			
1,1-Dichloropropylene	0.0397	0.0050	mg/kg wet	0.05000		79	71-130			
1,2,3-Trichlorobenzene	0.0478	0.0050	mg/kg wet	0.05000		96	68-130			
1,2,3-Trichloropropane	0.0482	0.0050	mg/kg wet	0.05000		96	60-137			
1,2,4-Trichlorobenzene	0.0494	0.0050	mg/kg wet	0.05000		99	66-125			
1,2,4-Trimethylbenzene	0.0504	0.0050	mg/kg wet	0.05000		101	69-129			
1,2-Dibromoethane	0.0452	0.0050	mg/kg wet	0.05000		90	70-132			
1,2-Dichlorobenzene	0.0472	0.0050	mg/kg wet	0.05000		94	72-123			
1,2-Dichloroethane	0.0373	0.0050	mg/kg wet	0.05000		75	68-128			
1,2-Dichloropropane	0.0400	0.0050	mg/kg wet	0.05000		80	73-130			
1,3,5-Trimethylbenzene	0.0502	0.0050	mg/kg wet	0.05000		100	69-128			
1,3-Dichlorobenzene	0.0481	0.0050	mg/kg wet	0.05000		96	71-120			
1,3-Dichloropropane	0.0443	0.0050	mg/kg wet	0.05000		89	75-124			
1,4-Dichlorobenzene	0.0469	0.0050	mg/kg wet	0.05000		94	71-123			
2,2-Dichloropropane	0.0374	0.0050	mg/kg wet	0.05000		75	50-142			
2-Chlorotoluene	0.0490	0.0050	mg/kg wet	0.05000		98	67-124			
4-Chlorotoluene	0.0493	0.0050	mg/kg wet	0.05000		99	71-126			
4-Isopropyltoluene	0.0517	0.0050	mg/kg wet	0.05000		103	68-129			
Acetone	0.0762	0.050	mg/kg wet	0.1000		76	29-198			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0116 - 5035</b>										
<b>LCS (P8G0116-BS1)</b>										
Prepared & Analyzed: 07/10/18										
Benzene	0.0383	0.0030	mg/kg wet	0.05000		77	74-127			
Bromobenzene	0.0470	0.0050	mg/kg wet	0.05000		94	73-125			
Bromochloromethane	0.0362	0.0050	mg/kg wet	0.05000		72	72-134			
Bromodichloromethane	0.0370	0.0050	mg/kg wet	0.05000		74	75-122			LH
Bromoform	0.0462	0.0050	mg/kg wet	0.05000		92	66-135			
Bromomethane	0.0372	0.010	mg/kg wet	0.05000		74	20-180			
Carbon Tetrachloride	0.0368	0.0050	mg/kg wet	0.05000		74	64-143			
Chlorobenzene	0.0422	0.0050	mg/kg wet	0.05000		84	74-118			
Chloroethane	0.0460	0.010	mg/kg wet	0.05000		92	33-149			
Chloroform	0.0402	0.0050	mg/kg wet	0.05000		80	73-127			
Chloromethane	0.0380	0.0050	mg/kg wet	0.05000		76	45-143			
cis-1,2-Dichloroethylene	0.0382	0.0050	mg/kg wet	0.05000		76	76-134			
cis-1,3-Dichloropropylene	0.0396	0.0050	mg/kg wet	0.05000		79	71-125			
Dibromochloromethane	0.0446	0.0050	mg/kg wet	0.05000		89	73-122			
Dichlorodifluoromethane	0.0392	0.0050	mg/kg wet	0.05000		78	26-146			
Ethylbenzene	0.0438	0.0050	mg/kg wet	0.05000		88	74-128			
Isopropyl Ether	0.0402	0.0050	mg/kg wet	0.05000		80	59-159			
Isopropylbenzene (Cumene)	0.0517	0.0050	mg/kg wet	0.05000		103	68-126			
m,p-Xylenes	0.0912	0.010	mg/kg wet	0.1000		91	75-124			
Methyl Butyl Ketone (2-Hexanone)	0.0494	0.050	mg/kg wet	0.05000		99	61-157			J
Methyl Ethyl Ketone (2-Butanone)	0.0369	0.10	mg/kg wet	0.05000		74	63-149			J
Methyl Isobutyl Ketone	0.0407	0.050	mg/kg wet	0.05000		81	57-162			J
Methylene Chloride	0.0400	0.010	mg/kg wet	0.05000		80	74-129			
Methyl-tert-Butyl Ether	0.0436	0.010	mg/kg wet	0.05000		87	70-130			
Naphthalene	0.0465	0.010	mg/kg wet	0.05000		93	57-157			
n-Butylbenzene	0.0500	0.0050	mg/kg wet	0.05000		100	65-135			
n-Propylbenzene	0.0484	0.0050	mg/kg wet	0.05000		97	67-130			
o-Xylene	0.0466	0.0050	mg/kg wet	0.05000		93	74-126			
sec-Butylbenzene	0.0498	0.0050	mg/kg wet	0.05000		100	66-131			
Styrene	0.0471	0.0050	mg/kg wet	0.05000		94	77-121			
tert-Butylbenzene	0.0510	0.0050	mg/kg wet	0.05000		102	67-132			
Tetrachloroethylene	0.0368	0.0050	mg/kg wet	0.05000		74	68-130			
Toluene	0.0367	0.0050	mg/kg wet	0.05000		73	71-129			
trans-1,2-Dichloroethylene	0.0390	0.0050	mg/kg wet	0.05000		78	73-132			
trans-1,3-Dichloropropylene	0.0376	0.0050	mg/kg wet	0.05000		75	68-123			
Trichloroethylene	0.0386	0.0050	mg/kg wet	0.05000		77	75-133			
Trichlorofluoromethane	0.0603	0.0050	mg/kg wet	0.05000		121	44-146			CCV
Vinyl acetate	0.0429	0.025	mg/kg wet	0.05000		86	85-161			
Vinyl chloride	0.0340	0.0050	mg/kg wet	0.05000		68	48-147			
Xylenes, total	0.138	0.015	mg/kg wet	0.1500		92	74-126			
Surrogate: 4-Bromofluorobenzene	51.9		ug/L	50.00		104	70-130			
Surrogate: Dibromofluoromethane	51.2		ug/L	50.00		102	84-123			
Surrogate: Toluene-d8	56.5		ug/L	50.00		113	76-129			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0116 - 5035</b>										
<b>LCS Dup (P8G0116-BSD1)</b>										
Prepared & Analyzed: 07/10/18										
1,1,1,2-Tetrachloroethane	0.0444	0.0050	mg/kg wet	0.05000		89	72-115	0.6	20	
1,1,1-Trichloroethane	0.0380	0.0050	mg/kg wet	0.05000		76	67-131	2	20	
1,1,2,2-Tetrachloroethane	0.0467	0.0050	mg/kg wet	0.05000		93	56-126	2	20	
1,1,2-Trichloroethane	0.0427	0.0050	mg/kg wet	0.05000		85	70-133	2	20	
1,1-Dichloroethane	0.0379	0.0050	mg/kg wet	0.05000		76	74-127	0.3	20	
1,1-Dichloroethylene	0.0436	0.0050	mg/kg wet	0.05000		87	67-149	1	20	
1,1-Dichloropropylene	0.0389	0.0050	mg/kg wet	0.05000		78	71-130	2	20	
1,2,3-Trichlorobenzene	0.0484	0.0050	mg/kg wet	0.05000		97	68-130	1	20	
1,2,3-Trichloropropane	0.0446	0.0050	mg/kg wet	0.05000		89	60-137	8	20	
1,2,4-Trichlorobenzene	0.0486	0.0050	mg/kg wet	0.05000		97	66-125	2	20	
1,2,4-Trimethylbenzene	0.0487	0.0050	mg/kg wet	0.05000		97	69-129	4	20	
1,2-Dibromoethane	0.0441	0.0050	mg/kg wet	0.05000		88	70-132	2	20	
1,2-Dichlorobenzene	0.0483	0.0050	mg/kg wet	0.05000		97	72-123	2	20	
1,2-Dichloroethane	0.0375	0.0050	mg/kg wet	0.05000		75	68-128	0.4	20	
1,2-Dichloropropane	0.0392	0.0050	mg/kg wet	0.05000		78	73-130	2	20	
1,3,5-Trimethylbenzene	0.0483	0.0050	mg/kg wet	0.05000		97	69-128	4	20	
1,3-Dichlorobenzene	0.0476	0.0050	mg/kg wet	0.05000		95	71-120	0.9	20	
1,3-Dichloropropane	0.0430	0.0050	mg/kg wet	0.05000		86	75-124	3	20	
1,4-Dichlorobenzene	0.0464	0.0050	mg/kg wet	0.05000		93	71-123	1	20	
2,2-Dichloropropane	0.0370	0.0050	mg/kg wet	0.05000		74	50-142	1	20	
2-Chlorotoluene	0.0472	0.0050	mg/kg wet	0.05000		94	67-124	4	20	
4-Chlorotoluene	0.0479	0.0050	mg/kg wet	0.05000		96	71-126	3	20	
4-Isopropyltoluene	0.0503	0.0050	mg/kg wet	0.05000		101	68-129	3	20	
Acetone	0.0726	0.050	mg/kg wet	0.1000		73	29-198	5	20	
Benzene	0.0371	0.0030	mg/kg wet	0.05000		74	74-127	3	20	
Bromobenzene	0.0462	0.0050	mg/kg wet	0.05000		92	73-125	2	20	
Bromochloromethane	0.0356	0.0050	mg/kg wet	0.05000		71	72-134	2	20	LH
Bromodichloromethane	0.0373	0.0050	mg/kg wet	0.05000		75	75-122	0.9	20	
Bromoform	0.0479	0.0050	mg/kg wet	0.05000		96	66-135	4	20	
Bromomethane	0.0354	0.010	mg/kg wet	0.05000		71	20-180	5	20	
Carbon Tetrachloride	0.0367	0.0050	mg/kg wet	0.05000		73	64-143	0.4	20	
Chlorobenzene	0.0426	0.0050	mg/kg wet	0.05000		85	74-118	0.9	20	
Chloroethane	0.0438	0.010	mg/kg wet	0.05000		88	33-149	5	20	
Chloroform	0.0399	0.0050	mg/kg wet	0.05000		80	73-127	0.6	20	
Chloromethane	0.0392	0.0050	mg/kg wet	0.05000		78	45-143	3	20	
cis-1,2-Dichloroethylene	0.0377	0.0050	mg/kg wet	0.05000		75	76-134	1	20	L2
cis-1,3-Dichloropropylene	0.0400	0.0050	mg/kg wet	0.05000		80	71-125	1	20	
Dibromochloromethane	0.0439	0.0050	mg/kg wet	0.05000		88	73-122	2	20	
Dichlorodifluoromethane	0.0367	0.0050	mg/kg wet	0.05000		73	26-146	6	20	
Ethylbenzene	0.0432	0.0050	mg/kg wet	0.05000		86	74-128	1	20	
Isopropyl Ether	0.0404	0.0050	mg/kg wet	0.05000		81	59-159	0.4	20	
Isopropylbenzene (Cumene)	0.0508	0.0050	mg/kg wet	0.05000		102	68-126	2	20	
m,p-Xylenes	0.0896	0.010	mg/kg wet	0.1000		90	75-124	2	20	
Methyl Butyl Ketone (2-Hexanone)	0.0468	0.050	mg/kg wet	0.05000		94	61-157	5	20	J
Methyl Ethyl Ketone (2-Butanone)	0.0367	0.10	mg/kg wet	0.05000		73	63-149	0.6	20	J
Methyl Isobutyl Ketone	0.0394	0.050	mg/kg wet	0.05000		79	57-162	3	20	J

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

### Volatiles 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 P8G0116 - 5035</b>										
<b>LCS Dup (P8G0116-BSD1)</b>										
Prepared & Analyzed: 07/10/18										
Methylene Chloride	0.0401	0.010	mg/kg wet	0.05000		80	74-129	0.2	20	
Methyl-tert-Butyl Ether	0.0432	0.010	mg/kg wet	0.05000		86	70-130	0.9	20	
Naphthalene	0.0456	0.010	mg/kg wet	0.05000		91	57-157	2	20	
n-Butylbenzene	0.0501	0.0050	mg/kg wet	0.05000		100	65-135	0.2	20	
n-Propylbenzene	0.0464	0.0050	mg/kg wet	0.05000		93	67-130	4	20	
o-Xylene	0.0473	0.0050	mg/kg wet	0.05000		95	74-126	2	20	
sec-Butylbenzene	0.0483	0.0050	mg/kg wet	0.05000		97	66-131	3	20	
Styrene	0.0485	0.0050	mg/kg wet	0.05000		97	77-121	3	20	
tert-Butylbenzene	0.0500	0.0050	mg/kg wet	0.05000		100	67-132	2	20	
Tetrachloroethylene	0.0367	0.0050	mg/kg wet	0.05000		73	68-130	0.4	20	
Toluene	0.0374	0.0050	mg/kg wet	0.05000		75	71-129	2	20	
trans-1,2-Dichloroethylene	0.0382	0.0050	mg/kg wet	0.05000		76	73-132	2	20	
trans-1,3-Dichloropropylene	0.0381	0.0050	mg/kg wet	0.05000		76	68-123	1	20	
Trichloroethylene	0.0373	0.0050	mg/kg wet	0.05000		75	75-133	3	20	
Trichlorofluoromethane	0.0569	0.0050	mg/kg wet	0.05000		114	44-146	6	20	CCV
Vinyl acetate	0.0408	0.025	mg/kg wet	0.05000		82	85-161	5	20	L2
Vinyl chloride	0.0342	0.0050	mg/kg wet	0.05000		68	48-147	0.4	20	
Xylenes, total	0.137	0.015	mg/kg wet	0.1500		91	74-126	0.6	20	
Surrogate: 4-Bromofluorobenzene	50.7		ug/L	50.00		101	70-130			
Surrogate: Dibromofluoromethane	51.3		ug/L	50.00		103	84-123			
Surrogate: Toluene-d8	57.2		ug/L	50.00		114	76-129			
<b>Matrix Spike (P8G0116-MS1)</b>										
Source: 8070092-01 Prepared: 07/10/18 Analyzed: 07/11/18										
1,1,1,2-Tetrachloroethane	0.0229	0.0065	mg/kg dry	0.06451	BRL	36	60-120			M
1,1,1-Trichloroethane	0.0250	0.0065	mg/kg dry	0.06451	BRL	39	52-139			M
1,1,2,2-Tetrachloroethane	0.0319	0.0065	mg/kg dry	0.06451	BRL	49	39-135			
1,1,2-Trichloroethane	0.0310	0.0065	mg/kg dry	0.06451	BRL	48	44-140			
1,1-Dichloroethane	0.0273	0.0065	mg/kg dry	0.06451	BRL	42	59-137			M
1,1-Dichloroethylene	0.0303	0.0065	mg/kg dry	0.06451	BRL	47	54-162			M
1,1-Dichloropropylene	0.0228	0.0065	mg/kg dry	0.06451	BRL	35	55-137			M
1,2,3-Trichlorobenzene	0.00756	0.0065	mg/kg dry	0.06451	BRL	12	34-120			M
1,2,3-Trichloropropane	0.0346	0.0065	mg/kg dry	0.06451	BRL	54	45-139			
1,2,4-Trichlorobenzene	0.00823	0.0065	mg/kg dry	0.06451	BRL	13	35-116			M
1,2,4-Trimethylbenzene	0.0192	0.0065	mg/kg dry	0.06451	BRL	30	38-142			M
1,2-Dibromoethane	0.0250	0.0065	mg/kg dry	0.06451	BRL	39	49-132			M
1,2-Dichlorobenzene	0.0139	0.0065	mg/kg dry	0.06451	BRL	22	42-130			M
1,2-Dichloroethane	0.0268	0.0065	mg/kg dry	0.06451	BRL	42	51-131			M
1,2-Dichloropropane	0.0248	0.0065	mg/kg dry	0.06451	BRL	38	55-138			M
1,3,5-Trimethylbenzene	0.0209	0.0065	mg/kg dry	0.06451	BRL	32	44-140			M
1,3-Dichlorobenzene	0.0151	0.0065	mg/kg dry	0.06451	BRL	23	41-129			M
1,3-Dichloropropane	0.0299	0.0065	mg/kg dry	0.06451	BRL	46	53-129			M
1,4-Dichlorobenzene	0.0142	0.0065	mg/kg dry	0.06451	BRL	22	44-134			M
2,2-Dichloropropane	0.0244	0.0065	mg/kg dry	0.06451	BRL	38	30-147			
2-Chlorotoluene	0.0203	0.0065	mg/kg dry	0.06451	BRL	31	46-132			M
4-Chlorotoluene	0.0183	0.0065	mg/kg dry	0.06451	BRL	28	44-135			M
4-Isopropyltoluene	0.0198	0.0065	mg/kg dry	0.06451	BRL	31	32-144			M
Acetone	0.0421	0.065	mg/kg dry	0.1290	0.394	NR	34-143			M, J

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

### Volatiles 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 P8G0116 - 5035</b>										
<b>Matrix Spike (P8G0116-MS1)</b>	<b>Source: 8070092-01</b>			<b>Prepared: 07/10/18</b>		<b>Analyzed: 07/11/18</b>				
Benzene	0.0239	0.0039	mg/kg dry	0.06451	BRL	37	60-135			M
Bromobenzene	0.0204	0.0065	mg/kg dry	0.06451	BRL	32	45-135			M
Bromochloromethane	0.0254	0.0065	mg/kg dry	0.06451	BRL	39	55-136			M
Bromodichloromethane	0.0169	0.0065	mg/kg dry	0.06451	BRL	26	55-127			M
Bromoform	0.0146	0.0065	mg/kg dry	0.06451	BRL	23	40-136			M
Bromomethane	0.0164	0.013	mg/kg dry	0.06451	BRL	25	30-137			M
Carbon Tetrachloride	0.0225	0.0065	mg/kg dry	0.06451	BRL	35	48-153			M
Chlorobenzene	0.0197	0.0065	mg/kg dry	0.06451	BRL	31	57-125			M
Chloroethane	0.0322	0.013	mg/kg dry	0.06451	BRL	50	16-177			M
Chloroform	0.0279	0.0065	mg/kg dry	0.06451	BRL	43	56-137			M
Chloromethane	0.0263	0.0065	mg/kg dry	0.06451	BRL	41	40-145			M
cis-1,2-Dichloroethylene	0.0242	0.0065	mg/kg dry	0.06451	BRL	38	58-140			M
cis-1,3-Dichloropropylene	0.0130	0.0065	mg/kg dry	0.06451	BRL	20	42-135			M
Dibromochloromethane	0.0172	0.0065	mg/kg dry	0.06451	BRL	27	49-127			M
Dichlorodifluoromethane	0.0317	0.0065	mg/kg dry	0.06451	BRL	49	25-151			M
Ethylbenzene	0.0213	0.0065	mg/kg dry	0.06451	BRL	33	44-144			M
Isopropyl Ether	0.0303	0.0065	mg/kg dry	0.06451	BRL	47	51-155			M
Isopropylbenzene (Cumene)	0.0271	0.0065	mg/kg dry	0.06451	BRL	42	41-140			M
m,p-Xylenes	0.0423	0.013	mg/kg dry	0.1290	BRL	33	36-148			M
Methyl Butyl Ketone (2-Hexanone)	0.0223	0.065	mg/kg dry	0.06451	BRL	34	30-147			J
Methyl Ethyl Ketone (2-Butanone)	0.0137	0.13	mg/kg dry	0.06451	BRL	21	24-160			M, J
Methyl Isobutyl Ketone	0.0238	0.065	mg/kg dry	0.06451	BRL	37	25-163			J
Methylene Chloride	0.0274	0.013	mg/kg dry	0.06451	BRL	42	53-144			M
Methyl-tert-Butyl Ether	0.0340	0.013	mg/kg dry	0.06451	BRL	53	49-135			M
Naphthalene	0.00683	0.013	mg/kg dry	0.06451	BRL	11	32-127			M, J
n-Butylbenzene	0.0174	0.0065	mg/kg dry	0.06451	BRL	27	23-148			M
n-Propylbenzene	0.0232	0.0065	mg/kg dry	0.06451	BRL	36	35-144			M
o-Xylene	0.0190	0.0065	mg/kg dry	0.06451	BRL	30	43-143			M
sec-Butylbenzene	0.0224	0.0065	mg/kg dry	0.06451	BRL	35	34-144			M
Styrene	0.0155	0.0065	mg/kg dry	0.06451	BRL	24	42-132			M
tert-Butylbenzene	0.0235	0.0065	mg/kg dry	0.06451	BRL	36	36-150			M
Tetrachloroethylene	0.0162	0.0065	mg/kg dry	0.06451	BRL	25	47-142			M
Toluene	0.0189	0.0065	mg/kg dry	0.06451	BRL	29	57-135			M
trans-1,2-Dichloroethylene	0.0247	0.0065	mg/kg dry	0.06451	BRL	38	58-141			M
trans-1,3-Dichloropropylene	0.0122	0.0065	mg/kg dry	0.06451	BRL	19	41-124			M
Trichloroethylene	0.0213	0.0065	mg/kg dry	0.06451	BRL	33	38-164			M
Trichlorofluoromethane	0.0428	0.0065	mg/kg dry	0.06451	BRL	66	30-157			CCV
Vinyl acetate	BRL	0.032	mg/kg dry	0.06451	BRL		61-154			M
Vinyl chloride	0.0299	0.0065	mg/kg dry	0.06451	BRL	46	40-156			M
Xylenes, total	0.0614	0.019	mg/kg dry	0.1935	BRL	32	36-148			M
Surrogate: 4-Bromofluorobenzene	52.4		ug/L	50.00		105	70-130			
Surrogate: Dibromofluoromethane	53.6		ug/L	50.00		107	84-123			
Surrogate: Toluene-d8	64.5		ug/L	50.00		129	76-129			

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Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>Blank (P8G0154-BLK1)</b>										
Prepared & Analyzed: 07/11/18										
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	0.0050	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.0050	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	0.050	mg/kg wet							
Benzene	BRL	0.0030	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	0.0050	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	0.0050	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	0.050	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.10	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.050	mg/kg wet							

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Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>Blank (P8G0154-BLK1)</b>										
Prepared & Analyzed: 07/11/18										
Methylene Chloride	BRL	0.010	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.010	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	0.0050	mg/kg wet							
Vinyl acetate	BRL	0.025	mg/kg wet							
Vinyl chloride	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	48.9		ug/L	50.00		98	70-130			
Surrogate: Dibromofluoromethane	50.4		ug/L	50.00		101	84-123			
Surrogate: Toluene-d8	48.1		ug/L	50.00		96	76-129			
<b>LCS (P8G0154-BS1)</b>										
Prepared & Analyzed: 07/11/18										
1,1,1,2-Tetrachloroethane	0.0503	0.0050	mg/kg wet	0.05000		101	72-115			
1,1,1-Trichloroethane	0.0482	0.0050	mg/kg wet	0.05000		96	67-131			
1,1,2,2-Tetrachloroethane	0.0528	0.0050	mg/kg wet	0.05000		106	56-126			
1,1,2-Trichloroethane	0.0493	0.0050	mg/kg wet	0.05000		99	70-133			
1,1-Dichloroethane	0.0468	0.0050	mg/kg wet	0.05000		94	74-127			
1,1-Dichloroethylene	0.0464	0.0050	mg/kg wet	0.05000		93	67-149			
1,1-Dichloropropylene	0.0484	0.0050	mg/kg wet	0.05000		97	71-130			
1,2,3-Trichlorobenzene	0.0494	0.0050	mg/kg wet	0.05000		99	68-130			
1,2,3-Trichloropropane	0.0502	0.0050	mg/kg wet	0.05000		100	60-137			
1,2,4-Trichlorobenzene	0.0490	0.0050	mg/kg wet	0.05000		98	66-125			
1,2,4-Trimethylbenzene	0.0498	0.0050	mg/kg wet	0.05000		100	69-129			
1,2-Dibromoethane	0.0506	0.0050	mg/kg wet	0.05000		101	70-132			
1,2-Dichlorobenzene	0.0469	0.0050	mg/kg wet	0.05000		94	72-123			
1,2-Dichloroethane	0.0491	0.0050	mg/kg wet	0.05000		98	68-128			
1,2-Dichloropropane	0.0495	0.0050	mg/kg wet	0.05000		99	73-130			
1,3,5-Trimethylbenzene	0.0494	0.0050	mg/kg wet	0.05000		99	69-128			
1,3-Dichlorobenzene	0.0464	0.0050	mg/kg wet	0.05000		93	71-120			
1,3-Dichloropropane	0.0512	0.0050	mg/kg wet	0.05000		102	75-124			
1,4-Dichlorobenzene	0.0463	0.0050	mg/kg wet	0.05000		93	71-123			
2,2-Dichloropropane	0.0501	0.0050	mg/kg wet	0.05000		100	50-142			
2-Chlorotoluene	0.0466	0.0050	mg/kg wet	0.05000		93	67-124			
4-Chlorotoluene	0.0472	0.0050	mg/kg wet	0.05000		94	71-126			
4-Isopropyltoluene	0.0498	0.0050	mg/kg wet	0.05000		100	68-129			
Acetone	0.0894	0.050	mg/kg wet	0.1000		89	29-198			

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Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

### Volatiles 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 P8G0154 - 5035</b>										
<b>LCS (P8G0154-BS1)</b>										
Prepared & Analyzed: 07/11/18										
Benzene	0.0491	0.0030	mg/kg wet	0.05000		98	74-127			
Bromobenzene	0.0476	0.0050	mg/kg wet	0.05000		95	73-125			
Bromochloromethane	0.0509	0.0050	mg/kg wet	0.05000		102	72-134			
Bromodichloromethane	0.0492	0.0050	mg/kg wet	0.05000		98	75-122			
Bromoform	0.0492	0.0050	mg/kg wet	0.05000		98	66-135			
Bromomethane	0.0476	0.010	mg/kg wet	0.05000		95	20-180			
Carbon Tetrachloride	0.0480	0.0050	mg/kg wet	0.05000		96	64-143			
Chlorobenzene	0.0473	0.0050	mg/kg wet	0.05000		95	74-118			
Chloroethane	0.0459	0.010	mg/kg wet	0.05000		92	33-149			
Chloroform	0.0484	0.0050	mg/kg wet	0.05000		97	73-127			
Chloromethane	0.0463	0.0050	mg/kg wet	0.05000		93	45-143			
cis-1,2-Dichloroethylene	0.0487	0.0050	mg/kg wet	0.05000		97	76-134			
cis-1,3-Dichloropropylene	0.0528	0.0050	mg/kg wet	0.05000		106	71-125			
Dibromochloromethane	0.0497	0.0050	mg/kg wet	0.05000		99	73-122			
Dichlorodifluoromethane	0.0413	0.0050	mg/kg wet	0.05000		83	26-146			
Ethylbenzene	0.0486	0.0050	mg/kg wet	0.05000		97	74-128			
Isopropyl Ether	0.0493	0.0050	mg/kg wet	0.05000		99	59-159			
Isopropylbenzene (Cumene)	0.0495	0.0050	mg/kg wet	0.05000		99	68-126			
m,p-Xylenes	0.100	0.010	mg/kg wet	0.1000		100	75-124			
Methyl Butyl Ketone (2-Hexanone)	0.0498	0.050	mg/kg wet	0.05000		100	61-157			J
Methyl Ethyl Ketone (2-Butanone)	0.0419	0.10	mg/kg wet	0.05000		84	63-149			J
Methyl Isobutyl Ketone	0.0499	0.050	mg/kg wet	0.05000		100	57-162			J
Methylene Chloride	0.0458	0.010	mg/kg wet	0.05000		92	74-129			
Methyl-tert-Butyl Ether	0.0510	0.010	mg/kg wet	0.05000		102	70-130			
Naphthalene	0.0508	0.010	mg/kg wet	0.05000		102	57-157			
n-Butylbenzene	0.0494	0.0050	mg/kg wet	0.05000		99	65-135			
n-Propylbenzene	0.0479	0.0050	mg/kg wet	0.05000		96	67-130			
o-Xylene	0.0504	0.0050	mg/kg wet	0.05000		101	74-126			
sec-Butylbenzene	0.0481	0.0050	mg/kg wet	0.05000		96	66-131			
Styrene	0.0498	0.0050	mg/kg wet	0.05000		100	77-121			
tert-Butylbenzene	0.0497	0.0050	mg/kg wet	0.05000		99	67-132			
Tetrachloroethylene	0.0472	0.0050	mg/kg wet	0.05000		94	68-130			
Toluene	0.0487	0.0050	mg/kg wet	0.05000		97	71-129			
trans-1,2-Dichloroethylene	0.0484	0.0050	mg/kg wet	0.05000		97	73-132			
trans-1,3-Dichloropropylene	0.0541	0.0050	mg/kg wet	0.05000		108	68-123			
Trichloroethylene	0.0472	0.0050	mg/kg wet	0.05000		94	75-133			
Trichlorofluoromethane	0.0481	0.0050	mg/kg wet	0.05000		96	44-146			
Vinyl acetate	0.0564	0.025	mg/kg wet	0.05000		113	85-161			
Vinyl chloride	0.0500	0.0050	mg/kg wet	0.05000		100	48-147			
Xylenes, total	0.150	0.015	mg/kg wet	0.1500		100	74-126			
Surrogate: 4-Bromofluorobenzene	47.7		ug/L	50.00		95	70-130			
Surrogate: Dibromofluoromethane	48.6		ug/L	50.00		97	84-123			
Surrogate: Toluene-d8	49.1		ug/L	50.00		98	76-129			

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 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

### Volatiles 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 P8G0154 - 5035</b>										
<b>LCS Dup (P8G0154-BSD1)</b>										
Prepared & Analyzed: 07/11/18										
1,1,1,2-Tetrachloroethane	0.0480	0.0050	mg/kg wet	0.05000		96	72-115	5	20	
1,1,1-Trichloroethane	0.0439	0.0050	mg/kg wet	0.05000		88	67-131	9	20	
1,1,2,2-Tetrachloroethane	0.0507	0.0050	mg/kg wet	0.05000		101	56-126	4	20	
1,1,2-Trichloroethane	0.0469	0.0050	mg/kg wet	0.05000		94	70-133	5	20	
1,1-Dichloroethane	0.0442	0.0050	mg/kg wet	0.05000		88	74-127	6	20	
1,1-Dichloroethylene	0.0436	0.0050	mg/kg wet	0.05000		87	67-149	6	20	
1,1-Dichloropropylene	0.0453	0.0050	mg/kg wet	0.05000		91	71-130	6	20	
1,2,3-Trichlorobenzene	0.0477	0.0050	mg/kg wet	0.05000		95	68-130	3	20	
1,2,3-Trichloropropane	0.0471	0.0050	mg/kg wet	0.05000		94	60-137	6	20	
1,2,4-Trichlorobenzene	0.0466	0.0050	mg/kg wet	0.05000		93	66-125	5	20	
1,2,4-Trimethylbenzene	0.0469	0.0050	mg/kg wet	0.05000		94	69-129	6	20	
1,2-Dibromoethane	0.0478	0.0050	mg/kg wet	0.05000		96	70-132	6	20	
1,2-Dichlorobenzene	0.0446	0.0050	mg/kg wet	0.05000		89	72-123	5	20	
1,2-Dichloroethane	0.0462	0.0050	mg/kg wet	0.05000		92	68-128	6	20	
1,2-Dichloropropane	0.0476	0.0050	mg/kg wet	0.05000		95	73-130	4	20	
1,3,5-Trimethylbenzene	0.0461	0.0050	mg/kg wet	0.05000		92	69-128	7	20	
1,3-Dichlorobenzene	0.0445	0.0050	mg/kg wet	0.05000		89	71-120	4	20	
1,3-Dichloropropane	0.0482	0.0050	mg/kg wet	0.05000		96	75-124	6	20	
1,4-Dichlorobenzene	0.0446	0.0050	mg/kg wet	0.05000		89	71-123	4	20	
2,2-Dichloropropane	0.0469	0.0050	mg/kg wet	0.05000		94	50-142	7	20	
2-Chlorotoluene	0.0444	0.0050	mg/kg wet	0.05000		89	67-124	5	20	
4-Chlorotoluene	0.0446	0.0050	mg/kg wet	0.05000		89	71-126	6	20	
4-Isopropyltoluene	0.0468	0.0050	mg/kg wet	0.05000		94	68-129	6	20	
Acetone	0.0809	0.050	mg/kg wet	0.1000		81	29-198	10	20	
Benzene	0.0456	0.0030	mg/kg wet	0.05000		91	74-127	7	20	
Bromobenzene	0.0454	0.0050	mg/kg wet	0.05000		91	73-125	5	20	
Bromochloromethane	0.0477	0.0050	mg/kg wet	0.05000		95	72-134	6	20	
Bromodichloromethane	0.0467	0.0050	mg/kg wet	0.05000		93	75-122	5	20	
Bromoform	0.0469	0.0050	mg/kg wet	0.05000		94	66-135	5	20	
Bromomethane	0.0450	0.010	mg/kg wet	0.05000		90	20-180	6	20	
Carbon Tetrachloride	0.0454	0.0050	mg/kg wet	0.05000		91	64-143	6	20	
Chlorobenzene	0.0444	0.0050	mg/kg wet	0.05000		89	74-118	6	20	
Chloroethane	0.0423	0.010	mg/kg wet	0.05000		85	33-149	8	20	
Chloroform	0.0453	0.0050	mg/kg wet	0.05000		91	73-127	7	20	
Chloromethane	0.0430	0.0050	mg/kg wet	0.05000		86	45-143	7	20	
cis-1,2-Dichloroethylene	0.0454	0.0050	mg/kg wet	0.05000		91	76-134	7	20	
cis-1,3-Dichloropropylene	0.0497	0.0050	mg/kg wet	0.05000		99	71-125	6	20	
Dibromochloromethane	0.0471	0.0050	mg/kg wet	0.05000		94	73-122	6	20	
Dichlorodifluoromethane	0.0381	0.0050	mg/kg wet	0.05000		76	26-146	8	20	
Ethylbenzene	0.0457	0.0050	mg/kg wet	0.05000		91	74-128	6	20	
Isopropyl Ether	0.0466	0.0050	mg/kg wet	0.05000		93	59-159	6	20	
Isopropylbenzene (Cumene)	0.0468	0.0050	mg/kg wet	0.05000		94	68-126	6	20	
m,p-Xylenes	0.0934	0.010	mg/kg wet	0.1000		93	75-124	7	20	
Methyl Butyl Ketone (2-Hexanone)	0.0466	0.050	mg/kg wet	0.05000		93	61-157	7	20	J
Methyl Ethyl Ketone (2-Butanone)	0.0409	0.10	mg/kg wet	0.05000		82	63-149	2	20	J
Methyl Isobutyl Ketone	0.0481	0.050	mg/kg wet	0.05000		96	57-162	4	20	J

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>LCS Dup (P8G0154-BSD1)</b>										
Prepared & Analyzed: 07/11/18										
Methylene Chloride	0.0429	0.010	mg/kg wet	0.05000		86	74-129	7	20	
Methyl-tert-Butyl Ether	0.0474	0.010	mg/kg wet	0.05000		95	70-130	7	20	
Naphthalene	0.0500	0.010	mg/kg wet	0.05000		100	57-157	2	20	
n-Butylbenzene	0.0462	0.0050	mg/kg wet	0.05000		92	65-135	7	20	
n-Propylbenzene	0.0457	0.0050	mg/kg wet	0.05000		91	67-130	5	20	
o-Xylene	0.0468	0.0050	mg/kg wet	0.05000		94	74-126	7	20	
sec-Butylbenzene	0.0456	0.0050	mg/kg wet	0.05000		91	66-131	5	20	
Styrene	0.0464	0.0050	mg/kg wet	0.05000		93	77-121	7	20	
tert-Butylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	67-132	6	20	
Tetrachloroethylene	0.0432	0.0050	mg/kg wet	0.05000		86	68-130	9	20	
Toluene	0.0457	0.0050	mg/kg wet	0.05000		91	71-129	6	20	
trans-1,2-Dichloroethylene	0.0453	0.0050	mg/kg wet	0.05000		91	73-132	7	20	
trans-1,3-Dichloropropylene	0.0519	0.0050	mg/kg wet	0.05000		104	68-123	4	20	
Trichloroethylene	0.0444	0.0050	mg/kg wet	0.05000		89	75-133	6	20	
Trichlorofluoromethane	0.0449	0.0050	mg/kg wet	0.05000		90	44-146	7	20	
Vinyl acetate	0.0531	0.025	mg/kg wet	0.05000		106	85-161	6	20	
Vinyl chloride	0.0482	0.0050	mg/kg wet	0.05000		96	48-147	4	20	
Xylenes, total	0.140	0.015	mg/kg wet	0.1500		93	74-126	7	20	
Surrogate: 4-Bromofluorobenzene	47.1		ug/L	50.00		94	70-130			
Surrogate: Dibromofluoromethane	47.5		ug/L	50.00		95	84-123			
Surrogate: Toluene-d8	48.4		ug/L	50.00		97	76-129			



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Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

**Volatile Organic Compounds by GC/MS (Medium Level) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0158 - 5035</b>										
<b>Blank (P8G0158-BLK1)</b>										
Prepared & Analyzed: 07/11/18										
Ethylbenzene	BRL	0.0050	mg/kg wet							
Naphthalene	BRL	0.010	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	48.9		ug/L	50.00		98	70-130			
Surrogate: Dibromofluoromethane	50.4		ug/L	50.00		101	70-130			
Surrogate: Toluene-d8	48.1		ug/L	50.00		96	70-130			
<b>LCS (P8G0158-BS1)</b>										
Prepared & Analyzed: 07/11/18										
Ethylbenzene	0.0486	0.0050	mg/kg wet	0.05000		97	69-125			
Naphthalene	0.0508	0.010	mg/kg wet	0.05000		102	58-129			
Surrogate: 4-Bromofluorobenzene	47.7		ug/L	50.00		95	70-130			
Surrogate: Dibromofluoromethane	48.6		ug/L	50.00		97	70-130			
Surrogate: Toluene-d8	49.1		ug/L	50.00		98	70-130			
<b>LCS Dup (P8G0158-BSD1)</b>										
Prepared & Analyzed: 07/11/18										
Ethylbenzene	0.0457	0.0050	mg/kg wet	0.05000		91	69-125	6	20	
Naphthalene	0.0500	0.010	mg/kg wet	0.05000		100	58-129	2	20	
Surrogate: 4-Bromofluorobenzene	47.1		ug/L	50.00		94	70-130			
Surrogate: Dibromofluoromethane	47.5		ug/L	50.00		95	70-130			
Surrogate: Toluene-d8	48.4		ug/L	50.00		97	70-130			
<b>Batch P8G0166 - 5035</b>										
<b>Blank (P8G0166-BLK1)</b>										
Prepared & Analyzed: 07/12/18										
Naphthalene	BRL	0.010	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	46.8		ug/L	50.00		94	70-130			
Surrogate: Dibromofluoromethane	48.7		ug/L	50.00		97	70-130			
Surrogate: Toluene-d8	47.4		ug/L	50.00		95	70-130			



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**Volatile Organic Compounds by GC/MS (Medium Level) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0166 - 5035</b>										
<b>LCS (P8G0166-BS1)</b>										
Prepared & Analyzed: 07/12/18										
Naphthalene	0.0475	0.010	mg/kg wet	0.05000		95	58-129			
Surrogate: 4-Bromofluorobenzene	46.1		ug/L	50.00		92	70-130			
Surrogate: Dibromofluoromethane	47.6		ug/L	50.00		95	70-130			
Surrogate: Toluene-d8	47.0		ug/L	50.00		94	70-130			
<b>LCS Dup (P8G0166-BSD1)</b>										
Prepared & Analyzed: 07/12/18										
Naphthalene	0.0502	0.010	mg/kg wet	0.05000		100	58-129	6	20	
Surrogate: 4-Bromofluorobenzene	46.6		ug/L	50.00		93	70-130			
Surrogate: Dibromofluoromethane	47.4		ug/L	50.00		95	70-130			
Surrogate: Toluene-d8	46.3		ug/L	50.00		93	70-130			



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### 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 P8G0123 - 3546</b>										
<b>Blank (P8G0123-BLK1)</b>										
Prepared: 07/10/18 Analyzed: 07/11/18										
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							
2,4,6-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							
Di-n-butyl phthalate	BRL	0.33	mg/kg wet							

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 Time Submitted: 7/10/2018 1:00:00PM

### 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 P8G0123 - 3546</b>										
<b>Blank (P8G0123-BLK1)</b>										
Prepared: 07/10/18 Analyzed: 07/11/18										
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							
<i>Surrogate: 2,4,6-Tribromophenol</i>	2.03		mg/kg wet	3.333		61	39-132			
<i>Surrogate: 2-Fluorobiphenyl</i>	1.01		mg/kg wet	1.667		61	44-115			
<i>Surrogate: 2-Fluorophenol</i>	2.09		mg/kg wet	3.333		63	35-115			
<i>Surrogate: Nitrobenzene-d5</i>	0.855		mg/kg wet	1.667		51	37-122			
<i>Surrogate: Phenol-d5</i>	1.90		mg/kg wet	3.333		57	34-121			
<i>Surrogate: Terphenyl-d14</i>	1.07		mg/kg wet	1.667		64	54-127			
<b>LCS (P8G0123-BS1)</b>										
Prepared: 07/10/18 Analyzed: 07/11/18										
1,2,4-Trichlorobenzene	0.850	0.33	mg/kg wet	1.667		51	34-118			
1,2-Dichlorobenzene	0.828	0.33	mg/kg wet	1.667		50	33-117			
1,3-Dichlorobenzene	0.793	0.33	mg/kg wet	1.667		48	30-115			
1,4-Dichlorobenzene	0.790	0.33	mg/kg wet	1.667		47	31-115			
1-Methylnaphthalene	0.985	0.33	mg/kg wet	1.667		59	40-119			
2,4,6-Trichlorophenol	0.990	0.33	mg/kg wet	1.667		59	39-126			
2,4-Dichlorophenol	0.927	0.33	mg/kg wet	1.667		56	40-122			
2,4-Dimethylphenol	1.39	0.33	mg/kg wet	1.667		83	30-127			
2,4-Dinitrophenol	0.892	0.33	mg/kg wet	1.667		53	27-129			
2,4-Dinitrotoluene	1.04	0.33	mg/kg wet	1.667		62	48-126			
2,6-Dinitrotoluene	1.03	0.33	mg/kg wet	1.667		62	46-124			
2-Chloronaphthalene	0.949	0.33	mg/kg wet	1.667		57	41-114			
2-Chlorophenol	0.963	0.33	mg/kg wet	1.667		58	34-121			
2-Methylnaphthalene	0.963	0.33	mg/kg wet	1.667		58	38-122			
2-Methylphenol	1.01	0.33	mg/kg wet	1.667		61	32-122			
2-Nitrophenol	0.886	0.33	mg/kg wet	1.667		53	36-123			
3,3'-Dichlorobenzidine	1.08	0.33	mg/kg wet	1.667		65	22-121			
3/4-Methylphenol	0.892	0.33	mg/kg wet	1.667		54	34-119			
4,6-Dinitro-2-methylphenol	0.885	0.33	mg/kg wet	1.667		53	29-132			
4-Bromophenyl phenyl ether	0.957	0.33	mg/kg wet	1.667		57	46-124			
4-Chloro-3-methylphenol	1.01	0.33	mg/kg wet	1.667		61	45-122			
4-Chloroaniline	1.10	0.33	mg/kg wet	1.667		66	17-106			

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 Time Submitted: 7/10/2018 1:00:00PM

## 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 P8G0123 - 3546</b>										
<b>LCS (P8G0123-BS1)</b>										
				Prepared: 07/10/18 Analyzed: 07/11/18						
4-Chlorophenyl phenyl ether	0.962	0.33	mg/kg wet	1.667		58	45-121			
4-Nitrophenol	1.02	0.33	mg/kg wet	1.667		61	30-132			
Acenaphthene	1.00	0.33	mg/kg wet	1.667		60	40-123			
Acenaphthylene	1.12	0.33	mg/kg wet	1.667		67	32-132			
Anthracene	1.14	0.33	mg/kg wet	1.667		68	47-123			
Azobenzene	1.00	0.33	mg/kg wet	1.667		60	39-125			
Benzo(a)anthracene	1.12	0.33	mg/kg wet	1.667		67	49-126			
Benzo(a)pyrene	1.07	0.33	mg/kg wet	1.667		64	45-129			
Benzo(b)fluoranthene	1.01	0.33	mg/kg wet	1.667		61	45-132			
Benzo(g,h,i)perylene	1.07	0.33	mg/kg wet	1.667		64	43-134			
Benzo(k)fluoranthene	1.07	0.33	mg/kg wet	1.667		64	47-132			
Benzoic Acid	0.799	0.33	mg/kg wet	1.667		48	10-83			
Benzyl alcohol	0.945	0.33	mg/kg wet	1.667		57	29-122			
bis(2-Chloroethoxy)methane	0.982	0.33	mg/kg wet	1.667		59	36-121			
Bis(2-Chloroethyl)ether	0.840	0.33	mg/kg wet	1.667		50	31-120			
Bis(2-chloroisopropyl)ether	0.835	0.33	mg/kg wet	1.667		50	33-131			
Bis(2-Ethylhexyl)phthalate	1.07	0.33	mg/kg wet	1.667		64	51-133			
Butyl benzyl phthalate	1.02	0.33	mg/kg wet	1.667		61	48-132			
Chrysene	1.06	0.33	mg/kg wet	1.667		63	50-124			
Dibenzo(a,h)anthracene	0.955	0.33	mg/kg wet	1.667		57	45-134			
Dibenzofuran	1.09	0.33	mg/kg wet	1.667		65	44-120			
Diethyl phthalate	1.05	0.33	mg/kg wet	1.667		63	50-124			
Dimethyl phthalate	1.04	0.33	mg/kg wet	1.667		62	48-124			
Di-n-butyl phthalate	1.11	0.33	mg/kg wet	1.667		67	51-128			
Di-n-octyl phthalate	1.14	0.33	mg/kg wet	1.667		69	45-140			
Fluoranthene	1.12	0.33	mg/kg wet	1.667		67	50-127			
Fluorene	1.06	0.33	mg/kg wet	1.667		64	43-125			
Hexachlorobenzene	0.996	0.33	mg/kg wet	1.667		60	45-122			
Hexachlorobutadiene	0.838	0.33	mg/kg wet	1.667		50	32-123			
Hexachlorocyclopentadiene	0.719	0.33	mg/kg wet	1.667		43	32-117			
Hexachloroethane	0.779	0.33	mg/kg wet	1.667		47	28-117			
Indeno(1,2,3-cd)pyrene	1.23	0.33	mg/kg wet	1.667		74	45-133			
Isophorone	0.955	0.33	mg/kg wet	1.667		57	30-122			
Naphthalene	0.974	0.33	mg/kg wet	1.667		58	35-123			
Nitrobenzene	0.826	0.33	mg/kg wet	1.667		50	34-122			
N-Nitroso-di-n-propylamine	0.916	0.33	mg/kg wet	1.667		55	36-120			
N-Nitrosodiphenylamine	1.29	0.33	mg/kg wet	1.667		77	38-127			
Pentachlorophenol	1.18	0.33	mg/kg wet	1.667		71	25-133			
Phenanthrene	1.13	0.33	mg/kg wet	1.667		68	50-121			
Phenol	1.03	0.33	mg/kg wet	1.667		62	34-121			
Pyrene	1.09	0.33	mg/kg wet	1.667		66	47-127			
Surrogate: 2,4,6-Tribromophenol	2.01		mg/kg wet	3.333		60	39-132			
Surrogate: 2-Fluorobiphenyl	0.954		mg/kg wet	1.667		57	44-115			
Surrogate: 2-Fluorophenol	1.92		mg/kg wet	3.333		58	35-115			
Surrogate: Nitrobenzene-d5	0.809		mg/kg wet	1.667		49	37-122			
Surrogate: Phenol-d5	1.84		mg/kg wet	3.333		55	34-121			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

### 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 P8G0123 - 3546</b>										
<b>LCS (P8G0123-BS1)</b>										
Prepared: 07/10/18 Analyzed: 07/11/18										
<i>Surrogate: Terphenyl-d14</i>	0.947		mg/kg wet	1.667		57	54-127			
<b>LCS Dup (P8G0123-BSD1)</b>										
Prepared: 07/10/18 Analyzed: 07/11/18										
1,2,4-Trichlorobenzene	0.977	0.33	mg/kg wet	1.667		59	34-118	14	20	
1,2-Dichlorobenzene	0.947	0.33	mg/kg wet	1.667		57	33-117	13	20	
1,3-Dichlorobenzene	0.898	0.33	mg/kg wet	1.667		54	30-115	12	20	
1,4-Dichlorobenzene	0.937	0.33	mg/kg wet	1.667		56	31-115	17	20	
1-Methylnaphthalene	1.11	0.33	mg/kg wet	1.667		66	40-119	12	20	
2,4,6-Trichlorophenol	1.06	0.33	mg/kg wet	1.667		64	39-126	7	20	
2,4-Dichlorophenol	1.04	0.33	mg/kg wet	1.667		62	40-122	11	20	
2,4-Dimethylphenol	1.54	0.33	mg/kg wet	1.667		92	30-127	10	20	
2,4-Dinitrophenol	0.921	0.33	mg/kg wet	1.667		55	27-129	3	20	
2,4-Dinitrotoluene	1.12	0.33	mg/kg wet	1.667		67	48-126	7	20	
2,6-Dinitrotoluene	1.17	0.33	mg/kg wet	1.667		70	46-124	13	20	
2-Chloronaphthalene	1.09	0.33	mg/kg wet	1.667		66	41-114	14	20	
2-Chlorophenol	1.08	0.33	mg/kg wet	1.667		65	34-121	12	20	
2-Methylnaphthalene	1.08	0.33	mg/kg wet	1.667		65	38-122	11	20	
2-Methylphenol	1.13	0.33	mg/kg wet	1.667		68	32-122	11	20	
2-Nitrophenol	1.01	0.33	mg/kg wet	1.667		60	36-123	13	20	
3,3'-Dichlorobenzidine	1.21	0.33	mg/kg wet	1.667		72	22-121	11	20	
3/4-Methylphenol	0.971	0.33	mg/kg wet	1.667		58	34-119	8	20	
4,6-Dinitro-2-methylphenol	0.883	0.33	mg/kg wet	1.667		53	29-132	0.2	20	
4-Bromophenyl phenyl ether	1.03	0.33	mg/kg wet	1.667		62	46-124	7	20	
4-Chloro-3-methylphenol	1.11	0.33	mg/kg wet	1.667		67	45-122	10	20	
4-Chloroaniline	1.22	0.33	mg/kg wet	1.667		73	17-106	10	20	
4-Chlorophenyl phenyl ether	1.08	0.33	mg/kg wet	1.667		64	45-121	11	20	
4-Nitrophenol	1.10	0.33	mg/kg wet	1.667		66	30-132	8	20	
Acenaphthene	1.12	0.33	mg/kg wet	1.667		67	40-123	12	20	
Acenaphthylene	1.22	0.33	mg/kg wet	1.667		73	32-132	9	20	
Anthracene	1.23	0.33	mg/kg wet	1.667		74	47-123	8	20	
Azobenzene	1.07	0.33	mg/kg wet	1.667		64	39-125	7	20	
Benzo(a)anthracene	1.21	0.33	mg/kg wet	1.667		72	49-126	8	20	
Benzo(a)pyrene	1.16	0.33	mg/kg wet	1.667		70	45-129	8	20	
Benzo(b)fluoranthene	1.11	0.33	mg/kg wet	1.667		67	45-132	9	20	
Benzo(g,h,i)perylene	1.15	0.33	mg/kg wet	1.667		69	43-134	8	20	
Benzo(k)fluoranthene	1.13	0.33	mg/kg wet	1.667		68	47-132	5	20	
Benzoic Acid	0.787	0.33	mg/kg wet	1.667		47	10-83	1	20	
Benzyl alcohol	1.04	0.33	mg/kg wet	1.667		63	29-122	10	20	
bis(2-Chloroethoxy)methane	1.10	0.33	mg/kg wet	1.667		66	36-121	12	20	
Bis(2-Chloroethyl)ether	0.986	0.33	mg/kg wet	1.667		59	31-120	16	20	
Bis(2-chloroisopropyl)ether	0.948	0.33	mg/kg wet	1.667		57	33-131	13	20	
Bis(2-Ethylhexyl)phthalate	1.14	0.33	mg/kg wet	1.667		68	51-133	6	20	
Butyl benzyl phthalate	1.11	0.33	mg/kg wet	1.667		66	48-132	8	20	
Chrysene	1.14	0.33	mg/kg wet	1.667		69	50-124	8	20	
Dibenzo(a,h)anthracene	1.06	0.33	mg/kg wet	1.667		63	45-134	10	20	
Dibenzofuran	1.21	0.33	mg/kg wet	1.667		72	44-120	10	20	
Diethyl phthalate	1.16	0.33	mg/kg wet	1.667		69	50-124	10	20	

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
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 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

## 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 P8G0123 - 3546</b>										
<b>LCS Dup (P8G0123-BSD1)</b>										
					Prepared: 07/10/18 Analyzed: 07/11/18					
Dimethyl phthalate	1.14	0.33	mg/kg wet	1.667		68	48-124	10	20	
Di-n-butyl phthalate	1.18	0.33	mg/kg wet	1.667		71	51-128	6	20	
Di-n-octyl phthalate	1.23	0.33	mg/kg wet	1.667		74	45-140	8	20	
Fluoranthene	1.16	0.33	mg/kg wet	1.667		70	50-127	4	20	
Fluorene	1.18	0.33	mg/kg wet	1.667		71	43-125	10	20	
Hexachlorobenzene	1.09	0.33	mg/kg wet	1.667		66	45-122	9	20	
Hexachlorobutadiene	0.986	0.33	mg/kg wet	1.667		59	32-123	16	20	
Hexachlorocyclopentadiene	0.913	0.33	mg/kg wet	1.667		55	32-117	24	20	D
Hexachloroethane	0.906	0.33	mg/kg wet	1.667		54	28-117	15	20	
Indeno(1,2,3-cd)pyrene	1.31	0.33	mg/kg wet	1.667		79	45-133	7	20	
Isophorone	1.10	0.33	mg/kg wet	1.667		66	30-122	14	20	
Naphthalene	1.11	0.33	mg/kg wet	1.667		67	35-123	13	20	
Nitrobenzene	0.975	0.33	mg/kg wet	1.667		58	34-122	17	20	
N-Nitroso-di-n-propylamine	1.03	0.33	mg/kg wet	1.667		62	36-120	12	20	
N-Nitrosodiphenylamine	1.38	0.33	mg/kg wet	1.667		83	38-127	6	20	
Pentachlorophenol	1.19	0.33	mg/kg wet	1.667		72	25-133	1	20	
Phenanthrene	1.19	0.33	mg/kg wet	1.667		72	50-121	6	20	
Phenol	1.11	0.33	mg/kg wet	1.667		67	34-121	7	20	
Pyrene	1.18	0.33	mg/kg wet	1.667		71	47-127	8	20	
Surrogate: 2,4,6-Tribromophenol	2.22		mg/kg wet	3.333		67	39-132			
Surrogate: 2-Fluorobiphenyl	1.11		mg/kg wet	1.667		67	44-115			
Surrogate: 2-Fluorophenol	2.20		mg/kg wet	3.333		66	35-115			
Surrogate: Nitrobenzene-d5	0.948		mg/kg wet	1.667		57	37-122			
Surrogate: Phenol-d5	2.10		mg/kg wet	3.333		63	34-121			
Surrogate: Terphenyl-d14	1.05		mg/kg wet	1.667		63	54-127			
<b>Matrix Spike (P8G0123-MS1)</b>										
					Source: 8070092-09 Prepared: 07/10/18 Analyzed: 07/11/18					
1,2,4-Trichlorobenzene	0.974	0.40	mg/kg dry	2.035	BRL	48	34-118			
1,2-Dichlorobenzene	1.00	0.40	mg/kg dry	2.035	BRL	49	33-117			
1,3-Dichlorobenzene	0.883	0.40	mg/kg dry	2.035	BRL	43	30-115			
1,4-Dichlorobenzene	0.921	0.40	mg/kg dry	2.035	BRL	45	31-115			
1-Methylnaphthalene	1.28	0.40	mg/kg dry	2.035	0.128	57	40-119			
2,4,6-Trichlorophenol	1.00	0.40	mg/kg dry	2.035	BRL	49	39-126			
2,4-Dichlorophenol	1.02	0.40	mg/kg dry	2.035	BRL	50	40-122			
2,4-Dimethylphenol	1.58	0.40	mg/kg dry	2.035	BRL	78	30-127			
2,4-Dinitrophenol	BRL	0.40	mg/kg dry	2.035	BRL		27-129			M
2,4-Dinitrotoluene	BRL	0.40	mg/kg dry	2.035	BRL		48-126			M
2,6-Dinitrotoluene	0.210	0.40	mg/kg dry	2.035	BRL	10	46-124			M, J
2-Chloronaphthalene	1.02	0.40	mg/kg dry	2.035	BRL	50	41-114			
2-Chlorophenol	1.07	0.40	mg/kg dry	2.035	BRL	53	34-121			
2-Methylnaphthalene	1.42	0.40	mg/kg dry	2.035	0.238	58	38-122			
2-Methylphenol	1.11	0.40	mg/kg dry	2.035	BRL	55	32-122			
2-Nitrophenol	0.102	0.40	mg/kg dry	2.035	BRL	5	36-123			M, J
3,3'-Dichlorobenzidine	0.392	0.40	mg/kg dry	2.035	BRL	19	22-121			M, J
3/4-Methylphenol	1.00	0.40	mg/kg dry	2.035	BRL	49	34-119			
4,6-Dinitro-2-methylphenol	BRL	0.40	mg/kg dry	2.035	BRL		29-132			M
4-Bromophenyl phenyl ether	0.948	0.40	mg/kg dry	2.035	BRL	47	46-124			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
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Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

## 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 P8G0123 - 3546</b>										
<b>Matrix Spike (P8G0123-MS1)</b>	<b>Source: 8070092-09</b>			<b>Prepared: 07/10/18</b>		<b>Analyzed: 07/11/18</b>				
4-Chloro-3-methylphenol	1.06	0.40	mg/kg dry	2.035	BRL	52	45-122			
4-Chloroaniline	0.885	0.40	mg/kg dry	2.035	BRL	43	17-106			
4-Chlorophenyl phenyl ether	1.03	0.40	mg/kg dry	2.035	BRL	51	45-121			
4-Nitrophenol	0.396	0.40	mg/kg dry	2.035	BRL	19	30-132			M, J
Acenaphthene	1.10	0.40	mg/kg dry	2.035	BRL	54	40-123			
Acenaphthylene	1.15	0.40	mg/kg dry	2.035	BRL	57	32-132			
Anthracene	1.47	0.40	mg/kg dry	2.035	0.326	56	47-123			
Azobenzene	BRL	0.40	mg/kg dry	2.035	BRL		39-125			M
Benzo(a)anthracene	1.38	0.40	mg/kg dry	2.035	0.541	41	49-126			M
Benzo(a)pyrene	1.42	0.40	mg/kg dry	2.035	0.495	46	45-129			
Benzo(b)fluoranthene	1.69	0.40	mg/kg dry	2.035	0.671	50	45-132			
Benzo(g,h,i)perylene	1.14	0.40	mg/kg dry	2.035	0.376	38	43-134			M
Benzo(k)fluoranthene	1.86	0.40	mg/kg dry	2.035	0.270	78	47-132			
Benzoic Acid	0.462	0.40	mg/kg dry	2.035	0.211	12	10-83			
Benzyl alcohol	1.07	0.40	mg/kg dry	2.035	BRL	53	29-122			
bis(2-Chloroethoxy)methane	1.13	0.40	mg/kg dry	2.035	BRL	56	36-121			
Bis(2-Chloroethyl)ether	1.20	0.40	mg/kg dry	2.035	BRL	59	31-120			
Bis(2-chloroisopropyl)ether	0.978	0.40	mg/kg dry	2.035	BRL	48	33-131			
Bis(2-Ethylhexyl)phthalate	1.66	0.40	mg/kg dry	2.035	0.590	52	51-133			
Butyl benzyl phthalate	1.09	0.40	mg/kg dry	2.035	BRL	54	48-132			
Chrysene	1.56	0.40	mg/kg dry	2.035	0.615	47	50-124			M
Dibenzo(a,h)anthracene	0.873	0.40	mg/kg dry	2.035	BRL	43	45-134			M
Dibenzofuran	1.18	0.40	mg/kg dry	2.035	BRL	58	44-120			
Diethyl phthalate	1.13	0.40	mg/kg dry	2.035	BRL	55	50-124			
Dimethyl phthalate	1.10	0.40	mg/kg dry	2.035	BRL	54	48-124			
Di-n-butyl phthalate	1.55	0.40	mg/kg dry	2.035	0.279	62	51-128			
Di-n-octyl phthalate	BRL	0.40	mg/kg dry	2.035	BRL		45-140			M
Fluoranthene	2.38	0.40	mg/kg dry	2.035	1.25	56	50-127			
Fluorene	1.22	0.40	mg/kg dry	2.035	BRL	60	43-125			
Hexachlorobenzene	0.894	0.40	mg/kg dry	2.035	BRL	44	45-122			M
Hexachlorobutadiene	0.976	0.40	mg/kg dry	2.035	BRL	48	32-123			
Hexachlorocyclopentadiene	BRL	0.40	mg/kg dry	2.035	BRL		32-117			M
Hexachloroethane	0.226	0.40	mg/kg dry	2.035	BRL	11	28-117			M, J
Indeno(1,2,3-cd)pyrene	1.29	0.40	mg/kg dry	2.035	0.363	45	45-133			
Isophorone	1.17	0.40	mg/kg dry	2.035	BRL	57	30-122			
Naphthalene	1.37	0.40	mg/kg dry	2.035	0.189	58	35-123			
Nitrobenzene	0.411	0.40	mg/kg dry	2.035	BRL	20	34-122			M
N-Nitroso-di-n-propylamine	0.984	0.40	mg/kg dry	2.035	BRL	48	36-120			
N-Nitrosodiphenylamine	1.20	0.40	mg/kg dry	2.035	BRL	59	38-127			
Pentachlorophenol	1.05	0.40	mg/kg dry	2.035	BRL	52	25-133			
Phenanthrene	1.84	0.40	mg/kg dry	2.035	0.856	48	50-121			M
Phenol	1.20	0.40	mg/kg dry	2.035	BRL	59	34-121			
Pyrene	1.83	0.40	mg/kg dry	2.035	0.938	44	47-127			M
Surrogate: 2,4,6-Tribromophenol	2.02		mg/kg dry	4.070		50	39-132			
Surrogate: 2-Fluorobiphenyl	1.08		mg/kg dry	2.035		53	44-115			
Surrogate: 2-Fluorophenol	2.31		mg/kg dry	4.070		57	35-115			

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Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

## 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 P8G0123 - 3546</b>										
<b>Matrix Spike (P8G0123-MS1)</b>		<b>Source: 8070092-09</b>			Prepared: 07/10/18		Analyzed: 07/11/18			
Surrogate: Nitrobenzene-d5	0.401		mg/kg dry	2.035		20	37-122			SR
Surrogate: Phenol-d5	2.19		mg/kg dry	4.070		54	34-121			
Surrogate: Terphenyl-d14	1.10		mg/kg dry	2.035		54	54-127			
<b>Matrix Spike Dup (P8G0123-MSD1)</b>		<b>Source: 8070092-09</b>			Prepared: 07/10/18		Analyzed: 07/11/18			
1,2,4-Trichlorobenzene	1.09	0.40	mg/kg dry	2.034	BRL	54	34-118	11	20	
1,2-Dichlorobenzene	1.11	0.40	mg/kg dry	2.034	BRL	54	33-117	10	20	
1,3-Dichlorobenzene	1.03	0.40	mg/kg dry	2.034	BRL	50	30-115	15	20	
1,4-Dichlorobenzene	1.05	0.40	mg/kg dry	2.034	BRL	51	31-115	13	20	
1-Methylnaphthalene	1.32	0.40	mg/kg dry	2.034	0.128	59	40-119	3	20	
2,4,6-Trichlorophenol	1.19	0.40	mg/kg dry	2.034	BRL	58	39-126	17	20	
2,4-Dichlorophenol	1.15	0.40	mg/kg dry	2.034	BRL	57	40-122	12	20	
2,4-Dimethylphenol	1.82	0.40	mg/kg dry	2.034	BRL	89	30-127	14	20	
2,4-Dinitrophenol	BRL	0.40	mg/kg dry	2.034	BRL		27-129		20	M
2,4-Dinitrotoluene	0.504	0.40	mg/kg dry	2.034	BRL	25	48-126		20	M
2,6-Dinitrotoluene	0.608	0.40	mg/kg dry	2.034	BRL	30	46-124	97	20	D, M
2-Chloronaphthalene	1.20	0.40	mg/kg dry	2.034	BRL	59	41-114	16	20	
2-Chlorophenol	1.24	0.40	mg/kg dry	2.034	BRL	61	34-121	15	20	
2-Methylnaphthalene	1.35	0.40	mg/kg dry	2.034	0.238	55	38-122	5	20	
2-Methylphenol	1.28	0.40	mg/kg dry	2.034	BRL	63	32-122	14	20	
2-Nitrophenol	0.265	0.40	mg/kg dry	2.034	BRL	13	36-123	89	20	D, M, J
3,3'-Dichlorobenzidine	0.829	0.40	mg/kg dry	2.034	BRL	41	22-121	72	20	D
3/4-Methylphenol	1.18	0.40	mg/kg dry	2.034	BRL	58	34-119	16	20	
4,6-Dinitro-2-methylphenol	BRL	0.40	mg/kg dry	2.034	BRL		29-132		20	M
4-Bromophenyl phenyl ether	1.12	0.40	mg/kg dry	2.034	BRL	55	46-124	17	20	
4-Chloro-3-methylphenol	1.21	0.40	mg/kg dry	2.034	BRL	59	45-122	13	20	
4-Chloroaniline	1.25	0.40	mg/kg dry	2.034	BRL	61	17-106	34	20	D
4-Chlorophenyl phenyl ether	1.18	0.40	mg/kg dry	2.034	BRL	58	45-121	13	20	
4-Nitrophenol	0.859	0.40	mg/kg dry	2.034	BRL	42	30-132	74	20	D
Acenaphthene	1.26	0.40	mg/kg dry	2.034	BRL	62	40-123	13	20	
Acenaphthylene	1.36	0.40	mg/kg dry	2.034	BRL	67	32-132	17	20	
Anthracene	1.57	0.40	mg/kg dry	2.034	0.326	61	47-123	7	20	
Azobenzene	1.03	0.40	mg/kg dry	2.034	BRL	51	39-125		20	
Benzo(a)anthracene	1.58	0.40	mg/kg dry	2.034	0.541	51	49-126	14	20	
Benzo(a)pyrene	1.50	0.40	mg/kg dry	2.034	0.495	50	45-129	5	20	
Benzo(b)fluoranthene	1.31	0.40	mg/kg dry	2.034	0.671	31	45-132	26	20	D, M
Benzo(g,h,i)perylene	1.28	0.40	mg/kg dry	2.034	0.376	45	43-134	11	20	
Benzo(k)fluoranthene	1.42	0.40	mg/kg dry	2.034	0.270	57	47-132	27	20	D
Benzoic Acid	0.857	0.40	mg/kg dry	2.034	0.211	32	10-83	60	20	D
Benzyl alcohol	1.22	0.40	mg/kg dry	2.034	BRL	60	29-122	13	20	
bis(2-Chloroethoxy)methane	1.25	0.40	mg/kg dry	2.034	BRL	62	36-121	10	20	
Bis(2-Chloroethyl)ether	1.23	0.40	mg/kg dry	2.034	BRL	61	31-120	3	20	
Bis(2-chloroisopropyl)ether	1.13	0.40	mg/kg dry	2.034	BRL	56	33-131	15	20	
Bis(2-Ethylhexyl)phthalate	1.50	0.40	mg/kg dry	2.034	0.590	45	51-133	10	20	M
Butyl benzyl phthalate	1.24	0.40	mg/kg dry	2.034	BRL	61	48-132	13	20	
Chrysene	1.53	0.40	mg/kg dry	2.034	0.615	45	50-124	2	20	M
Dibenzo(a,h)anthracene	1.09	0.40	mg/kg dry	2.034	BRL	54	45-134	22	20	D

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

## 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 P8G0123 - 3546</b>										
<b>Matrix Spike Dup (P8G0123-MSD1)</b>										
			<b>Source: 8070092-09</b>		Prepared: 07/10/18		Analyzed: 07/11/18			
Dibenzofuran	1.30	0.40	mg/kg dry	2.034	BRL	64	44-120	10	20	
Diethyl phthalate	1.29	0.40	mg/kg dry	2.034	BRL	63	50-124	13	20	
Dimethyl phthalate	1.27	0.40	mg/kg dry	2.034	BRL	63	48-124	14	20	
Di-n-butyl phthalate	1.71	0.40	mg/kg dry	2.034	0.279	70	51-128	10	20	
Di-n-octyl phthalate	1.37	0.40	mg/kg dry	2.034	BRL	68	45-140		20	
Fluoranthene	2.16	0.40	mg/kg dry	2.034	1.25	45	50-127	10	20	M
Fluorene	1.35	0.40	mg/kg dry	2.034	BRL	66	43-125	10	20	
Hexachlorobenzene	1.08	0.40	mg/kg dry	2.034	BRL	53	45-122	18	20	
Hexachlorobutadiene	1.14	0.40	mg/kg dry	2.034	BRL	56	32-123	16	20	
Hexachlorocyclopentadiene	BRL	0.40	mg/kg dry	2.034	BRL		32-117		20	M
Hexachloroethane	0.563	0.40	mg/kg dry	2.034	BRL	28	28-117	85	20	D
Indeno(1,2,3-cd)pyrene	1.46	0.40	mg/kg dry	2.034	0.363	54	45-133	13	20	
Isophorone	1.31	0.40	mg/kg dry	2.034	BRL	64	30-122	11	20	
Naphthalene	1.40	0.40	mg/kg dry	2.034	0.189	60	35-123	2	20	
Nitrobenzene	0.800	0.40	mg/kg dry	2.034	BRL	39	34-122	64	20	D
N-Nitroso-di-n-propylamine	1.10	0.40	mg/kg dry	2.034	BRL	54	36-120	11	20	
N-Nitrosodiphenylamine	1.41	0.40	mg/kg dry	2.034	BRL	69	38-127	16	20	
Pentachlorophenol	1.28	0.40	mg/kg dry	2.034	BRL	63	25-133	20	20	
Phenanthrene	1.74	0.40	mg/kg dry	2.034	0.856	44	50-121	5	20	M
Phenol	1.43	0.40	mg/kg dry	2.034	BRL	70	34-121	17	20	
Pyrene	1.73	0.40	mg/kg dry	2.034	0.938	39	47-127	6	20	M
Surrogate: 2,4,6-Tribromophenol	2.59		mg/kg dry	4.067		64	39-132			
Surrogate: 2-Fluorobiphenyl	1.25		mg/kg dry	2.034		61	44-115			
Surrogate: 2-Fluorophenol	2.68		mg/kg dry	4.067		66	35-115			
Surrogate: Nitrobenzene-d5	0.777		mg/kg dry	2.034		38	37-122			
Surrogate: Phenol-d5	2.57		mg/kg dry	4.067		63	34-121			
Surrogate: Terphenyl-d14	1.25		mg/kg dry	2.034		61	54-127			



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Project: NCDOT P-5705A

Prism Work Order: 8070092

Time Submitted: 7/10/2018 1:00:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0125 - 7471B</b>										
<b>Blank (P8G0125-BLK1)</b>										
Prepared & Analyzed: 07/11/18										
Mercury	BRL	0.020	mg/kg wet							
<b>LCS (P8G0125-BS1)</b>										
Prepared & Analyzed: 07/11/18										
Mercury	0.443	0.020	mg/kg wet	0.4167		106	80-120			
<b>Matrix Spike (P8G0125-MS1)</b>										
Source: 8070092-01 Prepared & Analyzed: 07/11/18										
Mercury	0.682	0.023	mg/kg dry	0.4859	0.142	111	80-120			
<b>Matrix Spike Dup (P8G0125-MSD1)</b>										
Source: 8070092-01 Prepared & Analyzed: 07/11/18										
Mercury	0.789	0.024	mg/kg dry	0.4939	0.142	131	80-120	15	20	M
<b>Batch P8G0126 - 3050B</b>										
<b>Blank (P8G0126-BLK1)</b>										
Prepared & Analyzed: 07/11/18										
Antimony	0.135	0.25	mg/kg wet							BHL, J
Arsenic	BRL	0.50	mg/kg wet							
Barium	BRL	0.50	mg/kg wet							
Beryllium	BRL	0.25	mg/kg wet							
Cadmium	BRL	0.25	mg/kg wet							
Chromium	BRL	0.25	mg/kg wet							
Copper	BRL	0.50	mg/kg wet							
Lead	0.0499	0.25	mg/kg wet							J
Nickel	BRL	0.50	mg/kg wet							
Selenium	BRL	0.50	mg/kg wet							
Silver	BRL	0.25	mg/kg wet							
Thallium	BRL	0.50	mg/kg wet							
Zinc	BRL	2.5	mg/kg wet							

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Charlotte, NC 28269

Project: NCDOT P-5705A

Prism Work Order: 8070092

Time Submitted: 7/10/2018 1:00:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0126 - 3050B</b>										
<b>LCS (P8G0126-BS1)</b>										
				Prepared & Analyzed: 07/11/18						
Antimony	12.7	0.25	mg/kg wet	12.50		102	80-120			
Arsenic	12.7	0.50	mg/kg wet	12.50		102	80-120			
Barium	13.1	0.50	mg/kg wet	12.50		105	80-120			
Beryllium	13.2	0.25	mg/kg wet	12.50		106	80-120			
Cadmium	13.0	0.25	mg/kg wet	12.50		104	80-120			
Chromium	13.4	0.25	mg/kg wet	12.50		107	80-120			
Copper	13.4	0.50	mg/kg wet	12.50		107	80-120			
Lead	12.9	0.25	mg/kg wet	12.50		103	80-120			
Nickel	13.1	0.50	mg/kg wet	12.50		105	80-120			
Selenium	12.6	0.50	mg/kg wet	12.50		101	80-120			
Silver	5.37	0.25	mg/kg wet	5.000		107	80-120			
Thallium	13.2	0.50	mg/kg wet	12.50		105	80-120			
Zinc	12.5	2.5	mg/kg wet	12.50		100	80-120			
<b>Matrix Spike (P8G0126-MS1)</b>										
				Source: 8070092-01		Prepared & Analyzed: 07/11/18				
Antimony	27.9	0.30	mg/kg dry	14.91	15.1	86	75-125			
Arsenic	19.8	0.60	mg/kg dry	14.92	4.09	106	75-125			
Barium	2.98E10	0.60	mg/kg dry	14.91	125	NR	75-125			MC
Beryllium	16.3	0.30	mg/kg dry	14.91	0.347	107	75-125			
Cadmium	21.8	0.30	mg/kg dry	14.91	5.59	109	75-125			
Chromium	100	0.30	mg/kg dry	14.92	435	NR	75-125			MC
Copper	Over Range	0.60	mg/kg dry	14.92	443	NR	75-125			MC
Lead	2.98E10	0.30	mg/kg dry	14.92	529	NR	75-125			MC
Nickel	60.6	0.60	mg/kg dry	14.92	245	NR	75-125			M
Selenium	15.9	0.60	mg/kg dry	14.91	0.527	103	75-125			
Silver	6.17	0.30	mg/kg dry	5.966	1.77	74	75-125			M
Thallium	16.3	0.60	mg/kg dry	14.91	1.10	102	75-125			
Zinc	2.98E10	3.0	mg/kg dry	14.92	1230	NR	75-125			MC



Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
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Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0126 - 3050B</b>										
<b>Matrix Spike Dup (P8G0126-MSD1)</b>										
			<b>Source: 8070092-01</b>			<b>Prepared &amp; Analyzed: 07/11/18</b>				
Antimony	9.53	0.30	mg/kg dry	15.06	15.1	NR	75-125	98	20	D, M
Arsenic	16.7	0.60	mg/kg dry	15.07	4.09	84	75-125	17	20	
Barium	128	0.60	mg/kg dry	15.06	125	18	75-125	200	20	D, MC
Beryllium	14.8	0.30	mg/kg dry	15.06	0.347	96	75-125	10	20	
Cadmium	18.6	0.30	mg/kg dry	15.06	5.59	86	75-125	16	20	
Chromium	59.0	0.30	mg/kg dry	15.07	435	NR	75-125	52	20	D, MC
Copper	Over Range	0.60	mg/kg dry	15.07	443	NR	75-125	1	20	MC
Lead	3.01E10	0.30	mg/kg dry	15.07	529	NR	75-125	1	20	MC
Nickel	47.3	0.60	mg/kg dry	15.07	245	NR	75-125	25	20	D, M
Selenium	15.7	0.60	mg/kg dry	15.06	0.527	101	75-125	1	20	
Silver	5.70	0.30	mg/kg dry	6.026	1.77	65	75-125	8	20	M
Thallium	15.1	0.60	mg/kg dry	15.06	1.10	93	75-125	7	20	
Zinc	3.01E10	3.0	mg/kg dry	15.07	1230	NR	75-125	1	20	MC

<b>Post Spike (P8G0126-PS1)</b>										
			<b>Source: 8070092-01</b>			<b>Prepared &amp; Analyzed: 07/11/18</b>				
Antimony	0.897		mg/L	0.5000	0.501	79	80-120			M
Arsenic	0.589		mg/L	0.5001	0.136	91	80-120			
Barium	4.47		mg/L	0.5000	4.16	62	80-120			MC
Beryllium	0.502		mg/L	0.4998	0.0115	98	80-120			
Cadmium	0.625		mg/L	0.5000	0.186	88	80-120			
Chromium	1.00E9		mg/L	0.5001	14.5	NR	80-120			MC
Copper	Over Range		mg/L	0.5001	14.7	NR	80-120			MC
Lead	1.00E9		mg/L	0.5001	17.6	NR	80-120			MC
Nickel	1.00E9		mg/L	0.5001	8.12	NR	80-120			M
Selenium	0.491		mg/L	0.4999	0.0175	95	80-120			
Silver	0.234		mg/L	0.2000	0.0589	87	80-120			
Thallium	0.509		mg/L	0.4999	0.0365	95	80-120			
Zinc	1.00E9		mg/L	0.5001	40.7	NR	80-120			MC



Apex Companies, LLC (Charlotte Office)    Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070092  
 Time Submitted: 7/10/2018 1:00:00PM

**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 P8G0153 - Solids, Dry Weight**

Duplicate (P8G0153-DUP3)	Source: 8070092-15			Prepared & Analyzed: 07/11/18						
% Solids	83.9	0.100	% by Weight		84.6			0.8	20	

## Sample Extraction Data

## Prep Method: Solids, Dry Weight

Lab Number	Batch	Initial	Final	Date/Time
8070092-01	P8G0153	30 g	30 g	07/11/18 14:36
8070092-02	P8G0153	30 g	30 g	07/11/18 14:36
8070092-03	P8G0153	30 g	30 g	07/11/18 14:36
8070092-04	P8G0153	30 g	30 g	07/11/18 14:36
8070092-05	P8G0153	30 g	30 g	07/11/18 14:36
8070092-06	P8G0153	30 g	30 g	07/11/18 14:36
8070092-07	P8G0153	30 g	30 g	07/11/18 14:36
8070092-08	P8G0153	30 g	30 g	07/11/18 14:36
8070092-09	P8G0153	30 g	30 g	07/11/18 14:36
8070092-10	P8G0153	30 g	30 g	07/11/18 14:36
8070092-11	P8G0153	30 g	30 g	07/11/18 14:36
8070092-12	P8G0153	30 g	30 g	07/11/18 14:36
8070092-13	P8G0153	30 g	30 g	07/11/18 14:36
8070092-14	P8G0153	30 g	30 g	07/11/18 14:36
8070092-15	P8G0153	30 g	30 g	07/11/18 14:36
8070092-16	P8G0153	30 g	30 g	07/11/18 14:36

## Prep Method: 3546

Lab Number	Batch	Initial	Final	Date/Time
8070092-01	P8G0123	30 g	1 mL	07/10/18 15:20
8070092-02	P8G0123	30.03 g	1 mL	07/10/18 15:20
8070092-03	P8G0123	30.05 g	1 mL	07/10/18 15:20
8070092-04	P8G0123	30.05 g	1 mL	07/10/18 15:20
8070092-05	P8G0123	30.03 g	1 mL	07/10/18 15:20
8070092-06	P8G0123	30.01 g	1 mL	07/10/18 15:20
8070092-07	P8G0123	30.04 g	1 mL	07/10/18 15:20
8070092-08	P8G0123	30.07 g	1 mL	07/10/18 15:20
8070092-09	P8G0123	30.04 g	1 mL	07/10/18 15:20
8070092-10	P8G0123	30.01 g	1 mL	07/10/18 15:20
8070092-11	P8G0123	30.01 g	1 mL	07/10/18 15:20
8070092-12	P8G0123	30.06 g	1 mL	07/10/18 15:20
8070092-13	P8G0123	30.02 g	1 mL	07/10/18 15:20
8070092-14	P8G0123	30.07 g	1 mL	07/10/18 15:20
8070092-15	P8G0123	30.03 g	1 mL	07/10/18 15:20
8070092-16	P8G0123	30.02 g	1 mL	07/10/18 15:20

## Prep Method: 3050B

Lab Number	Batch	Initial	Final	Date/Time
8070092-01	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-01	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-01	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-02	P8G0126	2.02 g	50 mL	07/11/18 8:30
8070092-02	P8G0126	2.02 g	50 mL	07/11/18 8:30
8070092-02	P8G0126	2.02 g	50 mL	07/11/18 8:30
8070092-02	P8G0126	2.02 g	50 mL	07/11/18 8:30
8070092-02	P8G0126	2.02 g	50 mL	07/11/18 8:30
8070092-03	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-04	P8G0126	2.02 g	50 mL	07/11/18 8:30
8070092-05	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-06	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-06	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-06	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-06	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-07	P8G0126	2.01 g	50 mL	07/11/18 8:30
8070092-08	P8G0126	2.01 g	50 mL	07/11/18 8:30

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## Sample Extraction Data

## Prep Method: 3050B

Lab Number	Batch	Initial	Final	Date/Time
8070092-09	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-09	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-09	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-09	P8G0126	2 g	50 mL	07/11/18 8:30
8070092-10	P8G0126	2.01 g	50 mL	07/11/18 8:30
8070092-11	P8G0126	2.02 g	50 mL	07/11/18 8:30
8070092-12	P8G0126	2.01 g	50 mL	07/11/18 8:30
8070092-13	P8G0126	2.01 g	50 mL	07/11/18 8:30
8070092-14	P8G0126	2.01 g	50 mL	07/11/18 8:30
8070092-15	P8G0126	2.01 g	50 mL	07/11/18 8:30
8070092-15	P8G0126	2.01 g	50 mL	07/11/18 8:30
8070092-16	P8G0126	2 g	50 mL	07/11/18 8:30

## Prep Method: 7471B

Lab Number	Batch	Initial	Final	Date/Time
8070092-01	P8G0125	0.6 g	50 mL	07/11/18 9:40
8070092-02	P8G0125	0.61 g	50 mL	07/11/18 9:40
8070092-03	P8G0125	0.62 g	50 mL	07/11/18 9:40
8070092-04	P8G0125	0.61 g	50 mL	07/11/18 9:40
8070092-05	P8G0125	0.62 g	50 mL	07/11/18 9:40
8070092-06	P8G0125	0.61 g	50 mL	07/11/18 9:40
8070092-07	P8G0125	0.62 g	50 mL	07/11/18 9:40
8070092-08	P8G0125	0.6 g	50 mL	07/11/18 9:40
8070092-09	P8G0125	0.61 g	50 mL	07/11/18 9:40
8070092-10	P8G0125	0.61 g	50 mL	07/11/18 9:40
8070092-11	P8G0125	0.61 g	50 mL	07/11/18 9:40
8070092-12	P8G0125	0.61 g	50 mL	07/11/18 9:40
8070092-13	P8G0125	0.6 g	50 mL	07/11/18 9:40
8070092-14	P8G0125	0.6 g	50 mL	07/11/18 9:40
8070092-15	P8G0125	0.62 g	50 mL	07/11/18 9:40
8070092-16	P8G0125	0.6 g	50 mL	07/11/18 9:40

## Prep Method: 5035

Lab Number	Batch	Initial	Final	Date/Time
8070092-01	P8G0116	2.72 g	5 mL	07/10/18 14:31
8070092-02	P8G0116	5.65 g	5 mL	07/10/18 14:31
8070092-03	P8G0116	6.16 g	5 mL	07/10/18 14:31
8070092-04	P8G0116	6.61 g	5 mL	07/10/18 14:31
8070092-05	P8G0116	5.51 g	5 mL	07/10/18 14:31
8070092-06	P8G0116	4.77 g	5 mL	07/10/18 14:31
8070092-07	P8G0116	4.68 g	5 mL	07/10/18 14:31
8070092-08	P8G0116	4.78 g	5 mL	07/10/18 14:31
8070092-09	P8G0116	3.02 g	5 mL	07/10/18 14:31
8070092-10	P8G0116	6.86 g	5 mL	07/10/18 14:31
8070092-11	P8G0154	5 g	5 mL	07/11/18 10:27
8070092-12	P8G0154	5 g	5 mL	07/11/18 10:27
8070092-13	P8G0116	6.61 g	5 mL	07/10/18 14:31
8070092-14	P8G0116	4.23 g	5 mL	07/10/18 14:31
8070092-15	P8G0116	4.62 g	5 mL	07/10/18 14:31
8070092-16	P8G0116	7.07 g	5 mL	07/10/18 14:31

## Prep Method: 5035

Lab Number	Batch	Initial	Final	Date/Time
8070092-06	P8G0158	4.78 g	5 mL	07/11/18 12:12

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### Sample Extraction Data

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date/Time
8070092-06	P8G0158	4.78 g	5 mL	07/11/18 12:12
8070092-11	P8G0166	5.63 g	5 mL	07/12/18 10:19

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

**CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Client Company Name: APEX  
 Report To/Contact Name: TROY HOLZSCHUL  
 Reporting Address: 10610 METROMENT Pkwy  
Ste. 206, Charlotte, NC 28269  
 Phone: 704/5011233 Fax (Yes) (No): \_\_\_\_\_

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING:  
 Project Name: NC DOT P-5705A  
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)  
 \*Please ATTACH any project specific reporting (QC LEVEL III III V)  
 provisions and/or QC Requirements  
 Invoice To: \_\_\_\_\_  
 Address: \_\_\_\_\_

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: <u>21-9</u> Observed: <u>3.1</u> °C / Corr: <u>2.5</u> °C			

Email Address: \_\_\_\_\_  
 EDD Type: PDF  Excel  Other \_\_\_\_\_  
 Site Location Name: \_\_\_\_\_  
 Site Location Physical 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 & CONDITIONS REGARDING SERVICES  
 RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

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			PRESERVATIVES	ANALYSIS REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
P25B-1(1-5)	7-9-18	1200	SOIL		5			87-60 5035 87-70 PPM? B4		01
P25B-2(1-5)		1230			5					02
P25B-3(6-9)		1245			5					03
P25B-4(6-9)		1300			5					04
P25B-5(4-7)		1330			5					05
P25B-6(1-3)		1420			5					06
P25B-7(3-7)		1445			5					07
P25B-8(4-7)		1515			5					08
P25B-9(1-5)		1545			5					09
P25B-10(4-8)		1615			5					10

Sampler's Signature: [Signature]  
 Relinquished By: (Signature) [Signature]  
 Relinquished By: (Signature) [Signature]  
 Relinquished By: (Signature) [Signature]

Received By: (Signature) [Signature]  
 Received By: (Signature) [Signature]  
 Received For Prism Laboratories By: [Signature]  
 Date: 7-10-18 Military/Hours: 1300  
 Date: 7-10-18 Military/Hours: 1300  
 Date: 7-10-18 Military/Hours: 1300

Received By: (Signature) [Signature]  
 Received By: (Signature) [Signature]  
 Received For Prism Laboratories By: [Signature]  
 Date: 7-10-18 Military/Hours: 1300  
 Date: 7-10-18 Military/Hours: 1300  
 Date: 7-10-18 Military/Hours: 1300

Method of Shipment:  Fed Ex  UPS  Hand-delivered  Prism Field Service  Other \_\_\_\_\_  
 NPDES:  NC  SC  GROUNDWATER:  NC  SC  DRINKING WATER:  NC  SC  SOLID WASTE:  NC  SC  RCRA:  NC  SC  CERCLA  NC  SC  LANDFILL  NC  SC  OTHER:  NC  SC  COC Group No. 8070092

\*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

Additional Comments: \_\_\_\_\_  
 PRESS DOWN FIRMLY - 3 COPIES  
 PRISM USE ONLY  
 Site Arrival Time: \_\_\_\_\_  
 Site Departure Time: \_\_\_\_\_  
 Field Tech Fee: \_\_\_\_\_  
 Mileage: \_\_\_\_\_

SEE REVERSE FOR TERMS & CONDITIONS  
 ORIGINAL

**CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Client Company Name: APP  
 Report To/Contact Name: Fred Wolschik  
 Reporting Address: \_\_\_\_\_

PAGE 2 OF 2 QUOTE # TO ENSURE PROPER BILLING: NC DOT P-5705A  
 Project Name: \_\_\_\_\_  
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (NO)  
 \*Please ATTACH any project specific reporting (QC LEVEL I III III IV) provisions and/or QC Requirements  
 Invoice To: \_\_\_\_\_  
 Address: \_\_\_\_\_

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: 16T-7 Observed: 5.1 °C / Corr: 2.5 °C

Phone: 704-307-1233 Fax (Yes) (No): \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 EDD Type: PDF  Excel  Other   
 Site Location Name: \_\_\_\_\_  
 Site Location Physical 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 & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

TO BE FILLED IN BY CLIENTSAMPLING 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			PRESERVATIVES	ANALYSIS REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
P25B-11(4-7)	7-9-18	1640						ANALYSIS REQUESTED: 6260/14/5020/8/270 PPmet. Pca		11
P25B-12(1-3)		1705								12
P25B-13(3-6)		1720								13
P25B-14(3-5)		1740								14
P25B-15(1-3)		1745								15
P25B-16(5-8)		1750								16

Sampler's Signature: [Signature] Sampled By (Print Name): Harrison Carter Affiliation: APP  
 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.

