Badin Business Park LLC

c/o Alcoa Corporation
201 Isabella Street
Suite 500
Pittsburgh, PA 15212-5858 USA
Tel: 1 412 315 2900

January 29, 2019

Mr. Robert C. McDaniel
Facility Management Branch
Hazardous Waste Section
North Carolina Department of Environmental Quality
217 West Jones Street
Raleigh, North Carolina 27603

VIA ELECTRONIC MAIL

Re: Targeted Sampling Report
Badin Business Park (f/k/a Alcoa - Badin Works)
Badin, North Carolina
EPA ID: NCD 003 162 542

Dear Mr. McDaniel:

Badin Business Park LLC respectfully submits the above-referenced report for your review. The report is being provided as a condition of the May 31, 2018 Targeted Sampling Work Plan.

Should you have any questions or comments, please contact Jason Mibroda of Alcoa at (412) 315-2783 at your convenience.

Sincerely,

Ronald M. Morosky
Director, Corporate Remediation

Enc.

cc: Jason Mibroda, Alcoa

ENVIRONEERING, INC.

TARGETED SAMPLING REPORT

FOR THE

BADIN BUSINESS PARK FACILITY
BADIN, NORTH CAROLINA

January 28, 2019

Prepared for:

Badin Business Park LLC
201 Isabella Street,
Pittsburgh, PA 15212

Prepared by:

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1.0 INTRODUCTION

The May 31, 2018 *Targeted Sampling Work Plan* (Work Plan) was developed as a guidance document in support of investigative sampling activities at the Badin Business Park LLC facility (facility), formerly known as the Alcoa Badin Works facility. The Work Plan followed the January 31, 2018 North Carolina Department of Environmental Quality (NCDEQ) request for soil sampling at the former facility and subsequent meetings on May 10 and 24, 2018. The approach for the sampling activities was developed based on information obtained from reconnaissance, previous investigations, and historical remedial activities conducted at the facility. NCDEQ granted approval of the Work Plan on June 15, 2018.

1.1 Overview

The former Alcoa-Badin Works facility was a primary aluminum smelting plant. Aluminum production began at the facility in 1916 after purchasing and completing the holdings of a French combine, which had begun work on a smelter. The former Alcoa-Badin Works facility consisted of potlines; electrode plants where anodes and cathodes were manufactured; casting facilities; a machine shop; and various offices and utility buildings. Aluminum production was curtailed in August 2002. The plant continued to manufacture anodes and high-purity aluminum until 2007. The plant was permanently closed in 2010. Demolition related activities (i.e., removal of selected equipment, buildings and foundations) were completed in 2012. Since closing the plant, the facility has been redeveloped into a business park for manufacturing companies.

1.2 Basis of Work

Environmental investigations have been performed at the facility in the past; however, these investigations targeted specific areas of the facility where constituents of interest (COIs) were known or suspected to have been utilized. Other areas of the facility were not historically evaluated because environmental impacts were not believed to be present or the areas were otherwise covered by plant buildings or obstructions. The basis for the work was to supplement previous investigations by obtaining information to assess for the presence of COIs in soils on the facility. To accomplish this, soil samples were collected and analyzed to evaluate soil quality. Results from the investigation are detailed below.

2.0 SAMPLE COLLECTION

Implementation of the soil sampling program was conducted September 24 through 26, 2018. Sample collection, shipment, and decontamination were conducted following procedures outlined in the Work Plan. Field work included collection of sixty-five (65) soil samples across eight (8) facility locations. Soil sample locations are presented on Figure 2-1.

At each location, a soil core was collected from soil borings using direct-push technology (e.g., Geoprobe). As previously stated in the Work Plan, demolition related activities (removal of selected equipment, buildings and foundations) were completed in 2012. Selected building foundations remain in place and a substantial portion of the facility was backfilled with crushed concrete and soil backfill. If demolition-related materials (e.g. crushed concrete and backfill) or a concrete pad were not present at the surface, a soil sample was collected between the interval of 0 to 1 foot below ground surface (bgs). If demolition materials or a concrete pad were encountered, the shallow soil sample interval of 0 to 1 foot was collected immediately below the demolition materials or concrete pad and the sampling proceeded according to the deeper soil sample collection procedures.

Deeper soil samples were targeted for collection between the interval of 4 to 5 feet below the collection of the shallow soil sample. Where remnant building foundations were encountered, an attempt was made to core through the foundation and collect a sample beneath the foundation. If the foundation could not be cored through, the boring was relocated to a location outside the understood footprint of the former building foundation.

3.0 SAMPLING RESULTS

Samples were provided to Pace Analytical Services, LCC of Huntersville, North Carolina for analysis in accordance with the Work Plan. Laboratory reports and completed chain of custody forms are provided in Appendix A. Laboratory analytical results were compared to the February 2018 published NCDEQ Preliminary Soil Remediation Goals, more specifically the Protection of Groundwater and the Industrial/Commercial Health-based (Industrial) Preliminary Soil Remediation Goals (PSRGs). A summary of sampling results from targeted areas follows.

3.1 Former Electrical Shop and Warehouse

The former Electrical Shop and Warehouse buildings (Buildings 007 and 007A) were located in the central portion of the facility inside the eastern fenceline. Prior to demolition, a portion of Building 007A served as a central accumulation area for waste. A review of historical data indicated that this area had continually served as an electrical shop and warehouse. Potential COIs resulting from operations include volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and additional constituents associated with waste management from primary reduction operations (fluoride, cyanide, and polycyclic aromatic hydrocarbons (PAHs)).

Two soil samples and one duplicate soil sample were collected from one soil boring (ESW-SB001) from within the former Electrical Shop and Warehouse Area. Soil sample analytical results are summarized in Table 2-1.

3.1.1 Volatile Organic Compounds

Volatile organic compounds were not detected in the samples at concentrations above NCDEQ Protection of Groundwater PSRGs or Industrial PSRGs.

3.1.2 Polychlorinated Biphenyls

PCB Aroclors were not detected in the samples at concentrations above laboratory detection limits.

3.1.3 Fluoride and Cyanide

Fluoride and cyanide were not detected in the samples at concentrations above the PSRGs.

3.1.4 Polycyclic Aromatic Hydrocarbons

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and 1-methylnaphthalene were detected in the shallow soil sample (ESW-SB001 (0’-1’)) at concentrations above Protection of Groundwater PSRGs; however, concentrations were below Industrial PSRGs. PAHs were not detected in the deep soil sample (ESW-SB001 (4’-5’)) at concentrations above the PSRGs.

Dibenz(a,h)anthracene was detected in the duplicate shallow soil sample (ESW-SB001 (0’-1’) DUP) at a concentration below the Protection of Groundwater PSRG.

3.2 Former Maintenance Shop Area

The former Maintenance Shops (Buildings 010 and 012) were located in the central portion of the facility and comprised several buildings which are believed to have contained specialized maintenance activities. Activities in this area potentially utilized various oils, greases, and solvents during routine operations. A review of historical data indicated that this area had continually served as a maintenance shop and warehouse. Potential COIs resulting from operations include VOCs and PAHs.

Eight soil samples were collected from four soil borings (MSA-SB001 through MSA-SB004) from within the former Maintenance Shop Area. Soil sample analytical results are summarized in Table 2-2.

3.2.1 Volatile Organic Compounds

Volatile organic compounds were not detected in the samples at concentrations above the PSRGs.

3.2.2 Polycyclic Aromatic Hydrocarbons

Benzo(a)anthracene, benzo(a)pyrene, and 1-methylnaphthalene were detected in one shallow soil sample (MSA-SB001 (0'-1')) at concentrations above Protection of Groundwater PSRGs; however, concentrations were below Industrial PSRGs. PAHs were not detected in the deep soil sample (MSA-SB001 (4'-5')) at concentrations above the PSRGs.

Benzo(a)pyrene was detected in two shallow soil samples (MSA-SB002 (0'-1') and MSA-SB004 (0'-1')) at concentrations above the Protection of Groundwater PSRG; however, the concentrations were below the Industrial PSRG. PAHs were not detected in the deep soil sample (MSA-SB002 (4'-5') and MSA-SB004 (4'-5')) at concentrations above the PSRGs.

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, 1-methylnaphthalene, and naphthalene were detected in one shallow soil sample (MSA-SB003 (0'-1')) at concentrations above Protection of Groundwater PSRGs. Benzo(a)pyrene was the only constituent detected at a concentration above the Industrial PSRGs. PAHs were not detected in the deep soil sample (MSA-SB003 (4'-5')) at concentrations above the PSRGs.

3.3 Former Cathode Plant Area

The former Cathode Plant Area (Buildings 014 and 139) was located on the eastern edge of the facility. Carbon cathodes were formed with anthracite coal, graphite, and coal tar pitch, and rodded with collector bars. A review of historical data indicated that this area had continually served as a cathode plant. Potential COIs in the former Cathode Plant Area include PCBs and PAHs.

Four soil samples were collected from two soil borings (CAT-SB001 and CAT-SB002) from within the former Cathode Plant Area. Soil sample analytical results are summarized in Table 2-3.

3.3.1 Polychlorinated Biphenyls

PCB Aroclors were not detected in the samples at concentrations above laboratory detection limits.

3.3.2 Polycyclic Aromatic Hydrocarbons

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene were detected in one shallow soil sample (CAT-SB001 (0'-1')) at concentrations above Protection of Groundwater PSRGs. Benzo(a)pyrene was the only constituent detected at a concentration above the Industrial PSRGs. Benzo(a)pyrene was detected in the deep soil sample (CAT-SB001 (0'-1')) at a concentration above the Protection of Groundwater PSRG; however, the concentration was below the Industrial PSRG.

PAHs were not detected in the remaining samples at concentrations above the PSRGs.

3.4 Former Anode Plant Area

The former Anode Plant Area (Buildings 050B and 050C) was located in the northern portion of the facility. In the former Anode Plant, calcined petroleum coke was ground, segregated by size, blended, oven dried, and combined with carbon pitch to create a paste which was then formed into a green anode block via a hydraulic press. A review of historical data indicated that this area has continually served as an anode plant. Potential COIs in the former Anode Plant Area include PCBs and PAHs.

Four soil samples were collected from two soil borings (ANO-SB001 and ANO-SB002) from within the former Anode Plant Area. Soil sample analytical results are summarized in Table 2-4.

3.4.1 Polychlorinated Biphenyls

Aroclor 1232 was detected in one shallow soil sample (ANO-SB002 (0'-1')) at a concentration above the Protection of Groundwater PSRG; however, the concentration was below the Industrial PSRG. PCB Aroclors were not detected in the deep soil sample (ANO-SB002 (4'-5')) at concentrations above the PSRGs.

PCB Aroclors were not detected in the remaining samples at concentrations above the PSRGs.

3.4.2 Polycyclic Aromatic Hydrocarbons

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene were detected in one shallow soil sample (ANO-SB001 (0'-1')) at concentrations above Protection of Groundwater PSRGs; however, the concentrations were below the Industrial PSRGs. PAHs were not detected in the deep soil sample (ANO-SB001 (4'-5')) at concentrations above the PSRGs.

Benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected in one shallow soil sample (ANO-SB002 (0'-1')) at concentrations above Protection of Groundwater PSRGs. Benzo(a)pyrene was the only constituent detected at a concentration above the Industrial PSRGs. PAHs were not detected in the deep soil sample (ANO-SB002 (4'-5')) at concentrations above the PSRGs.

3.5 Former Potline and Bath Crushing Area

The Potlines (Buildings 201 through 204) were the main aluminum production areas in the central and southern portions of the facility. The former Bath Crushing Area (Building 204H) was located immediately west of the potlines. The potlines were each comprised of multiple rectangular "pots" where aluminum was generated through electrolysis of a molten cryolite and alumina solution. Carbon was used for the cathodes and anodes, which were consumed in the process. A review of historical data indicated that this area may also have been historically utilized for potlines. Potential COIs in these areas are constituents associated with primary reduction operations (fluoride, cyanide, and PAHs).

Thirty-four (34) soil samples were collected from seventeen (17) soil borings (PBC-SB001 through PBC-SB017) from within the former Potline and Bath Crushing Area. Soil sample analytical results are summarized in Table 2-5.

3.5.1 Fluoride and Cyanide

Fluoride and cyanide were not detected in the samples at concentrations above the PSRGs.

3.5.2 Polycyclic Aromatic Hydrocarbons

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and 1-methylnaphthalene were detected in one shallow soil sample (PBC-SB004 (0'-1')) at concentrations above Protection of Groundwater PSRGs; however, the concentrations were below Industrial PSRGs. PAHs were not detected in the deep soil sample (PBC-SB004 (4'-5')) at concentrations above laboratory detection limits.

Benzo(a)anthracene and benzo(a)pyrene were detected in one shallow soil sample (PBC-SB008 (0'-1')) at concentrations above Protection of Groundwater PSRGs; however, concentrations were below Industrial PSRGs. PAHs were not detected in the deep soil sample (PBC-SB008 (4'-5')) at concentrations above laboratory detection limits.

PAHs were not detected in the remaining samples at concentrations above the PSRGs.

3.6 Former Anode Butt Reclamation and Rod Shop

The former Anode Butt Reclamation and Rod Shop (Building 232) was located in the central portion of the facility. After the anodes were consumed as part of the reduction process, the rod and cast iron were removed for reuse and recycling from the remnants of the anode, or anode butt. The anode butts were transported back to the Anode Plant for forming into new anodes. After baking at the former Carbon Baking Furnace, the anode was coupled to the anode rod with cast iron prior to storage or transport to the potline. Potential COIs in this area include PAHs.

Four soil samples were collected from two soil borings (ABR-SB001 and ABR-SB002) from within the former Anode Butt Reclamation and Rod Shop area. Soil sample analytical results are summarized in Table 2-6.

3.6.1 Polycyclic Aromatic Hydrocarbons

Benzo(a)pyrene was detected in one shallow soil sample (ABR-SB001 (0'-1')) at a concentration above the Protection of Groundwater PSRG; however, the concentration was below the Industrial PSRG. PAHs were not detected in the deep soil sample (ABR-SB001 (4'-5')) at concentrations above the PSRGs.

Benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected in one shallow soil sample (ABR-SB002 (0'-1')) at concentrations above Protection of Groundwater PSRGs; however, concentrations were below Industrial PSRGs. Benzo(a)pyrene was detected in the deep soil sample (ABR-SB002 (4'-5')) at a concentration above the Protection of Groundwater PSRG; however, the concentration was below the Industrial PSRG. No additional PAHs were detected in the deep soil sample at concentrations above the PSRGs.

3.7 Former Carbon Baking Furnace

The former Carbon Baking Furnace (Buildings 261 and 262) was located in the central portion of the facility. Green anodes manufactured in the former Anode Plant were either stored or transported to the baking furnace where they were baked to drive off pitch volatiles. A review of historical data indicated that this area previously contained a baking furnace. Potential COIs in this area include PAHs.

Four soil samples were collected from two soil borings (CBF-SB001 and CBF-SB002) from within the former Carbon Baking Furnace area. Soil sample analytical results are summarized in Table 2-7.

3.7.1 Polycyclic Aromatic Hydrocarbons

Benzo(a)anthracene and benzo(a)pyrene were detected in one shallow soil sample (CBF-SB001 (0'-1')) at concentrations above Protection of Groundwater PSRGs; however, concentrations were below Industrial PSRGs. PAHs were not detected in the deep soil sample (CBF-SB001 (4'-5')) at concentrations above the PSRGs.

Benzo(a)pyrene was detected in one shallow soil sample (CBF-SB002 (0'-1')) at a concentration above the Protection of Groundwater PSRG; however, the concentration was below the Industrial PSRG. PAHs were not detected in the deep soil sample (CBF-SB002 (4'-5')) at concentrations above the PSRGs.

3.8 Former Rectifier Station

The former Rectifier Station (Buildings 301 and 302) was located on the northern edge of the former potlines (Buildings 201 through 204) and near the former potlines associated with the early 20th century plant. A review of historical data indicated that this area may have been historically utilized for potlines. Potential COIs in this area include PCBs and constituents associated with primary reduction operations (fluoride, cyanide, and PAHs).

Four soil samples were collected from two soil borings (REC-SB001 and REC-SB002) from within the former Rectifier Station area. Soil sample analytical results are summarized in Table 2-8.

3.8.1 Polychlorinated Biphenyls

PCB Aroclors were not detected in the samples at concentrations above laboratory detection limits.

3.8.2 Fluoride and Cyanide

Fluoride and cyanide were not detected in the samples at concentrations above the PSRGs.

3.8.3 Polycyclic Aromatic Hydrocarbons

Benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected in one shallow soil sample (REC-SB001 (0'-1')) at concentrations above Protection of Groundwater PSRGs; however, concentrations were below Industrial PSRGs. PAHs were not detected in the deep soil sample (REC-SB001 (4'-5')) at concentrations above the PSRGs.

PAHs were not detected in the remaining samples at concentrations above the PSRGs.

3.9 Field Blanks

One equipment blank was analyzed as part of this project. The equipment blank was prepared by running analyte free distilled water across sample collection equipment (sampling core barrel) after decontamination and placing it in the appropriate sample containers for analysis. No constituents were detected at concentrations above laboratory detection limits. Results are summarized in Table 2-9.

One trip blank was analyzed as part of this project. The trip blank was prepared by the laboratory and placed in the cooler containing samples selected for VOC analysis. No constituents were detected at concentrations above laboratory detection limits. Results are summarized in Table 2-9.

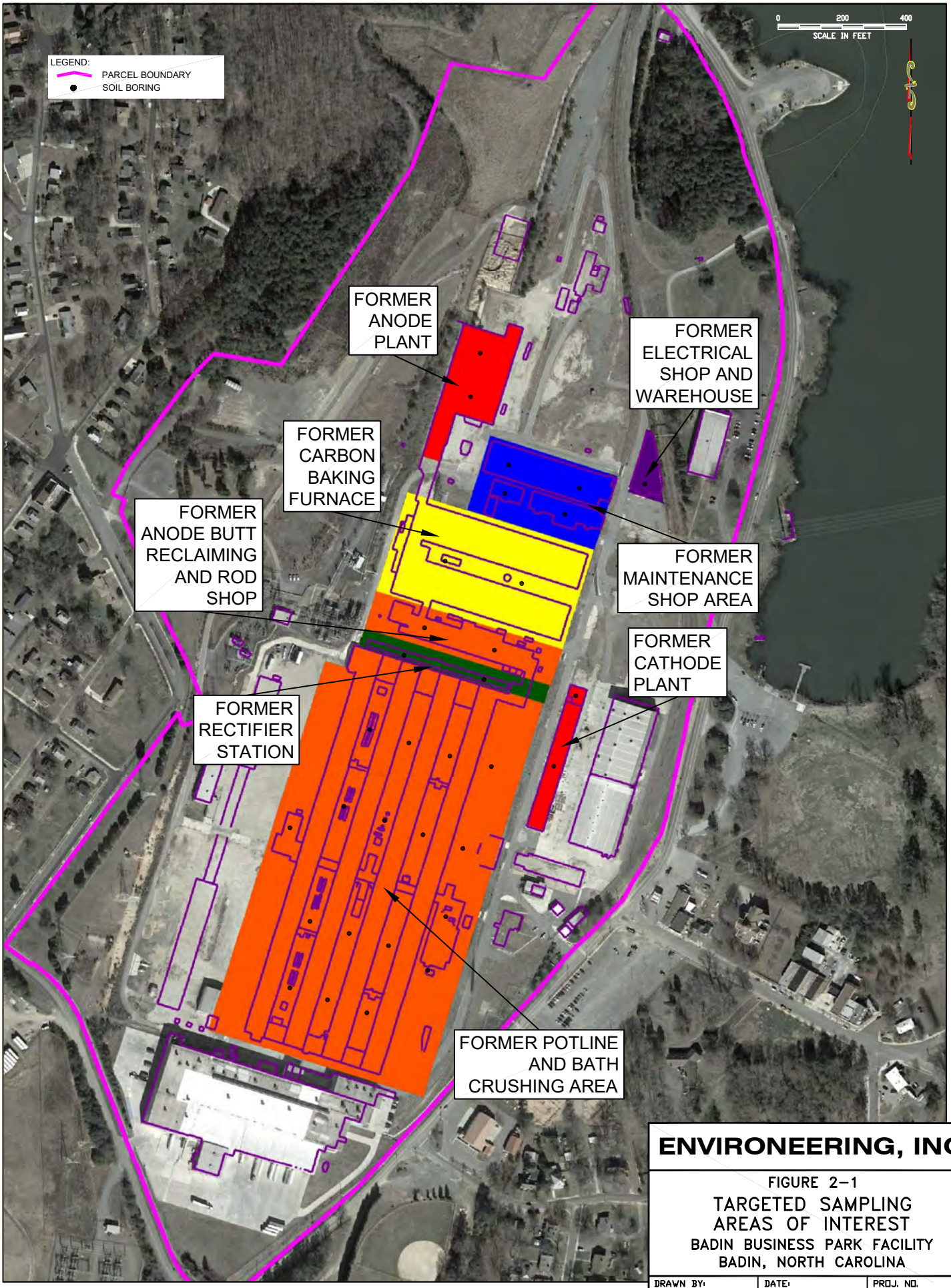

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FIGURE 2-1

TARGETED SAMPLING AREAS OF INTEREST

BADIN BUSINESS PARK FACILITY

BADIN, NORTH CAROLINA

DRAWN BY:	DATE:	PROJ. NO.
MWW	01/28/2019	137-263

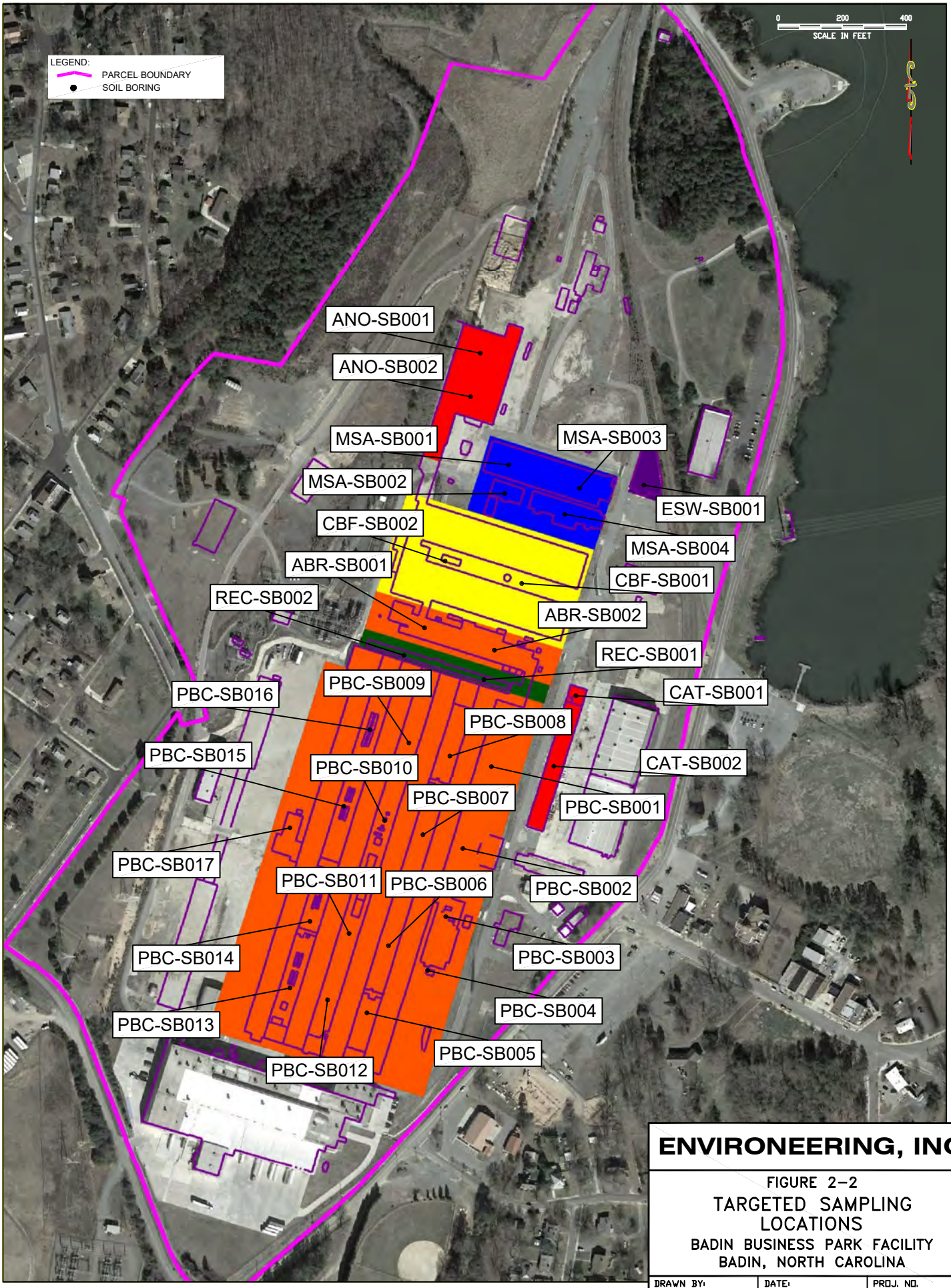

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FIGURE 2–2

TARGETED SAMPLING LOCATIONS

BADIN BUSINESS PARK FACILITY
BADIN, NORTH CAROLINA

DRAWN BY:	DATE:	PROJ. NO.
MWW	01/28/2019	137-263

Table 2-1
Soil Sample Analytical Results
Former Electrical Shop and Warehouse Area
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	ESW-SB001 (0'-1')	ESW-SB001 (0'-1') DUP	ESW-SB001 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Concrete slab	Concrete slab	Concrete slab		
Thickness of Surface Material				8"	8"	8"		
Sample Depth Below Surface Material				0'-1'	0'-1'	4'-5'		
Date				9/24/2018	9/24/2018	9/24/2018		
Time				12:10	12:15	12:25		
Percent Moisture	**ASTM D2974-87**		*%*	20.1	15.7	21.4		
PCB-1016 (Aroclor 1016)	**EPA 8082**	**12674-11-2**	*mg/kg*	ND $_{<0.0188}$	ND $_{<0.0178}$	ND $_{<0.0193}$	**0.94**	**10**
PCB-1221 (Aroclor 1221)	**EPA 8082**	**11104-28-2**	*mg/kg*	ND $_{<0.0188}$	ND $_{<0.0178}$	ND $_{<0.0193}$	**0.0059**	**0.84**
PCB-1232 (Aroclor 1232)	**EPA 8082**	**11141-16-5**	*mg/kg*	ND $_{<0.0188}$	ND $_{<0.0178}$	ND $_{<0.0193}$	**0.0059**	**0.73**
PCB-1242 (Aroclor 1242)	**EPA 8082**	**53469-21-9**	*mg/kg*	ND $_{<0.0188}$	ND $_{<0.0178}$	ND $_{<0.0193}$	**0.055**	**0.95**
PCB-1248 (Aroclor 1248)	**EPA 8082**	**12672-29-6**	*mg/kg*	ND $_{<0.0188}$	ND $_{<0.0178}$	ND $_{<0.0193}$	**0.054**	**0.96**
PCB-1254 (Aroclor 1254)	**EPA 8082**	**11097-69-1**	*mg/kg*	ND $_{<0.0188}$	ND $_{<0.0178}$	ND $_{<0.0193}$	**0.091**	**0.97**
PCB-1260 (Aroclor 1260)	**EPA 8082**	**11096-82-5**	*mg/kg*	ND $_{<0.0188}$	ND $_{<0.0178}$	ND $_{<0.0193}$	**0.24**	**0.99**
Total Polychlorinated Biphenyls			*mg/kg*	ND	ND	ND	**0.055**	**0.95**
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.15	0.127	ND $_{<0.0015}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.213	0.184	0.0019 J	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	0.0227 J	0.0268	ND $_{<0.0019}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	0.0346 J	0.0266	ND $_{<0.0016}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	0.133	0.107	ND $_{<0.0018}$	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	3.91	0.875	0.0032 J	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	1.55	0.773	0.0019 J	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	5.57	1.83	0.0042 J	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	1.37	0.627	ND $_{<0.0033}$	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	1.76	0.639	ND $_{<0.0019}$	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	4.17	1.79	0.0063 J	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.509	0.242	ND $_{<0.0023}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	1.53	0.899	0.0022 J	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	0.0168 J	0.0207	ND $_{<0.0020}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	1.15	0.555	ND $_{<0.0035}$	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.167	0.155	ND $_{<0.0029}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	0.456	0.499	ND $_{<0.0019}$	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	1.77	0.868	0.0025 J	**440**	**4500**
1,1,1,2-Tetrachloroethane	**EPA 8260B**	**630-20-6**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0018}$	ND $_{<0.0019}$	**0.0076**	**9.3**
1,1,1-Trichloroethane	**EPA 8260B**	**71-55-6**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**1.4**	**7600**
1,1,2,2-Tetrachloroethane	**EPA 8260B**	**79-34-5**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0018}$	**0.0016**	**2.8**
1,1,2-Trichloroethane	**EPA 8260B**	**79-00-5**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0018}$	ND $_{<0.0019}$	**0.0039**	**1.3**
1,1-Dichloroethane	**EPA 8260B**	**75-34-3**	*mg/kg*	ND $_{<0.0015}$	ND $_{<0.0013}$	ND $_{<0.0014}$	**0.034**	**17**
1,1-Dichloroethene	**EPA 8260B**	**75-35-4**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**2.5**	**210**
1,1-Dichloropropene	**EPA 8260B**	**563-58-6**	*mg/kg*	ND $_{<0.0015}$	ND $_{<0.0013}$	ND $_{<0.0014}$	**NE**	**NE**
1,2,3-Trichlorobenzene	**EPA 8260B**	**87-61-6**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0019}$	ND $_{<0.0020}$	**0.33**	**190**
1,2,3-Trichloropropane	**EPA 8260B**	**96-18-4**	*mg/kg*	ND $_{<0.0016}$	ND $_{<0.0014}$	ND $_{<0.0015}$	**0.000045**	**0.11**
1,2,4-Trichlorobenzene	**EPA 8260B**	**120-82-1**	*mg/kg*	ND $_{<0.0016}$	ND $_{<0.0014}$	ND $_{<0.0015}$	**4.1**	**55**
1,2,4-Trimethylbenzene	**EPA 8260B**	**95-63-6**	*mg/kg*	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0019}$	**1.2**	**370**
1,2-Dibromo-3-chloropropane	**EPA 8260B**	**96-12-8**	*mg/kg*	ND $_{<0.0036}$	ND $_{<0.0031}$	ND $_{<0.0033}$	**0.00035**	**0.068**
1,2-Dibromoethane (EDB)	**EPA 8260B**	**106-93-4**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**0.00011**	**0.17**
1,2-Dichlorobenzene	**EPA 8260B**	**95-50-1**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0018}$	**0.39**	**2000**
1,2-Dichloroethane	**EPA 8260B**	**107-06-2**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0019}$	ND $_{<0.0020}$	**0.0023**	**2.2**
1,2-Dichloropropane	**EPA 8260B**	**78-87-5**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**0.004**	**12**
1,3,5-Trimethylbenzene	**EPA 8260B**	**108-67-8**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**11**	**320**
1,3-Dichlorobenzene	**EPA 8260B**	**541-73-1**	*mg/kg*	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0019}$	**3.8**	**NE**
1,3-Dichloropropane	**EPA 8260B**	**142-28-9**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0018}$	**0.97**	**4700**
1,4-Dichlorobenzene	**EPA 8260B**	**106-46-7**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**0.12**	**12**
2,2-Dichloropropane	**EPA 8260B**	**594-20-7**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**NE**	**NE**
2-Butanone (MEK)	**EPA 8260B**	**78-93-3**	*mg/kg*	ND $_{<0.0029}$	ND $_{<0.0025}$	ND $_{<0.0027}$	**17**	**40000**
2-Chlorotoluene	**EPA 8260B**	**95-49-8**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**2**	**4700**
2-Hexanone	**EPA 8260B**	**591-78-6**	*mg/kg*	ND $_{<0.0039}$	ND $_{<0.0034}$	ND $_{<0.0036}$	**0.18**	**280**
4-Chlorotoluene	**EPA 8260B**	**106-43-4**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**0.46**	**4700**
4-Methyl-2-pentanone (MIBK)	**EPA 8260B**	**108-10-1**	*mg/kg*	ND $_{<0.0037}$	ND $_{<0.0032}$	ND $_{<0.0034}$	**0.45**	**30000**
Acetone	**EPA 8260B**	**67-64-1**	*mg/kg*	0.0121 J	0.0128 J	ND $_{<0.0093}$	**25**	**140000**
Benzene	**EPA 8260B**	**71-43-2**	*mg/kg*	ND $_{<0.0016}$	ND $_{<0.0014}$	ND $_{<0.0015}$	**0.01**	**5.4**
Bromobenzene	**EPA 8260B**	**108-86-1**	*mg/kg*	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0019}$	**0.76**	**370**
Bromochloromethane	**EPA 8260B**	**74-97-5**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**NE**	**130**
Bromodichloromethane	**EPA 8260B**	**75-27-4**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0018}$	**0.0033**	**1.4**
Bromoform	**EPA 8260B**	**75-25-2**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0020}$	ND $_{<0.0021}$	**0.021**	**90**
Bromomethane	**EPA 8260B**	**74-83-9**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0022}$	ND $_{<0.0023}$	**0.05**	**6.4**
Carbon tetrachloride	**EPA 8260B**	**56-23-5**	*mg/kg*	ND $_{<0.0026}$	ND $_{<0.0022}$	ND $_{<0.0024}$	**0.0023**	**3**
Chlorobenzene	**EPA 8260B**	**108-90-7**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0018}$	**0.68**	**280**
Chloroethane	**EPA 8260B**	**75-00-3**	*mg/kg*	ND $_{<0.0024}$	ND $_{<0.0021}$	ND $_{<0.0022}$	**17**	**12000**
Chloroform	**EPA 8260B**	**67-66-3**	*mg/kg*	ND $_{<0.0016}$	ND $_{<0.0014}$	ND $_{<0.0015}$	**0.39**	**1.5**
Chloromethane	**EPA 8260B**	**74-87-3**	*mg/kg*	ND $_{<0.0024}$	ND $_{<0.0021}$	ND $_{<0.0022}$	**0.015**	**99**
cis-1,2-Dichloroethene	**EPA 8260B**	**156-59-2**	*mg/kg*	ND $_{<0.0014}$	ND $_{<0.0012}$	ND $_{<0.0013}$	**0.41**	**470**
cis-1,3-Dichloropropene	**EPA 8260B**	**10061-01-5**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**NE**	**NE**
Dibromochloromethane	**EPA 8260B**	**124-48-1**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**0.0021**	**39**
Dibromomethane	**EPA 8260B**	**74-95-3**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0022}$	ND $_{<0.0023}$	**0.34**	**21**
Dichlorodifluoromethane	**EPA 8260B**	**75-71-8**	*mg/kg*	ND $_{<0.0036}$	ND $_{<0.0031}$	ND $_{<0.0033}$	**30**	**78**
Diisopropyl ether	**EPA 8260B**	**108-20-3**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**0.36**	**2000**
Ethylbenzene	**EPA 8260B**	**100-41-4**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**13**	**27**
Hexachloro-1,3-butadiene	**EPA 8260B**	**87-68-3**	*mg/kg*	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0019}$	**0.015**	**5.6**
Isopropylbenzene (Cumene)	**EPA 8260B**	**98-82-8**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0018}$	**2.3**	**2100**
m&p-Xylene	**EPA 8260B**	**179601-23-1**	*mg/kg*	ND $_{<0.0036}$	ND $_{<0.0031}$	ND $_{<0.0033}$	**9.8**	**500**
Methylene Chloride	**EPA 8260B**	**75-09-2**	*mg/kg*	ND $_{<0.0030}$	ND $_{<0.0026}$	0.0037 J	**0.025**	**6500**
Methyl-tert-butyl ether	**EPA 8260B**	**1634-04-4**	*mg/kg*	ND $_{<0.0015}$	ND $_{<0.0013}$	ND $_{<0.0014}$	**0.09**	**220**
Naphthalene	**EPA 8260B**	**91-20-3**	*mg/kg*	ND $_{<0.0012}$	ND $_{<0.0010}$	ND $_{<0.0011}$	**0.39**	**18**
n-Butylbenzene	**EPA 8260B**	**104-51-8**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**4.5**	**12000**
n-Propylbenzene	**EPA 8260B**	**103-65-1**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**2.6**	**5100**
o-Xylene	**EPA 8260B**	**95-47-6**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0018}$	**9.8**	**590**
p-Isopropyltoluene	**EPA 8260B**	**99-87-6**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**1.24**	**NE**
sec-Butylbenzene	**EPA 8260B**	**135-98-8**	*mg/kg*	ND $_{<0.0016}$	ND $_{<0.0014}$	ND $_{<0.0015}$	**4.1**	**23000**
Styrene	**EPA 8260B**	**100-42-5**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**1.5**	**7300**
tert-Butylbenzene	**EPA 8260B**	**98-06-6**	*mg/kg*	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0019}$	**3.1**	**23000**
Tetrachloroethene	**EPA 8260B**	**127-18-4**	*mg/kg*	ND $_{<0.0017}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**0.0063**	**82**
Toluene	**EPA 8260B**	**108-88-3**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**8.3**	**9700**
trans-1,2-Dichloroethene	**EPA 8260B**	**156-60-5**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0018}$	**0.62**	**4700**
trans-1,3-Dichloropropene	**EPA 8260B**	**10061-02-6**	*mg/kg*	ND $_{<0.0015}$	ND $_{<0.0013}$	ND $_{<0.0014}$	**NE**	**NE**
Trichloroethene	**EPA 8260B**	**79-01-6**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0018}$	ND $_{<0.0019}$	**0.021**	**4**
Trichlorofluoromethane	**EPA 8260B**	**75-69-4**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0019}$	ND $_{<0.0020}$	**25**	**70000**
Vinyl acetate	**EPA 8260B**	**108-05-4**	*mg/kg*	ND $_{<0.0087}$	ND $_{<0.0076}$	ND $_{<0.0082}$	**0.37**	**820**
Vinyl chloride	**EPA 8260B**	**75-01-4**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**0.00024**	**1.7**
Xylene (Total)	**EPA 8260B**	**1330-20-7**	*mg/kg*	ND $_{<0.0036}$	ND $_{<0.0031}$	ND $_{<0.0033}$	**9.9**	**530**
Cyanide	**EPA 9012**	**57-12-5**	*mg/kg*	ND $_{<0.17}$	0.29 J	ND $_{<0.17}$	**14**	**31**
Fluoride	**EPA 9056**	**16984-48-8**	*mg/kg*	33	40.1	ND $_{<3.2}$	**6000**	**9300**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-2
Soil Sample Analytical Results
Former Maintenance Shop Area
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	MSA-SB001 (0'-1')	MSA-SB001 (4'-5')	MSA-SB002 (0'-1')	MSA-SB002 (4'-5')	MSA-SB003 (0'-1')	MSA-SB003 (4'-5')	MSA-SB004 (0'-1')	MSA-SB004 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Soil	Soil	Soil	Soil	Gravel	Gravel	Gravel	Gravel		
Thickness of Surface Material				N/A	N/A	N/A	N/A	4"	4"	6"	6"		
Sample Depth Below Surface Material				0'-1'	4'-5'	0'-1'	4'-5'	0'-1'	4'-5'	0'-1'	4'-5'		
Date				9/24/2018	9/24/2018	9/24/2018	9/24/2018	9/24/2018	9/24/2018	9/24/2018	9/24/2018		
Time				14:25	14:30	14:40	14:45	15:00	15:05	15:30	15:35		
Percent Moisture	**ASTM D2974-87**		%	17.8	17.1	16.8	19.4	14.7	18.4	17.9	17.6		
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.118	ND $_{<0.0015}$	0.0174	0.0046 J	0.243	ND $_{<0.0015}$	0.0074 J	ND $_{<0.0014}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.107	ND $_{<0.0013}$	0.0287	0.0061 J	0.42	ND $_{<0.0014}$	0.0092 J	ND $_{<0.0013}$	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	0.166	ND $_{<0.0018}$	0.0104 J	0.0044 J	0.765	ND $_{<0.0019}$	0.0126	ND $_{<0.0018}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	0.0492	ND $_{<0.0016}$	0.0084 J	0.0080 J	0.0999	ND $_{<0.0016}$	0.0059 J	ND $_{<0.0016}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	0.345	ND $_{<0.0017}$	0.0366	0.0065 J	1.32	ND $_{<0.0017}$	0.0345	ND $_{<0.0017}$	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	0.892	0.0022 J	0.235	0.0635	2.97	0.0023 J	0.153	0.0016 J	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	0.929	0.0020 J	0.29	ND $_{<0.0013}$	2.54	0.0023 J	0.134	ND $_{<0.0013}$	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	1.19	0.0027 J	0.537	0.0123	4.07	0.0025 J	0.298	0.0020 J	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	0.539	ND $_{<0.0032}$	0.266	ND $_{<0.0032}$	1.74	0.0033 J	0.0949	ND $_{<0.0031}$	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	0.395	ND $_{<0.0018}$	ND $_{<0.0018}$	ND $_{<0.0018}$	ND $_{<0.0018}$	ND $_{<0.0019}$	0.0925	ND $_{<0.0018}$	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	0.857	ND $_{<0.0022}$	0.349	ND $_{<0.0022}$	2.85	ND $_{<0.0022}$	0.194	ND $_{<0.0022}$	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.163	ND $_{<0.0022}$	0.0661	ND $_{<0.0022}$	0.56	ND $_{<0.0022}$	0.0078 J	ND $_{<0.0022}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	1.67	0.0040 J	0.3	ND $_{<0.0010}$	5.9	0.0053 J	0.198	0.0025 J	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	0.118	ND $_{<0.0019}$	0.0060 J	ND $_{<0.0020}$	0.66	ND $_{<0.0020}$	0.0084 J	ND $_{<0.0019}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	0.51	ND $_{<0.0034}$	0.228	ND $_{<0.0034}$	1.61	ND $_{<0.0035}$	0.0904	ND $_{<0.0034}$	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.0855	ND $_{<0.0028}$	0.021	ND $_{<0.0028}$	1.24	ND $_{<0.0029}$	0.0106 J	ND $_{<0.0028}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	1.27	0.0031 J	0.158	0.0053 J	5.17	0.0056 J	0.11	ND $_{<0.0018}$	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	1.37	0.0037 J	0.267	0.031	5.12	0.0047 J	0.166	0.0022 J	**440**	**4500**
1,1,1,2-Tetrachloroethane	**EPA 8260B**	**630-20-6**	*mg/kg*	ND $_{<0.0027}$	ND $_{<0.0019}$	ND $_{<0.0021}$	ND $_{<0.0029}$	ND $_{<0.0021}$	ND $_{<0.0022}$	ND $_{<0.0019}$	ND $_{<0.0017}$	**0.0076**	**9.3**
1,1,1-Trichloroethane	**EPA 8260B**	**71-55-6**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**1.4**	**7600**
1,1,2,2-Tetrachloroethane	**EPA 8260B**	**79-34-5**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0026}$	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0016}$	**0.0016**	**2.8**
1,1,2-Trichloroethane	**EPA 8260B**	**79-00-5**	*mg/kg*	ND $_{<0.0027}$	ND $_{<0.0019}$	ND $_{<0.0021}$	ND $_{<0.0029}$	ND $_{<0.0021}$	ND $_{<0.0022}$	ND $_{<0.0019}$	ND $_{<0.0017}$	**0.0039**	**1.3**
1,1-Dichloroethane	**EPA 8260B**	**75-34-3**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0021}$	ND $_{<0.0015}$	ND $_{<0.0016}$	ND $_{<0.0013}$	ND $_{<0.0012}$	**0.034**	**17**
1,1-Dichloroethene	**EPA 8260B**	**75-35-4**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**2.5**	**210**
1,1-Dichloropropene	**EPA 8260B**	**563-58-6**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0021}$	ND $_{<0.0015}$	ND $_{<0.0016}$	ND $_{<0.0013}$	ND $_{<0.0012}$	**NE**	**NE**
1,2,3-Trichlorobenzene	**EPA 8260B**	**87-61-6**	*mg/kg*	ND $_{<0.0029}$	ND $_{<0.0020}$	ND $_{<0.0022}$	ND $_{<0.0031}$	ND $_{<0.0022}$	ND $_{<0.0024}$	ND $_{<0.0019}$	ND $_{<0.0018}$	**0.33**	**190**
1,2,3-Trichloropropane	**EPA 8260B**	**96-18-4**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0014}$	ND $_{<0.0016}$	ND $_{<0.0022}$	ND $_{<0.0016}$	ND $_{<0.0017}$	ND $_{<0.0014}$	ND $_{<0.0013}$	**0.000045**	**0.11**
1,2,4-Trichlorobenzene	**EPA 8260B**	**120-82-1**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0014}$	ND $_{<0.0016}$	ND $_{<0.0022}$	ND $_{<0.0016}$	ND $_{<0.0017}$	ND $_{<0.0014}$	ND $_{<0.0013}$	**4.1**	**55**
1,2,4-Trimethylbenzene	**EPA 8260B**	**95-63-6**	*mg/kg*	ND $_{<0.0026}$	ND $_{<0.0018}$	ND $_{<0.0020}$	ND $_{<0.0028}$	ND $_{<0.0020}$	ND $_{<0.0021}$	ND $_{<0.0018}$	ND $_{<0.0016}$	**1.2**	**370**
1,2-Dibromo-3-chloropropane	**EPA 8260B**	**96-12-8**	*mg/kg*	ND $_{<0.0047}$	ND $_{<0.0033}$	ND $_{<0.0035}$	ND $_{<0.0050}$	ND $_{<0.0036}$	ND $_{<0.0038}$	ND $_{<0.0032}$	ND $_{<0.0030}$	**0.00035**	**0.068**
1,2-Dibromoethane (EDB)	**EPA 8260B**	**106-93-4**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**0.00011**	**0.17**
1,2-Dichlorobenzene	**EPA 8260B**	**95-50-1**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0026}$	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0016}$	**0.39**	**2000**
1,2-Dichloroethane	**EPA 8260B**	**107-06-2**	*mg/kg*	ND $_{<0.0029}$	ND $_{<0.0020}$	ND $_{<0.0022}$	ND $_{<0.0031}$	ND $_{<0.0022}$	ND $_{<0.0024}$	ND $_{<0.0019}$	ND $_{<0.0018}$	**0.0023**	**2.2**
1,2-Dichloropropane	**EPA 8260B**	**78-87-5**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**0.004**	**12**
1,3,5-Trimethylbenzene	**EPA 8260B**	**108-67-8**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**11**	**320**
1,3-Dichlorobenzene	**EPA 8260B**	**541-73-1**	*mg/kg*	ND $_{<0.0026}$	ND $_{<0.0018}$	ND $_{<0.0020}$	ND $_{<0.0028}$	ND $_{<0.0020}$	ND $_{<0.0021}$	ND $_{<0.0018}$	ND $_{<0.0016}$	**3.8**	**NE**
1,3-Dichloropropane	**EPA 8260B**	**142-28-9**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0026}$	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0016}$	**0.97**	**4700**
1,4-Dichlorobenzene	**EPA 8260B**	**106-46-7**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**0.12**	**12**
2,2-Dichloropropane	**EPA 8260B**	**594-20-7**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**NE**	**NE**
2-Butanone (MEK)	**EPA 8260B**	**78-93-3**	*mg/kg*	ND $_{<0.0038}$	ND $_{<0.0026}$	ND $_{<0.0028}$	ND $_{<0.0040}$	ND $_{<0.0029}$	ND $_{<0.0031}$	ND $_{<0.0026}$	ND $_{<0.0024}$	**17**	**40000**
2-Chlorotoluene	**EPA 8260B**	**95-49-8**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**2**	**4700**
2-Hexanone	**EPA 8260B**	**591-78-6**	*mg/kg*	ND $_{<0.0051}$	ND $_{<0.0035}$	ND $_{<0.0038}$	ND $_{<0.0054}$	ND $_{<0.0039}$	ND $_{<0.0042}$	ND $_{<0.0034}$	ND $_{<0.0032}$	**0.18**	**280**
4-Chlorotoluene	**EPA 8260B**	**106-43-4**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**0.46**	**4700**
4-Methyl-2-pentanone (MIBK)	**EPA 8260B**	**108-10-1**	*mg/kg*	ND $_{<0.0048}$	ND $_{<0.0033}$	ND $_{<0.0036}$	ND $_{<0.0051}$	ND $_{<0.0037}$	ND $_{<0.0040}$	ND $_{<0.0033}$	ND $_{<0.0030}$	**0.45**	**30000**
Acetone	**EPA 8260B**	**67-64-1**	*mg/kg*	ND $_{<0.0130}$	ND $_{<0.0090}$	ND $_{<0.0098}$	0.0332 J	0.0157 J	0.0286 J	0.231	0.0772 J	**25**	**140000**
Benzene	**EPA 8260B**	**71-43-2**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0014}$	ND $_{<0.0016}$	ND $_{<0.0022}$	ND $_{<0.0016}$	ND $_{<0.0017}$	ND $_{<0.0014}$	ND $_{<0.0013}$	**0.01**	**5.4**
Bromobenzene	**EPA 8260B**	**108-86-1**	*mg/kg*	ND $_{<0.0026}$	ND $_{<0.0018}$	ND $_{<0.0020}$	ND $_{<0.0028}$	ND $_{<0.0020}$	ND $_{<0.0021}$	ND $_{<0.0018}$	ND $_{<0.0016}$	**0.76**	**370**
Bromochloromethane	**EPA 8260B**	**74-97-5**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**NE**	**130**
Bromodichloromethane	**EPA 8260B**	**75-27-4**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0026}$	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0016}$	**0.0033**	**1.4**
Bromoform	**EPA 8260B**	**75-25-2**	*mg/kg*	ND $_{<0.0030}$	ND $_{<0.0021}$	ND $_{<0.0023}$	ND $_{<0.0032}$	ND $_{<0.0023}$	ND $_{<0.0025}$	ND $_{<0.0020}$	ND $_{<0.0019}$	**0.021**	**90**
Bromomethane	**EPA 8260B**	**74-83-9**	*mg/kg*	ND $_{<0.0032}$	ND $_{<0.0023}$	ND $_{<0.0024}$	ND $_{<0.0035}$	ND $_{<0.0025}$	ND $_{<0.0027}$	ND $_{<0.0022}$	ND $_{<0.0021}$	**0.05**	**6.4**
Carbon tetrachloride	**EPA 8260B**	**56-23-5**	*mg/kg*	ND $_{<0.0034}$	ND $_{<0.0023}$	ND $_{<0.0025}$	ND $_{<0.0036}$	ND $_{<0.0026}$	ND $_{<0.0028}$	ND $_{<0.0023}$	ND $_{<0.0021}$	**0.0023**	**3**
Chlorobenzene	**EPA 8260B**	**108-90-7**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0026}$	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0016}$	**0.68**	**280**
Chloroethane	**EPA 8260B**	**75-00-3**	*mg/kg*	ND $_{<0.0031}$	ND $_{<0.0022}$	ND $_{<0.0024}$	ND $_{<0.0033}$	ND $_{<0.0024}$	ND $_{<0.0026}$	ND $_{<0.0021}$	ND $_{<0.0020}$	**17**	**12000**
Chloroform	**EPA 8260B**	**67-66-3**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0014}$	ND $_{<0.0016}$	ND $_{<0.0022}$	ND $_{<0.0016}$	ND $_{<0.0017}$	ND $_{<0.0014}$	ND $_{<0.0013}$	**0.39**	**1.5**
Chloromethane	**EPA 8260B**	**74-87-3**	*mg/kg*	ND $_{<0.0031}$	ND $_{<0.0022}$	ND $_{<0.0024}$	ND $_{<0.0033}$	ND $_{<0.0024}$	ND $_{<0.0026}$	ND $_{<0.0021}$	ND $_{<0.0020}$	**0.015**	**99**
cis-1,2-Dichloroethene	**EPA 8260B**	**156-59-2**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0013}$	ND $_{<0.0014}$	ND $_{<0.0019}$	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0012}$	ND $_{<0.0012}$	**0.41**	**470**
cis-1,3-Dichloropropene	**EPA 8260B**	**10061-01-5**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**NE**	**NE**
Dibromochloromethane	**EPA 8260B**	**124-48-1**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**0.0021**	**39**
Dibromomethane	**EPA 8260B**	**74-95-3**	*mg/kg*	ND $_{<0.0032}$	ND $_{<0.0023}$	ND $_{<0.0024}$	ND $_{<0.0035}$	ND $_{<0.0025}$	ND $_{<0.0027}$	ND $_{<0.0022}$	ND $_{<0.0021}$	**0.34**	**21**
Dichlorodifluoromethane	**EPA 8260B**	**75-71-8**	*mg/kg*	ND $_{<0.0047}$	ND $_{<0.0033}$	ND $_{<0.0035}$	ND $_{<0.0050}$	ND $_{<0.0036}$	ND $_{<0.0038}$	ND $_{<0.0032}$	ND $_{<0.0030}$	**30**	**78**
Diisopropyl ether	**EPA 8260B**	**108-20-3**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**0.36**	**2000**
Ethylbenzene	**EPA 8260B**	**100-41-4**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**13**	**27**
Hexachloro-1,3-butadiene	**EPA 8260B**	**87-68-3**	*mg/kg*	ND $_{<0.0026}$	ND $_{<0.0018}$	ND $_{<0.0020}$	ND $_{<0.0028}$	ND $_{<0.0020}$	ND $_{<0.0021}$	ND $_{<0.0018}$	ND $_{<0.0016}$	**0.015**	**5.6**
Isopropylbenzene (Cumene)	**EPA 8260B**	**98-82-8**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0026}$	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0016}$	**2.3**	**2100**
m&p-Xylene	**EPA 8260B**	**179601-23-1**	*mg/kg*	ND $_{<0.0047}$	ND $_{<0.0033}$	ND $_{<0.0035}$	ND $_{<0.0050}$	ND $_{<0.0036}$	ND $_{<0.0038}$	ND $_{<0.0032}$	ND $_{<0.0030}$	**9.8**	**500**
Methylene Chloride	**EPA 8260B**	**75-09-2**	*mg/kg*	ND $_{<0.0039}$	ND $_{<0.0027}$	ND $_{<0.0029}$	ND $_{<0.0042}$	ND $_{<0.0030}$	0.0050 J	0.0040 J	ND $_{<0.0025}$	**0.025**	**6500**
Methyl-tert-butyl ether	**EPA 8260B**	**1634-04-4**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0021}$	ND $_{<0.0015}$	ND $_{<0.0016}$	ND $_{<0.0013}$	ND $_{<0.0012}$	**0.09**	**220**
Naphthalene	**EPA 8260B**	**91-20-3**	*mg/kg*	ND $_{<0.0016}$	ND $_{<0.0011}$	ND $_{<0.0012}$	ND $_{<0.0017}$	0.0073	ND $_{<0.0013}$	ND $_{<0.0011}$	ND $_{<0.00099}$	**0.39**	**18**
n-Butylbenzene	**EPA 8260B**	**104-51-8**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**4.5**	**12000**
n-Propylbenzene	**EPA 8260B**	**103-65-1**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**2.6**	**5100**
o-Xylene	**EPA 8260B**	**95-47-6**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0026}$	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0016}$	**9.8**	**590**
p-Isopropyltoluene	**EPA 8260B**	**99-87-6**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**1.24**	**NE**
sec-Butylbenzene	**EPA 8260B**	**135-98-8**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0014}$	ND $_{<0.0016}$	ND $_{<0.0022}$	ND $_{<0.0016}$	ND $_{<0.0017}$	ND $_{<0.0014}$	ND $_{<0.0013}$	**4.1**	**23000**
Styrene	**EPA 8260B**	**100-42-5**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**1.5**	**7300**
tert-Butylbenzene	**EPA 8260B**	**98-06-6**	*mg/kg*	ND $_{<0.0026}$	ND $_{<0.0018}$	ND $_{<0.0020}$	ND $_{<0.0028}$	ND $_{<0.0020}$	ND $_{<0.0021}$	ND $_{<0.0018}$	ND $_{<0.0016}$	**3.1**	**23000**
Tetrachloroethene	**EPA 8260B**	**127-18-4**	*mg/kg*	ND $_{<0.0022}$	ND $_{<0.0015}$	ND $_{<0.0017}$	ND $_{<0.0024}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0015}$	ND $_{<0.0014}$	**0.0063**	**82**
Toluene	**EPA 8260B**	**108-88-3**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**8.3**	**9700**
trans-1,2-Dichloroethene	**EPA 8260B**	**156-60-5**	*mg/kg*	ND $_{<0.0025}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0026}$	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0017}$	ND $_{<0.0016}$	**0.62**	**4700**
trans-1,3-Dichloropropene	**EPA 8260B**	**10061-02-6**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0021}$	ND $_{<0.0015}$	ND $_{<0.0016}$	ND $_{<0.0013}$	ND $_{<0.0012}$	**NE**	**NE**
Trichloroethene	**EPA 8260B**	**79-01-6**	*mg/kg*	ND $_{<0.0027}$	ND $_{<0.0019}$	ND $_{<0.0021}$	ND $_{<0.0029}$	ND $_{<0.0021}$	ND $_{<0.0022}$	ND $_{<0.0019}$	ND $_{<0.0017}$	**0.021**	**4**
Trichlorofluoromethane	**EPA 8260B**	**75-69-4**	*mg/kg*	ND $_{<0.0029}$	ND $_{<0.0020}$	ND $_{<0.0022}$	ND $_{<0.0031}$	ND $_{<0.0022}$	ND $_{<0.0024}$	ND $_{<0.0019}$	ND $_{<0.0018}$	**25**	**70000**
Vinyl acetate	**EPA 8260B**	**108-05-4**	*mg/kg*	ND $_{<0.0114}$	ND $_{<0.0079}$	ND $_{<0.0086}$	ND $_{<0.0122}$	ND $_{<0.0088}$	ND $_{<0.0094}$	ND $_{<0.0078}$	ND $_{<0.0072}$	**0.37**	**820**
Vinyl chloride	**EPA 8260B**	**75-01-4**	*mg/kg*	ND $_{<0.0023}$	ND $_{<0.0016}$	ND $_{<0.0018}$	ND $_{<0.0025}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**0.00024**	**1.7**
Xylene (Total)	**EPA 8260B**	**1330-20-7**	*mg/kg*	ND $_{<0.0047}$	ND $_{<0.0033}$	ND $_{<0.0035}$	ND $_{<0.0050}$	ND $_{<0.0036}$	ND $_{<0.0038}$	ND $_{<0.0032}$	ND $_{<0.0030}$	**9.9**	**530**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-3
Soil Sample Analytical Results
Former Cathode Plant Area
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	CAT-SB001 (0'-1')	CAT-SB001 (4'-5')	CAT-SB002 (0'-1')	CAT-SB002 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Crushed Concrete	Crushed Concrete	Crushed Concrete	Crushed Concrete		
Thickness of Surface Material				6"	6"	6"	6"		
Sample Depth Below Surface Material				0'-1'	4'-5'	0'-1'	4'-5'		
Date				9/25/2018	9/25/2018	9/25/2018	9/25/2018		
Time				8:25	8:30	8:40	8:45		
Percent Moisture	**ASTM D2974-87**		*%*	15.7	15.6	19.4	16.6		
PCB-1016 (Aroclor 1016)	**EPA 8082**	**12674-11-2**	*mg/kg*	ND $_{<0.0177}$	ND $_{<0.0175}$	ND $_{<0.0184}$	ND $_{<0.0181}$	**0.94**	**10**
PCB-1221 (Aroclor 1221)	**EPA 8082**	**11104-28-2**	*mg/kg*	ND $_{<0.0177}$	ND $_{<0.0175}$	ND $_{<0.0184}$	ND $_{<0.0181}$	**0.0059**	**0.84**
PCB-1232 (Aroclor 1232)	**EPA 8082**	**11141-16-5**	*mg/kg*	ND $_{<0.0177}$	ND $_{<0.0175}$	ND $_{<0.0184}$	ND $_{<0.0181}$	**0.0059**	**0.73**
PCB-1242 (Aroclor 1242)	**EPA 8082**	**53469-21-9**	*mg/kg*	ND $_{<0.0177}$	ND $_{<0.0175}$	ND $_{<0.0184}$	ND $_{<0.0181}$	**0.055**	**0.95**
PCB-1248 (Aroclor 1248)	**EPA 8082**	**12672-29-6**	*mg/kg*	ND $_{<0.0177}$	ND $_{<0.0175}$	ND $_{<0.0184}$	ND $_{<0.0181}$	**0.054**	**0.96**
PCB-1254 (Aroclor 1254)	**EPA 8082**	**11097-69-1**	*mg/kg*	ND $_{<0.0177}$	ND $_{<0.0175}$	ND $_{<0.0184}$	ND $_{<0.0181}$	**0.091**	**0.97**
PCB-1260 (Aroclor 1260)	**EPA 8082**	**11096-82-5**	*mg/kg*	ND $_{<0.0177}$	ND $_{<0.0175}$	ND $_{<0.0184}$	ND $_{<0.0181}$	**0.24**	**0.99**
Total Polychlorinated Biphenyls			*mg/kg*	ND	ND	ND	ND	**0.055**	**0.95**
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.0474	0.0059 J	ND $_{<0.0015}$	ND $_{<0.0014}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.0529	0.0099 J	ND $_{<0.0014}$	ND $_{<0.0013}$	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	0.235	0.0173	ND $_{<0.0019}$	ND $_{<0.0018}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	0.0162	ND $_{<0.0015}$	ND $_{<0.0016}$	ND $_{<0.0015}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	0.906	0.0812	ND $_{<0.0017}$	ND $_{<0.0017}$	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	2.73	0.337	0.0051 J	ND $_{<0.00084}$	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	2.23	0.308	0.0036 J	ND $_{<0.0013}$	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	3.85	0.504	0.0089 J	ND $_{<0.00079}$	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	0.997	0.212	0.0037 J	ND $_{<0.0031}$	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	1.18	0.169	0.0031 J	ND $_{<0.0018}$	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	2.59	0.338	0.0070 J	ND $_{<0.0021}$	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.446	0.0177	ND $_{<0.0022}$	ND $_{<0.0021}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	4.15	0.53	0.0106 J	ND $_{<0.00098}$	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	0.282	0.013	ND $_{<0.0020}$	ND $_{<0.0019}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	1.33	0.203	ND $_{<0.0035}$	ND $_{<0.0033}$	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.0595	0.0109 J	ND $_{<0.0029}$	ND $_{<0.0027}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	2.62	0.261	0.0039 J	ND $_{<0.0018}$	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	3.47	0.429	0.0133	ND $_{<0.0021}$	**440**	**4500**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-4
Soil Sample Analytical Results
Former Anode Plant Area
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	ANO-SB001 (0'-'1)	ANO-SB002 (4'-5')	ANO-SB002 (0'-1')	ANO-SB002 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Crushed Concrete	Crushed Concrete	Crushed Concrete	Crushed Concrete		
Thickness of Surface Material				6"	6"	6"	6"		
Sample Depth Below Surface Material				0'-1'	4'-5'	0'-1'	4'-5'		
Date				9/24/2018	9/24/2018	9/24/2018	9/24/2018		
Time				13:40	13:45	14:05	14:10		
Percent Moisture	**ASTM D2974-87**		*%*	16.0	12.2	11.5	17.2		
PCB-1016 (Aroclor 1016)	**EPA 8082**	**12674-11-2**	*mg/kg*	ND $_{<0.0179}$	ND $_{<0.0169}$	ND $_{<0.0169}$	ND $_{<0.0183}$	**0.94**	**10**
PCB-1221 (Aroclor 1221)	**EPA 8082**	**11104-28-2**	*mg/kg*	ND $_{<0.0179}$	ND $_{<0.0169}$	ND $_{<0.0169}$	ND $_{<0.0183}$	**0.0059**	**0.84**
PCB-1232 (Aroclor 1232)	**EPA 8082**	**11141-16-5**	*mg/kg*	ND $_{<0.0179}$	ND $_{<0.0169}$	0.0445	ND $_{<0.0183}$	**0.0059**	**0.73**
PCB-1242 (Aroclor 1242)	**EPA 8082**	**53469-21-9**	*mg/kg*	0.018 J	ND $_{<0.0169}$	ND $_{<0.0169}$	ND $_{<0.0183}$	**0.055**	**0.95**
PCB-1248 (Aroclor 1248)	**EPA 8082**	**12672-29-6**	*mg/kg*	ND $_{<0.0179}$	ND $_{<0.0169}$	ND $_{<0.0169}$	ND $_{<0.0183}$	**0.054**	**0.96**
PCB-1254 (Aroclor 1254)	**EPA 8082**	**11097-69-1**	*mg/kg*	ND $_{<0.0179}$	ND $_{<0.0169}$	ND $_{<0.0169}$	ND $_{<0.0183}$	**0.091**	**0.97**
PCB-1260 (Aroclor 1260)	**EPA 8082**	**11096-82-5**	*mg/kg*	ND $_{<0.0179}$	ND $_{<0.0169}$	ND $_{<0.0169}$	ND $_{<0.0183}$	**0.24**	**0.99**
Total Polychlorinated Biphenyls			*mg/kg*	0.018 J	ND	0.0445	ND	**0.055**	**0.95**
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.0613	0.0020 J	0.0379	ND $_{<0.0014}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.0782	0.0039 J	0.0525	0.0018 J	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	0.199	0.0084 J	0.0596	ND $_{<0.0018}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	0.84	ND $_{<0.0015}$	0.0887	ND $_{<0.0016}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	1.06	0.012	0.157	0.0022 J	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	3.14	0.0351	0.815	0.0063 J	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	2.71	0.0355	0.81	0.0060 J	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	4.39	0.0523	1.29	0.0096 J	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	1.83	0.0271	0.372	0.0050 J	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	1.17	0.0183	0.338	0.0028 J	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	2.69	0.0327	0.851	0.0060 J	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.501	0.0075 J	0.04	ND $_{<0.0022}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	5.87	0.0709	1.08	0.0113 J	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	0.559	0.0059 J	0.0473	ND $_{<0.0019}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	1.77	0.0245	0.371	0.0041 J	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.155	0.0115	0.0768	ND $_{<0.0028}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	3.67	0.0521	0.488	0.0082 J	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	4.75	0.0561	1.12	0.0103 J	**440**	**4500**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-5
Soil Sample Analytical Results
Former Potline and Bath Crushing Areas
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	PBC-SB001 (0'-1')	PBC-SB001 (4'-5')	PBC-SB002 (0'-1')	PBC-SB002 (4'-5')	PBC-SB003 (0'-1')	PBC-SB003 (4'-5')	PBC-SB004 (0'-1')	PBC-SB004 (4'-5')	PBC-SB005 (0'-1')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Gravel	Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel		
Thickness of Surface Material				1"	1"	8"	8"	7"	7"	6"	6"	4"		
Sample Depth Below Surface Material				0'-1'	4'-5'	0'-1'	4'-5'	0'-1'	4'-5'	0'-1'	4'-5'	0'-1'		
Date				9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018		
Time				9:05	9:10	9:20	9:25	9:40	9:45	10:40	10:45	11:45		
Percent Moisture	**ASTM D2974-87**		*%*	16.5	18.3	20.8	19.2	19.8	17.8	16.8	25.4	17.8		
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.0020 J	ND $_{<0.0015}$	0.0114 J	ND $_{<0.0015}$	ND $_{<0.0015}$	0.0197	0.256	ND $_{<0.0016}$	ND $_{<0.0015}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.0031 J	ND $_{<0.0013}$	0.0105 J	ND $_{<0.0014}$	ND $_{<0.0014}$	0.0332	0.326	ND $_{<0.0015}$	0.0019 J	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0018}$	0.0031 J	ND $_{<0.0019}$	ND $_{<0.0019}$	0.0096 J	0.247	ND $_{<0.0020}$	ND $_{<0.0019}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	ND $_{<0.0016}$	ND $_{<0.0016}$	0.0022 J	ND $_{<0.0016}$	ND $_{<0.0016}$	0.0082 J	ND $_{<0.0015}$	ND $_{<0.0018}$	0.0022 J	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	0.0025 J	ND $_{<0.0017}$	0.0103 J	ND $_{<0.0018}$	ND $_{<0.0018}$	0.0146	0.76	ND $_{<0.0019}$	0.0022 J	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	0.0328	ND $_{<0.00087}$	0.0649	0.0029 J	0.0017 J	0.0492	1.75	ND $_{<0.00096}$	0.0175	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	0.0501	ND $_{<0.0013}$	0.0549	ND $_{<0.0014}$	0.0016 J	0.0502	1.24	ND $_{<0.0015}$	0.0181	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	0.0948	ND $_{<0.00082}$	0.121	0.0010 J	0.0029 J	0.0739	2.28	ND $_{<0.00090}$	0.0332	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	0.0594	ND $_{<0.0032}$	0.0474	ND $_{<0.0033}$	ND $_{<0.0033}$	0.0275	0.64	ND $_{<0.0035}$	0.0136	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	0.0319	ND $_{<0.0018}$	0.0376	ND $_{<0.0019}$	ND $_{<0.0019}$	0.0237	0.884	ND $_{<0.0020}$	0.0091 J	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	0.0375	ND $_{<0.0022}$	0.0774	0.0034 J	ND $_{<0.0023}$	0.0541	1.57	ND $_{<0.0024}$	0.0196	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.0047 J	ND $_{<0.0022}$	0.0037 J	ND $_{<0.0023}$	ND $_{<0.0023}$	0.0087 J	0.0853	ND $_{<0.0024}$	ND $_{<0.0022}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	0.0382	ND $_{<0.0010}$	0.0923	ND $_{<0.0010}$	0.0031 J	0.084	3.37	ND $_{<0.0011}$	0.0288	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0020}$	0.0030 J	ND $_{<0.0020}$	ND $_{<0.0020}$	0.0111 J	0.224	ND $_{<0.0022}$	ND $_{<0.0020}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	0.0526	ND $_{<0.0034}$	0.043	ND $_{<0.0035}$	ND $_{<0.0035}$	0.0245	0.683	ND $_{<0.0038}$	0.0126	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.0028 J	ND $_{<0.0028}$	0.0090 J	ND $_{<0.0029}$	ND $_{<0.0029}$	0.0486	0.158	ND $_{<0.0031}$	ND $_{<0.0028}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	0.0127	ND $_{<0.0018}$	0.0524	ND $_{<0.0019}$	ND $_{<0.0019}$	0.072	3.03	ND $_{<0.0020}$	0.0080 J	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	0.0355	ND $_{<0.0022}$	0.0761	ND $_{<0.0023}$	0.0029 J	0.0789	2.35	ND $_{<0.0024}$	0.0245	**440**	**4500**
Cyanide	**EPA 9012**	**57-12-5**	*mg/kg*	ND $_{<0.17}$	ND $_{<0.18}$	ND $_{<0.18}$	ND $_{<0.17}$	0.31 J	ND $_{<0.18}$	ND $_{<0.17}$	ND $_{<0.19}$	ND $_{<0.18}$	**14**	**31**
Fluoride	**EPA 9056**	**16984-48-8**	*mg/kg*	218	ND $_{<3.1}$	ND $_{<31.6}$	ND $_{<3.1}$	33.1	24	24.6 J	ND $_{<3.3}$	161	**6000**	**9300**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-5
Soil Sample Analytical Results
Former Potline and Bath Crushing Areas
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	PBC-SB005 (4'-5')	PBC-SB006 (0'-1')	PBC-SB006 (4'-5')	PBC-SB007 (0'-1')	PBC-SB007 (4'-5')	PBC-SB008 (0'-1')	PBC-SB008 (4'-5')	PBC-SB009 (0'-1')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel		
Thickness of Surface Material				4"	4"	4"	4"	4"	4"	4"	4"		
Sample Depth Below Surface Material				4'-5'	0'-1'	4'-5'	0'-1'	4'-5'	0'-1'	4'-5'	0'-1'		
Date				9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018		
Time				11:50	12:05	12:10	12:55	13:00	14:25	14:30	14:45		
Percent Moisture	**ASTM D2974-87**		*%*	15.7	14.9	21.5	21.1	6.3	15.7	13.2	16.7		
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	ND $_{<0.0014}$	0.0016 J	0.0084 J	0.0120 J	ND $_{<0.0013}$	0.0315	ND $_{<0.0014}$	ND $_{<0.0014}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	ND $_{<0.0013}$	0.0024 J	0.0115 J	0.0176	ND $_{<0.0012}$	0.0504	ND $_{<0.0013}$	ND $_{<0.0013}$	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0019}$	ND $_{<0.0016}$	0.173	ND $_{<0.0017}$	ND $_{<0.0018}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	ND $_{<0.0015}$	0.0024 J	ND $_{<0.0017}$	ND $_{<0.0016}$	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0015}$	ND $_{<0.0016}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	ND $_{<0.0017}$	0.0020 J	ND $_{<0.0018}$	0.0024 J	ND $_{<0.0015}$	0.212	ND $_{<0.0016}$	ND $_{<0.0017}$	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	0.0025 J	0.0151	0.0024 J	0.0141	ND $_{<0.00077}$	0.62	ND $_{<0.00082}$	0.0189	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	0.0049 J	0.0174	0.0022 J	0.0142	ND $_{<0.0012}$	0.509	ND $_{<0.0013}$	0.0217	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	0.012	0.0313	0.0037 J	0.0246	ND $_{<0.00072}$	0.916	ND $_{<0.00077}$	0.0475	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	0.0046 J	0.0137	ND $_{<0.0034}$	0.0125 J	ND $_{<0.0028}$	0.356	ND $_{<0.0030}$	0.0234	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	0.0048 J	0.0116 J	ND $_{<0.0019}$	0.0093 J	ND $_{<0.0016}$	0.264	ND $_{<0.0017}$	0.0184	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	0.0121	0.0196	0.0027 J	0.015	ND $_{<0.0019}$	0.59	ND $_{<0.0021}$	0.0355	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	ND $_{<0.0021}$	ND $_{<0.0021}$	ND $_{<0.0023}$	0.0038 J	ND $_{<0.0019}$	0.11	ND $_{<0.0021}$	0.0064 J	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	0.0296	0.0276	0.0041 J	0.0227	ND $_{<0.00090}$	0.958	ND $_{<0.00096}$	0.0647	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0019}$	ND $_{<0.0021}$	ND $_{<0.0020}$	ND $_{<0.0017}$	0.12	ND $_{<0.0018}$	ND $_{<0.0019}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	ND $_{<0.0033}$	0.0127	ND $_{<0.0036}$	0.0105 J	ND $_{<0.0030}$	0.336	ND $_{<0.0032}$	0.0178	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	ND $_{<0.0027}$	ND $_{<0.0027}$	0.0065 J	0.0145	ND $_{<0.0025}$	0.148	ND $_{<0.0027}$	ND $_{<0.0028}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	0.0064 J	0.0149	0.0050 J	0.0168	ND $_{<0.0016}$	0.843	ND $_{<0.0017}$	0.0120 J	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	0.0232	0.023	0.0036 J	0.0194	ND $_{<0.0019}$	0.864	ND $_{<0.0021}$	0.0542	**440**	**4500**
Cyanide	**EPA 9012**	**57-12-5**	*mg/kg*	ND $_{<0.17}$	ND $_{<0.17}$	ND $_{<0.18}$	ND $_{<0.18}$	ND $_{<0.15}$	ND $_{<0.17}$	0.23 J	ND $_{<0.17}$	**14**	**31**
Fluoride	**EPA 9056**	**16984-48-8**	*mg/kg*	ND $_{<3.0}$	47.2	ND $_{<3.2}$	21.3	ND $_{<2.6}$	72.9	35.3	41.3	**6000**	**9300**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-5
Soil Sample Analytical Results
Former Potline and Bath Crushing Areas
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	PBC-SB009 (4'-5')	PBC-SB010 (0'-1')	PBC-SB010 (4'-5')	PBC-SB011 (0'-1')	PBC-SB011 (2'-3')	PBC-SB012 (0'-1')	PBC-SB012 (4'-5')	PBC-SB013 (0'-1')	PBC-SB013 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel		
Thickness of Surface Material				4"	4"	4"	4"	4"	4"	4"	4"	4"		
Sample Depth Below Surface Material				4'-5'	0'-1'	4'-5'	0'-1'	2'-3'	0'-1'	4'-5'	0'-1'	4'-5'		
Date				9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018	9/25/2018		
Time				14:50	15:00	15:05	15:30	15:35	16:10	16:15	16:30	16:35		
Percent Moisture	**ASTM D2974-87**		*%*	15.5	19.1	13.6	17.4	11.3	14.5	13.2	18.4	20.7		
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0014}$	ND $_{<0.0015}$	0.0017 J	ND $_{<0.0014}$	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0015}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	ND $_{<0.0013}$	ND $_{<0.0014}$	ND $_{<0.0013}$	ND $_{<0.0013}$	0.0046 J	ND $_{<0.0013}$	ND $_{<0.0013}$	ND $_{<0.0014}$	ND $_{<0.0014}$	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0019}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	ND $_{<0.0015}$	0.0040 J	ND $_{<0.0015}$	ND $_{<0.0016}$	ND $_{<0.0014}$	ND $_{<0.0015}$	ND $_{<0.0015}$	ND $_{<0.0016}$	ND $_{<0.0017}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	ND $_{<0.0017}$	0.0039 J	ND $_{<0.0016}$	ND $_{<0.0017}$	ND $_{<0.0016}$	ND $_{<0.0016}$	ND $_{<0.0016}$	ND $_{<0.0017}$	ND $_{<0.0018}$	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	ND $_{<0.00084}$	0.0234	ND $_{<0.00083}$	0.0058 J	ND $_{<0.00079}$	ND $_{<0.00083}$	ND $_{<0.00081}$	ND $_{<0.00088}$	0.00095 J	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	ND $_{<0.0013}$	0.0311	ND $_{<0.0013}$	0.0063 J	ND $_{<0.0012}$	ND $_{<0.0013}$	ND $_{<0.0013}$	ND $_{<0.0014}$	ND $_{<0.0014}$	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	ND $_{<0.00079}$	0.0692	ND $_{<0.00078}$	0.0164	ND $_{<0.00074}$	ND $_{<0.00078}$	ND $_{<0.00076}$	ND $_{<0.00083}$	0.0017 J	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	ND $_{<0.0031}$	0.0413	ND $_{<0.0030}$	0.0061 J	ND $_{<0.0029}$	ND $_{<0.0030}$	ND $_{<0.0030}$	ND $_{<0.0032}$	ND $_{<0.0033}$	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	ND $_{<0.0018}$	0.0249	ND $_{<0.0017}$	0.0050 J	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0019}$	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	ND $_{<0.0021}$	0.0286	ND $_{<0.0021}$	0.0080 J	ND $_{<0.0020}$	ND $_{<0.0021}$	ND $_{<0.0020}$	ND $_{<0.0022}$	ND $_{<0.0023}$	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	ND $_{<0.0021}$	0.0028 J	ND $_{<0.0021}$	ND $_{<0.0022}$	ND $_{<0.0020}$	ND $_{<0.0021}$	ND $_{<0.0020}$	ND $_{<0.0022}$	ND $_{<0.0023}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	ND $_{<0.00098}$	0.0197	ND $_{<0.00097}$	0.0093 J	ND $_{<0.00092}$	ND $_{<0.00096}$	ND $_{<0.00094}$	ND $_{<0.0010}$	ND $_{<0.0011}$	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0019}$	ND $_{<0.0019}$	ND $_{<0.0018}$	ND $_{<0.0019}$	ND $_{<0.0018}$	ND $_{<0.0020}$	ND $_{<0.0020}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	ND $_{<0.0033}$	0.0365	ND $_{<0.0033}$	0.0060 J	ND $_{<0.0031}$	ND $_{<0.0033}$	ND $_{<0.0032}$	ND $_{<0.0035}$	ND $_{<0.0036}$	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	ND $_{<0.0027}$	ND $_{<0.0029}$	ND $_{<0.0027}$	ND $_{<0.0028}$	0.0027 J	ND $_{<0.0027}$	ND $_{<0.0026}$	ND $_{<0.0029}$	ND $_{<0.0029}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	ND $_{<0.0018}$	0.0045 J	ND $_{<0.0017}$	0.0031 J	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0019}$	ND $_{<0.0019}$	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	ND $_{<0.0021}$	0.0191	ND $_{<0.0021}$	0.0085 J	ND $_{<0.0020}$	ND $_{<0.0021}$	ND $_{<0.0020}$	ND $_{<0.0022}$	ND $_{<0.0023}$	**440**	**4500**
Cyanide	**EPA 9012**	**57-12-5**	*mg/kg*	ND $_{<0.18}$	ND $_{<0.18}$	0.21 J	ND $_{<0.18}$	0.18 J	ND $_{<0.17}$	ND $_{<0.16}$	ND $_{<0.18}$	ND $_{<0.18}$	**14**	**31**
Fluoride	**EPA 9056**	**16984-48-8**	*mg/kg*	15.9	57.2	11.2	92.3	48.3	3.7 J	ND $_{<2.9}$	8.2	ND $_{<3.1}$	**6000**	**9300**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-5
Soil Sample Analytical Results
Former Potline and Bath Crushing Areas
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	PBC-SB014 (0'-1')	PBC-SB014 (4'-5')	PBC-SB015 (0'-1')	PBC-SB015 (4'-5')	PBC-SB016 (0'-1')	PBC-SB016 (4'-5')	PBC-SB017 (0'-1')	PBC-SB017 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Concrete/Gravel	Crushed Concrete	Crushed Concrete		
Thickness of Surface Material				4"	4"	4"	4"	4"	4"	6"	6"		
Sample Depth Below Surface Material				0'-1'	4'-5'	0'-1'	4'-5'	0'-1'	4'-5'	0'-1'	4'-5'		
Date				9/26/2018	9/26/2018	9/26/2018	9/26/2018	9/26/2018	9/26/2018	9/26/2018	9/26/2018		
Time				8:15	8:20	8:50	8:55	9:40	9:45	10:35	10:40		
Percent Moisture	**ASTM D2974-87**		*%*	18.5	25.8	19.5	15.4	14.3	14	17.4	18.2		
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.0101 J	ND $_{<0.0016}$	0.0087 J	ND $_{<0.0014}$	ND $_{<0.0014}$	ND $_{<0.0014}$	ND $_{<0.0014}$	ND $_{<0.0015}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.0119 J	ND $_{<0.0015}$	0.0124	ND $_{<0.0013}$	ND $_{<0.0013}$	ND $_{<0.0013}$	ND $_{<0.0013}$	ND $_{<0.0013}$	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	ND $_{<0.0019}$	ND $_{<0.0020}$	ND $_{<0.0018}$	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0018}$	ND $_{<0.0018}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	0.0047 J	ND $_{<0.0018}$	ND $_{<0.0016}$	ND $_{<0.0015}$	ND $_{<0.0015}$	ND $_{<0.0015}$	ND $_{<0.0016}$	ND $_{<0.0016}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	0.0055 J	ND $_{<0.0019}$	ND $_{<0.0017}$	ND $_{<0.0016}$	ND $_{<0.0016}$	ND $_{<0.0016}$	ND $_{<0.0017}$	ND $_{<0.0017}$	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	0.0381	ND $_{<0.00096}$	0.0028 J	ND $_{<0.00083}$	ND $_{<0.00083}$	ND $_{<0.00082}$	0.0093 J	ND $_{<0.00087}$	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	0.043	ND $_{<0.0015}$	0.0029 J	ND $_{<0.0013}$	ND $_{<0.0013}$	ND $_{<0.0013}$	0.0022 J	ND $_{<0.0013}$	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	0.0723	ND $_{<0.00091}$	0.0047 J	ND $_{<0.00078}$	ND $_{<0.00078}$	ND $_{<0.00078}$	0.0172	ND $_{<0.00082}$	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	0.0293	ND $_{<0.0035}$	ND $_{<0.0032}$	ND $_{<0.0030}$	ND $_{<0.0030}$	ND $_{<0.0030}$	0.0067 J	ND $_{<0.0032}$	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	0.0207	ND $_{<0.0020}$	ND $_{<0.0018}$	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0017}$	0.0063 J	ND $_{<0.0018}$	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	0.0446	ND $_{<0.0024}$	0.0037 J	ND $_{<0.0021}$	ND $_{<0.0021}$	ND $_{<0.0021}$	0.013	ND $_{<0.0022}$	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.0028 J	ND $_{<0.0024}$	ND $_{<0.0022}$	ND $_{<0.0021}$	ND $_{<0.0021}$	ND $_{<0.0021}$	ND $_{<0.0022}$	ND $_{<0.0022}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	0.0709	ND $_{<0.0011}$	0.0043 J	ND $_{<0.00097}$	ND $_{<0.00097}$	ND $_{<0.00096}$	0.0159	ND $_{<0.0010}$	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	ND $_{<0.0020}$	ND $_{<0.0022}$	ND $_{<0.0020}$	ND $_{<0.0019}$	ND $_{<0.0019}$	ND $_{<0.0019}$	ND $_{<0.0019}$	ND $_{<0.0020}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	0.0287	ND $_{<0.0038}$	ND $_{<0.0034}$	ND $_{<0.0033}$	ND $_{<0.0033}$	ND $_{<0.0032}$	0.0060 J	ND $_{<0.0034}$	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.0088 J	ND $_{<0.0031}$	0.0088 J	ND $_{<0.0027}$	ND $_{<0.0027}$	ND $_{<0.0027}$	ND $_{<0.0028}$	ND $_{<0.0028}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	0.027	ND $_{<0.0020}$	0.0064 J	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0017}$	0.0049 J	ND $_{<0.0018}$	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	0.0592	ND $_{<0.0024}$	0.0038 J	ND $_{<0.0021}$	ND $_{<0.0021}$	ND $_{<0.0021}$	0.0214	ND $_{<0.0022}$	**440**	**4500**
Cyanide	**EPA 9012**	**57-12-5**	*mg/kg*	ND $_{<0.18}$	ND $_{<0.20}$	ND $_{<0.18}$	ND $_{<0.17}$	ND $_{<0.17}$	ND $_{<0.17}$	ND $_{<0.18}$	ND $_{<0.18}$	**14**	**31**
Fluoride	**EPA 9056**	**16984-48-8**	*mg/kg*	57.3	33.3	149	ND $_{<3.0}$	39	8.5	42.5 J	66	**6000**	**9300**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-6
Soil Sample Analytical Results
Former Anode Butt Reclamation Area
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	ABR-SB001 (0'-1')	ABR-SB001 (4'-5')	ABR-SB002 (0'-1')	ABR-SB002 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Crushed Concrete	Crushed Concrete	Crushed Concrete	Crushed Concrete		
Thickness of Surface Material				2"	2"	4"	4"		
Sample Depth Below Surface Material				0'-1'	4'-5'	0'-1'	4'-5'		
Date				9/24/2018	9/24/2018	9/24/2018	9/24/2018		
Time				17:45	17:50	18:00	18:05		
Percent Moisture	**ASTM D2974-87**		*%*	16.7	16.7	17.3	18.8		
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.0030 J	ND $_{<0.0014}$	ND $_{<0.0366}$	ND $_{<0.0075}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.0022 J	ND $_{<0.0013}$	ND $_{<0.0336}$	0.0076 J	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	0.0046 J	ND $_{<0.0018}$	0.063	0.0166 J	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	0.0021 J	ND $_{<0.0016}$	0.0152 J	ND $_{<0.0081}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	0.0156	ND $_{<0.0017}$	0.257	0.0541 J	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	0.129	0.0015 J	1.18	0.287	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	0.128	0.0015 J	1.05	0.325	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	0.211	0.0021 J	1.51	0.474	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	0.0791	ND $_{<0.0031}$	0.623	0.22	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	0.0903	ND $_{<0.0018}$	0.538	0.171	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	0.15	0.0026 J	1.14	0.305	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.0251	ND $_{<0.0022}$	0.186	0.0628	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	0.214	0.0014 J	1.84	0.432	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	0.0029 J	ND $_{<0.0019}$	0.0388 J	0.0119 J	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	0.0776	ND $_{<0.0034}$	0.563	0.199	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.0028 J	ND $_{<0.0028}$	ND $_{<0.0702}$	ND $_{<0.0144}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	0.0642	ND $_{<0.0018}$	0.795	0.194	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	0.19	ND $_{<0.0022}$	1.61	0.372	**440**	**4500**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-7
Soil Sample Analytical Results
Former Carbon Bake Furnace Area
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	CBF-SB001 (0'-1')	CBF-SB001 (4'-5')	CBF-SB002 (0'-1')	CBF-SB002 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Crushed Concrete	Crushed Concrete	Crushed Concrete	Crushed Concrete		
Thickness of Surface Material				2"	2"	2"	2"		
Sample Depth Below Surface Material				0'-1'	4'-5'	0'-1'	4'-5'		
Date				9/24/2018	9/24/2018	9/24/2018	9/24/2018		
Time				17:10	17:15	17:20	17:25		
Percent Moisture	**ASTM D2974-87**		*%*	17.6	15.9	24.3	17.7		
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.0194	ND $_{<0.0014}$	0.0076 J	0.0159	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.0272	ND $_{<0.0013}$	0.0109 J	0.0222	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	0.0198	ND $_{<0.0018}$	0.0136	ND $_{<0.0018}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	0.0055 J	ND $_{<0.0015}$	0.0039 J	ND $_{<0.0016}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	0.0481	ND $_{<0.0017}$	0.0341	0.0038 J	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	0.424	0.0026 J	0.23	0.0266	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	0.397	0.0033 J	0.235	0.0369	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	0.662	0.0038 J	0.312	0.0494	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	0.223	ND $_{<0.0031}$	0.129	0.0286	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	0.186	ND $_{<0.0018}$	0.124	0.0174	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	0.48	0.0032 J	0.237	0.0375	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.0732	ND $_{<0.0021}$	0.0106 J	ND $_{<0.0022}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	0.597	0.0027 J	0.39	0.0422	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	0.0105 J	ND $_{<0.0019}$	0.0072 J	ND $_{<0.0019}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	0.204	ND $_{<0.0033}$	0.123	0.025	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.0272	ND $_{<0.0027}$	0.0144	0.0185	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	0.278	ND $_{<0.0018}$	0.135	0.0229	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	0.497	0.0027 J	0.362	0.0385	**440**	**4500**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-8
Soil Sample Analytical Results
Former Rectifier Station Area
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	REC-SB001 (0'-1')	REC-SB001 (4'-5')	REC-SB002 (0'-1')	REC-SB002 (4'-5')	PSRG Prot. of GW	PSRG Ind/Comm
Surface Material				Crushed Concrete	Crushed Concrete	Crushed Concrete	Crushed Concrete		
Thickness of Surface Material				12"	12"	6"	6"		
Sample Depth Below Surface Material				0'-1'	4'-5'	0'-1'	4'-5'		
Date				9/24/2018	9/24/2018	9/24/2018	9/24/2018		
Time				18:15	18:20	18:40	18:45		
Percent Moisture	**ASTM D2974-87**		*%*	12.1	14.1	11.2	14		
PCB-1016 (Aroclor 1016)	**EPA 8082**	**12674-11-2**	*mg/kg*	ND $_{<0.0172}$	ND $_{<0.0172}$	ND $_{<0.0167}$	ND $_{<0.0177}$	**0.94**	**10**
PCB-1221 (Aroclor 1221)	**EPA 8082**	**11104-28-2**	*mg/kg*	ND $_{<0.0172}$	ND $_{<0.0172}$	ND $_{<0.0167}$	ND $_{<0.0177}$	**0.0059**	**0.84**
PCB-1232 (Aroclor 1232)	**EPA 8082**	**11141-16-5**	*mg/kg*	ND $_{<0.0172}$	ND $_{<0.0172}$	ND $_{<0.0167}$	ND $_{<0.0177}$	**0.0059**	**0.73**
PCB-1242 (Aroclor 1242)	**EPA 8082**	**53469-21-9**	*mg/kg*	ND $_{<0.0172}$	ND $_{<0.0172}$	ND $_{<0.0167}$	ND $_{<0.0177}$	**0.055**	**0.95**
PCB-1248 (Aroclor 1248)	**EPA 8082**	**12672-29-6**	*mg/kg*	ND $_{<0.0172}$	ND $_{<0.0172}$	ND $_{<0.0167}$	ND $_{<0.0177}$	**0.054**	**0.96**
PCB-1254 (Aroclor 1254)	**EPA 8082**	**11097-69-1**	*mg/kg*	ND $_{<0.0172}$	ND $_{<0.0172}$	ND $_{<0.0167}$	ND $_{<0.0177}$	**0.091**	**0.97**
PCB-1260 (Aroclor 1260)	**EPA 8082**	**11096-82-5**	*mg/kg*	ND $_{<0.0172}$	ND $_{<0.0172}$	ND $_{<0.0167}$	ND $_{<0.0177}$	**0.24**	**0.99**
Total Polychlorinated Biphenyls			*mg/kg*	ND	ND	ND	ND	**0.055**	**0.95**
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/kg*	0.0578	ND $_{<0.0014}$	ND $_{<0.0013}$	ND $_{<0.0014}$	**0.11**	**73**
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/kg*	0.0762	ND $_{<0.0013}$	ND $_{<0.0012}$	0.0014 J	**3.1**	**600**
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/kg*	0.31	ND $_{<0.0017}$	ND $_{<0.0017}$	ND $_{<0.0018}$	**16**	**9000**
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/kg*	0.0149	ND $_{<0.0015}$	ND $_{<0.0015}$	ND $_{<0.0015}$	**NE**	**NE**
Anthracene	**EPA 8270**	**120-12-7**	*mg/kg*	0.605	ND $_{<0.0016}$	0.0032 J	ND $_{<0.0016}$	**1300**	**45000**
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/kg*	1.14	0.0023 J	0.0438	ND $_{<0.00083}$	**0.35**	**21**
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/kg*	0.827	0.0022 J	0.0513	ND $_{<0.0013}$	**0.12**	**2.1**
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/kg*	1.28	0.0032 J	0.0823	0.00086 J	**1.2**	**21**
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/kg*	0.383	ND $_{<0.0030}$	0.0356	ND $_{<0.0030}$	**NE**	**NE**
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/kg*	0.462	ND $_{<0.0017}$	0.0325	ND $_{<0.0018}$	**12**	**210**
Chrysene	**EPA 8270**	**218-01-9**	*mg/kg*	1.06	0.0024 J	0.0753	ND $_{<0.0021}$	**36**	**2100**
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/kg*	0.177	ND $_{<0.0021}$	0.0122	ND $_{<0.0021}$	**0.38**	**2.1**
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/kg*	1.82	0.0033 J	0.0341	ND $_{<0.00097}$	**670**	**6000**
Fluorene	**EPA 8270**	**86-73-7**	*mg/kg*	0.243	ND $_{<0.0019}$	ND $_{<0.0018}$	ND $_{<0.0019}$	**110**	**6000**
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/kg*	0.407	ND $_{<0.0032}$	0.0306	ND $_{<0.0033}$	**3.9**	**21**
Naphthalene	**EPA 8270**	**91-20-3**	*mg/kg*	0.0378	ND $_{<0.0027}$	ND $_{<0.0026}$	ND $_{<0.0027}$	**0.39**	**18**
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/kg*	1.58	0.0023 J	0.0103 J	ND $_{<0.0018}$	**NE**	**NE**
Pyrene	**EPA 8270**	**129-00-0**	*mg/kg*	1.46	0.0032 J	0.0329	ND $_{<0.0021}$	**440**	**4500**
Cyanide	**EPA 9012**	**57-12-5**	*mg/kg*	ND $_{<0.17}$	ND $_{<0.17}$	ND $_{<0.15}$	ND $_{<0.17}$	**14**	**31**
Fluoride	**EPA 9056**	**16984-48-8**	*mg/kg*	15.8	3.6 J	ND $_{<2.8}$	16.4	**6000**	**9300**