PRESS DOWN FIRMLY - 3 COPIES

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature] Date: 7-10-18 Military/Hours: 1245  
 Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature] Date: \_\_\_\_\_ Military/Hours: \_\_\_\_\_  
 Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature] Date: \_\_\_\_\_ Military/Hours: \_\_\_\_\_  
 Received For Prism Laboratories By: \_\_\_\_\_ Date: \_\_\_\_\_ Military/Hours: \_\_\_\_\_

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.  
 Fed Ex  UPS  Hand-delivered  Prism Field Service  Other

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

\*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

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

PRISM USE ONLY  
 Site Arrival Time: \_\_\_\_\_  
 Site Departure Time: \_\_\_\_\_  
 Field Tech Fee: \_\_\_\_\_  
 Mileage: \_\_\_\_\_

SEE REVERSE FOR TERMS & CONDITIONS  
 ORIGINAL



Full-Service Analytical & Environmental Solutions

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

# Case Narrative

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Lab Submittal Date: 07/11/2018  
Prism Work Order: 8070114

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:**

- A Re-analysis due to high surr. recovery resulted in similar recoveries. Matrix interference suspected. Initial result reported.
- B Analyte is found in the associated blank at a concentration  $>1/2$  RL.
- BL MB greater than one half of the RL, but the sample concentrations are less than the RL.
- CCV CCV result is above the control limits. Analyte not detected in the sample. No further action taken.
- D RPD value outside of the control limits.
- DM Sample diluted and RL increased due to the matrix.
- ISR Internal standard response outside the QC limits. Analysis repeated without improvement. Initial result reported.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- L Parameter reported with possible low bias. LCS recovery below the QC limit.
- M Matrix spike outside of the control limits.
- MC Sample concentration too high for recovery evaluation.
- SR Surrogate recovery outside the QC limits.
- BRL Below Reporting Limit
- MDL Method Detection Limit
- RPD Relative Percent Difference
- \* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

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Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P2SB-17 (4-7)	8070114-01	Solid	07/10/18 10:50	07/11/18 12:00
P2SB-18 (3-6)	8070114-02	Solid	07/10/18 11:10	07/11/18 12:00
P2SB-19 (3-6)	8070114-03	Solid	07/10/18 11:20	07/11/18 12:00
P2SB-20 (4-7)	8070114-04	Solid	07/10/18 11:40	07/11/18 12:00
P2SB-21 (1-4)	8070114-05	Solid	07/10/18 11:45	07/11/18 12:00
P2SB-22 (4-7)	8070114-06	Solid	07/10/18 11:56	07/11/18 12:00
P2SB-23 (1-4)	8070114-07	Solid	07/10/18 12:10	07/11/18 12:00
P2SB-24 (1-4)	8070114-08	Solid	07/10/18 12:30	07/11/18 12:00
P2SB-25 (1-4)	8070114-09	Solid	07/10/18 13:50	07/11/18 12:00
P2SB-26 (0.5-1)	8070114-10	Solid	07/10/18 14:00	07/11/18 12:00
P2SB-27 (1-4)	8070114-11	Solid	07/10/18 14:15	07/11/18 12:00
P2SB-28 (1-2)	8070114-12	Solid	07/10/18 14:45	07/11/18 12:00
P2SB-29 (2-5)	8070114-13	Solid	07/10/18 15:00	07/11/18 12:00
MW-4	8070114-14	Water	07/10/18 9:20	07/11/18 12:00

Samples were received in good condition at 2.0 degrees C unless otherwise noted.



# Summary of Detections

07/16/2018

Prism Work Order: 8070114

Prism ID	Client ID	Parameter	Method	Result	Units
8070114-01	P2SB-17 (4-7)	Bis(2-Ethylhexyl)phthalate	8270D	1.8	mg/kg dry
8070114-01	P2SB-17 (4-7)	Mercury	7471B	0.044	mg/kg dry
8070114-01	P2SB-17 (4-7)	Antimony	6010D	0.28	J mg/kg dry
8070114-01	P2SB-17 (4-7)	Arsenic	6010D	2.6	mg/kg dry
8070114-01	P2SB-17 (4-7)	Barium	6010D	52	mg/kg dry
8070114-01	P2SB-17 (4-7)	Beryllium	6010D	0.42	mg/kg dry
8070114-01	P2SB-17 (4-7)	Cadmium	6010D	0.88	mg/kg dry
8070114-01	P2SB-17 (4-7)	Chromium	6010D	44	mg/kg dry
8070114-01	P2SB-17 (4-7)	Copper	6010D	130	mg/kg dry
8070114-01	P2SB-17 (4-7)	Lead	6010D	300	mg/kg dry
8070114-01	P2SB-17 (4-7)	Nickel	6010D	36	mg/kg dry
8070114-01	P2SB-17 (4-7)	Silver	6010D	0.15	J mg/kg dry
8070114-01	P2SB-17 (4-7)	Thallium	6010D	1.4	mg/kg dry
8070114-01	P2SB-17 (4-7)	Zinc	6010D	540	mg/kg dry
8070114-01	P2SB-17 (4-7)	Naphthalene	8260B	0.0067	J mg/kg dry
8070114-02	P2SB-18 (3-6)	Mercury	7471B	0.0091	J mg/kg dry
8070114-02	P2SB-18 (3-6)	Arsenic	6010D	1.8	mg/kg dry
8070114-02	P2SB-18 (3-6)	Barium	6010D	85	mg/kg dry
8070114-02	P2SB-18 (3-6)	Beryllium	6010D	0.68	mg/kg dry
8070114-02	P2SB-18 (3-6)	Cadmium	6010D	0.12	J mg/kg dry
8070114-02	P2SB-18 (3-6)	Chromium	6010D	34	mg/kg dry
8070114-02	P2SB-18 (3-6)	Copper	6010D	33	mg/kg dry
8070114-02	P2SB-18 (3-6)	Lead	6010D	14	mg/kg dry
8070114-02	P2SB-18 (3-6)	Nickel	6010D	11	mg/kg dry
8070114-02	P2SB-18 (3-6)	Selenium	6010D	0.53	J mg/kg dry
8070114-02	P2SB-18 (3-6)	Thallium	6010D	1.4	mg/kg dry
8070114-02	P2SB-18 (3-6)	Zinc	6010D	32	mg/kg dry
8070114-03	P2SB-19 (3-6)	Mercury	7471B	0.044	mg/kg dry
8070114-03	P2SB-19 (3-6)	Arsenic	6010D	2.0	mg/kg dry
8070114-03	P2SB-19 (3-6)	Barium	6010D	56	mg/kg dry
8070114-03	P2SB-19 (3-6)	Beryllium	6010D	0.50	mg/kg dry
8070114-03	P2SB-19 (3-6)	Cadmium	6010D	0.92	mg/kg dry
8070114-03	P2SB-19 (3-6)	Chromium	6010D	37	mg/kg dry
8070114-03	P2SB-19 (3-6)	Copper	6010D	50	mg/kg dry
8070114-03	P2SB-19 (3-6)	Lead	6010D	120	mg/kg dry
8070114-03	P2SB-19 (3-6)	Nickel	6010D	12	mg/kg dry
8070114-03	P2SB-19 (3-6)	Selenium	6010D	0.85	mg/kg dry
8070114-03	P2SB-19 (3-6)	Thallium	6010D	1.3	mg/kg dry
8070114-03	P2SB-19 (3-6)	Zinc	6010D	22	mg/kg dry
8070114-03	P2SB-19 (3-6)	Acetone	8260B	0.088	mg/kg dry
8070114-04	P2SB-20 (4-7)	Mercury	7471B	0.0083	J mg/kg dry
8070114-04	P2SB-20 (4-7)	Arsenic	6010D	0.40	J mg/kg dry
8070114-04	P2SB-20 (4-7)	Barium	6010D	85	mg/kg dry
8070114-04	P2SB-20 (4-7)	Beryllium	6010D	1.5	mg/kg dry

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**Summary of Detections**

07/16/2018

Prism Work Order: 8070114

Prism ID	Client ID	Parameter	Method	Result		Units
8070114-04	P2SB-20 (4-7)	Cadmium	6010D	0.24	J	mg/kg dry
8070114-04	P2SB-20 (4-7)	Chromium	6010D	51		mg/kg dry
8070114-04	P2SB-20 (4-7)	Copper	6010D	53		mg/kg dry
8070114-04	P2SB-20 (4-7)	Lead	6010D	6.0		mg/kg dry
8070114-04	P2SB-20 (4-7)	Nickel	6010D	29		mg/kg dry
8070114-04	P2SB-20 (4-7)	Thallium	6010D	5.9		mg/kg dry
8070114-04	P2SB-20 (4-7)	Zinc	6010D	66		mg/kg dry
8070114-04	P2SB-20 (4-7)	Acetone	8260B	0.044	J	mg/kg dry
8070114-05	P2SB-21 (1-4)	Mercury	7471B	0.025		mg/kg dry
8070114-05	P2SB-21 (1-4)	Arsenic	6010D	1.9		mg/kg dry
8070114-05	P2SB-21 (1-4)	Barium	6010D	60		mg/kg dry
8070114-05	P2SB-21 (1-4)	Beryllium	6010D	0.45		mg/kg dry
8070114-05	P2SB-21 (1-4)	Cadmium	6010D	1.2		mg/kg dry
8070114-05	P2SB-21 (1-4)	Chromium	6010D	92		mg/kg dry
8070114-05	P2SB-21 (1-4)	Copper	6010D	200		mg/kg dry
8070114-05	P2SB-21 (1-4)	Lead	6010D	190		mg/kg dry
8070114-05	P2SB-21 (1-4)	Nickel	6010D	51		mg/kg dry
8070114-05	P2SB-21 (1-4)	Silver	6010D	0.11	J	mg/kg dry
8070114-05	P2SB-21 (1-4)	Thallium	6010D	1.7		mg/kg dry
8070114-05	P2SB-21 (1-4)	Zinc	6010D	360		mg/kg dry
8070114-05	P2SB-21 (1-4)	Acetone	8260B	0.054	J	mg/kg dry
8070114-05	P2SB-21 (1-4)	Chloromethane	8260B	0.0087		mg/kg dry
8070114-06	P2SB-22 (4-7)	Mercury	7471B	0.10		mg/kg dry
8070114-06	P2SB-22 (4-7)	Arsenic	6010D	0.96		mg/kg dry
8070114-06	P2SB-22 (4-7)	Barium	6010D	18		mg/kg dry
8070114-06	P2SB-22 (4-7)	Beryllium	6010D	0.45		mg/kg dry
8070114-06	P2SB-22 (4-7)	Cadmium	6010D	0.21	J	mg/kg dry
8070114-06	P2SB-22 (4-7)	Chromium	6010D	47		mg/kg dry
8070114-06	P2SB-22 (4-7)	Copper	6010D	26		mg/kg dry
8070114-06	P2SB-22 (4-7)	Lead	6010D	6.9		mg/kg dry
8070114-06	P2SB-22 (4-7)	Nickel	6010D	6.4		mg/kg dry
8070114-06	P2SB-22 (4-7)	Selenium	6010D	1.5		mg/kg dry
8070114-06	P2SB-22 (4-7)	Thallium	6010D	0.73		mg/kg dry
8070114-06	P2SB-22 (4-7)	Zinc	6010D	15		mg/kg dry
8070114-07	P2SB-23 (1-4)	Mercury	7471B	0.030		mg/kg dry
8070114-07	P2SB-23 (1-4)	Arsenic	6010D	1.8		mg/kg dry
8070114-07	P2SB-23 (1-4)	Barium	6010D	55		mg/kg dry
8070114-07	P2SB-23 (1-4)	Beryllium	6010D	0.54		mg/kg dry
8070114-07	P2SB-23 (1-4)	Cadmium	6010D	0.28	J	mg/kg dry
8070114-07	P2SB-23 (1-4)	Chromium	6010D	45		mg/kg dry
8070114-07	P2SB-23 (1-4)	Copper	6010D	86		mg/kg dry
8070114-07	P2SB-23 (1-4)	Lead	6010D	27		mg/kg dry
8070114-07	P2SB-23 (1-4)	Nickel	6010D	11		mg/kg dry
8070114-07	P2SB-23 (1-4)	Selenium	6010D	0.33	J	mg/kg dry
8070114-07	P2SB-23 (1-4)	Thallium	6010D	1.3		mg/kg dry

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**Summary of Detections**

07/16/2018

Prism Work Order: 8070114

Prism ID	Client ID	Parameter	Method	Result	Units
8070114-07	P2SB-23 (1-4)	Zinc	6010D	51	mg/kg dry
8070114-07	P2SB-23 (1-4)	Acetone	8260B	0.043 J	mg/kg dry
8070114-08	P2SB-24 (1-4)	Mercury	7471B	0.042	mg/kg dry
8070114-08	P2SB-24 (1-4)	Arsenic	6010D	2.1	mg/kg dry
8070114-08	P2SB-24 (1-4)	Barium	6010D	59	mg/kg dry
8070114-08	P2SB-24 (1-4)	Beryllium	6010D	0.44	mg/kg dry
8070114-08	P2SB-24 (1-4)	Cadmium	6010D	2.6	mg/kg dry
8070114-08	P2SB-24 (1-4)	Chromium	6010D	38	mg/kg dry
8070114-08	P2SB-24 (1-4)	Copper	6010D	280	mg/kg dry
8070114-08	P2SB-24 (1-4)	Lead	6010D	77	mg/kg dry
8070114-08	P2SB-24 (1-4)	Nickel	6010D	13	mg/kg dry
8070114-08	P2SB-24 (1-4)	Thallium	6010D	1.0	mg/kg dry
8070114-08	P2SB-24 (1-4)	Zinc	6010D	550	mg/kg dry
8070114-08	P2SB-24 (1-4)	1,2,4-Trimethylbenzene	8260B	0.011	mg/kg dry
8070114-08	P2SB-24 (1-4)	1,3,5-Trimethylbenzene	8260B	0.0052	mg/kg dry
8070114-08	P2SB-24 (1-4)	4-Isopropyltoluene	8260B	0.0064	mg/kg dry
8070114-08	P2SB-24 (1-4)	Acetone	8260B	0.085	mg/kg dry
8070114-08	P2SB-24 (1-4)	Benzene	8260B	0.0092	mg/kg dry
8070114-08	P2SB-24 (1-4)	Ethylbenzene	8260B	0.0052	mg/kg dry
8070114-08	P2SB-24 (1-4)	Isopropylbenzene (Cumene)	8260B	0.082	mg/kg dry
8070114-08	P2SB-24 (1-4)	m,p-Xylenes	8260B	0.0048 J	mg/kg dry
8070114-08	P2SB-24 (1-4)	n-Propylbenzene	8260B	0.0072	mg/kg dry
8070114-08	P2SB-24 (1-4)	sec-Butylbenzene	8260B	0.0026 J	mg/kg dry
8070114-08	P2SB-24 (1-4)	Xylenes, total	8260B	0.0048 J	mg/kg dry
8070114-09	P2SB-25 (1-4)	Mercury	7471B	0.047	mg/kg dry
8070114-09	P2SB-25 (1-4)	Arsenic	6010D	0.80	mg/kg dry
8070114-09	P2SB-25 (1-4)	Barium	6010D	17	mg/kg dry
8070114-09	P2SB-25 (1-4)	Beryllium	6010D	0.57	mg/kg dry
8070114-09	P2SB-25 (1-4)	Cadmium	6010D	0.30 J	mg/kg dry
8070114-09	P2SB-25 (1-4)	Chromium	6010D	55	mg/kg dry
8070114-09	P2SB-25 (1-4)	Copper	6010D	47	mg/kg dry
8070114-09	P2SB-25 (1-4)	Lead	6010D	9.8	mg/kg dry
8070114-09	P2SB-25 (1-4)	Nickel	6010D	7.8	mg/kg dry
8070114-09	P2SB-25 (1-4)	Selenium	6010D	1.0	mg/kg dry
8070114-09	P2SB-25 (1-4)	Thallium	6010D	1.4	mg/kg dry
8070114-09	P2SB-25 (1-4)	Zinc	6010D	33	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Mercury	7471B	0.023	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Arsenic	6010D	1.0	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Barium	6010D	27	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Beryllium	6010D	0.28	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Cadmium	6010D	0.31	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Chromium	6010D	21	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Copper	6010D	19	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Lead	6010D	9.4	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Nickel	6010D	8.6	mg/kg dry

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Prism ID	Client ID	Parameter	Method	Result		Units
8070114-10	P2SB-26 (0.5-1)	Selenium	6010D	0.25	J	mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Thallium	6010D	0.70		mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Zinc	6010D	49		mg/kg dry
8070114-10	P2SB-26 (0.5-1)	Acetone	8260B	0.030	J	mg/kg dry
8070114-11	P2SB-27 (1-4)	Mercury	7471B	0.064		mg/kg dry
8070114-11	P2SB-27 (1-4)	Arsenic	6010D	1.1		mg/kg dry
8070114-11	P2SB-27 (1-4)	Barium	6010D	15		mg/kg dry
8070114-11	P2SB-27 (1-4)	Beryllium	6010D	0.52		mg/kg dry
8070114-11	P2SB-27 (1-4)	Cadmium	6010D	0.19	J	mg/kg dry
8070114-11	P2SB-27 (1-4)	Chromium	6010D	52		mg/kg dry
8070114-11	P2SB-27 (1-4)	Copper	6010D	37		mg/kg dry
8070114-11	P2SB-27 (1-4)	Lead	6010D	8.2		mg/kg dry
8070114-11	P2SB-27 (1-4)	Nickel	6010D	6.5		mg/kg dry
8070114-11	P2SB-27 (1-4)	Selenium	6010D	1.2		mg/kg dry
8070114-11	P2SB-27 (1-4)	Thallium	6010D	1.3		mg/kg dry
8070114-11	P2SB-27 (1-4)	Zinc	6010D	20		mg/kg dry
8070114-12	P2SB-28 (1-2)	Benzo(a)anthracene	8270D	0.16	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Benzo(a)pyrene	8270D	0.13	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Benzo(b)fluoranthene	8270D	0.24	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Benzo(g,h,i)perylene	8270D	0.21	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Bis(2-Ethylhexyl)phthalate	8270D	6.4		mg/kg dry
8070114-12	P2SB-28 (1-2)	Di-n-butyl phthalate	8270D	0.15	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Di-n-octyl phthalate	8270D	2.0		mg/kg dry
8070114-12	P2SB-28 (1-2)	Fluoranthene	8270D	0.36	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Phenanthrene	8270D	0.22	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Pyrene	8270D	0.36	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Mercury	7471B	0.85		mg/kg dry
8070114-12	P2SB-28 (1-2)	Antimony	6010D	9.5		mg/kg dry
8070114-12	P2SB-28 (1-2)	Arsenic	6010D	8.4		mg/kg dry
8070114-12	P2SB-28 (1-2)	Barium	6010D	230		mg/kg dry
8070114-12	P2SB-28 (1-2)	Beryllium	6010D	0.033	DM, J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Cadmium	6010D	1.6		mg/kg dry
8070114-12	P2SB-28 (1-2)	Chromium	6010D	190		mg/kg dry
8070114-12	P2SB-28 (1-2)	Copper	6010D	3900		mg/kg dry
8070114-12	P2SB-28 (1-2)	Lead	6010D	1400		mg/kg dry
8070114-12	P2SB-28 (1-2)	Nickel	6010D	160		mg/kg dry
8070114-12	P2SB-28 (1-2)	Silver	6010D	0.20	DM, J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Thallium	6010D	0.26	DM, J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Zinc	6010D	5800		mg/kg dry
8070114-12	P2SB-28 (1-2)	Acetone	8260B	0.34		mg/kg dry
8070114-12	P2SB-28 (1-2)	Bromomethane	8260B	0.0062	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Chloromethane	8260B	0.015		mg/kg dry
8070114-12	P2SB-28 (1-2)	Isopropylbenzene (Cumene)	8260B	0.0083	ISR	mg/kg dry
8070114-12	P2SB-28 (1-2)	Methyl Ethyl Ketone (2-Butanone)	8260B	0.058	J	mg/kg dry
8070114-12	P2SB-28 (1-2)	Methyl Isobutyl Ketone	8260B	0.0054	J	mg/kg dry

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Prism ID	Client ID	Parameter	Method	Result		Units
8070114-13	P2SB-29 (2-5)	Mercury	7471B	0.0074	J	mg/kg dry
8070114-13	P2SB-29 (2-5)	Arsenic	6010D	1.6		mg/kg dry
8070114-13	P2SB-29 (2-5)	Barium	6010D	28		mg/kg dry
8070114-13	P2SB-29 (2-5)	Beryllium	6010D	0.47		mg/kg dry
8070114-13	P2SB-29 (2-5)	Cadmium	6010D	0.15	J	mg/kg dry
8070114-13	P2SB-29 (2-5)	Chromium	6010D	72		mg/kg dry
8070114-13	P2SB-29 (2-5)	Copper	6010D	60		mg/kg dry
8070114-13	P2SB-29 (2-5)	Lead	6010D	7.4		mg/kg dry
8070114-13	P2SB-29 (2-5)	Nickel	6010D	24		mg/kg dry
8070114-13	P2SB-29 (2-5)	Selenium	6010D	0.71		mg/kg dry
8070114-13	P2SB-29 (2-5)	Thallium	6010D	2.3		mg/kg dry
8070114-13	P2SB-29 (2-5)	Zinc	6010D	28		mg/kg dry
8070114-13	P2SB-29 (2-5)	1,2,4-Trimethylbenzene	8260B	0.093		mg/kg dry
8070114-13	P2SB-29 (2-5)	1,3,5-Trimethylbenzene	8260B	0.0045	J	mg/kg dry
8070114-13	P2SB-29 (2-5)	4-Isopropyltoluene	8260B	0.0040	J	mg/kg dry
8070114-13	P2SB-29 (2-5)	Benzene	8260B	0.030		mg/kg dry
8070114-13	P2SB-29 (2-5)	Ethylbenzene	8260B	0.0031	J	mg/kg dry
8070114-13	P2SB-29 (2-5)	Isopropylbenzene (Cumene)	8260B	0.024		mg/kg dry
8070114-13	P2SB-29 (2-5)	m,p-Xylenes	8260B	0.014		mg/kg dry
8070114-13	P2SB-29 (2-5)	Naphthalene	8260B	0.074		mg/kg dry
8070114-13	P2SB-29 (2-5)	n-Butylbenzene	8260B	0.011		mg/kg dry
8070114-13	P2SB-29 (2-5)	n-Propylbenzene	8260B	0.030		mg/kg dry
8070114-13	P2SB-29 (2-5)	o-Xylene	8260B	0.0047	J	mg/kg dry
8070114-13	P2SB-29 (2-5)	sec-Butylbenzene	8260B	0.0063		mg/kg dry
8070114-13	P2SB-29 (2-5)	Xylenes, total	8260B	0.019		mg/kg dry
8070114-14	MW-4	Antimony	6010D	0.0094	J, B	mg/L
8070114-14	MW-4	Barium	6010D	0.043		mg/L
8070114-14	MW-4	Chromium	6010D	0.0025	J	mg/L
8070114-14	MW-4	Copper	6010D	0.012		mg/L
8070114-14	MW-4	Lead	6010D	0.0011	J	mg/L
8070114-14	MW-4	Nickel	6010D	0.0052	J	mg/L
8070114-14	MW-4	Thallium	6010D	0.0027	J	mg/L
8070114-14	MW-4	Zinc	6010D	0.034		mg/L
8070114-14	MW-4	cis-1,2-Dichloroethylene	8260B	3.1		ug/L
8070114-14	MW-4	Tetrachloroethylene	8260B	1.9		ug/L
8070114-14	MW-4	Trichloroethylene	8260B	0.70		ug/L



Apex Companies, LLC (Charlotte Office)  
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10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-17 (4-7)

Prism Sample ID: 8070114-01

Prism Work Order: 8070114

Time Collected: 07/10/18 10:50

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	84.3	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.39	0.061	1	8270D	7/12/18 22:38	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.39	0.059	1	8270D	7/12/18 22:38	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 22:38	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/12/18 22:38	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.39	0.075	1	8270D	7/12/18 22:38	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.39	0.073	1	8270D	7/12/18 22:38	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.39	0.076	1	8270D	7/12/18 22:38	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.39	0.060	1	8270D	7/12/18 22:38	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 22:38	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.39	0.047	1	8270D	7/12/18 22:38	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/12/18 22:38	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/12/18 22:38	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 22:38	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/12/18 22:38	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.39	0.050	1	8270D	7/12/18 22:38	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.39	0.071	1	8270D	7/12/18 22:38	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.39	0.077	1	8270D	7/12/18 22:38	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.39	0.048	1	8270D	7/12/18 22:38	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.39	0.059	1	8270D	7/12/18 22:38	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.39	0.067	1	8270D	7/12/18 22:38	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 22:38	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.39	0.047	1	8270D	7/12/18 22:38	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 22:38	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.39	0.060	1	8270D	7/12/18 22:38	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.39	0.053	1	8270D	7/12/18 22:38	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/12/18 22:38	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/12/18 22:38	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/12/18 22:38	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 22:38	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.39	0.042	1	8270D	7/12/18 22:38	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.39	0.045	1	8270D	7/12/18 22:38	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.39	0.043	1	8270D	7/12/18 22:38	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 22:38	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.39	0.033	1	8270D	7/12/18 22:38	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 22:38	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.39	0.068	1	8270D	7/12/18 22:38	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 22:38	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.39	0.067	1	8270D	7/12/18 22:38	JMV	P8G0155
<b>Bis(2-Ethylhexyl)phthalate</b>	<b>1.8</b>	<b>mg/kg dry</b>	<b>0.39</b>	<b>0.058</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 22:38</b>	<b>JMV</b>	<b>P8G0155</b>

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Apex Companies, LLC (Charlotte Office)  
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10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-17 (4-7)  
Prism Sample ID: 8070114-01  
Prism Work Order: 8070114  
Time Collected: 07/10/18 10:50  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.39	0.056	1	8270D	7/12/18 22:38	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.39	0.049	1	8270D	7/12/18 22:38	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.39	0.048	1	8270D	7/12/18 22:38	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.39	0.059	1	8270D	7/12/18 22:38	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.39	0.054	1	8270D	7/12/18 22:38	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.39	0.052	1	8270D	7/12/18 22:38	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.39	0.056	1	8270D	7/12/18 22:38	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.39	0.048	1	8270D	7/12/18 22:38	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.39	0.050	1	8270D	7/12/18 22:38	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/12/18 22:38	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.39	0.062	1	8270D	7/12/18 22:38	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.39	0.070	1	8270D	7/12/18 22:38	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.39	0.070	1	8270D	7/12/18 22:38	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.39	0.065	1	8270D	7/12/18 22:38	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.39	0.045	1	8270D	7/12/18 22:38	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.39	0.053	1	8270D	7/12/18 22:38	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/12/18 22:38	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/12/18 22:38	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.39	0.062	1	8270D	7/12/18 22:38	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.39	0.059	1	8270D	7/12/18 22:38	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.39	0.046	1	8270D	7/12/18 22:38	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 22:38	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.39	0.058	1	8270D	7/12/18 22:38	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/12/18 22:38	JMV	P8G0155
							Surrogate	Recovery	Control Limits
							2,4,6-Tribromophenol	53 %	39-132
							2-Fluorobiphenyl	61 %	44-115
							2-Fluorophenol	57 %	35-115
							Nitrobenzene-d5	54 %	37-122
							Phenol-d5	56 %	34-121
							Terphenyl-d14	52 %	54-127
									SR

**Total Metals**

Mercury	0.044	mg/kg dry	0.024	0.0023	1	7471B	7/13/18 12:25	JAB	P8G0171
Antimony	0.28 J	mg/kg dry	0.30	0.030	1	6010D	7/13/18 16:10	JAB	P8G0146
Arsenic	2.6	mg/kg dry	0.59	0.036	1	6010D	7/12/18 17:48	JAB	P8G0146
Barium	52	mg/kg dry	0.59	0.086	1	6010D	7/12/18 17:48	JAB	P8G0146
Beryllium	0.42	mg/kg dry	0.30	0.0065	1	6010D	7/12/18 17:48	JAB	P8G0146
Cadmium	0.88	mg/kg dry	0.30	0.0079	1	6010D	7/12/18 17:48	JAB	P8G0146
Chromium	44	mg/kg dry	0.30	0.049	1	6010D	7/12/18 17:48	JAB	P8G0146
Copper	130	mg/kg dry	0.59	0.053	1	6010D	7/12/18 17:48	JAB	P8G0146
Lead	300	mg/kg dry	3.0	0.55	10	6010D	7/13/18 13:46	JAB	P8G0146
Nickel	36	mg/kg dry	0.59	0.021	1	6010D	7/12/18 17:48	JAB	P8G0146

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Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-17 (4-7)

Prism Sample ID: 8070114-01

Prism Work Order: 8070114

Time Collected: 07/10/18 10:50

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.59	0.14	1	6010D	7/12/18 17:48	JAB	P8G0146
<b>Silver</b>	<b>0.15 J</b>	<b>mg/kg dry</b>	<b>0.30</b>	<b>0.0073</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 17:48</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Thallium</b>	<b>1.4</b>	<b>mg/kg dry</b>	<b>0.59</b>	<b>0.077</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 17:48</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>540</b>	<b>mg/kg dry</b>	<b>30</b>	<b>1.1</b>	<b>10</b>	<b>6010D</b>	<b>7/13/18 13:46</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0063	0.00052	1	8260B	7/11/18 22:01	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/11/18 22:01	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0063	0.00042	1	8260B	7/11/18 22:01	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0063	0.00056	1	8260B	7/11/18 22:01	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0063	0.00017	1	8260B	7/11/18 22:01	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00028	1	8260B	7/11/18 22:01	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00034	1	8260B	7/11/18 22:01	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0063	0.00036	1	8260B	7/11/18 22:01	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0063	0.00080	1	8260B	7/11/18 22:01	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0063	0.00047	1	8260B	7/11/18 22:01	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0063	0.00048	1	8260B	7/11/18 22:01	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0063	0.00025	1	8260B	7/11/18 22:01	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0063	0.00029	1	8260B	7/11/18 22:01	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0063	0.00037	1	8260B	7/11/18 22:01	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0063	0.00039	1	8260B	7/11/18 22:01	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0063	0.00047	1	8260B	7/11/18 22:01	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0063	0.00042	1	8260B	7/11/18 22:01	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0063	0.00031	1	8260B	7/11/18 22:01	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0063	0.00025	1	8260B	7/11/18 22:01	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/11/18 22:01	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0063	0.00032	1	8260B	7/11/18 22:01	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0063	0.00037	1	8260B	7/11/18 22:01	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/11/18 22:01	ANG	P8G0154
Acetone	BRL	mg/kg dry	0.063	0.0015	1	8260B	7/11/18 22:01	ANG	P8G0154
Benzene	BRL	mg/kg dry	0.0038	0.00036	1	8260B	7/11/18 22:01	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0063	0.00052	1	8260B	7/11/18 22:01	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0063	0.00034	1	8260B	7/11/18 22:01	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0063	0.00035	1	8260B	7/11/18 22:01	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0063	0.00071	1	8260B	7/11/18 22:01	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.013	0.00077	1	8260B	7/11/18 22:01	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0063	0.00031	1	8260B	7/11/18 22:01	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0063	0.00033	1	8260B	7/11/18 22:01	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.013	0.00052	1	8260B	7/11/18 22:01	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0063	0.00045	1	8260B	7/11/18 22:01	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0063	0.00042	1	8260B	7/11/18 22:01	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00027	1	8260B	7/11/18 22:01	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00021	1	8260B	7/11/18 22:01	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0063	0.00026	1	8260B	7/11/18 22:01	ANG	P8G0154

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-17 (4-7)

Prism Sample ID: 8070114-01

Prism Work Order: 8070114

Time Collected: 07/10/18 10:50

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0063	0.00028	1	8260B	7/11/18 22:01	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0063	0.00024	1	8260B	7/11/18 22:01	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0063	0.00026	1	8260B	7/11/18 22:01	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0063	0.00037	1	8260B	7/11/18 22:01	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.013	0.00058	1	8260B	7/11/18 22:01	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.063	0.00057	1	8260B	7/11/18 22:01	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.13	0.00057	1	8260B	7/11/18 22:01	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.063	0.00053	1	8260B	7/11/18 22:01	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.013	0.00035	1	8260B	7/11/18 22:01	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.013	0.00020	1	8260B	7/11/18 22:01	ANG	P8G0154
<b>Naphthalene</b>	<b>0.0067 J</b>	<b>mg/kg dry</b>	<b>0.013</b>	<b>0.00020</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 22:01</b>	<b>ANG</b>	<b>P8G0154</b>
n-Butylbenzene	BRL	mg/kg dry	0.0063	0.00032	1	8260B	7/11/18 22:01	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0063	0.00037	1	8260B	7/11/18 22:01	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0063	0.00026	1	8260B	7/11/18 22:01	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/11/18 22:01	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0063	0.00038	1	8260B	7/11/18 22:01	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0063	0.00021	1	8260B	7/11/18 22:01	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/11/18 22:01	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0063	0.00036	1	8260B	7/11/18 22:01	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00037	1	8260B	7/11/18 22:01	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00033	1	8260B	7/11/18 22:01	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0063	0.00041	1	8260B	7/11/18 22:01	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0063	0.00041	1	8260B	7/11/18 22:01	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.031	0.00086	1	8260B	7/11/18 22:01	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/11/18 22:01	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.019	0.0012	1	8260B	7/11/18 22:01	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	100 %	70-130
Dibromofluoromethane	101 %	84-123
Toluene-d8	96 %	76-129

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-18 (3-6)

Prism Sample ID: 8070114-02

Prism Work Order: 8070114

Time Collected: 07/10/18 11:10

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.2	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.41	0.064	1	8270D	7/12/18 14:08	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.41	0.062	1	8270D	7/12/18 14:08	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:08	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 14:08	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.41	0.079	1	8270D	7/12/18 14:08	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.41	0.077	1	8270D	7/12/18 14:08	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.41	0.080	1	8270D	7/12/18 14:08	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 14:08	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 14:08	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 14:08	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.41	0.055	1	8270D	7/12/18 14:08	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 14:08	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:08	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/12/18 14:08	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 14:08	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.41	0.075	1	8270D	7/12/18 14:08	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.41	0.081	1	8270D	7/12/18 14:08	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.41	0.051	1	8270D	7/12/18 14:08	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.41	0.062	1	8270D	7/12/18 14:08	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.41	0.071	1	8270D	7/12/18 14:08	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:08	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.41	0.049	1	8270D	7/12/18 14:08	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 14:08	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 14:08	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.41	0.056	1	8270D	7/12/18 14:08	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 14:08	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/12/18 14:08	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:08	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:08	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.41	0.044	1	8270D	7/12/18 14:08	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.41	0.048	1	8270D	7/12/18 14:08	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.41	0.045	1	8270D	7/12/18 14:08	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:08	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.41	0.035	1	8270D	7/12/18 14:08	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:08	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.41	0.071	1	8270D	7/12/18 14:08	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:08	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/12/18 14:08	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.41	0.061	1	8270D	7/12/18 14:08	JMV	P8G0155

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Apex Companies, LLC (Charlotte Office)  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-18 (3-6)

Prism Sample ID: 8070114-02

Prism Work Order: 8070114

Time Collected: 07/10/18 11:10

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 14:08	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.41	0.052	1	8270D	7/12/18 14:08	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 14:08	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 14:08	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 14:08	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:08	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:08	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.41	0.051	1	8270D	7/12/18 14:08	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.41	0.052	1	8270D	7/12/18 14:08	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 14:08	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 14:08	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.41	0.074	1	8270D	7/12/18 14:08	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.41	0.073	1	8270D	7/12/18 14:08	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.41	0.069	1	8270D	7/12/18 14:08	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/12/18 14:08	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.41	0.056	1	8270D	7/12/18 14:08	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/12/18 14:08	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:08	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 14:08	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 14:08	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.41	0.049	1	8270D	7/12/18 14:08	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 14:08	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.41	0.061	1	8270D	7/12/18 14:08	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:08	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	69 %	39-132
2-Fluorobiphenyl	73 %	44-115
2-Fluorophenol	68 %	35-115
Nitrobenzene-d5	61 %	37-122
Phenol-d5	67 %	34-121
Terphenyl-d14	66 %	54-127

**Total Metals**

Mercury	0.0091 J	mg/kg dry	0.024	0.0023	1	7471B	7/13/18 10:54	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.31	0.031	1	6010D	7/13/18 16:35	JAB	P8G0146
Arsenic	1.8	mg/kg dry	0.62	0.038	1	6010D	7/12/18 18:13	JAB	P8G0146
Barium	85	mg/kg dry	0.62	0.090	1	6010D	7/12/18 18:13	JAB	P8G0146
Beryllium	0.68	mg/kg dry	0.31	0.0068	1	6010D	7/12/18 18:13	JAB	P8G0146
Cadmium	0.12 J	mg/kg dry	0.31	0.0083	1	6010D	7/12/18 18:13	JAB	P8G0146
Chromium	34	mg/kg dry	0.31	0.052	1	6010D	7/12/18 18:13	JAB	P8G0146
Copper	33	mg/kg dry	0.62	0.056	1	6010D	7/12/18 18:13	JAB	P8G0146
Lead	14	mg/kg dry	0.31	0.057	1	6010D	7/12/18 18:13	JAB	P8G0146
Nickel	11	mg/kg dry	0.62	0.022	1	6010D	7/12/18 18:13	JAB	P8G0146

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Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-18 (3-6)  
Prism Sample ID: 8070114-02  
Prism Work Order: 8070114  
Time Collected: 07/10/18 11:10  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.53 J</b>	<b>mg/kg dry</b>	<b>0.62</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:13</b>	<b>JAB</b>	<b>P8G0146</b>
Silver	BRL	mg/kg dry	0.31	0.0077	1	6010D	7/12/18 18:13	JAB	P8G0146
<b>Thallium</b>	<b>1.4</b>	<b>mg/kg dry</b>	<b>0.62</b>	<b>0.081</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:13</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>32</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:13</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0047	0.00039	1	8260B	7/12/18 3:03	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/12/18 3:03	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0047	0.00032	1	8260B	7/12/18 3:03	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0047	0.00042	1	8260B	7/12/18 3:03	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0047	0.00013	1	8260B	7/12/18 3:03	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0047	0.00021	1	8260B	7/12/18 3:03	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00026	1	8260B	7/12/18 3:03	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0047	0.00027	1	8260B	7/12/18 3:03	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0047	0.00060	1	8260B	7/12/18 3:03	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0047	0.00035	1	8260B	7/12/18 3:03	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0047	0.00036	1	8260B	7/12/18 3:03	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0047	0.00019	1	8260B	7/12/18 3:03	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.00022	1	8260B	7/12/18 3:03	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/12/18 3:03	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0047	0.00029	1	8260B	7/12/18 3:03	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0047	0.00035	1	8260B	7/12/18 3:03	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.00031	1	8260B	7/12/18 3:03	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0047	0.00024	1	8260B	7/12/18 3:03	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.00018	1	8260B	7/12/18 3:03	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0047	0.00022	1	8260B	7/12/18 3:03	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0047	0.00024	1	8260B	7/12/18 3:03	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/12/18 3:03	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/12/18 3:03	ANG	P8G0154
Acetone	BRL	mg/kg dry	0.047	0.0011	1	8260B	7/12/18 3:03	ANG	P8G0154
Benzene	BRL	mg/kg dry	0.0028	0.00027	1	8260B	7/12/18 3:03	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0047	0.00039	1	8260B	7/12/18 3:03	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0047	0.00026	1	8260B	7/12/18 3:03	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0047	0.00026	1	8260B	7/12/18 3:03	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0047	0.00053	1	8260B	7/12/18 3:03	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.0094	0.00058	1	8260B	7/12/18 3:03	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/12/18 3:03	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0047	0.00025	1	8260B	7/12/18 3:03	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.0094	0.00039	1	8260B	7/12/18 3:03	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0047	0.00034	1	8260B	7/12/18 3:03	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0047	0.00032	1	8260B	7/12/18 3:03	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0047	0.00020	1	8260B	7/12/18 3:03	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00016	1	8260B	7/12/18 3:03	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0047	0.00019	1	8260B	7/12/18 3:03	ANG	P8G0154

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Full-Service Analytical &  
Environmental Solutions**Laboratory Report**

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-18 (3-6)  
Prism Sample ID: 8070114-02  
Prism Work Order: 8070114  
Time Collected: 07/10/18 11:10  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0047	0.00021	1	8260B	7/12/18 3:03	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0047	0.00018	1	8260B	7/12/18 3:03	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0047	0.00019	1	8260B	7/12/18 3:03	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/12/18 3:03	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.0094	0.00043	1	8260B	7/12/18 3:03	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.047	0.00042	1	8260B	7/12/18 3:03	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.094	0.00042	1	8260B	7/12/18 3:03	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.047	0.00040	1	8260B	7/12/18 3:03	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.0094	0.00026	1	8260B	7/12/18 3:03	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0094	0.00015	1	8260B	7/12/18 3:03	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.0094	0.00015	1	8260B	7/12/18 3:03	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0047	0.00024	1	8260B	7/12/18 3:03	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/12/18 3:03	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0047	0.00019	1	8260B	7/12/18 3:03	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/12/18 3:03	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/12/18 3:03	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0047	0.00016	1	8260B	7/12/18 3:03	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0047	0.00022	1	8260B	7/12/18 3:03	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0047	0.00027	1	8260B	7/12/18 3:03	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0047	0.00028	1	8260B	7/12/18 3:03	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00025	1	8260B	7/12/18 3:03	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0047	0.00030	1	8260B	7/12/18 3:03	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0047	0.00030	1	8260B	7/12/18 3:03	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.023	0.00064	1	8260B	7/12/18 3:03	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0047	0.00023	1	8260B	7/12/18 3:03	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.014	0.00088	1	8260B	7/12/18 3:03	ANG	P8G0154

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

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-19 (3-6)  
Prism Sample ID: 8070114-03  
Prism Work Order: 8070114  
Time Collected: 07/10/18 11:20  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	85.8	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.38	0.060	1	8270D	7/12/18 21:54	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 21:54	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 21:54	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.38	0.056	1	8270D	7/12/18 21:54	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.38	0.074	1	8270D	7/12/18 21:54	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.38	0.072	1	8270D	7/12/18 21:54	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.38	0.074	1	8270D	7/12/18 21:54	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.38	0.059	1	8270D	7/12/18 21:54	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 21:54	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.38	0.047	1	8270D	7/12/18 21:54	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.38	0.051	1	8270D	7/12/18 21:54	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.38	0.056	1	8270D	7/12/18 21:54	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 21:54	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.38	0.061	1	8270D	7/12/18 21:54	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.38	0.049	1	8270D	7/12/18 21:54	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.38	0.070	1	8270D	7/12/18 21:54	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.38	0.076	1	8270D	7/12/18 21:54	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.38	0.047	1	8270D	7/12/18 21:54	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.38	0.058	1	8270D	7/12/18 21:54	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.38	0.066	1	8270D	7/12/18 21:54	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 21:54	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.38	0.046	1	8270D	7/12/18 21:54	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 21:54	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.38	0.059	1	8270D	7/12/18 21:54	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.38	0.052	1	8270D	7/12/18 21:54	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.38	0.056	1	8270D	7/12/18 21:54	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.38	0.062	1	8270D	7/12/18 21:54	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.38	0.051	1	8270D	7/12/18 21:54	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 21:54	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.38	0.042	1	8270D	7/12/18 21:54	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.38	0.045	1	8270D	7/12/18 21:54	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.38	0.042	1	8270D	7/12/18 21:54	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 21:54	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.38	0.032	1	8270D	7/12/18 21:54	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.38	0.051	1	8270D	7/12/18 21:54	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.38	0.067	1	8270D	7/12/18 21:54	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 21:54	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.38	0.066	1	8270D	7/12/18 21:54	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.38	0.057	1	8270D	7/12/18 21:54	JMV	P8G0155

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-19 (3-6)

Prism Sample ID: 8070114-03

Prism Work Order: 8070114

Time Collected: 07/10/18 11:20

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 21:54	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.38	0.048	1	8270D	7/12/18 21:54	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.38	0.047	1	8270D	7/12/18 21:54	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 21:54	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 21:54	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.38	0.051	1	8270D	7/12/18 21:54	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 21:54	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.38	0.047	1	8270D	7/12/18 21:54	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.38	0.049	1	8270D	7/12/18 21:54	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 21:54	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.38	0.061	1	8270D	7/12/18 21:54	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.38	0.069	1	8270D	7/12/18 21:54	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.38	0.069	1	8270D	7/12/18 21:54	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.38	0.064	1	8270D	7/12/18 21:54	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.38	0.044	1	8270D	7/12/18 21:54	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.38	0.052	1	8270D	7/12/18 21:54	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.38	0.062	1	8270D	7/12/18 21:54	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 21:54	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.38	0.061	1	8270D	7/12/18 21:54	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 21:54	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.38	0.045	1	8270D	7/12/18 21:54	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 21:54	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.38	0.057	1	8270D	7/12/18 21:54	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.38	0.051	1	8270D	7/12/18 21:54	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	63 %	39-132
2-Fluorobiphenyl	67 %	44-115
2-Fluorophenol	59 %	35-115
Nitrobenzene-d5	54 %	37-122
Phenol-d5	59 %	34-121
Terphenyl-d14	62 %	54-127

**Total Metals**

Mercury	0.044	mg/kg dry	0.023	0.0022	1	7471B	7/13/18 11:08	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.29	0.029	1	6010D	7/13/18 16:44	JAB	P8G0146
Arsenic	2.0	mg/kg dry	0.58	0.035	1	6010D	7/12/18 18:22	JAB	P8G0146
Barium	56	mg/kg dry	0.58	0.085	1	6010D	7/12/18 18:22	JAB	P8G0146
Beryllium	0.50	mg/kg dry	0.29	0.0064	1	6010D	7/12/18 18:22	JAB	P8G0146
Cadmium	0.92	mg/kg dry	0.29	0.0078	1	6010D	7/12/18 18:22	JAB	P8G0146
Chromium	37	mg/kg dry	0.29	0.048	1	6010D	7/12/18 18:22	JAB	P8G0146
Copper	50	mg/kg dry	0.58	0.052	1	6010D	7/13/18 13:55	JAB	P8G0146
Lead	120	mg/kg dry	0.29	0.054	1	6010D	7/12/18 18:22	JAB	P8G0146
Nickel	12	mg/kg dry	0.58	0.021	1	6010D	7/12/18 18:22	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-19 (3-6)

Prism Sample ID: 8070114-03

Prism Work Order: 8070114

Time Collected: 07/10/18 11:20

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.85</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.14</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:22</b>	<b>JAB</b>	<b>P8G0146</b>
Silver	BRL	mg/kg dry	0.29	0.0072	1	6010D	7/12/18 18:22	JAB	P8G0146
<b>Thallium</b>	<b>1.3</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.076</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:22</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>22</b>	<b>mg/kg dry</b>	<b>2.9</b>	<b>0.10</b>	<b>1</b>	<b>6010D</b>	<b>7/13/18 13:55</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0054	0.00044	1	8260B	7/12/18 20:31	ANG	P8G0169
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/12/18 20:31	ANG	P8G0169
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0054	0.00036	1	8260B	7/12/18 20:31	ANG	P8G0169
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0054	0.00047	1	8260B	7/12/18 20:31	ANG	P8G0169
1,1-Dichloroethane	BRL	mg/kg dry	0.0054	0.00015	1	8260B	7/12/18 20:31	ANG	P8G0169
1,1-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00024	1	8260B	7/12/18 20:31	ANG	P8G0169
1,1-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00029	1	8260B	7/12/18 20:31	ANG	P8G0169
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0054	0.00030	1	8260B	7/12/18 20:31	ANG	P8G0169
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0054	0.00068	1	8260B	7/12/18 20:31	ANG	P8G0169
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0054	0.00040	1	8260B	7/12/18 20:31	ANG	P8G0169
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0054	0.00041	1	8260B	7/12/18 20:31	ANG	P8G0169
1,2-Dibromoethane	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/12/18 20:31	ANG	P8G0169
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00025	1	8260B	7/12/18 20:31	ANG	P8G0169
1,2-Dichloroethane	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/12/18 20:31	ANG	P8G0169
1,2-Dichloropropane	BRL	mg/kg dry	0.0054	0.00033	1	8260B	7/12/18 20:31	ANG	P8G0169
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0054	0.00041	1	8260B	7/12/18 20:31	ANG	P8G0169
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00035	1	8260B	7/12/18 20:31	ANG	P8G0169
1,3-Dichloropropane	BRL	mg/kg dry	0.0054	0.00027	1	8260B	7/12/18 20:31	ANG	P8G0169
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00021	1	8260B	7/12/18 20:31	ANG	P8G0169
2,2-Dichloropropane	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/12/18 20:31	ANG	P8G0169
2-Chlorotoluene	BRL	mg/kg dry	0.0054	0.00028	1	8260B	7/12/18 20:31	ANG	P8G0169
4-Chlorotoluene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/12/18 20:31	ANG	P8G0169
4-Isopropyltoluene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/12/18 20:31	ANG	P8G0169
<b>Acetone</b>	<b>0.088</b>	<b>mg/kg dry</b>	<b>0.054</b>	<b>0.0013</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 20:31</b>	<b>ANG</b>	<b>P8G0169</b>
Benzene	BRL	mg/kg dry	0.0032	0.00031	1	8260B	7/12/18 20:31	ANG	P8G0169
Bromobenzene	BRL	mg/kg dry	0.0054	0.00045	1	8260B	7/12/18 20:31	ANG	P8G0169
Bromochloromethane	BRL	mg/kg dry	0.0054	0.00029	1	8260B	7/12/18 20:31	ANG	P8G0169
Bromodichloromethane	BRL	mg/kg dry	0.0054	0.00030	1	8260B	7/12/18 20:31	ANG	P8G0169
Bromoform	BRL	mg/kg dry	0.0054	0.00061	1	8260B	7/12/18 20:31	ANG	P8G0169
Bromomethane	BRL	mg/kg dry	0.011	0.00066	1	8260B	7/12/18 20:31	ANG	P8G0169
Carbon Tetrachloride	BRL	mg/kg dry	0.0054	0.00027	1	8260B	7/12/18 20:31	ANG	P8G0169
Chlorobenzene	BRL	mg/kg dry	0.0054	0.00028	1	8260B	7/12/18 20:31	ANG	P8G0169
Chloroethane	BRL	mg/kg dry	0.011	0.00045	1	8260B	7/12/18 20:31	ANG	P8G0169
Chloroform	BRL	mg/kg dry	0.0054	0.00039	1	8260B	7/12/18 20:31	ANG	P8G0169
Chloromethane	BRL	mg/kg dry	0.0054	0.00036	1	8260B	7/12/18 20:31	ANG	P8G0169
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00023	1	8260B	7/12/18 20:31	ANG	P8G0169
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00018	1	8260B	7/12/18 20:31	ANG	P8G0169
Dibromochloromethane	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/12/18 20:31	ANG	P8G0169

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-19 (3-6)  
Prism Sample ID: 8070114-03  
Prism Work Order: 8070114  
Time Collected: 07/10/18 11:20  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0054	0.00024	1	8260B	7/12/18 20:31	ANG	P8G0169
Ethylbenzene	BRL	mg/kg dry	0.0054	0.00021	1	8260B	7/12/18 20:31	ANG	P8G0169
Isopropyl Ether	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/12/18 20:31	ANG	P8G0169
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/12/18 20:31	ANG	P8G0169
m,p-Xylenes	BRL	mg/kg dry	0.011	0.00049	1	8260B	7/12/18 20:31	ANG	P8G0169
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.054	0.00048	1	8260B	7/12/18 20:31	ANG	P8G0169
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.11	0.00048	1	8260B	7/12/18 20:31	ANG	P8G0169
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.054	0.00046	1	8260B	7/12/18 20:31	ANG	P8G0169
Methylene Chloride	BRL	mg/kg dry	0.011	0.00030	1	8260B	7/12/18 20:31	ANG	P8G0169
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.011	0.00017	1	8260B	7/12/18 20:31	ANG	P8G0169
Naphthalene	BRL	mg/kg dry	0.011	0.00017	1	8260B	7/12/18 20:31	ANG	P8G0169
n-Butylbenzene	BRL	mg/kg dry	0.0054	0.00027	1	8260B	7/12/18 20:31	ANG	P8G0169
n-Propylbenzene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/12/18 20:31	ANG	P8G0169
o-Xylene	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/12/18 20:31	ANG	P8G0169
sec-Butylbenzene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/12/18 20:31	ANG	P8G0169
Styrene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/12/18 20:31	ANG	P8G0169
tert-Butylbenzene	BRL	mg/kg dry	0.0054	0.00018	1	8260B	7/12/18 20:31	ANG	P8G0169
Tetrachloroethylene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/12/18 20:31	ANG	P8G0169
Toluene	BRL	mg/kg dry	0.0054	0.00031	1	8260B	7/12/18 20:31	ANG	P8G0169
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/12/18 20:31	ANG	P8G0169
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00028	1	8260B	7/12/18 20:31	ANG	P8G0169
Trichloroethylene	BRL	mg/kg dry	0.0054	0.00035	1	8260B	7/12/18 20:31	ANG	P8G0169
Trichlorofluoromethane	BRL	mg/kg dry	0.0054	0.00035	1	8260B	7/12/18 20:31	ANG	P8G0169
Vinyl acetate	BRL	mg/kg dry	0.027	0.00073	1	8260B	7/12/18 20:31	ANG	P8G0169
Vinyl chloride	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/12/18 20:31	ANG	P8G0169
Xylenes, total	BRL	mg/kg dry	0.016	0.0010	1	8260B	7/12/18 20:31	ANG	P8G0169

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	101 %	70-130
Dibromofluoromethane	99 %	84-123
Toluene-d8	94 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-20 (4-7)  
Prism Sample ID: 8070114-04  
Prism Work Order: 8070114  
Time Collected: 07/10/18 11:40  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	75.0	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.44	0.069	1	8270D	7/12/18 14:31	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.44	0.067	1	8270D	7/12/18 14:31	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 14:31	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.44	0.064	1	8270D	7/12/18 14:31	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.44	0.085	1	8270D	7/12/18 14:31	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.44	0.082	1	8270D	7/12/18 14:31	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.44	0.085	1	8270D	7/12/18 14:31	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.44	0.067	1	8270D	7/12/18 14:31	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.44	0.061	1	8270D	7/12/18 14:31	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.44	0.053	1	8270D	7/12/18 14:31	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 14:31	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.44	0.064	1	8270D	7/12/18 14:31	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 14:31	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.44	0.070	1	8270D	7/12/18 14:31	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.44	0.056	1	8270D	7/12/18 14:31	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.44	0.080	1	8270D	7/12/18 14:31	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.44	0.087	1	8270D	7/12/18 14:31	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.44	0.054	1	8270D	7/12/18 14:31	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.44	0.066	1	8270D	7/12/18 14:31	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.44	0.075	1	8270D	7/12/18 14:31	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 14:31	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.44	0.053	1	8270D	7/12/18 14:31	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.44	0.057	1	8270D	7/12/18 14:31	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.44	0.068	1	8270D	7/12/18 14:31	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.44	0.060	1	8270D	7/12/18 14:31	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.44	0.064	1	8270D	7/12/18 14:31	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.44	0.071	1	8270D	7/12/18 14:31	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 14:31	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.44	0.057	1	8270D	7/12/18 14:31	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.44	0.048	1	8270D	7/12/18 14:31	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.44	0.051	1	8270D	7/12/18 14:31	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.44	0.048	1	8270D	7/12/18 14:31	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 14:31	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.44	0.037	1	8270D	7/12/18 14:31	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 14:31	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.44	0.076	1	8270D	7/12/18 14:31	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 14:31	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.44	0.075	1	8270D	7/12/18 14:31	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.44	0.065	1	8270D	7/12/18 14:31	JMV	P8G0155

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Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-20 (4-7)

Prism Sample ID: 8070114-04

Prism Work Order: 8070114

Time Collected: 07/10/18 11:40

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.44	0.063	1	8270D	7/12/18 14:31	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.44	0.055	1	8270D	7/12/18 14:31	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.44	0.053	1	8270D	7/12/18 14:31	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.44	0.067	1	8270D	7/12/18 14:31	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.44	0.061	1	8270D	7/12/18 14:31	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 14:31	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 14:31	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.44	0.054	1	8270D	7/12/18 14:31	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.44	0.056	1	8270D	7/12/18 14:31	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.44	0.063	1	8270D	7/12/18 14:31	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.44	0.070	1	8270D	7/12/18 14:31	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.44	0.079	1	8270D	7/12/18 14:31	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.44	0.078	1	8270D	7/12/18 14:31	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.44	0.074	1	8270D	7/12/18 14:31	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.44	0.050	1	8270D	7/12/18 14:31	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.44	0.059	1	8270D	7/12/18 14:31	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.44	0.071	1	8270D	7/12/18 14:31	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 14:31	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.44	0.069	1	8270D	7/12/18 14:31	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.44	0.067	1	8270D	7/12/18 14:31	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.44	0.052	1	8270D	7/12/18 14:31	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.44	0.057	1	8270D	7/12/18 14:31	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.44	0.065	1	8270D	7/12/18 14:31	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 14:31	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	57 %	39-132
2-Fluorobiphenyl	67 %	44-115
2-Fluorophenol	65 %	35-115
Nitrobenzene-d5	60 %	37-122
Phenol-d5	63 %	34-121
Terphenyl-d14	55 %	54-127

**Total Metals**

Mercury	0.0083 J	mg/kg dry	0.026	0.0025	1	7471B	7/13/18 11:12	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.33	0.033	1	6010D	7/13/18 16:51	JAB	P8G0146
Arsenic	0.40 J	mg/kg dry	0.67	0.041	1	6010D	7/12/18 18:30	JAB	P8G0146
Barium	85	mg/kg dry	0.67	0.097	1	6010D	7/12/18 18:30	JAB	P8G0146
Beryllium	1.5	mg/kg dry	0.33	0.0073	1	6010D	7/12/18 18:30	JAB	P8G0146
Cadmium	0.24 J	mg/kg dry	0.33	0.0089	1	6010D	7/12/18 18:30	JAB	P8G0146
Chromium	51	mg/kg dry	0.33	0.056	1	6010D	7/12/18 18:30	JAB	P8G0146
Copper	53	mg/kg dry	0.67	0.060	1	6010D	7/12/18 18:30	JAB	P8G0146
Lead	6.0	mg/kg dry	0.33	0.062	1	6010D	7/12/18 18:30	JAB	P8G0146
Nickel	29	mg/kg dry	0.67	0.024	1	6010D	7/12/18 18:30	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-20 (4-7)

Prism Sample ID: 8070114-04

Prism Work Order: 8070114

Time Collected: 07/10/18 11:40

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.67	0.16	1	6010D	7/12/18 18:30	JAB	P8G0146
Silver	BRL	mg/kg dry	0.33	0.0083	1	6010D	7/12/18 18:30	JAB	P8G0146
<b>Thallium</b>	<b>5.9</b>	<b>mg/kg dry</b>	<b>0.67</b>	<b>0.087</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:30</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>66</b>	<b>mg/kg dry</b>	<b>3.3</b>	<b>0.12</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:30</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0061	0.00050	1	8260B	7/11/18 22:29	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0061	0.00030	1	8260B	7/11/18 22:29	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0061	0.00041	1	8260B	7/11/18 22:29	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0061	0.00054	1	8260B	7/11/18 22:29	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0061	0.00017	1	8260B	7/11/18 22:29	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0061	0.00027	1	8260B	7/11/18 22:29	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0061	0.00034	1	8260B	7/11/18 22:29	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0061	0.00035	1	8260B	7/11/18 22:29	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0061	0.00078	1	8260B	7/11/18 22:29	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0061	0.00046	1	8260B	7/11/18 22:29	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0061	0.00047	1	8260B	7/11/18 22:29	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0061	0.00025	1	8260B	7/11/18 22:29	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0061	0.00029	1	8260B	7/11/18 22:29	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0061	0.00037	1	8260B	7/11/18 22:29	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0061	0.00038	1	8260B	7/11/18 22:29	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0061	0.00046	1	8260B	7/11/18 22:29	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0061	0.00041	1	8260B	7/11/18 22:29	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0061	0.00031	1	8260B	7/11/18 22:29	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0061	0.00024	1	8260B	7/11/18 22:29	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0061	0.00029	1	8260B	7/11/18 22:29	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0061	0.00032	1	8260B	7/11/18 22:29	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0061	0.00037	1	8260B	7/11/18 22:29	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0061	0.00030	1	8260B	7/11/18 22:29	ANG	P8G0154
<b>Acetone</b>	<b>0.044 J</b>	<b>mg/kg dry</b>	<b>0.061</b>	<b>0.0015</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 22:29</b>	<b>ANG</b>	<b>P8G0154</b>
Benzene	BRL	mg/kg dry	0.0037	0.00036	1	8260B	7/11/18 22:29	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0061	0.00051	1	8260B	7/11/18 22:29	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0061	0.00034	1	8260B	7/11/18 22:29	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0061	0.00034	1	8260B	7/11/18 22:29	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0061	0.00070	1	8260B	7/11/18 22:29	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.012	0.00076	1	8260B	7/11/18 22:29	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0061	0.00031	1	8260B	7/11/18 22:29	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0061	0.00032	1	8260B	7/11/18 22:29	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.012	0.00051	1	8260B	7/11/18 22:29	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0061	0.00044	1	8260B	7/11/18 22:29	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0061	0.00041	1	8260B	7/11/18 22:29	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0061	0.00026	1	8260B	7/11/18 22:29	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0061	0.00021	1	8260B	7/11/18 22:29	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0061	0.00025	1	8260B	7/11/18 22:29	ANG	P8G0154

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-20 (4-7)

Prism Sample ID: 8070114-04

Prism Work Order: 8070114

Time Collected: 07/10/18 11:40

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0061	0.00028	1	8260B	7/11/18 22:29	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0061	0.00024	1	8260B	7/11/18 22:29	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0061	0.00025	1	8260B	7/11/18 22:29	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0061	0.00036	1	8260B	7/11/18 22:29	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.012	0.00057	1	8260B	7/11/18 22:29	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.061	0.00055	1	8260B	7/11/18 22:29	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.12	0.00055	1	8260B	7/11/18 22:29	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.061	0.00052	1	8260B	7/11/18 22:29	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.012	0.00034	1	8260B	7/11/18 22:29	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.012	0.00020	1	8260B	7/11/18 22:29	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.012	0.00019	1	8260B	7/11/18 22:29	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0061	0.00031	1	8260B	7/11/18 22:29	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0061	0.00036	1	8260B	7/11/18 22:29	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0061	0.00025	1	8260B	7/11/18 22:29	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0061	0.00030	1	8260B	7/11/18 22:29	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0061	0.00037	1	8260B	7/11/18 22:29	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0061	0.00021	1	8260B	7/11/18 22:29	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0061	0.00029	1	8260B	7/11/18 22:29	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0061	0.00035	1	8260B	7/11/18 22:29	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0061	0.00037	1	8260B	7/11/18 22:29	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0061	0.00032	1	8260B	7/11/18 22:29	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0061	0.00040	1	8260B	7/11/18 22:29	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0061	0.00040	1	8260B	7/11/18 22:29	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.031	0.00084	1	8260B	7/11/18 22:29	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0061	0.00030	1	8260B	7/11/18 22:29	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.018	0.0011	1	8260B	7/11/18 22:29	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	97 %	70-130
Dibromofluoromethane	102 %	84-123
Toluene-d8	94 %	76-129

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Apex Companies, LLC (Charlotte Office)  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-21 (1-4)

Prism Sample ID: 8070114-05

Prism Work Order: 8070114

Time Collected: 07/10/18 11:45

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	86.6	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.38	0.059	1	8270D	7/12/18 23:00	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 23:00	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:00	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.38	0.056	1	8270D	7/12/18 23:00	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.38	0.073	1	8270D	7/12/18 23:00	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.38	0.071	1	8270D	7/12/18 23:00	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.38	0.074	1	8270D	7/12/18 23:00	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 23:00	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 23:00	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.38	0.046	1	8270D	7/12/18 23:00	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.38	0.051	1	8270D	7/12/18 23:00	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 23:00	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:00	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.38	0.061	1	8270D	7/12/18 23:00	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.38	0.049	1	8270D	7/12/18 23:00	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.38	0.069	1	8270D	7/12/18 23:00	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.38	0.075	1	8270D	7/12/18 23:00	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.38	0.047	1	8270D	7/12/18 23:00	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.38	0.057	1	8270D	7/12/18 23:00	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.38	0.065	1	8270D	7/12/18 23:00	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 23:00	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.38	0.046	1	8270D	7/12/18 23:00	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:00	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.38	0.059	1	8270D	7/12/18 23:00	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.38	0.052	1	8270D	7/12/18 23:00	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 23:00	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.38	0.061	1	8270D	7/12/18 23:00	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:00	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:00	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.38	0.041	1	8270D	7/12/18 23:00	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.38	0.044	1	8270D	7/12/18 23:00	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.38	0.042	1	8270D	7/12/18 23:00	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:00	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.38	0.032	1	8270D	7/12/18 23:00	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:00	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.38	0.066	1	8270D	7/12/18 23:00	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:00	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.38	0.065	1	8270D	7/12/18 23:00	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.38	0.057	1	8270D	7/12/18 23:00	JMV	P8G0155

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Apex Companies, LLC (Charlotte Office)  
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10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-21 (1-4)

Prism Sample ID: 8070114-05

Prism Work Order: 8070114

Time Collected: 07/10/18 11:45

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:00	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.38	0.048	1	8270D	7/12/18 23:00	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.38	0.046	1	8270D	7/12/18 23:00	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 23:00	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 23:00	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:00	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:00	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.38	0.047	1	8270D	7/12/18 23:00	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.38	0.049	1	8270D	7/12/18 23:00	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 23:00	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.38	0.060	1	8270D	7/12/18 23:00	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.38	0.068	1	8270D	7/12/18 23:00	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.38	0.068	1	8270D	7/12/18 23:00	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.38	0.064	1	8270D	7/12/18 23:00	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.38	0.044	1	8270D	7/12/18 23:00	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.38	0.052	1	8270D	7/12/18 23:00	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.38	0.061	1	8270D	7/12/18 23:00	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:00	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.38	0.060	1	8270D	7/12/18 23:00	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 23:00	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.38	0.045	1	8270D	7/12/18 23:00	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:00	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.38	0.056	1	8270D	7/12/18 23:00	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:00	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	66 %	39-132
2-Fluorobiphenyl	70 %	44-115
2-Fluorophenol	65 %	35-115
Nitrobenzene-d5	59 %	37-122
Phenol-d5	64 %	34-121
Terphenyl-d14	64 %	54-127

**Total Metals**

Mercury	0.025	mg/kg dry	0.023	0.0022	1	7471B	7/13/18 11:17	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.29	0.029	1	6010D	7/13/18 17:01	JAB	P8G0146
Arsenic	1.9	mg/kg dry	0.57	0.035	1	6010D	7/12/18 18:40	JAB	P8G0146
Barium	60	mg/kg dry	0.57	0.084	1	6010D	7/12/18 18:40	JAB	P8G0146
Beryllium	0.45	mg/kg dry	0.29	0.0063	1	6010D	7/12/18 18:40	JAB	P8G0146
Cadmium	1.2	mg/kg dry	0.29	0.0077	1	6010D	7/12/18 18:40	JAB	P8G0146
Chromium	92	mg/kg dry	0.29	0.048	1	6010D	7/12/18 18:40	JAB	P8G0146
Copper	200	mg/kg dry	5.7	0.52	10	6010D	7/13/18 14:04	JAB	P8G0146
Lead	190	mg/kg dry	2.9	0.53	10	6010D	7/13/18 14:04	JAB	P8G0146
Nickel	51	mg/kg dry	0.57	0.021	1	6010D	7/12/18 18:40	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-21 (1-4)

Prism Sample ID: 8070114-05

Prism Work Order: 8070114

Time Collected: 07/10/18 11:45

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.57	0.14	1	6010D	7/12/18 18:40	JAB	P8G0146
<b>Silver</b>	<b>0.11 J</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.0071</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:40</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Thallium</b>	<b>1.7</b>	<b>mg/kg dry</b>	<b>0.57</b>	<b>0.075</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:40</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>360</b>	<b>mg/kg dry</b>	<b>29</b>	<b>1.0</b>	<b>10</b>	<b>6010D</b>	<b>7/13/18 14:04</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0062	0.00051	1	8260B	7/11/18 22:56	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0062	0.00030	1	8260B	7/11/18 22:56	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0062	0.00042	1	8260B	7/11/18 22:56	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0062	0.00055	1	8260B	7/11/18 22:56	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0062	0.00017	1	8260B	7/11/18 22:56	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0062	0.00027	1	8260B	7/11/18 22:56	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0062	0.00034	1	8260B	7/11/18 22:56	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0062	0.00035	1	8260B	7/11/18 22:56	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0062	0.00079	1	8260B	7/11/18 22:56	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0062	0.00046	1	8260B	7/11/18 22:56	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0062	0.00047	1	8260B	7/11/18 22:56	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0062	0.00025	1	8260B	7/11/18 22:56	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0062	0.00029	1	8260B	7/11/18 22:56	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0062	0.00037	1	8260B	7/11/18 22:56	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0062	0.00039	1	8260B	7/11/18 22:56	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0062	0.00047	1	8260B	7/11/18 22:56	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0062	0.00041	1	8260B	7/11/18 22:56	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0062	0.00031	1	8260B	7/11/18 22:56	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0062	0.00024	1	8260B	7/11/18 22:56	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0062	0.00030	1	8260B	7/11/18 22:56	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0062	0.00032	1	8260B	7/11/18 22:56	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0062	0.00037	1	8260B	7/11/18 22:56	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0062	0.00030	1	8260B	7/11/18 22:56	ANG	P8G0154
<b>Acetone</b>	<b>0.054 J</b>	<b>mg/kg dry</b>	<b>0.062</b>	<b>0.0015</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 22:56</b>	<b>ANG</b>	<b>P8G0154</b>
Benzene	BRL	mg/kg dry	0.0037	0.00036	1	8260B	7/11/18 22:56	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0062	0.00052	1	8260B	7/11/18 22:56	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0062	0.00034	1	8260B	7/11/18 22:56	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0062	0.00035	1	8260B	7/11/18 22:56	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0062	0.00071	1	8260B	7/11/18 22:56	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.012	0.00077	1	8260B	7/11/18 22:56	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0062	0.00031	1	8260B	7/11/18 22:56	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0062	0.00033	1	8260B	7/11/18 22:56	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.012	0.00052	1	8260B	7/11/18 22:56	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0062	0.00045	1	8260B	7/11/18 22:56	ANG	P8G0154
<b>Chloromethane</b>	<b>0.0087</b>	<b>mg/kg dry</b>	<b>0.0062</b>	<b>0.00042</b>	<b>1</b>	<b>8260B</b>	<b>7/11/18 22:56</b>	<b>ANG</b>	<b>P8G0154</b>
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0062	0.00026	1	8260B	7/11/18 22:56	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0062	0.00021	1	8260B	7/11/18 22:56	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0062	0.00026	1	8260B	7/11/18 22:56	ANG	P8G0154

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-21 (1-4)

Prism Sample ID: 8070114-05

Prism Work Order: 8070114

Time Collected: 07/10/18 11:45

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0062	0.00028	1	8260B	7/11/18 22:56	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0062	0.00024	1	8260B	7/11/18 22:56	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0062	0.00025	1	8260B	7/11/18 22:56	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0062	0.00037	1	8260B	7/11/18 22:56	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.012	0.00057	1	8260B	7/11/18 22:56	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.062	0.00056	1	8260B	7/11/18 22:56	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.12	0.00056	1	8260B	7/11/18 22:56	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.062	0.00053	1	8260B	7/11/18 22:56	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.012	0.00035	1	8260B	7/11/18 22:56	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.012	0.00020	1	8260B	7/11/18 22:56	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.012	0.00020	1	8260B	7/11/18 22:56	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0062	0.00032	1	8260B	7/11/18 22:56	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0062	0.00037	1	8260B	7/11/18 22:56	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0062	0.00025	1	8260B	7/11/18 22:56	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0062	0.00030	1	8260B	7/11/18 22:56	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0062	0.00037	1	8260B	7/11/18 22:56	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0062	0.00021	1	8260B	7/11/18 22:56	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0062	0.00030	1	8260B	7/11/18 22:56	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0062	0.00036	1	8260B	7/11/18 22:56	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0062	0.00037	1	8260B	7/11/18 22:56	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0062	0.00033	1	8260B	7/11/18 22:56	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0062	0.00040	1	8260B	7/11/18 22:56	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0062	0.00040	1	8260B	7/11/18 22:56	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.031	0.00085	1	8260B	7/11/18 22:56	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0062	0.00030	1	8260B	7/11/18 22:56	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.019	0.0012	1	8260B	7/11/18 22:56	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	110 %	70-130
Dibromofluoromethane	101 %	84-123
Toluene-d8	99 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-22 (4-7)  
Prism Sample ID: 8070114-06  
Prism Work Order: 8070114  
Time Collected: 07/10/18 11:56  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	79.8	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.41	0.064	1	8270D	7/12/18 14:53	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 14:53	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:53	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 14:53	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.41	0.079	1	8270D	7/12/18 14:53	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.41	0.077	1	8270D	7/12/18 14:53	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.41	0.080	1	8270D	7/12/18 14:53	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 14:53	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:53	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 14:53	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.41	0.055	1	8270D	7/12/18 14:53	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 14:53	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:53	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/12/18 14:53	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 14:53	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.41	0.075	1	8270D	7/12/18 14:53	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.41	0.081	1	8270D	7/12/18 14:53	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.41	0.051	1	8270D	7/12/18 14:53	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.41	0.062	1	8270D	7/12/18 14:53	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.41	0.071	1	8270D	7/12/18 14:53	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:53	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 14:53	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:53	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.41	0.064	1	8270D	7/12/18 14:53	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.41	0.056	1	8270D	7/12/18 14:53	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 14:53	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/12/18 14:53	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:53	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:53	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.41	0.045	1	8270D	7/12/18 14:53	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.41	0.048	1	8270D	7/12/18 14:53	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.41	0.045	1	8270D	7/12/18 14:53	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:53	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.41	0.035	1	8270D	7/12/18 14:53	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:53	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.41	0.072	1	8270D	7/12/18 14:53	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 14:53	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/12/18 14:53	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.41	0.061	1	8270D	7/12/18 14:53	JMV	P8G0155

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-22 (4-7)

Prism Sample ID: 8070114-06

Prism Work Order: 8070114

Time Collected: 07/10/18 11:56

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 14:53	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.41	0.052	1	8270D	7/12/18 14:53	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 14:53	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 14:53	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 14:53	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:53	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 14:53	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.41	0.051	1	8270D	7/12/18 14:53	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 14:53	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 14:53	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 14:53	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.41	0.074	1	8270D	7/12/18 14:53	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.41	0.074	1	8270D	7/12/18 14:53	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.41	0.069	1	8270D	7/12/18 14:53	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/12/18 14:53	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.41	0.056	1	8270D	7/12/18 14:53	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/12/18 14:53	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 14:53	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 14:53	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 14:53	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.41	0.049	1	8270D	7/12/18 14:53	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 14:53	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.41	0.061	1	8270D	7/12/18 14:53	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.41	0.055	1	8270D	7/12/18 14:53	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	72 %	39-132
2-Fluorobiphenyl	75 %	44-115
2-Fluorophenol	70 %	35-115
Nitrobenzene-d5	65 %	37-122
Phenol-d5	70 %	34-121
Terphenyl-d14	69 %	54-127

**Total Metals**

Mercury	0.10	mg/kg dry	0.025	0.0024	1	7471B	7/13/18 11:21	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.31	0.031	1	6010D	7/13/18 17:09	JAB	P8G0146
Arsenic	0.96	mg/kg dry	0.62	0.038	1	6010D	7/12/18 18:48	JAB	P8G0146
Barium	18	mg/kg dry	0.62	0.090	1	6010D	7/12/18 18:48	JAB	P8G0146
Beryllium	0.45	mg/kg dry	0.31	0.0068	1	6010D	7/12/18 18:48	JAB	P8G0146
Cadmium	0.21 J	mg/kg dry	0.31	0.0083	1	6010D	7/12/18 18:48	JAB	P8G0146
Chromium	47	mg/kg dry	0.31	0.052	1	6010D	7/12/18 18:48	JAB	P8G0146
Copper	26	mg/kg dry	0.62	0.056	1	6010D	7/12/18 18:48	JAB	P8G0146
Lead	6.9	mg/kg dry	0.31	0.058	1	6010D	7/12/18 18:48	JAB	P8G0146
Nickel	6.4	mg/kg dry	0.62	0.022	1	6010D	7/12/18 18:48	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-22 (4-7)

Prism Sample ID: 8070114-06

Prism Work Order: 8070114

Time Collected: 07/10/18 11:56

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>1.5</b>	<b>mg/kg dry</b>	<b>0.62</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:48</b>	<b>JAB</b>	<b>P8G0146</b>
Silver	BRL	mg/kg dry	0.31	0.0077	1	6010D	7/12/18 18:48	JAB	P8G0146
<b>Thallium</b>	<b>0.73</b>	<b>mg/kg dry</b>	<b>0.62</b>	<b>0.081</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:48</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>15</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:48</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00039	1	8260B	7/11/18 23:23	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 23:23	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/11/18 23:23	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0048	0.00042	1	8260B	7/11/18 23:23	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0048	0.00013	1	8260B	7/11/18 23:23	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00021	1	8260B	7/11/18 23:23	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00026	1	8260B	7/11/18 23:23	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/11/18 23:23	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0048	0.00061	1	8260B	7/11/18 23:23	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	7/11/18 23:23	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0048	0.00037	1	8260B	7/11/18 23:23	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/11/18 23:23	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00022	1	8260B	7/11/18 23:23	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/11/18 23:23	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00030	1	8260B	7/11/18 23:23	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	7/11/18 23:23	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/11/18 23:23	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/11/18 23:23	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/11/18 23:23	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 23:23	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/11/18 23:23	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/11/18 23:23	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 23:23	ANG	P8G0154
Acetone	BRL	mg/kg dry	0.048	0.0012	1	8260B	7/11/18 23:23	ANG	P8G0154
Benzene	BRL	mg/kg dry	0.0029	0.00028	1	8260B	7/11/18 23:23	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0048	0.00040	1	8260B	7/11/18 23:23	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0048	0.00026	1	8260B	7/11/18 23:23	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/11/18 23:23	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0048	0.00054	1	8260B	7/11/18 23:23	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.0096	0.00059	1	8260B	7/11/18 23:23	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/11/18 23:23	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/11/18 23:23	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.0096	0.00040	1	8260B	7/11/18 23:23	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0048	0.00035	1	8260B	7/11/18 23:23	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/11/18 23:23	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/11/18 23:23	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	7/11/18 23:23	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/11/18 23:23	ANG	P8G0154

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-22 (4-7)

Prism Sample ID: 8070114-06

Prism Work Order: 8070114

Time Collected: 07/10/18 11:56

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0048	0.00022	1	8260B	7/11/18 23:23	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0048	0.00018	1	8260B	7/11/18 23:23	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/11/18 23:23	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/11/18 23:23	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.0096	0.00044	1	8260B	7/11/18 23:23	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.048	0.00043	1	8260B	7/11/18 23:23	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.096	0.00043	1	8260B	7/11/18 23:23	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.048	0.00041	1	8260B	7/11/18 23:23	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.0096	0.00027	1	8260B	7/11/18 23:23	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0096	0.00015	1	8260B	7/11/18 23:23	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.0096	0.00015	1	8260B	7/11/18 23:23	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/11/18 23:23	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/11/18 23:23	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/11/18 23:23	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 23:23	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/11/18 23:23	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	7/11/18 23:23	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 23:23	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/11/18 23:23	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/11/18 23:23	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/11/18 23:23	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0048	0.00031	1	8260B	7/11/18 23:23	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0048	0.00031	1	8260B	7/11/18 23:23	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.024	0.00065	1	8260B	7/11/18 23:23	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/11/18 23:23	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.014	0.00090	1	8260B	7/11/18 23:23	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	98 %	70-130
Dibromofluoromethane	102 %	84-123
Toluene-d8	94 %	76-129

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-23 (1-4)

Prism Sample ID: 8070114-07

Prism Work Order: 8070114

Time Collected: 07/10/18 12:10

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	84.7	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.39	0.061	1	8270D	7/12/18 15:15	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.39	0.059	1	8270D	7/12/18 15:15	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 15:15	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.39	0.057	1	8270D	7/12/18 15:15	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.39	0.075	1	8270D	7/12/18 15:15	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.39	0.073	1	8270D	7/12/18 15:15	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.39	0.075	1	8270D	7/12/18 15:15	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.39	0.060	1	8270D	7/12/18 15:15	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.39	0.054	1	8270D	7/12/18 15:15	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.39	0.047	1	8270D	7/12/18 15:15	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/12/18 15:15	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/12/18 15:15	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 15:15	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.39	0.062	1	8270D	7/12/18 15:15	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.39	0.050	1	8270D	7/12/18 15:15	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.39	0.071	1	8270D	7/12/18 15:15	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.39	0.077	1	8270D	7/12/18 15:15	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.39	0.048	1	8270D	7/12/18 15:15	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.39	0.059	1	8270D	7/12/18 15:15	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.39	0.067	1	8270D	7/12/18 15:15	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 15:15	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.39	0.047	1	8270D	7/12/18 15:15	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 15:15	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.39	0.060	1	8270D	7/12/18 15:15	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.39	0.053	1	8270D	7/12/18 15:15	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/12/18 15:15	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/12/18 15:15	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 15:15	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 15:15	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.39	0.042	1	8270D	7/12/18 15:15	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.39	0.045	1	8270D	7/12/18 15:15	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.39	0.043	1	8270D	7/12/18 15:15	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 15:15	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.39	0.033	1	8270D	7/12/18 15:15	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 15:15	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.39	0.068	1	8270D	7/12/18 15:15	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 15:15	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.39	0.067	1	8270D	7/12/18 15:15	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.39	0.058	1	8270D	7/12/18 15:15	JMV	P8G0155

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Apex Companies, LLC (Charlotte Office)  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-23 (1-4)

Prism Sample ID: 8070114-07

Prism Work Order: 8070114

Time Collected: 07/10/18 12:10

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 15:15	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.39	0.049	1	8270D	7/12/18 15:15	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.39	0.047	1	8270D	7/12/18 15:15	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.39	0.059	1	8270D	7/12/18 15:15	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.39	0.054	1	8270D	7/12/18 15:15	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 15:15	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 15:15	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.39	0.048	1	8270D	7/12/18 15:15	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.39	0.050	1	8270D	7/12/18 15:15	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.39	0.056	1	8270D	7/12/18 15:15	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.39	0.062	1	8270D	7/12/18 15:15	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.39	0.070	1	8270D	7/12/18 15:15	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.39	0.070	1	8270D	7/12/18 15:15	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.39	0.065	1	8270D	7/12/18 15:15	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.39	0.045	1	8270D	7/12/18 15:15	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.39	0.053	1	8270D	7/12/18 15:15	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.39	0.063	1	8270D	7/12/18 15:15	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.39	0.055	1	8270D	7/12/18 15:15	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.39	0.061	1	8270D	7/12/18 15:15	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.39	0.059	1	8270D	7/12/18 15:15	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.39	0.046	1	8270D	7/12/18 15:15	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.39	0.051	1	8270D	7/12/18 15:15	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.39	0.057	1	8270D	7/12/18 15:15	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.39	0.052	1	8270D	7/12/18 15:15	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	60 %	39-132
2-Fluorobiphenyl	61 %	44-115
2-Fluorophenol	58 %	35-115
Nitrobenzene-d5	53 %	37-122
Phenol-d5	57 %	34-121
Terphenyl-d14	59 %	54-127

**Total Metals**

Mercury	0.030	mg/kg dry	0.023	0.0022	1	7471B	7/13/18 11:26	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.29	0.029	1	6010D	7/13/18 17:17	JAB	P8G0146
Arsenic	1.8	mg/kg dry	0.58	0.036	1	6010D	7/12/18 18:56	JAB	P8G0146
Barium	55	mg/kg dry	0.58	0.085	1	6010D	7/12/18 18:56	JAB	P8G0146
Beryllium	0.54	mg/kg dry	0.29	0.0064	1	6010D	7/12/18 18:56	JAB	P8G0146
Cadmium	0.28 J	mg/kg dry	0.29	0.0078	1	6010D	7/12/18 18:56	JAB	P8G0146
Chromium	45	mg/kg dry	0.29	0.049	1	6010D	7/12/18 18:56	JAB	P8G0146
Copper	86	mg/kg dry	0.58	0.053	1	6010D	7/12/18 18:56	JAB	P8G0146
Lead	27	mg/kg dry	0.29	0.054	1	6010D	7/12/18 18:56	JAB	P8G0146
Nickel	11	mg/kg dry	0.58	0.021	1	6010D	7/12/18 18:56	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-23 (1-4)  
Prism Sample ID: 8070114-07  
Prism Work Order: 8070114  
Time Collected: 07/10/18 12:10  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.33 J</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.14</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:56</b>	<b>JAB</b>	<b>P8G0146</b>
Silver	BRL	mg/kg dry	0.29	0.0073	1	6010D	7/12/18 18:56	JAB	P8G0146
<b>Thallium</b>	<b>1.3</b>	<b>mg/kg dry</b>	<b>0.58</b>	<b>0.077</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:56</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>51</b>	<b>mg/kg dry</b>	<b>2.9</b>	<b>0.10</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 18:56</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0045	0.00037	1	8260B	7/12/18 1:41	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0045	0.00022	1	8260B	7/12/18 1:41	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0045	0.00031	1	8260B	7/12/18 1:41	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0045	0.00040	1	8260B	7/12/18 1:41	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0045	0.00013	1	8260B	7/12/18 1:41	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0045	0.00020	1	8260B	7/12/18 1:41	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0045	0.00025	1	8260B	7/12/18 1:41	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0045	0.00026	1	8260B	7/12/18 1:41	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0045	0.00058	1	8260B	7/12/18 1:41	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0045	0.00034	1	8260B	7/12/18 1:41	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0045	0.00035	1	8260B	7/12/18 1:41	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0045	0.00018	1	8260B	7/12/18 1:41	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0045	0.00021	1	8260B	7/12/18 1:41	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0045	0.00027	1	8260B	7/12/18 1:41	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0045	0.00028	1	8260B	7/12/18 1:41	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0045	0.00034	1	8260B	7/12/18 1:41	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0045	0.00030	1	8260B	7/12/18 1:41	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0045	0.00023	1	8260B	7/12/18 1:41	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0045	0.00018	1	8260B	7/12/18 1:41	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0045	0.00022	1	8260B	7/12/18 1:41	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0045	0.00023	1	8260B	7/12/18 1:41	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0045	0.00027	1	8260B	7/12/18 1:41	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0045	0.00022	1	8260B	7/12/18 1:41	ANG	P8G0154
<b>Acetone</b>	<b>0.043 J</b>	<b>mg/kg dry</b>	<b>0.045</b>	<b>0.0011</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 1:41</b>	<b>ANG</b>	<b>P8G0154</b>
Benzene	BRL	mg/kg dry	0.0027	0.00026	1	8260B	7/12/18 1:41	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0045	0.00038	1	8260B	7/12/18 1:41	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0045	0.00025	1	8260B	7/12/18 1:41	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0045	0.00025	1	8260B	7/12/18 1:41	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0045	0.00051	1	8260B	7/12/18 1:41	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.0091	0.00056	1	8260B	7/12/18 1:41	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0045	0.00023	1	8260B	7/12/18 1:41	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0045	0.00024	1	8260B	7/12/18 1:41	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.0091	0.00038	1	8260B	7/12/18 1:41	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0045	0.00033	1	8260B	7/12/18 1:41	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0045	0.00030	1	8260B	7/12/18 1:41	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0045	0.00019	1	8260B	7/12/18 1:41	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0045	0.00015	1	8260B	7/12/18 1:41	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0045	0.00019	1	8260B	7/12/18 1:41	ANG	P8G0154

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-23 (1-4)

Prism Sample ID: 8070114-07

Prism Work Order: 8070114

Time Collected: 07/10/18 12:10

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0045	0.00021	1	8260B	7/12/18 1:41	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0045	0.00017	1	8260B	7/12/18 1:41	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0045	0.00018	1	8260B	7/12/18 1:41	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0045	0.00027	1	8260B	7/12/18 1:41	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.0091	0.00042	1	8260B	7/12/18 1:41	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.045	0.00041	1	8260B	7/12/18 1:41	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.091	0.00041	1	8260B	7/12/18 1:41	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.045	0.00039	1	8260B	7/12/18 1:41	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.0091	0.00025	1	8260B	7/12/18 1:41	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0091	0.00014	1	8260B	7/12/18 1:41	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.0091	0.00014	1	8260B	7/12/18 1:41	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0045	0.00023	1	8260B	7/12/18 1:41	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0045	0.00027	1	8260B	7/12/18 1:41	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0045	0.00019	1	8260B	7/12/18 1:41	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0045	0.00022	1	8260B	7/12/18 1:41	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0045	0.00027	1	8260B	7/12/18 1:41	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0045	0.00015	1	8260B	7/12/18 1:41	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0045	0.00022	1	8260B	7/12/18 1:41	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0045	0.00026	1	8260B	7/12/18 1:41	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0045	0.00027	1	8260B	7/12/18 1:41	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0045	0.00024	1	8260B	7/12/18 1:41	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0045	0.00029	1	8260B	7/12/18 1:41	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0045	0.00029	1	8260B	7/12/18 1:41	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.023	0.00062	1	8260B	7/12/18 1:41	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0045	0.00022	1	8260B	7/12/18 1:41	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.014	0.00085	1	8260B	7/12/18 1:41	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	104 %	70-130
Dibromofluoromethane	101 %	84-123
Toluene-d8	99 %	76-129

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-24 (1-4)

Prism Sample ID: 8070114-08

Prism Work Order: 8070114

Time Collected: 07/10/18 12:30

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	81.9	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.40	0.063	1	8270D	7/12/18 22:16	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.40	0.061	1	8270D	7/12/18 22:16	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/12/18 22:16	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.40	0.059	1	8270D	7/12/18 22:16	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.40	0.078	1	8270D	7/12/18 22:16	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.40	0.076	1	8270D	7/12/18 22:16	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.40	0.078	1	8270D	7/12/18 22:16	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.40	0.062	1	8270D	7/12/18 22:16	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/12/18 22:16	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.40	0.049	1	8270D	7/12/18 22:16	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.40	0.054	1	8270D	7/12/18 22:16	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/12/18 22:16	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.40	0.057	1	8270D	7/12/18 22:16	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/12/18 22:16	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.40	0.052	1	8270D	7/12/18 22:16	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.40	0.073	1	8270D	7/12/18 22:16	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.40	0.080	1	8270D	7/12/18 22:16	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.40	0.050	1	8270D	7/12/18 22:16	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.40	0.061	1	8270D	7/12/18 22:16	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.40	0.069	1	8270D	7/12/18 22:16	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.40	0.056	1	8270D	7/12/18 22:16	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.40	0.048	1	8270D	7/12/18 22:16	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.40	0.052	1	8270D	7/12/18 22:16	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.40	0.062	1	8270D	7/12/18 22:16	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.40	0.055	1	8270D	7/12/18 22:16	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/12/18 22:16	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.40	0.065	1	8270D	7/12/18 22:16	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/12/18 22:16	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/12/18 22:16	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.40	0.044	1	8270D	7/12/18 22:16	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.40	0.047	1	8270D	7/12/18 22:16	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.40	0.044	1	8270D	7/12/18 22:16	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/12/18 22:16	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.40	0.034	1	8270D	7/12/18 22:16	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.40	0.053	1	8270D	7/12/18 22:16	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.40	0.070	1	8270D	7/12/18 22:16	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.40	0.057	1	8270D	7/12/18 22:16	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.40	0.069	1	8270D	7/12/18 22:16	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.40	0.060	1	8270D	7/12/18 22:16	JMV	P8G0155

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Apex Companies, LLC (Charlotte Office)  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-24 (1-4)

Prism Sample ID: 8070114-08

Prism Work Order: 8070114

Time Collected: 07/10/18 12:30

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	7/12/18 22:16	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.40	0.051	1	8270D	7/12/18 22:16	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.40	0.049	1	8270D	7/12/18 22:16	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.40	0.061	1	8270D	7/12/18 22:16	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.40	0.056	1	8270D	7/12/18 22:16	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.40	0.053	1	8270D	7/12/18 22:16	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	7/12/18 22:16	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.40	0.050	1	8270D	7/12/18 22:16	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.40	0.051	1	8270D	7/12/18 22:16	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.40	0.058	1	8270D	7/12/18 22:16	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.40	0.064	1	8270D	7/12/18 22:16	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.40	0.072	1	8270D	7/12/18 22:16	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.40	0.072	1	8270D	7/12/18 22:16	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.40	0.067	1	8270D	7/12/18 22:16	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.40	0.046	1	8270D	7/12/18 22:16	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.40	0.055	1	8270D	7/12/18 22:16	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.40	0.065	1	8270D	7/12/18 22:16	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	7/12/18 22:16	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.40	0.063	1	8270D	7/12/18 22:16	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.40	0.061	1	8270D	7/12/18 22:16	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.40	0.048	1	8270D	7/12/18 22:16	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.40	0.052	1	8270D	7/12/18 22:16	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.40	0.059	1	8270D	7/12/18 22:16	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.40	0.053	1	8270D	7/12/18 22:16	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	68 %	39-132
2-Fluorobiphenyl	73 %	44-115
2-Fluorophenol	68 %	35-115
Nitrobenzene-d5	62 %	37-122
Phenol-d5	66 %	34-121
Terphenyl-d14	65 %	54-127

**Total Metals**

Mercury	0.042	mg/kg dry	0.024	0.0022	1	7471B	7/13/18 11:31	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.31	0.031	1	6010D	7/13/18 17:40	JAB	P8G0146
Arsenic	2.1	mg/kg dry	0.61	0.037	1	6010D	7/12/18 19:04	JAB	P8G0146
Barium	59	mg/kg dry	0.61	0.089	1	6010D	7/12/18 19:04	JAB	P8G0146
Beryllium	0.44	mg/kg dry	0.31	0.0067	1	6010D	7/12/18 19:04	JAB	P8G0146
Cadmium	2.6	mg/kg dry	0.31	0.0082	1	6010D	7/12/18 19:04	JAB	P8G0146
Chromium	38	mg/kg dry	0.31	0.051	1	6010D	7/12/18 19:04	JAB	P8G0146
Copper	280	mg/kg dry	6.1	0.55	10	6010D	7/13/18 14:13	JAB	P8G0146
Lead	77	mg/kg dry	0.31	0.057	1	6010D	7/12/18 19:04	JAB	P8G0146
Nickel	13	mg/kg dry	0.61	0.022	1	6010D	7/12/18 19:04	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-24 (1-4)

Prism Sample ID: 8070114-08

Prism Work Order: 8070114

Time Collected: 07/10/18 12:30

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.61	0.14	1	6010D	7/12/18 19:04	JAB	P8G0146
Silver	BRL	mg/kg dry	0.31	0.0076	1	6010D	7/12/18 19:04	JAB	P8G0146
<b>Thallium</b>	<b>1.0</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.080</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:04</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>550</b>	<b>mg/kg dry</b>	<b>31</b>	<b>1.1</b>	<b>10</b>	<b>6010D</b>	<b>7/13/18 14:13</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00040	1	8260B	7/12/18 2:08	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 2:08	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00033	1	8260B	7/12/18 2:08	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0048	0.00043	1	8260B	7/12/18 2:08	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0048	0.00013	1	8260B	7/12/18 2:08	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00021	1	8260B	7/12/18 2:08	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00026	1	8260B	7/12/18 2:08	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/12/18 2:08	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0048	0.00062	1	8260B	7/12/18 2:08	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	7/12/18 2:08	ANG	P8G0154
<b>1,2,4-Trimethylbenzene</b>	<b>0.011</b>	<b>mg/kg dry</b>	<b>0.0048</b>	<b>0.00037</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
1,2-Dibromoethane	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/12/18 2:08	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 2:08	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/12/18 2:08	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00030	1	8260B	7/12/18 2:08	ANG	P8G0154
<b>1,3,5-Trimethylbenzene</b>	<b>0.0052</b>	<b>mg/kg dry</b>	<b>0.0048</b>	<b>0.00037</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/12/18 2:08	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/12/18 2:08	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/12/18 2:08	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 2:08	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/12/18 2:08	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/12/18 2:08	ANG	P8G0154
<b>4-Isopropyltoluene</b>	<b>0.0064</b>	<b>mg/kg dry</b>	<b>0.0048</b>	<b>0.00023</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
<b>Acetone</b>	<b>0.085</b>	<b>mg/kg dry</b>	<b>0.048</b>	<b>0.0012</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
<b>Benzene</b>	<b>0.0092</b>	<b>mg/kg dry</b>	<b>0.0029</b>	<b>0.00028</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
Bromobenzene	BRL	mg/kg dry	0.0048	0.00040	1	8260B	7/12/18 2:08	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/12/18 2:08	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/12/18 2:08	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0048	0.00055	1	8260B	7/12/18 2:08	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.0097	0.00060	1	8260B	7/12/18 2:08	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/12/18 2:08	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0048	0.00026	1	8260B	7/12/18 2:08	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.0097	0.00040	1	8260B	7/12/18 2:08	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0048	0.00035	1	8260B	7/12/18 2:08	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/12/18 2:08	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00021	1	8260B	7/12/18 2:08	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	7/12/18 2:08	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/12/18 2:08	ANG	P8G0154

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-24 (1-4)  
Prism Sample ID: 8070114-08  
Prism Work Order: 8070114  
Time Collected: 07/10/18 12:30  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0048	0.00022	1	8260B	7/12/18 2:08	ANG	P8G0154
<b>Ethylbenzene</b>	<b>0.0052</b>	<b>mg/kg dry</b>	<b>0.0048</b>	<b>0.00019</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
Isopropyl Ether	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/12/18 2:08	ANG	P8G0154
<b>Isopropylbenzene (Cumene)</b>	<b>0.082</b>	<b>mg/kg dry</b>	<b>0.0048</b>	<b>0.00029</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
<b>m,p-Xylenes</b>	<b>0.0048 J</b>	<b>mg/kg dry</b>	<b>0.0097</b>	<b>0.00045</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.048	0.00044	1	8260B	7/12/18 2:08	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.097	0.00044	1	8260B	7/12/18 2:08	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.048	0.00041	1	8260B	7/12/18 2:08	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.0097	0.00027	1	8260B	7/12/18 2:08	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0097	0.00015	1	8260B	7/12/18 2:08	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.0097	0.00015	1	8260B	7/12/18 2:08	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/12/18 2:08	ANG	P8G0154
<b>n-Propylbenzene</b>	<b>0.0072</b>	<b>mg/kg dry</b>	<b>0.0048</b>	<b>0.00029</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
o-Xylene	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/12/18 2:08	ANG	P8G0154
<b>sec-Butylbenzene</b>	<b>0.0026 J</b>	<b>mg/kg dry</b>	<b>0.0048</b>	<b>0.00023</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>
Styrene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/12/18 2:08	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	7/12/18 2:08	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 2:08	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/12/18 2:08	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/12/18 2:08	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/12/18 2:08	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0048	0.00031	1	8260B	7/12/18 2:08	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0048	0.00031	1	8260B	7/12/18 2:08	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.024	0.00066	1	8260B	7/12/18 2:08	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 2:08	ANG	P8G0154
<b>Xylenes, total</b>	<b>0.0048 J</b>	<b>mg/kg dry</b>	<b>0.014</b>	<b>0.00090</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:08</b>	<b>ANG</b>	<b>P8G0154</b>

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	111 %	70-130
Dibromofluoromethane	98 %	84-123
Toluene-d8	98 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-25 (1-4)

Prism Sample ID: 8070114-09

Prism Work Order: 8070114

Time Collected: 07/10/18 13:50

Time Submitted: 07/11/18 12:00

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	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 15:37	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.41	0.062	1	8270D	7/12/18 15:37	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 15:37	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 15:37	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.41	0.078	1	8270D	7/12/18 15:37	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.41	0.076	1	8270D	7/12/18 15:37	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.41	0.079	1	8270D	7/12/18 15:37	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.41	0.062	1	8270D	7/12/18 15:37	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 15:37	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.41	0.049	1	8270D	7/12/18 15:37	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 15:37	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 15:37	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 15:37	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 15:37	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.41	0.052	1	8270D	7/12/18 15:37	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.41	0.074	1	8270D	7/12/18 15:37	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.41	0.080	1	8270D	7/12/18 15:37	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 15:37	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.41	0.061	1	8270D	7/12/18 15:37	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/12/18 15:37	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 15:37	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.41	0.049	1	8270D	7/12/18 15:37	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 15:37	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 15:37	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.41	0.055	1	8270D	7/12/18 15:37	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 15:37	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 15:37	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 15:37	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 15:37	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.41	0.044	1	8270D	7/12/18 15:37	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/12/18 15:37	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.41	0.045	1	8270D	7/12/18 15:37	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 15:37	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.41	0.034	1	8270D	7/12/18 15:37	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 15:37	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.41	0.071	1	8270D	7/12/18 15:37	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 15:37	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.41	0.069	1	8270D	7/12/18 15:37	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 15:37	JMV	P8G0155

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Apex Companies, LLC (Charlotte Office)  
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10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-25 (1-4)

Prism Sample ID: 8070114-09

Prism Work Order: 8070114

Time Collected: 07/10/18 13:50

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 15:37	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.41	0.051	1	8270D	7/12/18 15:37	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.41	0.049	1	8270D	7/12/18 15:37	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.41	0.062	1	8270D	7/12/18 15:37	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.41	0.056	1	8270D	7/12/18 15:37	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 15:37	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 15:37	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 15:37	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.41	0.052	1	8270D	7/12/18 15:37	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 15:37	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.41	0.064	1	8270D	7/12/18 15:37	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.41	0.073	1	8270D	7/12/18 15:37	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.41	0.072	1	8270D	7/12/18 15:37	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.41	0.068	1	8270D	7/12/18 15:37	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/12/18 15:37	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.41	0.055	1	8270D	7/12/18 15:37	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 15:37	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 15:37	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.41	0.064	1	8270D	7/12/18 15:37	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.41	0.062	1	8270D	7/12/18 15:37	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.41	0.048	1	8270D	7/12/18 15:37	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 15:37	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 15:37	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 15:37	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	64 %	39-132
2-Fluorobiphenyl	71 %	44-115
2-Fluorophenol	68 %	35-115
Nitrobenzene-d5	63 %	37-122
Phenol-d5	66 %	34-121
Terphenyl-d14	63 %	54-127

**Total Metals**

Mercury	0.047	mg/kg dry	0.025	0.0023	1	7471B	7/13/18 11:35	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.31	0.031	1	6010D	7/13/18 17:49	JAB	P8G0146
Arsenic	0.80	mg/kg dry	0.61	0.037	1	6010D	7/12/18 19:27	JAB	P8G0146
Barium	17	mg/kg dry	0.61	0.090	1	6010D	7/12/18 19:27	JAB	P8G0146
Beryllium	0.57	mg/kg dry	0.31	0.0068	1	6010D	7/12/18 19:27	JAB	P8G0146
Cadmium	0.30 J	mg/kg dry	0.31	0.0082	1	6010D	7/12/18 19:27	JAB	P8G0146
Chromium	55	mg/kg dry	0.31	0.051	1	6010D	7/12/18 19:27	JAB	P8G0146
Copper	47	mg/kg dry	0.61	0.056	1	6010D	7/12/18 19:27	JAB	P8G0146
Lead	9.8	mg/kg dry	0.31	0.057	1	6010D	7/12/18 19:27	JAB	P8G0146
Nickel	7.8	mg/kg dry	0.61	0.022	1	6010D	7/12/18 19:27	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-25 (1-4)

Prism Sample ID: 8070114-09

Prism Work Order: 8070114

Time Collected: 07/10/18 13:50

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>1.0</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:27</b>	<b>JAB</b>	<b>P8G0146</b>
Silver	BRL	mg/kg dry	0.31	0.0076	1	6010D	7/12/18 19:27	JAB	P8G0146
<b>Thallium</b>	<b>1.4</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.080</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:27</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>33</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:27</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0054	0.00044	1	8260B	7/11/18 23:51	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 23:51	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0054	0.00036	1	8260B	7/11/18 23:51	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0054	0.00048	1	8260B	7/11/18 23:51	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0054	0.00015	1	8260B	7/11/18 23:51	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00024	1	8260B	7/11/18 23:51	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00030	1	8260B	7/11/18 23:51	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0054	0.00031	1	8260B	7/11/18 23:51	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0054	0.00069	1	8260B	7/11/18 23:51	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0054	0.00040	1	8260B	7/11/18 23:51	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0054	0.00041	1	8260B	7/11/18 23:51	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/11/18 23:51	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00025	1	8260B	7/11/18 23:51	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 23:51	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0054	0.00033	1	8260B	7/11/18 23:51	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0054	0.00041	1	8260B	7/11/18 23:51	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00036	1	8260B	7/11/18 23:51	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0054	0.00027	1	8260B	7/11/18 23:51	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0054	0.00021	1	8260B	7/11/18 23:51	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 23:51	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0054	0.00028	1	8260B	7/11/18 23:51	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 23:51	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 23:51	ANG	P8G0154
Acetone	BRL	mg/kg dry	0.054	0.0013	1	8260B	7/11/18 23:51	ANG	P8G0154
Benzene	BRL	mg/kg dry	0.0032	0.00031	1	8260B	7/11/18 23:51	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0054	0.00045	1	8260B	7/11/18 23:51	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0054	0.00030	1	8260B	7/11/18 23:51	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0054	0.00030	1	8260B	7/11/18 23:51	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0054	0.00061	1	8260B	7/11/18 23:51	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.011	0.00066	1	8260B	7/11/18 23:51	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0054	0.00027	1	8260B	7/11/18 23:51	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0054	0.00029	1	8260B	7/11/18 23:51	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.011	0.00045	1	8260B	7/11/18 23:51	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0054	0.00039	1	8260B	7/11/18 23:51	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0054	0.00036	1	8260B	7/11/18 23:51	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00023	1	8260B	7/11/18 23:51	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00018	1	8260B	7/11/18 23:51	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/11/18 23:51	ANG	P8G0154

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-25 (1-4)

Prism Sample ID: 8070114-09

Prism Work Order: 8070114

Time Collected: 07/10/18 13:50

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0054	0.00024	1	8260B	7/11/18 23:51	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0054	0.00021	1	8260B	7/11/18 23:51	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/11/18 23:51	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 23:51	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.011	0.00050	1	8260B	7/11/18 23:51	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.054	0.00049	1	8260B	7/11/18 23:51	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.11	0.00049	1	8260B	7/11/18 23:51	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.054	0.00046	1	8260B	7/11/18 23:51	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.011	0.00030	1	8260B	7/11/18 23:51	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.011	0.00017	1	8260B	7/11/18 23:51	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.011	0.00017	1	8260B	7/11/18 23:51	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0054	0.00027	1	8260B	7/11/18 23:51	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 23:51	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0054	0.00022	1	8260B	7/11/18 23:51	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 23:51	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 23:51	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0054	0.00018	1	8260B	7/11/18 23:51	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 23:51	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0054	0.00031	1	8260B	7/11/18 23:51	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0054	0.00032	1	8260B	7/11/18 23:51	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0054	0.00028	1	8260B	7/11/18 23:51	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0054	0.00035	1	8260B	7/11/18 23:51	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0054	0.00035	1	8260B	7/11/18 23:51	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.027	0.00074	1	8260B	7/11/18 23:51	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0054	0.00026	1	8260B	7/11/18 23:51	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.016	0.0010	1	8260B	7/11/18 23:51	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	96 %	70-130
Dibromofluoromethane	101 %	84-123
Toluene-d8	94 %	76-129

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-26 (0.5-1)

Prism Sample ID: 8070114-10

Prism Work Order: 8070114

Time Collected: 07/10/18 14:00

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	90.6	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.36	0.057	1	8270D	7/12/18 15:59	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.36	0.055	1	8270D	7/12/18 15:59	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.36	0.051	1	8270D	7/12/18 15:59	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.36	0.053	1	8270D	7/12/18 15:59	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.36	0.070	1	8270D	7/12/18 15:59	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.36	0.068	1	8270D	7/12/18 15:59	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.36	0.070	1	8270D	7/12/18 15:59	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.36	0.056	1	8270D	7/12/18 15:59	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.36	0.051	1	8270D	7/12/18 15:59	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.36	0.044	1	8270D	7/12/18 15:59	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.36	0.048	1	8270D	7/12/18 15:59	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.36	0.053	1	8270D	7/12/18 15:59	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.36	0.052	1	8270D	7/12/18 15:59	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.36	0.058	1	8270D	7/12/18 15:59	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.36	0.047	1	8270D	7/12/18 15:59	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.36	0.066	1	8270D	7/12/18 15:59	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.36	0.072	1	8270D	7/12/18 15:59	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.36	0.045	1	8270D	7/12/18 15:59	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.36	0.055	1	8270D	7/12/18 15:59	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.36	0.062	1	8270D	7/12/18 15:59	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.36	0.051	1	8270D	7/12/18 15:59	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.36	0.044	1	8270D	7/12/18 15:59	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.36	0.047	1	8270D	7/12/18 15:59	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.36	0.056	1	8270D	7/12/18 15:59	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.36	0.049	1	8270D	7/12/18 15:59	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.36	0.053	1	8270D	7/12/18 15:59	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.36	0.059	1	8270D	7/12/18 15:59	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.36	0.048	1	8270D	7/12/18 15:59	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.36	0.048	1	8270D	7/12/18 15:59	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.36	0.039	1	8270D	7/12/18 15:59	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.36	0.042	1	8270D	7/12/18 15:59	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.36	0.040	1	8270D	7/12/18 15:59	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.36	0.048	1	8270D	7/12/18 15:59	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.36	0.031	1	8270D	7/12/18 15:59	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.36	0.048	1	8270D	7/12/18 15:59	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.36	0.063	1	8270D	7/12/18 15:59	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.36	0.051	1	8270D	7/12/18 15:59	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.36	0.062	1	8270D	7/12/18 15:59	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.36	0.054	1	8270D	7/12/18 15:59	JMV	P8G0155

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-26 (0.5-1)

Prism Sample ID: 8070114-10

Prism Work Order: 8070114

Time Collected: 07/10/18 14:00

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.36	0.052	1	8270D	7/12/18 15:59	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.36	0.046	1	8270D	7/12/18 15:59	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.36	0.044	1	8270D	7/12/18 15:59	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.36	0.055	1	8270D	7/12/18 15:59	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.36	0.050	1	8270D	7/12/18 15:59	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.36	0.048	1	8270D	7/12/18 15:59	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.36	0.052	1	8270D	7/12/18 15:59	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.36	0.045	1	8270D	7/12/18 15:59	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.36	0.046	1	8270D	7/12/18 15:59	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.36	0.052	1	8270D	7/12/18 15:59	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.36	0.058	1	8270D	7/12/18 15:59	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.36	0.065	1	8270D	7/12/18 15:59	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.36	0.065	1	8270D	7/12/18 15:59	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.36	0.061	1	8270D	7/12/18 15:59	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.36	0.042	1	8270D	7/12/18 15:59	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.36	0.049	1	8270D	7/12/18 15:59	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.36	0.058	1	8270D	7/12/18 15:59	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.36	0.052	1	8270D	7/12/18 15:59	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.36	0.057	1	8270D	7/12/18 15:59	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.36	0.055	1	8270D	7/12/18 15:59	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.36	0.043	1	8270D	7/12/18 15:59	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.36	0.047	1	8270D	7/12/18 15:59	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.36	0.054	1	8270D	7/12/18 15:59	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.36	0.048	1	8270D	7/12/18 15:59	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	62 %	39-132
2-Fluorobiphenyl	65 %	44-115
2-Fluorophenol	58 %	35-115
Nitrobenzene-d5	54 %	37-122
Phenol-d5	58 %	34-121
Terphenyl-d14	60 %	54-127

**Total Metals**

Mercury	0.023	mg/kg dry	0.022	0.0021	1	7471B	7/13/18 11:40	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.27	0.028	1	6010D	7/13/18 17:57	JAB	P8G0146
Arsenic	1.0	mg/kg dry	0.55	0.034	1	6010D	7/12/18 19:35	JAB	P8G0146
Barium	27	mg/kg dry	0.55	0.080	1	6010D	7/12/18 19:35	JAB	P8G0146
Beryllium	0.28	mg/kg dry	0.27	0.0060	1	6010D	7/12/18 19:35	JAB	P8G0146
Cadmium	0.31	mg/kg dry	0.27	0.0074	1	6010D	7/12/18 19:35	JAB	P8G0146
Chromium	21	mg/kg dry	0.27	0.046	1	6010D	7/12/18 19:35	JAB	P8G0146
Copper	19	mg/kg dry	0.55	0.050	1	6010D	7/12/18 19:35	JAB	P8G0146
Lead	9.4	mg/kg dry	0.27	0.051	1	6010D	7/12/18 19:35	JAB	P8G0146
Nickel	8.6	mg/kg dry	0.55	0.020	1	6010D	7/12/18 19:35	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-26 (0.5-1)

Prism Sample ID: 8070114-10

Prism Work Order: 8070114

Time Collected: 07/10/18 14:00

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.25 J</b>	<b>mg/kg dry</b>	<b>0.55</b>	<b>0.13</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:35</b>	<b>JAB</b>	<b>P8G0146</b>
Silver	BRL	mg/kg dry	0.27	0.0068	1	6010D	7/12/18 19:35	JAB	P8G0146
<b>Thallium</b>	<b>0.70</b>	<b>mg/kg dry</b>	<b>0.55</b>	<b>0.072</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:35</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>49</b>	<b>mg/kg dry</b>	<b>2.7</b>	<b>0.098</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:35</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00039	1	8260B	7/12/18 0:18	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 0:18	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/12/18 0:18	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0048	0.00042	1	8260B	7/12/18 0:18	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0048	0.00013	1	8260B	7/12/18 0:18	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00021	1	8260B	7/12/18 0:18	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00026	1	8260B	7/12/18 0:18	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/12/18 0:18	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0048	0.00061	1	8260B	7/12/18 0:18	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	7/12/18 0:18	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0048	0.00037	1	8260B	7/12/18 0:18	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/12/18 0:18	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00022	1	8260B	7/12/18 0:18	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/12/18 0:18	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00030	1	8260B	7/12/18 0:18	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	7/12/18 0:18	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/12/18 0:18	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/12/18 0:18	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00019	1	8260B	7/12/18 0:18	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 0:18	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/12/18 0:18	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/12/18 0:18	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 0:18	ANG	P8G0154
<b>Acetone</b>	<b>0.030 J</b>	<b>mg/kg dry</b>	<b>0.048</b>	<b>0.0012</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 0:18</b>	<b>ANG</b>	<b>P8G0154</b>
Benzene	BRL	mg/kg dry	0.0029	0.00028	1	8260B	7/12/18 0:18	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0048	0.00040	1	8260B	7/12/18 0:18	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0048	0.00026	1	8260B	7/12/18 0:18	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/12/18 0:18	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0048	0.00054	1	8260B	7/12/18 0:18	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.0096	0.00059	1	8260B	7/12/18 0:18	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/12/18 0:18	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/12/18 0:18	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.0096	0.00040	1	8260B	7/12/18 0:18	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0048	0.00035	1	8260B	7/12/18 0:18	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	7/12/18 0:18	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/12/18 0:18	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	7/12/18 0:18	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/12/18 0:18	ANG	P8G0154

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## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-26 (0.5-1)

Prism Sample ID: 8070114-10

Prism Work Order: 8070114

Time Collected: 07/10/18 14:00

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0048	0.00022	1	8260B	7/12/18 0:18	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0048	0.00018	1	8260B	7/12/18 0:18	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/12/18 0:18	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/12/18 0:18	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.0096	0.00044	1	8260B	7/12/18 0:18	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.048	0.00043	1	8260B	7/12/18 0:18	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.096	0.00043	1	8260B	7/12/18 0:18	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.048	0.00041	1	8260B	7/12/18 0:18	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.0096	0.00027	1	8260B	7/12/18 0:18	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0096	0.00015	1	8260B	7/12/18 0:18	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.0096	0.00015	1	8260B	7/12/18 0:18	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0048	0.00024	1	8260B	7/12/18 0:18	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	7/12/18 0:18	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0048	0.00020	1	8260B	7/12/18 0:18	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 0:18	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/12/18 0:18	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	7/12/18 0:18	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 0:18	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	7/12/18 0:18	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	7/12/18 0:18	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	7/12/18 0:18	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0048	0.00031	1	8260B	7/12/18 0:18	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0048	0.00031	1	8260B	7/12/18 0:18	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.024	0.00066	1	8260B	7/12/18 0:18	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0048	0.00023	1	8260B	7/12/18 0:18	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.014	0.00090	1	8260B	7/12/18 0:18	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	97 %	70-130
Dibromofluoromethane	99 %	84-123
Toluene-d8	94 %	76-129

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## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-27 (1-4)

Prism Sample ID: 8070114-11

Prism Work Order: 8070114

Time Collected: 07/10/18 14:15

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.7	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.41	0.064	1	8270D	7/12/18 16:21	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.41	0.062	1	8270D	7/12/18 16:21	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 16:21	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 16:21	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.41	0.079	1	8270D	7/12/18 16:21	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.41	0.077	1	8270D	7/12/18 16:21	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.41	0.079	1	8270D	7/12/18 16:21	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 16:21	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 16:21	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 16:21	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 16:21	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 16:21	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 16:21	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 16:21	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.41	0.052	1	8270D	7/12/18 16:21	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.41	0.074	1	8270D	7/12/18 16:21	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.41	0.081	1	8270D	7/12/18 16:21	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 16:21	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.41	0.061	1	8270D	7/12/18 16:21	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/12/18 16:21	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.41	0.057	1	8270D	7/12/18 16:21	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.41	0.049	1	8270D	7/12/18 16:21	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 16:21	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.41	0.063	1	8270D	7/12/18 16:21	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.41	0.056	1	8270D	7/12/18 16:21	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 16:21	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/12/18 16:21	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 16:21	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 16:21	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.41	0.044	1	8270D	7/12/18 16:21	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/12/18 16:21	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.41	0.045	1	8270D	7/12/18 16:21	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 16:21	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.41	0.034	1	8270D	7/12/18 16:21	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 16:21	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.41	0.071	1	8270D	7/12/18 16:21	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 16:21	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.41	0.070	1	8270D	7/12/18 16:21	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.41	0.061	1	8270D	7/12/18 16:21	JMV	P8G0155

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## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-27 (1-4)

Prism Sample ID: 8070114-11

Prism Work Order: 8070114

Time Collected: 07/10/18 14:15

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 16:21	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.41	0.052	1	8270D	7/12/18 16:21	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 16:21	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.41	0.062	1	8270D	7/12/18 16:21	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.41	0.056	1	8270D	7/12/18 16:21	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 16:21	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 16:21	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.41	0.050	1	8270D	7/12/18 16:21	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.41	0.052	1	8270D	7/12/18 16:21	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.41	0.059	1	8270D	7/12/18 16:21	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.41	0.065	1	8270D	7/12/18 16:21	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.41	0.073	1	8270D	7/12/18 16:21	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.41	0.073	1	8270D	7/12/18 16:21	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.41	0.068	1	8270D	7/12/18 16:21	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.41	0.047	1	8270D	7/12/18 16:21	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.41	0.055	1	8270D	7/12/18 16:21	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	7/12/18 16:21	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	7/12/18 16:21	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.41	0.064	1	8270D	7/12/18 16:21	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.41	0.062	1	8270D	7/12/18 16:21	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.41	0.048	1	8270D	7/12/18 16:21	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.41	0.053	1	8270D	7/12/18 16:21	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.41	0.060	1	8270D	7/12/18 16:21	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.41	0.054	1	8270D	7/12/18 16:21	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	63 %	39-132
2-Fluorobiphenyl	68 %	44-115
2-Fluorophenol	63 %	35-115
Nitrobenzene-d5	57 %	37-122
Phenol-d5	61 %	34-121
Terphenyl-d14	61 %	54-127

**Total Metals**

Mercury	0.064	mg/kg dry	0.024	0.0023	1	7471B	7/13/18 11:53	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.31	0.031	1	6010D	7/13/18 18:05	JAB	P8G0146
Arsenic	1.1	mg/kg dry	0.62	0.038	1	6010D	7/12/18 19:44	JAB	P8G0146
Barium	15	mg/kg dry	0.62	0.090	1	6010D	7/12/18 19:44	JAB	P8G0146
Beryllium	0.52	mg/kg dry	0.31	0.0068	1	6010D	7/12/18 19:44	JAB	P8G0146
Cadmium	0.19 J	mg/kg dry	0.31	0.0083	1	6010D	7/12/18 19:44	JAB	P8G0146
Chromium	52	mg/kg dry	0.31	0.052	1	6010D	7/12/18 19:44	JAB	P8G0146
Copper	37	mg/kg dry	0.62	0.056	1	6010D	7/12/18 19:44	JAB	P8G0146
Lead	8.2	mg/kg dry	0.31	0.057	1	6010D	7/12/18 19:44	JAB	P8G0146
Nickel	6.5	mg/kg dry	0.62	0.022	1	6010D	7/12/18 19:44	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-27 (1-4)

Prism Sample ID: 8070114-11

Prism Work Order: 8070114

Time Collected: 07/10/18 14:15

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>1.2</b>	<b>mg/kg dry</b>	<b>0.62</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:44</b>	<b>JAB</b>	<b>P8G0146</b>
Silver	BRL	mg/kg dry	0.31	0.0076	1	6010D	7/12/18 19:44	JAB	P8G0146
<b>Thallium</b>	<b>1.3</b>	<b>mg/kg dry</b>	<b>0.62</b>	<b>0.081</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:44</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>20</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 19:44</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0060	0.00049	1	8260B	7/12/18 0:46	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/12/18 0:46	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0060	0.00041	1	8260B	7/12/18 0:46	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0060	0.00053	1	8260B	7/12/18 0:46	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0060	0.00017	1	8260B	7/12/18 0:46	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00027	1	8260B	7/12/18 0:46	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00033	1	8260B	7/12/18 0:46	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0060	0.00034	1	8260B	7/12/18 0:46	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0060	0.00077	1	8260B	7/12/18 0:46	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0060	0.00045	1	8260B	7/12/18 0:46	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0060	0.00046	1	8260B	7/12/18 0:46	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0060	0.00024	1	8260B	7/12/18 0:46	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00028	1	8260B	7/12/18 0:46	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/12/18 0:46	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0060	0.00037	1	8260B	7/12/18 0:46	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0060	0.00045	1	8260B	7/12/18 0:46	ANG	P8G0154
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00040	1	8260B	7/12/18 0:46	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0060	0.00030	1	8260B	7/12/18 0:46	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00024	1	8260B	7/12/18 0:46	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/12/18 0:46	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0060	0.00031	1	8260B	7/12/18 0:46	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/12/18 0:46	ANG	P8G0154
4-Isopropyltoluene	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/12/18 0:46	ANG	P8G0154
Acetone	BRL	mg/kg dry	0.060	0.0015	1	8260B	7/12/18 0:46	ANG	P8G0154
Benzene	BRL	mg/kg dry	0.0036	0.00035	1	8260B	7/12/18 0:46	ANG	P8G0154
Bromobenzene	BRL	mg/kg dry	0.0060	0.00050	1	8260B	7/12/18 0:46	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0060	0.00033	1	8260B	7/12/18 0:46	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0060	0.00034	1	8260B	7/12/18 0:46	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0060	0.00068	1	8260B	7/12/18 0:46	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.012	0.00074	1	8260B	7/12/18 0:46	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0060	0.00030	1	8260B	7/12/18 0:46	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0060	0.00032	1	8260B	7/12/18 0:46	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.012	0.00050	1	8260B	7/12/18 0:46	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0060	0.00043	1	8260B	7/12/18 0:46	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0060	0.00040	1	8260B	7/12/18 0:46	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00026	1	8260B	7/12/18 0:46	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00020	1	8260B	7/12/18 0:46	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0060	0.00025	1	8260B	7/12/18 0:46	ANG	P8G0154

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-27 (1-4)

Prism Sample ID: 8070114-11

Prism Work Order: 8070114

Time Collected: 07/10/18 14:15

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0060	0.00027	1	8260B	7/12/18 0:46	ANG	P8G0154
Ethylbenzene	BRL	mg/kg dry	0.0060	0.00023	1	8260B	7/12/18 0:46	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0060	0.00025	1	8260B	7/12/18 0:46	ANG	P8G0154
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/12/18 0:46	ANG	P8G0154
m,p-Xylenes	BRL	mg/kg dry	0.012	0.00055	1	8260B	7/12/18 0:46	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.060	0.00054	1	8260B	7/12/18 0:46	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.12	0.00054	1	8260B	7/12/18 0:46	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.060	0.00051	1	8260B	7/12/18 0:46	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.012	0.00034	1	8260B	7/12/18 0:46	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.012	0.00019	1	8260B	7/12/18 0:46	ANG	P8G0154
Naphthalene	BRL	mg/kg dry	0.012	0.00019	1	8260B	7/12/18 0:46	ANG	P8G0154
n-Butylbenzene	BRL	mg/kg dry	0.0060	0.00031	1	8260B	7/12/18 0:46	ANG	P8G0154
n-Propylbenzene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/12/18 0:46	ANG	P8G0154
o-Xylene	BRL	mg/kg dry	0.0060	0.00025	1	8260B	7/12/18 0:46	ANG	P8G0154
sec-Butylbenzene	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/12/18 0:46	ANG	P8G0154
Styrene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/12/18 0:46	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0060	0.00020	1	8260B	7/12/18 0:46	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/12/18 0:46	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0060	0.00034	1	8260B	7/12/18 0:46	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	7/12/18 0:46	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00032	1	8260B	7/12/18 0:46	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0060	0.00039	1	8260B	7/12/18 0:46	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0060	0.00039	1	8260B	7/12/18 0:46	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.030	0.00082	1	8260B	7/12/18 0:46	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0060	0.00029	1	8260B	7/12/18 0:46	ANG	P8G0154
Xylenes, total	BRL	mg/kg dry	0.018	0.0011	1	8260B	7/12/18 0:46	ANG	P8G0154

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	96 %	70-130
Dibromofluoromethane	100 %	84-123
Toluene-d8	92 %	76-129

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-28 (1-2)

Prism Sample ID: 8070114-12

Prism Work Order: 8070114

Time Collected: 07/10/18 14:45

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	87.5	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.38	0.059	1	8270D	7/12/18 23:22	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.38	0.057	1	8270D	7/12/18 23:22	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 23:22	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 23:22	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.38	0.073	1	8270D	7/12/18 23:22	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.38	0.071	1	8270D	7/12/18 23:22	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.38	0.073	1	8270D	7/12/18 23:22	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 23:22	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 23:22	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.38	0.046	1	8270D	7/12/18 23:22	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:22	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 23:22	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 23:22	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.38	0.060	1	8270D	7/12/18 23:22	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.38	0.048	1	8270D	7/12/18 23:22	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.38	0.069	1	8270D	7/12/18 23:22	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.38	0.074	1	8270D	7/12/18 23:22	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.38	0.046	1	8270D	7/12/18 23:22	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.38	0.057	1	8270D	7/12/18 23:22	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.38	0.065	1	8270D	7/12/18 23:22	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 23:22	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.38	0.045	1	8270D	7/12/18 23:22	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.38	0.049	1	8270D	7/12/18 23:22	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.38	0.058	1	8270D	7/12/18 23:22	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.38	0.051	1	8270D	7/12/18 23:22	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.38	0.055	1	8270D	7/12/18 23:22	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.38	0.061	1	8270D	7/12/18 23:22	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:22	JMV	P8G0155
<b>Benzo(a)anthracene</b>	<b>0.16 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.049</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
<b>Benzo(a)pyrene</b>	<b>0.13 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.041</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
<b>Benzo(b)fluoranthene</b>	<b>0.24 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.044</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
<b>Benzo(g,h,i)perylene</b>	<b>0.21 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.041</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
Benzo(k)fluoranthene	BRL	mg/kg dry	0.38	0.049	1	8270D	7/12/18 23:22	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.38	0.032	1	8270D	7/12/18 23:22	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:22	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.38	0.065	1	8270D	7/12/18 23:22	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.38	0.053	1	8270D	7/12/18 23:22	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.38	0.064	1	8270D	7/12/18 23:22	JMV	P8G0155
<b>Bis(2-Ethylhexyl)phthalate</b>	<b>6.4</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.056</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>

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Apex Companies, LLC (Charlotte Office)  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-28 (1-2)

Prism Sample ID: 8070114-12

Prism Work Order: 8070114

Time Collected: 07/10/18 14:45

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:22	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.38	0.048	1	8270D	7/12/18 23:22	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.38	0.046	1	8270D	7/12/18 23:22	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.38	0.057	1	8270D	7/12/18 23:22	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.38	0.052	1	8270D	7/12/18 23:22	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.38	0.050	1	8270D	7/12/18 23:22	JMV	P8G0155
<b>Di-n-butyl phthalate</b>	<b>0.15 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.054</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
<b>Di-n-octyl phthalate</b>	<b>2.0</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.046</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
<b>Fluoranthene</b>	<b>0.36 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.048</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
Fluorene	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:22	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.38	0.060	1	8270D	7/12/18 23:22	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.38	0.068	1	8270D	7/12/18 23:22	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.38	0.067	1	8270D	7/12/18 23:22	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.38	0.063	1	8270D	7/12/18 23:22	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.38	0.043	1	8270D	7/12/18 23:22	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.38	0.051	1	8270D	7/12/18 23:22	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.38	0.061	1	8270D	7/12/18 23:22	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.38	0.054	1	8270D	7/12/18 23:22	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.38	0.059	1	8270D	7/12/18 23:22	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.38	0.057	1	8270D	7/12/18 23:22	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.38	0.045	1	8270D	7/12/18 23:22	JMV	P8G0155
<b>Phenanthrene</b>	<b>0.22 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.049</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
Phenol	BRL	mg/kg dry	0.38	0.056	1	8270D	7/12/18 23:22	JMV	P8G0155
<b>Pyrene</b>	<b>0.36 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.050</b>	<b>1</b>	<b>8270D</b>	<b>7/12/18 23:22</b>	<b>JMV</b>	<b>P8G0155</b>
						Surrogate	Recovery	Control Limits	
						2,4,6-Tribromophenol	49 %	39-132	
						2-Fluorobiphenyl	57 %	44-115	
						2-Fluorophenol	53 %	35-115	
						Nitrobenzene-d5	36 %	37-122	SR
						Phenol-d5	53 %	34-121	
						Terphenyl-d14	52 %	54-127	SR

**Total Metals**

<b>Mercury</b>	<b>0.85</b>	<b>mg/kg dry</b>	<b>0.022</b>	<b>0.0021</b>	<b>1</b>	<b>7471B</b>	<b>7/13/18 11:58</b>	<b>JAB</b>	<b>P8G0171</b>
<b>Antimony</b>	<b>9.5</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.029</b>	<b>1</b>	<b>6010D</b>	<b>7/13/18 18:14</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Arsenic</b>	<b>8.4</b>	<b>mg/kg dry</b>	<b>0.57</b>	<b>0.035</b>	<b>1</b>	<b>6010D</b>	<b>7/13/18 18:14</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Barium</b>	<b>230</b>	<b>mg/kg dry</b>	<b>5.7</b>	<b>0.83</b>	<b>10</b>	<b>6010D</b>	<b>7/13/18 14:30</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Beryllium</b>	<b>0.033 DM, J</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.0063</b>	<b>1</b>	<b>6010D</b>	<b>7/13/18 14:30</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Cadmium</b>	<b>1.6</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.0077</b>	<b>1</b>	<b>6010D</b>	<b>7/13/18 14:30</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Chromium</b>	<b>190</b>	<b>mg/kg dry</b>	<b>2.9</b>	<b>0.48</b>	<b>10</b>	<b>6010D</b>	<b>7/13/18 14:30</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Copper</b>	<b>3900</b>	<b>mg/kg dry</b>	<b>57</b>	<b>5.2</b>	<b>100</b>	<b>6010D</b>	<b>7/13/18 14:21</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Lead</b>	<b>1400</b>	<b>mg/kg dry</b>	<b>29</b>	<b>5.3</b>	<b>100</b>	<b>6010D</b>	<b>7/13/18 14:21</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Nickel</b>	<b>160</b>	<b>mg/kg dry</b>	<b>5.7</b>	<b>0.21</b>	<b>10</b>	<b>6010D</b>	<b>7/13/18 14:30</b>	<b>JAB</b>	<b>P8G0146</b>

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-28 (1-2)

Prism Sample ID: 8070114-12

Prism Work Order: 8070114

Time Collected: 07/10/18 14:45

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL DM	mg/kg dry	0.57	0.14	1	6010D	7/13/18 14:30	JAB	P8G0146
<b>Silver</b>	<b>0.20 DM, J</b>	<b>mg/kg dry</b>	<b>0.29</b>	<b>0.0071</b>	<b>1</b>	<b>6010D</b>	<b>7/13/18 14:30</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Thallium</b>	<b>0.26 DM, J</b>	<b>mg/kg dry</b>	<b>0.57</b>	<b>0.075</b>	<b>1</b>	<b>6010D</b>	<b>7/13/18 14:30</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>5800</b>	<b>mg/kg dry</b>	<b>290</b>	<b>10</b>	<b>100</b>	<b>6010D</b>	<b>7/13/18 14:21</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0063	0.00051	1	8260B	7/12/18 1:13	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 1:13	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL ISR	mg/kg dry	0.0063	0.00042	1	8260B	7/12/18 1:13	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0063	0.00055	1	8260B	7/12/18 1:13	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0063	0.00017	1	8260B	7/12/18 1:13	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00028	1	8260B	7/12/18 1:13	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00034	1	8260B	7/12/18 1:13	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL ISR	mg/kg dry	0.0063	0.00036	1	8260B	7/12/18 1:13	ANG	P8G0154
1,2,3-Trichloropropane	BRL ISR	mg/kg dry	0.0063	0.00080	1	8260B	7/12/18 1:13	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL ISR	mg/kg dry	0.0063	0.00047	1	8260B	7/12/18 1:13	ANG	P8G0154
1,2,4-Trimethylbenzene	BRL ISR	mg/kg dry	0.0063	0.00048	1	8260B	7/12/18 1:13	ANG	P8G0154
1,2-Dibromoethane	BRL	mg/kg dry	0.0063	0.00025	1	8260B	7/12/18 1:13	ANG	P8G0154
1,2-Dichlorobenzene	BRL ISR	mg/kg dry	0.0063	0.00029	1	8260B	7/12/18 1:13	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0063	0.00037	1	8260B	7/12/18 1:13	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0063	0.00039	1	8260B	7/12/18 1:13	ANG	P8G0154
1,3,5-Trimethylbenzene	BRL ISR	mg/kg dry	0.0063	0.00047	1	8260B	7/12/18 1:13	ANG	P8G0154
1,3-Dichlorobenzene	BRL ISR	mg/kg dry	0.0063	0.00041	1	8260B	7/12/18 1:13	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0063	0.00031	1	8260B	7/12/18 1:13	ANG	P8G0154
1,4-Dichlorobenzene	BRL ISR	mg/kg dry	0.0063	0.00025	1	8260B	7/12/18 1:13	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 1:13	ANG	P8G0154
2-Chlorotoluene	BRL ISR	mg/kg dry	0.0063	0.00032	1	8260B	7/12/18 1:13	ANG	P8G0154
4-Chlorotoluene	BRL ISR	mg/kg dry	0.0063	0.00037	1	8260B	7/12/18 1:13	ANG	P8G0154
4-Isopropyltoluene	BRL ISR	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 1:13	ANG	P8G0154
<b>Acetone</b>	<b>0.34</b>	<b>mg/kg dry</b>	<b>0.063</b>	<b>0.0015</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 1:13</b>	<b>ANG</b>	<b>P8G0154</b>
Benzene	BRL	mg/kg dry	0.0038	0.00036	1	8260B	7/12/18 1:13	ANG	P8G0154
Bromobenzene	BRL ISR	mg/kg dry	0.0063	0.00052	1	8260B	7/12/18 1:13	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0063	0.00034	1	8260B	7/12/18 1:13	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0063	0.00035	1	8260B	7/12/18 1:13	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0063	0.00071	1	8260B	7/12/18 1:13	ANG	P8G0154
<b>Bromomethane</b>	<b>0.0062 J</b>	<b>mg/kg dry</b>	<b>0.013</b>	<b>0.00077</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 1:13</b>	<b>ANG</b>	<b>P8G0154</b>
Carbon Tetrachloride	BRL	mg/kg dry	0.0063	0.00031	1	8260B	7/12/18 1:13	ANG	P8G0154
Chlorobenzene	BRL ISR	mg/kg dry	0.0063	0.00033	1	8260B	7/12/18 1:13	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.013	0.00052	1	8260B	7/12/18 1:13	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0063	0.00045	1	8260B	7/12/18 1:13	ANG	P8G0154
<b>Chloromethane</b>	<b>0.015</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00042</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 1:13</b>	<b>ANG</b>	<b>P8G0154</b>
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00027	1	8260B	7/12/18 1:13	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00021	1	8260B	7/12/18 1:13	ANG	P8G0154
Dibromochloromethane	BRL ISR	mg/kg dry	0.0063	0.00026	1	8260B	7/12/18 1:13	ANG	P8G0154

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Apex Companies, LLC (Charlotte Office)  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-28 (1-2)

Prism Sample ID: 8070114-12

Prism Work Order: 8070114

Time Collected: 07/10/18 14:45

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0063	0.00028	1	8260B	7/12/18 1:13	ANG	P8G0154
Ethylbenzene	BRL ISR	mg/kg dry	0.0063	0.00024	1	8260B	7/12/18 1:13	ANG	P8G0154
Isopropyl Ether	BRL	mg/kg dry	0.0063	0.00026	1	8260B	7/12/18 1:13	ANG	P8G0154
<b>Isopropylbenzene (Cumene)</b>	<b>0.0083 ISR</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00037</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 1:13</b>	<b>ANG</b>	<b>P8G0154</b>
m,p-Xylenes	BRL ISR	mg/kg dry	0.013	0.00058	1	8260B	7/12/18 1:13	ANG	P8G0154
Methyl Butyl Ketone (2-Hexanone)	BRL ISR	mg/kg dry	0.063	0.00057	1	8260B	7/12/18 1:13	ANG	P8G0154
<b>Methyl Ethyl Ketone (2-Butanone)</b>	<b>0.058 J</b>	<b>mg/kg dry</b>	<b>0.13</b>	<b>0.00057</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 1:13</b>	<b>ANG</b>	<b>P8G0154</b>
<b>Methyl Isobutyl Ketone</b>	<b>0.0054 J</b>	<b>mg/kg dry</b>	<b>0.063</b>	<b>0.00053</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 1:13</b>	<b>ANG</b>	<b>P8G0154</b>
Methylene Chloride	BRL	mg/kg dry	0.013	0.00035	1	8260B	7/12/18 1:13	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.013	0.00020	1	8260B	7/12/18 1:13	ANG	P8G0154
Naphthalene	BRL ISR	mg/kg dry	0.013	0.00020	1	8260B	7/12/18 1:13	ANG	P8G0154
n-Butylbenzene	BRL ISR	mg/kg dry	0.0063	0.00032	1	8260B	7/12/18 1:13	ANG	P8G0154
n-Propylbenzene	BRL ISR	mg/kg dry	0.0063	0.00037	1	8260B	7/12/18 1:13	ANG	P8G0154
o-Xylene	BRL ISR	mg/kg dry	0.0063	0.00026	1	8260B	7/12/18 1:13	ANG	P8G0154
sec-Butylbenzene	BRL ISR	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 1:13	ANG	P8G0154
Styrene	BRL ISR	mg/kg dry	0.0063	0.00038	1	8260B	7/12/18 1:13	ANG	P8G0154
tert-Butylbenzene	BRL ISR	mg/kg dry	0.0063	0.00021	1	8260B	7/12/18 1:13	ANG	P8G0154
Tetrachloroethylene	BRL ISR	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 1:13	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0063	0.00036	1	8260B	7/12/18 1:13	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00037	1	8260B	7/12/18 1:13	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00033	1	8260B	7/12/18 1:13	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0063	0.00041	1	8260B	7/12/18 1:13	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0063	0.00040	1	8260B	7/12/18 1:13	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.031	0.00086	1	8260B	7/12/18 1:13	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 1:13	ANG	P8G0154
Xylenes, total	BRL ISR	mg/kg dry	0.019	0.0012	1	8260B	7/12/18 1:13	ANG	P8G0154
						Surrogate	Recovery	Control Limits	
						4-Bromofluorobenzene	141 %	70-130	A, ISR
						Dibromofluoromethane	116 %	84-123	
						Toluene-d8	111 %	76-129	ISR

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Apex Companies, LLC (Charlotte Office)  
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Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-29 (2-5)

Prism Sample ID: 8070114-13

Prism Work Order: 8070114

Time Collected: 07/10/18 15:00

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	75.3	% by Weight	0.100	0.100	1	SM2540 G	7/12/18 15:18	TJY	P8G0179
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.44	0.068	1	8270D	7/12/18 16:43	JMV	P8G0155
1,2-Dichlorobenzene	BRL	mg/kg dry	0.44	0.066	1	8270D	7/12/18 16:43	JMV	P8G0155
1,3-Dichlorobenzene	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 16:43	JMV	P8G0155
1,4-Dichlorobenzene	BRL	mg/kg dry	0.44	0.064	1	8270D	7/12/18 16:43	JMV	P8G0155
1-Methylnaphthalene	BRL	mg/kg dry	0.44	0.084	1	8270D	7/12/18 16:43	JMV	P8G0155
2,4,6-Trichlorophenol	BRL CCV	mg/kg dry	0.44	0.082	1	8270D	7/12/18 16:43	JMV	P8G0155
2,4-Dichlorophenol	BRL	mg/kg dry	0.44	0.084	1	8270D	7/12/18 16:43	JMV	P8G0155
2,4-Dimethylphenol	BRL	mg/kg dry	0.44	0.067	1	8270D	7/12/18 16:43	JMV	P8G0155
2,4-Dinitrophenol	BRL	mg/kg dry	0.44	0.061	1	8270D	7/12/18 16:43	JMV	P8G0155
2,4-Dinitrotoluene	BRL	mg/kg dry	0.44	0.053	1	8270D	7/12/18 16:43	JMV	P8G0155
2,6-Dinitrotoluene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 16:43	JMV	P8G0155
2-Chloronaphthalene	BRL	mg/kg dry	0.44	0.063	1	8270D	7/12/18 16:43	JMV	P8G0155
2-Chlorophenol	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 16:43	JMV	P8G0155
2-Methylnaphthalene	BRL	mg/kg dry	0.44	0.070	1	8270D	7/12/18 16:43	JMV	P8G0155
2-Methylphenol	BRL	mg/kg dry	0.44	0.056	1	8270D	7/12/18 16:43	JMV	P8G0155
2-Nitrophenol	BRL	mg/kg dry	0.44	0.080	1	8270D	7/12/18 16:43	JMV	P8G0155
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.44	0.086	1	8270D	7/12/18 16:43	JMV	P8G0155
3/4-Methylphenol	BRL	mg/kg dry	0.44	0.054	1	8270D	7/12/18 16:43	JMV	P8G0155
4,6-Dinitro-2-methylphenol	BRL CCV	mg/kg dry	0.44	0.066	1	8270D	7/12/18 16:43	JMV	P8G0155
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.44	0.075	1	8270D	7/12/18 16:43	JMV	P8G0155
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.44	0.061	1	8270D	7/12/18 16:43	JMV	P8G0155
4-Chloroaniline	BRL	mg/kg dry	0.44	0.053	1	8270D	7/12/18 16:43	JMV	P8G0155
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.44	0.057	1	8270D	7/12/18 16:43	JMV	P8G0155
4-Nitrophenol	BRL	mg/kg dry	0.44	0.067	1	8270D	7/12/18 16:43	JMV	P8G0155
Acenaphthene	BRL	mg/kg dry	0.44	0.059	1	8270D	7/12/18 16:43	JMV	P8G0155
Acenaphthylene	BRL	mg/kg dry	0.44	0.063	1	8270D	7/12/18 16:43	JMV	P8G0155
Anthracene	BRL	mg/kg dry	0.44	0.070	1	8270D	7/12/18 16:43	JMV	P8G0155
Azobenzene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 16:43	JMV	P8G0155
Benzo(a)anthracene	BRL	mg/kg dry	0.44	0.057	1	8270D	7/12/18 16:43	JMV	P8G0155
Benzo(a)pyrene	BRL	mg/kg dry	0.44	0.047	1	8270D	7/12/18 16:43	JMV	P8G0155
Benzo(b)fluoranthene	BRL	mg/kg dry	0.44	0.051	1	8270D	7/12/18 16:43	JMV	P8G0155
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.44	0.048	1	8270D	7/12/18 16:43	JMV	P8G0155
Benzo(k)fluoranthene	BRL	mg/kg dry	0.44	0.057	1	8270D	7/12/18 16:43	JMV	P8G0155
Benzoic Acid	BRL	mg/kg dry	0.44	0.037	1	8270D	7/12/18 16:43	JMV	P8G0155
Benzyl alcohol	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 16:43	JMV	P8G0155
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.44	0.076	1	8270D	7/12/18 16:43	JMV	P8G0155
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 16:43	JMV	P8G0155
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.44	0.075	1	8270D	7/12/18 16:43	JMV	P8G0155
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.44	0.065	1	8270D	7/12/18 16:43	JMV	P8G0155

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-29 (2-5)

Prism Sample ID: 8070114-13

Prism Work Order: 8070114

Time Collected: 07/10/18 15:00

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 16:43	JMV	P8G0155
Chrysene	BRL	mg/kg dry	0.44	0.055	1	8270D	7/12/18 16:43	JMV	P8G0155
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.44	0.053	1	8270D	7/12/18 16:43	JMV	P8G0155
Dibenzofuran	BRL	mg/kg dry	0.44	0.066	1	8270D	7/12/18 16:43	JMV	P8G0155
Diethyl phthalate	BRL	mg/kg dry	0.44	0.060	1	8270D	7/12/18 16:43	JMV	P8G0155
Dimethyl phthalate	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 16:43	JMV	P8G0155
Di-n-butyl phthalate	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 16:43	JMV	P8G0155
Di-n-octyl phthalate	BRL	mg/kg dry	0.44	0.054	1	8270D	7/12/18 16:43	JMV	P8G0155
Fluoranthene	BRL	mg/kg dry	0.44	0.056	1	8270D	7/12/18 16:43	JMV	P8G0155
Fluorene	BRL	mg/kg dry	0.44	0.063	1	8270D	7/12/18 16:43	JMV	P8G0155
Hexachlorobenzene	BRL	mg/kg dry	0.44	0.069	1	8270D	7/12/18 16:43	JMV	P8G0155
Hexachlorobutadiene	BRL	mg/kg dry	0.44	0.078	1	8270D	7/12/18 16:43	JMV	P8G0155
Hexachlorocyclopentadiene	BRL CCV	mg/kg dry	0.44	0.078	1	8270D	7/12/18 16:43	JMV	P8G0155
Hexachloroethane	BRL	mg/kg dry	0.44	0.073	1	8270D	7/12/18 16:43	JMV	P8G0155
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.44	0.050	1	8270D	7/12/18 16:43	JMV	P8G0155
Isophorone	BRL	mg/kg dry	0.44	0.059	1	8270D	7/12/18 16:43	JMV	P8G0155
Naphthalene	BRL	mg/kg dry	0.44	0.070	1	8270D	7/12/18 16:43	JMV	P8G0155
Nitrobenzene	BRL	mg/kg dry	0.44	0.062	1	8270D	7/12/18 16:43	JMV	P8G0155
N-Nitroso-di-n-propylamine	BRL	mg/kg dry	0.44	0.069	1	8270D	7/12/18 16:43	JMV	P8G0155
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.44	0.066	1	8270D	7/12/18 16:43	JMV	P8G0155
Pentachlorophenol	BRL	mg/kg dry	0.44	0.052	1	8270D	7/12/18 16:43	JMV	P8G0155
Phenanthrene	BRL	mg/kg dry	0.44	0.057	1	8270D	7/12/18 16:43	JMV	P8G0155
Phenol	BRL	mg/kg dry	0.44	0.064	1	8270D	7/12/18 16:43	JMV	P8G0155
Pyrene	BRL	mg/kg dry	0.44	0.058	1	8270D	7/12/18 16:43	JMV	P8G0155

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	65 %	39-132
2-Fluorobiphenyl	70 %	44-115
2-Fluorophenol	63 %	35-115
Nitrobenzene-d5	59 %	37-122
Phenol-d5	62 %	34-121
Terphenyl-d14	64 %	54-127

## Total Metals

Mercury	0.0074 J	mg/kg dry	0.027	0.0025	1	7471B	7/13/18 12:02	JAB	P8G0171
Antimony	BRL	mg/kg dry	0.33	0.033	1	6010D	7/13/18 18:24	JAB	P8G0146
Arsenic	1.6	mg/kg dry	0.66	0.040	1	6010D	7/12/18 20:03	JAB	P8G0146
Barium	28	mg/kg dry	0.66	0.096	1	6010D	7/12/18 20:03	JAB	P8G0146
Beryllium	0.47	mg/kg dry	0.33	0.0072	1	6010D	7/12/18 20:03	JAB	P8G0146
Cadmium	0.15 J	mg/kg dry	0.33	0.0088	1	6010D	7/12/18 20:03	JAB	P8G0146
Chromium	72	mg/kg dry	0.33	0.055	1	6010D	7/12/18 20:03	JAB	P8G0146
Copper	60	mg/kg dry	0.66	0.059	1	6010D	7/12/18 20:03	JAB	P8G0146
Lead	7.4	mg/kg dry	0.33	0.061	1	6010D	7/12/18 20:03	JAB	P8G0146
Nickel	24	mg/kg dry	0.66	0.024	1	6010D	7/12/18 20:03	JAB	P8G0146

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-29 (2-5)

Prism Sample ID: 8070114-13

Prism Work Order: 8070114

Time Collected: 07/10/18 15:00

Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.71</b>	<b>mg/kg dry</b>	<b>0.66</b>	<b>0.16</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 20:03</b>	<b>JAB</b>	<b>P8G0146</b>
Silver	BRL	mg/kg dry	0.33	0.0082	1	6010D	7/12/18 20:03	JAB	P8G0146
<b>Thallium</b>	<b>2.3</b>	<b>mg/kg dry</b>	<b>0.66</b>	<b>0.086</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 20:03</b>	<b>JAB</b>	<b>P8G0146</b>
<b>Zinc</b>	<b>28</b>	<b>mg/kg dry</b>	<b>3.3</b>	<b>0.12</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 20:03</b>	<b>JAB</b>	<b>P8G0146</b>

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0063	0.00052	1	8260B	7/12/18 2:35	ANG	P8G0154
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0063	0.00031	1	8260B	7/12/18 2:35	ANG	P8G0154
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0063	0.00043	1	8260B	7/12/18 2:35	ANG	P8G0154
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0063	0.00056	1	8260B	7/12/18 2:35	ANG	P8G0154
1,1-Dichloroethane	BRL	mg/kg dry	0.0063	0.00018	1	8260B	7/12/18 2:35	ANG	P8G0154
1,1-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00028	1	8260B	7/12/18 2:35	ANG	P8G0154
1,1-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00035	1	8260B	7/12/18 2:35	ANG	P8G0154
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0063	0.00036	1	8260B	7/12/18 2:35	ANG	P8G0154
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0063	0.00081	1	8260B	7/12/18 2:35	ANG	P8G0154
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0063	0.00047	1	8260B	7/12/18 2:35	ANG	P8G0154
<b>1,2,4-Trimethylbenzene</b>	<b>0.093</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00048</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
1,2-Dibromoethane	BRL	mg/kg dry	0.0063	0.00025	1	8260B	7/12/18 2:35	ANG	P8G0154
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 2:35	ANG	P8G0154
1,2-Dichloroethane	BRL	mg/kg dry	0.0063	0.00038	1	8260B	7/12/18 2:35	ANG	P8G0154
1,2-Dichloropropane	BRL	mg/kg dry	0.0063	0.00039	1	8260B	7/12/18 2:35	ANG	P8G0154
<b>1,3,5-Trimethylbenzene</b>	<b>0.0045 J</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00048</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0063	0.00042	1	8260B	7/12/18 2:35	ANG	P8G0154
1,3-Dichloropropane	BRL	mg/kg dry	0.0063	0.00032	1	8260B	7/12/18 2:35	ANG	P8G0154
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0063	0.00025	1	8260B	7/12/18 2:35	ANG	P8G0154
2,2-Dichloropropane	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 2:35	ANG	P8G0154
2-Chlorotoluene	BRL	mg/kg dry	0.0063	0.00033	1	8260B	7/12/18 2:35	ANG	P8G0154
4-Chlorotoluene	BRL	mg/kg dry	0.0063	0.00038	1	8260B	7/12/18 2:35	ANG	P8G0154
<b>4-Isopropyltoluene</b>	<b>0.0040 J</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00031</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
Acetone	BRL	mg/kg dry	0.063	0.0015	1	8260B	7/12/18 2:35	ANG	P8G0154
<b>Benzene</b>	<b>0.030</b>	<b>mg/kg dry</b>	<b>0.0038</b>	<b>0.00037</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
Bromobenzene	BRL	mg/kg dry	0.0063	0.00053	1	8260B	7/12/18 2:35	ANG	P8G0154
Bromochloromethane	BRL	mg/kg dry	0.0063	0.00035	1	8260B	7/12/18 2:35	ANG	P8G0154
Bromodichloromethane	BRL	mg/kg dry	0.0063	0.00035	1	8260B	7/12/18 2:35	ANG	P8G0154
Bromoform	BRL	mg/kg dry	0.0063	0.00072	1	8260B	7/12/18 2:35	ANG	P8G0154
Bromomethane	BRL	mg/kg dry	0.013	0.00078	1	8260B	7/12/18 2:35	ANG	P8G0154
Carbon Tetrachloride	BRL	mg/kg dry	0.0063	0.00032	1	8260B	7/12/18 2:35	ANG	P8G0154
Chlorobenzene	BRL	mg/kg dry	0.0063	0.00034	1	8260B	7/12/18 2:35	ANG	P8G0154
Chloroethane	BRL	mg/kg dry	0.013	0.00053	1	8260B	7/12/18 2:35	ANG	P8G0154
Chloroform	BRL	mg/kg dry	0.0063	0.00046	1	8260B	7/12/18 2:35	ANG	P8G0154
Chloromethane	BRL	mg/kg dry	0.0063	0.00043	1	8260B	7/12/18 2:35	ANG	P8G0154
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00027	1	8260B	7/12/18 2:35	ANG	P8G0154
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00021	1	8260B	7/12/18 2:35	ANG	P8G0154
Dibromochloromethane	BRL	mg/kg dry	0.0063	0.00026	1	8260B	7/12/18 2:35	ANG	P8G0154