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/kg.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
NCDEQ Preliminary Soil Remediation Goals (PSRG) - February 2018
NE - Not established.

Table 2-9
Field Blank Sample Analytical Results
Targeted Sampling Work Plan Implementation
Badin Business Park Facility
Badin, North Carolina

Sample ID	Method	CAS	Units	ESW-TB001	ESW-EB001
Location				**Trip Blank**	**Equipment Blank**
Date				**9/24/2018**	**9/25/2018**
Time				**0:00**	**17:00**
PCB-1016 (Aroclor 1016)	**EPA 8082**	**12674-11-2**	*mg/l*	NA	ND $_{<0.00042}$
PCB-1221 (Aroclor 1221)	**EPA 8082**	**11104-28-2**	*mg/l*	NA	ND $_{<0.00042}$
PCB-1232 (Aroclor 1232)	**EPA 8082**	**11141-16-5**	*mg/l*	NA	ND $_{<0.00042}$
PCB-1242 (Aroclor 1242)	**EPA 8082**	**53469-21-9**	*mg/l*	NA	ND $_{<0.00042}$
PCB-1248 (Aroclor 1248)	**EPA 8082**	**12672-29-6**	*mg/l*	NA	ND $_{<0.00042}$
PCB-1254 (Aroclor 1254)	**EPA 8082**	**11097-69-1**	*mg/l*	NA	ND $_{<0.00042}$
PCB-1260 (Aroclor 1260)	**EPA 8082**	**11096-82-5**	*mg/l*	NA	ND $_{<0.00042}$
Total Polychlorinated Biphenyls			*mg/l*	NA	ND
1-Methylnaphthalene	**EPA 8270**	**90-12-0**	*mg/l*	NA	ND $_{<0.00080}$
2-Methylnaphthalene	**EPA 8270**	**91-57-6**	*mg/l*	NA	ND $_{<0.00080}$
Acenaphthene	**EPA 8270**	**83-32-9**	*mg/l*	NA	ND $_{<0.00050}$
Acenaphthylene	**EPA 8270**	**208-96-8**	*mg/l*	NA	ND $_{<0.00050}$
Anthracene	**EPA 8270**	**120-12-7**	*mg/l*	NA	ND $_{<0.000050}$
Benzo(a)anthracene	**EPA 8270**	**56-55-3**	*mg/l*	NA	ND $_{<0.000050}$
Benzo(a)pyrene	**EPA 8270**	**50-32-8**	*mg/l*	NA	ND $_{<0.00010}$
Benzo(b)fluoranthene	**EPA 8270**	**205-99-2**	*mg/l*	NA	ND $_{<0.000050}$
Benzo(g,h,i)perylene	**EPA 8270**	**191-24-2**	*mg/l*	NA	ND $_{<0.00020}$
Benzo(k)fluoranthene	**EPA 8270**	**207-08-9**	*mg/l*	NA	ND $_{<0.00020}$
Chrysene	**EPA 8270**	**218-01-9**	*mg/l*	NA	ND $_{<0.00010}$
Dibenz(a,h)anthracene	**EPA 8270**	**53-70-3**	*mg/l*	NA	ND $_{<0.00015}$
Fluoranthene	**EPA 8270**	**206-44-0**	*mg/l*	NA	ND $_{<0.00030}$
Fluorene	**EPA 8270**	**86-73-7**	*mg/l*	NA	ND $_{<0.00031}$
Indeno(1,2,3-cd)pyrene	**EPA 8270**	**193-39-5**	*mg/l*	NA	ND $_{<0.000050}$
Naphthalene	**EPA 8270**	**91-20-3**	*mg/l*	NA	ND $_{<0.0015}$
Phenanthrene	**EPA 8270**	**85-01-8**	*mg/l*	NA	ND $_{<0.00020}$
Pyrene	**EPA 8270**	**129-00-0**	*mg/l*	NA	ND $_{<0.00010}$
1,1,1,2-Tetrachloroethane	**EPA 8260B**	**630-20-6**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
1,1,1-Trichloroethane	**EPA 8260B**	**71-55-6**	*mg/l*	ND $_{<0.0019}$	ND $_{<0.0019}$
1,1,2,2-Tetrachloroethane	**EPA 8260B**	**79-34-5**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
1,1,2-Trichloroethane	**EPA 8260B**	**79-00-5**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
1,1-Dichloroethane	**EPA 8260B**	**75-34-3**	*mg/l*	ND $_{<0.0018}$	ND $_{<0.0018}$
1,1-Dichloroethene	**EPA 8260B**	**75-35-4**	*mg/l*	ND $_{<0.0019}$	ND $_{<0.0019}$
1,1-Dichloropropene	**EPA 8260B**	**563-58-6**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
1,2,3-Trichlorobenzene	**EPA 8260B**	**87-61-6**	*mg/l*	ND $_{<0.0020}$	ND $_{<0.0020}$
1,2,3-Trichloropropane	**EPA 8260B**	**96-18-4**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
1,2,4-Trichlorobenzene	**EPA 8260B**	**120-82-1**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
1,2,4-Trimethylbenzene	**EPA 8260B**	**95-63-6**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
1,2-Dibromo-3-chloropropane	**EPA 8260B**	**96-12-8**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
1,2-Dibromoethane (EDB)	**EPA 8260B**	**106-93-4**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
1,2-Dichlorobenzene	**EPA 8260B**	**95-50-1**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
1,2-Dichloroethane	**EPA 8260B**	**107-06-2**	*mg/l*	ND $_{<0.0018}$	ND $_{<0.0018}$
1,2-Dichloroethene (Total)	**EPA 8260B**	**540-59-0**	*mg/l*	ND $_{<0.0044}$	ND $_{<0.0044}$
1,2-Dichloropropane	**EPA 8260B**	**78-87-5**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
1,3,5-Trimethylbenzene	**EPA 8260B**	**108-67-8**	*mg/l*	ND $_{<0.0013}$	ND $_{<0.0013}$
1,3-Dichlorobenzene	**EPA 8260B**	**541-73-1**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
1,3-Dichloropropane	**EPA 8260B**	**142-28-9**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
1,4-Dichlorobenzene	**EPA 8260B**	**106-46-7**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
2,2-Dichloropropane	**EPA 8260B**	**594-20-7**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
2-Butanone (MEK)	**EPA 8260B**	**78-93-3**	*mg/l*	ND $_{<0.0049}$	ND $_{<0.0049}$
2-Chlorotoluene	**EPA 8260B**	**95-49-8**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
2-Hexanone	**EPA 8260B**	**591-78-6**	*mg/l*	ND $_{<0.0038}$	ND $_{<0.0038}$
4-Chlorotoluene	**EPA 8260B**	**106-43-4**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
4-Methyl-2-pentanone (MIBK)	**EPA 8260B**	**108-10-1**	*mg/l*	ND $_{<0.0036}$	ND $_{<0.0036}$
Acetone	**EPA 8260B**	**67-64-1**	*mg/l*	ND $_{<0.0100}$	ND $_{<0.0100}$
Benzene	**EPA 8260B**	**71-43-2**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
Bromobenzene	**EPA 8260B**	**108-86-1**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
Bromochloromethane	**EPA 8260B**	**74-97-5**	*mg/l*	ND $_{<0.0022}$	ND $_{<0.0022}$
Bromodichloromethane	**EPA 8260B**	**75-27-4**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
Bromoform	**EPA 8260B**	**75-25-2**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
Bromomethane	**EPA 8260B**	**74-83-9**	*mg/l*	ND $_{<0.0025}$	ND $_{<0.0025}$
Carbon tetrachloride	**EPA 8260B**	**56-23-5**	*mg/l*	ND $_{<0.0019}$	ND $_{<0.0019}$
Chlorobenzene	**EPA 8260B**	**108-90-7**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
Chloroethane	**EPA 8260B**	**75-00-3**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
Chloroform	**EPA 8260B**	**67-66-3**	*mg/l*	ND $_{<0.0019}$	ND $_{<0.0019}$
Chloromethane	**EPA 8260B**	**74-87-3**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
cis-1,2-Dichloroethene	**EPA 8260B**	**156-59-2**	*mg/l*	ND $_{<0.0018}$	ND $_{<0.0018}$
cis-1,3-Dichloropropene	**EPA 8260B**	**10061-01-5**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
Dibromochloromethane	**EPA 8260B**	**124-48-1**	*mg/l*	ND $_{<0.0018}$	ND $_{<0.0018}$
Dibromomethane	**EPA 8260B**	**74-95-3**	*mg/l*	ND $_{<0.0020}$	ND $_{<0.0020}$
Dichlorodifluoromethane	**EPA 8260B**	**75-71-8**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
Diisopropyl ether	**EPA 8260B**	**108-20-3**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
Ethylbenzene	**EPA 8260B**	**100-41-4**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
Hexachloro-1,3-butadiene	**EPA 8260B**	**87-68-3**	*mg/l*	ND $_{<0.0018}$	ND $_{<0.0018}$
Isopropylbenzene (Cumene)	**EPA 8260B**	**98-82-8**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
m&p-Xylene	**EPA 8260B**	**179601-23-1**	*mg/l*	ND $_{<0.0031}$	ND $_{<0.0031}$
Methylene Chloride	**EPA 8260B**	**75-09-2**	*mg/l*	ND $_{<0.0019}$	ND $_{<0.0019}$
Methyl-tert-butyl ether	**EPA 8260B**	**1634-04-4**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
Naphthalene	**EPA 8260B**	**91-20-3**	*mg/l*	ND $_{<0.0020}$	ND $_{<0.0020}$
n-Butylbenzene	**EPA 8260B**	**104-51-8**	*mg/l*	ND $_{<0.0019}$	ND $_{<0.0019}$
n-Propylbenzene	**EPA 8260B**	**103-65-1**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
o-Xylene	**EPA 8260B**	**95-47-6**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
p-Isopropyltoluene	**EPA 8260B**	**99-87-6**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
sec-Butylbenzene	**EPA 8260B**	**135-98-8**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
Styrene	**EPA 8260B**	**100-42-5**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
tert-Butyl Alcohol	**EPA 8260B**	**75-65-0**	*mg/l*	ND $_{<0.0577}$	ND $_{<0.0577}$
tert-Butylbenzene	**EPA 8260B**	**98-06-6**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
Tetrachloroethene	**EPA 8260B**	**127-18-4**	*mg/l*	ND $_{<0.0018}$	ND $_{<0.0018}$
Toluene	**EPA 8260B**	**108-88-3**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
trans-1,2-Dichloroethene	**EPA 8260B**	**156-60-5**	*mg/l*	ND $_{<0.0018}$	ND $_{<0.0018}$
trans-1,3-Dichloropropene	**EPA 8260B**	**10061-02-6**	*mg/l*	ND $_{<0.0016}$	ND $_{<0.0016}$
Trichloroethene	**EPA 8260B**	**79-01-6**	*mg/l*	ND $_{<0.0018}$	ND $_{<0.0018}$
Trichlorofluoromethane	**EPA 8260B**	**75-69-4**	*mg/l*	ND $_{<0.0017}$	ND $_{<0.0017}$
Vinyl acetate	**EPA 8260B**	**108-05-4**	*mg/l*	ND $_{<0.0023}$	ND $_{<0.0023}$
Vinyl chloride	**EPA 8260B**	**75-01-4**	*mg/l*	ND $_{<0.0015}$	ND $_{<0.0015}$
Cyanide	**EPA 9012**	**57-12-5**	*mg/l*	NA	ND $_{<0.0040}$
Fluoride	**EPA 9056**	**16984-48-8**	*mg/l*	NA	ND $_{<0.005}$

ND - The analyte was not detected above laboratory detection limits. Subscript indicates compound-specific MDL in mg/l.

4.0 CONCLUSIONS

The basis for the investigation was to provide information to assess the presence of COIs in soils on the facility property not previously investigated. To accomplish this, sixty-five (65) soil samples were collected across eight (8) facility locations and submitted for analytical analysis in accordance with the May 31, 2018 Targeted Sampling Work Plan. Results from the investigation are summarized below.

- Fluoride, cyanide, and VOCs were not detected at concentrations above Protection of Groundwater PSRGs or Industrial PSRGs.

- A single Aroclor, Aroclor 1232, was detected in one shallow soil sample at a concentration above the Protection of Groundwater PSRG but below the Industrial PSRG. PCB Aroclors were not detected in the remaining soil samples at concentrations above either PSRG. Aroclor 1232 has not been historically detected in soil or groundwater samples; therefore, exposure via the soil-to-groundwater leaching pathway is not believed to be present. Further, Aroclor 1232 is not common to past operations and as a result the detection of Aroclor 1232 is believed to be anomalous.

- Concentrations of PAHs were detected in shallow soil samples above the Protection of Groundwater PSRG in fifteen (15) soil samples; however, detection of PAHs in the deep soil samples at a concentration above the Protection of Groundwater PSRG was limited to a single constituent in a single instance (i.e., benzo(a)pyrene at ABR-SB002 (4'-5')). Because PAHs have not been historically detected in groundwater samples, exposure via the soil-to-groundwater leaching pathway is not believed to be present.

- Three shallow soil samples in three separate targeted areas each contained a concentration of a single PAH (i.e., benzo(a)pyrene) slightly exceeding the Industrial PSRG. PAHs were not detected at concentrations exceeding the Industrial PSRGs in the deeper soil samples. Exposure to the soils exceeding the Industrial PSRG is limited as all three sample locations are currently covered by crushed concrete fill or gravel.

Appendix A
Laboratory Reports and Chain of Custody Forms

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 12, 2018

Michael W. Worden
Environeering, Inc.
16100 Cairnway
Suite 320
Houston, TX 77084

RE: Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Dear Michael Worden:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revision was issued on 11/12/18 to report J-flagged results to the MDL, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole Gasiorowski

Nicole Gasiorowski
nicole.gasiorowski@pacelabs.com
(704)875-9092
Project Manager

Enclosures

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project:	Anode Butt Rec./Carbon Baking
Pace Project No.:	92400789

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92400789001	**ABR-SB001 (0'-1')**	Solid	09/24/18 17:45	09/25/18 07:30
92400789002	**ABR-SB001 (4'-5')**	Solid	09/24/18 17:50	09/25/18 07:30
92400789003	**ABR-SB002 (0'-1')**	Solid	09/24/18 18:00	09/25/18 07:30
92400789004	**ABR-SB002 (4'-5')**	Solid	09/24/18 18:05	09/25/18 07:30
92400789005	**CBF-SB001 (0'-1')**	Solid	09/24/18 17:10	09/25/18 07:30
92400789006	**CBF-SB001 (4'-5')**	Solid	09/24/18 17:15	09/25/18 07:30
92400789007	**CBF-SB002 (0'-1')**	Solid	09/24/18 17:20	09/25/18 07:30
92400789008	**CBF-SB002 (4'-5')**	Solid	09/24/18 17:25	09/25/18 07:30

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92400789001	**ABR-SB001 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400789002	**ABR-SB001 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400789003	**ABR-SB002 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400789004	**ABR-SB002 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400789005	**CBF-SB001 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400789006	**CBF-SB001 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400789007	**CBF-SB002 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400789008	**CBF-SB002 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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ANALYTICAL RESULTS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Sample: ABR-SB001 (0'-1') **Lab ID: 92400789001** Collected: 09/24/18 17:45 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**4.6J**	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 18:46	83-32-9	
Acenaphthylene	**2.1J**	ug/kg	12.0	1.6	1	09/26/18 14:17	09/27/18 18:46	208-96-8	
Anthracene	**15.6**	ug/kg	12.0	1.7	1	09/26/18 14:17	09/27/18 18:46	120-12-7	
Benzo(a)anthracene	**129**	ug/kg	12.0	0.86	1	09/26/18 14:17	09/27/18 18:46	56-55-3	M1
Benzo(a)pyrene	**128**	ug/kg	12.0	1.3	1	09/26/18 14:17	09/27/18 18:46	50-32-8	M1
Benzo(b)fluoranthene	**211**	ug/kg	12.0	0.81	1	09/26/18 14:17	09/27/18 18:46	205-99-2	M1
Benzo(g,h,i)perylene	**79.1**	ug/kg	12.0	3.1	1	09/26/18 14:17	09/27/18 18:46	191-24-2	
Benzo(k)fluoranthene	**90.3**	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 18:46	207-08-9	M1
Chrysene	**150**	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 18:46	218-01-9	M1
Dibenz(a,h)anthracene	**25.1**	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 18:46	53-70-3	
Fluoranthene	**214**	ug/kg	12.0	1.0	1	09/26/18 14:17	09/27/18 18:46	206-44-0	
Fluorene	**2.9J**	ug/kg	12.0	1.9	1	09/26/18 14:17	09/27/18 18:46	86-73-7	
Indeno(1,2,3-cd)pyrene	**77.6**	ug/kg	12.0	3.4	1	09/26/18 14:17	09/27/18 18:46	193-39-5	
1-Methylnaphthalene	**3.0J**	ug/kg	12.0	1.4	1	09/26/18 14:17	09/27/18 18:46	90-12-0	
2-Methylnaphthalene	**2.2J**	ug/kg	12.0	1.3	1	09/26/18 14:17	09/27/18 18:46	91-57-6	
Naphthalene	**2.8J**	ug/kg	12.0	2.8	1	09/26/18 14:17	09/27/18 18:46	91-20-3	
Phenanthrene	**64.2**	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 18:46	85-01-8	
Pyrene	**190**	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 18:46	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	63	%	10-128		1	09/26/18 14:17	09/27/18 18:46	4165-60-0	
2-Fluorobiphenyl (S)	61	%	10-110		1	09/26/18 14:17	09/27/18 18:46	321-60-8	
Terphenyl-d14 (S)	70	%	39-119		1	09/26/18 14:17	09/27/18 18:46	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.7**	%	0.10	0.10	1		09/25/18 17:35		

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ANALYTICAL RESULTS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Sample: ABR-SB001 (4'-5') **Lab ID: 92400789002** Collected: 09/24/18 17:50 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 19:28	83-32-9	
Acenaphthylene	ND	ug/kg	12.0	1.6	1	09/26/18 14:17	09/27/18 19:28	208-96-8	
Anthracene	ND	ug/kg	12.0	1.7	1	09/26/18 14:17	09/27/18 19:28	120-12-7	
Benzo(a)anthracene	**1.5J**	ug/kg	12.0	0.85	1	09/26/18 14:17	09/27/18 19:28	56-55-3	
Benzo(a)pyrene	**1.5J**	ug/kg	12.0	1.3	1	09/26/18 14:17	09/27/18 19:28	50-32-8	
Benzo(b)fluoranthene	**2.1J**	ug/kg	12.0	0.81	1	09/26/18 14:17	09/27/18 19:28	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.0	3.1	1	09/26/18 14:17	09/27/18 19:28	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 19:28	207-08-9	
Chrysene	**2.6J**	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 19:28	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 19:28	53-70-3	
Fluoranthene	**1.4J**	ug/kg	12.0	1.0	1	09/26/18 14:17	09/27/18 19:28	206-44-0	
Fluorene	ND	ug/kg	12.0	1.9	1	09/26/18 14:17	09/27/18 19:28	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.0	3.4	1	09/26/18 14:17	09/27/18 19:28	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.0	1.4	1	09/26/18 14:17	09/27/18 19:28	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.0	1.3	1	09/26/18 14:17	09/27/18 19:28	91-57-6	
Naphthalene	ND	ug/kg	12.0	2.8	1	09/26/18 14:17	09/27/18 19:28	91-20-3	
Phenanthrene	ND	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 19:28	85-01-8	
Pyrene	ND	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 19:28	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	69	%	10-128		1	09/26/18 14:17	09/27/18 19:28	4165-60-0	
2-Fluorobiphenyl (S)	70	%	10-110		1	09/26/18 14:17	09/27/18 19:28	321-60-8	
Terphenyl-d14 (S)	72	%	39-119		1	09/26/18 14:17	09/27/18 19:28	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.7**	%	0.10	0.10	1		09/25/18 17:35		

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ANALYTICAL RESULTS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Sample: ABR-SB002 (0'-1') **Lab ID: 92400789003** Collected: 09/24/18 18:00 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**63.0**	ug/kg	61.1	9.2	5	09/26/18 14:17	09/28/18 14:04	83-32-9	
Acenaphthylene	**15.2J**	ug/kg	61.1	7.9	5	09/26/18 14:17	09/28/18 14:04	208-96-8	
Anthracene	**257**	ug/kg	61.1	8.6	5	09/26/18 14:17	09/28/18 14:04	120-12-7	
Benzo(a)anthracene	**1180**	ug/kg	61.1	4.3	5	09/26/18 14:17	09/28/18 14:04	56-55-3	
Benzo(a)pyrene	**1050**	ug/kg	61.1	6.7	5	09/26/18 14:17	09/28/18 14:04	50-32-8	
Benzo(b)fluoranthene	**1510**	ug/kg	61.1	4.1	5	09/26/18 14:17	09/28/18 14:04	205-99-2	
Benzo(g,h,i)perylene	**623**	ug/kg	61.1	15.9	5	09/26/18 14:17	09/28/18 14:04	191-24-2	
Benzo(k)fluoranthene	**538**	ug/kg	61.1	9.2	5	09/26/18 14:17	09/28/18 14:04	207-08-9	
Chrysene	**1140**	ug/kg	61.1	11.0	5	09/26/18 14:17	09/28/18 14:04	218-01-9	
Dibenz(a,h)anthracene	**186**	ug/kg	61.1	11.0	5	09/26/18 14:17	09/28/18 14:04	53-70-3	
Fluoranthene	**1840**	ug/kg	61.1	5.1	5	09/26/18 14:17	09/28/18 14:04	206-44-0	
Fluorene	**38.8J**	ug/kg	61.1	9.8	5	09/26/18 14:17	09/28/18 14:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**563**	ug/kg	61.1	17.1	5	09/26/18 14:17	09/28/18 14:04	193-39-5	
1-Methylnaphthalene	ND	ug/kg	305	36.6	25	09/26/18 14:17	09/28/18 16:11	90-12-0	D3
2-Methylnaphthalene	ND	ug/kg	305	33.6	25	09/26/18 14:17	09/28/18 16:11	91-57-6	D3
Naphthalene	ND	ug/kg	305	70.2	25	09/26/18 14:17	09/28/18 16:11	91-20-3	D3
Phenanthrene	**795**	ug/kg	61.1	9.2	5	09/26/18 14:17	09/28/18 14:04	85-01-8	
Pyrene	**1610**	ug/kg	61.1	11.0	5	09/26/18 14:17	09/28/18 14:04	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	13	%	10-128		5	09/26/18 14:17	09/28/18 14:04	4165-60-0	D3
2-Fluorobiphenyl (S)	60	%	10-110		5	09/26/18 14:17	09/28/18 14:04	321-60-8	
Terphenyl-d14 (S)	73	%	39-119		5	09/26/18 14:17	09/28/18 14:04	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.3**	%	0.10	0.10	1		09/25/18 17:35		

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ANALYTICAL RESULTS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Sample: ABR-SB002 (4'-5') **Lab ID: 92400789004** Collected: 09/24/18 18:05 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**16.6J**	ug/kg	62.7	9.4	5	09/26/18 14:17	09/28/18 14:25	83-32-9	
Acenaphthylene	ND	ug/kg	62.7	8.1	5	09/26/18 14:17	09/28/18 14:25	208-96-8	
Anthracene	**54.1J**	ug/kg	62.7	8.8	5	09/26/18 14:17	09/28/18 14:25	120-12-7	
Benzo(a)anthracene	**287**	ug/kg	62.7	4.4	5	09/26/18 14:17	09/28/18 14:25	56-55-3	
Benzo(a)pyrene	**325**	ug/kg	62.7	6.9	5	09/26/18 14:17	09/28/18 14:25	50-32-8	
Benzo(b)fluoranthene	**474**	ug/kg	62.7	4.2	5	09/26/18 14:17	09/28/18 14:25	205-99-2	
Benzo(g,h,i)perylene	**220**	ug/kg	62.7	16.3	5	09/26/18 14:17	09/28/18 14:25	191-24-2	
Benzo(k)fluoranthene	**171**	ug/kg	62.7	9.4	5	09/26/18 14:17	09/28/18 14:25	207-08-9	
Chrysene	**305**	ug/kg	62.7	11.3	5	09/26/18 14:17	09/28/18 14:25	218-01-9	
Dibenz(a,h)anthracene	**62.8**	ug/kg	62.7	11.3	5	09/26/18 14:17	09/28/18 14:25	53-70-3	
Fluoranthene	**432**	ug/kg	62.7	5.2	5	09/26/18 14:17	09/28/18 14:25	206-44-0	
Fluorene	**11.9J**	ug/kg	62.7	10.0	5	09/26/18 14:17	09/28/18 14:25	86-73-7	
Indeno(1,2,3-cd)pyrene	**199**	ug/kg	62.7	17.5	5	09/26/18 14:17	09/28/18 14:25	193-39-5	
1-Methylnaphthalene	ND	ug/kg	62.7	7.5	5	09/26/18 14:17	09/28/18 14:25	90-12-0	
2-Methylnaphthalene	**7.6J**	ug/kg	62.7	6.9	5	09/26/18 14:17	09/28/18 14:25	91-57-6	
Naphthalene	ND	ug/kg	62.7	14.4	5	09/26/18 14:17	09/28/18 14:25	91-20-3	
Phenanthrene	**194**	ug/kg	62.7	9.4	5	09/26/18 14:17	09/28/18 14:25	85-01-8	
Pyrene	**372**	ug/kg	62.7	11.3	5	09/26/18 14:17	09/28/18 14:25	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	73	%	10-128		5	09/26/18 14:17	09/28/18 14:25	4165-60-0	D3
2-Fluorobiphenyl (S)	61	%	10-110		5	09/26/18 14:17	09/28/18 14:25	321-60-8	
Terphenyl-d14 (S)	60	%	39-119		5	09/26/18 14:17	09/28/18 14:25	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.8**	%	0.10	0.10	1		09/25/18 17:35		

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ANALYTICAL RESULTS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Sample: CBF-SB001 (0'-1') **Lab ID: 92400789005** Collected: 09/24/18 17:10 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**19.8**	ug/kg	12.3	1.9	1	09/26/18 14:17	09/27/18 20:53	83-32-9	
Acenaphthylene	**5.5J**	ug/kg	12.3	1.6	1	09/26/18 14:17	09/27/18 20:53	208-96-8	
Anthracene	**48.1**	ug/kg	12.3	1.7	1	09/26/18 14:17	09/27/18 20:53	120-12-7	
Benzo(a)anthracene	**424**	ug/kg	12.3	0.88	1	09/26/18 14:17	09/27/18 20:53	56-55-3	
Benzo(a)pyrene	**397**	ug/kg	12.3	1.4	1	09/26/18 14:17	09/27/18 20:53	50-32-8	
Benzo(b)fluoranthene	**662**	ug/kg	12.3	0.83	1	09/26/18 14:17	09/27/18 20:53	205-99-2	
Benzo(g,h,i)perylene	**223**	ug/kg	12.3	3.2	1	09/26/18 14:17	09/27/18 20:53	191-24-2	
Benzo(k)fluoranthene	**186**	ug/kg	12.3	1.9	1	09/26/18 14:17	09/27/18 20:53	207-08-9	
Chrysene	**480**	ug/kg	12.3	2.2	1	09/26/18 14:17	09/27/18 20:53	218-01-9	
Dibenz(a,h)anthracene	**73.2**	ug/kg	12.3	2.2	1	09/26/18 14:17	09/27/18 20:53	53-70-3	
Fluoranthene	**597**	ug/kg	12.3	1.0	1	09/26/18 14:17	09/27/18 20:53	206-44-0	
Fluorene	**10.5J**	ug/kg	12.3	2.0	1	09/26/18 14:17	09/27/18 20:53	86-73-7	
Indeno(1,2,3-cd)pyrene	**204**	ug/kg	12.3	3.5	1	09/26/18 14:17	09/27/18 20:53	193-39-5	
1-Methylnaphthalene	**19.4**	ug/kg	12.3	1.5	1	09/26/18 14:17	09/27/18 20:53	90-12-0	
2-Methylnaphthalene	**27.2**	ug/kg	12.3	1.4	1	09/26/18 14:17	09/27/18 20:53	91-57-6	
Naphthalene	**27.2**	ug/kg	12.3	2.8	1	09/26/18 14:17	09/27/18 20:53	91-20-3	
Phenanthrene	**278**	ug/kg	12.3	1.9	1	09/26/18 14:17	09/27/18 20:53	85-01-8	
Pyrene	**497**	ug/kg	12.3	2.2	1	09/26/18 14:17	09/27/18 20:53	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	49	%	10-128		1	09/26/18 14:17	09/27/18 20:53	4165-60-0	
2-Fluorobiphenyl (S)	49	%	10-110		1	09/26/18 14:17	09/27/18 20:53	321-60-8	
Terphenyl-d14 (S)	68	%	39-119		1	09/26/18 14:17	09/27/18 20:53	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.6**	%	0.10	0.10	1		09/25/18 17:35		

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ANALYTICAL RESULTS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Sample: CBF-SB001 (4'-5') **Lab ID: 92400789006** Collected: 09/24/18 17:15 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.9	1.8	1	09/26/18 14:17	09/27/18 21:14	83-32-9	
Acenaphthylene	ND	ug/kg	11.9	1.5	1	09/26/18 14:17	09/27/18 21:14	208-96-8	
Anthracene	ND	ug/kg	11.9	1.7	1	09/26/18 14:17	09/27/18 21:14	120-12-7	
Benzo(a)anthracene	**2.6J**	ug/kg	11.9	0.84	1	09/26/18 14:17	09/27/18 21:14	56-55-3	
Benzo(a)pyrene	**3.3J**	ug/kg	11.9	1.3	1	09/26/18 14:17	09/27/18 21:14	50-32-8	
Benzo(b)fluoranthene	**3.8J**	ug/kg	11.9	0.79	1	09/26/18 14:17	09/27/18 21:14	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.9	3.1	1	09/26/18 14:17	09/27/18 21:14	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.9	1.8	1	09/26/18 14:17	09/27/18 21:14	207-08-9	
Chrysene	**3.2J**	ug/kg	11.9	2.1	1	09/26/18 14:17	09/27/18 21:14	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.9	2.1	1	09/26/18 14:17	09/27/18 21:14	53-70-3	
Fluoranthene	**2.7J**	ug/kg	11.9	0.98	1	09/26/18 14:17	09/27/18 21:14	206-44-0	
Fluorene	ND	ug/kg	11.9	1.9	1	09/26/18 14:17	09/27/18 21:14	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.9	3.3	1	09/26/18 14:17	09/27/18 21:14	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.9	1.4	1	09/26/18 14:17	09/27/18 21:14	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.9	1.3	1	09/26/18 14:17	09/27/18 21:14	91-57-6	
Naphthalene	ND	ug/kg	11.9	2.7	1	09/26/18 14:17	09/27/18 21:14	91-20-3	
Phenanthrene	ND	ug/kg	11.9	1.8	1	09/26/18 14:17	09/27/18 21:14	85-01-8	
Pyrene	**2.7J**	ug/kg	11.9	2.1	1	09/26/18 14:17	09/27/18 21:14	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	41	%	10-128		1	09/26/18 14:17	09/27/18 21:14	4165-60-0	
2-Fluorobiphenyl (S)	38	%	10-110		1	09/26/18 14:17	09/27/18 21:14	321-60-8	
Terphenyl-d14 (S)	54	%	39-119		1	09/26/18 14:17	09/27/18 21:14	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.9**	%	0.10	0.10	1		09/25/18 17:35		

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ANALYTICAL RESULTS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Sample: CBF-SB002 (0'-1') **Lab ID: 92400789007** Collected: 09/24/18 17:20 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**13.6**	ug/kg	13.2	2.0	1	09/26/18 14:17	09/27/18 21:35	83-32-9	
Acenaphthylene	**3.9J**	ug/kg	13.2	1.7	1	09/26/18 14:17	09/27/18 21:35	208-96-8	
Anthracene	**34.1**	ug/kg	13.2	1.9	1	09/26/18 14:17	09/27/18 21:35	120-12-7	
Benzo(a)anthracene	**230**	ug/kg	13.2	0.94	1	09/26/18 14:17	09/27/18 21:35	56-55-3	
Benzo(a)pyrene	**235**	ug/kg	13.2	1.5	1	09/26/18 14:17	09/27/18 21:35	50-32-8	
Benzo(b)fluoranthene	**312**	ug/kg	13.2	0.89	1	09/26/18 14:17	09/27/18 21:35	205-99-2	
Benzo(g,h,i)perylene	**129**	ug/kg	13.2	3.4	1	09/26/18 14:17	09/27/18 21:35	191-24-2	
Benzo(k)fluoranthene	**124**	ug/kg	13.2	2.0	1	09/26/18 14:17	09/27/18 21:35	207-08-9	
Chrysene	**237**	ug/kg	13.2	2.4	1	09/26/18 14:17	09/27/18 21:35	218-01-9	
Dibenz(a,h)anthracene	**10.6J**	ug/kg	13.2	2.4	1	09/26/18 14:17	09/27/18 21:35	53-70-3	
Fluoranthene	**390**	ug/kg	13.2	1.1	1	09/26/18 14:17	09/27/18 21:35	206-44-0	
Fluorene	**7.2J**	ug/kg	13.2	2.1	1	09/26/18 14:17	09/27/18 21:35	86-73-7	
Indeno(1,2,3-cd)pyrene	**123**	ug/kg	13.2	3.7	1	09/26/18 14:17	09/27/18 21:35	193-39-5	
1-Methylnaphthalene	**7.6J**	ug/kg	13.2	1.6	1	09/26/18 14:17	09/27/18 21:35	90-12-0	
2-Methylnaphthalene	**10.9J**	ug/kg	13.2	1.5	1	09/26/18 14:17	09/27/18 21:35	91-57-6	
Naphthalene	**14.4**	ug/kg	13.2	3.0	1	09/26/18 14:17	09/27/18 21:35	91-20-3	
Phenanthrene	**135**	ug/kg	13.2	2.0	1	09/26/18 14:17	09/27/18 21:35	85-01-8	
Pyrene	**362**	ug/kg	13.2	2.4	1	09/26/18 14:17	09/27/18 21:35	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	60	%	10-128		1	09/26/18 14:17	09/27/18 21:35	4165-60-0	
2-Fluorobiphenyl (S)	58	%	10-110		1	09/26/18 14:17	09/27/18 21:35	321-60-8	
Terphenyl-d14 (S)	67	%	39-119		1	09/26/18 14:17	09/27/18 21:35	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**24.3**	%	0.10	0.10	1		09/25/18 18:04		

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ANALYTICAL RESULTS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Sample: CBF-SB002 (4'-5') **Lab ID: 92400789008** Collected: 09/24/18 17:25 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 21:56	83-32-9	
Acenaphthylene	ND	ug/kg	12.0	1.6	1	09/26/18 14:17	09/27/18 21:56	208-96-8	
Anthracene	**3.8J**	ug/kg	12.0	1.7	1	09/26/18 14:17	09/27/18 21:56	120-12-7	
Benzo(a)anthracene	**26.6**	ug/kg	12.0	0.85	1	09/26/18 14:17	09/27/18 21:56	56-55-3	
Benzo(a)pyrene	**36.9**	ug/kg	12.0	1.3	1	09/26/18 14:17	09/27/18 21:56	50-32-8	
Benzo(b)fluoranthene	**49.4**	ug/kg	12.0	0.80	1	09/26/18 14:17	09/27/18 21:56	205-99-2	
Benzo(g,h,i)perylene	**28.6**	ug/kg	12.0	3.1	1	09/26/18 14:17	09/27/18 21:56	191-24-2	
Benzo(k)fluoranthene	**17.4**	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 21:56	207-08-9	
Chrysene	**37.5**	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 21:56	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 21:56	53-70-3	
Fluoranthene	**42.2**	ug/kg	12.0	0.99	1	09/26/18 14:17	09/27/18 21:56	206-44-0	
Fluorene	ND	ug/kg	12.0	1.9	1	09/26/18 14:17	09/27/18 21:56	86-73-7	
Indeno(1,2,3-cd)pyrene	**25.0**	ug/kg	12.0	3.3	1	09/26/18 14:17	09/27/18 21:56	193-39-5	
1-Methylnaphthalene	**15.9**	ug/kg	12.0	1.4	1	09/26/18 14:17	09/27/18 21:56	90-12-0	
2-Methylnaphthalene	**22.2**	ug/kg	12.0	1.3	1	09/26/18 14:17	09/27/18 21:56	91-57-6	
Naphthalene	**18.5**	ug/kg	12.0	2.7	1	09/26/18 14:17	09/27/18 21:56	91-20-3	
Phenanthrene	**22.9**	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 21:56	85-01-8	
Pyrene	**38.5**	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 21:56	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	48	%	10-128		1	09/26/18 14:17	09/27/18 21:56	4165-60-0	
2-Fluorobiphenyl (S)	40	%	10-110		1	09/26/18 14:17	09/27/18 21:56	321-60-8	
Terphenyl-d14 (S)	57	%	39-119		1	09/26/18 14:17	09/27/18 21:56	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.7**	%	0.10	0.10	1		09/25/18 18:04		

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QUALITY CONTROL DATA

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

QC Batch: 432770 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 | Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 92400789001, 92400789002, 92400789003, 92400789004, 92400789005, 92400789006, 92400789007, 92400789008

METHOD BLANK: 2385110 | Matrix: Solid
Associated Lab Samples: 92400789001, 92400789002, 92400789003, 92400789004, 92400789005, 92400789006, 92400789007, 92400789008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10.1	1.2	09/27/18 14:11	
2-Methylnaphthalene	ug/kg	ND	10.1	1.1	09/27/18 14:11	
Acenaphthene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Acenaphthylene	ug/kg	ND	10.1	1.3	09/27/18 14:11	
Anthracene	ug/kg	ND	10.1	1.4	09/27/18 14:11	
Benzo(a)anthracene	ug/kg	ND	10.1	0.71	09/27/18 14:11	
Benzo(a)pyrene	ug/kg	ND	10.1	1.1	09/27/18 14:11	
Benzo(b)fluoranthene	ug/kg	0.96J	10.1	0.67	09/27/18 14:11	
Benzo(g,h,i)perylene	ug/kg	ND	10.1	2.6	09/27/18 14:11	
Benzo(k)fluoranthene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Chrysene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
Dibenz(a,h)anthracene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
Fluoranthene	ug/kg	ND	10.1	0.84	09/27/18 14:11	
Fluorene	ug/kg	ND	10.1	1.6	09/27/18 14:11	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.1	2.8	09/27/18 14:11	
Naphthalene	ug/kg	ND	10.1	2.3	09/27/18 14:11	
Phenanthrene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Pyrene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
2-Fluorobiphenyl (S)	%	51	10-110		09/27/18 14:11	
Nitrobenzene-d5 (S)	%	54	10-128		09/27/18 14:11	
Terphenyl-d14 (S)	%	60	39-119		09/27/18 14:11	

LABORATORY CONTROL SAMPLE: 2385111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	33.3	26.3	79	44-130	
2-Methylnaphthalene	ug/kg	33.3	27.8	83	41-134	
Acenaphthene	ug/kg	33.3	29.4	88	52-123	
Acenaphthylene	ug/kg	33.3	26.5	79	49-116	
Anthracene	ug/kg	33.3	29.3	88	41-133	
Benzo(a)anthracene	ug/kg	33.3	29.2	88	56-130	
Benzo(a)pyrene	ug/kg	33.3	28.2	85	51-136	
Benzo(b)fluoranthene	ug/kg	33.3	28.7	86	37-149	
Benzo(g,h,i)perylene	ug/kg	33.3	26.3	79	39-127	
Benzo(k)fluoranthene	ug/kg	33.3	29.3	88	45-139	
Chrysene	ug/kg	33.3	30.1	90	59-127	
Dibenz(a,h)anthracene	ug/kg	33.3	28.8	86	37-139	
Fluoranthene	ug/kg	33.3	31.0	93	53-132	

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QUALITY CONTROL DATA

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

LABORATORY CONTROL SAMPLE: 2385111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	ug/kg	33.3	26.0	78	45-127	
Indeno(1,2,3-cd)pyrene	ug/kg	33.3	29.4	88	35-145	
Naphthalene	ug/kg	33.3	27.9	84	45-123	
Phenanthrene	ug/kg	33.3	30.4	91	50-125	
Pyrene	ug/kg	33.3	31.0	93	52-132	
2-Fluorobiphenyl (S)	%			87	10-110	
Nitrobenzene-d5 (S)	%			92	10-128	
Terphenyl-d14 (S)	%			81	39-119	

MATRIX SPIKE SAMPLE: 2385112

Parameter	Units	92400789001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	3.0J	40.4	25.2	55	50-150	
2-Methylnaphthalene	ug/kg	2.2J	40.4	26.1	59	50-150	
Acenaphthene	ug/kg	4.6J	40.4	31.1	65	50-150	
Acenaphthylene	ug/kg	2.1J	40.4	24.8	56	50-150	
Anthracene	ug/kg	15.6	40.4	45.8	75	50-150	
Benzo(a)anthracene	ug/kg	129	40.4	192	156	50-150	M1
Benzo(a)pyrene	ug/kg	128	40.4	206	194	50-150	M1
Benzo(b)fluoranthene	ug/kg	211	40.4	324	280	50-150	M1
Benzo(g,h,i)perylene	ug/kg	79.1	40.4	106	67	50-150	
Benzo(k)fluoranthene	ug/kg	90.3	40.4	102	28	50-150	M1
Chrysene	ug/kg	150	40.4	220	173	50-150	M1
Dibenz(a,h)anthracene	ug/kg	25.1	40.4	47.2	55	50-150	
Fluoranthene	ug/kg	214	40.4	250	88	50-150	
Fluorene	ug/kg	2.9J	40.4	26.0	57	50-150	
Indeno(1,2,3-cd)pyrene	ug/kg	77.6	40.4	110	81	50-150	
Naphthalene	ug/kg	2.8J	40.4	25.3	56	50-150	
Phenanthrene	ug/kg	64.2	40.4	92.2	69	50-150	
Pyrene	ug/kg	190	40.4	248	144	50-150	
2-Fluorobiphenyl (S)	%				62	10-110	
Nitrobenzene-d5 (S)	%				62	10-128	
Terphenyl-d14 (S)	%				61	39-119	

SAMPLE DUPLICATE: 2385113

Parameter	Units	92400789002 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/kg	ND	ND		30	
2-Methylnaphthalene	ug/kg	ND	ND		30	
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	ND	ND		30	
Anthracene	ug/kg	ND	ND		30	
Benzo(a)anthracene	ug/kg	1.5J	1.3J		30	
Benzo(a)pyrene	ug/kg	1.5J	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

SAMPLE DUPLICATE: 2385113

Parameter	Units	92400789002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzo(b)fluoranthene	ug/kg	2.1J	1.9J		30	
Benzo(g,h,i)perylene	ug/kg	ND	ND		30	
Benzo(k)fluoranthene	ug/kg	ND	ND		30	
Chrysene	ug/kg	2.6J	2.2J		30	
Dibenz(a,h)anthracene	ug/kg	ND	ND		30	
Fluoranthene	ug/kg	1.4J	1.2J		30	
Fluorene	ug/kg	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
Phenanthrene	ug/kg	ND	ND		30	
Pyrene	ug/kg	ND	ND		30	
2-Fluorobiphenyl (S)	%	70	69	3		
Nitrobenzene-d5 (S)	%	69	70	0		
Terphenyl-d14 (S)	%	72	70	3		

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QUALITY CONTROL DATA

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

QC Batch: 432629 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92400789001, 92400789002, 92400789003, 92400789004, 92400789005, 92400789006

SAMPLE DUPLICATE: 2384622

Parameter	Units	92400378001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	65.5	65.1	1	25	

SAMPLE DUPLICATE: 2384623

Parameter	Units	92400789006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.9	16.0	0	25	

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QUALITY CONTROL DATA

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

QC Batch: 432644
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92400789007, 92400789008

SAMPLE DUPLICATE: 2384677

Parameter	Units	92400798001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.8	17.0	1	25	

SAMPLE DUPLICATE: 2384678

Parameter	Units	92400796007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.9	18.2	2	25	

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QUALIFIERS

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Anode Butt Rec./Carbon Baking
Pace Project No.: 92400789

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92400789001	**ABR-SB001 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400789002	**ABR-SB001 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400789003	**ABR-SB002 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400789004	**ABR-SB002 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400789005	**CBF-SB001 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400789006	**CBF-SB001 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400789007	**CBF-SB002 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400789008	**CBF-SB002 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400789001	**ABR-SB001 (0'-1')**	ASTM D2974-87	432629		
92400789002	**ABR-SB001 (4'-5')**	ASTM D2974-87	432629		
92400789003	**ABR-SB002 (0'-1')**	ASTM D2974-87	432629		
92400789004	**ABR-SB002 (4'-5')**	ASTM D2974-87	432629		
92400789005	**CBF-SB001 (0'-1')**	ASTM D2974-87	432629		
92400789006	**CBF-SB001 (4'-5')**	ASTM D2974-87	432629		
92400789007	**CBF-SB002 (0'-1')**	ASTM D2974-87	432644		
92400789008	**CBF-SB002 (4'-5')**	ASTM D2974-87	432644		

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Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: Environeering

Project #: WO#: 92400789 (92400789)

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: MD 9-25-18

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T045 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.3, 4.9 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 5.2, 4.8

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC? MD 9-25-18	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT SL				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: ACP **Date:** 092518

Project Manager SRF Review: NMG **Date:** 9/26/18

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#:92400789

PM: NMG Due Date: 10/04/18

CLIENT: 92-Alcoa

Pg 2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1									1																			
2									1																			
3									1																			
4									1																			
5									1																			
6									1																			
7									1																			
8									1																			
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (I.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:

Company:	Environeering
Address:	~~138 Fed Jackson Road~~ 16100 GRUNAM
Morrisville, ~~NC 27560~~	HOUSTON TX 77084
Email:	mworden@environeering,inc.com
Phone: 919 341 6492	Fax
Requested Due Date:	STD

Section B
Required Project Information:

Report To:	Michael Worden
Copy To:	
Purchase Order #:	
Project Name:	Anode Butt Reclamation/Carbon Baking Furnac
Project #:	137-263

Section C
Invoice Information:

Attention:	M. WORDEN
Company Name:	ENVIRONEERING
Address:	HOUSTON TX
Pace Quote:	
Pace Project Manager:	nicole.gasiorowski@pacelabs.com,
Pace Profile #:	7478

Regulatory Agency
NCDEQ
State / Location
NC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8270 PAHs	Residual Chlorine (Y/N)	92400789
1	ABR-SB001 (0'-1')	SL	G	—	—	9/24/18	1745		1	X									X		001
2	ABR-SB001 (4'-5')	SL	G	—	—		1750		1	X									X		002
3	ABR-SB002 (0'-1')	SL	G	—	—		1800		1	X									X		003
4	ABR-SB002 (4'-5')	SL	G	—	—		1805		1	X									X		004
5	CBF-SB001 (0'-1')	SL	G	—	—		1710		1	X									X		005
6	CBF-SB001 (4'-5')	SL	G	—	—		1715		1	X									X		006
7	CBF-SB002 (0'-1')	SL	G	—	—		1720		1	X									X		007
8	CBF-SB002 (4'-5')	SL	G	—	—	✓	1725		1	X									X		008
9	~~CBF-SB003 (0'-1')~~	~~SL~~	~~G~~																~~X~~		
10	~~CBF-SB003 (4'-5')~~	~~SL~~																	~~X~~		
11	~~CBF-SB004 (0'-1')~~	~~SL~~																	~~X~~		
12	~~CBF-SB004 (4'-5')~~	~~SL~~																	~~X~~		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[signature], ENVIRONEERING	9/25/18	730	[signature] Pace	9-25-18	730
	[signature] Pace	9-25-18	1127	[signature]	9-25-18	1127

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICHAEL WORDEN

SIGNATURE of SAMPLER: [signature] DATE Signed: 9/24/18

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 12, 2018

Michael W. Worden
Environeering, Inc.
16100 Cairnway
Suite 320
Houston, TX 77084

RE: Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Dear Michael Worden:
Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revision was issued on 11/12/18 to report J-flagged results to the MDL, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole Gasiorowski