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Solid

Client Sample ID: P2SB-29 (2-5)  
 Prism Sample ID: 8070114-13  
 Prism Work Order: 8070114  
 Time Collected: 07/10/18 15:00  
 Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0063	0.00029	1	8260B	7/12/18 2:35	ANG	P8G0154
<b>Ethylbenzene</b>	<b>0.0031 J</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00024</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
Isopropyl Ether	BRL	mg/kg dry	0.0063	0.00026	1	8260B	7/12/18 2:35	ANG	P8G0154
<b>Isopropylbenzene (Cumene)</b>	<b>0.024</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00037</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
<b>m,p-Xylenes</b>	<b>0.014</b>	<b>mg/kg dry</b>	<b>0.013</b>	<b>0.00058</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.063	0.00057	1	8260B	7/12/18 2:35	ANG	P8G0154
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.13	0.00057	1	8260B	7/12/18 2:35	ANG	P8G0154
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.063	0.00054	1	8260B	7/12/18 2:35	ANG	P8G0154
Methylene Chloride	BRL	mg/kg dry	0.013	0.00036	1	8260B	7/12/18 2:35	ANG	P8G0154
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.013	0.00020	1	8260B	7/12/18 2:35	ANG	P8G0154
<b>Naphthalene</b>	<b>0.074</b>	<b>mg/kg dry</b>	<b>0.013</b>	<b>0.00020</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
<b>n-Butylbenzene</b>	<b>0.011</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00032</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
<b>n-Propylbenzene</b>	<b>0.030</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00038</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
<b>o-Xylene</b>	<b>0.0047 J</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00026</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
<b>sec-Butylbenzene</b>	<b>0.0063</b>	<b>mg/kg dry</b>	<b>0.0063</b>	<b>0.00031</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>
Styrene	BRL	mg/kg dry	0.0063	0.00038	1	8260B	7/12/18 2:35	ANG	P8G0154
tert-Butylbenzene	BRL	mg/kg dry	0.0063	0.00021	1	8260B	7/12/18 2:35	ANG	P8G0154
Tetrachloroethylene	BRL	mg/kg dry	0.0063	0.00030	1	8260B	7/12/18 2:35	ANG	P8G0154
Toluene	BRL	mg/kg dry	0.0063	0.00036	1	8260B	7/12/18 2:35	ANG	P8G0154
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0063	0.00038	1	8260B	7/12/18 2:35	ANG	P8G0154
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0063	0.00033	1	8260B	7/12/18 2:35	ANG	P8G0154
Trichloroethylene	BRL	mg/kg dry	0.0063	0.00041	1	8260B	7/12/18 2:35	ANG	P8G0154
Trichlorofluoromethane	BRL	mg/kg dry	0.0063	0.00041	1	8260B	7/12/18 2:35	ANG	P8G0154
Vinyl acetate	BRL	mg/kg dry	0.032	0.00087	1	8260B	7/12/18 2:35	ANG	P8G0154
Vinyl chloride	BRL	mg/kg dry	0.0063	0.00031	1	8260B	7/12/18 2:35	ANG	P8G0154
<b>Xylenes, total</b>	<b>0.019</b>	<b>mg/kg dry</b>	<b>0.019</b>	<b>0.0012</b>	<b>1</b>	<b>8260B</b>	<b>7/12/18 2:35</b>	<b>ANG</b>	<b>P8G0154</b>

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	112 %	70-130
Dibromofluoromethane	98 %	84-123
Toluene-d8	98 %	76-129

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Water

Client Sample ID: MW-4  
Prism Sample ID: 8070114-14  
Prism Work Order: 8070114  
Time Collected: 07/10/18 09:20  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	ug/L	11	2.0	1	8270D	7/12/18 20:03	JMV	P8G0124
1,2-Dichlorobenzene	BRL	ug/L	11	1.9	1	8270D	7/12/18 20:03	JMV	P8G0124
1,3-Dichlorobenzene	BRL	ug/L	11	2.1	1	8270D	7/12/18 20:03	JMV	P8G0124
1,4-Dichlorobenzene	BRL	ug/L	11	1.9	1	8270D	7/12/18 20:03	JMV	P8G0124
1-Methylnaphthalene	BRL	ug/L	11	3.0	1	8270D	7/12/18 20:03	JMV	P8G0124
2,4,5-Trichlorophenol	BRL	ug/L	11	1.8	1	8270D	7/12/18 20:03	JMV	P8G0124
2,4,6-Trichlorophenol	BRL	ug/L	11	2.1	1	8270D	7/12/18 20:03	JMV	P8G0124
2,4-Dichlorophenol	BRL	ug/L	11	2.9	1	8270D	7/12/18 20:03	JMV	P8G0124
2,4-Dimethylphenol	BRL	ug/L	11	3.9	1	8270D	7/12/18 20:03	JMV	P8G0124
2,4-Dinitrophenol	BRL	ug/L	11	3.1	1	8270D	7/12/18 20:03	JMV	P8G0124
2,4-Dinitrotoluene	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
2,6-Dinitrotoluene	BRL	ug/L	11	1.3	1	8270D	7/12/18 20:03	JMV	P8G0124
2-Chloronaphthalene	BRL	ug/L	11	3.1	1	8270D	7/12/18 20:03	JMV	P8G0124
2-Chlorophenol	BRL	ug/L	11	2.1	1	8270D	7/12/18 20:03	JMV	P8G0124
2-Methylnaphthalene	BRL	ug/L	11	2.7	1	8270D	7/12/18 20:03	JMV	P8G0124
2-Methylphenol	BRL	ug/L	11	2.1	1	8270D	7/12/18 20:03	JMV	P8G0124
2-Nitroaniline	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
2-Nitrophenol	BRL	ug/L	11	2.7	1	8270D	7/12/18 20:03	JMV	P8G0124
3,3'-Dichlorobenzidine	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
3/4-Methylphenol	BRL	ug/L	11	1.8	1	8270D	7/12/18 20:03	JMV	P8G0124
3-Nitroaniline	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
4,6-Dinitro-2-methylphenol	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
4-Bromophenyl phenyl ether	BRL	ug/L	11	1.5	1	8270D	7/12/18 20:03	JMV	P8G0124
4-Chloro-3-methylphenol	BRL	ug/L	11	2.7	1	8270D	7/12/18 20:03	JMV	P8G0124
4-Chloroaniline	BRL	ug/L	11	2.8	1	8270D	7/12/18 20:03	JMV	P8G0124
4-Chlorophenyl phenyl ether	BRL	ug/L	11	1.5	1	8270D	7/12/18 20:03	JMV	P8G0124
4-Nitroaniline	BRL	ug/L	11	1.1	1	8270D	7/12/18 20:03	JMV	P8G0124
4-Nitrophenol	BRL	ug/L	11	0.68	1	8270D	7/12/18 20:03	JMV	P8G0124
Acenaphthene	BRL	ug/L	11	2.1	1	8270D	7/12/18 20:03	JMV	P8G0124
Acenaphthylene	BRL	ug/L	11	2.3	1	8270D	7/12/18 20:03	JMV	P8G0124
Aniline	BRL	ug/L	11	2.7	1	8270D	7/12/18 20:03	JMV	P8G0124
Anthracene	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
Azobenzene	BRL	ug/L	11	2.0	1	8270D	7/12/18 20:03	JMV	P8G0124
Benzo(a)anthracene	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
Benzo(a)pyrene	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
Benzo(b)fluoranthene	BRL	ug/L	11	1.3	1	8270D	7/12/18 20:03	JMV	P8G0124
Benzo(g,h,i)perylene	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
Benzo(k)fluoranthene	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
Benzoic Acid	BRL	ug/L	110	5.3	1	8270D	7/12/18 20:03	JMV	P8G0124
Benzyl alcohol	BRL	ug/L	11	2.4	1	8270D	7/12/18 20:03	JMV	P8G0124
bis(2-Chloroethoxy)methane	BRL	ug/L	11	2.9	1	8270D	7/12/18 20:03	JMV	P8G0124
Bis(2-Chloroethyl)ether	BRL	ug/L	11	2.6	1	8270D	7/12/18 20:03	JMV	P8G0124

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Water

Client Sample ID: MW-4  
Prism Sample ID: 8070114-14  
Prism Work Order: 8070114  
Time Collected: 07/10/18 09:20  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bis(2-chloroisopropyl)ether	BRL	ug/L	11	2.2	1	8270D	7/12/18 20:03	JMV	P8G0124
Bis(2-Ethylhexyl)phthalate	BRL	ug/L	11	1.5	1	8270D	7/12/18 20:03	JMV	P8G0124
Butyl benzyl phthalate	BRL	ug/L	11	1.5	1	8270D	7/12/18 20:03	JMV	P8G0124
Chrysene	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
Dibenzo(a,h)anthracene	BRL	ug/L	11	1.4	1	8270D	7/12/18 20:03	JMV	P8G0124
Dibenzofuran	BRL	ug/L	11	2.0	1	8270D	7/12/18 20:03	JMV	P8G0124
Diethyl phthalate	BRL	ug/L	11	3.8	1	8270D	7/12/18 20:03	JMV	P8G0124
Dimethyl phthalate	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124
Di-n-butyl phthalate	BRL	ug/L	11	1.9	1	8270D	7/12/18 20:03	JMV	P8G0124
Di-n-octyl phthalate	BRL	ug/L	11	1.5	1	8270D	7/12/18 20:03	JMV	P8G0124
Fluoranthene	BRL	ug/L	11	1.9	1	8270D	7/12/18 20:03	JMV	P8G0124
Fluorene	BRL	ug/L	11	1.9	1	8270D	7/12/18 20:03	JMV	P8G0124
Hexachlorobenzene	BRL	ug/L	11	1.5	1	8270D	7/12/18 20:03	JMV	P8G0124
Hexachlorobutadiene	BRL	ug/L	11	2.4	1	8270D	7/12/18 20:03	JMV	P8G0124
Hexachlorocyclopentadiene	BRL	ug/L	11	2.0	1	8270D	7/12/18 20:03	JMV	P8G0124
Hexachloroethane	BRL	ug/L	11	2.0	1	8270D	7/12/18 20:03	JMV	P8G0124
Indeno(1,2,3-cd)pyrene	BRL	ug/L	11	4.4	1	8270D	7/12/18 20:03	JMV	P8G0124
Isophorone	BRL	ug/L	11	2.9	1	8270D	7/12/18 20:03	JMV	P8G0124
Naphthalene	BRL	ug/L	11	2.9	1	8270D	7/12/18 20:03	JMV	P8G0124
Nitrobenzene	BRL	ug/L	11	2.9	1	8270D	7/12/18 20:03	JMV	P8G0124
N-Nitroso-di-n-propylamine	BRL	ug/L	11	2.5	1	8270D	7/12/18 20:03	JMV	P8G0124
N-Nitrosodiphenylamine	BRL	ug/L	11	1.5	1	8270D	7/12/18 20:03	JMV	P8G0124
Pentachlorophenol	BRL	ug/L	11	1.4	1	8270D	7/12/18 20:03	JMV	P8G0124
Phenanthrene	BRL	ug/L	11	1.7	1	8270D	7/12/18 20:03	JMV	P8G0124
Phenol	BRL	ug/L	11	1.1	1	8270D	7/12/18 20:03	JMV	P8G0124
Pyrene	BRL	ug/L	11	1.6	1	8270D	7/12/18 20:03	JMV	P8G0124

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	68 %	43-140
2-Fluorobiphenyl	76 %	44-119
2-Fluorophenol	48 %	19-119
Nitrobenzene-d5	71 %	44-120
Phenol-d5	31 %	11-52
Terphenyl-d14	68 %	50-134

## Total Metals

Mercury	BRL	mg/L	0.00020	0.000036	1	7470A	7/13/18 8:00	JAB	P8G0145
<b>Antimony</b>	<b>0.0094 J, B</b>	<b>mg/L</b>	<b>0.010</b>	<b>0.0019</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 16:53</b>	<b>JAB</b>	<b>P8G0152</b>
Arsenic	BRL	mg/L	0.020	0.0031	1	6010D	7/12/18 16:53	JAB	P8G0152
<b>Barium</b>	<b>0.043</b>	<b>mg/L</b>	<b>0.010</b>	<b>0.00080</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 16:53</b>	<b>JAB</b>	<b>P8G0152</b>
Beryllium	BRL	mg/L	0.0020	0.00022	1	6010D	7/12/18 16:53	JAB	P8G0152
Cadmium	BRL	mg/L	0.0010	0.00015	1	6010D	7/12/18 16:53	JAB	P8G0152
<b>Chromium</b>	<b>0.0025 J</b>	<b>mg/L</b>	<b>0.0050</b>	<b>0.00036</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 16:53</b>	<b>JAB</b>	<b>P8G0152</b>
<b>Copper</b>	<b>0.012</b>	<b>mg/L</b>	<b>0.010</b>	<b>0.00070</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 16:53</b>	<b>JAB</b>	<b>P8G0152</b>
<b>Lead</b>	<b>0.0011 J</b>	<b>mg/L</b>	<b>0.0050</b>	<b>0.00080</b>	<b>1</b>	<b>6010D</b>	<b>7/12/18 16:53</b>	<b>JAB</b>	<b>P8G0152</b>

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Water

Client Sample ID: MW-4  
Prism Sample ID: 8070114-14  
Prism Work Order: 8070114  
Time Collected: 07/10/18 09:20  
Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Nickel	0.0052 J	mg/L	0.010	0.00036	1	6010D	7/12/18 16:53	JAB	P8G0152
Selenium	BRL	mg/L	0.020	0.0056	1	6010D	7/12/18 16:53	JAB	P8G0152
Silver	BRL	mg/L	0.0050	0.00039	1	6010D	7/12/18 16:53	JAB	P8G0152
Thallium	0.0027 J	mg/L	0.020	0.0020	1	6010D	7/12/18 16:53	JAB	P8G0152
Zinc	0.034	mg/L	0.030	0.00090	1	6010D	7/12/18 16:53	JAB	P8G0152

**Volatile Organic Compounds by GC/MS**

1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.11	1	8260B	7/13/18 22:46	KDM	P8G0186
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.061	1	8260B	7/13/18 22:46	KDM	P8G0186
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.036	1	8260B	7/13/18 22:46	KDM	P8G0186
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.066	1	8260B	7/13/18 22:46	KDM	P8G0186
1,1-Dichloroethane	BRL	ug/L	0.50	0.083	1	8260B	7/13/18 22:46	KDM	P8G0186
1,1-Dichloroethylene	BRL	ug/L	0.50	0.083	1	8260B	7/13/18 22:46	KDM	P8G0186
1,1-Dichloropropylene	BRL	ug/L	0.50	0.051	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2,3-Trichlorobenzene	BRL	ug/L	2.0	0.40	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2,3-Trichloropropane	BRL	ug/L	1.0	0.14	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2,4-Trichlorobenzene	BRL	ug/L	1.0	0.13	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2,4-Trimethylbenzene	BRL	ug/L	0.50	0.054	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.17	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2-Dibromoethane	BRL	ug/L	0.50	0.051	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.076	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2-Dichloroethane	BRL	ug/L	0.50	0.066	1	8260B	7/13/18 22:46	KDM	P8G0186
1,2-Dichloropropane	BRL	ug/L	0.50	0.11	1	8260B	7/13/18 22:46	KDM	P8G0186
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.076	1	8260B	7/13/18 22:46	KDM	P8G0186
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.054	1	8260B	7/13/18 22:46	KDM	P8G0186
1,3-Dichloropropane	BRL	ug/L	0.50	0.043	1	8260B	7/13/18 22:46	KDM	P8G0186
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.050	1	8260B	7/13/18 22:46	KDM	P8G0186
2,2-Dichloropropane	BRL	ug/L	2.0	0.11	1	8260B	7/13/18 22:46	KDM	P8G0186
2-Chlorotoluene	BRL	ug/L	0.50	0.066	1	8260B	7/13/18 22:46	KDM	P8G0186
4-Chlorotoluene	BRL	ug/L	0.50	0.050	1	8260B	7/13/18 22:46	KDM	P8G0186
4-Isopropyltoluene	BRL	ug/L	0.50	0.089	1	8260B	7/13/18 22:46	KDM	P8G0186
Acetone	BRL	ug/L	5.0	0.31	1	8260B	7/13/18 22:46	KDM	P8G0186
Acrolein	BRL	ug/L	20	0.20	1	8260B	7/13/18 22:46	KDM	P8G0186
Acrylonitrile	BRL	ug/L	20	0.20	1	8260B	7/13/18 22:46	KDM	P8G0186
Benzene	BRL	ug/L	0.50	0.048	1	8260B	7/13/18 22:46	KDM	P8G0186
Bromobenzene	BRL	ug/L	0.50	0.057	1	8260B	7/13/18 22:46	KDM	P8G0186
Bromochloromethane	BRL	ug/L	0.50	0.14	1	8260B	7/13/18 22:46	KDM	P8G0186
Bromodichloromethane	BRL	ug/L	0.50	0.062	1	8260B	7/13/18 22:46	KDM	P8G0186
Bromoform	BRL	ug/L	1.0	0.040	1	8260B	7/13/18 22:46	KDM	P8G0186
Bromomethane	BRL	ug/L	1.0	0.18	1	8260B	7/13/18 22:46	KDM	P8G0186
Carbon disulfide	BRL	ug/L	5.0	0.075	1	8260B	7/13/18 22:46	KDM	P8G0186
Carbon Tetrachloride	BRL	ug/L	0.50	0.11	1	8260B	7/13/18 22:46	KDM	P8G0186
Chlorobenzene	BRL	ug/L	0.50	0.062	1	8260B	7/13/18 22:46	KDM	P8G0186
Chloroethane	BRL	ug/L	0.50	0.22	1	8260B	7/13/18 22:46	KDM	P8G0186

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

07/16/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Project: NCDOT P-5705A

Sample Matrix: Water

Client Sample ID: MW-4  
 Prism Sample ID: 8070114-14  
 Prism Work Order: 8070114  
 Time Collected: 07/10/18 09:20  
 Time Submitted: 07/11/18 12:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Chloroform	BRL	ug/L	0.50	0.076	1	8260B	7/13/18 22:46	KDM	P8G0186
Chloromethane	BRL	ug/L	0.50	0.079	1	8260B	7/13/18 22:46	KDM	P8G0186
<b>cis-1,2-Dichloroethylene</b>	<b>3.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.056</b>	<b>1</b>	<b>8260B</b>	<b>7/13/18 22:46</b>	<b>KDM</b>	<b>P8G0186</b>
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.079	1	8260B	7/13/18 22:46	KDM	P8G0186
Dibromochloromethane	BRL	ug/L	0.50	0.081	1	8260B	7/13/18 22:46	KDM	P8G0186
Dibromomethane	BRL	ug/L	0.50	0.065	1	8260B	7/13/18 22:46	KDM	P8G0186
Dichlorodifluoromethane	BRL	ug/L	1.0	0.11	1	8260B	7/13/18 22:46	KDM	P8G0186
Ethylbenzene	BRL	ug/L	0.50	0.061	1	8260B	7/13/18 22:46	KDM	P8G0186
Hexachlorobutadiene	BRL	ug/L	2.0	0.16	1	8260B	7/13/18 22:46	KDM	P8G0186
Isopropyl Ether	BRL	ug/L	0.50	0.050	1	8260B	7/13/18 22:46	KDM	P8G0186
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.054	1	8260B	7/13/18 22:46	KDM	P8G0186
m,p-Xylenes	BRL	ug/L	1.0	0.12	1	8260B	7/13/18 22:46	KDM	P8G0186
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	5.0	0.065	1	8260B	7/13/18 22:46	KDM	P8G0186
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.24	1	8260B	7/13/18 22:46	KDM	P8G0186
Methyl Isobutyl Ketone	BRL	ug/L	5.0	0.078	1	8260B	7/13/18 22:46	KDM	P8G0186
Methylene Chloride	BRL	ug/L	1.0	0.083	1	8260B	7/13/18 22:46	KDM	P8G0186
Methyl-tert-Butyl Ether	BRL	ug/L	0.50	0.042	1	8260B	7/13/18 22:46	KDM	P8G0186
Naphthalene	BRL	ug/L	1.0	0.19	1	8260B	7/13/18 22:46	KDM	P8G0186
n-Butylbenzene	BRL	ug/L	1.0	0.076	1	8260B	7/13/18 22:46	KDM	P8G0186
n-Propylbenzene	BRL	ug/L	0.50	0.087	1	8260B	7/13/18 22:46	KDM	P8G0186
o-Xylene	BRL	ug/L	0.50	0.044	1	8260B	7/13/18 22:46	KDM	P8G0186
sec-Butylbenzene	BRL	ug/L	0.50	0.076	1	8260B	7/13/18 22:46	KDM	P8G0186
Styrene	BRL	ug/L	0.50	0.047	1	8260B	7/13/18 22:46	KDM	P8G0186
tert-Butylbenzene	BRL	ug/L	0.50	0.088	1	8260B	7/13/18 22:46	KDM	P8G0186
<b>Tetrachloroethylene</b>	<b>1.9</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.098</b>	<b>1</b>	<b>8260B</b>	<b>7/13/18 22:46</b>	<b>KDM</b>	<b>P8G0186</b>
Toluene	BRL	ug/L	0.50	0.044	1	8260B	7/13/18 22:46	KDM	P8G0186
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.094	1	8260B	7/13/18 22:46	KDM	P8G0186
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.070	1	8260B	7/13/18 22:46	KDM	P8G0186
<b>Trichloroethylene</b>	<b>0.70</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.078</b>	<b>1</b>	<b>8260B</b>	<b>7/13/18 22:46</b>	<b>KDM</b>	<b>P8G0186</b>
Trichlorofluoromethane	BRL	ug/L	0.50	0.062	1	8260B	7/13/18 22:46	KDM	P8G0186
Vinyl acetate	BRL	ug/L	2.0	0.060	1	8260B	7/13/18 22:46	KDM	P8G0186
Vinyl chloride	BRL	ug/L	0.50	0.097	1	8260B	7/13/18 22:46	KDM	P8G0186
Xylenes, total	BRL	ug/L	1.5	0.15	1	8260B	7/13/18 22:46	KDM	P8G0186

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	100 %	80-124
Dibromofluoromethane	94 %	75-129
Toluene-d8	93 %	77-123

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>Blank (P8G0154-BLK1)</b>										
Prepared & Analyzed: 07/11/18										
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	0.0050	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.0050	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	0.050	mg/kg wet							
Benzene	BRL	0.0030	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	0.0050	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	0.0050	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	0.050	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.10	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.050	mg/kg wet							

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>Blank (P8G0154-BLK1)</b>										
Prepared & Analyzed: 07/11/18										
Methylene Chloride	BRL	0.010	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.010	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	0.0050	mg/kg wet							
Vinyl acetate	BRL	0.025	mg/kg wet							
Vinyl chloride	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	48.9		ug/L	50.00		98	70-130			
Surrogate: Dibromofluoromethane	50.4		ug/L	50.00		101	84-123			
Surrogate: Toluene-d8	48.1		ug/L	50.00		96	76-129			
<b>LCS (P8G0154-BS1)</b>										
Prepared & Analyzed: 07/11/18										
1,1,1,2-Tetrachloroethane	0.0503	0.0050	mg/kg wet	0.05000		101	72-115			
1,1,1-Trichloroethane	0.0482	0.0050	mg/kg wet	0.05000		96	67-131			
1,1,2,2-Tetrachloroethane	0.0528	0.0050	mg/kg wet	0.05000		106	56-126			
1,1,2-Trichloroethane	0.0493	0.0050	mg/kg wet	0.05000		99	70-133			
1,1-Dichloroethane	0.0468	0.0050	mg/kg wet	0.05000		94	74-127			
1,1-Dichloroethylene	0.0464	0.0050	mg/kg wet	0.05000		93	67-149			
1,1-Dichloropropylene	0.0484	0.0050	mg/kg wet	0.05000		97	71-130			
1,2,3-Trichlorobenzene	0.0494	0.0050	mg/kg wet	0.05000		99	68-130			
1,2,3-Trichloropropane	0.0502	0.0050	mg/kg wet	0.05000		100	60-137			
1,2,4-Trichlorobenzene	0.0490	0.0050	mg/kg wet	0.05000		98	66-125			
1,2,4-Trimethylbenzene	0.0498	0.0050	mg/kg wet	0.05000		100	69-129			
1,2-Dibromoethane	0.0506	0.0050	mg/kg wet	0.05000		101	70-132			
1,2-Dichlorobenzene	0.0469	0.0050	mg/kg wet	0.05000		94	72-123			
1,2-Dichloroethane	0.0491	0.0050	mg/kg wet	0.05000		98	68-128			
1,2-Dichloropropane	0.0495	0.0050	mg/kg wet	0.05000		99	73-130			
1,3,5-Trimethylbenzene	0.0494	0.0050	mg/kg wet	0.05000		99	69-128			
1,3-Dichlorobenzene	0.0464	0.0050	mg/kg wet	0.05000		93	71-120			
1,3-Dichloropropane	0.0512	0.0050	mg/kg wet	0.05000		102	75-124			
1,4-Dichlorobenzene	0.0463	0.0050	mg/kg wet	0.05000		93	71-123			
2,2-Dichloropropane	0.0501	0.0050	mg/kg wet	0.05000		100	50-142			
2-Chlorotoluene	0.0466	0.0050	mg/kg wet	0.05000		93	67-124			
4-Chlorotoluene	0.0472	0.0050	mg/kg wet	0.05000		94	71-126			
4-Isopropyltoluene	0.0498	0.0050	mg/kg wet	0.05000		100	68-129			
Acetone	0.0894	0.050	mg/kg wet	0.1000		89	29-198			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>LCS (P8G0154-BS1)</b>										
Prepared & Analyzed: 07/11/18										
Benzene	0.0491	0.0030	mg/kg wet	0.05000		98	74-127			
Bromobenzene	0.0476	0.0050	mg/kg wet	0.05000		95	73-125			
Bromochloromethane	0.0509	0.0050	mg/kg wet	0.05000		102	72-134			
Bromodichloromethane	0.0492	0.0050	mg/kg wet	0.05000		98	75-122			
Bromoform	0.0492	0.0050	mg/kg wet	0.05000		98	66-135			
Bromomethane	0.0476	0.010	mg/kg wet	0.05000		95	20-180			
Carbon Tetrachloride	0.0480	0.0050	mg/kg wet	0.05000		96	64-143			
Chlorobenzene	0.0473	0.0050	mg/kg wet	0.05000		95	74-118			
Chloroethane	0.0459	0.010	mg/kg wet	0.05000		92	33-149			
Chloroform	0.0484	0.0050	mg/kg wet	0.05000		97	73-127			
Chloromethane	0.0463	0.0050	mg/kg wet	0.05000		93	45-143			
cis-1,2-Dichloroethylene	0.0487	0.0050	mg/kg wet	0.05000		97	76-134			
cis-1,3-Dichloropropylene	0.0528	0.0050	mg/kg wet	0.05000		106	71-125			
Dibromochloromethane	0.0497	0.0050	mg/kg wet	0.05000		99	73-122			
Dichlorodifluoromethane	0.0413	0.0050	mg/kg wet	0.05000		83	26-146			
Ethylbenzene	0.0486	0.0050	mg/kg wet	0.05000		97	74-128			
Isopropyl Ether	0.0493	0.0050	mg/kg wet	0.05000		99	59-159			
Isopropylbenzene (Cumene)	0.0495	0.0050	mg/kg wet	0.05000		99	68-126			
m,p-Xylenes	0.100	0.010	mg/kg wet	0.1000		100	75-124			
Methyl Butyl Ketone (2-Hexanone)	0.0498	0.050	mg/kg wet	0.05000		100	61-157			J
Methyl Ethyl Ketone (2-Butanone)	0.0419	0.10	mg/kg wet	0.05000		84	63-149			J
Methyl Isobutyl Ketone	0.0499	0.050	mg/kg wet	0.05000		100	57-162			J
Methylene Chloride	0.0458	0.010	mg/kg wet	0.05000		92	74-129			
Methyl-tert-Butyl Ether	0.0510	0.010	mg/kg wet	0.05000		102	70-130			
Naphthalene	0.0508	0.010	mg/kg wet	0.05000		102	57-157			
n-Butylbenzene	0.0494	0.0050	mg/kg wet	0.05000		99	65-135			
n-Propylbenzene	0.0479	0.0050	mg/kg wet	0.05000		96	67-130			
o-Xylene	0.0504	0.0050	mg/kg wet	0.05000		101	74-126			
sec-Butylbenzene	0.0481	0.0050	mg/kg wet	0.05000		96	66-131			
Styrene	0.0498	0.0050	mg/kg wet	0.05000		100	77-121			
tert-Butylbenzene	0.0497	0.0050	mg/kg wet	0.05000		99	67-132			
Tetrachloroethylene	0.0472	0.0050	mg/kg wet	0.05000		94	68-130			
Toluene	0.0487	0.0050	mg/kg wet	0.05000		97	71-129			
trans-1,2-Dichloroethylene	0.0484	0.0050	mg/kg wet	0.05000		97	73-132			
trans-1,3-Dichloropropylene	0.0541	0.0050	mg/kg wet	0.05000		108	68-123			
Trichloroethylene	0.0472	0.0050	mg/kg wet	0.05000		94	75-133			
Trichlorofluoromethane	0.0481	0.0050	mg/kg wet	0.05000		96	44-146			
Vinyl acetate	0.0564	0.025	mg/kg wet	0.05000		113	85-161			
Vinyl chloride	0.0500	0.0050	mg/kg wet	0.05000		100	48-147			
Xylenes, total	0.150	0.015	mg/kg wet	0.1500		100	74-126			
Surrogate: 4-Bromofluorobenzene	47.7		ug/L	50.00		95	70-130			
Surrogate: Dibromofluoromethane	48.6		ug/L	50.00		97	84-123			
Surrogate: Toluene-d8	49.1		ug/L	50.00		98	76-129			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>LCS Dup (P8G0154-BSD1)</b>										
Prepared & Analyzed: 07/11/18										
1,1,1,2-Tetrachloroethane	0.0480	0.0050	mg/kg wet	0.05000		96	72-115	5	20	
1,1,1-Trichloroethane	0.0439	0.0050	mg/kg wet	0.05000		88	67-131	9	20	
1,1,2,2-Tetrachloroethane	0.0507	0.0050	mg/kg wet	0.05000		101	56-126	4	20	
1,1,2-Trichloroethane	0.0469	0.0050	mg/kg wet	0.05000		94	70-133	5	20	
1,1-Dichloroethane	0.0442	0.0050	mg/kg wet	0.05000		88	74-127	6	20	
1,1-Dichloroethylene	0.0436	0.0050	mg/kg wet	0.05000		87	67-149	6	20	
1,1-Dichloropropylene	0.0453	0.0050	mg/kg wet	0.05000		91	71-130	6	20	
1,2,3-Trichlorobenzene	0.0477	0.0050	mg/kg wet	0.05000		95	68-130	3	20	
1,2,3-Trichloropropane	0.0471	0.0050	mg/kg wet	0.05000		94	60-137	6	20	
1,2,4-Trichlorobenzene	0.0466	0.0050	mg/kg wet	0.05000		93	66-125	5	20	
1,2,4-Trimethylbenzene	0.0469	0.0050	mg/kg wet	0.05000		94	69-129	6	20	
1,2-Dibromoethane	0.0478	0.0050	mg/kg wet	0.05000		96	70-132	6	20	
1,2-Dichlorobenzene	0.0446	0.0050	mg/kg wet	0.05000		89	72-123	5	20	
1,2-Dichloroethane	0.0462	0.0050	mg/kg wet	0.05000		92	68-128	6	20	
1,2-Dichloropropane	0.0476	0.0050	mg/kg wet	0.05000		95	73-130	4	20	
1,3,5-Trimethylbenzene	0.0461	0.0050	mg/kg wet	0.05000		92	69-128	7	20	
1,3-Dichlorobenzene	0.0445	0.0050	mg/kg wet	0.05000		89	71-120	4	20	
1,3-Dichloropropane	0.0482	0.0050	mg/kg wet	0.05000		96	75-124	6	20	
1,4-Dichlorobenzene	0.0446	0.0050	mg/kg wet	0.05000		89	71-123	4	20	
2,2-Dichloropropane	0.0469	0.0050	mg/kg wet	0.05000		94	50-142	7	20	
2-Chlorotoluene	0.0444	0.0050	mg/kg wet	0.05000		89	67-124	5	20	
4-Chlorotoluene	0.0446	0.0050	mg/kg wet	0.05000		89	71-126	6	20	
4-Isopropyltoluene	0.0468	0.0050	mg/kg wet	0.05000		94	68-129	6	20	
Acetone	0.0809	0.050	mg/kg wet	0.1000		81	29-198	10	20	
Benzene	0.0456	0.0030	mg/kg wet	0.05000		91	74-127	7	20	
Bromobenzene	0.0454	0.0050	mg/kg wet	0.05000		91	73-125	5	20	
Bromochloromethane	0.0477	0.0050	mg/kg wet	0.05000		95	72-134	6	20	
Bromodichloromethane	0.0467	0.0050	mg/kg wet	0.05000		93	75-122	5	20	
Bromoform	0.0469	0.0050	mg/kg wet	0.05000		94	66-135	5	20	
Bromomethane	0.0450	0.010	mg/kg wet	0.05000		90	20-180	6	20	
Carbon Tetrachloride	0.0454	0.0050	mg/kg wet	0.05000		91	64-143	6	20	
Chlorobenzene	0.0444	0.0050	mg/kg wet	0.05000		89	74-118	6	20	
Chloroethane	0.0423	0.010	mg/kg wet	0.05000		85	33-149	8	20	
Chloroform	0.0453	0.0050	mg/kg wet	0.05000		91	73-127	7	20	
Chloromethane	0.0430	0.0050	mg/kg wet	0.05000		86	45-143	7	20	
cis-1,2-Dichloroethylene	0.0454	0.0050	mg/kg wet	0.05000		91	76-134	7	20	
cis-1,3-Dichloropropylene	0.0497	0.0050	mg/kg wet	0.05000		99	71-125	6	20	
Dibromochloromethane	0.0471	0.0050	mg/kg wet	0.05000		94	73-122	6	20	
Dichlorodifluoromethane	0.0381	0.0050	mg/kg wet	0.05000		76	26-146	8	20	
Ethylbenzene	0.0457	0.0050	mg/kg wet	0.05000		91	74-128	6	20	
Isopropyl Ether	0.0466	0.0050	mg/kg wet	0.05000		93	59-159	6	20	
Isopropylbenzene (Cumene)	0.0468	0.0050	mg/kg wet	0.05000		94	68-126	6	20	
m,p-Xylenes	0.0934	0.010	mg/kg wet	0.1000		93	75-124	7	20	
Methyl Butyl Ketone (2-Hexanone)	0.0466	0.050	mg/kg wet	0.05000		93	61-157	7	20	J
Methyl Ethyl Ketone (2-Butanone)	0.0409	0.10	mg/kg wet	0.05000		82	63-149	2	20	J
Methyl Isobutyl Ketone	0.0481	0.050	mg/kg wet	0.05000		96	57-162	4	20	J

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

### Volatiles 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 P8G0154 - 5035</b>										
<b>LCS Dup (P8G0154-BSD1)</b>										
Prepared & Analyzed: 07/11/18										
Methylene Chloride	0.0429	0.010	mg/kg wet	0.05000		86	74-129	7	20	
Methyl-tert-Butyl Ether	0.0474	0.010	mg/kg wet	0.05000		95	70-130	7	20	
Naphthalene	0.0500	0.010	mg/kg wet	0.05000		100	57-157	2	20	
n-Butylbenzene	0.0462	0.0050	mg/kg wet	0.05000		92	65-135	7	20	
n-Propylbenzene	0.0457	0.0050	mg/kg wet	0.05000		91	67-130	5	20	
o-Xylene	0.0468	0.0050	mg/kg wet	0.05000		94	74-126	7	20	
sec-Butylbenzene	0.0456	0.0050	mg/kg wet	0.05000		91	66-131	5	20	
Styrene	0.0464	0.0050	mg/kg wet	0.05000		93	77-121	7	20	
tert-Butylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	67-132	6	20	
Tetrachloroethylene	0.0432	0.0050	mg/kg wet	0.05000		86	68-130	9	20	
Toluene	0.0457	0.0050	mg/kg wet	0.05000		91	71-129	6	20	
trans-1,2-Dichloroethylene	0.0453	0.0050	mg/kg wet	0.05000		91	73-132	7	20	
trans-1,3-Dichloropropylene	0.0519	0.0050	mg/kg wet	0.05000		104	68-123	4	20	
Trichloroethylene	0.0444	0.0050	mg/kg wet	0.05000		89	75-133	6	20	
Trichlorofluoromethane	0.0449	0.0050	mg/kg wet	0.05000		90	44-146	7	20	
Vinyl acetate	0.0531	0.025	mg/kg wet	0.05000		106	85-161	6	20	
Vinyl chloride	0.0482	0.0050	mg/kg wet	0.05000		96	48-147	4	20	
Xylenes, total	0.140	0.015	mg/kg wet	0.1500		93	74-126	7	20	
Surrogate: 4-Bromofluorobenzene	47.1		ug/L	50.00		94	70-130			
Surrogate: Dibromofluoromethane	47.5		ug/L	50.00		95	84-123			
Surrogate: Toluene-d8	48.4		ug/L	50.00		97	76-129			
<b>Matrix Spike (P8G0154-MS1)</b>										
Source: 8070114-01 Prepared: 07/11/18 Analyzed: 07/12/18										
1,1,1,2-Tetrachloroethane	0.0513	0.0059	mg/kg dry	0.05861	BRL	87	60-120			
1,1,1-Trichloroethane	0.0485	0.0059	mg/kg dry	0.05861	BRL	83	52-139			
1,1,2,2-Tetrachloroethane	0.0575	0.0059	mg/kg dry	0.05861	BRL	98	39-135			
1,1,2-Trichloroethane	0.0511	0.0059	mg/kg dry	0.05861	BRL	87	44-140			
1,1-Dichloroethane	0.0485	0.0059	mg/kg dry	0.05861	BRL	83	59-137			
1,1-Dichloroethylene	0.0465	0.0059	mg/kg dry	0.05861	BRL	79	54-162			
1,1-Dichloropropylene	0.0474	0.0059	mg/kg dry	0.05861	BRL	81	55-137			
1,2,3-Trichlorobenzene	0.0340	0.0059	mg/kg dry	0.05861	BRL	58	34-120			
1,2,3-Trichloropropane	0.0550	0.0059	mg/kg dry	0.05861	BRL	94	45-139			
1,2,4-Trichlorobenzene	0.0333	0.0059	mg/kg dry	0.05861	BRL	57	35-116			
1,2,4-Trimethylbenzene	0.0489	0.0059	mg/kg dry	0.05861	BRL	83	38-142			
1,2-Dibromoethane	0.0501	0.0059	mg/kg dry	0.05861	BRL	85	49-132			
1,2-Dichlorobenzene	0.0436	0.0059	mg/kg dry	0.05861	BRL	74	42-130			
1,2-Dichloroethane	0.0499	0.0059	mg/kg dry	0.05861	BRL	85	51-131			
1,2-Dichloropropane	0.0527	0.0059	mg/kg dry	0.05861	BRL	90	55-138			
1,3,5-Trimethylbenzene	0.0486	0.0059	mg/kg dry	0.05861	BRL	83	44-140			
1,3-Dichlorobenzene	0.0419	0.0059	mg/kg dry	0.05861	BRL	71	41-129			
1,3-Dichloropropane	0.0512	0.0059	mg/kg dry	0.05861	BRL	87	53-129			
1,4-Dichlorobenzene	0.0408	0.0059	mg/kg dry	0.05861	BRL	70	44-134			
2,2-Dichloropropane	0.0516	0.0059	mg/kg dry	0.05861	BRL	88	30-147			
2-Chlorotoluene	0.0469	0.0059	mg/kg dry	0.05861	BRL	80	46-132			
4-Chlorotoluene	0.0456	0.0059	mg/kg dry	0.05861	BRL	78	44-135			
4-Isopropyltoluene	0.0450	0.0059	mg/kg dry	0.05861	BRL	77	32-144			
Acetone	0.0841	0.059	mg/kg dry	0.1172	BRL	72	34-143			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>Matrix Spike (P8G0154-MS1)</b>	<b>Source: 8070114-01</b>			<b>Prepared: 07/11/18</b>		<b>Analyzed: 07/12/18</b>				
Benzene	0.0488	0.0035	mg/kg dry	0.05861	BRL	83	60-135			
Bromobenzene	0.0472	0.0059	mg/kg dry	0.05861	BRL	80	45-135			
Bromochloromethane	0.0476	0.0059	mg/kg dry	0.05861	BRL	81	55-136			
Bromodichloromethane	0.0516	0.0059	mg/kg dry	0.05861	BRL	88	55-127			
Bromoform	0.0480	0.0059	mg/kg dry	0.05861	BRL	82	40-136			
Bromomethane	0.0428	0.012	mg/kg dry	0.05861	BRL	73	30-137			
Carbon Tetrachloride	0.0494	0.0059	mg/kg dry	0.05861	BRL	84	48-153			
Chlorobenzene	0.0452	0.0059	mg/kg dry	0.05861	BRL	77	57-125			
Chloroethane	0.0467	0.012	mg/kg dry	0.05861	BRL	80	16-177			
Chloroform	0.0492	0.0059	mg/kg dry	0.05861	BRL	84	56-137			
Chloromethane	0.0427	0.0059	mg/kg dry	0.05861	BRL	73	40-145			
cis-1,2-Dichloroethylene	0.0454	0.0059	mg/kg dry	0.05861	BRL	77	58-140			
cis-1,3-Dichloropropylene	0.0494	0.0059	mg/kg dry	0.05861	BRL	84	42-135			
Dibromochloromethane	0.0499	0.0059	mg/kg dry	0.05861	BRL	85	49-127			
Dichlorodifluoromethane	0.0420	0.0059	mg/kg dry	0.05861	BRL	72	25-151			
Ethylbenzene	0.0475	0.0059	mg/kg dry	0.05861	BRL	81	44-144			
Isopropyl Ether	0.0491	0.0059	mg/kg dry	0.05861	BRL	84	51-155			
Isopropylbenzene (Cumene)	0.0514	0.0059	mg/kg dry	0.05861	BRL	88	41-140			
m,p-Xylenes	0.0968	0.012	mg/kg dry	0.1172	BRL	83	36-148			
Methyl Butyl Ketone (2-Hexanone)	0.0475	0.059	mg/kg dry	0.05861	BRL	81	30-147			J
Methyl Ethyl Ketone (2-Butanone)	0.0419	0.12	mg/kg dry	0.05861	BRL	72	24-160			J
Methyl Isobutyl Ketone	0.0500	0.059	mg/kg dry	0.05861	BRL	85	25-163			J
Methylene Chloride	0.0451	0.012	mg/kg dry	0.05861	BRL	77	53-144			
Methyl-tert-Butyl Ether	0.0528	0.012	mg/kg dry	0.05861	BRL	90	49-135			
Naphthalene	0.0420	0.012	mg/kg dry	0.05861	0.00671	60	32-127			
n-Butylbenzene	0.0400	0.0059	mg/kg dry	0.05861	BRL	68	23-148			
n-Propylbenzene	0.0468	0.0059	mg/kg dry	0.05861	BRL	80	35-144			
o-Xylene	0.0493	0.0059	mg/kg dry	0.05861	BRL	84	43-143			
sec-Butylbenzene	0.0451	0.0059	mg/kg dry	0.05861	BRL	77	34-144			
Styrene	0.0447	0.0059	mg/kg dry	0.05861	BRL	76	42-132			
tert-Butylbenzene	0.0491	0.0059	mg/kg dry	0.05861	BRL	84	36-150			
Tetrachloroethylene	0.0436	0.0059	mg/kg dry	0.05861	BRL	74	47-142			
Toluene	0.0485	0.0059	mg/kg dry	0.05861	BRL	83	57-135			
trans-1,2-Dichloroethylene	0.0420	0.0059	mg/kg dry	0.05861	BRL	72	58-141			
trans-1,3-Dichloropropylene	0.0467	0.0059	mg/kg dry	0.05861	BRL	80	41-124			
Trichloroethylene	0.0445	0.0059	mg/kg dry	0.05861	BRL	76	38-164			
Trichlorofluoromethane	0.0502	0.0059	mg/kg dry	0.05861	BRL	86	30-157			
Vinyl acetate	0.00678	0.029	mg/kg dry	0.05861	BRL	12	61-154			M, J
Vinyl chloride	0.0506	0.0059	mg/kg dry	0.05861	BRL	86	40-156			
Xylenes, total	0.146	0.018	mg/kg dry	0.1758	BRL	83	36-148			
Surrogate: 4-Bromofluorobenzene	48.8		ug/L	50.00		98	70-130			
Surrogate: Dibromofluoromethane	47.0		ug/L	50.00		94	84-123			
Surrogate: Toluene-d8	47.5		ug/L	50.00		95	76-129			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>Matrix Spike Dup (P8G0154-MSD1)</b>										
		<b>Source: 8070114-01</b>			<b>Prepared: 07/11/18</b>		<b>Analyzed: 07/12/18</b>			
1,1,1,2-Tetrachloroethane	0.0513	0.0060	mg/kg dry	0.05955	BRL	86	60-120	0.1	15	
1,1,1-Trichloroethane	0.0458	0.0060	mg/kg dry	0.05955	BRL	77	52-139	6	21	
1,1,2,2-Tetrachloroethane	0.0614	0.0060	mg/kg dry	0.05955	BRL	103	39-135	7	22	
1,1,2-Trichloroethane	0.0501	0.0060	mg/kg dry	0.05955	BRL	84	44-140	2	21	
1,1-Dichloroethane	0.0474	0.0060	mg/kg dry	0.05955	BRL	80	59-137	2	21	
1,1-Dichloroethylene	0.0410	0.0060	mg/kg dry	0.05955	BRL	69	54-162	12	22	
1,1-Dichloropropylene	0.0418	0.0060	mg/kg dry	0.05955	BRL	70	55-137	13	19	
1,2,3-Trichlorobenzene	0.0292	0.0060	mg/kg dry	0.05955	BRL	49	34-120	15	41	
1,2,3-Trichloropropane	0.0581	0.0060	mg/kg dry	0.05955	BRL	98	45-139	6	25	
1,2,4-Trichlorobenzene	0.0283	0.0060	mg/kg dry	0.05955	BRL	48	35-116	16	62	
1,2,4-Trimethylbenzene	0.0462	0.0060	mg/kg dry	0.05955	BRL	78	38-142	6	24	
1,2-Dibromoethane	0.0487	0.0060	mg/kg dry	0.05955	BRL	82	49-132	3	15	
1,2-Dichlorobenzene	0.0416	0.0060	mg/kg dry	0.05955	BRL	70	42-130	5	21	
1,2-Dichloroethane	0.0498	0.0060	mg/kg dry	0.05955	BRL	84	51-131	0.2	13	
1,2-Dichloropropane	0.0510	0.0060	mg/kg dry	0.05955	BRL	86	55-138	3	16	
1,3,5-Trimethylbenzene	0.0463	0.0060	mg/kg dry	0.05955	BRL	78	44-140	5	29	
1,3-Dichlorobenzene	0.0394	0.0060	mg/kg dry	0.05955	BRL	66	41-129	6	24	
1,3-Dichloropropane	0.0508	0.0060	mg/kg dry	0.05955	BRL	85	53-129	0.9	15	
1,4-Dichlorobenzene	0.0391	0.0060	mg/kg dry	0.05955	BRL	66	44-134	4	21	
2,2-Dichloropropane	0.0489	0.0060	mg/kg dry	0.05955	BRL	82	30-147	5	20	
2-Chlorotoluene	0.0462	0.0060	mg/kg dry	0.05955	BRL	78	46-132	2	29	
4-Chlorotoluene	0.0430	0.0060	mg/kg dry	0.05955	BRL	72	44-135	6	23	
4-Isopropyltoluene	0.0409	0.0060	mg/kg dry	0.05955	BRL	69	32-144	10	22	
Acetone	0.0842	0.060	mg/kg dry	0.1191	BRL	71	34-143	0.1	49	
Benzene	0.0467	0.0036	mg/kg dry	0.05955	BRL	78	60-135	4	20	
Bromobenzene	0.0467	0.0060	mg/kg dry	0.05955	BRL	78	45-135	1	25	
Bromochloromethane	0.0453	0.0060	mg/kg dry	0.05955	BRL	76	55-136	5	18	
Bromodichloromethane	0.0501	0.0060	mg/kg dry	0.05955	BRL	84	55-127	3	17	
Bromoform	0.0463	0.0060	mg/kg dry	0.05955	BRL	78	40-136	4	35	
Bromomethane	0.0415	0.012	mg/kg dry	0.05955	BRL	70	30-137	3	30	
Carbon Tetrachloride	0.0463	0.0060	mg/kg dry	0.05955	BRL	78	48-153	7	23	
Chlorobenzene	0.0424	0.0060	mg/kg dry	0.05955	BRL	71	57-125	6	14	
Chloroethane	0.0434	0.012	mg/kg dry	0.05955	BRL	73	16-177	7	47	
Chloroform	0.0477	0.0060	mg/kg dry	0.05955	BRL	80	56-137	3	18	
Chloromethane	0.0389	0.0060	mg/kg dry	0.05955	BRL	65	40-145	9	26	
cis-1,2-Dichloroethylene	0.0418	0.0060	mg/kg dry	0.05955	BRL	70	58-140	8	28	
cis-1,3-Dichloropropylene	0.0464	0.0060	mg/kg dry	0.05955	BRL	78	42-135	6	32	
Dibromochloromethane	0.0507	0.0060	mg/kg dry	0.05955	BRL	85	49-127	2	24	
Dichlorodifluoromethane	0.0376	0.0060	mg/kg dry	0.05955	BRL	63	25-151	11	37	
Ethylbenzene	0.0443	0.0060	mg/kg dry	0.05955	BRL	74	44-144	7	19	
Isopropyl Ether	0.0507	0.0060	mg/kg dry	0.05955	BRL	85	51-155	3	13	
Isopropylbenzene (Cumene)	0.0499	0.0060	mg/kg dry	0.05955	BRL	84	41-140	3	27	
m,p-Xylenes	0.0892	0.012	mg/kg dry	0.1191	BRL	75	36-148	8	20	
Methyl Butyl Ketone (2-Hexanone)	0.0462	0.060	mg/kg dry	0.05955	BRL	78	30-147	3	42	J
Methyl Ethyl Ketone (2-Butanone)	0.0413	0.12	mg/kg dry	0.05955	BRL	69	24-160	1	42	J
Methyl Isobutyl Ketone	0.0499	0.060	mg/kg dry	0.05955	BRL	84	25-163	0.3	44	J

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0154 - 5035</b>										
<b>Matrix Spike Dup (P8G0154-MSD1)</b>		<b>Source: 8070114-01</b>			<b>Prepared: 07/11/18</b>		<b>Analyzed: 07/12/18</b>			
Methylene Chloride	0.0434	0.012	mg/kg dry	0.05955	BRL	73	53-144	4	14	
Methyl-tert-Butyl Ether	0.0539	0.012	mg/kg dry	0.05955	BRL	91	49-135	2	22	
Naphthalene	0.0373	0.012	mg/kg dry	0.05955	0.00671	51	32-127	12	44	
n-Butylbenzene	0.0350	0.0060	mg/kg dry	0.05955	BRL	59	23-148	13	39	
n-Propylbenzene	0.0448	0.0060	mg/kg dry	0.05955	BRL	75	35-144	4	27	
o-Xylene	0.0467	0.0060	mg/kg dry	0.05955	BRL	78	43-143	5	17	
sec-Butylbenzene	0.0411	0.0060	mg/kg dry	0.05955	BRL	69	34-144	9	28	
Styrene	0.0411	0.0060	mg/kg dry	0.05955	BRL	69	42-132	8	28	
tert-Butylbenzene	0.0460	0.0060	mg/kg dry	0.05955	BRL	77	36-150	7	29	
Tetrachloroethylene	0.0394	0.0060	mg/kg dry	0.05955	BRL	66	47-142	10	26	
Toluene	0.0453	0.0060	mg/kg dry	0.05955	BRL	76	57-135	7	22	
trans-1,2-Dichloroethylene	0.0358	0.0060	mg/kg dry	0.05955	BRL	60	58-141	16	18	
trans-1,3-Dichloropropylene	0.0423	0.0060	mg/kg dry	0.05955	BRL	71	41-124	10	20	
Trichloroethylene	0.0406	0.0060	mg/kg dry	0.05955	BRL	68	38-164	9	18	
Trichlorofluoromethane	0.0456	0.0060	mg/kg dry	0.05955	BRL	77	30-157	10	27	
Vinyl acetate	0.00411	0.030	mg/kg dry	0.05955	BRL	7	61-154	49	35	D, M, J
Vinyl chloride	0.0423	0.0060	mg/kg dry	0.05955	BRL	71	40-156	18	35	
Xylenes, total	0.136	0.018	mg/kg dry	0.1787	BRL	76	36-148	7	20	
Surrogate: 4-Bromofluorobenzene	50.9		ug/L	50.00		102	70-130			
Surrogate: Dibromofluoromethane	47.5		ug/L	50.00		95	84-123			
Surrogate: Toluene-d8	48.2		ug/L	50.00		96	76-129			

### Batch P8G0169 - 5035

<b>Blank (P8G0169-BLK1)</b>		<b>Prepared &amp; Analyzed: 07/12/18</b>								
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	0.0050	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.0050	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							

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
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Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0169 - 5035</b>										
<b>Blank (P8G0169-BLK1)</b>										
Prepared & Analyzed: 07/12/18										
4-Isopropyltoluene	BRL	0.0050	mg/kg wet							
Acetone	BRL	0.050	mg/kg wet							
Benzene	BRL	0.0030	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	0.0050	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	0.0050	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	0.050	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.10	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.050	mg/kg wet							
Methylene Chloride	BRL	0.010	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.010	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	0.0050	mg/kg wet							
Vinyl acetate	BRL	0.025	mg/kg wet							
Vinyl chloride	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	46.8		ug/L	50.00		94	70-130			
Surrogate: Dibromofluoromethane	48.7		ug/L	50.00		97	84-123			
Surrogate: Toluene-d8	47.4		ug/L	50.00		95	76-129			

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 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0169 - 5035</b>										
<b>LCS (P8G0169-BS1)</b>										
Prepared & Analyzed: 07/12/18										
1,1,1,2-Tetrachloroethane	0.0474	0.0050	mg/kg wet	0.05000		95	72-115			
1,1,1-Trichloroethane	0.0463	0.0050	mg/kg wet	0.05000		93	67-131			
1,1,2,2-Tetrachloroethane	0.0480	0.0050	mg/kg wet	0.05000		96	56-126			
1,1,2-Trichloroethane	0.0447	0.0050	mg/kg wet	0.05000		89	70-133			
1,1-Dichloroethane	0.0436	0.0050	mg/kg wet	0.05000		87	74-127			
1,1-Dichloroethylene	0.0444	0.0050	mg/kg wet	0.05000		89	67-149			
1,1-Dichloropropylene	0.0462	0.0050	mg/kg wet	0.05000		92	71-130			
1,2,3-Trichlorobenzene	0.0459	0.0050	mg/kg wet	0.05000		92	68-130			
1,2,3-Trichloropropane	0.0464	0.0050	mg/kg wet	0.05000		93	60-137			
1,2,4-Trichlorobenzene	0.0467	0.0050	mg/kg wet	0.05000		93	66-125			
1,2,4-Trimethylbenzene	0.0477	0.0050	mg/kg wet	0.05000		95	69-129			
1,2-Dibromoethane	0.0465	0.0050	mg/kg wet	0.05000		93	70-132			
1,2-Dichlorobenzene	0.0447	0.0050	mg/kg wet	0.05000		89	72-123			
1,2-Dichloroethane	0.0461	0.0050	mg/kg wet	0.05000		92	68-128			
1,2-Dichloropropane	0.0465	0.0050	mg/kg wet	0.05000		93	73-130			
1,3,5-Trimethylbenzene	0.0470	0.0050	mg/kg wet	0.05000		94	69-128			
1,3-Dichlorobenzene	0.0444	0.0050	mg/kg wet	0.05000		89	71-120			
1,3-Dichloropropane	0.0464	0.0050	mg/kg wet	0.05000		93	75-124			
1,4-Dichlorobenzene	0.0446	0.0050	mg/kg wet	0.05000		89	71-123			
2,2-Dichloropropane	0.0481	0.0050	mg/kg wet	0.05000		96	50-142			
2-Chlorotoluene	0.0446	0.0050	mg/kg wet	0.05000		89	67-124			
4-Chlorotoluene	0.0455	0.0050	mg/kg wet	0.05000		91	71-126			
4-Isopropyltoluene	0.0479	0.0050	mg/kg wet	0.05000		96	68-129			
Acetone	0.0727	0.050	mg/kg wet	0.1000		73	29-198			
Benzene	0.0453	0.0030	mg/kg wet	0.05000		91	74-127			
Bromobenzene	0.0452	0.0050	mg/kg wet	0.05000		90	73-125			
Bromochloromethane	0.0461	0.0050	mg/kg wet	0.05000		92	72-134			
Bromodichloromethane	0.0470	0.0050	mg/kg wet	0.05000		94	75-122			
Bromoform	0.0451	0.0050	mg/kg wet	0.05000		90	66-135			
Bromomethane	0.0447	0.010	mg/kg wet	0.05000		89	20-180			
Carbon Tetrachloride	0.0474	0.0050	mg/kg wet	0.05000		95	64-143			
Chlorobenzene	0.0445	0.0050	mg/kg wet	0.05000		89	74-118			
Chloroethane	0.0478	0.010	mg/kg wet	0.05000		96	33-149			
Chloroform	0.0459	0.0050	mg/kg wet	0.05000		92	73-127			
Chloromethane	0.0434	0.0050	mg/kg wet	0.05000		87	45-143			
cis-1,2-Dichloroethylene	0.0448	0.0050	mg/kg wet	0.05000		90	76-134			
cis-1,3-Dichloropropylene	0.0491	0.0050	mg/kg wet	0.05000		98	71-125			
Dibromochloromethane	0.0459	0.0050	mg/kg wet	0.05000		92	73-122			
Dichlorodifluoromethane	0.0415	0.0050	mg/kg wet	0.05000		83	26-146			
Ethylbenzene	0.0458	0.0050	mg/kg wet	0.05000		92	74-128			
Isopropyl Ether	0.0445	0.0050	mg/kg wet	0.05000		89	59-159			
Isopropylbenzene (Cumene)	0.0470	0.0050	mg/kg wet	0.05000		94	68-126			
m,p-Xylenes	0.0937	0.010	mg/kg wet	0.1000		94	75-124			
Methyl Butyl Ketone (2-Hexanone)	0.0415	0.050	mg/kg wet	0.05000		83	61-157			J
Methyl Ethyl Ketone (2-Butanone)	0.0366	0.10	mg/kg wet	0.05000		73	63-149			J
Methyl Isobutyl Ketone	0.0423	0.050	mg/kg wet	0.05000		85	57-162			J

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0169 - 5035</b>										
<b>LCS (P8G0169-BS1)</b>										
Prepared & Analyzed: 07/12/18										
Methylene Chloride	0.0416	0.010	mg/kg wet	0.05000		83	74-129			
Methyl-tert-Butyl Ether	0.0471	0.010	mg/kg wet	0.05000		94	70-130			
Naphthalene	0.0475	0.010	mg/kg wet	0.05000		95	57-157			
n-Butylbenzene	0.0479	0.0050	mg/kg wet	0.05000		96	65-135			
n-Propylbenzene	0.0461	0.0050	mg/kg wet	0.05000		92	67-130			
o-Xylene	0.0473	0.0050	mg/kg wet	0.05000		95	74-126			
sec-Butylbenzene	0.0473	0.0050	mg/kg wet	0.05000		95	66-131			
Styrene	0.0458	0.0050	mg/kg wet	0.05000		92	77-121			
tert-Butylbenzene	0.0478	0.0050	mg/kg wet	0.05000		96	67-132			
Tetrachloroethylene	0.0440	0.0050	mg/kg wet	0.05000		88	68-130			
Toluene	0.0456	0.0050	mg/kg wet	0.05000		91	71-129			
trans-1,2-Dichloroethylene	0.0447	0.0050	mg/kg wet	0.05000		89	73-132			
trans-1,3-Dichloropropylene	0.0504	0.0050	mg/kg wet	0.05000		101	68-123			
Trichloroethylene	0.0446	0.0050	mg/kg wet	0.05000		89	75-133			
Trichlorofluoromethane	0.0493	0.0050	mg/kg wet	0.05000		99	44-146			
Vinyl acetate	0.0514	0.025	mg/kg wet	0.05000		103	85-161			
Vinyl chloride	0.0511	0.0050	mg/kg wet	0.05000		102	48-147			
Xylenes, total	0.141	0.015	mg/kg wet	0.1500		94	74-126			
Surrogate: 4-Bromofluorobenzene	46.1		ug/L	50.00		92	70-130			
Surrogate: Dibromofluoromethane	47.6		ug/L	50.00		95	84-123			
Surrogate: Toluene-d8	47.0		ug/L	50.00		94	76-129			
<b>LCS Dup (P8G0169-BSD1)</b>										
Prepared & Analyzed: 07/12/18										
1,1,1,2-Tetrachloroethane	0.0468	0.0050	mg/kg wet	0.05000		94	72-115	1	20	
1,1,1-Trichloroethane	0.0435	0.0050	mg/kg wet	0.05000		87	67-131	6	20	
1,1,2,2-Tetrachloroethane	0.0499	0.0050	mg/kg wet	0.05000		100	56-126	4	20	
1,1,2-Trichloroethane	0.0450	0.0050	mg/kg wet	0.05000		90	70-133	0.7	20	
1,1-Dichloroethane	0.0429	0.0050	mg/kg wet	0.05000		86	74-127	2	20	
1,1-Dichloroethylene	0.0429	0.0050	mg/kg wet	0.05000		86	67-149	4	20	
1,1-Dichloropropylene	0.0444	0.0050	mg/kg wet	0.05000		89	71-130	4	20	
1,2,3-Trichlorobenzene	0.0473	0.0050	mg/kg wet	0.05000		95	68-130	3	20	
1,2,3-Trichloropropane	0.0479	0.0050	mg/kg wet	0.05000		96	60-137	3	20	
1,2,4-Trichlorobenzene	0.0478	0.0050	mg/kg wet	0.05000		96	66-125	2	20	
1,2,4-Trimethylbenzene	0.0472	0.0050	mg/kg wet	0.05000		94	69-129	1	20	
1,2-Dibromoethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-132	3	20	
1,2-Dichlorobenzene	0.0451	0.0050	mg/kg wet	0.05000		90	72-123	0.9	20	
1,2-Dichloroethane	0.0459	0.0050	mg/kg wet	0.05000		92	68-128	0.5	20	
1,2-Dichloropropane	0.0464	0.0050	mg/kg wet	0.05000		93	73-130	0.4	20	
1,3,5-Trimethylbenzene	0.0467	0.0050	mg/kg wet	0.05000		93	69-128	0.5	20	
1,3-Dichlorobenzene	0.0442	0.0050	mg/kg wet	0.05000		88	71-120	0.6	20	
1,3-Dichloropropane	0.0471	0.0050	mg/kg wet	0.05000		94	75-124	2	20	
1,4-Dichlorobenzene	0.0444	0.0050	mg/kg wet	0.05000		89	71-123	0.3	20	
2,2-Dichloropropane	0.0474	0.0050	mg/kg wet	0.05000		95	50-142	1	20	
2-Chlorotoluene	0.0444	0.0050	mg/kg wet	0.05000		89	67-124	0.2	20	
4-Chlorotoluene	0.0454	0.0050	mg/kg wet	0.05000		91	71-126	0.2	20	
4-Isopropyltoluene	0.0478	0.0050	mg/kg wet	0.05000		96	68-129	0.3	20	
Acetone	0.0775	0.050	mg/kg wet	0.1000		78	29-198	6	20	

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 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

### Volatiles 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 P8G0169 - 5035</b>										
<b>LCS Dup (P8G0169-BSD1)</b>										
Prepared & Analyzed: 07/12/18										
Benzene	0.0447	0.0030	mg/kg wet	0.05000		89	74-127	1	20	
Bromobenzene	0.0451	0.0050	mg/kg wet	0.05000		90	73-125	0.3	20	
Bromochloromethane	0.0462	0.0050	mg/kg wet	0.05000		92	72-134	0.06	20	
Bromodichloromethane	0.0469	0.0050	mg/kg wet	0.05000		94	75-122	0.2	20	
Bromoform	0.0451	0.0050	mg/kg wet	0.05000		90	66-135	0	20	
Bromomethane	0.0430	0.010	mg/kg wet	0.05000		86	20-180	4	20	
Carbon Tetrachloride	0.0460	0.0050	mg/kg wet	0.05000		92	64-143	3	20	
Chlorobenzene	0.0435	0.0050	mg/kg wet	0.05000		87	74-118	2	20	
Chloroethane	0.0453	0.010	mg/kg wet	0.05000		91	33-149	5	20	
Chloroform	0.0456	0.0050	mg/kg wet	0.05000		91	73-127	0.7	20	
Chloromethane	0.0426	0.0050	mg/kg wet	0.05000		85	45-143	2	20	
cis-1,2-Dichloroethylene	0.0447	0.0050	mg/kg wet	0.05000		89	76-134	0.3	20	
cis-1,3-Dichloropropylene	0.0496	0.0050	mg/kg wet	0.05000		99	71-125	1	20	
Dibromochloromethane	0.0459	0.0050	mg/kg wet	0.05000		92	73-122	0.04	20	
Dichlorodifluoromethane	0.0400	0.0050	mg/kg wet	0.05000		80	26-146	4	20	
Ethylbenzene	0.0449	0.0050	mg/kg wet	0.05000		90	74-128	2	20	
Isopropyl Ether	0.0448	0.0050	mg/kg wet	0.05000		90	59-159	0.8	20	
Isopropylbenzene (Cumene)	0.0472	0.0050	mg/kg wet	0.05000		94	68-126	0.4	20	
m,p-Xylenes	0.0914	0.010	mg/kg wet	0.1000		91	75-124	2	20	
Methyl Butyl Ketone (2-Hexanone)	0.0434	0.050	mg/kg wet	0.05000		87	61-157	5	20	J
Methyl Ethyl Ketone (2-Butanone)	0.0370	0.10	mg/kg wet	0.05000		74	63-149	1	20	J
Methyl Isobutyl Ketone	0.0451	0.050	mg/kg wet	0.05000		90	57-162	6	20	J
Methylene Chloride	0.0414	0.010	mg/kg wet	0.05000		83	74-129	0.5	20	
Methyl-tert-Butyl Ether	0.0480	0.010	mg/kg wet	0.05000		96	70-130	2	20	
Naphthalene	0.0502	0.010	mg/kg wet	0.05000		100	57-157	6	20	
n-Butylbenzene	0.0470	0.0050	mg/kg wet	0.05000		94	65-135	2	20	
n-Propylbenzene	0.0460	0.0050	mg/kg wet	0.05000		92	67-130	0.2	20	
o-Xylene	0.0465	0.0050	mg/kg wet	0.05000		93	74-126	2	20	
sec-Butylbenzene	0.0469	0.0050	mg/kg wet	0.05000		94	66-131	0.9	20	
Styrene	0.0456	0.0050	mg/kg wet	0.05000		91	77-121	0.4	20	
tert-Butylbenzene	0.0473	0.0050	mg/kg wet	0.05000		95	67-132	1	20	
Tetrachloroethylene	0.0429	0.0050	mg/kg wet	0.05000		86	68-130	3	20	
Toluene	0.0450	0.0050	mg/kg wet	0.05000		90	71-129	1	20	
trans-1,2-Dichloroethylene	0.0439	0.0050	mg/kg wet	0.05000		88	73-132	2	20	
trans-1,3-Dichloropropylene	0.0513	0.0050	mg/kg wet	0.05000		103	68-123	2	20	
Trichloroethylene	0.0430	0.0050	mg/kg wet	0.05000		86	75-133	3	20	
Trichlorofluoromethane	0.0472	0.0050	mg/kg wet	0.05000		94	44-146	4	20	
Vinyl acetate	0.0553	0.025	mg/kg wet	0.05000		111	85-161	7	20	
Vinyl chloride	0.0486	0.0050	mg/kg wet	0.05000		97	48-147	5	20	
Xylenes, total	0.138	0.015	mg/kg wet	0.1500		92	74-126	2	20	
Surrogate: 4-Bromofluorobenzene	46.6		ug/L	50.00		93	70-130			
Surrogate: Dibromofluoromethane	47.4		ug/L	50.00		95	84-123			
Surrogate: Toluene-d8	46.3		ug/L	50.00		93	76-129			

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 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0186 - 5030B</b>										
<b>Blank (P8G0186-BLK1)</b>										
Prepared & Analyzed: 07/13/18										
1,1,1,2-Tetrachloroethane	BRL	0.50	ug/L							
1,1,1-Trichloroethane	BRL	0.50	ug/L							
1,1,2,2-Tetrachloroethane	BRL	0.50	ug/L							
1,1,2-Trichloroethane	BRL	0.50	ug/L							
1,1-Dichloroethane	BRL	0.50	ug/L							
1,1-Dichloroethylene	BRL	0.50	ug/L							
1,1-Dichloropropylene	BRL	0.50	ug/L							
1,2,3-Trichlorobenzene	BRL	2.0	ug/L							
1,2,3-Trichloropropane	BRL	1.0	ug/L							
1,2,4-Trichlorobenzene	BRL	1.0	ug/L							
1,2,4-Trimethylbenzene	BRL	0.50	ug/L							
1,2-Dibromo-3-chloropropane	BRL	2.0	ug/L							
1,2-Dibromoethane	BRL	0.50	ug/L							
1,2-Dichlorobenzene	BRL	0.50	ug/L							
1,2-Dichloroethane	BRL	0.50	ug/L							
1,2-Dichloropropane	BRL	0.50	ug/L							
1,3,5-Trimethylbenzene	BRL	0.50	ug/L							
1,3-Dichlorobenzene	BRL	0.50	ug/L							
1,3-Dichloropropane	BRL	0.50	ug/L							
1,4-Dichlorobenzene	BRL	0.50	ug/L							
2,2-Dichloropropane	BRL	2.0	ug/L							
2-Chlorotoluene	BRL	0.50	ug/L							
4-Chlorotoluene	BRL	0.50	ug/L							
4-Isopropyltoluene	BRL	0.50	ug/L							
Acetone	BRL	5.0	ug/L							
Acrolein	BRL	20	ug/L							
Acrylonitrile	BRL	20	ug/L							
Benzene	BRL	0.50	ug/L							
Bromobenzene	BRL	0.50	ug/L							
Bromochloromethane	BRL	0.50	ug/L							
Bromodichloromethane	BRL	0.50	ug/L							
Bromoform	BRL	1.0	ug/L							
Bromomethane	BRL	1.0	ug/L							
Carbon disulfide	BRL	5.0	ug/L							
Carbon Tetrachloride	BRL	0.50	ug/L							
Chlorobenzene	BRL	0.50	ug/L							
Chloroethane	BRL	0.50	ug/L							
Chloroform	BRL	0.50	ug/L							
Chloromethane	BRL	0.50	ug/L							
cis-1,2-Dichloroethylene	BRL	0.50	ug/L							
cis-1,3-Dichloropropylene	BRL	0.50	ug/L							
Dibromochloromethane	BRL	0.50	ug/L							
Dibromomethane	BRL	0.50	ug/L							
Dichlorodifluoromethane	BRL	1.0	ug/L							
Ethylbenzene	BRL	0.50	ug/L							
Hexachlorobutadiene	BRL	2.0	ug/L							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0186 - 5030B</b>										
<b>Blank (P8G0186-BLK1)</b>										
Prepared & Analyzed: 07/13/18										
Isopropyl Ether	BRL	0.50	ug/L							
Isopropylbenzene (Cumene)	BRL	0.50	ug/L							
m,p-Xylenes	BRL	1.0	ug/L							
Methyl Butyl Ketone (2-Hexanone)	BRL	5.0	ug/L							
Methyl Ethyl Ketone (2-Butanone)	BRL	5.0	ug/L							
Methyl Isobutyl Ketone	BRL	5.0	ug/L							
Methylene Chloride	BRL	1.0	ug/L							
Methyl-tert-Butyl Ether	BRL	0.50	ug/L							
Naphthalene	BRL	1.0	ug/L							
n-Butylbenzene	BRL	1.0	ug/L							
n-Propylbenzene	BRL	0.50	ug/L							
o-Xylene	BRL	0.50	ug/L							
sec-Butylbenzene	BRL	0.50	ug/L							
Styrene	BRL	0.50	ug/L							
tert-Butylbenzene	BRL	0.50	ug/L							
Tetrachloroethylene	BRL	0.50	ug/L							
Toluene	BRL	0.50	ug/L							
trans-1,2-Dichloroethylene	BRL	0.50	ug/L							
trans-1,3-Dichloropropylene	BRL	0.50	ug/L							
Trichloroethylene	BRL	0.50	ug/L							
Trichlorofluoromethane	BRL	0.50	ug/L							
Vinyl acetate	BRL	2.0	ug/L							
Vinyl chloride	BRL	0.50	ug/L							
Xylenes, total	BRL	1.5	ug/L							
Heptane	0.00		ug/L							
Surrogate: 4-Bromofluorobenzene	49.9		ug/L	50.00		100	80-124			
Surrogate: Dibromofluoromethane	46.4		ug/L	50.00		93	75-129			
Surrogate: Toluene-d8	46.8		ug/L	50.00		94	77-123			



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### Volatiles 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 P8G0186 - 5030B</b>										
<b>LCS (P8G0186-BS1)</b>										
Prepared & Analyzed: 07/13/18										
1,1,1,2-Tetrachloroethane	20.2	0.50	ug/L	20.00		101	79-134			
1,1,1-Trichloroethane	19.8	0.50	ug/L	20.00		99	75-136			
1,1,2,2-Tetrachloroethane	21.4	0.50	ug/L	20.00		107	62-127			
1,1,2-Trichloroethane	21.9	0.50	ug/L	20.00		110	70-140			
1,1-Dichloroethane	20.8	0.50	ug/L	20.00		104	78-130			
1,1-Dichloroethylene	20.5	0.50	ug/L	20.00		102	70-154			
1,1-Dichloropropylene	20.3	0.50	ug/L	20.00		102	71-136			
1,2,3-Trichlorobenzene	20.7	2.0	ug/L	20.00		103	58-144			
1,2,3-Trichloropropane	21.8	1.0	ug/L	20.00		109	71-127			
1,2,4-Trichlorobenzene	21.4	1.0	ug/L	20.00		107	66-139			
1,2,4-Trimethylbenzene	22.4	0.50	ug/L	20.00		112	75-133			
1,2-Dibromo-3-chloropropane	18.4	2.0	ug/L	20.00		92	63-134			
1,2-Dibromoethane	21.7	0.50	ug/L	20.00		108	77-135			
1,2-Dichlorobenzene	20.8	0.50	ug/L	20.00		104	78-128			
1,2-Dichloroethane	21.1	0.50	ug/L	20.00		105	68-131			
1,2-Dichloropropane	21.6	0.50	ug/L	20.00		108	77-130			
1,3,5-Trimethylbenzene	21.9	0.50	ug/L	20.00		110	75-131			
1,3-Dichlorobenzene	20.6	0.50	ug/L	20.00		103	77-125			
1,3-Dichloropropane	22.0	0.50	ug/L	20.00		110	76-132			
1,4-Dichlorobenzene	20.6	0.50	ug/L	20.00		103	75-126			
2,2-Dichloropropane	22.8	2.0	ug/L	20.00		114	29-149			
2-Chlorotoluene	21.1	0.50	ug/L	20.00		105	74-126			
4-Chlorotoluene	21.0	0.50	ug/L	20.00		105	78-129			
4-Isopropyltoluene	22.8	0.50	ug/L	20.00		114	69-132			
Acetone	41.7	5.0	ug/L	40.00		104	40-166			
Acrolein	37.2	20	ug/L	40.00		93	70-130			
Acrylonitrile	42.0	20	ug/L	40.00		105	81-127			
Benzene	22.2	0.50	ug/L	20.00		111	77-128			
Bromobenzene	21.2	0.50	ug/L	20.00		106	78-129			
Bromochloromethane	22.4	0.50	ug/L	20.00		112	78-135			
Bromodichloromethane	22.2	0.50	ug/L	20.00		111	76-138			
Bromoform	18.5	1.0	ug/L	20.00		93	71-135			
Bromomethane	14.8	1.0	ug/L	20.00		74	41-168			
Carbon disulfide	22.8	5.0	ug/L	20.00		114	59-135			
Carbon Tetrachloride	19.9	0.50	ug/L	20.00		100	72-142			
Chlorobenzene	21.4	0.50	ug/L	20.00		107	78-119			
Chloroethane	17.3	0.50	ug/L	20.00		87	57-142			
Chloroform	21.3	0.50	ug/L	20.00		106	77-130			
Chloromethane	13.8	0.50	ug/L	20.00		69	47-145			
cis-1,2-Dichloroethylene	21.5	0.50	ug/L	20.00		108	76-141			
cis-1,3-Dichloropropylene	20.8	0.50	ug/L	20.00		104	65-140			
Dibromochloromethane	19.2	0.50	ug/L	20.00		96	75-134			
Dibromomethane	21.7	0.50	ug/L	20.00		109	76-138			
Dichlorodifluoromethane	17.0	1.0	ug/L	20.00		85	28-163			
Ethylbenzene	22.4	0.50	ug/L	20.00		112	80-127			
Hexachlorobutadiene	21.4	2.0	ug/L	20.00		107	61-134			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0186 - 5030B</b>										
<b>LCS (P8G0186-BS1)</b>										
Prepared & Analyzed: 07/13/18										
Isopropyl Ether	21.8	0.50	ug/L	20.00		109	60-154			
Isopropylbenzene (Cumene)	22.4	0.50	ug/L	20.00		112	70-130			
m,p-Xylenes	46.5	1.0	ug/L	40.00		116	77-133			
Methyl Butyl Ketone (2-Hexanone)	20.6	5.0	ug/L	20.00		103	64-137			
Methyl Ethyl Ketone (2-Butanone)	21.0	5.0	ug/L	20.00		105	71-134			
Methyl Isobutyl Ketone	22.6	5.0	ug/L	20.00		113	69-134			
Methylene Chloride	19.8	1.0	ug/L	20.00		99	73-131			
Methyl-tert-Butyl Ether	22.2	0.50	ug/L	20.00		111	68-135			
Naphthalene	19.2	1.0	ug/L	20.00		96	64-136			
n-Butylbenzene	22.6	1.0	ug/L	20.00		113	68-134			
n-Propylbenzene	22.7	0.50	ug/L	20.00		113	72-132			
o-Xylene	22.3	0.50	ug/L	20.00		112	78-128			
sec-Butylbenzene	22.5	0.50	ug/L	20.00		113	71-131			
Styrene	22.5	0.50	ug/L	20.00		113	78-129			
tert-Butylbenzene	22.1	0.50	ug/L	20.00		110	70-132			
Tetrachloroethylene	19.6	0.50	ug/L	20.00		98	80-129			
Toluene	22.6	0.50	ug/L	20.00		113	76-131			
trans-1,2-Dichloroethylene	21.9	0.50	ug/L	20.00		109	76-135			
trans-1,3-Dichloropropylene	21.1	0.50	ug/L	20.00		105	67-140			
Trichloroethylene	22.2	0.50	ug/L	20.00		111	77-133			
Trichlorofluoromethane	22.0	0.50	ug/L	20.00		110	62-148			
Vinyl acetate	22.3	2.0	ug/L	20.00		112	34-167			
Vinyl chloride	20.3	0.50	ug/L	20.00		101	57-141			
Xylenes, total	68.8	1.5	ug/L	60.00		115	77-133			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.00		97	80-124			
Surrogate: Dibromofluoromethane	48.2		ug/L	50.00		96	75-129			
Surrogate: Toluene-d8	47.7		ug/L	50.00		95	77-123			



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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0186 - 5030B</b>										
<b>LCS Dup (P8G0186-BSD1)</b>										
				Prepared & Analyzed: 07/13/18						
1,1,1,2-Tetrachloroethane	20.2	0.50	ug/L	20.00		101	79-134	0.4	20	
1,1,1-Trichloroethane	19.8	0.50	ug/L	20.00		99	75-136	0.2	20	
1,1,2,2-Tetrachloroethane	21.0	0.50	ug/L	20.00		105	62-127	2	20	
1,1,2-Trichloroethane	22.1	0.50	ug/L	20.00		110	70-140	0.7	20	
1,1-Dichloroethane	20.7	0.50	ug/L	20.00		103	78-130	0.8	20	
1,1-Dichloroethylene	20.5	0.50	ug/L	20.00		102	70-154	0.1	20	
1,1-Dichloropropylene	20.3	0.50	ug/L	20.00		101	71-136	0.2	20	
1,2,3-Trichlorobenzene	19.1	2.0	ug/L	20.00		95	58-144	8	20	
1,2,3-Trichloropropane	21.0	1.0	ug/L	20.00		105	71-127	4	20	
1,2,4-Trichlorobenzene	20.4	1.0	ug/L	20.00		102	66-139	5	20	
1,2,4-Trimethylbenzene	21.8	0.50	ug/L	20.00		109	75-133	3	20	
1,2-Dibromo-3-chloropropane	17.4	2.0	ug/L	20.00		87	63-134	5	20	
1,2-Dibromoethane	21.3	0.50	ug/L	20.00		106	77-135	2	20	
1,2-Dichlorobenzene	20.7	0.50	ug/L	20.00		103	78-128	0.7	20	
1,2-Dichloroethane	20.8	0.50	ug/L	20.00		104	68-131	1	20	
1,2-Dichloropropane	21.6	0.50	ug/L	20.00		108	77-130	0.05	20	
1,3,5-Trimethylbenzene	21.8	0.50	ug/L	20.00		109	75-131	0.6	20	
1,3-Dichlorobenzene	20.4	0.50	ug/L	20.00		102	77-125	1	20	
1,3-Dichloropropane	21.6	0.50	ug/L	20.00		108	76-132	2	20	
1,4-Dichlorobenzene	20.3	0.50	ug/L	20.00		102	75-126	2	20	
2,2-Dichloropropane	22.8	2.0	ug/L	20.00		114	29-149	0.2	20	
2-Chlorotoluene	20.8	0.50	ug/L	20.00		104	74-126	2	20	
4-Chlorotoluene	20.8	0.50	ug/L	20.00		104	78-129	0.8	20	
4-Isopropyltoluene	22.4	0.50	ug/L	20.00		112	69-132	1	20	
Acetone	39.6	5.0	ug/L	40.00		99	40-166	5	20	
Acrolein	37.6	20	ug/L	40.00		94	70-130	1	20	
Acrylonitrile	40.5	20	ug/L	40.00		101	81-127	3	20	
Benzene	22.1	0.50	ug/L	20.00		111	77-128	0.3	20	
Bromobenzene	20.8	0.50	ug/L	20.00		104	78-129	2	20	
Bromochloromethane	22.7	0.50	ug/L	20.00		113	78-135	1	20	
Bromodichloromethane	22.2	0.50	ug/L	20.00		111	76-138	0.09	20	
Bromoform	18.4	1.0	ug/L	20.00		92	71-135	0.4	20	
Bromomethane	15.5	1.0	ug/L	20.00		78	41-168	5	20	
Carbon disulfide	22.4	5.0	ug/L	20.00		112	59-135	2	20	
Carbon Tetrachloride	19.8	0.50	ug/L	20.00		99	72-142	0.7	20	
Chlorobenzene	21.2	0.50	ug/L	20.00		106	78-119	1	20	
Chloroethane	17.4	0.50	ug/L	20.00		87	57-142	0.5	20	
Chloroform	21.5	0.50	ug/L	20.00		108	77-130	1	20	
Chloromethane	17.2	0.50	ug/L	20.00		86	47-145	22	20	D
cis-1,2-Dichloroethylene	21.3	0.50	ug/L	20.00		106	76-141	1	20	
cis-1,3-Dichloropropylene	20.7	0.50	ug/L	20.00		104	65-140	0.2	20	
Dibromochloromethane	19.0	0.50	ug/L	20.00		95	75-134	0.9	20	
Dibromomethane	21.7	0.50	ug/L	20.00		109	76-138	0.05	20	
Dichlorodifluoromethane	16.8	1.0	ug/L	20.00		84	28-163	1	20	
Ethylbenzene	22.1	0.50	ug/L	20.00		110	80-127	1	20	
Hexachlorobutadiene	20.1	2.0	ug/L	20.00		100	61-134	6	20	

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 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0186 - 5030B</b>										
<b>LCS Dup (P8G0186-BSD1)</b>										
Prepared & Analyzed: 07/13/18										
Isopropyl Ether	21.5	0.50	ug/L	20.00		108	60-154	1	20	
Isopropylbenzene (Cumene)	22.2	0.50	ug/L	20.00		111	70-130	0.9	20	
m,p-Xylenes	46.6	1.0	ug/L	40.00		116	77-133	0.09	20	
Methyl Butyl Ketone (2-Hexanone)	19.0	5.0	ug/L	20.00		95	64-137	8	20	
Methyl Ethyl Ketone (2-Butanone)	21.0	5.0	ug/L	20.00		105	71-134	0	20	
Methyl Isobutyl Ketone	21.6	5.0	ug/L	20.00		108	69-134	4	20	
Methylene Chloride	20.2	1.0	ug/L	20.00		101	73-131	2	20	
Methyl-tert-Butyl Ether	21.8	0.50	ug/L	20.00		109	68-135	2	20	
Naphthalene	18.1	1.0	ug/L	20.00		91	64-136	6	20	
n-Butylbenzene	22.0	1.0	ug/L	20.00		110	68-134	3	20	
n-Propylbenzene	22.2	0.50	ug/L	20.00		111	72-132	2	20	
o-Xylene	22.3	0.50	ug/L	20.00		112	78-128	0.09	20	
sec-Butylbenzene	22.2	0.50	ug/L	20.00		111	71-131	2	20	
Styrene	22.2	0.50	ug/L	20.00		111	78-129	1	20	
tert-Butylbenzene	21.6	0.50	ug/L	20.00		108	70-132	2	20	
Tetrachloroethylene	19.2	0.50	ug/L	20.00		96	80-129	2	20	
Toluene	22.5	0.50	ug/L	20.00		113	76-131	0.4	20	
trans-1,2-Dichloroethylene	21.9	0.50	ug/L	20.00		109	76-135	0.09	20	
trans-1,3-Dichloropropylene	21.0	0.50	ug/L	20.00		105	67-140	0.4	20	
Trichloroethylene	22.3	0.50	ug/L	20.00		112	77-133	0.5	20	
Trichlorofluoromethane	22.1	0.50	ug/L	20.00		111	62-148	0.5	20	
Vinyl acetate	22.0	2.0	ug/L	20.00		110	34-167	1	20	
Vinyl chloride	20.3	0.50	ug/L	20.00		101	57-141	0	20	
Xylenes, total	68.8	1.5	ug/L	60.00		115	77-133	0.03	20	
Surrogate: 4-Bromofluorobenzene	49.0		ug/L	50.00		98	80-124			
Surrogate: Dibromofluoromethane	47.2		ug/L	50.00		94	75-129			
Surrogate: Toluene-d8	48.1		ug/L	50.00		96	77-123			



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 Time Submitted: 7/11/2018 12:00:00PM

### 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 P8G0124 - 3510C MS</b>										
<b>Blank (P8G0124-BLK1)</b>				Prepared & Analyzed: 07/11/18						
1,2,4-Trichlorobenzene	BRL	10	ug/L							
1,2-Dichlorobenzene	BRL	10	ug/L							
1,3-Dichlorobenzene	BRL	10	ug/L							
1,4-Dichlorobenzene	BRL	10	ug/L							
1-Methylnaphthalene	BRL	10	ug/L							
2,4,5-Trichlorophenol	BRL	10	ug/L							
2,4,6-Trichlorophenol	BRL	10	ug/L							
2,4-Dichlorophenol	BRL	10	ug/L							
2,4-Dimethylphenol	BRL	10	ug/L							
2,4-Dinitrophenol	BRL	10	ug/L							
2,4-Dinitrotoluene	BRL	10	ug/L							
2,6-Dinitrotoluene	BRL	10	ug/L							
2-Chloronaphthalene	BRL	10	ug/L							
2-Chlorophenol	BRL	10	ug/L							
2-Methylnaphthalene	BRL	10	ug/L							
2-Methylphenol	BRL	10	ug/L							
2-Nitroaniline	BRL	10	ug/L							
2-Nitrophenol	BRL	10	ug/L							
3,3'-Dichlorobenzidine	BRL	10	ug/L							
3/4-Methylphenol	BRL	10	ug/L							
3-Nitroaniline	BRL	10	ug/L							
4,6-Dinitro-2-methylphenol	BRL	10	ug/L							
4-Bromophenyl phenyl ether	BRL	10	ug/L							
4-Chloro-3-methylphenol	BRL	10	ug/L							
4-Chloroaniline	BRL	10	ug/L							
4-Chlorophenyl phenyl ether	BRL	10	ug/L							
4-Nitroaniline	BRL	10	ug/L							
4-Nitrophenol	BRL	10	ug/L							
Acenaphthene	BRL	10	ug/L							
Acenaphthylene	BRL	10	ug/L							
Aniline	BRL	10	ug/L							
Anthracene	BRL	10	ug/L							
Azobenzene	BRL	10	ug/L							
Benzo(a)anthracene	BRL	10	ug/L							
Benzo(a)pyrene	BRL	10	ug/L							
Benzo(b)fluoranthene	BRL	10	ug/L							
Benzo(g,h,i)perylene	BRL	10	ug/L							
Benzo(k)fluoranthene	BRL	10	ug/L							
Benzoic Acid	BRL	100	ug/L							
Benzyl alcohol	BRL	10	ug/L							
bis(2-Chloroethoxy)methane	BRL	10	ug/L							
Bis(2-Chloroethyl)ether	BRL	10	ug/L							
Bis(2-chloroisopropyl)ether	BRL	10	ug/L							
Bis(2-Ethylhexyl)phthalate	BRL	10	ug/L							
Butyl benzyl phthalate	BRL	10	ug/L							
Chrysene	BRL	10	ug/L							

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## 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 P8G0124 - 3510C MS</b>										
<b>Blank (P8G0124-BLK1)</b>										
Prepared & Analyzed: 07/11/18										
Dibenzo(a,h)anthracene	BRL	10	ug/L							
Dibenzofuran	BRL	10	ug/L							
Diethyl phthalate	BRL	10	ug/L							
Dimethyl phthalate	BRL	10	ug/L							
Di-n-butyl phthalate	BRL	10	ug/L							
Di-n-octyl phthalate	BRL	10	ug/L							
Fluoranthene	BRL	10	ug/L							
Fluorene	BRL	10	ug/L							
Hexachlorobenzene	BRL	10	ug/L							
Hexachlorobutadiene	BRL	10	ug/L							
Hexachlorocyclopentadiene	BRL	10	ug/L							
Hexachloroethane	BRL	10	ug/L							
Indeno(1,2,3-cd)pyrene	BRL	10	ug/L							
Isophorone	BRL	10	ug/L							
Naphthalene	BRL	10	ug/L							
Nitrobenzene	BRL	10	ug/L							
N-Nitroso-di-n-propylamine	BRL	10	ug/L							
N-Nitrosodiphenylamine	BRL	10	ug/L							
Pentachlorophenol	BRL	10	ug/L							
Phenanthrene	BRL	10	ug/L							
Phenol	BRL	10	ug/L							
Pyrene	BRL	10	ug/L							
Surrogate: 2,4,6-Tribromophenol	70.4		ug/L	100.0		70	43-140			
Surrogate: 2-Fluorobiphenyl	36.5		ug/L	50.00		73	44-119			
Surrogate: 2-Fluorophenol	45.6		ug/L	100.0		46	19-119			
Surrogate: Nitrobenzene-d5	34.5		ug/L	50.00		69	44-120			
Surrogate: Phenol-d5	29.9		ug/L	100.0		30	11-52			
Surrogate: Terphenyl-d14	35.8		ug/L	50.00		72	50-134			





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### 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 P8G0124 - 3510C MS</b>										
<b>LCS (P8G0124-BS1)</b>				Prepared & Analyzed: 07/11/18						
1,2,4-Trichlorobenzene	28.0	10	ug/L	50.00		56	29-126			
1,2-Dichlorobenzene	26.1	10	ug/L	50.00		52	32-111			
1,3-Dichlorobenzene	24.4	10	ug/L	50.00		49	28-110			
1,4-Dichlorobenzene	25.2	10	ug/L	50.00		50	29-112			
1-Methylnaphthalene	35.4	10	ug/L	50.00		71	41-119			
2,4,5-Trichlorophenol	38.5	10	ug/L	50.00		77	53-123			
2,4,6-Trichlorophenol	36.4	10	ug/L	50.00		73	50-125			
2,4-Dichlorophenol	34.6	10	ug/L	50.00		69	47-121			
2,4-Dimethylphenol	45.8	10	ug/L	50.00		92	31-124			
2,4-Dinitrophenol	33.4	10	ug/L	50.00		67	23-143			
2,4-Dinitrotoluene	38.6	10	ug/L	50.00		77	57-128			
2,6-Dinitrotoluene	38.6	10	ug/L	50.00		77	57-124			
2-Chloronaphthalene	35.0	10	ug/L	50.00		70	40-116			
2-Chlorophenol	33.0	10	ug/L	50.00		66	38-117			
2-Methylnaphthalene	33.2	10	ug/L	50.00		66	40-121			
2-Methylphenol	31.3	10	ug/L	50.00		63	30-117			
2-Nitroaniline	39.1	10	ug/L	50.00		78	55-127			
2-Nitrophenol	33.7	10	ug/L	50.00		67	47-123			
3,3'-Dichlorobenzidine	44.3	10	ug/L	50.00		89	27-129			
3/4-Methylphenol	25.9	10	ug/L	50.00		52	29-110			
3-Nitroaniline	40.2	10	ug/L	50.00		80	41-128			
4,6-Dinitro-2-methylphenol	34.0	10	ug/L	50.00		68	44-137			
4-Bromophenyl phenyl ether	39.2	10	ug/L	50.00		78	55-124			
4-Chloro-3-methylphenol	34.8	10	ug/L	50.00		70	52-119			
4-Chloroaniline	44.1	10	ug/L	50.00		88	33-117			
4-Chlorophenyl phenyl ether	37.6	10	ug/L	50.00		75	53-121			
4-Nitroaniline	37.7	10	ug/L	50.00		75	45-135			
4-Nitrophenol	13.9	10	ug/L	50.00		28	10-77			
Acenaphthene	37.4	10	ug/L	50.00		75	47-122			
Acenaphthylene	38.6	10	ug/L	50.00		77	41-130			
Aniline	83.8	10	ug/L	50.00		168	12-197			
Anthracene	43.0	10	ug/L	50.00		86	57-123			
Azobenzene	37.8	10	ug/L	50.00		76	61-116			
Benzo(a)anthracene	39.7	10	ug/L	50.00		79	58-125			
Benzo(a)pyrene	37.9	10	ug/L	50.00		76	54-128			
Benzo(b)fluoranthene	34.1	10	ug/L	50.00		68	53-131			
Benzo(g,h,i)perylene	36.1	10	ug/L	50.00		72	50-134			
Benzo(k)fluoranthene	38.3	10	ug/L	50.00		77	57-129			
Benzoic Acid	BRL	100	ug/L	50.00			10-125			L
Benzyl alcohol	32.5	10	ug/L	50.00		65	31-112			
bis(2-Chloroethoxy)methane	39.6	10	ug/L	50.00		79	48-120			
Bis(2-Chloroethyl)ether	33.4	10	ug/L	50.00		67	43-118			
Bis(2-chloroisopropyl)ether	36.2	10	ug/L	50.00		72	37-130			
Bis(2-Ethylhexyl)phthalate	40.4	10	ug/L	50.00		81	55-135			
Butyl benzyl phthalate	39.0	10	ug/L	50.00		78	53-134			
Chrysene	39.4	10	ug/L	50.00		79	59-123			

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

### 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 P8G0124 - 3510C MS</b>										
<b>LCS (P8G0124-BS1)</b>				Prepared & Analyzed: 07/11/18						
Dibenzo(a,h)anthracene	34.4	10	ug/L	50.00		69	51-134			
Dibenzofuran	38.1	10	ug/L	50.00		76	53-118			
Diethyl phthalate	39.5	10	ug/L	50.00		79	56-125			
Dimethyl phthalate	38.5	10	ug/L	50.00		77	45-127			
Di-n-butyl phthalate	40.6	10	ug/L	50.00		81	59-127			
Di-n-octyl phthalate	39.5	10	ug/L	50.00		79	51-140			
Fluoranthene	40.2	10	ug/L	50.00		80	57-128			
Fluorene	40.1	10	ug/L	50.00		80	52-124			
Hexachlorobenzene	38.4	10	ug/L	50.00		77	53-125			
Hexachlorobutadiene	26.6	10	ug/L	50.00		53	22-124			
Hexachlorocyclopentadiene	30.6	10	ug/L	50.00		61	32-117			
Hexachloroethane	23.6	10	ug/L	50.00		47	21-115			
Indeno(1,2,3-cd)pyrene	42.7	10	ug/L	50.00		85	52-134			
Isophorone	41.2	10	ug/L	50.00		82	42-124			
Naphthalene	33.0	10	ug/L	50.00		66	40-121			
Nitrobenzene	35.4	10	ug/L	50.00		71	45-121			
N-Nitroso-di-n-propylamine	35.9	10	ug/L	50.00		72	49-119			
N-Nitrosodiphenylamine	47.1	10	ug/L	50.00		94	51-123			
Pentachlorophenol	41.8	10	ug/L	50.00		84	35-138			
Phenanthrene	40.4	10	ug/L	50.00		81	59-120			
Phenol	17.3	10	ug/L	50.00		35	12-58			
Pyrene	39.9	10	ug/L	50.00		80	57-126			
Surrogate: 2,4,6-Tribromophenol	73.7		ug/L	100.0		74	43-140			
Surrogate: 2-Fluorobiphenyl	36.2		ug/L	50.00		72	44-119			
Surrogate: 2-Fluorophenol	42.8		ug/L	100.0		43	19-119			
Surrogate: Nitrobenzene-d5	34.6		ug/L	50.00		69	44-120			
Surrogate: Phenol-d5	28.3		ug/L	100.0		28	11-52			
Surrogate: Terphenyl-d14	36.7		ug/L	50.00		73	50-134			



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 Time Submitted: 7/11/2018 12:00:00PM

## 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 P8G0124 - 3510C MS</b>										
<b>LCS Dup (P8G0124-BSD1)</b>				Prepared & Analyzed: 07/11/18						
1,2,4-Trichlorobenzene	27.5	10	ug/L	50.00	55	29-126	2	20		
1,2-Dichlorobenzene	26.1	10	ug/L	50.00	52	32-111	0.1	20		
1,3-Dichlorobenzene	24.5	10	ug/L	50.00	49	28-110	0.5	20		
1,4-Dichlorobenzene	25.0	10	ug/L	50.00	50	29-112	0.8	20		
1-Methylnaphthalene	35.3	10	ug/L	50.00	71	41-119	0.3	20		
2,4,5-Trichlorophenol	38.4	10	ug/L	50.00	77	53-123	0.2	20		
2,4,6-Trichlorophenol	36.8	10	ug/L	50.00	74	50-125	1	20		
2,4-Dichlorophenol	34.4	10	ug/L	50.00	69	47-121	0.6	20		
2,4-Dimethylphenol	46.8	10	ug/L	50.00	94	31-124	2	20		
2,4-Dinitrophenol	30.5	10	ug/L	50.00	61	23-143	9	20		
2,4-Dinitrotoluene	38.4	10	ug/L	50.00	77	57-128	0.3	20		
2,6-Dinitrotoluene	38.4	10	ug/L	50.00	77	57-124	0.3	20		
2-Chloronaphthalene	34.8	10	ug/L	50.00	70	40-116	0.4	20		
2-Chlorophenol	33.7	10	ug/L	50.00	67	38-117	2	20		
2-Methylnaphthalene	33.2	10	ug/L	50.00	66	40-121	0.09	20		
2-Methylphenol	32.3	10	ug/L	50.00	65	30-117	3	20		
2-Nitroaniline	38.5	10	ug/L	50.00	77	55-127	1	20		
2-Nitrophenol	34.0	10	ug/L	50.00	68	47-123	0.8	20		
3,3'-Dichlorobenzidine	44.7	10	ug/L	50.00	89	27-129	0.8	20		
3/4-Methylphenol	26.4	10	ug/L	50.00	53	29-110	2	20		
3-Nitroaniline	40.3	10	ug/L	50.00	81	41-128	0.2	20		
4,6-Dinitro-2-methylphenol	33.9	10	ug/L	50.00	68	44-137	0.1	20		
4-Bromophenyl phenyl ether	39.1	10	ug/L	50.00	78	55-124	0.4	20		
4-Chloro-3-methylphenol	35.1	10	ug/L	50.00	70	52-119	1	20		
4-Chloroaniline	44.4	10	ug/L	50.00	89	33-117	0.7	20		
4-Chlorophenyl phenyl ether	37.0	10	ug/L	50.00	74	53-121	2	20		
4-Nitroaniline	38.6	10	ug/L	50.00	77	45-135	2	20		
4-Nitrophenol	13.8	10	ug/L	50.00	28	10-77	0.6	20		
Acenaphthene	37.1	10	ug/L	50.00	74	47-122	0.8	20		
Acenaphthylene	38.4	10	ug/L	50.00	77	41-130	0.6	20		
Aniline	85.0	10	ug/L	50.00	170	12-197	1	20		
Anthracene	43.6	10	ug/L	50.00	87	57-123	1	20		
Azobenzene	38.1	10	ug/L	50.00	76	61-116	0.8	20		
Benzo(a)anthracene	39.8	10	ug/L	50.00	80	58-125	0.3	20		
Benzo(a)pyrene	36.7	10	ug/L	50.00	73	54-128	3	20		
Benzo(b)fluoranthene	36.2	10	ug/L	50.00	72	53-131	6	20		
Benzo(g,h,i)perylene	36.3	10	ug/L	50.00	73	50-134	0.5	20		
Benzo(k)fluoranthene	34.5	10	ug/L	50.00	69	57-129	11	20		
Benzoic Acid	BRL	100	ug/L	50.00		10-125		20		L
Benzyl alcohol	33.4	10	ug/L	50.00	67	31-112	3	20		
bis(2-Chloroethoxy)methane	39.0	10	ug/L	50.00	78	48-120	1	20		
Bis(2-Chloroethyl)ether	33.3	10	ug/L	50.00	67	43-118	0.3	20		
Bis(2-chloroisopropyl)ether	35.9	10	ug/L	50.00	72	37-130	0.9	20		
Bis(2-Ethylhexyl)phthalate	39.7	10	ug/L	50.00	79	55-135	2	20		
Butyl benzyl phthalate	38.7	10	ug/L	50.00	77	53-134	1	20		
Chrysene	39.6	10	ug/L	50.00	79	59-123	0.6	20		

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
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 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

## 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 P8G0124 - 3510C MS</b>										
<b>LCS Dup (P8G0124-BSD1)</b>										
Prepared & Analyzed: 07/11/18										
Dibenzo(a,h)anthracene	34.5	10	ug/L	50.00		69	51-134	0.3	20	
Dibenzofuran	37.6	10	ug/L	50.00		75	53-118	2	20	
Diethyl phthalate	39.3	10	ug/L	50.00		79	56-125	0.5	20	
Dimethyl phthalate	38.2	10	ug/L	50.00		76	45-127	0.8	20	
Di-n-butyl phthalate	41.0	10	ug/L	50.00		82	59-127	1	20	
Di-n-octyl phthalate	38.4	10	ug/L	50.00		77	51-140	3	20	
Fluoranthene	40.0	10	ug/L	50.00		80	57-128	0.4	20	
Fluorene	39.3	10	ug/L	50.00		79	52-124	2	20	
Hexachlorobenzene	38.4	10	ug/L	50.00		77	53-125	0.2	20	
Hexachlorobutadiene	27.5	10	ug/L	50.00		55	22-124	3	20	
Hexachlorocyclopentadiene	30.9	10	ug/L	50.00		62	32-117	1	20	
Hexachloroethane	23.4	10	ug/L	50.00		47	21-115	0.6	20	
Indeno(1,2,3-cd)pyrene	42.6	10	ug/L	50.00		85	52-134	0.4	20	
Isophorone	40.8	10	ug/L	50.00		82	42-124	1	20	
Naphthalene	33.0	10	ug/L	50.00		66	40-121	0.06	20	
Nitrobenzene	35.4	10	ug/L	50.00		71	45-121	0.06	20	
N-Nitroso-di-n-propylamine	36.1	10	ug/L	50.00		72	49-119	0.6	20	
N-Nitrosodiphenylamine	47.8	10	ug/L	50.00		96	51-123	1	20	
Pentachlorophenol	39.5	10	ug/L	50.00		79	35-138	6	20	
Phenanthrene	40.6	10	ug/L	50.00		81	59-120	0.6	20	
Phenol	17.6	10	ug/L	50.00		35	12-58	2	20	
Pyrene	39.2	10	ug/L	50.00		78	57-126	2	20	
Surrogate: 2,4,6-Tribromophenol	72.0		ug/L	100.0		72	43-140			
Surrogate: 2-Fluorobiphenyl	35.9		ug/L	50.00		72	44-119			
Surrogate: 2-Fluorophenol	43.6		ug/L	100.0		44	19-119			
Surrogate: Nitrobenzene-d5	34.0		ug/L	50.00		68	44-120			
Surrogate: Phenol-d5	28.7		ug/L	100.0		29	11-52			
Surrogate: Terphenyl-d14	36.5		ug/L	50.00		73	50-134			



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### 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 P8G0124 - 3510C MS</b>										
<b>Matrix Spike (P8G0124-MS1)</b>		<b>Source: 8070114-14</b>			<b>Prepared &amp; Analyzed: 07/12/18</b>					
1,2,4-Trichlorobenzene	62.2	21	ug/L	106.4	BRL	58	29-116			
1,2-Dichlorobenzene	58.9	21	ug/L	106.4	BRL	55	32-111			
1,3-Dichlorobenzene	56.9	21	ug/L	106.4	BRL	53	28-110			
1,4-Dichlorobenzene	57.7	21	ug/L	106.4	BRL	54	29-112			
1-Methylnaphthalene	69.9	21	ug/L	106.4	BRL	66	41-119			
2,4,5-Trichlorophenol	75.8	21	ug/L	106.4	BRL	71	53-123			
2,4,6-Trichlorophenol	71.0	21	ug/L	106.4	BRL	67	50-125			
2,4-Dichlorophenol	66.8	21	ug/L	106.4	BRL	63	47-121			
2,4-Dimethylphenol	81.8	21	ug/L	106.4	BRL	77	31-124			
2,4-Dinitrophenol	69.0	21	ug/L	106.4	BRL	65	23-143			
2,4-Dinitrotoluene	75.5	21	ug/L	106.4	BRL	71	57-128			
2,6-Dinitrotoluene	75.5	21	ug/L	106.4	BRL	71	57-124			
2-Chloronaphthalene	69.9	21	ug/L	106.4	BRL	66	40-116			
2-Chlorophenol	67.0	21	ug/L	106.4	BRL	63	38-117			
2-Methylnaphthalene	67.1	21	ug/L	106.4	BRL	63	40-121			
2-Methylphenol	62.6	21	ug/L	106.4	BRL	59	30-117			
2-Nitroaniline	74.5	21	ug/L	106.4	BRL	70	55-127			
2-Nitrophenol	65.5	21	ug/L	106.4	BRL	62	47-123			
3,3'-Dichlorobenzidine	67.1	21	ug/L	106.4	BRL	63	27-129			
3/4-Methylphenol	54.6	21	ug/L	106.4	BRL	51	29-110			
3-Nitroaniline	75.2	21	ug/L	106.4	BRL	71	41-128			
4,6-Dinitro-2-methylphenol	64.6	21	ug/L	106.4	BRL	61	44-137			
4-Bromophenyl phenyl ether	74.0	21	ug/L	106.4	BRL	70	55-124			
4-Chloro-3-methylphenol	68.1	21	ug/L	106.4	BRL	64	52-119			
4-Chloroaniline	68.8	21	ug/L	106.4	BRL	65	33-117			
4-Chlorophenyl phenyl ether	73.3	21	ug/L	106.4	BRL	69	53-121			
4-Nitroaniline	74.7	21	ug/L	106.4	BRL	70	45-135			
4-Nitrophenol	51.4	21	ug/L	106.4	BRL	48	10-105			
Acenaphthene	73.1	21	ug/L	106.4	BRL	69	47-122			
Acenaphthylene	75.7	21	ug/L	106.4	BRL	71	41-130			
Aniline	127	21	ug/L	106.4	BRL	119	11-124			
Anthracene	81.1	21	ug/L	106.4	BRL	76	57-123			
Azobenzene	70.4	21	ug/L	106.4	BRL	66	61-116			
Benzo(a)anthracene	74.5	21	ug/L	106.4	BRL	70	58-125			
Benzo(a)pyrene	68.5	21	ug/L	106.4	BRL	64	54-128			
Benzo(b)fluoranthene	63.6	21	ug/L	106.4	BRL	60	53-131			
Benzo(g,h,i)perylene	66.4	21	ug/L	106.4	BRL	62	50-134			
Benzo(k)fluoranthene	68.1	21	ug/L	106.4	BRL	64	57-129			
Benzoic Acid	32.9	210	ug/L	106.4	BRL	31	10-125			J
Benzyl alcohol	68.9	21	ug/L	106.4	BRL	65	31-112			
bis(2-Chloroethoxy)methane	74.9	21	ug/L	106.4	BRL	70	48-120			
Bis(2-Chloroethyl)ether	65.7	21	ug/L	106.4	BRL	62	43-118			
Bis(2-chloroisopropyl)ether	66.7	21	ug/L	106.4	BRL	63	37-130			
Bis(2-Ethylhexyl)phthalate	75.4	21	ug/L	106.4	BRL	71	55-135			
Butyl benzyl phthalate	72.4	21	ug/L	106.4	BRL	68	53-134			
Chrysene	73.5	21	ug/L	106.4	BRL	69	59-123			

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### 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 P8G0124 - 3510C MS</b>										
<b>Matrix Spike (P8G0124-MS1)</b>		<b>Source: 8070114-14</b>			<b>Prepared &amp; Analyzed: 07/12/18</b>					
Dibenzo(a,h)anthracene	62.8	21	ug/L	106.4	BRL	59	51-134			
Dibenzofuran	73.7	21	ug/L	106.4	BRL	69	53-118			
Diethyl phthalate	75.9	21	ug/L	106.4	BRL	71	56-125			
Dimethyl phthalate	74.2	21	ug/L	106.4	BRL	70	45-127			
Di-n-butyl phthalate	77.2	21	ug/L	106.4	BRL	73	59-127			
Di-n-octyl phthalate	72.8	21	ug/L	106.4	BRL	68	51-140			
Fluoranthene	75.2	21	ug/L	106.4	BRL	71	57-128			
Fluorene	76.4	21	ug/L	106.4	BRL	72	52-124			
Hexachlorobenzene	72.7	21	ug/L	106.4	BRL	68	53-125			
Hexachlorobutadiene	65.6	21	ug/L	106.4	BRL	62	22-124			
Hexachlorocyclopentadiene	76.9	21	ug/L	106.4	BRL	72	26-122			
Hexachloroethane	57.6	21	ug/L	106.4	BRL	54	21-115			
Indeno(1,2,3-cd)pyrene	78.7	21	ug/L	106.4	BRL	74	52-134			
Isophorone	77.5	21	ug/L	106.4	BRL	73	42-124			
Naphthalene	68.1	21	ug/L	106.4	BRL	64	40-121			
Nitrobenzene	69.6	21	ug/L	106.4	BRL	65	45-121			
N-Nitroso-di-n-propylamine	66.2	21	ug/L	106.4	BRL	62	49-119			
N-Nitrosodiphenylamine	85.3	21	ug/L	106.4	BRL	80	51-123			
Pentachlorophenol	58.1	21	ug/L	106.4	BRL	55	35-138			
Phenanthrene	75.9	21	ug/L	106.4	BRL	71	59-120			
Phenol	45.6	21	ug/L	106.4	BRL	43	10-68			
Pyrene	74.8	21	ug/L	106.4	BRL	70	57-126			
Surrogate: 2,4,6-Tribromophenol	138		ug/L	212.8		65	43-140			
Surrogate: 2-Fluorobiphenyl	72.2		ug/L	106.4		68	44-119			
Surrogate: 2-Fluorophenol	113		ug/L	212.8		53	19-119			
Surrogate: Nitrobenzene-d5	67.0		ug/L	106.4		63	44-120			
Surrogate: Phenol-d5	83.5		ug/L	212.8		39	11-52			
Surrogate: Terphenyl-d14	69.8		ug/L	106.4		66	50-134			



Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

## 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 P8G0124 - 3510C MS</b>										
<b>Matrix Spike Dup (P8G0124-MSD1)</b>		<b>Source: 8070114-14</b>			<b>Prepared &amp; Analyzed: 07/12/18</b>					
1,2,4-Trichlorobenzene	82.3	21	ug/L	106.4	BRL	77	29-116	28	30	
1,2-Dichlorobenzene	79.2	21	ug/L	106.4	BRL	74	32-111	29	50	
1,3-Dichlorobenzene	76.0	21	ug/L	106.4	BRL	71	28-110	29	50	
1,4-Dichlorobenzene	77.7	21	ug/L	106.4	BRL	73	29-112	30	50	
1-Methylnaphthalene	92.1	21	ug/L	106.4	BRL	87	41-119	27	50	
2,4,5-Trichlorophenol	93.4	21	ug/L	106.4	BRL	88	53-123	21	50	
2,4,6-Trichlorophenol	88.0	21	ug/L	106.4	BRL	83	50-125	21	50	
2,4-Dichlorophenol	86.1	21	ug/L	106.4	BRL	81	47-121	25	50	
2,4-Dimethylphenol	101	21	ug/L	106.4	BRL	95	31-124	21	50	
2,4-Dinitrophenol	88.7	21	ug/L	106.4	BRL	83	23-143	25	50	
2,4-Dinitrotoluene	91.6	21	ug/L	106.4	BRL	86	57-128	19	50	
2,6-Dinitrotoluene	91.6	21	ug/L	106.4	BRL	86	57-124	19	50	
2-Chloronaphthalene	88.7	21	ug/L	106.4	BRL	83	40-116	24	50	
2-Chlorophenol	82.9	21	ug/L	106.4	BRL	78	38-117	21	50	
2-Methylnaphthalene	88.6	21	ug/L	106.4	BRL	83	40-121	28	50	
2-Methylphenol	80.5	21	ug/L	106.4	BRL	76	30-117	25	50	
2-Nitroaniline	91.8	21	ug/L	106.4	BRL	86	55-127	21	50	
2-Nitrophenol	87.0	21	ug/L	106.4	BRL	82	47-123	28	50	
3,3'-Dichlorobenzidine	84.7	21	ug/L	106.4	BRL	80	27-129	23	50	
3/4-Methylphenol	68.8	21	ug/L	106.4	BRL	65	29-110	23	50	
3-Nitroaniline	93.6	21	ug/L	106.4	BRL	88	41-128	22	50	
4,6-Dinitro-2-methylphenol	80.9	21	ug/L	106.4	BRL	76	44-137	22	50	
4-Bromophenyl phenyl ether	92.1	21	ug/L	106.4	BRL	87	55-124	22	50	
4-Chloro-3-methylphenol	85.5	21	ug/L	106.4	BRL	80	52-119	23	50	
4-Chloroaniline	89.7	21	ug/L	106.4	BRL	84	33-117	26	50	
4-Chlorophenyl phenyl ether	89.1	21	ug/L	106.4	BRL	84	53-121	19	50	
4-Nitroaniline	94.1	21	ug/L	106.4	BRL	88	45-135	23	50	
4-Nitrophenol	64.0	21	ug/L	106.4	BRL	60	10-105	22	50	
Acenaphthene	90.3	21	ug/L	106.4	BRL	85	47-122	21	50	
Acenaphthylene	93.5	21	ug/L	106.4	BRL	88	41-130	21	50	
Aniline	169	21	ug/L	106.4	BRL	159	11-124	28	50	M
Anthracene	102	21	ug/L	106.4	BRL	95	57-123	22	50	
Azobenzene	87.5	21	ug/L	106.4	BRL	82	61-116	22	50	
Benzo(a)anthracene	94.7	21	ug/L	106.4	BRL	89	58-125	24	50	
Benzo(a)pyrene	88.0	21	ug/L	106.4	BRL	83	54-128	25	50	
Benzo(b)fluoranthene	80.4	21	ug/L	106.4	BRL	76	53-131	23	50	
Benzo(g,h,i)perylene	83.8	21	ug/L	106.4	BRL	79	50-134	23	50	
Benzo(k)fluoranthene	87.4	21	ug/L	106.4	BRL	82	57-129	25	50	
Benzoic Acid	57.9	210	ug/L	106.4	BRL	54	10-125	55	50	D, J
Benzyl alcohol	86.2	21	ug/L	106.4	BRL	81	31-112	22	50	
bis(2-Chloroethoxy)methane	94.9	21	ug/L	106.4	BRL	89	48-120	24	50	
Bis(2-Chloroethyl)ether	83.0	21	ug/L	106.4	BRL	78	43-118	23	50	
Bis(2-chloroisopropyl)ether	82.9	21	ug/L	106.4	BRL	78	37-130	22	50	
Bis(2-Ethylhexyl)phthalate	94.7	21	ug/L	106.4	BRL	89	55-135	23	50	
Butyl benzyl phthalate	91.4	21	ug/L	106.4	BRL	86	53-134	23	50	
Chrysene	91.6	21	ug/L	106.4	BRL	86	59-123	22	50	

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 Attn: Troy Holzschuh  
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 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

## 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 P8G0124 - 3510C MS</b>										
<b>Matrix Spike Dup (P8G0124-MSD1)</b>										
<b>Source: 8070114-14</b>										
<b>Prepared &amp; Analyzed: 07/12/18</b>										
Dibenzo(a,h)anthracene	80.4	21	ug/L	106.4	BRL	76	51-134	25	50	
Dibenzofuran	91.4	21	ug/L	106.4	BRL	86	53-118	21	50	
Diethyl phthalate	91.9	21	ug/L	106.4	BRL	86	56-125	19	50	
Dimethyl phthalate	90.4	21	ug/L	106.4	BRL	85	45-127	20	50	
Di-n-butyl phthalate	96.5	21	ug/L	106.4	BRL	91	59-127	22	50	
Di-n-octyl phthalate	92.3	21	ug/L	106.4	BRL	87	51-140	24	50	
Fluoranthene	94.5	21	ug/L	106.4	BRL	89	57-128	23	50	
Fluorene	94.6	21	ug/L	106.4	BRL	89	52-124	21	50	
Hexachlorobenzene	90.7	21	ug/L	106.4	BRL	85	53-125	22	50	
Hexachlorobutadiene	90.4	21	ug/L	106.4	BRL	85	22-124	32	50	
Hexachlorocyclopentadiene	103	21	ug/L	106.4	BRL	97	26-122	29	50	
Hexachloroethane	78.3	21	ug/L	106.4	BRL	74	21-115	30	50	
Indeno(1,2,3-cd)pyrene	99.4	21	ug/L	106.4	BRL	93	52-134	23	50	
Isophorone	97.0	21	ug/L	106.4	BRL	91	42-124	22	50	
Naphthalene	88.4	21	ug/L	106.4	BRL	83	40-121	26	50	
Nitrobenzene	87.1	21	ug/L	106.4	BRL	82	45-121	22	50	
N-Nitroso-di-n-propylamine	81.8	21	ug/L	106.4	BRL	77	49-119	21	50	
N-Nitrosodiphenylamine	107	21	ug/L	106.4	BRL	101	51-123	23	50	
Pentachlorophenol	78.2	21	ug/L	106.4	BRL	73	35-138	29	50	
Phenanthrene	96.4	21	ug/L	106.4	BRL	91	59-120	24	50	
Phenol	60.7	21	ug/L	106.4	BRL	57	10-68	29	50	
Pyrene	92.5	21	ug/L	106.4	BRL	87	57-126	21	50	
Surrogate: 2,4,6-Tribromophenol	171		ug/L	212.8		80	43-140			
Surrogate: 2-Fluorobiphenyl	89.7		ug/L	106.4		84	44-119			
Surrogate: 2-Fluorophenol	141		ug/L	212.8		66	19-119			
Surrogate: Nitrobenzene-d5	83.3		ug/L	106.4		78	44-120			
Surrogate: Phenol-d5	111		ug/L	212.8		52	11-52			
Surrogate: Terphenyl-d14	86.0		ug/L	106.4		81	50-134			





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### 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 P8G0155 - 3546</b>										
<b>Blank (P8G0155-BLK1)</b>										
Prepared & Analyzed: 07/12/18										
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							
2,4,6-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							
Di-n-butyl phthalate	BRL	0.33	mg/kg wet							

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Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

### 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 P8G0155 - 3546</b>										
<b>Blank (P8G0155-BLK1)</b>										
Prepared & Analyzed: 07/12/18										
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							
<i>Surrogate: 2,4,6-Tribromophenol</i>	2.12		mg/kg wet	3.333		64	39-132			
<i>Surrogate: 2-Fluorobiphenyl</i>	1.10		mg/kg wet	1.667		66	44-115			
<i>Surrogate: 2-Fluorophenol</i>	2.15		mg/kg wet	3.333		65	35-115			
<i>Surrogate: Nitrobenzene-d5</i>	0.977		mg/kg wet	1.667		59	37-122			
<i>Surrogate: Phenol-d5</i>	2.12		mg/kg wet	3.333		64	34-121			
<i>Surrogate: Terphenyl-d14</i>	1.00		mg/kg wet	1.667		60	54-127			
<b>LCS (P8G0155-BS1)</b>										
Prepared & Analyzed: 07/12/18										
1,2,4-Trichlorobenzene	0.957	0.33	mg/kg wet	1.667		57	34-118			
1,2-Dichlorobenzene	0.893	0.33	mg/kg wet	1.667		54	33-117			
1,3-Dichlorobenzene	0.841	0.33	mg/kg wet	1.667		50	30-115			
1,4-Dichlorobenzene	0.858	0.33	mg/kg wet	1.667		51	31-115			
1-Methylnaphthalene	1.10	0.33	mg/kg wet	1.667		66	40-119			
2,4,6-Trichlorophenol	1.07	0.33	mg/kg wet	1.667		64	39-126			
2,4-Dichlorophenol	1.07	0.33	mg/kg wet	1.667		64	40-122			
2,4-Dimethylphenol	1.45	0.33	mg/kg wet	1.667		87	30-127			
2,4-Dinitrophenol	0.957	0.33	mg/kg wet	1.667		57	27-129			
2,4-Dinitrotoluene	1.14	0.33	mg/kg wet	1.667		68	48-126			
2,6-Dinitrotoluene	1.14	0.33	mg/kg wet	1.667		68	46-124			
2-Chloronaphthalene	1.06	0.33	mg/kg wet	1.667		64	41-114			
2-Chlorophenol	1.04	0.33	mg/kg wet	1.667		63	34-121			
2-Methylnaphthalene	1.04	0.33	mg/kg wet	1.667		62	38-122			
2-Methylphenol	1.07	0.33	mg/kg wet	1.667		64	32-122			
2-Nitrophenol	0.978	0.33	mg/kg wet	1.667		59	36-123			
3,3'-Dichlorobenzidine	1.15	0.33	mg/kg wet	1.667		69	22-121			
3/4-Methylphenol	0.972	0.33	mg/kg wet	1.667		58	34-119			
4,6-Dinitro-2-methylphenol	0.908	0.33	mg/kg wet	1.667		54	29-132			
4-Bromophenyl phenyl ether	1.12	0.33	mg/kg wet	1.667		67	46-124			
4-Chloro-3-methylphenol	1.08	0.33	mg/kg wet	1.667		65	45-122			
4-Chloroaniline	1.26	0.33	mg/kg wet	1.667		75	17-106			

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 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

## 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 P8G0155 - 3546</b>										
<b>LCS (P8G0155-BS1)</b>										
Prepared & Analyzed: 07/12/18										
4-Chlorophenyl phenyl ether	1.11	0.33	mg/kg wet	1.667		67	45-121			
4-Nitrophenol	0.949	0.33	mg/kg wet	1.667		57	30-132			
Acenaphthene	1.09	0.33	mg/kg wet	1.667		66	40-123			
Acenaphthylene	1.15	0.33	mg/kg wet	1.667		69	32-132			
Anthracene	1.23	0.33	mg/kg wet	1.667		74	47-123			
Azobenzene	1.06	0.33	mg/kg wet	1.667		64	39-125			
Benzo(a)anthracene	1.13	0.33	mg/kg wet	1.667		68	49-126			
Benzo(a)pyrene	1.04	0.33	mg/kg wet	1.667		63	45-129			
Benzo(b)fluoranthene	0.987	0.33	mg/kg wet	1.667		59	45-132			
Benzo(g,h,i)perylene	1.02	0.33	mg/kg wet	1.667		61	43-134			
Benzo(k)fluoranthene	1.00	0.33	mg/kg wet	1.667		60	47-132			
Benzoic Acid	0.613	0.33	mg/kg wet	1.667		37	10-83			
Benzyl alcohol	1.08	0.33	mg/kg wet	1.667		65	29-122			
bis(2-Chloroethoxy)methane	1.11	0.33	mg/kg wet	1.667		67	36-121			
Bis(2-Chloroethyl)ether	0.862	0.33	mg/kg wet	1.667		52	31-120			
Bis(2-chloroisopropyl)ether	0.956	0.33	mg/kg wet	1.667		57	33-131			
Bis(2-Ethylhexyl)phthalate	1.13	0.33	mg/kg wet	1.667		68	51-133			
Butyl benzyl phthalate	1.09	0.33	mg/kg wet	1.667		65	48-132			
Chrysene	1.14	0.33	mg/kg wet	1.667		69	50-124			
Dibenzo(a,h)anthracene	0.979	0.33	mg/kg wet	1.667		59	45-134			
Dibenzofuran	1.12	0.33	mg/kg wet	1.667		67	44-120			
Diethyl phthalate	1.11	0.33	mg/kg wet	1.667		66	50-124			
Dimethyl phthalate	1.11	0.33	mg/kg wet	1.667		66	48-124			
Di-n-butyl phthalate	1.15	0.33	mg/kg wet	1.667		69	51-128			
Di-n-octyl phthalate	1.08	0.33	mg/kg wet	1.667		65	45-140			
Fluoranthene	1.14	0.33	mg/kg wet	1.667		69	50-127			
Fluorene	1.17	0.33	mg/kg wet	1.667		70	43-125			
Hexachlorobenzene	1.09	0.33	mg/kg wet	1.667		66	45-122			
Hexachlorobutadiene	1.01	0.33	mg/kg wet	1.667		61	32-123			
Hexachlorocyclopentadiene	1.11	0.33	mg/kg wet	1.667		66	32-117			
Hexachloroethane	0.875	0.33	mg/kg wet	1.667		52	28-117			
Indeno(1,2,3-cd)pyrene	1.20	0.33	mg/kg wet	1.667		72	45-133			
Isophorone	1.13	0.33	mg/kg wet	1.667		68	30-122			
Naphthalene	1.03	0.33	mg/kg wet	1.667		62	35-123			
Nitrobenzene	1.01	0.33	mg/kg wet	1.667		61	34-122			
N-Nitroso-di-n-propylamine	0.969	0.33	mg/kg wet	1.667		58	36-120			
N-Nitrosodiphenylamine	1.35	0.33	mg/kg wet	1.667		81	38-127			
Pentachlorophenol	0.785	0.33	mg/kg wet	1.667		47	25-133			
Phenanthrene	1.16	0.33	mg/kg wet	1.667		70	50-121			
Phenol	1.06	0.33	mg/kg wet	1.667		63	34-121			
Pyrene	1.14	0.33	mg/kg wet	1.667		68	47-127			
Surrogate: 2,4,6-Tribromophenol	2.17		mg/kg wet	3.333		65	39-132			
Surrogate: 2-Fluorobiphenyl	1.12		mg/kg wet	1.667		67	44-115			
Surrogate: 2-Fluorophenol	2.14		mg/kg wet	3.333		64	35-115			
Surrogate: Nitrobenzene-d5	0.984		mg/kg wet	1.667		59	37-122			
Surrogate: Phenol-d5	2.08		mg/kg wet	3.333		63	34-121			

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Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

## 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 P8G0155 - 3546</b>										
<b>LCS (P8G0155-BS1)</b>										
Prepared & Analyzed: 07/12/18										
Surrogate: Terphenyl-d14	1.07		mg/kg wet	1.667		64	54-127			
<b>LCS Dup (P8G0155-BSD1)</b>										
Prepared & Analyzed: 07/12/18										
1,2,4-Trichlorobenzene	0.961	0.33	mg/kg wet	1.667		58	34-118	0.4	20	
1,2-Dichlorobenzene	0.895	0.33	mg/kg wet	1.667		54	33-117	0.2	20	
1,3-Dichlorobenzene	0.844	0.33	mg/kg wet	1.667		51	30-115	0.3	20	
1,4-Dichlorobenzene	0.870	0.33	mg/kg wet	1.667		52	31-115	1	20	
1-Methylnaphthalene	1.10	0.33	mg/kg wet	1.667		66	40-119	0.2	20	
2,4,6-Trichlorophenol	1.08	0.33	mg/kg wet	1.667		65	39-126	0.6	20	
2,4-Dichlorophenol	1.07	0.33	mg/kg wet	1.667		64	40-122	0.5	20	
2,4-Dimethylphenol	1.47	0.33	mg/kg wet	1.667		88	30-127	1	20	
2,4-Dinitrophenol	0.976	0.33	mg/kg wet	1.667		59	27-129	2	20	
2,4-Dinitrotoluene	1.12	0.33	mg/kg wet	1.667		67	48-126	2	20	
2,6-Dinitrotoluene	1.12	0.33	mg/kg wet	1.667		67	46-124	2	20	
2-Chloronaphthalene	1.07	0.33	mg/kg wet	1.667		64	41-114	0.8	20	
2-Chlorophenol	1.06	0.33	mg/kg wet	1.667		63	34-121	1	20	
2-Methylnaphthalene	1.07	0.33	mg/kg wet	1.667		64	38-122	2	20	
2-Methylphenol	1.09	0.33	mg/kg wet	1.667		65	32-122	1	20	
2-Nitrophenol	0.987	0.33	mg/kg wet	1.667		59	36-123	0.9	20	
3,3'-Dichlorobenzidine	1.12	0.33	mg/kg wet	1.667		67	22-121	2	20	
3/4-Methylphenol	0.965	0.33	mg/kg wet	1.667		58	34-119	0.7	20	
4,6-Dinitro-2-methylphenol	0.936	0.33	mg/kg wet	1.667		56	29-132	3	20	
4-Bromophenyl phenyl ether	1.11	0.33	mg/kg wet	1.667		67	46-124	0.6	20	
4-Chloro-3-methylphenol	1.08	0.33	mg/kg wet	1.667		65	45-122	0.3	20	
4-Chloroaniline	1.27	0.33	mg/kg wet	1.667		76	17-106	0.8	20	
4-Chlorophenyl phenyl ether	1.12	0.33	mg/kg wet	1.667		67	45-121	0.5	20	
4-Nitrophenol	0.947	0.33	mg/kg wet	1.667		57	30-132	0.2	20	
Acenaphthene	1.09	0.33	mg/kg wet	1.667		65	40-123	0.9	20	
Acenaphthylene	1.14	0.33	mg/kg wet	1.667		69	32-132	1	20	
Anthracene	1.24	0.33	mg/kg wet	1.667		74	47-123	0.6	20	
Azobenzene	1.06	0.33	mg/kg wet	1.667		63	39-125	0.8	20	
Benzo(a)anthracene	1.10	0.33	mg/kg wet	1.667		66	49-126	3	20	
Benzo(a)pyrene	1.04	0.33	mg/kg wet	1.667		62	45-129	0.5	20	
Benzo(b)fluoranthene	0.959	0.33	mg/kg wet	1.667		58	45-132	3	20	
Benzo(g,h,i)perylene	1.03	0.33	mg/kg wet	1.667		62	43-134	0.9	20	
Benzo(k)fluoranthene	1.02	0.33	mg/kg wet	1.667		61	47-132	1	20	
Benzoic Acid	0.644	0.33	mg/kg wet	1.667		39	10-83	5	20	
Benzyl alcohol	1.09	0.33	mg/kg wet	1.667		65	29-122	0.7	20	
bis(2-Chloroethoxy)methane	1.13	0.33	mg/kg wet	1.667		68	36-121	2	20	
Bis(2-Chloroethyl)ether	0.884	0.33	mg/kg wet	1.667		53	31-120	2	20	
Bis(2-chloroisopropyl)ether	0.955	0.33	mg/kg wet	1.667		57	33-131	0.07	20	
Bis(2-Ethylhexyl)phthalate	1.10	0.33	mg/kg wet	1.667		66	51-133	3	20	
Butyl benzyl phthalate	1.05	0.33	mg/kg wet	1.667		63	48-132	4	20	
Chrysene	1.12	0.33	mg/kg wet	1.667		67	50-124	2	20	
Dibenzo(a,h)anthracene	0.988	0.33	mg/kg wet	1.667		59	45-134	0.9	20	
Dibenzofuran	1.11	0.33	mg/kg wet	1.667		67	44-120	0.6	20	
Diethyl phthalate	1.12	0.33	mg/kg wet	1.667		67	50-124	1	20	

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Apex Companies, LLC (Charlotte Office) Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

## 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 P8G0155 - 3546</b>										
<b>LCS Dup (P8G0155-BSD1)</b>										
Prepared & Analyzed: 07/12/18										
Dimethyl phthalate	1.10	0.33	mg/kg wet	1.667		66	48-124	0.3	20	
Di-n-butyl phthalate	1.16	0.33	mg/kg wet	1.667		69	51-128	0.5	20	
Di-n-octyl phthalate	1.08	0.33	mg/kg wet	1.667		64	45-140	0.4	20	
Fluoranthene	1.16	0.33	mg/kg wet	1.667		69	50-127	1	20	
Fluorene	1.17	0.33	mg/kg wet	1.667		70	43-125	0.5	20	
Hexachlorobenzene	1.10	0.33	mg/kg wet	1.667		66	45-122	0.5	20	
Hexachlorobutadiene	1.02	0.33	mg/kg wet	1.667		61	32-123	1	20	
Hexachlorocyclopentadiene	1.10	0.33	mg/kg wet	1.667		66	32-117	0.5	20	
Hexachloroethane	0.870	0.33	mg/kg wet	1.667		52	28-117	0.5	20	
Indeno(1,2,3-cd)pyrene	1.20	0.33	mg/kg wet	1.667		72	45-133	0.2	20	
Isophorone	1.16	0.33	mg/kg wet	1.667		70	30-122	2	20	
Naphthalene	1.04	0.33	mg/kg wet	1.667		63	35-123	1	20	
Nitrobenzene	1.01	0.33	mg/kg wet	1.667		61	34-122	0.1	20	
N-Nitroso-di-n-propylamine	0.990	0.33	mg/kg wet	1.667		59	36-120	2	20	
N-Nitrosodiphenylamine	1.37	0.33	mg/kg wet	1.667		82	38-127	1	20	
Pentachlorophenol	0.879	0.33	mg/kg wet	1.667		53	25-133	11	20	
Phenanthrene	1.18	0.33	mg/kg wet	1.667		71	50-121	1	20	
Phenol	1.09	0.33	mg/kg wet	1.667		65	34-121	3	20	
Pyrene	1.11	0.33	mg/kg wet	1.667		66	47-127	3	20	
Surrogate: 2,4,6-Tribromophenol	2.14		mg/kg wet	3.333		64	39-132			
Surrogate: 2-Fluorobiphenyl	1.11		mg/kg wet	1.667		67	44-115			
Surrogate: 2-Fluorophenol	2.15		mg/kg wet	3.333		64	35-115			
Surrogate: Nitrobenzene-d5	0.984		mg/kg wet	1.667		59	37-122			
Surrogate: Phenol-d5	2.12		mg/kg wet	3.333		63	34-121			
Surrogate: Terphenyl-d14	1.04		mg/kg wet	1.667		63	54-127			



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**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 P8G0145 - 7470A**

**Blank (P8G0145-BLK1)** Prepared: 07/12/18 Analyzed: 07/13/18

Mercury	BRL	0.00020	mg/L							
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**LCS (P8G0145-BS1)** Prepared: 07/12/18 Analyzed: 07/13/18

Mercury	0.00856	0.00020	mg/L	0.009375		91	80-120			
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**Matrix Spike (P8G0145-MS1)** Source: 8070114-14 Prepared: 07/12/18 Analyzed: 07/13/18

Mercury	0.00830	0.00020	mg/L	0.009375	BRL	88	80-120			
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**Matrix Spike Dup (P8G0145-MSD1)** Source: 8070114-14 Prepared: 07/12/18 Analyzed: 07/13/18

Mercury	0.00847	0.00020	mg/L	0.009375	BRL	90	80-120	2	20	
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**Batch P8G0146 - 3050B**

**Blank (P8G0146-BLK1)** Prepared: 07/12/18 Analyzed: 07/13/18

Antimony	0.109	0.25	mg/kg wet							J
Arsenic	BRL	0.50	mg/kg wet							
Barium	BRL	0.50	mg/kg wet							
Beryllium	BRL	0.25	mg/kg wet							
Cadmium	BRL	0.25	mg/kg wet							
Chromium	BRL	0.25	mg/kg wet							
Copper	0.190	0.50	mg/kg wet							J
Lead	BRL	0.25	mg/kg wet							
Nickel	BRL	0.50	mg/kg wet							
Selenium	BRL	0.50	mg/kg wet							
Silver	BRL	0.25	mg/kg wet							
Thallium	BRL	0.50	mg/kg wet							
Zinc	0.0908	2.5	mg/kg wet							J



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**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0146 - 3050B</b>										
<b>LCS (P8G0146-BS1)</b>										
				Prepared: 07/12/18 Analyzed: 07/13/18						
Antimony	12.5	0.25	mg/kg wet	12.50		100	80-120			
Arsenic	12.1	0.50	mg/kg wet	12.50		96	80-120			
Barium	12.4	0.50	mg/kg wet	12.50		99	80-120			
Beryllium	12.3	0.25	mg/kg wet	12.50		99	80-120			
Cadmium	12.2	0.25	mg/kg wet	12.50		98	80-120			
Chromium	12.7	0.25	mg/kg wet	12.50		102	80-120			
Copper	12.9	0.50	mg/kg wet	12.50		103	80-120			
Lead	12.2	0.25	mg/kg wet	12.50		98	80-120			
Nickel	12.4	0.50	mg/kg wet	12.50		99	80-120			
Selenium	11.8	0.50	mg/kg wet	12.50		94	80-120			
Silver	5.10	0.25	mg/kg wet	5.000		102	80-120			
Thallium	12.7	0.50	mg/kg wet	12.50		101	80-120			
Zinc	11.8	2.5	mg/kg wet	12.50		95	80-120			
<b>Matrix Spike (P8G0146-MS1)</b>										
				Source: 8070114-01 Prepared: 07/12/18 Analyzed: 07/13/18						
Antimony	7.33	0.29	mg/kg dry	14.68	0.277	48	75-125			M
Arsenic	13.9	0.59	mg/kg dry	14.68	2.56	78	75-125			
Barium	68.6	0.59	mg/kg dry	14.68	52.0	113	75-125			
Beryllium	14.4	0.29	mg/kg dry	14.68	0.416	95	75-125			
Cadmium	13.9	0.29	mg/kg dry	14.68	0.882	89	75-125			
Chromium	63.9	0.29	mg/kg dry	14.68	44.0	136	75-125			M
Copper	187	0.59	mg/kg dry	14.68	135	353	75-125			MC
Lead	133	0.29	mg/kg dry	14.68	296	NR	75-125			MC
Nickel	41.1	0.59	mg/kg dry	14.68	35.7	37	75-125			M
Selenium	13.7	0.59	mg/kg dry	14.68	BRL	93	75-125			
Silver	5.82	0.29	mg/kg dry	5.872	0.145	97	75-125			
Thallium	14.6	0.59	mg/kg dry	14.68	1.37	90	75-125			
Zinc	449	2.9	mg/kg dry	14.68	544	NR	75-125			MC



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Project: NCDOT P-5705A

Prism Work Order: 8070114

Time Submitted: 7/11/2018 12:00:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0146 - 3050B</b>										
<b>Matrix Spike Dup (P8G0146-MSD1)</b>										
			<b>Source: 8070114-01</b>		Prepared: 07/12/18		Analyzed: 07/13/18			
Antimony	2.87	0.30	mg/kg dry	14.83	0.277	18	75-125	87	20	D, M
Arsenic	13.4	0.59	mg/kg dry	14.83	2.56	73	75-125	4	20	M
Barium	59.3	0.59	mg/kg dry	14.83	52.0	49	75-125	15	20	M
Beryllium	14.5	0.30	mg/kg dry	14.82	0.416	95	75-125	0.4	20	
Cadmium	14.0	0.30	mg/kg dry	14.83	0.882	88	75-125	0.5	20	
Chromium	49.0	0.30	mg/kg dry	14.83	44.0	34	75-125	26	20	M
Copper	101	0.59	mg/kg dry	14.83	135	NR	75-125	59	20	D, MC
Lead	80.7	0.30	mg/kg dry	14.83	296	NR	75-125	49	20	D, MC
Nickel	30.6	0.59	mg/kg dry	14.83	35.7	NR	75-125	29	20	M
Selenium	12.4	0.59	mg/kg dry	14.83	BRL	84	75-125	10	20	
Silver	5.89	0.30	mg/kg dry	5.931	0.145	97	75-125	1	20	
Thallium	14.2	0.59	mg/kg dry	14.83	1.37	87	75-125	3	20	
Zinc	415	3.0	mg/kg dry	14.83	544	NR	75-125	8	20	MC
<b>Post Spike (P8G0146-PS1)</b>										
			<b>Source: 8070114-01</b>		Prepared & Analyzed: 07/12/18					
Antimony	0.489		mg/L	0.5000	0.00933	96	80-120			
Arsenic	0.549		mg/L	0.5001	0.0862	92	80-120			
Barium	2.22		mg/L	0.5000	1.75	93	80-120			
Beryllium	0.466		mg/L	0.4998	0.0140	90	80-120			
Cadmium	0.467		mg/L	0.5000	0.0298	87	80-120			
Chromium	1.99		mg/L	0.5001	1.48	101	80-120			
Copper	5.21		mg/L	0.5001	4.55	132	80-120			MC
Lead	7.64		mg/L	0.5001	9.97	NR	80-120			MC
Nickel	1.66		mg/L	0.5001	1.20	92	80-120			
Selenium	0.454		mg/L	0.4999	0.000422	91	80-120			
Silver	0.202		mg/L	0.2000	0.00489	99	80-120			
Thallium	0.496		mg/L	0.4999	0.0463	90	80-120			
Zinc	13.7		mg/L	0.5001	18.3	NR	80-120			MC





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Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0152 - 3010A</b>										
<b>Blank (P8G0152-BLK1)</b>				Prepared & Analyzed: 07/12/18						
Antimony	0.00842	0.010	mg/L							BL, J
Arsenic	BRL	0.020	mg/L							
Barium	BRL	0.010	mg/L							
Beryllium	BRL	0.0020	mg/L							
Cadmium	BRL	0.0010	mg/L							
Chromium	BRL	0.0050	mg/L							
Copper	0.00473	0.010	mg/L							J
Lead	BRL	0.0050	mg/L							
Nickel	BRL	0.010	mg/L							
Selenium	BRL	0.020	mg/L							
Silver	BRL	0.0050	mg/L							
Thallium	BRL	0.020	mg/L							
Zinc	0.00852	0.030	mg/L							J
<b>LCS (P8G0152-BS1)</b>				Prepared & Analyzed: 07/12/18						
Antimony	0.536	0.010	mg/L	0.5000		107	80-120			B
Arsenic	0.509	0.020	mg/L	0.5001		102	80-120			
Barium	0.507	0.010	mg/L	0.5000		101	80-120			
Beryllium	0.504	0.0020	mg/L	0.4998		101	80-120			
Cadmium	0.513	0.0010	mg/L	0.5000		103	80-120			
Chromium	0.518	0.0050	mg/L	0.5001		104	80-120			
Copper	0.520	0.010	mg/L	0.5001		104	80-120			
Lead	0.509	0.0050	mg/L	0.5001		102	80-120			
Nickel	0.512	0.010	mg/L	0.5001		102	80-120			
Selenium	0.502	0.020	mg/L	0.4999		100	80-120			
Silver	0.211	0.0050	mg/L	0.2000		106	80-120			
Thallium	0.508	0.020	mg/L	0.4999		102	80-120			
Zinc	0.504	0.030	mg/L	0.5001		101	80-120			



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Time Submitted: 7/11/2018 12:00:00PM

**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 P8G0152 - 3010A****Matrix Spike (P8G0152-MS1)**

Source: 8070114-14

Prepared &amp; Analyzed: 07/12/18

Antimony	0.525	0.010	mg/L	0.5000	0.00940	103	75-125			B
Arsenic	0.500	0.020	mg/L	0.5001	BRL	100	75-125			
Barium	0.549	0.010	mg/L	0.5000	0.0431	101	75-125			
Beryllium	0.498	0.0020	mg/L	0.4998	BRL	100	75-125			
Cadmium	0.508	0.0010	mg/L	0.5000	BRL	102	75-125			
Chromium	0.514	0.0050	mg/L	0.5001	0.00253	102	75-125			
Copper	0.526	0.010	mg/L	0.5001	0.0122	103	75-125			
Lead	0.502	0.0050	mg/L	0.5001	0.00110	100	75-125			
Nickel	0.511	0.010	mg/L	0.5001	0.00518	101	75-125			
Selenium	0.488	0.020	mg/L	0.4999	BRL	98	75-125			
Silver	0.210	0.0050	mg/L	0.2000	BRL	105	75-125			
Thallium	0.500	0.020	mg/L	0.4999	0.00272	99	75-125			
Zinc	0.525	0.030	mg/L	0.5001	0.0343	98	75-125			

**Matrix Spike Dup (P8G0152-MSD1)**

Source: 8070114-14

Prepared &amp; Analyzed: 07/12/18

Antimony	0.536	0.010	mg/L	0.5000	0.00940	105	75-125	2	20	B
Arsenic	0.511	0.020	mg/L	0.5001	BRL	102	75-125	2	20	
Barium	0.554	0.010	mg/L	0.5000	0.0431	102	75-125	1	20	
Beryllium	0.504	0.0020	mg/L	0.4998	BRL	101	75-125	1	20	
Cadmium	0.513	0.0010	mg/L	0.5000	BRL	103	75-125	0.9	20	
Chromium	0.521	0.0050	mg/L	0.5001	0.00253	104	75-125	1	20	
Copper	0.529	0.010	mg/L	0.5001	0.0122	103	75-125	0.8	20	
Lead	0.510	0.0050	mg/L	0.5001	0.00110	102	75-125	1	20	
Nickel	0.519	0.010	mg/L	0.5001	0.00518	103	75-125	2	20	
Selenium	0.508	0.020	mg/L	0.4999	BRL	102	75-125	4	20	
Silver	0.211	0.0050	mg/L	0.2000	BRL	106	75-125	0.7	20	
Thallium	0.511	0.020	mg/L	0.4999	0.00272	102	75-125	2	20	
Zinc	0.532	0.030	mg/L	0.5001	0.0343	100	75-125	1	20	

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Project: NCDOT P-5705A

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Time Submitted: 7/11/2018 12:00:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0171 - 7471B</b>										
<b>Blank (P8G0171-BLK1)</b>										
Prepared & Analyzed: 07/13/18										
Mercury	BRL	0.020	mg/kg wet							
<b>LCS (P8G0171-BS1)</b>										
Prepared & Analyzed: 07/13/18										
Mercury	0.422	0.020	mg/kg wet	0.4167		101	80-120			
<b>Matrix Spike (P8G0171-MS1)</b>										
Source: 8070114-02 Prepared & Analyzed: 07/13/18										
Mercury	0.524	0.024	mg/kg dry	0.5030	0.00907	102	80-120			
<b>Matrix Spike Dup (P8G0171-MSD1)</b>										
Source: 8070114-02 Prepared & Analyzed: 07/13/18										
Mercury	0.526	0.024	mg/kg dry	0.5030	0.00907	103	80-120	0.4	20	



Apex Companies, LLC (Charlotte Office)    Project: NCDOT P-5705A  
 Attn: Troy Holzschuh  
 10610 Metromont Parkway, Suite 206  
 Charlotte, NC 28269

Prism Work Order: 8070114  
 Time Submitted: 7/11/2018 12:00:00PM

**General Chemistry Parameters - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8G0179 - Solids, Dry Weight</b>										
<b>Duplicate (P8G0179-DUP1)</b>		<b>Source: 8070114-12</b>			<b>Prepared &amp; Analyzed: 07/12/18</b>					
% Solids	86.3	0.100	% by Weight		87.5			1	20	

## Sample Extraction Data

## Prep Method: Solids, Dry Weight

Lab Number	Batch	Initial	Final	Date/Time
8070114-01	P8G0179	30 g	30 g	07/12/18 15:18
8070114-02	P8G0179	30 g	30 g	07/12/18 15:18
8070114-03	P8G0179	30 g	30 g	07/12/18 15:18
8070114-04	P8G0179	30 g	30 g	07/12/18 15:18
8070114-05	P8G0179	30 g	30 g	07/12/18 15:18
8070114-06	P8G0179	30 g	30 g	07/12/18 15:18
8070114-07	P8G0179	30 g	30 g	07/12/18 15:18
8070114-08	P8G0179	30 g	30 g	07/12/18 15:18
8070114-09	P8G0179	30 g	30 g	07/12/18 15:18
8070114-10	P8G0179	30 g	30 g	07/12/18 15:18
8070114-11	P8G0179	30 g	30 g	07/12/18 15:18
8070114-12	P8G0179	30 g	30 g	07/12/18 15:18
8070114-13	P8G0179	30 g	30 g	07/12/18 15:18

## Prep Method: 3510C MS

Lab Number	Batch	Initial	Final	Date/Time
8070114-14	P8G0124	880 mL	1 mL	07/12/18 8:34

## Prep Method: 3546

Lab Number	Batch	Initial	Final	Date/Time
8070114-01	P8G0155	30.06 g	1 mL	07/12/18 10:35
8070114-02	P8G0155	30.03 g	1 mL	07/12/18 10:35
8070114-03	P8G0155	30.04 g	1 mL	07/12/18 10:35
8070114-04	P8G0155	30.08 g	1 mL	07/12/18 10:35
8070114-05	P8G0155	30.02 g	1 mL	07/12/18 10:35
8070114-06	P8G0155	30.08 g	1 mL	07/12/18 10:35
8070114-07	P8G0155	30.01 g	1 mL	07/12/18 10:35
8070114-08	P8G0155	30.01 g	1 mL	07/12/18 10:35
8070114-09	P8G0155	30.1 g	1 mL	07/12/18 10:35
8070114-10	P8G0155	30.06 g	1 mL	07/12/18 10:35
8070114-11	P8G0155	30.03 g	1 mL	07/12/18 10:35
8070114-12	P8G0155	30.01 g	1 mL	07/12/18 10:35
8070114-13	P8G0155	30.1 g	1 mL	07/12/18 10:35

## Prep Method: 3010A

Lab Number	Batch	Initial	Final	Date/Time
8070114-14	P8G0152	50 mL	50 mL	07/12/18 7:50
8070114-14	P8G0152	50 mL	50 mL	07/12/18 7:50

## Prep Method: 3050B

Lab Number	Batch	Initial	Final	Date/Time
8070114-01	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-01	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-01	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-02	P8G0146	2.02 g	50 mL	07/12/18 9:20
8070114-02	P8G0146	2.02 g	50 mL	07/12/18 9:20
8070114-03	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-03	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-03	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-04	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-04	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-05	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-05	P8G0146	2.01 g	50 mL	07/12/18 9:20

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## Sample Extraction Data

## Prep Method: 3050B

Lab Number	Batch	Initial	Final	Date/Time
8070114-05	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-06	P8G0146	2.02 g	50 mL	07/12/18 9:20
8070114-06	P8G0146	2.02 g	50 mL	07/12/18 9:20
8070114-07	P8G0146	2.02 g	50 mL	07/12/18 9:20
8070114-07	P8G0146	2.02 g	50 mL	07/12/18 9:20
8070114-08	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-08	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-08	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-09	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-09	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-10	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-10	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-11	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-11	P8G0146	2.01 g	50 mL	07/12/18 9:20
8070114-12	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-12	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-12	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-12	P8G0146	2 g	50 mL	07/12/18 9:20
8070114-13	P8G0146	2.02 g	50 mL	07/12/18 9:20
8070114-13	P8G0146	2.02 g	50 mL	07/12/18 9:20

## Prep Method: 7470A

Lab Number	Batch	Initial	Final	Date/Time
8070114-14	P8G0145	20 mL	30 mL	07/12/18 8:05

## Prep Method: 7471B

Lab Number	Batch	Initial	Final	Date/Time
8070114-01	P8G0171	0.6 g	50 mL	07/13/18 8:10
8070114-02	P8G0171	0.62 g	50 mL	07/13/18 8:10
8070114-03	P8G0171	0.61 g	50 mL	07/13/18 8:10
8070114-04	P8G0171	0.61 g	50 mL	07/13/18 8:10
8070114-05	P8G0171	0.61 g	50 mL	07/13/18 8:10
8070114-06	P8G0171	0.6 g	50 mL	07/13/18 8:10
8070114-07	P8G0171	0.62 g	50 mL	07/13/18 8:10
8070114-08	P8G0171	0.62 g	50 mL	07/13/18 8:10
8070114-09	P8G0171	0.6 g	50 mL	07/13/18 8:10
8070114-10	P8G0171	0.6 g	50 mL	07/13/18 8:10
8070114-11	P8G0171	0.62 g	50 mL	07/13/18 8:10
8070114-12	P8G0171	0.62 g	50 mL	07/13/18 8:10
8070114-13	P8G0171	0.6 g	50 mL	07/13/18 8:10

## Prep Method: 5030B

Lab Number	Batch	Initial	Final	Date/Time
8070114-14	P8G0186	10 mL	10 mL	07/13/18 9:22

## Prep Method: 5035

Lab Number	Batch	Initial	Final	Date/Time
8070114-01	P8G0154	4.73 g	5 mL	07/11/18 10:27
8070114-02	P8G0154	6.65 g	5 mL	07/11/18 10:27
8070114-03	P8G0169	5.44 g	5 mL	07/12/18 7:46
8070114-04	P8G0154	5.44 g	5 mL	07/11/18 10:27
8070114-05	P8G0154	4.65 g	5 mL	07/11/18 10:27
8070114-06	P8G0154	6.55 g	5 mL	07/11/18 10:27

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**Sample Extraction Data****Prep Method: 5035**

<b>Lab Number</b>	<b>Batch</b>	<b>Initial</b>	<b>Final</b>	<b>Date/Time</b>
8070114-07	P8G0154	6.52 g	5 mL	07/11/18 10:27
8070114-08	P8G0154	6.32 g	5 mL	07/11/18 10:27
8070114-09	P8G0154	5.73 g	5 mL	07/11/18 10:27
8070114-10	P8G0154	5.77 g	5 mL	07/11/18 10:27
8070114-11	P8G0154	5.16 g	5 mL	07/11/18 10:27
8070114-12	P8G0154	4.57 g	5 mL	07/11/18 10:27
8070114-13	P8G0154	5.24 g	5 mL	07/11/18 10:27

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**CHAIN OF CUSTODY RECORD**

**LAB USE ONLY**

Client Company Name: APRY  
 Report To/Contact Name: Troy Holtschuh  
 Reporting Address: 10610 Metropolitan Pkwy  
SA 206 Charlotte NC 28269  
 Phone: 704-3071233 Fax (Yes) (No): \_\_\_\_\_

PAGE 1 OF 3 **NOTE # TO ENSURE PROPER BILLING:**  
 Project Name: NC DOT P-5705 A  
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)  
 \*Please ATTACH any project specific reporting (QC LEVEL I III IV) provisions and/or QC Requirements  
 Invoice To: \_\_\_\_\_  
 Address: \_\_\_\_\_

Samples INTACT upon arrival? YES NO N/A  
 Received ON WET ICE? \_\_\_\_\_  
 PROPER PRESERVATIVES indicated? \_\_\_\_\_  
 Received WITHIN HOLDING TIMES? \_\_\_\_\_  
 CUSTODY SEALS INTACT? \_\_\_\_\_  
 VOLATILES rec'd W/OUT HEADSPACE? \_\_\_\_\_  
 PROPER CONTAINERS used? \_\_\_\_\_  
 TEMP: Therm ID: 145-7 Observed: 2.6 °C / Corr: 2.0 °C

Email Address: \_\_\_\_\_  
 EDD Type: PDF / Excel / Other \_\_\_\_\_  
 Site Location Name: \_\_\_\_\_  
 Site Location Physical 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 & CONDITIONS REGARDING SERVICES  
 RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

**TO BE FILLED IN BY CLIENTS/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			PRESERVATIVES	ANALYSIS REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
P25B-17(4-F)	2-10-18	1050	SL		5					01
P25B-18(3-6)		1116			5					02
P25B-19(3-6)		1126			5					03
P25B-20(4-F)		1146			5					04
P25B-21(1-4)		1145			5					05
P25B-22(4-F)		1156			5					06
P25B-23(1-4)		1210			5					07
P25B-24(1-4)		1230			5					08
P25B-25(1-4)		1356			5					09
P25B-26(4-1)		1400			5					10

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

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.