Nicole Gasiorowski
nicole.gasiorowski@pacelabs.com
(704)875-9092
Project Manager

Enclosures

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(704)875-9092

CERTIFICATIONS

Project:	Frmr Cathode/Anode Plant Area
Pace Project No.:	92401220

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92401220001	**CAT-SB001 (0'-1')**	Solid	09/25/18 08:25	09/26/18 15:25
92401220002	**CAT-SB001 (4'-5')**	Solid	09/25/18 08:30	09/26/18 15:25
92401220003	**CAT-SB002 (0'-1')**	Solid	09/25/18 08:40	09/26/18 15:25
92401220004	**CAT-SB002 (4'-5')**	Solid	09/25/18 08:45	09/26/18 15:25
92401220005	**ANO-SB001 (0'-1')**	Solid	09/24/18 13:40	09/26/18 15:25
92401220006	**ANO-SB001 (4'-5')**	Solid	09/24/18 13:45	09/26/18 15:25
92401220007	**ANO-SB002 (0'-1')**	Solid	09/24/18 14:05	09/26/18 15:25
92401220008	**ANO-SB002 (4'-5')**	Solid	09/24/18 14:10	09/26/18 15:25

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SAMPLE ANALYTE COUNT

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92401220001	**CAT-SB001 (0'-1')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92401220002	**CAT-SB001 (4'-5')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92401220003	**CAT-SB002 (0'-1')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92401220004	**CAT-SB002 (4'-5')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92401220005	**ANO-SB001 (0'-1')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92401220006	**ANO-SB001 (4'-5')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92401220007	**ANO-SB002 (0'-1')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92401220008	**ANO-SB002 (4'-5')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Sample: CAT-SB001 (0'-1') **Lab ID: 92401220001** Collected: 09/25/18 08:25 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	38.9	17.7	1	09/28/18 14:53	09/29/18 13:08	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	38.9	17.7	1	09/28/18 14:53	09/29/18 13:08	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	38.9	17.7	1	09/28/18 14:53	09/29/18 13:08	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	38.9	17.7	1	09/28/18 14:53	09/29/18 13:08	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	38.9	17.7	1	09/28/18 14:53	09/29/18 13:08	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	38.9	17.7	1	09/28/18 14:53	09/29/18 13:08	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	38.9	17.7	1	09/28/18 14:53	09/29/18 13:08	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	124	%	21-132		1	09/28/18 14:53	09/29/18 13:08	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**235**	ug/kg	12.0	1.8	1	09/28/18 16:19	10/03/18 00:02	83-32-9	
Acenaphthylene	**16.2**	ug/kg	12.0	1.6	1	09/28/18 16:19	10/03/18 00:02	208-96-8	
Anthracene	**906**	ug/kg	12.0	1.7	1	09/28/18 16:19	10/03/18 00:02	120-12-7	
Benzo(a)anthracene	**2730**	ug/kg	60.1	4.3	5	09/28/18 16:19	10/03/18 09:14	56-55-3	
Benzo(a)pyrene	**2230**	ug/kg	60.1	6.6	5	09/28/18 16:19	10/03/18 09:14	50-32-8	
Benzo(b)fluoranthene	**3850**	ug/kg	60.1	4.0	5	09/28/18 16:19	10/03/18 09:14	205-99-2	
Benzo(g,h,i)perylene	**997**	ug/kg	12.0	3.1	1	09/28/18 16:19	10/03/18 00:02	191-24-2	
Benzo(k)fluoranthene	**1180**	ug/kg	60.1	9.0	5	09/28/18 16:19	10/03/18 09:14	207-08-9	
Chrysene	**2590**	ug/kg	60.1	10.8	5	09/28/18 16:19	10/03/18 09:14	218-01-9	
Dibenz(a,h)anthracene	**446**	ug/kg	12.0	2.2	1	09/28/18 16:19	10/03/18 00:02	53-70-3	
Fluoranthene	**4150**	ug/kg	60.1	5.0	5	09/28/18 16:19	10/03/18 09:14	206-44-0	
Fluorene	**282**	ug/kg	12.0	1.9	1	09/28/18 16:19	10/03/18 00:02	86-73-7	
Indeno(1,2,3-cd)pyrene	**1330**	ug/kg	60.1	16.8	5	09/28/18 16:19	10/03/18 09:14	193-39-5	
1-Methylnaphthalene	**47.4**	ug/kg	12.0	1.4	1	09/28/18 16:19	10/03/18 00:02	90-12-0	
2-Methylnaphthalene	**52.9**	ug/kg	12.0	1.3	1	09/28/18 16:19	10/03/18 00:02	91-57-6	
Naphthalene	**59.5**	ug/kg	12.0	2.8	1	09/28/18 16:19	10/03/18 00:02	91-20-3	
Phenanthrene	**2620**	ug/kg	60.1	9.0	5	09/28/18 16:19	10/03/18 09:14	85-01-8	
Pyrene	**3470**	ug/kg	60.1	10.8	5	09/28/18 16:19	10/03/18 09:14	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	81	%	10-128		1	09/28/18 16:19	10/03/18 00:02	4165-60-0	
2-Fluorobiphenyl (S)	76	%	10-110		1	09/28/18 16:19	10/03/18 00:02	321-60-8	
Terphenyl-d14 (S)	96	%	39-119		1	09/28/18 16:19	10/03/18 00:02	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.7**	%	0.10	0.10	1		09/27/18 17:23		

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ANALYTICAL RESULTS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Sample: CAT-SB001 (4'-5') **Lab ID: 92401220002** Collected: 09/25/18 08:30 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	38.6	17.5	1	09/28/18 14:53	09/29/18 13:28	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	38.6	17.5	1	09/28/18 14:53	09/29/18 13:28	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	38.6	17.5	1	09/28/18 14:53	09/29/18 13:28	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	38.6	17.5	1	09/28/18 14:53	09/29/18 13:28	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	38.6	17.5	1	09/28/18 14:53	09/29/18 13:28	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	38.6	17.5	1	09/28/18 14:53	09/29/18 13:28	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	38.6	17.5	1	09/28/18 14:53	09/29/18 13:28	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	132	%	21-132		1	09/28/18 14:53	09/29/18 13:28	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**17.3**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 18:03	83-32-9	
Acenaphthylene	ND	ug/kg	11.9	1.5	1	09/28/18 16:19	10/02/18 18:03	208-96-8	
Anthracene	**81.2**	ug/kg	11.9	1.7	1	09/28/18 16:19	10/02/18 18:03	120-12-7	
Benzo(a)anthracene	**337**	ug/kg	11.9	0.84	1	09/28/18 16:19	10/02/18 18:03	56-55-3	
Benzo(a)pyrene	**308**	ug/kg	11.9	1.3	1	09/28/18 16:19	10/02/18 18:03	50-32-8	
Benzo(b)fluoranthene	**504**	ug/kg	11.9	0.79	1	09/28/18 16:19	10/02/18 18:03	205-99-2	
Benzo(g,h,i)perylene	**212**	ug/kg	11.9	3.1	1	09/28/18 16:19	10/02/18 18:03	191-24-2	
Benzo(k)fluoranthene	**169**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 18:03	207-08-9	
Chrysene	**338**	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 18:03	218-01-9	
Dibenz(a,h)anthracene	**17.7**	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 18:03	53-70-3	
Fluoranthene	**530**	ug/kg	11.9	0.98	1	09/28/18 16:19	10/02/18 18:03	206-44-0	
Fluorene	**13.0**	ug/kg	11.9	1.9	1	09/28/18 16:19	10/02/18 18:03	86-73-7	
Indeno(1,2,3-cd)pyrene	**203**	ug/kg	11.9	3.3	1	09/28/18 16:19	10/02/18 18:03	193-39-5	
1-Methylnaphthalene	**5.9J**	ug/kg	11.9	1.4	1	09/28/18 16:19	10/02/18 18:03	90-12-0	
2-Methylnaphthalene	**9.9J**	ug/kg	11.9	1.3	1	09/28/18 16:19	10/02/18 18:03	91-57-6	
Naphthalene	**10.9J**	ug/kg	11.9	2.7	1	09/28/18 16:19	10/02/18 18:03	91-20-3	
Phenanthrene	**261**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 18:03	85-01-8	
Pyrene	**429**	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 18:03	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	71	%	10-128		1	09/28/18 16:19	10/02/18 18:03	4165-60-0	
2-Fluorobiphenyl (S)	63	%	10-110		1	09/28/18 16:19	10/02/18 18:03	321-60-8	
Terphenyl-d14 (S)	74	%	39-119		1	09/28/18 16:19	10/02/18 18:03	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.6**	%	0.10	0.10	1		09/27/18 18:20		

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Sample: CAT-SB002 (0'-1') **Lab ID: 92401220003** Collected: 09/25/18 08:40 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	40.5	18.4	1	09/28/18 14:53	09/29/18 13:48	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	40.5	18.4	1	09/28/18 14:53	09/29/18 13:48	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	40.5	18.4	1	09/28/18 14:53	09/29/18 13:48	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	40.5	18.4	1	09/28/18 14:53	09/29/18 13:48	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	40.5	18.4	1	09/28/18 14:53	09/29/18 13:48	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	40.5	18.4	1	09/28/18 14:53	09/29/18 13:48	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	40.5	18.4	1	09/28/18 14:53	09/29/18 13:48	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	85	%	21-132		1	09/28/18 14:53	09/29/18 13:48	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.4	1.9	1	09/28/18 16:19	10/02/18 18:24	83-32-9	
Acenaphthylene	ND	ug/kg	12.4	1.6	1	09/28/18 16:19	10/02/18 18:24	208-96-8	
Anthracene	ND	ug/kg	12.4	1.7	1	09/28/18 16:19	10/02/18 18:24	120-12-7	
Benzo(a)anthracene	**5.1J**	ug/kg	12.4	0.88	1	09/28/18 16:19	10/02/18 18:24	56-55-3	
Benzo(a)pyrene	**3.6J**	ug/kg	12.4	1.4	1	09/28/18 16:19	10/02/18 18:24	50-32-8	
Benzo(b)fluoranthene	**8.9J**	ug/kg	12.4	0.83	1	09/28/18 16:19	10/02/18 18:24	205-99-2	
Benzo(g,h,i)perylene	**3.7J**	ug/kg	12.4	3.2	1	09/28/18 16:19	10/02/18 18:24	191-24-2	
Benzo(k)fluoranthene	**3.1J**	ug/kg	12.4	1.9	1	09/28/18 16:19	10/02/18 18:24	207-08-9	
Chrysene	**7.0J**	ug/kg	12.4	2.2	1	09/28/18 16:19	10/02/18 18:24	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.4	2.2	1	09/28/18 16:19	10/02/18 18:24	53-70-3	
Fluoranthene	**10.6J**	ug/kg	12.4	1.0	1	09/28/18 16:19	10/02/18 18:24	206-44-0	
Fluorene	ND	ug/kg	12.4	2.0	1	09/28/18 16:19	10/02/18 18:24	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.4	3.5	1	09/28/18 16:19	10/02/18 18:24	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.4	1.5	1	09/28/18 16:19	10/02/18 18:24	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.4	1.4	1	09/28/18 16:19	10/02/18 18:24	91-57-6	
Naphthalene	ND	ug/kg	12.4	2.9	1	09/28/18 16:19	10/02/18 18:24	91-20-3	
Phenanthrene	**3.9J**	ug/kg	12.4	1.9	1	09/28/18 16:19	10/02/18 18:24	85-01-8	
Pyrene	**13.3**	ug/kg	12.4	2.2	1	09/28/18 16:19	10/02/18 18:24	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	72	%	10-128		1	09/28/18 16:19	10/02/18 18:24	4165-60-0	
2-Fluorobiphenyl (S)	68	%	10-110		1	09/28/18 16:19	10/02/18 18:24	321-60-8	
Terphenyl-d14 (S)	78	%	39-119		1	09/28/18 16:19	10/02/18 18:24	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.4**	%	0.10	0.10	1		09/27/18 18:20		

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ANALYTICAL RESULTS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Sample: CAT-SB002 (4'-5') **Lab ID: 92401220004** Collected: 09/25/18 08:45 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	39.8	18.1	1	09/28/18 14:53	09/29/18 14:08	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	39.8	18.1	1	09/28/18 14:53	09/29/18 14:08	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	39.8	18.1	1	09/28/18 14:53	09/29/18 14:08	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	39.8	18.1	1	09/28/18 14:53	09/29/18 14:08	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	39.8	18.1	1	09/28/18 14:53	09/29/18 14:08	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	39.8	18.1	1	09/28/18 14:53	09/29/18 14:08	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	39.8	18.1	1	09/28/18 14:53	09/29/18 14:08	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	94	%	21-132		1	09/28/18 14:53	09/29/18 14:08	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.8	1.8	1	09/28/18 16:19	10/02/18 18:45	83-32-9	
Acenaphthylene	ND	ug/kg	11.8	1.5	1	09/28/18 16:19	10/02/18 18:45	208-96-8	
Anthracene	ND	ug/kg	11.8	1.7	1	09/28/18 16:19	10/02/18 18:45	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.8	0.84	1	09/28/18 16:19	10/02/18 18:45	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.8	1.3	1	09/28/18 16:19	10/02/18 18:45	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.8	0.79	1	09/28/18 16:19	10/02/18 18:45	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.8	3.1	1	09/28/18 16:19	10/02/18 18:45	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.8	1.8	1	09/28/18 16:19	10/02/18 18:45	207-08-9	
Chrysene	ND	ug/kg	11.8	2.1	1	09/28/18 16:19	10/02/18 18:45	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.8	2.1	1	09/28/18 16:19	10/02/18 18:45	53-70-3	
Fluoranthene	ND	ug/kg	11.8	0.98	1	09/28/18 16:19	10/02/18 18:45	206-44-0	
Fluorene	ND	ug/kg	11.8	1.9	1	09/28/18 16:19	10/02/18 18:45	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.8	3.3	1	09/28/18 16:19	10/02/18 18:45	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.8	1.4	1	09/28/18 16:19	10/02/18 18:45	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.8	1.3	1	09/28/18 16:19	10/02/18 18:45	91-57-6	
Naphthalene	ND	ug/kg	11.8	2.7	1	09/28/18 16:19	10/02/18 18:45	91-20-3	
Phenanthrene	ND	ug/kg	11.8	1.8	1	09/28/18 16:19	10/02/18 18:45	85-01-8	
Pyrene	ND	ug/kg	11.8	2.1	1	09/28/18 16:19	10/02/18 18:45	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	69	%	10-128		1	09/28/18 16:19	10/02/18 18:45	4165-60-0	
2-Fluorobiphenyl (S)	63	%	10-110		1	09/28/18 16:19	10/02/18 18:45	321-60-8	
Terphenyl-d14 (S)	71	%	39-119		1	09/28/18 16:19	10/02/18 18:45	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.6**	%	0.10	0.10	1		09/27/18 18:20		

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ANALYTICAL RESULTS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Sample: ANO-SB001 (0'-1') **Lab ID: 92401220005** Collected: 09/24/18 13:40 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	39.4	17.9	1	09/28/18 14:53	09/29/18 14:28	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	39.4	17.9	1	09/28/18 14:53	09/29/18 14:28	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	39.4	17.9	1	09/28/18 14:53	09/29/18 14:28	11141-16-5	
PCB-1242 (Aroclor 1242)	**18.0J**	ug/kg	39.4	17.9	1	09/28/18 14:53	09/29/18 14:28	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	39.4	17.9	1	09/28/18 14:53	09/29/18 14:28	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	39.4	17.9	1	09/28/18 14:53	09/29/18 14:28	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	39.4	17.9	1	09/28/18 14:53	09/29/18 14:28	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	113	%	21-132		1	09/28/18 14:53	09/29/18 14:28	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**199**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/03/18 00:23	83-32-9	
Acenaphthylene	**840**	ug/kg	11.9	1.6	1	09/28/18 16:19	10/03/18 00:23	208-96-8	
Anthracene	**1060**	ug/kg	119	16.7	10	09/28/18 16:19	10/03/18 09:35	120-12-7	
Benzo(a)anthracene	**3140**	ug/kg	119	8.5	10	09/28/18 16:19	10/03/18 09:35	56-55-3	
Benzo(a)pyrene	**2710**	ug/kg	119	13.1	10	09/28/18 16:19	10/03/18 09:35	50-32-8	
Benzo(b)fluoranthene	**4390**	ug/kg	119	8.0	10	09/28/18 16:19	10/03/18 09:35	205-99-2	
Benzo(g,h,i)perylene	**1830**	ug/kg	119	31.1	10	09/28/18 16:19	10/03/18 09:35	191-24-2	
Benzo(k)fluoranthene	**1170**	ug/kg	119	17.9	10	09/28/18 16:19	10/03/18 09:35	207-08-9	
Chrysene	**2690**	ug/kg	119	21.5	10	09/28/18 16:19	10/03/18 09:35	218-01-9	
Dibenz(a,h)anthracene	**501**	ug/kg	11.9	2.2	1	09/28/18 16:19	10/03/18 00:23	53-70-3	
Fluoranthene	**5870**	ug/kg	119	9.9	10	09/28/18 16:19	10/03/18 09:35	206-44-0	
Fluorene	**559**	ug/kg	11.9	1.9	1	09/28/18 16:19	10/03/18 00:23	86-73-7	
Indeno(1,2,3-cd)pyrene	**1770**	ug/kg	119	33.5	10	09/28/18 16:19	10/03/18 09:35	193-39-5	
1-Methylnaphthalene	**61.3**	ug/kg	11.9	1.4	1	09/28/18 16:19	10/03/18 00:23	90-12-0	
2-Methylnaphthalene	**78.2**	ug/kg	11.9	1.3	1	09/28/18 16:19	10/03/18 00:23	91-57-6	
Naphthalene	**155**	ug/kg	11.9	2.7	1	09/28/18 16:19	10/03/18 00:23	91-20-3	
Phenanthrene	**3670**	ug/kg	119	17.9	10	09/28/18 16:19	10/03/18 09:35	85-01-8	
Pyrene	**4750**	ug/kg	119	21.5	10	09/28/18 16:19	10/03/18 09:35	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	71	%	10-128		1	09/28/18 16:19	10/03/18 00:23	4165-60-0	
2-Fluorobiphenyl (S)	73	%	10-110		1	09/28/18 16:19	10/03/18 00:23	321-60-8	
Terphenyl-d14 (S)	92	%	39-119		1	09/28/18 16:19	10/03/18 00:23	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.0**	%	0.10	0.10	1		09/27/18 18:21		

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ANALYTICAL RESULTS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Sample: ANO-SB001 (4'-5') **Lab ID: 92401220006** Collected: 09/24/18 13:45 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	37.2	16.9	1	09/28/18 14:53	09/29/18 14:48	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	37.2	16.9	1	09/28/18 14:53	09/29/18 14:48	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	37.2	16.9	1	09/28/18 14:53	09/29/18 14:48	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	37.2	16.9	1	09/28/18 14:53	09/29/18 14:48	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	37.2	16.9	1	09/28/18 14:53	09/29/18 14:48	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	37.2	16.9	1	09/28/18 14:53	09/29/18 14:48	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	37.2	16.9	1	09/28/18 14:53	09/29/18 14:48	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	102	%	21-132		1	09/28/18 14:53	09/29/18 14:48	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**8.4J**	ug/kg	11.3	1.7	1	09/28/18 16:19	10/02/18 19:07	83-32-9	
Acenaphthylene	ND	ug/kg	11.3	1.5	1	09/28/18 16:19	10/02/18 19:07	208-96-8	
Anthracene	**12.0**	ug/kg	11.3	1.6	1	09/28/18 16:19	10/02/18 19:07	120-12-7	
Benzo(a)anthracene	**35.1**	ug/kg	11.3	0.80	1	09/28/18 16:19	10/02/18 19:07	56-55-3	
Benzo(a)pyrene	**35.5**	ug/kg	11.3	1.2	1	09/28/18 16:19	10/02/18 19:07	50-32-8	
Benzo(b)fluoranthene	**52.3**	ug/kg	11.3	0.76	1	09/28/18 16:19	10/02/18 19:07	205-99-2	
Benzo(g,h,i)perylene	**27.1**	ug/kg	11.3	2.9	1	09/28/18 16:19	10/02/18 19:07	191-24-2	
Benzo(k)fluoranthene	**18.3**	ug/kg	11.3	1.7	1	09/28/18 16:19	10/02/18 19:07	207-08-9	
Chrysene	**32.7**	ug/kg	11.3	2.0	1	09/28/18 16:19	10/02/18 19:07	218-01-9	
Dibenz(a,h)anthracene	**7.5J**	ug/kg	11.3	2.0	1	09/28/18 16:19	10/02/18 19:07	53-70-3	
Fluoranthene	**70.9**	ug/kg	11.3	0.94	1	09/28/18 16:19	10/02/18 19:07	206-44-0	
Fluorene	**5.9J**	ug/kg	11.3	1.8	1	09/28/18 16:19	10/02/18 19:07	86-73-7	
Indeno(1,2,3-cd)pyrene	**24.5**	ug/kg	11.3	3.2	1	09/28/18 16:19	10/02/18 19:07	193-39-5	
1-Methylnaphthalene	**2.0J**	ug/kg	11.3	1.4	1	09/28/18 16:19	10/02/18 19:07	90-12-0	
2-Methylnaphthalene	**3.9J**	ug/kg	11.3	1.2	1	09/28/18 16:19	10/02/18 19:07	91-57-6	
Naphthalene	**11.5**	ug/kg	11.3	2.6	1	09/28/18 16:19	10/02/18 19:07	91-20-3	
Phenanthrene	**52.1**	ug/kg	11.3	1.7	1	09/28/18 16:19	10/02/18 19:07	85-01-8	
Pyrene	**56.1**	ug/kg	11.3	2.0	1	09/28/18 16:19	10/02/18 19:07	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	70	%	10-128		1	09/28/18 16:19	10/02/18 19:07	4165-60-0	
2-Fluorobiphenyl (S)	63	%	10-110		1	09/28/18 16:19	10/02/18 19:07	321-60-8	
Terphenyl-d14 (S)	68	%	39-119		1	09/28/18 16:19	10/02/18 19:07	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.2**	%	0.10	0.10	1		09/27/18 18:21		

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ANALYTICAL RESULTS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Sample: ANO-SB002 (0'-1') **Lab ID: 92401220007** Collected: 09/24/18 14:05 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	37.3	16.9	1	09/28/18 14:53	10/02/18 16:33	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	37.3	16.9	1	09/28/18 14:53	10/02/18 16:33	11104-28-2	
PCB-1232 (Aroclor 1232)	**44.5**	ug/kg	37.3	16.9	1	09/28/18 14:53	10/02/18 16:33	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	37.3	16.9	1	09/28/18 14:53	10/02/18 16:33	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	37.3	16.9	1	09/28/18 14:53	10/02/18 16:33	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	37.3	16.9	1	09/28/18 14:53	10/02/18 16:33	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	37.3	16.9	1	09/28/18 14:53	10/02/18 16:33	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	65	%	21-132		1	09/28/18 14:53	10/02/18 16:33	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**59.6**	ug/kg	11.3	1.7	1	09/28/18 16:19	10/03/18 00:44	83-32-9	
Acenaphthylene	**88.7**	ug/kg	11.3	1.5	1	09/28/18 16:19	10/03/18 00:44	208-96-8	
Anthracene	**157**	ug/kg	11.3	1.6	1	09/28/18 16:19	10/03/18 00:44	120-12-7	
Benzo(a)anthracene	**815**	ug/kg	11.3	0.80	1	09/28/18 16:19	10/03/18 00:44	56-55-3	
Benzo(a)pyrene	**810**	ug/kg	11.3	1.2	1	09/28/18 16:19	10/03/18 00:44	50-32-8	
Benzo(b)fluoranthene	**1290**	ug/kg	22.5	1.5	2	09/28/18 16:19	10/03/18 09:56	205-99-2	
Benzo(g,h,i)perylene	**372**	ug/kg	11.3	2.9	1	09/28/18 16:19	10/03/18 00:44	191-24-2	
Benzo(k)fluoranthene	**338**	ug/kg	11.3	1.7	1	09/28/18 16:19	10/03/18 00:44	207-08-9	
Chrysene	**851**	ug/kg	11.3	2.0	1	09/28/18 16:19	10/03/18 00:44	218-01-9	
Dibenz(a,h)anthracene	**40.0**	ug/kg	11.3	2.0	1	09/28/18 16:19	10/03/18 00:44	53-70-3	
Fluoranthene	**1080**	ug/kg	22.5	1.9	2	09/28/18 16:19	10/03/18 09:56	206-44-0	
Fluorene	**47.3**	ug/kg	11.3	1.8	1	09/28/18 16:19	10/03/18 00:44	86-73-7	
Indeno(1,2,3-cd)pyrene	**371**	ug/kg	11.3	3.2	1	09/28/18 16:19	10/03/18 00:44	193-39-5	
1-Methylnaphthalene	**37.9**	ug/kg	11.3	1.4	1	09/28/18 16:19	10/03/18 00:44	90-12-0	
2-Methylnaphthalene	**52.5**	ug/kg	11.3	1.2	1	09/28/18 16:19	10/03/18 00:44	91-57-6	
Naphthalene	**76.8**	ug/kg	11.3	2.6	1	09/28/18 16:19	10/03/18 00:44	91-20-3	
Phenanthrene	**488**	ug/kg	11.3	1.7	1	09/28/18 16:19	10/03/18 00:44	85-01-8	
Pyrene	**1120**	ug/kg	22.5	4.1	2	09/28/18 16:19	10/03/18 09:56	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	71	%	10-128		1	09/28/18 16:19	10/03/18 00:44	4165-60-0	
2-Fluorobiphenyl (S)	71	%	10-110		1	09/28/18 16:19	10/03/18 00:44	321-60-8	
Terphenyl-d14 (S)	84	%	39-119		1	09/28/18 16:19	10/03/18 00:44	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.5**	%	0.10	0.10	1		09/27/18 18:21		

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ANALYTICAL RESULTS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Sample: ANO-SB002 (4'-5') **Lab ID: 92401220008** Collected: 09/24/18 14:10 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	40.2	18.3	1	09/28/18 14:53	09/29/18 15:28	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	40.2	18.3	1	09/28/18 14:53	09/29/18 15:28	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	40.2	18.3	1	09/28/18 14:53	09/29/18 15:28	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	40.2	18.3	1	09/28/18 14:53	09/29/18 15:28	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	40.2	18.3	1	09/28/18 14:53	09/29/18 15:28	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	40.2	18.3	1	09/28/18 14:53	09/29/18 15:28	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	40.2	18.3	1	09/28/18 14:53	09/29/18 15:28	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	107	%	21-132		1	09/28/18 14:53	09/29/18 15:28	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.1	1.8	1	09/28/18 16:19	10/02/18 19:28	83-32-9	
Acenaphthylene	ND	ug/kg	12.1	1.6	1	09/28/18 16:19	10/02/18 19:28	208-96-8	
Anthracene	**2.2J**	ug/kg	12.1	1.7	1	09/28/18 16:19	10/02/18 19:28	120-12-7	
Benzo(a)anthracene	**6.3J**	ug/kg	12.1	0.86	1	09/28/18 16:19	10/02/18 19:28	56-55-3	
Benzo(a)pyrene	**6.0J**	ug/kg	12.1	1.3	1	09/28/18 16:19	10/02/18 19:28	50-32-8	
Benzo(b)fluoranthene	**9.6J**	ug/kg	12.1	0.81	1	09/28/18 16:19	10/02/18 19:28	205-99-2	
Benzo(g,h,i)perylene	**5.0J**	ug/kg	12.1	3.1	1	09/28/18 16:19	10/02/18 19:28	191-24-2	
Benzo(k)fluoranthene	**2.8J**	ug/kg	12.1	1.8	1	09/28/18 16:19	10/02/18 19:28	207-08-9	
Chrysene	**6.0J**	ug/kg	12.1	2.2	1	09/28/18 16:19	10/02/18 19:28	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.1	2.2	1	09/28/18 16:19	10/02/18 19:28	53-70-3	
Fluoranthene	**11.3J**	ug/kg	12.1	1.0	1	09/28/18 16:19	10/02/18 19:28	206-44-0	
Fluorene	ND	ug/kg	12.1	1.9	1	09/28/18 16:19	10/02/18 19:28	86-73-7	
Indeno(1,2,3-cd)pyrene	**4.1J**	ug/kg	12.1	3.4	1	09/28/18 16:19	10/02/18 19:28	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.1	1.4	1	09/28/18 16:19	10/02/18 19:28	90-12-0	
2-Methylnaphthalene	**1.8J**	ug/kg	12.1	1.3	1	09/28/18 16:19	10/02/18 19:28	91-57-6	
Naphthalene	ND	ug/kg	12.1	2.8	1	09/28/18 16:19	10/02/18 19:28	91-20-3	
Phenanthrene	**8.2J**	ug/kg	12.1	1.8	1	09/28/18 16:19	10/02/18 19:28	85-01-8	
Pyrene	**10.3J**	ug/kg	12.1	2.2	1	09/28/18 16:19	10/02/18 19:28	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	91	%	10-128		1	09/28/18 16:19	10/02/18 19:28	4165-60-0	
2-Fluorobiphenyl (S)	83	%	10-110		1	09/28/18 16:19	10/02/18 19:28	321-60-8	
Terphenyl-d14 (S)	92	%	39-119		1	09/28/18 16:19	10/02/18 19:28	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.2**	%	0.10	0.10	1		09/27/18 18:21		

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QUALITY CONTROL DATA

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

QC Batch: 433359 | Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 | Analysis Description: 8082 GCS PCB
Associated Lab Samples: 92401220001, 92401220002, 92401220003, 92401220004, 92401220005, 92401220006, 92401220007, 92401220008

METHOD BLANK: 2387887 | Matrix: Solid
Associated Lab Samples: 92401220001, 92401220002, 92401220003, 92401220004, 92401220005, 92401220006, 92401220007, 92401220008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	33.1	15.1	09/29/18 17:48	
PCB-1221 (Aroclor 1221)	ug/kg	ND	33.1	15.1	09/29/18 17:48	
PCB-1232 (Aroclor 1232)	ug/kg	ND	33.1	15.1	09/29/18 17:48	
PCB-1242 (Aroclor 1242)	ug/kg	ND	33.1	15.1	09/29/18 17:48	
PCB-1248 (Aroclor 1248)	ug/kg	ND	33.1	15.1	09/29/18 17:48	
PCB-1254 (Aroclor 1254)	ug/kg	ND	33.1	15.1	09/29/18 17:48	
PCB-1260 (Aroclor 1260)	ug/kg	ND	33.1	15.1	09/29/18 17:48	
Decachlorobiphenyl (S)	%	116	21-132		09/29/18 17:48	

LABORATORY CONTROL SAMPLE & LCSD: 2387888 2387889

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	169	157	149	93	91	31-120	5	30	
PCB-1260 (Aroclor 1260)	ug/kg	169	187	172	111	104	32-120	8	30	
Decachlorobiphenyl (S)	%				110	102	21-132			

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QUALITY CONTROL DATA

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

QC Batch: 433443 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 | Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 92401220001, 92401220002, 92401220003, 92401220004, 92401220005, 92401220006, 92401220007, 92401220008

METHOD BLANK: 2388169 | Matrix: Solid
Associated Lab Samples: 92401220001, 92401220002, 92401220003, 92401220004, 92401220005, 92401220006, 92401220007, 92401220008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10	1.2	10/02/18 10:57	
2-Methylnaphthalene	ug/kg	ND	10	1.1	10/02/18 10:57	
Acenaphthene	ug/kg	ND	10	1.5	10/02/18 10:57	
Acenaphthylene	ug/kg	ND	10	1.3	10/02/18 10:57	
Anthracene	ug/kg	ND	10	1.4	10/02/18 10:57	
Benzo(a)anthracene	ug/kg	ND	10	0.71	10/02/18 10:57	
Benzo(a)pyrene	ug/kg	ND	10	1.1	10/02/18 10:57	
Benzo(b)fluoranthene	ug/kg	ND	10	0.67	10/02/18 10:57	
Benzo(g,h,i)perylene	ug/kg	ND	10	2.6	10/02/18 10:57	
Benzo(k)fluoranthene	ug/kg	ND	10	1.5	10/02/18 10:57	
Chrysene	ug/kg	ND	10	1.8	10/02/18 10:57	
Dibenz(a,h)anthracene	ug/kg	ND	10	1.8	10/02/18 10:57	
Fluoranthene	ug/kg	ND	10	0.83	10/02/18 10:57	
Fluorene	ug/kg	ND	10	1.6	10/02/18 10:57	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10	2.8	10/02/18 10:57	
Naphthalene	ug/kg	ND	10	2.3	10/02/18 10:57	
Phenanthrene	ug/kg	ND	10	1.5	10/02/18 10:57	
Pyrene	ug/kg	ND	10	1.8	10/02/18 10:57	
2-Fluorobiphenyl (S)	%	88	10-110		10/02/18 10:57	
Nitrobenzene-d5 (S)	%	98	10-128		10/02/18 10:57	
Terphenyl-d14 (S)	%	101	39-119		10/02/18 10:57	

LABORATORY CONTROL SAMPLE: 2388171

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	33.8	30.1	89	44-130	
2-Methylnaphthalene	ug/kg	33.8	31.1	92	41-134	
Acenaphthene	ug/kg	33.8	31.8	94	52-123	
Acenaphthylene	ug/kg	33.8	30.6	90	49-116	
Anthracene	ug/kg	33.8	31.8	94	41-133	
Benzo(a)anthracene	ug/kg	33.8	31.9	94	56-130	
Benzo(a)pyrene	ug/kg	33.8	31.0	92	51-136	
Benzo(b)fluoranthene	ug/kg	33.8	34.6	102	37-149	
Benzo(g,h,i)perylene	ug/kg	33.8	29.3	87	39-127	
Benzo(k)fluoranthene	ug/kg	33.8	31.9	94	45-139	
Chrysene	ug/kg	33.8	32.4	96	59-127	
Dibenz(a,h)anthracene	ug/kg	33.8	32.9	97	37-139	
Fluoranthene	ug/kg	33.8	32.3	96	53-132	

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QUALITY CONTROL DATA

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

LABORATORY CONTROL SAMPLE: 2388171

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	ug/kg	33.8	32.1	95	45-127	
Indeno(1,2,3-cd)pyrene	ug/kg	33.8	33.6	99	35-145	
Naphthalene	ug/kg	33.8	29.5	87	45-123	
Phenanthrene	ug/kg	33.8	31.6	93	50-125	
Pyrene	ug/kg	33.8	32.2	95	52-132	
2-Fluorobiphenyl (S)	%			93	10-110	
Nitrobenzene-d5 (S)	%			99	10-128	
Terphenyl-d14 (S)	%			99	39-119	

MATRIX SPIKE SAMPLE: 2388172

Parameter	Units	92401224001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	ND	40.6	33.5	78	50-150	
2-Methylnaphthalene	ug/kg	ND	40.6	37.2	84	50-150	
Acenaphthene	ug/kg	ND	40.6	30.8	74	50-150	
Acenaphthylene	ug/kg	ND	40.6	27.7	67	50-150	
Anthracene	ug/kg	ND	40.6	33.6	77	50-150	
Benzo(a)anthracene	ug/kg	32.8	40.6	80.4	117	50-150	
Benzo(a)pyrene	ug/kg	50.1	40.6	83.3	82	50-150	
Benzo(b)fluoranthene	ug/kg	94.8	40.6	127	79	50-150	
Benzo(g,h,i)perylene	ug/kg	59.4	40.6	76.5	42	50-150	M1
Benzo(k)fluoranthene	ug/kg	31.9	40.6	59.2	67	50-150	
Chrysene	ug/kg	37.5	40.6	82.2	110	50-150	
Dibenz(a,h)anthracene	ug/kg	ND	40.6	39.3	85	50-150	
Fluoranthene	ug/kg	38.2	40.6	101	154	50-150	M1
Fluorene	ug/kg	ND	40.6	30.5	74	50-150	
Indeno(1,2,3-cd)pyrene	ug/kg	52.6	40.6	74.3	53	50-150	
Naphthalene	ug/kg	ND	40.6	36.8	84	50-150	
Phenanthrene	ug/kg	12.7	40.6	55.3	105	50-150	
Pyrene	ug/kg	35.5	40.6	89.3	132	50-150	
2-Fluorobiphenyl (S)	%				72	10-110	
Nitrobenzene-d5 (S)	%				78	10-128	
Terphenyl-d14 (S)	%				74	39-119	

SAMPLE DUPLICATE: 2388173

Parameter	Units	92401224002 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/kg	ND	ND		30	
2-Methylnaphthalene	ug/kg	ND	ND		30	
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	ND	ND		30	
Anthracene	ug/kg	ND	ND		30	
Benzo(a)anthracene	ug/kg	ND	ND		30	
Benzo(a)pyrene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

SAMPLE DUPLICATE: 2388173

Parameter	Units	92401224002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzo(b)fluoranthene	ug/kg	ND	ND		30	
Benzo(g,h,i)perylene	ug/kg	ND	ND		30	
Benzo(k)fluoranthene	ug/kg	ND	ND		30	
Chrysene	ug/kg	ND	ND		30	
Dibenz(a,h)anthracene	ug/kg	ND	ND		30	
Fluoranthene	ug/kg	ND	ND		30	
Fluorene	ug/kg	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
Phenanthrene	ug/kg	ND	ND		30	
Pyrene	ug/kg	ND	ND		30	
2-Fluorobiphenyl (S)	%	77	70	9		
Nitrobenzene-d5 (S)	%	84	77	9		
Terphenyl-d14 (S)	%	84	80	5		

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QUALITY CONTROL DATA

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

QC Batch: 433173
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92401220001

SAMPLE DUPLICATE: 2387221

Parameter	Units	92401023029 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.6	19.5	43	25	D6

SAMPLE DUPLICATE: 2387222

Parameter	Units	92401224018 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.5	15.1	3	25	

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QUALITY CONTROL DATA

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

QC Batch: 433178 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92401220002, 92401220003, 92401220004, 92401220005, 92401220006, 92401220007, 92401220008

SAMPLE DUPLICATE: 2387274

Parameter	Units	92401183013 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.7	17.2	8	25	

SAMPLE DUPLICATE: 2387275

Parameter	Units	92400899002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.6	13.8	5	25	

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QUALIFIERS

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Frmr Cathode/Anode Plant Area
Pace Project No.: 92401220

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92401220001	**CAT-SB001 (0'-1')**	EPA 3546	433359	EPA 8082A	433541
92401220002	**CAT-SB001 (4'-5')**	EPA 3546	433359	EPA 8082A	433541
92401220003	**CAT-SB002 (0'-1')**	EPA 3546	433359	EPA 8082A	433541
92401220004	**CAT-SB002 (4'-5')**	EPA 3546	433359	EPA 8082A	433541
92401220005	**ANO-SB001 (0'-1')**	EPA 3546	433359	EPA 8082A	433541
92401220006	**ANO-SB001 (4'-5')**	EPA 3546	433359	EPA 8082A	433541
92401220007	**ANO-SB002 (0'-1')**	EPA 3546	433359	EPA 8082A	433541
92401220008	**ANO-SB002 (4'-5')**	EPA 3546	433359	EPA 8082A	433541
92401220001	**CAT-SB001 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401220002	**CAT-SB001 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401220003	**CAT-SB002 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401220004	**CAT-SB002 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401220005	**ANO-SB001 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401220006	**ANO-SB001 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401220007	**ANO-SB002 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401220008	**ANO-SB002 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401220001	**CAT-SB001 (0'-1')**	ASTM D2974-87	433173		
92401220002	**CAT-SB001 (4'-5')**	ASTM D2974-87	433178		
92401220003	**CAT-SB002 (0'-1')**	ASTM D2974-87	433178		
92401220004	**CAT-SB002 (4'-5')**	ASTM D2974-87	433178		
92401220005	**ANO-SB001 (0'-1')**	ASTM D2974-87	433178		
92401220006	**ANO-SB001 (4'-5')**	ASTM D2974-87	433178		
92401220007	**ANO-SB002 (0'-1')**	ASTM D2974-87	433178		
92401220008	**ANO-SB002 (4'-5')**	ASTM D2974-87	433178		

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Pace Analytical®	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ **Eden** ☐ **Greenwood** ☐ **Huntersville** ☑ **Raleigh** ☐ **Mechanicsville** ☐

Sample Condition Upon Receipt

Client Name: Environmental

Project #: WO#:92401220

92401220

Courier: ☐ Commercial ☐ Fed Ex ☑ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: TF 9-27-18

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 92T045 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.4 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 5.5

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: SL				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: NMG **Date:** 9/28/18

Project Manager SRF Review: NMG **Date:** 9/28/18

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#:92401220

PM: NMG Due Date: 10/08/18

CLIENT: 92-Alcoa

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1									2																			
2									2																			
3									2																			
4									2																			
5									2																			
6									2																			
7									2																			
8									2																			
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

0650

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:

Company: Environeering
Address: ~~138 Port Jackson Road~~ 16100 CARDINAL Morrisville, ~~NC 27560~~ HOUSTON TX 77084
Email: mworden@environeeringinc.com
Phone: 919 341 6492 Fax
Requested Due Date: STD

Section B — Required Project Information:

Report To: Michael Worden
Copy To:
Purchase Order #:
Project Name: Former Cathode/Anode Plant Areas
Project #: 137-7603

Section C — Invoice Information:

Attention: M. WORDEN
Company Name: ENVIRONEERING
Address: HOUSTON TX
Pace Quote:
Pace Project Manager: nicole.gasiorowski@pacelabs.com,
Pace Profile #: 7478

Regulatory Agency: NCDEQ
State / Location: NC

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	8270 PAHs	8082 PCBs	Residual Chlorine (Y/N)	92401220
1	CAT-SB001 (0'-1')	SL	G	—		9/25/18	825		2	X									X	X		001
2	CAT-SB001 (4'-5')	SL	G	—		↓	830		2	X									X	X		002
3	CAT-SB002 (0'-1')	SL	G	—		↓	840		2	X									X	X		003
4	CAT-SB002 (4'-5')	SL	G	—		↓	845		2	X									X	X		004
5	ANO-SB001 (0'-1')	SL	G	—		9/24/18	1340		2	X									X	X		005
6	ANO-SB001 (4'-5')	SL	G	—		↓	1345		2	X									X	X		006
7	ANO-SB002 (0'-1')	SL	G	—		↓	1405		2	X									X	X		007
8	ANO-SB002 (4'-5')	SL	G	—		↓	1410		2	X									X	X		008
9																						
10																						
11																						
12																						

Requested Analysis Filtered (Y/N)

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	Environeering	9/26/18	1525		9/26/18	1525
		9/27/18	1309	Justin Pace	9/27/18	0650
				Tyler Berg	9-27-18	1700

SAMPLE CONDITIONS: TEMP in C 6.8; Received on Ice (Y/N) Y; Custody Sealed Cooler (Y/N) N; Samples Intact (Y/N) Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICHAEL WORDEN

SIGNATURE of SAMPLER: [signature] DATE Signed: 9/25/18

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 12, 2018

Michael W. Worden
Environeering, Inc.
16100 Cairnway
Suite 320
Houston, TX 77084

RE: Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Dear Michael Worden:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revision was issued on 11/12/18 to report J-flagged results to the MDL, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole Gasiorowski

Nicole Gasiorowski
nicole.gasiorowski@pacelabs.com
(704)875-9092
Project Manager

Enclosures

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CERTIFICATIONS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92400643001	**ESW-SB001 (0'-1')**	Solid	09/24/18 12:10	09/25/18 07:30
92400643002	**ESW-SB001 (0'-1') DUP**	Solid	09/24/18 12:15	09/25/18 07:30
92400643003	**ESW-SB001 (4'-5')**	Solid	09/24/18 12:25	09/25/18 07:30
92400643004	**ESW-TB001**	Water	09/24/18 00:00	09/25/18 07:30

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SAMPLE ANALYTE COUNT

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92400643001	**ESW-SB001 (0'-1')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92400643002	**ESW-SB001 (0'-1') DUP**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92400643003	**ESW-SB001 (4'-5')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92400643004	**ESW-TB001**	EPA 8260B	SAS	71	PASI-C

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ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (0'-1') **Lab ID: 92400643001** Collected: 09/24/18 12:10 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	41.3	18.8	1	09/25/18 15:35	09/26/18 15:56	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	41.3	18.8	1	09/25/18 15:35	09/26/18 15:56	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	41.3	18.8	1	09/25/18 15:35	09/26/18 15:56	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	41.3	18.8	1	09/25/18 15:35	09/26/18 15:56	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	41.3	18.8	1	09/25/18 15:35	09/26/18 15:56	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	41.3	18.8	1	09/25/18 15:35	09/26/18 15:56	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	41.3	18.8	1	09/25/18 15:35	09/26/18 15:56	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	33	%	21-132		1	09/25/18 15:35	09/26/18 15:56	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**22.7J**	ug/kg	62.4	9.4	5	09/25/18 15:52	09/28/18 13:22	83-32-9	
Acenaphthylene	**34.6J**	ug/kg	62.4	8.1	5	09/25/18 15:52	09/28/18 13:22	208-96-8	
Anthracene	**133**	ug/kg	62.4	8.7	5	09/25/18 15:52	09/28/18 13:22	120-12-7	
Benzo(a)anthracene	**3910**	ug/kg	62.4	4.4	5	09/25/18 15:52	09/28/18 13:22	56-55-3	
Benzo(a)pyrene	**1550**	ug/kg	62.4	6.9	5	09/25/18 15:52	09/28/18 13:22	50-32-8	
Benzo(b)fluoranthene	**5570**	ug/kg	125	8.4	10	09/25/18 15:52	09/28/18 15:49	205-99-2	
Benzo(g,h,i)perylene	**1370**	ug/kg	62.4	16.2	5	09/25/18 15:52	09/28/18 13:22	191-24-2	
Benzo(k)fluoranthene	**1760**	ug/kg	62.4	9.4	5	09/25/18 15:52	09/28/18 13:22	207-08-9	
Chrysene	**4170**	ug/kg	62.4	11.2	5	09/25/18 15:52	09/28/18 13:22	218-01-9	
Dibenz(a,h)anthracene	**509**	ug/kg	62.4	11.2	5	09/25/18 15:52	09/28/18 13:22	53-70-3	
Fluoranthene	**1530**	ug/kg	62.4	5.2	5	09/25/18 15:52	09/28/18 13:22	206-44-0	
Fluorene	**16.8J**	ug/kg	62.4	10	5	09/25/18 15:52	09/28/18 13:22	86-73-7	
Indeno(1,2,3-cd)pyrene	**1150**	ug/kg	62.4	17.5	5	09/25/18 15:52	09/28/18 13:22	193-39-5	
1-Methylnaphthalene	**150**	ug/kg	62.4	7.5	5	09/25/18 15:52	09/28/18 13:22	90-12-0	
2-Methylnaphthalene	**213**	ug/kg	62.4	6.9	5	09/25/18 15:52	09/28/18 13:22	91-57-6	
Naphthalene	**167**	ug/kg	62.4	14.3	5	09/25/18 15:52	09/28/18 13:22	91-20-3	
Phenanthrene	**456**	ug/kg	62.4	9.4	5	09/25/18 15:52	09/28/18 13:22	85-01-8	
Pyrene	**1770**	ug/kg	62.4	11.2	5	09/25/18 15:52	09/28/18 13:22	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	60	%	10-128		5	09/25/18 15:52	09/28/18 13:22	4165-60-0	D3
2-Fluorobiphenyl (S)	60	%	10-110		5	09/25/18 15:52	09/28/18 13:22	321-60-8	
Terphenyl-d14 (S)	75	%	39-119		5	09/25/18 15:52	09/28/18 13:22	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	**12.1J**	ug/kg	99.4	9.9	1	09/25/18 14:42	09/25/18 19:02	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1	09/25/18 14:42	09/25/18 19:02	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1	09/25/18 14:42	09/25/18 19:02	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1	09/25/18 14:42	09/25/18 19:02	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1	09/25/18 14:42	09/25/18 19:02	75-25-2	
Bromomethane	ND	ug/kg	9.9	2.5	1	09/25/18 14:42	09/25/18 19:02	74-83-9	
2-Butanone (MEK)	ND	ug/kg	99.4	2.9	1	09/25/18 14:42	09/25/18 19:02	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1	09/25/18 14:42	09/25/18 19:02	135-98-8	

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (0'-1') **Lab ID: 92400643001** Collected: 09/24/18 12:10 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1	09/25/18 14:42	09/25/18 19:02	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1	09/25/18 14:42	09/25/18 19:02	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1	09/25/18 14:42	09/25/18 19:02	108-90-7	
Chloroethane	ND	ug/kg	9.9	2.4	1	09/25/18 14:42	09/25/18 19:02	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1	09/25/18 14:42	09/25/18 19:02	67-66-3	
Chloromethane	ND	ug/kg	9.9	2.4	1	09/25/18 14:42	09/25/18 19:02	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1	09/25/18 14:42	09/25/18 19:02	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1	09/25/18 14:42	09/25/18 19:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1	09/25/18 14:42	09/25/18 19:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1	09/25/18 14:42	09/25/18 19:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.9	3.6	1	09/25/18 14:42	09/25/18 19:02	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1	09/25/18 14:42	09/25/18 19:02	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1	09/25/18 14:42	09/25/18 19:02	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1	09/25/18 14:42	09/25/18 19:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1	09/25/18 14:42	09/25/18 19:02	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1	09/25/18 14:42	09/25/18 19:02	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1	09/25/18 14:42	09/25/18 19:02	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1	09/25/18 14:42	09/25/18 19:02	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	108-20-3	
Ethylbenzene	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1	09/25/18 14:42	09/25/18 19:02	87-68-3	
2-Hexanone	ND	ug/kg	49.7	3.9	1	09/25/18 14:42	09/25/18 19:02	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1	09/25/18 14:42	09/25/18 19:02	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	99-87-6	
Methylene Chloride	ND	ug/kg	19.9	3.0	1	09/25/18 14:42	09/25/18 19:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.7	3.7	1	09/25/18 14:42	09/25/18 19:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1	09/25/18 14:42	09/25/18 19:02	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1	09/25/18 14:42	09/25/18 19:02	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1	09/25/18 14:42	09/25/18 19:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1	09/25/18 14:42	09/25/18 19:02	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1	09/25/18 14:42	09/25/18 19:02	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1	09/25/18 14:42	09/25/18 19:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1	09/25/18 14:42	09/25/18 19:02	120-82-1	

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(704)875-9092

ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (0'-1') **Lab ID: 92400643001** Collected: 09/24/18 12:10 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1	09/25/18 14:42	09/25/18 19:02	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1	09/25/18 14:42	09/25/18 19:02	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1	09/25/18 14:42	09/25/18 19:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1	09/25/18 14:42	09/25/18 19:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1	09/25/18 14:42	09/25/18 19:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1	09/25/18 14:42	09/25/18 19:02	108-67-8	
Vinyl acetate	ND	ug/kg	49.7	8.7	1	09/25/18 14:42	09/25/18 19:02	108-05-4	
Vinyl chloride	ND	ug/kg	9.9	1.8	1	09/25/18 14:42	09/25/18 19:02	75-01-4	
Xylene (Total)	ND	ug/kg	9.9	3.6	1	09/25/18 14:42	09/25/18 19:02	1330-20-7	
m&p-Xylene	ND	ug/kg	9.9	3.6	1	09/25/18 14:42	09/25/18 19:02	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1	09/25/18 14:42	09/25/18 19:02	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1	09/25/18 14:42	09/25/18 19:02	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1	09/25/18 14:42	09/25/18 19:02	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-132		1	09/25/18 14:42	09/25/18 19:02	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.1**	%	0.10	0.10	1		09/25/18 15:10		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.17	1	09/29/18 18:45	10/02/18 16:12	57-12-5	M1
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**33.0**	mg/kg	6.2	3.1	1	10/01/18 09:30	10/01/18 12:49	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (0'-1') DUP **Lab ID: 92400643002** Collected: 09/24/18 12:15 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	39.2	17.8	1	09/25/18 15:35	09/26/18 16:16	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	39.2	17.8	1	09/25/18 15:35	09/26/18 16:16	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	39.2	17.8	1	09/25/18 15:35	09/26/18 16:16	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	39.2	17.8	1	09/25/18 15:35	09/26/18 16:16	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	39.2	17.8	1	09/25/18 15:35	09/26/18 16:16	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	39.2	17.8	1	09/25/18 15:35	09/26/18 16:16	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	39.2	17.8	1	09/25/18 15:35	09/26/18 16:16	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	178	%	21-132		1	09/25/18 15:35	09/26/18 16:16	2051-24-3	S3
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**26.8**	ug/kg	11.7	1.8	1	09/25/18 15:52	09/27/18 18:03	83-32-9	
Acenaphthylene	**26.6**	ug/kg	11.7	1.5	1	09/25/18 15:52	09/27/18 18:03	208-96-8	
Anthracene	**107**	ug/kg	11.7	1.6	1	09/25/18 15:52	09/27/18 18:03	120-12-7	
Benzo(a)anthracene	**875**	ug/kg	46.7	3.3	4	09/25/18 15:52	09/28/18 13:43	56-55-3	
Benzo(a)pyrene	**773**	ug/kg	11.7	1.3	1	09/25/18 15:52	09/27/18 18:03	50-32-8	
Benzo(b)fluoranthene	**1830**	ug/kg	46.7	3.1	4	09/25/18 15:52	09/28/18 13:43	205-99-2	
Benzo(g,h,i)perylene	**627**	ug/kg	11.7	3.0	1	09/25/18 15:52	09/27/18 18:03	191-24-2	
Benzo(k)fluoranthene	**639**	ug/kg	11.7	1.8	1	09/25/18 15:52	09/27/18 18:03	207-08-9	
Chrysene	**1790**	ug/kg	46.7	8.4	4	09/25/18 15:52	09/28/18 13:43	218-01-9	
Dibenz(a,h)anthracene	**242**	ug/kg	11.7	2.1	1	09/25/18 15:52	09/27/18 18:03	53-70-3	
Fluoranthene	**899**	ug/kg	11.7	0.97	1	09/25/18 15:52	09/27/18 18:03	206-44-0	
Fluorene	**20.7**	ug/kg	11.7	1.9	1	09/25/18 15:52	09/27/18 18:03	86-73-7	
Indeno(1,2,3-cd)pyrene	**555**	ug/kg	11.7	3.3	1	09/25/18 15:52	09/27/18 18:03	193-39-5	
1-Methylnaphthalene	**127**	ug/kg	11.7	1.4	1	09/25/18 15:52	09/27/18 18:03	90-12-0	
2-Methylnaphthalene	**184**	ug/kg	11.7	1.3	1	09/25/18 15:52	09/27/18 18:03	91-57-6	
Naphthalene	**155**	ug/kg	11.7	2.7	1	09/25/18 15:52	09/27/18 18:03	91-20-3	
Phenanthrene	**499**	ug/kg	11.7	1.8	1	09/25/18 15:52	09/27/18 18:03	85-01-8	
Pyrene	**868**	ug/kg	11.7	2.1	1	09/25/18 15:52	09/27/18 18:03	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	68	%	10-128		1	09/25/18 15:52	09/27/18 18:03	4165-60-0	
2-Fluorobiphenyl (S)	66	%	10-110		1	09/25/18 15:52	09/27/18 18:03	321-60-8	
Terphenyl-d14 (S)	90	%	39-119		1	09/25/18 15:52	09/27/18 18:03	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	**12.8J**	ug/kg	86.4	8.6	1	09/25/18 14:42	09/25/18 19:42	67-64-1	
Benzene	ND	ug/kg	4.3	1.4	1	09/25/18 14:42	09/25/18 19:42	71-43-2	
Bromobenzene	ND	ug/kg	4.3	1.7	1	09/25/18 14:42	09/25/18 19:42	108-86-1	
Bromochloromethane	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	74-97-5	
Bromodichloromethane	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	75-27-4	
Bromoform	ND	ug/kg	4.3	2.0	1	09/25/18 14:42	09/25/18 19:42	75-25-2	
Bromomethane	ND	ug/kg	8.6	2.2	1	09/25/18 14:42	09/25/18 19:42	74-83-9	
2-Butanone (MEK)	ND	ug/kg	86.4	2.5	1	09/25/18 14:42	09/25/18 19:42	78-93-3	
n-Butylbenzene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.3	1.4	1	09/25/18 14:42	09/25/18 19:42	135-98-8	

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ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (0'-1') DUP **Lab ID: 92400643002** Collected: 09/24/18 12:15 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
tert-Butylbenzene	ND	ug/kg	4.3	1.7	1	09/25/18 14:42	09/25/18 19:42	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.3	2.2	1	09/25/18 14:42	09/25/18 19:42	56-23-5	
Chlorobenzene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	108-90-7	
Chloroethane	ND	ug/kg	8.6	2.1	1	09/25/18 14:42	09/25/18 19:42	75-00-3	
Chloroform	ND	ug/kg	4.3	1.4	1	09/25/18 14:42	09/25/18 19:42	67-66-3	
Chloromethane	ND	ug/kg	8.6	2.1	1	09/25/18 14:42	09/25/18 19:42	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.3	3.1	1	09/25/18 14:42	09/25/18 19:42	96-12-8	
Dibromochloromethane	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	106-93-4	
Dibromomethane	ND	ug/kg	4.3	2.2	1	09/25/18 14:42	09/25/18 19:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.3	1.7	1	09/25/18 14:42	09/25/18 19:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.6	3.1	1	09/25/18 14:42	09/25/18 19:42	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.3	1.3	1	09/25/18 14:42	09/25/18 19:42	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.3	1.9	1	09/25/18 14:42	09/25/18 19:42	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.3	1.2	1	09/25/18 14:42	09/25/18 19:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.3	1.3	1	09/25/18 14:42	09/25/18 19:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.3	1.3	1	09/25/18 14:42	09/25/18 19:42	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	108-20-3	
Ethylbenzene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.3	1.7	1	09/25/18 14:42	09/25/18 19:42	87-68-3	M1
2-Hexanone	ND	ug/kg	43.2	3.4	1	09/25/18 14:42	09/25/18 19:42	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	99-87-6	
Methylene Chloride	ND	ug/kg	17.3	2.6	1	09/25/18 14:42	09/25/18 19:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	43.2	3.2	1	09/25/18 14:42	09/25/18 19:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.3	1.3	1	09/25/18 14:42	09/25/18 19:42	1634-04-4	
Naphthalene	ND	ug/kg	4.3	1.0	1	09/25/18 14:42	09/25/18 19:42	91-20-3	
n-Propylbenzene	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	103-65-1	
Styrene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.3	1.8	1	09/25/18 14:42	09/25/18 19:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	79-34-5	M1
Tetrachloroethene	ND	ug/kg	4.3	1.5	1	09/25/18 14:42	09/25/18 19:42	127-18-4	
Toluene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.3	1.9	1	09/25/18 14:42	09/25/18 19:42	87-61-6	M1
1,2,4-Trichlorobenzene	ND	ug/kg	4.3	1.4	1	09/25/18 14:42	09/25/18 19:42	120-82-1	M1

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (0'-1') DUP **Lab ID: 92400643002** Collected: 09/24/18 12:15 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
1,1,1-Trichloroethane	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.3	1.8	1	09/25/18 14:42	09/25/18 19:42	79-00-5	
Trichloroethene	ND	ug/kg	4.3	1.8	1	09/25/18 14:42	09/25/18 19:42	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.3	1.9	1	09/25/18 14:42	09/25/18 19:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.3	1.4	1	09/25/18 14:42	09/25/18 19:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.3	1.7	1	09/25/18 14:42	09/25/18 19:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	108-67-8	
Vinyl acetate	ND	ug/kg	43.2	7.6	1	09/25/18 14:42	09/25/18 19:42	108-05-4	M1
Vinyl chloride	ND	ug/kg	8.6	1.6	1	09/25/18 14:42	09/25/18 19:42	75-01-4	
Xylene (Total)	ND	ug/kg	8.6	3.1	1	09/25/18 14:42	09/25/18 19:42	1330-20-7	
m&p-Xylene	ND	ug/kg	8.6	3.1	1	09/25/18 14:42	09/25/18 19:42	179601-23-1	
o-Xylene	ND	ug/kg	4.3	1.6	1	09/25/18 14:42	09/25/18 19:42	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1	09/25/18 14:42	09/25/18 19:42	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1	09/25/18 14:42	09/25/18 19:42	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-132		1	09/25/18 14:42	09/25/18 19:42	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.7**	%	0.10	0.10	1		09/25/18 15:10		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.29J**	mg/kg	0.30	0.17	1	09/29/18 18:45	10/02/18 16:15	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**40.1**	mg/kg	5.9	3.0	1	10/01/18 09:30	10/01/18 13:13	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (4'-5') **Lab ID: 92400643003** Collected: 09/24/18 12:25 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	42.4	19.3	1	09/25/18 15:35	09/26/18 16:36	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	42.4	19.3	1	09/25/18 15:35	09/26/18 16:36	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	42.4	19.3	1	09/25/18 15:35	09/26/18 16:36	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	42.4	19.3	1	09/25/18 15:35	09/26/18 16:36	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	42.4	19.3	1	09/25/18 15:35	09/26/18 16:36	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	42.4	19.3	1	09/25/18 15:35	09/26/18 16:36	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	42.4	19.3	1	09/25/18 15:35	09/26/18 16:36	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	94	%	21-132		1	09/25/18 15:35	09/26/18 16:36	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.6	1.9	1	09/25/18 15:52	09/27/18 18:25	83-32-9	
Acenaphthylene	ND	ug/kg	12.6	1.6	1	09/25/18 15:52	09/27/18 18:25	208-96-8	
Anthracene	ND	ug/kg	12.6	1.8	1	09/25/18 15:52	09/27/18 18:25	120-12-7	
Benzo(a)anthracene	**3.2J**	ug/kg	12.6	0.89	1	09/25/18 15:52	09/27/18 18:25	56-55-3	
Benzo(a)pyrene	**1.9J**	ug/kg	12.6	1.4	1	09/25/18 15:52	09/27/18 18:25	50-32-8	
Benzo(b)fluoranthene	**4.2J**	ug/kg	12.6	0.84	1	09/25/18 15:52	09/27/18 18:25	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.6	3.3	1	09/25/18 15:52	09/27/18 18:25	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.6	1.9	1	09/25/18 15:52	09/27/18 18:25	207-08-9	
Chrysene	**6.3J**	ug/kg	12.6	2.3	1	09/25/18 15:52	09/27/18 18:25	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.6	2.3	1	09/25/18 15:52	09/27/18 18:25	53-70-3	
Fluoranthene	**2.2J**	ug/kg	12.6	1.0	1	09/25/18 15:52	09/27/18 18:25	206-44-0	
Fluorene	ND	ug/kg	12.6	2.0	1	09/25/18 15:52	09/27/18 18:25	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.6	3.5	1	09/25/18 15:52	09/27/18 18:25	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.6	1.5	1	09/25/18 15:52	09/27/18 18:25	90-12-0	
2-Methylnaphthalene	**1.9J**	ug/kg	12.6	1.4	1	09/25/18 15:52	09/27/18 18:25	91-57-6	
Naphthalene	ND	ug/kg	12.6	2.9	1	09/25/18 15:52	09/27/18 18:25	91-20-3	
Phenanthrene	ND	ug/kg	12.6	1.9	1	09/25/18 15:52	09/27/18 18:25	85-01-8	
Pyrene	**2.5J**	ug/kg	12.6	2.3	1	09/25/18 15:52	09/27/18 18:25	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	81	%	10-128		1	09/25/18 15:52	09/27/18 18:25	4165-60-0	
2-Fluorobiphenyl (S)	76	%	10-110		1	09/25/18 15:52	09/27/18 18:25	321-60-8	
Terphenyl-d14 (S)	72	%	39-119		1	09/25/18 15:52	09/27/18 18:25	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	ND	ug/kg	92.8	9.3	1	09/25/18 14:42	09/25/18 20:22	67-64-1	
Benzene	ND	ug/kg	4.6	1.5	1	09/25/18 14:42	09/25/18 20:22	71-43-2	
Bromobenzene	ND	ug/kg	4.6	1.9	1	09/25/18 14:42	09/25/18 20:22	108-86-1	
Bromochloromethane	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	74-97-5	
Bromodichloromethane	ND	ug/kg	4.6	1.8	1	09/25/18 14:42	09/25/18 20:22	75-27-4	
Bromoform	ND	ug/kg	4.6	2.1	1	09/25/18 14:42	09/25/18 20:22	75-25-2	
Bromomethane	ND	ug/kg	9.3	2.3	1	09/25/18 14:42	09/25/18 20:22	74-83-9	
2-Butanone (MEK)	ND	ug/kg	92.8	2.7	1	09/25/18 14:42	09/25/18 20:22	78-93-3	
n-Butylbenzene	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.6	1.5	1	09/25/18 14:42	09/25/18 20:22	135-98-8	

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ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (4'-5') **Lab ID: 92400643003** Collected: 09/24/18 12:25 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
tert-Butylbenzene	ND	ug/kg	4.6	1.9	1	09/25/18 14:42	09/25/18 20:22	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.6	2.4	1	09/25/18 14:42	09/25/18 20:22	56-23-5	
Chlorobenzene	ND	ug/kg	4.6	1.8	1	09/25/18 14:42	09/25/18 20:22	108-90-7	
Chloroethane	ND	ug/kg	9.3	2.2	1	09/25/18 14:42	09/25/18 20:22	75-00-3	
Chloroform	ND	ug/kg	4.6	1.5	1	09/25/18 14:42	09/25/18 20:22	67-66-3	
Chloromethane	ND	ug/kg	9.3	2.2	1	09/25/18 14:42	09/25/18 20:22	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.6	3.3	1	09/25/18 14:42	09/25/18 20:22	96-12-8	
Dibromochloromethane	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	106-93-4	
Dibromomethane	ND	ug/kg	4.6	2.3	1	09/25/18 14:42	09/25/18 20:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.6	1.8	1	09/25/18 14:42	09/25/18 20:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.6	1.9	1	09/25/18 14:42	09/25/18 20:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.3	3.3	1	09/25/18 14:42	09/25/18 20:22	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.6	1.4	1	09/25/18 14:42	09/25/18 20:22	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.6	2.0	1	09/25/18 14:42	09/25/18 20:22	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.6	1.3	1	09/25/18 14:42	09/25/18 20:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.6	1.8	1	09/25/18 14:42	09/25/18 20:22	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.6	1.8	1	09/25/18 14:42	09/25/18 20:22	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.6	1.4	1	09/25/18 14:42	09/25/18 20:22	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.6	1.4	1	09/25/18 14:42	09/25/18 20:22	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	108-20-3	
Ethylbenzene	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.6	1.9	1	09/25/18 14:42	09/25/18 20:22	87-68-3	
2-Hexanone	ND	ug/kg	46.4	3.6	1	09/25/18 14:42	09/25/18 20:22	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.6	1.8	1	09/25/18 14:42	09/25/18 20:22	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	99-87-6	
Methylene Chloride	**3.7J**	ug/kg	18.6	2.8	1	09/25/18 14:42	09/25/18 20:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	46.4	3.4	1	09/25/18 14:42	09/25/18 20:22	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.6	1.4	1	09/25/18 14:42	09/25/18 20:22	1634-04-4	
Naphthalene	ND	ug/kg	4.6	1.1	1	09/25/18 14:42	09/25/18 20:22	91-20-3	
n-Propylbenzene	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	103-65-1	
Styrene	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.6	1.9	1	09/25/18 14:42	09/25/18 20:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.6	1.8	1	09/25/18 14:42	09/25/18 20:22	79-34-5	
Tetrachloroethene	ND	ug/kg	4.6	1.6	1	09/25/18 14:42	09/25/18 20:22	127-18-4	
Toluene	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.6	2.0	1	09/25/18 14:42	09/25/18 20:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.6	1.5	1	09/25/18 14:42	09/25/18 20:22	120-82-1	

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ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-SB001 (4'-5') **Lab ID: 92400643003** Collected: 09/24/18 12:25 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
1,1,1-Trichloroethane	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.6	1.9	1	09/25/18 14:42	09/25/18 20:22	79-00-5	
Trichloroethene	ND	ug/kg	4.6	1.9	1	09/25/18 14:42	09/25/18 20:22	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.6	2.0	1	09/25/18 14:42	09/25/18 20:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.6	1.5	1	09/25/18 14:42	09/25/18 20:22	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.6	1.9	1	09/25/18 14:42	09/25/18 20:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.6	1.7	1	09/25/18 14:42	09/25/18 20:22	108-67-8	
Vinyl acetate	ND	ug/kg	46.4	8.2	1	09/25/18 14:42	09/25/18 20:22	108-05-4	
Vinyl chloride	ND	ug/kg	9.3	1.7	1	09/25/18 14:42	09/25/18 20:22	75-01-4	
Xylene (Total)	ND	ug/kg	9.3	3.3	1	09/25/18 14:42	09/25/18 20:22	1330-20-7	
m&p-Xylene	ND	ug/kg	9.3	3.3	1	09/25/18 14:42	09/25/18 20:22	179601-23-1	
o-Xylene	ND	ug/kg	4.6	1.8	1	09/25/18 14:42	09/25/18 20:22	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1	09/25/18 14:42	09/25/18 20:22	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1	09/25/18 14:42	09/25/18 20:22	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-132		1	09/25/18 14:42	09/25/18 20:22	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.4**	%	0.10	0.10	1		09/25/18 15:10		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.17	1	09/29/18 18:45	10/02/18 16:19	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	6.4	3.2	1	10/01/18 09:30	10/01/18 13:36	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-TB001 **Lab ID: 92400643004** Collected: 09/24/18 00:00 Received: 09/25/18 07:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	25.0	10.0	1		10/02/18 14:40	67-64-1	
Benzene	ND	ug/L	5.0	1.7	1		10/02/18 14:40	71-43-2	
Bromobenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:40	108-86-1	
Bromochloromethane	ND	ug/L	5.0	2.2	1		10/02/18 14:40	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1.7	1		10/02/18 14:40	75-27-4	
Bromoform	ND	ug/L	5.0	1.5	1		10/02/18 14:40	75-25-2	
Bromomethane	ND	ug/L	10.0	2.5	1		10/02/18 14:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	4.9	1		10/02/18 14:40	78-93-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/02/18 14:40	75-65-0	
n-Butylbenzene	ND	ug/L	5.0	1.9	1		10/02/18 14:40	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	1.7	1		10/02/18 14:40	135-98-8	
tert-Butylbenzene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	98-06-6	
Carbon tetrachloride	ND	ug/L	5.0	1.9	1		10/02/18 14:40	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1.7	1		10/02/18 14:40	108-90-7	
Chloroethane	ND	ug/L	10.0	1.6	1		10/02/18 14:40	75-00-3	
Chloroform	ND	ug/L	5.0	1.9	1		10/02/18 14:40	67-66-3	
Chloromethane	ND	ug/L	5.0	1.5	1		10/02/18 14:40	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	1.5	1		10/02/18 14:40	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1.7	1		10/02/18 14:40	96-12-8	
Dibromochloromethane	ND	ug/L	5.0	1.8	1		10/02/18 14:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1.7	1		10/02/18 14:40	106-93-4	
Dibromomethane	ND	ug/L	5.0	2.0	1		10/02/18 14:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:40	106-46-7	
Dichlorodifluoromethane	ND	ug/L	5.0	1.6	1		10/02/18 14:40	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1.8	1		10/02/18 14:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/02/18 14:40	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	4.4	1		10/02/18 14:40	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	1.9	1		10/02/18 14:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1.8	1		10/02/18 14:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1.8	1		10/02/18 14:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1.7	1		10/02/18 14:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	1.7	1		10/02/18 14:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1.6	1		10/02/18 14:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	1.7	1		10/02/18 14:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	10061-02-6	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/02/18 14:40	108-20-3	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1.8	1		10/02/18 14:40	87-68-3	
2-Hexanone	ND	ug/L	10.0	3.8	1		10/02/18 14:40	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1.6	1		10/02/18 14:40	98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1.9	1		10/02/18 14:40	75-09-2	