Sampler's Signature: \_\_\_\_\_ Sampled By: (Print Name) Harrison Carter Affiliation APRY  
 Received By: (Signature) \_\_\_\_\_ Received By: (Signature) \_\_\_\_\_  
 Received For Prism Laboratories By: \_\_\_\_\_  
 Date: 2-11-18 Military/Hours: 11:30  
 Date: \_\_\_\_\_ Military/Hours: \_\_\_\_\_  
 Date: 2-11-18 Military/Hours: 12:00  
 COC Group No. 8070114  
 Additional Comments: \_\_\_\_\_

**PRISM USE ONLY**  
 Site Arrival Time: \_\_\_\_\_  
 Site Departure Time: \_\_\_\_\_  
 Field Tech Fee: \_\_\_\_\_  
 Mileage: \_\_\_\_\_





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

# CHAIN OF CUSTODY RECORD

LAB USE ONLY  
 YES NO N/A  
 Samples intact upon arrival?     
 Received on wet ice?     
 Proper preservatives indicated?     
 Received within holding times?     
 Custody seals intact?     
 Volatiles rec'd w/out headspace?     
 Proper containers used?     
 Temp: Therm ID: 1217 Observed: 7.6 °C / Corr: 20 °C

Client Company Name: APEX  
 Report To/Contact Name: Andy Hartzsch  
 Reporting Address: \_\_\_\_\_

Project Name: NCDOT P-5705A  
 Short Hold Analysis: (Yes) (No)  (No)  
 \*Please ATTACH any project specific reporting (QC LEVEL I III III IV) provisions and/or QC Requirements  
 Invoice To: \_\_\_\_\_  
 Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax (Yes) (No): \_\_\_\_\_

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

Email Address: \_\_\_\_\_  
 EDD Type: PDF  Excel  Other

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)

Site Location Name: \_\_\_\_\_  
 Site Location Physical Address: \_\_\_\_\_

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)

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	NO.	SIZE				
P25B-27(1-4)	7-10-16	1415	SOIL		5			X		11
P25B-28(1-3)	7-10-16	1445	SOIL		3			X		12
P25B-29(1-5)	7-10-16	1500	SOIL		5			X		13
P25B-30										

Sampler's Signature: [Signature] Sampled By (Print Name): Hamilton, Andrew Affiliation: APEX

Submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Received By (Signature): [Signature] Date: 7-11-16 Military/Hours: 16:30

Relinquished By (Signature): [Signature]

Received For Prism Laboratories By: [Signature] Date: 7-11-16 Military/Hours: 12:00

Relinquished By (Signature): [Signature] Date: 8-07-14

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

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

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

NPDES:  NC  SC  SC  
 UST:  NC  SC  SC  
 Groundwater:  NC  SC  SC  
 Drinking Water:  NC  SC  SC  
 Solid Waste:  NC  SC  SC  
 RCRA:  NC  SC  SC  
 CERCLA:  NC  SC  SC  
 Landfill:  NC  SC  SC  
 Other:  NC  SC  SC

CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS  
 ORIGINAL

PRESS DOWN FIRMLY - 3 COPIES

PRISM USE ONLY



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

# CHAIN OF CUSTODY RECORD

LAB USE ONLY

Samples INTACT upon arrival?	YES	NO	N/A
Received ON WET ICE?			
PROPER PRESERVATIVES indicated?			
Received WITHIN HOLDING TIMES?			
CUSTODY SEALS INTACT?			
VOLATILES rec'd W/OUT HEADSPACE?			
PROPER CONTAINERS used?			
TEMP: Therm ID: <u>1217</u> Observed: <u>16</u> °C / Corr: <u>2.0</u> °C			

Client Company Name: APEP  
 Report To/Contact Name: Troy Holzschuh  
 Reporting Address: 1010 Westmonte Parkway St. 206, Charlotte, NC  
 Phone: 704-367-1233 Fax (Yes) (No): \_\_\_\_\_

PAGE 1 OF 3 QUOTE # TO ENSURE PROPER BILLING: \_\_\_\_\_  
 Project Name: NC DOT P-5705A  
 Short Hold Analysis: (Yes) (No) UST Project: (Yes) (NO)  
 \*Please ATTACH any project specific reporting (QC LEVEL I III III IV) provisions and/or QC Requirements  
 Invoice To: \_\_\_\_\_  
 Address: \_\_\_\_\_

Email Address: \_\_\_\_\_  
 EDD Type: PDF  Excel  Other \_\_\_\_\_  
 Site Location Name: \_\_\_\_\_  
 Site Location Physical 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 & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

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			PRESERVATIVES	ANALYSIS REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
NW-1	7-10-18	0920	water					5 VOCs 10 VOCs PRIME BUT		14
Sampler's Signature: <u>[Signature]</u> Sampled By (Print Name): <u>Troy L Holzschuh</u> Affiliation: <u>Apex</u> 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)	<u>[Signature]</u>	Received By: (Signature)	<u>[Signature]</u>	Date	<u>7-11-18</u>	Military/Hours	<u>11:30</u>	Additional Comments:		
Relinquished By: (Signature)	<u>[Signature]</u>	Received By: (Signature)	<u>[Signature]</u>	Date	<u>7-11-18</u>	Military/Hours	<u>12:00</u>	Additional Comments:		
Relinquished By: (Signature)	<u>[Signature]</u>	Received For Prism Laboratories By:	<u>[Signature]</u>	Date	<u>7-11-18</u>	Military/Hours	<u>12:00</u>	Additional Comments:		

Method of Shipment:  Fed Ex  UPS  Hand-delivered  Prism Field Service  Other \_\_\_\_\_  
 NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

GROUNDWATER:  NC  SC  
 DRINKING WATER:  NC  SC  
 SOLID WASTE:  NC  SC  
 RCRA:  NC  SC  
 CERCLA:  NC  SC  
 LANDFILL:  NC  SC  
 OTHER:  NC  SC

CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

PRISM USE ONLY  
 Site Arrival Time: \_\_\_\_\_  
 Site Departure Time: \_\_\_\_\_  
 Field Tech Fee: \_\_\_\_\_  
 Mileage: \_\_\_\_\_

SEE REVERSE FOR TERMS & CONDITIONS



Full-Service Analytical & Environmental Solutions

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

# Case Narrative

09/25/2018

Apex Companies, LLC (Charlotte Office)  
Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A  
Project No.: WBS #44475.1.1  
Lab Submittal Date: 09/12/2018  
Prism Work Order: 8090168

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 Terri W. Cole For Robbi A. Jones  
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.
- MC Sample concentration too high for recovery evaluation.
- PS Post Spike recovery is outside of the control limits.
- BRL Below Reporting Limit
- MDL Method Detection Limit
- RPD Relative Percent Difference
- \* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

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**Sample Receipt Summary**

09/25/2018

Prism Work Order: 8090168

Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
BGPR-1 (3')	8090168-01	Solid	09/11/18 9:15	09/12/18 16:25
BGPR-2 (2')	8090168-02	Solid	09/11/18 9:20	09/12/18 16:25
BGOSC-1 (2.5')	8090168-03	Solid	09/11/18 9:20	09/12/18 16:25
BGHG-1 (2')	8090168-04	Solid	09/11/18 10:00	09/12/18 16:25

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



# Summary of Detections

09/25/2018

Prism Work Order: 8090168

Prism ID	Client ID	Parameter	Method	Result	Units
8090168-01	BGPR-1 (3')	Mercury	7471B	0.095	mg/kg dry
8090168-01	BGPR-1 (3')	Arsenic	6010D	2.7	mg/kg dry
8090168-01	BGPR-1 (3')	Barium	6010D	77	mg/kg dry
8090168-01	BGPR-1 (3')	Beryllium	6010D	0.57	mg/kg dry
8090168-01	BGPR-1 (3')	Cadmium	6010D	0.82	mg/kg dry
8090168-01	BGPR-1 (3')	Chromium	6010D	98	mg/kg dry
8090168-01	BGPR-1 (3')	Copper	6010D	240	mg/kg dry
8090168-01	BGPR-1 (3')	Lead	6010D	120	mg/kg dry
8090168-01	BGPR-1 (3')	Nickel	6010D	31	mg/kg dry
8090168-01	BGPR-1 (3')	Thallium	6020B	0.11	J mg/kg dry
8090168-01	BGPR-1 (3')	Zinc	6010D	260	mg/kg dry
8090168-02	BGPR-2 (2')	Mercury	7471B	0.10	mg/kg dry
8090168-02	BGPR-2 (2')	Arsenic	6010D	2.3	mg/kg dry
8090168-02	BGPR-2 (2')	Barium	6010D	120	mg/kg dry
8090168-02	BGPR-2 (2')	Beryllium	6010D	0.44	mg/kg dry
8090168-02	BGPR-2 (2')	Cadmium	6010D	2.4	mg/kg dry
8090168-02	BGPR-2 (2')	Chromium	6010D	130	mg/kg dry
8090168-02	BGPR-2 (2')	Copper	6010D	260	mg/kg dry
8090168-02	BGPR-2 (2')	Lead	6010D	330	mg/kg dry
8090168-02	BGPR-2 (2')	Nickel	6010D	62	mg/kg dry
8090168-02	BGPR-2 (2')	Thallium	6020B	0.18	J mg/kg dry
8090168-02	BGPR-2 (2')	Zinc	6010D	510	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Mercury	7471B	0.069	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Arsenic	6010D	3.1	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Barium	6010D	140	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Beryllium	6010D	0.89	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Cadmium	6010D	0.37	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Chromium	6010D	28	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Copper	6010D	52	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Lead	6010D	83	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Nickel	6010D	15	mg/kg dry
8090168-03	BGOSC-1 (2.5')	Selenium	6010D	0.41	J mg/kg dry
8090168-03	BGOSC-1 (2.5')	Zinc	6010D	95	mg/kg dry
8090168-04	BGHG-1 (2')	Mercury	7471B	0.037	mg/kg dry
8090168-04	BGHG-1 (2')	Arsenic	6010D	1.3	mg/kg dry
8090168-04	BGHG-1 (2')	Barium	6010D	64	mg/kg dry
8090168-04	BGHG-1 (2')	Beryllium	6010D	0.54	mg/kg dry
8090168-04	BGHG-1 (2')	Cadmium	6010D	0.51	mg/kg dry
8090168-04	BGHG-1 (2')	Chromium	6010D	35	mg/kg dry
8090168-04	BGHG-1 (2')	Copper	6010D	46	mg/kg dry
8090168-04	BGHG-1 (2')	Lead	6010D	110	mg/kg dry
8090168-04	BGHG-1 (2')	Nickel	6010D	15	mg/kg dry
8090168-04	BGHG-1 (2')	Thallium	6020B	0.13	J mg/kg dry
8090168-04	BGHG-1 (2')	Zinc	6010D	120	mg/kg dry

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Apex Companies, LLC (Charlotte Office)  
Attn: Troy Holzschuh  
10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A  
Project No.: WBS #44475.1.1  
Sample Matrix: Solid

Client Sample ID: BGPR-1 (3')  
Prism Sample ID: 8090168-01  
Prism Work Order: 8090168  
Time Collected: 09/11/18 09:15  
Time Submitted: 09/12/18 16:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	84.2	% by Weight	0.100	0.100	1	SM2540 G	9/19/18 10:03	TJY	P810289
<b>Total Metals</b>									
Mercury	0.095	mg/kg dry	0.024	0.0023	1	7471B	9/19/18 12:00	MMR	P810252
Antimony	BRL	mg/kg dry	0.30	0.030	1	6010D	9/17/18 15:36	JAB	P810189
Arsenic	2.7	mg/kg dry	0.59	0.036	1	6010D	9/17/18 15:36	JAB	P810189
Barium	77	mg/kg dry	0.59	0.086	1	6010D	9/17/18 15:36	JAB	P810189
Beryllium	0.57	mg/kg dry	0.30	0.0065	1	6010D	9/17/18 15:36	JAB	P810189
Cadmium	0.82	mg/kg dry	0.30	0.0079	1	6010D	9/17/18 15:36	JAB	P810189
Chromium	98	mg/kg dry	0.30	0.049	1	6010D	9/17/18 15:36	JAB	P810189
Copper	240	mg/kg dry	12	1.1	20	6010D	9/18/18 11:50	JAB	P810189
Lead	120	mg/kg dry	0.30	0.055	1	6010D	9/17/18 15:36	JAB	P810189
Nickel	31	mg/kg dry	0.59	0.021	1	6010D	9/17/18 15:36	JAB	P810189
Selenium	BRL	mg/kg dry	0.59	0.14	1	6010D	9/17/18 15:36	JAB	P810189
Silver	BRL	mg/kg dry	0.30	0.0073	1	6010D	9/17/18 15:36	JAB	P810189
Thallium	0.11 J	mg/kg dry	0.30	0.024	10	6020B	9/21/18 23:04	JAB	P810230
Zinc	260	mg/kg dry	59	2.1	20	6010D	9/18/18 11:50	JAB	P810189



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Project: NCDOT P-5705A  
Project No.: WBS #44475.1.1  
Sample Matrix: Solid

Client Sample ID: BGPR-2 (2')  
Prism Sample ID: 8090168-02  
Prism Work Order: 8090168  
Time Collected: 09/11/18 09:20  
Time Submitted: 09/12/18 16:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	83.1	% by Weight	0.100	0.100	1	SM2540 G	9/19/18 10:03	TJY	P8I0289
<b>Total Metals</b>									
Mercury	0.10	mg/kg dry	0.024	0.0023	1	7471B	9/19/18 12:13	MMR	P8I0252
Antimony	BRL	mg/kg dry	0.30	0.030	1	6010D	9/17/18 16:04	JAB	P8I0189
Arsenic	2.3	mg/kg dry	0.60	0.036	1	6010D	9/17/18 16:04	JAB	P8I0189
Barium	120	mg/kg dry	0.60	0.087	1	6010D	9/17/18 16:04	JAB	P8I0189
Beryllium	0.44	mg/kg dry	0.30	0.0065	1	6010D	9/17/18 16:04	JAB	P8I0189
Cadmium	2.4	mg/kg dry	0.30	0.0080	1	6010D	9/17/18 16:04	JAB	P8I0189
Chromium	130	mg/kg dry	0.30	0.050	1	6010D	9/17/18 16:04	JAB	P8I0189
Copper	260	mg/kg dry	12	1.1	20	6010D	9/18/18 11:59	JAB	P8I0189
Lead	330	mg/kg dry	6.0	1.1	20	6010D	9/18/18 11:59	JAB	P8I0189
Nickel	62	mg/kg dry	0.60	0.021	1	6010D	9/17/18 16:04	JAB	P8I0189
Selenium	BRL	mg/kg dry	0.60	0.14	1	6010D	9/17/18 16:04	JAB	P8I0189
Silver	BRL	mg/kg dry	0.30	0.0074	1	6010D	9/17/18 16:04	JAB	P8I0189
Thallium	0.18 J	mg/kg dry	0.30	0.024	10	6020B	9/21/18 23:32	JAB	P8I0230
Zinc	510	mg/kg dry	60	2.1	20	6010D	9/18/18 11:59	JAB	P8I0189





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Project: NCDOT P-5705A  
Project No.: WBS #44475.1.1  
Sample Matrix: Solid

Client Sample ID: BGOSC-1 (2.5')  
Prism Sample ID: 8090168-03  
Prism Work Order: 8090168  
Time Collected: 09/11/18 09:20  
Time Submitted: 09/12/18 16:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	85.2	% by Weight	0.100	0.100	1	SM2540 G	9/19/18 10:03	TJY	P810289
<b>Total Metals</b>									
Mercury	0.069	mg/kg dry	0.023	0.0022	1	7471B	9/19/18 12:18	MMR	P810252
Antimony	BRL	mg/kg dry	0.29	0.029	1	6010D	9/17/18 16:13	JAB	P810189
Arsenic	3.1	mg/kg dry	0.59	0.036	1	6010D	9/17/18 16:13	JAB	P810189
Barium	140	mg/kg dry	0.59	0.086	1	6010D	9/17/18 16:13	JAB	P810189
Beryllium	0.89	mg/kg dry	0.29	0.0065	1	6010D	9/17/18 16:13	JAB	P810189
Cadmium	0.37	mg/kg dry	0.29	0.0079	1	6010D	9/17/18 16:13	JAB	P810189
Chromium	28	mg/kg dry	0.29	0.049	1	6010D	9/17/18 16:13	JAB	P810189
Copper	52	mg/kg dry	0.59	0.053	1	6010D	9/17/18 16:13	JAB	P810189
Lead	83	mg/kg dry	0.29	0.055	1	6010D	9/17/18 16:13	JAB	P810189
Nickel	15	mg/kg dry	0.59	0.021	1	6010D	9/17/18 16:13	JAB	P810189
Selenium	0.41 J	mg/kg dry	0.59	0.14	1	6010D	9/17/18 16:13	JAB	P810189
Silver	BRL	mg/kg dry	0.29	0.0073	1	6010D	9/17/18 16:13	JAB	P810189
Thallium	BRL	mg/kg dry	0.29	0.023	10	6020B	9/21/18 23:41	JAB	P810230
Zinc	95	mg/kg dry	2.9	0.11	1	6010D	9/17/18 16:13	JAB	P810189



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Project: NCDOT P-5705A  
Project No.: WBS #44475.1.1  
Sample Matrix: Solid

Client Sample ID: BGHG-1 (2')  
Prism Sample ID: 8090168-04  
Prism Work Order: 8090168  
Time Collected: 09/11/18 10:00  
Time Submitted: 09/12/18 16:25

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	89.4	% by Weight	0.100	0.100	1	SM2540 G	9/19/18 10:03	TJY	P8I0289
<b>Total Metals</b>									
Mercury	0.037	mg/kg dry	0.022	0.0021	1	7471B	9/19/18 12:22	MMR	P8I0252
Antimony	BRL	mg/kg dry	0.28	0.028	1	6010D	9/17/18 16:22	JAB	P8I0189
Arsenic	1.3	mg/kg dry	0.56	0.034	1	6010D	9/17/18 16:22	JAB	P8I0189
Barium	64	mg/kg dry	0.56	0.082	1	6010D	9/17/18 16:22	JAB	P8I0189
Beryllium	0.54	mg/kg dry	0.28	0.0062	1	6010D	9/17/18 16:22	JAB	P8I0189
Cadmium	0.51	mg/kg dry	0.28	0.0075	1	6010D	9/17/18 16:22	JAB	P8I0189
Chromium	35	mg/kg dry	0.28	0.047	1	6010D	9/17/18 16:22	JAB	P8I0189
Copper	46	mg/kg dry	0.56	0.051	1	6010D	9/17/18 16:22	JAB	P8I0189
Lead	110	mg/kg dry	0.28	0.052	1	6010D	9/17/18 16:22	JAB	P8I0189
Nickel	15	mg/kg dry	0.56	0.020	1	6010D	9/17/18 16:22	JAB	P8I0189
Selenium	BRL	mg/kg dry	0.56	0.13	1	6010D	9/17/18 16:22	JAB	P8I0189
Silver	BRL	mg/kg dry	0.28	0.0069	1	6010D	9/17/18 16:22	JAB	P8I0189
Thallium	0.13 J	mg/kg dry	0.28	0.022	10	6020B	9/21/18 23:51	JAB	P8I0230
Zinc	120	mg/kg dry	2.8	0.10	1	6010D	9/17/18 16:22	JAB	P8I0189



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Project: NCDOT P-5705A  
Project No: WBS #44475.1.1

Prism Work Order: 8090168  
Time Submitted: 9/12/2018 4:25:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8I0189 - 3050B</b>										
<b>Blank (P8I0189-BLK1)</b>										
Prepared: 09/14/18 Analyzed: 09/17/18										
Antimony	0.0536	0.25	mg/kg wet							J
Arsenic	BRL	0.50	mg/kg wet							
Barium	BRL	0.50	mg/kg wet							
Beryllium	BRL	0.25	mg/kg wet							
Cadmium	0.00897	0.25	mg/kg wet							J
Chromium	BRL	0.25	mg/kg wet							
Copper	0.128	0.50	mg/kg wet							J
Lead	0.0508	0.25	mg/kg wet							J
Nickel	BRL	0.50	mg/kg wet							
Selenium	BRL	0.50	mg/kg wet							
Silver	BRL	0.25	mg/kg wet							
Zinc	0.333	2.5	mg/kg wet							J
<b>LCS (P8I0189-BS1)</b>										
Prepared: 09/14/18 Analyzed: 09/17/18										
Antimony	12.1	0.25	mg/kg wet	12.50		97	80-120			
Arsenic	11.8	0.50	mg/kg wet	12.50		95	80-120			
Barium	12.2	0.50	mg/kg wet	12.50		98	80-120			
Beryllium	12.4	0.25	mg/kg wet	12.50		99	80-120			
Cadmium	12.2	0.25	mg/kg wet	12.50		97	80-120			
Chromium	12.5	0.25	mg/kg wet	12.50		100	80-120			
Copper	12.5	0.50	mg/kg wet	12.50		100	80-120			
Lead	12.2	0.25	mg/kg wet	12.50		98	80-120			
Nickel	12.2	0.50	mg/kg wet	12.50		97	80-120			
Selenium	11.5	0.50	mg/kg wet	12.50		92	80-120			
Silver	4.81	0.25	mg/kg wet	5.000		96	80-120			
Zinc	11.7	2.5	mg/kg wet	12.50		94	80-120			
<b>Matrix Spike (P8I0189-MS1)</b>										
Source: 8090168-01 Prepared: 09/14/18 Analyzed: 09/17/18										
Antimony	1.15	0.29	mg/kg dry	14.70	BRL	8	75-125			M
Arsenic	14.9	0.59	mg/kg dry	14.71	2.73	83	75-125			
Barium	112	0.59	mg/kg dry	14.70	77.0	241	75-125			MC
Beryllium	14.2	0.29	mg/kg dry	14.70	0.567	93	75-125			
Cadmium	13.6	0.29	mg/kg dry	14.70	0.822	87	75-125			
Chromium	111	0.29	mg/kg dry	14.71	98.0	89	75-125			
Copper	Over Range	0.59	mg/kg dry	14.71	243	NR	75-125			
Lead	122	0.29	mg/kg dry	14.71	118	23	75-125			M
Nickel	45.3	0.59	mg/kg dry	14.71	30.9	98	75-125			
Selenium	12.6	0.59	mg/kg dry	14.70	BRL	86	75-125			
Silver	5.06	0.29	mg/kg dry	5.881	BRL	86	75-125			
Zinc	Over Range	2.9	mg/kg dry	14.71	262	NR	75-125			

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Project: NCDOT P-5705A  
Project No: WBS #44475.1.1

Prism Work Order: 8090168  
Time Submitted: 9/12/2018 4:25:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P810189 - 3050B</b>										
<b>Matrix Spike Dup (P810189-MSD1)</b>										
		<b>Source: 8090168-01</b>			Prepared: 09/14/18		Analyzed: 09/17/18			
Antimony	2.33	0.29	mg/kg dry	14.70	BRL	16	75-125	68	20	M
Arsenic	14.6	0.59	mg/kg dry	14.71	2.73	81	75-125	2	20	
Barium	89.9	0.59	mg/kg dry	14.70	77.0	88	75-125	22	20	MC
Beryllium	13.3	0.29	mg/kg dry	14.70	0.567	86	75-125	7	20	
Cadmium	13.4	0.29	mg/kg dry	14.70	0.822	85	75-125	2	20	
Chromium	67.7	0.29	mg/kg dry	14.71	98.0	NR	75-125	48	20	M
Copper	Over Range	0.59	mg/kg dry	14.71	243	NR	75-125	0	20	
Lead	123	0.29	mg/kg dry	14.71	118	28	75-125	0.6	20	M
Nickel	45.4	0.59	mg/kg dry	14.71	30.9	99	75-125	0.3	20	
Selenium	12.7	0.59	mg/kg dry	14.70	BRL	86	75-125	0.6	20	
Silver	4.97	0.29	mg/kg dry	5.881	BRL	84	75-125	2	20	
Zinc	Over Range	2.9	mg/kg dry	14.71	262	NR	75-125	0	20	
<b>Post Spike (P810189-PS1)</b>										
		<b>Source: 8090168-01</b>			Prepared: 09/14/18		Analyzed: 09/17/18			
Antimony	0.392		mg/L	0.5000	-0.0509	78	80-120			PS
Arsenic	0.541		mg/L	0.5001	0.0918	90	80-120			
Barium	3.00		mg/L	0.5000	2.59	81	80-120			
Beryllium	0.477		mg/L	0.4998	0.0191	92	80-120			
Cadmium	0.465		mg/L	0.5000	0.0277	87	80-120			
Chromium	3.71		mg/L	0.5001	3.30	82	80-120			
Copper	Over Range		mg/L	0.5001	8.17	NR	80-120			
Lead	4.32		mg/L	0.5001	3.99	66	80-120			PS
Nickel	1.47		mg/L	0.5001	1.04	87	80-120			
Selenium	0.452		mg/L	0.4999	-0.0237	90	80-120			
Silver	0.168		mg/L	0.2000	-0.0143	84	80-120			
Zinc	Over Range		mg/L	0.5001	8.82	NR	80-120			



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Project: NCDOT P-5705A  
Project No: WBS #44475.1.1

Prism Work Order: 8090168  
Time Submitted: 9/12/2018 4:25:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P810230 - 3050B</b>										
<b>Blank (P810230-BLK1)</b>				Prepared: 09/18/18 Analyzed: 09/21/18						
Thallium	BRL	0.25	mg/kg wet							
<b>LCS (P810230-BS1)</b>				Prepared: 09/18/18 Analyzed: 09/21/18						
Thallium	12.5	0.25	mg/kg wet	12.50		100	80-120			
<b>Matrix Spike (P810230-MS1)</b>				Source: 8090168-01 Prepared: 09/18/18 Analyzed: 09/21/18						
Thallium	15.7	0.30	mg/kg dry	14.85	0.105	105	75-125			
<b>Matrix Spike Dup (P810230-MSD1)</b>				Source: 8090168-01 Prepared: 09/18/18 Analyzed: 09/21/18						
Thallium	15.0	0.29	mg/kg dry	14.70	0.105	101	75-125	5	20	
<b>Batch P810252 - 7471B</b>										
<b>Blank (P810252-BLK1)</b>				Prepared & Analyzed: 09/19/18						
Mercury	BRL	0.020	mg/kg wet							
<b>LCS (P810252-BS1)</b>				Prepared & Analyzed: 09/19/18						
Mercury	0.442	0.020	mg/kg wet	0.4167		106	80-120			
<b>Matrix Spike (P810252-MS1)</b>				Source: 8090168-01 Prepared & Analyzed: 09/19/18						
Mercury	0.599	0.023	mg/kg dry	0.4869	0.0948	103	80-120			
<b>Matrix Spike Dup (P810252-MSD1)</b>				Source: 8090168-01 Prepared & Analyzed: 09/19/18						
Mercury	0.599	0.023	mg/kg dry	0.4869	0.0948	104	80-120	0.004	20	



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10610 Metromont Parkway, Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A  
Project No: WBS #44475.1.1

Prism Work Order: 8090168  
Time Submitted: 9/12/2018 4:25:00PM

### General Chemistry Parameters - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8I0289 - Solids, Dry Weight</b>										
<b>Duplicate (P8I0289-DUP2)</b>		<b>Source: 8090168-02</b>			<b>Prepared &amp; Analyzed: 09/19/18</b>					
% Solids	83.2	0.100	% by Weight		83.1			0.07	20	

### Sample Extraction Data

#### Prep Method: Solids, Dry Weight

Lab Number	Batch	Initial	Final	Date/Time
8090168-01	P8I0289	30 g	30 g	09/19/18 10:03
8090168-02	P8I0289	30 g	30 g	09/19/18 10:03
8090168-03	P8I0289	30 g	30 g	09/19/18 10:03
8090168-04	P8I0289	30 g	30 g	09/19/18 10:03

#### Prep Method: 3050B

Lab Number	Batch	Initial	Final	Date/Time
8090168-01	P8I0189	2.01 g	50 mL	09/14/18 8:55
8090168-01	P8I0189	2.01 g	50 mL	09/14/18 8:55
8090168-01	P8I0230	2 g	50 mL	09/18/18 8:35
8090168-02	P8I0189	2.02 g	50 mL	09/14/18 8:55
8090168-02	P8I0189	2.02 g	50 mL	09/14/18 8:55
8090168-02	P8I0230	2 g	50 mL	09/18/18 8:35
8090168-03	P8I0189	2 g	50 mL	09/14/18 8:55
8090168-03	P8I0230	2 g	50 mL	09/18/18 8:35
8090168-04	P8I0230	2 g	50 mL	09/18/18 8:35
8090168-04	P8I0189	2 g	50 mL	09/14/18 8:55

#### Prep Method: 7471B

Lab Number	Batch	Initial	Final	Date/Time
8090168-01	P8I0252	0.6 g	50 mL	09/19/18 9:00
8090168-02	P8I0252	0.6 g	50 mL	09/19/18 9:00
8090168-03	P8I0252	0.6 g	50 mL	09/19/18 9:00
8090168-04	P8I0252	0.6 g	50 mL	09/19/18 9:00

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# CHAIN OF CUSTODY RECORD

LAB USE ONLY

Client Company Name: Apex Companies  
Report To/Contact Name: Troy Hblschuh  
Reporting Address: 12610 Metropolitan Pkwy  
Charlotte NC 28269  
Phone: 204-949-6340 Fax (Yes) (No):  
Email Address: thblschuh@apexcos.com  
EDD Type: PDF Excel Other  
Site Location Name: Charlotte NC  
Site Location Physical Address:

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING:  
Project Name: NC DOT Charlotte P-5705A  
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)  
\*Please ATTACH any project specific reporting (QC LEVEL I III IV) provisions and/or QC Requirements  
Invoice To: NC DOT  
Address: 1529 Mail Service Center  
Raleigh NC 27699  
Purchase Order No./Billing Reference: WBS 44475.11  
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)

YES NO N/A

Samples INTACT upon arrival?  YES  NO  N/A

Received ON WET ICE?  YES  NO  N/A

PROPER PRESERVATIVES indicated?  YES  NO  N/A

Received WITH-IN 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: IRET9 Observed: 3.1 °C / Corr: NA °C

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL  
Certification: NELAC SC DOD FL N/A NC  
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				
B6 PR-1 (3)	9-11-18	915	Soil	G	1	8oz	none	X		01
B6 PR-2 (2)	9-11-18	920	Soil	G	1	8oz	none	X		02
B6 OSC-1 (2.5)	9-11-18	930	Soil	G	1	8oz	none	X		03
B6 HG-1 (2)	9-11-18	1000	Soil	G	1	8oz	none	X		04

Sampler's Signature: Troy Hblschuh Sampled By (Print Name) Troy Hblschuh Affiliation Apex  
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) Troy Hblschuh Received By: (Signature) Justin Date 9-12-18 Millitary/Hours 13.50  
Relinquished By: (Signature) Justin Received For Prism Laboratories By: Justin Date 9-12-18 Millitary/Hours 16.25

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

Fed Ex  UPS  Hand-delivered  Prism Field Service  Other

GROUNDWATER:  NC  SC  DRINKING WATER:  NC  SC  SOLID WASTE:  NC  SC  RCRA:  NC  SC  CERCLA  NC  SC  LANDFILL  NC  SC  OTHER:  NC  SC

COC Group No. 8090168

Additional Comments:

SEE REVERSE FOR TERMS & CONDITIONS

PRISM USE ONLY

Site Arrival Time: \_\_\_\_\_

Site Departure Time: \_\_\_\_\_

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

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



Full-Service Analytical & Environmental Solutions

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

# Case Narrative

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Lab Submittal Date: 10/25/2018  
Prism Work Order: 8100451

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:

- A Response factor is below range. Analyte not detected in sample.
- D RPD value outside of the control limits.
- DO Surrogates diluted out.
- 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.
- SR Surrogate recovery outside the QC limits.
- BRL Below Reporting Limit
- MDL Method Detection Limit
- RPD Relative Percent Difference
- \* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

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**Sample Receipt Summary**

11/08/2018

Prism Work Order: 8100451

Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P2SB-30 (4-6)	8100451-01	Solid	10/25/18 11:40	10/25/18 17:00
P2SB-31 (0-2)	8100451-02	Solid	10/25/18 12:22	10/25/18 17:00
P2SB-31 (4-6)	8100451-03	Solid	10/25/18 12:25	10/25/18 17:00
P2SB-32 (0-2)	8100451-04	Solid	10/25/18 13:01	10/25/18 17:00
P2SB-32 (4-6)	8100451-05	Solid	10/25/18 13:04	10/25/18 17:00
P2SB-33 (0-2)	8100451-06	Solid	10/25/18 13:50	10/25/18 17:00
P2SB-34 (0-2)	8100451-07	Solid	10/25/18 14:12	10/25/18 17:00
P2SB-15 (0-1.5)	8100451-08	Solid	10/25/18 14:40	10/25/18 17:00
P2SB-7 (1ft)	8100451-09	Solid	10/25/18 14:54	10/25/18 17:00
P2SB-21 (0-1)	8100451-10	Solid	10/25/18 15:20	10/25/18 17:00
P2SB-4 (0-1)	8100451-11	Solid	10/25/18 15:31	10/25/18 17:00
P2SB-2 (0-1)	8100451-12	Solid	10/25/18 15:51	10/25/18 17:00

Samples were received in good condition at 5.5 degrees C unless otherwise noted.



# Summary of Detections

11/08/2018

Prism Work Order: 8100451

Prism ID	Client ID	Parameter	Method	Result		Units
8100451-01	P2SB-30 (4-6)	Mercury	7471B	0.021	J	mg/kg dry
8100451-01	P2SB-30 (4-6)	Antimony	6010D	0.46		mg/kg dry
8100451-01	P2SB-30 (4-6)	Arsenic	6010D	2.0		mg/kg dry
8100451-01	P2SB-30 (4-6)	Barium	6010D	40		mg/kg dry
8100451-01	P2SB-30 (4-6)	Beryllium	6010D	0.36		mg/kg dry
8100451-01	P2SB-30 (4-6)	Cadmium	6010D	0.10	J	mg/kg dry
8100451-01	P2SB-30 (4-6)	Chromium	6010D	30		mg/kg dry
8100451-01	P2SB-30 (4-6)	Copper	6010D	16		mg/kg dry
8100451-01	P2SB-30 (4-6)	Lead	6010D	6.5		mg/kg dry
8100451-01	P2SB-30 (4-6)	Nickel	6010D	6.7		mg/kg dry
8100451-01	P2SB-30 (4-6)	Thallium	6010D	1.8		mg/kg dry
8100451-01	P2SB-30 (4-6)	Zinc	6010D	16		mg/kg dry
8100451-01	P2SB-30 (4-6)	Acetone	8260B	0.052	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Benzo(b)fluoranthene	8270D	0.13	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Benzoic Acid	8270D	0.30	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Fluoranthene	8270D	0.17	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Phenanthrene	8270D	0.11	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Pyrene	8270D	0.16	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Mercury	7471B	0.018	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Antimony	6010D	0.51		mg/kg dry
8100451-03	P2SB-31 (4-6)	Arsenic	6010D	1.4		mg/kg dry
8100451-03	P2SB-31 (4-6)	Barium	6010D	37		mg/kg dry
8100451-03	P2SB-31 (4-6)	Beryllium	6010D	0.32		mg/kg dry
8100451-03	P2SB-31 (4-6)	Cadmium	6010D	0.23	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Chromium	6010D	54		mg/kg dry
8100451-03	P2SB-31 (4-6)	Copper	6010D	26		mg/kg dry
8100451-03	P2SB-31 (4-6)	Lead	6010D	10		mg/kg dry
8100451-03	P2SB-31 (4-6)	Nickel	6010D	15		mg/kg dry
8100451-03	P2SB-31 (4-6)	Thallium	6010D	1.5		mg/kg dry
8100451-03	P2SB-31 (4-6)	Zinc	6010D	22		mg/kg dry
8100451-03	P2SB-31 (4-6)	1,2,4-Trimethylbenzene	8260B	0.0023	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Acetone	8260B	0.024	J	mg/kg dry
8100451-03	P2SB-31 (4-6)	Naphthalene	8260B	6.5		mg/kg dry
8100451-04	P2SB-32 (0-2)	1-Methylnaphthalene	8270D	0.86		mg/kg dry
8100451-04	P2SB-32 (0-2)	2-Methylnaphthalene	8270D	1.1		mg/kg dry
8100451-04	P2SB-32 (0-2)	Acenaphthene	8270D	0.40		mg/kg dry
8100451-04	P2SB-32 (0-2)	Benzoic Acid	8270D	0.22	J	mg/kg dry
8100451-04	P2SB-32 (0-2)	Dibenzofuran	8270D	0.25	J	mg/kg dry
8100451-04	P2SB-32 (0-2)	Fluoranthene	8270D	0.17	J	mg/kg dry
8100451-04	P2SB-32 (0-2)	Fluorene	8270D	0.24	J	mg/kg dry
8100451-04	P2SB-32 (0-2)	Naphthalene	8270D	2.4		mg/kg dry
8100451-04	P2SB-32 (0-2)	Phenanthrene	8270D	0.35	J	mg/kg dry
8100451-04	P2SB-32 (0-2)	Pyrene	8270D	0.12	J	mg/kg dry
8100451-04	P2SB-32 (0-2)	Mercury	7471B	0.092		mg/kg dry

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Prism ID	Client ID	Parameter	Method	Result		Units
8100451-04	P2SB-32 (0-2)	Antimony	6010D	0.54		mg/kg dry
8100451-04	P2SB-32 (0-2)	Arsenic	6010D	2.9		mg/kg dry
8100451-04	P2SB-32 (0-2)	Barium	6010D	39		mg/kg dry
8100451-04	P2SB-32 (0-2)	Beryllium	6010D	0.68		mg/kg dry
8100451-04	P2SB-32 (0-2)	Cadmium	6010D	0.037	J	mg/kg dry
8100451-04	P2SB-32 (0-2)	Chromium	6010D	30		mg/kg dry
8100451-04	P2SB-32 (0-2)	Copper	6010D	34		mg/kg dry
8100451-04	P2SB-32 (0-2)	Lead	6010D	8.2		mg/kg dry
8100451-04	P2SB-32 (0-2)	Nickel	6010D	9.6		mg/kg dry
8100451-04	P2SB-32 (0-2)	Thallium	6010D	3.2		mg/kg dry
8100451-04	P2SB-32 (0-2)	Zinc	6010D	23		mg/kg dry
8100451-05	P2SB-32 (4-6)	Benzoic Acid	8270D	0.19	J	mg/kg dry
8100451-05	P2SB-32 (4-6)	Mercury	7471B	0.020	J	mg/kg dry
8100451-05	P2SB-32 (4-6)	Antimony	6010D	0.42		mg/kg dry
8100451-05	P2SB-32 (4-6)	Arsenic	6010D	2.2		mg/kg dry
8100451-05	P2SB-32 (4-6)	Barium	6010D	110		mg/kg dry
8100451-05	P2SB-32 (4-6)	Beryllium	6010D	0.69		mg/kg dry
8100451-05	P2SB-32 (4-6)	Cadmium	6010D	0.019	J	mg/kg dry
8100451-05	P2SB-32 (4-6)	Chromium	6010D	54		mg/kg dry
8100451-05	P2SB-32 (4-6)	Copper	6010D	35		mg/kg dry
8100451-05	P2SB-32 (4-6)	Lead	6010D	6.5		mg/kg dry
8100451-05	P2SB-32 (4-6)	Nickel	6010D	20		mg/kg dry
8100451-05	P2SB-32 (4-6)	Thallium	6010D	3.0		mg/kg dry
8100451-05	P2SB-32 (4-6)	Zinc	6010D	28		mg/kg dry
8100451-06	P2SB-33 (0-2)	Benzoic Acid	8270D	0.35	J	mg/kg dry
8100451-06	P2SB-33 (0-2)	Mercury	7471B	0.13		mg/kg dry
8100451-06	P2SB-33 (0-2)	Antimony	6010D	1.5		mg/kg dry
8100451-06	P2SB-33 (0-2)	Arsenic	6010D	3.0		mg/kg dry
8100451-06	P2SB-33 (0-2)	Barium	6010D	92		mg/kg dry
8100451-06	P2SB-33 (0-2)	Beryllium	6010D	0.96		mg/kg dry
8100451-06	P2SB-33 (0-2)	Cadmium	6010D	1.9		mg/kg dry
8100451-06	P2SB-33 (0-2)	Chromium	6010D	96		mg/kg dry
8100451-06	P2SB-33 (0-2)	Copper	6010D	130		mg/kg dry
8100451-06	P2SB-33 (0-2)	Lead	6010D	70		mg/kg dry
8100451-06	P2SB-33 (0-2)	Nickel	6010D	40		mg/kg dry
8100451-06	P2SB-33 (0-2)	Selenium	6010D	0.58	J	mg/kg dry
8100451-06	P2SB-33 (0-2)	Thallium	6010D	6.2		mg/kg dry
8100451-06	P2SB-33 (0-2)	Zinc	6010D	290		mg/kg dry
8100451-06	P2SB-33 (0-2)	Acetone	8260B	0.033	J	mg/kg dry
8100451-06	P2SB-33 (0-2)	cis-1,2-Dichloroethylene	8260B	0.0040	J	mg/kg dry
8100451-06	P2SB-33 (0-2)	Tetrachloroethylene	8260B	0.025		mg/kg dry
8100451-06	P2SB-33 (0-2)	Trichloroethylene	8260B	0.0073		mg/kg dry
8100451-07	P2SB-34 (0-2)	Mercury	7471B	0.029		mg/kg dry
8100451-07	P2SB-34 (0-2)	Antimony	6010D	2.3		mg/kg dry
8100451-07	P2SB-34 (0-2)	Arsenic	6010D	1.8		mg/kg dry

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# Summary of Detections

11/08/2018

Prism Work Order: 8100451

Prism ID	Client ID	Parameter	Method	Result	Units
8100451-07	P2SB-34 (0-2)	Barium	6010D	110	mg/kg dry
8100451-07	P2SB-34 (0-2)	Beryllium	6010D	0.71	mg/kg dry
8100451-07	P2SB-34 (0-2)	Cadmium	6010D	0.22	J mg/kg dry
8100451-07	P2SB-34 (0-2)	Chromium	6010D	19	mg/kg dry
8100451-07	P2SB-34 (0-2)	Copper	6010D	230	mg/kg dry
8100451-07	P2SB-34 (0-2)	Lead	6010D	16	mg/kg dry
8100451-07	P2SB-34 (0-2)	Nickel	6010D	10	mg/kg dry
8100451-07	P2SB-34 (0-2)	Selenium	6010D	1.1	mg/kg dry
8100451-07	P2SB-34 (0-2)	Thallium	6010D	4.7	mg/kg dry
8100451-07	P2SB-34 (0-2)	Zinc	6010D	160	mg/kg dry
8100451-07	P2SB-34 (0-2)	Acetone	8260B	0.059	mg/kg dry
8100451-08	P2SB-15 (0-1.5)	Aroclor 1248	8082A	18	mg/kg dry
8100451-08	P2SB-15 (0-1.5)	Aroclor 1254	8082A	18	mg/kg dry
8100451-08	P2SB-15 (0-1.5)	Aroclor 1260	8082A	35	mg/kg dry
8100451-09	P2SB-7 (1ft)	Aroclor 1248	8082A	0.061	mg/kg dry
8100451-09	P2SB-7 (1ft)	Aroclor 1254	8082A	0.076	mg/kg dry
8100451-09	P2SB-7 (1ft)	Aroclor 1260	8082A	0.044	J mg/kg dry
8100451-10	P2SB-21 (0-1)	Aroclor 1248	8082A	0.44	mg/kg dry
8100451-10	P2SB-21 (0-1)	Aroclor 1254	8082A	1.3	mg/kg dry
8100451-10	P2SB-21 (0-1)	Aroclor 1260	8082A	0.79	mg/kg dry
8100451-11	P2SB-4 (0-1)	Aroclor 1254	8082A	0.64	mg/kg dry
8100451-11	P2SB-4 (0-1)	Aroclor 1260	8082A	0.42	mg/kg dry
8100451-12	P2SB-2 (0-1)	Aroclor 1254	8082A	15	mg/kg dry
8100451-12	P2SB-2 (0-1)	Aroclor 1260	8082A	25	mg/kg dry

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-30 (4-6)  
Prism Sample ID: 8100451-01  
Prism Work Order: 8100451  
Time Collected: 10/25/18 11:40  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	87.6	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.38	0.059	1	8270D	11/1/18 17:25	JMV	P8J0598
1,2-Dichlorobenzene	BRL	mg/kg dry	0.38	0.057	1	8270D	11/1/18 17:25	JMV	P8J0598
1,3-Dichlorobenzene	BRL	mg/kg dry	0.38	0.053	1	8270D	11/1/18 17:25	JMV	P8J0598
1,4-Dichlorobenzene	BRL	mg/kg dry	0.38	0.055	1	8270D	11/1/18 17:25	JMV	P8J0598
1-Methylnaphthalene	BRL	mg/kg dry	0.38	0.073	1	8270D	11/1/18 17:25	JMV	P8J0598
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.38	0.071	1	8270D	11/1/18 17:25	JMV	P8J0598
2,4-Dichlorophenol	BRL	mg/kg dry	0.38	0.073	1	8270D	11/1/18 17:25	JMV	P8J0598
2,4-Dimethylphenol	BRL	mg/kg dry	0.38	0.058	1	8270D	11/1/18 17:25	JMV	P8J0598
2,4-Dinitrophenol	BRL	mg/kg dry	0.38	0.053	1	8270D	11/1/18 17:25	JMV	P8J0598
2,4-Dinitrotoluene	BRL	mg/kg dry	0.38	0.046	1	8270D	11/1/18 17:25	JMV	P8J0598
2,6-Dinitrotoluene	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 17:25	JMV	P8J0598
2-Chloronaphthalene	BRL	mg/kg dry	0.38	0.055	1	8270D	11/1/18 17:25	JMV	P8J0598
2-Chlorophenol	BRL	mg/kg dry	0.38	0.053	1	8270D	11/1/18 17:25	JMV	P8J0598
2-Methylnaphthalene	BRL	mg/kg dry	0.38	0.060	1	8270D	11/1/18 17:25	JMV	P8J0598
2-Methylphenol	BRL	mg/kg dry	0.38	0.048	1	8270D	11/1/18 17:25	JMV	P8J0598
2-Nitrophenol	BRL	mg/kg dry	0.38	0.069	1	8270D	11/1/18 17:25	JMV	P8J0598
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.38	0.074	1	8270D	11/1/18 17:25	JMV	P8J0598
3/4-Methylphenol	BRL	mg/kg dry	0.38	0.046	1	8270D	11/1/18 17:25	JMV	P8J0598
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.38	0.057	1	8270D	11/1/18 17:25	JMV	P8J0598
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.38	0.065	1	8270D	11/1/18 17:25	JMV	P8J0598
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.38	0.053	1	8270D	11/1/18 17:25	JMV	P8J0598
4-Chloroaniline	BRL	mg/kg dry	0.38	0.045	1	8270D	11/1/18 17:25	JMV	P8J0598
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.38	0.049	1	8270D	11/1/18 17:25	JMV	P8J0598
4-Nitrophenol	BRL	mg/kg dry	0.38	0.058	1	8270D	11/1/18 17:25	JMV	P8J0598
Acenaphthene	BRL	mg/kg dry	0.38	0.051	1	8270D	11/1/18 17:25	JMV	P8J0598
Acenaphthylene	BRL	mg/kg dry	0.38	0.055	1	8270D	11/1/18 17:25	JMV	P8J0598
Anthracene	BRL	mg/kg dry	0.38	0.061	1	8270D	11/1/18 17:25	JMV	P8J0598
Azobenzene	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 17:25	JMV	P8J0598
Benzo(a)anthracene	BRL	mg/kg dry	0.38	0.049	1	8270D	11/1/18 17:25	JMV	P8J0598
Benzo(a)pyrene	BRL	mg/kg dry	0.38	0.041	1	8270D	11/1/18 17:25	JMV	P8J0598
Benzo(b)fluoranthene	BRL	mg/kg dry	0.38	0.044	1	8270D	11/1/18 17:25	JMV	P8J0598
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.38	0.041	1	8270D	11/1/18 17:25	JMV	P8J0598
Benzo(k)fluoranthene	BRL	mg/kg dry	0.38	0.049	1	8270D	11/1/18 17:25	JMV	P8J0598
Benzoic Acid	BRL	mg/kg dry	0.38	0.032	1	8270D	11/1/18 17:25	JMV	P8J0598
Benzyl alcohol	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 17:25	JMV	P8J0598
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.38	0.065	1	8270D	11/1/18 17:25	JMV	P8J0598
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.38	0.053	1	8270D	11/1/18 17:25	JMV	P8J0598
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.38	0.064	1	8270D	11/1/18 17:25	JMV	P8J0598
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.38	0.056	1	8270D	11/1/18 17:25	JMV	P8J0598

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-30 (4-6)  
Prism Sample ID: 8100451-01  
Prism Work Order: 8100451  
Time Collected: 10/25/18 11:40  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 17:25	JMV	P8J0598
Chrysene	BRL	mg/kg dry	0.38	0.047	1	8270D	11/1/18 17:25	JMV	P8J0598
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.38	0.046	1	8270D	11/1/18 17:25	JMV	P8J0598
Dibenzofuran	BRL	mg/kg dry	0.38	0.057	1	8270D	11/1/18 17:25	JMV	P8J0598
Diethyl phthalate	BRL	mg/kg dry	0.38	0.052	1	8270D	11/1/18 17:25	JMV	P8J0598
Dimethyl phthalate	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 17:25	JMV	P8J0598
Di-n-butyl phthalate	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 17:25	JMV	P8J0598
Di-n-octyl phthalate	BRL	mg/kg dry	0.38	0.046	1	8270D	11/1/18 17:25	JMV	P8J0598
Fluoranthene	BRL	mg/kg dry	0.38	0.048	1	8270D	11/1/18 17:25	JMV	P8J0598
Fluorene	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 17:25	JMV	P8J0598
Hexachlorobenzene	BRL	mg/kg dry	0.38	0.060	1	8270D	11/1/18 17:25	JMV	P8J0598
Hexachlorobutadiene	BRL	mg/kg dry	0.38	0.068	1	8270D	11/1/18 17:25	JMV	P8J0598
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.38	0.067	1	8270D	11/1/18 17:25	JMV	P8J0598
Hexachloroethane	BRL	mg/kg dry	0.38	0.063	1	8270D	11/1/18 17:25	JMV	P8J0598
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.38	0.043	1	8270D	11/1/18 17:25	JMV	P8J0598
Isophorone	BRL	mg/kg dry	0.38	0.051	1	8270D	11/1/18 17:25	JMV	P8J0598
Naphthalene	BRL	mg/kg dry	0.38	0.061	1	8270D	11/1/18 17:25	JMV	P8J0598
Nitrobenzene	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 17:25	JMV	P8J0598
N-Nitroso-di-n-propylamine	BRL A	mg/kg dry	0.38	0.059	1	8270D	11/1/18 17:25	JMV	P8J0598
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.38	0.057	1	8270D	11/1/18 17:25	JMV	P8J0598
Pentachlorophenol	BRL	mg/kg dry	0.38	0.045	1	8270D	11/1/18 17:25	JMV	P8J0598
Phenanthrene	BRL	mg/kg dry	0.38	0.049	1	8270D	11/1/18 17:25	JMV	P8J0598
Phenol	BRL	mg/kg dry	0.38	0.056	1	8270D	11/1/18 17:25	JMV	P8J0598
Pyrene	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 17:25	JMV	P8J0598

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	88 %	39-132
2-Fluorobiphenyl	89 %	44-115
2-Fluorophenol	86 %	35-115
Nitrobenzene-d5	77 %	37-122
Phenol-d5	86 %	34-121
Terphenyl-d14	85 %	54-127

**Total Metals**

Mercury	0.021 J	mg/kg dry	0.022	0.0021	1	7471B	10/30/18 14:08	MMR	P8J0574
Antimony	0.46	mg/kg dry	0.29	0.029	1	6010D	10/30/18 15:29	JAB	P8J0550
Arsenic	2.0	mg/kg dry	0.57	0.035	1	6010D	10/30/18 15:29	JAB	P8J0550
Barium	40	mg/kg dry	0.57	0.083	1	6010D	10/30/18 15:29	JAB	P8J0550
Beryllium	0.36	mg/kg dry	0.29	0.0063	1	6010D	10/30/18 15:29	JAB	P8J0550
Cadmium	0.10 J	mg/kg dry	0.29	0.0077	1	6010D	10/30/18 15:29	JAB	P8J0550
Chromium	30	mg/kg dry	0.29	0.048	1	6010D	10/30/18 15:29	JAB	P8J0550
Copper	16	mg/kg dry	0.57	0.052	1	6010D	10/30/18 15:29	JAB	P8J0550
Lead	6.5	mg/kg dry	0.29	0.053	1	6010D	10/30/18 15:29	JAB	P8J0550
Nickel	6.7	mg/kg dry	0.57	0.021	1	6010D	10/30/18 15:29	JAB	P8J0550

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Apex Companies, LLC (Charlotte Office)  
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Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-30 (4-6)  
Prism Sample ID: 8100451-01  
Prism Work Order: 8100451  
Time Collected: 10/25/18 11:40  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.57	0.14	1	6010D	10/30/18 15:29	JAB	P8J0550
Silver	BRL	mg/kg dry	0.29	0.0071	1	6010D	10/30/18 15:29	JAB	P8J0550
<b>Thallium</b>	<b>1.8</b>	<b>mg/kg dry</b>	<b>0.57</b>	<b>0.075</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 15:29</b>	<b>JAB</b>	<b>P8J0550</b>
<b>Zinc</b>	<b>16</b>	<b>mg/kg dry</b>	<b>2.9</b>	<b>0.10</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 15:29</b>	<b>JAB</b>	<b>P8J0550</b>

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0055	0.00045	1	8260B	11/5/18 16:38	JLB	P8K0071
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0055	0.00027	1	8260B	11/5/18 16:38	JLB	P8K0071
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0055	0.00037	1	8260B	11/5/18 16:38	JLB	P8K0071
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0055	0.00049	1	8260B	11/5/18 16:38	JLB	P8K0071
1,1-Dichloroethane	BRL	mg/kg dry	0.0055	0.00015	1	8260B	11/5/18 16:38	JLB	P8K0071
1,1-Dichloroethylene	BRL	mg/kg dry	0.0055	0.00024	1	8260B	11/5/18 16:38	JLB	P8K0071
1,1-Dichloropropylene	BRL	mg/kg dry	0.0055	0.00030	1	8260B	11/5/18 16:38	JLB	P8K0071
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0055	0.00031	1	8260B	11/5/18 16:38	JLB	P8K0071
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0055	0.00070	1	8260B	11/5/18 16:38	JLB	P8K0071
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0055	0.00041	1	8260B	11/5/18 16:38	JLB	P8K0071
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0055	0.00042	1	8260B	11/5/18 16:38	JLB	P8K0071
1,2-Dibromoethane	BRL	mg/kg dry	0.0055	0.00022	1	8260B	11/5/18 16:38	JLB	P8K0071
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0055	0.00026	1	8260B	11/5/18 16:38	JLB	P8K0071
1,2-Dichloroethane	BRL	mg/kg dry	0.0055	0.00033	1	8260B	11/5/18 16:38	JLB	P8K0071
1,2-Dichloropropane	BRL	mg/kg dry	0.0055	0.00034	1	8260B	11/5/18 16:38	JLB	P8K0071
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0055	0.00042	1	8260B	11/5/18 16:38	JLB	P8K0071
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0055	0.00036	1	8260B	11/5/18 16:38	JLB	P8K0071
1,3-Dichloropropane	BRL	mg/kg dry	0.0055	0.00028	1	8260B	11/5/18 16:38	JLB	P8K0071
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0055	0.00022	1	8260B	11/5/18 16:38	JLB	P8K0071
2,2-Dichloropropane	BRL	mg/kg dry	0.0055	0.00026	1	8260B	11/5/18 16:38	JLB	P8K0071
2-Chlorotoluene	BRL	mg/kg dry	0.0055	0.00028	1	8260B	11/5/18 16:38	JLB	P8K0071
4-Chlorotoluene	BRL	mg/kg dry	0.0055	0.00033	1	8260B	11/5/18 16:38	JLB	P8K0071
4-Isopropyltoluene	BRL	mg/kg dry	0.0055	0.00026	1	8260B	11/5/18 16:38	JLB	P8K0071
<b>Acetone</b>	<b>0.052 J</b>	<b>mg/kg dry</b>	<b>0.055</b>	<b>0.0013</b>	<b>1</b>	<b>8260B</b>	<b>11/5/18 16:38</b>	<b>JLB</b>	<b>P8K0071</b>
Benzene	BRL	mg/kg dry	0.0033	0.00032	1	8260B	11/5/18 16:38	JLB	P8K0071
Bromobenzene	BRL	mg/kg dry	0.0055	0.00046	1	8260B	11/5/18 16:38	JLB	P8K0071
Bromochloromethane	BRL	mg/kg dry	0.0055	0.00030	1	8260B	11/5/18 16:38	JLB	P8K0071
Bromodichloromethane	BRL	mg/kg dry	0.0055	0.00031	1	8260B	11/5/18 16:38	JLB	P8K0071
Bromoform	BRL	mg/kg dry	0.0055	0.00062	1	8260B	11/5/18 16:38	JLB	P8K0071
Bromomethane	BRL	mg/kg dry	0.011	0.00068	1	8260B	11/5/18 16:38	JLB	P8K0071
Carbon Tetrachloride	BRL	mg/kg dry	0.0055	0.00027	1	8260B	11/5/18 16:38	JLB	P8K0071
Chlorobenzene	BRL	mg/kg dry	0.0055	0.00029	1	8260B	11/5/18 16:38	JLB	P8K0071
Chloroethane	BRL	mg/kg dry	0.011	0.00046	1	8260B	11/5/18 16:38	JLB	P8K0071
Chloroform	BRL	mg/kg dry	0.0055	0.00040	1	8260B	11/5/18 16:38	JLB	P8K0071
Chloromethane	BRL	mg/kg dry	0.0055	0.00037	1	8260B	11/5/18 16:38	JLB	P8K0071
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0055	0.00023	1	8260B	11/5/18 16:38	JLB	P8K0071
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0055	0.00018	1	8260B	11/5/18 16:38	JLB	P8K0071
Dibromochloromethane	BRL	mg/kg dry	0.0055	0.00023	1	8260B	11/5/18 16:38	JLB	P8K0071

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-30 (4-6)  
Prism Sample ID: 8100451-01  
Prism Work Order: 8100451  
Time Collected: 10/25/18 11:40  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0055	0.00025	1	8260B	11/5/18 16:38	JLB	P8K0071
Ethylbenzene	BRL	mg/kg dry	0.0055	0.00021	1	8260B	11/5/18 16:38	JLB	P8K0071
Isopropyl Ether	BRL	mg/kg dry	0.0055	0.00022	1	8260B	11/5/18 16:38	JLB	P8K0071
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0055	0.00033	1	8260B	11/5/18 16:38	JLB	P8K0071
m,p-Xylenes	BRL	mg/kg dry	0.011	0.00051	1	8260B	11/5/18 16:38	JLB	P8K0071
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.055	0.00050	1	8260B	11/5/18 16:38	JLB	P8K0071
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.11	0.00050	1	8260B	11/5/18 16:38	JLB	P8K0071
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.055	0.00047	1	8260B	11/5/18 16:38	JLB	P8K0071
Methylene Chloride	BRL	mg/kg dry	0.011	0.00031	1	8260B	11/5/18 16:38	JLB	P8K0071
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.011	0.00018	1	8260B	11/5/18 16:38	JLB	P8K0071
Naphthalene	BRL	mg/kg dry	0.011	0.00017	1	8260B	11/5/18 16:38	JLB	P8K0071
n-Butylbenzene	BRL	mg/kg dry	0.0055	0.00028	1	8260B	11/5/18 16:38	JLB	P8K0071
n-Propylbenzene	BRL	mg/kg dry	0.0055	0.00033	1	8260B	11/5/18 16:38	JLB	P8K0071
o-Xylene	BRL	mg/kg dry	0.0055	0.00023	1	8260B	11/5/18 16:38	JLB	P8K0071
sec-Butylbenzene	BRL	mg/kg dry	0.0055	0.00027	1	8260B	11/5/18 16:38	JLB	P8K0071
Styrene	BRL	mg/kg dry	0.0055	0.00033	1	8260B	11/5/18 16:38	JLB	P8K0071
tert-Butylbenzene	BRL	mg/kg dry	0.0055	0.00019	1	8260B	11/5/18 16:38	JLB	P8K0071
Tetrachloroethylene	BRL	mg/kg dry	0.0055	0.00026	1	8260B	11/5/18 16:38	JLB	P8K0071
Toluene	BRL	mg/kg dry	0.0055	0.00032	1	8260B	11/5/18 16:38	JLB	P8K0071
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0055	0.00033	1	8260B	11/5/18 16:38	JLB	P8K0071
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0055	0.00029	1	8260B	11/5/18 16:38	JLB	P8K0071
Trichloroethylene	BRL	mg/kg dry	0.0055	0.00036	1	8260B	11/5/18 16:38	JLB	P8K0071
Trichlorofluoromethane	BRL	mg/kg dry	0.0055	0.00035	1	8260B	11/5/18 16:38	JLB	P8K0071
Vinyl acetate	BRL	mg/kg dry	0.027	0.00075	1	8260B	11/5/18 16:38	JLB	P8K0071
Vinyl chloride	BRL	mg/kg dry	0.0055	0.00027	1	8260B	11/5/18 16:38	JLB	P8K0071
Xylenes, total	BRL	mg/kg dry	0.016	0.0010	1	8260B	11/5/18 16:38	JLB	P8K0071
			Surrogate			Recovery		Control Limits	
			4-Bromofluorobenzene			102 %		70-130	
			Dibromofluoromethane			106 %		84-123	
			Toluene-d8			103 %		76-129	





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## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
 Attn: Katie Lippard  
 10610 Metromont Blvd., Suite 206  
 Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
 Project No.: WBS 44475.1.1  
 Sample Matrix: Solid

Client Sample ID: P2SB-31 (0-2)  
 Prism Sample ID: 8100451-02  
 Prism Work Order: 8100451  
 Time Collected: 10/25/18 12:22  
 Time Submitted: 10/25/18 17:00

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

% Solids	79.5	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
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**Polychlorinated Biphenyls (PCBs) by GC/ECD**

Aroclor 1016	BRL	mg/kg dry	0.063	0.0069	1	8082A	11/7/18 4:53	ZRC	P8K0028
Aroclor 1221	BRL	mg/kg dry	0.13	0.050	1	8082A	11/7/18 4:53	ZRC	P8K0028
Aroclor 1232	BRL	mg/kg dry	0.13	0.016	1	8082A	11/7/18 4:53	ZRC	P8K0028
Aroclor 1242	BRL	mg/kg dry	0.063	0.017	1	8082A	11/7/18 4:53	ZRC	P8K0028
Aroclor 1248	BRL	mg/kg dry	0.063	0.013	1	8082A	11/7/18 4:53	ZRC	P8K0028
Aroclor 1254	BRL	mg/kg dry	0.063	0.016	1	8082A	11/7/18 4:53	ZRC	P8K0028
Aroclor 1260	BRL	mg/kg dry	0.063	0.0079	1	8082A	11/7/18 4:53	ZRC	P8K0028

Surrogate	Recovery	Control Limits
Tetrachloro-m-xylene	280 %	36-182
Decachlorobiphenyl	82 %	34-182

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10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-31 (4-6)  
Prism Sample ID: 8100451-03  
Prism Work Order: 8100451  
Time Collected: 10/25/18 12:25  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	86.6	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.38	0.059	1	8270D	11/1/18 19:20	JMV	P8J0598
1,2-Dichlorobenzene	BRL	mg/kg dry	0.38	0.058	1	8270D	11/1/18 19:20	JMV	P8J0598
1,3-Dichlorobenzene	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 19:20	JMV	P8J0598
1,4-Dichlorobenzene	BRL	mg/kg dry	0.38	0.056	1	8270D	11/1/18 19:20	JMV	P8J0598
1-Methylnaphthalene	BRL	mg/kg dry	0.38	0.073	1	8270D	11/1/18 19:20	JMV	P8J0598
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.38	0.071	1	8270D	11/1/18 19:20	JMV	P8J0598
2,4-Dichlorophenol	BRL	mg/kg dry	0.38	0.074	1	8270D	11/1/18 19:20	JMV	P8J0598
2,4-Dimethylphenol	BRL	mg/kg dry	0.38	0.058	1	8270D	11/1/18 19:20	JMV	P8J0598
2,4-Dinitrophenol	BRL	mg/kg dry	0.38	0.053	1	8270D	11/1/18 19:20	JMV	P8J0598
2,4-Dinitrotoluene	BRL	mg/kg dry	0.38	0.046	1	8270D	11/1/18 19:20	JMV	P8J0598
2,6-Dinitrotoluene	BRL	mg/kg dry	0.38	0.051	1	8270D	11/1/18 19:20	JMV	P8J0598
2-Chloronaphthalene	BRL	mg/kg dry	0.38	0.055	1	8270D	11/1/18 19:20	JMV	P8J0598
2-Chlorophenol	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 19:20	JMV	P8J0598
2-Methylnaphthalene	BRL	mg/kg dry	0.38	0.061	1	8270D	11/1/18 19:20	JMV	P8J0598
2-Methylphenol	BRL	mg/kg dry	0.38	0.049	1	8270D	11/1/18 19:20	JMV	P8J0598
2-Nitrophenol	BRL	mg/kg dry	0.38	0.069	1	8270D	11/1/18 19:20	JMV	P8J0598
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.38	0.075	1	8270D	11/1/18 19:20	JMV	P8J0598
3/4-Methylphenol	BRL	mg/kg dry	0.38	0.047	1	8270D	11/1/18 19:20	JMV	P8J0598
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.38	0.057	1	8270D	11/1/18 19:20	JMV	P8J0598
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.38	0.065	1	8270D	11/1/18 19:20	JMV	P8J0598
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.38	0.053	1	8270D	11/1/18 19:20	JMV	P8J0598
4-Chloroaniline	BRL	mg/kg dry	0.38	0.046	1	8270D	11/1/18 19:20	JMV	P8J0598
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.38	0.049	1	8270D	11/1/18 19:20	JMV	P8J0598
4-Nitrophenol	BRL	mg/kg dry	0.38	0.059	1	8270D	11/1/18 19:20	JMV	P8J0598
Acenaphthene	BRL	mg/kg dry	0.38	0.052	1	8270D	11/1/18 19:20	JMV	P8J0598
Acenaphthylene	BRL	mg/kg dry	0.38	0.055	1	8270D	11/1/18 19:20	JMV	P8J0598
Anthracene	BRL	mg/kg dry	0.38	0.061	1	8270D	11/1/18 19:20	JMV	P8J0598
Azobenzene	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 19:20	JMV	P8J0598
Benzo(a)anthracene	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 19:20	JMV	P8J0598
Benzo(a)pyrene	BRL	mg/kg dry	0.38	0.041	1	8270D	11/1/18 19:20	JMV	P8J0598
<b>Benzo(b)fluoranthene</b>	<b>0.13 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.044</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 19:20</b>	<b>JMV</b>	<b>P8J0598</b>
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.38	0.042	1	8270D	11/1/18 19:20	JMV	P8J0598
Benzo(k)fluoranthene	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 19:20	JMV	P8J0598
<b>Benzoic Acid</b>	<b>0.30 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.032</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 19:20</b>	<b>JMV</b>	<b>P8J0598</b>
Benzyl alcohol	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 19:20	JMV	P8J0598
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.38	0.066	1	8270D	11/1/18 19:20	JMV	P8J0598
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 19:20	JMV	P8J0598
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.38	0.065	1	8270D	11/1/18 19:20	JMV	P8J0598
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.38	0.057	1	8270D	11/1/18 19:20	JMV	P8J0598

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-31 (4-6)  
Prism Sample ID: 8100451-03  
Prism Work Order: 8100451  
Time Collected: 10/25/18 12:25  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 19:20	JMV	P8J0598
Chrysene	BRL	mg/kg dry	0.38	0.048	1	8270D	11/1/18 19:20	JMV	P8J0598
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.38	0.046	1	8270D	11/1/18 19:20	JMV	P8J0598
Dibenzofuran	BRL	mg/kg dry	0.38	0.058	1	8270D	11/1/18 19:20	JMV	P8J0598
Diethyl phthalate	BRL	mg/kg dry	0.38	0.052	1	8270D	11/1/18 19:20	JMV	P8J0598
Dimethyl phthalate	BRL	mg/kg dry	0.38	0.050	1	8270D	11/1/18 19:20	JMV	P8J0598
Di-n-butyl phthalate	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 19:20	JMV	P8J0598
Di-n-octyl phthalate	BRL	mg/kg dry	0.38	0.047	1	8270D	11/1/18 19:20	JMV	P8J0598
<b>Fluoranthene</b>	<b>0.17 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.049</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 19:20</b>	<b>JMV</b>	<b>P8J0598</b>
Fluorene	BRL	mg/kg dry	0.38	0.055	1	8270D	11/1/18 19:20	JMV	P8J0598
Hexachlorobenzene	BRL	mg/kg dry	0.38	0.060	1	8270D	11/1/18 19:20	JMV	P8J0598
Hexachlorobutadiene	BRL	mg/kg dry	0.38	0.068	1	8270D	11/1/18 19:20	JMV	P8J0598
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.38	0.068	1	8270D	11/1/18 19:20	JMV	P8J0598
Hexachloroethane	BRL	mg/kg dry	0.38	0.064	1	8270D	11/1/18 19:20	JMV	P8J0598
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.38	0.044	1	8270D	11/1/18 19:20	JMV	P8J0598
Isophorone	BRL	mg/kg dry	0.38	0.052	1	8270D	11/1/18 19:20	JMV	P8J0598
Naphthalene	BRL	mg/kg dry	0.38	0.061	1	8270D	11/1/18 19:20	JMV	P8J0598
Nitrobenzene	BRL	mg/kg dry	0.38	0.054	1	8270D	11/1/18 19:20	JMV	P8J0598
N-Nitroso-di-n-propylamine	BRL A	mg/kg dry	0.38	0.060	1	8270D	11/1/18 19:20	JMV	P8J0598
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.38	0.058	1	8270D	11/1/18 19:20	JMV	P8J0598
Pentachlorophenol	BRL	mg/kg dry	0.38	0.045	1	8270D	11/1/18 19:20	JMV	P8J0598
<b>Phenanthrene</b>	<b>0.11 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.049</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 19:20</b>	<b>JMV</b>	<b>P8J0598</b>
Phenol	BRL	mg/kg dry	0.38	0.056	1	8270D	11/1/18 19:20	JMV	P8J0598
<b>Pyrene</b>	<b>0.16 J</b>	<b>mg/kg dry</b>	<b>0.38</b>	<b>0.050</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 19:20</b>	<b>JMV</b>	<b>P8J0598</b>

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	79 %	39-132
2-Fluorobiphenyl	90 %	44-115
2-Fluorophenol	78 %	35-115
Nitrobenzene-d5	73 %	37-122
Phenol-d5	80 %	34-121
Terphenyl-d14	84 %	54-127

**Total Metals**

Mercury	0.018 J	mg/kg dry	0.023	0.0022	1	7471B	10/30/18 14:13	MMR	P8J0574
Antimony	0.51	mg/kg dry	0.29	0.029	1	6010D	10/30/18 15:54	JAB	P8J0550
Arsenic	1.4	mg/kg dry	0.57	0.035	1	6010D	10/30/18 15:54	JAB	P8J0550
Barium	37	mg/kg dry	0.57	0.083	1	6010D	10/30/18 15:54	JAB	P8J0550
Beryllium	0.32	mg/kg dry	0.29	0.0063	1	6010D	10/30/18 15:54	JAB	P8J0550
Cadmium	0.23 J	mg/kg dry	0.29	0.0077	1	6010D	10/30/18 15:54	JAB	P8J0550
Chromium	54	mg/kg dry	0.29	0.048	1	6010D	10/30/18 15:54	JAB	P8J0550
Copper	26	mg/kg dry	0.57	0.052	1	6010D	10/30/18 15:54	JAB	P8J0550
Lead	10	mg/kg dry	0.29	0.053	1	6010D	10/30/18 15:54	JAB	P8J0550
Nickel	15	mg/kg dry	0.57	0.021	1	6010D	10/30/18 15:54	JAB	P8J0550

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Sample Matrix: Solid

Client Sample ID: P2SB-31 (4-6)  
Prism Sample ID: 8100451-03  
Prism Work Order: 8100451  
Time Collected: 10/25/18 12:25  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.57	0.14	1	6010D	10/30/18 15:54	JAB	P8J0550
Silver	BRL	mg/kg dry	0.29	0.0071	1	6010D	10/30/18 15:54	JAB	P8J0550
<b>Thallium</b>	<b>1.5</b>	<b>mg/kg dry</b>	<b>0.57</b>	<b>0.075</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 15:54</b>	<b>JAB</b>	<b>P8J0550</b>
<b>Zinc</b>	<b>22</b>	<b>mg/kg dry</b>	<b>2.9</b>	<b>0.10</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 15:54</b>	<b>JAB</b>	<b>P8J0550</b>

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0042	0.00035	1	8260B	11/2/18 22:21	JLB	P8K0047
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0042	0.00021	1	8260B	11/2/18 22:21	JLB	P8K0047
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0042	0.00029	1	8260B	11/2/18 22:21	JLB	P8K0047
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0042	0.00038	1	8260B	11/2/18 22:21	JLB	P8K0047
1,1-Dichloroethane	BRL	mg/kg dry	0.0042	0.00012	1	8260B	11/2/18 22:21	JLB	P8K0047
1,1-Dichloroethylene	BRL	mg/kg dry	0.0042	0.00019	1	8260B	11/2/18 22:21	JLB	P8K0047
1,1-Dichloropropylene	BRL	mg/kg dry	0.0042	0.00023	1	8260B	11/2/18 22:21	JLB	P8K0047
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0042	0.00024	1	8260B	11/2/18 22:21	JLB	P8K0047
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0042	0.00054	1	8260B	11/2/18 22:21	JLB	P8K0047
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0042	0.00032	1	8260B	11/2/18 22:21	JLB	P8K0047
<b>1,2,4-Trimethylbenzene</b>	<b>0.0023 J</b>	<b>mg/kg dry</b>	<b>0.0042</b>	<b>0.00032</b>	<b>1</b>	<b>8260B</b>	<b>11/2/18 22:21</b>	<b>JLB</b>	<b>P8K0047</b>
1,2-Dibromoethane	BRL	mg/kg dry	0.0042	0.00017	1	8260B	11/2/18 22:21	JLB	P8K0047
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0042	0.00020	1	8260B	11/2/18 22:21	JLB	P8K0047
1,2-Dichloroethane	BRL	mg/kg dry	0.0042	0.00025	1	8260B	11/2/18 22:21	JLB	P8K0047
1,2-Dichloropropane	BRL	mg/kg dry	0.0042	0.00026	1	8260B	11/2/18 22:21	JLB	P8K0047
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0042	0.00032	1	8260B	11/2/18 22:21	JLB	P8K0047
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0042	0.00028	1	8260B	11/2/18 22:21	JLB	P8K0047
1,3-Dichloropropane	BRL	mg/kg dry	0.0042	0.00021	1	8260B	11/2/18 22:21	JLB	P8K0047
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0042	0.00017	1	8260B	11/2/18 22:21	JLB	P8K0047
2,2-Dichloropropane	BRL	mg/kg dry	0.0042	0.00020	1	8260B	11/2/18 22:21	JLB	P8K0047
2-Chlorotoluene	BRL	mg/kg dry	0.0042	0.00022	1	8260B	11/2/18 22:21	JLB	P8K0047
4-Chlorotoluene	BRL	mg/kg dry	0.0042	0.00025	1	8260B	11/2/18 22:21	JLB	P8K0047
4-Isopropyltoluene	BRL	mg/kg dry	0.0042	0.00020	1	8260B	11/2/18 22:21	JLB	P8K0047
<b>Acetone</b>	<b>0.024 J</b>	<b>mg/kg dry</b>	<b>0.042</b>	<b>0.0010</b>	<b>1</b>	<b>8260B</b>	<b>11/2/18 22:21</b>	<b>JLB</b>	<b>P8K0047</b>
Benzene	BRL	mg/kg dry	0.0025	0.00025	1	8260B	11/2/18 22:21	JLB	P8K0047
Bromobenzene	BRL	mg/kg dry	0.0042	0.00035	1	8260B	11/2/18 22:21	JLB	P8K0047
Bromochloromethane	BRL	mg/kg dry	0.0042	0.00023	1	8260B	11/2/18 22:21	JLB	P8K0047
Bromodichloromethane	BRL	mg/kg dry	0.0042	0.00024	1	8260B	11/2/18 22:21	JLB	P8K0047
Bromoform	BRL	mg/kg dry	0.0042	0.00048	1	8260B	11/2/18 22:21	JLB	P8K0047
Bromomethane	BRL	mg/kg dry	0.0085	0.00052	1	8260B	11/2/18 22:21	JLB	P8K0047
Carbon Tetrachloride	BRL	mg/kg dry	0.0042	0.00021	1	8260B	11/2/18 22:21	JLB	P8K0047
Chlorobenzene	BRL	mg/kg dry	0.0042	0.00022	1	8260B	11/2/18 22:21	JLB	P8K0047
Chloroethane	BRL	mg/kg dry	0.0085	0.00035	1	8260B	11/2/18 22:21	JLB	P8K0047
Chloroform	BRL	mg/kg dry	0.0042	0.00031	1	8260B	11/2/18 22:21	JLB	P8K0047
Chloromethane	BRL	mg/kg dry	0.0042	0.00029	1	8260B	11/2/18 22:21	JLB	P8K0047
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0042	0.00018	1	8260B	11/2/18 22:21	JLB	P8K0047
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0042	0.00014	1	8260B	11/2/18 22:21	JLB	P8K0047
Dibromochloromethane	BRL	mg/kg dry	0.0042	0.00017	1	8260B	11/2/18 22:21	JLB	P8K0047

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Sample Matrix: Solid

Client Sample ID: P2SB-31 (4-6)  
Prism Sample ID: 8100451-03  
Prism Work Order: 8100451  
Time Collected: 10/25/18 12:25  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0042	0.00019	1	8260B	11/2/18 22:21	JLB	P8K0047
Ethylbenzene	BRL	mg/kg dry	0.0042	0.00016	1	8260B	11/2/18 22:21	JLB	P8K0047
Isopropyl Ether	BRL	mg/kg dry	0.0042	0.00017	1	8260B	11/2/18 22:21	JLB	P8K0047
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0042	0.00025	1	8260B	11/2/18 22:21	JLB	P8K0047
m,p-Xylenes	BRL	mg/kg dry	0.0085	0.00039	1	8260B	11/2/18 22:21	JLB	P8K0047
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.042	0.00038	1	8260B	11/2/18 22:21	JLB	P8K0047
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.085	0.00038	1	8260B	11/2/18 22:21	JLB	P8K0047
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.042	0.00036	1	8260B	11/2/18 22:21	JLB	P8K0047
Methylene Chloride	BRL	mg/kg dry	0.0085	0.00024	1	8260B	11/2/18 22:21	JLB	P8K0047
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0085	0.00014	1	8260B	11/2/18 22:21	JLB	P8K0047
Naphthalene	See 8260ML	mg/kg dry	0.0085	0.00013	1	8260B	11/2/18 22:21	JLB	P8K0047
n-Butylbenzene	BRL	mg/kg dry	0.0042	0.00022	1	8260B	11/2/18 22:21	JLB	P8K0047
n-Propylbenzene	BRL	mg/kg dry	0.0042	0.00025	1	8260B	11/2/18 22:21	JLB	P8K0047
o-Xylene	BRL	mg/kg dry	0.0042	0.00017	1	8260B	11/2/18 22:21	JLB	P8K0047
sec-Butylbenzene	BRL	mg/kg dry	0.0042	0.00021	1	8260B	11/2/18 22:21	JLB	P8K0047
Styrene	BRL	mg/kg dry	0.0042	0.00026	1	8260B	11/2/18 22:21	JLB	P8K0047
tert-Butylbenzene	BRL	mg/kg dry	0.0042	0.00014	1	8260B	11/2/18 22:21	JLB	P8K0047
Tetrachloroethylene	BRL	mg/kg dry	0.0042	0.00020	1	8260B	11/2/18 22:21	JLB	P8K0047
Toluene	BRL	mg/kg dry	0.0042	0.00024	1	8260B	11/2/18 22:21	JLB	P8K0047
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0042	0.00025	1	8260B	11/2/18 22:21	JLB	P8K0047
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0042	0.00022	1	8260B	11/2/18 22:21	JLB	P8K0047
Trichloroethylene	BRL	mg/kg dry	0.0042	0.00028	1	8260B	11/2/18 22:21	JLB	P8K0047
Trichlorofluoromethane	BRL	mg/kg dry	0.0042	0.00027	1	8260B	11/2/18 22:21	JLB	P8K0047
Vinyl acetate	BRL	mg/kg dry	0.021	0.00058	1	8260B	11/2/18 22:21	JLB	P8K0047
Vinyl chloride	BRL	mg/kg dry	0.0042	0.00021	1	8260B	11/2/18 22:21	JLB	P8K0047
Xylenes, total	BRL	mg/kg dry	0.013	0.00080	1	8260B	11/2/18 22:21	JLB	P8K0047

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	104 %	70-130
Dibromofluoromethane	106 %	84-123
Toluene-d8	105 %	76-129

**Volatile Organic Compounds by GC/MS (Medium Level)**

Naphthalene	6.5	mg/kg dry	0.47	0.036	50	8260B	11/5/18 17:06	JLB	P8K0076
Surrogate									
4-Bromofluorobenzene							98 %		70-130
Dibromofluoromethane							103 %		70-130
Toluene-d8							106 %		70-130



Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-32 (0-2)  
Prism Sample ID: 8100451-04  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:01  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	83.0	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.40	0.062	1	8270D	11/1/18 17:48	JMV	P8J0598
1,2-Dichlorobenzene	BRL	mg/kg dry	0.40	0.060	1	8270D	11/1/18 17:48	JMV	P8J0598
1,3-Dichlorobenzene	BRL	mg/kg dry	0.40	0.056	1	8270D	11/1/18 17:48	JMV	P8J0598
1,4-Dichlorobenzene	BRL	mg/kg dry	0.40	0.058	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>1-Methylnaphthalene</b>	<b>0.86</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.077</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.40	0.075	1	8270D	11/1/18 17:48	JMV	P8J0598
2,4-Dichlorophenol	BRL	mg/kg dry	0.40	0.077	1	8270D	11/1/18 17:48	JMV	P8J0598
2,4-Dimethylphenol	BRL	mg/kg dry	0.40	0.061	1	8270D	11/1/18 17:48	JMV	P8J0598
2,4-Dinitrophenol	BRL	mg/kg dry	0.40	0.055	1	8270D	11/1/18 17:48	JMV	P8J0598
2,4-Dinitrotoluene	BRL	mg/kg dry	0.40	0.048	1	8270D	11/1/18 17:48	JMV	P8J0598
2,6-Dinitrotoluene	BRL	mg/kg dry	0.40	0.053	1	8270D	11/1/18 17:48	JMV	P8J0598
2-Chloronaphthalene	BRL	mg/kg dry	0.40	0.058	1	8270D	11/1/18 17:48	JMV	P8J0598
2-Chlorophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>2-Methylnaphthalene</b>	<b>1.1</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.064</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
2-Methylphenol	BRL	mg/kg dry	0.40	0.051	1	8270D	11/1/18 17:48	JMV	P8J0598
2-Nitrophenol	BRL	mg/kg dry	0.40	0.072	1	8270D	11/1/18 17:48	JMV	P8J0598
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.40	0.078	1	8270D	11/1/18 17:48	JMV	P8J0598
3/4-Methylphenol	BRL	mg/kg dry	0.40	0.049	1	8270D	11/1/18 17:48	JMV	P8J0598
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.40	0.060	1	8270D	11/1/18 17:48	JMV	P8J0598
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.40	0.068	1	8270D	11/1/18 17:48	JMV	P8J0598
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.40	0.056	1	8270D	11/1/18 17:48	JMV	P8J0598
4-Chloroaniline	BRL	mg/kg dry	0.40	0.048	1	8270D	11/1/18 17:48	JMV	P8J0598
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.40	0.052	1	8270D	11/1/18 17:48	JMV	P8J0598
4-Nitrophenol	BRL	mg/kg dry	0.40	0.061	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>Acenaphthene</b>	<b>0.40</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.054</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
Acenaphthylene	BRL	mg/kg dry	0.40	0.058	1	8270D	11/1/18 17:48	JMV	P8J0598
Anthracene	BRL	mg/kg dry	0.40	0.064	1	8270D	11/1/18 17:48	JMV	P8J0598
Azobenzene	BRL	mg/kg dry	0.40	0.052	1	8270D	11/1/18 17:48	JMV	P8J0598
Benzo(a)anthracene	BRL	mg/kg dry	0.40	0.052	1	8270D	11/1/18 17:48	JMV	P8J0598
Benzo(a)pyrene	BRL	mg/kg dry	0.40	0.043	1	8270D	11/1/18 17:48	JMV	P8J0598
Benzo(b)fluoranthene	BRL	mg/kg dry	0.40	0.046	1	8270D	11/1/18 17:48	JMV	P8J0598
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.40	0.044	1	8270D	11/1/18 17:48	JMV	P8J0598
Benzo(k)fluoranthene	BRL	mg/kg dry	0.40	0.052	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>Benzoic Acid</b>	<b>0.22 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.033</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
Benzyl alcohol	BRL	mg/kg dry	0.40	0.052	1	8270D	11/1/18 17:48	JMV	P8J0598
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.40	0.069	1	8270D	11/1/18 17:48	JMV	P8J0598
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.40	0.056	1	8270D	11/1/18 17:48	JMV	P8J0598
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.40	0.068	1	8270D	11/1/18 17:48	JMV	P8J0598
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.40	0.059	1	8270D	11/1/18 17:48	JMV	P8J0598

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-32 (0-2)  
Prism Sample ID: 8100451-04  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:01  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	11/1/18 17:48	JMV	P8J0598
Chrysene	BRL	mg/kg dry	0.40	0.050	1	8270D	11/1/18 17:48	JMV	P8J0598
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.40	0.048	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>Dibenzofuran</b>	<b>0.25 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.060</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
Diethyl phthalate	BRL	mg/kg dry	0.40	0.055	1	8270D	11/1/18 17:48	JMV	P8J0598
Dimethyl phthalate	BRL	mg/kg dry	0.40	0.052	1	8270D	11/1/18 17:48	JMV	P8J0598
Di-n-butyl phthalate	BRL	mg/kg dry	0.40	0.056	1	8270D	11/1/18 17:48	JMV	P8J0598
Di-n-octyl phthalate	BRL	mg/kg dry	0.40	0.049	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>Fluoranthene</b>	<b>0.17 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.051</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
<b>Fluorene</b>	<b>0.24 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.057</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
Hexachlorobenzene	BRL	mg/kg dry	0.40	0.063	1	8270D	11/1/18 17:48	JMV	P8J0598
Hexachlorobutadiene	BRL	mg/kg dry	0.40	0.071	1	8270D	11/1/18 17:48	JMV	P8J0598
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.40	0.071	1	8270D	11/1/18 17:48	JMV	P8J0598
Hexachloroethane	BRL	mg/kg dry	0.40	0.067	1	8270D	11/1/18 17:48	JMV	P8J0598
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.40	0.046	1	8270D	11/1/18 17:48	JMV	P8J0598
Isophorone	BRL	mg/kg dry	0.40	0.054	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>Naphthalene</b>	<b>2.4</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.064</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
Nitrobenzene	BRL	mg/kg dry	0.40	0.056	1	8270D	11/1/18 17:48	JMV	P8J0598
N-Nitroso-di-n-propylamine	BRL A	mg/kg dry	0.40	0.063	1	8270D	11/1/18 17:48	JMV	P8J0598
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.40	0.060	1	8270D	11/1/18 17:48	JMV	P8J0598
Pentachlorophenol	BRL	mg/kg dry	0.40	0.047	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>Phenanthrene</b>	<b>0.35 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.052</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
Phenol	BRL	mg/kg dry	0.40	0.059	1	8270D	11/1/18 17:48	JMV	P8J0598
<b>Pyrene</b>	<b>0.12 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.053</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 17:48</b>	<b>JMV</b>	<b>P8J0598</b>
						Surrogate	Recovery	Control Limits	
						2,4,6-Tribromophenol	89 %	39-132	
						2-Fluorobiphenyl	90 %	44-115	
						2-Fluorophenol	87 %	35-115	
						Nitrobenzene-d5	71 %	37-122	
						Phenol-d5	87 %	34-121	
						Terphenyl-d14	86 %	54-127	

**Total Metals**

Mercury	0.092	mg/kg dry	0.024	0.0023	1	7471B	10/30/18 14:17	MMR	P8J0574
Antimony	0.54	mg/kg dry	0.30	0.030	1	6010D	10/30/18 16:03	JAB	P8J0550
Arsenic	2.9	mg/kg dry	0.60	0.037	1	6010D	10/30/18 16:03	JAB	P8J0550
Barium	39	mg/kg dry	0.60	0.088	1	6010D	10/30/18 16:03	JAB	P8J0550
Beryllium	0.68	mg/kg dry	0.30	0.0066	1	6010D	10/30/18 16:03	JAB	P8J0550
Cadmium	0.037 J	mg/kg dry	0.30	0.0081	1	6010D	10/30/18 16:03	JAB	P8J0550
Chromium	30	mg/kg dry	0.30	0.050	1	6010D	10/30/18 16:03	JAB	P8J0550
Copper	34	mg/kg dry	0.60	0.054	1	6010D	10/30/18 16:03	JAB	P8J0550
Lead	8.2	mg/kg dry	0.30	0.056	1	6010D	10/30/18 16:03	JAB	P8J0550
Nickel	9.6	mg/kg dry	0.60	0.022	1	6010D	10/30/18 16:03	JAB	P8J0550

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Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-32 (0-2)  
Prism Sample ID: 8100451-04  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:01  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.60	0.14	1	6010D	10/30/18 16:03	JAB	P8J0550
Silver	BRL	mg/kg dry	0.30	0.0075	1	6010D	10/30/18 16:03	JAB	P8J0550
<b>Thallium</b>	<b>3.2</b>	<b>mg/kg dry</b>	<b>0.60</b>	<b>0.079</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 16:03</b>	<b>JAB</b>	<b>P8J0550</b>
<b>Zinc</b>	<b>23</b>	<b>mg/kg dry</b>	<b>3.0</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 16:03</b>	<b>JAB</b>	<b>P8J0550</b>

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0060	0.00049	1	8260B	11/2/18 20:30	JLB	P8K0047
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0060	0.00029	1	8260B	11/2/18 20:30	JLB	P8K0047
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0060	0.00040	1	8260B	11/2/18 20:30	JLB	P8K0047
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0060	0.00053	1	8260B	11/2/18 20:30	JLB	P8K0047
1,1-Dichloroethane	BRL	mg/kg dry	0.0060	0.00017	1	8260B	11/2/18 20:30	JLB	P8K0047
1,1-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00026	1	8260B	11/2/18 20:30	JLB	P8K0047
1,1-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00033	1	8260B	11/2/18 20:30	JLB	P8K0047
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0060	0.00034	1	8260B	11/2/18 20:30	JLB	P8K0047
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0060	0.00076	1	8260B	11/2/18 20:30	JLB	P8K0047
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0060	0.00044	1	8260B	11/2/18 20:30	JLB	P8K0047
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0060	0.00045	1	8260B	11/2/18 20:30	JLB	P8K0047
1,2-Dibromoethane	BRL	mg/kg dry	0.0060	0.00024	1	8260B	11/2/18 20:30	JLB	P8K0047
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00028	1	8260B	11/2/18 20:30	JLB	P8K0047
1,2-Dichloroethane	BRL	mg/kg dry	0.0060	0.00035	1	8260B	11/2/18 20:30	JLB	P8K0047
1,2-Dichloropropane	BRL	mg/kg dry	0.0060	0.00037	1	8260B	11/2/18 20:30	JLB	P8K0047
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0060	0.00045	1	8260B	11/2/18 20:30	JLB	P8K0047
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00039	1	8260B	11/2/18 20:30	JLB	P8K0047
1,3-Dichloropropane	BRL	mg/kg dry	0.0060	0.00030	1	8260B	11/2/18 20:30	JLB	P8K0047
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0060	0.00023	1	8260B	11/2/18 20:30	JLB	P8K0047
2,2-Dichloropropane	BRL	mg/kg dry	0.0060	0.00028	1	8260B	11/2/18 20:30	JLB	P8K0047
2-Chlorotoluene	BRL	mg/kg dry	0.0060	0.00031	1	8260B	11/2/18 20:30	JLB	P8K0047
4-Chlorotoluene	BRL	mg/kg dry	0.0060	0.00035	1	8260B	11/2/18 20:30	JLB	P8K0047
4-Isopropyltoluene	BRL	mg/kg dry	0.0060	0.00029	1	8260B	11/2/18 20:30	JLB	P8K0047
Acetone	BRL	mg/kg dry	0.060	0.0015	1	8260B	11/2/18 20:30	JLB	P8K0047
Benzene	BRL	mg/kg dry	0.0036	0.00035	1	8260B	11/2/18 20:30	JLB	P8K0047
Bromobenzene	BRL	mg/kg dry	0.0060	0.00050	1	8260B	11/2/18 20:30	JLB	P8K0047
Bromochloromethane	BRL	mg/kg dry	0.0060	0.00033	1	8260B	11/2/18 20:30	JLB	P8K0047
Bromodichloromethane	BRL	mg/kg dry	0.0060	0.00033	1	8260B	11/2/18 20:30	JLB	P8K0047
Bromoform	BRL	mg/kg dry	0.0060	0.00068	1	8260B	11/2/18 20:30	JLB	P8K0047
Bromomethane	BRL	mg/kg dry	0.012	0.00073	1	8260B	11/2/18 20:30	JLB	P8K0047
Carbon Tetrachloride	BRL	mg/kg dry	0.0060	0.00030	1	8260B	11/2/18 20:30	JLB	P8K0047
Chlorobenzene	BRL	mg/kg dry	0.0060	0.00032	1	8260B	11/2/18 20:30	JLB	P8K0047
Chloroethane	BRL	mg/kg dry	0.012	0.00050	1	8260B	11/2/18 20:30	JLB	P8K0047
Chloroform	BRL	mg/kg dry	0.0060	0.00043	1	8260B	11/2/18 20:30	JLB	P8K0047
Chloromethane	BRL	mg/kg dry	0.0060	0.00040	1	8260B	11/2/18 20:30	JLB	P8K0047
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00025	1	8260B	11/2/18 20:30	JLB	P8K0047
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00020	1	8260B	11/2/18 20:30	JLB	P8K0047
Dibromochloromethane	BRL	mg/kg dry	0.0060	0.00025	1	8260B	11/2/18 20:30	JLB	P8K0047

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-32 (0-2)  
Prism Sample ID: 8100451-04  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:01  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0060	0.00027	1	8260B	11/2/18 20:30	JLB	P8K0047
Ethylbenzene	BRL	mg/kg dry	0.0060	0.00023	1	8260B	11/2/18 20:30	JLB	P8K0047
Isopropyl Ether	BRL	mg/kg dry	0.0060	0.00024	1	8260B	11/2/18 20:30	JLB	P8K0047
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0060	0.00035	1	8260B	11/2/18 20:30	JLB	P8K0047
m,p-Xylenes	BRL	mg/kg dry	0.012	0.00055	1	8260B	11/2/18 20:30	JLB	P8K0047
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.060	0.00054	1	8260B	11/2/18 20:30	JLB	P8K0047
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.12	0.00054	1	8260B	11/2/18 20:30	JLB	P8K0047
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.060	0.00051	1	8260B	11/2/18 20:30	JLB	P8K0047
Methylene Chloride	BRL	mg/kg dry	0.012	0.00033	1	8260B	11/2/18 20:30	JLB	P8K0047
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.012	0.00019	1	8260B	11/2/18 20:30	JLB	P8K0047
Naphthalene	BRL	mg/kg dry	0.012	0.00019	1	8260B	11/2/18 20:30	JLB	P8K0047
n-Butylbenzene	BRL	mg/kg dry	0.0060	0.00030	1	8260B	11/2/18 20:30	JLB	P8K0047
n-Propylbenzene	BRL	mg/kg dry	0.0060	0.00035	1	8260B	11/2/18 20:30	JLB	P8K0047
o-Xylene	BRL	mg/kg dry	0.0060	0.00024	1	8260B	11/2/18 20:30	JLB	P8K0047
sec-Butylbenzene	BRL	mg/kg dry	0.0060	0.00029	1	8260B	11/2/18 20:30	JLB	P8K0047
Styrene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	11/2/18 20:30	JLB	P8K0047
tert-Butylbenzene	BRL	mg/kg dry	0.0060	0.00020	1	8260B	11/2/18 20:30	JLB	P8K0047
Tetrachloroethylene	BRL	mg/kg dry	0.0060	0.00028	1	8260B	11/2/18 20:30	JLB	P8K0047
Toluene	BRL	mg/kg dry	0.0060	0.00034	1	8260B	11/2/18 20:30	JLB	P8K0047
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0060	0.00036	1	8260B	11/2/18 20:30	JLB	P8K0047
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0060	0.00031	1	8260B	11/2/18 20:30	JLB	P8K0047
Trichloroethylene	BRL	mg/kg dry	0.0060	0.00039	1	8260B	11/2/18 20:30	JLB	P8K0047
Trichlorofluoromethane	BRL	mg/kg dry	0.0060	0.00038	1	8260B	11/2/18 20:30	JLB	P8K0047
Vinyl acetate	BRL	mg/kg dry	0.030	0.00082	1	8260B	11/2/18 20:30	JLB	P8K0047
Vinyl chloride	BRL	mg/kg dry	0.0060	0.00029	1	8260B	11/2/18 20:30	JLB	P8K0047
Xylenes, total	BRL	mg/kg dry	0.018	0.0011	1	8260B	11/2/18 20:30	JLB	P8K0047
						Surrogate	Recovery	Control Limits	
						4-Bromofluorobenzene	103 %	70-130	
						Dibromofluoromethane	105 %	84-123	
						Toluene-d8	104 %	76-129	

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-32 (4-6)  
Prism Sample ID: 8100451-05  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:04  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	81.4	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.40	0.063	1	8270D	11/1/18 18:11	JMV	P8J0598
1,2-Dichlorobenzene	BRL	mg/kg dry	0.40	0.061	1	8270D	11/1/18 18:11	JMV	P8J0598
1,3-Dichlorobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	11/1/18 18:11	JMV	P8J0598
1,4-Dichlorobenzene	BRL	mg/kg dry	0.40	0.059	1	8270D	11/1/18 18:11	JMV	P8J0598
1-Methylnaphthalene	BRL	mg/kg dry	0.40	0.078	1	8270D	11/1/18 18:11	JMV	P8J0598
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.40	0.076	1	8270D	11/1/18 18:11	JMV	P8J0598
2,4-Dichlorophenol	BRL	mg/kg dry	0.40	0.078	1	8270D	11/1/18 18:11	JMV	P8J0598
2,4-Dimethylphenol	BRL	mg/kg dry	0.40	0.062	1	8270D	11/1/18 18:11	JMV	P8J0598
2,4-Dinitrophenol	BRL	mg/kg dry	0.40	0.056	1	8270D	11/1/18 18:11	JMV	P8J0598
2,4-Dinitrotoluene	BRL	mg/kg dry	0.40	0.049	1	8270D	11/1/18 18:11	JMV	P8J0598
2,6-Dinitrotoluene	BRL	mg/kg dry	0.40	0.054	1	8270D	11/1/18 18:11	JMV	P8J0598
2-Chloronaphthalene	BRL	mg/kg dry	0.40	0.059	1	8270D	11/1/18 18:11	JMV	P8J0598
2-Chlorophenol	BRL	mg/kg dry	0.40	0.057	1	8270D	11/1/18 18:11	JMV	P8J0598
2-Methylnaphthalene	BRL	mg/kg dry	0.40	0.065	1	8270D	11/1/18 18:11	JMV	P8J0598
2-Methylphenol	BRL	mg/kg dry	0.40	0.052	1	8270D	11/1/18 18:11	JMV	P8J0598
2-Nitrophenol	BRL	mg/kg dry	0.40	0.074	1	8270D	11/1/18 18:11	JMV	P8J0598
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.40	0.080	1	8270D	11/1/18 18:11	JMV	P8J0598
3/4-Methylphenol	BRL	mg/kg dry	0.40	0.050	1	8270D	11/1/18 18:11	JMV	P8J0598
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.40	0.061	1	8270D	11/1/18 18:11	JMV	P8J0598
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.40	0.069	1	8270D	11/1/18 18:11	JMV	P8J0598
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.40	0.057	1	8270D	11/1/18 18:11	JMV	P8J0598
4-Chloroaniline	BRL	mg/kg dry	0.40	0.049	1	8270D	11/1/18 18:11	JMV	P8J0598
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.40	0.053	1	8270D	11/1/18 18:11	JMV	P8J0598
4-Nitrophenol	BRL	mg/kg dry	0.40	0.062	1	8270D	11/1/18 18:11	JMV	P8J0598
Acenaphthene	BRL	mg/kg dry	0.40	0.055	1	8270D	11/1/18 18:11	JMV	P8J0598
Acenaphthylene	BRL	mg/kg dry	0.40	0.059	1	8270D	11/1/18 18:11	JMV	P8J0598
Anthracene	BRL	mg/kg dry	0.40	0.065	1	8270D	11/1/18 18:11	JMV	P8J0598
Azobenzene	BRL	mg/kg dry	0.40	0.053	1	8270D	11/1/18 18:11	JMV	P8J0598
Benzo(a)anthracene	BRL	mg/kg dry	0.40	0.053	1	8270D	11/1/18 18:11	JMV	P8J0598
Benzo(a)pyrene	BRL	mg/kg dry	0.40	0.044	1	8270D	11/1/18 18:11	JMV	P8J0598
Benzo(b)fluoranthene	BRL	mg/kg dry	0.40	0.047	1	8270D	11/1/18 18:11	JMV	P8J0598
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.40	0.044	1	8270D	11/1/18 18:11	JMV	P8J0598
Benzo(k)fluoranthene	BRL	mg/kg dry	0.40	0.053	1	8270D	11/1/18 18:11	JMV	P8J0598
<b>Benzoic Acid</b>	<b>0.19 J</b>	<b>mg/kg dry</b>	<b>0.40</b>	<b>0.034</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 18:11</b>	<b>JMV</b>	<b>P8J0598</b>
Benzyl alcohol	BRL	mg/kg dry	0.40	0.053	1	8270D	11/1/18 18:11	JMV	P8J0598
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.40	0.070	1	8270D	11/1/18 18:11	JMV	P8J0598
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.40	0.057	1	8270D	11/1/18 18:11	JMV	P8J0598
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.40	0.069	1	8270D	11/1/18 18:11	JMV	P8J0598
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.40	0.060	1	8270D	11/1/18 18:11	JMV	P8J0598

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-32 (4-6)  
Prism Sample ID: 8100451-05  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:04  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.40	0.058	1	8270D	11/1/18 18:11	JMV	P8J0598
Chrysene	BRL	mg/kg dry	0.40	0.051	1	8270D	11/1/18 18:11	JMV	P8J0598
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.40	0.049	1	8270D	11/1/18 18:11	JMV	P8J0598
Dibenzofuran	BRL	mg/kg dry	0.40	0.062	1	8270D	11/1/18 18:11	JMV	P8J0598
Diethyl phthalate	BRL	mg/kg dry	0.40	0.056	1	8270D	11/1/18 18:11	JMV	P8J0598
Dimethyl phthalate	BRL	mg/kg dry	0.40	0.053	1	8270D	11/1/18 18:11	JMV	P8J0598
Di-n-butyl phthalate	BRL	mg/kg dry	0.40	0.057	1	8270D	11/1/18 18:11	JMV	P8J0598
Di-n-octyl phthalate	BRL	mg/kg dry	0.40	0.050	1	8270D	11/1/18 18:11	JMV	P8J0598
Fluoranthene	BRL	mg/kg dry	0.40	0.052	1	8270D	11/1/18 18:11	JMV	P8J0598
Fluorene	BRL	mg/kg dry	0.40	0.058	1	8270D	11/1/18 18:11	JMV	P8J0598
Hexachlorobenzene	BRL	mg/kg dry	0.40	0.064	1	8270D	11/1/18 18:11	JMV	P8J0598
Hexachlorobutadiene	BRL	mg/kg dry	0.40	0.073	1	8270D	11/1/18 18:11	JMV	P8J0598
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.40	0.072	1	8270D	11/1/18 18:11	JMV	P8J0598
Hexachloroethane	BRL	mg/kg dry	0.40	0.068	1	8270D	11/1/18 18:11	JMV	P8J0598
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.40	0.046	1	8270D	11/1/18 18:11	JMV	P8J0598
Isophorone	BRL	mg/kg dry	0.40	0.055	1	8270D	11/1/18 18:11	JMV	P8J0598
Naphthalene	BRL	mg/kg dry	0.40	0.065	1	8270D	11/1/18 18:11	JMV	P8J0598
Nitrobenzene	BRL	mg/kg dry	0.40	0.057	1	8270D	11/1/18 18:11	JMV	P8J0598
N-Nitroso-di-n-propylamine	BRL A	mg/kg dry	0.40	0.064	1	8270D	11/1/18 18:11	JMV	P8J0598
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.40	0.062	1	8270D	11/1/18 18:11	JMV	P8J0598
Pentachlorophenol	BRL	mg/kg dry	0.40	0.048	1	8270D	11/1/18 18:11	JMV	P8J0598
Phenanthrene	BRL	mg/kg dry	0.40	0.053	1	8270D	11/1/18 18:11	JMV	P8J0598
Phenol	BRL	mg/kg dry	0.40	0.060	1	8270D	11/1/18 18:11	JMV	P8J0598
Pyrene	BRL	mg/kg dry	0.40	0.054	1	8270D	11/1/18 18:11	JMV	P8J0598

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	73 %	39-132
2-Fluorobiphenyl	79 %	44-115
2-Fluorophenol	79 %	35-115
Nitrobenzene-d5	69 %	37-122
Phenol-d5	77 %	34-121
Terphenyl-d14	75 %	54-127

**Total Metals**

Mercury	0.020 J	mg/kg dry	0.025	0.0023	1	7471B	10/30/18 14:22	MMR	P8J0574
Antimony	0.42	mg/kg dry	0.31	0.031	1	6010D	10/30/18 16:11	JAB	P8J0550
Arsenic	2.2	mg/kg dry	0.61	0.037	1	6010D	10/30/18 16:11	JAB	P8J0550
Barium	110	mg/kg dry	0.61	0.090	1	6010D	10/30/18 16:11	JAB	P8J0550
Beryllium	0.69	mg/kg dry	0.31	0.0068	1	6010D	10/30/18 16:11	JAB	P8J0550
Cadmium	0.019 J	mg/kg dry	0.31	0.0082	1	6010D	10/30/18 16:11	JAB	P8J0550
Chromium	54	mg/kg dry	0.31	0.051	1	6010D	10/30/18 16:11	JAB	P8J0550
Copper	35	mg/kg dry	0.61	0.056	1	6010D	10/30/18 16:11	JAB	P8J0550
Lead	6.5	mg/kg dry	0.31	0.057	1	6010D	10/30/18 16:11	JAB	P8J0550
Nickel	20	mg/kg dry	0.61	0.022	1	6010D	10/30/18 16:11	JAB	P8J0550

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Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-32 (4-6)  
Prism Sample ID: 8100451-05  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:04  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Selenium	BRL	mg/kg dry	0.61	0.15	1	6010D	10/30/18 16:11	JAB	P8J0550
Silver	BRL	mg/kg dry	0.31	0.0076	1	6010D	10/30/18 16:11	JAB	P8J0550
<b>Thallium</b>	<b>3.0</b>	<b>mg/kg dry</b>	<b>0.61</b>	<b>0.080</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 16:11</b>	<b>JAB</b>	<b>P8J0550</b>
<b>Zinc</b>	<b>28</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.11</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 16:11</b>	<b>JAB</b>	<b>P8J0550</b>

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0053	0.00044	1	8260B	11/2/18 20:58	JLB	P8K0047
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0053	0.00026	1	8260B	11/2/18 20:58	JLB	P8K0047
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0053	0.00036	1	8260B	11/2/18 20:58	JLB	P8K0047
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0053	0.00047	1	8260B	11/2/18 20:58	JLB	P8K0047
1,1-Dichloroethane	BRL	mg/kg dry	0.0053	0.00015	1	8260B	11/2/18 20:58	JLB	P8K0047
1,1-Dichloroethylene	BRL	mg/kg dry	0.0053	0.00024	1	8260B	11/2/18 20:58	JLB	P8K0047
1,1-Dichloropropylene	BRL	mg/kg dry	0.0053	0.00029	1	8260B	11/2/18 20:58	JLB	P8K0047
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0053	0.00030	1	8260B	11/2/18 20:58	JLB	P8K0047
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0053	0.00068	1	8260B	11/2/18 20:58	JLB	P8K0047
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0053	0.00040	1	8260B	11/2/18 20:58	JLB	P8K0047
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0053	0.00041	1	8260B	11/2/18 20:58	JLB	P8K0047
1,2-Dibromoethane	BRL	mg/kg dry	0.0053	0.00022	1	8260B	11/2/18 20:58	JLB	P8K0047
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0053	0.00025	1	8260B	11/2/18 20:58	JLB	P8K0047
1,2-Dichloroethane	BRL	mg/kg dry	0.0053	0.00032	1	8260B	11/2/18 20:58	JLB	P8K0047
1,2-Dichloropropane	BRL	mg/kg dry	0.0053	0.00033	1	8260B	11/2/18 20:58	JLB	P8K0047
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0053	0.00040	1	8260B	11/2/18 20:58	JLB	P8K0047
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0053	0.00035	1	8260B	11/2/18 20:58	JLB	P8K0047
1,3-Dichloropropane	BRL	mg/kg dry	0.0053	0.00027	1	8260B	11/2/18 20:58	JLB	P8K0047
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0053	0.00021	1	8260B	11/2/18 20:58	JLB	P8K0047
2,2-Dichloropropane	BRL	mg/kg dry	0.0053	0.00025	1	8260B	11/2/18 20:58	JLB	P8K0047
2-Chlorotoluene	BRL	mg/kg dry	0.0053	0.00028	1	8260B	11/2/18 20:58	JLB	P8K0047
4-Chlorotoluene	BRL	mg/kg dry	0.0053	0.00032	1	8260B	11/2/18 20:58	JLB	P8K0047
4-Isopropyltoluene	BRL	mg/kg dry	0.0053	0.00026	1	8260B	11/2/18 20:58	JLB	P8K0047
Acetone	BRL	mg/kg dry	0.053	0.0013	1	8260B	11/2/18 20:58	JLB	P8K0047
Benzene	BRL	mg/kg dry	0.0032	0.00031	1	8260B	11/2/18 20:58	JLB	P8K0047
Bromobenzene	BRL	mg/kg dry	0.0053	0.00045	1	8260B	11/2/18 20:58	JLB	P8K0047
Bromochloromethane	BRL	mg/kg dry	0.0053	0.00029	1	8260B	11/2/18 20:58	JLB	P8K0047
Bromodichloromethane	BRL	mg/kg dry	0.0053	0.00030	1	8260B	11/2/18 20:58	JLB	P8K0047
Bromoform	BRL	mg/kg dry	0.0053	0.00061	1	8260B	11/2/18 20:58	JLB	P8K0047
Bromomethane	BRL	mg/kg dry	0.011	0.00066	1	8260B	11/2/18 20:58	JLB	P8K0047
Carbon Tetrachloride	BRL	mg/kg dry	0.0053	0.00027	1	8260B	11/2/18 20:58	JLB	P8K0047
Chlorobenzene	BRL	mg/kg dry	0.0053	0.00028	1	8260B	11/2/18 20:58	JLB	P8K0047
Chloroethane	BRL	mg/kg dry	0.011	0.00045	1	8260B	11/2/18 20:58	JLB	P8K0047
Chloroform	BRL	mg/kg dry	0.0053	0.00039	1	8260B	11/2/18 20:58	JLB	P8K0047
Chloromethane	BRL	mg/kg dry	0.0053	0.00036	1	8260B	11/2/18 20:58	JLB	P8K0047
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0053	0.00023	1	8260B	11/2/18 20:58	JLB	P8K0047
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0053	0.00018	1	8260B	11/2/18 20:58	JLB	P8K0047
Dibromochloromethane	BRL	mg/kg dry	0.0053	0.00022	1	8260B	11/2/18 20:58	JLB	P8K0047

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
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Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-32 (4-6)  
Prism Sample ID: 8100451-05  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:04  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0053	0.00024	1	8260B	11/2/18 20:58	JLB	P8K0047
Ethylbenzene	BRL	mg/kg dry	0.0053	0.00021	1	8260B	11/2/18 20:58	JLB	P8K0047
Isopropyl Ether	BRL	mg/kg dry	0.0053	0.00022	1	8260B	11/2/18 20:58	JLB	P8K0047
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0053	0.00032	1	8260B	11/2/18 20:58	JLB	P8K0047
m,p-Xylenes	BRL	mg/kg dry	0.011	0.00049	1	8260B	11/2/18 20:58	JLB	P8K0047
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.053	0.00048	1	8260B	11/2/18 20:58	JLB	P8K0047
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.11	0.00048	1	8260B	11/2/18 20:58	JLB	P8K0047
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.053	0.00046	1	8260B	11/2/18 20:58	JLB	P8K0047
Methylene Chloride	BRL	mg/kg dry	0.011	0.00030	1	8260B	11/2/18 20:58	JLB	P8K0047
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.011	0.00017	1	8260B	11/2/18 20:58	JLB	P8K0047
Naphthalene	BRL	mg/kg dry	0.011	0.00017	1	8260B	11/2/18 20:58	JLB	P8K0047
n-Butylbenzene	BRL	mg/kg dry	0.0053	0.00027	1	8260B	11/2/18 20:58	JLB	P8K0047
n-Propylbenzene	BRL	mg/kg dry	0.0053	0.00032	1	8260B	11/2/18 20:58	JLB	P8K0047
o-Xylene	BRL	mg/kg dry	0.0053	0.00022	1	8260B	11/2/18 20:58	JLB	P8K0047
sec-Butylbenzene	BRL	mg/kg dry	0.0053	0.00026	1	8260B	11/2/18 20:58	JLB	P8K0047
Styrene	BRL	mg/kg dry	0.0053	0.00032	1	8260B	11/2/18 20:58	JLB	P8K0047
tert-Butylbenzene	BRL	mg/kg dry	0.0053	0.00018	1	8260B	11/2/18 20:58	JLB	P8K0047
Tetrachloroethylene	BRL	mg/kg dry	0.0053	0.00025	1	8260B	11/2/18 20:58	JLB	P8K0047
Toluene	BRL	mg/kg dry	0.0053	0.00031	1	8260B	11/2/18 20:58	JLB	P8K0047
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0053	0.00032	1	8260B	11/2/18 20:58	JLB	P8K0047
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0053	0.00028	1	8260B	11/2/18 20:58	JLB	P8K0047
Trichloroethylene	BRL	mg/kg dry	0.0053	0.00035	1	8260B	11/2/18 20:58	JLB	P8K0047
Trichlorofluoromethane	BRL	mg/kg dry	0.0053	0.00035	1	8260B	11/2/18 20:58	JLB	P8K0047
Vinyl acetate	BRL	mg/kg dry	0.027	0.00073	1	8260B	11/2/18 20:58	JLB	P8K0047
Vinyl chloride	BRL	mg/kg dry	0.0053	0.00026	1	8260B	11/2/18 20:58	JLB	P8K0047
Xylenes, total	BRL	mg/kg dry	0.016	0.0010	1	8260B	11/2/18 20:58	JLB	P8K0047

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	104 %	70-130
Dibromofluoromethane	106 %	84-123
Toluene-d8	104 %	76-129

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-33 (0-2)  
Prism Sample ID: 8100451-06  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:50  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	80.3	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.41	0.064	1	8270D	11/1/18 18:34	JMV	P8J0598
1,2-Dichlorobenzene	BRL	mg/kg dry	0.41	0.062	1	8270D	11/1/18 18:34	JMV	P8J0598
1,3-Dichlorobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	11/1/18 18:34	JMV	P8J0598
1,4-Dichlorobenzene	BRL	mg/kg dry	0.41	0.060	1	8270D	11/1/18 18:34	JMV	P8J0598
1-Methylnaphthalene	BRL	mg/kg dry	0.41	0.079	1	8270D	11/1/18 18:34	JMV	P8J0598
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.41	0.077	1	8270D	11/1/18 18:34	JMV	P8J0598
2,4-Dichlorophenol	BRL	mg/kg dry	0.41	0.079	1	8270D	11/1/18 18:34	JMV	P8J0598
2,4-Dimethylphenol	BRL	mg/kg dry	0.41	0.063	1	8270D	11/1/18 18:34	JMV	P8J0598
2,4-Dinitrophenol	BRL	mg/kg dry	0.41	0.057	1	8270D	11/1/18 18:34	JMV	P8J0598
2,4-Dinitrotoluene	BRL	mg/kg dry	0.41	0.050	1	8270D	11/1/18 18:34	JMV	P8J0598
2,6-Dinitrotoluene	BRL	mg/kg dry	0.41	0.054	1	8270D	11/1/18 18:34	JMV	P8J0598
2-Chloronaphthalene	BRL	mg/kg dry	0.41	0.059	1	8270D	11/1/18 18:34	JMV	P8J0598
2-Chlorophenol	BRL	mg/kg dry	0.41	0.058	1	8270D	11/1/18 18:34	JMV	P8J0598
2-Methylnaphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	11/1/18 18:34	JMV	P8J0598
2-Methylphenol	BRL	mg/kg dry	0.41	0.053	1	8270D	11/1/18 18:34	JMV	P8J0598
2-Nitrophenol	BRL	mg/kg dry	0.41	0.075	1	8270D	11/1/18 18:34	JMV	P8J0598
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.41	0.081	1	8270D	11/1/18 18:34	JMV	P8J0598
3/4-Methylphenol	BRL	mg/kg dry	0.41	0.051	1	8270D	11/1/18 18:34	JMV	P8J0598
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.41	0.062	1	8270D	11/1/18 18:34	JMV	P8J0598
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.41	0.070	1	8270D	11/1/18 18:34	JMV	P8J0598
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.41	0.057	1	8270D	11/1/18 18:34	JMV	P8J0598
4-Chloroaniline	BRL	mg/kg dry	0.41	0.049	1	8270D	11/1/18 18:34	JMV	P8J0598
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.41	0.053	1	8270D	11/1/18 18:34	JMV	P8J0598
4-Nitrophenol	BRL	mg/kg dry	0.41	0.063	1	8270D	11/1/18 18:34	JMV	P8J0598
Acenaphthene	BRL	mg/kg dry	0.41	0.056	1	8270D	11/1/18 18:34	JMV	P8J0598
Acenaphthylene	BRL	mg/kg dry	0.41	0.059	1	8270D	11/1/18 18:34	JMV	P8J0598
Anthracene	BRL	mg/kg dry	0.41	0.066	1	8270D	11/1/18 18:34	JMV	P8J0598
Azobenzene	BRL	mg/kg dry	0.41	0.054	1	8270D	11/1/18 18:34	JMV	P8J0598
Benzo(a)anthracene	BRL	mg/kg dry	0.41	0.054	1	8270D	11/1/18 18:34	JMV	P8J0598
Benzo(a)pyrene	BRL	mg/kg dry	0.41	0.044	1	8270D	11/1/18 18:34	JMV	P8J0598
Benzo(b)fluoranthene	BRL	mg/kg dry	0.41	0.048	1	8270D	11/1/18 18:34	JMV	P8J0598
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.41	0.045	1	8270D	11/1/18 18:34	JMV	P8J0598
Benzo(k)fluoranthene	BRL	mg/kg dry	0.41	0.054	1	8270D	11/1/18 18:34	JMV	P8J0598
<b>Benzoic Acid</b>	<b>0.35 J</b>	<b>mg/kg dry</b>	<b>0.41</b>	<b>0.035</b>	<b>1</b>	<b>8270D</b>	<b>11/1/18 18:34</b>	<b>JMV</b>	<b>P8J0598</b>
Benzyl alcohol	BRL	mg/kg dry	0.41	0.054	1	8270D	11/1/18 18:34	JMV	P8J0598
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.41	0.071	1	8270D	11/1/18 18:34	JMV	P8J0598
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.41	0.058	1	8270D	11/1/18 18:34	JMV	P8J0598
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.41	0.070	1	8270D	11/1/18 18:34	JMV	P8J0598
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.41	0.061	1	8270D	11/1/18 18:34	JMV	P8J0598

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-33 (0-2)  
Prism Sample ID: 8100451-06  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:50  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	11/1/18 18:34	JMV	P8J0598
Chrysene	BRL	mg/kg dry	0.41	0.052	1	8270D	11/1/18 18:34	JMV	P8J0598
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.41	0.050	1	8270D	11/1/18 18:34	JMV	P8J0598
Dibenzofuran	BRL	mg/kg dry	0.41	0.062	1	8270D	11/1/18 18:34	JMV	P8J0598
Diethyl phthalate	BRL	mg/kg dry	0.41	0.056	1	8270D	11/1/18 18:34	JMV	P8J0598
Dimethyl phthalate	BRL	mg/kg dry	0.41	0.054	1	8270D	11/1/18 18:34	JMV	P8J0598
Di-n-butyl phthalate	BRL	mg/kg dry	0.41	0.058	1	8270D	11/1/18 18:34	JMV	P8J0598
Di-n-octyl phthalate	BRL	mg/kg dry	0.41	0.050	1	8270D	11/1/18 18:34	JMV	P8J0598
Fluoranthene	BRL	mg/kg dry	0.41	0.052	1	8270D	11/1/18 18:34	JMV	P8J0598
Fluorene	BRL	mg/kg dry	0.41	0.059	1	8270D	11/1/18 18:34	JMV	P8J0598
Hexachlorobenzene	BRL	mg/kg dry	0.41	0.065	1	8270D	11/1/18 18:34	JMV	P8J0598
Hexachlorobutadiene	BRL	mg/kg dry	0.41	0.074	1	8270D	11/1/18 18:34	JMV	P8J0598
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.41	0.073	1	8270D	11/1/18 18:34	JMV	P8J0598
Hexachloroethane	BRL	mg/kg dry	0.41	0.069	1	8270D	11/1/18 18:34	JMV	P8J0598
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.41	0.047	1	8270D	11/1/18 18:34	JMV	P8J0598
Isophorone	BRL	mg/kg dry	0.41	0.055	1	8270D	11/1/18 18:34	JMV	P8J0598
Naphthalene	BRL	mg/kg dry	0.41	0.066	1	8270D	11/1/18 18:34	JMV	P8J0598
Nitrobenzene	BRL	mg/kg dry	0.41	0.058	1	8270D	11/1/18 18:34	JMV	P8J0598
N-Nitroso-di-n-propylamine	BRL A	mg/kg dry	0.41	0.065	1	8270D	11/1/18 18:34	JMV	P8J0598
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.41	0.062	1	8270D	11/1/18 18:34	JMV	P8J0598
Pentachlorophenol	BRL	mg/kg dry	0.41	0.048	1	8270D	11/1/18 18:34	JMV	P8J0598
Phenanthrene	BRL	mg/kg dry	0.41	0.053	1	8270D	11/1/18 18:34	JMV	P8J0598
Phenol	BRL	mg/kg dry	0.41	0.060	1	8270D	11/1/18 18:34	JMV	P8J0598
Pyrene	BRL	mg/kg dry	0.41	0.054	1	8270D	11/1/18 18:34	JMV	P8J0598

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	80 %	39-132
2-Fluorobiphenyl	89 %	44-115
2-Fluorophenol	86 %	35-115
Nitrobenzene-d5	49 %	37-122
Phenol-d5	82 %	34-121
Terphenyl-d14	80 %	54-127

**Total Metals**

Mercury	0.13	mg/kg dry	0.024	0.0023	1	7471B	10/30/18 14:54	MMR	P8J0575
Antimony	1.5	mg/kg dry	0.31	0.031	1	6010D	10/30/18 16:20	JAB	P8J0550
Arsenic	3.0	mg/kg dry	0.62	0.038	1	6010D	10/30/18 16:20	JAB	P8J0550
Barium	92	mg/kg dry	0.62	0.091	1	6010D	10/30/18 16:20	JAB	P8J0550
Beryllium	0.96	mg/kg dry	0.31	0.0068	1	6010D	10/30/18 16:20	JAB	P8J0550
Cadmium	1.9	mg/kg dry	0.31	0.0083	1	6010D	10/30/18 16:20	JAB	P8J0550
Chromium	96	mg/kg dry	0.31	0.052	1	6010D	10/30/18 16:20	JAB	P8J0550
Copper	130	mg/kg dry	0.62	0.056	1	6010D	10/30/18 16:20	JAB	P8J0550
Lead	70	mg/kg dry	0.31	0.058	1	6010D	10/30/18 16:20	JAB	P8J0550
Nickel	40	mg/kg dry	0.62	0.022	1	6010D	10/30/18 16:20	JAB	P8J0550

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-33 (0-2)  
Prism Sample ID: 8100451-06  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:50  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>0.58 J</b>	<b>mg/kg dry</b>	<b>0.62</b>	<b>0.15</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 16:20</b>	<b>JAB</b>	<b>P8J0550</b>
Silver	BRL	mg/kg dry	0.31	0.0077	1	6010D	10/30/18 16:20	JAB	P8J0550
<b>Thallium</b>	<b>6.2</b>	<b>mg/kg dry</b>	<b>0.62</b>	<b>0.082</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 16:20</b>	<b>JAB</b>	<b>P8J0550</b>
<b>Zinc</b>	<b>290</b>	<b>mg/kg dry</b>	<b>31</b>	<b>1.1</b>	<b>10</b>	<b>6010D</b>	<b>10/31/18 12:05</b>	<b>JAB</b>	<b>P8J0550</b>

## Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0058	0.00048	1	8260B	11/2/18 21:26	JLB	P8K0047
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0058	0.00028	1	8260B	11/2/18 21:26	JLB	P8K0047
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0058	0.00040	1	8260B	11/2/18 21:26	JLB	P8K0047
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0058	0.00052	1	8260B	11/2/18 21:26	JLB	P8K0047
1,1-Dichloroethane	BRL	mg/kg dry	0.0058	0.00016	1	8260B	11/2/18 21:26	JLB	P8K0047
1,1-Dichloroethylene	BRL	mg/kg dry	0.0058	0.00026	1	8260B	11/2/18 21:26	JLB	P8K0047
1,1-Dichloropropylene	BRL	mg/kg dry	0.0058	0.00032	1	8260B	11/2/18 21:26	JLB	P8K0047
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0058	0.00033	1	8260B	11/2/18 21:26	JLB	P8K0047
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0058	0.00075	1	8260B	11/2/18 21:26	JLB	P8K0047
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0058	0.00044	1	8260B	11/2/18 21:26	JLB	P8K0047
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0058	0.00045	1	8260B	11/2/18 21:26	JLB	P8K0047
1,2-Dibromoethane	BRL	mg/kg dry	0.0058	0.00024	1	8260B	11/2/18 21:26	JLB	P8K0047
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0058	0.00027	1	8260B	11/2/18 21:26	JLB	P8K0047
1,2-Dichloroethane	BRL	mg/kg dry	0.0058	0.00035	1	8260B	11/2/18 21:26	JLB	P8K0047
1,2-Dichloropropane	BRL	mg/kg dry	0.0058	0.00036	1	8260B	11/2/18 21:26	JLB	P8K0047
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0058	0.00044	1	8260B	11/2/18 21:26	JLB	P8K0047
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0058	0.00039	1	8260B	11/2/18 21:26	JLB	P8K0047
1,3-Dichloropropane	BRL	mg/kg dry	0.0058	0.00029	1	8260B	11/2/18 21:26	JLB	P8K0047
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0058	0.00023	1	8260B	11/2/18 21:26	JLB	P8K0047
2,2-Dichloropropane	BRL	mg/kg dry	0.0058	0.00028	1	8260B	11/2/18 21:26	JLB	P8K0047
2-Chlorotoluene	BRL	mg/kg dry	0.0058	0.00030	1	8260B	11/2/18 21:26	JLB	P8K0047
4-Chlorotoluene	BRL	mg/kg dry	0.0058	0.00035	1	8260B	11/2/18 21:26	JLB	P8K0047
4-Isopropyltoluene	BRL	mg/kg dry	0.0058	0.00028	1	8260B	11/2/18 21:26	JLB	P8K0047
<b>Acetone</b>	<b>0.033 J</b>	<b>mg/kg dry</b>	<b>0.058</b>	<b>0.0014</b>	<b>1</b>	<b>8260B</b>	<b>11/2/18 21:26</b>	<b>JLB</b>	<b>P8K0047</b>
Benzene	BRL	mg/kg dry	0.0035	0.00034	1	8260B	11/2/18 21:26	JLB	P8K0047
Bromobenzene	BRL	mg/kg dry	0.0058	0.00049	1	8260B	11/2/18 21:26	JLB	P8K0047
Bromochloromethane	BRL	mg/kg dry	0.0058	0.00032	1	8260B	11/2/18 21:26	JLB	P8K0047
Bromodichloromethane	BRL	mg/kg dry	0.0058	0.00033	1	8260B	11/2/18 21:26	JLB	P8K0047
Bromoform	BRL	mg/kg dry	0.0058	0.00066	1	8260B	11/2/18 21:26	JLB	P8K0047
Bromomethane	BRL	mg/kg dry	0.012	0.00072	1	8260B	11/2/18 21:26	JLB	P8K0047
Carbon Tetrachloride	BRL	mg/kg dry	0.0058	0.00029	1	8260B	11/2/18 21:26	JLB	P8K0047
Chlorobenzene	BRL	mg/kg dry	0.0058	0.00031	1	8260B	11/2/18 21:26	JLB	P8K0047
Chloroethane	BRL	mg/kg dry	0.012	0.00049	1	8260B	11/2/18 21:26	JLB	P8K0047
Chloroform	BRL	mg/kg dry	0.0058	0.00042	1	8260B	11/2/18 21:26	JLB	P8K0047
Chloromethane	BRL	mg/kg dry	0.0058	0.00039	1	8260B	11/2/18 21:26	JLB	P8K0047
<b>cis-1,2-Dichloroethylene</b>	<b>0.0040 J</b>	<b>mg/kg dry</b>	<b>0.0058</b>	<b>0.00025</b>	<b>1</b>	<b>8260B</b>	<b>11/2/18 21:26</b>	<b>JLB</b>	<b>P8K0047</b>
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0058	0.00020	1	8260B	11/2/18 21:26	JLB	P8K0047
Dibromochloromethane	BRL	mg/kg dry	0.0058	0.00024	1	8260B	11/2/18 21:26	JLB	P8K0047

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-33 (0-2)  
Prism Sample ID: 8100451-06  
Prism Work Order: 8100451  
Time Collected: 10/25/18 13:50  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0058	0.00027	1	8260B	11/2/18 21:26	JLB	P8K0047
Ethylbenzene	BRL	mg/kg dry	0.0058	0.00022	1	8260B	11/2/18 21:26	JLB	P8K0047
Isopropyl Ether	BRL	mg/kg dry	0.0058	0.00024	1	8260B	11/2/18 21:26	JLB	P8K0047
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0058	0.00035	1	8260B	11/2/18 21:26	JLB	P8K0047
m,p-Xylenes	BRL	mg/kg dry	0.012	0.00054	1	8260B	11/2/18 21:26	JLB	P8K0047
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.058	0.00053	1	8260B	11/2/18 21:26	JLB	P8K0047
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.12	0.00053	1	8260B	11/2/18 21:26	JLB	P8K0047
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.058	0.00050	1	8260B	11/2/18 21:26	JLB	P8K0047
Methylene Chloride	BRL	mg/kg dry	0.012	0.00033	1	8260B	11/2/18 21:26	JLB	P8K0047
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.012	0.00019	1	8260B	11/2/18 21:26	JLB	P8K0047
Naphthalene	BRL	mg/kg dry	0.012	0.00018	1	8260B	11/2/18 21:26	JLB	P8K0047
n-Butylbenzene	BRL	mg/kg dry	0.0058	0.00030	1	8260B	11/2/18 21:26	JLB	P8K0047
n-Propylbenzene	BRL	mg/kg dry	0.0058	0.00035	1	8260B	11/2/18 21:26	JLB	P8K0047
o-Xylene	BRL	mg/kg dry	0.0058	0.00024	1	8260B	11/2/18 21:26	JLB	P8K0047
sec-Butylbenzene	BRL	mg/kg dry	0.0058	0.00028	1	8260B	11/2/18 21:26	JLB	P8K0047
Styrene	BRL	mg/kg dry	0.0058	0.00035	1	8260B	11/2/18 21:26	JLB	P8K0047
tert-Butylbenzene	BRL	mg/kg dry	0.0058	0.00020	1	8260B	11/2/18 21:26	JLB	P8K0047
<b>Tetrachloroethylene</b>	<b>0.025</b>	<b>mg/kg dry</b>	<b>0.0058</b>	<b>0.00028</b>	<b>1</b>	<b>8260B</b>	<b>11/2/18 21:26</b>	<b>JLB</b>	<b>P8K0047</b>
Toluene	BRL	mg/kg dry	0.0058	0.00034	1	8260B	11/2/18 21:26	JLB	P8K0047
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0058	0.00035	1	8260B	11/2/18 21:26	JLB	P8K0047
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0058	0.00031	1	8260B	11/2/18 21:26	JLB	P8K0047
<b>Trichloroethylene</b>	<b>0.0073</b>	<b>mg/kg dry</b>	<b>0.0058</b>	<b>0.00038</b>	<b>1</b>	<b>8260B</b>	<b>11/2/18 21:26</b>	<b>JLB</b>	<b>P8K0047</b>
Trichlorofluoromethane	BRL	mg/kg dry	0.0058	0.00038	1	8260B	11/2/18 21:26	JLB	P8K0047
Vinyl acetate	BRL	mg/kg dry	0.029	0.00080	1	8260B	11/2/18 21:26	JLB	P8K0047
Vinyl chloride	BRL	mg/kg dry	0.0058	0.00028	1	8260B	11/2/18 21:26	JLB	P8K0047
Xylenes, total	BRL	mg/kg dry	0.018	0.0011	1	8260B	11/2/18 21:26	JLB	P8K0047
						Surrogate	Recovery	Control Limits	
						4-Bromofluorobenzene	104 %	70-130	
						Dibromofluoromethane	105 %	84-123	
						Toluene-d8	104 %	76-129	

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-34 (0-2)  
Prism Sample ID: 8100451-07  
Prism Work Order: 8100451  
Time Collected: 10/25/18 14:12  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	95.1	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.35	0.054	1	8270D	11/1/18 18:57	JMV	P8J0598
1,2-Dichlorobenzene	BRL	mg/kg dry	0.35	0.053	1	8270D	11/1/18 18:57	JMV	P8J0598
1,3-Dichlorobenzene	BRL	mg/kg dry	0.35	0.049	1	8270D	11/1/18 18:57	JMV	P8J0598
1,4-Dichlorobenzene	BRL	mg/kg dry	0.35	0.051	1	8270D	11/1/18 18:57	JMV	P8J0598
1-Methylnaphthalene	BRL	mg/kg dry	0.35	0.067	1	8270D	11/1/18 18:57	JMV	P8J0598
2,4,6-Trichlorophenol	BRL	mg/kg dry	0.35	0.065	1	8270D	11/1/18 18:57	JMV	P8J0598
2,4-Dichlorophenol	BRL	mg/kg dry	0.35	0.067	1	8270D	11/1/18 18:57	JMV	P8J0598
2,4-Dimethylphenol	BRL	mg/kg dry	0.35	0.053	1	8270D	11/1/18 18:57	JMV	P8J0598
2,4-Dinitrophenol	BRL	mg/kg dry	0.35	0.048	1	8270D	11/1/18 18:57	JMV	P8J0598
2,4-Dinitrotoluene	BRL	mg/kg dry	0.35	0.042	1	8270D	11/1/18 18:57	JMV	P8J0598
2,6-Dinitrotoluene	BRL	mg/kg dry	0.35	0.046	1	8270D	11/1/18 18:57	JMV	P8J0598
2-Chloronaphthalene	BRL	mg/kg dry	0.35	0.050	1	8270D	11/1/18 18:57	JMV	P8J0598
2-Chlorophenol	BRL	mg/kg dry	0.35	0.049	1	8270D	11/1/18 18:57	JMV	P8J0598
2-Methylnaphthalene	BRL	mg/kg dry	0.35	0.055	1	8270D	11/1/18 18:57	JMV	P8J0598
2-Methylphenol	BRL	mg/kg dry	0.35	0.044	1	8270D	11/1/18 18:57	JMV	P8J0598
2-Nitrophenol	BRL	mg/kg dry	0.35	0.063	1	8270D	11/1/18 18:57	JMV	P8J0598
3,3'-Dichlorobenzidine	BRL	mg/kg dry	0.35	0.068	1	8270D	11/1/18 18:57	JMV	P8J0598
3/4-Methylphenol	BRL	mg/kg dry	0.35	0.043	1	8270D	11/1/18 18:57	JMV	P8J0598
4,6-Dinitro-2-methylphenol	BRL	mg/kg dry	0.35	0.052	1	8270D	11/1/18 18:57	JMV	P8J0598
4-Bromophenyl phenyl ether	BRL	mg/kg dry	0.35	0.059	1	8270D	11/1/18 18:57	JMV	P8J0598
4-Chloro-3-methylphenol	BRL	mg/kg dry	0.35	0.049	1	8270D	11/1/18 18:57	JMV	P8J0598
4-Chloroaniline	BRL	mg/kg dry	0.35	0.042	1	8270D	11/1/18 18:57	JMV	P8J0598
4-Chlorophenyl phenyl ether	BRL	mg/kg dry	0.35	0.045	1	8270D	11/1/18 18:57	JMV	P8J0598
4-Nitrophenol	BRL	mg/kg dry	0.35	0.053	1	8270D	11/1/18 18:57	JMV	P8J0598
Acenaphthene	BRL	mg/kg dry	0.35	0.047	1	8270D	11/1/18 18:57	JMV	P8J0598
Acenaphthylene	BRL	mg/kg dry	0.35	0.050	1	8270D	11/1/18 18:57	JMV	P8J0598
Anthracene	BRL	mg/kg dry	0.35	0.056	1	8270D	11/1/18 18:57	JMV	P8J0598
Azobenzene	BRL	mg/kg dry	0.35	0.046	1	8270D	11/1/18 18:57	JMV	P8J0598
Benzo(a)anthracene	BRL	mg/kg dry	0.35	0.045	1	8270D	11/1/18 18:57	JMV	P8J0598
Benzo(a)pyrene	BRL	mg/kg dry	0.35	0.037	1	8270D	11/1/18 18:57	JMV	P8J0598
Benzo(b)fluoranthene	BRL	mg/kg dry	0.35	0.040	1	8270D	11/1/18 18:57	JMV	P8J0598
Benzo(g,h,i)perylene	BRL	mg/kg dry	0.35	0.038	1	8270D	11/1/18 18:57	JMV	P8J0598
Benzo(k)fluoranthene	BRL	mg/kg dry	0.35	0.045	1	8270D	11/1/18 18:57	JMV	P8J0598
Benzoic Acid	BRL	mg/kg dry	0.35	0.029	1	8270D	11/1/18 18:57	JMV	P8J0598
Benzyl alcohol	BRL	mg/kg dry	0.35	0.046	1	8270D	11/1/18 18:57	JMV	P8J0598
bis(2-Chloroethoxy)methane	BRL	mg/kg dry	0.35	0.060	1	8270D	11/1/18 18:57	JMV	P8J0598
Bis(2-Chloroethyl)ether	BRL	mg/kg dry	0.35	0.049	1	8270D	11/1/18 18:57	JMV	P8J0598
Bis(2-chloroisopropyl)ether	BRL	mg/kg dry	0.35	0.059	1	8270D	11/1/18 18:57	JMV	P8J0598
Bis(2-Ethylhexyl)phthalate	BRL	mg/kg dry	0.35	0.051	1	8270D	11/1/18 18:57	JMV	P8J0598

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.

Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-34 (0-2)

Prism Sample ID: 8100451-07

Prism Work Order: 8100451

Time Collected: 10/25/18 14:12

Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Butyl benzyl phthalate	BRL	mg/kg dry	0.35	0.049	1	8270D	11/1/18 18:57	JMV	P8J0598
Chrysene	BRL	mg/kg dry	0.35	0.044	1	8270D	11/1/18 18:57	JMV	P8J0598
Dibenzo(a,h)anthracene	BRL	mg/kg dry	0.35	0.042	1	8270D	11/1/18 18:57	JMV	P8J0598
Dibenzofuran	BRL	mg/kg dry	0.35	0.053	1	8270D	11/1/18 18:57	JMV	P8J0598
Diethyl phthalate	BRL	mg/kg dry	0.35	0.048	1	8270D	11/1/18 18:57	JMV	P8J0598
Dimethyl phthalate	BRL	mg/kg dry	0.35	0.046	1	8270D	11/1/18 18:57	JMV	P8J0598
Di-n-butyl phthalate	BRL	mg/kg dry	0.35	0.049	1	8270D	11/1/18 18:57	JMV	P8J0598
Di-n-octyl phthalate	BRL	mg/kg dry	0.35	0.043	1	8270D	11/1/18 18:57	JMV	P8J0598
Fluoranthene	BRL	mg/kg dry	0.35	0.044	1	8270D	11/1/18 18:57	JMV	P8J0598
Fluorene	BRL	mg/kg dry	0.35	0.050	1	8270D	11/1/18 18:57	JMV	P8J0598
Hexachlorobenzene	BRL	mg/kg dry	0.35	0.055	1	8270D	11/1/18 18:57	JMV	P8J0598
Hexachlorobutadiene	BRL	mg/kg dry	0.35	0.062	1	8270D	11/1/18 18:57	JMV	P8J0598
Hexachlorocyclopentadiene	BRL	mg/kg dry	0.35	0.062	1	8270D	11/1/18 18:57	JMV	P8J0598
Hexachloroethane	BRL	mg/kg dry	0.35	0.058	1	8270D	11/1/18 18:57	JMV	P8J0598
Indeno(1,2,3-cd)pyrene	BRL	mg/kg dry	0.35	0.040	1	8270D	11/1/18 18:57	JMV	P8J0598
Isophorone	BRL	mg/kg dry	0.35	0.047	1	8270D	11/1/18 18:57	JMV	P8J0598
Naphthalene	BRL	mg/kg dry	0.35	0.056	1	8270D	11/1/18 18:57	JMV	P8J0598
Nitrobenzene	BRL	mg/kg dry	0.35	0.049	1	8270D	11/1/18 18:57	JMV	P8J0598
N-Nitroso-di-n-propylamine	BRL A	mg/kg dry	0.35	0.055	1	8270D	11/1/18 18:57	JMV	P8J0598
N-Nitrosodiphenylamine	BRL	mg/kg dry	0.35	0.053	1	8270D	11/1/18 18:57	JMV	P8J0598
Pentachlorophenol	BRL	mg/kg dry	0.35	0.041	1	8270D	11/1/18 18:57	JMV	P8J0598
Phenanthrene	BRL	mg/kg dry	0.35	0.045	1	8270D	11/1/18 18:57	JMV	P8J0598
Phenol	BRL	mg/kg dry	0.35	0.051	1	8270D	11/1/18 18:57	JMV	P8J0598
Pyrene	BRL	mg/kg dry	0.35	0.046	1	8270D	11/1/18 18:57	JMV	P8J0598

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	49 %	39-132
2-Fluorobiphenyl	62 %	44-115
2-Fluorophenol	53 %	35-115
Nitrobenzene-d5	36 %	37-122
Phenol-d5	53 %	34-121
Terphenyl-d14	58 %	54-127

#### Total Metals

Mercury	0.029	mg/kg dry	0.021	0.0020	1	7471B	10/30/18 15:07	MMR	P8J0575
Antimony	2.3	mg/kg dry	0.26	0.026	1	6010D	10/30/18 16:29	JAB	P8J0550
Arsenic	1.8	mg/kg dry	0.53	0.032	1	6010D	10/30/18 16:29	JAB	P8J0550
Barium	110	mg/kg dry	0.53	0.077	1	6010D	10/30/18 16:29	JAB	P8J0550
Beryllium	0.71	mg/kg dry	0.26	0.0058	1	6010D	10/30/18 16:29	JAB	P8J0550
Cadmium	0.22 J	mg/kg dry	0.26	0.0070	1	6010D	10/30/18 16:29	JAB	P8J0550
Chromium	19	mg/kg dry	0.26	0.044	1	6010D	10/30/18 16:29	JAB	P8J0550
Copper	230	mg/kg dry	5.3	0.48	10	6010D	10/31/18 12:14	JAB	P8J0550
Lead	16	mg/kg dry	0.26	0.049	1	6010D	10/30/18 16:29	JAB	P8J0550
Nickel	10	mg/kg dry	0.53	0.019	1	6010D	10/30/18 16:29	JAB	P8J0550

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-34 (0-2)  
Prism Sample ID: 8100451-07  
Prism Work Order: 8100451  
Time Collected: 10/25/18 14:12  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Selenium</b>	<b>1.1</b>	<b>mg/kg dry</b>	<b>0.53</b>	<b>0.12</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 16:29</b>	<b>JAB</b>	<b>P8J0550</b>
Silver	BRL	mg/kg dry	0.26	0.0065	1	6010D	10/30/18 16:29	JAB	P8J0550
<b>Thallium</b>	<b>4.7</b>	<b>mg/kg dry</b>	<b>0.53</b>	<b>0.069</b>	<b>1</b>	<b>6010D</b>	<b>10/30/18 16:29</b>	<b>JAB</b>	<b>P8J0550</b>
<b>Zinc</b>	<b>160</b>	<b>mg/kg dry</b>	<b>26</b>	<b>0.94</b>	<b>10</b>	<b>6010D</b>	<b>10/31/18 12:14</b>	<b>JAB</b>	<b>P8J0550</b>

## Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00039	1	8260B	11/2/18 21:53	JLB	P8K0047
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	11/2/18 21:53	JLB	P8K0047
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	11/2/18 21:53	JLB	P8K0047
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0048	0.00042	1	8260B	11/2/18 21:53	JLB	P8K0047
1,1-Dichloroethane	BRL	mg/kg dry	0.0048	0.00013	1	8260B	11/2/18 21:53	JLB	P8K0047
1,1-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00021	1	8260B	11/2/18 21:53	JLB	P8K0047
1,1-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00026	1	8260B	11/2/18 21:53	JLB	P8K0047
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	11/2/18 21:53	JLB	P8K0047
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0048	0.00061	1	8260B	11/2/18 21:53	JLB	P8K0047
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0048	0.00035	1	8260B	11/2/18 21:53	JLB	P8K0047
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	11/2/18 21:53	JLB	P8K0047
1,2-Dibromoethane	BRL	mg/kg dry	0.0048	0.00019	1	8260B	11/2/18 21:53	JLB	P8K0047
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00022	1	8260B	11/2/18 21:53	JLB	P8K0047
1,2-Dichloroethane	BRL	mg/kg dry	0.0048	0.00028	1	8260B	11/2/18 21:53	JLB	P8K0047
1,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00029	1	8260B	11/2/18 21:53	JLB	P8K0047
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0048	0.00036	1	8260B	11/2/18 21:53	JLB	P8K0047
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00031	1	8260B	11/2/18 21:53	JLB	P8K0047
1,3-Dichloropropane	BRL	mg/kg dry	0.0048	0.00024	1	8260B	11/2/18 21:53	JLB	P8K0047
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0048	0.00019	1	8260B	11/2/18 21:53	JLB	P8K0047
2,2-Dichloropropane	BRL	mg/kg dry	0.0048	0.00023	1	8260B	11/2/18 21:53	JLB	P8K0047
2-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	11/2/18 21:53	JLB	P8K0047
4-Chlorotoluene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	11/2/18 21:53	JLB	P8K0047
4-Isopropyltoluene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	11/2/18 21:53	JLB	P8K0047
<b>Acetone</b>	<b>0.059</b>	<b>mg/kg dry</b>	<b>0.048</b>	<b>0.0012</b>	<b>1</b>	<b>8260B</b>	<b>11/2/18 21:53</b>	<b>JLB</b>	<b>P8K0047</b>
Benzene	BRL	mg/kg dry	0.0029	0.00028	1	8260B	11/2/18 21:53	JLB	P8K0047
Bromobenzene	BRL	mg/kg dry	0.0048	0.00040	1	8260B	11/2/18 21:53	JLB	P8K0047
Bromochloromethane	BRL	mg/kg dry	0.0048	0.00026	1	8260B	11/2/18 21:53	JLB	P8K0047
Bromodichloromethane	BRL	mg/kg dry	0.0048	0.00027	1	8260B	11/2/18 21:53	JLB	P8K0047
Bromoform	BRL	mg/kg dry	0.0048	0.00054	1	8260B	11/2/18 21:53	JLB	P8K0047
Bromomethane	BRL	mg/kg dry	0.0095	0.00059	1	8260B	11/2/18 21:53	JLB	P8K0047
Carbon Tetrachloride	BRL	mg/kg dry	0.0048	0.00024	1	8260B	11/2/18 21:53	JLB	P8K0047
Chlorobenzene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	11/2/18 21:53	JLB	P8K0047
Chloroethane	BRL	mg/kg dry	0.0095	0.00040	1	8260B	11/2/18 21:53	JLB	P8K0047
Chloroform	BRL	mg/kg dry	0.0048	0.00034	1	8260B	11/2/18 21:53	JLB	P8K0047
Chloromethane	BRL	mg/kg dry	0.0048	0.00032	1	8260B	11/2/18 21:53	JLB	P8K0047
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00020	1	8260B	11/2/18 21:53	JLB	P8K0047
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	11/2/18 21:53	JLB	P8K0047
Dibromochloromethane	BRL	mg/kg dry	0.0048	0.00020	1	8260B	11/2/18 21:53	JLB	P8K0047

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-34 (0-2)  
Prism Sample ID: 8100451-07  
Prism Work Order: 8100451  
Time Collected: 10/25/18 14:12  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Dichlorodifluoromethane	BRL	mg/kg dry	0.0048	0.00022	1	8260B	11/2/18 21:53	JLB	P8K0047
Ethylbenzene	BRL	mg/kg dry	0.0048	0.00018	1	8260B	11/2/18 21:53	JLB	P8K0047
Isopropyl Ether	BRL	mg/kg dry	0.0048	0.00019	1	8260B	11/2/18 21:53	JLB	P8K0047
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0048	0.00028	1	8260B	11/2/18 21:53	JLB	P8K0047
m,p-Xylenes	BRL	mg/kg dry	0.0095	0.00044	1	8260B	11/2/18 21:53	JLB	P8K0047
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.048	0.00043	1	8260B	11/2/18 21:53	JLB	P8K0047
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.095	0.00043	1	8260B	11/2/18 21:53	JLB	P8K0047
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.048	0.00041	1	8260B	11/2/18 21:53	JLB	P8K0047
Methylene Chloride	BRL	mg/kg dry	0.0095	0.00027	1	8260B	11/2/18 21:53	JLB	P8K0047
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0095	0.00015	1	8260B	11/2/18 21:53	JLB	P8K0047
Naphthalene	BRL	mg/kg dry	0.0095	0.00015	1	8260B	11/2/18 21:53	JLB	P8K0047
n-Butylbenzene	BRL	mg/kg dry	0.0048	0.00024	1	8260B	11/2/18 21:53	JLB	P8K0047
n-Propylbenzene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	11/2/18 21:53	JLB	P8K0047
o-Xylene	BRL	mg/kg dry	0.0048	0.00019	1	8260B	11/2/18 21:53	JLB	P8K0047
sec-Butylbenzene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	11/2/18 21:53	JLB	P8K0047
Styrene	BRL	mg/kg dry	0.0048	0.00029	1	8260B	11/2/18 21:53	JLB	P8K0047
tert-Butylbenzene	BRL	mg/kg dry	0.0048	0.00016	1	8260B	11/2/18 21:53	JLB	P8K0047
Tetrachloroethylene	BRL	mg/kg dry	0.0048	0.00023	1	8260B	11/2/18 21:53	JLB	P8K0047
Toluene	BRL	mg/kg dry	0.0048	0.00027	1	8260B	11/2/18 21:53	JLB	P8K0047
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0048	0.00028	1	8260B	11/2/18 21:53	JLB	P8K0047
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0048	0.00025	1	8260B	11/2/18 21:53	JLB	P8K0047
Trichloroethylene	BRL	mg/kg dry	0.0048	0.00031	1	8260B	11/2/18 21:53	JLB	P8K0047
Trichlorofluoromethane	BRL	mg/kg dry	0.0048	0.00031	1	8260B	11/2/18 21:53	JLB	P8K0047
Vinyl acetate	BRL	mg/kg dry	0.024	0.00065	1	8260B	11/2/18 21:53	JLB	P8K0047
Vinyl chloride	BRL	mg/kg dry	0.0048	0.00023	1	8260B	11/2/18 21:53	JLB	P8K0047
Xylenes, total	BRL	mg/kg dry	0.014	0.00089	1	8260B	11/2/18 21:53	JLB	P8K0047
					Surrogate		Recovery		Control Limits
					4-Bromofluorobenzene		104 %		70-130
					Dibromofluoromethane		105 %		84-123
					Toluene-d8		104 %		76-129

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-15 (0-1.5)  
Prism Sample ID: 8100451-08  
Prism Work Order: 8100451  
Time Collected: 10/25/18 14:40  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Polychlorinated Biphenyls (PCBs) by GC/ECD</b>									
Aroclor 1016	BRL	mg/kg dry	6.2	0.69	100	8082A	11/7/18 16:31	ZRC	P8K0028
Aroclor 1221	BRL	mg/kg dry	6.2	2.5	50	8082A	11/7/18 8:25	ZRC	P8K0028
Aroclor 1232	BRL	mg/kg dry	6.2	0.81	50	8082A	11/7/18 8:25	ZRC	P8K0028
Aroclor 1242	BRL	mg/kg dry	3.1	0.83	50	8082A	11/7/18 8:25	ZRC	P8K0028
<b>Aroclor 1248</b>	<b>18</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.62</b>	<b>50</b>	<b>8082A</b>	<b>11/7/18 8:25</b>	<b>ZRC</b>	<b>P8K0028</b>
<b>Aroclor 1254</b>	<b>18</b>	<b>mg/kg dry</b>	<b>3.1</b>	<b>0.77</b>	<b>50</b>	<b>8082A</b>	<b>11/7/18 16:31</b>	<b>ZRC</b>	<b>P8K0028</b>
<b>Aroclor 1260</b>	<b>35</b>	<b>mg/kg dry</b>	<b>6.2</b>	<b>0.79</b>	<b>100</b>	<b>8082A</b>	<b>11/7/18 16:31</b>	<b>ZRC</b>	<b>P8K0028</b>
						Surrogate	Recovery	Control Limits	
						Tetrachloro-m-xylene	0 %	36-182	DO
						Decachlorobiphenyl	0 %	34-182	DO

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Full-Service Analytical &amp; Environmental Solutions

## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-7 (1ft)  
Prism Sample ID: 8100451-09  
Prism Work Order: 8100451  
Time Collected: 10/25/18 14:54  
Time Submitted: 10/25/18 17:00

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

% Solids	85.4	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
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**Polychlorinated Biphenyls (PCBs) by GC/ECD**

Aroclor 1016	BRL	mg/kg dry	0.058	0.0064	1	8082A	11/7/18 5:35	ZRC	P8K0028
Aroclor 1221	BRL	mg/kg dry	0.12	0.046	1	8082A	11/7/18 5:35	ZRC	P8K0028
Aroclor 1232	BRL	mg/kg dry	0.12	0.015	1	8082A	11/7/18 5:35	ZRC	P8K0028
Aroclor 1242	BRL	mg/kg dry	0.058	0.015	1	8082A	11/7/18 5:35	ZRC	P8K0028
<b>Aroclor 1248</b>	<b>0.061</b>	<b>mg/kg dry</b>	<b>0.058</b>	<b>0.012</b>	<b>1</b>	<b>8082A</b>	<b>11/7/18 5:35</b>	<b>ZRC</b>	<b>P8K0028</b>
<b>Aroclor 1254</b>	<b>0.076</b>	<b>mg/kg dry</b>	<b>0.058</b>	<b>0.014</b>	<b>1</b>	<b>8082A</b>	<b>11/7/18 5:35</b>	<b>ZRC</b>	<b>P8K0028</b>
<b>Aroclor 1260</b>	<b>0.044 J</b>	<b>mg/kg dry</b>	<b>0.058</b>	<b>0.0073</b>	<b>1</b>	<b>8082A</b>	<b>11/7/18 5:35</b>	<b>ZRC</b>	<b>P8K0028</b>

Surrogate	Recovery	Control Limits
Tetrachloro-m-xylene	86 %	36-182
Decachlorobiphenyl	84 %	34-182

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## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-21 (0-1)  
Prism Sample ID: 8100451-10  
Prism Work Order: 8100451  
Time Collected: 10/25/18 15:20  
Time Submitted: 10/25/18 17:00

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

% Solids	81.7	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
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**Polychlorinated Biphenyls (PCBs) by GC/ECD**

Aroclor 1016	BRL	mg/kg dry	0.061	0.0067	1	8082A	11/7/18 6:18	ZRC	P8K0028
Aroclor 1221	BRL	mg/kg dry	0.12	0.049	1	8082A	11/7/18 6:18	ZRC	P8K0028
Aroclor 1232	BRL	mg/kg dry	0.12	0.016	1	8082A	11/7/18 6:18	ZRC	P8K0028
Aroclor 1242	BRL	mg/kg dry	0.061	0.016	1	8082A	11/7/18 6:18	ZRC	P8K0028
<b>Aroclor 1248</b>	<b>0.44</b>	<b>mg/kg dry</b>	<b>0.061</b>	<b>0.012</b>	<b>1</b>	<b>8082A</b>	<b>11/7/18 6:18</b>	<b>ZRC</b>	<b>P8K0028</b>
Aroclor 1254	1.3	mg/kg dry	0.30	0.075	5	8082A	11/7/18 17:13	ZRC	P8K0028
Aroclor 1260	0.79	mg/kg dry	0.061	0.0076	1	8082A	11/7/18 6:18	ZRC	P8K0028

Surrogate	Recovery	Control Limits
Tetrachloro-m-xylene	84 %	36-182
Decachlorobiphenyl	83 %	34-182

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## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-4 (0-1)  
Prism Sample ID: 8100451-11  
Prism Work Order: 8100451  
Time Collected: 10/25/18 15:31  
Time Submitted: 10/25/18 17:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>General Chemistry Parameters</b>									
% Solids	86.8	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
<b>Polychlorinated Biphenyls (PCBs) by GC/ECD</b>									
Aroclor 1016	BRL	mg/kg dry	0.057	0.0063	1	8082A	11/7/18 7:00	ZRC	P8K0028
Aroclor 1221	BRL	mg/kg dry	0.11	0.046	1	8082A	11/7/18 7:00	ZRC	P8K0028
Aroclor 1232	BRL	mg/kg dry	0.11	0.015	1	8082A	11/7/18 7:00	ZRC	P8K0028
Aroclor 1242	BRL	mg/kg dry	0.057	0.015	1	8082A	11/7/18 7:00	ZRC	P8K0028
Aroclor 1248	BRL	mg/kg dry	0.057	0.011	1	8082A	11/7/18 7:00	ZRC	P8K0028
<b>Aroclor 1254</b>	<b>0.64</b>	<b>mg/kg dry</b>	<b>0.057</b>	<b>0.014</b>	<b>1</b>	<b>8082A</b>	<b>11/7/18 7:00</b>	<b>ZRC</b>	<b>P8K0028</b>
<b>Aroclor 1260</b>	<b>0.42</b>	<b>mg/kg dry</b>	<b>0.057</b>	<b>0.0072</b>	<b>1</b>	<b>8082A</b>	<b>11/7/18 7:00</b>	<b>ZRC</b>	<b>P8K0028</b>
Surrogate						Recovery		Control Limits	
Tetrachloro-m-xylene						90 %		36-182	
Decachlorobiphenyl						79 %		34-182	

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## Laboratory Report

11/08/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No.: WBS 44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2SB-2 (0-1)  
Prism Sample ID: 8100451-12  
Prism Work Order: 8100451  
Time Collected: 10/25/18 15:51  
Time Submitted: 10/25/18 17:00

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

% Solids	75.9	% by Weight	0.100	0.100	1	SM2540 G	10/31/18 16:00	TJY	P8K0021
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**Polychlorinated Biphenyls (PCBs) by GC/ECD**

Aroclor 1016	BRL	mg/kg dry	3.3	0.36	50	8082A	11/7/18 7:43	ZRC	P8K0028
Aroclor 1221	BRL	mg/kg dry	6.5	2.6	50	8082A	11/7/18 7:43	ZRC	P8K0028
Aroclor 1232	BRL	mg/kg dry	6.5	0.85	50	8082A	11/7/18 7:43	ZRC	P8K0028
Aroclor 1242	BRL	mg/kg dry	3.3	0.87	50	8082A	11/7/18 7:43	ZRC	P8K0028
Aroclor 1248	BRL	mg/kg dry	3.3	0.65	50	8082A	11/7/18 7:43	ZRC	P8K0028
<b>Aroclor 1254</b>	<b>15</b>	<b>mg/kg dry</b>	<b>3.3</b>	<b>0.81</b>	<b>50</b>	<b>8082A</b>	<b>11/7/18 7:43</b>	<b>ZRC</b>	<b>P8K0028</b>
<b>Aroclor 1260</b>	<b>25</b>	<b>mg/kg dry</b>	<b>3.3</b>	<b>0.41</b>	<b>50</b>	<b>8082A</b>	<b>11/7/18 7:43</b>	<b>ZRC</b>	<b>P8K0028</b>

Surrogate	Recovery	Control Limits
Tetrachloro-m-xylene	0 %	36-182 DO
Decachlorobiphenyl	0 %	34-182 DO

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Apex Companies, LLC (Charlotte Office) Project: NCDOT Primrose Ave.  
 Attn: Katie Lippard  
 10610 Metromont Blvd.. Suite 206 Project No: WBS 44475.1.1  
 Charlotte, NC 28269

Prism Work Order: 8100451  
 Time Submitted: 10/25/2018 5:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8K0047 - 5035</b>										
<b>Blank (P8K0047-BLK1)</b>										
Prepared & Analyzed: 11/02/18										
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	0.0050	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.0050	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	0.050	mg/kg wet							
Benzene	BRL	0.0030	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	0.0050	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	0.0050	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	0.050	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.10	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.050	mg/kg wet							

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

### Volatiles 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 P8K0047 - 5035</b>										
<b>Blank (P8K0047-BLK1)</b>										
Prepared & Analyzed: 11/02/18										
Methylene Chloride	BRL	0.010	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.010	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	0.0050	mg/kg wet							
Vinyl acetate	BRL	0.025	mg/kg wet							
Vinyl chloride	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	51.4		ug/L	50.00		103	70-130			
Surrogate: Dibromofluoromethane	51.8		ug/L	50.00		104	84-123			
Surrogate: Toluene-d8	52.5		ug/L	50.00		105	76-129			
<b>LCS (P8K0047-BS1)</b>										
Prepared & Analyzed: 11/02/18										
1,1,1,2-Tetrachloroethane	0.0482	0.0050	mg/kg wet	0.05000		96	72-115			
1,1,1-Trichloroethane	0.0421	0.0050	mg/kg wet	0.05000		84	67-131			
1,1,2,2-Tetrachloroethane	0.0525	0.0050	mg/kg wet	0.05000		105	56-126			
1,1,2-Trichloroethane	0.0482	0.0050	mg/kg wet	0.05000		96	70-133			
1,1-Dichloroethane	0.0406	0.0050	mg/kg wet	0.05000		81	74-127			
1,1-Dichloroethylene	0.0458	0.0050	mg/kg wet	0.05000		92	67-149			
1,1-Dichloropropylene	0.0453	0.0050	mg/kg wet	0.05000		91	71-130			
1,2,3-Trichlorobenzene	0.0487	0.0050	mg/kg wet	0.05000		97	68-130			
1,2,3-Trichloropropane	0.0514	0.0050	mg/kg wet	0.05000		103	60-137			
1,2,4-Trichlorobenzene	0.0496	0.0050	mg/kg wet	0.05000		99	66-125			
1,2,4-Trimethylbenzene	0.0520	0.0050	mg/kg wet	0.05000		104	69-129			
1,2-Dibromoethane	0.0474	0.0050	mg/kg wet	0.05000		95	70-132			
1,2-Dichlorobenzene	0.0493	0.0050	mg/kg wet	0.05000		99	72-123			
1,2-Dichloroethane	0.0445	0.0050	mg/kg wet	0.05000		89	68-128			
1,2-Dichloropropane	0.0448	0.0050	mg/kg wet	0.05000		90	73-130			
1,3,5-Trimethylbenzene	0.0514	0.0050	mg/kg wet	0.05000		103	69-128			
1,3-Dichlorobenzene	0.0492	0.0050	mg/kg wet	0.05000		98	71-120			
1,3-Dichloropropane	0.0480	0.0050	mg/kg wet	0.05000		96	75-124			
1,4-Dichlorobenzene	0.0486	0.0050	mg/kg wet	0.05000		97	71-123			
2,2-Dichloropropane	0.0432	0.0050	mg/kg wet	0.05000		86	50-142			
2-Chlorotoluene	0.0494	0.0050	mg/kg wet	0.05000		99	67-124			
4-Chlorotoluene	0.0512	0.0050	mg/kg wet	0.05000		102	71-126			
4-Isopropyltoluene	0.0514	0.0050	mg/kg wet	0.05000		103	68-129			
Acetone	0.0920	0.050	mg/kg wet	0.1000		92	29-198			

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8K0047 - 5035</b>										
<b>LCS (P8K0047-BS1)</b>										
Prepared & Analyzed: 11/02/18										
Benzene	0.0448	0.0030	mg/kg wet	0.05000		90	74-127			
Bromobenzene	0.0487	0.0050	mg/kg wet	0.05000		97	73-125			
Bromochloromethane	0.0446	0.0050	mg/kg wet	0.05000		89	72-134			
Bromodichloromethane	0.0453	0.0050	mg/kg wet	0.05000		91	75-122			
Bromoform	0.0489	0.0050	mg/kg wet	0.05000		98	66-135			
Bromomethane	0.0352	0.010	mg/kg wet	0.05000		70	20-180			
Carbon Tetrachloride	0.0450	0.0050	mg/kg wet	0.05000		90	64-143			
Chlorobenzene	0.0464	0.0050	mg/kg wet	0.05000		93	74-118			
Chloroethane	0.0390	0.010	mg/kg wet	0.05000		78	33-149			
Chloroform	0.0436	0.0050	mg/kg wet	0.05000		87	73-127			
Chloromethane	0.0386	0.0050	mg/kg wet	0.05000		77	45-143			
cis-1,2-Dichloroethylene	0.0426	0.0050	mg/kg wet	0.05000		85	76-134			
cis-1,3-Dichloropropylene	0.0458	0.0050	mg/kg wet	0.05000		92	71-125			
Dibromochloromethane	0.0491	0.0050	mg/kg wet	0.05000		98	73-122			
Dichlorodifluoromethane	0.0342	0.0050	mg/kg wet	0.05000		68	26-146			
Ethylbenzene	0.0479	0.0050	mg/kg wet	0.05000		96	74-128			
Isopropyl Ether	0.0445	0.0050	mg/kg wet	0.05000		89	59-159			
Isopropylbenzene (Cumene)	0.0519	0.0050	mg/kg wet	0.05000		104	68-126			
m,p-Xylenes	0.0987	0.010	mg/kg wet	0.1000		99	75-124			
Methyl Butyl Ketone (2-Hexanone)	0.0527	0.050	mg/kg wet	0.05000		105	61-157			
Methyl Ethyl Ketone (2-Butanone)	0.0458	0.10	mg/kg wet	0.05000		92	63-149			J
Methyl Isobutyl Ketone	0.0486	0.050	mg/kg wet	0.05000		97	57-162			J
Methylene Chloride	0.0435	0.010	mg/kg wet	0.05000		87	74-129			
Methyl-tert-Butyl Ether	0.0454	0.010	mg/kg wet	0.05000		91	70-130			
Naphthalene	0.0511	0.010	mg/kg wet	0.05000		102	57-157			
n-Butylbenzene	0.0527	0.0050	mg/kg wet	0.05000		105	65-135			
n-Propylbenzene	0.0523	0.0050	mg/kg wet	0.05000		105	67-130			
o-Xylene	0.0486	0.0050	mg/kg wet	0.05000		97	74-126			
sec-Butylbenzene	0.0520	0.0050	mg/kg wet	0.05000		104	66-131			
Styrene	0.0482	0.0050	mg/kg wet	0.05000		96	77-121			
tert-Butylbenzene	0.0512	0.0050	mg/kg wet	0.05000		102	67-132			
Tetrachloroethylene	0.0412	0.0050	mg/kg wet	0.05000		82	68-130			
Toluene	0.0434	0.0050	mg/kg wet	0.05000		87	71-129			
trans-1,2-Dichloroethylene	0.0437	0.0050	mg/kg wet	0.05000		87	73-132			
trans-1,3-Dichloropropylene	0.0457	0.0050	mg/kg wet	0.05000		91	68-123			
Trichloroethylene	0.0445	0.0050	mg/kg wet	0.05000		89	75-133			
Trichlorofluoromethane	0.0433	0.0050	mg/kg wet	0.05000		87	44-146			
Vinyl acetate	0.0530	0.025	mg/kg wet	0.05000		106	85-161			
Vinyl chloride	0.0444	0.0050	mg/kg wet	0.05000		89	48-147			
Xylenes, total	0.147	0.015	mg/kg wet	0.1500		98	74-126			
Surrogate: 4-Bromofluorobenzene	50.2		ug/L	50.00		100	70-130			
Surrogate: Dibromofluoromethane	51.0		ug/L	50.00		102	84-123			
Surrogate: Toluene-d8	53.1		ug/L	50.00		106	76-129			