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ANALYTICAL RESULTS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Sample: ESW-TB001 **Lab ID: 92400643004** Collected: 09/24/18 00:00 Received: 09/25/18 07:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	3.6	1		10/02/18 14:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/02/18 14:40	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/02/18 14:40	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:40	103-65-1	
Styrene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1.7	1		10/02/18 14:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1.5	1		10/02/18 14:40	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1.8	1		10/02/18 14:40	127-18-4	
Toluene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	2.0	1		10/02/18 14:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1.7	1		10/02/18 14:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1.9	1		10/02/18 14:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1.7	1		10/02/18 14:40	79-00-5	
Trichloroethene	ND	ug/L	5.0	1.8	1		10/02/18 14:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	10.0	1.7	1		10/02/18 14:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1.5	1		10/02/18 14:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1.3	1		10/02/18 14:40	108-67-8	
Vinyl acetate	ND	ug/L	10.0	2.3	1		10/02/18 14:40	108-05-4	
Vinyl chloride	ND	ug/L	5.0	1.5	1		10/02/18 14:40	75-01-4	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/02/18 14:40	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/02/18 14:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/02/18 14:40	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		10/02/18 14:40	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		10/02/18 14:40	2037-26-5	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

QC Batch: 433825 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV
Associated Lab Samples: 92400643004

METHOD BLANK: 2389677 | Matrix: Water
Associated Lab Samples: 92400643004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,1,1-Trichloroethane	ug/L	ND	5.0	1.9	10/02/18 06:16	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,1,2-Trichloroethane	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,1-Dichloroethane	ug/L	ND	5.0	1.8	10/02/18 06:16	
1,1-Dichloroethene	ug/L	ND	5.0	1.9	10/02/18 06:16	
1,1-Dichloropropene	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,2,3-Trichlorobenzene	ug/L	ND	5.0	2.0	10/02/18 06:16	
1,2,3-Trichloropropane	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,2,4-Trichlorobenzene	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	1.7	10/02/18 06:16	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,2-Dichlorobenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,2-Dichloroethane	ug/L	ND	5.0	1.8	10/02/18 06:16	
1,2-Dichloroethene (Total)	ug/L	ND	5.0	4.4	10/02/18 06:16	
1,2-Dichloropropane	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	1.3	10/02/18 06:16	
1,3-Dichlorobenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,3-Dichloropropane	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,4-Dichlorobenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
2,2-Dichloropropane	ug/L	ND	5.0	1.6	10/02/18 06:16	
2-Butanone (MEK)	ug/L	ND	10.0	4.9	10/02/18 06:16	
2-Chlorotoluene	ug/L	ND	5.0	1.5	10/02/18 06:16	
2-Hexanone	ug/L	ND	10.0	3.8	10/02/18 06:16	
4-Chlorotoluene	ug/L	ND	5.0	1.6	10/02/18 06:16	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	3.6	10/02/18 06:16	
Acetone	ug/L	ND	25.0	10.0	10/02/18 06:16	
Benzene	ug/L	ND	5.0	1.7	10/02/18 06:16	
Bromobenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
Bromochloromethane	ug/L	ND	5.0	2.2	10/02/18 06:16	
Bromodichloromethane	ug/L	ND	5.0	1.7	10/02/18 06:16	
Bromoform	ug/L	ND	5.0	1.5	10/02/18 06:16	
Bromomethane	ug/L	ND	10.0	2.5	10/02/18 06:16	
Carbon tetrachloride	ug/L	ND	5.0	1.9	10/02/18 06:16	
Chlorobenzene	ug/L	ND	5.0	1.7	10/02/18 06:16	
Chloroethane	ug/L	ND	10.0	1.6	10/02/18 06:16	
Chloroform	ug/L	ND	5.0	1.9	10/02/18 06:16	
Chloromethane	ug/L	ND	5.0	1.5	10/02/18 06:16	
cis-1,2-Dichloroethene	ug/L	ND	5.0	1.8	10/02/18 06:16	
cis-1,3-Dichloropropene	ug/L	ND	5.0	1.6	10/02/18 06:16	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

METHOD BLANK: 2389677 Matrix: Water
Associated Lab Samples: 92400643004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/L	ND	5.0	1.8	10/02/18 06:16	
Dibromomethane	ug/L	ND	5.0	2.0	10/02/18 06:16	
Dichlorodifluoromethane	ug/L	ND	5.0	1.6	10/02/18 06:16	
Diisopropyl ether	ug/L	ND	5.0	1.7	10/02/18 06:16	
Ethylbenzene	ug/L	ND	5.0	1.6	10/02/18 06:16	
Hexachloro-1,3-butadiene	ug/L	3.8J	5.0	1.8	10/02/18 06:16	
Isopropylbenzene (Cumene)	ug/L	ND	5.0	1.6	10/02/18 06:16	
m&p-Xylene	ug/L	ND	10.0	3.1	10/02/18 06:16	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	10/02/18 06:16	
Methylene Chloride	ug/L	ND	5.0	1.9	10/02/18 06:16	
n-Butylbenzene	ug/L	ND	5.0	1.9	10/02/18 06:16	
n-Propylbenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
Naphthalene	ug/L	ND	5.0	2.0	10/02/18 06:16	
o-Xylene	ug/L	ND	5.0	1.6	10/02/18 06:16	
p-Isopropyltoluene	ug/L	ND	5.0	1.6	10/02/18 06:16	
sec-Butylbenzene	ug/L	ND	5.0	1.7	10/02/18 06:16	
Styrene	ug/L	ND	5.0	1.6	10/02/18 06:16	
tert-Butyl Alcohol	ug/L	ND	100	57.7	10/02/18 06:16	
tert-Butylbenzene	ug/L	ND	5.0	1.6	10/02/18 06:16	
Tetrachloroethene	ug/L	ND	5.0	1.8	10/02/18 06:16	
Toluene	ug/L	ND	5.0	1.6	10/02/18 06:16	
trans-1,2-Dichloroethene	ug/L	ND	5.0	1.8	10/02/18 06:16	
trans-1,3-Dichloropropene	ug/L	ND	5.0	1.6	10/02/18 06:16	
Trichloroethene	ug/L	ND	5.0	1.8	10/02/18 06:16	
Trichlorofluoromethane	ug/L	ND	10.0	1.7	10/02/18 06:16	
Vinyl acetate	ug/L	ND	10.0	2.3	10/02/18 06:16	
Vinyl chloride	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,2-Dichloroethane-d4 (S)	%	99	70-130		10/02/18 06:16	
4-Bromofluorobenzene (S)	%	97	70-130		10/02/18 06:16	
Toluene-d8 (S)	%	104	70-130		10/02/18 06:16	

LABORATORY CONTROL SAMPLE: 2389678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.0	96	80-125	
1,1,1-Trichloroethane	ug/L	50	47.4	95	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	49.0	98	79-124	
1,1,2-Trichloroethane	ug/L	50	48.5	97	85-125	
1,1-Dichloroethane	ug/L	50	50.0	100	73-126	
1,1-Dichloroethene	ug/L	50	48.7	97	66-135	
1,1-Dichloropropene	ug/L	50	49.0	98	74-135	
1,2,3-Trichlorobenzene	ug/L	50	54.1	108	73-135	
1,2,3-Trichloropropane	ug/L	50	52.1	104	75-130	
1,2,4-Trichlorobenzene	ug/L	50	48.7	97	75-134	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

LABORATORY CONTROL SAMPLE: 2389678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	50	49.1	98	79-125	
1,2-Dibromo-3-chloropropane	ug/L	50	45.7	91	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	49.5	99	83-124	
1,2-Dichlorobenzene	ug/L	50	53.8	108	80-133	
1,2-Dichloroethane	ug/L	50	48.3	97	67-128	
1,2-Dichloroethene (Total)	ug/L		98.6			
1,2-Dichloropropane	ug/L	50	54.5	109	75-132	
1,3,5-Trimethylbenzene	ug/L	50	48.1	96	79-123	
1,3-Dichlorobenzene	ug/L	50	52.1	104	77-130	
1,3-Dichloropropane	ug/L	50	51.0	102	76-131	
1,4-Dichlorobenzene	ug/L	50	52.1	104	78-130	
2,2-Dichloropropane	ug/L	50	44.5	89	40-160	
2-Butanone (MEK)	ug/L	100	92.5	93	61-144	
2-Chlorotoluene	ug/L	50	49.1	98	74-132	
2-Hexanone	ug/L	100	96.9	97	68-143	
4-Chlorotoluene	ug/L	50	54.1	108	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	93.0	93	72-135	
Acetone	ug/L	100	93.1	93	48-146	
Benzene	ug/L	50	53.6	107	80-125	
Bromobenzene	ug/L	50	53.1	106	75-125	
Bromochloromethane	ug/L	50	47.7	95	71-125	
Bromodichloromethane	ug/L	50	51.2	102	78-124	
Bromoform	ug/L	50	41.3	83	71-128	
Bromomethane	ug/L	50	32.9	66	40-160	
Carbon tetrachloride	ug/L	50	46.8	94	69-131	
Chlorobenzene	ug/L	50	53.7	107	81-122	
Chloroethane	ug/L	50	38.5	77	39-148	
Chloroform	ug/L	50	45.2	90	73-127	
Chloromethane	ug/L	50	35.1	70	44-146	
cis-1,2-Dichloroethene	ug/L	50	50.7	101	74-124	
cis-1,3-Dichloropropene	ug/L	50	47.4	95	72-132	
Dibromochloromethane	ug/L	50	46.3	93	78-125	
Dibromomethane	ug/L	50	52.9	106	82-120	
Dichlorodifluoromethane	ug/L	50	34.6	69	34-157	
Diisopropyl ether	ug/L	50	44.8	90	69-135	
Ethylbenzene	ug/L	50	52.2	104	79-121	
Hexachloro-1,3-butadiene	ug/L	50	49.2	98	72-131	
Isopropylbenzene (Cumene)	ug/L	50	51.2	102	81-132	
m&p-Xylene	ug/L	100	110	110	81-124	
Methyl-tert-butyl ether	ug/L	50	49.3	99	74-131	
Methylene Chloride	ug/L	50	46.4	93	64-133	
n-Butylbenzene	ug/L	50	47.7	95	78-127	
n-Propylbenzene	ug/L	50	50.4	101	78-130	
Naphthalene	ug/L	50	47.9	96	73-133	
o-Xylene	ug/L	50	56.4	113	79-131	
p-Isopropyltoluene	ug/L	50	47.8	96	80-131	
sec-Butylbenzene	ug/L	50	50.1	100	80-133	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

LABORATORY CONTROL SAMPLE: 2389678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	50	48.8	98	84-126	
tert-Butyl Alcohol	ug/L	500	434	87	36-136	
tert-Butylbenzene	ug/L	50	48.5	97	77-133	
Tetrachloroethene	ug/L	50	51.2	102	78-122	
Toluene	ug/L	50	50.0	100	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.9	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	47.3	95	69-141	
Trichloroethene	ug/L	50	49.8	100	78-122	
Trichlorofluoromethane	ug/L	50	37.2	74	53-137	
Vinyl acetate	ug/L	100	99.7	100	40-160	
Vinyl chloride	ug/L	50	44.2	88	58-137	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2389679 2389680

Parameter	Units	92400992001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	200	200	194	205	97	103	70-130	6	30	
1,1,1-Trichloroethane	ug/L	ND	200	200	210	222	105	111	70-130	5	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	200	200	203	209	101	105	70-130	3	30	
1,1,2-Trichloroethane	ug/L	ND	200	200	197	217	99	109	70-130	10	30	
1,1-Dichloroethane	ug/L	ND	200	200	208	225	104	113	70-130	8	30	
1,1-Dichloroethene	ug/L	ND	200	200	198	221	99	110	65-160	11	30	
1,1-Dichloropropene	ug/L	ND	200	200	212	223	106	112	70-130	5	30	
1,2,3-Trichlorobenzene	ug/L	ND	200	200	203	231	101	115	70-130	13	30	
1,2,3-Trichloropropane	ug/L	ND	200	200	213	211	107	105	70-130	1	30	
1,2,4-Trichlorobenzene	ug/L	ND	200	200	199	227	99	113	70-130	13	30	
1,2,4-Trimethylbenzene	ug/L	ND	200	200	206	225	103	113	70-130	9	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	200	200	185	196	92	98	70-130	6	30	
1,2-Dibromoethane (EDB)	ug/L	ND	200	200	196	208	98	104	60-139	6	30	
1,2-Dichlorobenzene	ug/L	ND	200	200	208	228	104	114	70-130	9	30	
1,2-Dichloroethane	ug/L	ND	200	200	193	211	97	105	70-130	9	30	
1,2-Dichloroethene (Total)	ug/L	ND			402	432				7	30	
1,2-Dichloropropane	ug/L	ND	200	200	213	239	107	119	70-130	11	30	
1,3,5-Trimethylbenzene	ug/L	ND	200	200	208	227	104	114	70-130	9	30	
1,3-Dichlorobenzene	ug/L	ND	200	200	204	224	102	112	70-130	9	30	
1,3-Dichloropropane	ug/L	ND	200	200	206	218	103	109	70-130	6	30	
1,4-Dichlorobenzene	ug/L	ND	200	200	204	224	102	112	70-130	9	30	
2,2-Dichloropropane	ug/L	ND	200	200	191	203	96	101	70-130	6	30	
2-Butanone (MEK)	ug/L	102	400	400	445	474	86	93	70-130	6	30	
2-Chlorotoluene	ug/L	ND	200	200	208	228	104	114	70-130	9	30	
2-Hexanone	ug/L	ND	400	400	409	437	102	109	70-130	6	30	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2389679 2389680

Parameter	Units	92400992001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Chlorotoluene	ug/L	ND	200	200	212	234	106	117	70-130	10	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	400	400	410	432	83	88	70-130	5	30	
Acetone	ug/L	982	400	400	860	911	-30	-18	70-130	6	30	M1
Benzene	ug/L	ND	200	200	215	237	108	118	58-162	10	30	
Bromobenzene	ug/L	ND	200	200	204	226	102	113	70-130	10	30	
Bromochloromethane	ug/L	ND	200	200	190	205	95	103	70-130	8	30	
Bromodichloromethane	ug/L	ND	200	200	197	217	98	109	70-130	10	30	
Bromoform	ug/L	ND	200	200	168	177	84	88	70-130	5	30	
Bromomethane	ug/L	ND	200	200	169	186	85	93	70-130	9	30	
Carbon tetrachloride	ug/L	ND	200	200	206	222	103	111	70-130	8	30	
Chlorobenzene	ug/L	ND	200	200	211	226	106	113	70-138	7	30	
Chloroethane	ug/L	ND	200	200	159	184	80	92	70-130	14	30	
Chloroform	ug/L	ND	200	200	195	208	97	104	70-130	6	30	
Chloromethane	ug/L	ND	200	200	154	168	77	84	70-130	8	30	
cis-1,2-Dichloroethene	ug/L	ND	200	200	203	217	102	108	70-130	7	30	
cis-1,3-Dichloropropene	ug/L	ND	200	200	191	206	95	103	70-130	8	30	
Dibromochloromethane	ug/L	ND	200	200	186	199	93	99	70-130	7	30	
Dibromomethane	ug/L	ND	200	200	206	226	103	113	70-130	9	30	
Dichlorodifluoromethane	ug/L	ND	200	200	146	156	73	78	70-130	7	30	
Diisopropyl ether	ug/L	ND	200	200	189	193	95	97	70-130	2	30	
Ethylbenzene	ug/L	ND	200	200	212	231	106	115	22-189	9	30	
Hexachloro-1,3-butadiene	ug/L	ND	200	200	215	239	107	119	70-130	11	30	
Isopropylbenzene (Cumene)	ug/L	ND	200	200	217	240	109	120	70-130	10	30	
m&p-Xylene	ug/L	ND	400	400	438	477	109	119	32-193	9	30	
Methyl-tert-butyl ether	ug/L	ND	200	200	189	208	95	104	37-169	9	30	
Methylene Chloride	ug/L	ND	200	200	211	220	106	110	70-130	4	30	
n-Butylbenzene	ug/L	ND	200	200	207	229	103	114	70-130	10	30	
n-Propylbenzene	ug/L	ND	200	200	213	234	107	117	70-130	9	30	
Naphthalene	ug/L	ND	200	200	191	209	96	104	19-212	9	30	
o-Xylene	ug/L	ND	200	200	217	238	109	119	70-135	9	30	
p-Isopropyltoluene	ug/L	ND	200	200	208	228	104	114	70-130	9	30	
sec-Butylbenzene	ug/L	ND	200	200	216	240	108	120	70-130	11	30	
Styrene	ug/L	ND	200	200	204	219	102	109	70-130	7	30	
tert-Butyl Alcohol	ug/L	ND	2000	2000	2310	2480	116	124	70-130	7	30	
tert-Butylbenzene	ug/L	ND	200	200	183	198	91	99	70-130	8	30	
Tetrachloroethene	ug/L	ND	200	200	207	224	103	112	70-130	8	30	
Toluene	ug/L	ND	200	200	232	248	100	108	65-152	7	30	
trans-1,2-Dichloroethene	ug/L	ND	200	200	199	215	99	108	70-130	8	30	
trans-1,3-Dichloropropene	ug/L	ND	200	200	193	205	96	102	70-130	6	30	
Trichloroethene	ug/L	ND	200	200	212	231	106	116	70-142	9	30	
Trichlorofluoromethane	ug/L	ND	200	200	179	190	89	95	70-130	6	30	
Vinyl acetate	ug/L	ND	400	400	423	450	106	112	70-130	6	30	
Vinyl chloride	ug/L	ND	200	200	182	200	91	100	70-130	9	30	
1,2-Dichloroethane-d4 (S)	%						92	92	70-130			
4-Bromofluorobenzene (S)	%						100	102	70-130			

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2389679 2389680

Parameter	Units	92400992001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						97	97	70-130			

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

QC Batch: 432572 | Analysis Method: EPA 8260B
QC Batch Method: EPA 5035A | Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92400643001, 92400643002, 92400643003

METHOD BLANK: 2384169 | Matrix: Solid
Associated Lab Samples: 92400643001, 92400643002, 92400643003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.5	2.3	09/25/18 15:32	
1,1,1-Trichloroethane	ug/kg	ND	5.5	2.0	09/25/18 15:32	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.5	2.1	09/25/18 15:32	
1,1,2-Trichloroethane	ug/kg	ND	5.5	2.3	09/25/18 15:32	
1,1-Dichloroethane	ug/kg	ND	5.5	1.6	09/25/18 15:32	
1,1-Dichloroethene	ug/kg	ND	5.5	2.0	09/25/18 15:32	
1,1-Dichloropropene	ug/kg	ND	5.5	1.6	09/25/18 15:32	
1,2,3-Trichlorobenzene	ug/kg	ND	5.5	2.4	09/25/18 15:32	
1,2,3-Trichloropropane	ug/kg	ND	5.5	1.8	09/25/18 15:32	
1,2,4-Trichlorobenzene	ug/kg	ND	5.5	1.8	09/25/18 15:32	
1,2,4-Trimethylbenzene	ug/kg	ND	5.5	2.2	09/25/18 15:32	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.5	4.0	09/25/18 15:32	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.5	2.0	09/25/18 15:32	
1,2-Dichlorobenzene	ug/kg	ND	5.5	2.1	09/25/18 15:32	
1,2-Dichloroethane	ug/kg	ND	5.5	2.4	09/25/18 15:32	
1,2-Dichloropropane	ug/kg	ND	5.5	1.9	09/25/18 15:32	
1,3,5-Trimethylbenzene	ug/kg	ND	5.5	2.0	09/25/18 15:32	
1,3-Dichlorobenzene	ug/kg	ND	5.5	2.2	09/25/18 15:32	
1,3-Dichloropropane	ug/kg	ND	5.5	2.1	09/25/18 15:32	
1,4-Dichlorobenzene	ug/kg	ND	5.5	1.9	09/25/18 15:32	
2,2-Dichloropropane	ug/kg	ND	5.5	1.9	09/25/18 15:32	
2-Butanone (MEK)	ug/kg	ND	110	3.2	09/25/18 15:32	
2-Chlorotoluene	ug/kg	ND	5.5	1.9	09/25/18 15:32	
2-Hexanone	ug/kg	ND	54.9	4.3	09/25/18 15:32	
4-Chlorotoluene	ug/kg	ND	5.5	2.0	09/25/18 15:32	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	54.9	4.1	09/25/18 15:32	
Acetone	ug/kg	ND	110	11.0	09/25/18 15:32	
Benzene	ug/kg	ND	5.5	1.8	09/25/18 15:32	
Bromobenzene	ug/kg	ND	5.5	2.2	09/25/18 15:32	
Bromochloromethane	ug/kg	ND	5.5	1.9	09/25/18 15:32	
Bromodichloromethane	ug/kg	ND	5.5	2.1	09/25/18 15:32	
Bromoform	ug/kg	ND	5.5	2.5	09/25/18 15:32	
Bromomethane	ug/kg	ND	11.0	2.7	09/25/18 15:32	
Carbon tetrachloride	ug/kg	ND	5.5	2.9	09/25/18 15:32	
Chlorobenzene	ug/kg	ND	5.5	2.1	09/25/18 15:32	
Chloroethane	ug/kg	ND	11.0	2.6	09/25/18 15:32	
Chloroform	ug/kg	ND	5.5	1.8	09/25/18 15:32	
Chloromethane	ug/kg	ND	11.0	2.6	09/25/18 15:32	
cis-1,2-Dichloroethene	ug/kg	ND	5.5	1.5	09/25/18 15:32	
cis-1,3-Dichloropropene	ug/kg	ND	5.5	2.0	09/25/18 15:32	
Dibromochloromethane	ug/kg	ND	5.5	2.0	09/25/18 15:32	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

METHOD BLANK: 2384169 Matrix: Solid
Associated Lab Samples: 92400643001, 92400643002, 92400643003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromomethane	ug/kg	ND	5.5	2.7	09/25/18 15:32	
Dichlorodifluoromethane	ug/kg	ND	11.0	4.0	09/25/18 15:32	
Diisopropyl ether	ug/kg	ND	5.5	1.9	09/25/18 15:32	
Ethylbenzene	ug/kg	ND	5.5	2.0	09/25/18 15:32	
Hexachloro-1,3-butadiene	ug/kg	ND	5.5	2.2	09/25/18 15:32	
Isopropylbenzene (Cumene)	ug/kg	ND	5.5	2.1	09/25/18 15:32	
m&p-Xylene	ug/kg	ND	11.0	4.0	09/25/18 15:32	
Methyl-tert-butyl ether	ug/kg	ND	5.5	1.6	09/25/18 15:32	
Methylene Chloride	ug/kg	ND	22.0	3.3	09/25/18 15:32	
n-Butylbenzene	ug/kg	ND	5.5	2.0	09/25/18 15:32	
n-Propylbenzene	ug/kg	ND	5.5	1.9	09/25/18 15:32	
Naphthalene	ug/kg	1.3J	5.5	1.3	09/25/18 15:32	
o-Xylene	ug/kg	ND	5.5	2.1	09/25/18 15:32	
p-Isopropyltoluene	ug/kg	ND	5.5	1.9	09/25/18 15:32	
sec-Butylbenzene	ug/kg	ND	5.5	1.8	09/25/18 15:32	
Styrene	ug/kg	ND	5.5	2.0	09/25/18 15:32	
tert-Butylbenzene	ug/kg	ND	5.5	2.2	09/25/18 15:32	
Tetrachloroethene	ug/kg	ND	5.5	1.9	09/25/18 15:32	
Toluene	ug/kg	ND	5.5	2.0	09/25/18 15:32	
trans-1,2-Dichloroethene	ug/kg	ND	5.5	2.1	09/25/18 15:32	
trans-1,3-Dichloropropene	ug/kg	ND	5.5	1.6	09/25/18 15:32	
Trichloroethene	ug/kg	ND	5.5	2.3	09/25/18 15:32	
Trichlorofluoromethane	ug/kg	ND	5.5	2.4	09/25/18 15:32	
Vinyl acetate	ug/kg	ND	54.9	9.7	09/25/18 15:32	
Vinyl chloride	ug/kg	ND	11.0	2.0	09/25/18 15:32	
Xylene (Total)	ug/kg	ND	11.0	4.0	09/25/18 15:32	
1,2-Dichloroethane-d4 (S)	%	95	70-132		09/25/18 15:32	
4-Bromofluorobenzene (S)	%	97	70-130		09/25/18 15:32	
Toluene-d8 (S)	%	99	70-130		09/25/18 15:32	

LABORATORY CONTROL SAMPLE: 2384170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	56.3	57.4	102	74-137	
1,1,1-Trichloroethane	ug/kg	56.3	55.4	98	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	56.3	49.0	87	72-141	
1,1,2-Trichloroethane	ug/kg	56.3	55.8	99	78-138	
1,1-Dichloroethane	ug/kg	56.3	57.2	102	69-134	
1,1-Dichloroethene	ug/kg	56.3	65.2	116	67-138	
1,1-Dichloropropene	ug/kg	56.3	56.9	101	69-139	
1,2,3-Trichlorobenzene	ug/kg	56.3	52.7	94	70-146	
1,2,3-Trichloropropane	ug/kg	56.3	56.1	100	69-144	
1,2,4-Trichlorobenzene	ug/kg	56.3	52.7	94	68-148	
1,2,4-Trimethylbenzene	ug/kg	56.3	56.8	101	74-137	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

LABORATORY CONTROL SAMPLE: 2384170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/kg	56.3	49.7	88	65-140	
1,2-Dibromoethane (EDB)	ug/kg	56.3	56.0	99	77-135	
1,2-Dichlorobenzene	ug/kg	56.3	54.9	97	77-141	
1,2-Dichloroethane	ug/kg	56.3	56.9	101	65-137	
1,2-Dichloropropane	ug/kg	56.3	58.8	104	72-136	
1,3,5-Trimethylbenzene	ug/kg	56.3	56.7	101	76-133	
1,3-Dichlorobenzene	ug/kg	56.3	53.9	96	74-138	
1,3-Dichloropropane	ug/kg	56.3	59.0	105	71-139	
1,4-Dichlorobenzene	ug/kg	56.3	53.5	95	76-138	
2,2-Dichloropropane	ug/kg	56.3	52.8	94	68-137	
2-Butanone (MEK)	ug/kg	113	103J	92	58-147	
2-Chlorotoluene	ug/kg	56.3	56.4	100	73-139	
2-Hexanone	ug/kg	113	104	92	62-145	
4-Chlorotoluene	ug/kg	56.3	55.5	99	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	113	107	95	64-149	
Acetone	ug/kg	113	140	124	53-153	
Benzene	ug/kg	56.3	59.4	106	73-135	
Bromobenzene	ug/kg	56.3	55.1	98	75-133	
Bromochloromethane	ug/kg	56.3	55.5	99	73-134	
Bromodichloromethane	ug/kg	56.3	57.6	102	71-135	
Bromoform	ug/kg	56.3	54.0	96	66-141	
Bromomethane	ug/kg	56.3	66.0	117	53-160	
Carbon tetrachloride	ug/kg	56.3	56.7	101	60-145	
Chlorobenzene	ug/kg	56.3	56.8	101	78-130	
Chloroethane	ug/kg	56.3	60.5	107	64-149	
Chloroform	ug/kg	56.3	54.3	96	70-134	
Chloromethane	ug/kg	56.3	53.6	95	52-150	
cis-1,2-Dichloroethene	ug/kg	56.3	61.0	108	70-133	
cis-1,3-Dichloropropene	ug/kg	56.3	56.4	100	68-134	
Dibromochloromethane	ug/kg	56.3	55.8	99	71-138	
Dibromomethane	ug/kg	56.3	56.4	100	74-130	
Dichlorodifluoromethane	ug/kg	56.3	56.2	100	40-160	
Diisopropyl ether	ug/kg	56.3	58.8	104	69-141	
Ethylbenzene	ug/kg	56.3	57.9	103	75-133	
Hexachloro-1,3-butadiene	ug/kg	56.3	54.4	97	68-143	
Isopropylbenzene (Cumene)	ug/kg	56.3	59.0	105	76-143	
m&p-Xylene	ug/kg	113	116	103	75-136	
Methyl-tert-butyl ether	ug/kg	56.3	53.4	95	68-144	
Methylene Chloride	ug/kg	56.3	58.1	103	45-154	
n-Butylbenzene	ug/kg	56.3	57.9	103	72-137	
n-Propylbenzene	ug/kg	56.3	58.4	104	76-136	
Naphthalene	ug/kg	56.3	60.5	107	68-151	
o-Xylene	ug/kg	56.3	57.8	103	76-141	
p-Isopropyltoluene	ug/kg	56.3	57.3	102	76-140	
sec-Butylbenzene	ug/kg	56.3	58.9	105	79-139	
Styrene	ug/kg	56.3	54.9	98	79-137	
tert-Butylbenzene	ug/kg	56.3	52.6	93	74-143	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

LABORATORY CONTROL SAMPLE: 2384170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/kg	56.3	51.8	92	71-138	
Toluene	ug/kg	56.3	56.1	100	74-131	
trans-1,2-Dichloroethene	ug/kg	56.3	61.1	108	67-135	
trans-1,3-Dichloropropene	ug/kg	56.3	55.5	99	65-146	
Trichloroethene	ug/kg	56.3	63.3	112	67-135	
Trichlorofluoromethane	ug/kg	56.3	56.7	101	59-144	
Vinyl acetate	ug/kg	113	50.5J	45	40-160	
Vinyl chloride	ug/kg	56.3	64.0	114	56-141	
Xylene (Total)	ug/kg	169	174	103	76-137	
1,2-Dichloroethane-d4 (S)	%			96	70-132	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 2384172

Parameter	Units	92400643002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	17.3	16.3	94	70-130	
1,1,1-Trichloroethane	ug/kg	ND	17.3	16.8	97	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	17.3	ND	0	70-130	M1
1,1,2-Trichloroethane	ug/kg	ND	17.3	15.4	89	70-130	
1,1-Dichloroethane	ug/kg	ND	17.3	17.1	99	70-130	
1,1-Dichloroethene	ug/kg	ND	17.3	19.7	114	49-180	
1,1-Dichloropropene	ug/kg	ND	17.3	15.9	92	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	17.3	10.1	58	70-130	M1
1,2,3-Trichloropropane	ug/kg	ND	17.3	16.3	94	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	17.3	10.0	58	70-130	M1
1,2,4-Trimethylbenzene	ug/kg	ND	17.3	16.1	93	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	17.3	14.3	82	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	17.3	15.0	87	70-130	
1,2-Dichlorobenzene	ug/kg	ND	17.3	13.7	79	70-130	
1,2-Dichloroethane	ug/kg	ND	17.3	16.6	96	70-130	
1,2-Dichloropropane	ug/kg	ND	17.3	17.0	98	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	17.3	16.3	94	70-130	
1,3-Dichlorobenzene	ug/kg	ND	17.3	12.5	72	70-130	
1,3-Dichloropropane	ug/kg	ND	17.3	16.7	96	70-130	
1,4-Dichlorobenzene	ug/kg	ND	17.3	12.7	73	70-130	
2,2-Dichloropropane	ug/kg	ND	17.3	15.9	92	70-130	
2-Butanone (MEK)	ug/kg	ND	34.7	34.9J	101	70-130	
2-Chlorotoluene	ug/kg	ND	17.3	15.6	90	70-130	
2-Hexanone	ug/kg	ND	34.7	30.7J	89	70-130	
4-Chlorotoluene	ug/kg	ND	17.3	14.1	82	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	34.7	32.7J	94	70-130	
Acetone	ug/kg	12.8J	34.7	49.9J	107	70-130	
Benzene	ug/kg	ND	17.3	17.1	99	50-166	
Bromobenzene	ug/kg	ND	17.3	14.6	84	70-130	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

MATRIX SPIKE SAMPLE: 2384172

Parameter	Units	92400643002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromochloromethane	ug/kg	ND	17.3	15.3	88	70-130	
Bromodichloromethane	ug/kg	ND	17.3	16.0	92	70-130	
Bromoform	ug/kg	ND	17.3	13.7	79	70-130	
Bromomethane	ug/kg	ND	17.3	18.3	106	70-130	
Carbon tetrachloride	ug/kg	ND	17.3	15.9	92	70-130	
Chlorobenzene	ug/kg	ND	17.3	14.9	86	43-169	
Chloroethane	ug/kg	ND	17.3	19.6	113	70-130	
Chloroform	ug/kg	ND	17.3	16.8	97	70-130	
Chloromethane	ug/kg	ND	17.3	15.1	87	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	17.3	16.1	93	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	17.3	14.2	82	70-130	
Dibromochloromethane	ug/kg	ND	17.3	14.6	85	70-130	
Dibromomethane	ug/kg	ND	17.3	16.0	92	70-130	
Dichlorodifluoromethane	ug/kg	ND	17.3	17.7	102	70-130	
Diisopropyl ether	ug/kg	ND	17.3	18.3	106	70-130	
Ethylbenzene	ug/kg	ND	17.3	15.7	91	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	17.3	11.9	69	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	17.3	16.1	93	70-130	
m&p-Xylene	ug/kg	ND	34.7	31.1	90	70-130	
Methyl-tert-butyl ether	ug/kg	ND	17.3	16.9	98	70-130	
Methylene Chloride	ug/kg	ND	17.3	19.1	110	70-130	
n-Butylbenzene	ug/kg	ND	17.3	13.9	80	70-130	
n-Propylbenzene	ug/kg	ND	17.3	16.3	94	70-130	
Naphthalene	ug/kg	ND	17.3	12.7	74	70-130	
o-Xylene	ug/kg	ND	17.3	15.9	92	70-130	
p-Isopropyltoluene	ug/kg	ND	17.3	15.7	90	70-130	
sec-Butylbenzene	ug/kg	ND	17.3	16.2	93	70-130	
Styrene	ug/kg	ND	17.3	13.1	76	70-130	
tert-Butylbenzene	ug/kg	ND	17.3	15.6	90	70-130	
Tetrachloroethene	ug/kg	ND	17.3	14.2	82	70-130	
Toluene	ug/kg	ND	17.3	15.3	89	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	17.3	17.2	99	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	17.3	13.4	77	70-130	
Trichloroethene	ug/kg	ND	17.3	28.2	163	49-167	
Trichlorofluoromethane	ug/kg	ND	17.3	17.8	103	70-130	
Vinyl acetate	ug/kg	ND	34.7	ND	21	70-130	M1
Vinyl chloride	ug/kg	ND	17.3	19.9	115	70-130	
Xylene (Total)	ug/kg	ND	52	47.0	91	70-130	
1,2-Dichloroethane-d4 (S)	%				94	70-132	
4-Bromofluorobenzene (S)	%				95	70-130	
Toluene-d8 (S)	%				98	70-130	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

SAMPLE DUPLICATE: 2384171

Parameter	Units	92400643001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	12.1J	13.9J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

SAMPLE DUPLICATE: 2384171

Parameter	Units	92400643001 Result	Dup Result	RPD	Max RPD	Qualifiers
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	ND	3.5J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	93	92	6		
4-Bromofluorobenzene (S)	%	89	90	3		
Toluene-d8 (S)	%	98	98	4		

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

QC Batch: 432588 | Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 | Analysis Description: 8082 GCS PCB
Associated Lab Samples: 92400643001, 92400643002, 92400643003

METHOD BLANK: 2384274 | Matrix: Solid
Associated Lab Samples: 92400643001, 92400643002, 92400643003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	33.6	15.3	09/26/18 17:36	
PCB-1221 (Aroclor 1221)	ug/kg	ND	33.6	15.3	09/26/18 17:36	
PCB-1232 (Aroclor 1232)	ug/kg	ND	33.6	15.3	09/26/18 17:36	
PCB-1242 (Aroclor 1242)	ug/kg	ND	33.6	15.3	09/26/18 17:36	
PCB-1248 (Aroclor 1248)	ug/kg	ND	33.6	15.3	09/26/18 17:36	
PCB-1254 (Aroclor 1254)	ug/kg	ND	33.6	15.3	09/26/18 17:36	
PCB-1260 (Aroclor 1260)	ug/kg	ND	33.6	15.3	09/26/18 17:36	
Decachlorobiphenyl (S)	%	104	21-132		09/26/18 17:36	

LABORATORY CONTROL SAMPLE & LCSD: 2384275 2384276

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	169	173	136	103	82	31-120	24	30	
PCB-1260 (Aroclor 1260)	ug/kg	169	195	178	116	107	32-120	9	30	
Decachlorobiphenyl (S)	%				108	98	21-132			

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

QC Batch: 432500 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 | Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 92400643001, 92400643002, 92400643003

METHOD BLANK: 2383771 | Matrix: Solid
Associated Lab Samples: 92400643001, 92400643002, 92400643003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10.1	1.2	09/27/18 13:28	
2-Methylnaphthalene	ug/kg	ND	10.1	1.1	09/27/18 13:28	
Acenaphthene	ug/kg	ND	10.1	1.5	09/27/18 13:28	
Acenaphthylene	ug/kg	ND	10.1	1.3	09/27/18 13:28	
Anthracene	ug/kg	ND	10.1	1.4	09/27/18 13:28	
Benzo(a)anthracene	ug/kg	0.82J	10.1	0.72	09/27/18 13:28	
Benzo(a)pyrene	ug/kg	ND	10.1	1.1	09/27/18 13:28	
Benzo(b)fluoranthene	ug/kg	0.92J	10.1	0.68	09/27/18 13:28	
Benzo(g,h,i)perylene	ug/kg	ND	10.1	2.6	09/27/18 13:28	
Benzo(k)fluoranthene	ug/kg	ND	10.1	1.5	09/27/18 13:28	
Chrysene	ug/kg	ND	10.1	1.8	09/27/18 13:28	
Dibenz(a,h)anthracene	ug/kg	ND	10.1	1.8	09/27/18 13:28	
Fluoranthene	ug/kg	ND	10.1	0.84	09/27/18 13:28	
Fluorene	ug/kg	ND	10.1	1.6	09/27/18 13:28	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.1	2.8	09/27/18 13:28	
Naphthalene	ug/kg	ND	10.1	2.3	09/27/18 13:28	
Phenanthrene	ug/kg	ND	10.1	1.5	09/27/18 13:28	
Pyrene	ug/kg	ND	10.1	1.8	09/27/18 13:28	
2-Fluorobiphenyl (S)	%	63	10-110		09/27/18 13:28	
Nitrobenzene-d5 (S)	%	68	10-128		09/27/18 13:28	
Terphenyl-d14 (S)	%	68	39-119		09/27/18 13:28	

LABORATORY CONTROL SAMPLE: 2383772

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	33.8	25.9	77	44-130	
2-Methylnaphthalene	ug/kg	33.8	26.4	78	41-134	
Acenaphthene	ug/kg	33.8	29.2	86	52-123	
Acenaphthylene	ug/kg	33.8	25.8	76	49-116	
Anthracene	ug/kg	33.8	29.9	89	41-133	
Benzo(a)anthracene	ug/kg	33.8	29.2	86	56-130	
Benzo(a)pyrene	ug/kg	33.8	29.1	86	51-136	
Benzo(b)fluoranthene	ug/kg	33.8	30.7	91	37-149	
Benzo(g,h,i)perylene	ug/kg	33.8	26.6	79	39-127	
Benzo(k)fluoranthene	ug/kg	33.8	31.9	94	45-139	
Chrysene	ug/kg	33.8	31.8	94	59-127	
Dibenz(a,h)anthracene	ug/kg	33.8	30.0	89	37-139	
Fluoranthene	ug/kg	33.8	31.4	93	53-132	
Fluorene	ug/kg	33.8	27.0	80	45-127	
Indeno(1,2,3-cd)pyrene	ug/kg	33.8	30.5	90	35-145	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

LABORATORY CONTROL SAMPLE: 2383772

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	33.8	26.7	79	45-123	
Phenanthrene	ug/kg	33.8	30.6	91	50-125	
Pyrene	ug/kg	33.8	30.7	91	52-132	
2-Fluorobiphenyl (S)	%			81	10-110	
Nitrobenzene-d5 (S)	%			87	10-128	
Terphenyl-d14 (S)	%			81	39-119	

MATRIX SPIKE SAMPLE: 2383773

Parameter	Units	92400518002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	ND	38.7	25.6	51	50-150	
2-Methylnaphthalene	ug/kg	ND	38.7	26.1	52	50-150	
Acenaphthene	ug/kg	ND	38.7	21.2	55	50-150	
Acenaphthylene	ug/kg	ND	38.7	18.9	49	50-150	M1
Anthracene	ug/kg	ND	38.7	18.7	46	50-150	M1
Benzo(a)anthracene	ug/kg	ND	38.7	21.8	38	50-150	M1
Benzo(a)pyrene	ug/kg	ND	38.7	19.2	30	50-150	M1
Benzo(b)fluoranthene	ug/kg	ND	38.7	24.2	35	50-150	M1
Benzo(g,h,i)perylene	ug/kg	ND	38.7	14.7	21	50-150	M1
Benzo(k)fluoranthene	ug/kg	ND	38.7	17.5	34	50-150	M1
Chrysene	ug/kg	ND	38.7	23.7	41	50-150	M1
Dibenz(a,h)anthracene	ug/kg	ND	38.7	13.7	30	50-150	M1
Fluoranthene	ug/kg	ND	38.7	29.0	47	50-150	M1
Fluorene	ug/kg	ND	38.7	18.6	48	50-150	M1
Indeno(1,2,3-cd)pyrene	ug/kg	ND	38.7	16.0	27	50-150	M1
Naphthalene	ug/kg	ND	38.7	25.9	55	50-150	
Phenanthrene	ug/kg	ND	38.7	28.4	55	50-150	
Pyrene	ug/kg	ND	38.7	29.7	48	50-150	M1
2-Fluorobiphenyl (S)	%				65	10-110	
Nitrobenzene-d5 (S)	%				76	10-128	
Terphenyl-d14 (S)	%				55	39-119	

SAMPLE DUPLICATE: 2383774

Parameter	Units	92400518003 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/kg	24.8	42.1	52	30	D6
2-Methylnaphthalene	ug/kg	28.3	46.8	49	30	D6
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	15.8	13.3	17	30	
Anthracene	ug/kg	26.6	23.4	13	30	
Benzo(a)anthracene	ug/kg	106	69.6	41	30	D6
Benzo(a)pyrene	ug/kg	94.6	65.4	37	30	D6
Benzo(b)fluoranthene	ug/kg	151	120	23	30	
Benzo(g,h,i)perylene	ug/kg	61.5	43.6	34	30	D6

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

SAMPLE DUPLICATE: 2383774

Parameter	Units	92400518003 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzo(k)fluoranthene	ug/kg	51.9	37.9	31	30	D6
Chrysene	ug/kg	107	85.4	23	30	
Dibenz(a,h)anthracene	ug/kg	20.0	14.9	29	30	
Fluoranthene	ug/kg	197	127	43	30	D6
Fluorene	ug/kg	ND	3.2J		30	
Indeno(1,2,3-cd)pyrene	ug/kg	59.9	42.2	35	30	D6
Naphthalene	ug/kg	43.9	55.7	24	30	
Phenanthrene	ug/kg	112	93.6	18	30	
Pyrene	ug/kg	159	111	36	30	D6
2-Fluorobiphenyl (S)	%	54	42	24		
Nitrobenzene-d5 (S)	%	58	53	7		
Terphenyl-d14 (S)	%	60	45	28		

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

QC Batch: 432585 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92400643001, 92400643002, 92400643003

SAMPLE DUPLICATE: 2384246

Parameter	Units	92400332003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.6	11.8	2	25	

SAMPLE DUPLICATE: 2384247

Parameter	Units	92400643003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	21.4	21.5	1	25	

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

QC Batch: 481710 | Analysis Method: EPA 9012
QC Batch Method: EPA 9012 | Analysis Description: 9012 Cyanide
Associated Lab Samples: 92400643001, 92400643002, 92400643003

METHOD BLANK: 2607788 | Matrix: Solid
Associated Lab Samples: 92400643001, 92400643002, 92400643003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.24	0.14	10/02/18 16:10	

LABORATORY CONTROL SAMPLE: 2607789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	1.2	1.3	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2607790 2607791

Parameter	Units	92400643001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	ND	.764	.776	1.2	1.1	136	122	80-120	8	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

QC Batch: 481867 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Associated Lab Samples: 92400643001, 92400643002, 92400643003

METHOD BLANK: 2608290 | Matrix: Solid
Associated Lab Samples: 92400643001, 92400643002, 92400643003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/kg	ND	5.0	2.5	10/01/18 10:29	

LABORATORY CONTROL SAMPLE: 2608291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	49.6	49.2	99	80-120	

MATRIX SPIKE SAMPLE: 2608293

Parameter	Units	92400799001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	15.8	56.3	54.3	68	80-120	M1

SAMPLE DUPLICATE: 2608292

Parameter	Units	92400799001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/kg	15.8	16.0	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Frmr Electrical Shop/Warehouse
Pace Project No.: 92400643

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92400643001	**ESW-SB001 (0'-1')**	EPA 3546	432588	EPA 8082A	432974
92400643002	**ESW-SB001 (0'-1') DUP**	EPA 3546	432588	EPA 8082A	432974
92400643003	**ESW-SB001 (4'-5')**	EPA 3546	432588	EPA 8082A	432974
92400643001	**ESW-SB001 (0'-1')**	EPA 3546	432500	EPA 8270D by SIM	432996
92400643002	**ESW-SB001 (0'-1') DUP**	EPA 3546	432500	EPA 8270D by SIM	432996
92400643003	**ESW-SB001 (4'-5')**	EPA 3546	432500	EPA 8270D by SIM	432996
92400643004	**ESW-TB001**	EPA 8260B	433825		
92400643001	**ESW-SB001 (0'-1')**	EPA 5035A	432572	EPA 8260B	432586
92400643002	**ESW-SB001 (0'-1') DUP**	EPA 5035A	432572	EPA 8260B	432586
92400643003	**ESW-SB001 (4'-5')**	EPA 5035A	432572	EPA 8260B	432586
92400643001	**ESW-SB001 (0'-1')**	ASTM D2974-87	432585		
92400643002	**ESW-SB001 (0'-1') DUP**	ASTM D2974-87	432585		
92400643003	**ESW-SB001 (4'-5')**	ASTM D2974-87	432585		
92400643001	**ESW-SB001 (0'-1')**	EPA 9012	481710	EPA 9012	482312
92400643002	**ESW-SB001 (0'-1') DUP**	EPA 9012	481710	EPA 9012	482312
92400643003	**ESW-SB001 (4'-5')**	EPA 9012	481710	EPA 9012	482312
92400643001	**ESW-SB001 (0'-1')**	EPA 9056	481867	EPA 9056	481884
92400643002	**ESW-SB001 (0'-1') DUP**	EPA 9056	481867	EPA 9056	481884
92400643003	**ESW-SB001 (4'-5')**	EPA 9056	481867	EPA 9056	481884

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Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: Environeering **Project #:** WO#: 92400643

92400643

Courier: ☐ Commercial ☐ Fed Ex ☑ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: EH 9-25-18

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T045 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 4.6 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 4.5

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: SL / WT	☑ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: NMG **Date:** 9/26/18

Project Manager SRF Review: NMG **Date:** 9/26/18

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project

WO# : 92400643

PM: NMG Due Date: 10/04/18

CLIENT: 92-Alcoa

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1									4											6								
2									4											6								
3									4											6								
4																												
5																2												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:

Company: Environeering
Address: ~~138 Fort Jackson Road~~ 16100 CASTLEWAY
Morris~~ville, NC 27560~~ HOUSTON TX
Email: MWorden@environeering.nc.com
Phone: 919 341 6472 Fax
Requested Due Date: SDD

Section B
Required Project Information:

Report To: Michael Worden
Copy To:
Purchase Order #:
Project Name: Frmr Electrical Shop/Warehouse
Project #: 137-263

Section C
Invoice Information:

Attention: M. WORDEN
Company Name: ENVIRONEERING
Address: HOUSTON TX 77084
Pace Quote:
Pace Project Manager: nicole.gasiorowski@pacelabs.com,
Pace Profile #: 7478

Regulatory Agency: NCDEQ
State / Location: NC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other DI WATER	Analyses Test Y/N	8260 VOCs	8270 PAHs	8082 PCBs	9012 Cyanide	9056 Fluoride	8260 VOCs	8270 PAHs	8082 PCBs	9012 Cyanide	9056 Fluoride	Trip BLANK	Residual Chlorine (Y/N)	92408643
1	ESW-SB001 (0'-1')	SL	G	—	—	9/24/18	1210		5	X					X	X	X		X	X	X	X	X								001
2	ESW-SB001 (0'-1') DUP	SL	G	—	—	9/24/18	1215		5	X					X	X	X		X	X	X	X	X								002
3	ESW-SB001 (4'-5')	SL	G	—	—	9/24/18	1225		5	X					X	X	X		X	X	X	X	X								003
4	~~ESW-EB001~~	WT	G	—	—																			X	X	X	X	X			
5	ESW-TB001	WT	G	—	—	9/24/18	—		2				X																X		004
6																															
7																															
8																															
9																															
10																															
11																															
12																															

MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature], Enviro	9/25/18	7:30	[signature] Pace	9-25-18	730				
	[signature] Pace	9-25-18	1127	Erick Harrison/Pace	9-25-18	1127	4.5	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: MICHAEL WORDEN
SIGNATURE of SAMPLER: [signature] DATE Signed: 9/24/18

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 12, 2018

Michael W. Worden
Environeering, Inc.
16100 Cairnway
Suite 320
Houston, TX 77084

RE: Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Dear Michael Worden:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revision was issued on 11/12/18 to report J-flagged results to the MDL, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole Gasiorowski

Nicole Gasiorowski
nicole.gasiorowski@pacelabs.com
(704)875-9092
Project Manager

Enclosures

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CERTIFICATIONS

Project:	Former Maintenance Shop Area
Pace Project No.:	92400796

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92400796001	**MSA-SB001 (0'-1')**	Solid	09/24/18 14:25	09/25/18 07:30
92400796002	**MSA-SB001 (4'-5')**	Solid	09/24/18 14:30	09/25/18 07:30
92400796003	**MSA-SB002 (0'-1')**	Solid	09/24/18 14:40	09/25/18 07:30
92400796004	**MSA-SB002 (4'-5')**	Solid	09/24/18 14:45	09/25/18 07:30
92400796005	**MSA-SB003 (0'-1')**	Solid	09/24/18 15:00	09/25/18 07:30
92400796006	**MSA-SB003 (4'-5')**	Solid	09/24/18 15:05	09/25/18 07:30
92400796007	**MSA-SB004 (0'-1')**	Solid	09/24/18 15:30	09/25/18 07:30
92400796008	**MSA-SB004 (4'-5')**	Solid	09/24/18 15:35	09/25/18 07:30

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SAMPLE ANALYTE COUNT

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92400796001	**MSA-SB001 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400796002	**MSA-SB001 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400796003	**MSA-SB002 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400796004	**MSA-SB002 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400796005	**MSA-SB003 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400796006	**MSA-SB003 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400796007	**MSA-SB004 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92400796008	**MSA-SB004 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB001 (0'-1') **Lab ID: 92400796001** Collected: 09/24/18 14:25 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**166**	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 22:18	83-32-9	
Acenaphthylene	**49.2**	ug/kg	12.0	1.6	1	09/26/18 14:17	09/27/18 22:18	208-96-8	
Anthracene	**345**	ug/kg	12.0	1.7	1	09/26/18 14:17	09/27/18 22:18	120-12-7	
Benzo(a)anthracene	**892**	ug/kg	47.8	3.4	4	09/26/18 14:17	09/28/18 14:46	56-55-3	
Benzo(a)pyrene	**929**	ug/kg	12.0	1.3	1	09/26/18 14:17	09/27/18 22:18	50-32-8	
Benzo(b)fluoranthene	**1190**	ug/kg	47.8	3.2	4	09/26/18 14:17	09/28/18 14:46	205-99-2	
Benzo(g,h,i)perylene	**539**	ug/kg	12.0	3.1	1	09/26/18 14:17	09/27/18 22:18	191-24-2	
Benzo(k)fluoranthene	**395**	ug/kg	12.0	1.8	1	09/26/18 14:17	09/27/18 22:18	207-08-9	
Chrysene	**857**	ug/kg	47.8	8.6	4	09/26/18 14:17	09/28/18 14:46	218-01-9	
Dibenz(a,h)anthracene	**163**	ug/kg	12.0	2.2	1	09/26/18 14:17	09/27/18 22:18	53-70-3	
Fluoranthene	**1670**	ug/kg	47.8	4.0	4	09/26/18 14:17	09/28/18 14:46	206-44-0	
Fluorene	**118**	ug/kg	12.0	1.9	1	09/26/18 14:17	09/27/18 22:18	86-73-7	
Indeno(1,2,3-cd)pyrene	**510**	ug/kg	12.0	3.3	1	09/26/18 14:17	09/27/18 22:18	193-39-5	
1-Methylnaphthalene	**118**	ug/kg	12.0	1.4	1	09/26/18 14:17	09/27/18 22:18	90-12-0	
2-Methylnaphthalene	**107**	ug/kg	12.0	1.3	1	09/26/18 14:17	09/27/18 22:18	91-57-6	
Naphthalene	**85.5**	ug/kg	12.0	2.8	1	09/26/18 14:17	09/27/18 22:18	91-20-3	
Phenanthrene	**1270**	ug/kg	47.8	7.2	4	09/26/18 14:17	09/28/18 14:46	85-01-8	
Pyrene	**1370**	ug/kg	47.8	8.6	4	09/26/18 14:17	09/28/18 14:46	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	62	%	10-128		1	09/26/18 14:17	09/27/18 22:18	4165-60-0	
2-Fluorobiphenyl (S)	61	%	10-110		1	09/26/18 14:17	09/27/18 22:18	321-60-8	
Terphenyl-d14 (S)	80	%	39-119		1	09/26/18 14:17	09/27/18 22:18	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	ND	ug/kg	130	13.0	1	09/26/18 10:38	09/26/18 20:34	67-64-1	
Benzene	ND	ug/kg	6.5	2.1	1	09/26/18 10:38	09/26/18 20:34	71-43-2	
Bromobenzene	ND	ug/kg	6.5	2.6	1	09/26/18 10:38	09/26/18 20:34	108-86-1	
Bromochloromethane	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	74-97-5	
Bromodichloromethane	ND	ug/kg	6.5	2.5	1	09/26/18 10:38	09/26/18 20:34	75-27-4	
Bromoform	ND	ug/kg	6.5	3.0	1	09/26/18 10:38	09/26/18 20:34	75-25-2	
Bromomethane	ND	ug/kg	13.0	3.2	1	09/26/18 10:38	09/26/18 20:34	74-83-9	
2-Butanone (MEK)	ND	ug/kg	130	3.8	1	09/26/18 10:38	09/26/18 20:34	78-93-3	
n-Butylbenzene	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	104-51-8	M1
sec-Butylbenzene	ND	ug/kg	6.5	2.1	1	09/26/18 10:38	09/26/18 20:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.5	2.6	1	09/26/18 10:38	09/26/18 20:34	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.5	3.4	1	09/26/18 10:38	09/26/18 20:34	56-23-5	
Chlorobenzene	ND	ug/kg	6.5	2.5	1	09/26/18 10:38	09/26/18 20:34	108-90-7	
Chloroethane	ND	ug/kg	13.0	3.1	1	09/26/18 10:38	09/26/18 20:34	75-00-3	
Chloroform	ND	ug/kg	6.5	2.1	1	09/26/18 10:38	09/26/18 20:34	67-66-3	
Chloromethane	ND	ug/kg	13.0	3.1	1	09/26/18 10:38	09/26/18 20:34	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.5	4.7	1	09/26/18 10:38	09/26/18 20:34	96-12-8	
Dibromochloromethane	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	106-93-4	

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB001 (0'-1') **Lab ID: 92400796001** Collected: 09/24/18 14:25 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Dibromomethane	ND	ug/kg	6.5	3.2	1	09/26/18 10:38	09/26/18 20:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.5	2.5	1	09/26/18 10:38	09/26/18 20:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.5	2.6	1	09/26/18 10:38	09/26/18 20:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.0	4.7	1	09/26/18 10:38	09/26/18 20:34	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.5	1.9	1	09/26/18 10:38	09/26/18 20:34	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.5	2.9	1	09/26/18 10:38	09/26/18 20:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.5	1.8	1	09/26/18 10:38	09/26/18 20:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.5	2.5	1	09/26/18 10:38	09/26/18 20:34	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.5	2.5	1	09/26/18 10:38	09/26/18 20:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.5	1.9	1	09/26/18 10:38	09/26/18 20:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.5	1.9	1	09/26/18 10:38	09/26/18 20:34	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	108-20-3	
Ethylbenzene	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.5	2.6	1	09/26/18 10:38	09/26/18 20:34	87-68-3	M1
2-Hexanone	ND	ug/kg	65.0	5.1	1	09/26/18 10:38	09/26/18 20:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.5	2.5	1	09/26/18 10:38	09/26/18 20:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	99-87-6	
Methylene Chloride	ND	ug/kg	26.0	3.9	1	09/26/18 10:38	09/26/18 20:34	75-09-2	M1
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.0	4.8	1	09/26/18 10:38	09/26/18 20:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.5	1.9	1	09/26/18 10:38	09/26/18 20:34	1634-04-4	
Naphthalene	ND	ug/kg	6.5	1.6	1	09/26/18 10:38	09/26/18 20:34	91-20-3	
n-Propylbenzene	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	103-65-1	
Styrene	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.5	2.7	1	09/26/18 10:38	09/26/18 20:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5	2.5	1	09/26/18 10:38	09/26/18 20:34	79-34-5	M1
Tetrachloroethene	ND	ug/kg	6.5	2.2	1	09/26/18 10:38	09/26/18 20:34	127-18-4	
Toluene	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.5	2.9	1	09/26/18 10:38	09/26/18 20:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.5	2.1	1	09/26/18 10:38	09/26/18 20:34	120-82-1	M1
1,1,1-Trichloroethane	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.5	2.7	1	09/26/18 10:38	09/26/18 20:34	79-00-5	
Trichloroethene	ND	ug/kg	6.5	2.7	1	09/26/18 10:38	09/26/18 20:34	79-01-6	M1
Trichlorofluoromethane	ND	ug/kg	6.5	2.9	1	09/26/18 10:38	09/26/18 20:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.5	2.1	1	09/26/18 10:38	09/26/18 20:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.5	2.6	1	09/26/18 10:38	09/26/18 20:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.5	2.3	1	09/26/18 10:38	09/26/18 20:34	108-67-8	
Vinyl acetate	ND	ug/kg	65.0	11.4	1	09/26/18 10:38	09/26/18 20:34	108-05-4	M1
Vinyl chloride	ND	ug/kg	13.0	2.3	1	09/26/18 10:38	09/26/18 20:34	75-01-4	
Xylene (Total)	ND	ug/kg	13.0	4.7	1	09/26/18 10:38	09/26/18 20:34	1330-20-7	
m&p-Xylene	ND	ug/kg	13.0	4.7	1	09/26/18 10:38	09/26/18 20:34	179601-23-1	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB001 (0'-1') **Lab ID: 92400796001** Collected: 09/24/18 14:25 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
o-Xylene	ND	ug/kg	6.5	2.5	1	09/26/18 10:38	09/26/18 20:34	95-47-6	
Surrogates									
Toluene-d8 (S)	104	%	70-130		1	09/26/18 10:38	09/26/18 20:34	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1	09/26/18 10:38	09/26/18 20:34	460-00-4	
1,2-Dichloroethane-d4 (S)	85	%	70-132		1	09/26/18 10:38	09/26/18 20:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.8**	%	0.10	0.10	1		09/25/18 18:04		

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB001 (4'-5') **Lab ID: 92400796002** Collected: 09/24/18 14:30 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.1	1.8	1	09/26/18 14:17	09/27/18 22:39	83-32-9	
Acenaphthylene	ND	ug/kg	12.1	1.6	1	09/26/18 14:17	09/27/18 22:39	208-96-8	
Anthracene	ND	ug/kg	12.1	1.7	1	09/26/18 14:17	09/27/18 22:39	120-12-7	
Benzo(a)anthracene	**2.2J**	ug/kg	12.1	0.86	1	09/26/18 14:17	09/27/18 22:39	56-55-3	
Benzo(a)pyrene	**2.0J**	ug/kg	12.1	1.3	1	09/26/18 14:17	09/27/18 22:39	50-32-8	
Benzo(b)fluoranthene	**2.7J**	ug/kg	12.1	0.81	1	09/26/18 14:17	09/27/18 22:39	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.1	3.2	1	09/26/18 14:17	09/27/18 22:39	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.1	1.8	1	09/26/18 14:17	09/27/18 22:39	207-08-9	
Chrysene	ND	ug/kg	12.1	2.2	1	09/26/18 14:17	09/27/18 22:39	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.1	2.2	1	09/26/18 14:17	09/27/18 22:39	53-70-3	
Fluoranthene	**4.0J**	ug/kg	12.1	1.0	1	09/26/18 14:17	09/27/18 22:39	206-44-0	
Fluorene	ND	ug/kg	12.1	1.9	1	09/26/18 14:17	09/27/18 22:39	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.1	3.4	1	09/26/18 14:17	09/27/18 22:39	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.1	1.5	1	09/26/18 14:17	09/27/18 22:39	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.1	1.3	1	09/26/18 14:17	09/27/18 22:39	91-57-6	
Naphthalene	ND	ug/kg	12.1	2.8	1	09/26/18 14:17	09/27/18 22:39	91-20-3	
Phenanthrene	**3.1J**	ug/kg	12.1	1.8	1	09/26/18 14:17	09/27/18 22:39	85-01-8	
Pyrene	**3.7J**	ug/kg	12.1	2.2	1	09/26/18 14:17	09/27/18 22:39	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	68	%	10-128		1	09/26/18 14:17	09/27/18 22:39	4165-60-0	
2-Fluorobiphenyl (S)	67	%	10-110		1	09/26/18 14:17	09/27/18 22:39	321-60-8	
Terphenyl-d14 (S)	76	%	39-119		1	09/26/18 14:17	09/27/18 22:39	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	ND	ug/kg	90.3	9.0	1	09/26/18 10:38	09/26/18 21:14	67-64-1	
Benzene	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	71-43-2	
Bromobenzene	ND	ug/kg	4.5	1.8	1	09/26/18 10:38	09/26/18 21:14	108-86-1	
Bromochloromethane	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	74-97-5	
Bromodichloromethane	ND	ug/kg	4.5	1.7	1	09/26/18 10:38	09/26/18 21:14	75-27-4	
Bromoform	ND	ug/kg	4.5	2.1	1	09/26/18 10:38	09/26/18 21:14	75-25-2	
Bromomethane	ND	ug/kg	9.0	2.3	1	09/26/18 10:38	09/26/18 21:14	74-83-9	
2-Butanone (MEK)	ND	ug/kg	90.3	2.6	1	09/26/18 10:38	09/26/18 21:14	78-93-3	
n-Butylbenzene	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.5	1.8	1	09/26/18 10:38	09/26/18 21:14	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.5	2.3	1	09/26/18 10:38	09/26/18 21:14	56-23-5	
Chlorobenzene	ND	ug/kg	4.5	1.7	1	09/26/18 10:38	09/26/18 21:14	108-90-7	
Chloroethane	ND	ug/kg	9.0	2.2	1	09/26/18 10:38	09/26/18 21:14	75-00-3	
Chloroform	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	67-66-3	
Chloromethane	ND	ug/kg	9.0	2.2	1	09/26/18 10:38	09/26/18 21:14	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.5	3.3	1	09/26/18 10:38	09/26/18 21:14	96-12-8	
Dibromochloromethane	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	106-93-4	

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB001 (4'-5') **Lab ID: 92400796002** Collected: 09/24/18 14:30 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Dibromomethane	ND	ug/kg	4.5	2.3	1	09/26/18 10:38	09/26/18 21:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.5	1.7	1	09/26/18 10:38	09/26/18 21:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.5	1.8	1	09/26/18 10:38	09/26/18 21:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.0	3.3	1	09/26/18 10:38	09/26/18 21:14	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.5	2.0	1	09/26/18 10:38	09/26/18 21:14	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.5	1.3	1	09/26/18 10:38	09/26/18 21:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.5	1.7	1	09/26/18 10:38	09/26/18 21:14	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.5	1.7	1	09/26/18 10:38	09/26/18 21:14	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	108-20-3	
Ethylbenzene	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.5	1.8	1	09/26/18 10:38	09/26/18 21:14	87-68-3	
2-Hexanone	ND	ug/kg	45.1	3.5	1	09/26/18 10:38	09/26/18 21:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.5	1.7	1	09/26/18 10:38	09/26/18 21:14	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	99-87-6	
Methylene Chloride	ND	ug/kg	18.1	2.7	1	09/26/18 10:38	09/26/18 21:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	45.1	3.3	1	09/26/18 10:38	09/26/18 21:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	1634-04-4	
Naphthalene	ND	ug/kg	4.5	1.1	1	09/26/18 10:38	09/26/18 21:14	91-20-3	
n-Propylbenzene	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	103-65-1	
Styrene	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.5	1.9	1	09/26/18 10:38	09/26/18 21:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.5	1.7	1	09/26/18 10:38	09/26/18 21:14	79-34-5	
Tetrachloroethene	ND	ug/kg	4.5	1.5	1	09/26/18 10:38	09/26/18 21:14	127-18-4	
Toluene	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.5	2.0	1	09/26/18 10:38	09/26/18 21:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.5	1.9	1	09/26/18 10:38	09/26/18 21:14	79-00-5	
Trichloroethene	ND	ug/kg	4.5	1.9	1	09/26/18 10:38	09/26/18 21:14	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.5	2.0	1	09/26/18 10:38	09/26/18 21:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.5	1.4	1	09/26/18 10:38	09/26/18 21:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.5	1.8	1	09/26/18 10:38	09/26/18 21:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.5	1.6	1	09/26/18 10:38	09/26/18 21:14	108-67-8	
Vinyl acetate	ND	ug/kg	45.1	7.9	1	09/26/18 10:38	09/26/18 21:14	108-05-4	
Vinyl chloride	ND	ug/kg	9.0	1.6	1	09/26/18 10:38	09/26/18 21:14	75-01-4	
Xylene (Total)	ND	ug/kg	9.0	3.3	1	09/26/18 10:38	09/26/18 21:14	1330-20-7	
m&p-Xylene	ND	ug/kg	9.0	3.3	1	09/26/18 10:38	09/26/18 21:14	179601-23-1	

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB001 (4'-5') **Lab ID: 92400796002** Collected: 09/24/18 14:30 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
o-Xylene	ND	ug/kg	4.5	1.7	1	09/26/18 10:38	09/26/18 21:14	95-47-6	
Surrogates									
Toluene-d8 (S)	103	%	70-130		1	09/26/18 10:38	09/26/18 21:14	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1	09/26/18 10:38	09/26/18 21:14	460-00-4	
1,2-Dichloroethane-d4 (S)	85	%	70-132		1	09/26/18 10:38	09/26/18 21:14	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.1**	%	0.10	0.10	1		09/25/18 18:05		

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB002 (0'-1') **Lab ID: 92400796003** Collected: 09/24/18 14:40 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**10.4J**	ug/kg	11.9	1.8	1	09/26/18 14:17	09/27/18 23:00	83-32-9	
Acenaphthylene	**8.4J**	ug/kg	11.9	1.6	1	09/26/18 14:17	09/27/18 23:00	208-96-8	
Anthracene	**36.6**	ug/kg	11.9	1.7	1	09/26/18 14:17	09/27/18 23:00	120-12-7	
Benzo(a)anthracene	**235**	ug/kg	11.9	0.85	1	09/26/18 14:17	09/27/18 23:00	56-55-3	
Benzo(a)pyrene	**290**	ug/kg	11.9	1.3	1	09/26/18 14:17	09/27/18 23:00	50-32-8	
Benzo(b)fluoranthene	**537**	ug/kg	11.9	0.80	1	09/26/18 14:17	09/27/18 23:00	205-99-2	2g
Benzo(g,h,i)perylene	**266**	ug/kg	11.9	3.1	1	09/26/18 14:17	09/27/18 23:00	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.9	1.8	1	09/26/18 14:17	09/27/18 23:00	207-08-9	
Chrysene	**349**	ug/kg	11.9	2.1	1	09/26/18 14:17	09/27/18 23:00	218-01-9	
Dibenz(a,h)anthracene	**66.1**	ug/kg	11.9	2.1	1	09/26/18 14:17	09/27/18 23:00	53-70-3	
Fluoranthene	**300**	ug/kg	11.9	0.99	1	09/26/18 14:17	09/27/18 23:00	206-44-0	
Fluorene	**6.0J**	ug/kg	11.9	1.9	1	09/26/18 14:17	09/27/18 23:00	86-73-7	
Indeno(1,2,3-cd)pyrene	**228**	ug/kg	11.9	3.3	1	09/26/18 14:17	09/27/18 23:00	193-39-5	
1-Methylnaphthalene	**17.4**	ug/kg	11.9	1.4	1	09/26/18 14:17	09/27/18 23:00	90-12-0	
2-Methylnaphthalene	**28.7**	ug/kg	11.9	1.3	1	09/26/18 14:17	09/27/18 23:00	91-57-6	
Naphthalene	**21.0**	ug/kg	11.9	2.7	1	09/26/18 14:17	09/27/18 23:00	91-20-3	
Phenanthrene	**158**	ug/kg	11.9	1.8	1	09/26/18 14:17	09/27/18 23:00	85-01-8	
Pyrene	**267**	ug/kg	11.9	2.1	1	09/26/18 14:17	09/27/18 23:00	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	53	%	10-128		1	09/26/18 14:17	09/27/18 23:00	4165-60-0	
2-Fluorobiphenyl (S)	52	%	10-110		1	09/26/18 14:17	09/27/18 23:00	321-60-8	
Terphenyl-d14 (S)	90	%	39-119		1	09/26/18 14:17	09/27/18 23:00	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	ND	ug/kg	98.0	9.8	1	09/26/18 10:38	09/26/18 21:35	67-64-1	
Benzene	ND	ug/kg	4.9	1.6	1	09/26/18 10:38	09/26/18 21:35	71-43-2	
Bromobenzene	ND	ug/kg	4.9	2.0	1	09/26/18 10:38	09/26/18 21:35	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1.9	1	09/26/18 10:38	09/26/18 21:35	75-27-4	
Bromoform	ND	ug/kg	4.9	2.3	1	09/26/18 10:38	09/26/18 21:35	75-25-2	
Bromomethane	ND	ug/kg	9.8	2.4	1	09/26/18 10:38	09/26/18 21:35	74-83-9	
2-Butanone (MEK)	ND	ug/kg	98.0	2.8	1	09/26/18 10:38	09/26/18 21:35	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.9	1.6	1	09/26/18 10:38	09/26/18 21:35	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	2.0	1	09/26/18 10:38	09/26/18 21:35	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	2.5	1	09/26/18 10:38	09/26/18 21:35	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1.9	1	09/26/18 10:38	09/26/18 21:35	108-90-7	
Chloroethane	ND	ug/kg	9.8	2.4	1	09/26/18 10:38	09/26/18 21:35	75-00-3	
Chloroform	ND	ug/kg	4.9	1.6	1	09/26/18 10:38	09/26/18 21:35	67-66-3	
Chloromethane	ND	ug/kg	9.8	2.4	1	09/26/18 10:38	09/26/18 21:35	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	3.5	1	09/26/18 10:38	09/26/18 21:35	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	106-93-4	

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB002 (0'-1') **Lab ID: 92400796003** Collected: 09/24/18 14:40 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Dibromomethane	ND	ug/kg	4.9	2.4	1	09/26/18 10:38	09/26/18 21:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1.9	1	09/26/18 10:38	09/26/18 21:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.9	2.0	1	09/26/18 10:38	09/26/18 21:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.8	3.5	1	09/26/18 10:38	09/26/18 21:35	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1.5	1	09/26/18 10:38	09/26/18 21:35	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	2.2	1	09/26/18 10:38	09/26/18 21:35	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.9	1.4	1	09/26/18 10:38	09/26/18 21:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.9	1.9	1	09/26/18 10:38	09/26/18 21:35	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1.9	1	09/26/18 10:38	09/26/18 21:35	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1.5	1	09/26/18 10:38	09/26/18 21:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1.5	1	09/26/18 10:38	09/26/18 21:35	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	108-20-3	
Ethylbenzene	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	2.0	1	09/26/18 10:38	09/26/18 21:35	87-68-3	
2-Hexanone	ND	ug/kg	49.0	3.8	1	09/26/18 10:38	09/26/18 21:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.9	1	09/26/18 10:38	09/26/18 21:35	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	99-87-6	
Methylene Chloride	ND	ug/kg	19.6	2.9	1	09/26/18 10:38	09/26/18 21:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.0	3.6	1	09/26/18 10:38	09/26/18 21:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1.5	1	09/26/18 10:38	09/26/18 21:35	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1.2	1	09/26/18 10:38	09/26/18 21:35	91-20-3	
n-Propylbenzene	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	103-65-1	
Styrene	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	2.1	1	09/26/18 10:38	09/26/18 21:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1.9	1	09/26/18 10:38	09/26/18 21:35	79-34-5	
Tetrachloroethene	ND	ug/kg	4.9	1.7	1	09/26/18 10:38	09/26/18 21:35	127-18-4	
Toluene	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	2.2	1	09/26/18 10:38	09/26/18 21:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1.6	1	09/26/18 10:38	09/26/18 21:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	2.1	1	09/26/18 10:38	09/26/18 21:35	79-00-5	
Trichloroethene	ND	ug/kg	4.9	2.1	1	09/26/18 10:38	09/26/18 21:35	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	2.2	1	09/26/18 10:38	09/26/18 21:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1.6	1	09/26/18 10:38	09/26/18 21:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.9	2.0	1	09/26/18 10:38	09/26/18 21:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1.8	1	09/26/18 10:38	09/26/18 21:35	108-67-8	
Vinyl acetate	ND	ug/kg	49.0	8.6	1	09/26/18 10:38	09/26/18 21:35	108-05-4	
Vinyl chloride	ND	ug/kg	9.8	1.8	1	09/26/18 10:38	09/26/18 21:35	75-01-4	
Xylene (Total)	ND	ug/kg	9.8	3.5	1	09/26/18 10:38	09/26/18 21:35	1330-20-7	
m&p-Xylene	ND	ug/kg	9.8	3.5	1	09/26/18 10:38	09/26/18 21:35	179601-23-1	

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB002 (0'-1') **Lab ID: 92400796003** Collected: 09/24/18 14:40 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
o-Xylene	ND	ug/kg	4.9	1.9	1	09/26/18 10:38	09/26/18 21:35	95-47-6	
Surrogates									
Toluene-d8 (S)	103	%	70-130		1	09/26/18 10:38	09/26/18 21:35	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1	09/26/18 10:38	09/26/18 21:35	460-00-4	
1,2-Dichloroethane-d4 (S)	81	%	70-132		1	09/26/18 10:38	09/26/18 21:35	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.8**	%	0.10	0.10	1		09/25/18 18:05		

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB002 (4'-5') **Lab ID: 92400796004** Collected: 09/24/18 14:45 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**4.4J**	ug/kg	12.3	1.8	1	09/26/18 14:17	09/27/18 23:21	83-32-9	
Acenaphthylene	**8.0J**	ug/kg	12.3	1.6	1	09/26/18 14:17	09/27/18 23:21	208-96-8	
Anthracene	**6.5J**	ug/kg	12.3	1.7	1	09/26/18 14:17	09/27/18 23:21	120-12-7	
Benzo(a)anthracene	**63.5**	ug/kg	12.3	0.87	1	09/26/18 14:17	09/27/18 23:21	56-55-3	1g
Benzo(a)pyrene	ND	ug/kg	12.3	1.3	1	09/26/18 14:17	09/27/18 23:21	50-32-8	
Benzo(b)fluoranthene	**12.3**	ug/kg	12.3	0.82	1	09/26/18 14:17	09/27/18 23:21	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.3	3.2	1	09/26/18 14:17	09/27/18 23:21	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.3	1.8	1	09/26/18 14:17	09/27/18 23:21	207-08-9	
Chrysene	ND	ug/kg	12.3	2.2	1	09/26/18 14:17	09/27/18 23:21	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.3	2.2	1	09/26/18 14:17	09/27/18 23:21	53-70-3	
Fluoranthene	ND	ug/kg	12.3	1.0	1	09/26/18 14:17	09/27/18 23:21	206-44-0	
Fluorene	ND	ug/kg	12.3	2.0	1	09/26/18 14:17	09/27/18 23:21	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.3	3.4	1	09/26/18 14:17	09/27/18 23:21	193-39-5	
1-Methylnaphthalene	**4.6J**	ug/kg	12.3	1.5	1	09/26/18 14:17	09/27/18 23:21	90-12-0	
2-Methylnaphthalene	**6.1J**	ug/kg	12.3	1.3	1	09/26/18 14:17	09/27/18 23:21	91-57-6	
Naphthalene	ND	ug/kg	12.3	2.8	1	09/26/18 14:17	09/27/18 23:21	91-20-3	
Phenanthrene	**5.3J**	ug/kg	12.3	1.8	1	09/26/18 14:17	09/27/18 23:21	85-01-8	
Pyrene	**31.0**	ug/kg	12.3	2.2	1	09/26/18 14:17	09/27/18 23:21	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	76	%	10-128		1	09/26/18 14:17	09/27/18 23:21	4165-60-0	
2-Fluorobiphenyl (S)	68	%	10-110		1	09/26/18 14:17	09/27/18 23:21	321-60-8	
Terphenyl-d14 (S)	93	%	39-119		1	09/26/18 14:17	09/27/18 23:21	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	**33.2J**	ug/kg	139	13.9	1	09/26/18 10:38	09/26/18 21:55	67-64-1	
Benzene	ND	ug/kg	6.9	2.2	1	09/26/18 10:38	09/26/18 21:55	71-43-2	
Bromobenzene	ND	ug/kg	6.9	2.8	1	09/26/18 10:38	09/26/18 21:55	108-86-1	
Bromochloromethane	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	74-97-5	
Bromodichloromethane	ND	ug/kg	6.9	2.6	1	09/26/18 10:38	09/26/18 21:55	75-27-4	
Bromoform	ND	ug/kg	6.9	3.2	1	09/26/18 10:38	09/26/18 21:55	75-25-2	
Bromomethane	ND	ug/kg	13.9	3.5	1	09/26/18 10:38	09/26/18 21:55	74-83-9	
2-Butanone (MEK)	ND	ug/kg	139	4.0	1	09/26/18 10:38	09/26/18 21:55	78-93-3	
n-Butylbenzene	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.9	2.2	1	09/26/18 10:38	09/26/18 21:55	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.9	2.8	1	09/26/18 10:38	09/26/18 21:55	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.9	3.6	1	09/26/18 10:38	09/26/18 21:55	56-23-5	
Chlorobenzene	ND	ug/kg	6.9	2.6	1	09/26/18 10:38	09/26/18 21:55	108-90-7	
Chloroethane	ND	ug/kg	13.9	3.3	1	09/26/18 10:38	09/26/18 21:55	75-00-3	
Chloroform	ND	ug/kg	6.9	2.2	1	09/26/18 10:38	09/26/18 21:55	67-66-3	
Chloromethane	ND	ug/kg	13.9	3.3	1	09/26/18 10:38	09/26/18 21:55	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.9	5.0	1	09/26/18 10:38	09/26/18 21:55	96-12-8	
Dibromochloromethane	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	106-93-4	

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB002 (4'-5') **Lab ID: 92400796004** Collected: 09/24/18 14:45 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Dibromomethane	ND	ug/kg	6.9	3.5	1	09/26/18 10:38	09/26/18 21:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.9	2.6	1	09/26/18 10:38	09/26/18 21:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.9	2.8	1	09/26/18 10:38	09/26/18 21:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.9	5.0	1	09/26/18 10:38	09/26/18 21:55	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.9	2.1	1	09/26/18 10:38	09/26/18 21:55	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.9	3.1	1	09/26/18 10:38	09/26/18 21:55	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.9	1.9	1	09/26/18 10:38	09/26/18 21:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.9	2.6	1	09/26/18 10:38	09/26/18 21:55	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.9	2.6	1	09/26/18 10:38	09/26/18 21:55	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.9	2.1	1	09/26/18 10:38	09/26/18 21:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.9	2.1	1	09/26/18 10:38	09/26/18 21:55	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	108-20-3	
Ethylbenzene	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.9	2.8	1	09/26/18 10:38	09/26/18 21:55	87-68-3	
2-Hexanone	ND	ug/kg	69.4	5.4	1	09/26/18 10:38	09/26/18 21:55	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.9	2.6	1	09/26/18 10:38	09/26/18 21:55	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	99-87-6	
Methylene Chloride	ND	ug/kg	27.8	4.2	1	09/26/18 10:38	09/26/18 21:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	69.4	5.1	1	09/26/18 10:38	09/26/18 21:55	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.9	2.1	1	09/26/18 10:38	09/26/18 21:55	1634-04-4	
Naphthalene	ND	ug/kg	6.9	1.7	1	09/26/18 10:38	09/26/18 21:55	91-20-3	
n-Propylbenzene	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	103-65-1	
Styrene	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.9	2.9	1	09/26/18 10:38	09/26/18 21:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.9	2.6	1	09/26/18 10:38	09/26/18 21:55	79-34-5	
Tetrachloroethene	ND	ug/kg	6.9	2.4	1	09/26/18 10:38	09/26/18 21:55	127-18-4	
Toluene	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.9	3.1	1	09/26/18 10:38	09/26/18 21:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.9	2.2	1	09/26/18 10:38	09/26/18 21:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.9	2.9	1	09/26/18 10:38	09/26/18 21:55	79-00-5	
Trichloroethene	ND	ug/kg	6.9	2.9	1	09/26/18 10:38	09/26/18 21:55	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.9	3.1	1	09/26/18 10:38	09/26/18 21:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.9	2.2	1	09/26/18 10:38	09/26/18 21:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.9	2.8	1	09/26/18 10:38	09/26/18 21:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.9	2.5	1	09/26/18 10:38	09/26/18 21:55	108-67-8	
Vinyl acetate	ND	ug/kg	69.4	12.2	1	09/26/18 10:38	09/26/18 21:55	108-05-4	
Vinyl chloride	ND	ug/kg	13.9	2.5	1	09/26/18 10:38	09/26/18 21:55	75-01-4	
Xylene (Total)	ND	ug/kg	13.9	5.0	1	09/26/18 10:38	09/26/18 21:55	1330-20-7	
m&p-Xylene	ND	ug/kg	13.9	5.0	1	09/26/18 10:38	09/26/18 21:55	179601-23-1	

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(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB002 (4'-5') **Lab ID: 92400796004** Collected: 09/24/18 14:45 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
o-Xylene	ND	ug/kg	6.9	2.6	1	09/26/18 10:38	09/26/18 21:55	95-47-6	
Surrogates									
Toluene-d8 (S)	107	%	70-130		1	09/26/18 10:38	09/26/18 21:55	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1	09/26/18 10:38	09/26/18 21:55	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	70-132		1	09/26/18 10:38	09/26/18 21:55	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.4**	%	0.10	0.10	1		09/25/18 18:05		

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB003 (0'-1') **Lab ID: 92400796005** Collected: 09/24/18 15:00 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**765**	ug/kg	11.7	1.8	1	09/26/18 14:17	09/27/18 23:42	83-32-9	
Acenaphthylene	**99.9**	ug/kg	11.7	1.5	1	09/26/18 14:17	09/27/18 23:42	208-96-8	
Anthracene	**1320**	ug/kg	117	16.4	10	09/26/18 14:17	09/28/18 15:07	120-12-7	
Benzo(a)anthracene	**2970**	ug/kg	117	8.3	10	09/26/18 14:17	09/28/18 15:07	56-55-3	
Benzo(a)pyrene	**2540**	ug/kg	117	12.9	10	09/26/18 14:17	09/28/18 15:07	50-32-8	
Benzo(b)fluoranthene	**4070**	ug/kg	117	7.8	10	09/26/18 14:17	09/28/18 15:07	205-99-2	
Benzo(g,h,i)perylene	**1740**	ug/kg	117	30.4	10	09/26/18 14:17	09/28/18 15:07	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.7	1.8	1	09/26/18 14:17	09/27/18 23:42	207-08-9	
Chrysene	**2850**	ug/kg	117	21.0	10	09/26/18 14:17	09/28/18 15:07	218-01-9	
Dibenz(a,h)anthracene	**560**	ug/kg	11.7	2.1	1	09/26/18 14:17	09/27/18 23:42	53-70-3	
Fluoranthene	**5900**	ug/kg	117	9.7	10	09/26/18 14:17	09/28/18 15:07	206-44-0	
Fluorene	**660**	ug/kg	11.7	1.9	1	09/26/18 14:17	09/27/18 23:42	86-73-7	
Indeno(1,2,3-cd)pyrene	**1610**	ug/kg	117	32.7	10	09/26/18 14:17	09/28/18 15:07	193-39-5	
1-Methylnaphthalene	**243**	ug/kg	11.7	1.4	1	09/26/18 14:17	09/27/18 23:42	90-12-0	
2-Methylnaphthalene	**420**	ug/kg	11.7	1.3	1	09/26/18 14:17	09/27/18 23:42	91-57-6	
Naphthalene	**1240**	ug/kg	117	26.9	10	09/26/18 14:17	09/28/18 15:07	91-20-3	
Phenanthrene	**5170**	ug/kg	117	17.5	10	09/26/18 14:17	09/28/18 15:07	85-01-8	
Pyrene	**5120**	ug/kg	117	21.0	10	09/26/18 14:17	09/28/18 15:07	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	58	%	10-128		1	09/26/18 14:17	09/27/18 23:42	4165-60-0	
2-Fluorobiphenyl (S)	54	%	10-110		1	09/26/18 14:17	09/27/18 23:42	321-60-8	
Terphenyl-d14 (S)	103	%	39-119		1	09/26/18 14:17	09/27/18 23:42	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	**15.7J**	ug/kg	100	10.0	1	09/26/18 12:58	09/26/18 18:53	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1	09/26/18 12:58	09/26/18 18:53	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1	09/26/18 12:58	09/26/18 18:53	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1	09/26/18 12:58	09/26/18 18:53	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1	09/26/18 12:58	09/26/18 18:53	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1	09/26/18 12:58	09/26/18 18:53	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1	09/26/18 12:58	09/26/18 18:53	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1	09/26/18 12:58	09/26/18 18:53	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1	09/26/18 12:58	09/26/18 18:53	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1	09/26/18 12:58	09/26/18 18:53	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1	09/26/18 12:58	09/26/18 18:53	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1	09/26/18 12:58	09/26/18 18:53	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1	09/26/18 12:58	09/26/18 18:53	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1	09/26/18 12:58	09/26/18 18:53	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1	09/26/18 12:58	09/26/18 18:53	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	106-93-4	

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB003 (0'-1') **Lab ID: 92400796005** Collected: 09/24/18 15:00 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Dibromomethane	ND	ug/kg	5.0	2.5	1	09/26/18 12:58	09/26/18 18:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1	09/26/18 12:58	09/26/18 18:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1	09/26/18 12:58	09/26/18 18:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1	09/26/18 12:58	09/26/18 18:53	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1	09/26/18 12:58	09/26/18 18:53	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1	09/26/18 12:58	09/26/18 18:53	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1	09/26/18 12:58	09/26/18 18:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1	09/26/18 12:58	09/26/18 18:53	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1	09/26/18 12:58	09/26/18 18:53	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1	09/26/18 12:58	09/26/18 18:53	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1	09/26/18 12:58	09/26/18 18:53	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	108-20-3	
Ethylbenzene	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1	09/26/18 12:58	09/26/18 18:53	87-68-3	
2-Hexanone	ND	ug/kg	50.1	3.9	1	09/26/18 12:58	09/26/18 18:53	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1	09/26/18 12:58	09/26/18 18:53	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	99-87-6	
Methylene Chloride	ND	ug/kg	20.0	3.0	1	09/26/18 12:58	09/26/18 18:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.1	3.7	1	09/26/18 12:58	09/26/18 18:53	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1	09/26/18 12:58	09/26/18 18:53	1634-04-4	
Naphthalene	**7.3**	ug/kg	5.0	1.2	1	09/26/18 12:58	09/26/18 18:53	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1	09/26/18 12:58	09/26/18 18:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1	09/26/18 12:58	09/26/18 18:53	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1	09/26/18 12:58	09/26/18 18:53	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1	09/26/18 12:58	09/26/18 18:53	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1	09/26/18 12:58	09/26/18 18:53	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1	09/26/18 12:58	09/26/18 18:53	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1	09/26/18 12:58	09/26/18 18:53	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1	09/26/18 12:58	09/26/18 18:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1	09/26/18 12:58	09/26/18 18:53	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1	09/26/18 12:58	09/26/18 18:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1	09/26/18 12:58	09/26/18 18:53	108-67-8	
Vinyl acetate	ND	ug/kg	50.1	8.8	1	09/26/18 12:58	09/26/18 18:53	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1	09/26/18 12:58	09/26/18 18:53	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1	09/26/18 12:58	09/26/18 18:53	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1	09/26/18 12:58	09/26/18 18:53	179601-23-1	

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(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB003 (0'-1') **Lab ID: 92400796005** Collected: 09/24/18 15:00 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
o-Xylene	ND	ug/kg	5.0	1.9	1	09/26/18 12:58	09/26/18 18:53	95-47-6	
Surrogates									
Toluene-d8 (S)	97	%	70-130		1	09/26/18 12:58	09/26/18 18:53	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1	09/26/18 12:58	09/26/18 18:53	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-132		1	09/26/18 12:58	09/26/18 18:53	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.7**	%	0.10	0.10	1		09/25/18 18:05		

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB003 (4'-5') **Lab ID: 92400796006** Collected: 09/24/18 15:05 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.4	1.9	1	09/26/18 14:17	09/28/18 00:03	83-32-9	
Acenaphthylene	ND	ug/kg	12.4	1.6	1	09/26/18 14:17	09/28/18 00:03	208-96-8	
Anthracene	ND	ug/kg	12.4	1.7	1	09/26/18 14:17	09/28/18 00:03	120-12-7	
Benzo(a)anthracene	**2.3J**	ug/kg	12.4	0.88	1	09/26/18 14:17	09/28/18 00:03	56-55-3	
Benzo(a)pyrene	**2.3J**	ug/kg	12.4	1.4	1	09/26/18 14:17	09/28/18 00:03	50-32-8	
Benzo(b)fluoranthene	**2.5J**	ug/kg	12.4	0.83	1	09/26/18 14:17	09/28/18 00:03	205-99-2	
Benzo(g,h,i)perylene	**3.3J**	ug/kg	12.4	3.2	1	09/26/18 14:17	09/28/18 00:03	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.4	1.9	1	09/26/18 14:17	09/28/18 00:03	207-08-9	
Chrysene	ND	ug/kg	12.4	2.2	1	09/26/18 14:17	09/28/18 00:03	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.4	2.2	1	09/26/18 14:17	09/28/18 00:03	53-70-3	
Fluoranthene	**5.3J**	ug/kg	12.4	1.0	1	09/26/18 14:17	09/28/18 00:03	206-44-0	
Fluorene	ND	ug/kg	12.4	2.0	1	09/26/18 14:17	09/28/18 00:03	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.4	3.5	1	09/26/18 14:17	09/28/18 00:03	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.4	1.5	1	09/26/18 14:17	09/28/18 00:03	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.4	1.4	1	09/26/18 14:17	09/28/18 00:03	91-57-6	
Naphthalene	ND	ug/kg	12.4	2.9	1	09/26/18 14:17	09/28/18 00:03	91-20-3	
Phenanthrene	**5.6J**	ug/kg	12.4	1.9	1	09/26/18 14:17	09/28/18 00:03	85-01-8	
Pyrene	**4.7J**	ug/kg	12.4	2.2	1	09/26/18 14:17	09/28/18 00:03	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	14	%	10-128		1	09/26/18 14:17	09/28/18 00:03	4165-60-0	
2-Fluorobiphenyl (S)	14	%	10-110		1	09/26/18 14:17	09/28/18 00:03	321-60-8	
Terphenyl-d14 (S)	57	%	39-119		1	09/26/18 14:17	09/28/18 00:03	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	**28.6J**	ug/kg	107	10.7	1	09/26/18 12:58	09/26/18 19:13	67-64-1	
Benzene	ND	ug/kg	5.3	1.7	1	09/26/18 12:58	09/26/18 19:13	71-43-2	
Bromobenzene	ND	ug/kg	5.3	2.1	1	09/26/18 12:58	09/26/18 19:13	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	74-97-5	
Bromodichloromethane	ND	ug/kg	5.3	2.0	1	09/26/18 12:58	09/26/18 19:13	75-27-4	
Bromoform	ND	ug/kg	5.3	2.5	1	09/26/18 12:58	09/26/18 19:13	75-25-2	
Bromomethane	ND	ug/kg	10.7	2.7	1	09/26/18 12:58	09/26/18 19:13	74-83-9	
2-Butanone (MEK)	ND	ug/kg	107	3.1	1	09/26/18 12:58	09/26/18 19:13	78-93-3	
n-Butylbenzene	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1.7	1	09/26/18 12:58	09/26/18 19:13	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	2.1	1	09/26/18 12:58	09/26/18 19:13	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	2.8	1	09/26/18 12:58	09/26/18 19:13	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	2.0	1	09/26/18 12:58	09/26/18 19:13	108-90-7	
Chloroethane	ND	ug/kg	10.7	2.6	1	09/26/18 12:58	09/26/18 19:13	75-00-3	
Chloroform	ND	ug/kg	5.3	1.7	1	09/26/18 12:58	09/26/18 19:13	67-66-3	
Chloromethane	ND	ug/kg	10.7	2.6	1	09/26/18 12:58	09/26/18 19:13	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	3.8	1	09/26/18 12:58	09/26/18 19:13	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	106-93-4	

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB003 (4'-5') **Lab ID: 92400796006** Collected: 09/24/18 15:05 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Dibromomethane	ND	ug/kg	5.3	2.7	1	09/26/18 12:58	09/26/18 19:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	2.0	1	09/26/18 12:58	09/26/18 19:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	2.1	1	09/26/18 12:58	09/26/18 19:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	3.8	1	09/26/18 12:58	09/26/18 19:13	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.3	1.6	1	09/26/18 12:58	09/26/18 19:13	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	2.4	1	09/26/18 12:58	09/26/18 19:13	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.3	1.5	1	09/26/18 12:58	09/26/18 19:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	2.0	1	09/26/18 12:58	09/26/18 19:13	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	2.0	1	09/26/18 12:58	09/26/18 19:13	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.3	1.6	1	09/26/18 12:58	09/26/18 19:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.6	1	09/26/18 12:58	09/26/18 19:13	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	108-20-3	
Ethylbenzene	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	2.1	1	09/26/18 12:58	09/26/18 19:13	87-68-3	
2-Hexanone	ND	ug/kg	53.5	4.2	1	09/26/18 12:58	09/26/18 19:13	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	2.0	1	09/26/18 12:58	09/26/18 19:13	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	99-87-6	
Methylene Chloride	**5.0J**	ug/kg	21.4	3.2	1	09/26/18 12:58	09/26/18 19:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.5	4.0	1	09/26/18 12:58	09/26/18 19:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1.6	1	09/26/18 12:58	09/26/18 19:13	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1.3	1	09/26/18 12:58	09/26/18 19:13	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	103-65-1	
Styrene	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	2.2	1	09/26/18 12:58	09/26/18 19:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	2.0	1	09/26/18 12:58	09/26/18 19:13	79-34-5	
Tetrachloroethene	ND	ug/kg	5.3	1.8	1	09/26/18 12:58	09/26/18 19:13	127-18-4	
Toluene	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	2.4	1	09/26/18 12:58	09/26/18 19:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.7	1	09/26/18 12:58	09/26/18 19:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	2.2	1	09/26/18 12:58	09/26/18 19:13	79-00-5	
Trichloroethene	ND	ug/kg	5.3	2.2	1	09/26/18 12:58	09/26/18 19:13	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	2.4	1	09/26/18 12:58	09/26/18 19:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1.7	1	09/26/18 12:58	09/26/18 19:13	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.1	1	09/26/18 12:58	09/26/18 19:13	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1.9	1	09/26/18 12:58	09/26/18 19:13	108-67-8	
Vinyl acetate	ND	ug/kg	53.5	9.4	1	09/26/18 12:58	09/26/18 19:13	108-05-4	
Vinyl chloride	ND	ug/kg	10.7	1.9	1	09/26/18 12:58	09/26/18 19:13	75-01-4	
Xylene (Total)	ND	ug/kg	10.7	3.8	1	09/26/18 12:58	09/26/18 19:13	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	3.8	1	09/26/18 12:58	09/26/18 19:13	179601-23-1	

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB003 (4'-5') **Lab ID: 92400796006** Collected: 09/24/18 15:05 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
o-Xylene	ND	ug/kg	5.3	2.0	1	09/26/18 12:58	09/26/18 19:13	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1	09/26/18 12:58	09/26/18 19:13	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1	09/26/18 12:58	09/26/18 19:13	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-132		1	09/26/18 12:58	09/26/18 19:13	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.4**	%	0.10	0.10	1		09/25/18 18:05		

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB004 (0'-1') **Lab ID: 92400796007** Collected: 09/24/18 15:30 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**12.6**	ug/kg	12.2	1.8	1	09/26/18 14:17	09/28/18 00:24	83-32-9	
Acenaphthylene	**5.9J**	ug/kg	12.2	1.6	1	09/26/18 14:17	09/28/18 00:24	208-96-8	
Anthracene	**34.5**	ug/kg	12.2	1.7	1	09/26/18 14:17	09/28/18 00:24	120-12-7	
Benzo(a)anthracene	**153**	ug/kg	12.2	0.86	1	09/26/18 14:17	09/28/18 00:24	56-55-3	
Benzo(a)pyrene	**134**	ug/kg	12.2	1.3	1	09/26/18 14:17	09/28/18 00:24	50-32-8	
Benzo(b)fluoranthene	**298**	ug/kg	12.2	0.82	1	09/26/18 14:17	09/28/18 00:24	205-99-2	
Benzo(g,h,i)perylene	**94.9**	ug/kg	12.2	3.2	1	09/26/18 14:17	09/28/18 00:24	191-24-2	
Benzo(k)fluoranthene	**92.5**	ug/kg	12.2	1.8	1	09/26/18 14:17	09/28/18 00:24	207-08-9	
Chrysene	**194**	ug/kg	12.2	2.2	1	09/26/18 14:17	09/28/18 00:24	218-01-9	
Dibenz(a,h)anthracene	**7.8J**	ug/kg	12.2	2.2	1	09/26/18 14:17	09/28/18 00:24	53-70-3	
Fluoranthene	**198**	ug/kg	12.2	1.0	1	09/26/18 14:17	09/28/18 00:24	206-44-0	
Fluorene	**8.4J**	ug/kg	12.2	1.9	1	09/26/18 14:17	09/28/18 00:24	86-73-7	
Indeno(1,2,3-cd)pyrene	**90.4**	ug/kg	12.2	3.4	1	09/26/18 14:17	09/28/18 00:24	193-39-5	
1-Methylnaphthalene	**7.4J**	ug/kg	12.2	1.5	1	09/26/18 14:17	09/28/18 00:24	90-12-0	
2-Methylnaphthalene	**9.2J**	ug/kg	12.2	1.3	1	09/26/18 14:17	09/28/18 00:24	91-57-6	
Naphthalene	**10.6J**	ug/kg	12.2	2.8	1	09/26/18 14:17	09/28/18 00:24	91-20-3	
Phenanthrene	**110**	ug/kg	12.2	1.8	1	09/26/18 14:17	09/28/18 00:24	85-01-8	
Pyrene	**166**	ug/kg	12.2	2.2	1	09/26/18 14:17	09/28/18 00:24	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	57	%	10-128		1	09/26/18 14:17	09/28/18 00:24	4165-60-0	
2-Fluorobiphenyl (S)	51	%	10-110		1	09/26/18 14:17	09/28/18 00:24	321-60-8	
Terphenyl-d14 (S)	72	%	39-119		1	09/26/18 14:17	09/28/18 00:24	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	**231**	ug/kg	88.1	8.8	1	09/26/18 12:58	09/26/18 19:32	67-64-1	
Benzene	ND	ug/kg	4.4	1.4	1	09/26/18 12:58	09/26/18 19:32	71-43-2	
Bromobenzene	ND	ug/kg	4.4	1.8	1	09/26/18 12:58	09/26/18 19:32	108-86-1	
Bromochloromethane	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	74-97-5	
Bromodichloromethane	ND	ug/kg	4.4	1.7	1	09/26/18 12:58	09/26/18 19:32	75-27-4	
Bromoform	ND	ug/kg	4.4	2.0	1	09/26/18 12:58	09/26/18 19:32	75-25-2	
Bromomethane	ND	ug/kg	8.8	2.2	1	09/26/18 12:58	09/26/18 19:32	74-83-9	
2-Butanone (MEK)	ND	ug/kg	88.1	2.6	1	09/26/18 12:58	09/26/18 19:32	78-93-3	
n-Butylbenzene	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.4	1.4	1	09/26/18 12:58	09/26/18 19:32	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.4	1.8	1	09/26/18 12:58	09/26/18 19:32	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.4	2.3	1	09/26/18 12:58	09/26/18 19:32	56-23-5	
Chlorobenzene	ND	ug/kg	4.4	1.7	1	09/26/18 12:58	09/26/18 19:32	108-90-7	
Chloroethane	ND	ug/kg	8.8	2.1	1	09/26/18 12:58	09/26/18 19:32	75-00-3	
Chloroform	ND	ug/kg	4.4	1.4	1	09/26/18 12:58	09/26/18 19:32	67-66-3	
Chloromethane	ND	ug/kg	8.8	2.1	1	09/26/18 12:58	09/26/18 19:32	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.4	3.2	1	09/26/18 12:58	09/26/18 19:32	96-12-8	
Dibromochloromethane	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	106-93-4	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB004 (0'-1') **Lab ID: 92400796007** Collected: 09/24/18 15:30 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Dibromomethane	ND	ug/kg	4.4	2.2	1	09/26/18 12:58	09/26/18 19:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.4	1.7	1	09/26/18 12:58	09/26/18 19:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.4	1.8	1	09/26/18 12:58	09/26/18 19:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.8	3.2	1	09/26/18 12:58	09/26/18 19:32	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.4	1.3	1	09/26/18 12:58	09/26/18 19:32	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.4	1.9	1	09/26/18 12:58	09/26/18 19:32	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.4	1.2	1	09/26/18 12:58	09/26/18 19:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.4	1.7	1	09/26/18 12:58	09/26/18 19:32	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.4	1.7	1	09/26/18 12:58	09/26/18 19:32	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.4	1.3	1	09/26/18 12:58	09/26/18 19:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.4	1.3	1	09/26/18 12:58	09/26/18 19:32	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	108-20-3	
Ethylbenzene	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.4	1.8	1	09/26/18 12:58	09/26/18 19:32	87-68-3	
2-Hexanone	ND	ug/kg	44.1	3.4	1	09/26/18 12:58	09/26/18 19:32	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.4	1.7	1	09/26/18 12:58	09/26/18 19:32	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	99-87-6	
Methylene Chloride	**4.0J**	ug/kg	17.6	2.6	1	09/26/18 12:58	09/26/18 19:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	44.1	3.3	1	09/26/18 12:58	09/26/18 19:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.4	1.3	1	09/26/18 12:58	09/26/18 19:32	1634-04-4	
Naphthalene	ND	ug/kg	4.4	1.1	1	09/26/18 12:58	09/26/18 19:32	91-20-3	
n-Propylbenzene	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	103-65-1	
Styrene	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.4	1.9	1	09/26/18 12:58	09/26/18 19:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.4	1.7	1	09/26/18 12:58	09/26/18 19:32	79-34-5	
Tetrachloroethene	ND	ug/kg	4.4	1.5	1	09/26/18 12:58	09/26/18 19:32	127-18-4	
Toluene	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.4	1.9	1	09/26/18 12:58	09/26/18 19:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.4	1.4	1	09/26/18 12:58	09/26/18 19:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.4	1.9	1	09/26/18 12:58	09/26/18 19:32	79-00-5	
Trichloroethene	ND	ug/kg	4.4	1.9	1	09/26/18 12:58	09/26/18 19:32	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.4	1.9	1	09/26/18 12:58	09/26/18 19:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.4	1.4	1	09/26/18 12:58	09/26/18 19:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.4	1.8	1	09/26/18 12:58	09/26/18 19:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.4	1.6	1	09/26/18 12:58	09/26/18 19:32	108-67-8	
Vinyl acetate	ND	ug/kg	44.1	7.8	1	09/26/18 12:58	09/26/18 19:32	108-05-4	
Vinyl chloride	ND	ug/kg	8.8	1.6	1	09/26/18 12:58	09/26/18 19:32	75-01-4	
Xylene (Total)	ND	ug/kg	8.8	3.2	1	09/26/18 12:58	09/26/18 19:32	1330-20-7	
m&p-Xylene	ND	ug/kg	8.8	3.2	1	09/26/18 12:58	09/26/18 19:32	179601-23-1	

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(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB004 (0'-1') **Lab ID: 92400796007** Collected: 09/24/18 15:30 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
o-Xylene	ND	ug/kg	4.4	1.7	1	09/26/18 12:58	09/26/18 19:32	95-47-6	
Surrogates									
Toluene-d8 (S)	97	%	70-130		1	09/26/18 12:58	09/26/18 19:32	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1	09/26/18 12:58	09/26/18 19:32	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-132		1	09/26/18 12:58	09/26/18 19:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.9**	%	0.10	0.10	1		09/25/18 18:05		

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB004 (4'-5') **Lab ID: 92400796008** Collected: 09/24/18 15:35 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.1	1.8	1	09/26/18 14:17	09/28/18 00:45	83-32-9	
Acenaphthylene	ND	ug/kg	12.1	1.6	1	09/26/18 14:17	09/28/18 00:45	208-96-8	
Anthracene	ND	ug/kg	12.1	1.7	1	09/26/18 14:17	09/28/18 00:45	120-12-7	
Benzo(a)anthracene	**1.6J**	ug/kg	12.1	0.86	1	09/26/18 14:17	09/28/18 00:45	56-55-3	
Benzo(a)pyrene	ND	ug/kg	12.1	1.3	1	09/26/18 14:17	09/28/18 00:45	50-32-8	
Benzo(b)fluoranthene	**2.0J**	ug/kg	12.1	0.81	1	09/26/18 14:17	09/28/18 00:45	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.1	3.1	1	09/26/18 14:17	09/28/18 00:45	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.1	1.8	1	09/26/18 14:17	09/28/18 00:45	207-08-9	
Chrysene	ND	ug/kg	12.1	2.2	1	09/26/18 14:17	09/28/18 00:45	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.1	2.2	1	09/26/18 14:17	09/28/18 00:45	53-70-3	
Fluoranthene	**2.5J**	ug/kg	12.1	1.0	1	09/26/18 14:17	09/28/18 00:45	206-44-0	
Fluorene	ND	ug/kg	12.1	1.9	1	09/26/18 14:17	09/28/18 00:45	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.1	3.4	1	09/26/18 14:17	09/28/18 00:45	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.1	1.4	1	09/26/18 14:17	09/28/18 00:45	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.1	1.3	1	09/26/18 14:17	09/28/18 00:45	91-57-6	
Naphthalene	ND	ug/kg	12.1	2.8	1	09/26/18 14:17	09/28/18 00:45	91-20-3	
Phenanthrene	ND	ug/kg	12.1	1.8	1	09/26/18 14:17	09/28/18 00:45	85-01-8	
Pyrene	**2.2J**	ug/kg	12.1	2.2	1	09/26/18 14:17	09/28/18 00:45	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	65	%	10-128		1	09/26/18 14:17	09/28/18 00:45	4165-60-0	
2-Fluorobiphenyl (S)	59	%	10-110		1	09/26/18 14:17	09/28/18 00:45	321-60-8	
Terphenyl-d14 (S)	72	%	39-119		1	09/26/18 14:17	09/28/18 00:45	1718-51-0	
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Acetone	**77.2J**	ug/kg	82.4	8.2	1	09/26/18 12:58	09/26/18 19:52	67-64-1	
Benzene	ND	ug/kg	4.1	1.3	1	09/26/18 12:58	09/26/18 19:52	71-43-2	
Bromobenzene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	108-86-1	
Bromochloromethane	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	74-97-5	
Bromodichloromethane	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	75-27-4	
Bromoform	ND	ug/kg	4.1	1.9	1	09/26/18 12:58	09/26/18 19:52	75-25-2	
Bromomethane	ND	ug/kg	8.2	2.1	1	09/26/18 12:58	09/26/18 19:52	74-83-9	
2-Butanone (MEK)	ND	ug/kg	82.4	2.4	1	09/26/18 12:58	09/26/18 19:52	78-93-3	
n-Butylbenzene	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.1	1.3	1	09/26/18 12:58	09/26/18 19:52	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.1	2.1	1	09/26/18 12:58	09/26/18 19:52	56-23-5	
Chlorobenzene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	108-90-7	
Chloroethane	ND	ug/kg	8.2	2.0	1	09/26/18 12:58	09/26/18 19:52	75-00-3	
Chloroform	ND	ug/kg	4.1	1.3	1	09/26/18 12:58	09/26/18 19:52	67-66-3	
Chloromethane	ND	ug/kg	8.2	2.0	1	09/26/18 12:58	09/26/18 19:52	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.1	3.0	1	09/26/18 12:58	09/26/18 19:52	96-12-8	
Dibromochloromethane	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	106-93-4	

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ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB004 (4'-5') **Lab ID: 92400796008** Collected: 09/24/18 15:35 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
Dibromomethane	ND	ug/kg	4.1	2.1	1	09/26/18 12:58	09/26/18 19:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.2	3.0	1	09/26/18 12:58	09/26/18 19:52	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.1	1.2	1	09/26/18 12:58	09/26/18 19:52	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.1	1.8	1	09/26/18 12:58	09/26/18 19:52	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.1	1.2	1	09/26/18 12:58	09/26/18 19:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.1	1.2	1	09/26/18 12:58	09/26/18 19:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.1	1.2	1	09/26/18 12:58	09/26/18 19:52	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	108-20-3	
Ethylbenzene	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	87-68-3	
2-Hexanone	ND	ug/kg	41.2	3.2	1	09/26/18 12:58	09/26/18 19:52	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	99-87-6	
Methylene Chloride	ND	ug/kg	16.5	2.5	1	09/26/18 12:58	09/26/18 19:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	41.2	3.0	1	09/26/18 12:58	09/26/18 19:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.1	1.2	1	09/26/18 12:58	09/26/18 19:52	1634-04-4	
Naphthalene	ND	ug/kg	4.1	0.99	1	09/26/18 12:58	09/26/18 19:52	91-20-3	
n-Propylbenzene	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	103-65-1	
Styrene	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.1	1.7	1	09/26/18 12:58	09/26/18 19:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	79-34-5	
Tetrachloroethene	ND	ug/kg	4.1	1.4	1	09/26/18 12:58	09/26/18 19:52	127-18-4	
Toluene	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.1	1.8	1	09/26/18 12:58	09/26/18 19:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.1	1.3	1	09/26/18 12:58	09/26/18 19:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.1	1.7	1	09/26/18 12:58	09/26/18 19:52	79-00-5	
Trichloroethene	ND	ug/kg	4.1	1.7	1	09/26/18 12:58	09/26/18 19:52	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.1	1.8	1	09/26/18 12:58	09/26/18 19:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.1	1.3	1	09/26/18 12:58	09/26/18 19:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.1	1.5	1	09/26/18 12:58	09/26/18 19:52	108-67-8	
Vinyl acetate	ND	ug/kg	41.2	7.2	1	09/26/18 12:58	09/26/18 19:52	108-05-4	
Vinyl chloride	ND	ug/kg	8.2	1.5	1	09/26/18 12:58	09/26/18 19:52	75-01-4	
Xylene (Total)	ND	ug/kg	8.2	3.0	1	09/26/18 12:58	09/26/18 19:52	1330-20-7	
m&p-Xylene	ND	ug/kg	8.2	3.0	1	09/26/18 12:58	09/26/18 19:52	179601-23-1	

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(704)875-9092

ANALYTICAL RESULTS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Sample: MSA-SB004 (4'-5') **Lab ID: 92400796008** Collected: 09/24/18 15:35 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
o-Xylene	ND	ug/kg	4.1	1.6	1	09/26/18 12:58	09/26/18 19:52	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1	09/26/18 12:58	09/26/18 19:52	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1	09/26/18 12:58	09/26/18 19:52	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-132		1	09/26/18 12:58	09/26/18 19:52	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.6**	%	0.10	0.10	1		09/25/18 18:29		

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

QC Batch: 432748 | Analysis Method: EPA 8260B
QC Batch Method: EPA 5035A | Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92400796001, 92400796002, 92400796003, 92400796004

METHOD BLANK: 2384933 | Matrix: Solid
Associated Lab Samples: 92400796001, 92400796002, 92400796003, 92400796004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.8	2.0	09/26/18 13:04	
1,1,1-Trichloroethane	ug/kg	ND	4.8	1.7	09/26/18 13:04	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.8	1.8	09/26/18 13:04	
1,1,2-Trichloroethane	ug/kg	ND	4.8	2.0	09/26/18 13:04	
1,1-Dichloroethane	ug/kg	ND	4.8	1.4	09/26/18 13:04	
1,1-Dichloroethene	ug/kg	ND	4.8	1.7	09/26/18 13:04	
1,1-Dichloropropene	ug/kg	ND	4.8	1.4	09/26/18 13:04	
1,2,3-Trichlorobenzene	ug/kg	ND	4.8	2.1	09/26/18 13:04	
1,2,3-Trichloropropane	ug/kg	ND	4.8	1.5	09/26/18 13:04	
1,2,4-Trichlorobenzene	ug/kg	ND	4.8	1.5	09/26/18 13:04	
1,2,4-Trimethylbenzene	ug/kg	ND	4.8	1.9	09/26/18 13:04	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.8	3.4	09/26/18 13:04	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.8	1.7	09/26/18 13:04	
1,2-Dichlorobenzene	ug/kg	ND	4.8	1.8	09/26/18 13:04	
1,2-Dichloroethane	ug/kg	ND	4.8	2.1	09/26/18 13:04	
1,2-Dichloropropane	ug/kg	ND	4.8	1.6	09/26/18 13:04	
1,3,5-Trimethylbenzene	ug/kg	ND	4.8	1.7	09/26/18 13:04	
1,3-Dichlorobenzene	ug/kg	ND	4.8	1.9	09/26/18 13:04	
1,3-Dichloropropane	ug/kg	ND	4.8	1.8	09/26/18 13:04	
1,4-Dichlorobenzene	ug/kg	ND	4.8	1.6	09/26/18 13:04	
2,2-Dichloropropane	ug/kg	ND	4.8	1.6	09/26/18 13:04	
2-Butanone (MEK)	ug/kg	ND	95.1	2.8	09/26/18 13:04	
2-Chlorotoluene	ug/kg	ND	4.8	1.6	09/26/18 13:04	
2-Hexanone	ug/kg	ND	47.5	3.7	09/26/18 13:04	
4-Chlorotoluene	ug/kg	ND	4.8	1.7	09/26/18 13:04	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	47.5	3.5	09/26/18 13:04	
Acetone	ug/kg	ND	95.1	9.5	09/26/18 13:04	
Benzene	ug/kg	ND	4.8	1.5	09/26/18 13:04	
Bromobenzene	ug/kg	ND	4.8	1.9	09/26/18 13:04	
Bromochloromethane	ug/kg	ND	4.8	1.6	09/26/18 13:04	
Bromodichloromethane	ug/kg	ND	4.8	1.8	09/26/18 13:04	
Bromoform	ug/kg	ND	4.8	2.2	09/26/18 13:04	
Bromomethane	ug/kg	ND	9.5	2.4	09/26/18 13:04	
Carbon tetrachloride	ug/kg	ND	4.8	2.5	09/26/18 13:04	
Chlorobenzene	ug/kg	ND	4.8	1.8	09/26/18 13:04	
Chloroethane	ug/kg	ND	9.5	2.3	09/26/18 13:04	
Chloroform	ug/kg	ND	4.8	1.5	09/26/18 13:04	
Chloromethane	ug/kg	ND	9.5	2.3	09/26/18 13:04	
cis-1,2-Dichloroethene	ug/kg	ND	4.8	1.3	09/26/18 13:04	
cis-1,3-Dichloropropene	ug/kg	ND	4.8	1.7	09/26/18 13:04	
Dibromochloromethane	ug/kg	ND	4.8	1.7	09/26/18 13:04	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

METHOD BLANK: 2384933 Matrix: Solid
Associated Lab Samples: 92400796001, 92400796002, 92400796003, 92400796004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromomethane	ug/kg	ND	4.8	2.4	09/26/18 13:04	
Dichlorodifluoromethane	ug/kg	ND	9.5	3.4	09/26/18 13:04	
Diisopropyl ether	ug/kg	ND	4.8	1.6	09/26/18 13:04	
Ethylbenzene	ug/kg	ND	4.8	1.7	09/26/18 13:04	
Hexachloro-1,3-butadiene	ug/kg	ND	4.8	1.9	09/26/18 13:04	
Isopropylbenzene (Cumene)	ug/kg	ND	4.8	1.8	09/26/18 13:04	
m&p-Xylene	ug/kg	ND	9.5	3.4	09/26/18 13:04	
Methyl-tert-butyl ether	ug/kg	ND	4.8	1.4	09/26/18 13:04	
Methylene Chloride	ug/kg	ND	19.0	2.9	09/26/18 13:04	
n-Butylbenzene	ug/kg	ND	4.8	1.7	09/26/18 13:04	
n-Propylbenzene	ug/kg	ND	4.8	1.6	09/26/18 13:04	
Naphthalene	ug/kg	ND	4.8	1.1	09/26/18 13:04	
o-Xylene	ug/kg	ND	4.8	1.8	09/26/18 13:04	
p-Isopropyltoluene	ug/kg	ND	4.8	1.6	09/26/18 13:04	
sec-Butylbenzene	ug/kg	ND	4.8	1.5	09/26/18 13:04	
Styrene	ug/kg	ND	4.8	1.7	09/26/18 13:04	
tert-Butylbenzene	ug/kg	ND	4.8	1.9	09/26/18 13:04	
Tetrachloroethene	ug/kg	ND	4.8	1.6	09/26/18 13:04	
Toluene	ug/kg	ND	4.8	1.7	09/26/18 13:04	
trans-1,2-Dichloroethene	ug/kg	ND	4.8	1.8	09/26/18 13:04	
trans-1,3-Dichloropropene	ug/kg	ND	4.8	1.4	09/26/18 13:04	
Trichloroethene	ug/kg	ND	4.8	2.0	09/26/18 13:04	
Trichlorofluoromethane	ug/kg	ND	4.8	2.1	09/26/18 13:04	
Vinyl acetate	ug/kg	ND	47.5	8.4	09/26/18 13:04	
Vinyl chloride	ug/kg	ND	9.5	1.7	09/26/18 13:04	
Xylene (Total)	ug/kg	ND	9.5	3.4	09/26/18 13:04	
1,2-Dichloroethane-d4 (S)	%	90	70-132		09/26/18 13:04	
4-Bromofluorobenzene (S)	%	93	70-130		09/26/18 13:04	
Toluene-d8 (S)	%	106	70-130		09/26/18 13:04	

LABORATORY CONTROL SAMPLE: 2384934

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	48.7	48.4	99	74-137	
1,1,1-Trichloroethane	ug/kg	48.7	51.6	106	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	48.7	46.8	96	72-141	
1,1,2-Trichloroethane	ug/kg	48.7	49.7	102	78-138	
1,1-Dichloroethane	ug/kg	48.7	49.6	102	69-134	
1,1-Dichloroethene	ug/kg	48.7	58.4	120	67-138	
1,1-Dichloropropene	ug/kg	48.7	51.2	105	69-139	
1,2,3-Trichlorobenzene	ug/kg	48.7	50.5	104	70-146	
1,2,3-Trichloropropane	ug/kg	48.7	50.7	104	69-144	
1,2,4-Trichlorobenzene	ug/kg	48.7	50.6	104	68-148	
1,2,4-Trimethylbenzene	ug/kg	48.7	50.4	103	74-137	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

LABORATORY CONTROL SAMPLE: 2384934

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/kg	48.7	47.5	98	65-140	
1,2-Dibromoethane (EDB)	ug/kg	48.7	51.8	106	77-135	
1,2-Dichlorobenzene	ug/kg	48.7	49.4	101	77-141	
1,2-Dichloroethane	ug/kg	48.7	47.9	98	65-137	
1,2-Dichloropropane	ug/kg	48.7	50.2	103	72-136	
1,3,5-Trimethylbenzene	ug/kg	48.7	49.8	102	76-133	
1,3-Dichlorobenzene	ug/kg	48.7	49.2	101	74-138	
1,3-Dichloropropane	ug/kg	48.7	52.4	108	71-139	
1,4-Dichlorobenzene	ug/kg	48.7	48.8	100	76-138	
2,2-Dichloropropane	ug/kg	48.7	48.0	99	68-137	
2-Butanone (MEK)	ug/kg	97.5	103	105	58-147	
2-Chlorotoluene	ug/kg	48.7	48.0	98	73-139	
2-Hexanone	ug/kg	97.5	85.8	88	62-145	
4-Chlorotoluene	ug/kg	48.7	47.9	98	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	97.5	94.4	97	64-149	
Acetone	ug/kg	97.5	102	105	53-153	
Benzene	ug/kg	48.7	53.6	110	73-135	
Bromobenzene	ug/kg	48.7	49.5	102	75-133	
Bromochloromethane	ug/kg	48.7	48.3	99	73-134	
Bromodichloromethane	ug/kg	48.7	53.6	110	71-135	
Bromoform	ug/kg	48.7	50.6	104	66-141	
Bromomethane	ug/kg	48.7	54.1	111	53-160	
Carbon tetrachloride	ug/kg	48.7	50.7	104	60-145	
Chlorobenzene	ug/kg	48.7	50.3	103	78-130	
Chloroethane	ug/kg	48.7	47.3	97	64-149	
Chloroform	ug/kg	48.7	49.1	101	70-134	
Chloromethane	ug/kg	48.7	46.2	95	52-150	
cis-1,2-Dichloroethene	ug/kg	48.7	50.3	103	70-133	
cis-1,3-Dichloropropene	ug/kg	48.7	52.7	108	68-134	
Dibromochloromethane	ug/kg	48.7	53.0	109	71-138	
Dibromomethane	ug/kg	48.7	51.1	105	74-130	
Dichlorodifluoromethane	ug/kg	48.7	53.1	109	40-160	
Diisopropyl ether	ug/kg	48.7	51.3	105	69-141	
Ethylbenzene	ug/kg	48.7	51.0	105	75-133	
Hexachloro-1,3-butadiene	ug/kg	48.7	53.5	110	68-143	
Isopropylbenzene (Cumene)	ug/kg	48.7	52.4	108	76-143	
m&p-Xylene	ug/kg	97.5	101	103	75-136	
Methyl-tert-butyl ether	ug/kg	48.7	53.5	110	68-144	
Methylene Chloride	ug/kg	48.7	56.3	115	45-154	
n-Butylbenzene	ug/kg	48.7	49.8	102	72-137	
n-Propylbenzene	ug/kg	48.7	50.2	103	76-136	
Naphthalene	ug/kg	48.7	47.0	96	68-151	
o-Xylene	ug/kg	48.7	51.9	106	76-141	
p-Isopropyltoluene	ug/kg	48.7	49.7	102	76-140	
sec-Butylbenzene	ug/kg	48.7	51.0	105	79-139	
Styrene	ug/kg	48.7	50.3	103	79-137	
tert-Butylbenzene	ug/kg	48.7	46.8	96	74-143	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

LABORATORY CONTROL SAMPLE: 2384934

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/kg	48.7	47.3	97	71-138	
Toluene	ug/kg	48.7	48.9	100	74-131	
trans-1,2-Dichloroethene	ug/kg	48.7	56.0	115	67-135	
trans-1,3-Dichloropropene	ug/kg	48.7	53.4	110	65-146	
Trichloroethene	ug/kg	48.7	56.4	116	67-135	
Trichlorofluoromethane	ug/kg	48.7	46.9	96	59-144	
Vinyl acetate	ug/kg	97.5	63.3	65	40-160	
Vinyl chloride	ug/kg	48.7	52.4	108	56-141	
Xylene (Total)	ug/kg	146	153	104	76-137	
1,2-Dichloroethane-d4 (S)	%			96	70-132	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 2384936

Parameter	Units	92400796001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	20.4	18.8	92	70-130	
1,1,1-Trichloroethane	ug/kg	ND	20.4	19.1	94	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	20.4	ND	0	70-130	M1
1,1,2-Trichloroethane	ug/kg	ND	20.4	16.6	81	70-130	
1,1-Dichloroethane	ug/kg	ND	20.4	20.4	100	70-130	
1,1-Dichloroethene	ug/kg	ND	20.4	23.2	114	49-180	
1,1-Dichloropropene	ug/kg	ND	20.4	18.8	92	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	20.4	14.5	71	70-130	
1,2,3-Trichloropropane	ug/kg	ND	20.4	16.5	81	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	20.4	14.0	69	70-130	M1
1,2,4-Trimethylbenzene	ug/kg	ND	20.4	16.1	79	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	20.4	16.6	82	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	20.4	17.6	87	70-130	
1,2-Dichlorobenzene	ug/kg	ND	20.4	16.9	83	70-130	
1,2-Dichloroethane	ug/kg	ND	20.4	18.1	89	70-130	
1,2-Dichloropropane	ug/kg	ND	20.4	17.8	88	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	20.4	16.3	80	70-130	
1,3-Dichlorobenzene	ug/kg	ND	20.4	16.9	83	70-130	
1,3-Dichloropropane	ug/kg	ND	20.4	18.9	93	70-130	
1,4-Dichlorobenzene	ug/kg	ND	20.4	17.1	84	70-130	
2,2-Dichloropropane	ug/kg	ND	20.4	18.2	89	70-130	
2-Butanone (MEK)	ug/kg	ND	40.7	34.9J	86	70-130	
2-Chlorotoluene	ug/kg	ND	20.4	17.2	84	70-130	
2-Hexanone	ug/kg	ND	40.7	34.2J	84	70-130	
4-Chlorotoluene	ug/kg	ND	20.4	17.0	84	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	40.7	32.2J	79	70-130	
Acetone	ug/kg	ND	40.7	45.9J	113	70-130	
Benzene	ug/kg	ND	20.4	19.7	97	50-166	
Bromobenzene	ug/kg	ND	20.4	17.8	87	70-130	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

MATRIX SPIKE SAMPLE: 2384936

Parameter	Units	92400796001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromochloromethane	ug/kg	ND	20.4	19.2	94	70-130	
Bromodichloromethane	ug/kg	ND	20.4	19.2	94	70-130	
Bromoform	ug/kg	ND	20.4	18.1	89	70-130	
Bromomethane	ug/kg	ND	20.4	21.6	106	70-130	
Carbon tetrachloride	ug/kg	ND	20.4	19.7	97	70-130	
Chlorobenzene	ug/kg	ND	20.4	18.5	91	43-169	
Chloroethane	ug/kg	ND	20.4	16.9	83	70-130	
Chloroform	ug/kg	ND	20.4	19.5	96	70-130	
Chloromethane	ug/kg	ND	20.4	15.5	76	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	20.4	19.5	96	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	20.4	16.8	83	70-130	
Dibromochloromethane	ug/kg	ND	20.4	18.3	90	70-130	
Dibromomethane	ug/kg	ND	20.4	18.3	90	70-130	
Dichlorodifluoromethane	ug/kg	ND	20.4	15.0	74	70-130	
Diisopropyl ether	ug/kg	ND	20.4	18.3	90	70-130	
Ethylbenzene	ug/kg	ND	20.4	19.1	94	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	20.4	10.1	50	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	20.4	18.5	91	70-130	
m&p-Xylene	ug/kg	ND	40.7	38.2	94	70-130	
Methyl-tert-butyl ether	ug/kg	ND	20.4	17.4	85	70-130	
Methylene Chloride	ug/kg	ND	20.4	29.4	144	70-130	M1
n-Butylbenzene	ug/kg	ND	20.4	13.7	67	70-130	M1
n-Propylbenzene	ug/kg	ND	20.4	17.5	86	70-130	
Naphthalene	ug/kg	ND	20.4	14.5	71	70-130	
o-Xylene	ug/kg	ND	20.4	19.3	95	70-130	
p-Isopropyltoluene	ug/kg	ND	20.4	15.5	76	70-130	
sec-Butylbenzene	ug/kg	ND	20.4	15.9	78	70-130	
Styrene	ug/kg	ND	20.4	18.0	88	70-130	
tert-Butylbenzene	ug/kg	ND	20.4	15.3	75	70-130	
Tetrachloroethene	ug/kg	ND	20.4	17.6	86	70-130	
Toluene	ug/kg	ND	20.4	19.3	95	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	20.4	20.7	102	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	20.4	16.5	81	70-130	
Trichloroethene	ug/kg	ND	20.4	35.1	172	49-167	M1
Trichlorofluoromethane	ug/kg	ND	20.4	18.6	91	70-130	
Vinyl acetate	ug/kg	ND	40.7	12.5J	31	70-130	M1
Vinyl chloride	ug/kg	ND	20.4	20.8	102	70-130	
Xylene (Total)	ug/kg	ND	61.2	57.5	94	70-130	
1,2-Dichloroethane-d4 (S)	%				88	70-132	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				96	70-130	

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(704)875-9092

QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

SAMPLE DUPLICATE: 2384935

Parameter	Units	92400708002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	ND		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

SAMPLE DUPLICATE: 2384935

Parameter	Units	92400708002 Result	Dup Result	RPD	Max RPD	Qualifiers
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	ND	6.7J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	86	91	4		
4-Bromofluorobenzene (S)	%	99	97	3		
Toluene-d8 (S)	%	107	100	8		

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

QC Batch: 432778 | Analysis Method: EPA 8260B
QC Batch Method: EPA 5035A | Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92400796005, 92400796006, 92400796007, 92400796008

METHOD BLANK: 2385166 | Matrix: Solid
Associated Lab Samples: 92400796005, 92400796006, 92400796007, 92400796008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.8	2.4	09/26/18 14:11	
1,1,1-Trichloroethane	ug/kg	ND	5.8	2.1	09/26/18 14:11	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.8	2.2	09/26/18 14:11	
1,1,2-Trichloroethane	ug/kg	ND	5.8	2.4	09/26/18 14:11	
1,1-Dichloroethane	ug/kg	ND	5.8	1.7	09/26/18 14:11	
1,1-Dichloroethene	ug/kg	ND	5.8	2.1	09/26/18 14:11	
1,1-Dichloropropene	ug/kg	ND	5.8	1.7	09/26/18 14:11	
1,2,3-Trichlorobenzene	ug/kg	ND	5.8	2.6	09/26/18 14:11	
1,2,3-Trichloropropane	ug/kg	ND	5.8	1.9	09/26/18 14:11	
1,2,4-Trichlorobenzene	ug/kg	ND	5.8	1.9	09/26/18 14:11	
1,2,4-Trimethylbenzene	ug/kg	ND	5.8	2.3	09/26/18 14:11	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.8	4.2	09/26/18 14:11	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.8	2.1	09/26/18 14:11	
1,2-Dichlorobenzene	ug/kg	ND	5.8	2.2	09/26/18 14:11	
1,2-Dichloroethane	ug/kg	ND	5.8	2.6	09/26/18 14:11	
1,2-Dichloropropane	ug/kg	ND	5.8	2.0	09/26/18 14:11	
1,3,5-Trimethylbenzene	ug/kg	ND	5.8	2.1	09/26/18 14:11	
1,3-Dichlorobenzene	ug/kg	ND	5.8	2.3	09/26/18 14:11	
1,3-Dichloropropane	ug/kg	ND	5.8	2.2	09/26/18 14:11	
1,4-Dichlorobenzene	ug/kg	ND	5.8	2.0	09/26/18 14:11	
2,2-Dichloropropane	ug/kg	ND	5.8	2.0	09/26/18 14:11	
2-Butanone (MEK)	ug/kg	ND	116	3.4	09/26/18 14:11	
2-Chlorotoluene	ug/kg	ND	5.8	2.0	09/26/18 14:11	
2-Hexanone	ug/kg	ND	58.0	4.5	09/26/18 14:11	
4-Chlorotoluene	ug/kg	ND	5.8	2.1	09/26/18 14:11	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	58.0	4.3	09/26/18 14:11	
Acetone	ug/kg	ND	116	11.6	09/26/18 14:11	
Benzene	ug/kg	ND	5.8	1.9	09/26/18 14:11	
Bromobenzene	ug/kg	ND	5.8	2.3	09/26/18 14:11	
Bromochloromethane	ug/kg	ND	5.8	2.0	09/26/18 14:11	
Bromodichloromethane	ug/kg	ND	5.8	2.2	09/26/18 14:11	
Bromoform	ug/kg	ND	5.8	2.7	09/26/18 14:11	
Bromomethane	ug/kg	ND	11.6	2.9	09/26/18 14:11	
Carbon tetrachloride	ug/kg	ND	5.8	3.0	09/26/18 14:11	
Chlorobenzene	ug/kg	ND	5.8	2.2	09/26/18 14:11	
Chloroethane	ug/kg	ND	11.6	2.8	09/26/18 14:11	
Chloroform	ug/kg	ND	5.8	1.9	09/26/18 14:11	
Chloromethane	ug/kg	ND	11.6	2.8	09/26/18 14:11	
cis-1,2-Dichloroethene	ug/kg	ND	5.8	1.6	09/26/18 14:11	
cis-1,3-Dichloropropene	ug/kg	ND	5.8	2.1	09/26/18 14:11	
Dibromochloromethane	ug/kg	ND	5.8	2.1	09/26/18 14:11	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

METHOD BLANK: 2385166 Matrix: Solid
Associated Lab Samples: 92400796005, 92400796006, 92400796007, 92400796008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromomethane	ug/kg	ND	5.8	2.9	09/26/18 14:11	
Dichlorodifluoromethane	ug/kg	ND	11.6	4.2	09/26/18 14:11	
Diisopropyl ether	ug/kg	ND	5.8	2.0	09/26/18 14:11	
Ethylbenzene	ug/kg	ND	5.8	2.1	09/26/18 14:11	
Hexachloro-1,3-butadiene	ug/kg	ND	5.8	2.3	09/26/18 14:11	
Isopropylbenzene (Cumene)	ug/kg	ND	5.8	2.2	09/26/18 14:11	
m&p-Xylene	ug/kg	ND	11.6	4.2	09/26/18 14:11	
Methyl-tert-butyl ether	ug/kg	ND	5.8	1.7	09/26/18 14:11	
Methylene Chloride	ug/kg	ND	23.2	3.5	09/26/18 14:11	
n-Butylbenzene	ug/kg	ND	5.8	2.1	09/26/18 14:11	
n-Propylbenzene	ug/kg	ND	5.8	2.0	09/26/18 14:11	
Naphthalene	ug/kg	ND	5.8	1.4	09/26/18 14:11	
o-Xylene	ug/kg	ND	5.8	2.2	09/26/18 14:11	
p-Isopropyltoluene	ug/kg	ND	5.8	2.0	09/26/18 14:11	
sec-Butylbenzene	ug/kg	ND	5.8	1.9	09/26/18 14:11	
Styrene	ug/kg	ND	5.8	2.1	09/26/18 14:11	
tert-Butylbenzene	ug/kg	ND	5.8	2.3	09/26/18 14:11	
Tetrachloroethene	ug/kg	ND	5.8	2.0	09/26/18 14:11	
Toluene	ug/kg	ND	5.8	2.1	09/26/18 14:11	
trans-1,2-Dichloroethene	ug/kg	ND	5.8	2.2	09/26/18 14:11	
trans-1,3-Dichloropropene	ug/kg	ND	5.8	1.7	09/26/18 14:11	
Trichloroethene	ug/kg	ND	5.8	2.4	09/26/18 14:11	
Trichlorofluoromethane	ug/kg	ND	5.8	2.6	09/26/18 14:11	
Vinyl acetate	ug/kg	ND	58.0	10.2	09/26/18 14:11	
Vinyl chloride	ug/kg	ND	11.6	2.1	09/26/18 14:11	
Xylene (Total)	ug/kg	ND	11.6	4.2	09/26/18 14:11	
1,2-Dichloroethane-d4 (S)	%	94	70-132		09/26/18 14:11	
4-Bromofluorobenzene (S)	%	96	70-130		09/26/18 14:11	
Toluene-d8 (S)	%	100	70-130		09/26/18 14:11	

LABORATORY CONTROL SAMPLE: 2385167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	62.3	62.4	100	74-137	
1,1,1-Trichloroethane	ug/kg	62.3	62.0	99	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	62.3	61.0	98	72-141	
1,1,2-Trichloroethane	ug/kg	62.3	61.9	99	78-138	
1,1-Dichloroethane	ug/kg	62.3	64.1	103	69-134	
1,1-Dichloroethene	ug/kg	62.3	72.4	116	67-138	
1,1-Dichloropropene	ug/kg	62.3	63.6	102	69-139	
1,2,3-Trichlorobenzene	ug/kg	62.3	61.9	99	70-146	
1,2,3-Trichloropropane	ug/kg	62.3	62.7	101	69-144	
1,2,4-Trichlorobenzene	ug/kg	62.3	64.7	104	68-148	
1,2,4-Trimethylbenzene	ug/kg	62.3	65.9	106	74-137	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

LABORATORY CONTROL SAMPLE: 2385167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	ug/kg	62.3	53.7	86	65-140	
1,2-Dibromoethane (EDB)	ug/kg	62.3	61.6	99	77-135	
1,2-Dichlorobenzene	ug/kg	62.3	62.1	100	77-141	
1,2-Dichloroethane	ug/kg	62.3	64.1	103	65-137	
1,2-Dichloropropane	ug/kg	62.3	65.0	104	72-136	
1,3,5-Trimethylbenzene	ug/kg	62.3	63.6	102	76-133	
1,3-Dichlorobenzene	ug/kg	62.3	62.9	101	74-138	
1,3-Dichloropropane	ug/kg	62.3	64.1	103	71-139	
1,4-Dichlorobenzene	ug/kg	62.3	61.6	99	76-138	
2,2-Dichloropropane	ug/kg	62.3	64.2	103	68-137	
2-Butanone (MEK)	ug/kg	125	122J	98	58-147	
2-Chlorotoluene	ug/kg	62.3	62.7	101	73-139	
2-Hexanone	ug/kg	125	121	97	62-145	
4-Chlorotoluene	ug/kg	62.3	64.4	103	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	125	123	99	64-149	
Acetone	ug/kg	125	178	143	53-153	
Benzene	ug/kg	62.3	65.3	105	73-135	
Bromobenzene	ug/kg	62.3	61.3	98	75-133	
Bromochloromethane	ug/kg	62.3	57.4	92	73-134	
Bromodichloromethane	ug/kg	62.3	64.2	103	71-135	
Bromoform	ug/kg	62.3	58.5	94	66-141	
Bromomethane	ug/kg	62.3	77.4	124	53-160	
Carbon tetrachloride	ug/kg	62.3	62.3	100	60-145	
Chlorobenzene	ug/kg	62.3	64.2	103	78-130	
Chloroethane	ug/kg	62.3	68.0	109	64-149	
Chloroform	ug/kg	62.3	59.9	96	70-134	
Chloromethane	ug/kg	62.3	57.4	92	52-150	
cis-1,2-Dichloroethene	ug/kg	62.3	66.9	107	70-133	
cis-1,3-Dichloropropene	ug/kg	62.3	63.4	102	68-134	
Dibromochloromethane	ug/kg	62.3	61.3	98	71-138	
Dibromomethane	ug/kg	62.3	63.7	102	74-130	
Dichlorodifluoromethane	ug/kg	62.3	63.0	101	40-160	
Diisopropyl ether	ug/kg	62.3	64.4	103	69-141	
Ethylbenzene	ug/kg	62.3	65.3	105	75-133	
Hexachloro-1,3-butadiene	ug/kg	62.3	62.1	100	68-143	
Isopropylbenzene (Cumene)	ug/kg	62.3	66.7	107	76-143	
m&p-Xylene	ug/kg	125	133	107	75-136	
Methyl-tert-butyl ether	ug/kg	62.3	60.3	97	68-144	
Methylene Chloride	ug/kg	62.3	67.8	109	45-154	
n-Butylbenzene	ug/kg	62.3	67.4	108	72-137	
n-Propylbenzene	ug/kg	62.3	66.0	106	76-136	
Naphthalene	ug/kg	62.3	67.8	109	68-151	
o-Xylene	ug/kg	62.3	66.0	106	76-141	
p-Isopropyltoluene	ug/kg	62.3	64.7	104	76-140	
sec-Butylbenzene	ug/kg	62.3	65.3	105	79-139	
Styrene	ug/kg	62.3	62.7	101	79-137	
tert-Butylbenzene	ug/kg	62.3	57.2	92	74-143	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

LABORATORY CONTROL SAMPLE: 2385167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/kg	62.3	57.6	92	71-138	
Toluene	ug/kg	62.3	62.4	100	74-131	
trans-1,2-Dichloroethene	ug/kg	62.3	69.5	112	67-135	
trans-1,3-Dichloropropene	ug/kg	62.3	62.4	100	65-146	
Trichloroethene	ug/kg	62.3	66.3	106	67-135	
Trichlorofluoromethane	ug/kg	62.3	63.9	102	59-144	
Vinyl acetate	ug/kg	125	98.5	79	40-160	
Vinyl chloride	ug/kg	62.3	72.4	116	56-141	
Xylene (Total)	ug/kg	187	199	106	76-137	
1,2-Dichloroethane-d4 (S)	%			92	70-132	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 2385169

Parameter	Units	92400486007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	22.5	21.6	96	70-130	
1,1,1-Trichloroethane	ug/kg	ND	22.5	27.6	123	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	22.5	22.6	101	70-130	
1,1,2-Trichloroethane	ug/kg	ND	22.5	23.8	106	70-130	
1,1-Dichloroethane	ug/kg	ND	22.5	28.9	129	70-130	
1,1-Dichloroethene	ug/kg	ND	22.5	33.2	148	49-180	
1,1-Dichloropropene	ug/kg	ND	22.5	28.9	129	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	22.5	20.0	89	70-130	
1,2,3-Trichloropropane	ug/kg	ND	22.5	22.3	99	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	22.5	20.5	91	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	22.5	24.4	109	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	22.5	22.3	99	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	22.5	21.9	98	70-130	
1,2-Dichlorobenzene	ug/kg	ND	22.5	23.1	103	70-130	
1,2-Dichloroethane	ug/kg	ND	22.5	29.3	130	70-130	
1,2-Dichloropropane	ug/kg	ND	22.5	24.2	108	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	22.5	23.3	104	70-130	
1,3-Dichlorobenzene	ug/kg	ND	22.5	22.3	99	70-130	
1,3-Dichloropropane	ug/kg	ND	22.5	23.8	106	70-130	
1,4-Dichlorobenzene	ug/kg	ND	22.5	22.5	100	70-130	
2,2-Dichloropropane	ug/kg	ND	22.5	25.8	115	70-130	
2-Butanone (MEK)	ug/kg	ND	44.9	66.7J	121	70-130	
2-Chlorotoluene	ug/kg	ND	22.5	23.9	106	70-130	
2-Hexanone	ug/kg	ND	44.9	52.3J	116	70-130	
4-Chlorotoluene	ug/kg	ND	22.5	23.6	105	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	44.9	53.6J	108	70-130	
Acetone	ug/kg	ND	44.9	143	98	70-130	
Benzene	ug/kg	ND	22.5	24.8	111	50-166	
Bromobenzene	ug/kg	ND	22.5	24.0	107	70-130	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