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8K0047 - 5035</b>										
<b>LCS Dup (P8K0047-BSD1)</b>										
Prepared & Analyzed: 11/02/18										
1,1,1,2-Tetrachloroethane	0.0478	0.0050	mg/kg wet	0.05000		96	72-115	0.8	20	
1,1,1-Trichloroethane	0.0419	0.0050	mg/kg wet	0.05000		84	67-131	0.5	20	
1,1,2,2-Tetrachloroethane	0.0531	0.0050	mg/kg wet	0.05000		106	56-126	1	20	
1,1,2-Trichloroethane	0.0483	0.0050	mg/kg wet	0.05000		97	70-133	0.2	20	
1,1-Dichloroethane	0.0402	0.0050	mg/kg wet	0.05000		80	74-127	0.8	20	
1,1-Dichloroethylene	0.0448	0.0050	mg/kg wet	0.05000		90	67-149	2	20	
1,1-Dichloropropylene	0.0441	0.0050	mg/kg wet	0.05000		88	71-130	3	20	
1,2,3-Trichlorobenzene	0.0484	0.0050	mg/kg wet	0.05000		97	68-130	0.6	20	
1,2,3-Trichloropropane	0.0526	0.0050	mg/kg wet	0.05000		105	60-137	2	20	
1,2,4-Trichlorobenzene	0.0495	0.0050	mg/kg wet	0.05000		99	66-125	0.4	20	
1,2,4-Trimethylbenzene	0.0517	0.0050	mg/kg wet	0.05000		103	69-129	0.6	20	
1,2-Dibromoethane	0.0476	0.0050	mg/kg wet	0.05000		95	70-132	0.6	20	
1,2-Dichlorobenzene	0.0493	0.0050	mg/kg wet	0.05000		99	72-123	0.1	20	
1,2-Dichloroethane	0.0448	0.0050	mg/kg wet	0.05000		90	68-128	0.8	20	
1,2-Dichloropropane	0.0449	0.0050	mg/kg wet	0.05000		90	73-130	0.2	20	
1,3,5-Trimethylbenzene	0.0507	0.0050	mg/kg wet	0.05000		101	69-128	1	20	
1,3-Dichlorobenzene	0.0493	0.0050	mg/kg wet	0.05000		99	71-120	0.2	20	
1,3-Dichloropropane	0.0486	0.0050	mg/kg wet	0.05000		97	75-124	1	20	
1,4-Dichlorobenzene	0.0481	0.0050	mg/kg wet	0.05000		96	71-123	1	20	
2,2-Dichloropropane	0.0424	0.0050	mg/kg wet	0.05000		85	50-142	2	20	
2-Chlorotoluene	0.0492	0.0050	mg/kg wet	0.05000		98	67-124	0.5	20	
4-Chlorotoluene	0.0511	0.0050	mg/kg wet	0.05000		102	71-126	0.3	20	
4-Isopropyltoluene	0.0502	0.0050	mg/kg wet	0.05000		100	68-129	2	20	
Acetone	0.0912	0.050	mg/kg wet	0.1000		91	29-198	0.8	20	
Benzene	0.0442	0.0030	mg/kg wet	0.05000		88	74-127	1	20	
Bromobenzene	0.0492	0.0050	mg/kg wet	0.05000		98	73-125	1	20	
Bromochloromethane	0.0447	0.0050	mg/kg wet	0.05000		89	72-134	0.2	20	
Bromodichloromethane	0.0464	0.0050	mg/kg wet	0.05000		93	75-122	2	20	
Bromoform	0.0488	0.0050	mg/kg wet	0.05000		97	66-135	0.2	20	
Bromomethane	0.0364	0.010	mg/kg wet	0.05000		73	20-180	4	20	
Carbon Tetrachloride	0.0435	0.0050	mg/kg wet	0.05000		87	64-143	4	20	
Chlorobenzene	0.0462	0.0050	mg/kg wet	0.05000		92	74-118	0.3	20	
Chloroethane	0.0379	0.010	mg/kg wet	0.05000		76	33-149	3	20	
Chloroform	0.0437	0.0050	mg/kg wet	0.05000		87	73-127	0.3	20	
Chloromethane	0.0404	0.0050	mg/kg wet	0.05000		81	45-143	5	20	
cis-1,2-Dichloroethylene	0.0424	0.0050	mg/kg wet	0.05000		85	76-134	0.4	20	
cis-1,3-Dichloropropylene	0.0462	0.0050	mg/kg wet	0.05000		92	71-125	1	20	
Dibromochloromethane	0.0496	0.0050	mg/kg wet	0.05000		99	73-122	1	20	
Dichlorodifluoromethane	0.0336	0.0050	mg/kg wet	0.05000		67	26-146	2	20	
Ethylbenzene	0.0472	0.0050	mg/kg wet	0.05000		94	74-128	1	20	
Isopropyl Ether	0.0451	0.0050	mg/kg wet	0.05000		90	59-159	1	20	
Isopropylbenzene (Cumene)	0.0510	0.0050	mg/kg wet	0.05000		102	68-126	2	20	
m,p-Xylenes	0.0973	0.010	mg/kg wet	0.1000		97	75-124	1	20	
Methyl Butyl Ketone (2-Hexanone)	0.0527	0.050	mg/kg wet	0.05000		105	61-157	0.08	20	
Methyl Ethyl Ketone (2-Butanone)	0.0461	0.10	mg/kg wet	0.05000		92	63-149	0.7	20	J
Methyl Isobutyl Ketone	0.0484	0.050	mg/kg wet	0.05000		97	57-162	0.5	20	J

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8K0047 - 5035</b>										
<b>LCS Dup (P8K0047-BSD1)</b>										
Prepared & Analyzed: 11/02/18										
Methylene Chloride	0.0435	0.010	mg/kg wet	0.05000		87	74-129	0.1	20	
Methyl-tert-Butyl Ether	0.0450	0.010	mg/kg wet	0.05000		90	70-130	0.7	20	
Naphthalene	0.0512	0.010	mg/kg wet	0.05000		102	57-157	0.08	20	
n-Butylbenzene	0.0518	0.0050	mg/kg wet	0.05000		104	65-135	2	20	
n-Propylbenzene	0.0517	0.0050	mg/kg wet	0.05000		103	67-130	1	20	
o-Xylene	0.0479	0.0050	mg/kg wet	0.05000		96	74-126	1	20	
sec-Butylbenzene	0.0513	0.0050	mg/kg wet	0.05000		103	66-131	1	20	
Styrene	0.0482	0.0050	mg/kg wet	0.05000		96	77-121	0.1	20	
tert-Butylbenzene	0.0508	0.0050	mg/kg wet	0.05000		102	67-132	0.7	20	
Tetrachloroethylene	0.0403	0.0050	mg/kg wet	0.05000		81	68-130	2	20	
Toluene	0.0432	0.0050	mg/kg wet	0.05000		86	71-129	0.3	20	
trans-1,2-Dichloroethylene	0.0427	0.0050	mg/kg wet	0.05000		85	73-132	2	20	
trans-1,3-Dichloropropylene	0.0460	0.0050	mg/kg wet	0.05000		92	68-123	0.6	20	
Trichloroethylene	0.0436	0.0050	mg/kg wet	0.05000		87	75-133	2	20	
Trichlorofluoromethane	0.0417	0.0050	mg/kg wet	0.05000		83	44-146	4	20	
Vinyl acetate	0.0533	0.025	mg/kg wet	0.05000		107	85-161	0.4	20	
Vinyl chloride	0.0455	0.0050	mg/kg wet	0.05000		91	48-147	2	20	
Xylenes, total	0.145	0.015	mg/kg wet	0.1500		97	74-126	1	20	
Surrogate: 4-Bromofluorobenzene	50.6		ug/L	50.00		101	70-130			
Surrogate: Dibromofluoromethane	50.9		ug/L	50.00		102	84-123			
Surrogate: Toluene-d8	52.5		ug/L	50.00		105	76-129			

### Batch P8K0071 - 5035

<b>Blank (P8K0071-BLK1)</b>										
Prepared & Analyzed: 11/05/18										
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	0.0050	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.0050	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							

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8K0071 - 5035</b>										
<b>Blank (P8K0071-BLK1)</b>										
Prepared & Analyzed: 11/05/18										
4-Isopropyltoluene	BRL	0.0050	mg/kg wet							
Acetone	BRL	0.050	mg/kg wet							
Benzene	BRL	0.0030	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	0.0050	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	0.0050	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	0.050	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.10	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.050	mg/kg wet							
Methylene Chloride	BRL	0.010	mg/kg wet							
Methyl-tert-Butyl Ether	BRL	0.010	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	0.0050	mg/kg wet							
Vinyl acetate	BRL	0.025	mg/kg wet							
Vinyl chloride	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.00		101	70-130			
Surrogate: Dibromofluoromethane	52.0		ug/L	50.00		104	84-123			
Surrogate: Toluene-d8	52.5		ug/L	50.00		105	76-129			

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8K0071 - 5035</b>										
<b>LCS (P8K0071-BS1)</b>										
Prepared & Analyzed: 11/05/18										
1,1,1,2-Tetrachloroethane	0.0476	0.0050	mg/kg wet	0.05000		95	72-115			
1,1,1-Trichloroethane	0.0422	0.0050	mg/kg wet	0.05000		84	67-131			
1,1,2,2-Tetrachloroethane	0.0495	0.0050	mg/kg wet	0.05000		99	56-126			
1,1,2-Trichloroethane	0.0468	0.0050	mg/kg wet	0.05000		94	70-133			
1,1-Dichloroethane	0.0400	0.0050	mg/kg wet	0.05000		80	74-127			
1,1-Dichloroethylene	0.0448	0.0050	mg/kg wet	0.05000		90	67-149			
1,1-Dichloropropylene	0.0449	0.0050	mg/kg wet	0.05000		90	71-130			
1,2,3-Trichlorobenzene	0.0469	0.0050	mg/kg wet	0.05000		94	68-130			
1,2,3-Trichloropropane	0.0482	0.0050	mg/kg wet	0.05000		96	60-137			
1,2,4-Trichlorobenzene	0.0482	0.0050	mg/kg wet	0.05000		96	66-125			
1,2,4-Trimethylbenzene	0.0497	0.0050	mg/kg wet	0.05000		99	69-129			
1,2-Dibromoethane	0.0467	0.0050	mg/kg wet	0.05000		93	70-132			
1,2-Dichlorobenzene	0.0472	0.0050	mg/kg wet	0.05000		94	72-123			
1,2-Dichloroethane	0.0444	0.0050	mg/kg wet	0.05000		89	68-128			
1,2-Dichloropropane	0.0446	0.0050	mg/kg wet	0.05000		89	73-130			
1,3,5-Trimethylbenzene	0.0490	0.0050	mg/kg wet	0.05000		98	69-128			
1,3-Dichlorobenzene	0.0470	0.0050	mg/kg wet	0.05000		94	71-120			
1,3-Dichloropropane	0.0470	0.0050	mg/kg wet	0.05000		94	75-124			
1,4-Dichlorobenzene	0.0464	0.0050	mg/kg wet	0.05000		93	71-123			
2,2-Dichloropropane	0.0432	0.0050	mg/kg wet	0.05000		86	50-142			
2-Chlorotoluene	0.0477	0.0050	mg/kg wet	0.05000		95	67-124			
4-Chlorotoluene	0.0495	0.0050	mg/kg wet	0.05000		99	71-126			
4-Isopropyltoluene	0.0492	0.0050	mg/kg wet	0.05000		98	68-129			
Acetone	0.0865	0.050	mg/kg wet	0.1000		87	29-198			
Benzene	0.0444	0.0030	mg/kg wet	0.05000		89	74-127			
Bromobenzene	0.0471	0.0050	mg/kg wet	0.05000		94	73-125			
Bromochloromethane	0.0448	0.0050	mg/kg wet	0.05000		90	72-134			
Bromodichloromethane	0.0455	0.0050	mg/kg wet	0.05000		91	75-122			
Bromoform	0.0492	0.0050	mg/kg wet	0.05000		98	66-135			
Bromomethane	0.0362	0.010	mg/kg wet	0.05000		72	20-180			
Carbon Tetrachloride	0.0450	0.0050	mg/kg wet	0.05000		90	64-143			
Chlorobenzene	0.0454	0.0050	mg/kg wet	0.05000		91	74-118			
Chloroethane	0.0386	0.010	mg/kg wet	0.05000		77	33-149			
Chloroform	0.0436	0.0050	mg/kg wet	0.05000		87	73-127			
Chloromethane	0.0399	0.0050	mg/kg wet	0.05000		80	45-143			
cis-1,2-Dichloroethylene	0.0421	0.0050	mg/kg wet	0.05000		84	76-134			
cis-1,3-Dichloropropylene	0.0460	0.0050	mg/kg wet	0.05000		92	71-125			
Dibromochloromethane	0.0493	0.0050	mg/kg wet	0.05000		99	73-122			
Dichlorodifluoromethane	0.0310	0.0050	mg/kg wet	0.05000		62	26-146			
Ethylbenzene	0.0471	0.0050	mg/kg wet	0.05000		94	74-128			
Isopropyl Ether	0.0444	0.0050	mg/kg wet	0.05000		89	59-159			
Isopropylbenzene (Cumene)	0.0501	0.0050	mg/kg wet	0.05000		100	68-126			
m,p-Xylenes	0.0971	0.010	mg/kg wet	0.1000		97	75-124			
Methyl Butyl Ketone (2-Hexanone)	0.0500	0.050	mg/kg wet	0.05000		100	61-157			
Methyl Ethyl Ketone (2-Butanone)	0.0436	0.10	mg/kg wet	0.05000		87	63-149			J
Methyl Isobutyl Ketone	0.0463	0.050	mg/kg wet	0.05000		93	57-162			J

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Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

### Volatiles 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 P8K0071 - 5035</b>										
<b>LCS (P8K0071-BS1)</b>										
Prepared & Analyzed: 11/05/18										
Methylene Chloride	0.0426	0.010	mg/kg wet	0.05000		85	74-129			
Methyl-tert-Butyl Ether	0.0464	0.010	mg/kg wet	0.05000		93	70-130			
Naphthalene	0.0492	0.010	mg/kg wet	0.05000		98	57-157			
n-Butylbenzene	0.0505	0.0050	mg/kg wet	0.05000		101	65-135			
n-Propylbenzene	0.0504	0.0050	mg/kg wet	0.05000		101	67-130			
o-Xylene	0.0480	0.0050	mg/kg wet	0.05000		96	74-126			
sec-Butylbenzene	0.0502	0.0050	mg/kg wet	0.05000		100	66-131			
Styrene	0.0475	0.0050	mg/kg wet	0.05000		95	77-121			
tert-Butylbenzene	0.0496	0.0050	mg/kg wet	0.05000		99	67-132			
Tetrachloroethylene	0.0411	0.0050	mg/kg wet	0.05000		82	68-130			
Toluene	0.0433	0.0050	mg/kg wet	0.05000		87	71-129			
trans-1,2-Dichloroethylene	0.0429	0.0050	mg/kg wet	0.05000		86	73-132			
trans-1,3-Dichloropropylene	0.0459	0.0050	mg/kg wet	0.05000		92	68-123			
Trichloroethylene	0.0435	0.0050	mg/kg wet	0.05000		87	75-133			
Trichlorofluoromethane	0.0425	0.0050	mg/kg wet	0.05000		85	44-146			
Vinyl acetate	0.0537	0.025	mg/kg wet	0.05000		107	85-161			
Vinyl chloride	0.0449	0.0050	mg/kg wet	0.05000		90	48-147			
Xylenes, total	0.145	0.015	mg/kg wet	0.1500		97	74-126			
Surrogate: 4-Bromofluorobenzene	49.6		ug/L	50.00		99	70-130			
Surrogate: Dibromofluoromethane	50.3		ug/L	50.00		101	84-123			
Surrogate: Toluene-d8	52.4		ug/L	50.00		105	76-129			
<b>LCS Dup (P8K0071-BS1)</b>										
Prepared & Analyzed: 11/05/18										
1,1,1,2-Tetrachloroethane	0.0470	0.0050	mg/kg wet	0.05000		94	72-115	1	20	
1,1,1-Trichloroethane	0.0409	0.0050	mg/kg wet	0.05000		82	67-131	3	20	
1,1,2,2-Tetrachloroethane	0.0497	0.0050	mg/kg wet	0.05000		99	56-126	0.2	20	
1,1,2-Trichloroethane	0.0465	0.0050	mg/kg wet	0.05000		93	70-133	0.6	20	
1,1-Dichloroethane	0.0394	0.0050	mg/kg wet	0.05000		79	74-127	2	20	
1,1-Dichloroethylene	0.0430	0.0050	mg/kg wet	0.05000		86	67-149	4	20	
1,1-Dichloropropylene	0.0433	0.0050	mg/kg wet	0.05000		87	71-130	4	20	
1,2,3-Trichlorobenzene	0.0473	0.0050	mg/kg wet	0.05000		95	68-130	0.9	20	
1,2,3-Trichloropropane	0.0481	0.0050	mg/kg wet	0.05000		96	60-137	0.2	20	
1,2,4-Trichlorobenzene	0.0482	0.0050	mg/kg wet	0.05000		96	66-125	0.06	20	
1,2,4-Trimethylbenzene	0.0493	0.0050	mg/kg wet	0.05000		99	69-129	0.7	20	
1,2-Dibromoethane	0.0470	0.0050	mg/kg wet	0.05000		94	70-132	0.6	20	
1,2-Dichlorobenzene	0.0472	0.0050	mg/kg wet	0.05000		94	72-123	0.08	20	
1,2-Dichloroethane	0.0441	0.0050	mg/kg wet	0.05000		88	68-128	0.6	20	
1,2-Dichloropropane	0.0440	0.0050	mg/kg wet	0.05000		88	73-130	1	20	
1,3,5-Trimethylbenzene	0.0482	0.0050	mg/kg wet	0.05000		96	69-128	2	20	
1,3-Dichlorobenzene	0.0463	0.0050	mg/kg wet	0.05000		93	71-120	2	20	
1,3-Dichloropropane	0.0467	0.0050	mg/kg wet	0.05000		93	75-124	0.7	20	
1,4-Dichlorobenzene	0.0466	0.0050	mg/kg wet	0.05000		93	71-123	0.5	20	
2,2-Dichloropropane	0.0418	0.0050	mg/kg wet	0.05000		84	50-142	3	20	
2-Chlorotoluene	0.0469	0.0050	mg/kg wet	0.05000		94	67-124	2	20	
4-Chlorotoluene	0.0487	0.0050	mg/kg wet	0.05000		97	71-126	2	20	
4-Isopropyltoluene	0.0483	0.0050	mg/kg wet	0.05000		97	68-129	2	20	
Acetone	0.0858	0.050	mg/kg wet	0.1000		86	29-198	0.9	20	

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Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

### Volatiles 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 P8K0071 - 5035</b>										
<b>LCS Dup (P8K0071-BSD1)</b>										
Prepared & Analyzed: 11/05/18										
Benzene	0.0435	0.0030	mg/kg wet	0.05000		87	74-127	2	20	
Bromobenzene	0.0472	0.0050	mg/kg wet	0.05000		94	73-125	0.3	20	
Bromochloromethane	0.0444	0.0050	mg/kg wet	0.05000		89	72-134	0.7	20	
Bromodichloromethane	0.0456	0.0050	mg/kg wet	0.05000		91	75-122	0.3	20	
Bromoform	0.0486	0.0050	mg/kg wet	0.05000		97	66-135	1	20	
Bromomethane	0.0379	0.010	mg/kg wet	0.05000		76	20-180	4	20	
Carbon Tetrachloride	0.0435	0.0050	mg/kg wet	0.05000		87	64-143	3	20	
Chlorobenzene	0.0450	0.0050	mg/kg wet	0.05000		90	74-118	1	20	
Chloroethane	0.0375	0.010	mg/kg wet	0.05000		75	33-149	3	20	
Chloroform	0.0428	0.0050	mg/kg wet	0.05000		86	73-127	2	20	
Chloromethane	0.0389	0.0050	mg/kg wet	0.05000		78	45-143	2	20	
cis-1,2-Dichloroethylene	0.0415	0.0050	mg/kg wet	0.05000		83	76-134	1	20	
cis-1,3-Dichloropropylene	0.0456	0.0050	mg/kg wet	0.05000		91	71-125	0.9	20	
Dibromochloromethane	0.0486	0.0050	mg/kg wet	0.05000		97	73-122	1	20	
Dichlorodifluoromethane	0.0294	0.0050	mg/kg wet	0.05000		59	26-146	5	20	
Ethylbenzene	0.0458	0.0050	mg/kg wet	0.05000		92	74-128	3	20	
Isopropyl Ether	0.0441	0.0050	mg/kg wet	0.05000		88	59-159	0.7	20	
Isopropylbenzene (Cumene)	0.0490	0.0050	mg/kg wet	0.05000		98	68-126	2	20	
m,p-Xylenes	0.0942	0.010	mg/kg wet	0.1000		94	75-124	3	20	
Methyl Butyl Ketone (2-Hexanone)	0.0496	0.050	mg/kg wet	0.05000		99	61-157	0.8	20	J
Methyl Ethyl Ketone (2-Butanone)	0.0435	0.10	mg/kg wet	0.05000		87	63-149	0.1	20	J
Methyl Isobutyl Ketone	0.0464	0.050	mg/kg wet	0.05000		93	57-162	0.3	20	J
Methylene Chloride	0.0421	0.010	mg/kg wet	0.05000		84	74-129	1	20	
Methyl-tert-Butyl Ether	0.0466	0.010	mg/kg wet	0.05000		93	70-130	0.6	20	
Naphthalene	0.0494	0.010	mg/kg wet	0.05000		99	57-157	0.4	20	
n-Butylbenzene	0.0494	0.0050	mg/kg wet	0.05000		99	65-135	2	20	
n-Propylbenzene	0.0493	0.0050	mg/kg wet	0.05000		99	67-130	2	20	
o-Xylene	0.0468	0.0050	mg/kg wet	0.05000		94	74-126	2	20	
sec-Butylbenzene	0.0493	0.0050	mg/kg wet	0.05000		99	66-131	2	20	
Styrene	0.0468	0.0050	mg/kg wet	0.05000		94	77-121	1	20	
tert-Butylbenzene	0.0485	0.0050	mg/kg wet	0.05000		97	67-132	2	20	
Tetrachloroethylene	0.0399	0.0050	mg/kg wet	0.05000		80	68-130	3	20	
Toluene	0.0425	0.0050	mg/kg wet	0.05000		85	71-129	2	20	
trans-1,2-Dichloroethylene	0.0418	0.0050	mg/kg wet	0.05000		84	73-132	3	20	
trans-1,3-Dichloropropylene	0.0455	0.0050	mg/kg wet	0.05000		91	68-123	0.8	20	
Trichloroethylene	0.0427	0.0050	mg/kg wet	0.05000		85	75-133	2	20	
Trichlorofluoromethane	0.0407	0.0050	mg/kg wet	0.05000		81	44-146	4	20	
Vinyl acetate	0.0541	0.025	mg/kg wet	0.05000		108	85-161	0.7	20	
Vinyl chloride	0.0428	0.0050	mg/kg wet	0.05000		86	48-147	5	20	
Xylenes, total	0.141	0.015	mg/kg wet	0.1500		94	74-126	3	20	
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.00		101	70-130			
Surrogate: Dibromofluoromethane	50.7		ug/L	50.00		101	84-123			
Surrogate: Toluene-d8	52.1		ug/L	50.00		104	76-129			

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Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

### Volatile Organic Compounds by GC/MS (Medium Level) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8K0076 - 5035</b>										
<b>Blank (P8K0076-BLK1)</b>										
Prepared & Analyzed: 11/05/18										
1,2,4-Trimethylbenzene	BRL	0.0050	mg/kg wet							
1,3,5-Trimethylbenzene	BRL	0.0050	mg/kg wet							
Naphthalene	BRL	0.010	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.00		101	70-130			
Surrogate: Dibromofluoromethane	52.0		ug/L	50.00		104	70-130			
Surrogate: Toluene-d8	52.5		ug/L	50.00		105	70-130			
<b>LCS (P8K0076-BS1)</b>										
Prepared & Analyzed: 11/05/18										
1,2,4-Trimethylbenzene	0.0497	0.0050	mg/kg wet	0.05000		99	69-126			
1,3,5-Trimethylbenzene	0.0490	0.0050	mg/kg wet	0.05000		98	69-124			
Naphthalene	0.0492	0.010	mg/kg wet	0.05000		98	58-129			
Surrogate: 4-Bromofluorobenzene	49.6		ug/L	50.00		99	70-130			
Surrogate: Dibromofluoromethane	50.3		ug/L	50.00		101	70-130			
Surrogate: Toluene-d8	52.4		ug/L	50.00		105	70-130			
<b>LCS Dup (P8K0076-BSD1)</b>										
Prepared & Analyzed: 11/05/18										
1,2,4-Trimethylbenzene	0.0493	0.0050	mg/kg wet	0.05000		99	69-126	0.7	20	
1,3,5-Trimethylbenzene	0.0482	0.0050	mg/kg wet	0.05000		96	69-124	2	20	
Naphthalene	0.0494	0.010	mg/kg wet	0.05000		99	58-129	0.4	20	
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.00		101	70-130			
Surrogate: Dibromofluoromethane	50.7		ug/L	50.00		101	70-130			
Surrogate: Toluene-d8	52.1		ug/L	50.00		104	70-130			

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Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

### 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 P8J0598 - 3546</b>										
<b>Blank (P8J0598-BLK1)</b>										
Prepared: 10/31/18 Analyzed: 11/01/18										
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							
2,4,6-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							
Di-n-butyl phthalate	BRL	0.33	mg/kg wet							

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10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

### 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 P8J0598 - 3546</b>										
<b>Blank (P8J0598-BLK1)</b>										
Prepared: 10/31/18 Analyzed: 11/01/18										
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							
Surrogate: 2,4,6-Tribromophenol	2.98		mg/kg wet	3.333		89	39-132			
Surrogate: 2-Fluorobiphenyl	1.62		mg/kg wet	1.667		97	44-115			
Surrogate: 2-Fluorophenol	3.21		mg/kg wet	3.333		96	35-115			
Surrogate: Nitrobenzene-d5	1.43		mg/kg wet	1.667		86	37-122			
Surrogate: Phenol-d5	3.15		mg/kg wet	3.333		95	34-121			
Surrogate: Terphenyl-d14	1.60		mg/kg wet	1.667		96	54-127			
<b>LCS (P8J0598-BS1)</b>										
Prepared: 10/31/18 Analyzed: 11/01/18										
1,2,4-Trichlorobenzene	1.11	0.33	mg/kg wet	1.667		67	34-118			
1,2-Dichlorobenzene	1.24	0.33	mg/kg wet	1.667		75	33-117			
1,3-Dichlorobenzene	1.17	0.33	mg/kg wet	1.667		70	30-115			
1,4-Dichlorobenzene	1.22	0.33	mg/kg wet	1.667		73	31-115			
1-Methylnaphthalene	1.27	0.33	mg/kg wet	1.667		76	40-119			
2,4,6-Trichlorophenol	1.48	0.33	mg/kg wet	1.667		89	39-126			
2,4-Dichlorophenol	1.22	0.33	mg/kg wet	1.667		73	40-122			
2,4-Dimethylphenol	1.76	0.33	mg/kg wet	1.667		106	30-127			
2,4-Dinitrophenol	1.16	0.33	mg/kg wet	1.667		69	27-129			
2,4-Dinitrotoluene	1.54	0.33	mg/kg wet	1.667		92	48-126			
2,6-Dinitrotoluene	1.48	0.33	mg/kg wet	1.667		89	46-124			
2-Chloronaphthalene	1.43	0.33	mg/kg wet	1.667		86	41-114			
2-Chlorophenol	1.35	0.33	mg/kg wet	1.667		81	34-121			
2-Methylnaphthalene	1.20	0.33	mg/kg wet	1.667		72	38-122			
2-Methylphenol	1.45	0.33	mg/kg wet	1.667		87	32-122			
2-Nitrophenol	1.12	0.33	mg/kg wet	1.667		67	36-123			
3,3'-Dichlorobenzidine	1.70	0.33	mg/kg wet	1.667		102	22-121			
3/4-Methylphenol	1.32	0.33	mg/kg wet	1.667		79	34-119			
4,6-Dinitro-2-methylphenol	1.24	0.33	mg/kg wet	1.667		75	29-132			
4-Bromophenyl phenyl ether	1.48	0.33	mg/kg wet	1.667		89	46-124			
4-Chloro-3-methylphenol	1.27	0.33	mg/kg wet	1.667		76	45-122			
4-Chloroaniline	1.56	0.33	mg/kg wet	1.667		94	17-106			

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

## 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 P8J0598 - 3546</b>										
<b>LCS (P8J0598-BS1)</b>										
Prepared: 10/31/18 Analyzed: 11/01/18										
4-Chlorophenyl phenyl ether	1.49	0.33	mg/kg wet	1.667		89	45-121			
4-Nitrophenol	1.50	0.33	mg/kg wet	1.667		90	30-132			
Acenaphthene	1.49	0.33	mg/kg wet	1.667		90	40-123			
Acenaphthylene	1.60	0.33	mg/kg wet	1.667		96	32-132			
Anthracene	1.69	0.33	mg/kg wet	1.667		102	47-123			
Azobenzene	1.50	0.33	mg/kg wet	1.667		90	39-125			
Benzo(a)anthracene	1.56	0.33	mg/kg wet	1.667		94	49-126			
Benzo(a)pyrene	1.64	0.33	mg/kg wet	1.667		99	45-129			
Benzo(b)fluoranthene	1.57	0.33	mg/kg wet	1.667		94	45-132			
Benzo(g,h,i)perylene	1.60	0.33	mg/kg wet	1.667		96	43-134			
Benzo(k)fluoranthene	1.62	0.33	mg/kg wet	1.667		97	47-132			
Benzoic Acid	0.695	0.33	mg/kg wet	1.667		42	10-83			
Benzyl alcohol	1.50	0.33	mg/kg wet	1.667		90	29-122			
bis(2-Chloroethoxy)methane	1.31	0.33	mg/kg wet	1.667		78	36-121			
Bis(2-Chloroethyl)ether	1.13	0.33	mg/kg wet	1.667		68	31-120			
Bis(2-chloroisopropyl)ether	1.40	0.33	mg/kg wet	1.667		84	33-131			
Bis(2-Ethylhexyl)phthalate	1.60	0.33	mg/kg wet	1.667		96	51-133			
Butyl benzyl phthalate	1.58	0.33	mg/kg wet	1.667		95	48-132			
Chrysene	1.55	0.33	mg/kg wet	1.667		93	50-124			
Dibenzo(a,h)anthracene	1.48	0.33	mg/kg wet	1.667		89	45-134			
Dibenzofuran	1.55	0.33	mg/kg wet	1.667		93	44-120			
Diethyl phthalate	1.58	0.33	mg/kg wet	1.667		95	50-124			
Dimethyl phthalate	1.53	0.33	mg/kg wet	1.667		92	48-124			
Di-n-butyl phthalate	1.63	0.33	mg/kg wet	1.667		98	51-128			
Di-n-octyl phthalate	1.79	0.33	mg/kg wet	1.667		107	45-140			
Fluoranthene	1.57	0.33	mg/kg wet	1.667		94	50-127			
Fluorene	1.56	0.33	mg/kg wet	1.667		93	43-125			
Hexachlorobenzene	1.39	0.33	mg/kg wet	1.667		83	45-122			
Hexachlorobutadiene	1.16	0.33	mg/kg wet	1.667		70	32-123			
Hexachlorocyclopentadiene	1.41	0.33	mg/kg wet	1.667		85	32-117			
Hexachloroethane	1.20	0.33	mg/kg wet	1.667		72	28-117			
Indeno(1,2,3-cd)pyrene	1.50	0.33	mg/kg wet	1.667		90	45-133			
Isophorone	1.40	0.33	mg/kg wet	1.667		84	30-122			
Naphthalene	1.23	0.33	mg/kg wet	1.667		74	35-123			
Nitrobenzene	1.19	0.33	mg/kg wet	1.667		72	34-122			
N-Nitroso-di-n-propylamine	1.31	0.33	mg/kg wet	1.667		79	36-120			
N-Nitrosodiphenylamine	1.86	0.33	mg/kg wet	1.667		112	38-127			
Pentachlorophenol	1.47	0.33	mg/kg wet	1.667		88	25-133			
Phenanthrene	1.60	0.33	mg/kg wet	1.667		96	50-121			
Phenol	1.47	0.33	mg/kg wet	1.667		88	34-121			
Pyrene	1.59	0.33	mg/kg wet	1.667		95	47-127			
Surrogate: 2,4,6-Tribromophenol	2.85		mg/kg wet	3.333		86	39-132			
Surrogate: 2-Fluorobiphenyl	1.47		mg/kg wet	1.667		88	44-115			
Surrogate: 2-Fluorophenol	2.85		mg/kg wet	3.333		85	35-115			
Surrogate: Nitrobenzene-d5	1.13		mg/kg wet	1.667		68	37-122			
Surrogate: Phenol-d5	2.83		mg/kg wet	3.333		85	34-121			

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Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

### 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 P8J0598 - 3546</b>										
<b>LCS (P8J0598-BS1)</b>										
Prepared: 10/31/18 Analyzed: 11/01/18										
<i>Surrogate: Terphenyl-d14</i>	1.46		mg/kg wet	1.667		88	54-127			
<b>LCS Dup (P8J0598-BSD1)</b>										
Prepared: 10/31/18 Analyzed: 11/01/18										
1,2,4-Trichlorobenzene	1.23	0.33	mg/kg wet	1.667		74	34-118	10	20	
1,2-Dichlorobenzene	1.35	0.33	mg/kg wet	1.667		81	33-117	8	20	
1,3-Dichlorobenzene	1.29	0.33	mg/kg wet	1.667		77	30-115	10	20	
1,4-Dichlorobenzene	1.30	0.33	mg/kg wet	1.667		78	31-115	7	20	
1-Methylnaphthalene	1.39	0.33	mg/kg wet	1.667		84	40-119	10	20	
2,4,6-Trichlorophenol	1.58	0.33	mg/kg wet	1.667		95	39-126	7	20	
2,4-Dichlorophenol	1.34	0.33	mg/kg wet	1.667		80	40-122	9	20	
2,4-Dimethylphenol	1.91	0.33	mg/kg wet	1.667		114	30-127	8	20	
2,4-Dinitrophenol	1.16	0.33	mg/kg wet	1.667		69	27-129	0.1	20	
2,4-Dinitrotoluene	1.60	0.33	mg/kg wet	1.667		96	48-126	4	20	
2,6-Dinitrotoluene	1.63	0.33	mg/kg wet	1.667		98	46-124	10	20	
2-Chloronaphthalene	1.55	0.33	mg/kg wet	1.667		93	41-114	8	20	
2-Chlorophenol	1.50	0.33	mg/kg wet	1.667		90	34-121	10	20	
2-Methylnaphthalene	1.32	0.33	mg/kg wet	1.667		79	38-122	9	20	
2-Methylphenol	1.60	0.33	mg/kg wet	1.667		96	32-122	10	20	
2-Nitrophenol	1.23	0.33	mg/kg wet	1.667		74	36-123	10	20	
3,3'-Dichlorobenzidine	1.83	0.33	mg/kg wet	1.667		110	22-121	7	20	
3/4-Methylphenol	1.44	0.33	mg/kg wet	1.667		86	34-119	9	20	
4,6-Dinitro-2-methylphenol	1.25	0.33	mg/kg wet	1.667		75	29-132	0.6	20	
4-Bromophenyl phenyl ether	1.57	0.33	mg/kg wet	1.667		94	46-124	6	20	
4-Chloro-3-methylphenol	1.34	0.33	mg/kg wet	1.667		80	45-122	5	20	
4-Chloroaniline	1.67	0.33	mg/kg wet	1.667		100	17-106	7	20	
4-Chlorophenyl phenyl ether	1.58	0.33	mg/kg wet	1.667		95	45-121	6	20	
4-Nitrophenol	1.61	0.33	mg/kg wet	1.667		97	30-132	7	20	
Acenaphthene	1.61	0.33	mg/kg wet	1.667		97	40-123	7	20	
Acenaphthylene	1.72	0.33	mg/kg wet	1.667		103	32-132	8	20	
Anthracene	1.77	0.33	mg/kg wet	1.667		106	47-123	5	20	
Azobenzene	1.63	0.33	mg/kg wet	1.667		98	39-125	8	20	
Benzo(a)anthracene	1.67	0.33	mg/kg wet	1.667		100	49-126	7	20	
Benzo(a)pyrene	1.72	0.33	mg/kg wet	1.667		103	45-129	4	20	
Benzo(b)fluoranthene	1.63	0.33	mg/kg wet	1.667		98	45-132	4	20	
Benzo(g,h,i)perylene	1.66	0.33	mg/kg wet	1.667		99	43-134	4	20	
Benzo(k)fluoranthene	1.70	0.33	mg/kg wet	1.667		102	47-132	5	20	
Benzoic Acid	0.664	0.33	mg/kg wet	1.667		40	10-83	5	20	
Benzyl alcohol	1.60	0.33	mg/kg wet	1.667		96	29-122	6	20	
bis(2-Chloroethoxy)methane	1.44	0.33	mg/kg wet	1.667		87	36-121	10	20	
Bis(2-Chloroethyl)ether	1.28	0.33	mg/kg wet	1.667		76	31-120	12	20	
Bis(2-chloroisopropyl)ether	1.53	0.33	mg/kg wet	1.667		92	33-131	9	20	
Bis(2-Ethylhexyl)phthalate	1.67	0.33	mg/kg wet	1.667		100	51-133	4	20	
Butyl benzyl phthalate	1.69	0.33	mg/kg wet	1.667		101	48-132	6	20	
Chrysene	1.63	0.33	mg/kg wet	1.667		98	50-124	5	20	
Dibenzo(a,h)anthracene	1.54	0.33	mg/kg wet	1.667		92	45-134	4	20	
Dibenzofuran	1.65	0.33	mg/kg wet	1.667		99	44-120	6	20	
Diethyl phthalate	1.65	0.33	mg/kg wet	1.667		99	50-124	4	20	

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### 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 P8J0598 - 3546</b>										
<b>LCS Dup (P8J0598-BSD1)</b>										
					Prepared: 10/31/18 Analyzed: 11/01/18					
Dimethyl phthalate	1.60	0.33	mg/kg wet	1.667		96	48-124	5	20	
Di-n-butyl phthalate	1.72	0.33	mg/kg wet	1.667		103	51-128	5	20	
Di-n-octyl phthalate	1.86	0.33	mg/kg wet	1.667		112	45-140	4	20	
Fluoranthene	1.65	0.33	mg/kg wet	1.667		99	50-127	5	20	
Fluorene	1.67	0.33	mg/kg wet	1.667		100	43-125	7	20	
Hexachlorobenzene	1.50	0.33	mg/kg wet	1.667		90	45-122	8	20	
Hexachlorobutadiene	1.30	0.33	mg/kg wet	1.667		78	32-123	11	20	
Hexachlorocyclopentadiene	1.55	0.33	mg/kg wet	1.667		93	32-117	9	20	
Hexachloroethane	1.31	0.33	mg/kg wet	1.667		79	28-117	9	20	
Indeno(1,2,3-cd)pyrene	1.61	0.33	mg/kg wet	1.667		96	45-133	7	20	
Isophorone	1.50	0.33	mg/kg wet	1.667		90	30-122	7	20	
Naphthalene	1.35	0.33	mg/kg wet	1.667		81	35-123	10	20	
Nitrobenzene	1.32	0.33	mg/kg wet	1.667		79	34-122	10	20	
N-Nitroso-di-n-propylamine	1.41	0.33	mg/kg wet	1.667		85	36-120	8	20	
N-Nitrosodiphenylamine	2.00	0.33	mg/kg wet	1.667		120	38-127	7	20	
Pentachlorophenol	1.54	0.33	mg/kg wet	1.667		93	25-133	5	20	
Phenanthrene	1.69	0.33	mg/kg wet	1.667		102	50-121	6	20	
Phenol	1.58	0.33	mg/kg wet	1.667		95	34-121	7	20	
Pyrene	1.66	0.33	mg/kg wet	1.667		100	47-127	5	20	
<i>Surrogate: 2,4,6-Tribromophenol</i>	2.95		mg/kg wet	3.333		89	39-132			
<i>Surrogate: 2-Fluorobiphenyl</i>	1.58		mg/kg wet	1.667		95	44-115			
<i>Surrogate: 2-Fluorophenol</i>	3.11		mg/kg wet	3.333		93	35-115			
<i>Surrogate: Nitrobenzene-d5</i>	1.21		mg/kg wet	1.667		73	37-122			
<i>Surrogate: Phenol-d5</i>	3.06		mg/kg wet	3.333		92	34-121			
<i>Surrogate: Terphenyl-d14</i>	1.49		mg/kg wet	1.667		90	54-127			
<b>Matrix Spike (P8J0598-MS1)</b>										
					Source: 8100451-01 Prepared: 10/31/18 Analyzed: 11/01/18					
1,2,4-Trichlorobenzene	1.31	0.38	mg/kg dry	1.900	BRL	69	34-118			
1,2-Dichlorobenzene	1.39	0.38	mg/kg dry	1.900	BRL	73	33-117			
1,3-Dichlorobenzene	1.33	0.38	mg/kg dry	1.900	BRL	70	30-115			
1,4-Dichlorobenzene	1.38	0.38	mg/kg dry	1.900	BRL	73	31-115			
1-Methylnaphthalene	1.49	0.38	mg/kg dry	1.900	BRL	78	40-119			
2,4,6-Trichlorophenol	1.73	0.38	mg/kg dry	1.900	BRL	91	39-126			
2,4-Dichlorophenol	1.46	0.38	mg/kg dry	1.900	BRL	77	40-122			
2,4-Dimethylphenol	2.23	0.38	mg/kg dry	1.900	BRL	117	30-127			
2,4-Dinitrophenol	0.724	0.38	mg/kg dry	1.900	BRL	38	27-129			
2,4-Dinitrotoluene	1.61	0.38	mg/kg dry	1.900	BRL	85	48-126			
2,6-Dinitrotoluene	1.61	0.38	mg/kg dry	1.900	BRL	85	46-124			
2-Chloronaphthalene	1.64	0.38	mg/kg dry	1.900	BRL	86	41-114			
2-Chlorophenol	1.59	0.38	mg/kg dry	1.900	BRL	84	34-121			
2-Methylnaphthalene	1.43	0.38	mg/kg dry	1.900	BRL	75	38-122			
2-Methylphenol	1.72	0.38	mg/kg dry	1.900	BRL	91	32-122			
2-Nitrophenol	1.17	0.38	mg/kg dry	1.900	BRL	62	36-123			
3,3'-Dichlorobenzidine	0.745	0.38	mg/kg dry	1.900	BRL	39	22-121			
3/4-Methylphenol	1.54	0.38	mg/kg dry	1.900	BRL	81	34-119			
4,6-Dinitro-2-methylphenol	0.421	0.38	mg/kg dry	1.900	BRL	22	29-132			
4-Bromophenyl phenyl ether	1.69	0.38	mg/kg dry	1.900	BRL	89	46-124			M

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## 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 P8J0598 - 3546</b>										
<b>Matrix Spike (P8J0598-MS1)</b>										
<b>Source: 8100451-01</b>										
<b>Prepared: 10/31/18 Analyzed: 11/01/18</b>										
4-Chloro-3-methylphenol	1.52	0.38	mg/kg dry	1.900	BRL	80	45-122			
4-Chloroaniline	1.37	0.38	mg/kg dry	1.900	BRL	72	17-106			
4-Chlorophenyl phenyl ether	1.68	0.38	mg/kg dry	1.900	BRL	88	45-121			
4-Nitrophenol	1.71	0.38	mg/kg dry	1.900	BRL	90	30-132			
Acenaphthene	1.70	0.38	mg/kg dry	1.900	BRL	90	40-123			
Acenaphthylene	1.84	0.38	mg/kg dry	1.900	BRL	97	32-132			
Anthracene	1.89	0.38	mg/kg dry	1.900	BRL	99	47-123			
Azobenzene	1.70	0.38	mg/kg dry	1.900	BRL	89	39-125			
Benzo(a)anthracene	1.75	0.38	mg/kg dry	1.900	BRL	92	49-126			
Benzo(a)pyrene	1.80	0.38	mg/kg dry	1.900	BRL	95	45-129			
Benzo(b)fluoranthene	1.73	0.38	mg/kg dry	1.900	BRL	91	45-132			
Benzo(g,h,i)perylene	1.70	0.38	mg/kg dry	1.900	BRL	89	43-134			
Benzo(k)fluoranthene	1.79	0.38	mg/kg dry	1.900	BRL	94	47-132			
Benzoic Acid	2.13	0.38	mg/kg dry	1.900	BRL	112	10-83			M
Benzyl alcohol	1.72	0.38	mg/kg dry	1.900	BRL	90	29-122			
bis(2-Chloroethoxy)methane	1.53	0.38	mg/kg dry	1.900	BRL	80	36-121			
Bis(2-Chloroethyl)ether	1.35	0.38	mg/kg dry	1.900	BRL	71	31-120			
Bis(2-chloroisopropyl)ether	1.61	0.38	mg/kg dry	1.900	BRL	85	33-131			
Bis(2-Ethylhexyl)phthalate	1.79	0.38	mg/kg dry	1.900	BRL	94	51-133			
Butyl benzyl phthalate	1.80	0.38	mg/kg dry	1.900	BRL	95	48-132			
Chrysene	1.73	0.38	mg/kg dry	1.900	BRL	91	50-124			
Dibenzo(a,h)anthracene	1.60	0.38	mg/kg dry	1.900	BRL	84	45-134			
Dibenzofuran	1.75	0.38	mg/kg dry	1.900	BRL	92	44-120			
Diethyl phthalate	1.78	0.38	mg/kg dry	1.900	BRL	93	50-124			
Dimethyl phthalate	1.74	0.38	mg/kg dry	1.900	BRL	91	48-124			
Di-n-butyl phthalate	1.85	0.38	mg/kg dry	1.900	BRL	97	51-128			
Di-n-octyl phthalate	2.01	0.38	mg/kg dry	1.900	BRL	106	45-140			
Fluoranthene	1.77	0.38	mg/kg dry	1.900	BRL	93	50-127			
Fluorene	1.77	0.38	mg/kg dry	1.900	BRL	93	43-125			
Hexachlorobenzene	1.61	0.38	mg/kg dry	1.900	BRL	85	45-122			
Hexachlorobutadiene	1.39	0.38	mg/kg dry	1.900	BRL	73	32-123			
Hexachlorocyclopentadiene	0.151	0.38	mg/kg dry	1.900	BRL	8	32-117			M, J
Hexachloroethane	1.24	0.38	mg/kg dry	1.900	BRL	65	28-117			
Indeno(1,2,3-cd)pyrene	1.64	0.38	mg/kg dry	1.900	BRL	86	45-133			
Isophorone	1.63	0.38	mg/kg dry	1.900	BRL	86	30-122			
Naphthalene	1.44	0.38	mg/kg dry	1.900	BRL	76	35-123			
Nitrobenzene	1.37	0.38	mg/kg dry	1.900	BRL	72	34-122			
N-Nitroso-di-n-propylamine	1.47	0.38	mg/kg dry	1.900	BRL	77	36-120			
N-Nitrosodiphenylamine	2.16	0.38	mg/kg dry	1.900	BRL	114	38-127			
Pentachlorophenol	1.98	0.38	mg/kg dry	1.900	BRL	104	25-133			
Phenanthrene	1.79	0.38	mg/kg dry	1.900	BRL	94	50-121			
Phenol	1.64	0.38	mg/kg dry	1.900	BRL	86	34-121			
Pyrene	1.78	0.38	mg/kg dry	1.900	BRL	94	47-127			
Surrogate: 2,4,6-Tribromophenol	3.27		mg/kg dry	3.800		86	39-132			
Surrogate: 2-Fluorobiphenyl	1.68		mg/kg dry	1.900		88	44-115			
Surrogate: 2-Fluorophenol	3.24		mg/kg dry	3.800		85	35-115			

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

## 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 P8J0598 - 3546</b>										
<b>Matrix Spike (P8J0598-MS1)</b>		<b>Source: 8100451-01</b>			Prepared: 10/31/18		Analyzed: 11/01/18			
Surrogate: Nitrobenzene-d5	1.31		mg/kg dry	1.900		69	37-122			
Surrogate: Phenol-d5	3.18		mg/kg dry	3.800		84	34-121			
Surrogate: Terphenyl-d14	1.60		mg/kg dry	1.900		84	54-127			
<b>Matrix Spike Dup (P8J0598-MSD1)</b>		<b>Source: 8100451-01</b>			Prepared: 10/31/18		Analyzed: 11/01/18			
1,2,4-Trichlorobenzene	1.24	0.38	mg/kg dry	1.901	BRL	65	34-118	5	20	
1,2-Dichlorobenzene	1.33	0.38	mg/kg dry	1.901	BRL	70	33-117	4	20	
1,3-Dichlorobenzene	1.28	0.38	mg/kg dry	1.901	BRL	67	30-115	4	20	
1,4-Dichlorobenzene	1.30	0.38	mg/kg dry	1.901	BRL	68	31-115	6	20	
1-Methylnaphthalene	1.44	0.38	mg/kg dry	1.901	BRL	76	40-119	3	20	
2,4,6-Trichlorophenol	1.63	0.38	mg/kg dry	1.901	BRL	86	39-126	6	20	
2,4-Dichlorophenol	1.40	0.38	mg/kg dry	1.901	BRL	74	40-122	4	20	
2,4-Dimethylphenol	2.15	0.38	mg/kg dry	1.901	BRL	113	30-127	4	20	
2,4-Dinitrophenol	0.709	0.38	mg/kg dry	1.901	BRL	37	27-129	2	20	
2,4-Dinitrotoluene	1.52	0.38	mg/kg dry	1.901	BRL	80	48-126	6	20	
2,6-Dinitrotoluene	1.52	0.38	mg/kg dry	1.901	BRL	80	46-124	6	20	
2-Chloronaphthalene	1.57	0.38	mg/kg dry	1.901	BRL	82	41-114	5	20	
2-Chlorophenol	1.54	0.38	mg/kg dry	1.901	BRL	81	34-121	3	20	
2-Methylnaphthalene	1.37	0.38	mg/kg dry	1.901	BRL	72	38-122	4	20	
2-Methylphenol	1.66	0.38	mg/kg dry	1.901	BRL	88	32-122	3	20	
2-Nitrophenol	1.15	0.38	mg/kg dry	1.901	BRL	60	36-123	2	20	
3,3'-Dichlorobenzidine	0.838	0.38	mg/kg dry	1.901	BRL	44	22-121	12	20	
3/4-Methylphenol	1.47	0.38	mg/kg dry	1.901	BRL	77	34-119	5	20	
4,6-Dinitro-2-methylphenol	0.405	0.38	mg/kg dry	1.901	BRL	21	29-132	4	20	M
4-Bromophenyl phenyl ether	1.58	0.38	mg/kg dry	1.901	BRL	83	46-124	7	20	
4-Chloro-3-methylphenol	1.43	0.38	mg/kg dry	1.901	BRL	75	45-122	6	20	
4-Chloroaniline	1.39	0.38	mg/kg dry	1.901	BRL	73	17-106	2	20	
4-Chlorophenyl phenyl ether	1.60	0.38	mg/kg dry	1.901	BRL	84	45-121	5	20	
4-Nitrophenol	1.57	0.38	mg/kg dry	1.901	BRL	82	30-132	9	20	
Acenaphthene	1.58	0.38	mg/kg dry	1.901	BRL	83	40-123	7	20	
Acenaphthylene	1.71	0.38	mg/kg dry	1.901	BRL	90	32-132	7	20	
Anthracene	1.80	0.38	mg/kg dry	1.901	BRL	95	47-123	5	20	
Azobenzene	1.60	0.38	mg/kg dry	1.901	BRL	84	39-125	6	20	
Benzo(a)anthracene	1.64	0.38	mg/kg dry	1.901	BRL	86	49-126	7	20	
Benzo(a)pyrene	1.69	0.38	mg/kg dry	1.901	BRL	89	45-129	6	20	
Benzo(b)fluoranthene	1.64	0.38	mg/kg dry	1.901	BRL	86	45-132	5	20	
Benzo(g,h,i)perylene	1.59	0.38	mg/kg dry	1.901	BRL	84	43-134	7	20	
Benzo(k)fluoranthene	1.65	0.38	mg/kg dry	1.901	BRL	87	47-132	8	20	
Benzoic Acid	1.99	0.38	mg/kg dry	1.901	BRL	105	10-83	6	20	M
Benzyl alcohol	1.62	0.38	mg/kg dry	1.901	BRL	85	29-122	6	20	
bis(2-Chloroethoxy)methane	1.45	0.38	mg/kg dry	1.901	BRL	76	36-121	5	20	
Bis(2-Chloroethyl)ether	1.31	0.38	mg/kg dry	1.901	BRL	69	31-120	3	20	
Bis(2-chloroisopropyl)ether	1.54	0.38	mg/kg dry	1.901	BRL	81	33-131	4	20	
Bis(2-Ethylhexyl)phthalate	1.68	0.38	mg/kg dry	1.901	BRL	88	51-133	6	20	
Butyl benzyl phthalate	1.68	0.38	mg/kg dry	1.901	BRL	88	48-132	7	20	
Chrysene	1.66	0.38	mg/kg dry	1.901	BRL	87	50-124	4	20	
Dibenzo(a,h)anthracene	1.50	0.38	mg/kg dry	1.901	BRL	79	45-134	7	20	

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10610 Metromont Blvd., Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

## 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 P8J0598 - 3546</b>										
<b>Matrix Spike Dup (P8J0598-MSD1)</b>										
<b>Source: 8100451-01</b>			<b>Prepared: 10/31/18 Analyzed: 11/01/18</b>							
Dibenzofuran	1.66	0.38	mg/kg dry	1.901	BRL	87	44-120	5	20	
Diethyl phthalate	1.66	0.38	mg/kg dry	1.901	BRL	88	50-124	6	20	
Dimethyl phthalate	1.64	0.38	mg/kg dry	1.901	BRL	86	48-124	6	20	
Di-n-butyl phthalate	1.74	0.38	mg/kg dry	1.901	BRL	91	51-128	6	20	
Di-n-octyl phthalate	1.88	0.38	mg/kg dry	1.901	BRL	99	45-140	6	20	
Fluoranthene	1.67	0.38	mg/kg dry	1.901	BRL	88	50-127	6	20	
Fluorene	1.68	0.38	mg/kg dry	1.901	BRL	88	43-125	6	20	
Hexachlorobenzene	1.54	0.38	mg/kg dry	1.901	BRL	81	45-122	5	20	
Hexachlorobutadiene	1.31	0.38	mg/kg dry	1.901	BRL	69	32-123	6	20	
Hexachlorocyclopentadiene	BRL	0.38	mg/kg dry	1.901	BRL		32-117		20	M
Hexachloroethane	1.15	0.38	mg/kg dry	1.901	BRL	61	28-117	7	20	
Indeno(1,2,3-cd)pyrene	1.50	0.38	mg/kg dry	1.901	BRL	79	45-133	9	20	
Isophorone	1.54	0.38	mg/kg dry	1.901	BRL	81	30-122	6	20	
Naphthalene	1.38	0.38	mg/kg dry	1.901	BRL	72	35-123	5	20	
Nitrobenzene	1.32	0.38	mg/kg dry	1.901	BRL	69	34-122	4	20	
N-Nitroso-di-n-propylamine	1.37	0.38	mg/kg dry	1.901	BRL	72	36-120	7	20	
N-Nitrosodiphenylamine	2.01	0.38	mg/kg dry	1.901	BRL	106	38-127	7	20	
Pentachlorophenol	1.84	0.38	mg/kg dry	1.901	BRL	97	25-133	7	20	
Phenanthrene	1.71	0.38	mg/kg dry	1.901	BRL	90	50-121	4	20	
Phenol	1.59	0.38	mg/kg dry	1.901	BRL	84	34-121	3	20	
Pyrene	1.69	0.38	mg/kg dry	1.901	BRL	89	47-127	5	20	
Surrogate: 2,4,6-Tribromophenol	3.11		mg/kg dry	3.803		82	39-132			
Surrogate: 2-Fluorobiphenyl	1.59		mg/kg dry	1.901		84	44-115			
Surrogate: 2-Fluorophenol	3.09		mg/kg dry	3.803		81	35-115			
Surrogate: Nitrobenzene-d5	1.25		mg/kg dry	1.901		66	37-122			
Surrogate: Phenol-d5	3.06		mg/kg dry	3.803		81	34-121			
Surrogate: Terphenyl-d14	1.52		mg/kg dry	1.901		80	54-127			



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Time Submitted: 10/25/2018 5:00:00PM

### 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 P8K0028 - 3550C GC</b>										
<b>Blank (P8K0028-BLK1)</b>										
					Prepared: 11/02/18 Analyzed: 11/06/18					
Aroclor 1016	0.00800	0.050	mg/kg wet							J
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	0.0327		mg/kg wet	0.03333		98	36-182			
Surrogate: Decachlorobiphenyl	0.0341		mg/kg wet	0.03333		102	34-182			
<b>LCS (P8K0028-BS1)</b>										
					Prepared: 11/02/18 Analyzed: 11/06/18					
Aroclor 1016	0.315	0.050	mg/kg wet	0.3333		94	64-151			
Aroclor 1260	0.312	0.050	mg/kg wet	0.3333		94	45-166			
Surrogate: Tetrachloro-m-xylene	0.0327		mg/kg wet	0.03333		98	36-182			
Surrogate: Decachlorobiphenyl	0.0291		mg/kg wet	0.03333		87	34-182			
<b>LCS Dup (P8K0028-BSD1)</b>										
					Prepared: 11/02/18 Analyzed: 11/07/18					
Aroclor 1016	0.343	0.050	mg/kg wet	0.3332		103	64-151	9	50	
Aroclor 1260	0.344	0.050	mg/kg wet	0.3332		103	45-166	10	50	
Surrogate: Tetrachloro-m-xylene	0.0314		mg/kg wet	0.03332		94	36-182			
Surrogate: Decachlorobiphenyl	0.0315		mg/kg wet	0.03332		94	34-182			
<b>Matrix Spike (P8K0028-MS1)</b>										
			Source: 8100451-02		Prepared: 11/02/18 Analyzed: 11/07/18					
Aroclor 1016	0.569	0.062	mg/kg dry	0.4105	BRL	139	14-192			
Aroclor 1260	0.756	0.062	mg/kg dry	0.4105	BRL	184	10-192			
Surrogate: Tetrachloro-m-xylene	0.151		mg/kg dry	0.04105		368	36-182			SR
Surrogate: Decachlorobiphenyl	0.0436		mg/kg dry	0.04105		106	34-182			



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Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

**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 P8K0028 - 3550C GC</b>										
<b>Matrix Spike Dup (P8K0028-MSD1)</b>		<b>Source: 8100451-02</b>		<b>Prepared: 11/02/18</b>	<b>Analyzed: 11/07/18</b>					
Aroclor 1016	0.465	0.062	mg/kg dry	0.4140	BRL	112	14-192	20	50	
Aroclor 1260	0.726	0.062	mg/kg dry	0.4140	BRL	175	10-192	4	50	
Surrogate: Tetrachloro-m-xylene	0.0946		mg/kg dry	0.04140		228	36-182			SR
Surrogate: Decachlorobiphenyl	0.0369		mg/kg dry	0.04140		89	34-182			



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Time Submitted: 10/25/2018 5:00:00PM

**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 P8J0550 - 3050B****Blank (P8J0550-BLK1)**

Prepared: 10/29/18 Analyzed: 10/30/18

Antimony	0.0426	0.25	mg/kg wet							J
Arsenic	BRL	0.50	mg/kg wet							
Barium	BRL	0.50	mg/kg wet							
Beryllium	BRL	0.25	mg/kg wet							
Cadmium	BRL	0.25	mg/kg wet							
Chromium	BRL	0.25	mg/kg wet							
Copper	BRL	0.50	mg/kg wet							
Lead	BRL	0.25	mg/kg wet							
Nickel	0.0181	0.50	mg/kg wet							J
Selenium	BRL	0.50	mg/kg wet							
Silver	BRL	0.25	mg/kg wet							
Thallium	BRL	0.50	mg/kg wet							
Zinc	BRL	2.5	mg/kg wet							

**LCS (P8J0550-BS1)**

Prepared: 10/29/18 Analyzed: 10/30/18

Antimony	12.1	0.25	mg/kg wet	12.50		97	80-120
Arsenic	11.6	0.50	mg/kg wet	12.50		93	80-120
Barium	12.3	0.50	mg/kg wet	12.50		98	80-120
Beryllium	12.3	0.25	mg/kg wet	12.50		98	80-120
Cadmium	12.0	0.25	mg/kg wet	12.50		96	80-120
Chromium	12.2	0.25	mg/kg wet	12.50		98	80-120
Copper	12.1	0.50	mg/kg wet	12.50		97	80-120
Lead	11.9	0.25	mg/kg wet	12.50		96	80-120
Nickel	11.9	0.50	mg/kg wet	12.50		95	80-120
Selenium	11.1	0.50	mg/kg wet	12.50		89	80-120
Silver	4.18	0.25	mg/kg wet	5.000		84	80-120
Thallium	12.3	0.50	mg/kg wet	12.50		98	80-120
Zinc	11.6	2.5	mg/kg wet	12.50		93	80-120



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**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8J0550 - 3050B</b>										
<b>Matrix Spike (P8J0550-MS1)</b>										
		<b>Source: 8100451-01</b>			Prepared: 10/29/18		Analyzed: 10/30/18			
Antimony	4.46	0.29	mg/kg dry	14.27	0.458	28	75-125			M
Arsenic	12.5	0.57	mg/kg dry	14.28	2.02	73	75-125			M
Barium	61.0	0.57	mg/kg dry	14.27	40.4	145	75-125			M
Beryllium	13.2	0.29	mg/kg dry	14.27	0.361	90	75-125			
Cadmium	12.1	0.29	mg/kg dry	14.27	0.101	84	75-125			
Chromium	43.6	0.29	mg/kg dry	14.28	29.8	97	75-125			
Copper	28.9	0.57	mg/kg dry	14.28	15.8	92	75-125			
Lead	18.1	0.29	mg/kg dry	14.28	6.46	81	75-125			
Nickel	19.9	0.57	mg/kg dry	14.28	6.67	93	75-125			
Selenium	11.2	0.57	mg/kg dry	14.27	BRL	78	75-125			
Silver	3.96	0.29	mg/kg dry	5.710	BRL	69	75-125			M
Thallium	14.2	0.57	mg/kg dry	14.27	1.76	87	75-125			
Zinc	30.3	2.9	mg/kg dry	14.28	15.6	103	75-125			
<b>Matrix Spike Dup (P8J0550-MSD1)</b>										
		<b>Source: 8100451-01</b>			Prepared: 10/29/18		Analyzed: 10/30/18			
Antimony	3.46	0.28	mg/kg dry	14.20	0.458	21	75-125	25	20	D, M
Arsenic	11.6	0.57	mg/kg dry	14.21	2.02	67	75-125	8	20	M
Barium	59.2	0.57	mg/kg dry	14.20	40.4	132	75-125	3	20	M
Beryllium	12.6	0.28	mg/kg dry	14.20	0.361	86	75-125	4	20	
Cadmium	11.7	0.28	mg/kg dry	14.20	0.101	82	75-125	3	20	
Chromium	40.9	0.28	mg/kg dry	14.21	29.8	78	75-125	6	20	
Copper	32.3	0.57	mg/kg dry	14.21	15.8	117	75-125	11	20	
Lead	17.6	0.28	mg/kg dry	14.21	6.46	79	75-125	3	20	
Nickel	19.8	0.57	mg/kg dry	14.21	6.67	92	75-125	0.5	20	
Selenium	9.98	0.57	mg/kg dry	14.20	BRL	70	75-125	11	20	M
Silver	3.86	0.28	mg/kg dry	5.681	BRL	68	75-125	3	20	M
Thallium	13.9	0.57	mg/kg dry	14.20	1.76	85	75-125	2	20	
Zinc	31.5	2.8	mg/kg dry	14.21	15.6	112	75-125	4	20	





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Time Submitted: 10/25/2018 5:00:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8J0550 - 3050B</b>										
<b>Post Spike (P8J0550-PS1)</b>										
			<b>Source: 8100451-01</b>		Prepared: 10/29/18		Analyzed: 10/30/18			
Antimony	0.382		mg/L	0.4762	0.0153	77	80-120			PS
Arsenic	0.457		mg/L	0.4762	0.0675	82	80-120			
Barium	1.72		mg/L	0.4762	1.35	78	80-120			PS
Beryllium	0.426		mg/L	0.4762	0.0120	87	80-120			
Cadmium	0.397		mg/L	0.4762	0.00337	83	80-120			
Chromium	1.36		mg/L	0.4762	0.995	77	80-120			PS
Copper	0.952		mg/L	0.4762	0.526	90	80-120			
Lead	0.607		mg/L	0.4762	0.215	82	80-120			
Nickel	0.614		mg/L	0.4762	0.223	82	80-120			
Selenium	0.385		mg/L	0.4762	0.00434	80	80-120			
Silver	0.406		mg/L	0.4762	-0.0188	85	80-120			
Thallium	0.469		mg/L	0.4762	0.0587	86	80-120			
Zinc	0.899		mg/L	0.4762	0.521	79	80-120			PS

**Batch P8J0574 - 7471B**

<b>Blank (P8J0574-BLK1)</b>										
					Prepared & Analyzed: 10/30/18					
Mercury	BRL	0.020	mg/kg wet							
<b>LCS (P8J0574-BS1)</b>										
					Prepared & Analyzed: 10/30/18					
Mercury	0.467	0.020	mg/kg wet	0.4167		112	80-120			

**Batch P8J0575 - 7471B**

<b>Blank (P8J0575-BLK1)</b>										
					Prepared & Analyzed: 10/30/18					
Mercury	BRL	0.020	mg/kg wet							

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
Project No: WBS 44475.1.1

Prism Work Order: 8100451  
Time Submitted: 10/25/2018 5:00:00PM

**Total Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8J0575 - 7471B</b>										
<b>LCS (P8J0575-BS1)</b>				Prepared & Analyzed: 10/30/18						
Mercury	0.463	0.020	mg/kg wet	0.4167		111	80-120			
<b>Matrix Spike (P8J0575-MS1)</b>				Source: 8100451-06		Prepared & Analyzed: 10/30/18				
Mercury	0.797	0.025	mg/kg dry	0.5187	0.133	128	80-120			M
<b>Matrix Spike Dup (P8J0575-MSD1)</b>				Source: 8100451-06		Prepared & Analyzed: 10/30/18				
Mercury	0.941	0.024	mg/kg dry	0.5102	0.133	158	80-120	17	20	M



Apex Companies, LLC (Charlotte Office)  
 Attn: Katie Lippard  
 10610 Metromont Blvd.. Suite 206  
 Charlotte, NC 28269

Project: NCDOT Primrose Ave.  
 Project No: WBS 44475.1.1

Prism Work Order: 8100451  
 Time Submitted: 10/25/2018 5:00:00PM

**General Chemistry Parameters - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8K0021 - Solids, Dry Weight</b>										
<b>Duplicate (P8K0021-DUP2)</b>		<b>Source: 8100451-05</b>			<b>Prepared &amp; Analyzed: 10/31/18</b>					
% Solids	81.0	0.100	% by Weight		81.4			0.5	20	

## Sample Extraction Data

## Prep Method: Solids, Dry Weight

Lab Number	Batch	Initial	Final	Date/Time
8100451-01	P8K0021	30 g	30 g	10/31/18 16:00
8100451-02	P8K0021	30 g	30 g	10/31/18 16:00
8100451-03	P8K0021	30 g	30 g	10/31/18 16:00
8100451-04	P8K0021	30 g	30 g	10/31/18 16:00
8100451-05	P8K0021	30 g	30 g	10/31/18 16:00
8100451-06	P8K0021	30 g	30 g	10/31/18 16:00
8100451-07	P8K0021	30 g	30 g	10/31/18 16:00
8100451-09	P8K0021	30 g	30 g	10/31/18 16:00
8100451-10	P8K0021	30 g	30 g	10/31/18 16:00
8100451-11	P8K0021	30 g	30 g	10/31/18 16:00
8100451-12	P8K0021	30 g	30 g	10/31/18 16:00

## Prep Method: 3550C GC

Lab Number	Batch	Initial	Final	Date/Time
8100451-02	P8K0028	30.15 g	10 mL	11/02/18 10:00
8100451-08	P8K0028	30.47 g	10 mL	11/02/18 10:00
8100451-08	P8K0028	30.47 g	10 mL	11/02/18 10:00
8100451-09	P8K0028	30.42 g	10 mL	11/02/18 10:00
8100451-10	P8K0028	30.27 g	10 mL	11/02/18 10:00
8100451-10	P8K0028	30.27 g	10 mL	11/02/18 10:00
8100451-11	P8K0028	30.25 g	10 mL	11/02/18 10:00
8100451-12	P8K0028	30.2 g	10 mL	11/02/18 10:00

## Prep Method: 3546

Lab Number	Batch	Initial	Final	Date/Time
8100451-01	P8J0598	30.01 g	1 mL	10/30/18 15:20
8100451-03	P8J0598	30.03 g	1 mL	10/30/18 15:20
8100451-04	P8J0598	30.04 g	1 mL	10/30/18 15:20
8100451-05	P8J0598	30.07 g	1 mL	10/30/18 15:20
8100451-06	P8J0598	30.09 g	1 mL	10/30/18 15:20
8100451-07	P8J0598	30.08 g	1 mL	10/30/18 15:20

## Prep Method: 3050B

Lab Number	Batch	Initial	Final	Date/Time
8100451-01	P8J0550	2 g	50 mL	10/29/18 9:00
8100451-03	P8J0550	2.02 g	50 mL	10/29/18 9:00
8100451-04	P8J0550	2 g	50 mL	10/29/18 9:00
8100451-05	P8J0550	2 g	50 mL	10/29/18 9:00
8100451-06	P8J0550	2 g	50 mL	10/29/18 9:00
8100451-06	P8J0550	2 g	50 mL	10/29/18 9:00
8100451-07	P8J0550	2 g	50 mL	10/29/18 9:00
8100451-07	P8J0550	2 g	50 mL	10/29/18 9:00

## Prep Method: 7471B

Lab Number	Batch	Initial	Final	Date/Time
8100451-01	P8J0574	0.61 g	50 mL	10/30/18 10:10
8100451-03	P8J0574	0.6 g	50 mL	10/30/18 10:10
8100451-04	P8J0574	0.6 g	50 mL	10/30/18 10:10
8100451-05	P8J0574	0.6 g	50 mL	10/30/18 10:10
8100451-06	P8J0575	0.61 g	50 mL	10/30/18 10:10
8100451-07	P8J0575	0.6 g	50 mL	10/30/18 10:10

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**Sample Extraction Data****Prep Method: 5035**

<b>Lab Number</b>	<b>Batch</b>	<b>Initial</b>	<b>Final</b>	<b>Date/Time</b>
8100451-01	P8K0071	5.2 g	5 mL	11/05/18 9:22
8100451-03	P8K0047	6.8 g	5 mL	11/02/18 10:00
8100451-04	P8K0047	5.06 g	5 mL	11/02/18 10:00
8100451-05	P8K0047	5.74 g	5 mL	11/02/18 10:00
8100451-06	P8K0047	5.32 g	5 mL	11/02/18 10:00
8100451-07	P8K0047	5.53 g	5 mL	11/02/18 10:00

**Prep Method: 5035**

<b>Lab Number</b>	<b>Batch</b>	<b>Initial</b>	<b>Final</b>	<b>Date/Time</b>
8100451-03	P8K0076	6.11 g	5 mL	11/05/18 12:31

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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: NC DOT / Apex  
Report To/Contact Name: Kate Lippard  
Reporting Address: 1616 Westmonte Pkwy Ste 206  
Charlotte, NC 28269

Phone: 704-741-6910 Fax (Yes) (No):

Email Address: klippard@prism-lab.com

EDD Type: PDF  Excel  Other

Site Location Name: NC DOT

Site Location Physical Address: Primmise Ave

# CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING:

Project Name: NC DOT UST Project: (Yes) (No) (No)

Short Hold Analysis: (Yes) (No) (No)

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

Invoice To: NC DOT  
Address: 44475.1.1

Purchase Order No./Billing Reference: 44475.1.1

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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROPER PRESERVATIVES indicated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received WITHIN HOLDING TIMES?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CUSTODY SEALS INTACT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOLATILES rec'd W/OUT HEADSPACE?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROPER CONTAINERS used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEMP: Therm ID: <u>SP-7</u> Observed: <u>5.6</u> °C / Corr: <u>5.5</u> °C			

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC  DOD  FL  NC X

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				
P25B-30(4-6)	10/25/18	11:40	Soil	CGTL	4	8 oz	methanol	PCBs		01
P25B-31(6-2)	10/25/18	12:22	Soil	CGTL	1	8 oz	methanol	PCBs		02
P25B-31(4-6)	10/25/18	12:25	Soil	CGTL	4	8 oz	methanol	PCBs		03
P25B-32(0-2)	10/25/18	13:01	Soil	CBTL	4	8 oz	methanol	PCBs		04
P25B-32(4-6)	10/25/18	13:04	Soil	CGTL	4	8 oz	methanol	PCBs		05
P25B-33(0-2)	10/25/18	13:50	Soil	CGTL	4	8 oz	methanol	PCBs		06
P25B-34(0-2)	10/25/18	14:12	Soil	CGTL	4	8 oz	methanol	PCBs		07
P25B-15(0-15)	10/25/18	14:40	Soil	CGTL	1	8 oz	methanol	PCBs		08
P25B-7-1(F)	10/25/18	14:54	Soil	CGTL	1	8 oz	methanol	PCBs		09
P25B-21(0-1)	10/25/18	15:20	Soil	CGTL	1	8 oz	methanol	PCBs		10

Sampler's Signature: [Signature]

Sampled By (Print Name): Thomson, James Affiliation: Apex

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) [Signature] Received By: (Signature) [Signature] Date:  Military/Hours:

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature] Date:  Military/Hours:

Relinquished By: (Signature) [Signature] Received By: (Signature) [Signature] Date:  Military/Hours:

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

NPDES:  SC  NC  SC  NC  SC  NC  SC

UST:  Hand-Delivered  Primm Field Service  Other

GROUNDWATER:  NC  SC  NC  SC

DRINKING WATER:  NC  SC  NC  SC

SOLID WASTE:  NC  SC  NC  SC

RCRA:  NC  SC  NC  SC

CERCLA:  NC  SC  NC  SC

LANDFILL:  NC  SC  NC  SC

OTHER:  NC  SC  NC  SC

\*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

PRESS DOWN FIRMLY - 3 COPIES

**PRISM USE ONLY**

Site Arrival Time:

Site Departure Time:

Field Tech Fee:

Mileage: 8100451

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

**CHAIN OF CUSTODY RECORD**

LAB USE ONLY

Client Company Name: NC DOT Apex  
 Report To/Contact Name: Walter Lippard  
 Reporting Address: 16610 Metcalf Road, Cary, NC 27513  
 Phone: 704-399-6900 Fax (Yes) (No):  
 Email Address: W.Lippard@apexnc.com  
 EDD Type: PDF X Excel Other  
 Site Location Name: MDOT  
 Site Location Physical Address: 3600 Research Ave

PAGE 2 OF 2 QUOTE # TO ENSURE PROPER BILLING:  
 Project Name: NC DOT  
 Short Hold Analysis: (Yes) (No) (No) UST Project: (Yes) (No) (No)  
 \*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements  
 Invoiced To: NC DOT  
 Address:  
 Purchase Order No./Billing Reference: 44775.1.1  
 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)

Samples INTACT upon arrival?	YES	NO	N/A
Received ON WET ICE?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROPER PRESERVATIVES indicated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received WITHIN HOLDING TIMES?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CUSTODY SEALS INTACT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOLATILES rec'd W/OUT HEADSPACE?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROPER CONTAINERS used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEMP: Therm ID: <u>2279</u> Observed: <u>5.16 °C / 41.3 °F</u>			

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			PRESERVATIVES	ANALYSIS REQUESTED	REMARKS	PRISM LAB ID NO.
				*TYPE SEE BELOW	NO.	SIZE				
P25B-4(10-1)	10/25/18	15:31	Soil	CGTL	1	8	NA			11
P25B-2(10-1)	10/25/18	15:51	Soil	CGTL	1	8	NA			12

Sampler's Signature: [Signature]  
 Relinquished By: (Signature)  
 Relinquished By: (Signature)  
 Relinquished By: (Signature)

Sampled By (Print Name): Thomas R. [Signature] Affiliation: Apex  
 Received By: (Signature)  
 Received By: (Signature)  
 Received For Prism Laboratories By: [Signature]  
 Date: 10/25/18 Date: 17:00  
 Date: 8:00 Date: 4:51

UPON RELINQUISHING, THIS CHAIN OF CUSTODY IS YOUR AUTHORIZATION TO 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.  
 NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.  
 \*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)  
 \*SEE REVERSE FOR TERMS & CONDITIONS  
 ORIGINAL

PRISM USE ONLY  
 Site Arrival Time:  
 Site Departure Time:  
 Field Tech Fee:  
 Mileage:



Full-Service Analytical & Environmental Solutions

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

# Case Narrative

08/23/2018

Apex Companies, LLC (Charlotte Office)  
Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A  
Project No.: WBS #44475.1.1  
Lab Submittal Date: 08/20/2018  
Prism Work Order: 8080335

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:**

- BRL Below Reporting Limit
- MDL Method Detection Limit
- RPD Relative Percent Difference
- \* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

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# Sample Receipt Summary

08/23/2018

Prism Work Order: 8080335

Client Sample ID	Lab Sample ID	Matrix	Date/Time Sampled	Date/Time Received
P2 Drum	8080335-01	Solid	08/17/18 14:00	08/20/18 14:50

Samples were received in good condition at 3.9 degrees C unless otherwise noted.



## Summary of Detections

08/23/2018

Prism Work Order: 8080335

Prism ID	Client ID	Parameter	General Method	Method	Result	Units
8080335-01	P2 Drum	Cadmium	TCLP Metals	*6010D	0.088	mg/L
8080335-01	P2 Drum	Lead	TCLP Metals	*6010D	1.2	mg/L

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Full-Service Analytical &  
Environmental Solutions

## Laboratory Report

08/23/2018

Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A  
Project No.: WBS #44475.1.1  
Sample Matrix: Solid

Client Sample ID: P2 Drum  
Prism Sample ID: 8080335-01  
Prism Work Order: 8080335  
Time Collected: 08/17/18 14:00  
Time Submitted: 08/20/18 14:50

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>TCLP Extraction by EPA 1311</b>									
TCLP Extraction	Complete	N/A			1	*1311	8/22/18 7:15	MMR	P8H0356
<b>TCLP Metals</b>									
Mercury	BRL	mg/L	0.010	0.000030	1	*7470A	8/22/18 13:12	MMR	P8H0366
<b>Cadmium</b>	<b>0.088</b>	<b>mg/L</b>	<b>0.025</b>	<b>0.00075</b>	<b>1</b>	<b>*6010D</b>	<b>8/22/18 20:48</b>	<b>JAB</b>	<b>P8H0367</b>
Chromium	BRL	mg/L	0.25	0.0018	1	*6010D	8/22/18 20:48	JAB	P8H0367
<b>Lead</b>	<b>1.2</b>	<b>mg/L</b>	<b>0.050</b>	<b>0.0040</b>	<b>1</b>	<b>*6010D</b>	<b>8/22/18 20:48</b>	<b>JAB</b>	<b>P8H0367</b>

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Apex Companies, LLC (Charlotte Office)  
Attn: Katie Lippard  
10610 Metromont Blvd.. Suite 206  
Charlotte, NC 28269

Project: NCDOT P-5705A  
Project No: WBS #44475.1.1

Prism Work Order: 8080335  
Time Submitted: 8/20/2018 2:50:00PM

**TCLP Metals - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P8H0366 - 7470A</b>										
<b>Blank (P8H0366-BLK1)</b> Prepared & Analyzed: 08/22/18										
Mercury	BRL	0.010	mg/L							
<b>LCS (P8H0366-BS1)</b> Prepared & Analyzed: 08/22/18										
Mercury	0.00931	0.010	mg/L	0.009375		99	80-120			
<b>Batch P8H0367 - 3010A</b>										
<b>Blank (P8H0367-BLK1)</b> Prepared & Analyzed: 08/22/18										
Cadmium	BRL	0.025	mg/L							
Chromium	BRL	0.25	mg/L							
Lead	BRL	0.050	mg/L							
<b>LCS (P8H0367-BS1)</b> Prepared & Analyzed: 08/22/18										
Cadmium	2.36	0.025	mg/L	2.500		94	80-120			
Chromium	2.51	0.25	mg/L	2.500		100	80-120			
Lead	2.40	0.050	mg/L	2.500		96	80-120			

**Sample Extraction Data****Prep Method: 1311**

Lab Number	Batch	Initial	Final	Date/Time
8080335-01	P8H0356	100 g	2000 mL	08/21/18 14:50

**Prep Method: 3010A**

Lab Number	Batch	Initial	Final	Date/Time
8080335-01	P8H0367	10 mL	50 mL	08/22/18 9:35

**Prep Method: 7470A**

Lab Number	Batch	Initial	Final	Date/Time
8080335-01	P8H0366	20 mL	30 mL	08/22/18 9:00



**APPENDIX G**  
**GROUNDWATER SAMPLING LOGS**



**APEX COMPANIES, LLC  
GROUND-WATER SAMPLING LOG**



Date: 3-19-19 Time: Sample Time 1505 Monitor Well Number: MW-3  
 Apex Personnel: TLT Purpose of Sampling Event: \_\_\_\_\_  
 Location (Site/Facility Name): Parcel 2 Weather/Temp: 50° cloudy

Circle: \_\_\_\_\_  
 Measuring Point (MP): top of casing, top of ground Well Type: surface completion, above grade  
 Depth to Product (MP): N/A Well Cover Bolted: Yes No  
 Depth to Water (MP): 1.91 Well Cap Condition: Good Replaced  
 Total Depth of Well (MP): 31.7 (0.1) Well Cap Locked: Yes, No, Replaced  
 Water Column thickness (ft): 29.79 Well Tag Present: Yes No  
 Well Material: PVC Stainless Steel, Other: \_\_\_\_\_ Well Info. On Tag: Yes No  
 Well pad condition: Good, Cracked, Replace Well Diameter (inches) 2 Sample Color: Clear

Field Comments/Site Conditions, etc.:

Time	Depth to Water (MP)	Well volume Bailed	Low Flow Vol Purged	Temp. (C)	Spec. Cond. (µS/cm)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Water Quality Comments
Initial	1.95	/	/	15.32	334	6.54	114.5	1.49	36.1	
5	1.95	/	500 mL	15.30	170	5.32	118.7	0	10.2	
10	1.95	/	1000 mL	15.24	169	5.31	119.4	0	7	
15	1.95	/	1500 mL	15.19	168	5.30	120.3	0	6.3	
			(1.51)							

Purge Volume Conversions: 1" = 0.04, 1.5" = 0.09, 2" = 0.17, 3" = 0.38, 4" = 0.66, 6" = 1.5, 8" = 2.6, 10" = 4.1  
 Water quality parameters Collected with: YSI 556, Horiba U-52, Hanna turbidity; Other: \_\_\_\_\_  
 Parameters Stabilized (circle): ES NO If no, why? \_\_\_\_\_  
 Samples collected: 8 Analysis: VOC by 8280  
SVOC by 8270  
PP metals by 8270  
8082  
 Bottle Type: HCL  
HND3  
None  
 Preservative: None  
250 mL  
1 Liter  
 Lab: PRISM  
 Sample date: 3-19-19  
 Sample Time: 1505