MATRIX SPIKE SAMPLE: 2385169

Parameter	Units	92400486007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromochloromethane	ug/kg	ND	22.5	28.1	125	70-130	
Bromodichloromethane	ug/kg	ND	22.5	23.1	103	70-130	
Bromoform	ug/kg	ND	22.5	20.3	91	70-130	
Bromomethane	ug/kg	ND	22.5	31.0	138	70-130	M1
Carbon tetrachloride	ug/kg	ND	22.5	22.6	101	70-130	
Chlorobenzene	ug/kg	ND	22.5	22.6	101	43-169	
Chloroethane	ug/kg	ND	22.5	32.2	143	70-130	M1
Chloroform	ug/kg	ND	22.5	28.4	126	70-130	
Chloromethane	ug/kg	ND	22.5	27.8	124	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	22.5	28.1	125	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	22.5	22.7	101	70-130	
Dibromochloromethane	ug/kg	ND	22.5	20.9	93	70-130	
Dibromomethane	ug/kg	ND	22.5	23.7	105	70-130	
Dichlorodifluoromethane	ug/kg	ND	22.5	28.5	127	70-130	
Diisopropyl ether	ug/kg	ND	22.5	31.7	141	70-130	M1
Ethylbenzene	ug/kg	ND	22.5	22.5	100	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	22.5	15.6	70	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	22.5	22.3	99	70-130	
m&p-Xylene	ug/kg	ND	44.9	45.3	101	70-130	
Methyl-tert-butyl ether	ug/kg	ND	22.5	28.2	126	70-130	
Methylene Chloride	ug/kg	ND	22.5	56.9	169	70-130	M1
n-Butylbenzene	ug/kg	ND	22.5	22.2	99	70-130	
n-Propylbenzene	ug/kg	ND	22.5	24.2	108	70-130	
Naphthalene	ug/kg	ND	22.5	27.3	110	70-130	
o-Xylene	ug/kg	ND	22.5	22.6	101	70-130	
p-Isopropyltoluene	ug/kg	ND	22.5	22.6	101	70-130	
sec-Butylbenzene	ug/kg	ND	22.5	22.6	100	70-130	
Styrene	ug/kg	ND	22.5	21.5	96	70-130	
tert-Butylbenzene	ug/kg	ND	22.5	20.7	92	70-130	
Tetrachloroethene	ug/kg	ND	22.5	19.9	88	70-130	
Toluene	ug/kg	ND	22.5	24.1	103	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	22.5	32.1	143	70-130	M1
trans-1,3-Dichloropropene	ug/kg	ND	22.5	22.5	100	70-130	
Trichloroethene	ug/kg	ND	22.5	24.1	107	49-167	
Trichlorofluoromethane	ug/kg	ND	22.5	28.5	127	70-130	
Vinyl acetate	ug/kg	ND	44.9	23.8J	53	70-130	M1
Vinyl chloride	ug/kg	ND	22.5	34.7	155	70-130	M1
Xylene (Total)	ug/kg	ND	67.4	67.9	101	70-130	
1,2-Dichloroethane-d4 (S)	%				115	70-132	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				99	70-130	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

SAMPLE DUPLICATE: 2385168

Parameter	Units	92400486006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	3.6J		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	18.8J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

SAMPLE DUPLICATE: 2385168

Parameter	Units	92400486006 Result	Dup Result	RPD	Max RPD	Qualifiers
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	ND	16.0J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	1.5J		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	105	103	2		
4-Bromofluorobenzene (S)	%	97	96	1		
Toluene-d8 (S)	%	99	99	0		

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

QC Batch: 432770 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 | Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 92400796001, 92400796002, 92400796003, 92400796004, 92400796005, 92400796006, 92400796007, 92400796008

METHOD BLANK: 2385110 | Matrix: Solid
Associated Lab Samples: 92400796001, 92400796002, 92400796003, 92400796004, 92400796005, 92400796006, 92400796007, 92400796008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10.1	1.2	09/27/18 14:11	
2-Methylnaphthalene	ug/kg	ND	10.1	1.1	09/27/18 14:11	
Acenaphthene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Acenaphthylene	ug/kg	ND	10.1	1.3	09/27/18 14:11	
Anthracene	ug/kg	ND	10.1	1.4	09/27/18 14:11	
Benzo(a)anthracene	ug/kg	ND	10.1	0.71	09/27/18 14:11	
Benzo(a)pyrene	ug/kg	ND	10.1	1.1	09/27/18 14:11	
Benzo(b)fluoranthene	ug/kg	0.96J	10.1	0.67	09/27/18 14:11	
Benzo(g,h,i)perylene	ug/kg	ND	10.1	2.6	09/27/18 14:11	
Benzo(k)fluoranthene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Chrysene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
Dibenz(a,h)anthracene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
Fluoranthene	ug/kg	ND	10.1	0.84	09/27/18 14:11	
Fluorene	ug/kg	ND	10.1	1.6	09/27/18 14:11	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.1	2.8	09/27/18 14:11	
Naphthalene	ug/kg	ND	10.1	2.3	09/27/18 14:11	
Phenanthrene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Pyrene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
2-Fluorobiphenyl (S)	%	51	10-110		09/27/18 14:11	
Nitrobenzene-d5 (S)	%	54	10-128		09/27/18 14:11	
Terphenyl-d14 (S)	%	60	39-119		09/27/18 14:11	

LABORATORY CONTROL SAMPLE: 2385111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	33.3	26.3	79	44-130	
2-Methylnaphthalene	ug/kg	33.3	27.8	83	41-134	
Acenaphthene	ug/kg	33.3	29.4	88	52-123	
Acenaphthylene	ug/kg	33.3	26.5	79	49-116	
Anthracene	ug/kg	33.3	29.3	88	41-133	
Benzo(a)anthracene	ug/kg	33.3	29.2	88	56-130	
Benzo(a)pyrene	ug/kg	33.3	28.2	85	51-136	
Benzo(b)fluoranthene	ug/kg	33.3	28.7	86	37-149	
Benzo(g,h,i)perylene	ug/kg	33.3	26.3	79	39-127	
Benzo(k)fluoranthene	ug/kg	33.3	29.3	88	45-139	
Chrysene	ug/kg	33.3	30.1	90	59-127	
Dibenz(a,h)anthracene	ug/kg	33.3	28.8	86	37-139	
Fluoranthene	ug/kg	33.3	31.0	93	53-132	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

LABORATORY CONTROL SAMPLE: 2385111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	ug/kg	33.3	26.0	78	45-127	
Indeno(1,2,3-cd)pyrene	ug/kg	33.3	29.4	88	35-145	
Naphthalene	ug/kg	33.3	27.9	84	45-123	
Phenanthrene	ug/kg	33.3	30.4	91	50-125	
Pyrene	ug/kg	33.3	31.0	93	52-132	
2-Fluorobiphenyl (S)	%			87	10-110	
Nitrobenzene-d5 (S)	%			92	10-128	
Terphenyl-d14 (S)	%			81	39-119	

MATRIX SPIKE SAMPLE: 2385112

Parameter	Units	92400789001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	3.0J	40.4	25.2	55	50-150	
2-Methylnaphthalene	ug/kg	2.2J	40.4	26.1	59	50-150	
Acenaphthene	ug/kg	4.6J	40.4	31.1	65	50-150	
Acenaphthylene	ug/kg	2.1J	40.4	24.8	56	50-150	
Anthracene	ug/kg	15.6	40.4	45.8	75	50-150	
Benzo(a)anthracene	ug/kg	129	40.4	192	156	50-150	M1
Benzo(a)pyrene	ug/kg	128	40.4	206	194	50-150	M1
Benzo(b)fluoranthene	ug/kg	211	40.4	324	280	50-150	M1
Benzo(g,h,i)perylene	ug/kg	79.1	40.4	106	67	50-150	
Benzo(k)fluoranthene	ug/kg	90.3	40.4	102	28	50-150	M1
Chrysene	ug/kg	150	40.4	220	173	50-150	M1
Dibenz(a,h)anthracene	ug/kg	25.1	40.4	47.2	55	50-150	
Fluoranthene	ug/kg	214	40.4	250	88	50-150	
Fluorene	ug/kg	2.9J	40.4	26.0	57	50-150	
Indeno(1,2,3-cd)pyrene	ug/kg	77.6	40.4	110	81	50-150	
Naphthalene	ug/kg	2.8J	40.4	25.3	56	50-150	
Phenanthrene	ug/kg	64.2	40.4	92.2	69	50-150	
Pyrene	ug/kg	190	40.4	248	144	50-150	
2-Fluorobiphenyl (S)	%				62	10-110	
Nitrobenzene-d5 (S)	%				62	10-128	
Terphenyl-d14 (S)	%				61	39-119	

SAMPLE DUPLICATE: 2385113

Parameter	Units	92400789002 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/kg	ND	ND		30	
2-Methylnaphthalene	ug/kg	ND	ND		30	
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	ND	ND		30	
Anthracene	ug/kg	ND	ND		30	
Benzo(a)anthracene	ug/kg	1.5J	1.3J		30	
Benzo(a)pyrene	ug/kg	1.5J	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

SAMPLE DUPLICATE: 2385113

Parameter	Units	92400789002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzo(b)fluoranthene	ug/kg	2.1J	1.9J		30	
Benzo(g,h,i)perylene	ug/kg	ND	ND		30	
Benzo(k)fluoranthene	ug/kg	ND	ND		30	
Chrysene	ug/kg	2.6J	2.2J		30	
Dibenz(a,h)anthracene	ug/kg	ND	ND		30	
Fluoranthene	ug/kg	1.4J	1.2J		30	
Fluorene	ug/kg	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
Phenanthrene	ug/kg	ND	ND		30	
Pyrene	ug/kg	ND	ND		30	
2-Fluorobiphenyl (S)	%	70	69	3		
Nitrobenzene-d5 (S)	%	69	70	0		
Terphenyl-d14 (S)	%	72	70	3		

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

QC Batch: 432644 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92400796001, 92400796002, 92400796003, 92400796004, 92400796005, 92400796006, 92400796007

SAMPLE DUPLICATE: 2384677

Parameter	Units	92400798001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.8	17.0	1	25	

SAMPLE DUPLICATE: 2384678

Parameter	Units	92400796007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.9	18.2	2	25	

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QUALITY CONTROL DATA

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

QC Batch: 432650
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92400796008

SAMPLE DUPLICATE: 2384692

Parameter	Units	92400787001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	28.2	28.3	0	25	

SAMPLE DUPLICATE: 2384693

Parameter	Units	92400799004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.0	13.8	1	25	

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QUALIFIERS

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

1g	Could not achieve adequate chromatographic separation of benzo(a)anthracene and chrysene. Result should be considered a sum of the isomers.
2g	Could not achieve adequate chromatographic separation of benzo(b)fluoranthene and benzo(k)fluoranthene. Result should be considered a sum of the isomers.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former Maintenance Shop Area
Pace Project No.: 92400796

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92400796001	**MSA-SB001 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400796002	**MSA-SB001 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400796003	**MSA-SB002 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400796004	**MSA-SB002 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400796005	**MSA-SB003 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400796006	**MSA-SB003 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400796007	**MSA-SB004 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400796008	**MSA-SB004 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400796001	**MSA-SB001 (0'-1')**	EPA 5035A	432748	EPA 8260B	432762
92400796002	**MSA-SB001 (4'-5')**	EPA 5035A	432748	EPA 8260B	432762
92400796003	**MSA-SB002 (0'-1')**	EPA 5035A	432748	EPA 8260B	432762
92400796004	**MSA-SB002 (4'-5')**	EPA 5035A	432748	EPA 8260B	432762
92400796005	**MSA-SB003 (0'-1')**	EPA 5035A	432778	EPA 8260B	432796
92400796006	**MSA-SB003 (4'-5')**	EPA 5035A	432778	EPA 8260B	432796
92400796007	**MSA-SB004 (0'-1')**	EPA 5035A	432778	EPA 8260B	432796
92400796008	**MSA-SB004 (4'-5')**	EPA 5035A	432778	EPA 8260B	432796
92400796001	**MSA-SB001 (0'-1')**	ASTM D2974-87	432644		
92400796002	**MSA-SB001 (4'-5')**	ASTM D2974-87	432644		
92400796003	**MSA-SB002 (0'-1')**	ASTM D2974-87	432644		
92400796004	**MSA-SB002 (4'-5')**	ASTM D2974-87	432644		
92400796005	**MSA-SB003 (0'-1')**	ASTM D2974-87	432644		
92400796006	**MSA-SB003 (4'-5')**	ASTM D2974-87	432644		
92400796007	**MSA-SB004 (0'-1')**	ASTM D2974-87	432644		
92400796008	**MSA-SB004 (4'-5')**	ASTM D2974-87	432650		

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Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: Environeering

Project #: WO#: 92400796
92400796

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: MD 9-25-18

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T045

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.3, 4.9 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 5.2, 4.8

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC? MD 9-25-18 -Includes Date/Time/ID/Analysis Matrix: WT SL	☑ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: LHP **Date:** 092518

Project Manager SRF Review: NMG **Date:** 9/26/18

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project WO#:92400796

PM: NMG Due Date: 10/04/18

CLIENT: 92-Alcoa

Pg 1

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1									1											6								
2									1											6								
3									1											6								
4									1											6								
5									1											6								
6									1											6								
7									1											5								
8									1											6								
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:

Company:	Environeering
Address:	~~138 Fort Jackson Road~~ 1610 CARLWIN ~~Morrisville, NC 27560~~ HOUSTON TX 77084
Email:	mworden@environeeringinc.com
Phone: 919 3416492	Fax
Requested Due Date:	STD

Section B
Required Project Information:

Report To:	Michael Worden
Copy To:	
Purchase Order #:	
Project Name:	Former Maintenance Shop Area
Project #:	137-763

Section C
Invoice Information:

Attention:	M. WORDEN
Company Name:	ENVIRONEERING
Address:	HOUSTON TX
Pace Quote:	
Pace Project Manager:	nicole.gasiorowski@pacelabs.com,
Pace Profile #:	7478

Regulatory Agency	State / Location
NCDEQ	NC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8260 VOCs	8270 PAHs	Residual Chlorine (Y/N)	92400796
1	MSA-SB001 (0'-1')	SL	G	—		9/24/18	1425		2	X					X	X	X		X	X		001
2	MSA-SB001 (4'-5')	SL	G	—			1430		2	X					X	X	X		X	X		002
3	MSA-SB002 (0'-1')	SL	G	—			1440		2	X					X	X	X		X	X		003
4	MSA-SB002 (4'-5')	SL	G	—			1445		2	X					X	X	X		X	X		004
5	MSA-SB003 (0'-1')	SL	G	—			1500		2	X					X	X	X		X	X		005
6	MSA-SB003 (4'-5')	SL	G	—			1505		2	X					X	X	X		X	X		006
7	MSA-SB004 (0'-1')	SL	G	—			1530		2	X					X	X	X		X	X		007
8	MSA-SB004 (4'-5')	SL	G	—			1535		2	X					X	X	X		X	X		008
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[signature] Environeering	9/25/18	7:30	[signature] Pace	9-25-18	730
	[signature] Pace	9-25-18	1127	[signature]	9-22-18	~~9-25-18~~ 1127

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
5.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICHAEL WORDEN

SIGNATURE of SAMPLER: [signature]

DATE Signed: 9/24/18

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 12, 2018

Michael W. Worden
Environeering, Inc.
16100 Cairnway
Suite 320
Houston, TX 77084

RE: Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Dear Michael Worden:
Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revision was issued on 11/12/18 to report J-flagged results to the MDL, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole Gasiorowski

Nicole Gasiorowski
nicole.gasiorowski@pacelabs.com
(704)875-9092
Project Manager

Enclosures

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CERTIFICATIONS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92401224001	**PBC-SB001 (0'-1')**	Solid	09/25/18 09:05	09/26/18 15:25
92401224002	**PBC-SB001 (4'-5')**	Solid	09/25/18 09:10	09/26/18 15:25
92401224003	**PBC-SB002 (0'-1')**	Solid	09/25/18 09:20	09/26/18 15:25
92401224004	**PBC-SB002 (4'-5')**	Solid	09/25/18 09:25	09/26/18 15:25
92401224005	**PBC-SB003 (0'-1')**	Solid	09/25/18 09:40	09/26/18 15:25
92401224006	**PBC-SB003 (4'-5')**	Solid	09/25/18 09:45	09/26/18 15:25
92401224007	**PBC-SB004 (0'-1')**	Solid	09/25/18 10:40	09/26/18 15:25
92401224008	**PBC-SB004 (4'-5')**	Solid	09/25/18 10:45	09/26/18 15:25
92401224009	**PBC-SB005 (0'-1')**	Solid	09/25/18 11:45	09/26/18 15:25
92401224010	**PBC-SB005 (4'-5')**	Solid	09/25/18 11:50	09/26/18 15:25
92401224011	**PBC-SB006 (0'-1')**	Solid	09/25/18 12:05	09/26/18 15:25
92401224012	**PBC-SB006 (4'-5')**	Solid	09/25/18 12:10	09/26/18 15:25
92401224013	**PBC-SB007 (0'-1')**	Solid	09/25/18 12:55	09/26/18 15:25
92401224014	**PBC-SB007 (4'-5')**	Solid	09/25/18 13:00	09/26/18 15:25
92401224015	**PBC-SB008 (0'-1')**	Solid	09/25/18 14:25	09/26/18 15:25
92401224016	**PBC-SB008 (4'-5')**	Solid	09/25/18 14:30	09/26/18 15:25
92401224017	**PBC-SB009 (0'-1')**	Solid	09/25/18 14:45	09/26/18 15:25
92401224018	**PBC-SB009 (4'-5')**	Solid	09/25/18 14:50	09/26/18 15:25
92401224019	**PBC-SB010 (0'-1')**	Solid	09/25/18 15:00	09/26/18 15:25
92401224020	**PBC-SB010 (4'-5')**	Solid	09/25/18 15:05	09/26/18 15:25
92401224021	**PBC-SB011 (0'-1')**	Solid	09/25/18 15:30	09/26/18 15:25
92401224022	**PBC-SB011 (2'-3')**	Solid	09/25/18 15:35	09/26/18 15:25
92401224023	**PBC-SB012 (0'-1')**	Solid	09/25/18 16:10	09/26/18 15:25
92401224024	**PBC-SB012 (4'-5')**	Solid	09/25/18 16:15	09/26/18 15:25
92401224025	**PBC-SB013 (0'-1')**	Solid	09/25/18 16:30	09/26/18 15:25
92401224026	**PBC-SB013 (4'-5')**	Solid	09/25/18 16:35	09/26/18 15:25
92401224027	**PBC-SB014 (0'-1')**	Solid	09/26/18 08:15	09/26/18 15:25
92401224028	**PBC-SB014 (4'-5')**	Solid	09/26/18 08:20	09/26/18 15:25
92401224029	**PBC-SB015 (0'-1')**	Solid	09/26/18 08:50	09/26/18 15:25
92401224030	**PBC-SB015 (4'-5')**	Solid	09/26/18 08:55	09/26/18 15:25
92401224031	**PBC-SB016 (0'-1')**	Solid	09/26/18 09:40	09/26/18 15:25
92401224032	**PBC-SB016 (4'-5')**	Solid	09/26/18 09:45	09/26/18 15:25
92401224033	**PBC-SB017 (0'-1')**	Solid	09/26/18 10:35	09/26/18 15:25
92401224034	**PBC-SB017 (4'-5')**	Solid	09/26/18 10:40	09/26/18 15:25
92401224035	**ESW-EB001**	Water	09/25/18 17:00	09/26/18 15:25

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9800 Kincey Ave. Suite 100
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SAMPLE ANALYTE COUNT

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92401224001	**PBC-SB001 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224002	**PBC-SB001 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224003	**PBC-SB002 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224004	**PBC-SB002 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224005	**PBC-SB003 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224006	**PBC-SB003 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224007	**PBC-SB004 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224008	**PBC-SB004 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224009	**PBC-SB005 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224010	**PBC-SB005 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C

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SAMPLE ANALYTE COUNT

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224011	**PBC-SB006 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224012	**PBC-SB006 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224013	**PBC-SB007 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224014	**PBC-SB007 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224015	**PBC-SB008 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224016	**PBC-SB008 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224017	**PBC-SB009 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224018	**PBC-SB009 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224019	**PBC-SB010 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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SAMPLE ANALYTE COUNT

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224020	**PBC-SB010 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224021	**PBC-SB011 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224022	**PBC-SB011 (2'-3')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224023	**PBC-SB012 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224024	**PBC-SB012 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224025	**PBC-SB013 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224026	**PBC-SB013 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224027	**PBC-SB014 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224028	**PBC-SB014 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O

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SAMPLE ANALYTE COUNT

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9056	SEW	1	PASI-O
92401224029	**PBC-SB015 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224030	**PBC-SB015 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224031	**PBC-SB016 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224032	**PBC-SB016 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224033	**PBC-SB017 (0'-1')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224034	**PBC-SB017 (4'-5')**	EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92401224035	**ESW-EB001**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		EPA 8260B	SAS	71	PASI-C
		EPA 9012B	DMN	1	PASI-A
		EPA 9056A	CDC	1	PASI-A

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB001 (0'-1') **Lab ID: 92401224001** Collected: 09/25/18 09:05 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.1	1.8	1	09/28/18 16:19	10/02/18 19:49	83-32-9	
Acenaphthylene	ND	ug/kg	12.1	1.6	1	09/28/18 16:19	10/02/18 19:49	208-96-8	
Anthracene	**2.5J**	ug/kg	12.1	1.7	1	09/28/18 16:19	10/02/18 19:49	120-12-7	
Benzo(a)anthracene	**32.8**	ug/kg	12.1	0.86	1	09/28/18 16:19	10/02/18 19:49	56-55-3	
Benzo(a)pyrene	**50.1**	ug/kg	12.1	1.3	1	09/28/18 16:19	10/02/18 19:49	50-32-8	
Benzo(b)fluoranthene	**94.8**	ug/kg	12.1	0.81	1	09/28/18 16:19	10/02/18 19:49	205-99-2	
Benzo(g,h,i)perylene	**59.4**	ug/kg	12.1	3.1	1	09/28/18 16:19	10/02/18 19:49	191-24-2	M1
Benzo(k)fluoranthene	**31.9**	ug/kg	12.1	1.8	1	09/28/18 16:19	10/02/18 19:49	207-08-9	
Chrysene	**37.5**	ug/kg	12.1	2.2	1	09/28/18 16:19	10/02/18 19:49	218-01-9	
Dibenz(a,h)anthracene	**4.7J**	ug/kg	12.1	2.2	1	09/28/18 16:19	10/02/18 19:49	53-70-3	
Fluoranthene	**38.2**	ug/kg	12.1	1.0	1	09/28/18 16:19	10/02/18 19:49	206-44-0	M1
Fluorene	ND	ug/kg	12.1	1.9	1	09/28/18 16:19	10/02/18 19:49	86-73-7	
Indeno(1,2,3-cd)pyrene	**52.6**	ug/kg	12.1	3.4	1	09/28/18 16:19	10/02/18 19:49	193-39-5	
1-Methylnaphthalene	**2.0J**	ug/kg	12.1	1.4	1	09/28/18 16:19	10/02/18 19:49	90-12-0	
2-Methylnaphthalene	**3.1J**	ug/kg	12.1	1.3	1	09/28/18 16:19	10/02/18 19:49	91-57-6	
Naphthalene	**2.8J**	ug/kg	12.1	2.8	1	09/28/18 16:19	10/02/18 19:49	91-20-3	
Phenanthrene	**12.7**	ug/kg	12.1	1.8	1	09/28/18 16:19	10/02/18 19:49	85-01-8	
Pyrene	**35.5**	ug/kg	12.1	2.2	1	09/28/18 16:19	10/02/18 19:49	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	75	%	10-128		1	09/28/18 16:19	10/02/18 19:49	4165-60-0	
2-Fluorobiphenyl (S)	68	%	10-110		1	09/28/18 16:19	10/02/18 19:49	321-60-8	
Terphenyl-d14 (S)	81	%	39-119		1	09/28/18 16:19	10/02/18 19:49	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.5**	%	0.10	0.10	1		09/27/18 18:21		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.30	0.17	1	10/04/18 15:15	10/05/18 15:47	57-12-5	M1,R1
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**218**	mg/kg	59.6	29.8	10	10/02/18 09:00	10/03/18 13:41	16984-48-8	M6

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB001 (4'-5') **Lab ID: 92401224002** Collected: 09/25/18 09:10 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.2	1.8	1	09/28/18 16:19	10/02/18 20:31	83-32-9	
Acenaphthylene	ND	ug/kg	12.2	1.6	1	09/28/18 16:19	10/02/18 20:31	208-96-8	
Anthracene	ND	ug/kg	12.2	1.7	1	09/28/18 16:19	10/02/18 20:31	120-12-7	
Benzo(a)anthracene	ND	ug/kg	12.2	0.87	1	09/28/18 16:19	10/02/18 20:31	56-55-3	
Benzo(a)pyrene	ND	ug/kg	12.2	1.3	1	09/28/18 16:19	10/02/18 20:31	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	12.2	0.82	1	09/28/18 16:19	10/02/18 20:31	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.2	3.2	1	09/28/18 16:19	10/02/18 20:31	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.2	1.8	1	09/28/18 16:19	10/02/18 20:31	207-08-9	
Chrysene	ND	ug/kg	12.2	2.2	1	09/28/18 16:19	10/02/18 20:31	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.2	2.2	1	09/28/18 16:19	10/02/18 20:31	53-70-3	
Fluoranthene	ND	ug/kg	12.2	1.0	1	09/28/18 16:19	10/02/18 20:31	206-44-0	
Fluorene	ND	ug/kg	12.2	2.0	1	09/28/18 16:19	10/02/18 20:31	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.2	3.4	1	09/28/18 16:19	10/02/18 20:31	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.2	1.5	1	09/28/18 16:19	10/02/18 20:31	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.2	1.3	1	09/28/18 16:19	10/02/18 20:31	91-57-6	
Naphthalene	ND	ug/kg	12.2	2.8	1	09/28/18 16:19	10/02/18 20:31	91-20-3	
Phenanthrene	ND	ug/kg	12.2	1.8	1	09/28/18 16:19	10/02/18 20:31	85-01-8	
Pyrene	ND	ug/kg	12.2	2.2	1	09/28/18 16:19	10/02/18 20:31	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	84	%	10-128		1	09/28/18 16:19	10/02/18 20:31	4165-60-0	
2-Fluorobiphenyl (S)	77	%	10-110		1	09/28/18 16:19	10/02/18 20:31	321-60-8	
Terphenyl-d14 (S)	84	%	39-119		1	09/28/18 16:19	10/02/18 20:31	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.3**	%	0.10	0.10	1		09/27/18 17:23		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.18	1	10/04/18 15:15	10/05/18 15:50	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	6.1	3.1	1	10/02/18 09:00	10/03/18 14:47	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB002 (0'-1') **Lab ID: 92401224003** Collected: 09/25/18 09:20 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**3.1J**	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:13	83-32-9	
Acenaphthylene	**2.2J**	ug/kg	12.5	1.6	1	09/28/18 16:19	10/02/18 21:13	208-96-8	
Anthracene	**10.3J**	ug/kg	12.5	1.8	1	09/28/18 16:19	10/02/18 21:13	120-12-7	
Benzo(a)anthracene	**64.9**	ug/kg	12.5	0.89	1	09/28/18 16:19	10/02/18 21:13	56-55-3	
Benzo(a)pyrene	**54.9**	ug/kg	12.5	1.4	1	09/28/18 16:19	10/02/18 21:13	50-32-8	
Benzo(b)fluoranthene	**121**	ug/kg	12.5	0.84	1	09/28/18 16:19	10/02/18 21:13	205-99-2	
Benzo(g,h,i)perylene	**47.4**	ug/kg	12.5	3.3	1	09/28/18 16:19	10/02/18 21:13	191-24-2	
Benzo(k)fluoranthene	**37.6**	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:13	207-08-9	
Chrysene	**77.4**	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:13	218-01-9	
Dibenz(a,h)anthracene	**3.7J**	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:13	53-70-3	
Fluoranthene	**92.3**	ug/kg	12.5	1.0	1	09/28/18 16:19	10/02/18 21:13	206-44-0	
Fluorene	**3.0J**	ug/kg	12.5	2.0	1	09/28/18 16:19	10/02/18 21:13	86-73-7	
Indeno(1,2,3-cd)pyrene	**43.0**	ug/kg	12.5	3.5	1	09/28/18 16:19	10/02/18 21:13	193-39-5	
1-Methylnaphthalene	**11.4J**	ug/kg	12.5	1.5	1	09/28/18 16:19	10/02/18 21:13	90-12-0	
2-Methylnaphthalene	**10.5J**	ug/kg	12.5	1.4	1	09/28/18 16:19	10/02/18 21:13	91-57-6	
Naphthalene	**9.0J**	ug/kg	12.5	2.9	1	09/28/18 16:19	10/02/18 21:13	91-20-3	
Phenanthrene	**52.4**	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:13	85-01-8	
Pyrene	**76.1**	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:13	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	85	%	10-128		1	09/28/18 16:19	10/02/18 21:13	4165-60-0	
2-Fluorobiphenyl (S)	80	%	10-110		1	09/28/18 16:19	10/02/18 21:13	321-60-8	
Terphenyl-d14 (S)	90	%	39-119		1	09/28/18 16:19	10/02/18 21:13	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.8**	%	0.10	0.10	1		09/27/18 17:23		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.33	0.18	1	10/04/18 15:15	10/05/18 15:51	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	63.1	31.6	10	10/02/18 09:00	10/03/18 15:09	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB002 (4'-5') **Lab ID: 92401224004** Collected: 09/25/18 09:25 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:34	83-32-9	
Acenaphthylene	ND	ug/kg	12.5	1.6	1	09/28/18 16:19	10/02/18 21:34	208-96-8	
Anthracene	ND	ug/kg	12.5	1.8	1	09/28/18 16:19	10/02/18 21:34	120-12-7	
Benzo(a)anthracene	**2.9J**	ug/kg	12.5	0.89	1	09/28/18 16:19	10/02/18 21:34	56-55-3	
Benzo(a)pyrene	ND	ug/kg	12.5	1.4	1	09/28/18 16:19	10/02/18 21:34	50-32-8	
Benzo(b)fluoranthene	**1.0J**	ug/kg	12.5	0.84	1	09/28/18 16:19	10/02/18 21:34	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.5	3.3	1	09/28/18 16:19	10/02/18 21:34	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:34	207-08-9	
Chrysene	**3.4J**	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:34	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:34	53-70-3	
Fluoranthene	ND	ug/kg	12.5	1.0	1	09/28/18 16:19	10/02/18 21:34	206-44-0	
Fluorene	ND	ug/kg	12.5	2.0	1	09/28/18 16:19	10/02/18 21:34	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.5	3.5	1	09/28/18 16:19	10/02/18 21:34	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.5	1.5	1	09/28/18 16:19	10/02/18 21:34	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.5	1.4	1	09/28/18 16:19	10/02/18 21:34	91-57-6	
Naphthalene	ND	ug/kg	12.5	2.9	1	09/28/18 16:19	10/02/18 21:34	91-20-3	
Phenanthrene	ND	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:34	85-01-8	
Pyrene	ND	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:34	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	81	%	10-128		1	09/28/18 16:19	10/02/18 21:34	4165-60-0	
2-Fluorobiphenyl (S)	73	%	10-110		1	09/28/18 16:19	10/02/18 21:34	321-60-8	
Terphenyl-d14 (S)	80	%	39-119		1	09/28/18 16:19	10/02/18 21:34	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.2**	%	0.10	0.10	1		09/27/18 17:23		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.30	0.17	1	10/04/18 15:15	10/05/18 15:52	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	6.2	3.1	1	10/02/18 09:00	10/03/18 15:31	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB003 (0'-1') **Lab ID: 92401224005** Collected: 09/25/18 09:40 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:55	83-32-9	
Acenaphthylene	ND	ug/kg	12.5	1.6	1	09/28/18 16:19	10/02/18 21:55	208-96-8	
Anthracene	ND	ug/kg	12.5	1.8	1	09/28/18 16:19	10/02/18 21:55	120-12-7	
Benzo(a)anthracene	**1.7J**	ug/kg	12.5	0.89	1	09/28/18 16:19	10/02/18 21:55	56-55-3	
Benzo(a)pyrene	**1.6J**	ug/kg	12.5	1.4	1	09/28/18 16:19	10/02/18 21:55	50-32-8	
Benzo(b)fluoranthene	**2.9J**	ug/kg	12.5	0.84	1	09/28/18 16:19	10/02/18 21:55	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.5	3.3	1	09/28/18 16:19	10/02/18 21:55	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:55	207-08-9	
Chrysene	ND	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:55	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:55	53-70-3	
Fluoranthene	**3.1J**	ug/kg	12.5	1.0	1	09/28/18 16:19	10/02/18 21:55	206-44-0	
Fluorene	ND	ug/kg	12.5	2.0	1	09/28/18 16:19	10/02/18 21:55	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.5	3.5	1	09/28/18 16:19	10/02/18 21:55	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.5	1.5	1	09/28/18 16:19	10/02/18 21:55	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.5	1.4	1	09/28/18 16:19	10/02/18 21:55	91-57-6	
Naphthalene	ND	ug/kg	12.5	2.9	1	09/28/18 16:19	10/02/18 21:55	91-20-3	
Phenanthrene	ND	ug/kg	12.5	1.9	1	09/28/18 16:19	10/02/18 21:55	85-01-8	
Pyrene	**2.9J**	ug/kg	12.5	2.3	1	09/28/18 16:19	10/02/18 21:55	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	73	%	10-128		1	09/28/18 16:19	10/02/18 21:55	4165-60-0	
2-Fluorobiphenyl (S)	70	%	10-110		1	09/28/18 16:19	10/02/18 21:55	321-60-8	
Terphenyl-d14 (S)	75	%	39-119		1	09/28/18 16:19	10/02/18 21:55	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.8**	%	0.10	0.10	1		09/27/18 17:23		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.31J**	mg/kg	0.32	0.18	1	10/04/18 15:15	10/05/18 15:53	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**33.1**	mg/kg	6.2	3.1	1	10/02/18 09:00	10/03/18 15:53	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB003 (4'-5') **Lab ID: 92401224006** Collected: 09/25/18 09:45 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**9.6J**	ug/kg	12.3	1.8	1	09/28/18 16:19	10/03/18 01:05	83-32-9	
Acenaphthylene	**8.2J**	ug/kg	12.3	1.6	1	09/28/18 16:19	10/03/18 01:05	208-96-8	
Anthracene	**14.6**	ug/kg	12.3	1.7	1	09/28/18 16:19	10/03/18 01:05	120-12-7	
Benzo(a)anthracene	**49.2**	ug/kg	12.3	0.87	1	09/28/18 16:19	10/03/18 01:05	56-55-3	
Benzo(a)pyrene	**50.2**	ug/kg	12.3	1.4	1	09/28/18 16:19	10/03/18 01:05	50-32-8	
Benzo(b)fluoranthene	**73.9**	ug/kg	12.3	0.82	1	09/28/18 16:19	10/03/18 01:05	205-99-2	
Benzo(g,h,i)perylene	**27.5**	ug/kg	12.3	3.2	1	09/28/18 16:19	10/03/18 01:05	191-24-2	
Benzo(k)fluoranthene	**23.7**	ug/kg	12.3	1.8	1	09/28/18 16:19	10/03/18 01:05	207-08-9	
Chrysene	**54.1**	ug/kg	12.3	2.2	1	09/28/18 16:19	10/03/18 01:05	218-01-9	
Dibenz(a,h)anthracene	**8.7J**	ug/kg	12.3	2.2	1	09/28/18 16:19	10/03/18 01:05	53-70-3	
Fluoranthene	**84.0**	ug/kg	12.3	1.0	1	09/28/18 16:19	10/03/18 01:05	206-44-0	
Fluorene	**11.1J**	ug/kg	12.3	2.0	1	09/28/18 16:19	10/03/18 01:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**24.5**	ug/kg	12.3	3.4	1	09/28/18 16:19	10/03/18 01:05	193-39-5	
1-Methylnaphthalene	**19.7**	ug/kg	12.3	1.5	1	09/28/18 16:19	10/03/18 01:05	90-12-0	
2-Methylnaphthalene	**33.2**	ug/kg	12.3	1.4	1	09/28/18 16:19	10/03/18 01:05	91-57-6	
Naphthalene	**48.6**	ug/kg	12.3	2.8	1	09/28/18 16:19	10/03/18 01:05	91-20-3	
Phenanthrene	**72.0**	ug/kg	12.3	1.8	1	09/28/18 16:19	10/03/18 01:05	85-01-8	
Pyrene	**78.9**	ug/kg	12.3	2.2	1	09/28/18 16:19	10/03/18 01:05	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	69	%	10-128		1	09/28/18 16:19	10/03/18 01:05	4165-60-0	
2-Fluorobiphenyl (S)	67	%	10-110		1	09/28/18 16:19	10/03/18 01:05	321-60-8	
Terphenyl-d14 (S)	102	%	39-119		1	09/28/18 16:19	10/03/18 01:05	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.8**	%	0.10	0.10	1		09/27/18 17:23		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.18	1	10/04/18 15:15	10/05/18 15:54	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**24.0**	mg/kg	6.0	3.0	1	10/02/18 09:00	10/03/18 16:15	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB004 (0'-1') **Lab ID: 92401224007** Collected: 09/25/18 10:40 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**247**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/03/18 01:26	83-32-9	
Acenaphthylene	ND	ug/kg	11.9	1.5	1	09/28/18 16:19	10/03/18 01:26	208-96-8	
Anthracene	**760**	ug/kg	11.9	1.7	1	09/28/18 16:19	10/03/18 01:26	120-12-7	
Benzo(a)anthracene	**1750**	ug/kg	59.5	4.2	5	09/28/18 16:19	10/03/18 10:17	56-55-3	
Benzo(a)pyrene	**1240**	ug/kg	59.5	6.5	5	09/28/18 16:19	10/03/18 10:17	50-32-8	
Benzo(b)fluoranthene	**2280**	ug/kg	59.5	4.0	5	09/28/18 16:19	10/03/18 10:17	205-99-2	
Benzo(g,h,i)perylene	**640**	ug/kg	11.9	3.1	1	09/28/18 16:19	10/03/18 01:26	191-24-2	
Benzo(k)fluoranthene	**884**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/03/18 01:26	207-08-9	
Chrysene	**1570**	ug/kg	59.5	10.7	5	09/28/18 16:19	10/03/18 10:17	218-01-9	
Dibenz(a,h)anthracene	**85.3**	ug/kg	11.9	2.1	1	09/28/18 16:19	10/03/18 01:26	53-70-3	
Fluoranthene	**3370**	ug/kg	59.5	4.9	5	09/28/18 16:19	10/03/18 10:17	206-44-0	
Fluorene	**224**	ug/kg	11.9	1.9	1	09/28/18 16:19	10/03/18 01:26	86-73-7	
Indeno(1,2,3-cd)pyrene	**683**	ug/kg	11.9	3.3	1	09/28/18 16:19	10/03/18 01:26	193-39-5	
1-Methylnaphthalene	**256**	ug/kg	11.9	1.4	1	09/28/18 16:19	10/03/18 01:26	90-12-0	
2-Methylnaphthalene	**326**	ug/kg	11.9	1.3	1	09/28/18 16:19	10/03/18 01:26	91-57-6	
Naphthalene	**158**	ug/kg	11.9	2.7	1	09/28/18 16:19	10/03/18 01:26	91-20-3	
Phenanthrene	**3030**	ug/kg	59.5	8.9	5	09/28/18 16:19	10/03/18 10:17	85-01-8	
Pyrene	**2350**	ug/kg	59.5	10.7	5	09/28/18 16:19	10/03/18 10:17	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	73	%	10-128		1	09/28/18 16:19	10/03/18 01:26	4165-60-0	
2-Fluorobiphenyl (S)	70	%	10-110		1	09/28/18 16:19	10/03/18 01:26	321-60-8	
Terphenyl-d14 (S)	90	%	39-119		1	09/28/18 16:19	10/03/18 01:26	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.8**	%	0.10	0.10	1		09/27/18 17:23		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.30	0.17	1	10/04/18 15:15	10/05/18 15:55	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**24.6J**	mg/kg	29.9	15.0	5	10/02/18 09:00	10/03/18 16:37	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB004 (4'-5') **Lab ID: 92401224008** Collected: 09/25/18 10:45 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	13.5	2.0	1	09/28/18 16:19	10/02/18 22:17	83-32-9	
Acenaphthylene	ND	ug/kg	13.5	1.8	1	09/28/18 16:19	10/02/18 22:17	208-96-8	
Anthracene	ND	ug/kg	13.5	1.9	1	09/28/18 16:19	10/02/18 22:17	120-12-7	
Benzo(a)anthracene	ND	ug/kg	13.5	0.96	1	09/28/18 16:19	10/02/18 22:17	56-55-3	
Benzo(a)pyrene	ND	ug/kg	13.5	1.5	1	09/28/18 16:19	10/02/18 22:17	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	13.5	0.90	1	09/28/18 16:19	10/02/18 22:17	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	13.5	3.5	1	09/28/18 16:19	10/02/18 22:17	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	13.5	2.0	1	09/28/18 16:19	10/02/18 22:17	207-08-9	
Chrysene	ND	ug/kg	13.5	2.4	1	09/28/18 16:19	10/02/18 22:17	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	13.5	2.4	1	09/28/18 16:19	10/02/18 22:17	53-70-3	
Fluoranthene	ND	ug/kg	13.5	1.1	1	09/28/18 16:19	10/02/18 22:17	206-44-0	
Fluorene	ND	ug/kg	13.5	2.2	1	09/28/18 16:19	10/02/18 22:17	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	13.5	3.8	1	09/28/18 16:19	10/02/18 22:17	193-39-5	
1-Methylnaphthalene	ND	ug/kg	13.5	1.6	1	09/28/18 16:19	10/02/18 22:17	90-12-0	
2-Methylnaphthalene	ND	ug/kg	13.5	1.5	1	09/28/18 16:19	10/02/18 22:17	91-57-6	
Naphthalene	ND	ug/kg	13.5	3.1	1	09/28/18 16:19	10/02/18 22:17	91-20-3	
Phenanthrene	ND	ug/kg	13.5	2.0	1	09/28/18 16:19	10/02/18 22:17	85-01-8	
Pyrene	ND	ug/kg	13.5	2.4	1	09/28/18 16:19	10/02/18 22:17	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	77	%	10-128		1	09/28/18 16:19	10/02/18 22:17	4165-60-0	
2-Fluorobiphenyl (S)	76	%	10-110		1	09/28/18 16:19	10/02/18 22:17	321-60-8	
Terphenyl-d14 (S)	78	%	39-119		1	09/28/18 16:19	10/02/18 22:17	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**25.4**	%	0.10	0.10	1		09/27/18 17:23		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.33	0.19	1	10/04/18 15:15	10/05/18 15:56	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	6.7	3.3	1	10/02/18 09:00	10/03/18 16:59	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB005 (0'-1') **Lab ID: 92401224009** Collected: 09/25/18 11:45 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.4	1.9	1	09/28/18 16:19	10/02/18 22:38	83-32-9	
Acenaphthylene	**2.2J**	ug/kg	12.4	1.6	1	09/28/18 16:19	10/02/18 22:38	208-96-8	
Anthracene	**2.2J**	ug/kg	12.4	1.7	1	09/28/18 16:19	10/02/18 22:38	120-12-7	
Benzo(a)anthracene	**17.5**	ug/kg	12.4	0.88	1	09/28/18 16:19	10/02/18 22:38	56-55-3	
Benzo(a)pyrene	**18.1**	ug/kg	12.4	1.4	1	09/28/18 16:19	10/02/18 22:38	50-32-8	
Benzo(b)fluoranthene	**33.2**	ug/kg	12.4	0.83	1	09/28/18 16:19	10/02/18 22:38	205-99-2	
Benzo(g,h,i)perylene	**13.6**	ug/kg	12.4	3.2	1	09/28/18 16:19	10/02/18 22:38	191-24-2	
Benzo(k)fluoranthene	**9.1J**	ug/kg	12.4	1.9	1	09/28/18 16:19	10/02/18 22:38	207-08-9	
Chrysene	**19.6**	ug/kg	12.4	2.2	1	09/28/18 16:19	10/02/18 22:38	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.4	2.2	1	09/28/18 16:19	10/02/18 22:38	53-70-3	
Fluoranthene	**28.8**	ug/kg	12.4	1.0	1	09/28/18 16:19	10/02/18 22:38	206-44-0	
Fluorene	ND	ug/kg	12.4	2.0	1	09/28/18 16:19	10/02/18 22:38	86-73-7	
Indeno(1,2,3-cd)pyrene	**12.6**	ug/kg	12.4	3.5	1	09/28/18 16:19	10/02/18 22:38	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.4	1.5	1	09/28/18 16:19	10/02/18 22:38	90-12-0	
2-Methylnaphthalene	**1.9J**	ug/kg	12.4	1.4	1	09/28/18 16:19	10/02/18 22:38	91-57-6	
Naphthalene	ND	ug/kg	12.4	2.8	1	09/28/18 16:19	10/02/18 22:38	91-20-3	
Phenanthrene	**8.0J**	ug/kg	12.4	1.9	1	09/28/18 16:19	10/02/18 22:38	85-01-8	
Pyrene	**24.5**	ug/kg	12.4	2.2	1	09/28/18 16:19	10/02/18 22:38	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	75	%	10-128		1	09/28/18 16:19	10/02/18 22:38	4165-60-0	
2-Fluorobiphenyl (S)	71	%	10-110		1	09/28/18 16:19	10/02/18 22:38	321-60-8	
Terphenyl-d14 (S)	77	%	39-119		1	09/28/18 16:19	10/02/18 22:38	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.8**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.18	1	10/04/18 15:15	10/05/18 16:00	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**161**	mg/kg	60.7	30.3	10	10/02/18 09:00	10/04/18 10:36	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB005 (4'-5') **Lab ID: 92401224010** Collected: 09/25/18 11:50 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 22:59	83-32-9	
Acenaphthylene	ND	ug/kg	11.9	1.5	1	09/28/18 16:19	10/02/18 22:59	208-96-8	
Anthracene	ND	ug/kg	11.9	1.7	1	09/28/18 16:19	10/02/18 22:59	120-12-7	
Benzo(a)anthracene	**2.5J**	ug/kg	11.9	0.84	1	09/28/18 16:19	10/02/18 22:59	56-55-3	
Benzo(a)pyrene	**4.9J**	ug/kg	11.9	1.3	1	09/28/18 16:19	10/02/18 22:59	50-32-8	
Benzo(b)fluoranthene	**12.0**	ug/kg	11.9	0.79	1	09/28/18 16:19	10/02/18 22:59	205-99-2	
Benzo(g,h,i)perylene	**4.6J**	ug/kg	11.9	3.1	1	09/28/18 16:19	10/02/18 22:59	191-24-2	
Benzo(k)fluoranthene	**4.8J**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 22:59	207-08-9	
Chrysene	**12.1**	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 22:59	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 22:59	53-70-3	
Fluoranthene	**29.6**	ug/kg	11.9	0.98	1	09/28/18 16:19	10/02/18 22:59	206-44-0	
Fluorene	ND	ug/kg	11.9	1.9	1	09/28/18 16:19	10/02/18 22:59	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.9	3.3	1	09/28/18 16:19	10/02/18 22:59	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.9	1.4	1	09/28/18 16:19	10/02/18 22:59	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.9	1.3	1	09/28/18 16:19	10/02/18 22:59	91-57-6	
Naphthalene	ND	ug/kg	11.9	2.7	1	09/28/18 16:19	10/02/18 22:59	91-20-3	
Phenanthrene	**6.4J**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 22:59	85-01-8	
Pyrene	**23.2**	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 22:59	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	61	%	10-128		1	09/28/18 16:19	10/02/18 22:59	4165-60-0	
2-Fluorobiphenyl (S)	57	%	10-110		1	09/28/18 16:19	10/02/18 22:59	321-60-8	
Terphenyl-d14 (S)	62	%	39-119		1	09/28/18 16:19	10/02/18 22:59	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.7**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.30	0.17	1	10/04/18 15:15	10/05/18 16:01	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	5.9	3.0	1	10/02/18 09:00	10/03/18 17:43	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB006 (0'-1') **Lab ID: 92401224011** Collected: 09/25/18 12:05 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 23:20	83-32-9	
Acenaphthylene	**2.4J**	ug/kg	11.9	1.5	1	09/28/18 16:19	10/02/18 23:20	208-96-8	
Anthracene	**2.0J**	ug/kg	11.9	1.7	1	09/28/18 16:19	10/02/18 23:20	120-12-7	
Benzo(a)anthracene	**15.1**	ug/kg	11.9	0.84	1	09/28/18 16:19	10/02/18 23:20	56-55-3	
Benzo(a)pyrene	**17.4**	ug/kg	11.9	1.3	1	09/28/18 16:19	10/02/18 23:20	50-32-8	
Benzo(b)fluoranthene	**31.3**	ug/kg	11.9	0.80	1	09/28/18 16:19	10/02/18 23:20	205-99-2	
Benzo(g,h,i)perylene	**13.7**	ug/kg	11.9	3.1	1	09/28/18 16:19	10/02/18 23:20	191-24-2	
Benzo(k)fluoranthene	**11.6J**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 23:20	207-08-9	
Chrysene	**19.6**	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 23:20	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 23:20	53-70-3	
Fluoranthene	**27.6**	ug/kg	11.9	0.98	1	09/28/18 16:19	10/02/18 23:20	206-44-0	
Fluorene	ND	ug/kg	11.9	1.9	1	09/28/18 16:19	10/02/18 23:20	86-73-7	
Indeno(1,2,3-cd)pyrene	**12.7**	ug/kg	11.9	3.3	1	09/28/18 16:19	10/02/18 23:20	193-39-5	
1-Methylnaphthalene	**1.6J**	ug/kg	11.9	1.4	1	09/28/18 16:19	10/02/18 23:20	90-12-0	
2-Methylnaphthalene	**2.4J**	ug/kg	11.9	1.3	1	09/28/18 16:19	10/02/18 23:20	91-57-6	
Naphthalene	ND	ug/kg	11.9	2.7	1	09/28/18 16:19	10/02/18 23:20	91-20-3	
Phenanthrene	**14.9**	ug/kg	11.9	1.8	1	09/28/18 16:19	10/02/18 23:20	85-01-8	
Pyrene	**23.0**	ug/kg	11.9	2.1	1	09/28/18 16:19	10/02/18 23:20	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	68	%	10-128		1	09/28/18 16:19	10/02/18 23:20	4165-60-0	
2-Fluorobiphenyl (S)	63	%	10-110		1	09/28/18 16:19	10/02/18 23:20	321-60-8	
Terphenyl-d14 (S)	83	%	39-119		1	09/28/18 16:19	10/02/18 23:20	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.9**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.30	0.17	1	10/04/18 15:15	10/05/18 16:02	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**47.2**	mg/kg	5.9	2.9	1	10/02/18 09:00	10/03/18 18:49	16984-48-8	D6,M1

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB006 (4'-5') **Lab ID: 92401224012** Collected: 09/25/18 12:10 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	13.0	1.9	1	09/28/18 16:19	10/02/18 23:41	83-32-9	
Acenaphthylene	ND	ug/kg	13.0	1.7	1	09/28/18 16:19	10/02/18 23:41	208-96-8	
Anthracene	ND	ug/kg	13.0	1.8	1	09/28/18 16:19	10/02/18 23:41	120-12-7	
Benzo(a)anthracene	**2.4J**	ug/kg	13.0	0.92	1	09/28/18 16:19	10/02/18 23:41	56-55-3	
Benzo(a)pyrene	**2.2J**	ug/kg	13.0	1.4	1	09/28/18 16:19	10/02/18 23:41	50-32-8	
Benzo(b)fluoranthene	**3.7J**	ug/kg	13.0	0.87	1	09/28/18 16:19	10/02/18 23:41	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	13.0	3.4	1	09/28/18 16:19	10/02/18 23:41	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	13.0	1.9	1	09/28/18 16:19	10/02/18 23:41	207-08-9	
Chrysene	**2.7J**	ug/kg	13.0	2.3	1	09/28/18 16:19	10/02/18 23:41	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	13.0	2.3	1	09/28/18 16:19	10/02/18 23:41	53-70-3	
Fluoranthene	**4.1J**	ug/kg	13.0	1.1	1	09/28/18 16:19	10/02/18 23:41	206-44-0	
Fluorene	ND	ug/kg	13.0	2.1	1	09/28/18 16:19	10/02/18 23:41	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	13.0	3.6	1	09/28/18 16:19	10/02/18 23:41	193-39-5	
1-Methylnaphthalene	**8.4J**	ug/kg	13.0	1.6	1	09/28/18 16:19	10/02/18 23:41	90-12-0	
2-Methylnaphthalene	**11.5J**	ug/kg	13.0	1.4	1	09/28/18 16:19	10/02/18 23:41	91-57-6	
Naphthalene	**6.5J**	ug/kg	13.0	3.0	1	09/28/18 16:19	10/02/18 23:41	91-20-3	
Phenanthrene	**5.0J**	ug/kg	13.0	1.9	1	09/28/18 16:19	10/02/18 23:41	85-01-8	
Pyrene	**3.6J**	ug/kg	13.0	2.3	1	09/28/18 16:19	10/02/18 23:41	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	83	%	10-128		1	09/28/18 16:19	10/02/18 23:41	4165-60-0	
2-Fluorobiphenyl (S)	75	%	10-110		1	09/28/18 16:19	10/02/18 23:41	321-60-8	
Terphenyl-d14 (S)	87	%	39-119		1	09/28/18 16:19	10/02/18 23:41	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.5**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.33	0.18	1	10/04/18 15:15	10/05/18 16:03	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	6.4	3.2	1	10/02/18 09:00	10/03/18 19:55	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB007 (0'-1') **Lab ID: 92401224013** Collected: 09/25/18 12:55 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 15:34	83-32-9	
Acenaphthylene	ND	ug/kg	12.5	1.6	1	09/28/18 17:07	10/01/18 15:34	208-96-8	
Anthracene	**2.4J**	ug/kg	12.5	1.8	1	09/28/18 17:07	10/01/18 15:34	120-12-7	
Benzo(a)anthracene	**14.1**	ug/kg	12.5	0.89	1	09/28/18 17:07	10/01/18 15:34	56-55-3	M1
Benzo(a)pyrene	**14.2**	ug/kg	12.5	1.4	1	09/28/18 17:07	10/01/18 15:34	50-32-8	M1
Benzo(b)fluoranthene	**24.6**	ug/kg	12.5	0.84	1	09/28/18 17:07	10/01/18 15:34	205-99-2	M1
Benzo(g,h,i)perylene	**12.5J**	ug/kg	12.5	3.3	1	09/28/18 17:07	10/01/18 15:34	191-24-2	M1
Benzo(k)fluoranthene	**9.3J**	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 15:34	207-08-9	M1
Chrysene	**15.0**	ug/kg	12.5	2.3	1	09/28/18 17:07	10/01/18 15:34	218-01-9	M1
Dibenz(a,h)anthracene	**3.8J**	ug/kg	12.5	2.3	1	09/28/18 17:07	10/01/18 15:34	53-70-3	M1
Fluoranthene	**22.7**	ug/kg	12.5	1.0	1	09/28/18 17:07	10/01/18 15:34	206-44-0	M1
Fluorene	ND	ug/kg	12.5	2.0	1	09/28/18 17:07	10/01/18 15:34	86-73-7	
Indeno(1,2,3-cd)pyrene	**10.5J**	ug/kg	12.5	3.5	1	09/28/18 17:07	10/01/18 15:34	193-39-5	M1
1-Methylnaphthalene	**12.0J**	ug/kg	12.5	1.5	1	09/28/18 17:07	10/01/18 15:34	90-12-0	M1
2-Methylnaphthalene	**17.6**	ug/kg	12.5	1.4	1	09/28/18 17:07	10/01/18 15:34	91-57-6	M1
Naphthalene	**14.5**	ug/kg	12.5	2.9	1	09/28/18 17:07	10/01/18 15:34	91-20-3	M1
Phenanthrene	**16.8**	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 15:34	85-01-8	M1
Pyrene	**19.4**	ug/kg	12.5	2.3	1	09/28/18 17:07	10/01/18 15:34	129-00-0	M1
Surrogates									
Nitrobenzene-d5 (S)	65	%	10-128		1	09/28/18 17:07	10/01/18 15:34	4165-60-0	
2-Fluorobiphenyl (S)	60	%	10-110		1	09/28/18 17:07	10/01/18 15:34	321-60-8	
Terphenyl-d14 (S)	66	%	39-119		1	09/28/18 17:07	10/01/18 15:34	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.1**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.32	0.18	1	10/04/18 15:15	10/05/18 16:06	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**21.3**	mg/kg	6.3	3.2	1	10/02/18 09:00	10/03/18 20:17	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB007 (4'-5') **Lab ID: 92401224014** Collected: 09/25/18 13:00 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	10.8	1.6	1	09/28/18 17:07	10/01/18 16:16	83-32-9	
Acenaphthylene	ND	ug/kg	10.8	1.4	1	09/28/18 17:07	10/01/18 16:16	208-96-8	
Anthracene	ND	ug/kg	10.8	1.5	1	09/28/18 17:07	10/01/18 16:16	120-12-7	
Benzo(a)anthracene	ND	ug/kg	10.8	0.77	1	09/28/18 17:07	10/01/18 16:16	56-55-3	
Benzo(a)pyrene	ND	ug/kg	10.8	1.2	1	09/28/18 17:07	10/01/18 16:16	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	10.8	0.72	1	09/28/18 17:07	10/01/18 16:16	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	10.8	2.8	1	09/28/18 17:07	10/01/18 16:16	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	10.8	1.6	1	09/28/18 17:07	10/01/18 16:16	207-08-9	
Chrysene	ND	ug/kg	10.8	1.9	1	09/28/18 17:07	10/01/18 16:16	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	10.8	1.9	1	09/28/18 17:07	10/01/18 16:16	53-70-3	
Fluoranthene	ND	ug/kg	10.8	0.90	1	09/28/18 17:07	10/01/18 16:16	206-44-0	
Fluorene	ND	ug/kg	10.8	1.7	1	09/28/18 17:07	10/01/18 16:16	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	10.8	3.0	1	09/28/18 17:07	10/01/18 16:16	193-39-5	
1-Methylnaphthalene	ND	ug/kg	10.8	1.3	1	09/28/18 17:07	10/01/18 16:16	90-12-0	
2-Methylnaphthalene	ND	ug/kg	10.8	1.2	1	09/28/18 17:07	10/01/18 16:16	91-57-6	
Naphthalene	ND	ug/kg	10.8	2.5	1	09/28/18 17:07	10/01/18 16:16	91-20-3	
Phenanthrene	ND	ug/kg	10.8	1.6	1	09/28/18 17:07	10/01/18 16:16	85-01-8	
Pyrene	ND	ug/kg	10.8	1.9	1	09/28/18 17:07	10/01/18 16:16	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	47	%	10-128		1	09/28/18 17:07	10/01/18 16:16	4165-60-0	
2-Fluorobiphenyl (S)	47	%	10-110		1	09/28/18 17:07	10/01/18 16:16	321-60-8	
Terphenyl-d14 (S)	48	%	39-119		1	09/28/18 17:07	10/01/18 16:16	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.3**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.27	0.15	1	10/04/18 15:15	10/05/18 16:07	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	5.3	2.6	1	10/02/18 09:00	10/03/18 20:39	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB008 (0'-1') **Lab ID: 92401224015** Collected: 09/25/18 14:25 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**173**	ug/kg	11.7	1.8	1	09/28/18 17:07	10/01/18 16:58	83-32-9	
Acenaphthylene	ND	ug/kg	11.7	1.5	1	09/28/18 17:07	10/01/18 16:58	208-96-8	
Anthracene	**212**	ug/kg	11.7	1.6	1	09/28/18 17:07	10/01/18 16:58	120-12-7	
Benzo(a)anthracene	**620**	ug/kg	11.7	0.83	1	09/28/18 17:07	10/01/18 16:58	56-55-3	
Benzo(a)pyrene	**509**	ug/kg	11.7	1.3	1	09/28/18 17:07	10/01/18 16:58	50-32-8	
Benzo(b)fluoranthene	**916**	ug/kg	11.7	0.79	1	09/28/18 17:07	10/01/18 16:58	205-99-2	
Benzo(g,h,i)perylene	**356**	ug/kg	11.7	3.1	1	09/28/18 17:07	10/01/18 16:58	191-24-2	
Benzo(k)fluoranthene	**264**	ug/kg	11.7	1.8	1	09/28/18 17:07	10/01/18 16:58	207-08-9	
Chrysene	**590**	ug/kg	11.7	2.1	1	09/28/18 17:07	10/01/18 16:58	218-01-9	
Dibenz(a,h)anthracene	**110**	ug/kg	11.7	2.1	1	09/28/18 17:07	10/01/18 16:58	53-70-3	
Fluoranthene	**958**	ug/kg	23.5	2.0	2	09/28/18 17:07	10/02/18 16:00	206-44-0	
Fluorene	**120**	ug/kg	11.7	1.9	1	09/28/18 17:07	10/01/18 16:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**336**	ug/kg	11.7	3.3	1	09/28/18 17:07	10/01/18 16:58	193-39-5	
1-Methylnaphthalene	**31.5**	ug/kg	11.7	1.4	1	09/28/18 17:07	10/01/18 16:58	90-12-0	
2-Methylnaphthalene	**50.4**	ug/kg	11.7	1.3	1	09/28/18 17:07	10/01/18 16:58	91-57-6	
Naphthalene	**148**	ug/kg	11.7	2.7	1	09/28/18 17:07	10/01/18 16:58	91-20-3	
Phenanthrene	**843**	ug/kg	11.7	1.8	1	09/28/18 17:07	10/01/18 16:58	85-01-8	
Pyrene	**864**	ug/kg	11.7	2.1	1	09/28/18 17:07	10/01/18 16:58	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	69	%	10-128		1	09/28/18 17:07	10/01/18 16:58	4165-60-0	
2-Fluorobiphenyl (S)	61	%	10-110		1	09/28/18 17:07	10/01/18 16:58	321-60-8	
Terphenyl-d14 (S)	75	%	39-119		1	09/28/18 17:07	10/01/18 16:58	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.7**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.30	0.17	1	10/04/18 15:15	10/05/18 16:08	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**72.9**	mg/kg	5.9	3.0	1	10/02/18 09:00	10/03/18 21:01	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB008 (4'-5') **Lab ID: 92401224016** Collected: 09/25/18 14:30 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.5	1.7	1	09/28/18 17:07	10/01/18 17:19	83-32-9	
Acenaphthylene	ND	ug/kg	11.5	1.5	1	09/28/18 17:07	10/01/18 17:19	208-96-8	
Anthracene	ND	ug/kg	11.5	1.6	1	09/28/18 17:07	10/01/18 17:19	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.5	0.82	1	09/28/18 17:07	10/01/18 17:19	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.5	1.3	1	09/28/18 17:07	10/01/18 17:19	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.5	0.77	1	09/28/18 17:07	10/01/18 17:19	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.5	3.0	1	09/28/18 17:07	10/01/18 17:19	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.5	1.7	1	09/28/18 17:07	10/01/18 17:19	207-08-9	
Chrysene	ND	ug/kg	11.5	2.1	1	09/28/18 17:07	10/01/18 17:19	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.5	2.1	1	09/28/18 17:07	10/01/18 17:19	53-70-3	
Fluoranthene	ND	ug/kg	11.5	0.96	1	09/28/18 17:07	10/01/18 17:19	206-44-0	
Fluorene	ND	ug/kg	11.5	1.8	1	09/28/18 17:07	10/01/18 17:19	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.5	3.2	1	09/28/18 17:07	10/01/18 17:19	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.5	1.4	1	09/28/18 17:07	10/01/18 17:19	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.5	1.3	1	09/28/18 17:07	10/01/18 17:19	91-57-6	
Naphthalene	ND	ug/kg	11.5	2.7	1	09/28/18 17:07	10/01/18 17:19	91-20-3	
Phenanthrene	ND	ug/kg	11.5	1.7	1	09/28/18 17:07	10/01/18 17:19	85-01-8	
Pyrene	ND	ug/kg	11.5	2.1	1	09/28/18 17:07	10/01/18 17:19	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	63	%	10-128		1	09/28/18 17:07	10/01/18 17:19	4165-60-0	
2-Fluorobiphenyl (S)	55	%	10-110		1	09/28/18 17:07	10/01/18 17:19	321-60-8	
Terphenyl-d14 (S)	69	%	39-119		1	09/28/18 17:07	10/01/18 17:19	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.2**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.23J**	mg/kg	0.27	0.16	1	10/04/18 15:15	10/05/18 16:09	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**35.3**	mg/kg	5.7	2.9	1	10/02/18 09:00	10/03/18 21:23	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB009 (0'-1') **Lab ID: 92401224017** Collected: 09/25/18 14:45 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.0	1.8	1	09/28/18 17:07	10/01/18 17:40	83-32-9	
Acenaphthylene	ND	ug/kg	12.0	1.6	1	09/28/18 17:07	10/01/18 17:40	208-96-8	
Anthracene	ND	ug/kg	12.0	1.7	1	09/28/18 17:07	10/01/18 17:40	120-12-7	
Benzo(a)anthracene	**18.9**	ug/kg	12.0	0.85	1	09/28/18 17:07	10/01/18 17:40	56-55-3	
Benzo(a)pyrene	**21.7**	ug/kg	12.0	1.3	1	09/28/18 17:07	10/01/18 17:40	50-32-8	
Benzo(b)fluoranthene	**47.5**	ug/kg	12.0	0.80	1	09/28/18 17:07	10/01/18 17:40	205-99-2	
Benzo(g,h,i)perylene	**23.4**	ug/kg	12.0	3.1	1	09/28/18 17:07	10/01/18 17:40	191-24-2	
Benzo(k)fluoranthene	**18.4**	ug/kg	12.0	1.8	1	09/28/18 17:07	10/01/18 17:40	207-08-9	
Chrysene	**35.5**	ug/kg	12.0	2.2	1	09/28/18 17:07	10/01/18 17:40	218-01-9	
Dibenz(a,h)anthracene	**6.4J**	ug/kg	12.0	2.2	1	09/28/18 17:07	10/01/18 17:40	53-70-3	
Fluoranthene	**64.7**	ug/kg	12.0	1.0	1	09/28/18 17:07	10/01/18 17:40	206-44-0	
Fluorene	ND	ug/kg	12.0	1.9	1	09/28/18 17:07	10/01/18 17:40	86-73-7	
Indeno(1,2,3-cd)pyrene	**17.8**	ug/kg	12.0	3.4	1	09/28/18 17:07	10/01/18 17:40	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.0	1.4	1	09/28/18 17:07	10/01/18 17:40	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.0	1.3	1	09/28/18 17:07	10/01/18 17:40	91-57-6	
Naphthalene	ND	ug/kg	12.0	2.8	1	09/28/18 17:07	10/01/18 17:40	91-20-3	
Phenanthrene	**12.0J**	ug/kg	12.0	1.8	1	09/28/18 17:07	10/01/18 17:40	85-01-8	
Pyrene	**54.2**	ug/kg	12.0	2.2	1	09/28/18 17:07	10/01/18 17:40	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	52	%	10-128		1	09/28/18 17:07	10/01/18 17:40	4165-60-0	
2-Fluorobiphenyl (S)	48	%	10-110		1	09/28/18 17:07	10/01/18 17:40	321-60-8	
Terphenyl-d14 (S)	57	%	39-119		1	09/28/18 17:07	10/01/18 17:40	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.7**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.30	0.17	1	10/04/18 18:10	10/05/18 16:14	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**41.3**	mg/kg	6.0	3.0	1	10/02/18 09:00	10/03/18 21:45	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB009 (4'-5') **Lab ID: 92401224018** Collected: 09/25/18 14:50 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.8	1.8	1	09/28/18 17:07	10/01/18 18:01	83-32-9	
Acenaphthylene	ND	ug/kg	11.8	1.5	1	09/28/18 17:07	10/01/18 18:01	208-96-8	
Anthracene	ND	ug/kg	11.8	1.7	1	09/28/18 17:07	10/01/18 18:01	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.8	0.84	1	09/28/18 17:07	10/01/18 18:01	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.8	1.3	1	09/28/18 17:07	10/01/18 18:01	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.8	0.79	1	09/28/18 17:07	10/01/18 18:01	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.8	3.1	1	09/28/18 17:07	10/01/18 18:01	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.8	1.8	1	09/28/18 17:07	10/01/18 18:01	207-08-9	
Chrysene	ND	ug/kg	11.8	2.1	1	09/28/18 17:07	10/01/18 18:01	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.8	2.1	1	09/28/18 17:07	10/01/18 18:01	53-70-3	
Fluoranthene	ND	ug/kg	11.8	0.98	1	09/28/18 17:07	10/01/18 18:01	206-44-0	
Fluorene	ND	ug/kg	11.8	1.9	1	09/28/18 17:07	10/01/18 18:01	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.8	3.3	1	09/28/18 17:07	10/01/18 18:01	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.8	1.4	1	09/28/18 17:07	10/01/18 18:01	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.8	1.3	1	09/28/18 17:07	10/01/18 18:01	91-57-6	
Naphthalene	ND	ug/kg	11.8	2.7	1	09/28/18 17:07	10/01/18 18:01	91-20-3	
Phenanthrene	ND	ug/kg	11.8	1.8	1	09/28/18 17:07	10/01/18 18:01	85-01-8	
Pyrene	ND	ug/kg	11.8	2.1	1	09/28/18 17:07	10/01/18 18:01	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	55	%	10-128		1	09/28/18 17:07	10/01/18 18:01	4165-60-0	
2-Fluorobiphenyl (S)	46	%	10-110		1	09/28/18 17:07	10/01/18 18:01	321-60-8	
Terphenyl-d14 (S)	56	%	39-119		1	09/28/18 17:07	10/01/18 18:01	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.5**	%	0.10	0.10	1		09/27/18 17:24		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.18	1	10/04/18 18:10	10/05/18 16:17	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**15.9**	mg/kg	5.9	3.0	1	10/02/18 09:00	10/03/18 22:07	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB010 (0'-1') **Lab ID: 92401224019** Collected: 09/25/18 15:00 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 18:22	83-32-9	
Acenaphthylene	**4.0J**	ug/kg	12.5	1.6	1	09/28/18 17:07	10/01/18 18:22	208-96-8	
Anthracene	**3.9J**	ug/kg	12.5	1.7	1	09/28/18 17:07	10/01/18 18:22	120-12-7	
Benzo(a)anthracene	**23.4**	ug/kg	12.5	0.89	1	09/28/18 17:07	10/01/18 18:22	56-55-3	
Benzo(a)pyrene	**31.1**	ug/kg	12.5	1.4	1	09/28/18 17:07	10/01/18 18:22	50-32-8	
Benzo(b)fluoranthene	**69.2**	ug/kg	12.5	0.84	1	09/28/18 17:07	10/01/18 18:22	205-99-2	
Benzo(g,h,i)perylene	**41.3**	ug/kg	12.5	3.2	1	09/28/18 17:07	10/01/18 18:22	191-24-2	
Benzo(k)fluoranthene	**24.9**	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 18:22	207-08-9	
Chrysene	**28.6**	ug/kg	12.5	2.2	1	09/28/18 17:07	10/01/18 18:22	218-01-9	
Dibenz(a,h)anthracene	**2.8J**	ug/kg	12.5	2.2	1	09/28/18 17:07	10/01/18 18:22	53-70-3	
Fluoranthene	**19.7**	ug/kg	12.5	1.0	1	09/28/18 17:07	10/01/18 18:22	206-44-0	
Fluorene	ND	ug/kg	12.5	2.0	1	09/28/18 17:07	10/01/18 18:22	86-73-7	
Indeno(1,2,3-cd)pyrene	**36.5**	ug/kg	12.5	3.5	1	09/28/18 17:07	10/01/18 18:22	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.5	1.5	1	09/28/18 17:07	10/01/18 18:22	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.5	1.4	1	09/28/18 17:07	10/01/18 18:22	91-57-6	
Naphthalene	ND	ug/kg	12.5	2.9	1	09/28/18 17:07	10/01/18 18:22	91-20-3	
Phenanthrene	**4.5J**	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 18:22	85-01-8	
Pyrene	**19.1**	ug/kg	12.5	2.2	1	09/28/18 17:07	10/01/18 18:22	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	60	%	10-128		1	09/28/18 17:07	10/01/18 18:22	4165-60-0	
2-Fluorobiphenyl (S)	57	%	10-110		1	09/28/18 17:07	10/01/18 18:22	321-60-8	
Terphenyl-d14 (S)	66	%	39-119		1	09/28/18 17:07	10/01/18 18:22	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.1**	%	0.10	0.10	1		09/27/18 17:53		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.32	0.18	1	10/04/18 18:10	10/05/18 16:18	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**57.2**	mg/kg	6.2	3.1	1	10/02/18 09:00	10/03/18 22:29	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB010 (4'-5') **Lab ID: 92401224020** Collected: 09/25/18 15:05 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 18:43	83-32-9	
Acenaphthylene	ND	ug/kg	11.6	1.5	1	09/28/18 17:07	10/01/18 18:43	208-96-8	
Anthracene	ND	ug/kg	11.6	1.6	1	09/28/18 17:07	10/01/18 18:43	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.6	0.83	1	09/28/18 17:07	10/01/18 18:43	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 18:43	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.6	0.78	1	09/28/18 17:07	10/01/18 18:43	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.6	3.0	1	09/28/18 17:07	10/01/18 18:43	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 18:43	207-08-9	
Chrysene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 18:43	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 18:43	53-70-3	
Fluoranthene	ND	ug/kg	11.6	0.97	1	09/28/18 17:07	10/01/18 18:43	206-44-0	
Fluorene	ND	ug/kg	11.6	1.9	1	09/28/18 17:07	10/01/18 18:43	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.6	3.3	1	09/28/18 17:07	10/01/18 18:43	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.6	1.4	1	09/28/18 17:07	10/01/18 18:43	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 18:43	91-57-6	
Naphthalene	ND	ug/kg	11.6	2.7	1	09/28/18 17:07	10/01/18 18:43	91-20-3	
Phenanthrene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 18:43	85-01-8	
Pyrene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 18:43	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	140	%	10-128		1	09/28/18 17:07	10/01/18 18:43	4165-60-0	S3
2-Fluorobiphenyl (S)	124	%	10-110		1	09/28/18 17:07	10/01/18 18:43	321-60-8	S3
Terphenyl-d14 (S)	132	%	39-119		1	09/28/18 17:07	10/01/18 18:43	1718-51-0	S3
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.6**	%	0.10	0.10	1		09/27/18 17:53		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.21J**	mg/kg	0.30	0.17	1	10/04/18 18:10	10/05/18 16:19	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**11.2**	mg/kg	5.8	2.9	1	10/02/18 09:00	10/03/18 22:51	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB011 (0'-1') **Lab ID: 92401224021** Collected: 09/25/18 15:30 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.1	1.8	1	09/28/18 17:07	10/01/18 19:04	83-32-9	
Acenaphthylene	ND	ug/kg	12.1	1.6	1	09/28/18 17:07	10/01/18 19:04	208-96-8	
Anthracene	ND	ug/kg	12.1	1.7	1	09/28/18 17:07	10/01/18 19:04	120-12-7	
Benzo(a)anthracene	**5.8J**	ug/kg	12.1	0.86	1	09/28/18 17:07	10/01/18 19:04	56-55-3	
Benzo(a)pyrene	**6.3J**	ug/kg	12.1	1.3	1	09/28/18 17:07	10/01/18 19:04	50-32-8	
Benzo(b)fluoranthene	**16.4**	ug/kg	12.1	0.81	1	09/28/18 17:07	10/01/18 19:04	205-99-2	
Benzo(g,h,i)perylene	**6.1J**	ug/kg	12.1	3.1	1	09/28/18 17:07	10/01/18 19:04	191-24-2	
Benzo(k)fluoranthene	**5.0J**	ug/kg	12.1	1.8	1	09/28/18 17:07	10/01/18 19:04	207-08-9	
Chrysene	**8.0J**	ug/kg	12.1	2.2	1	09/28/18 17:07	10/01/18 19:04	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.1	2.2	1	09/28/18 17:07	10/01/18 19:04	53-70-3	
Fluoranthene	**9.3J**	ug/kg	12.1	1.0	1	09/28/18 17:07	10/01/18 19:04	206-44-0	
Fluorene	ND	ug/kg	12.1	1.9	1	09/28/18 17:07	10/01/18 19:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**6.0J**	ug/kg	12.1	3.4	1	09/28/18 17:07	10/01/18 19:04	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.1	1.5	1	09/28/18 17:07	10/01/18 19:04	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.1	1.3	1	09/28/18 17:07	10/01/18 19:04	91-57-6	
Naphthalene	ND	ug/kg	12.1	2.8	1	09/28/18 17:07	10/01/18 19:04	91-20-3	
Phenanthrene	**3.1J**	ug/kg	12.1	1.8	1	09/28/18 17:07	10/01/18 19:04	85-01-8	
Pyrene	**8.5J**	ug/kg	12.1	2.2	1	09/28/18 17:07	10/01/18 19:04	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	34	%	10-128		1	09/28/18 17:07	10/01/18 19:04	4165-60-0	
2-Fluorobiphenyl (S)	33	%	10-110		1	09/28/18 17:07	10/01/18 19:04	321-60-8	
Terphenyl-d14 (S)	39	%	39-119		1	09/28/18 17:07	10/01/18 19:04	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.4**	%	0.10	0.10	1		09/27/18 17:53		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.18	1	10/04/18 18:10	10/05/18 16:20	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**92.3**	mg/kg	6.0	3.0	1	10/02/18 09:00	10/04/18 00:41	16984-48-8	M1

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB011 (2'-3') **Lab ID: 92401224022** Collected: 09/25/18 15:35 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.1	1.7	1	09/28/18 17:07	10/01/18 19:25	83-32-9	
Acenaphthylene	ND	ug/kg	11.1	1.4	1	09/28/18 17:07	10/01/18 19:25	208-96-8	
Anthracene	ND	ug/kg	11.1	1.6	1	09/28/18 17:07	10/01/18 19:25	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.1	0.79	1	09/28/18 17:07	10/01/18 19:25	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.1	1.2	1	09/28/18 17:07	10/01/18 19:25	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.1	0.74	1	09/28/18 17:07	10/01/18 19:25	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.1	2.9	1	09/28/18 17:07	10/01/18 19:25	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.1	1.7	1	09/28/18 17:07	10/01/18 19:25	207-08-9	
Chrysene	ND	ug/kg	11.1	2.0	1	09/28/18 17:07	10/01/18 19:25	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.1	2.0	1	09/28/18 17:07	10/01/18 19:25	53-70-3	
Fluoranthene	ND	ug/kg	11.1	0.92	1	09/28/18 17:07	10/01/18 19:25	206-44-0	
Fluorene	ND	ug/kg	11.1	1.8	1	09/28/18 17:07	10/01/18 19:25	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.1	3.1	1	09/28/18 17:07	10/01/18 19:25	193-39-5	
1-Methylnaphthalene	**1.7J**	ug/kg	11.1	1.3	1	09/28/18 17:07	10/01/18 19:25	90-12-0	
2-Methylnaphthalene	**4.6J**	ug/kg	11.1	1.2	1	09/28/18 17:07	10/01/18 19:25	91-57-6	
Naphthalene	**2.7J**	ug/kg	11.1	2.5	1	09/28/18 17:07	10/01/18 19:25	91-20-3	
Phenanthrene	ND	ug/kg	11.1	1.7	1	09/28/18 17:07	10/01/18 19:25	85-01-8	
Pyrene	ND	ug/kg	11.1	2.0	1	09/28/18 17:07	10/01/18 19:25	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	71	%	10-128		1	09/28/18 17:07	10/01/18 19:25	4165-60-0	
2-Fluorobiphenyl (S)	64	%	10-110		1	09/28/18 17:07	10/01/18 19:25	321-60-8	
Terphenyl-d14 (S)	71	%	39-119		1	09/28/18 17:07	10/01/18 19:25	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.3**	%	0.10	0.10	1		09/27/18 17:53		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	**0.18J**	mg/kg	0.27	0.16	1	10/04/18 18:10	10/05/18 16:21	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**48.3**	mg/kg	5.6	2.8	1	10/02/18 09:00	10/04/18 01:47	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB012 (0'-1') **Lab ID: 92401224023** Collected: 09/25/18 16:10 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 19:46	83-32-9	
Acenaphthylene	ND	ug/kg	11.6	1.5	1	09/28/18 17:07	10/01/18 19:46	208-96-8	
Anthracene	ND	ug/kg	11.6	1.6	1	09/28/18 17:07	10/01/18 19:46	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.6	0.83	1	09/28/18 17:07	10/01/18 19:46	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 19:46	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.6	0.78	1	09/28/18 17:07	10/01/18 19:46	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.6	3.0	1	09/28/18 17:07	10/01/18 19:46	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 19:46	207-08-9	
Chrysene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 19:46	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 19:46	53-70-3	
Fluoranthene	ND	ug/kg	11.6	0.96	1	09/28/18 17:07	10/01/18 19:46	206-44-0	
Fluorene	ND	ug/kg	11.6	1.9	1	09/28/18 17:07	10/01/18 19:46	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.6	3.3	1	09/28/18 17:07	10/01/18 19:46	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.6	1.4	1	09/28/18 17:07	10/01/18 19:46	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 19:46	91-57-6	
Naphthalene	ND	ug/kg	11.6	2.7	1	09/28/18 17:07	10/01/18 19:46	91-20-3	
Phenanthrene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 19:46	85-01-8	
Pyrene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 19:46	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	50	%	10-128		1	09/28/18 17:07	10/01/18 19:46	4165-60-0	
2-Fluorobiphenyl (S)	48	%	10-110		1	09/28/18 17:07	10/01/18 19:46	321-60-8	
Terphenyl-d14 (S)	51	%	39-119		1	09/28/18 17:07	10/01/18 19:46	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.5**	%	0.10	0.10	1		09/27/18 17:53		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.17	1	10/04/18 18:10	10/05/18 16:24	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**3.7J**	mg/kg	5.8	2.9	1	10/02/18 09:00	10/04/18 02:10	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB012 (4'-5') **Lab ID: 92401224024** Collected: 09/25/18 16:15 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.4	1.7	1	09/28/18 17:07	10/01/18 20:07	83-32-9	
Acenaphthylene	ND	ug/kg	11.4	1.5	1	09/28/18 17:07	10/01/18 20:07	208-96-8	
Anthracene	ND	ug/kg	11.4	1.6	1	09/28/18 17:07	10/01/18 20:07	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.4	0.81	1	09/28/18 17:07	10/01/18 20:07	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.4	1.3	1	09/28/18 17:07	10/01/18 20:07	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.4	0.76	1	09/28/18 17:07	10/01/18 20:07	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.4	3.0	1	09/28/18 17:07	10/01/18 20:07	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.4	1.7	1	09/28/18 17:07	10/01/18 20:07	207-08-9	
Chrysene	ND	ug/kg	11.4	2.0	1	09/28/18 17:07	10/01/18 20:07	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.4	2.0	1	09/28/18 17:07	10/01/18 20:07	53-70-3	
Fluoranthene	ND	ug/kg	11.4	0.94	1	09/28/18 17:07	10/01/18 20:07	206-44-0	
Fluorene	ND	ug/kg	11.4	1.8	1	09/28/18 17:07	10/01/18 20:07	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.4	3.2	1	09/28/18 17:07	10/01/18 20:07	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.4	1.4	1	09/28/18 17:07	10/01/18 20:07	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.4	1.3	1	09/28/18 17:07	10/01/18 20:07	91-57-6	
Naphthalene	ND	ug/kg	11.4	2.6	1	09/28/18 17:07	10/01/18 20:07	91-20-3	
Phenanthrene	ND	ug/kg	11.4	1.7	1	09/28/18 17:07	10/01/18 20:07	85-01-8	
Pyrene	ND	ug/kg	11.4	2.0	1	09/28/18 17:07	10/01/18 20:07	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	56	%	10-128		1	09/28/18 17:07	10/01/18 20:07	4165-60-0	
2-Fluorobiphenyl (S)	53	%	10-110		1	09/28/18 17:07	10/01/18 20:07	321-60-8	
Terphenyl-d14 (S)	57	%	39-119		1	09/28/18 17:07	10/01/18 20:07	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.2**	%	0.10	0.10	1		09/27/18 17:53		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.29	0.16	1	10/04/18 18:10	10/05/18 16:25	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	5.7	2.9	1	10/02/18 09:00	10/04/18 02:32	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB013 (0'-1') **Lab ID: 92401224025** Collected: 09/25/18 16:30 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 20:28	83-32-9	
Acenaphthylene	ND	ug/kg	12.5	1.6	1	09/28/18 17:07	10/01/18 20:28	208-96-8	
Anthracene	ND	ug/kg	12.5	1.7	1	09/28/18 17:07	10/01/18 20:28	120-12-7	
Benzo(a)anthracene	ND	ug/kg	12.5	0.88	1	09/28/18 17:07	10/01/18 20:28	56-55-3	
Benzo(a)pyrene	ND	ug/kg	12.5	1.4	1	09/28/18 17:07	10/01/18 20:28	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	12.5	0.83	1	09/28/18 17:07	10/01/18 20:28	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.5	3.2	1	09/28/18 17:07	10/01/18 20:28	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 20:28	207-08-9	
Chrysene	ND	ug/kg	12.5	2.2	1	09/28/18 17:07	10/01/18 20:28	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.5	2.2	1	09/28/18 17:07	10/01/18 20:28	53-70-3	
Fluoranthene	ND	ug/kg	12.5	1.0	1	09/28/18 17:07	10/01/18 20:28	206-44-0	
Fluorene	ND	ug/kg	12.5	2.0	1	09/28/18 17:07	10/01/18 20:28	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.5	3.5	1	09/28/18 17:07	10/01/18 20:28	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.5	1.5	1	09/28/18 17:07	10/01/18 20:28	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.5	1.4	1	09/28/18 17:07	10/01/18 20:28	91-57-6	
Naphthalene	ND	ug/kg	12.5	2.9	1	09/28/18 17:07	10/01/18 20:28	91-20-3	
Phenanthrene	ND	ug/kg	12.5	1.9	1	09/28/18 17:07	10/01/18 20:28	85-01-8	
Pyrene	ND	ug/kg	12.5	2.2	1	09/28/18 17:07	10/01/18 20:28	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	69	%	10-128		1	09/28/18 17:07	10/01/18 20:28	4165-60-0	
2-Fluorobiphenyl (S)	63	%	10-110		1	09/28/18 17:07	10/01/18 20:28	321-60-8	
Terphenyl-d14 (S)	66	%	39-119		1	09/28/18 17:07	10/01/18 20:28	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.4**	%	0.10	0.10	1		09/27/18 17:53		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.32	0.18	1	10/04/18 18:10	10/05/18 16:26	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**8.2**	mg/kg	6.1	3.1	1	10/02/18 09:00	10/04/18 02:54	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB013 (4'-5') **Lab ID: 92401224026** Collected: 09/25/18 16:35 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.7	1.9	1	09/28/18 17:07	10/01/18 20:49	83-32-9	
Acenaphthylene	ND	ug/kg	12.7	1.7	1	09/28/18 17:07	10/01/18 20:49	208-96-8	
Anthracene	ND	ug/kg	12.7	1.8	1	09/28/18 17:07	10/01/18 20:49	120-12-7	
Benzo(a)anthracene	**0.95J**	ug/kg	12.7	0.90	1	09/28/18 17:07	10/01/18 20:49	56-55-3	
Benzo(a)pyrene	ND	ug/kg	12.7	1.4	1	09/28/18 17:07	10/01/18 20:49	50-32-8	
Benzo(b)fluoranthene	**1.7J**	ug/kg	12.7	0.85	1	09/28/18 17:07	10/01/18 20:49	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.7	3.3	1	09/28/18 17:07	10/01/18 20:49	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.7	1.9	1	09/28/18 17:07	10/01/18 20:49	207-08-9	
Chrysene	ND	ug/kg	12.7	2.3	1	09/28/18 17:07	10/01/18 20:49	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.7	2.3	1	09/28/18 17:07	10/01/18 20:49	53-70-3	
Fluoranthene	ND	ug/kg	12.7	1.1	1	09/28/18 17:07	10/01/18 20:49	206-44-0	
Fluorene	ND	ug/kg	12.7	2.0	1	09/28/18 17:07	10/01/18 20:49	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.7	3.6	1	09/28/18 17:07	10/01/18 20:49	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.7	1.5	1	09/28/18 17:07	10/01/18 20:49	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.7	1.4	1	09/28/18 17:07	10/01/18 20:49	91-57-6	
Naphthalene	ND	ug/kg	12.7	2.9	1	09/28/18 17:07	10/01/18 20:49	91-20-3	
Phenanthrene	ND	ug/kg	12.7	1.9	1	09/28/18 17:07	10/01/18 20:49	85-01-8	
Pyrene	ND	ug/kg	12.7	2.3	1	09/28/18 17:07	10/01/18 20:49	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	61	%	10-128		1	09/28/18 17:07	10/01/18 20:49	4165-60-0	
2-Fluorobiphenyl (S)	58	%	10-110		1	09/28/18 17:07	10/01/18 20:49	321-60-8	
Terphenyl-d14 (S)	62	%	39-119		1	09/28/18 17:07	10/01/18 20:49	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.7**	%	0.10	0.10	1		09/27/18 17:53		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.32	0.18	1	10/04/18 18:10	10/05/18 16:27	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	6.3	3.1	1	10/02/18 09:00	10/04/18 03:16	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB014 (0'-1') **Lab ID: 92401224027** Collected: 09/26/18 08:15 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.4	1.9	1	09/28/18 17:07	10/01/18 21:10	83-32-9	
Acenaphthylene	**4.7J**	ug/kg	12.4	1.6	1	09/28/18 17:07	10/01/18 21:10	208-96-8	
Anthracene	**5.5J**	ug/kg	12.4	1.7	1	09/28/18 17:07	10/01/18 21:10	120-12-7	
Benzo(a)anthracene	**38.1**	ug/kg	12.4	0.88	1	09/28/18 17:07	10/01/18 21:10	56-55-3	
Benzo(a)pyrene	**43.0**	ug/kg	12.4	1.4	1	09/28/18 17:07	10/01/18 21:10	50-32-8	
Benzo(b)fluoranthene	**72.3**	ug/kg	12.4	0.83	1	09/28/18 17:07	10/01/18 21:10	205-99-2	
Benzo(g,h,i)perylene	**29.3**	ug/kg	12.4	3.2	1	09/28/18 17:07	10/01/18 21:10	191-24-2	
Benzo(k)fluoranthene	**20.7**	ug/kg	12.4	1.9	1	09/28/18 17:07	10/01/18 21:10	207-08-9	
Chrysene	**44.6**	ug/kg	12.4	2.2	1	09/28/18 17:07	10/01/18 21:10	218-01-9	
Dibenz(a,h)anthracene	**2.8J**	ug/kg	12.4	2.2	1	09/28/18 17:07	10/01/18 21:10	53-70-3	
Fluoranthene	**70.9**	ug/kg	12.4	1.0	1	09/28/18 17:07	10/01/18 21:10	206-44-0	
Fluorene	ND	ug/kg	12.4	2.0	1	09/28/18 17:07	10/01/18 21:10	86-73-7	
Indeno(1,2,3-cd)pyrene	**28.7**	ug/kg	12.4	3.5	1	09/28/18 17:07	10/01/18 21:10	193-39-5	
1-Methylnaphthalene	**10.1J**	ug/kg	12.4	1.5	1	09/28/18 17:07	10/01/18 21:10	90-12-0	
2-Methylnaphthalene	**11.9J**	ug/kg	12.4	1.4	1	09/28/18 17:07	10/01/18 21:10	91-57-6	
Naphthalene	**8.8J**	ug/kg	12.4	2.9	1	09/28/18 17:07	10/01/18 21:10	91-20-3	
Phenanthrene	**27.0**	ug/kg	12.4	1.9	1	09/28/18 17:07	10/01/18 21:10	85-01-8	
Pyrene	**59.2**	ug/kg	12.4	2.2	1	09/28/18 17:07	10/01/18 21:10	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	75	%	10-128		1	09/28/18 17:07	10/01/18 21:10	4165-60-0	
2-Fluorobiphenyl (S)	67	%	10-110		1	09/28/18 17:07	10/01/18 21:10	321-60-8	
Terphenyl-d14 (S)	76	%	39-119		1	09/28/18 17:07	10/01/18 21:10	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.5**	%	0.10	0.10	1		09/27/18 17:54		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.32	0.18	1	10/04/18 18:10	10/05/18 16:28	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**57.3**	mg/kg	6.1	3.1	1	10/02/18 09:00	10/04/18 03:38	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB014 (4'-5') **Lab ID: 92401224028** Collected: 09/26/18 08:20 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	13.5	2.0	1	09/28/18 17:07	10/01/18 21:31	83-32-9	
Acenaphthylene	ND	ug/kg	13.5	1.8	1	09/28/18 17:07	10/01/18 21:31	208-96-8	
Anthracene	ND	ug/kg	13.5	1.9	1	09/28/18 17:07	10/01/18 21:31	120-12-7	
Benzo(a)anthracene	ND	ug/kg	13.5	0.96	1	09/28/18 17:07	10/01/18 21:31	56-55-3	
Benzo(a)pyrene	ND	ug/kg	13.5	1.5	1	09/28/18 17:07	10/01/18 21:31	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	13.5	0.91	1	09/28/18 17:07	10/01/18 21:31	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	13.5	3.5	1	09/28/18 17:07	10/01/18 21:31	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	13.5	2.0	1	09/28/18 17:07	10/01/18 21:31	207-08-9	
Chrysene	ND	ug/kg	13.5	2.4	1	09/28/18 17:07	10/01/18 21:31	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	13.5	2.4	1	09/28/18 17:07	10/01/18 21:31	53-70-3	
Fluoranthene	ND	ug/kg	13.5	1.1	1	09/28/18 17:07	10/01/18 21:31	206-44-0	
Fluorene	ND	ug/kg	13.5	2.2	1	09/28/18 17:07	10/01/18 21:31	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	13.5	3.8	1	09/28/18 17:07	10/01/18 21:31	193-39-5	
1-Methylnaphthalene	ND	ug/kg	13.5	1.6	1	09/28/18 17:07	10/01/18 21:31	90-12-0	
2-Methylnaphthalene	ND	ug/kg	13.5	1.5	1	09/28/18 17:07	10/01/18 21:31	91-57-6	
Naphthalene	ND	ug/kg	13.5	3.1	1	09/28/18 17:07	10/01/18 21:31	91-20-3	
Phenanthrene	ND	ug/kg	13.5	2.0	1	09/28/18 17:07	10/01/18 21:31	85-01-8	
Pyrene	ND	ug/kg	13.5	2.4	1	09/28/18 17:07	10/01/18 21:31	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	62	%	10-128		1	09/28/18 17:07	10/01/18 21:31	4165-60-0	
2-Fluorobiphenyl (S)	54	%	10-110		1	09/28/18 17:07	10/01/18 21:31	321-60-8	
Terphenyl-d14 (S)	65	%	39-119		1	09/28/18 17:07	10/01/18 21:31	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**25.8**	%	0.10	0.10	1		09/27/18 17:54		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.35	0.20	1	10/04/18 18:10	10/05/18 16:29	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**33.3**	mg/kg	6.7	3.4	1	10/02/18 09:00	10/04/18 04:00	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB015 (0'-1') **Lab ID: 92401224029** Collected: 09/26/18 08:50 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.3	1.8	1	09/28/18 17:07	10/01/18 21:52	83-32-9	
Acenaphthylene	ND	ug/kg	12.3	1.6	1	09/28/18 17:07	10/01/18 21:52	208-96-8	
Anthracene	ND	ug/kg	12.3	1.7	1	09/28/18 17:07	10/01/18 21:52	120-12-7	
Benzo(a)anthracene	**2.8J**	ug/kg	12.3	0.87	1	09/28/18 17:07	10/01/18 21:52	56-55-3	
Benzo(a)pyrene	**2.9J**	ug/kg	12.3	1.4	1	09/28/18 17:07	10/01/18 21:52	50-32-8	
Benzo(b)fluoranthene	**4.7J**	ug/kg	12.3	0.82	1	09/28/18 17:07	10/01/18 21:52	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.3	3.2	1	09/28/18 17:07	10/01/18 21:52	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.3	1.8	1	09/28/18 17:07	10/01/18 21:52	207-08-9	
Chrysene	**3.7J**	ug/kg	12.3	2.2	1	09/28/18 17:07	10/01/18 21:52	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.3	2.2	1	09/28/18 17:07	10/01/18 21:52	53-70-3	
Fluoranthene	**4.3J**	ug/kg	12.3	1.0	1	09/28/18 17:07	10/01/18 21:52	206-44-0	
Fluorene	ND	ug/kg	12.3	2.0	1	09/28/18 17:07	10/01/18 21:52	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.3	3.4	1	09/28/18 17:07	10/01/18 21:52	193-39-5	
1-Methylnaphthalene	**8.7J**	ug/kg	12.3	1.5	1	09/28/18 17:07	10/01/18 21:52	90-12-0	
2-Methylnaphthalene	**12.4**	ug/kg	12.3	1.4	1	09/28/18 17:07	10/01/18 21:52	91-57-6	
Naphthalene	**8.8J**	ug/kg	12.3	2.8	1	09/28/18 17:07	10/01/18 21:52	91-20-3	
Phenanthrene	**6.4J**	ug/kg	12.3	1.8	1	09/28/18 17:07	10/01/18 21:52	85-01-8	
Pyrene	**3.8J**	ug/kg	12.3	2.2	1	09/28/18 17:07	10/01/18 21:52	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	64	%	10-128		1	09/28/18 17:07	10/01/18 21:52	4165-60-0	
2-Fluorobiphenyl (S)	59	%	10-110		1	09/28/18 17:07	10/01/18 21:52	321-60-8	
Terphenyl-d14 (S)	66	%	39-119		1	09/28/18 17:07	10/01/18 21:52	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.5**	%	0.10	0.10	1		09/27/18 17:54		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.32	0.18	1	10/04/18 18:10	10/05/18 16:32	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**149**	mg/kg	62.1	31.1	10	10/02/18 09:00	10/04/18 11:39	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB015 (4'-5') **Lab ID: 92401224030** Collected: 09/26/18 08:55 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:13	83-32-9	
Acenaphthylene	ND	ug/kg	11.6	1.5	1	09/28/18 17:07	10/01/18 22:13	208-96-8	
Anthracene	ND	ug/kg	11.6	1.6	1	09/28/18 17:07	10/01/18 22:13	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.6	0.83	1	09/28/18 17:07	10/01/18 22:13	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 22:13	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.6	0.78	1	09/28/18 17:07	10/01/18 22:13	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.6	3.0	1	09/28/18 17:07	10/01/18 22:13	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:13	207-08-9	
Chrysene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:13	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:13	53-70-3	
Fluoranthene	ND	ug/kg	11.6	0.97	1	09/28/18 17:07	10/01/18 22:13	206-44-0	
Fluorene	ND	ug/kg	11.6	1.9	1	09/28/18 17:07	10/01/18 22:13	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.6	3.3	1	09/28/18 17:07	10/01/18 22:13	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.6	1.4	1	09/28/18 17:07	10/01/18 22:13	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 22:13	91-57-6	
Naphthalene	ND	ug/kg	11.6	2.7	1	09/28/18 17:07	10/01/18 22:13	91-20-3	
Phenanthrene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:13	85-01-8	
Pyrene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:13	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	56	%	10-128		1	09/28/18 17:07	10/01/18 22:13	4165-60-0	
2-Fluorobiphenyl (S)	53	%	10-110		1	09/28/18 17:07	10/01/18 22:13	321-60-8	
Terphenyl-d14 (S)	58	%	39-119		1	09/28/18 17:07	10/01/18 22:13	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.4**	%	0.10	0.10	1		09/27/18 17:54		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.29	0.17	1	10/04/18 18:10	10/05/18 16:33	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	5.9	3.0	1	10/02/18 09:00	10/04/18 04:44	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB016 (0'-1') **Lab ID: 92401224031** Collected: 09/26/18 09:40 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:34	83-32-9	
Acenaphthylene	ND	ug/kg	11.6	1.5	1	09/28/18 17:07	10/01/18 22:34	208-96-8	
Anthracene	ND	ug/kg	11.6	1.6	1	09/28/18 17:07	10/01/18 22:34	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.6	0.83	1	09/28/18 17:07	10/01/18 22:34	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 22:34	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.6	0.78	1	09/28/18 17:07	10/01/18 22:34	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.6	3.0	1	09/28/18 17:07	10/01/18 22:34	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:34	207-08-9	
Chrysene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:34	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:34	53-70-3	
Fluoranthene	ND	ug/kg	11.6	0.97	1	09/28/18 17:07	10/01/18 22:34	206-44-0	
Fluorene	ND	ug/kg	11.6	1.9	1	09/28/18 17:07	10/01/18 22:34	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.6	3.3	1	09/28/18 17:07	10/01/18 22:34	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.6	1.4	1	09/28/18 17:07	10/01/18 22:34	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 22:34	91-57-6	
Naphthalene	ND	ug/kg	11.6	2.7	1	09/28/18 17:07	10/01/18 22:34	91-20-3	
Phenanthrene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:34	85-01-8	
Pyrene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:34	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	49	%	10-128		1	09/28/18 17:07	10/01/18 22:34	4165-60-0	
2-Fluorobiphenyl (S)	47	%	10-110		1	09/28/18 17:07	10/01/18 22:34	321-60-8	
Terphenyl-d14 (S)	50	%	39-119		1	09/28/18 17:07	10/01/18 22:34	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.3**	%	0.10	0.10	1		09/27/18 17:54		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.29	0.17	1	10/04/18 18:10	10/05/18 16:36	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**39.0**	mg/kg	5.8	2.9	1	10/02/18 09:00	10/04/18 05:50	16984-48-8	M1

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB016 (4'-5') **Lab ID: 92401224032** Collected: 09/26/18 09:45 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:55	83-32-9	
Acenaphthylene	ND	ug/kg	11.6	1.5	1	09/28/18 17:07	10/01/18 22:55	208-96-8	
Anthracene	ND	ug/kg	11.6	1.6	1	09/28/18 17:07	10/01/18 22:55	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.6	0.82	1	09/28/18 17:07	10/01/18 22:55	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 22:55	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	11.6	0.78	1	09/28/18 17:07	10/01/18 22:55	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.6	3.0	1	09/28/18 17:07	10/01/18 22:55	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:55	207-08-9	
Chrysene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:55	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:55	53-70-3	
Fluoranthene	ND	ug/kg	11.6	0.96	1	09/28/18 17:07	10/01/18 22:55	206-44-0	
Fluorene	ND	ug/kg	11.6	1.9	1	09/28/18 17:07	10/01/18 22:55	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.6	3.2	1	09/28/18 17:07	10/01/18 22:55	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.6	1.4	1	09/28/18 17:07	10/01/18 22:55	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.6	1.3	1	09/28/18 17:07	10/01/18 22:55	91-57-6	
Naphthalene	ND	ug/kg	11.6	2.7	1	09/28/18 17:07	10/01/18 22:55	91-20-3	
Phenanthrene	ND	ug/kg	11.6	1.7	1	09/28/18 17:07	10/01/18 22:55	85-01-8	
Pyrene	ND	ug/kg	11.6	2.1	1	09/28/18 17:07	10/01/18 22:55	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	60	%	10-128		1	09/28/18 17:07	10/01/18 22:55	4165-60-0	
2-Fluorobiphenyl (S)	55	%	10-110		1	09/28/18 17:07	10/01/18 22:55	321-60-8	
Terphenyl-d14 (S)	59	%	39-119		1	09/28/18 17:07	10/01/18 22:55	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.0**	%	0.10	0.10	1		09/27/18 17:54		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.29	0.17	1	10/04/18 18:10	10/05/18 16:37	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**8.5**	mg/kg	5.8	2.9	1	10/02/18 09:00	10/04/18 06:56	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB017 (0'-1') **Lab ID: 92401224033** Collected: 09/26/18 10:35 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.1	1.8	1	09/28/18 18:24	10/02/18 16:21	83-32-9	
Acenaphthylene	ND	ug/kg	12.1	1.6	1	09/28/18 18:24	10/02/18 16:21	208-96-8	
Anthracene	ND	ug/kg	12.1	1.7	1	09/28/18 18:24	10/02/18 16:21	120-12-7	
Benzo(a)anthracene	**9.3J**	ug/kg	12.1	0.86	1	09/28/18 18:24	10/02/18 16:21	56-55-3	
Benzo(a)pyrene	**2.2J**	ug/kg	12.1	1.3	1	09/28/18 18:24	10/02/18 16:21	50-32-8	
Benzo(b)fluoranthene	**17.2**	ug/kg	12.1	0.81	1	09/28/18 18:24	10/02/18 16:21	205-99-2	
Benzo(g,h,i)perylene	**6.7J**	ug/kg	12.1	3.1	1	09/28/18 18:24	10/02/18 16:21	191-24-2	
Benzo(k)fluoranthene	**6.3J**	ug/kg	12.1	1.8	1	09/28/18 18:24	10/02/18 16:21	207-08-9	
Chrysene	**13.0**	ug/kg	12.1	2.2	1	09/28/18 18:24	10/02/18 16:21	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.1	2.2	1	09/28/18 18:24	10/02/18 16:21	53-70-3	
Fluoranthene	**15.9**	ug/kg	12.1	1.0	1	09/28/18 18:24	10/02/18 16:21	206-44-0	
Fluorene	ND	ug/kg	12.1	1.9	1	09/28/18 18:24	10/02/18 16:21	86-73-7	
Indeno(1,2,3-cd)pyrene	**6.0J**	ug/kg	12.1	3.4	1	09/28/18 18:24	10/02/18 16:21	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.1	1.4	1	09/28/18 18:24	10/02/18 16:21	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.1	1.3	1	09/28/18 18:24	10/02/18 16:21	91-57-6	
Naphthalene	ND	ug/kg	12.1	2.8	1	09/28/18 18:24	10/02/18 16:21	91-20-3	
Phenanthrene	**4.9J**	ug/kg	12.1	1.8	1	09/28/18 18:24	10/02/18 16:21	85-01-8	
Pyrene	**21.4**	ug/kg	12.1	2.2	1	09/28/18 18:24	10/02/18 16:21	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	71	%	10-128		1	09/28/18 18:24	10/02/18 16:21	4165-60-0	
2-Fluorobiphenyl (S)	67	%	10-110		1	09/28/18 18:24	10/02/18 16:21	321-60-8	
Terphenyl-d14 (S)	78	%	39-119		1	09/28/18 18:24	10/02/18 16:21	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.4**	%	0.10	0.10	1		09/27/18 17:54		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.32	0.18	1	10/04/18 20:15	10/05/18 16:41	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**42.5J**	mg/kg	60.4	30.2	10	10/02/18 09:00	10/04/18 07:18	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: PBC-SB017 (4'-5') **Lab ID: 92401224034** Collected: 09/26/18 10:40 Received: 09/26/18 15:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	12.3	1.8	1	09/28/18 18:24	10/02/18 16:42	83-32-9	
Acenaphthylene	ND	ug/kg	12.3	1.6	1	09/28/18 18:24	10/02/18 16:42	208-96-8	
Anthracene	ND	ug/kg	12.3	1.7	1	09/28/18 18:24	10/02/18 16:42	120-12-7	
Benzo(a)anthracene	ND	ug/kg	12.3	0.87	1	09/28/18 18:24	10/02/18 16:42	56-55-3	
Benzo(a)pyrene	ND	ug/kg	12.3	1.3	1	09/28/18 18:24	10/02/18 16:42	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	12.3	0.82	1	09/28/18 18:24	10/02/18 16:42	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	12.3	3.2	1	09/28/18 18:24	10/02/18 16:42	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	12.3	1.8	1	09/28/18 18:24	10/02/18 16:42	207-08-9	
Chrysene	ND	ug/kg	12.3	2.2	1	09/28/18 18:24	10/02/18 16:42	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.3	2.2	1	09/28/18 18:24	10/02/18 16:42	53-70-3	
Fluoranthene	ND	ug/kg	12.3	1.0	1	09/28/18 18:24	10/02/18 16:42	206-44-0	
Fluorene	ND	ug/kg	12.3	2.0	1	09/28/18 18:24	10/02/18 16:42	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	12.3	3.4	1	09/28/18 18:24	10/02/18 16:42	193-39-5	
1-Methylnaphthalene	ND	ug/kg	12.3	1.5	1	09/28/18 18:24	10/02/18 16:42	90-12-0	
2-Methylnaphthalene	ND	ug/kg	12.3	1.3	1	09/28/18 18:24	10/02/18 16:42	91-57-6	
Naphthalene	ND	ug/kg	12.3	2.8	1	09/28/18 18:24	10/02/18 16:42	91-20-3	
Phenanthrene	ND	ug/kg	12.3	1.8	1	09/28/18 18:24	10/02/18 16:42	85-01-8	
Pyrene	ND	ug/kg	12.3	2.2	1	09/28/18 18:24	10/02/18 16:42	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	71	%	10-128		1	09/28/18 18:24	10/02/18 16:42	4165-60-0	
2-Fluorobiphenyl (S)	65	%	10-110		1	09/28/18 18:24	10/02/18 16:42	321-60-8	
Terphenyl-d14 (S)	80	%	39-119		1	09/28/18 18:24	10/02/18 16:42	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.2**	%	0.10	0.10	1		09/27/18 17:54		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.32	0.18	1	10/04/18 20:15	10/05/18 16:44	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**66.0**	mg/kg	6.1	3.0	1	10/02/18 09:00	10/04/18 09:30	16984-48-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: ESW-EB001 **Lab ID: 92401224035** Collected: 09/25/18 17:00 Received: 09/26/18 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RVE	Analytical Method: EPA 8082A Preparation Method: EPA 3510C								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.42	0.42	1	09/28/18 15:16	10/01/18 11:23	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.42	0.42	1	09/28/18 15:16	10/01/18 11:23	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.42	0.42	1	09/28/18 15:16	10/01/18 11:23	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.42	0.42	1	09/28/18 15:16	10/01/18 11:23	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.42	0.42	1	09/28/18 15:16	10/01/18 11:23	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.42	0.42	1	09/28/18 15:16	10/01/18 11:23	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.42	0.42	1	09/28/18 15:16	10/01/18 11:23	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	58	%	10-132		1	09/28/18 15:16	10/01/18 11:23	2051-24-3	
8270 Low Volume PAH SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3511								
Acenaphthene	ND	ug/L	0.50	0.50	1	10/01/18 12:16	10/03/18 14:23	83-32-9	L1
Acenaphthylene	ND	ug/L	0.50	0.50	1	10/01/18 12:16	10/03/18 14:23	208-96-8	L1
Anthracene	ND	ug/L	0.050	0.050	1	10/01/18 12:16	10/03/18 14:23	120-12-7	L1
Benzo(a)anthracene	ND	ug/L	0.050	0.050	1	10/01/18 12:16	10/03/18 14:23	56-55-3	L1
Benzo(a)pyrene	ND	ug/L	0.10	0.10	1	10/01/18 12:16	10/03/18 14:23	50-32-8	L1
Benzo(b)fluoranthene	ND	ug/L	0.050	0.050	1	10/01/18 12:16	10/03/18 14:23	205-99-2	L1
Benzo(g,h,i)perylene	ND	ug/L	0.20	0.20	1	10/01/18 12:16	10/03/18 14:23	191-24-2	L1
Benzo(k)fluoranthene	ND	ug/L	0.20	0.20	1	10/01/18 12:16	10/03/18 14:23	207-08-9	L1
Chrysene	ND	ug/L	0.10	0.10	1	10/01/18 12:16	10/03/18 14:23	218-01-9	L1
Dibenz(a,h)anthracene	ND	ug/L	0.15	0.15	1	10/01/18 12:16	10/03/18 14:23	53-70-3	L1
Fluoranthene	ND	ug/L	0.30	0.30	1	10/01/18 12:16	10/03/18 14:23	206-44-0	L1
Fluorene	ND	ug/L	0.31	0.31	1	10/01/18 12:16	10/03/18 14:23	86-73-7	L1
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.050	0.050	1	10/01/18 12:16	10/03/18 14:23	193-39-5	L1
1-Methylnaphthalene	ND	ug/L	0.80	0.80	1	10/01/18 12:16	10/03/18 14:23	90-12-0	
2-Methylnaphthalene	ND	ug/L	0.80	0.80	1	10/01/18 12:16	10/03/18 14:23	91-57-6	
Naphthalene	ND	ug/L	1.5	1.5	1	10/01/18 12:16	10/03/18 14:23	91-20-3	
Phenanthrene	ND	ug/L	0.20	0.20	1	10/01/18 12:16	10/03/18 14:23	85-01-8	L1
Pyrene	ND	ug/L	0.10	0.10	1	10/01/18 12:16	10/03/18 14:23	129-00-0	L1
Surrogates									
Nitrobenzene-d5 (S)	121	%	70-130		1	10/01/18 12:16	10/03/18 14:23	4165-60-0	
2-Fluorobiphenyl (S)	118	%	70-130		1	10/01/18 12:16	10/03/18 14:23	321-60-8	
Terphenyl-d14 (S)	115	%	70-130		1	10/01/18 12:16	10/03/18 14:23	1718-51-0	
8260 MSV	Analytical Method: EPA 8260B								
Acetone	ND	ug/L	25.0	10.0	1		10/02/18 14:58	67-64-1	
Benzene	ND	ug/L	5.0	1.7	1		10/02/18 14:58	71-43-2	
Bromobenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:58	108-86-1	
Bromochloromethane	ND	ug/L	5.0	2.2	1		10/02/18 14:58	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1.7	1		10/02/18 14:58	75-27-4	
Bromoform	ND	ug/L	5.0	1.5	1		10/02/18 14:58	75-25-2	
Bromomethane	ND	ug/L	10.0	2.5	1		10/02/18 14:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	4.9	1		10/02/18 14:58	78-93-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		10/02/18 14:58	75-65-0	
n-Butylbenzene	ND	ug/L	5.0	1.9	1		10/02/18 14:58	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	1.7	1		10/02/18 14:58	135-98-8	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: ESW-EB001 **Lab ID: 92401224035** Collected: 09/25/18 17:00 Received: 09/26/18 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
tert-Butylbenzene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	98-06-6	
Carbon tetrachloride	ND	ug/L	5.0	1.9	1		10/02/18 14:58	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1.7	1		10/02/18 14:58	108-90-7	
Chloroethane	ND	ug/L	10.0	1.6	1		10/02/18 14:58	75-00-3	
Chloroform	ND	ug/L	5.0	1.9	1		10/02/18 14:58	67-66-3	
Chloromethane	ND	ug/L	5.0	1.5	1		10/02/18 14:58	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	1.5	1		10/02/18 14:58	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1.7	1		10/02/18 14:58	96-12-8	
Dibromochloromethane	ND	ug/L	5.0	1.8	1		10/02/18 14:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	1.7	1		10/02/18 14:58	106-93-4	
Dibromomethane	ND	ug/L	5.0	2.0	1		10/02/18 14:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	5.0	1.6	1		10/02/18 14:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1.8	1		10/02/18 14:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		10/02/18 14:58	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	4.4	1		10/02/18 14:58	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	1.9	1		10/02/18 14:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1.8	1		10/02/18 14:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1.8	1		10/02/18 14:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1.7	1		10/02/18 14:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	1.7	1		10/02/18 14:58	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1.6	1		10/02/18 14:58	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	1.7	1		10/02/18 14:58	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	10061-02-6	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		10/02/18 14:58	108-20-3	
Ethylbenzene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1.8	1		10/02/18 14:58	87-68-3	
2-Hexanone	ND	ug/L	10.0	3.8	1		10/02/18 14:58	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1.6	1		10/02/18 14:58	98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1.9	1		10/02/18 14:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	3.6	1		10/02/18 14:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		10/02/18 14:58	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		10/02/18 14:58	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:58	103-65-1	
Styrene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1.7	1		10/02/18 14:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1.5	1		10/02/18 14:58	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1.8	1		10/02/18 14:58	127-18-4	
Toluene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	2.0	1		10/02/18 14:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1.7	1		10/02/18 14:58	120-82-1	

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ANALYTICAL RESULTS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Sample: ESW-EB001 **Lab ID: 92401224035** Collected: 09/25/18 17:00 Received: 09/26/18 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260B								
1,1,1-Trichloroethane	ND	ug/L	5.0	1.9	1		10/02/18 14:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1.7	1		10/02/18 14:58	79-00-5	
Trichloroethene	ND	ug/L	5.0	1.8	1		10/02/18 14:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	10.0	1.7	1		10/02/18 14:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1.5	1		10/02/18 14:58	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1.5	1		10/02/18 14:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1.3	1		10/02/18 14:58	108-67-8	
Vinyl acetate	ND	ug/L	10.0	2.3	1		10/02/18 14:58	108-05-4	
Vinyl chloride	ND	ug/L	5.0	1.5	1		10/02/18 14:58	75-01-4	
m&p-Xylene	ND	ug/L	10.0	3.1	1		10/02/18 14:58	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		10/02/18 14:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/02/18 14:58	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		10/02/18 14:58	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		10/02/18 14:58	2037-26-5	
9012B Cyanide, Total	Analytical Method: EPA 9012B Preparation Method: EPA 9012B								
Cyanide	ND	mg/L	0.0080	0.0040	1	10/02/18 06:37	10/03/18 01:50	57-12-5	
9056 IC anions 28 Days	Analytical Method: EPA 9056A								
Fluoride	ND	mg/L	0.10	0.050	1		09/29/18 08:32	16984-48-8	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433825 | Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B | Analysis Description: 8260 MSV
Associated Lab Samples: 92401224035

METHOD BLANK: 2389677 | Matrix: Water
Associated Lab Samples: 92401224035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,1,1-Trichloroethane	ug/L	ND	5.0	1.9	10/02/18 06:16	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,1,2-Trichloroethane	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,1-Dichloroethane	ug/L	ND	5.0	1.8	10/02/18 06:16	
1,1-Dichloroethene	ug/L	ND	5.0	1.9	10/02/18 06:16	
1,1-Dichloropropene	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,2,3-Trichlorobenzene	ug/L	ND	5.0	2.0	10/02/18 06:16	
1,2,3-Trichloropropane	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,2,4-Trichlorobenzene	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	1.7	10/02/18 06:16	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,2-Dichlorobenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,2-Dichloroethane	ug/L	ND	5.0	1.8	10/02/18 06:16	
1,2-Dichloroethene (Total)	ug/L	ND	5.0	4.4	10/02/18 06:16	
1,2-Dichloropropane	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	1.3	10/02/18 06:16	
1,3-Dichlorobenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,3-Dichloropropane	ug/L	ND	5.0	1.7	10/02/18 06:16	
1,4-Dichlorobenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
2,2-Dichloropropane	ug/L	ND	5.0	1.6	10/02/18 06:16	
2-Butanone (MEK)	ug/L	ND	10.0	4.9	10/02/18 06:16	
2-Chlorotoluene	ug/L	ND	5.0	1.5	10/02/18 06:16	
2-Hexanone	ug/L	ND	10.0	3.8	10/02/18 06:16	
4-Chlorotoluene	ug/L	ND	5.0	1.6	10/02/18 06:16	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	3.6	10/02/18 06:16	
Acetone	ug/L	ND	25.0	10.0	10/02/18 06:16	
Benzene	ug/L	ND	5.0	1.7	10/02/18 06:16	
Bromobenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
Bromochloromethane	ug/L	ND	5.0	2.2	10/02/18 06:16	
Bromodichloromethane	ug/L	ND	5.0	1.7	10/02/18 06:16	
Bromoform	ug/L	ND	5.0	1.5	10/02/18 06:16	
Bromomethane	ug/L	ND	10.0	2.5	10/02/18 06:16	
Carbon tetrachloride	ug/L	ND	5.0	1.9	10/02/18 06:16	
Chlorobenzene	ug/L	ND	5.0	1.7	10/02/18 06:16	
Chloroethane	ug/L	ND	10.0	1.6	10/02/18 06:16	
Chloroform	ug/L	ND	5.0	1.9	10/02/18 06:16	
Chloromethane	ug/L	ND	5.0	1.5	10/02/18 06:16	
cis-1,2-Dichloroethene	ug/L	ND	5.0	1.8	10/02/18 06:16	
cis-1,3-Dichloropropene	ug/L	ND	5.0	1.6	10/02/18 06:16	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

METHOD BLANK: 2389677 Matrix: Water
Associated Lab Samples: 92401224035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/L	ND	5.0	1.8	10/02/18 06:16	
Dibromomethane	ug/L	ND	5.0	2.0	10/02/18 06:16	
Dichlorodifluoromethane	ug/L	ND	5.0	1.6	10/02/18 06:16	
Diisopropyl ether	ug/L	ND	5.0	1.7	10/02/18 06:16	
Ethylbenzene	ug/L	ND	5.0	1.6	10/02/18 06:16	
Hexachloro-1,3-butadiene	ug/L	3.8J	5.0	1.8	10/02/18 06:16	
Isopropylbenzene (Cumene)	ug/L	ND	5.0	1.6	10/02/18 06:16	
m&p-Xylene	ug/L	ND	10.0	3.1	10/02/18 06:16	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	10/02/18 06:16	
Methylene Chloride	ug/L	ND	5.0	1.9	10/02/18 06:16	
n-Butylbenzene	ug/L	ND	5.0	1.9	10/02/18 06:16	
n-Propylbenzene	ug/L	ND	5.0	1.5	10/02/18 06:16	
Naphthalene	ug/L	ND	5.0	2.0	10/02/18 06:16	
o-Xylene	ug/L	ND	5.0	1.6	10/02/18 06:16	
p-Isopropyltoluene	ug/L	ND	5.0	1.6	10/02/18 06:16	
sec-Butylbenzene	ug/L	ND	5.0	1.7	10/02/18 06:16	
Styrene	ug/L	ND	5.0	1.6	10/02/18 06:16	
tert-Butyl Alcohol	ug/L	ND	100	57.7	10/02/18 06:16	
tert-Butylbenzene	ug/L	ND	5.0	1.6	10/02/18 06:16	
Tetrachloroethene	ug/L	ND	5.0	1.8	10/02/18 06:16	
Toluene	ug/L	ND	5.0	1.6	10/02/18 06:16	
trans-1,2-Dichloroethene	ug/L	ND	5.0	1.8	10/02/18 06:16	
trans-1,3-Dichloropropene	ug/L	ND	5.0	1.6	10/02/18 06:16	
Trichloroethene	ug/L	ND	5.0	1.8	10/02/18 06:16	
Trichlorofluoromethane	ug/L	ND	10.0	1.7	10/02/18 06:16	
Vinyl acetate	ug/L	ND	10.0	2.3	10/02/18 06:16	
Vinyl chloride	ug/L	ND	5.0	1.5	10/02/18 06:16	
1,2-Dichloroethane-d4 (S)	%	99	70-130		10/02/18 06:16	
4-Bromofluorobenzene (S)	%	97	70-130		10/02/18 06:16	
Toluene-d8 (S)	%	104	70-130		10/02/18 06:16	

LABORATORY CONTROL SAMPLE: 2389678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.0	96	80-125	
1,1,1-Trichloroethane	ug/L	50	47.4	95	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	49.0	98	79-124	
1,1,2-Trichloroethane	ug/L	50	48.5	97	85-125	
1,1-Dichloroethane	ug/L	50	50.0	100	73-126	
1,1-Dichloroethene	ug/L	50	48.7	97	66-135	
1,1-Dichloropropene	ug/L	50	49.0	98	74-135	
1,2,3-Trichlorobenzene	ug/L	50	54.1	108	73-135	
1,2,3-Trichloropropane	ug/L	50	52.1	104	75-130	
1,2,4-Trichlorobenzene	ug/L	50	48.7	97	75-134	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

LABORATORY CONTROL SAMPLE: 2389678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	50	49.1	98	79-125	
1,2-Dibromo-3-chloropropane	ug/L	50	45.7	91	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	49.5	99	83-124	
1,2-Dichlorobenzene	ug/L	50	53.8	108	80-133	
1,2-Dichloroethane	ug/L	50	48.3	97	67-128	
1,2-Dichloroethene (Total)	ug/L		98.6			
1,2-Dichloropropane	ug/L	50	54.5	109	75-132	
1,3,5-Trimethylbenzene	ug/L	50	48.1	96	79-123	
1,3-Dichlorobenzene	ug/L	50	52.1	104	77-130	
1,3-Dichloropropane	ug/L	50	51.0	102	76-131	
1,4-Dichlorobenzene	ug/L	50	52.1	104	78-130	
2,2-Dichloropropane	ug/L	50	44.5	89	40-160	
2-Butanone (MEK)	ug/L	100	92.5	93	61-144	
2-Chlorotoluene	ug/L	50	49.1	98	74-132	
2-Hexanone	ug/L	100	96.9	97	68-143	
4-Chlorotoluene	ug/L	50	54.1	108	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	93.0	93	72-135	
Acetone	ug/L	100	93.1	93	48-146	
Benzene	ug/L	50	53.6	107	80-125	
Bromobenzene	ug/L	50	53.1	106	75-125	
Bromochloromethane	ug/L	50	47.7	95	71-125	
Bromodichloromethane	ug/L	50	51.2	102	78-124	
Bromoform	ug/L	50	41.3	83	71-128	
Bromomethane	ug/L	50	32.9	66	40-160	
Carbon tetrachloride	ug/L	50	46.8	94	69-131	
Chlorobenzene	ug/L	50	53.7	107	81-122	
Chloroethane	ug/L	50	38.5	77	39-148	
Chloroform	ug/L	50	45.2	90	73-127	
Chloromethane	ug/L	50	35.1	70	44-146	
cis-1,2-Dichloroethene	ug/L	50	50.7	101	74-124	
cis-1,3-Dichloropropene	ug/L	50	47.4	95	72-132	
Dibromochloromethane	ug/L	50	46.3	93	78-125	
Dibromomethane	ug/L	50	52.9	106	82-120	
Dichlorodifluoromethane	ug/L	50	34.6	69	34-157	
Diisopropyl ether	ug/L	50	44.8	90	69-135	
Ethylbenzene	ug/L	50	52.2	104	79-121	
Hexachloro-1,3-butadiene	ug/L	50	49.2	98	72-131	
Isopropylbenzene (Cumene)	ug/L	50	51.2	102	81-132	
m&p-Xylene	ug/L	100	110	110	81-124	
Methyl-tert-butyl ether	ug/L	50	49.3	99	74-131	
Methylene Chloride	ug/L	50	46.4	93	64-133	
n-Butylbenzene	ug/L	50	47.7	95	78-127	
n-Propylbenzene	ug/L	50	50.4	101	78-130	
Naphthalene	ug/L	50	47.9	96	73-133	
o-Xylene	ug/L	50	56.4	113	79-131	
p-Isopropyltoluene	ug/L	50	47.8	96	80-131	
sec-Butylbenzene	ug/L	50	50.1	100	80-133	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

LABORATORY CONTROL SAMPLE: 2389678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	50	48.8	98	84-126	
tert-Butyl Alcohol	ug/L	500	434	87	36-136	
tert-Butylbenzene	ug/L	50	48.5	97	77-133	
Tetrachloroethene	ug/L	50	51.2	102	78-122	
Toluene	ug/L	50	50.0	100	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.9	96	71-127	
trans-1,3-Dichloropropene	ug/L	50	47.3	95	69-141	
Trichloroethene	ug/L	50	49.8	100	78-122	
Trichlorofluoromethane	ug/L	50	37.2	74	53-137	
Vinyl acetate	ug/L	100	99.7	100	40-160	
Vinyl chloride	ug/L	50	44.2	88	58-137	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2389679 2389680

Parameter	Units	92400992001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	200	200	194	205	97	103	70-130	6	30	
1,1,1-Trichloroethane	ug/L	ND	200	200	210	222	105	111	70-130	5	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	200	200	203	209	101	105	70-130	3	30	
1,1,2-Trichloroethane	ug/L	ND	200	200	197	217	99	109	70-130	10	30	
1,1-Dichloroethane	ug/L	ND	200	200	208	225	104	113	70-130	8	30	
1,1-Dichloroethene	ug/L	ND	200	200	198	221	99	110	65-160	11	30	
1,1-Dichloropropene	ug/L	ND	200	200	212	223	106	112	70-130	5	30	
1,2,3-Trichlorobenzene	ug/L	ND	200	200	203	231	101	115	70-130	13	30	
1,2,3-Trichloropropane	ug/L	ND	200	200	213	211	107	105	70-130	1	30	
1,2,4-Trichlorobenzene	ug/L	ND	200	200	199	227	99	113	70-130	13	30	
1,2,4-Trimethylbenzene	ug/L	ND	200	200	206	225	103	113	70-130	9	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	200	200	185	196	92	98	70-130	6	30	
1,2-Dibromoethane (EDB)	ug/L	ND	200	200	196	208	98	104	60-139	6	30	
1,2-Dichlorobenzene	ug/L	ND	200	200	208	228	104	114	70-130	9	30	
1,2-Dichloroethane	ug/L	ND	200	200	193	211	97	105	70-130	9	30	
1,2-Dichloroethene (Total)	ug/L	ND			402	432				7	30	
1,2-Dichloropropane	ug/L	ND	200	200	213	239	107	119	70-130	11	30	
1,3,5-Trimethylbenzene	ug/L	ND	200	200	208	227	104	114	70-130	9	30	
1,3-Dichlorobenzene	ug/L	ND	200	200	204	224	102	112	70-130	9	30	
1,3-Dichloropropane	ug/L	ND	200	200	206	218	103	109	70-130	6	30	
1,4-Dichlorobenzene	ug/L	ND	200	200	204	224	102	112	70-130	9	30	
2,2-Dichloropropane	ug/L	ND	200	200	191	203	96	101	70-130	6	30	
2-Butanone (MEK)	ug/L	102	400	400	445	474	86	93	70-130	6	30	
2-Chlorotoluene	ug/L	ND	200	200	208	228	104	114	70-130	9	30	
2-Hexanone	ug/L	ND	400	400	409	437	102	109	70-130	6	30	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2389679 2389680

Parameter	Units	92400992001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Chlorotoluene	ug/L	ND	200	200	212	234	106	117	70-130	10	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	400	400	410	432	83	88	70-130	5	30	
Acetone	ug/L	982	400	400	860	911	-30	-18	70-130	6	30	M1
Benzene	ug/L	ND	200	200	215	237	108	118	58-162	10	30	
Bromobenzene	ug/L	ND	200	200	204	226	102	113	70-130	10	30	
Bromochloromethane	ug/L	ND	200	200	190	205	95	103	70-130	8	30	
Bromodichloromethane	ug/L	ND	200	200	197	217	98	109	70-130	10	30	
Bromoform	ug/L	ND	200	200	168	177	84	88	70-130	5	30	
Bromomethane	ug/L	ND	200	200	169	186	85	93	70-130	9	30	
Carbon tetrachloride	ug/L	ND	200	200	206	222	103	111	70-130	8	30	
Chlorobenzene	ug/L	ND	200	200	211	226	106	113	70-138	7	30	
Chloroethane	ug/L	ND	200	200	159	184	80	92	70-130	14	30	
Chloroform	ug/L	ND	200	200	195	208	97	104	70-130	6	30	
Chloromethane	ug/L	ND	200	200	154	168	77	84	70-130	8	30	
cis-1,2-Dichloroethene	ug/L	ND	200	200	203	217	102	108	70-130	7	30	
cis-1,3-Dichloropropene	ug/L	ND	200	200	191	206	95	103	70-130	8	30	
Dibromochloromethane	ug/L	ND	200	200	186	199	93	99	70-130	7	30	
Dibromomethane	ug/L	ND	200	200	206	226	103	113	70-130	9	30	
Dichlorodifluoromethane	ug/L	ND	200	200	146	156	73	78	70-130	7	30	
Diisopropyl ether	ug/L	ND	200	200	189	193	95	97	70-130	2	30	
Ethylbenzene	ug/L	ND	200	200	212	231	106	115	22-189	9	30	
Hexachloro-1,3-butadiene	ug/L	ND	200	200	215	239	107	119	70-130	11	30	
Isopropylbenzene (Cumene)	ug/L	ND	200	200	217	240	109	120	70-130	10	30	
m&p-Xylene	ug/L	ND	400	400	438	477	109	119	32-193	9	30	
Methyl-tert-butyl ether	ug/L	ND	200	200	189	208	95	104	37-169	9	30	
Methylene Chloride	ug/L	ND	200	200	211	220	106	110	70-130	4	30	
n-Butylbenzene	ug/L	ND	200	200	207	229	103	114	70-130	10	30	
n-Propylbenzene	ug/L	ND	200	200	213	234	107	117	70-130	9	30	
Naphthalene	ug/L	ND	200	200	191	209	96	104	19-212	9	30	
o-Xylene	ug/L	ND	200	200	217	238	109	119	70-135	9	30	
p-Isopropyltoluene	ug/L	ND	200	200	208	228	104	114	70-130	9	30	
sec-Butylbenzene	ug/L	ND	200	200	216	240	108	120	70-130	11	30	
Styrene	ug/L	ND	200	200	204	219	102	109	70-130	7	30	
tert-Butyl Alcohol	ug/L	ND	2000	2000	2310	2480	116	124	70-130	7	30	
tert-Butylbenzene	ug/L	ND	200	200	183	198	91	99	70-130	8	30	
Tetrachloroethene	ug/L	ND	200	200	207	224	103	112	70-130	8	30	
Toluene	ug/L	ND	200	200	232	248	100	108	65-152	7	30	
trans-1,2-Dichloroethene	ug/L	ND	200	200	199	215	99	108	70-130	8	30	
trans-1,3-Dichloropropene	ug/L	ND	200	200	193	205	96	102	70-130	6	30	
Trichloroethene	ug/L	ND	200	200	212	231	106	116	70-142	9	30	
Trichlorofluoromethane	ug/L	ND	200	200	179	190	89	95	70-130	6	30	
Vinyl acetate	ug/L	ND	400	400	423	450	106	112	70-130	6	30	
Vinyl chloride	ug/L	ND	200	200	182	200	91	100	70-130	9	30	
1,2-Dichloroethane-d4 (S)	%						92	92	70-130			
4-Bromofluorobenzene (S)	%						100	102	70-130			

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2389679 2389680

Parameter	Units	92400992001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						97	97	70-130			

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433423 | Analysis Method: EPA 8082A
QC Batch Method: EPA 3510C | Analysis Description: 8082 GCS PCB
Associated Lab Samples: 92401224035

METHOD BLANK: 2388086 | Matrix: Water
Associated Lab Samples: 92401224035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.50	0.50	10/01/18 14:46	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.50	0.50	10/01/18 14:46	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.50	0.50	10/01/18 14:46	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.50	0.50	10/01/18 14:46	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.50	0.50	10/01/18 14:46	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.50	0.50	10/01/18 14:46	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.50	0.50	10/01/18 14:46	
Decachlorobiphenyl (S)	%	96	10-132		10/01/18 14:46	

LABORATORY CONTROL SAMPLE & LCSD: 2388087 2388088

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	4.0	5.4	79	107	50-150	30	30	
PCB-1260 (Aroclor 1260)	ug/L	5	4.0	5.1	80	102	50-150	24	30	
Decachlorobiphenyl (S)	%				77	182	10-132			S0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433443 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 | Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 92401224001, 92401224002, 92401224003, 92401224004, 92401224005, 92401224006, 92401224007, 92401224008, 92401224009, 92401224010, 92401224011, 92401224012

METHOD BLANK: 2388169 | Matrix: Solid
Associated Lab Samples: 92401224001, 92401224002, 92401224003, 92401224004, 92401224005, 92401224006, 92401224007, 92401224008, 92401224009, 92401224010, 92401224011, 92401224012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10	1.2	10/02/18 10:57	
2-Methylnaphthalene	ug/kg	ND	10	1.1	10/02/18 10:57	
Acenaphthene	ug/kg	ND	10	1.5	10/02/18 10:57	
Acenaphthylene	ug/kg	ND	10	1.3	10/02/18 10:57	
Anthracene	ug/kg	ND	10	1.4	10/02/18 10:57	
Benzo(a)anthracene	ug/kg	ND	10	0.71	10/02/18 10:57	
Benzo(a)pyrene	ug/kg	ND	10	1.1	10/02/18 10:57	
Benzo(b)fluoranthene	ug/kg	ND	10	0.67	10/02/18 10:57	
Benzo(g,h,i)perylene	ug/kg	ND	10	2.6	10/02/18 10:57	
Benzo(k)fluoranthene	ug/kg	ND	10	1.5	10/02/18 10:57	
Chrysene	ug/kg	ND	10	1.8	10/02/18 10:57	
Dibenz(a,h)anthracene	ug/kg	ND	10	1.8	10/02/18 10:57	
Fluoranthene	ug/kg	ND	10	0.83	10/02/18 10:57	
Fluorene	ug/kg	ND	10	1.6	10/02/18 10:57	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10	2.8	10/02/18 10:57	
Naphthalene	ug/kg	ND	10	2.3	10/02/18 10:57	
Phenanthrene	ug/kg	ND	10	1.5	10/02/18 10:57	
Pyrene	ug/kg	ND	10	1.8	10/02/18 10:57	
2-Fluorobiphenyl (S)	%	88	10-110		10/02/18 10:57	
Nitrobenzene-d5 (S)	%	98	10-128		10/02/18 10:57	
Terphenyl-d14 (S)	%	101	39-119		10/02/18 10:57	

LABORATORY CONTROL SAMPLE: 2388171

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	33.8	30.1	89	44-130	
2-Methylnaphthalene	ug/kg	33.8	31.1	92	41-134	
Acenaphthene	ug/kg	33.8	31.8	94	52-123	
Acenaphthylene	ug/kg	33.8	30.6	90	49-116	
Anthracene	ug/kg	33.8	31.8	94	41-133	
Benzo(a)anthracene	ug/kg	33.8	31.9	94	56-130	
Benzo(a)pyrene	ug/kg	33.8	31.0	92	51-136	
Benzo(b)fluoranthene	ug/kg	33.8	34.6	102	37-149	
Benzo(g,h,i)perylene	ug/kg	33.8	29.3	87	39-127	
Benzo(k)fluoranthene	ug/kg	33.8	31.9	94	45-139	
Chrysene	ug/kg	33.8	32.4	96	59-127	
Dibenz(a,h)anthracene	ug/kg	33.8	32.9	97	37-139	
Fluoranthene	ug/kg	33.8	32.3	96	53-132	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

LABORATORY CONTROL SAMPLE: 2388171

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	ug/kg	33.8	32.1	95	45-127	
Indeno(1,2,3-cd)pyrene	ug/kg	33.8	33.6	99	35-145	
Naphthalene	ug/kg	33.8	29.5	87	45-123	
Phenanthrene	ug/kg	33.8	31.6	93	50-125	
Pyrene	ug/kg	33.8	32.2	95	52-132	
2-Fluorobiphenyl (S)	%			93	10-110	
Nitrobenzene-d5 (S)	%			99	10-128	
Terphenyl-d14 (S)	%			99	39-119	

MATRIX SPIKE SAMPLE: 2388172

Parameter	Units	92401224001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	2.0J	40.6	33.5	78	50-150	
2-Methylnaphthalene	ug/kg	3.1J	40.6	37.2	84	50-150	
Acenaphthene	ug/kg	ND	40.6	30.8	74	50-150	
Acenaphthylene	ug/kg	ND	40.6	27.7	67	50-150	
Anthracene	ug/kg	2.5J	40.6	33.6	77	50-150	
Benzo(a)anthracene	ug/kg	32.8	40.6	80.4	117	50-150	
Benzo(a)pyrene	ug/kg	50.1	40.6	83.3	82	50-150	
Benzo(b)fluoranthene	ug/kg	94.8	40.6	127	79	50-150	
Benzo(g,h,i)perylene	ug/kg	59.4	40.6	76.5	42	50-150	M1
Benzo(k)fluoranthene	ug/kg	31.9	40.6	59.2	67	50-150	
Chrysene	ug/kg	37.5	40.6	82.2	110	50-150	
Dibenz(a,h)anthracene	ug/kg	4.7J	40.6	39.3	85	50-150	
Fluoranthene	ug/kg	38.2	40.6	101	154	50-150	M1
Fluorene	ug/kg	ND	40.6	30.5	74	50-150	
Indeno(1,2,3-cd)pyrene	ug/kg	52.6	40.6	74.3	53	50-150	
Naphthalene	ug/kg	2.8J	40.6	36.8	84	50-150	
Phenanthrene	ug/kg	12.7	40.6	55.3	105	50-150	
Pyrene	ug/kg	35.5	40.6	89.3	132	50-150	
2-Fluorobiphenyl (S)	%				72	10-110	
Nitrobenzene-d5 (S)	%				78	10-128	
Terphenyl-d14 (S)	%				74	39-119	

SAMPLE DUPLICATE: 2388173

Parameter	Units	92401224002 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/kg	ND	ND		30	
2-Methylnaphthalene	ug/kg	ND	ND		30	
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	ND	ND		30	
Anthracene	ug/kg	ND	ND		30	
Benzo(a)anthracene	ug/kg	ND	ND		30	
Benzo(a)pyrene	ug/kg	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

SAMPLE DUPLICATE: 2388173

Parameter	Units	92401224002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzo(b)fluoranthene	ug/kg	ND	ND		30	
Benzo(g,h,i)perylene	ug/kg	ND	ND		30	
Benzo(k)fluoranthene	ug/kg	ND	ND		30	
Chrysene	ug/kg	ND	ND		30	
Dibenz(a,h)anthracene	ug/kg	ND	ND		30	
Fluoranthene	ug/kg	ND	ND		30	
Fluorene	ug/kg	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
Phenanthrene	ug/kg	ND	ND		30	
Pyrene	ug/kg	ND	ND		30	
2-Fluorobiphenyl (S)	%	77	70	9		
Nitrobenzene-d5 (S)	%	84	77	9		
Terphenyl-d14 (S)	%	84	80	5		

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433445 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 | Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 92401224013, 92401224014, 92401224015, 92401224016, 92401224017, 92401224018, 92401224019, 92401224020, 92401224021, 92401224022, 92401224023, 92401224024, 92401224025, 92401224026, 92401224027, 92401224028, 92401224029, 92401224030, 92401224031, 92401224032

METHOD BLANK: 2388178 | Matrix: Solid
Associated Lab Samples: 92401224013, 92401224014, 92401224015, 92401224016, 92401224017, 92401224018, 92401224019, 92401224020, 92401224021, 92401224022, 92401224023, 92401224024, 92401224025, 92401224026, 92401224027, 92401224028, 92401224029, 92401224030, 92401224031, 92401224032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10.0	1.2	10/01/18 14:52	
2-Methylnaphthalene	ug/kg	ND	10.0	1.1	10/01/18 14:52	
Acenaphthene	ug/kg	ND	10.0	1.5	10/01/18 14:52	
Acenaphthylene	ug/kg	ND	10.0	1.3	10/01/18 14:52	
Anthracene	ug/kg	ND	10.0	1.4	10/01/18 14:52	
Benzo(a)anthracene	ug/kg	ND	10.0	0.71	10/01/18 14:52	
Benzo(a)pyrene	ug/kg	ND	10.0	1.1	10/01/18 14:52	
Benzo(b)fluoranthene	ug/kg	ND	10.0	0.67	10/01/18 14:52	
Benzo(g,h,i)perylene	ug/kg	ND	10.0	2.6	10/01/18 14:52	
Benzo(k)fluoranthene	ug/kg	ND	10.0	1.5	10/01/18 14:52	
Chrysene	ug/kg	ND	10.0	1.8	10/01/18 14:52	
Dibenz(a,h)anthracene	ug/kg	ND	10.0	1.8	10/01/18 14:52	
Fluoranthene	ug/kg	ND	10.0	0.83	10/01/18 14:52	
Fluorene	ug/kg	ND	10.0	1.6	10/01/18 14:52	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.0	2.8	10/01/18 14:52	
Naphthalene	ug/kg	ND	10.0	2.3	10/01/18 14:52	
Phenanthrene	ug/kg	ND	10.0	1.5	10/01/18 14:52	
Pyrene	ug/kg	ND	10.0	1.8	10/01/18 14:52	
2-Fluorobiphenyl (S)	%	78	10-110		10/01/18 14:52	
Nitrobenzene-d5 (S)	%	83	10-128		10/01/18 14:52	
Terphenyl-d14 (S)	%	83	39-119		10/01/18 14:52	

LABORATORY CONTROL SAMPLE: 2388179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	33.6	19.5	58	44-130	
2-Methylnaphthalene	ug/kg	33.6	20.1	60	41-134	
Acenaphthene	ug/kg	33.6	20.7	62	52-123	
Acenaphthylene	ug/kg	33.6	19.0	57	49-116	
Anthracene	ug/kg	33.6	20.7	62	41-133	
Benzo(a)anthracene	ug/kg	33.6	20.8	62	56-130	
Benzo(a)pyrene	ug/kg	33.6	20.5	61	51-136	
Benzo(b)fluoranthene	ug/kg	33.6	22.4	67	37-149	
Benzo(g,h,i)perylene	ug/kg	33.6	19.0	57	39-127	
Benzo(k)fluoranthene	ug/kg	33.6	19.9	59	45-139	
Chrysene	ug/kg	33.6	21.1	63	59-127	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

LABORATORY CONTROL SAMPLE: 2388179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibenz(a,h)anthracene	ug/kg	33.6	21.0	63	37-139	
Fluoranthene	ug/kg	33.6	20.9	62	53-132	
Fluorene	ug/kg	33.6	20.2	60	45-127	
Indeno(1,2,3-cd)pyrene	ug/kg	33.6	21.6	64	35-145	
Naphthalene	ug/kg	33.6	19.3	58	45-123	
Phenanthrene	ug/kg	33.6	20.8	62	50-125	
Pyrene	ug/kg	33.6	21.0	63	52-132	
2-Fluorobiphenyl (S)	%			58	10-110	
Nitrobenzene-d5 (S)	%			61	10-128	
Terphenyl-d14 (S)	%			60	39-119	

MATRIX SPIKE SAMPLE: 2388180

Parameter	Units	92401224013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	12.0J	41.7	28.4	39	50-150	M1
2-Methylnaphthalene	ug/kg	17.6	41.7	30.1	30	50-150	M1
Acenaphthene	ug/kg	ND	41.7	27.9	65	50-150	
Acenaphthylene	ug/kg	ND	41.7	25.7	62	50-150	
Anthracene	ug/kg	2.4J	41.7	27.6	60	50-150	
Benzo(a)anthracene	ug/kg	14.1	41.7	25.8	28	50-150	M1
Benzo(a)pyrene	ug/kg	14.2	41.7	23.5	22	50-150	M1
Benzo(b)fluoranthene	ug/kg	24.6	41.7	28.8	10	50-150	M1
Benzo(g,h,i)perylene	ug/kg	12.5J	41.7	20.5	19	50-150	M1
Benzo(k)fluoranthene	ug/kg	9.3J	41.7	22.8	32	50-150	M1
Chrysene	ug/kg	15.0	41.7	27.1	29	50-150	M1
Dibenz(a,h)anthracene	ug/kg	3.8J	41.7	20.7	41	50-150	M1
Fluoranthene	ug/kg	22.7	41.7	31.4	21	50-150	M1
Fluorene	ug/kg	ND	41.7	27.4	64	50-150	
Indeno(1,2,3-cd)pyrene	ug/kg	10.5J	41.7	22.4	29	50-150	M1
Naphthalene	ug/kg	14.5	41.7	28.5	34	50-150	M1
Phenanthrene	ug/kg	16.8	41.7	30.2	32	50-150	M1
Pyrene	ug/kg	19.4	41.7	30.5	27	50-150	M1
2-Fluorobiphenyl (S)	%				62	10-110	
Nitrobenzene-d5 (S)	%				70	10-128	
Terphenyl-d14 (S)	%				51	39-119	

SAMPLE DUPLICATE: 2388181

Parameter	Units	92401224014 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/kg	ND	ND		30	
2-Methylnaphthalene	ug/kg	ND	ND		30	
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	ND	ND		30	
Anthracene	ug/kg	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

SAMPLE DUPLICATE: 2388181

Parameter	Units	92401224014 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzo(a)anthracene	ug/kg	ND	ND		30	
Benzo(a)pyrene	ug/kg	ND	ND		30	
Benzo(b)fluoranthene	ug/kg	ND	2.2J		30	
Benzo(g,h,i)perylene	ug/kg	ND	ND		30	
Benzo(k)fluoranthene	ug/kg	ND	ND		30	
Chrysene	ug/kg	ND	ND		30	
Dibenz(a,h)anthracene	ug/kg	ND	ND		30	
Fluoranthene	ug/kg	ND	ND		30	
Fluorene	ug/kg	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
Phenanthrene	ug/kg	ND	ND		30	
Pyrene	ug/kg	ND	ND		30	
2-Fluorobiphenyl (S)	%	47	58	21		
Nitrobenzene-d5 (S)	%	47	61	25		
Terphenyl-d14 (S)	%	48	62	25		

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433447 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 | Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 92401224033, 92401224034

METHOD BLANK: 2388190 | Matrix: Solid
Associated Lab Samples: 92401224033, 92401224034

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	9.8	1.2	10/02/18 10:36	
2-Methylnaphthalene	ug/kg	ND	9.8	1.1	10/02/18 10:36	
Acenaphthene	ug/kg	ND	9.8	1.5	10/02/18 10:36	
Acenaphthylene	ug/kg	ND	9.8	1.3	10/02/18 10:36	
Anthracene	ug/kg	ND	9.8	1.4	10/02/18 10:36	
Benzo(a)anthracene	ug/kg	ND	9.8	0.70	10/02/18 10:36	
Benzo(a)pyrene	ug/kg	ND	9.8	1.1	10/02/18 10:36	
Benzo(b)fluoranthene	ug/kg	ND	9.8	0.66	10/02/18 10:36	
Benzo(g,h,i)perylene	ug/kg	ND	9.8	2.6	10/02/18 10:36	
Benzo(k)fluoranthene	ug/kg	ND	9.8	1.5	10/02/18 10:36	
Chrysene	ug/kg	ND	9.8	1.8	10/02/18 10:36	
Dibenz(a,h)anthracene	ug/kg	ND	9.8	1.8	10/02/18 10:36	
Fluoranthene	ug/kg	ND	9.8	0.82	10/02/18 10:36	
Fluorene	ug/kg	ND	9.8	1.6	10/02/18 10:36	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	9.8	2.8	10/02/18 10:36	
Naphthalene	ug/kg	ND	9.8	2.3	10/02/18 10:36	
Phenanthrene	ug/kg	ND	9.8	1.5	10/02/18 10:36	
Pyrene	ug/kg	ND	9.8	1.8	10/02/18 10:36	
2-Fluorobiphenyl (S)	%	72	10-110		10/02/18 10:36	
Nitrobenzene-d5 (S)	%	79	10-128		10/02/18 10:36	
Terphenyl-d14 (S)	%	86	39-119		10/02/18 10:36	

LABORATORY CONTROL SAMPLE & LCSD: 2388191 2388192

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/kg	33.1	25.8	27.4	78	82	44-130	6	30	
2-Methylnaphthalene	ug/kg	33.1	27.0	28.7	82	85	41-134	6	30	
Acenaphthene	ug/kg	33.1	27.3	29.5	82	88	52-123	8	30	
Acenaphthylene	ug/kg	33.1	26.6	28.6	80	85	49-116	7	30	
Anthracene	ug/kg	33.1	27.8	29.4	84	87	41-133	5	30	
Benzo(a)anthracene	ug/kg	33.1	28.3	29.2	85	87	56-130	3	30	
Benzo(a)pyrene	ug/kg	33.1	27.8	28.9	84	86	51-136	4	30	
Benzo(b)fluoranthene	ug/kg	33.1	31.4	31.6	95	94	37-149	1	30	
Benzo(g,h,i)perylene	ug/kg	33.1	25.4	26.3	77	78	39-127	3	30	
Benzo(k)fluoranthene	ug/kg	33.1	28.7	29.7	87	88	45-139	4	30	
Chrysene	ug/kg	33.1	28.8	29.7	87	88	59-127	3	30	
Dibenz(a,h)anthracene	ug/kg	33.1	28.6	29.2	86	87	37-139	2	30	
Fluoranthene	ug/kg	33.1	28.8	29.8	87	89	53-132	3	30	
Fluorene	ug/kg	33.1	27.8	29.1	84	86	45-127	5	30	
Indeno(1,2,3-cd)pyrene	ug/kg	33.1	29.3	30.0	89	89	35-145	2	30	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

LABORATORY CONTROL SAMPLE & LCSD: 2388191 2388192

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Naphthalene	ug/kg	33.1	25.3	27.2	76	81	45-123	7	30	
Phenanthrene	ug/kg	33.1	27.3	28.9	82	86	50-125	6	30	
Pyrene	ug/kg	33.1	28.5	30.1	86	89	52-132	5	30	
2-Fluorobiphenyl (S)	%				77	82	10-110			
Nitrobenzene-d5 (S)	%				85	90	10-128			
Terphenyl-d14 (S)	%				85	91	39-119			

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433661
QC Batch Method: EPA 3511
Analysis Method: EPA 8270D by SIM
Analysis Description: 8270 3511 Low Volume PAH SIM
Associated Lab Samples: 92401224035

METHOD BLANK: 2389133
Matrix: Water
Associated Lab Samples: 92401224035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	ND	0.80	0.80	10/03/18 12:37	
2-Methylnaphthalene	ug/L	ND	0.80	0.80	10/03/18 12:37	
Acenaphthene	ug/L	ND	0.50	0.50	10/03/18 12:37	
Acenaphthylene	ug/L	ND	0.50	0.50	10/03/18 12:37	
Anthracene	ug/L	ND	0.050	0.050	10/03/18 12:37	
Benzo(a)anthracene	ug/L	ND	0.050	0.050	10/03/18 12:37	
Benzo(a)pyrene	ug/L	ND	0.10	0.10	10/03/18 12:37	
Benzo(b)fluoranthene	ug/L	ND	0.050	0.050	10/03/18 12:37	
Benzo(g,h,i)perylene	ug/L	ND	0.20	0.20	10/03/18 12:37	
Benzo(k)fluoranthene	ug/L	ND	0.20	0.20	10/03/18 12:37	
Chrysene	ug/L	ND	0.10	0.10	10/03/18 12:37	
Dibenz(a,h)anthracene	ug/L	ND	0.15	0.15	10/03/18 12:37	
Fluoranthene	ug/L	ND	0.30	0.30	10/03/18 12:37	
Fluorene	ug/L	ND	0.31	0.31	10/03/18 12:37	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.050	0.050	10/03/18 12:37	
Naphthalene	ug/L	ND	1.5	1.5	10/03/18 12:37	
Phenanthrene	ug/L	ND	0.20	0.20	10/03/18 12:37	
Pyrene	ug/L	ND	0.10	0.10	10/03/18 12:37	
2-Fluorobiphenyl (S)	%	132	70-130		10/03/18 12:37	S3
Nitrobenzene-d5 (S)	%	135	70-130		10/03/18 12:37	S3
Terphenyl-d14 (S)	%	124	70-130		10/03/18 12:37	

LABORATORY CONTROL SAMPLE: 2389134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	2.5	3.1	124	70-130	
2-Methylnaphthalene	ug/L	2.5	3.2	127	70-130	
Acenaphthene	ug/L	2.5	3.5	142	70-130	L1
Acenaphthylene	ug/L	2.5	3.5	141	70-130	L1
Anthracene	ug/L	2.5	3.9	157	70-130	L1
Benzo(a)anthracene	ug/L	2.5	3.8	151	70-130	L1
Benzo(a)pyrene	ug/L	2.5	3.7	149	70-130	L1
Benzo(b)fluoranthene	ug/L	2.5	4.1	165	70-130	L1
Benzo(g,h,i)perylene	ug/L	2.5	3.3	134	70-130	L1
Benzo(k)fluoranthene	ug/L	2.5	4.0	160	70-130	L1
Chrysene	ug/L	2.5	3.9	156	70-130	L1
Dibenz(a,h)anthracene	ug/L	2.5	3.7	147	70-130	L1
Fluoranthene	ug/L	2.5	4.0	159	70-130	L1
Fluorene	ug/L	2.5	3.5	140	70-130	L1
Indeno(1,2,3-cd)pyrene	ug/L	2.5	3.9	154	70-130	L1

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

LABORATORY CONTROL SAMPLE: 2389134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	2.5	3.3	130	70-130	
Phenanthrene	ug/L	2.5	3.9	156	70-130	L1
Pyrene	ug/L	2.5	3.9	156	70-130	L1
2-Fluorobiphenyl (S)	%			128	70-130	
Nitrobenzene-d5 (S)	%			136	70-130	S0
Terphenyl-d14 (S)	%			118	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2389135 2389136

Parameter	Units	92400858001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/L	ND	2.5	2.5	ND	1.3	-1	53	70-130		30	M1
2-Methylnaphthalene	ug/L	ND	2.5	2.5	ND	1.4	-1	53	70-130		30	M1
Acenaphthene	ug/L	ND	2.5	2.5	ND	1.6	0	63	70-130		30	M0
Acenaphthylene	ug/L	ND	2.5	2.5	ND	1.5	0	61	70-130		30	M0
Anthracene	ug/L	0.086	2.5	2.5	ND	1.7	-7	62	70-130		30	M0
Benzo(a)anthracene	ug/L	ND	2.5	2.5	ND	1.6	0	62	70-130		30	M0
Benzo(a)pyrene	ug/L	ND	2.5	2.5	ND	1.7	0	67	70-130		30	M0
Benzo(b)fluoranthene	ug/L	ND	2.5	2.5	ND	1.8	0	71	70-130		30	M0
Benzo(g,h,i)perylene	ug/L	ND	2.5	2.5	ND	1.3	0	52	70-130		30	M0
Benzo(k)fluoranthene	ug/L	ND	2.5	2.5	ND	2.0	0	80	70-130		30	M0
Chrysene	ug/L	ND	2.5	2.5	ND	1.8	0	72	70-130		30	M0
Dibenz(a,h)anthracene	ug/L	ND	2.5	2.5	ND	1.2	0	50	70-130		30	M0
Fluoranthene	ug/L	ND	2.5	2.5	ND	1.6	0	64	70-130		30	M0
Fluorene	ug/L	ND	2.5	2.5	ND	1.6	0	62	70-130		30	M0
Indeno(1,2,3-cd)pyrene	ug/L	ND	2.5	2.5	ND	1.4	0	55	70-130		30	M0
Naphthalene	ug/L	ND	2.5	2.5	ND	ND	-8	50	70-130		30	M1
Phenanthrene	ug/L	ND	2.5	2.5	ND	1.7	0	67	70-130		30	M0
Pyrene	ug/L	ND	2.5	2.5	ND	1.5	-1	61	70-130		30	M0
2-Fluorobiphenyl (S)	%						0	53	70-130			S0
Nitrobenzene-d5 (S)	%						0	70	70-130			S0
Terphenyl-d14 (S)	%						0	47	70-130			S0

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433173 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92401224002, 92401224003, 92401224004, 92401224005, 92401224006, 92401224007, 92401224008, 92401224009, 92401224010, 92401224011, 92401224012, 92401224013, 92401224014, 92401224015, 92401224016, 92401224017, 92401224018

SAMPLE DUPLICATE: 2387221

Parameter	Units	92401023029 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.6	19.5	43	25	D6

SAMPLE DUPLICATE: 2387222

Parameter	Units	92401224018 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.5	15.1	3	25	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433175 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92401224019, 92401224020, 92401224021, 92401224022, 92401224023, 92401224024, 92401224025, 92401224026, 92401224027, 92401224028, 92401224029, 92401224030, 92401224031, 92401224032, 92401224033, 92401224034

SAMPLE DUPLICATE: 2387265

Parameter	Units	92400988001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.0	6.4	9	25	

SAMPLE DUPLICATE: 2387266

Parameter	Units	92401224034 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.2	16.7	8	25	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433178
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92401224001

SAMPLE DUPLICATE: 2387274

Parameter	Units	92401183013 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.7	17.2	8	25	

SAMPLE DUPLICATE: 2387275

Parameter	Units	92400899002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.6	13.8	5	25	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 483046 | Analysis Method: EPA 9012
QC Batch Method: EPA 9012 | Analysis Description: 9012 Cyanide
Associated Lab Samples: 92401224001, 92401224002, 92401224003, 92401224004, 92401224005, 92401224006, 92401224007, 92401224008, 92401224009, 92401224010, 92401224011, 92401224012, 92401224013, 92401224014, 92401224015, 92401224016

METHOD BLANK: 2613729 | Matrix: Solid
Associated Lab Samples: 92401224001, 92401224002, 92401224003, 92401224004, 92401224005, 92401224006, 92401224007, 92401224008, 92401224009, 92401224010, 92401224011, 92401224012, 92401224013, 92401224014, 92401224015, 92401224016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.24	0.14	10/05/18 15:43	

LABORATORY CONTROL SAMPLE: 2613730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	1.2	1.3	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2613731 2613732

Parameter	Units	92401224001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	ND	.754	.754	0.96	0.72	110	78	80-120	28	20	M1,R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2613733 2613734

Parameter	Units	92401224012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	ND	.815	.803	0.95	0.88	117	110	80-120	7	20	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 483047 | Analysis Method: EPA 9012
QC Batch Method: EPA 9012 | Analysis Description: 9012 Cyanide
Associated Lab Samples: 92401224017, 92401224018, 92401224019, 92401224020, 92401224021, 92401224022, 92401224023, 92401224024, 92401224025, 92401224026, 92401224027, 92401224028, 92401224029, 92401224030, 92401224031, 92401224032

METHOD BLANK: 2613735 | Matrix: Solid
Associated Lab Samples: 92401224017, 92401224018, 92401224019, 92401224020, 92401224021, 92401224022, 92401224023, 92401224024, 92401224025, 92401224026, 92401224027, 92401224028, 92401224029, 92401224030, 92401224031, 92401224032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.25	0.14	10/05/18 16:12	

LABORATORY CONTROL SAMPLE: 2613736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	1.2	1.3	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2613737 2613738

Parameter	Units	92401224017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	ND	.756	.756	0.98	0.91	119	109	80-120	8	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2613739 2613740

Parameter	Units	92401224028 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	ND	.89	.89	0.88	0.93	96	102	80-120	6	20	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 483049 | Analysis Method: EPA 9012
QC Batch Method: EPA 9012 | Analysis Description: 9012 Cyanide
Associated Lab Samples: 92401224033, 92401224034

METHOD BLANK: 2613741 | Matrix: Solid
Associated Lab Samples: 92401224033, 92401224034

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.25	0.14	10/05/18 16:38	

LABORATORY CONTROL SAMPLE: 2613742

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	1.2	1.2	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2613743 2613744

Parameter	Units	92401224033 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	ND	.787	.787	0.91	0.88	116	111	80-120	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433737
QC Batch Method: EPA 9012B
Analysis Method: EPA 9012B
Analysis Description: EPA 9012B Cyanide
Associated Lab Samples: 92401224035

METHOD BLANK: 2389445
Matrix: Water
Associated Lab Samples: 92401224035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0080	0.0040	10/03/18 01:49	

LABORATORY CONTROL SAMPLE: 2389446

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2389447 2389448

Parameter	Units	92401224035 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	ND	.1	.1	0.094	0.085	94	85	75-125	9	20	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 482157 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Associated Lab Samples: 92401224001, 92401224002, 92401224003, 92401224004, 92401224005, 92401224006, 92401224007, 92401224008, 92401224009, 92401224010, 92401224011, 92401224012, 92401224013, 92401224014, 92401224015, 92401224016, 92401224017, 92401224018, 92401224019, 92401224020

METHOD BLANK: 2609514 | Matrix: Solid
Associated Lab Samples: 92401224001, 92401224002, 92401224003, 92401224004, 92401224005, 92401224006, 92401224007, 92401224008, 92401224009, 92401224010, 92401224011, 92401224012, 92401224013, 92401224014, 92401224015, 92401224016, 92401224017, 92401224018, 92401224019, 92401224020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/kg	ND	5.0	2.5	10/03/18 12:57	

LABORATORY CONTROL SAMPLE: 2609515

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	49.9	52.3	105	80-120	

MATRIX SPIKE SAMPLE: 2609517

Parameter	Units	92401224001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	218	59.6	221	5	80-120	M6

MATRIX SPIKE SAMPLE: 2609519

Parameter	Units	92401224011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	47.2	58.5	60.6	23	80-120	M1

SAMPLE DUPLICATE: 2609516

Parameter	Units	92401224001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/kg	218	223	2	20	

SAMPLE DUPLICATE: 2609518

Parameter	Units	92401224011 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/kg	47.2	59.1	22	20	D6

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 482158 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Associated Lab Samples: 92401224021, 92401224022, 92401224023, 92401224024, 92401224025, 92401224026, 92401224027, 92401224028, 92401224029, 92401224030, 92401224031, 92401224032, 92401224033, 92401224034

METHOD BLANK: 2609520 | Matrix: Solid
Associated Lab Samples: 92401224021, 92401224022, 92401224023, 92401224024, 92401224025, 92401224026, 92401224027, 92401224028, 92401224029, 92401224030, 92401224031, 92401224032, 92401224033, 92401224034

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/kg	ND	5.0	2.5	10/03/18 23:57	

LABORATORY CONTROL SAMPLE: 2609521

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	50	52.1	104	80-120	

MATRIX SPIKE SAMPLE: 2609523

Parameter	Units	92401224021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	92.3	60.2	103	17	80-120	M1

MATRIX SPIKE SAMPLE: 2609525

Parameter	Units	92401224031 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	39.0	58	81.7	74	80-120	M1

SAMPLE DUPLICATE: 2609522

Parameter	Units	92401224021 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/kg	92.3	105	13	20	

SAMPLE DUPLICATE: 2609524

Parameter	Units	92401224031 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/kg	39.0	40.0	3	20	

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QUALITY CONTROL DATA

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

QC Batch: 433307 | Analysis Method: EPA 9056A
QC Batch Method: EPA 9056A | Analysis Description: 9056 IC anions 28 Days
Associated Lab Samples: 92401224035

METHOD BLANK: 2387661 | Matrix: Water
Associated Lab Samples: 92401224035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	09/29/18 05:51	

LABORATORY CONTROL SAMPLE: 2387662

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2387663 2387664

Parameter	Units	92400889001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	2.8	2.5	2.5	4.8	4.6	82	74	90-110	4	10	M1

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QUALIFIERS

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92401224035	**ESW-EB001**	EPA 3510C	433423	EPA 8082A	433611
92401224001	**PBC-SB001 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224002	**PBC-SB001 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224003	**PBC-SB002 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224004	**PBC-SB002 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224005	**PBC-SB003 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224006	**PBC-SB003 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224007	**PBC-SB004 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224008	**PBC-SB004 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224009	**PBC-SB005 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224010	**PBC-SB005 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224011	**PBC-SB006 (0'-1')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224012	**PBC-SB006 (4'-5')**	EPA 3546	433443	EPA 8270D by SIM	433807
92401224013	**PBC-SB007 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224014	**PBC-SB007 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224015	**PBC-SB008 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224016	**PBC-SB008 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224017	**PBC-SB009 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224018	**PBC-SB009 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224019	**PBC-SB010 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224020	**PBC-SB010 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224021	**PBC-SB011 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224022	**PBC-SB011 (2'-3')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224023	**PBC-SB012 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224024	**PBC-SB012 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224025	**PBC-SB013 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224026	**PBC-SB013 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224027	**PBC-SB014 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224028	**PBC-SB014 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224029	**PBC-SB015 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224030	**PBC-SB015 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224031	**PBC-SB016 (0'-1')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224032	**PBC-SB016 (4'-5')**	EPA 3546	433445	EPA 8270D by SIM	433674
92401224033	**PBC-SB017 (0'-1')**	EPA 3546	433447	EPA 8270D by SIM	433679
92401224034	**PBC-SB017 (4'-5')**	EPA 3546	433447	EPA 8270D by SIM	433679
92401224035	**ESW-EB001**	EPA 3511	433661	EPA 8270D by SIM	434049
92401224035	**ESW-EB001**	EPA 8260B	433825		
92401224001	**PBC-SB001 (0'-1')**	ASTM D2974-87	433178		
92401224002	**PBC-SB001 (4'-5')**	ASTM D2974-87	433173		
92401224003	**PBC-SB002 (0'-1')**	ASTM D2974-87	433173		
92401224004	**PBC-SB002 (4'-5')**	ASTM D2974-87	433173		
92401224005	**PBC-SB003 (0'-1')**	ASTM D2974-87	433173		
92401224006	**PBC-SB003 (4'-5')**	ASTM D2974-87	433173		
92401224007	**PBC-SB004 (0'-1')**	ASTM D2974-87	433173		
92401224008	**PBC-SB004 (4'-5')**	ASTM D2974-87	433173		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92401224009	**PBC-SB005 (0'-1')**	ASTM D2974-87	433173		
92401224010	**PBC-SB005 (4'-5')**	ASTM D2974-87	433173		
92401224011	**PBC-SB006 (0'-1')**	ASTM D2974-87	433173		
92401224012	**PBC-SB006 (4'-5')**	ASTM D2974-87	433173		
92401224013	**PBC-SB007 (0'-1')**	ASTM D2974-87	433173		
92401224014	**PBC-SB007 (4'-5')**	ASTM D2974-87	433173		
92401224015	**PBC-SB008 (0'-1')**	ASTM D2974-87	433173		
92401224016	**PBC-SB008 (4'-5')**	ASTM D2974-87	433173		
92401224017	**PBC-SB009 (0'-1')**	ASTM D2974-87	433173		
92401224018	**PBC-SB009 (4'-5')**	ASTM D2974-87	433173		
92401224019	**PBC-SB010 (0'-1')**	ASTM D2974-87	433175		
92401224020	**PBC-SB010 (4'-5')**	ASTM D2974-87	433175		
92401224021	**PBC-SB011 (0'-1')**	ASTM D2974-87	433175		
92401224022	**PBC-SB011 (2'-3')**	ASTM D2974-87	433175		
92401224023	**PBC-SB012 (0'-1')**	ASTM D2974-87	433175		
92401224024	**PBC-SB012 (4'-5')**	ASTM D2974-87	433175		
92401224025	**PBC-SB013 (0'-1')**	ASTM D2974-87	433175		
92401224026	**PBC-SB013 (4'-5')**	ASTM D2974-87	433175		
92401224027	**PBC-SB014 (0'-1')**	ASTM D2974-87	433175		
92401224028	**PBC-SB014 (4'-5')**	ASTM D2974-87	433175		
92401224029	**PBC-SB015 (0'-1')**	ASTM D2974-87	433175		
92401224030	**PBC-SB015 (4'-5')**	ASTM D2974-87	433175		
92401224031	**PBC-SB016 (0'-1')**	ASTM D2974-87	433175		
92401224032	**PBC-SB016 (4'-5')**	ASTM D2974-87	433175		
92401224033	**PBC-SB017 (0'-1')**	ASTM D2974-87	433175		
92401224034	**PBC-SB017 (4'-5')**	ASTM D2974-87	433175		
92401224001	**PBC-SB001 (0'-1')**	EPA 9012	483046	EPA 9012	483132
92401224002	**PBC-SB001 (4'-5')**	EPA 9012	483046	EPA 9012	483132
92401224003	**PBC-SB002 (0'-1')**	EPA 9012	483046	EPA 9012	483132
92401224004	**PBC-SB002 (4'-5')**	EPA 9012	483046	EPA 9012	483132
92401224005	**PBC-SB003 (0'-1')**	EPA 9012	483046	EPA 9012	483132
92401224006	**PBC-SB003 (4'-5')**	EPA 9012	483046	EPA 9012	483132
92401224007	**PBC-SB004 (0'-1')**	EPA 9012	483046	EPA 9012	483132
92401224008	**PBC-SB004 (4'-5')**	EPA 9012	483046	EPA 9012	483132
92401224009	**PBC-SB005 (0'-1')**	EPA 9012	483046	EPA 9012	483132
92401224010	**PBC-SB005 (4'-5')**	EPA 9012	483046	EPA 9012	483132
92401224011	**PBC-SB006 (0'-1')**	EPA 9012	483046	EPA 9012	483132
92401224012	**PBC-SB006 (4'-5')**	EPA 9012	483046	EPA 9012	483132
92401224013	**PBC-SB007 (0'-1')**	EPA 9012	483046	EPA 9012	483132
92401224014	**PBC-SB007 (4'-5')**	EPA 9012	483046	EPA 9012	483132
92401224015	**PBC-SB008 (0'-1')**	EPA 9012	483046	EPA 9012	483132
92401224016	**PBC-SB008 (4'-5')**	EPA 9012	483046	EPA 9012	483132
92401224017	**PBC-SB009 (0'-1')**	EPA 9012	483047	EPA 9012	483172
92401224018	**PBC-SB009 (4'-5')**	EPA 9012	483047	EPA 9012	483172
92401224019	**PBC-SB010 (0'-1')**	EPA 9012	483047	EPA 9012	483172
92401224020	**PBC-SB010 (4'-5')**	EPA 9012	483047	EPA 9012	483172
92401224021	**PBC-SB011 (0'-1')**	EPA 9012	483047	EPA 9012	483172

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92401224022	**PBC-SB011 (2'-3')**	EPA 9012	483047	EPA 9012	483172
92401224023	**PBC-SB012 (0'-1')**	EPA 9012	483047	EPA 9012	483172
92401224024	**PBC-SB012 (4'-5')**	EPA 9012	483047	EPA 9012	483172
92401224025	**PBC-SB013 (0'-1')**	EPA 9012	483047	EPA 9012	483172
92401224026	**PBC-SB013 (4'-5')**	EPA 9012	483047	EPA 9012	483172
92401224027	**PBC-SB014 (0'-1')**	EPA 9012	483047	EPA 9012	483172
92401224028	**PBC-SB014 (4'-5')**	EPA 9012	483047	EPA 9012	483172
92401224029	**PBC-SB015 (0'-1')**	EPA 9012	483047	EPA 9012	483172
92401224030	**PBC-SB015 (4'-5')**	EPA 9012	483047	EPA 9012	483172
92401224031	**PBC-SB016 (0'-1')**	EPA 9012	483047	EPA 9012	483172
92401224032	**PBC-SB016 (4'-5')**	EPA 9012	483047	EPA 9012	483172
92401224033	**PBC-SB017 (0'-1')**	EPA 9012	483049	EPA 9012	483397
92401224034	**PBC-SB017 (4'-5')**	EPA 9012	483049	EPA 9012	483397
92401224035	**ESW-EB001**	EPA 9012B	433737	EPA 9012B	433778
92401224001	**PBC-SB001 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224002	**PBC-SB001 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224003	**PBC-SB002 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224004	**PBC-SB002 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224005	**PBC-SB003 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224006	**PBC-SB003 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224007	**PBC-SB004 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224008	**PBC-SB004 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224009	**PBC-SB005 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224010	**PBC-SB005 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224011	**PBC-SB006 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224012	**PBC-SB006 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224013	**PBC-SB007 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224014	**PBC-SB007 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224015	**PBC-SB008 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224016	**PBC-SB008 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224017	**PBC-SB009 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224018	**PBC-SB009 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224019	**PBC-SB010 (0'-1')**	EPA 9056	482157	EPA 9056	482751
92401224020	**PBC-SB010 (4'-5')**	EPA 9056	482157	EPA 9056	482751
92401224021	**PBC-SB011 (0'-1')**	EPA 9056	482158	EPA 9056	482752
92401224022	**PBC-SB011 (2'-3')**	EPA 9056	482158	EPA 9056	482752
92401224023	**PBC-SB012 (0'-1')**	EPA 9056	482158	EPA 9056	482752
92401224024	**PBC-SB012 (4'-5')**	EPA 9056	482158	EPA 9056	482752
92401224025	**PBC-SB013 (0'-1')**	EPA 9056	482158	EPA 9056	482752
92401224026	**PBC-SB013 (4'-5')**	EPA 9056	482158	EPA 9056	482752
92401224027	**PBC-SB014 (0'-1')**	EPA 9056	482158	EPA 9056	482752
92401224028	**PBC-SB014 (4'-5')**	EPA 9056	482158	EPA 9056	482752
92401224029	**PBC-SB015 (0'-1')**	EPA 9056	482158	EPA 9056	482752
92401224030	**PBC-SB015 (4'-5')**	EPA 9056	482158	EPA 9056	482752
92401224031	**PBC-SB016 (0'-1')**	EPA 9056	482158	EPA 9056	482752
92401224032	**PBC-SB016 (4'-5')**	EPA 9056	482158	EPA 9056	482752
92401224033	**PBC-SB017 (0'-1')**	EPA 9056	482158	EPA 9056	482752

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Frmr Potline/Bath Crushing
Pace Project No.: 92401224

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92401224034	**PBC-SB017 (4'-5')**	EPA 9056	482158	EPA 9056	482752
92401224035	**ESW-EB001**	EPA 9056A	433307		

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Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: Environeering

Project #: WO#: 92401224

92401224

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other: ____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: MOG 9-27-18

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T045

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.3 3 3 5.9 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 5.2, 3.2, 5.8

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample) MOG 9-27-18

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT & SL				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: NMG **Date:** 9/28/18

Project Manager SRF Review: NMG **Date:** 9/28/18

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#: 92401224

PM: NMG Due Date: 10/08/18

CLIENT: 92-Alcoa

Pg 1

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
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pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (I.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#: 92401224

PM: NMG Due Date: 10/08/18

CLIENT: 92-Alcoa

Pg 2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
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pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (I.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#: 92401224

PM: NMG Due Date: 10/08/18

CLIENT: 92-Alcoa

Pg 3

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
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12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 3

Section A — Required Client Information:

Company:	Environeering
Address:	~~138 Fort Jackson Road~~ 16100 CHANNAY ~~Morrisville, NC 27560~~ HOUSTON TX 77084
Email:	MNordland@environeeringinc.com
Phone:	919 341 6452 Fax
Requested Due Date:	STD

Section B — Required Project Information:

Report To:	Michael Worden
Copy To:	
Purchase Order #:	
Project Name:	Former Potline/Bath Crushing Area
Project #:	137-763

Section C — Invoice Information:

Attention:	M. WORDEN
Company Name:	ENVIRONEERING
Address:	HOUSTON TX
Pace Quote:	
Pace Project Manager:	nicole.gasiorowski@pacelabs.com,
Pace Profile #:	7478

Regulatory Agency	State / Location
NCDEQ	NC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N): 8270 PAHs	9012 Cyanide	9056 Fluoride	Residual Chlorine (Y/N)	92401224
1	PBC-SB001 (0'-1')	SL	G	—	—	9/25/18	905		3	X								X	X	X		001
2	PBC-SB001 (4'-5')	SL	G	—	—		910		3	X								X	X	X		002
3	PBC-SB002 (0'-1')	SL	G	—	—		920		3	X								X	X	X		003
4	PBC-SB002 (4'-5')	SL	G	—	—		925		3	X								X	X	X		004
5	PBC-SB003 (0'-1')	SL	G	—	—		940		3	X								X	X	X		005
6	PBC-SB003 (4'-5')	SL	G	—	—		945		3	X								X	X	X		006
7	PBC-SB004 (0'-1')	SL	G	—	—		1040		3	X								X	X	X		007
8	PBC-SB004 (4'-5')	SL	G	—	—		1045		3	X								X	X	X		008
9	PBC-SB005 (0'-1')	SL	G	—	—		1145		3	X								X	X	X		009
10	PBC-SB005 (4'-5')	SL	G	—	—		1150		3	X								X	X	X		010
11	PBC-SB006 (0'-1')	SL	G	—	—		1205		3	X								X	X	X		011
12	PBC-SB006 (4'-5')	SL	G	—	—		1210		3	X								X	X	X		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] ENVIRONEERING	9/26/18	1525	[signature]	9/26/18	1525				
	[signature]	9/27/18	1309	[signature]	9/27/18	0650				
				[signature]	9-27-18	1309	5.3 5.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Michael Worden

SIGNATURE of SAMPLER: [signature] DATE Signed: 9/26/18

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 2 Of 3

Section A — Required Client Information:

Company:	Environeering
Address:	~~138 Fort Jackson Road~~ 16100 CARNIAM Houston TX 77084
	~~Mooresville NC 27560~~
Email:	mwarden@environeeringinc.com
Phone:	919 341 6452 Fax
Requested Due Date:	STD

Section B — Required Project Information:

Report To:	Michael Worden
Copy To:	
Purchase Order #:	
Project Name:	Former Potline/Bath Crushing Area
Project #:	137-763

Section C — Invoice Information:

Attention:	M. WORDEN
Company Name:	ENVIROENG
Address:	HOUSTON, TX
Pace Quote:	
Pace Project Manager:	nicole.gasiorowski@pacelabs.com,
Pace Profile #:	7478

Regulatory Agency	State / Location
NCDEQ	NC

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N) 8270 PAHs	9012 Cyanide	9056 Fluoride	Residual Chlorine (Y/N)	92401224
13	PBC-SB007 (0'-1')	SL	G	—	—	9/25/18	1255		3	X								X	X	X			013
14	PBC-SB007 (4'-5')	SL	G	—	—		1300		3	X								X	X	X			014
15	PBC-SB008 (0'-1')	SL	G	—	—		1425		3	X								X	X	X			015
16	PBC-SB008 (4'-5')	SL	G	—	—		1430		3	X								X	X	X			016
17	PBC-SB009 (0'-1')	SL	G	—	—		1445		3	X								X	X	X			017
18	PBC-SB009 (4'-5')	SL	G	—	—		1450		3	X								X	X	X			018
19	PBC-SB010 (0'-1')	SL	G	—	—		1500		3	X								X	X	X			019
20	PBC-SB010 (4'-5')	SL	G	—	—		1505		3	X								X	X	X			020
21	PBC-SB011 (0'-1')	SL	G	—	—		1530		3	X								X	X	X			021
22	PBC-SB011 (~~4'-5'~~) (2'-3')	SL	G	—	—		1535		3	X								X	X	X			022
23	PBC-SB012 (0'-1')	SL	G	—	—		1610		3	X								X	X	X			023
24	PBC-SB012 (4'-5')	SL	G	—	—		1615		3	X								X	X	X			024

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature] / ENVIROENG	9/26/18	1525	[signature]	9/26/18	1525	
	[signature]	9/27/18	1309	[signature]	9/27/18	0652	
				Michael R	9-27-18	1309	

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
3.2 3.2 5.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICHAEL WORDEN

SIGNATURE of SAMPLER: [signature] DATE Signed: 9/26/18

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 3 Of 3

Section A — Required Client Information:

Company:	Environeering
Address:	~~138 Fort Jackson Road~~ 6100 CHAPPELL HILL ~~Morrisville, NC 27560~~ HOUSTON TX 77084
Email:	MWORDEN@ENVIROENGINEERINGINC.COM
Phone:	919 341 6492 Fax
Requested Due Date:	STD

Section B — Required Project Information:

Report To:	Michael Worden
Copy To:	
Purchase Order #:	
Project Name:	Former Potline/Bath Crushing Area
Project #:	137163

Section C — Invoice Information:

Attention:	M. WORDEN
Company Name:	ENVIROENGINEERING
Address:	HOUSTON TX 77084
Pace Quote:	
Pace Project Manager:	nicole.gasiorowski@pacelabs.com,
Pace Profile #:	7478

Regulatory Agency	State / Location
NCDEQ	NC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N): 8270 PAHs	9012 Cyanide	9056 Fluoride	8260 VOCs	8270 PAHs	8082 PCBs	9012 CN	7196 Cr					Residual Chlorine (Y/N)	92401224
25	PBC-SB013 (0'-1')	SL	G	—		9/25/18	1630		3	X								X	X	X											025
26	PBC-SB013 (4'-5')	SL	G	—		9/25/18	1635		3	X								X	X	X											026
27	PBC-SB014 (0'-1')	SL	G	—		9/26/18	815		3	X								X	X	X											027
28	PBC-SB014 (4'-5')	SL	G	—			820		3	X								X	X	X											028
29	PBC-SB015 (0'-1')	SL	G	—			850		3	X								X	X	X											029
30	PBC-SB015 (4'-5')	SL	G	—			855		3	X								X	X	X											030
31	PBC-SB016 (0'-1')	SL	G	—			940		3	X								X	X	X											031
32	PBC-SB016 (4'-5')	SL	G	—			945		3	X								X	X	X											032
33	PBC-SB017 (0'-1')	SL	G	—			1035		3	X								X	X	X											033
34	PBC-SB017 (4'-5')	SL	G	—			1040		3	X								X	X	X											034
35	ESW-EB001	W	G	—		9/25/18	1700		10	X			X	X							X	X	X	X	X						035
36																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[signature] Environeering	9/26/18	1525	[signature]	9/26/18	1525
	[signature] Pace	9/27/18	1309	[signature] Pace	9/27/18	0858
				[signature]	9/27/18	1309

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
5.3 5.3 5.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICHAEL WORDEN

SIGNATURE of SAMPLER: [signature] DATE Signed: 9/26/18

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 12, 2018

Michael W. Worden
Environeering, Inc.
16100 Cairnway
Suite 320
Houston, TX 77084

RE: Project: Former Rectifier Station
Pace Project No.: 92400799

Dear Michael Worden:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revision was issued on 11/12/18 to report J-flagged results to the MDL, per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole Gasiorowski

Nicole Gasiorowski
nicole.gasiorowski@pacelabs.com
(704)875-9092
Project Manager

Enclosures

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CERTIFICATIONS

Project: Former Rectifier Station
Pace Project No.: 92400799

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: Former Rectifier Station
Pace Project No.: 92400799

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92400799001	**REC-SB001 (0'-1')**	Solid	09/24/18 18:15	09/25/18 07:30
92400799002	**REC-SB001 (4'-5')**	Solid	09/24/18 18:20	09/25/18 07:30
92400799003	**REC-SB002 (0'-1')**	Solid	09/24/18 18:40	09/25/18 07:30
92400799004	**REC-SB002 (4'-5')**	Solid	09/24/18 18:45	09/25/18 07:30

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SAMPLE ANALYTE COUNT

Project: Former Rectifier Station
Pace Project No.: 92400799

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92400799001	**REC-SB001 (0'-1')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92400799002	**REC-SB001 (4'-5')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92400799003	**REC-SB002 (0'-1')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O
92400799004	**REC-SB002 (4'-5')**	EPA 8082A	SEM	8	PASI-C
		EPA 8270D by SIM	PKS	21	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
		EPA 9012	JDW	1	PASI-O
		EPA 9056	SEW	1	PASI-O

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ANALYTICAL RESULTS

Project: Former Rectifier Station
Pace Project No.: 92400799

Sample: REC-SB001 (0'-1') **Lab ID: 92400799001** Collected: 09/24/18 18:15 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:12	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:12	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:12	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:12	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:12	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:12	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:12	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	134	%	21-132		1	09/26/18 15:38	09/28/18 15:12	2051-24-3	S3,S5
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**310**	ug/kg	11.3	1.7	1	09/26/18 14:17	09/28/18 01:06	83-32-9	
Acenaphthylene	**14.9**	ug/kg	11.3	1.5	1	09/26/18 14:17	09/28/18 01:06	208-96-8	
Anthracene	**605**	ug/kg	11.3	1.6	1	09/26/18 14:17	09/28/18 01:06	120-12-7	
Benzo(a)anthracene	**1140**	ug/kg	45.4	3.2	4	09/26/18 14:17	09/28/18 15:28	56-55-3	
Benzo(a)pyrene	**827**	ug/kg	45.4	5.0	4	09/26/18 14:17	09/28/18 15:28	50-32-8	
Benzo(b)fluoranthene	**1280**	ug/kg	45.4	3.0	4	09/26/18 14:17	09/28/18 15:28	205-99-2	
Benzo(g,h,i)perylene	**383**	ug/kg	11.3	2.9	1	09/26/18 14:17	09/28/18 01:06	191-24-2	
Benzo(k)fluoranthene	**462**	ug/kg	11.3	1.7	1	09/26/18 14:17	09/28/18 01:06	207-08-9	
Chrysene	**1060**	ug/kg	45.4	8.2	4	09/26/18 14:17	09/28/18 15:28	218-01-9	
Dibenz(a,h)anthracene	**177**	ug/kg	11.3	2.0	1	09/26/18 14:17	09/28/18 01:06	53-70-3	
Fluoranthene	**1820**	ug/kg	45.4	3.8	4	09/26/18 14:17	09/28/18 15:28	206-44-0	
Fluorene	**243**	ug/kg	11.3	1.8	1	09/26/18 14:17	09/28/18 01:06	86-73-7	
Indeno(1,2,3-cd)pyrene	**407**	ug/kg	11.3	3.2	1	09/26/18 14:17	09/28/18 01:06	193-39-5	
1-Methylnaphthalene	**57.8**	ug/kg	11.3	1.4	1	09/26/18 14:17	09/28/18 01:06	90-12-0	
2-Methylnaphthalene	**76.2**	ug/kg	11.3	1.2	1	09/26/18 14:17	09/28/18 01:06	91-57-6	
Naphthalene	**37.8**	ug/kg	11.3	2.6	1	09/26/18 14:17	09/28/18 01:06	91-20-3	
Phenanthrene	**1580**	ug/kg	45.4	6.8	4	09/26/18 14:17	09/28/18 15:28	85-01-8	
Pyrene	**1460**	ug/kg	45.4	8.2	4	09/26/18 14:17	09/28/18 15:28	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	49	%	10-128		1	09/26/18 14:17	09/28/18 01:06	4165-60-0	
2-Fluorobiphenyl (S)	52	%	10-110		1	09/26/18 14:17	09/28/18 01:06	321-60-8	
Terphenyl-d14 (S)	81	%	39-119		1	09/26/18 14:17	09/28/18 01:06	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.1**	%	0.10	0.10	1		09/25/18 18:29		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.30	0.17	1	09/29/18 18:45	10/02/18 16:20	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**15.8**	mg/kg	5.7	2.8	1	10/01/18 09:30	10/01/18 13:59	16984-48-8	M1

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ANALYTICAL RESULTS

Project: Former Rectifier Station
Pace Project No.: 92400799

Sample: REC-SB001 (4'-5') **Lab ID: 92400799002** Collected: 09/24/18 18:20 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:32	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:32	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:32	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:32	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:32	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:32	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	37.8	17.2	1	09/26/18 15:38	09/28/18 15:32	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	82	%	21-132		1	09/26/18 15:38	09/28/18 15:32	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.6	1.7	1	09/26/18 14:17	09/28/18 12:18	83-32-9	
Acenaphthylene	ND	ug/kg	11.6	1.5	1	09/26/18 14:17	09/28/18 12:18	208-96-8	
Anthracene	ND	ug/kg	11.6	1.6	1	09/26/18 14:17	09/28/18 12:18	120-12-7	
Benzo(a)anthracene	**2.3J**	ug/kg	11.6	0.82	1	09/26/18 14:17	09/28/18 12:18	56-55-3	
Benzo(a)pyrene	**2.2J**	ug/kg	11.6	1.3	1	09/26/18 14:17	09/28/18 12:18	50-32-8	
Benzo(b)fluoranthene	**3.2J**	ug/kg	11.6	0.78	1	09/26/18 14:17	09/28/18 12:18	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.6	3.0	1	09/26/18 14:17	09/28/18 12:18	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.6	1.7	1	09/26/18 14:17	09/28/18 12:18	207-08-9	
Chrysene	**2.4J**	ug/kg	11.6	2.1	1	09/26/18 14:17	09/28/18 12:18	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.6	2.1	1	09/26/18 14:17	09/28/18 12:18	53-70-3	
Fluoranthene	**3.3J**	ug/kg	11.6	0.96	1	09/26/18 14:17	09/28/18 12:18	206-44-0	
Fluorene	ND	ug/kg	11.6	1.9	1	09/26/18 14:17	09/28/18 12:18	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.6	3.2	1	09/26/18 14:17	09/28/18 12:18	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.6	1.4	1	09/26/18 14:17	09/28/18 12:18	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.6	1.3	1	09/26/18 14:17	09/28/18 12:18	91-57-6	
Naphthalene	ND	ug/kg	11.6	2.7	1	09/26/18 14:17	09/28/18 12:18	91-20-3	
Phenanthrene	**2.3J**	ug/kg	11.6	1.7	1	09/26/18 14:17	09/28/18 12:18	85-01-8	
Pyrene	**3.2J**	ug/kg	11.6	2.1	1	09/26/18 14:17	09/28/18 12:18	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	57	%	10-128		1	09/26/18 14:17	09/28/18 12:18	4165-60-0	
2-Fluorobiphenyl (S)	55	%	10-110		1	09/26/18 14:17	09/28/18 12:18	321-60-8	
Terphenyl-d14 (S)	66	%	39-119		1	09/26/18 14:17	09/28/18 12:18	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.1**	%	0.10	0.10	1		09/25/18 18:29		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.17	1	09/29/18 18:45	10/02/18 16:21	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**3.6J**	mg/kg	5.8	2.9	1	10/01/18 09:30	10/01/18 15:10	16984-48-8	

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ANALYTICAL RESULTS

Project: Former Rectifier Station
Pace Project No.: 92400799

Sample: REC-SB002 (0'-1') **Lab ID: 92400799003** Collected: 09/24/18 18:40 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	36.7	16.7	1	09/26/18 15:38	09/28/18 16:12	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	36.7	16.7	1	09/26/18 15:38	09/28/18 16:12	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	36.7	16.7	1	09/26/18 15:38	09/28/18 16:12	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	36.7	16.7	1	09/26/18 15:38	09/28/18 16:12	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	36.7	16.7	1	09/26/18 15:38	09/28/18 16:12	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	36.7	16.7	1	09/26/18 15:38	09/28/18 16:12	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	36.7	16.7	1	09/26/18 15:38	09/28/18 16:12	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	87	%	21-132		1	09/26/18 15:38	09/28/18 16:12	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.2	1.7	1	09/26/18 14:17	09/28/18 12:39	83-32-9	
Acenaphthylene	ND	ug/kg	11.2	1.5	1	09/26/18 14:17	09/28/18 12:39	208-96-8	
Anthracene	**3.2J**	ug/kg	11.2	1.6	1	09/26/18 14:17	09/28/18 12:39	120-12-7	
Benzo(a)anthracene	**43.8**	ug/kg	11.2	0.80	1	09/26/18 14:17	09/28/18 12:39	56-55-3	
Benzo(a)pyrene	**51.3**	ug/kg	11.2	1.2	1	09/26/18 14:17	09/28/18 12:39	50-32-8	
Benzo(b)fluoranthene	**82.3**	ug/kg	11.2	0.75	1	09/26/18 14:17	09/28/18 12:39	205-99-2	
Benzo(g,h,i)perylene	**35.6**	ug/kg	11.2	2.9	1	09/26/18 14:17	09/28/18 12:39	191-24-2	
Benzo(k)fluoranthene	**32.5**	ug/kg	11.2	1.7	1	09/26/18 14:17	09/28/18 12:39	207-08-9	
Chrysene	**75.3**	ug/kg	11.2	2.0	1	09/26/18 14:17	09/28/18 12:39	218-01-9	
Dibenz(a,h)anthracene	**12.2**	ug/kg	11.2	2.0	1	09/26/18 14:17	09/28/18 12:39	53-70-3	
Fluoranthene	**34.1**	ug/kg	11.2	0.93	1	09/26/18 14:17	09/28/18 12:39	206-44-0	
Fluorene	ND	ug/kg	11.2	1.8	1	09/26/18 14:17	09/28/18 12:39	86-73-7	
Indeno(1,2,3-cd)pyrene	**30.6**	ug/kg	11.2	3.1	1	09/26/18 14:17	09/28/18 12:39	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.2	1.3	1	09/26/18 14:17	09/28/18 12:39	90-12-0	
2-Methylnaphthalene	ND	ug/kg	11.2	1.2	1	09/26/18 14:17	09/28/18 12:39	91-57-6	
Naphthalene	ND	ug/kg	11.2	2.6	1	09/26/18 14:17	09/28/18 12:39	91-20-3	
Phenanthrene	**10.3J**	ug/kg	11.2	1.7	1	09/26/18 14:17	09/28/18 12:39	85-01-8	
Pyrene	**32.9**	ug/kg	11.2	2.0	1	09/26/18 14:17	09/28/18 12:39	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	70	%	10-128		1	09/26/18 14:17	09/28/18 12:39	4165-60-0	
2-Fluorobiphenyl (S)	64	%	10-110		1	09/26/18 14:17	09/28/18 12:39	321-60-8	
Terphenyl-d14 (S)	73	%	39-119		1	09/26/18 14:17	09/28/18 12:39	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.2**	%	0.10	0.10	1		09/25/18 18:29		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.27	0.15	1	09/29/18 18:45	10/02/18 16:22	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	ND	mg/kg	5.6	2.8	1	10/01/18 09:30	10/01/18 15:33	16984-48-8	

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Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: Former Rectifier Station
Pace Project No.: 92400799

Sample: REC-SB002 (4'-5') **Lab ID: 92400799004** Collected: 09/24/18 18:45 Received: 09/25/18 07:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	38.9	17.7	1	09/26/18 15:38	09/28/18 16:32	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	38.9	17.7	1	09/26/18 15:38	09/28/18 16:32	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	38.9	17.7	1	09/26/18 15:38	09/28/18 16:32	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	38.9	17.7	1	09/26/18 15:38	09/28/18 16:32	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	38.9	17.7	1	09/26/18 15:38	09/28/18 16:32	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	38.9	17.7	1	09/26/18 15:38	09/28/18 16:32	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	38.9	17.7	1	09/26/18 15:38	09/28/18 16:32	11096-82-5	
Surrogates									
Decachlorobiphenyl (S)	86	%	21-132		1	09/26/18 15:38	09/28/18 16:32	2051-24-3	
8270 MSSV MW PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	11.7	1.8	1	09/26/18 14:17	09/28/18 13:00	83-32-9	
Acenaphthylene	ND	ug/kg	11.7	1.5	1	09/26/18 14:17	09/28/18 13:00	208-96-8	
Anthracene	ND	ug/kg	11.7	1.6	1	09/26/18 14:17	09/28/18 13:00	120-12-7	
Benzo(a)anthracene	ND	ug/kg	11.7	0.83	1	09/26/18 14:17	09/28/18 13:00	56-55-3	
Benzo(a)pyrene	ND	ug/kg	11.7	1.3	1	09/26/18 14:17	09/28/18 13:00	50-32-8	
Benzo(b)fluoranthene	**0.86J**	ug/kg	11.7	0.78	1	09/26/18 14:17	09/28/18 13:00	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	11.7	3.0	1	09/26/18 14:17	09/28/18 13:00	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	11.7	1.8	1	09/26/18 14:17	09/28/18 13:00	207-08-9	
Chrysene	ND	ug/kg	11.7	2.1	1	09/26/18 14:17	09/28/18 13:00	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	11.7	2.1	1	09/26/18 14:17	09/28/18 13:00	53-70-3	
Fluoranthene	ND	ug/kg	11.7	0.97	1	09/26/18 14:17	09/28/18 13:00	206-44-0	
Fluorene	ND	ug/kg	11.7	1.9	1	09/26/18 14:17	09/28/18 13:00	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	11.7	3.3	1	09/26/18 14:17	09/28/18 13:00	193-39-5	
1-Methylnaphthalene	ND	ug/kg	11.7	1.4	1	09/26/18 14:17	09/28/18 13:00	90-12-0	
2-Methylnaphthalene	**1.4J**	ug/kg	11.7	1.3	1	09/26/18 14:17	09/28/18 13:00	91-57-6	
Naphthalene	ND	ug/kg	11.7	2.7	1	09/26/18 14:17	09/28/18 13:00	91-20-3	
Phenanthrene	ND	ug/kg	11.7	1.8	1	09/26/18 14:17	09/28/18 13:00	85-01-8	
Pyrene	ND	ug/kg	11.7	2.1	1	09/26/18 14:17	09/28/18 13:00	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	61	%	10-128		1	09/26/18 14:17	09/28/18 13:00	4165-60-0	
2-Fluorobiphenyl (S)	57	%	10-110		1	09/26/18 14:17	09/28/18 13:00	321-60-8	
Terphenyl-d14 (S)	64	%	39-119		1	09/26/18 14:17	09/28/18 13:00	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.0**	%	0.10	0.10	1		09/25/18 18:29		
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9012								
Cyanide	ND	mg/kg	0.31	0.17	1	09/29/18 18:45	10/02/18 16:23	57-12-5	
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056								
Fluoride	**16.4**	mg/kg	5.8	2.9	1	10/01/18 09:30	10/01/18 16:43	16984-48-8	

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QUALITY CONTROL DATA

Project: Former Rectifier Station
Pace Project No.: 92400799

QC Batch: 432840 | Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 | Analysis Description: 8082 GCS PCB
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

METHOD BLANK: 2385452 | Matrix: Solid
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	33.1	15.1	09/28/18 18:12	
PCB-1221 (Aroclor 1221)	ug/kg	ND	33.1	15.1	09/28/18 18:12	
PCB-1232 (Aroclor 1232)	ug/kg	ND	33.1	15.1	09/28/18 18:12	
PCB-1242 (Aroclor 1242)	ug/kg	ND	33.1	15.1	09/28/18 18:12	
PCB-1248 (Aroclor 1248)	ug/kg	ND	33.1	15.1	09/28/18 18:12	
PCB-1254 (Aroclor 1254)	ug/kg	ND	33.1	15.1	09/28/18 18:12	
PCB-1260 (Aroclor 1260)	ug/kg	ND	33.1	15.1	09/28/18 18:12	
Decachlorobiphenyl (S)	%	100	21-132		09/28/18 18:12	

LABORATORY CONTROL SAMPLE: 2385453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	164	159	96	31-120	
PCB-1260 (Aroclor 1260)	ug/kg	164	176	107	32-120	
Decachlorobiphenyl (S)	%			105	21-132	

MATRIX SPIKE SAMPLE: 2385454

Parameter	Units	92398025033 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	164	64.0	34	49-150	M1
PCB-1260 (Aroclor 1260)	ug/kg	73.1	164	154	49	50-150	M1
Decachlorobiphenyl (S)	%				52	21-132	

SAMPLE DUPLICATE: 2385455

Parameter	Units	92400799002 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	ND		30	
PCB-1221 (Aroclor 1221)	ug/kg	ND	ND		30	
PCB-1232 (Aroclor 1232)	ug/kg	ND	ND		30	
PCB-1242 (Aroclor 1242)	ug/kg	ND	ND		30	
PCB-1248 (Aroclor 1248)	ug/kg	ND	ND		30	
PCB-1254 (Aroclor 1254)	ug/kg	ND	ND		30	
PCB-1260 (Aroclor 1260)	ug/kg	ND	ND		30	
Decachlorobiphenyl (S)	%	82	71	13		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former Rectifier Station
Pace Project No.: 92400799

QC Batch: 432770 | Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 | Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

METHOD BLANK: 2385110 | Matrix: Solid
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10.1	1.2	09/27/18 14:11	
2-Methylnaphthalene	ug/kg	ND	10.1	1.1	09/27/18 14:11	
Acenaphthene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Acenaphthylene	ug/kg	ND	10.1	1.3	09/27/18 14:11	
Anthracene	ug/kg	ND	10.1	1.4	09/27/18 14:11	
Benzo(a)anthracene	ug/kg	ND	10.1	0.71	09/27/18 14:11	
Benzo(a)pyrene	ug/kg	ND	10.1	1.1	09/27/18 14:11	
Benzo(b)fluoranthene	ug/kg	0.96J	10.1	0.67	09/27/18 14:11	
Benzo(g,h,i)perylene	ug/kg	ND	10.1	2.6	09/27/18 14:11	
Benzo(k)fluoranthene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Chrysene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
Dibenz(a,h)anthracene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
Fluoranthene	ug/kg	ND	10.1	0.84	09/27/18 14:11	
Fluorene	ug/kg	ND	10.1	1.6	09/27/18 14:11	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.1	2.8	09/27/18 14:11	
Naphthalene	ug/kg	ND	10.1	2.3	09/27/18 14:11	
Phenanthrene	ug/kg	ND	10.1	1.5	09/27/18 14:11	
Pyrene	ug/kg	ND	10.1	1.8	09/27/18 14:11	
2-Fluorobiphenyl (S)	%	51	10-110		09/27/18 14:11	
Nitrobenzene-d5 (S)	%	54	10-128		09/27/18 14:11	
Terphenyl-d14 (S)	%	60	39-119		09/27/18 14:11	

LABORATORY CONTROL SAMPLE: 2385111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	33.3	26.3	79	44-130	
2-Methylnaphthalene	ug/kg	33.3	27.8	83	41-134	
Acenaphthene	ug/kg	33.3	29.4	88	52-123	
Acenaphthylene	ug/kg	33.3	26.5	79	49-116	
Anthracene	ug/kg	33.3	29.3	88	41-133	
Benzo(a)anthracene	ug/kg	33.3	29.2	88	56-130	
Benzo(a)pyrene	ug/kg	33.3	28.2	85	51-136	
Benzo(b)fluoranthene	ug/kg	33.3	28.7	86	37-149	
Benzo(g,h,i)perylene	ug/kg	33.3	26.3	79	39-127	
Benzo(k)fluoranthene	ug/kg	33.3	29.3	88	45-139	
Chrysene	ug/kg	33.3	30.1	90	59-127	
Dibenz(a,h)anthracene	ug/kg	33.3	28.8	86	37-139	
Fluoranthene	ug/kg	33.3	31.0	93	53-132	
Fluorene	ug/kg	33.3	26.0	78	45-127	
Indeno(1,2,3-cd)pyrene	ug/kg	33.3	29.4	88	35-145	

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QUALITY CONTROL DATA

Project: Former Rectifier Station
Pace Project No.: 92400799

LABORATORY CONTROL SAMPLE: 2385111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	33.3	27.9	84	45-123	
Phenanthrene	ug/kg	33.3	30.4	91	50-125	
Pyrene	ug/kg	33.3	31.0	93	52-132	
2-Fluorobiphenyl (S)	%			87	10-110	
Nitrobenzene-d5 (S)	%			92	10-128	
Terphenyl-d14 (S)	%			81	39-119	

MATRIX SPIKE SAMPLE: 2385112

Parameter	Units	92400789001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	3.0J	40.4	25.2	55	50-150	
2-Methylnaphthalene	ug/kg	2.2J	40.4	26.1	59	50-150	
Acenaphthene	ug/kg	4.6J	40.4	31.1	65	50-150	
Acenaphthylene	ug/kg	2.1J	40.4	24.8	56	50-150	
Anthracene	ug/kg	15.6	40.4	45.8	75	50-150	
Benzo(a)anthracene	ug/kg	129	40.4	192	156	50-150	M1
Benzo(a)pyrene	ug/kg	128	40.4	206	194	50-150	M1
Benzo(b)fluoranthene	ug/kg	211	40.4	324	280	50-150	M1
Benzo(g,h,i)perylene	ug/kg	79.1	40.4	106	67	50-150	
Benzo(k)fluoranthene	ug/kg	90.3	40.4	102	28	50-150	M1
Chrysene	ug/kg	150	40.4	220	173	50-150	M1
Dibenz(a,h)anthracene	ug/kg	25.1	40.4	47.2	55	50-150	
Fluoranthene	ug/kg	214	40.4	250	88	50-150	
Fluorene	ug/kg	2.9J	40.4	26.0	57	50-150	
Indeno(1,2,3-cd)pyrene	ug/kg	77.6	40.4	110	81	50-150	
Naphthalene	ug/kg	2.8J	40.4	25.3	56	50-150	
Phenanthrene	ug/kg	64.2	40.4	92.2	69	50-150	
Pyrene	ug/kg	190	40.4	248	144	50-150	
2-Fluorobiphenyl (S)	%				62	10-110	
Nitrobenzene-d5 (S)	%				62	10-128	
Terphenyl-d14 (S)	%				61	39-119	

SAMPLE DUPLICATE: 2385113

Parameter	Units	92400789002 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/kg	ND	ND		30	
2-Methylnaphthalene	ug/kg	ND	ND		30	
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	ND	ND		30	
Anthracene	ug/kg	ND	ND		30	
Benzo(a)anthracene	ug/kg	1.5J	1.3J		30	
Benzo(a)pyrene	ug/kg	1.5J	ND		30	
Benzo(b)fluoranthene	ug/kg	2.1J	1.9J		30	
Benzo(g,h,i)perylene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: Former Rectifier Station
Pace Project No.: 92400799

SAMPLE DUPLICATE: 2385113

Parameter	Units	92400789002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzo(k)fluoranthene	ug/kg	ND	ND		30	
Chrysene	ug/kg	2.6J	2.2J		30	
Dibenz(a,h)anthracene	ug/kg	ND	ND		30	
Fluoranthene	ug/kg	1.4J	1.2J		30	
Fluorene	ug/kg	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
Phenanthrene	ug/kg	ND	ND		30	
Pyrene	ug/kg	ND	ND		30	
2-Fluorobiphenyl (S)	%	70	69	3		
Nitrobenzene-d5 (S)	%	69	70	0		
Terphenyl-d14 (S)	%	72	70	3		

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QUALITY CONTROL DATA

Project: Former Rectifier Station
Pace Project No.: 92400799

QC Batch: 432650 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

SAMPLE DUPLICATE: 2384692

Parameter	Units	92400787001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	28.2	28.3	0	25	

SAMPLE DUPLICATE: 2384693

Parameter	Units	92400799004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.0	13.8	1	25	

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QUALITY CONTROL DATA

Project: Former Rectifier Station
Pace Project No.: 92400799

QC Batch: 481710 | Analysis Method: EPA 9012
QC Batch Method: EPA 9012 | Analysis Description: 9012 Cyanide
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

METHOD BLANK: 2607788 | Matrix: Solid
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.24	0.14	10/02/18 16:10	

LABORATORY CONTROL SAMPLE: 2607789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	1.2	1.3	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2607790 2607791

Parameter	Units	92400643001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	ND	.764	.776	1.2	1.1	136	122	80-120	8	20	M1

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QUALITY CONTROL DATA

Project: Former Rectifier Station
Pace Project No.: 92400799

QC Batch: 481867 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

METHOD BLANK: 2608290 | Matrix: Solid
Associated Lab Samples: 92400799001, 92400799002, 92400799003, 92400799004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/kg	ND	5.0	2.5	10/01/18 10:29	

LABORATORY CONTROL SAMPLE: 2608291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	49.6	49.2	99	80-120	

MATRIX SPIKE SAMPLE: 2608293

Parameter	Units	92400799001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/kg	15.8	56.3	54.3	68	80-120	M1

SAMPLE DUPLICATE: 2608292

Parameter	Units	92400799001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fluoride	mg/kg	15.8	16.0	2	20	

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QUALIFIERS

Project: Former Rectifier Station
Pace Project No.: 92400799

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
S5	Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former Rectifier Station
Pace Project No.: 92400799

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92400799001	**REC-SB001 (0'-1')**	EPA 3546	432840	EPA 8082A	433354
92400799002	**REC-SB001 (4'-5')**	EPA 3546	432840	EPA 8082A	433354
92400799003	**REC-SB002 (0'-1')**	EPA 3546	432840	EPA 8082A	433354
92400799004	**REC-SB002 (4'-5')**	EPA 3546	432840	EPA 8082A	433354
92400799001	**REC-SB001 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400799002	**REC-SB001 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400799003	**REC-SB002 (0'-1')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400799004	**REC-SB002 (4'-5')**	EPA 3546	432770	EPA 8270D by SIM	432998
92400799001	**REC-SB001 (0'-1')**	ASTM D2974-87	432650		
92400799002	**REC-SB001 (4'-5')**	ASTM D2974-87	432650		
92400799003	**REC-SB002 (0'-1')**	ASTM D2974-87	432650		
92400799004	**REC-SB002 (4'-5')**	ASTM D2974-87	432650		
92400799001	**REC-SB001 (0'-1')**	EPA 9012	481710	EPA 9012	482312
92400799002	**REC-SB001 (4'-5')**	EPA 9012	481710	EPA 9012	482312
92400799003	**REC-SB002 (0'-1')**	EPA 9012	481710	EPA 9012	482312
92400799004	**REC-SB002 (4'-5')**	EPA 9012	481710	EPA 9012	482312
92400799001	**REC-SB001 (0'-1')**	EPA 9056	481867	EPA 9056	481884
92400799002	**REC-SB001 (4'-5')**	EPA 9056	481867	EPA 9056	481884
92400799003	**REC-SB002 (0'-1')**	EPA 9056	481867	EPA 9056	481884
92400799004	**REC-SB002 (4'-5')**	EPA 9056	481867	EPA 9056	481884

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Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: Environeering

Project #: WO#: 92400799

92400799

Courier: ☐ Commercial ☐ Fed Ex ☑ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: MD 9-25-18

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 92T045 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.3, 4.9 **Correction Factor:** Add/Subtract (°C) -0.1

Cooler Temp Corrected (°C): 5.2, 4.8

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC? MD 9-25-18	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT SL				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: AUP **Date:** 092518

Project Manager SRF Review: NMM **Date:** 9/26/18

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project : WO#:92400799

PM: NMG Due Date: 10/04/18

CLIENT: 92-Alcoa

Pg 3

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1									1																				
2									4																				
3									1																				
4									4																				
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (I.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:

Company: Environeering
Address: ~~138 Fort Jackson Road~~ 16100 CHERRYMAN HOUSTON TX 77084
Morrisville, NC 27560
Email: mworden@environeeringinc.com
Phone: 919 341 1457 Fax
Requested Due Date: STD

Section B
Required Project Information:

Report To: Michael Worden
Copy To:
Purchase Order #:
Project Name: Former Rectifier Station
Project #: 137-263

Section C
Invoice Information:

Attention: M. WORDEN
Company Name: ENVIRONEERING
Address: HOUSTON TX 77084
Pace Quote:
Pace Project Manager: nicole.gasiorowski@pacelabs.com,
Pace Profile #: 7478

Regulatory Agency: NCDEQ
State / Location: NC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: 8270 PAHs	8082 PCBs	9012 Cyanide	9056 Fluoride	Residual Chlorine (Y/N)	92400799
1	REC-SB001 (0'-1')	SL	C	—		9/24/18	1815		4	X								X	X	X	X		001
2	REC-SB001 (4'-5')	SL	G	—			1820		4	X								X	X	X	X		002
3	REC-SB002 (0'-1')	SL	G	—			1840		4	X								X	X	X	X		003
4	REC-SB002 (4'-5')	SL	G	—		↓	1845		4	X								X	X	X	X		004
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[signature], Environeering	9/25/18	7:30	[signature] Pace	9-25-18	7:30
	[signature] Pace	9-25-18	1127	[signature]	9-25-18	1127

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
5.3 / 4.9	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Michael Worden
SIGNATURE of SAMPLER: [signature]
DATE Signed: