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September 11, 2017

Apurva Patil, P.E. Remedial Project Manager Remediation & Site Response Program Toxic Substances Division District Department of Energy and Environment 1200 First Street, NE, 5th Floor Washington, DC 20002

Subject: Cooling Tower Basins Remedial Action Completion Report Benning Road Facility, 3400 Benning Road, NE, Washington, DC

Dear Ms. Patil:

On behalf of the Potomac Electric Power Company (Pepco), AECOM has prepared this Remedial Action Completion Report (RACR) to document the remediation of the two former power plant cooling tower (CT) concrete basins and adjacent soils impacted by Polychlorinated Biphenyls (PCBs) at the Benning Road Facility (the Site), located at 3400 Benning Road, NE, Washington, DC. The basin and soil removal activities were conducted from January 23 to May 19, 2017, by Pepco's remedial contractor Miller Environmental Group, Inc. (Miller), in accordance with the approved Self Implementing Remediation Plan (SIP) and Soil Removal Action Plan (RAP).

The SIP for the removal of the CT basins was prepared in accordance with the US Environmental Protection Agency (EPA) Toxic Substance and Control Act (TSCA) Regulations at 40 CFR 761.61(a), and approved by USEPA on May 2, 2014. The RAP for the excavation of PCB-impacted soils adjacent to and beneath the CT basins was approved by the District Department of Energy and Environment (DOEE) on July 29, 2015.

This document provides a description and history of the CT basins and associated sampling events and results, a description of the remedial activities and confirmatory sampling, an overview of the air monitoring program, and waste transportation and disposal.

Project Background and Historical Sampling Events

The two cooling towers (Units 15 and 16) were constructed in the northwest portion of the Site (**Figure 1**) in 1969 and 1970, respectively, and were used to cool recirculated water used by the Benning Road Power Plant until the Plant ceased operations in June 2012. The cooling tower superstructures were demolished and removed in late 2013, leaving the concrete basins in place. The CT basins were constructed of concrete and each measured approximately 307 ft by 57 ft. At the time of the basins' construction, PCBs were widely added to sealants, caulks and other industrial products, and caulking in the expansion joints of the basins contained PCBs. Each of the basins had four horizontal expansion joints running north to south along the basin floors (57 ft long) and eight vertical expansion joints in the basin walls. Basin 16 had an additional 24 vertical expansion joints in the basin walls, for a total of 32 vertical expansion joints. **Figure 2** and **Figure 3** depict the distribution of floor and wall expansion joints in basins 15 and 16, respectively.

In 1995, Pepco conducted an environmental cleanup when the PCB-containing caulk and joint filler were found to be impacting the concrete basins, sludge and water in the cooling tower basins, and soil adjacent to the basin wall expansion joints. Caulking in the basins' expansion joints was analyzed and found to contain PCBs at concentrations up to 57,655 ppm (parts per million). Contaminated joint filler and caulk



was removed from the basin expansion joints to a depth of 3 to 6 inches, and replacement caulk was applied. The basins were double washed with heavy duty water-soluble solvents and double rinsed, then encapsulated with two coats of Sikadur 62 concrete sealant. An approximate 1 ft by 1 ft by 3 ft deep volume of soil adjacent to each of the wall expansion joints was excavated from the basins and restored with clean backfill. The highest levels of PCBs in the excavated soils from units 15 and 16 were 30 ppm and 975 ppm, respectively. A total of approximately 185 cubic ft of soil was removed from the basins. Surface soil samples were collected at distances of 1 to 2 ft from the basin walls at a depth of 0.5-1 inch below grade. PCBs in these non-excavated surface soils ranged from <1 ppm to 3 ppm.

In 2004, during a regular inspection of the basin interiors, it was found that the floor and wall coating in basin 15 was not intact in several places. A sludge sample collected from the basin bottom was analyzed and found to contain 4.5 ppm PCBs. The basin concrete surfaces were scarified, double washed/double rinsed, and two coats of fresh encapsulant were applied.

According to the cleanup report submitted to EPA, Pepco sampled, excavated, and replaced soil adjacent to the wall expansion joints around both cooling tower basins. Surface soil samples were also collected at distances of 1 to 2 ft from the basin walls at a depth of 0.5-1 inch below grade. PCBs in these non-excavated surface soils ranged from <1 ppm to 3 ppm.

In January 2012, Pepco retained AECOM to perform an existing conditions/hazardous materials assessment for the two cooling tower basins. A total of ten soil samples (SS-1 through SS-10) were collected by hand auger from a depth of less than 1 ft below grade at locations around the perimeters of the cooling towers. PCB levels in the samples ranged from <0.1 ppm to 3.3 ppm. The locations and PCB concentrations of the 2012 soil samples are presented in **Figure 2** and **Figure 3**.

In July 2013, AECOM collected additional soil samples as part of the SIP development. Two locations adjacent to the vertical expansion joints were sampled at two depths (0-3" and 3-6" below grade) at each basin, for a total of eight samples. PCB results for these samples ranged from <0.1 ppm to 10.0 ppm. The locations and PCB concentrations of the 2013 soil samples are presented in **Figure 2** and **Figure 3**.

In July and November 2013, AECOM conducting in-place characterization sampling of basin materials to support the cooling tower demolition. A total of 2 caulk samples, 2 foam (joint filler) samples, 10 encapsulant samples, and 128 concrete surface samples were collected. Caulk and foam samples contained PCBs at levels ranging up to 1300 ppm. Encapsulant samples from basin 15 contained PCBs at concentrations as high as 1,100 ppm, while levels of PCBs in encapsulant samples collected from basin 16 were all <50 ppm. Concrete samples collected from the basin floors and sidewalls contained PCBs at concentrations as high as 330 ppm in basin 15, and as high as 8.8 ppm in basin 16.

To support the CT basin and soil removal action, AECOM prepared Addendum #2 to the Remedial Investigation/Feasibility Study (RI/FS) Work Plan to describe a sampling plan for soils adjacent to and beneath the basin slabs. The Addendum #2 sampling was initiated in summer 2014 and completed in early 2015. The plan prescribed surface and subsurface soil sampling at multiple distances from the basin walls, as well as up to two feet below the basin floors. The results of the Addendum #2 soil sampling are presented on **Figure 2** and **Figure 3**. 188 field samples were analyzed, all of which exhibited PCBs <50 ppm, and only 12 of which contained >10 ppm. The observed contamination around the basin perimeters was limited primarily to the surficial three feet, with localized areas of deeper contamination, especially around the eastern portion of basin 16, where PCBs were observed at levels >1 ppm as deep as 5 ft below grade. Beneath the basin slabs, impacted soils were limited to a small area beneath basin 15, and a broader area below the eastern end of basin 16.

Based on these historical sample results, AECOM developed the Soil Removal Action Plan (RAP), to be implemented concurrently with the basin removal outlined in the SIP, to remediate (via removal) all soils in the vicinity of the CT basins containing PCBs at greater than 1 ppm, which represents the high occupancy/no further restrictions cleanup level for PCBs under the TSCA regulations at 40 CFR



761.61(a)(4)(i)(A). The RAP also included requirements for confirmatory sampling, to be conducted during soil excavation at locations where PCBs in soils adjacent to the basins were not bounded at <1 ppm by previous sampling.

Remedial Activities

Pre-Mobilization Activities

Pepco and its remediation contractor, Miller, conducted the follow pre-mobilization activities:

- 1. Obtained a demolition permit from the Department of Consumer and Regulatory Affairs (DCRA) for the basin concrete and soil removal;
- 2. Received DOEE approval for a revised Soil Erosion and Sediment Control (SESC) Plan;
- 3. Developed a project-specific Health and Safety Plan;
- 4. Performed a utility markout of the area surrounding the basins; and
- 5. Identified waste disposal facilities and backfill sources for use during the remediation.

Miller mobilized to the Site on January 23, 2017. Miller and Pepco's storm drain management contractor, Clean Venture, Inc., put in place sediment and erosion controls at the storm drain inlets in the vicinity of the basins, consisting of internal filter fabric, absorbent booms, top fabric, and cover gravel (at grade inlet protection). Miller constructed work area perimeter fencing, exclusion zone, contaminant reduction zone, and a truck wash station in accordance with the SESC Plan.

Air Monitoring

Daily work area perimeter air monitoring was conducted by AECOM throughout the duration of the CT basin area remediation in order to limit worker exposure and to prevent the release of PCBs to the environment and neighboring properties. The perimeter air monitoring program measured particulate matter smaller than 10 microns in diameter (PM_{10}) (a surrogate for PCBs) using TSI, Inc. DustTrakTM Model 8530 particulate monitors. In accordance with the SIP, a dust action level of 150 µg/m³ above background (15-minute average) was used during the basin demolitions. A lower alert level of 100 µg/m³ above background (15-minute average) was established to alert the operational crews that ambient particulate concentrations may be approaching the action level.

Baseline air monitoring was conducted on February 6, 2017, and work activity air monitoring was conducted from February 7 to March 30, 2017, during all disturbance, excavation or handling of basin materials and soils associated with the remediation. During work hours, instantaneous dust measurements were recorded hourly at four established perimeter locations surrounding the work area, in the four cardinal directions, as well as locations upwind and downwind from the work area. If an instantaneous reading greater than or equal to $100 \mu g/m^3$ over background (upwind reading) was encountered, a 15-minute average reading was taken at the location. In no instance did a 15-minute average exceed the alert level.

In addition to particulate monitoring, AECOM also conducted noise level monitoring for the protection of Site workers and persons adjacent to the Site. Instantaneous noise measurements were collected using a Quest Technologies 2900 noise level meter. Recorded noise levels ranged from 53.5 to 82.2 decibels (dB) at the work site perimeter throughout the project, but were generally measured between 60 and 70 dB.

A summary of project particulate and noise monitoring data is provided as Attachment 1.



Confirmatory Sampling

In accordance with the sampling plan detailed in the RAP, nine confirmatory soil samples were collected on February 15, 2017 during the CT basin excavation, at locations where PCB contamination was not bounded to 1 ppm by previous sampling. Following rapid turnaround PCB analysis of these samples, an additional four samples were collected on March 1, 2017 at locations where PCB contamination remained unbounded. The locations and results of the 13 total confirmatory samples are shown on **Figure 2** and **Figure 3**, and laboratory reports for the samples are provided in **Attachment 2**.

As a result of the confirmatory sampling, all locations were bounded for PCBs except for location CT16SO9G, located 22' south of the eastern end of basin 16. This location is being addressed as part of the ongoing Site RI/FS investigation. To address contamination detected in the confirmatory samples, additional areas were excavated beyond what was proposed in the RAP, including a 5 ft by 80 ft by 1 ft deep area to the north of basin 15, and a 7 ft by 65 ft by 1 ft deep area to the south of basin 16. These additional excavation areas are shown in red on **Figure 2** and **Figure 3**.

Basin and Soil Removal Activities

The remediation contractor, Miller, excavated and removed the two CT concrete basins and adjacent soils between February 7 and March 30, 2017. The concrete basins were broken up by heavy machinery into blocks no greater than 2 ft on a side, and extending rebar was cut. Both soil and concrete waste materials were live loaded into trucks and transported directly to an approved subtitle D disposal facility (Republic's Old Dominion Landfill) for disposal. Waste transportation was provided by Payne Trucking Co., and waste disposal services were provided by Veolia Environmental Services. Final disposal quantities were 9,923 tons of soil and 6,666 tons of concrete debris.

The basin excavations were backfilled between March 24 and May 16, 2017 with clean backfill provided by RE-AGG. Backfill material was sampled and analyzed prior to use for Priority Pollutant List metals, SVOCs, PAHs, and PCBs, and the results submitted to and approved by DOEE. Copies of analytical results for backfill are provided as **Attachment 3**.

Approximately 28,000 gal of rainwater that had accumulated in the basins excavations prior to and during backfilling was pumped into an onsite frac tank and transported to Spirit Services, Inc. for treatment and disposal.

During remediation activities all site personnel donned rubber boot covers at the site entrance to avoid tracking contaminated material out of the work zone. The tires of the waste haul trucks were washed at the site exit at a truck wash station, and any heavy equipment leaving the site was pressure washed to remove gross contamination and adhered soil.

Site Restoration and Closure

Bioretention basins were designed by Advanced GeoServices Corp. and installed by Miller in place of the two CT basins to filter, treat and direct stormwater runoff from the basin footprint to the 54-inch diameter main drainage pipe that underlies the Site in the area of the former CT 16 basin and discharges to the Anacostia River. The former basin areas were graded with 2" stone. Final DOEE site inspection was completed on May 19, 2017, followed by demobilization; a copy of the DOEE final inspection approval is provided as **Attachment 4**.



If you have any questions or require additional information, please contact Ravi Damera at (301) 289-3809.

Sincerely,

BDil

Ben Daniels, P.G. Project Geologist

Raii Damena

Ravi Damera, P.E., BCEE Senior Project Manager

cc: Ms. Fariba Mahvi, Pepco

Attachments:

- Figure 1: Site Map
- Figure 2: CT15 Sampling Results and Excavation Areas
- Figure 3: CT16 Sampling Results and Excavation Areas
- Attachment 1: Air & Noise Monitoring Data
- Attachment 2: Confirmatory Soil Sampling Results
- Attachment 3: Backfill Analytical Results
- Attachment 4: DOEE Final Inspection Approval



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Benning Road Facility

A Α BASIN WALL -BASIN FLOOR GROUND SURFACE د اف 18 . . . CT15SO5F CT15SO5EF 0 <1 CT15SO5E CT15SO5C) | 1.7 CT15SO1E CT15SO5B 12 <1 SECTION DETAIL A - A' (TYP.) ADDITIONAL 12 0.0 CT15SO4C 0 <1 EXCAVATION AREA CT15SO4A CT15SO5A SCALE: 1" = 5' 12 <1 CT15SO1 0 2.4 0 1.4 12 <1 CT15SO1EF
 12
 <1</th>

 24
 <1</td>

 36
 <1</td>
SS-7 0 <1 0 <1 CT15SO4B 0 <1 24 <1 36 <1 \$T SS-8 0 3.3 CT15SO3C 0 <1 - 10' 24 <1 CT15SO3D CT15SO11A 24 <1 CT15SO9A 36 <1 CT15SO14A 36 <1 CT15SO16A 36 <1 CT15SO11B 48 1.1 36 <1 CT15SO8 36 <1 CT15SO3E 60 2. 48 <1 12 <1 72 <1 60 <1 CT15SO3B 0 <1 CT15SO13 CT15SO12A 36 <1 CT15SO15A 36 <1 CT15SO17A 36 <1 CT15SO10A 36 <1 12 2.7 36 <1 24 4 5 36 <1 30' CT15SO2 CT15SO3A 0 ' 20' 0 <1 15' 12 2.0 24 1.1 36 <1 SS-9 0 <1 CT15SO7B SS-10 0 <1 CT15SO6A 0 5.4 12 <1 0 6.7 0 <1 36 <1 CT15SO7A 30' 12 <1 0 3.0 12 <1 24 <1 24 <1 CT15SO7C 36 33 0 1.3 CT15SO6C 0 <1 36 <1 48 <1 12 <1 CT15SO7D CT15SO7E 0 4.3 12 <1 12 <1 LEGEND: COOLING TOWER 15 - PLAN VIEW APPROXIMATE EXCAVATION AREAS AND TONNAGE: CT15SO7F 0 <1 2017 CONFIRMATORY SAMPLING LOCATION SCALE: 1" = 25' 0 REMEDIATION AREA AREA (ft²) DEPTH (ft) VOLUM 2014-2015 SAMPLING LOCATION ۲ DATA BOX KEY: 2013 SAMPLING LOCATION 392 1.0 Sample ID (SO = Soil) \diamond 2012 SAMPLING LOCATION 11,490 3.0 Depth below grade (in) Total PCBs (mg/kg) 600 3.0 **EXPANSION JOINT** 0 1.1 13,080 0.5 PCBs POLYCHLORINATED BIPHENYLS 12 <1 3,600 1.0 MILLIGRAMS PER KILOGRAM mg/kg 1,800 3.0 NOTE: RESULTS HIGHLIGHTED IN YELLOW INDICATE A TOTAL PCBs CONCENTRATION

GREATER THAN OR EQUAL TO 1 mg/kg.

NOTE: FOR EXTERIOR SAMPLES, LETTERS AT THE END OF THE SAMPLE ID INDICATE DISTANCE FROM THE BASIN AS FOLLOWS: A=0', B=5', C=10', D=12', E=15', EF=17', F=20', G=22".

30,570

TOTALS

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LUME (cy)	MASS (tons)
15	22
1,277	1,915
67	100
242	363
133	200
200	300
1,934	2,900

NOTE: ALL REMEDIATION AREAS ARE BELOW GRADE. 🔤 🧧 AREA IS BELOW BASE OF BOTTOM SLAB AND INSIDE THE BASIN.



Cooling Tower Basins Remedial Action Report

COOLING TOWER BASINS BENNING ROAD FACILITY WASHINGTON, DC

PREPARED FOR



A PHI Company PEPCO BENNING ROAD FACILITY 3400 BENNING ROAD, NE WASHINGTON, DC 20019

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DATE 2017.08.07

PROJECT NUMBER 60340344

FIGURE TITLE Cooling Tower 15 Sampling Results and **Excavation Area**

FIGURE NUMBER 2

Α' Α BASIN WALL BASIN FLOOR GROUND SURFACE CT16SO7C 18 12 <1 36 <1 CT16SO7E 24 <1 60 <1 CT16SO7B 48 <1 SECTION DETAIL A - A' (TYP.) CT16SO7A CT16SO6A 0 <1 SCALE: 1" = 5' 24 5 0 <1 36 36 CT16SO5A 0 <1 CT16SO6C 0 <1 CT16SO5C
 CT16SO4A

 0
 <1</td>

 12
 <1</td>

 24
 <1</td>

 36
 <1</td>
CT16SO4C 0 <1 12 <1 48 14 60 1.3 0 <1 24 SS-2 0 <1
 0
 1

 12
 <1</td>

 24
 <1</td>

 36
 <1</td>
24 <1 36 <1 48 <1 72 <1 SS-1 0 <1 CT16SO5B CT16SO2 0 <1 3 <1 CT16SO6B CT16SO4B 0 <1 0 <1 12 <1 15' CT16SO14A 36 <1 CT16SO16A 36 <1 CT16SO19A 36 <1 CT16SO21A 36 <1 CT16SO13 36 <1 CT16SO18 36 <1 CT16SO3C 0 <1 CT16SO15A 36 <1 CT16SO17A 36 <1 CT16SO20A 36 <1 CT16SO22E 36 <1 CT16SO3B CT16SO22A 0 <1 36 6.0 48 <1 CT16SO3A 0 <1 SS-5 0 <1 12 <1 24 <1 36 <1 10 10' ADDITIONAL EXCAVATION AREA CT16SO12A 0 <1 12 <1 CT16SO11A 0 2.0 CT16SO10B CT16SO1 0 1.3 3 <1 12 <1 24 <1 36 <1 SS-4 CT16SO9E CT16SO11B CT16SO10A 0 <1 24 <1 0 <1 36 3. 36 <1 12 42 12 <1 12 <1 48 <1 24 <1 24 <1 CT16SO11C CT16SO12B CT16SO10C <mark>36 11</mark> 48 <1 CT16SO11D CT16SO9C <mark>05.1</mark> 12<1 0 1.5 12 <1 0 <1 0 <1 12 <1 36 5.9 CT16SO12C 0 <1 48 <1 24 <1 CT16SO11F 0 1.1 CT16SO11E CT16SO10E 60 <1 0 1.8 12 <1 CT16SO9E CT16SO10F LEGEND: 48 <1 CT16SO11G 36 <1 24 <1 2017 CONFIRMATORY SAMPLING LOCATION APPROXIMATE EXCAVATION AREAS AND TONNAGE: **COOLING TOWER 16 - PLAN VIEW** 2014-2015 SAMPLING LOCATION REMEDIATION AREA AREA (ft²) DEPTH (ft) VOLUME (cy) MASS (tons) SCALE: 1" = 25' 2013 SAMPLING LOCATION DATA BOX KEY: 456 1.0 17 26 2012 SAMPLING LOCATION \diamond 6,819 3.0 758 1,137 Sample ID (SO = Soil) 6,728 6.0 1,495 2,243 Depth below grade (in) Total PCBs (mg/kg) PCBs POLYCHLORINATED BIPHENYLS 7,392 3.0 821 1,232 0 1.1 8,088 0.5 150 225 MILLIGRAMS PER KILOGRAM mg/kg 12 <1 111 167 3,000 1.0 NOTE: FOR EXTERIOR SAMPLES, LETTERS AT THE END OF NOTE: RESULTS HIGHLIGHTED IN YELLOW 100 4.0 15 22 THE SAMPLE ID INDICATE DISTANCE FROM THE BASIN AS INDICATE A TOTAL PCBs CONCENTRATION FOLLOWS: A=0', B=5', C=10', D=12', E=15', EF=17', F=20', G=22". 3,367 TOTALS 31,127 5,052 GREATER THAN OR EQUAL TO 1 mg/kg. NOTE: ALL REMEDIATION AREAS ARE BELOW GRADE.

L:\Group\earth\PEPCO - 60287343\Cooling Tower 16_Figure 2_Sample Results_2014.dwg, 8/9/2017 2:02:35 PM, DWG To PDF.pc3

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Cooling Tower Basins Remedial Action Report

COOLING TOWER BASINS BENNING ROAD FACILITY WASHINGTON, DC

PREPARED FOR



A PHI Company PEPCO BENNING ROAD FACILITY 3400 BENNING ROAD, NE WASHINGTON, DC 20019

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DATE 2017.08.07

PROJECT NUMBER 60340344

FIGURE TITLE Cooling Tower 16 Sampling Results and **Excavation Area**

FIGURE NUMBER 3



Attachment 1

Air and Noise Monitoring Data

			Monitorin	g Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Мах	Average
2/6/17	10:13	63	58	68	71	N/A	N/A		SW	N/A						
2/6/17	11:05	43	75	46	69	51	51		SW	N/A						
2/6/17	12:10	46	50	74	33	46	104		SW	N/A						
2/6/17	13:04	31	32	45	40	31	32		SW	N/A						
2/6/17	14:00	24	34	25	32	24	34		SW	N/A						
2/6/17	15:05	21	24	17	23	20	25		SW	N/A						
2/6/17	16:06	20	23	18	36	19	29		SW	N/A						
2/6/17	16:42	26	31	16	28	17	24		SW	N/A						
2/7/17	6:55	61	53	38	32	58	46		SW	N/A						
2/7/17	8:05	30	32	44	70	30	71		SW	N/A						
2/7/17	9:08	52	75	58	68	42	79		SW	69.4						
2/7/17	10:02	31	28	52	71	29	78		SW	71.0						
2/7/17	11:05	26	29	48	69	21	69		SW	70.4						
2/7/17	12:05	51	64	64	40	36	41		SW	68.2						
2/7/17	13:00	32	44	57	48	31	47		SW	71.9						
2/7/17	14:00	29	38	51	52	27	49		SW	72.4						
2/7/17	15:00	31	39	168	56	29	61	111	SW	69.4						
2/7/17	16:00	27	46	96	61	34	72		SW	72.6						
2/8/17	6:50	58	53	46	49	43	48		SSW	64.6						
2/8/17	7:55	92	87	42	64	56	46		SSW	64.8						
2/8/17	9:00	39	42	52	58	37	48		SSW	65.2						
2/8/17	10:00	42	40	62	52	39	42		SSW	65.8						
2/8/17	11:05	38	39	78	48	42	41		SSW	64.2						
2/8/17	12:05	31	36	58	41	32	36		WNW	67.6						

			Monitorin	g Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Max	Average
2/8/17	13:00	46	42	37	28	31	46		WNW	68.4						
2/8/17	14:00	52	48	32	36	27	52		WNW	69.3						
2/8/17	15:00	48	36	29	32	29	48		WNW	68.5						
2/8/17	16:05	39	27	27	41	32	56		WNW	69.2						
2/9/17	6:55	19	22	36	19	11	21		NW	65.2						
2/9/17	8:00	16	24	38	22	17	36		NW	68.2						
2/9/17	8:55	38	27	46	24	24	28		NW	71.4						
2/9/17	9:55	17	14	37	21	36	32		NW	72.4						
2/9/17	10:55	24	19	15	51	28	54		NW	69.8						
2/9/17	12:00	16	31	29	46	17	59		SW	68.4						
2/9/17	13:00	22	27	42	52	23	46		SW	71.4						
2/9/17	14:00	38	18	38	48	28	38		WNW	74.1						
2/9/17	15:00	42	9	42	36	16	27		WNW	71.4						
2/9/17	16:00	16	16	51	28	12	31		WNW	70.7						
2/9/17	17:00	27	22	36	72	11	42		WNW	69.5						
2/10/17	7:00	17	21	19	19	17	19		SW	64.5						
2/10/17	8:00	58	24	20	22	24	58		SW	65.2						
2/10/17	9:05	17	25	20	51	25	51		SW	68.4						
2/10/17	10:05	20	13	37	19	26	28		SW	71.5						
2/10/17	11:20	13	25	47	20	14	20		SW	72.1						
2/10/17	12:15	20	32	15	16	21	16		SW	71.6						
2/10/17	13:15	21	35	36	14	56	30		SW	71.6						
2/10/17	14:15	40	20	35	24	28	24		SW	62.1						
2/10/17	15:15	14	34	17	22	10	10		SW	64.5	9	168	38	62.1	74.1	68.9

			Monitorin	ng Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Мах	Average	Min	Мах	Average
2/13/17	7:05	25	15	9	10	7	7		WNW	60.1						
2/13/17	8:05	12	16	14	11	8	12		WNW	62.0						
2/13/17	9:05	23	7	17	7	19	23		NW	61.0						
2/13/17	10:05	13	13	19	19	9	13		NW	64.0						
2/13/17	11:05	12	8	4	31	9	12		NW	63.0						
2/13/17	12:05	23	6	12	14	7	23		NW	65.0						
2/13/17	13:05	14	14	16	16	8	14		NW	60.1						
2/13/17	14:05	33	24	16	11	15	33		WNW	66.7						
2/13/17	15:05	31	14	20	18	20	31		WNW	64.0						
2/13/17	16:05	10	15	21	20	8	14		WNW	60.1						
2/13/17	17:05	18	11	10	13	11	18		WNW	64.2						
2/14/17	7:05	25	38	25	25	23	25		S	61.1						
2/14/17	8:05	21	20	41	25	19	25		S	65.0						
2/14/17	9:05	18	20	25	30	19	23		S	65.1						
2/14/17	10:05	22	19	30	22	19	30		S	65.4						
2/14/17	11:40	7	9	14	8	7	24		SW	67.5						
2/14/17	12:40	8	9	28	13	5	7		SW	64.0						
2/14/17	13:40	12	8	11	6	8	13		SSW	68.6						
2/14/17	14:40	25	16	57	28	17	28		SSW	80.8						
2/14/17	15:40	48	27	23	62	19	23		S	65.4						
2/14/17	17:00	24	19	28	20	15	25		S	62.7						
2/15/17	7:05	33	33	30	35	33	32		S	63.2						
2/15/17	8:05	51	274	57	56	50	57	56	SSW	73.5						
2/15/17	9:05	26	35	42	27	27	42		SSW	75.0						

			Monitorir	ng Location ID) - PM10 read	ing (µg/m3)				Noise (dB)	Weel	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Мах	Average	Min	Мах	Average
2/15/17	10:05	27	17	45	22	17	22		SW	82.2						
2/15/17	11:05	30	23	23	35	17	30		SW	78.2						
2/15/17	12:05	28	20	42	25	20	32		W	60.5						
2/15/17	13:05	16	9	14	36	9	37		WNW	63.0						
2/15/17	14:05	14	27	10	45	8	45		WNW	64.1						
2/15/17	15:05	14	17	10	50	17	38		NW	67.5						
2/15/17	16:05	47	11	20	28	8	45		NW	66.6						
2/15/17	17:05	5	18	16	39	9	15		NW	62.2						
2/16/17	7:05	20	24	11	8	9	20		WNW	60.0 72.5 71.6 66.0						
2/16/17	8:05	15	10	11	20	10	29		WNW							
2/16/17	9:05	15	6	59	50	6	15		WNW							
2/16/17	10:05	9	12	10	11	19	49		W							
2/16/17	11:05	23	6	37	9	6	29		WNW	68.4						
2/16/17	12:05	17	21	11	33	7	33		WNW	60.3						
2/16/17	13:05	19	8	13	32	8	19		WNW	72.2						
2/16/17	14:05	9	9	19	7	5	9		WNW	62.2						
2/16/17	15:05	34	10	26	57	8	34		WNW	63.5						
2/16/17	16:05	11	6	35	19	35	11		WNW	66.2						
2/16/17	17:05	10	14	21	30	6	13		WNW	65.7						
2/17/17	7:00	22	23	26	24	21	22		W	62.4						
2/17/17	8:00	26	31	33	31	24	34		W	66.2						
2/17/17	9:00	54	21	17	21	19	23		NW	71.2						
2/17/17	10:00	46	23	31	34	24	31		NW	71.4						
2/17/17	11:00	31	27	27	46	31	44		NW	70.6						

			Monitorin	g Location ID	O - PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Max	Average
2/17/17	12:00	22	34	62	39	26	38		W	69.2						
2/17/17	13:00	27	25	84	36	21	37		SW	68.2						
2/17/17	14:00	32	28	32	24	20	31		SW	69.4						
2/17/17	15:00	27	25	46	28	19	33		SW	70.8						
2/17/17	16:00	19	21	24	19	17	22		SW	71.5	4	274	23	60.0	82.2	66.6
2/21/17	7:35	23	17	21	21	16	31		E	54.3						
2/21/17	8:35	13	46	15	32	14	35		E	65.2						
2/21/17	9:35	14	18	16	14	17.4	15		ESE	68.5						
2/21/17	10:35	10	9	11	13	10	13		ESE	58.1						
2/21/17	11:35	9	10	8	29	9	11		SSE	61.1						
2/21/17	12:35	9	11	16	17	10	15		SWS	56.7						
2/21/17	13:35	16	21	11	11	13	22		W	54.2						
2/21/17	14:35	12	11	11	41	15	24		SSE	56.7						
2/21/17	15:35	10	10	13	58	10	32		SSE	58.5						
2/21/17	16:35	12	15	16	25	12	22		SSE	55.5						
2/21/17	17:15	12	13	19	14	14	22		ESE	56.3						
2/22/17	7:35	20	27	38	27	20	25		ENE	56.7						
2/22/17	8:35	42	30	29	65	26	40		ENE	75.6						
2/22/17	9:35	27	32	32	65	27	97		ENE	58.5						
2/22/17	10:35	29	31	30	58	30	62		ENN	56.4						
2/22/17	11:35	32	32	34	62	32	95		ENE	60.2						
2/22/17	12:35	33	36	33	32	32	32		ENE	54.5						
2/22/17	13:35	30	86	32	36	31	41		ENE	56.1						
2/22/17	14:35	28	36	25	62	38	65		ENE	54.5						

			Monitorin	g Location ID	D - PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Мах	Average
2/22/17	15:35	25	45	24	58	25	100		ENE	59.0						
2/22/17	16:35	25	38	29	50	25	53		ENE	57.7						
2/22/17	17:00	25	35	26	30	25	29		ENE	56.6						
2/23/17	7:35	39	40	34	43	30	32		SSW	65.3						
2/23/17	8:35	23	26	24	29	23	30		SSW	67.4						
2/23/17	9:35	19	29	19	27	18	24		SSW	53.5						
2/23/17	10:35	17	18	17	18	16	26		SW	58.0						
2/23/17	11:35	15	13	18	28	17	30		SW	60.1						
2/23/17	12:35	17	15	19	28	11	19		SW	56.5						
2/23/17	13:35	13	17	11	27	8	78		NW	57.7						
2/23/17	14:35	8	26	7	53	7	34		NW	63.1						
2/23/17	15:35	4	34	4	65	4	16		N	58.9						
2/23/17	16:35	10	14	15	16	10	28		N	55.5						
2/23/17	17:10	11	14	13	15	11	15		N	55.2						
2/24/17	7:35	10	10	18	19	10	15		SW	58.6						
2/24/17	8:35	15	26	12	26	10	21		W	62.7						
2/24/17	9:35	12	14	18	18	10	18		NW	63.8						
2/24/17	10:35	12	15	13	19	9	21		NW	61.2						
2/24/17	11:35	17	15	14	29	9	32		NW	60.8						
2/24/17	*12:35	9	14	8	21	5	14		NW	61.7						
2/24/17	1:35	22	15	13	19	5	16		NW	62.3						
2/24/17	2:35	8	13	10	10	9	10		NW	60.1						
2/24/17	3:00	10	13	11	12	8	12		NW	58.7	4	100	23	53.5	75.6	59.3
2/27/17	7:15	47	44	51	51	47	51		S	62.5						

			Monitorin	g Location ID	D - PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Мах	Average
2/27/17	8:05	30	30	56	29	30	33		SSW	65.3						
2/27/17	9:05	25	29	24	32	24	32		SSW	57.0						
2/27/17	10:05	27	20	20	20	22	22		SSE	60.1						
2/27/17	11:05	9	12	34	15	8	34		S	55.8						
2/27/17	12:05	10	9	8	7	5	7		S	56.2						
2/27/17	1:05	16	18	22	11	7	18		S	59.9						
2/27/17	2:05	6	10	12	17	9	17		S	62.1						
2/27/17	3:05	13	11	36	60	9	60		S	65.0						
2/27/17	4:05	9	12	13	10	10	10		S	55.9						
2/27/17	5:05	16	11	10	11	11	11		s	55.2						
2/28/17	7:00	20	19	39	20	20	19		NE	60.9						
2/28/17	8:00	29	36	35	37	36	36		ш	60.9						
2/28/17	9:00	26	32	64	36	36	32		ш	68.2						
2/28/17	10:00	21	24	24	52	21	25		S	64.3						
2/28/17	11:00	16	14	29	40	16	29		S	66.3						
2/28/17	12:00	15	16	15	18	15	15		S	60.5						
2/28/17	1:00	15	17	19	30	14	30		SW	65.0						
2/28/17	2:00	26	19	47	41	19	41		SW	74.1						
2/28/17	3:00	20	22	35	40	19	35		S	70.9						
2/28/17	4:00	20	18	42	18	18	42		S	72.5						
2/28/17	5:00	23	19	21	54	19	54		SW	61.9						
3/1/17	7:00	37	36	37	37	36	37		SSW	63.2						
3/1/17	8:00	43	41	44	45	41	45		SSW	64.5						
3/1/17	9:00	41	42	47	41	41	47		SSW	65.9						

			Monitorin	g Location ID	O - PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Max	Average
3/1/17	10:00	44	44	44	43	43	44		SSW	61.5						
3/1/17	11:00	46	44	70	36	41	70		SSW	64.2						
3/1/17	12:00	33	33	44	33	32	33		SSW	63.5						
3/1/17	1:00	23	32	48	27	23	48	83	SSW	68.8						
3/1/17	*3:00	3	2	6	2	2	6		W	62.7						
3/1/17	4:00	7	5	12	7	5	12		SSW	64.5						
3/1/17	5:00	4	4	9	4	4	6		SSW	62.2						
3/2/17	7:15	4	6	3	5	3	9		WNN	63.4						
3/2/17	8:00	5	4	11	11	5	0		WNW	64.2						
3/2/17	9:00	3	13	12	3	1	12		WNW	64.4						
3/2/17	10:00	18	3	19	4	2	18		WNW	63.9						
3/2/17	11:00	6	4	5	5	4	6		WNW	67.9						
3/2/17	12:00	3	3	10	4	4	3		WNW	64.0						
3/2/17	1:15	34	3	6	13	2	34		WNW	74.9						
3/2/17	2:15	2	2	4	12	2	12		W	75.0						
3/2/17	3:00	4	2	13	18	2	18		W	65.1						
3/2/17	4:00	4	1	1	5	1	5		W	66.7						
3/2/17	5:00	10	3	7	10	4	10		WNN	61.7						
3/3/17	7:05	16	14	17	14	14	17		W	61.0						
3/3/17	8:05	10	11	10	35	11	11		W	64.5						
3/3/17	9:05	13	11	15	29	11	11		W	72.8						
3/3/17	10:05	7	7	22	26	7	7		W	67.1						
3/3/17	11:05	11	11	9	12	9	9		N	72.1						
3/3/17	12:05	12	12	10	8	10	10		WNW	60.0						

			Monitorin	g Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ug/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Мах	Average	Min	Мах	Average
3/3/17	13:05	6	8	6	6	6	6		WNW	70.6						
3/3/17	14:15	5	4	5	7	2	2		WNW	63.8	0	70	20	55.2	75.0	64.4
3/6/17	7:20	29	11	16	60	29	16		SSE	69.0						
3/6/17	8:20	16	11	50	15	16	50		SSE	65.6						
3/6/17	9:20	28	18	13	36	28	13		S	60.5						
3/6/17	10:20	17	19	15	18	17	15		S	60.9						
3/6/17	11:20	23	49	46	10	23	46		SSE	62.3						
3/6/17	12:20	14	16	27	20	14	27		SSE	64.7						
3/6/17	13:20	18	25	57	19	18	57		SSE	63.0						
3/6/17	14:20	21	16	49	37	21	49		SSE	61.4						
3/6/17	15:20	19	19	40	27	19	40		S	61.0						
3/6/17	16:20	23	22	47	39	23	47		SSE	67.2						
3/7/17	7:30	51	74	49	62	51	49		SSE	62.6						
3/7/17	8:30	46	49	44	65	46	44		SSE	71.2						
3/7/17	9:30	47	32	60	42	47	60		S	65.4						
3/7/17	10:30	32	38	38	37	32	38		SSE	68.3						
3/7/17	11:30	22	20	34	33	22	34		SSW	64.1						
3/7/17	12:30	55	18	46	23	55	46		SSW	62.2						
3/7/17	13:30	45	19	51	25	45	51		SSW	64.3						
3/7/17	14:30	50	22	18	37	50	18		SSW	63.1						
3/7/17	15:30	14	16	28	20	14	28		SSW	66.9						
3/7/17	16:30	13	16	75	33	13	75		SSE	69.3						
3/8/17	7:15	4	3	4	5	3	5		WNW	60.1						
3/8/17	8:15	3	6	5	21	6	21		WNW	66.2						

			Monitorin	g Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Мах	Average
3/8/17	9:15	4	2	4	2	2	2		WNW	61.4						
3/8/17	10:15	2	11	3	5	11	5		WNW	65.7						
3/8/17	11:15	3	2	1	8	2	8		WNW	69.6						
3/8/17	12:15	20	2	1.2	9	2	9		W	62.1						
3/8/17	13:15	8	9	1	5	9	5		W	63.0						
3/8/17	14:15	6	5	2	7	5	7		W	64.2						
3/8/17	15:15	8	3	19	26	3	26		WSW	66.7						
3/8/17	16:15	1	2	3	25	6	25		SW	64.8						
3/9/17	7:20	14	13	13	14	14	13		SSW	58.5						
3/9/17	8:20	12	22	21	12	12	21		SW	62.4						
3/9/17	9:20	16	50	8	12	12	8		SW	61.4						
3/9/17	10:20	6	36	7	6	6	7		SSW	63.4						
3/9/17	11:20	3	33	15	3	3	15		wsw	64.7						
3/9/17	12:20	12	36	20	16	16	20		wsw	63.9						
3/9/17	13:20	10	10	26	7	7	26		WSW	64.5						
3/9/17	14:20	23	33	51	25	25	51		W	66.7						
3/9/17	15:20	23	26	33	18	18	33		WSW	64.8						
3/9/17	16:20	23	42	88	24	24	88		WSW	62.6						
3/10/17	7:26	23	11	13	14	15	23		N	59.7						
3/10/17	8:20	37	9	10	14	10	37		N	78.4						
3/10/17	9:20	8	9	10	18	10	8		N	68.4						
3/10/17	10:20	6	7	9	12	9	6		NNW	64.7						
3/10/17	11:20	5	2	4	4	4	5		NNW	67.2						
3/10/17	12:20	7	4	4	4	4	7		NNW	68.1						

			Monitorin	ng Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Weel	kly PM10 (µ	ıg/m3)	We	ekly Sound	d (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Max	Average
3/10/17	13:20	16	8	8	6	8	16		NNW	67.3						
3/10/17	14:20	11	15	7	9	7	11		NW	67.5	1	88	21	58.5	78.4	64.8
3/13/17	7:30	27	36	22	25	19	31		NE	65.1						
3/13/17	8:30	23	29	22	19	17	32		ENE	66.7						
3/13/17	9:30	22	33	20	21	17	35		E	65.4						
3/13/17	10:30	21	19	29	17	20	29		E	66.2						
3/13/17	11:30	24	18	25	18	21	27		E	67.4						
3/13/17	12:30	22	17	23	16	22	33		E	66.3						
3/13/17	13:30	19	16	25	18	23	29		E	64.9						
3/13/17	14:30	20	14	24	19	20	29		E	65.1						
3/13/17	15:30	21	16	26	21	19	29		E	64.2						
3/13/17	16:30	24	17	24	19	14	23		E	66.5						
3/13/17	17:15	22	16	22	20	16	25		E	65.7						
3/16/17	7:30	12	10	13	12	10	18		SW	62.6						
3/16/17	8:30	8	12	1	2	7	16		SW	64.2						
3/16/17	9:30	24	11	23	20	11	36		SE	66.2						
3/16/17	10:30	19	32	17	99	16	38		W	65.8						
3/16/17	11:30	21	28	32	14	17	28		W	66.7						
3/16/17	12:30	8	15	12	15	16	74		W	62.1						
3/16/17	13:30	18	21	14	17	11	19		W	64.2						
3/16/17	14:30	16	22	15	19	0	22		W	63.6						
3/16/17	15:30	15	20	17	18	13	25		w	64.5						
3/16/17	16:30	14	21	15	21	10	26		W	66.3						
3/17/17	7:30	42	62	54	58	52	82		SW	68.2						

			Monitorin	ng Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Weel	ly PM10 (ہ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Мах	Average	Min	Мах	Average
3/17/17	8:30	39	61	79	52	50	80		SW	66.3						
3/17/17	9:30	29	33	42	31	29	51		SE	65.4						
3/17/17	10:30	30	42	52	52	47	57		SE	66.4						
3/17/17	11:30	27	28	56	51	42	51		SW	65.3						
3/17/17	12:30	21	30	27	42	29	32		SW	64.2						
3/17/17	13:30	29	37	21	39	29	41		SW	63.6						
3/17/17	14:30	28	42	16	41	21	43		SW	65.7	0	99	27	62.1	68.2	65.3
3/20/17	7:30	29	32	28	31	27	29		NW	66.5						
3/20/17	8:30	29	31	29	33	30	33		NW	65.2						
3/20/17	9:30	25	29	22.6	30	29	42		NW	67.2						
3/20/17	10:30	28	33	31	27	25	25		NW	66.5						
3/20/17	11:30	25	30	42	28	22	36		NW	66.8						
3/20/17	12:30	22	20	18	25	21	25		NW	64.4						
3/20/17	13:30	25	35	25	32	20	28		NW	65.8						
3/20/17	15:30	26	32	25	29	22	28		NW	64.8						
3/20/17	16:30	23	22	24	27	22	29		NW	65.7						
3/20/17	17:15	22	26	21	19	19	23		NW	64.2						
3/21/17	7:30	42	37	32	36	28	43		NNE	65.2						
3/21/17	8:30	45	39	31	38	29	42		NNE	66.3						
3/21/17	9:30	45	36	34	38	22	44		NNE	68.2						
3/21/17	10:30	48	35	33	33	25	48		NNE	67.2						
3/21/17	11:30	31	32	33	35	30	38		NNE	66.8						
3/21/17	12:30	37	33	35	34	29	41		NNE	64.4						
3/21/17	13:30	45	36	32	38	28	43		NNE	69.2						

			Monitorin	g Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Мах	Average	Min	Мах	Average
3/21/17	15:30	48	35	31	33	29	42		NNE	64.3						
3/21/17	16:30	31	32	34	35	22	44		NNE	68.7						
3/21/17	17:15	29	27	35	32	25	28		NNE	64.1						
3/22/17	7:30	28	29	30	33	27	48		SE	64.3						
3/22/17	8:30	29	0	29	35	26	38		SE	65.8						
3/22/17	9:30	22	36	28	32	22	41		SE	66.2						
3/22/17	10:30	25	35	35	33	25	47		SE	69.1						
3/22/17	11:30	30	32	32	35	30	35		SE	66.8						
3/22/17	12:30	29	18	15	34	29	42		SE	64.4						
3/22/17	14:30	26	32	33	29	26	44		SE	65.1						
3/22/17	15:30	29	31	36	35	25	41		SE	63.4						
3/22/17	16:30	22	22	29	35	22	34		SE	67.8						
3/22/17	17:15	25	21	34	32	25	28		SE	61.4						
3/23/17	7:30	19	24	13	16	12	15		NNE	65.3						
3/23/17	8:30	20	21	12	18	11	14		NNE	65.2						
3/23/17	9:30	16	19	15	15	21	22		NNE	66.3						
3/23/17	10:30	18	23	13	16	14	16		NNE	66.2						
3/23/17	11:30	21	21	16	20	15	18		NNE	66.5						
3/23/17	12:30	24	12	18	14	13	14		NE	61.4						
3/23/17	13:30	13	19	15	22	13	25		NNE	59.8						
3/23/17	14:30	16	16	17	21	16	18		NNE	59.4						
3/23/17	15:30	13	32	12	17	14	21		WSW	63.4						
3/23/17	16:30	16	11	15	11	13	22		SSE	57.2						
3/24/17	7:30	31	22	21	18	22	28		S	65.5						

			Monitorin	g Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Мах	Average	Min	Мах	Average
3/24/17	8:30	33	25	19	15	25	27		s	66.2						
3/24/17	9:30	32	20	18	18	23	26		S	64.0						
3/24/17	10:30	32	22	17	19	20	28		SE	65.1						
3/24/17	11:30	29	25	16	16	22	30		SE	66.3						
3/24/17	12:30	32	23	23	20	13	25		SE	62.1						
3/24/17	13:30	32	25	18	19	26	45		SE	65.4						
3/24/17	14:30	29	26	22	20	19	30		SE	66.4						
3/24/17	15:15	15	19	16	11	9	11		SE	62.1	0	48	26	57.2	69.2	65.1
3/27/17	7:15	53	58	65	77	53	60		SSE	61.1						
3/27/17	8:05	61	62	72	70	64	72		SSE	66.4						
3/27/17	9:05	60	60	67	66	60	62		SSE	66.6						
3/27/17	10:05	55	40	48	44	48	44		S	70.9						
3/27/17	11:05	21	22	22	23	21	23		S	64.2						
3/27/17	12:05	21	21	25	21	19	21		S	62.9						
3/27/17	13:05	27	25	20	42	33	42		S	63.2						
3/27/17	14:05	63	25	25	30	25	30		S	59.8						
3/27/17	15:00	23	18	19	21	23	27		S	59.7						
3/27/17	16:00	29	16	16	19	29	19		S	60.0						
3/27/17	17:00	14	13	23	20	14	25		s	62.3						
3/28/17	7:05	34	32	38	36	33	38		SSW	61.9						
3/28/17	8:05	41	41	41	41	41	41		SSE	66.9						
3/28/17	9:05	23	22	85	23	22	25		SSW	61.6						
3/28/17	11:05	37	19	24	19	19	24		WSW	70.8						
3/28/17	12:05	22	22	19	19	19	19		WSW	66.5						

			Monitorin	g Location ID	- PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (µ	ıg/m3)	We	ekly Sound	l (dB)
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Max	Average	Min	Мах	Average
3/28/17	13:05	23	20	20	19	20	23		WNW	66.1						
3/28/17	14:05	32	5	10	6	5	32		WNW	74.6						
3/28/17	15:05	7	6	13	7	7	25		WNW	70.6						
3/28/17	16:05	7	5	16	18	5	7		NW	73.2						
3/28/17	17:05	8	4	5	4	5	8		NW	71.0						
3/29/17	7:05	7	8	7	8	7	7		Ν	57.9						
3/29/17	8:05	9	4	4	4	4	9		Ν	72.4						
3/29/17	9:00	29	9	3	7	3	29		Ν	68.2						
3/29/17	10:00	3	6	2	3	2	3		Ν	70.2						
3/29/17	11:00	2	4	1	5	1	4		Ν	72.6						
3/29/17	12:00	10	11	7	12	5	10		NNW	65.5						
3/29/17	13:00	9	8	5	8	8	9		NNW	70.5						
3/29/17	14:00	15	27	14	6	6	15		NW	62.2						
3/29/17	15:00	8	7	19	3	3	8		NNW	60.2						
3/29/17	16:00	3	9	3	8	8	7		NNW	62.0						
3/29/17	17:00	8	2	3	3	3	8		NNW	60.9						
3/30/17	7:05	12	14	16	12	12	12		NE	60.5						
3/30/17	8:05	18	20	14	16	16	18		NE	65.5						
3/30/17	9:00	50	19	8	9	9	50		NE	60.7						
3/30/17	10:00	9	20	21	8	7	9		NE	63.5						
3/30/17	11:00	9	11	18	8	9	11		SE	60.1						
3/30/17	12:00	7	11	13	12	7	11		SE	65.2						
3/30/17	13:00	7	27	16	12	7	29		SE	59.9						
3/30/17	14:00	10	9	12	11	8	9		SE	57.2						

			Monitorii	ng Location II	O - PM10 read	ing (µg/m3)				Noise (dB)	Wee	kly PM10 (j	ug/m3)	We	leekly Sound (dB)	
Date	Time	1	2	3	4	Upwind	Downwind	PM10 15-min Average (if applicable)	Wind Direction	At Northeast Corner of Site	Min	Мах	Average	Min	Мах	Average
3/30/17	15:00	12	18	8	6	12	18		SE	68.5						
3/30/17	16:00	7	21	13	7	7	21		ESE	66.3						
3/30/17	17:00	9	12	12	6	9	12		ESE	60.5	1	85	20	57.2	74.6	64.9
3/31/17					Rain - no worl	ĸ										



Attachment 2

Confirmatory Soil Sampling Results



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh 301 Alpha Drive RIDC Park Pittsburgh, PA 15238 Tel: (412)963-7058

TestAmerica Job ID: 180-63486-1 Client Project/Site: Pepco Benning Road Facility

For:

AECOM, Inc. 250 Apollo Drive Chelmsford, Massachusetts 01824

Attn: Mr. Robert Kennedy



Authorized for release by: 2/21/2017 2:00:51 PM

Jill Colussy, Project Manager I (412)963-2444 jill.colussy@testamericainc.com

Review your project results through TOTALACCESS

..... Links



Visit us at: www.testamericainc.com This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 180-63486-1

Laboratory: TestAmerica Pittsburgh

Narrative

CASE NARRATIVE

Client: AECOM, Inc.

Project: Pepco Benning Road Facility

Report Number: 180-63486-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 02/16/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

PCBS

Due to the concentration of PCBs detected, several samples were analyzed at a dilution. The reporting limits have been adjusted accordingly.

Sample CT16S09F-12 (180-63486-7) had the surrogates diluted out.

Several samples had one surrogate recover outside of the control limits. All samples had one surrogate recovery within the control limits. All data was reported.

The matrix spike recovered outside of the control limits for PCB-1016.

The matrix spike duplicate recovered outside of the control limits for PCB-1016 and PCB-1260.

PERCENT SOLIDS

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

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

1 2 3 4 5 6 7 8 9

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
Х	Surrogate is outside control limits
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.	8
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CNF	Contains no Free Liquid	
DER	Duplicate error ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision level concentration	
MDA	Minimum detectable activity	
EDL	Estimated Detection Limit	
MDC	Minimum detectable concentration	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
NC	Not Calculated	
ND	Not detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RER	Relative error ratio	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

Certification Summary

6

9

1

4

5

7

6

1

2

2

4

3

4

6

8

3

3

5

EPA Region

Certification ID

88-0690

PH-0688

E871008

200005

04041

2030

PA005

11182

89014

460189

998027800

142

02-00416

LE94312A-1

P330-16-00211

PA001462015-4

T104704528-15-2

434

E-10350

2891

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

Authority

California

Florida

Illinois

Kansas

Louisiana

New Jersey

Pennsylvania

South Carolina

US Fish & Wildlife

West Virginia DEP

New York

Texas

USDA

Utah

Virginia

Wisconsin

New Hampshire

North Carolina (WW/SW)

Connecticut

Arkansas DEQ

Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

State Program

State Program

State Program

Program

NELAP

NELAP

NELAP

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NELAP

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NELAP

NELAP

NELAP

Federal

Federal

NELAP

NELAP

State Program

State Program

State Program

State Program

TestAmerica Job ID: 180-63486-1

Expiration Date

06-27-17

03-31-18

09-30-18

06-30-17

06-30-17

01-31-18

06-30-17

04-04-17

06-30-17

03-31-17

12-31-17

04-30-17

04-30-17

03-31-17

10-31-17

06-26-19

05-31-17

09-14-17

01-31-18

08-31-17

5
8

TestAmerica Pittsburgh

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

Lab Sample ID	Client Sample ID	Matrix	Collected Re	ceived
180-63486-1	CT15S07F-0	Solid	02/15/17 09:45 02/16	/17 08:35
180-63486-2	CT15S05E-0	Solid	02/15/17 10:00 02/16	/17 08:35
180-63486-3	CT15S01E-0	Solid	02/15/17 10:10 02/16	/17 08:35
180-63486-4	CT15S01E-12	Solid	02/15/17 10:20 02/16	/17 08:35
180-63486-5	CT16S011F-0	Solid	02/15/17 10:25 02/16	/17 08:35
180-63486-6	CT16S010F-36	Solid	02/15/17 10:35 02/16	/17 08:35
180-63486-7	CT16S09F-12	Solid	02/15/17 10:45 02/16	/17 08:35
180-63486-8	CT16S08F-12	Solid	02/15/17 10:50 02/16	/17 08:35
180-63486-9	CT16S07B-72	Solid	02/15/17 11:20 02/16	/17 08:35

TestAmerica Job ID: 180-63486-1

TestAmerica Pittsburgh

2/21/2017

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) (GC)	SW846	TAL PIT
PCB	Total PCB Calculation	TAL SOP	TAL PIT
2540G	SM 2540G	SM22	TAL PIT

Protocol References:

SM22 = SM22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Initial

2 mL

1

Dil

Batch

Туре

Analysis

Analysis

Batch

3660B

Client Sample ID: CT15S07F-0

Date Collected: 02/15/17 09:45

Date Received: 02/16/17 08:35

Date Collected: 02/15/17 09:45

Prep Type

Total/NA

Total/NA

Total/NA

Lab Sample ID: 180-63486-1

Analyst

CBY

Lab Sample ID: 180-63486-2

02/17/17 04:10 JMO

02/17/17 06:56 JMO

Lab

TAL PIT

TAL PIT

TAL PIT

TAL PIT

Matrix: Solid

Prepared

Matrix: Solid

8

Method Amount Number or Analyzed Run Factor Amount Analyst Lab PCB 203485 02/16/17 11:37 SAB TAL PIT Instrument ID: NOEQUIP 2540G 203247 02/19/17 10:44 CLL TAL PIT Instrument ID: NOEQUIP Lab Sample ID: 180-63486-1 Client Sample ID: CT15S07F-0 Matrix: Solid Percent Solids: 88.3

Final

2 mL

Batch

203098

203101

Date Received: 02/16/17 08:35 Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Total/NA Prep 3541 15.0 g 203047 02/16/17 11:37 1.0 mL Total/NA Cleanup 3665A 2 mL 2 mL 203097 02/17/17 04:08 JMO

8082A Total/NA Analysis Instrument ID: CHGC16

Cleanup

Client Sample ID: CT15S05E-0 Date Collected: 02/15/17 10:00 Date Received: 02/16/17 08:35

Batch Batch Dil Initial Final Batch Prepared Prep Type Method Amount Amount Number or Analyzed Туре Run Factor Analyst Lab Total/NA Analysis PCB 203485 02/16/17 11:37 SAB TAL PIT Instrument ID: NOEQUIP Total/NA Analysis 2540G 203247 02/19/17 10:44 CLL TAL PIT 1 Instrument ID: NOEQUIP

Client Sample ID: CT15S05E-0 Date Collected: 02/15/17 10:00 Date Received: 02/16/17 08:35

Lab Sample ID: 180-63486-2 Matrix: Solid Percent Solids: 94.6

Lab Sample ID: 180-63486-3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	1.0 mL	203047	02/16/17 11:37	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	203097	02/17/17 04:08	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	203098	02/17/17 04:10	JMO	TAL PIT
Total/NA	Analysis	8082A		20			203101	02/17/17 11:07	JMO	TAL PIT
	Instrumen	t ID: CHGC16								

Client Sample ID: CT15S01E-0 Date Collected: 02/15/17 10:10 Date Received: 02/16/17 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	PCB		1			203485	02/16/17 11:37	SAB	TAL PIT

TestAmerica Pittsburgh

Matrix: Solid

Initial

Amount

Final

Amount

Batch

Number

203485

203247

Dil

Factor

Run

Batch

Type

Analysis

Analvsis

Batch

PCB

2540G

Instrument ID: NOEQUIP

Instrument ID: NOEQUIP

Method

Client Sample ID: CT15S01E-0

Date Collected: 02/15/17 10:10

Date Received: 02/16/17 08:35

Prep Type

Total/NA

Total/NA

Analyst

SAB

Lab

TAL PIT

Prepared

or Analyzed

02/16/17 11:37

02/19/17 10:44 CLL

8

TAL PIT Lab Sample ID: 180-63486-3 Matrix: Solid Percent Solids: 96.6

Client Sample ID: CT15S01E-0 Date Collected: 02/15/17 10:10

Date Received: 02/16/17 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.1 g	1.0 mL	203047	02/16/17 11:37	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	203097	02/17/17 04:08	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	203098	02/17/17 04:10	JMO	TAL PIT
Total/NA	Analysis	8082A		20			203101	02/17/17 11:28	JMO	TAL PIT
	Instrumer	t ID: CHGC16								

Client Sample ID: CT15S01E-12 Date Collected: 02/15/17 10:20 Date Received: 02/16/17 08:35

Prep Type Total/NA	Batch Type Analysis Instrument	Batch Method PCB t ID: NOEQUIP	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 203485	Prepared or Analyzed 02/16/17 11:37	Analyst SAB	Lab TAL PIT
Total/NA	Analysis Instrument	2540G t ID: NOEQUIP		1			203247	02/19/17 10:44	CLL	TAL PIT

Client Sample ID: CT15S01E-12 Date Collected: 02/15/17 10:20

Dil Initial Final Batch Batch Batch Prepared Method Amount Amount Number or Analyzed Prep Type Type Run Factor Analyst Lab Total/NA Prep 3541 15.0 g 203047 02/16/17 11:37 1.0 mL CBY TAL PIT Total/NA Cleanup 3665A 2 mL 2 mL 203097 02/17/17 04:08 JMO TAL PIT Total/NA Cleanup 3660B 2 mL 2 mL 203098 02/17/17 04:10 JMO TAL PIT Total/NA Analysis 8082A 203101 02/17/17 08:41 JMO TAL PIT Instrument ID: CHGC16

Client Sample ID: CT16S011F-0 Date Collected: 02/15/17 10:25 Date Received: 02/16/17 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	PCB		1		-	203485	02/16/17 11:37	SAB	TAL PIT

TestAmerica Pittsburgh

Lab Sample ID: 180-63486-3 Matrix: Solid

Lab Sample ID: 180-63486-4 Matrix: Solid

Lab Sample ID: 180-63486-4 Matrix: Solid Percent Solids: 96.5

Lab Sample ID: 180-63486-5

2/21/2017

Matrix: Solid

Date Received: 02/16/17 08:35

Initial

Amount

Final

Amount

Batch

Number

203485

203247

Dil

1

Factor

Run

Client Sample ID: CT16S011F-0

Batch

Type

Analysis

Analvsis

Batch

PCB

2540G

Instrument ID: NOEQUIP

Instrument ID: NOEQUIP

Method

Date Collected: 02/15/17 10:25

Date Received: 02/16/17 08:35

Prep Type

Total/NA

Total/NA

Lab Sample ID: 180-63486-5

Prepared

or Analyzed Analyst

02/16/17 11:37 SAB

02/19/17 10:44 CLL

1 2 3 4 5 6 7 8 9 10

D: 180-63486-5 Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab

TAL PIT

TAL PIT

Lab Sample ID: 180-63486-5
Matrix: Solid
Percent Solids: 92.2

Lab Sample ID: 180-63486-6

Client Sample ID: CT16S011F-0 Date Collected: 02/15/17 10:25 Date Received: 02/16/17 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	1.0 mL	203047	02/16/17 11:37	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	203097	02/17/17 04:08	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	203098	02/17/17 04:10	JMO	TAL PIT
Total/NA	Analysis	8082A		10			203101	02/17/17 11:49	JMO	TAL PIT
	Instrumer	t ID: CHGC16								

Client Sample ID: CT16S010F-36 Date Collected: 02/15/17 10:35 Date Received: 02/16/17 08:35

Prep Type Total/NA	Batch Type Analysis Instrument	Batch Method PCB ID: NOEQUIP	Run	Dil Factor 1	Initial Amount	Final Amount	Batch Number 203485	Prepared or Analyzed 02/16/17 11:37	Analyst SAB	Lab TAL PIT
Total/NA	Analysis Instrument	2540G ID: NOEQUIP		1			203247	02/19/17 10:44	CLL	TAL PIT

Client Sample ID: CT16S010F-36 Date Collected: 02/15/17 10:35 Date Received: 02/16/17 08:35

Lab Sample ID: 180-63486-6 Matrix: Solid

Lab Sample ID: 180-63486-7

Percent Solids: 85.3

 	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.3 g	1.0 mL	203047	02/16/17 11:37	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	203097	02/17/17 04:08	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	203098	02/17/17 04:10	JMO	TAL PIT
Total/NA	Analysis Instrumen	8082A t ID: CHGC16		1			203101	02/17/17 09:23	JMO	TAL PIT

Client Sample ID: CT16S09F-12 Date Collected: 02/15/17 10:45 Date Received: 02/16/17 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	PCB		1			203485	02/16/17 11:37	SAB	TAL PIT

TestAmerica Pittsburgh

Matrix: Solid
Initial

Amount

Final

Amount

Batch

Number

203485

203247

Dil

1

Factor

Run

Client Sample ID: CT16S09F-12

Batch

Type

Analysis

Analvsis

Client Sample ID: CT16S09F-12

Date Collected: 02/15/17 10:45

Date Received: 02/16/17 08:35

Batch

PCB

2540G

Instrument ID: NOEQUIP

Instrument ID: NOEQUIP

Method

Date Collected: 02/15/17 10:45

Date Received: 02/16/17 08:35

Prep Type

Total/NA

Total/NA

Lab Sample ID: 180-63486-7

Prepared

or Analyzed Analyst

02/16/17 11:37 SAB

02/19/17 10:44 CLL

Matrix: Solid

Lab

TAL PIT

TAL PIT

Matrix: Solid

8

Lab Sample ID: 180-63486-7 Matrix: Solid Percent Solids: 92.5

Lab Sample ID: 180-63486-8

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	1.0 mL	203047	02/16/17 11:37	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	203097	02/17/17 04:08	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	203098	02/17/17 04:10	JMO	TAL PIT
Total/NA	Analysis	8082A		1000			203101	02/17/17 12:10	JMO	TAL PIT
	Instrumer	nt ID: CHGC16								

Client Sample ID: CT16S08F-12 Date Collected: 02/15/17 10:50 Date Received: 02/16/17 08:35

Prep Type Total/NA	Batch Type Analysis Instrument	Batch Method PCB ID: NOEQUIP	Run	Dil Factor 1	Initial Amount	Final Amount	Batch Number 203485	Prepared or Analyzed 02/16/17 11:37	Analyst SAB	Lab TAL PIT
Total/NA	Analysis Instrument	2540G ID: NOEQUIP		1			203247	02/19/17 10:44	CLL	TAL PIT

Client Sample ID: CT16S08F-12 Date Collected: 02/15/17 10:50 Date Received: 02/16/17 08:35

Lab Sample ID: 180-63486-8 Matrix: Solid

Lab Sample ID: 180-63486-9

Percent Solids: 92.4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.1 g	1.0 mL	203047	02/16/17 11:37	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	203097	02/17/17 04:08	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	203098	02/17/17 04:10	JMO	TAL PIT
Total/NA	Analysis	8082A		10			203101	02/17/17 13:12	JMO	TAL PIT
	Instrumer	t ID: CHGC16								

Client Sample ID: CT16S07B-72 Date Collected: 02/15/17 11:20 Date Received: 02/16/17 08:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	PCB		1			203485	02/16/17 11:37	SAB	TAL PIT

TestAmerica Pittsburgh

Matrix: Solid

Lab Sample ID: 180-63486-9

Lab Sample ID: 180-63486-9

Matrix: Solid

Matrix: Solid

Percent Solids: 89.6

Client Sample ID: CT16S07B-72

Date Collected: 02/15/17 11:20 Date Received: 02/16/17 08:35

Prep Type Total/NA	Batch Type Analysis	Batch Method PCB	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 203485	Prepared or Analyzed 02/16/17 11:37	Analyst SAB	Lab TAL PIT
	Instrumen	t ID: NOEQUIP								
Total/NA	Analysis Instrumen	2540G t ID: NOEQUIP		1			203247	02/19/17 10:44	CLL	TAL PIT

Client Sample ID: CT16S07B-72 Date Collected: 02/15/17 11:20 Date Received: 02/16/17 08:35

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	1.0 mL	203047	02/16/17 11:37	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	203097	02/17/17 04:08	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	203098	02/17/17 04:10	JMO	TAL PIT
Total/NA	Analysis	8082A		1			203101	02/17/17 10:25	JMO	TAL PIT
	Instrumen	t ID: CHGC16								

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Cleanup JMO = John Oravec

Batch Type: Prep

CBY = Charles Yushinski

Batch Type: Analysis

CLL = Cheryl Loheyde

JMO = John Oravec

SAB = Sharon Bacha

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility TestAmerica Job ID: 180-63486-1

Lab Sample ID: 180-63486-1 Matrix: Solid Percent Solids: 88.3

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9

Client Sample ID: CT15S07F-0 Date Collected: 02/15/17 09:45

Date Received: 02/16/17 08:35

_

Method: 8082A - Polychlorinat	ted Biphen	ls (PCBs)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.94	0.50	ug/Kg	₩ 	02/16/17 11:37	02/17/17 06:56	1
PCB-1221	ND		0.94	0.49	ug/Kg	¢	02/16/17 11:37	02/17/17 06:56	1
PCB-1232	ND		0.94	0.37	ug/Kg	¢	02/16/17 11:37	02/17/17 06:56	1
PCB-1242	ND		0.94	0.75	ug/Kg	¢.	02/16/17 11:37	02/17/17 06:56	1
PCB-1248	ND		0.94	0.45	ug/Kg	¢	02/16/17 11:37	02/17/17 06:56	1
PCB-1254	2.3		0.94	0.41	ug/Kg	¢	02/16/17 11:37	02/17/17 06:56	1
PCB-1260	2.3	F1	0.94	0.63	ug/Kg	¢.	02/16/17 11:37	02/17/17 06:56	1
PCB-1262	ND		0.94	0.68	ug/Kg	¢	02/16/17 11:37	02/17/17 06:56	1
PCB-1268	ND		0.94	0.29	ug/Kg	¢	02/16/17 11:37	02/17/17 06:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	75		20 - 150				02/16/17 11:37	02/17/17 06:56	1
DCB Decachlorobiphenyl (Surr)	64		20 - 150				02/16/17 11:37	02/17/17 06:56	1
Tetrachloro-m-xylene	52		20 - 130				02/16/17 11:37	02/17/17 06:56	1
Tetrachloro-m-xylene	60		20 - 130				02/16/17 11:37	02/17/17 06:56	1
- Method: PCB - Total PCB Calc	ulation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	4.6		0.94	0.75	ug/Kg			02/16/17 11:37	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.7		0.1	0.1	%			02/19/17 10:44	1

Client Sample ID: CT15S05E-0 Date Collected: 02/15/17 10:00 Date Received: 02/16/17 08:35

Lab Sample ID: 180-63486-2 Matrix: Solid Percent Solids: 94.6

Method: 8082A - Polychlorina	ted Biphen	yls (PCBs)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		18	9.3	ug/Kg	¢	02/16/17 11:37	02/17/17 11:07	20
PCB-1221	ND		18	9.1	ug/Kg	¢	02/16/17 11:37	02/17/17 11:07	20
PCB-1232	ND		18	7.0	ug/Kg	₽	02/16/17 11:37	02/17/17 11:07	20
PCB-1242	ND		18	14	ug/Kg	¢	02/16/17 11:37	02/17/17 11:07	20
PCB-1248	ND		18	8.4	ug/Kg	¢	02/16/17 11:37	02/17/17 11:07	20
PCB-1254	1200		18	7.7	ug/Kg	₽	02/16/17 11:37	02/17/17 11:07	20
PCB-1260	450		18	12	ug/Kg	¢	02/16/17 11:37	02/17/17 11:07	20
PCB-1262	ND		18	13	ug/Kg	₽	02/16/17 11:37	02/17/17 11:07	20
PCB-1268	ND		18	5.4	ug/Kg	¢	02/16/17 11:37	02/17/17 11:07	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	112		20 - 150				02/16/17 11:37	02/17/17 11:07	20
DCB Decachlorobiphenyl (Surr)	116		20 - 150				02/16/17 11:37	02/17/17 11:07	20
Tetrachloro-m-xylene	116		20 - 130				02/16/17 11:37	02/17/17 11:07	20
Tetrachloro-m-xylene	93		20 - 130				02/16/17 11:37	02/17/17 11:07	20
Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1700		18	14	ug/Kg			02/16/17 11:37	1

Client: AECOM, Inc.

TestAmerica Job ID: 180-63486-1

Project/Site: Pepco Benning Ro	ad Facility								
Client Sample ID: CT15S Date Collected: 02/15/17 10:00 Date Received: 02/16/17 08:35	05E-0 ⁰ 5					L	ab Sample	e ID: 180-63 Matrix Percent Solic	8486-2 c: Solid ls: 94.6
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.4		0.1	0.1	%			02/19/17 10:44	1
Client Sample ID: CT15S Date Collected: 02/15/17 10:10 Date Received: 02/16/17 08:35	01E-0 ⁰ 5					L	ab Sample	e ID: 180-63 Matrix Percent Solic	8486-3 c: Solid ls: 96.6
Method: 8082A - Polychlorin	ated Bipheny	ls (PCBs)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		17	9.1	ug/Kg	¢	02/16/17 11:37	02/17/17 11:28	20
PCB-1221	ND		17	8.9	ug/Kg	¢	02/16/17 11:37	02/17/17 11:28	20
PCB-1232	ND		17	6.8	ug/Kg	¢	02/16/17 11:37	02/17/17 11:28	20
PCB-1242	ND		17	14	ug/Kg	Ċ.	02/16/17 11:37	02/17/17 11:28	20
PCB-1248	ND		17	8.2	ug/Kg	¢	02/16/17 11:37	02/17/17 11:28	20
PCB-1254	1000		17	7.5	ua/Ka	¢	02/16/17 11:37	02/17/17 11:28	20
PCB-1260	310		17	11	ua/Ka		02/16/17 11:37	02/17/17 11.28	20
PCB-1262			17	12	ug/Kg	Å	02/16/17 11:37	02/17/17 11:28	20
PCB-1268			17	52	ug/Ka	÷.	02/16/17 11:37	02/17/17 11:28	20
FGB-1200	ND		17	5.2	uy/Ny	~	02/10/17 11.37	02/17/17 11.20	20
Surrogate	%Recoverv	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobinhenvl (Surr)			20 - 150				1000000000000000000000000000000000000	$\frac{1}{02/17/17}$ 11.28	20
DCB Decachiorobiphenyl (Surr)	121		20 - 150				02/16/17 11:37	02/17/17 11:20	20
	121		20 - 130				02/10/17 11.37	02/17/17 11.20	20
	121		20 - 130				02/10/17 11.37	02/17/17 11.20	20
l etrachioro-m-xylene	93		20 - 130				02/16/17 11:37	02/11/11 11:28	20
Method: PCB - Total PCB Ca	lculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
Polychlorinated biphenyls, Total	1300		17	14	ua/Ka			02/16/17 11:37	1
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.4		0.1	0.1	%			02/19/17 10:44	1
Client Sample ID: CT15S Date Collected: 02/15/17 10:20 Date Received: 02/16/17 08:35	01E-12 0 5					L	ab Sample	e ID: 180-63 Matrix Percent Solic	3486-4 c: Solid ls: 96.5
Method: 8082A - Polychlorin	ated Bipheny	vis (PCBs)	(GC)		11	-	D	A	B -
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.86	0.46	ug/Kg	₽	02/16/17 11:37	02/17/17 08:41	1
PCB-1221	ND		0.86	0.45	ug/Kg	Þ	02/16/17 11:37	02/17/17 08:41	1
PCB-1232	ND		0.86	0.34	ug/Kg	☆	02/16/17 11:37	02/17/17 08:41	1
PCB-1242	ND		0.86	0.69	ug/Kg	Ċ,	02/16/17 11:37	02/17/17 08:41	1
PCB-1248	ND		0.86	0.41	ug/Kg	☆	02/16/17 11:37	02/17/17 08:41	1
PCB-1254	31		0.86	0.38	ug/Kg	¢	02/16/17 11:37	02/17/17 08:41	1
PCB-1260	30		0.86	0.58	ug/Kg	Å.	02/16/17 11:37	02/17/17 08:41	1
PCB-1262	ND		0.86	0.62	ug/Ka	¢	02/16/17 11:37	02/17/17 08:41	1
PCB-1268	ND		0.86	0.26	ug/Ka	☆	02/16/17 11:37	02/17/17 08:41	1
			0.00	0.20					•
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	150		20 - 150				02/16/17 11:37	02/17/17 08:41	1
DCB Decachlorobiphenvl (Surr)	73		20 - 150				02/16/17 11:37	02/17/17 08:41	1

TestAmerica Pittsburgh

Client: AECOM, Inc.

PCB-1242

TestAmerica Job ID: 180-63486-1

Project/Site: Pepco Benning Roa	ad Facility								
Client Sample ID: CT15S0 Date Collected: 02/15/17 10:20 Date Bessived: 02/15/17 08:35)1E-12					L	ab Sample	e ID: 180-63 Matrix Percent Solid	486-4 : Solid
Date Received. 02/16/17 06.35								Percent Solid	5. 90.5
Method: 8082A - Polychlorina	ated Biphen	yls (PCBs)	(GC) (Contir	nued)					
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		20 - 130				02/16/17 11:37	02/17/17 08:41	1
Tetrachloro-m-xylene	63		20 - 130				02/16/17 11:37	02/17/17 08:41	1
Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	61		0.86	0.69	ug/Kg			02/16/17 11:37	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.5		0.1	0.1	%			02/19/17 10:44	1
Client Sample ID: CT16S0)11F-0					L	ab Sample	e ID: 180-63	486-5
Date Collected: 02/15/17 10:25						_		Matrix	C Solid
Date Received: 02/16/17 08:35								Percent Solid	is: 92.2
Method: 8082A - Polychloring	ted Binhen	vis (PCBs)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		9.0	4.8	ug/Kg	<u> </u>	02/16/17 11:37	02/17/17 11:49	10
PCB-1221	ND		9.0	4.7	ug/Kg	☆	02/16/17 11:37	02/17/17 11:49	10
PCB-1232	ND		9.0	3.6	ug/Kg	☆	02/16/17 11:37	02/17/17 11:49	10
PCB-1242	ND		9.0	7.2	ug/Kg	¢.	02/16/17 11:37	02/17/17 11:49	10
PCB-1248	ND		9.0	4.3	ug/Kg	¢	02/16/17 11:37	02/17/17 11:49	10
PCB-1254	630		9.0	4.0	ug/Kg	☆	02/16/17 11:37	02/17/17 11:49	10
PCB-1260	420		9.0	6.0	ug/Kg	¢	02/16/17 11:37	02/17/17 11:49	10
PCB-1262	ND		9.0	6.5	ug/Kg	¢	02/16/17 11:37	02/17/17 11:49	10
PCB-1268	ND		9.0	2.8	ug/Kg	¢	02/16/17 11:37	02/17/17 11:49	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	169	X	20 - 150				02/16/17 11:37	02/17/17 11:49	10
DCB Decachlorobiphenyl (Surr)	116		20 - 150				02/16/17 11:37	02/17/17 11:49	10
Tetrachloro-m-xylene	93		20 - 130				02/16/17 11:37	02/17/17 11:49	10
Tetrachloro-m-xylene	74		20 - 130				02/16/17 11:37	02/17/17 11:49	10
Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1100		9.0	7.2	ug/Kg			02/16/17 11:37	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.8		0.1	0.1	%			02/19/17 10:44	1
Client Sample ID: CT16S0	10F-36					L	ab Sample	e ID: 180-63	486-6
Date Collected: 02/15/17 10:35	••							Matrix	C Solid
Date Received: 02/16/17 08:35								Percent Solid	is: 85.3
Method: 8082A - Polychloring	ted Binhen		(6C)						
Analyte		Qualifier	(UU) RI	мпі	Unit	п	Prenared	Analyzed	Dil Fac
PCB-1016		Juanno	0.96	0.51	ug/Ka	— -	02/16/17 11:37	02/17/17 09:23	1
PCB-1221	ND		0.96	0.50	ug/Ka	¢	02/16/17 11:37	02/17/17 09:23	1
PCB-1232	ND		0.96	0.38	ug/Ka	¢	02/16/17 11:37	02/17/17 09:23	1

TestAmerica Pittsburgh

© 02/16/17 11:37 02/17/17 09:23

0.96

0.76 ug/Kg

ND

TestAmerica Job ID: 180-63486-1

Client Sample ID: CT16S010F-36 Date Collected: 02/15/17 10:35 Date Received: 02/16/17 08:35

Percent Moisture

_ab Sample ID: 180-63486-6
Matrix: Solid
Percent Solids: 85.3

5

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Method: 8082A - Polychlorina	ted Bipheny	yls (PCBs)	(GC) (Contin	lued)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.96	0.46	ug/Kg	¢.	02/16/17 11:37	02/17/17 09:23	1
PCB-1254	ND		0.96	0.42	ug/Kg	¢	02/16/17 11:37	02/17/17 09:23	1
PCB-1260	210		0.96	0.64	ug/Kg	¢	02/16/17 11:37	02/17/17 09:23	1
PCB-1262	ND		0.96	0.69	ug/Kg	¢	02/16/17 11:37	02/17/17 09:23	1
PCB-1268	ND		0.96	0.29	ug/Kg	¢	02/16/17 11:37	02/17/17 09:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	257	X	20 - 150				02/16/17 11:37	02/17/17 09:23	1
DCB Decachlorobiphenyl (Surr)	39		20 - 150				02/16/17 11:37	02/17/17 09:23	1
Tetrachloro-m-xylene	44		20 - 130				02/16/17 11:37	02/17/17 09:23	1
Tetrachloro-m-xylene	43		20 - 130				02/16/17 11:37	02/17/17 09:23	1
Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	210		0.96	0.76	ug/Kg			02/16/17 11:37	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.7		0.1	0.1	%			02/19/17 10:44	1
Date Received: 02/16/17 08:35								Percent Solid	ls: 92.5
Date Received: 02/16/17 08:35	ted Bipheny	/Is (PCBs)	(GC)					Percent Solid	ls: 92.5
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte	ted Bipheny Result	<mark>/Is (PCBs)</mark> Qualifier	(GC) RL	MDL	Unit	D	Prepared	Percent Solid	Dil Fac
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016	ted Bipheny Result	y <mark>ls (PCBs)</mark> Qualifier	(GC) 	MDL 480	Unit ug/Kg	D	Prepared 02/16/17 11:37	Analyzed 02/17/17 12:10	Dil Fac
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221	ted Bipheny Result ND ND	/ <mark>Is (PCBs)</mark> Qualifier	(GC) <u>RL</u> 900 900	MDL 480 470	Unit ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232	ted Bipheny Result ND ND ND ND	<mark>yls (PCBs)</mark> Qualifier	(GC) <u>RL</u> 900 900 900	MDL 480 470 360	Unit ug/Kg ug/Kg ug/Kg	D 	Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000 1000 1000
Method: 8082A Polychlorina Analyte PCB-1016 PCB-1221 PCB-1222 PCB-1242	ted Bipheny Result ND ND ND ND	y <mark>ls (PCBs)</mark> Qualifier	(GC) <u>RL</u> 900 900 900 900	MDL 480 470 360 720	Unit ug/Kg ug/Kg ug/Kg ug/Kg	D 77 77 77 77 77 77	Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000 1000 1000 1000
Method: 8082A Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248	ted Bipheny Result ND ND ND ND ND ND	<mark>/Is (PCBs)</mark> Qualifier	(GC) <u>RL</u> 900 900 900 900 900	MDL 480 470 360 720 430	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	D 	Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000 1000 1000 1000 1000 1000 1000 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254	ted Bipheny Result ND ND ND ND ND ND ND	<mark>/Is (PCBs)</mark> Qualifier	(GC) RL 900 900 900 900 900 900 900	MDL 480 470 360 720 430 400	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260	ted Bipheny Result ND ND ND ND ND ND ND 27000	y <mark>ls (PCBs)</mark> Qualifier	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	D	Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1248 PCB-1254 PCB-1260 PCB-1262	ted Bipheny Result ND ND ND ND ND ND 27000 ND	y <mark>ls (PCBs)</mark> Qualifier	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260 PCB-1268	ted Bipheny Result ND ND ND ND ND ND ND ND ND ND ND	<mark>/Is (PCBs)</mark> Qualifier	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260 PCB-1262 PCB-1268 Surrogate	ted Bipheny Result ND ND ND ND ND 27000 ND ND ND ND	vis (PCBs) Qualifier Qualifier	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 Prepared	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 Analyzed	Dil Fac 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260 PCB-1268 Surrogate DCB Decachlorobiphenyl (Surr)	ted Bipheny Result ND ND ND ND ND 27000 ND ND ND ND ND ND ND	Qualifier	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 Prepared 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000
Date Received: 02/16/17 08:35Method: 8082A - PolychlorinaAnalytePCB-1016PCB-1221PCB-1232PCB-1242PCB-1248PCB-1254PCB-1260PCB-1268SurrogateDCB Decachlorobiphenyl (Surr)DCB Decachlorobiphenyl (Surr)	ted Bipheny Result ND ND ND ND ND 27000 ND ND ND ND ND 0 0 0	VIS (PCBs) Qualifier Qualifier D X D X	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 02/16/17 11:37 Prepared 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000
Date Received: 02/16/17 08:35Method: 8082A - PolychlorinaAnalytePCB-1016PCB-1221PCB-1232PCB-1242PCB-1248PCB-1254PCB-1260PCB-1262PCB-1268SurrogateDCB Decachlorobiphenyl (Surr)DCB Decachlorobiphenyl (Surr)Tetrachloro-m-xylene	ted Bipheny Result ND ND ND ND ND 27000 ND ND ND ND 0 0 0 0 0 0	VIS (PCBs) Qualifier D X D X D X D X	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000
Date Received: 02/16/17 08:35Date Received: 02/16/17 08:35Method: 8082A - Polychlorina AnalytePCB-1016PCB-1221PCB-1232PCB-1242PCB-1248PCB-1254PCB-1260PCB-1262PCB-1268SurrogateDCB Decachlorobiphenyl (Surr)DCB Decachlorobiphenyl (Surr)Tetrachloro-m-xyleneTetrachloro-m-xylene	ted Bipheny Result ND ND ND ND ND 27000 ND ND ND ND ND 0 0 0 0 0	VIS (PCBs) Qualifier DX DX DX DX DX	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260 PCB-1268 Surrogate DCB Decachlorobiphenyl (Surr) DCB Decachlorobiphenyl (Surr) Tetrachloro-m-xylene Tetrachloro-m-xylene Method: PCB - Total PCB Cale	ted Bipheny Result ND ND ND ND 27000 ND 27000 ND ND %Recovery 0 0 0 0 0 0	VIS (PCBs) Qualifier DX DX DX DX DX	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1262 PCB-1268 Surrogate DCB Decachlorobiphenyl (Surr) DCB Decachlorobiphenyl (Surr) Tetrachloro-m-xylene Tetrachloro-m-xylene Method: PCB - Total PCB Calc Analyte	ted Bipheny Result ND ND ND ND 27000 ND 27000 ND ND 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VIS (PCBs) Qualifier DX DX DX DX DX DX	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10 02/17/17 12:10	Dil Fac 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1254 PCB-1260 PCB-1262 PCB-1268 Surrogate DCB Decachlorobiphenyl (Surr) DCB Decachlorobiphenyl (Surr) Tetrachloro-m-xylene Tetrachloro-m-xylene Method: PCB - Total PCB Calc Analyte Polychlorinated biphenyls, Total	ted Bipheny Result ND ND ND ND 27000 ND 27000 ND ND %Recovery 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VIS (PCBs) Qualifier DX DX DX DX DX Qualifier	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 600 650 270 MDL 720	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10	Dil Fac 1000
Date Received: 02/16/17 08:35 Method: 8082A - Polychlorina Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1254 PCB-1260 PCB-1268 Surrogate DCB Decachlorobiphenyl (Surr) DCB Decachlorobiphenyl (Surr) Tetrachloro-m-xylene Tetrachloro-m-xylene Method: PCB - Total PCB Cale Analyte Polychlorinated biphenyls, Total General Chemistry	ted Bipheny Result ND ND ND ND ND 27000 ND ND ND %Recovery 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VIS (PCBs) Qualifier DX DX DX DX DX Qualifier	(GC) RL 900 900 900 900 900 900 900 90	MDL 480 470 360 720 430 400 600 650 270 270 MDL 720	Unit ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg		Prepared 02/16/17 11:37 02/16/17 11:37	Analyzed 02/17/17 12:10	Dil Fac 1000 11

TestAmerica Pittsburgh

02/19/17 10:44

0.1

0.1 %

7.5

Client Sample ID: CT16S08F-12 Date Collected: 02/15/17 10:50 Date Received: 02/16/17 08:35

Lab Sample ID: 180-63486-8 Matrix: Solid Percent Solids: 92.4

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Method: 8082A - Polychlorina	ted Biphen	ls (PCBs)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		9.0	4.8	ug/Kg	₩ 	02/16/17 11:37	02/17/17 13:12	10
PCB-1221	ND		9.0	4.6	ug/Kg	¢	02/16/17 11:37	02/17/17 13:12	10
PCB-1232	ND		9.0	3.5	ug/Kg	¢	02/16/17 11:37	02/17/17 13:12	10
PCB-1242	ND		9.0	7.1	ug/Kg	¢	02/16/17 11:37	02/17/17 13:12	10
PCB-1248	ND		9.0	4.3	ug/Kg	¢	02/16/17 11:37	02/17/17 13:12	10
PCB-1254	ND		9.0	3.9	ug/Kg	¢	02/16/17 11:37	02/17/17 13:12	10
PCB-1260	910		9.0	6.0	ug/Kg	¢	02/16/17 11:37	02/17/17 13:12	10
PCB-1262	ND		9.0	6.4	ug/Kg	¢	02/16/17 11:37	02/17/17 13:12	10
PCB-1268	ND		9.0	2.7	ug/Kg	¢	02/16/17 11:37	02/17/17 13:12	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	102		20 - 150				02/16/17 11:37	02/17/17 13:12	10
DCB Decachlorobiphenyl (Surr)	93		20 - 150				02/16/17 11:37	02/17/17 13:12	10
Tetrachloro-m-xylene	68		20 - 130				02/16/17 11:37	02/17/17 13:12	10
Tetrachloro-m-xylene	64		20 - 130				02/16/17 11:37	02/17/17 13:12	10
Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	910		9.0	7.1	ug/Kg			02/16/17 11:37	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.6		0.1	0.1	%			02/19/17 10:44	1

Client Sample ID: CT16S07B-72 Date Collected: 02/15/17 11:20 Date Received: 02/16/17 08:35

Lab Sample ID: 180-63486-9 Matrix: Solid Percent Solids: 89.6

Method: 8082A - Polychlorinated Binhenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.93	0.49	ug/Kg		02/16/17 11:37	02/17/17 10:25	1
PCB-1221	ND		0.93	0.48	ug/Kg	₽	02/16/17 11:37	02/17/17 10:25	1
PCB-1232	ND		0.93	0.37	ug/Kg	₽	02/16/17 11:37	02/17/17 10:25	1
PCB-1242	ND		0.93	0.74	ug/Kg	¢.	02/16/17 11:37	02/17/17 10:25	1
PCB-1248	ND		0.93	0.44	ug/Kg	₽	02/16/17 11:37	02/17/17 10:25	1
PCB-1254	ND		0.93	0.41	ug/Kg	₽	02/16/17 11:37	02/17/17 10:25	1
PCB-1260	11		0.93	0.62	ug/Kg	¢.	02/16/17 11:37	02/17/17 10:25	1
PCB-1262	ND		0.93	0.67	ug/Kg	₽	02/16/17 11:37	02/17/17 10:25	1
PCB-1268	ND		0.93	0.28	ug/Kg	₽	02/16/17 11:37	02/17/17 10:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	75		20 - 150				02/16/17 11:37	02/17/17 10:25	1
DCB Decachlorobiphenyl (Surr)	74		20 - 150				02/16/17 11:37	02/17/17 10:25	1
Tetrachloro-m-xylene	237	Х	20 - 130				02/16/17 11:37	02/17/17 10:25	1
Tetrachloro-m-xylene	80		20 - 130				02/16/17 11:37	02/17/17 10:25	1
_ Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	11		0.93	0.74	ug/Kg			02/16/17 11:37	1

TestAmerica Pittsburgh

Client: AECOM, Inc.

TestAmerica Job ID: 180-63486-1

Project/Site: Pepco Benning Road	d Facility								
Client Sample ID: CT16S0	7B-72					L	ab Samp	e ID: 180-63	486-9
Date Collected: 02/15/17 11:20			Matrix	: Solid					
Date Received: 02/16/17 08:35 Per						Percent Solid	s: 89.6		
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.4		0.1	0.1	%			02/19/17 10:44	1

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Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 180-203 Matrix: Solid Analysis Batch: 203101	047/1-C MB	МВ					Client Samp	le ID: Method Prep Type: To Prep Batch: 2	l Blank otal/NA 203047
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.83	0.44	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
PCB-1221	ND		0.83	0.43	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
PCB-1232	ND		0.83	0.33	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
PCB-1242	ND		0.83	0.66	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
PCB-1248	ND		0.83	0.40	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
PCB-1254	ND		0.83	0.37	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
PCB-1260	ND		0.83	0.56	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
PCB-1262	ND		0.83	0.60	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
PCB-1268	ND		0.83	0.25	ug/Kg		02/16/17 11:37	02/17/17 06:35	1
	МВ	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	90		20 - 150				02/16/17 11:37	02/17/17 06:35	1
DCB Decachlorobiphenyl (Surr)	82		20 - 150				02/16/17 11:37	02/17/17 06:35	1
Tetrachloro-m-xylene	76		20 - 130				02/16/17 11:37	02/17/17 06:35	1
Tetrachloro-m-xylene	88		20 - 130				02/16/17 11:37	02/17/17 06:35	1

Lab Sample ID: LCS 180-203047/2-C Matrix: Solid Analysis Batch: 203101

Analysis Batch: 203101							Prep Ba	atch: 203047
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	16.7	12.1		ug/Kg		73	39 - 114	
PCB-1260	16.7	12.8		ug/Kg		77	34 - 123	

	LCS LC					
Surrogate	%Recovery	Qualifier	Limits			
DCB Decachlorobiphenyl (Surr)	81		20 - 150			
DCB Decachlorobiphenyl (Surr)	77		20 - 150			
Tetrachloro-m-xylene	69		20 - 130			
Tetrachloro-m-xylene	72		20 - 130			

Lab Sample ID: 180-63486 Matrix: Solid Analysis Batch: 203101	6-1 MS						С	lient Sa	mple ID: CT15S07F-0 Prep Type: Total/NA Prep Batch: 203047
-	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
PCB-1016	ND		18.9	21.7	F1	ug/Kg	₽	115	39 - 114
PCB-1260	2.3	F1	18.9	25.3		ug/Kg	☆	122	34 - 123
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	105		20 - 150						
DCB Decachlorobiphenyl (Surr)	95		20 - 150						
Tetrachloro-m-xylene	74		20 - 130						
Tetrachloro-m-xylene	80		20 - 130						

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Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: 180-63486 Matrix: Solid	-1 MSD						С	lient Sa	ample ID: Prep Ty	CT15S	07F-0 al/NA
Analysis Batch: 203101									Prep Ba	tch: 20	03047
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	ND		18.9	22.0	F1	ug/Kg	<u>Å</u>	117	39 - 114	2	30
PCB-1260	2.3	F1	18.9	27.7	F1	ug/Kg	¢	135	34 - 123	9	30
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
DCB Decachlorobiphenyl (Surr)	82		20 - 150								
DCB Decachlorobiphenyl (Surr)	78		20 - 150								
Tetrachloro-m-xylene	59		20 - 130								
Tetrachloro-m-xylene	73		20 - 130								

Method: 2540G - SM 2540G

Lab Sample ID: 180-63486-1 DU Matrix: Solid Analysis Batch: 203247						Client	Sample ID: CT15S Prep Type: Tot	07F-0 tal/NA
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	11.7		12.2		%		4	20

QC Association Summary

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

11

Prep Batch	
203047	
203047	
203047	

GC Semi VOA

Prep Batch: 203047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63486-1	CT15S07F-0	Total/NA	Solid	3541	
180-63486-2	CT15S05E-0	Total/NA	Solid	3541	
180-63486-3	CT15S01E-0	Total/NA	Solid	3541	
180-63486-4	CT15S01E-12	Total/NA	Solid	3541	
180-63486-5	CT16S011F-0	Total/NA	Solid	3541	
180-63486-6	CT16S010F-36	Total/NA	Solid	3541	
180-63486-7	CT16S09F-12	Total/NA	Solid	3541	
180-63486-8	CT16S08F-12	Total/NA	Solid	3541	
180-63486-9	CT16S07B-72	Total/NA	Solid	3541	
MB 180-203047/1-C	Method Blank	Total/NA	Solid	3541	
LCS 180-203047/2-C	Lab Control Sample	Total/NA	Solid	3541	
180-63486-1 MS	CT15S07F-0	Total/NA	Solid	3541	
180-63486-1 MSD	CT15S07F-0	Total/NA	Solid	3541	

Cleanup Batch: 203097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63486-1	CT15S07F-0	Total/NA	Solid	3665A	203047
180-63486-2	CT15S05E-0	Total/NA	Solid	3665A	203047
180-63486-3	CT15S01E-0	Total/NA	Solid	3665A	203047
180-63486-4	CT15S01E-12	Total/NA	Solid	3665A	203047
180-63486-5	CT16S011F-0	Total/NA	Solid	3665A	203047
180-63486-6	CT16S010F-36	Total/NA	Solid	3665A	203047
180-63486-7	CT16S09F-12	Total/NA	Solid	3665A	203047
180-63486-8	CT16S08F-12	Total/NA	Solid	3665A	203047
180-63486-9	CT16S07B-72	Total/NA	Solid	3665A	203047
MB 180-203047/1-C	Method Blank	Total/NA	Solid	3665A	203047
LCS 180-203047/2-C	Lab Control Sample	Total/NA	Solid	3665A	203047
180-63486-1 MS	CT15S07F-0	Total/NA	Solid	3665A	203047
180-63486-1 MSD	CT15S07F-0	Total/NA	Solid	3665A	203047

Cleanup Batch: 203098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63486-1	CT15S07F-0	Total/NA	Solid	3660B	203097
180-63486-2	CT15S05E-0	Total/NA	Solid	3660B	203097
180-63486-3	CT15S01E-0	Total/NA	Solid	3660B	203097
180-63486-4	CT15S01E-12	Total/NA	Solid	3660B	203097
180-63486-5	CT16S011F-0	Total/NA	Solid	3660B	203097
180-63486-6	CT16S010F-36	Total/NA	Solid	3660B	203097
180-63486-7	CT16S09F-12	Total/NA	Solid	3660B	203097
180-63486-8	CT16S08F-12	Total/NA	Solid	3660B	203097
180-63486-9	CT16S07B-72	Total/NA	Solid	3660B	203097
MB 180-203047/1-C	Method Blank	Total/NA	Solid	3660B	203097
LCS 180-203047/2-C	Lab Control Sample	Total/NA	Solid	3660B	203097
180-63486-1 MS	CT15S07F-0	Total/NA	Solid	3660B	203097
180-63486-1 MSD	CT15S07F-0	Total/NA	Solid	3660B	203097

Analysis Batch: 203101

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
180-63486-1	CT15S07F-0	Total/NA	Solid	8082A	203098
180-63486-2	CT15S05E-0	Total/NA	Solid	8082A	203098
180-63486-3	CT15S01E-0	Total/NA	Solid	8082A	203098

TestAmerica Pittsburgh

QC Association Summary

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

9 10 11 12 13

GC Semi VOA (Continued)

Analysis Batch: 203101 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63486-4	CT15S01E-12	Total/NA	Solid	8082A	203098
180-63486-5	CT16S011F-0	Total/NA	Solid	8082A	203098
180-63486-6	CT16S010F-36	Total/NA	Solid	8082A	203098
180-63486-7	CT16S09F-12	Total/NA	Solid	8082A	203098
180-63486-8	CT16S08F-12	Total/NA	Solid	8082A	203098
180-63486-9	CT16S07B-72	Total/NA	Solid	8082A	203098
MB 180-203047/1-C	Method Blank	Total/NA	Solid	8082A	203098
LCS 180-203047/2-C	Lab Control Sample	Total/NA	Solid	8082A	203098
180-63486-1 MS	CT15S07F-0	Total/NA	Solid	8082A	203098
180-63486-1 MSD	CT15S07F-0	Total/NA	Solid	8082A	203098

Analysis Batch: 203485

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
180-63486-1	CT15S07F-0	Total/NA	Solid	PCB	
180-63486-2	CT15S05E-0	Total/NA	Solid	PCB	
180-63486-3	CT15S01E-0	Total/NA	Solid	PCB	
180-63486-4	CT15S01E-12	Total/NA	Solid	PCB	
180-63486-5	CT16S011F-0	Total/NA	Solid	PCB	
180-63486-6	CT16S010F-36	Total/NA	Solid	PCB	
180-63486-7	CT16S09F-12	Total/NA	Solid	PCB	
180-63486-8	CT16S08F-12	Total/NA	Solid	PCB	
180-63486-9	CT16S07B-72	Total/NA	Solid	PCB	

General Chemistry

Analysis Batch: 203247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63486-1	CT15S07F-0	Total/NA	Solid	2540G	
180-63486-2 CT15S05E-0		Total/NA	Solid	2540G	
180-63486-3	CT15S01E-0	Total/NA	Solid	2540G	
180-63486-4	CT15S01E-12	Total/NA	Solid	2540G	
180-63486-5	CT16S011F-0	Total/NA	Solid	2540G	
180-63486-6	CT16S010F-36	Total/NA	Solid	2540G	
180-63486-7	CT16S09F-12	Total/NA	Solid	2540G	
180-63486-8	CT16S08F-12	Total/NA	Solid	2540G	
180-63486-9	CT16S07B-72	Total/NA	Solid	2540G	
180-63486-1 DU	CT15S07F-0	Total/NA	Solid	2540G	

TestAmerica	016396 THE LEADER IN ENVIRONMENTAL TESTING TestAmerica Laboratories, Inc.	TAL-8210 (0713)	COC No:		Sampler.			and Estate Chain of Custody	Sample Specific Notes:	2 day 747								<i>→</i>	Standard TAT	Standard TAT		if samples are retained longer than 1 month)	Acceleture fore Manuface			Corr'd: Therm ID No.:	I A CUTCTIO 1340	Data Internet 11-17 7.20	mpany: Date/Time. Date/Time	
q			Date:	Carrier:																		be assessed	de l'united automation	Uisposal by Lab		Obs'd:	8	town	8	10
of Custody Recor		RCRA Other:	Site Contact:	Lab Contact: J. M. Coll uS Y	0		29/0/2 1A	28 D50 28 28 28 28 28 28 28 28	FIRERED Sail	X	X	X	X	X	X	X.	X	×	X	X		E Sample Disposal (A fee may	Detries to Client		amples only	Cooler Temp. (°C):	Herenved by: Lit. C.	Received by 11 10 11)	Received in Laboratory by:	1 2 13
Chain		DW NPDES	ennedy	-	KING DAYS		Hd	8	# of # of # of # of	50 1	1 as	SO 1	50 (1 05	S0 1	So 1	50 (> 05) OS	1 05	_	he sample in th	UM	1	PCB s		Date/Time: ン/(5/(ぞ らろ	Date/Time:	Date/Time;	
	·merioo		Kohert K		I urnaround	t from Below	2 weeks = 7	$\frac{1}{2} \frac{\text{week}}{\text{days}} = PC$	Bample Type (C=Comp, G=Grab)	5	U	9	S	G	5	C	5	5	9	3		te Codes for t	11nknr	1	AT ON		1	in a n	5	
30325	TIMORE.	T	Project Manager:	Ielirax:	CALENDAR DAYS	TAT if different	6		Sample Sample Date Time	2(15/170943	0001	a1a1	10 20	1023	1035	404S	IOSE	0711	0011	V lide	5=NaOH; 6= Other	se List any EPA Was	Poison B	-	- day 1	Custody Seal No.:	Company:	Company:	Company:	
18	RAT		Client Contact	Company Name. ACCE/V	City/State/Zip/Chelm Charle MA El 824	Phone: 478-405-2269	Fax:	Project Name: Renning Kond Colling Powers Site: Repre Benning Road	Sample Identification	CT155077-0	CT15505E-0	CTISSOLE-O	CT15501E -12	CTICSOUF - D	2 CTICSOLOF - 36	P CTI6SO9F-12	CT16508F-12	CT165078-72	SBS0303N - NURTH	585 03 03N - EAST	Preservation Used: 1= Ice, 2= HCI; 3= H2SO4; 4=HNO3;	Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Plea	Comments Section if the lab is to dispose of the sample.	Special Instructions/QC Requirements & Comments:		Custody Seals Intact: Tres Invo	Relinquished by:	Relinquished by: March	Relinquished by:	



Iedsl zint gnitning this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.

Fold the printed page along the horizontal line.
 Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could

Lesult in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, nontimely claim.Limidelinery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other documented loss.Maximum for items of extraordinary value is \$5,000, e.g. jewelry, precious metals, negotiable instruments and other incidental.consequential, or special is limited to the greater of \$1000 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$5,000, e.g. jewelry, precious metals, negotiable instruments and other incidental interest. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Imid.am

2/12/2012

Imtd.amsTltnirf\/na/lmtd\gniqqida/moo.xaba1.www\\:sqttd

Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 63486 List Number: 1 Creator: Watson, Debbie

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

Job Number: 180-63486-1

List Source: TestAmerica Pittsburgh



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh 301 Alpha Drive RIDC Park Pittsburgh, PA 15238 Tel: (412)963-7058

TestAmerica Job ID: 180-63926-1 Client Project/Site: Pepco Benning Road Facility

For:

AECOM, Inc. 250 Apollo Drive Chelmsford, Massachusetts 01824

Attn: Mr. Robert Kennedy



Authorized for release by: 3/6/2017 2:59:28 PM

Jill Colussy, Project Manager I (412)963-2444 jill.colussy@testamericainc.com

Review your project results through Total Access

..... Links



Visit us at: www.testamericainc.com This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 180-63926-1

Laboratory: TestAmerica Pittsburgh

Narrative

CASE NARRATIVE

Client: AECOM, Inc.

Project: Pepco Benning Road Facility

Report Number: 180-63926-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/02/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.9 C.

PCBS

Due to the concentration of PCBs detected, ample CT15S05EF-0 (180-63926-4)] and CT16S09G-12 (180-63926-5) were analyzed at a dilution. The reporting limits have been adjusted accordingly.

Sample CT16S09G-12 (180-63926-5) had surrogate decachlorobiphenyl recover outside of the control limits on one column.

The matrix spike duplicate recovered outside of the control limits for PCB 1016. The relative percent difference between the matrix spike and the matrix spike duplicate was outside of the control limits for PCB 1016.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The continuing calibration verification (CCV) associated with batch 204470 recovered above the upper control limit for 1254. The samples associated with this CCV were reported from the passing column for the affected analytes; therefore, the data have been reported. The

PERCENT SOLIDS

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

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
р	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
Х	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CNF	Contains no Free Liquid	
DER	Duplicate error ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision level concentration	
MDA	Minimum detectable activity	
EDL	Estimated Detection Limit	_
MDC	Minimum detectable concentration	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
NC	Not Calculated	
ND	Not detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RER	Relative error ratio	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

Certification Summary

EPA Region

6

9

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2

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3

4

6

8

3

3

5

Certification ID

88-0690

PH-0688

E871008

200005

E-10350

04041

2030

PA005

11182

89014

460189

998027800

142

02-00416

LE94312A-1

P330-16-00211

PA001462015-4

T104704528-15-2

434

2891

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

Authority

California

Florida

Illinois

Kansas

Louisiana

New Jersey

Pennsylvania

South Carolina

US Fish & Wildlife

West Virginia DEP

New York

Texas

USDA

Utah

Virginia

Wisconsin

New Hampshire

North Carolina (WW/SW)

Connecticut

Arkansas DEQ

Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

State Program

State Program

State Program

Program

NELAP

NELAP

NELAP

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NELAP

NELAP

Federal

Federal

NELAP

NELAP

State Program

State Program

State Program

State Program

TestAmerica Job ID: 180-63926-1

Expiration Date

06-27-17

03-31-18

09-30-18

06-30-17

06-30-17

01-31-18

06-30-17

04-04-17

06-30-17

03-31-17

12-31-17

04-30-17

04-30-17

03-31-17

10-31-17

06-26-19

05-31-17

09-14-17

01-31-18

08-31-17

5
8
9

TestAmerica	Pittsburgh
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TestAmerica Job ID: 180-63926-1

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-63926-2	CT15S01EF-0	Solid	03/01/17 10:30	03/02/17 09:20
180-63926-4	CT15S05EF-0	Solid	03/01/17 10:45 0	03/02/17 09:20
180-63926-5	CT16S09G-12	Solid	03/01/17 11:15 0	03/02/17 09:20
180-63926-6	CT16S011G-0	Solid	03/01/17 11:30 0	03/02/17 09:20

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) (GC)	SW846	TAL PIT
PCB	Total PCB Calculation	TAL SOP	TAL PIT
2540G	SM 2540G	SM22	TAL PIT

Protocol References:

SM22 = SM22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Initial

Amount

Initial

Amount

15.1 g

2 mL

2 mL

1 mL

Batch

Number

204680

204450

Batch

Number

204407

204465

204466

204470

Final

Amount

Final

Amount

1.0 mL

2 mL

2 mL

1.0 mL

Dil

Dil

1

Factor

Factor

Run

Run

Client Sample ID: CT15S01EF-0

Batch

Туре

Analysis

Analysis

Client Sample ID: CT15S01EF-0

Batch

Туре

Prep

Cleanup

Cleanup

Analysis

Date Collected: 03/01/17 10:30

Date Received: 03/02/17 09:20

Batch

PCB

2540G

Batch

3541

3665A

3660B

8082A

Instrument ID: CHGC8

Method

Instrument ID: NOEQUIP

Instrument ID: NOEQUIP

Method

Date Collected: 03/01/17 10:30

Date Received: 03/02/17 09:20

Prep Type

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Lab Sample ID: 180-63926-2

Analyst

Prepared

or Analyzed

Prepared

or Analyzed

03/06/17 11:48 CMR

03/02/17 16:43 SJM

Matrix: Solid

Lab

TAL PIT

TAL PIT

Lab

Matrix: Solid

8

03/02/17 12:18	CBY	TAL PIT
03/03/17 04:53	JMO	TAL PIT
03/03/17 04:54	JMO	TAL PIT
03/03/17 07:50	JMO	TAL PIT

Lab Sample ID: 180-63926-4

Analyst

Client Sample ID: CT15S05EF-0 Date Collected: 03/01/17 10:45 Date Received: 03/02/17 09:20

Ргер Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis Instrumen	PCB t ID: NOEQUIP		1			204680	03/06/17 11:48	CMR	TAL PIT
Total/NA	Analysis Instrumen	2540G t ID: NOEQUIP		1			204450	03/02/17 16:43	SJM	TAL PIT

Client Sample ID: CT15S05EF-0 Date Collected: 03/01/17 10:45 Date Received: 03/02/17 09:20

Lab Sample ID: 180-63926-4 Matrix: Solid Percent Solids: 87.7

Lab Sample ID: 180-63926-5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.2 g	1.0 mL	204407	03/02/17 12:18	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	204465	03/03/17 04:53	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	204466	03/03/17 04:54	JMO	TAL PIT
Total/NA	Analysis	8082A		20			204470	03/03/17 12:49	JMO	TAL PIT
	Instrumen	t ID: CHGC8								

Client Sample ID: CT16S09G-12 Date Collected: 03/01/17 11:15 Date Received: 03/02/17 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	PCB		1			204680	03/06/17 11:48	CMR	TAL PIT

TestAmerica Pittsburgh

Matrix: Solid

Initial

Amount

Final

Amount

Batch

Number

204680

204450

Dil

1

Factor

Run

Client Sample ID: CT16S09G-12

Batch

Туре

Analysis

Analysis

Batch

PCB

2540G

Instrument ID: NOEQUIP

Instrument ID: NOEQUIP

Method

Date Collected: 03/01/17 11:15

Date Received: 03/02/17 09:20

Prep Type

Total/NA

Total/NA

Lab Sample ID: 180-63926-5

Prepared

or Analyzed Analyst

03/06/17 11:48 CMR

03/02/17 16:43 SJM

Matrix: Solid

Lab

TAL PIT

TAL PIT

1 2 3 4 5 6 7 8 9 10

Lab Sample ID: 180-63926-5 Matrix: Solid Percent Solids: 80.6

Date Col	lected: 03/01/17 11:15	
Date Red	eived: 03/02/17 09:20	

Client Sample ID: CT16S09G-12

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.0 g	1.0 mL	204407	03/02/17 12:18	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	204465	03/03/17 04:53	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	204466	03/03/17 04:54	JMO	TAL PIT
Total/NA	Analysis	8082A		20			204470	03/03/17 13:09	JMO	TAL PIT
	Instrumer	t ID: CHGC8								

Client Sample ID: CT16S011G-0 Date Collected: 03/01/17 11:30 Date Received: 03/02/17 09:20

Prep Type Total/NA	Batch Type Analysis Instrumen	Batch Method PCB t ID: NOEQUIP	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 204680	Prepared or Analyzed 03/06/17 11:48	Analyst CMR	Lab TAL PIT
Total/NA	Analysis Instrumen	2540G t ID: NOEQUIP		1			204450	03/02/17 16:43	SJM	TAL PIT

Client Sample ID: CT16S011G-0 Date Collected: 03/01/17 11:30 Date Received: 03/02/17 09:20

Matrix: Solid

Lab Sample ID: 180-63926-6

Lab Sample ID:	180-63926-6
	Matrix: Solid
Perce	nt Solids: 86.4

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.1 g	1.0 mL	204407	03/02/17 12:18	CBY	TAL PIT
Total/NA	Cleanup	3665A			2 mL	2 mL	204465	03/03/17 04:53	JMO	TAL PIT
Total/NA	Cleanup	3660B			2 mL	2 mL	204466	03/03/17 04:54	JMO	TAL PIT
Total/NA	Analysis	8082A		1			204470	03/03/17 09:30	JMO	TAL PIT
	Instrumer	nt ID: CHGC8								

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility TestAmerica Job ID: 180-63926-1

Analyst References:

Lab: TAL PIT Batch Type: Cleanup JMO = John Oravec

> Batch Type: Prep CBY = Charles Yushinski

Batch Type: Analysis CMR = Carl Reagle

JMO = John Oravec

SJM = Samantha McDermott

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility TestAmerica Job ID: 180-63926-1

Lab Sample ID: 180-63926-4

Matrix: Solid

Lab Sample ID: 180-63926-2 Matrix: Solid Percent Solids: 87.1

Client Sample ID: CT15S01EF-0 Date Collected: 03/01/17 10:30 Date Received: 03/02/17 09:20

Method: 8082A - Polychlorina	ted Bipheny	ls (PCBs)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	F2 F1	0.95	0.50	ug/Kg	₩ 	03/02/17 12:18	03/03/17 07:50	1
PCB-1221	ND		0.95	0.49	ug/Kg	¢	03/02/17 12:18	03/03/17 07:50	1
PCB-1232	ND		0.95	0.38	ug/Kg	¢	03/02/17 12:18	03/03/17 07:50	1
PCB-1242	ND		0.95	0.76	ug/Kg	¢.	03/02/17 12:18	03/03/17 07:50	1
PCB-1248	ND		0.95	0.45	ug/Kg	¢	03/02/17 12:18	03/03/17 07:50	1
PCB-1254	ND		0.95	0.42	ug/Kg	¢	03/02/17 12:18	03/03/17 07:50	1
PCB-1260	150		0.95	0.63	ug/Kg	¢.	03/02/17 12:18	03/03/17 07:50	1
PCB-1262	ND		0.95	0.68	ug/Kg	₽	03/02/17 12:18	03/03/17 07:50	1
PCB-1268	ND		0.95	0.29	ug/Kg	¢	03/02/17 12:18	03/03/17 07:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	123		20 - 150				03/02/17 12:18	03/03/17 07:50	1
DCB Decachlorobiphenyl (Surr)	139		20 - 150				03/02/17 12:18	03/03/17 07:50	1
Tetrachloro-m-xylene	86		20 - 130				03/02/17 12:18	03/03/17 07:50	1
Tetrachloro-m-xylene	77		20 - 130				03/02/17 12:18	03/03/17 07:50	1
Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	150		0.95	0.76	ug/Kg			03/06/17 11:48	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.9		0.1	0.1	%			03/02/17 16:43	1

Client Sample ID: CT15S05EF-0 Date Collected: 03/01/17 10:45 Date Received: 03/02/17 09:20

Method: 8082A - Polychlori	nated Biphen	vls (PCBs)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		19	9.9	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
PCB-1221	ND		19	9.7	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
PCB-1232	ND		19	7.4	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
PCB-1242	ND		19	15	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
PCB-1248	ND		19	8.9	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
PCB-1254	880		19	8.2	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
PCB-1260	520		19	13	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
PCB-1262	ND		19	13	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
PCB-1268	ND		19	5.7	ug/Kg	¢	03/02/17 12:18	03/03/17 12:49	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	105		20 - 150				03/02/17 12:18	03/03/17 12:49	20
DCB Decachlorobiphenyl (Surr)	121		20 - 150				03/02/17 12:18	03/03/17 12:49	20
Tetrachloro-m-xylene	95		20 - 130				03/02/17 12:18	03/03/17 12:49	20
Tetrachloro-m-xylene	100		20 - 130				03/02/17 12:18	03/03/17 12:49	20
Method: PCB - Total PCB C	alculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	I	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1400		19	15	ug/Kg				03/06/17 11:48	1

TestAmerica Pittsburgh

Client: AECOM, Inc.

TestAmerica Job ID: 180-63926-1

Project/Site: Pepco Benning Roa	d Facility								
Client Sample ID: CT15S0 Date Collected: 03/01/17 10:45	5EF-0					L	ab Sample.	D: 180-63 Matrix	8926-4 c: Solid
								Percent Solic	15: 07.7
General Chemistry						_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.3		0.1	0.1	%			03/02/17 16:43	1
Client Sample ID: CT16S0 Date Collected: 03/01/17 11:15 Date Received: 03/02/17 09:20	9G-12					L	ab Sample	D: 180-63 Matrix Percent Solic	8 926-5 c: Solid ls: 80.6
Method: 8082A - Polychlorina	ted Bipheny	/Is (PCBs)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21	11	ug/Kg	₿ ¢	03/02/17 12:18	03/03/17 13:09	20
PCB-1221	ND		21	11	ug/Kg	¢	03/02/17 12:18	03/03/17 13:09	20
PCB-1232	ND		21	8.2	ug/Kg	¢	03/02/17 12:18	03/03/17 13:09	20
PCB-1242	ND		21	16	ug/Kg	¢	03/02/17 12:18	03/03/17 13:09	20
PCB-1248	ND		21	9.9	ug/Kg	¢	03/02/17 12:18	03/03/17 13:09	20
PCB-1254	ND		21	9.1	ug/Kg	¢	03/02/17 12:18	03/03/17 13:09	20
PCB-1260	2900		21	14	ug/Kg	¢.	03/02/17 12:18	03/03/17 13:09	20
PCB-1262	ND		21	15	ug/Kg	¢	03/02/17 12:18	03/03/17 13:09	20
PCB-1268	ND		21	6.3	ug/Kg	¢	03/02/17 12:18	03/03/17 13:09	20
							_		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	135		20 - 150				03/02/17 12:18	03/03/17 13:09	20
DCB Decachlorobiphenyl (Surr)	151	X	20 - 150				03/02/17 12:18	03/03/17 13:09	20
Tetrachloro-m-xylene	82		20 - 130				03/02/17 12:18	03/03/17 13:09	20
Tetrachloro-m-xylene	93		20 - 130				03/02/17 12:18	03/03/17 13:09	20
Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	2900		21	16	ug/Kg			03/06/17 11:48	1
General Chemistry	Desult	Qualifier	ы	MDI	11	-	Drenered	Anolymod	
Percent Moisture		Quaimer	RL	0.1	0mt %		Prepared	03/02/17 16:43	
	10.4		0.1	0.1	70			00,02,11 10.10	
Client Sample ID: CT16S0	11G-0					L	ab Sample	D: 180-63	8926-6
Date Collected: 03/01/17 11:30								Matrix	: Solid
Date Received: 03/02/17 09:20								Percent Solic	ls: 86.4
 _									
Method: 8082A - Polychlorina	ted Bipheny	/Is (PCBs)	(GC)	MDI	11		Durananad	Amelumed	
	Result	Quaimer	RL		Unit	U	Prepared	Analyzeu	
PCB-1016	ND		0.96	0.51	ug/Kg	×	03/02/17 12:18	03/03/17 09:30	1
PCB-1221	ND		0.96	0.50	ug/Kg	Υ. Υ	03/02/17 12:18	03/03/17 09:30	1
PCB-1232	ND		0.96	0.38	ug/Kg	-Ω-	03/02/17 12:18	03/03/17 09:30	1
PCB-1242	ND		0.96	0.76	ug/Kg	-Q-	03/02/17 12:18	03/03/17 09:30	1
PCB-1248	ND		0.96	0.46	ug/Kg	¢	03/02/17 12:18	03/03/17 09:30	1
PCB-1254	100		0.96	0.42	ug/Kg	¢	03/02/17 12:18	03/03/17 09:30	1
PCB-1260	72		0.96	0.64	ug/Kg	¢	03/02/17 12:18	03/03/17 09:30	1
PCB-1262	ND		0.96	0.69	ug/Kg	¢	03/02/17 12:18	03/03/17 09:30	1
PCB-1268	ND		0.96	0.29	ug/Kg	☆	03/02/17 12:18	03/03/17 09:30	1
Surrogate	%Pacovory	Qualifier	l imite				Proparad	Analyzad	Dil Eac
DCB Decechlorobinhenyl (Surr)	101		20 150				1 - cpareu 03/02/17 10:10	03/03/17 00·20	
	101		20 - 150				03/02/17 12.10	03/03/17 09.30	1
осв Decacnioropipnenyl (Surr)	103		20-150				03/02/17 12:18	03/03/17 09:30	1

TestAmerica Pittsburgh

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility TestAmerica Job ID: 180-63926-1

Client Sample ID: CT16S011G-0 Date Collected: 03/01/17 11:30 Date Received: 03/02/17 09:20

Lab Sample ID: 180-63926-6 Matrix: Solid Percent Solids: 86.4

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		20 - 130				03/02/17 12:18	03/03/17 09:30	1
Tetrachloro-m-xylene	63		20 - 130				03/02/17 12:18	03/03/17 09:30	1
- Method: PCB - Total PCB Cal	culation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	170		0.96	0.76	ug/Kg			03/06/17 11:48	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Pittsburgh

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 180-204 Matrix: Solid Analysis Batch: 204470	407/1-С мв	МВ					Client Sample ID: Method Bl Prep Type: Total Prep Batch: 204				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
PCB-1016	ND		0.83	0.44	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
PCB-1221	ND		0.83	0.43	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
PCB-1232	ND		0.83	0.33	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
PCB-1242	ND		0.83	0.66	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
PCB-1248	ND		0.83	0.40	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
PCB-1254	ND		0.83	0.37	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
PCB-1260	ND		0.83	0.56	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
PCB-1262	ND		0.83	0.60	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
PCB-1268	ND		0.83	0.25	ug/Kg		03/02/17 12:18	03/03/17 07:30	1		
	MB	МВ									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
DCB Decachlorobiphenyl (Surr)	83		20 - 150				03/02/17 12:18	03/03/17 07:30	1		
DCB Decachlorobiphenyl (Surr)	85		20 - 150				03/02/17 12:18	03/03/17 07:30	1		
Tetrachloro-m-xylene	102		20 - 130				03/02/17 12:18	03/03/17 07:30	1		
Tetrachloro-m-xylene	99		20 - 130				03/02/17 12:18	03/03/17 07:30	1		

Lab Sample ID: LCS 180-204407/2-C Matrix: Solid Analysis Batch: 204470

Analysis Batch: 204470							Prep Batch: 2	04407
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	16.7	13.6		ug/Kg		82	39 - 114	
PCB-1260	16.7	14.3		ug/Kg		86	34 - 123	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	89		20 - 150
DCB Decachlorobiphenyl (Surr)	80		20 - 150
Tetrachloro-m-xylene	91		20 - 130
Tetrachloro-m-xylene	81		20 - 130

Lab Sample ID: 180-63926 Matrix: Solid Analysis Batch: 204470	6-2 MS						Clie	ent San	nple ID: CT15S01EF-0 Prep Type: Total/NA Prep Batch: 204407
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
PCB-1016	ND	F2 F1	19.0	13.8		ug/Kg	<u>\$</u>	72	39 - 114
PCB-1260	140		19.0	88.0	p 4	ug/Kg	☆	-352	34 - 123
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	147		20 - 150						
DCB Decachlorobiphenyl (Surr)	74	p	20 - 150						
Tetrachloro-m-xylene	88		20 - 130						
Tetrachloro-m-xylene	78		20 - 130						

TestAmerica Pittsburgh

3/6/2017

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Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

	-2 MSD						Clie	ent San	nple ID: C	T15S0 ²	IEF-0
Matrix: Solid									Prep Ty	pe: Tot	al/NA
Analysis Batch: 204470									Prep Ba	atch: 20)4407
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	ND	F2 F1	19.0	22.8	F1 F2	ug/Kg	<u>Å</u>	120	39 - 114	50	30
PCB-1260	140		19.0	83.1	p 4	ug/Kg	¢	-378	34 - 123	6	30
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
DCB Decachlorobiphenyl (Surr)	129		20 - 150								
DCB Decachlorobiphenyl (Surr)	76	p	20 - 150								
Tetrachloro-m-xylene	74		20 - 130								
Tetrachloro-m-xylene	66		20 - 130								
—											

QC Sample Results

Method: 2540G - SM 2540G

Lab Sample ID: 180-63926-6 DU Matrix: Solid Analysis Batch: 204450						Client S	ample ID: CT Prep Type	16S01 e: Tot	I1G-0 al/NA
-	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Percent Moisture	13.6		15.6		%			14	20

QC Association Summary

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

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204407

204407

204407

GC Semi VOA

Prep Batch: 204407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63926-2	CT15S01EF-0	Total/NA	Solid	3541	
180-63926-4	CT15S05EF-0	Total/NA	Solid	3541	
180-63926-5	CT16S09G-12	Total/NA	Solid	3541	
180-63926-6	CT16S011G-0	Total/NA	Solid	3541	
MB 180-204407/1-C	Method Blank	Total/NA	Solid	3541	
LCS 180-204407/2-C	Lab Control Sample	Total/NA	Solid	3541	
180-63926-2 MS	CT15S01EF-0	Total/NA	Solid	3541	
180-63926-2 MSD	CT15S01EF-0	Total/NA	Solid	3541	
Cleanup Batch: 2044	465				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63926-2	CT15S01EF-0	Total/NA	Solid	3665A	204407
180-63926-4	CT15S05EF-0	Total/NA	Solid	3665A	204407
180-63926-5	CT16S09G-12	Total/NA	Solid	3665A	204407
180-63926-6	CT16S011G-0	Total/NA	Solid	3665A	204407
MB 180-204407/1-C	Method Blank	Total/NA	Solid	3665A	204407

Total/NA

Total/NA

Total/NA

Solid

Solid

Solid

3665A

3665A

3665A

Cleanup Batch: 204466

Lab Control Sample

CT15S01EF-0

CT15S01EF-0

LCS 180-204407/2-C

180-63926-2 MS

180-63926-2 MSD

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63926-2	CT15S01EF-0	Total/NA	Solid	3660B	204465
180-63926-4	CT15S05EF-0	Total/NA	Solid	3660B	204465
180-63926-5	CT16S09G-12	Total/NA	Solid	3660B	204465
180-63926-6	CT16S011G-0	Total/NA	Solid	3660B	204465
MB 180-204407/1-C	Method Blank	Total/NA	Solid	3660B	204465
LCS 180-204407/2-C	Lab Control Sample	Total/NA	Solid	3660B	204465
180-63926-2 MS	CT15S01EF-0	Total/NA	Solid	3660B	204465
180-63926-2 MSD	CT15S01EF-0	Total/NA	Solid	3660B	204465

Analysis Batch: 204470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63926-2	CT15S01EF-0	Total/NA	Solid	8082A	204466
180-63926-4	CT15S05EF-0	Total/NA	Solid	8082A	204466
180-63926-5	CT16S09G-12	Total/NA	Solid	8082A	204466
180-63926-6	CT16S011G-0	Total/NA	Solid	8082A	204466
MB 180-204407/1-C	Method Blank	Total/NA	Solid	8082A	204466
LCS 180-204407/2-C	Lab Control Sample	Total/NA	Solid	8082A	204466
180-63926-2 MS	CT15S01EF-0	Total/NA	Solid	8082A	204466
180-63926-2 MSD	CT15S01EF-0	Total/NA	Solid	8082A	204466

Analysis Batch: 204680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63926-2	CT15S01EF-0	Total/NA	Solid	PCB	
180-63926-4	CT15S05EF-0	Total/NA	Solid	PCB	
180-63926-5	CT16S09G-12	Total/NA	Solid	PCB	
180-63926-6	CT16S011G-0	Total/NA	Solid	PCB	

QC Association Summary

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility TestAmerica Job ID: 180-63926-1

General Chemistry

Analysis Batch: 204450

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
180-63926-2	CT15S01EF-0	Total/NA	Solid	2540G	
180-63926-4	CT15S05EF-0	Total/NA	Solid	2540G	
180-63926-5	CT16S09G-12	Total/NA	Solid	2540G	
180-63926-6	CT16S011G-0	Total/NA	Solid	2540G	
180-63926-6 DU	CT16S011G-0	Total/NA	Solid	2540G	

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BALTD	MGB Entory Program:	DW NPDES	RCRA Other:	NTP 284	THE LEADER IN ENVIRONMENTAL TESTING TestAmerica Laboratories, Inc. TAL-8210 (0713)
Client Contact	Project Manager: Rehert	Kennedy	Site Contact:	Date:	COC No:
Company Name: AFCON	Tel/Fax:	1 1	Lab Contact: Sill Collus v	Carrier:	of COCs
Address: 250 Apollo Dr.	Analysis Turnarour	nd Time			Sampler:
City/State/Zip: Che/ms/erd MA 01824 Phone: 978-905-7269	CALENDAR DAYS W TAT if different from Below	48-6-5	12 (N		
Fax: Project Name: Z., L. O. J. C. IV. T. S. C.	2 weeks		80 (N/A)		
Site: Benning Road Star	2 days		ZSW/	180-63926 Chain o	of Custody
2	Sample Type	0	- Sl mice		
Sample Identification	Date Time G=Grab	Matrix Cont.	Ferto Perto		Sample Specific Notes:
CTISSO1F-D	3/1/17 ogto G	Se 1	X		HELD
CTI5SO1EF-D	3 1030 G	- 8			
CTISSOFF-0	D atol	1 OS	X		HOLN
CTISSOSEF-0	IO45 G	Se 1			
CT16509G-12	1115 6	So 1	X		
- CT16S0116-0	1130 G	So 1	X		
CTIGSONH-O	V II to G	- CS	X		VTOH
8 of 2)
20					
Preservation Used: 1= Ice, 2= HCi; 3= H2SO4; 4=HNO3; Possible Hazard Identification: Are any semulas from a listed EDA Hazardous Maste? Diase	5=NaOH; 6= Other	the sample in th	Sample Disposal (A fee may b	e assessed if samples are retaine	d longer than 1 month)
Are any samples from a listed CFA hazardous wasker i rieas Comments Section if the lab is to dispose of the sample.	se List any EFA waste Codes it	or the sample in th	20		
Non-Hazard Fiammable Skin Irritant	Poison B	known	Return to Client	Disposal by Lab Archive for	Months
Special Instructions/QC Requirements & Comments:	48-hr TA7	L			
Custody Seals Intact:	Custody Seal No.:		Cooler Temp. ("C): O	os'd: Corr'd:	Therm ID No.:
Relinquished by:	COMPANY	Date/Time: 3/1/17 13	Received by	Company:	Date/Time: 7/1/17 1235
Relinquished by: MA	Test werica	Date/Time:/	15 Baselvad by AUUUUI	they compary. Al	Datestimes 179130
Relinquished by:	Comparty:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
/2017		-			
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Isdel aidt gnitning this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.

2. Fold the printed page along the horizontal line.

3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional philping charges, along with the cancellation of your FedEx account number.

Besufin 8 additional bining characteristics when the cancenation of your readex account manuer, but to be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery, precise and other forms of damage whether direct, incidential, consequential, or special is of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidential, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss, Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written etal.

12

2/1/2011

Imid.amsrAltnirq\/na\Imid\gniqqida\moo.xabaf.www\\:

Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 63926 List Number: 1 Creator: Watson, Debbie

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

Job Number: 180-63926-1

List Source: TestAmerica Pittsburgh



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh 301 Alpha Drive RIDC Park Pittsburgh, PA 15238 Tel: (412)963-7058

TestAmerica Job ID: 180-63926-3 Client Project/Site: Pepco Benning Road Facility

For:

AECOM, Inc. 250 Apollo Drive Chelmsford, Massachusetts 01824

Attn: Mr. Robert Kennedy



Authorized for release by: 3/9/2017 12:16:57 PM

Jill Colussy, Project Manager I (412)963-2444 jill.colussy@testamericainc.com

Review your project results through TOTALACCESS

..... Links



Visit us at: www.testamericainc.com This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.
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1 2 3 4 5 6 7 8 9 10 11 12

Colussy, Jill

From: Sent: To: Cc: Subject: Kennedy, Robert (Chelmsford) <robert.kennedy@aecom.com> Monday, March 06, 2017 5:30 PM Colussy, Jill Daniels, Ben FW: Benning CT sampling

Jill,

Please take the sample CT15SO5F-0 (lab ID 180-63926-3) off hold and analyze with the 2-day rush. Thanks.

Robert Kennedy Senior Project Chemist Environment D 978-905-2269 C 603-769-7451 robert.kennedv@aecom.com

AECOM

250 Apollo Drive, Chelmsford, MA 01824 T 978.905.2100 F 978.905.2101 www.aecom.com

From: Daniels, Ben Sent: Monday, March 06, 2017 5:02 PM To: Kennedy, Robert (Chelmsford) Subject: Re: Benning CT sampling

Rush please.

From: "Kennedy, Robert (Chelmsford)" <<u>robert.kennedy@aecom.com</u>> Date: Monday, March 6, 2017 at 4:51 PM To: Ben Daniels <<u>ben.daniels@aecom.com</u>> Subject: RE: Benning CT sampling

Ben, Do you want this released sample rush, or is std. TAT OK?

From: Daniels, Ben Sent: Monday, March 06, 2017 4:30 PM To: Kennedy, Robert (Chelmsford) Cc: Damera, Ravi Subject: Re: Benning CT sampling

Robert,

Based on these results please release the following sample from HOLD (48-hr TAT): CT15SO5F-0.

Job ID: 180-63926-3

Laboratory: TestAmerica Pittsburgh

Narrative

CASE NARRATIVE

Client: AECOM, Inc.

Project: Pepco Benning Road Facility

Report Number: 180-63926-3

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/02/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.9 C.

Sample CT15SO5F-0 (180-63926-3) as taken off of hold and analyzed as per the client via e-mail on 3/6/2017. The e-mail is included in the report.

PCBS

Sample CT15S05F-0 (180-63926-3) was analyzed at a dilution due to matrix. The extract was thick and dark after the clean-ups. The reporting limits have been adjusted accordingly.

PERCENT SOLIDS

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

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

1 2 3 4 5 6 7 8

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
р	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

TEQ Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

TestAmerica Job ID: 180-63926-3

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-17
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-17
Illinois	NELAP	5	200005	06-30-17
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-17
New Hampshire	NELAP	1	2030	04-04-17
New Jersey	NELAP	2	PA005	06-30-17
New York	NELAP	2	11182	03-31-17
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-17
South Carolina	State Program	4	89014	04-30-17
Texas	NELAP	6	T104704528-15-2	03-31-17
US Fish & Wildlife	Federal		LE94312A-1	10-31-17
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-17
Virginia	NELAP	3	460189	09-14-17
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-17

Sample Summary

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility TestAmerica Job ID: 180-63926-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-63926-3	CT15S05F-0	Solid	03/01/17 10:40	03/02/17 09:20

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) (GC)	SW846	TAL PIT
PCB	Total PCB Calculation	TAL SOP	TAL PIT
2540G	SM 2540G	SM22	TAL PIT

Protocol References:

SM22 = SM22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Sample ID: 180-63926-3

Matrix: Solid

Percent Solids: 86.2

2 3 4 5 6 7 8 9

Client Sample ID: CT15S05F-0 Date Collected: 03/01/17 10:40							L	ab Sample	le ID: 180-63926-3		
								-	Ма	atrix: Solid	
Date Receive	d: 03/02/17 0	9:20									
Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	PCB		1			205095	03/09/17 11:53	DFE	TAL PIT	
	Instrumer	t ID: NOEQUIP									
Total/NA	Analysis	2540G		1			204785	03/07/17 09:54	MTW	TAL PIT	
	Instrumer	t ID: NOEQUIP									

Client Sample ID: CT15S05F-0 Date Collected: 03/01/17 10:40 Date Received: 03/02/17 09:20

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3541			15.3 g	1.0 mL	204887	03/08/17 03:31	BAP	TAL PIT
Total/NA	Cleanup	3665A			1 mL	1 mL	204962	03/08/17 12:52	DFE	TAL PIT
Total/NA	Cleanup	3660B			1 mL	1 mL	204963	03/08/17 12:54	DFE	TAL PIT
Total/NA	Analysis	8082A		5			205028	03/09/17 10:38	JMO	TAL PIT
	Instrumen	t ID: CHGC8								

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT Batch Type: Cleanup

DFE = David Eppinger

Batch Type: Prep BAP = Brian Pino

Batch Type: Analysis

DFE = David Eppinger

JMO = John Oravec

MTW = Michael Wesoloski

Client Sample Results

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

Client Sample ID: CT15S05F-0 Date Collected: 03/01/17 10:40

Lab Sample ID: 180-63926-3 Matrix: Solid Percent Solids: 86.2

Analyzed
03/09/17 10:38

03/09/17 10:38

03/09/17 10:38

03/09/17 10:38

03/09/17 10:38

03/09/17 10:38 03/09/17 10:38

03/09/17 10:38

03/09/17 10:38

Analyzed

03/09/17 10:38

03/09/17 10:38 03/09/17 10:38 Dil Fac

5

5 5

5

5

5

5

5

5

5

5 5

5

Dil Fac

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared
PCB-1016	ND		4.7	2.5	ug/Kg	<u> </u>	03/08/17 03:3
PCB-1221	ND		4.7	2.5	ug/Kg	₽	03/08/17 03:3
PCB-1232	ND		4.7	1.9	ug/Kg	☆	03/08/17 03:3
PCB-1242	ND		4.7	3.8	ug/Kg	¢	03/08/17 03:3
PCB-1248	ND		4.7	2.3	ug/Kg	₽	03/08/17 03:3
PCB-1254	ND		4.7	2.1	ug/Kg	₽	03/08/17 03:3
PCB-1260	ND		4.7	3.2	ug/Kg	¢	03/08/17 03:3
PCB-1262	ND		4.7	3.4	ug/Kg	₽	03/08/17 03:3
PCB-1268	ND		4.7	1.4	ug/Kg	¢	03/08/17 03:3
Surrogate	%Recovery	Qualifier	Limits				Prepared
DCB Decachlorobiphenyl (Surr)	71	p	20 - 150				03/08/17 03:3
DCB Decachlorobiphenyl (Surr)	113		20 - 150				03/08/17 03:3
Tetrachloro-m-xylene	58	p	20 - 130				03/08/17 03:3
Tetrachloro-m-xylene	102		20 - 130				03/08/17 03:3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	ND		4.7	3.8	ug/Kg			03/09/17 11:53	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Porcont Mojeturo	12.9		0.1	0.1	%			03/07/17 09:54	1

Client Sample ID: Method Blank 5 6 7

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 180-204 Matrix: Solid		d Blank								
Analysis Batch: 205028			Prep Batch: 204887							
	МВ	MB								J
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
PCB-1016	ND		0.83	0.44	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	
PCB-1221	ND		0.83	0.43	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	
PCB-1232	ND		0.83	0.33	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	
PCB-1242	ND		0.83	0.66	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	
PCB-1248	ND		0.83	0.40	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	8
PCB-1254	ND		0.83	0.37	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	
PCB-1260	ND		0.83	0.56	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	9
PCB-1262	ND		0.83	0.60	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	
PCB-1268	ND		0.83	0.25	ug/Kg		03/08/17 03:31	03/09/17 10:18	1	10
	MB	МВ								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
DCB Decachlorobiphenyl (Surr)	83		20 - 150				03/08/17 03:31	03/09/17 10:18	1	
DCB Decachlorobiphenyl (Surr)	81		20 - 150				03/08/17 03:31	03/09/17 10:18	1	
Tetrachloro-m-xylene	88		20 - 130				03/08/17 03:31	03/09/17 10:18	1	
Tetrachloro-m-xylene	83		20 - 130				03/08/17 03:31	03/09/17 10:18	1	13
Lab Sample ID: LCS 180-20 Matrix: Solid	4887/5-C					Client	Sample ID:	Lab Control S Prep Type: To	Sample otal/NA	
Analysis Batch: 205028								Prep Batch:	204887	

Analysis Batch: 205028

-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	16.3	13.6		ug/Kg		83	39 - 114	
PCB-1260	16.3	14.1		ug/Kg		86	34 - 123	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	80		20 - 150
DCB Decachlorobiphenyl (Surr)	80		20 - 150
Tetrachloro-m-xylene	85		20 - 130
Tetrachloro-m-xylene	82		20 - 130

TestAmerica Pittsburgh

QC Association Summary

Prep Type

Total/NA

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

Matrix

Solid

Solid

Solid

Matrix

Solid

Solid

Solid

Matrix

Solid

Solid

Solid

Client: AECOM, Inc. Project/Site: Pepco Benning Road Facility

Client Sample ID

Lab Control Sample

Client Sample ID

Lab Control Sample

Client Sample ID

Lab Control Sample

CT15S05F-0

Method Blank

CT15S05F-0

Method Blank

CT15S05F-0

Method Blank

Method

3541

3541

3541

Method

3665A

3665A

3665A

Method

3660B

3660B

3660B

Prep Batch

Prep Batch

204887

204887

204887

Prep Batch

204962

204962

204962

8 9 10 11

LCS 180-204887/5-C Analysis Batch: 205028

MB 180-204887/1-C

GC Semi VOA

Lab Sample ID

Lab Sample ID

Lab Sample ID

180-63926-3

MB 180-204887/1-C

LCS 180-204887/5-C

180-63926-3

180-63926-3

Prep Batch: 204887

MB 180-204887/1-C

LCS 180-204887/5-C

Cleanup Batch: 204962

Cleanup Batch: 204963

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
180-63926-3	CT15S05F-0	Total/NA	Solid	8082A	204963
MB 180-204887/1-C	Method Blank	Total/NA	Solid	8082A	204963
LCS 180-204887/5-C	Lab Control Sample	Total/NA	Solid	8082A	204963

Analysis Batch: 205095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63926-3	CT15S05F-0	Total/NA	Solid	PCB	

General Chemistry

Analysis Batch: 204785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-63926-3	CT15S05F-0	Total/NA	Solid	2540G	

****			,	4 000 000	
BALTD	MGREEterory Program	1: DW NPDES	RCRA Other:	UTP334	THE LEADER IN ENVIRONMENTAL TESTING TestAmerica Laboratories, Inc. TAL-8210 (0713)
Client Contact	Project Manager: Rebe	rt Kennedy	Site Contact:	Date:	COC No:
Company Name: AECON	Tel/Fax:	1	Lab Contact: Sill Collus v	Carrier:	of COCs
Address: 250 Apollo Dr.	Analysis Turnar	ound Time			Sampler:
City/State/Zip: Chelmskerd MA 01824 Phone: 978-905-2269	CALENDAR DAYS TAT if different from Be	WORKING DAYS	12. (N		
Fax: Project Name: Renning Rd . Cooling Towers	2 week		80. (N/A		
Site: Benning Road U PO#	2 days		S - S	180-63926 Chain o	f Custody
Sample Identification	Sample Sample [C==C T]	nple pe # of comp. # of 3rab) Matrix Cont.			Samole Specific Notes
CT15501F-D	3/1/12 Egype 0	- So -			HOLN
CTI5SO1EF-D	3 1030 6	- 08			
CT15505F-0	1040	1 0S 1			VTOH
CTISSOSEF-0	1045 6	1 20 1			
CT16509G-12	1115 6	1 50 1	X		
- CT16S0116 - O	1130 6	I os	X		
B CTI6SOIH - O	A III A	- CS -	X		VTOH
3 of 1)
5					
Preservation Used: 1= Ice, 2= HCI; 3= H2SO4; 4=HNO3;	5=NaOH; 6= Other	-			
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Pleas Comments Section if the lab is to dispose of the sample.	se List any EPA Waste Code	es for the sample in th	Sample Disposal (A fee may b	e assessed if samples are retainer	d longer than 1 month)
Non-Hazard Flammable Skin Irritant	Poison B	Unknown	Return to Client	Disposal by Lab	Months
Special Instructions/QC Requirements & Comments:	48-hr TA	T			
Custody Seals Intact: Tes No	Custody Seal No.:		Cooler Temp. (°C): O	os'd: Corr'd:	Therm ID No.:
Relinquished by:	COMPANY	3/1/17 13	Received by	Company:	Date/Time: 7/1/17 1235
Relinquished by: MAP	Testfunerica	3-1-2017/16	15 Baselvad by AULUNG	they compary. AV	Datestimes 199120
Relinquished by:	Comparty:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
/2017					
		Anner			



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2. Fold the printed page along the horizontal line.

3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional purposes is fraudulent and could result in additional purposes.

Paster in Radinonal primity characteristics along with the carcertation of your FedEx Second number in the current FedEx Service Conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss Maximum for items of stateordinary value is \$1,000, e.g. jeweiry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jeweiry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jeweiry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jeweiry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jeweiry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jeweiry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jeweiry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written extraordinary value is \$1,000, e.g. jeweiry, precious metals, negotiable instruments and other items listed in our ServiceCuide. Written etals and the supervised to the strict time time to the strict time actual documented loss. Maximum for items of etals are straordinary value is \$1,000, e.g. jeweiry, precious metals, negotiab

12

2/1/2012

Imid.amsrAltnirq\/na\Imid\gniqqida\moo.xabaf.www\\:

Login Sample Receipt Checklist

Client: AECOM, Inc.

Login Number: 63926 List Number: 1 Creator: Watson, Debbie

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

Job Number: 180-63926-3

List Source: TestAmerica Pittsburgh



Attachment 3

Backfill Analytical Results

Analytical Report for

Recycled Aggregates, LLC Certificate of Analysis No.: 17022707

Project Manager: David Cantwell Project Name : Barnabas Project Location: Soil Stock pile



March 2, 2017 Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 Phone: (410) 747-8770 Fax: (410) 788-8723 OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



March 2, 2017

David Cantwell Recycled Aggregates, LLC 1721 S. Capitol St., SW Washington, DC 20003

Reference: PSS Work Order(s) No: **17022707** Project Name: Barnabas Project Location: Soil Stock pile

Dear David Cantwell :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **17022707**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 3, 2017, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt , the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal Laboratory Manager



Sample Summary Client Name: Recycled Aggregates, LLC **Project Name: Barnabas**

Work Order Number(s): 17022707

The following samples were received under chain of custody by Phase Separation Science (PSS) on 02/27/2017 at 02:10 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
17022707-001	3815329	SOIL	02/27/17 10:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

- 1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
- 2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
- 3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
- 4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
- 5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
- 6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
- 7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
- 8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- В A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- С
- Results Pending Final Confirmation. Е
- The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated. Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- The target analyte was positively identified below the reporting limit but greater than the MDL. T
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL. PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156 State Certifications: MD 179, WV 303 Regulated Soil Permit: P330-12-00268 NSWC USCG Accepted Laboratory LDBE MWAA LD1997-0041-2015

OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 17022707

Recycled Aggregates, LLC, Washington, DC March 2, 2017

Project Name: Barnabas Project Location: Soil Stock pile

Sample ID: 3815329		Date/Tim	ne Sampled:	02/27/	2017 10:00	PSS Sampl	e ID: 17022707	7-001
Matrix: SOIL		Date/Tim	e Received:	02/27/	2017 14:10	% S	olids: 87	
RCRA Metals	Analytic	al Method:	SW-846 6020	А		Preparation Met	nod: 3050B	
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Arsenic	2.7	mg/kg	0.43		1	02/27/17	03/02/17 14:27	' 1033
Barium	56	mg/kg	2.2		1	02/27/17	03/02/17 14:27	1033
Cadmium	ND	mg/kg	2.2		1	02/27/17	02/28/17 17:35	5 1033
Chromium	17	mg/kg	2.2		1	02/27/17	03/02/17 14:27	1033
Lead	26	mg/kg	2.2		1	02/27/17	02/28/17 17:35	5 1033
Mercury	ND	mg/kg	0.086		1	02/27/17	03/02/17 14:27	1033
Selenium	ND	mg/kg	2.2		1	02/27/17	03/02/17 14:27	1033
Silver	ND	mg/kg	2.2		1	02/27/17	02/28/17 17:35	5 1033
Chromium, Hexavalent	Analytic	al Method:	SW-846 7196	A		Preparation Met	nod: SW3060A	
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	02/28/17	03/01/17 13:00	1053
Sample ID: 3815329		Date/Tim	ne Sampled:	02/27/	2017 10:00	PSS Sampl	e ID: 17022707	7-001
Matrix: SOIL		Date/Tim	e Received:	02/27/	2017 14:10)		
Trivalent Chromium by calculation	Analytic	al Method:	Trivalent Calc.					
-	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Trivalent Chromium (by subtraction)	17	mg/kg			1	03/02/17	03/02/17 14:27	1041



Case Narrative Summary

Client Name: Recycled Aggregates, LLC

Project Name: Barnabas

Work Order Number(s): 17022707

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Sample(s) received at a temperature greater than 6 degrees C and ice was not present.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

Analytical Data Package Information Summary



Work Order(s): 17022707 Report Prepared For: Recycled Aggregates, LLC, Washington, DC Project Name: Barnabas Project Manager: David Cantwell

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SM2540G	3815329	Initial	17022707-001	1062	S	140341	140341	02/27/2017	02/27/2017 15:46	02/27/2017 15:46
SW-846 6020 A	3815329	Initial	17022707-001	1033	S	65052	140411	02/27/2017	02/27/2017 16:53	02/28/2017 17:35
	65052-1-BKS	BKS	65052-1-BKS	1033	S	65052	140411		02/27/2017 16:53	02/28/2017 16:09
	65052-1-BLK	BLK	65052-1-BLK	1033	S	65052	140411		02/27/2017 16:53	02/28/2017 16:02
	1706-TP-A S	MS	17022401-001 S	1033	S	65052	140411	02/23/2017	02/27/2017 16:53	02/28/2017 16:22
	1706-TP-A SD	MSD	17022401-001 SD	1033	S	65052	140411	02/23/2017	02/27/2017 16:53	02/28/2017 16:29
	3815329	Reanalysis	17022707-001	1033	S	65052	140464	02/27/2017	02/27/2017 16:53	03/02/2017 14:27
SW-846 7196 A	3815329	Initial	17022707-001	1053	S	65068	140429	02/27/2017	02/28/2017 14:26	03/01/2017 13:00
	65068-1-BKS	BKS	65068-1-BKS	1053	S	65068	140429		02/28/2017 14:26	03/01/2017 12:39
	65068-1-BLK	BLK	65068-1-BLK	1053	S	65068	140429		02/28/2017 14:26	03/01/2017 12:37
	65068-1-BSD	BSD	65068-1-BSD	1053	S	65068	140429		02/28/2017 14:26	03/01/2017 12:41
	20' Beech (#10) D	MD	17022705-001 D	1053	S	65068	140429	02/17/2017	02/28/2017 14:26	03/01/2017 12:49
	20' Beech (#10) S	MS	17022705-001 S	1053	S	65068	140429	02/17/2017	02/28/2017 14:26	03/01/2017 12:52
Trivalent Calc.	3815329	Initial	17022707-001	1041	S	140466	140466	02/27/2017	03/02/2017 14:27	03/02/2017 14:27

PHASE SEPARATION SCIENCE, INC. QC Summary 17022707

Recycled Aggregates, LLC Barnabas

Analytical Method: SW-846 6020 A

Analytical Method:	SW-846 6020 A					Prep Method:	SW3050B		
Seq Number: 140411 M			Matrix:	Solid	Date Prep:	02/27/17			
MB Sample Id:	65052-1-BLK		LCS San	nple Id:	65052-1-BKS				
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Un	its Anal Da	ysis ate	Flag
Arsenic	<0.3431	13.72	12.97	95	80-120	mg/	/kg 02/28/1	7 16:09	
Barium	<1.716	13.72	13.08	95	80-120	mg/	/kg 02/28/1	7 16:09	
Cadmium	<1.716	13.72	12.64	92	80-120	mg/	/kg 02/28/1	7 16:09	
Chromium	<1.716	13.72	12.62	92	80-120	mg/	/kg 02/28/1	7 16:09	
Lead	<1.716	13.72	13.67	100	80-120	mg/	/kg 02/28/1	7 16:09	
Mercury	<0.06862	0.3431	0.3260	95	80-120	mg/	/kg 02/28/1	7 16:09	
Selenium	<1.716	13.72	11.37	83	80-120	mg/	/kg 02/28/1	7 16:09	
Silver	<1.716	13.72	13.12	96	80-120	mg/	/kg 02/28/1	7 16:09	

Analytical Method:	SW-846 7196	4							Pre	p Metho	d: SW	3060A	
Seq Number:	140429			I	Matrix:	Solid			Γ	Date Pre	p: 02/2	28/17	
MB Sample Id:	65068-1-BLK			LCS Sam	ple Id:	65068-1-	BKS		LCSD	Sample	ld: 650	68-1-BSD	
Parameter	l Res	/IB ult A	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavalent	: <1.0	019	5.095	4.875	96	5.047	99	80-120	3	20	mg/kg	03/01/17 12:39	

F = RPD exceeded the laboratory control limits X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits L= Recovery of BS,BSD or both below the laboratory control limits

A HARNIN	PHASE	SEPAF	ATION	I SCIEI	NCE, II	Ś.		e	smail: info@pt	naseonline.com
*CLIENT:	Re And	*OFF	ICE LOC.			SS Work Ord	PI#: 17022707		PAGE	OF
PROJEC	T MGR: LYNN	OHd	NE NO : () (C	178836	0	Watrix Codes:	DW=Drinking Wtr GW=Ground Wtr WV	V=Waste Wtr O=	-Oil S=Soil L=Liquid SOL	-Solid A=Air WI=Wipe
EMAIL	mmellere-agg. C.	AN FAX N) .0	<u> </u>		C SAMPLE	Used Araksev			
*PROJEC	T NAME: SACUAS	\$	PRO.	JECT NO.:		ITYPE	Method / / / / / / /	11	///	//
SITE LOC.	ATION: Soil Stel	pile.	P.O.A	NO.		A COMP	3/ / / /	/	111	/ /
SAMPLER	(S): Dire Carlo	rel 1	DW CERT N	40.: V		N G= GRAB	1/00/20/*	//	111	/
LAB NO.	*SAMPLE IDENTIF	CATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	шs	1/2/2/	11	///	REMARKS
	G153195		11-Ce.e	1000	V	0				
Relinquish	bd By: (1)	Date	Time	Received B	, k		*Requested TAT (One TA	T per COC)	# of Coolers: O	
Davel	mhell	Le/e	dic	Port	- Weles		Next Day Emergency	Other	Custody Seal: A	Ω
Relinquish	əd By: (2)	Date	Time	Received B	y:		Data Deliverables Required: COA OC SUMM CLP LIKE	OTHER	Ice Present: Aus	Temp: (9°.
									Shipping Carrier:	chient
Relinquish	ad By: (3)	Date	Time	Received B	iy:		Special Instructions:			
Relinquish	əd By: (4)	Date	Time	Received B	.A.		DW COMPLIANCE? EDD FO	RMAT TYPE	STATE RESUL	TS REPORTED TO: WV OTHER
5630 Baltir	nore National Pike • R	oute 40 We	est • Baltimo	ore, Maryla	ind 21228	. (410) 747-	8770 • (800) 932-9047 • F	ax (410) 78	38-8723	
he Service E	TIENT NAME), DY SIGNING, D Srochure or PSS-provided	r having cliei quotation ine	nt's agent sig. Sluding any al	n, this same nd all attorne	ole Uhain or sy's or other	Custody/Agre reasonable fe	ement Form", agrees to pay to es if collection becomes neces	r the above r sary. * = RE	equested services p	er the latest version o

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

APTHICAL CHEER

Version 1.000



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	17022707		Received By	Barb Webe	ər
Client Name	Recycled Aggregates, LLC		Date Received	02/27/2017	7 02:10:00 PM
Project Name	Barnabas		Delivered By	Client	
Disposal Date	04/03/2017		Tracking No	Not Applical	ble
			Logged In By	Barb Webe	ər
Shipping Contai No. of Coolers	ner(s) 1			Ν	/^
Custody Seal(s Seal(s) Signed) Intact? / Dated?	N/A N/A	Temp (deg (Temp Blank	C) 1 Present N	9 0
COC agrees wi Chain of Custor	th sample labels? dy	Yes Yes	Sampler Na MD DW Cer	me <u>Dav</u> rt. No. <u>N/A</u>	vid Cantwell
Sample Contain Appropriate for Intact? Labeled and La	er Specified Analysis? bels Legible?	Yes Yes Yes	Custody Sea Seal(s) Sign	al(s) Intact? ed / Dated	Not Applicable Not Applicable
Total No. of Sat Preservation Total Metals Dissolved Metal Orthophosphore Cyanides Sulfide TOC, DOC (fiel TOX, TKN, NH: VOC, BTEX (VO Do VOA vials h 624 VOC (Rcvo 524 VOC (Rcvo	mples Received 1 ls, filtered within 15 minutes of us, filtered within 15 minutes o d filtered), COD, Phenols 3, Total Phos OA Vials Rcvd Preserved) ave zero headspace? d at least one unpreserved VO d with trip blanks)	^f collectio f collectic A vial)	Total No. of (pł n (pł m (pł (pł (pł (pł	Containers 1<2) 1<2) 1>12) 1>9) 1<2) 1<2) 1<2) 1<2)	Received 1 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at a temperature greater than 6 degrees C and ice was not present.

Samples Inspected/Checklist Completed By:

Bart Weber

Date: 02/27/2017

PM Review and Approval:

Ny Jackson

Lynn Jackson

Barb Weber

Date: 02/27/2017

Analytical Report for

Recycled Aggregates, LLC Certificate of Analysis No.: 17040612

Project Manager: Ed Bingham Project Name : 10 Van St.

Project ID : 12526



April 10, 2017 Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 Phone: (410) 747-8770 Fax: (410) 788-8723 OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723 PHASE SEPARATION SCIENCE, INC.



April 10, 2017

Ed Bingham Recycled Aggregates, LLC 1721 S. Capitol St., SW Washington, DC 20003

Reference: PSS Work Order(s) No: **17040612** Project Name: 10 Van St.

Project ID.: 12526

Dear Ed Bingham :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **17040612**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 19, 2017, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt , the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal Laboratory Manager



Sample Summary Client Name: Recycled Aggregates, LLC Project Name: 10 Van St.

Work Order Number(s): 17040612

Project ID: 12526

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/15/2017 at 10:30 am

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
17040612-001	12526-TP3-8ft	SOIL	03/13/17 11:00
17040612-002	12526-TP4-8ft	SOIL	03/13/17 11:30

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

- 1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
- 2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
- 3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
- 4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
- 5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
- 6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
- 7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
- 8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156 State Certifications: MD 179, WV 303 Regulated Soil Permit: P330-12-00268 NSWC USCG Accepted Laboratory LDBE MWAA LD1997-0041-2015 OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 17040612

Recycled Aggregates, LLC, Washington, DC April 10, 2017

Project Name: 10 Van St.

Project ID: 12526

Sample ID: 12526-TP3-8ft		Date/Time	Sampled:	03/13/	2017 11:	00 PSS Sampl	e ID: 1704061	2-001
Matrix: SOIL	ſ	Date/Time	Received:	03/15/	2017 10:	30 % S	olids: 85	
Chromium, Hexavalent	Analytica	I Method: S	SW-846 7196	A		Preparation Mether	nod: SW3060A	
-	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.2		1	04/07/17	04/07/17 15:08	3 1053
Polychlorinated Biphenyls	Analytica	I Method: S	SW-846 8082	A		Preparation Meth Clean up Method	nod: SW3550C I: SW846 3665A	L.
-	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029
PCB-1221	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029
PCB-1232	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029
PCB-1242	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029
PCB-1248	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029
PCB-1254	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029
PCB-1260	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029
PCB-1262	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029
PCB-1268	ND	mg/kg	0.061		1	04/06/17	04/07/17 11:41	1029

OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 17040612

Recycled Aggregates, LLC, Washington, DC April 10, 2017

Project Name: 10 Van St.

Project ID: 12526

Sample ID: 12526-TP4-8ft		Date/Time	Sampled:	03/13/	2017 11:	30 PSS Sampl	e ID: 1704061	2-002
Matrix: SOIL	[Date/Time	Received:	03/15/	2017 10:	30 % S	olids: 85	
Chromium, Hexavalent	Analytica	I Method: S	SW-846 7196	A		Preparation Mether	nod: SW3060A	
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.2		1	04/07/17	04/07/17 15:22	2 1053
Polychlorinated Biphenyls	Analytica	I Method: S	SW-846 8082	A		Preparation Meth Clean up Method	nod: SW3550C I: SW846 3665A	A
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
PCB-1016	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029
PCB-1221	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029
PCB-1232	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029
PCB-1242	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029
PCB-1248	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029
PCB-1254	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029
PCB-1260	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029
PCB-1262	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029
PCB-1268	ND	mg/kg	0.057		1	04/06/17	04/07/17 12:09	9 1029





Client Name: Recycled Aggregates, LLC

Project Name: 10 Van St.

Work Order Number(s): 17040612 Project ID: 12526

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Refer to previous work order 17031508.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

Analytical Data Package Information Summary



Work Order(s): 17040612 Report Prepared For: Recycled Aggregates, LLC, Washington, DC Project Name: 10 Van St. Project Manager: Ed Bingham

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 7196 A	12526-TP3-8ft	Initial	17040612-001	1053	S	65586	141487	03/13/2017	04/07/2017 09:54	04/07/2017 15:08
	12526-TP4-8ft	Initial	17040612-002	1053	S	65586	141487	03/13/2017	04/07/2017 09:54	04/07/2017 15:22
	65586-1-BKS	BKS	65586-1-BKS	1053	S	65586	141487		04/07/2017 09:54	04/07/2017 15:01
	65586-1-BLK	BLK	65586-1-BLK	1053	S	65586	141487		04/07/2017 09:54	04/07/2017 14:59
	65586-1-BSD	BSD	65586-1-BSD	1053	S	65586	141487		04/07/2017 09:54	04/07/2017 15:03
	12526-TP3-8ft D	MD	17040612-001 D	1053	S	65586	141487	03/13/2017	04/07/2017 09:54	04/07/2017 15:11
	12526-TP3-8ft S	MS	17040612-001 S	1053	S	65586	141487	03/13/2017	04/07/2017 09:54	04/07/2017 15:14
SW-846 8082 A	12526-TP3-8ft	Initial	17040612-001	1029	S	65572	141455	03/13/2017	04/06/2017 10:37	04/07/2017 11:41
	12526-TP4-8ft	Initial	17040612-002	1029	S	65572	141455	03/13/2017	04/06/2017 10:37	04/07/2017 12:09
	65572-1-BKS	BKS	65572-1-BKS	1029	S	65572	141455		04/06/2017 10:37	04/06/2017 15:19
	65572-1-BLK	BLK	65572-1-BLK	1029	S	65572	141455		04/06/2017 10:37	04/06/2017 14:50
	65572-1-BSD	BSD	65572-1-BSD	1029	S	65572	141455		04/06/2017 10:37	04/06/2017 15:47
	12526-Sample 5 - 5 ft S	MS	17040517-001 S	1029	S	65572	141455	04/05/2017	04/06/2017 10:37	04/06/2017 16:15
	12526-Sample 5 - 5 ft SD	MSD	17040517-001 SD	1029	S	65572	141455	04/05/2017	04/06/2017 10:37	04/06/2017 16:43

PHASE SEPARATION SCIENCE, INC. QC Summary 17040612

Recycled Aggregates, LLC 10 Van St.

Analytical Method	: SW-846 8082 A				Prep Me	thod: SW3550C
Seq Number: PSS Sample ID:	141455 17040612-001		Matrix:	Soil	Date	Prep: 04/06/2017
Surrogate		%Rec	Flag	Limits	Units	Analysis Date
Decachlorobipheny	I	84		61-150	%	04/07/17 11:41
Tetrachloro-m-xyler	ne	76		42-142	%	04/07/17 11:41

Analytical Method:	SW-846 8082 A				Prep Method	SW3550C
Seq Number:	141455		Matrix: Soil		Date Prep	04/06/2017
PSS Sample ID:	17040612-002					
Surrogate		%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl		82		61-150	%	04/07/17 12:09
Tetrachloro-m-xylen	e	76		42-142	%	04/07/17 12:09

F = RPD exceeded the laboratory control limits X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

PHASE SEPARATION SCIENCE, INC. QC Summary 17040612

Recycled Aggregates, LLC 10 Van St.

Analytical Method:	SW-846 7196 A							Pre	p Metho	d: SW	3060A	
Seq Number:	141487			Matrix:	Solid			I	Date Pre	p: 04/0)7/17	
MB Sample Id:	65586-1-BLK		LCS San	nple Id:	65586-1-	BKS		LCSD	Sample	ld: 655	86-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavalen	t <1.018	5.088	4.162	82	4.401	88	80-120	6	20	mg/kg	04/07/17 15:01	

Analytical Method:	SW-846 7196 A			Pre	ep Metho	d: SW	/3060A	
Seq Number:	141487	Matrix:	Soil		Date Pre	o: 04/	07/17	
Parent Sample Id:	17040612-001	MD Sample Id:	17040612-001 D					
Parameter	Parent Result	MD Result		%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavalent	t <1.169	<1.169		0	20	mg/kg	04/07/17 15:11	U

Analytical Method:	SW-846 7196 A					Prep Method:	SW3060A	
Seq Number:	141487			Matrix:	Soil	Date Prep:	04/07/17	
Parent Sample Id:	17040612-001		MS San	nple Id:	17040612-001 S			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Un	its Analysis Date	Flag
Chromium, Hexavalent	<1.186	5.928	4.769	80	75-125	mg/	/kg 04/07/17 15:14	Ļ

Analytical Method: Seq Number:	SW-846 8082 A 141455			Matrix:	Solid			Pre	ep Metho Date Pre	od: SW ep: 04/	3550C 06/17	
MB Sample Id:	65572-1-BLK		LCS San	nple Id:	65572-1-	BKS		LCSD) Sample	e ld: 655	72-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.04878	0.4878	0.4172	86	0.4138	82	60-110	1	25	mg/kg	04/06/17 15:19	
PCB-1260	<0.04878	0.4878	0.3459	71	0.3465	68	60-98	0	25	mg/kg	04/06/17 15:19	
Surrogate	MB %Rec	MB Flag	L Re	CS sult	LCS Flag	LCS Resu	D LCS It Fla	SD Li g	mits	Units	Analysis Date	
Decachlorobiphenyl	86		:	33		83		61	1-150	%	04/06/17 15:19)
Tetrachloro-m-xylene	91		:	39		90		42	2-142	%	04/06/17 15:19)

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

SAMPLERIGS: Act but H: DW CERT NO.: E GRAB LAB NO. *SAMPLE IDENTIFICATION *DATE *TIME MATTRIX R LAB NO. *SAMPLE IDENTIFICATION *DATE *TIME MATTRIX R LAB NO. *SAMPLE IDENTIFICATION *DATE *TIME MATTRIX R LAB NO. *SAMPLE IDENTIFICATION *DATE *DATE *TIME MATTRIX L 12526-TPU-SPL 03/1/1 1/130 5 6 7 2 15526-TPU-SPL 01/1/1 1/130 5 6 7 2 15526-TPU-SPL 01/1/1 1/130 5 6 7 3 Actinum Actinum Actinum Actinum 6 5 3 Actinum Actinum Actinum 6 7 7 3 Actinum Actinum Actinum 7 7 7 3 Actinum Actinum Actinum Actinum 8 6 7 3 Actinum Actinum Actinum Actinum 7 7 7 0 3 Actinum Actinum Actinum Actinum Actinum 0 0
Aelinqueshed By: (4) Date Time Received By: PW COMPLI

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

5



Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	17040612	Received By	Barb Weber				
Client Name	Recycled Aggregates, LLC		Date Received	03/15/2017 10:30:00 AM			
Project Name	10 Van St.		Delivered By	Trans Time Express			
Project Number	12526		Tracking No	Not Applicable			
Disposal Date 04/19/2017			Logged In By	Thomas Wingate			
Shipping Contai	ner(s)						
No. of Coolers	I			D	resent		
Custody Seal(s) Intact?	Yes	Temp (deg (resent		
Seal(s) Signed	Yes	Temp Blank	p Blank Present No				
Documentation					-		
COC agrees wi Chain of Custo	N/A N/A	Sampler Na	Sampler Name <u>Not Provide</u> <u>N/A</u>				
Sample Container			Custody Sea	Custody Seal(s) Intact? Not Applicat			
Appropriate for Intact?	N/A N/A	Seal(s) Sign	ed / Dated	Not Applicable			
Labeled and La	bels Legible?	N/A					
Total No. of Sa	mples Received 2		Total No. of	Containers	Received 2		
Preservation							
Total Metals			(p⊦	l<2)	N/A		
Dissolved Meta	n (pH	l<2)	N/A				
Orthophosphor	us, filtered within 15 minutes of	on		N/A			
Cyanides		(pF	l>12)	N/A			
Sulfide		(p⊦	l>9)	N/A			
	(p⊢ (≂l	1<2)	N/A				
	(pr (pr	1 <z)< td=""><td>IN/A</td></z)<>	IN/A				
	(þi	1<2)	Ν/Α N/Δ				
624 VOC (Reve	are zero neauspace:			N/A			
524 VOC (Revo	(pH	1 <2)	N/A				
```	• •		, i i i i i i i i i i i i i i i i i i i	,			

### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Refer to previous work order 17031508.

Samples Inspected/Checklist Completed By:

Date: 04/06/2017

PM Review and Approval:

ackson

Lynn Jackson

Thomas Wingate

Date: 04/07/2017

Jackson

Printed: 04/10/2017 08:35 AM

Page 11 of 11

Version 1.000

OFFICE S: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



February 14, 2017



Reference: PSS Work Order(s) No: 17020710 Project Name: Rolfe St. Project Location: Arlington, VA

Dear ment

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered 17020710.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on March 14, 2017, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal

Laboratory Manager

Page 2 of 37

Version 1.000


### **Analytical Report for**

Certificate of Analysis No.: 17020710

Project Manager: **(Ministry State**) Project Name : Rolfe St. Project Location: Arlington, VA



February 14, 2017 Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 Phone: (410) 747-8770 Fax: (410) 788-8723

A	B	C	D	E	F	G
4				Clie	nt:	
<u></u>		SI	immani	of Δn	alvtical Results for	WO#(s): 17020710
			annary		Tethodi Tetal (10) K	440#(3). 11020710
3			· · · · · · · · · · · · · · · · · · ·	11		letais
4				H	Project Name: Rolf	e St.
5				r		
6			#1			
7			02/07/20	017		
8 Analyte Name	Units	Cas#				
9 Aluminum	mg/kg	7429-90-5	5700			
0 Antimony	mg/kg	7440-36-0	<2.7			
1 Arsenic	mg/kg	7440-38-2	<0.55			
2 Barium	mg/kg	7440-39-3	25			
3 Beryllum	mg/kg	7440-41-7	<2.7			
4 Cadmium	mg/kg	7440-43-9	<2.7			· · · · · · · · · · · · · · · · · · ·
5 Chromium	mg/kg	7440-47-3	6.1			
6 Copper	mg/kg	7440-50-8	<2.7			
17 Iron	mg/kg	7439-89-6	3000			
8 Lead	mg/kg	7439-92-1	<2.7			
9 Manganese	mg/kg	7439-96-5	15			1
20 Mercury	mg/kg	7439-97-6	<0.11			
1 Nickel	mg/kg	7440-02-0	<2.7			
22 Selenium	mg/kg	7782-49-2	<2.7			
23 Silver	mg/kg	7440-22-4	<2.7			
24 Thallium	mg/kg	7440-28-0	<2.2			
25 Tin	mg/kg	7440-31-5	<5.5			
26 Vanadium	mg/kg	7440-62-2	10			
27 Zinc	<ul> <li>mg/kg</li> </ul>	7440-66-6	< <b>1</b> 1		· · · · · ·	

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Page 1 of 1 14 4 6 61



Help



### Sample Summary

#### **Client Name:**

### Project Name: Rolfe St.

#### 17020710 Work Order Number(s):

nples were received under chain of custody by Phase Separation Science (PSS) on 02/07/2017 at 10:50 am

The tonowing samples w		Data/Time Collected	
Lab Sample Id 17020710-001	Sample Id. #1	SOIL 02/07/17 07:00	

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Nariative Summary.

#### Notes:

- 1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where
- 2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and
- 3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a
- 4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for
- compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates. 5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to
- 6. The analysis of actolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
- Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NIU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected. 8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

#### Standard Flags/Abbreviations:

A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible

- B field or laboratory contamination.
- **Results Pending Final Confirmation**
- The data exceeds the upper calibration limit, therefore, the concentration is reported as estimated. Ċ E
- The result exceeds the regulatory level for Toxicity Charactenstic (TCLP) as cited in 40 CFR 261 24 Table 1.
- The farget analyte was positively identified below the reporting limit but greater than the MDL. Fail
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- Not Detected at or above the reporting limit. ND
- **PSS Reporting Limit**. RL.
- Not detected. TŤ

#### Certifications:

NELAP Certifications: PA 68-03330, VA 460156 State Certifications: MD 179, WV 303 Regulated Soil Permit: P330-12-00268 NSWC USCG Accepted Laboratory LDBE MWAA LD1997-0041-2015

## PHASE SEPARATION SCIENCE, INC.



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CERTIFICATE OF ANALYSIS No: 17020710

Washington, DC

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Sample ID: #1	D	ate/Time S	ampled: 02/07/	2017-07:0 2017-10:5	0 PSS Sample ID: 17020/10-001 0 % Solids: 85
Matrix: SOIL	D South Barrier	ate/Lime Ri	OVE EDON A		Preparation Method: 30508
Total (19) Metals	Analytical	Memod SW	-240 00297		n an
	Result	Units	RL Flag	Dil	Prepared Analyzed Analysi
	5 700	ma/kg	550	10	02/08/17 02/10/17/20/21 1051
Numinum	NO	ma/ka	2.7	1	02/08/17 02/09/17 22:51 1051
Antimony	ND	ma/kg	0.55	1	02/08/17 02/09/17 22:51 1051
Arsenic	25	ma/ka	27	1	02/08/17 02/10/17 19:20 1051
Barlum	NO	malka	2.7	1	02/08/17 02/09/17 22:51 1051
Beryllum	NO	malka	2.7	1	02/08/17 02/09/17 22:51 1051
Cadmium	£ 4	malka	2.7	1	02/08/17 02/09/17 22:51 1051
Chromium	0.1 ND	malka	2.7	1	02/08/17 02/09/17 22:51 1051
Copper	1100	malka	550	10	02/08/17 02/10/17 20:21 1051
fron		malka	27	Ĩ	02/08/17 02/09/17 22:51 1051
Lead	-ND	mgrag	27	1	02/08/17 02/10/17 19:20 1051
Manganese	15	ELIQ/NQ:	0.11	1	02/08/17 02/09/17 22:51 1051
Mercury	ND	mgvkg	9.7	1	02/08/17 02/09/17 22:51 1051
Nickel	NU	mgикg	2.1	1	02/08/17 02/09/17 22:51 1051
Selenium	ND	mg/kg	2.7	1	02/08/17 02/09/17 22:51 1051
Silver	ND	mg/Kg	2.1	ा 	02/08/17 02/09/17 22:51 1051
Thallum	ND	mg/kg	2.2	1	02/08/17 02/09/17 22:51 1051
Tin	ND	mg/kg	3.3	и 14:	02/08/17 02/09/17 22:51 1051
Vanadium	10	mg/kg	2.1	- I* 	02/08/17 02/09/17 22:51 1051
Zinc	ND	mg/kg	11		
Chromium, Hexavalent	Analytic	al Method: S	W-846 7196 A		Preparation Method: SW3060A
		I faits	DI Flac	ı Dil	Prepared Analyzed Analyst
	Resun	UIRIS	10	1	02/13/17 02/14/17 11:55 1053
Chromium, Hexávalent	ND	туку	· • • • •	·	
Total Petroleum Hydrocarbons - DRO	Analytic	al Method. S	W-846 8015 C		Preparation Method: SW3550C
	Result	t Units	RL Fla	g Dil	Prepared Analyzed Analys
TPH-DRO (Diesel Range Organics)	ND	mg/kg	12	1	02/08/17 02/09/17 16:23 1009

### PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS No: 17020710

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Sample ID: #1 Matrix: SOIL		Date/Time Date/Time I	Sampled: Received:	02/07/ 02/07/	2017 07 2017 10	:00 PSS Sampl :50 % S	e ID: 1702071 olids: 85	0.001
Total Petroleum Hydrocarbons-GRO	Analytica	Method: SV	V-846 80150	>		Preparation Meth	tod: 5030	
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analy st
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	02/08/17	02/09/17 01:4	0 1035
Organochlorine Pesticides	Analytica	l Method: SV	V-846 8081	в		Preparation Met	nod: SW3550C	
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
alpha-BHC	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
gamma-BHC (Lindarie)	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
beta-BHC	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
delta-BHC	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Heptachlor	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Aldrin	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Heptachlor epoxide	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
gamma-Chiordane	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
alpha-Chlordane	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
4,4-DDE	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Endosulfan I	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Dieldrin	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Endrin	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
4,4-DDD	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Endosulfan II	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
4,4-DDT	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Endrin aldehyde	ND	ugikg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Methoxychlor	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Endosulfan sulfate	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Endrin ketone	ND	ug/kg	4.6		1	02/09/17	02/10/17 19:5	1 1029
Toxaphene	ND	ug/kg	110		1	02/09/17	02/10/17 19:5	1 1029
Chlordane	ND	ug/kg	110		1	02/09/17	02/10/17 19:5	1 1029

## PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS No: 17020710

Washington, DC

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Sample ID: #1 Matrix: SOIL	l Maria di Santa di C	)ate/Time  ate/Time	Sampled: ( Received: (	02/07/ 02/07/	2017-07 2017-10	00 PSS Sample 50 % S	olids: 85	AUU I
Polychlorinated Biphenyls	Analytica	Method: S	N-846 8082 A	ł		Preparation Method	od: SW3550C SW846 3665A	Ł
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
000.1016	ND	mg/kg	0.057		1	02/08/17	02/09/17 13:5	1029
BCG-1070	ND	marka	0.057		1	02/08/17	02/09/17 13:5	9 1029
DCD-122 1	ND	mg/kg	0.057		1	02/08/17	02/09/17 13:5	9 1029
PCB-1202	ND	mg/kg	0.057		1	02/08/17	02/09/17 13:5	9 1029
F GEF1242	ND	mg/Kg	0.057		1	02/08/17	02/09/17 13:5	9 1029
POD-1245	ND	ma/ka	0.057		1	02/08/17	02/09/17 13:5	9 1029
PCB-1260	ND	mg/Kg	0.057		1	02/08/17	02/09/17 13:5	9 1029
Chlorinated Herbicides	Analylica	l Method: S	W-846 8151	A		Preparation Met	nod 8151A	
	Result	Units	<u></u>	Flag	Dil	Prepared	Analyzed	Analy st
Dalanon	ND	ug/kg	560		10	02/08/07	02/08/07 17:4	9 1029
Dicamba	ND	ug/kg	23		10	02/08/07	02/08/07 17:4	9 1029
MÓPP	ND	ug/kg	23,000		10	02/08/07	02/08/07 17.4	9 1029
MCPA	ND	ug/kg	23,000		10	02/08/07	02/08/07 17:4	9 1029
Dichlaronton	ND	ug/kg	230		10	02/08/07	02/08/07 17:4	9 1029
240	ND	ug/kg	230		10	02/08/07	02/08/07 17:4	9 1029
2.4 5.TP (Silver)	ND	ug/kg	23		10	02/08/07	02/08/07 17:4	9 1029
2/5.T	ND	ug/kg	23		10	02/08/07	02/08/07 17:4	9 1029
Dinceh	ND	ug/kg	120		10	02/08/07	02/08/07 17.4	9 1029
2,4-DB	ND	ug/kg	230		10	02/08/07	02/08/07 17:4	9 1029

## PHASE SEPARATION SCIENCE, INC.

CALCENTRAL SCREET

CERTIFICATE OF ANALYSIS No: 17020710 Washington, DC

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Sample ID: #1 Matrix: SOIL		Date/Time S Date/Time R	ampled: 02 ecoived: ⁰²	/07/2017 07 /07/2017 10	00 PSS Sampl 150 % S	e ID: 1702071 olids: 85	0.001		
TCL Volatile Organic Compounds	Analytica	Method: SW	-846 8260 B		Preparation Method: 5030				
	Result	Units	RL FI	ag Dil	Prepared	Analyzed	Analyst		
Acetone	100	ug/kg	24	-1	02/09/17	02/09/17 16:4	4 1011		
Benzene	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	4 1011		
Bromochloromethane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	4 1011		
Bromodichloromethane	ND	ug/kg	5.9	-1	02/09/17	02/09/17 16:4	4 1011		
Bromoform	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	4 1011		
Bromomethane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	4 1011		
2-Bulanone (MEK)	ND	ug/kg	24	1	02/09/17	02/09/17 16:4	14 1011		
Carbon Disulfide	ND	ug/kg	12	1	02/09/17	02/09/17 16:4	14 1011		
Carbon Tetrachloride	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
Chlorobenzene	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
Chloroethane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
Chloroform	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
Chloromethane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
Cyclonexane	ND	ug/kg	24	1	02/09/17	02/09/17 16:4	14 1011		
1,2-Dibromo-3-Chloropropane	ND	ug/kg	48	1	02/09/17	02/09/17 16:4	14 1011		
Dibromochloromethane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
1,2-Dichlorobenzene	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
1,3-Dichlorobenzene	ND	ug/kg	5.9	1:	02/09/17	02/09/17 16.4	14 1011		
1.4-Dichlorobenzene	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
Dichlorodifluoromethane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
1,1-Dichloroethane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	14 1011		
1,2-Dichloroethane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16	1011		
1.1-Dichloroethene	ND	ugikg	5.9	1	02/09/17	02/09/17 16:4	44 1011		
cis-1,2-Dichloroethene	ND	ug/kg	5.9	-1	02/09/17	02/09/17 16:4	44 1011		
1.2-Dichloropropane	ND	ug/kg	5.9	1	02/09/17	02/09/17 16:4	44 1011		
cis-1.3-Dichloropropene	ND	ug/kg	5.9	1	02/09/17	02/09/17 16	44 1011		
trans-1,2-Dichloroethene	ND	ug/kg	5.9	.1	02/09/17	02/09/17 16	44 1011		
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1	02/09/17	02/09/17 16	44 1011		
Ethylbenzene	ND	ug/kg	5.9	.1	02/09/17	02/09/17 16:	44 1011		

Page 7 of 37

## PHASE SEPARATION SCIENCE, INC.



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CERTIFICATE OF ANALYSIS

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Sample ID: #1 Matrix: SOIL TCL Volatile Organic Compounds	l I Analytica	Date/Time S Date/Time R I Method: SW	ampled: eceived: /-845 8260	02/07/ 02/07/ B	2017 07.0 2017 10.4	0 PSS Sample 10 % S Preparation Meth	: ID, 1702071 plids: 85 od: 5030	0-001
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
- 2-Hexanone	ND	ug/Kg	24		1	02/09/17	02/09/17 16:4	4 1011
Isopropyibenzene	ND	ug/kg	5.9		1	02/09/17	02/09/17 16:4	4 1011
Methyl Acelate	ND	ug/kg	24		1	02/09/17	02/09/17 16:4	4 1011
Methylicydohexane	ND	ug/kg	24		1	02/09/17	02/09/17 16:4	4 1011
Methylene Chloride	ND	ug/kg	5.9		1	02/09/17	02/09/17 16:4	4 1011
A.MethyL2.Pentanone	ND	ug/kg	- 24		1	02/09/17	02/09/17 16:4	14 1011
Mothovi-f-hutvi ether	ND	ug/kg	5.9		1	02/09/17	02/09/17 16:4	14 1011
Naphhalene	ŃĎ	ug/kg	5.9		1	02/09/17	02/09/17 16:4	14. 1011
Shrene	NÐ	ug/kg	5.9		1	02/09/17	02/09/17 16:4	14 1011
1.1.2.2-Tetrachlomethane	ND	ug/kg	5.9		1	02/09/17	02/09/17 16	14 1011
Tatrachiaraathana	ND	uo/ka	5.9		1	02/09/17	02/09/17 16:4	14 1011
Toluono	ND	uq/kq	5.9		1	02/09/17	02/09/17 16:	14 1011
10 3 Trichlombenzene	ND	ug/kg	5.9		1	02/09/17	02/09/17 16:4	44 1011
1 2 A Trichlaroben zene	ND	uo/ko	5.9	:	1	02/09/17	02/09/17 16:	44 1011
t t Trichlomathana	ND	ua/ka	5.9		1	02/09/17	02/09/17 16:	44 1011
1, 1, P Indioideanand	ND	uo/ko	5.9	r	1	02/09/17	02/09/17 16:	44 1011
r, r,2 munologunane	ND	ua/ka	5.9	ţ	1	02/09/17	02/09/17 16:	44 1011
Triction fluoromation	ND	ua/ka	5.9	ł	1	02/09/17	02/09/17 16:	44 1011
110 Hutonuoromenana	ND	no/ko	5.9	ŧ.	1	02/09/17	02/09/17 16	44 1011
1,1,2-Inchange 1,2,2-1 mildireman	ŇĐ	unika	5.9	ŧ	1	02/09/17	02/09/17 16	44 1011
Vinyi Ginonde	NE)	nuku	12		1	02/09/17	02/09/17 16:	44 1011
m,p-xylenes o-Xylene	ND	ug/kg	5.9	•	1	02/09/17	02/09/17 16	44 1011

## PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS No: 17020710

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Sample ID: #1		late/Time	Sampled : 02/07	/2017 07: /2017 10:	00 PSS Sample	10:17020710 Mids: 85	-001
Matrix: SOIL	Applytical	ater lime t	V-846 8270 C	973 OZ 1996	Preparation Meth	ód: SW3550C	
TCE Semivolatile Organic Composition	Denvit	I faite	Ri Flan	) Dil	Prepared	Analyzed	Analyst
	NESUR	valka	20	1	02/10/17	02/11/17 20:50	1055
Acenaphthene	ND	uging	20	1	02/10/17	02/11/17 20:50	1055
Acenaphthylene	ND ND	ugng ualia	200	1	02/10/17	02/11/17 20:50	1055
Acetopherione	NE2	uging	20	1	02/10/17	02/11/17 20:50	1055
Anthracene	-EVEL/	uyiny Valka	200	4	02/10/17	02/11/17 20:50	1055
Atrazine	NU ND	ndina	200	4	02/10/17	02/11/17 20:50	1055
Benzo(a)anthracene	ND	ug/kg	20	4	02/10/17	02/11/17 20:50	1055
Benzo(a)pyrene	ND	ug/kg	20	.£ -#	02/10/17	02/11/17 20:50	1055
Benzo(b)fluoranthene	ND	ug/kg	20	• •	02/10/17	02/11/17 20:50	1055
Benzo(g,h,i)perylene	ND	ug/kg	20	г -я	02/10/17	02/11/17 20:50	1055
Benzo(k)fluoranthene	ND	ug/kg	20	1: -1.	02/10/17	02/11/17 20:50	) 1055
Biphenyl (Diphenyl)	ND	ug/kg	200	li Tar	02/10/17	02/11/17 20 50	1055
Butyl benzyl phthalate	ND	ug/kg	200	F	0210111	02/11/17 20 51	1055
bis(2-chloroethoxy) methane	ND	ug/kg	200	7	02/10/17	02/11/17 20:5	0 1055
bis(2-chloroethyl) ether	ND	ug/kg	200	1	02110/17	02/11/17 20:5	0 1055
bis(2-chloroisopropyl) ether	ND	ug/kg	200	1	02/10/17	02/11/17 20-5	0 1055
bis(2-ethylhexyl) phthalate	ND	ug/kg	200	1	02/10/17	02/11/17 20:5	0 1055
4-Bromophenyiphenyi ether	ND	ug/kg	200	1	02/10/17	0211111720.3	0 1055
Di-n-butyl phthalate	ND	ug/kg	200	1	02/10/17	V2/11/17.20.0	0 1055
Carbazole	ND	ug/kg	200	1	02/10/17	UZI 1117 20.3	0 4055
Caprolactam	ND	ug/kg	200	1	02/10/17	02/11/17 20.5	0 1000
4-Chloro-3-methyl phenol	ND	ug/kg	200	1	02/10/17	02/11/1/ 20.5	0 1000
4-Chloroaniline	ND	ug/kg	200	1	02/10/17	02/11/17 20:5	0 1005
2-Chioronachthalene	ND	ug/kg	200	1	02/10/17	02/11/1/ 20:5	0 1000
2 Chioronhenol	ND	ug/kg	200	1	02/10/17	7 02/11/17 20:5	0 1055
A Chlorophonyl Phenyl Alher	ND	ug/kg	200	1	02/10/17	7 02/11/17 20:5	0 1055
Chorana	ND	ug/kg	20	1	02/10/17	7 02/11/17 20:5	0 1055
Cillysono	ND	uq/kg	20	1	02/10/17	7 02/11/17 20:5	50 1055
Diberzaturan	ND	ug/kg	200	1	02/10/1	7 02/11/17 20:5	50 1055
Dipenzonani Dipenzonani	ND	ug/kg	200	1	02/10/1	7 02/11/17 20:5	50 1055
2,4-Dichlorophenol	ND	ug/kg	200	1	02/10/1	7 02/11/17 20:	50 1055

Version 1.000

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## PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS No: 17020710

Washington, DC

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Sample ID: #1	, C n	)aterTime . InterTime F	Sampled: 02/07	12017 07:00 1/2017 10:51	) PSS Sample ) % Sc	ID: 17020710 Mds: 85	-001
Matrix Solutile Organic Compounds	Analytical	Method: SV	V-846 8270 C		Preparation Meth	od: SW3550C	
	Docuit	Tinite	RL Flao	Dil	Prepared	Analyzed	Analy st
	ND	uo/ka	200	1	02/10/17	02/11/17 20:50	1055
Lienyi prinalale	ND	uo/ko	200	1	02/10/17	02/11/17 20:50	1055
Limeinyi prinalate	NE	naka	200	1	02/10/17	02/11/17 20:50	1055
2,4-Lamethylphenol	NE	HUKU	200	4	02/10/17	02/11/17 20:50	1055
4,6-Dinitro-2-metnyr prienor	NE	ugalg uaika	390	1	02/10/17	02/11/17 20:50	1055
2,4-Dinitrophenol	NE)	uaika	200	1	02/10/17	02/11/17 20:50	1055
2,4-Dinitrotoluene	- 1 NL/ 1 NL/	uging ujalka	200	1	02/10/17	02/11/17 20:50	1055
2,6-Dinitrololuene	INE?	unko	20	1	02/10/17	02/11/17 20:50	1055
Fluoraninene	ne.	uoka	20	1	02/10/17	02/11/17 20:50	1055
Fluorene	ND ND	ugnig	200	1	02/10/17	02/11/17 20:50	1055
Hexachtorobenzene	ne. Kiet	nalica	200	1	02/10/17	02/11/17 20:50	) 1055
Hexachlorobutadiene	ND	nalka	200	1	02/10/17	02/11/17 20:50	) 1055
Hexachlorocyclopentadiene	INL/	ugang under	200	1	02/10/17	02/11/17 20:50	) 1055
Hexachtoroethane	ND	ayny	200	1	02/10/17	02/11/17 20:50	1055
Indeno(1,2,3-c, d)Pyrene	INL) MC	ugiky nalka	200	1	02/10/17	02/11/17 20:5	0 1055
Isophorone	ND	UU/KU	200	•	02/10/17	02/11/17 20:5	0 1055
2-Methyinaphthaiene	NU	uyiky valka	200	1:	02/10/17	02/11/17 20:5	0 1055
2-Methyl phenol	ND	uging uaika	200	1	02/10/17	02/11/17 20:5	0 1055
384-Methylphenol	NU ND	ug/Kg	200	1	02/10/17	02/11/17 20 5	0 1055
Naphthalene	ND */D	ug/K <u>y</u> walka	200	, 19	02/10/17	02/11/17 20:5	0 1055
2-Nitroaniline	ND	ugrkg	200	1	02/10/17	02/11/17 20:5	0 1055
3-Nitroaniline	ND	ug/Kg	200	4	02/10/17	02/11/17 20:5	0 1055
4-Nitroaniline	ND	ugykg	200	1	02/10/17	02/11/17 20:5	0 1055
Nitrobenzene	ND	ug/kg	200	r 1	02/10/17	02/11/17 20:5	0 1055
2-Nitrophenol	ND	ag/Kg	200	ा अ	02/10/17	02/11/17 20:5	0 1055
4-Nitrophenol	ND	ug/kg	200	۱ ۲	02/10/17	02/11/17 20:5	0 1055
N-Nitrosodi-n-propyl amine	ND	ug/kg	200	4	02/10/17	02/11/17/2015	0 1055
N-Nitrosodiphenylamine	ND	ug/kg	200	ר ז	02/10/17	02/11/17 20:5	0 1055
Di-n-octyl phthalate	ND	ug/kg	200	.1 	698085	02/11/17 20	0 1055
Pentachlorophenol	ND	ug/k <b>g</b>	200	۲ ه	02/10/11	7 02/11/17 20:	io 1055
Phenanthrene	ND	ug/kg	20	·	UZI WI H	E WARTER AND	

## PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS No: 17020710 Washington, DC

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Sample.ID: #1	]	)ate/Time	Sampled:	02/07/ 02/07/	2017-07 2017-10	00 PSS Sample 50 % S	: ID: 17020711 olids: 85	1-001
Matrix, SOIL TCL Semivolatile Organic Compounds	Anatytical	Method: S	W-845 8270	Ċ		Preparation Meth	6d: SW3550C	
	Docult	Units	RL	Flag	Dil	Prepared	Analyzed	<b>Analyst</b>
	ND	uo/ka	200		1	02/10/17	02/11/17 20:50	0 1055
Phenot	ND	ua/ka	20		1	02/10/17	02/11/17 20:5	0 1055
Pyrene	ND	ua/ka	200		1	02/10/17	02/11/17 20:5	0 1055
Pyriane	ND	ua/ka	200		1	02/10/17	02/11/17 20:5	0 1055
2,4,6-Trichlorophenol	ND	ug/kg	200		1	02/10/17	02/11/17 20:5	0 1055
Cyanide	Analylica	I Method: S	W-846 9014			Preparation Met	nod: SW9010C	
	Docult	Hnife	RL	Flag	Dil	Prepared	Analyzed	Analy st
Cyanide, Total	ND	mg/kg	0.078		1	02/09/17	02/09/17 13:4	8 1053

## PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

Complete ID: #1	a contration D	ate/Time	Sampled: 02/07	/20/	17.07:	00 - PS	5 Sample	ID: MOZULIO	9 <b>00</b>
Manager SOIL	D	ate/Time	Received: 02/07	//20	17 10;	50		e de la company	
TCI P Metals	Analytical	Method: S	W-845 6020 A			Prepa	ration Metho	od: 3010A	
	Result	Units	RL Flag	D	)il T <u>ĆL</u>	P Limit	Prepared	Analyzed	Analyst
	ND	ma/L	0.050		1	5	02/08/17	02/08/17 15:26	1033
Arsenic	NO	ma/L	1.0		1	100	02/08/17	02/08/17 15:26	1033
Banum	ND	ma/L	0.050		1	1	02/08/17	02/08/17 15:26	1033
Cadmum	ND	ma/L	0.050		1	5	02/08/17	02/08/17 15:26	1033
Chromium	ND	ma/L	0.050		1	5	02/08/17	02/08/17 15:26	5 1033
Lead	ND	mo/L	0.0020		1	0.2	02/08/17	02/08/17 15:26	1033
Mercury	ND	mo/L	0.050		1	1	02/08/17	02/08/17 15:20	5 1033
Selenium	ND	mg/L	0.050		1	:5	02/08/17	02/08/17 15:20	3 1033
TCLP Organochlorine Pesticides	Analytica	I Method: §	SW-846 8081 B			Prep	aration Meth	iod: 3510C	
			5 A.		ويحرجون فالاختر	e ser é sur de	Deserved	Anahrad	Analyst
	Result	Units	RL Flag		DilTC	LP Limit	Prepared	Analyzed	Analyst
Gamma-BHC (Lindane)	Result ND	Units mg/L	<u>RL</u> Flag 0.00013	<u>r</u> 1	Dil <u>TC</u> 1	LP Limit 0:4	Prepared 02/09/17	Analyzed 02/10/17 19 2	Analyst 3 1029
Gamma-BHC (Lindane) Heptachlor	Result ND ND	Units mg/L mg/L	RL Flag 0.00013 0.00013		<u>Dil TC.</u> 1 1	LP Limit 0:4 0.008	Prepared 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2	Analyst 3 1029 3 1029 3 1029
Gamma-BHC (Lindarie) Heptachlor Heptachlor Epoxide	Result ND ND ND	Units mg/L mg/L mg/L	<u>RL</u> Flag 0.00013 0.00013 0.00013	<u>n</u> -	<u>Dil TC</u> 1 1 1	LP Limit 0.4 0.008 0.008	Prepared 02/09/17 02/09/17 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2	Analyst 3 1029 3 1029 3 1029 3 1029
Gamma-BHC (Lindane) Heptachlor Heptachlor Epoxide Endrin	Result ND ND ND ND	Units mg/L mg/L mg/L mg/L	RL Flag 0.00013 0.00013 0.00013 0.00013		<u>Dil TC</u> 1 1 1	LP Limit 0:4 0.008 0.008 0:02	Prepared 02/09/17 02/09/17 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2	Analyst 3 1029 3 1029 3 1029 3 1029 3 1029
Gamma-BHC (Lindané) Heptachlor Heptachlor Epoxide Endrin Methoxychlor	Result ND ND ND ND ND	Units mg/L mg/L mg/L mg/L	RL Flag 0.00013 0.00013 0.00013 0.00013 0.00013	<b>g</b> 1	Dil <u>TC</u> 1 1 1 1	LP Limit 0.4 0.008 0.008 0.02 10	Prepared 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2	Analyst 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029
Gamma-BHC (Lindane) Heptachlor Heptachlor Epoxide Endrin Methoxychlor Toxaphene	Result ND ND ND ND ND ND	Units mg/L mg/L mg/L mg/L mg/L	RL         Flag           0.00013         -           0.00013         -           0.00013         -           0.00013         -           0.00013         -           0.00013         -           0.00013         -           0.00013         -           0.00013         -           0.00033         -		Dil <u>TC</u> 1 1 1 1 1 1	LP Limit 0.4 0.008 0.008 0.02 10 0.5	Prepared 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2	Analyst 3 1029 3 1029
Gamma-BHC (Lindane) Heptachlor Heptachlor Epoxide Endrin Methoxychlor Toxaphene Chlordane	Result ND ND ND ND ND ND	Units mg/L mg/L mg/L mg/L mg/L mg/L	RL         Flag           0.00013		<b>DIITC</b> 1 1 1 1 1 1 1 1 1	LP Limit 0.4 0.008 0.008 0.02 10 0.5 0.03	Prepared 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2	Analyst 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029
Gamma-BHC (Lindane) Heptachlor Heptachlor Epoxide Endrin Methoxychlor Toxaphene Chlordane TCLP Chlorinated Herbicides	Result ND ND ND ND ND ND Analytic	Units mg/L mg/L mg/L mg/L mg/L mg/L	RL         Flag           0.00013         0.00013           0.00013         0.00013           0.00013         0.00013           0.00013         0.0033           0.0033         0.0033           0.0033         0.0033	<u>0</u>	<b><u>Dili TC</u></b> 1 1 1 1 1 1	LP Limit 0.4 0.008 0.008 0.02 10 0.5 0.03 Prej	Prepared 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 hod: 8151A	Analyst 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029
Gamma-BHC (Lindane) Heptachlor Heptachlor Epoxide Endrin Methoxychlor Toxaphene Chlordane TCLP Chlorinated Herbicides	Result ND ND ND ND ND ND Analytic: Result	Units mg/L mg/L mg/L mg/L mg/L mg/L a) Method: Units	RL Flag 0.00013 0.00013 0.00013 0.00013 0.00013 0.0033 0.0033 SW-846 8151 A RL Flag	<u>]</u>	Dil TC 1 1 1 1 1 1 1 1 1 1 1 1	LP Limit 0:4 0.008 0.008 0:02 10 0.5 0:03 Prej	Prepared 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 hod: 8151A Analyzed	Analyst 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 3 1029 Analyst
Gamma-BHC (Lindane) Heptachlor Heptachlor Epoxide Endrin Methoxychlor Toxaphene Chlordane TCLP Chlorinated Herbicides	Result ND ND ND ND ND ND Analytic Result	Units mg/L mg/L mg/L mg/L mg/L mg/L a) Method: Units mg/L	RL         Flag           0.00013         0.00013           0.00013         0.00013           0.00013         0.00033           0.0033         0.0033           SW-846         8151 A           RL         Flag           0.0094         10094	<u>g</u>	DHTC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LP Limit 0.4 0.008 0.008 0.02 10 0.5 0.03 Prej 10	Prepared 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17 02/09/17	Analyzed 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 02/10/17 19:2 hod: 8151A Analyzed 02/08/07 20:0	Analyst 3 1029 3 1029 Analyst 03 1029

### PHASE SEPARATION SCIENCE, INC.

CAL CHIEFE

CERTIFICATE OF ANALYSIS No: 17020710 Washington, DC

February 14, 2017

Project Name: Rolfe St. Project Location: Arlington, VA

the second state	Date/Time .	Sampled: 02/07/	2017.0/	1:00 P.	ss Sampli	e ID: 17020710	2001	
	)ate/Time R	Received: 02/07/	2017, 11	0:50				
Analytica	I Method: SV	V-846 8260 B	B Preparation Method: 50301					
Result	Units	RL Flag	DilTC	LP Limit	Prepared	Analyzed	Analyst	
ND	mg/L	0.10	100	0.2	02/10/17	02/10/17 16:10	1011	
ND	mg/L	0.10	100	0.7	02/10/17	02/10/17 16:10	1011	
ND	mg/L	1.0	100	200	02/10/17	02/10/17 16:10	1011	
ND	mg/L	0.10	100	6	02/10/17	02/10/17 16:10	1011	
ND	mg/L	0.10	100	0.5	02/10/17	02/10/17 16:10	1011	
ND	mg/L	0.10	100	0.5	02/10/17	02/10/17 16:10	1011	
ND	mg/L	0.10	100	0.5	02/10/17	02/10/17 16:10	1011	
ND	mg/L	0.10	100	0.5	02/10/17	02/10/17 16:10	1011	
ND	mg/L	0.10	100	0.7	02/10/17	02/10/17 16:10	1011	
ND	mg/L	0.10	100	100	02/10/17	02/10/17 16:10	) 1011	
ND	mg/L	0.10	100	7.5	02/10/17	02/10/17 16:10	) 1011	
	Result Result ND ND ND ND ND ND ND ND ND ND ND ND ND	Date/Lime Date/Time F Analytical Method: SV <u>Result</u> Units ND mg/L ND mg/L ND mg/L ND mg/L ND mg/L ND mg/L ND mg/L ND mg/L ND mg/L ND mg/L	Date/Time Sampled: 02/07/ Date/Time Received: 02/07/           Analytical Method: SW-846 8260 B           Result         Units         RL         Flag           ND         mg/L         0.10         0.10           ND         mg/L         0.10	Date/Time Sampled: 02/07/2017 0           Date/Time Received: 02/07/2017 1           Analytical Method: SW-846 8260 B           Result         Units         RL         Flag         DilTC           ND         mg/L         0.10         100           ND         mg/L         0.10         100 <t< td=""><td>Date/Time Sampled: 02/07/2017 10:50           Date/Time Received: 02/07/2017 10:50           Analytical Method: SW-846 8260 B         Prepare Prepare</td><td>Date/Time Sampled: 02/07/2017 07:00 PSS SampleDate/Time Received: 02/07/2017 10:50           Analytical Method: SW-846 8260 B         Preparation Method: SW-846 8260 B           Result         Units         RL         Flag         DiffCLP Limit         Preparation Method: SW-846 8260 B           ND         mg/L         0.10         100         0.2         02/10/17           ND         mg/L         0.10         100         0.2         02/10/17           ND         mg/L         0.10         100         0.7         02/10/17           ND         mg/L         0.10         100         0.7         02/10/17           ND         mg/L         0.10         100         0.7         02/10/17           ND         mg/L         0.10         100         0.5         02/10/17           ND         mg/L         0.10         100</td><td>Date/Time Sampled: 02/07/2017 07/00 PSSS Sample ID 17/02/07/0           Date/Time Received: 02/07/2017 10:50           Analytical Method: SW-846 8260 B         Preparation Method: 5030B           Result         Units         RL         Flag         DilTCLP Limit         Preparation         Analyzed           ND         mg/L         0.10         100         0.2         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.2         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.2         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.7         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.7         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.5         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.5         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.5         02/1</td></t<>	Date/Time Sampled: 02/07/2017 10:50           Date/Time Received: 02/07/2017 10:50           Analytical Method: SW-846 8260 B         Prepare	Date/Time Sampled: 02/07/2017 07:00 PSS SampleDate/Time Received: 02/07/2017 10:50           Analytical Method: SW-846 8260 B         Preparation Method: SW-846 8260 B           Result         Units         RL         Flag         DiffCLP Limit         Preparation Method: SW-846 8260 B           ND         mg/L         0.10         100         0.2         02/10/17           ND         mg/L         0.10         100         0.2         02/10/17           ND         mg/L         0.10         100         0.7         02/10/17           ND         mg/L         0.10         100         0.7         02/10/17           ND         mg/L         0.10         100         0.7         02/10/17           ND         mg/L         0.10         100         0.5         02/10/17           ND         mg/L         0.10         100	Date/Time Sampled: 02/07/2017 07/00 PSSS Sample ID 17/02/07/0           Date/Time Received: 02/07/2017 10:50           Analytical Method: SW-846 8260 B         Preparation Method: 5030B           Result         Units         RL         Flag         DilTCLP Limit         Preparation         Analyzed           ND         mg/L         0.10         100         0.2         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.2         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.2         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.7         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.7         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.5         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.5         02/10/17         02/10/17         16:10           ND         mg/L         0.10         100         0.5         02/1	

TCLP Semivolatile Organic Compounds Analytical Method: SW-846 8270 C

Preparation Method: 3510C

	Result	Units	RL Fia	g Dill	<b>FELP LIMI</b>	Prepared	Analyzed	Analy st
2,4-Dinitrotoluene	ND	mg/L	0.010	1	0.13	02/09/17	02/09/17 20:53	3 1055
Hexachlorobenzene	ND	mg/L	0.010	1	0.13	02/09/17	02/09/17 20:53	1055
Hexachlorobutadiene	ŃĎ	mg/L	0.010	.1	0.5	02/09/17	02/09/17 20:53	1055
Hexachloroethane	ND	mg/L	0.010	1	3	02/09/17	02/09/17 20:53	1055
2-Methylphenol	ŃĎ	mg/L	0.010	1	200	02/09/17	02/09/17 20:53	3 1055
384-Methylphenol	ND	mg/L	0.010	1	200	02/09/17	02/09/17 20:53	1055
Nitrobenzene	ND	mg/L	0.010	1	2	02/09/17	02/09/17 20:53	1055
Pentachlorophenol	ND	mg/L	0.010	1	100	02/09/17	02/09/17 20:53	3 1055
Pvridine	ND	mg/L	0.010	.1	-5	02/09/17	02/09/17 20:53	1055
2.4.6-Trichlorophenol	ND	mg/L	0.010	1	2	02/09/17	02/09/17 20:53	3 1055
2,4,5-Trichlorophenol	ND	mg/L	0.010	1	400	02/09/17	02/09/17 20:53	1055

 Trivalent Chromium by calculation
 Analytical Method: Trivalent Calc.

 Result
 Units
 RL Flag
 Dil
 Prepared
 Analyzed
 Analyst

 Trivalent Chromium (by subtraction)
 6.1
 mg/kg
 1
 02/09/17
 02/09/17
 22:51
 1041

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### **Case Narrative Summary**



Client Name:

Project Name: Rolfe St.

Work Order Number(s): 17020710

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

#### Sample Receipt:

Sample(s) received at 0 degrees but no samples were frozen.

#### Analytical:

#### Total (19) Metals

Initial continuing calibration verification fails high for Aluminum, beryllium, manganese, barium, nickel, copper, and antimony. The low level calibration verification passes for all these elements. Any hits re-run or run at dilution, all non-detect results reported.

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form. The concentration of the following analyte(s) in the reference sample was greater than four times the matrix spike concentration : Aluminum, Iron

Preceeding continuing calibration verification is low for manganese at 89% below the 90-110% limit. Low level calibrations pass and the closing calibration verifciation passes.

Closing calibration verification is low for barium at 89%, initial and preceeding calibration verifications pass and the low level calibration verificatoins pass for this element.

### **Chlorinated Herbicides**

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified, see MS summary form. Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified; see LCS summary form.

### TCL Volatile Organic Compounds

#### Batch: 139777

Surrogate exceedances identified; see surrogate summary form.

### TCL Semivolatile Organic Compounds

Laboratory control sample and/or laboratory control sample duplicate (LCS/LCSD) exceedances identified;

Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form. see LCS summary form.

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## **Case Narrative Summary**



Client Name: 🗰

Project Name: Rolfe St.

Work Order Number(s): 17020710

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

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Work Order(s): 17020710 Report Prepared For: Project Name: Rolfe St. Project Manager: Washington, DC

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
	#1	Initial	17020710-001	1062	5	139673	139673	02/07/2017	02/07/2017 11:39	02/07/2017 11:39
SM25406	<b>*•</b>		1	1061	e	64775	139807	02/07/2017	02/08/2017 15:15	02/09/2017 22:51
SW-846 6020 A	#1	Initial	1/020/10-001	10.1	ie ie	64775	139807		02/08/2017 15:15	02/09/2017 22:45
	64775-1-BKS	BKS	04//2-1-BK3	1021	. 3 TC	64775	139807		02/08/2017 15:15	02/09/2017 22:39
	64775-1-BLK	BLK	04770-1-85LK	1001	С	64775	139807	02/07/2017	02/08/2017 15:15	02/09/2017 22:57
	#1 S	MS	17020/10/001 \$	1001	2 0	64775	139807	02/07/2017	02/08/2017 15:15	02/09/2017 22:57
	#I S	Reanalysis	17020710-001 \$	1011	- 3 - 6	64775	139807	02/07/2017	02/08/2017 15:15	02/09/2017 23:03
	#i SD	MSD	17020710-001 SD	1021	-10 17	64775	139807	02/07/2017	02/08/2017 15:15	02/09/2017 23:03
	#1 SD	Reanalysis	17020710-001 SD	1071	ช	64725	(39835	02/07/2017	02/08/2017 15:15	02/10/2017 19:20
	#1 #1	Reanalysis Reanalysis	17020/10-001 17020710-001	1051	s	64775	139835	02/07/2017	02/08/2017 15:15	02/10/2017 20:21
				1017	w	64753	139727	02/07/2017	02/08/2017 09:51	02/08/2017 15:26
SW-846 6020 A	兼	Initial	1/020/10-001	1022	17 172	64753	139727		02/08/2017 09:51	02/08/2017 13:46
	64753-1-BKS	BKS	04/03-1-BK.5	1033	- <del>1</del> 1	64753	139727		02/08/2017 09:51	02/08/2017 13:40
	64753-1-BLK	BLK.	64753-1-BLK	10.00	w. The	64753	139727	02/03/2017	Ó2/08/2017 09:51	02/08/2017 14:47
	GHK SD	MS MSD	17020307-001 S	1033	W	64753	139727	02/03/2017	02/08/2017 09:51	02/08/2017 14:33
		Tabliat	17676710-001	1053	S	64839	139905	02/07/2017	02/13/2017 14:42	02/14/2017 11:55
SW-8467196 A	者1	TIME	64030 1 BKS	1053	S	64839	139905		02/13/2017 14:42	02/14/2017 11:34
	64839-1-BKS	BN3	A1020 1 RI K	1059	S	64839	139905		02/13/2017 14:42	02/14/2017 11:32
	64839-1-BLX	DED	64930.1.BSD	1053	S	64839	139905		02/13/2017 14:42	02/14/2017 11:50
	64839-1-BSD	Den Ville	11010010000	1053	S	64839	139905	01/27/2017	02/13/2017 14:42	02/14/2017 11:44
	-MP-1D	XIC XIC	17020910-001 S	1053	\$	64839	139905	01/27/2017	02/13/2017 14:42	02/14/2017 11:47
	MP-1 5	2010		1000		64370	120767	02/07/2017	02/08/2017 11:30	02/09/2017 16:23
SW-846 8015 C	*1	Initial	17020710-001	1039	5 8	64770	139763		02/08/2017 11:30	02/09/2017 09:51
	64770-1-BKS	BKS	64770-1-BKS	1043	2	64270	139763		02/08/2017 11:30	02:09/2017 09:3
	64770-1-BLK	BLK	64770-1-BLK	1040	3 7	64730	130763		02/08/2017 11:30	02/09/2017 10:22
	64770-1-BSD	BSD	64770-1-BSD	1045	د *	647 IV	139763	02/04/2017	02/08/2017 11:30	02/09/2017 09:5
	SB-2 (27-30) S	MS	17020605-002 S	1045	3 0	04770 63170	139763	02/04/2017	02/08/2017 11:30	02/09/2017 10:2
	SB-2 (27-30) SD	MSD	17020605-002 \$	L) · 1045	5	04440	- gura e vija			

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Work Order(s): 17020710 Report Prepared For: (Control of the state of

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
OW BAE PATER	 #1	Initial	17020710-001	1035	S	64778	139743	02/07/2017	02/08/2017 19:29	02/09/2017 01:40
014-040 0010C	64779.3 BKS	BKS	64778.2.BKS	1035	S	64778	139743		02/08/2017 19:29	02/08/2017 21:29
	64770 3 BI K	BIK	64778.2.BLK	1035	ŝ	64778	139743		02/08/2017 19:29	02/08/2017 20:59
	11930 Tax Pit 1.5'S	3.65	17020714-001 \$	1035	ŝ	64778	139743	02/06/2017	02/08/2017 19:29	02/09/2017 06:17
	11829-TestPit 1-5' SD	MSD	17020714-001 SD	1035	5	64778	139743	02/06/2017	02/08/2017 19:29	02/09/2017 06:49
SW-846 8081 B	#1	Initial	17020710-001	1029	8	64784	139837	02/07/2017	02/09/2017 10:11	02/10/2017 19:51
•	64784 1-BKS	BKS	64784-1-BKS	1029	S	64784	139837		02/09/2017 10:11	02/10/2017 21:43
	64784-1-BLK	BLK	64784-1-BLK	1029	S	64784	139837	·	02/09/2017 10:11	02/10/2017 21:15
	64784-1-BSD	BSD	64784-1-BSD	1029	5	64784	139837		02/09/2017 10:11	02/10/2017 22:11
	#1`S	MS	17020710-001 \$	1029	\$	64784	139837	02/07/2017	02/09/2017 10:11	02/10/2017 20:47
	#1 SD	MSD	17020710-00L SD	1029	S	64784	139837	02/07/2017	02/09/2017 10:11	02/10/2017 20:19
SW-846 8081 B	:#1	Initial	17020710-001	1029	W	64798	139834	02/07/2017	02/09/2017 14:37	02/10/2017 19:23
	64798-1-BKS	BKS	64798-1-BKS	1029	W	64798	139834		02/09/2017 14:37	02/10/2017 15:39
	64798-1-BLK	BLK	64798-1-BLK	1029	w	64798	139834		02/09/2017 14:37	02/10/2017 15:11
	64798-1-BSD	BSD	64798-1-BSD	1029	W	64798	139834	·	02/09/2017 14:37	02/10/2017 16:07
	173120005 \$	MS	17020803-001 S	1029	W	64798	139834	01/26/2017	02/09/2017 14:37	02/10/2017 16:35
SW-846 8082 A	#1	Initial	17020710-001	1029	S	64750	139869	02/07/2017	02/08/2017 09:24	02/09/2017 13:59
	64750-1-BKS	BKS	64750-1 BKS	1029	S	64750	139869		02/08/2017 09:24	02/09/2017 10:1-
	64750-1-BLK	BLK	64750-1-BLK	1029	S	64750	139869		02/08/2017 09:24	02/09/2017 09:44
	64750-1-BSD	BSD	64750-1-BSD	1029	S	64750	139869		62/08/2017 09:24	02/09/2017 10:42
	173120005 \$	MS	17020803-001 S	1029	8	64750	139869	01/26/2017	02/08/2017 09:24	02/09/2017 11:11
	173120005 SD	MSD	17020803-001 SD	1029	5	64750	139869	01/26/2017	01/08/2017 09:24	02/09/2017 11:39
SW-846 8151 A	#1	Initial	17020710-001	1029	S	64762	139746	02/07/2017	02/08/2017 10:25	02/08/2007 17:4
	64762-1-BKS	BKS	64762-1 BKS	1029	S	64762	139746		02/08/2017 10:25	02/08/2007 15:3
	64762-1-BL K	BLK	64762-1-BLK	1029	S	64762	139746		02/08/2017 10:25	02/08/2007 15:0
	64762-1-BSD	BSD	64762-1-BSD	1029	S	64762	139746		02/08/2017 10:25	02/08/2007 16:10
	#1 S	MS	17020710-001 S	1029	8	64762	139746	02/07/2017	62/08/2017 10:25	02/08/2007 16:4

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Work Order(s): 17020710 Report Prepared For: Control Project Name: Rolfe St. Project Manager: Control Washington, DC

	tan santikéree	Acabaie Tara	I sh Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Anslyzed
Method	Client Sample Id	Analysis type	Lab Sample 1-		,				and the second second	
	· · ·	D'ORD	17020710-001 SD	1029	S	64762	139746	02/07/2017	02/08/2017 10:25	02/08/2007 17:10
SW-846 8151 A	*#1`\$D	Mal	1/02/10/00/00			£1750	130747	02/07/2017	02/08/2017 10:16	02/08/2007 20:03
ŚW.846 8151 Å	¥1	Initial	17020710-001	1029	W.	64758	139747		02/08/2017 10:16	02/08/2007 21:42
	64758-1-BKS	BKS	64758-1-BKS	1029	w	64758	139747		02/08/2017 10:16	02/08/2007 22:15
	64758-1-BLK	BLK	64758-1-BLK	1029	w	64758	139747	محمد ما ا	02/08/2017 10:15	02/08/2007/21:09
	64758-1-BSD	BSD	04/08-1-0-00/	. 1029	w	64758	139747	02/07/2017	02/08/2017 10:16	02/03/2001 20:36
	#1´S	MS	11020110-001.0				125027	62/07/2017	02/10/2017 09:38	02/10/2017 16:10
SW 845 8260 B	#1	Initial	17020710-001	- 1011	W	04831 44937	130932		02/10/2017 09:38	02/10/2017 10:48
311-010 0200 m	64837-1-BKS	BKS	64837-1-BKS	. 1011	₩ ₩	64837 64827	139832		02/10/2017 09:38	02/10/2017 12:03
	64837-1-BLK	BLK.	64837-1-BLK	1011	W.	64837	139832	02/07/2017	02/10/2017 09:38	02/10/2017 14:21
	E. Side S	MS	17020820-001 5	1011	w	64837	139832	02/07/2017	02/10/2017 09:38	02/10/2017 14:42
	E. Side SD	MSD	1/020820-001 51	7. 3V4+			100000	70/07/2017	0000012011 08:35	02:09/2017 16:44
017 046 9760 R	#1	Initial	17020710-001	1011	5	64809	120777	02.0772017	02/09/2017 08:35	02/09/2017 11/22
SW-840 8200 D	64809-1-BKS	BKS	64809-1-BKS	1011	S	64809	130777		02/09/2017 08:35	02/09/2017 12:02
	64809-1-BLK	BLK	64809-1-BLK	1011	5	64809	139777	02/07/2017	02/09/2017 08:35	02/09/2017 14:03
	GP-8-1.5 S	MS	17020801-003 \$	. 101.1	а. 8	64809	139777	02/07/2017	02/09/2017 08:35	02/09/2017 14:43
	GP-8-1.5 SD	MSD	17020801-003 \$	Diton	U			00/07/1017	02:10/2017 08-12	02/11/2017 20:50
	#1	Initial	17020710-001	1055	S	64805	139830	020112011	02/10/2017 08:52	02/11/2017 19:03
SW-840 8270 C	64805-1-BKS	BKS	64805-1-BKS	1055	S	64805	139830		02/10/2017 08:52	02/11/2017 18:36
	64805-1-BLK	BLK	64805-1 BLK	1055	S	64800	120936		02/10/2017 08:52	02/11/2017 19:30
	64805-1-BSD	BSD	64805-1-BSD	1055	3	64805	139836	02/07/2017	02/10/2017 08:52	02/11/2017 19:57
	#1 S	MS	17020710-001 S	· 1000	а 9	64805	139836	02/07/2017	02/10/2017 08:52	02/11/2017 20:24
	#1 SD	MSD	17020710-001 2	D . 1033	3		innere	0000000000	02/00/2017 10:31	02/09/2017 20:5
	#1	Initial	17020710-001	1055	Ŵ	64786	139810	020112017	02/09/2017 10:31	02/09/2017 18:31
S14-840 82 /0 C	64786-1-BKS	BKS	64786-1-BKS	1055	W	64786	132913		02/09/2017 10:31	02/09/2017 18:1
	64786-1-BLK	BLK.	64786-1-BLK.	1055	W	64/80	130815		02/09/2017 10:31	02/09/2017 19:0
	64786-1-BSD	BSD	64786-1-B\$D	1055	W	64780	119811	02/06/2017	02/09/2017 10:31	02/09/2017 19:3
	11829-TestPil 1-5	s MS	17020714-001	s 1055	Ŵ	04/80	127417			

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Work Order(s): 17020710 Report Prepared For: Control Project Name: Rolfe St. Project Manager: Control Project Manager: Co Washington, DC

	óu: Caminía Id	Analysis Type	Lab Sample Id	Anatyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
Method SW-846 9014	#1 64790-1-BKS 64790-1-BLK 64790-1-BLK 64790-1-BSD #1-S #1 SD #1	Initial BKS BLK BSD MS MSD Initial	17020710-001 64790-1-BKS 64790-1-BLK 64790-1-BLK 64790-1-BLD 17020710-001 SD 17020710-001 SD 17020710-001	1053 1053 1053 1053 1053 1053 1053 1053	5 5 5 5 5 5 5 5	64790 64790 64790 64790 64790 64790 64790 139910	139767 139767 139767 139767 139767 139767 139767 139910	02/07/2017 02/07/2017 02/07/2017 02/07/2017 02/07/2017	02/09/2017 10:49 02/09/2017 10:49 02/09/2017 10:49 02/09/2017 10:49 02/09/2017 10:49 02/09/2017 10:49 02/09/2017 22:31	02:09/2017 13:48 02:09/2017 13:42 02:09/2017 13:42 02:09/2017 13:43 02:09/2017 13:43 02:09/2017 13:51 02:09/2017 13:55 02:09/2017 22:51

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Version 1.000

Analytical Method: 5 Seq Number:	SW-846 8151 A 139746		Rolfe Matrix: Soil	St.	Prep Method: Date Prep.	SW8151A_PREP 02/08/2017
PSS Sample ID: "	7020710-001	%Rec	Flag	Limits	Units	Analysis
Surrogate	alle Arici	85	_	61-144	%	Date 02/08/07 17:49
2,4-1401000000000000000000000000000000000	Enc. Algu	P.1.				
Analytical Method: Seq Number: PSS Sample ID:	<b>SW-846 8151 A</b> 139747 17020710-001		Matrix: Soil		Prep Melhod: Date Prep:	SW8151A_PREP 02/08/2017
Surrogate		%Rec	Flag	Limits	Units	Analysis Date
2,4-Dichlorophenylad	ælic Ádd	87		64-126	%	02/08/07 20:03
Analytical Method: Seq Number: BSS Sample ID	SW 846 8081 B 139834 17020710-001		Matrix: Soit		Prep Method Date Prep	SW3510C 02/09/2017
Surrogate		%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl Tetrachloro-m-xyleri	8	126 65		43-150 40-126	% %	02/10/17 19:23 02/10/17 19:23
Analytical Method: Seq Number: PSS Sample ID:	SW-846 8081 B 139837 17020710-001		Matrix: Soil		Prep Method Date Prep	SW3550C 02/09/2017
Surrogate		%Rec	Flag	Limits	Units	Analysis Date
Decachlorobiphenyl Tetrachloro-m-xylen	è	87 54		23-165 31-145	.% %	02/10/17 19:51 02/10/17 19:51
Analytical Method: Sèq Number: PSS Samole ID:	SW-846 8082 A 139869 17020710-001		Matrix: Soil		Prep Method Date Prep	SW3550C 02/08/2017
Surrogate		%Rec	Flag	Linits	Units	Analysis Date
Decachlorobiphenyl Tetrachloro-m-xylen	e	73 51		61-150 42-142	% %	02/09/17 13:59 02/09/17 13:59

			Rolfe	St.		
Analytical Method: Seq Number:	SW-846 8015 C 139763		Matrix: Sol		Prep Method Date Prep	SW3550C 02/08/2017
PSS Sample ID:	17020710-001	%Rec	Flag	Limits	Units	Analysis Date
Surrogate					0/	02/00/17 16:23
o-Terphenyl		85		34-133	· 76	
	CIAL GAG 9.27/1 (*			·	Prep Method:	SW3510C
Analytical Metitou.	139815		Matrix: Soil		Date Prep.	VZIUBIZV FF
DBC Comple ID.	17020710-001					· · · · · · · ·
PSS Sample ID.	1. 0201 10 200	W. Dian	Flag	Limits	Units	Analysis
Surrogate		MANCE.				1015 00:00:53
		84		35-107	%	02/09/17 20.00
2-Fluoroppneny		72		32-106	96	02109117 20.53
2-Fluorophenol		76		34-123	<b>%</b> 6	02/09/17 20:55
Nitropenzene-uo		76		36-111		02/09/17 20:53
TorobonyLD14		125		43-143	70 96	02/09/17 20:53
2 A 6-Tribromoone	nol	85		26-122	70	V1010111
Analytical Metho Seq Number:	1: SW-846 8270 C 139836 47000710-001		Matrix: Soi		Prep Method Date Prep	8W3550C 02/10/2017
PSS Sample IU:	110201 10-001		Біол	Limits	Units	Analysis
Surmate		% REC	1104			Date
		07		32-107	%	02/11/17 20:50
2-Fluorobiphenyl		95 77		34-113	%	02/11/17 20:50
2-Fluorophenol		84		35-123	%	02/11/17 20:00
Nitrobenzene-do		81		34-120	<b>%</b>	02/11/17 20:50
Phenol-d6		110		46-154	%	021111120.50
TerphenyHD14 2,4,6-Tribromoph	enol	90		31-113	~%a:	UZF + 10 +1 -20-20
					Dron Metho	d SW5030
Analytical Metho Sea Number:	nd: SW-846 8015C 139743		Matrix: So	DĪ	Date Pre	p: 02/08/2017
PSS Sample ID:	17020710-001					Amatice in
Surrogate		%Rec	Flag	Limits	Units	
a,a,a-Trifluorotol	ù e n e	75		50-122	%	02/09/17 01:40

### Rolfe St.

		142114		0145070	
Analytical Method: SW-846 8260 B Seq Number: 139777		Matrix: So	Prep Mei Date f	nod: 34/5050 Prep: 02/09/2017	
PSS Sample ID: 17020710-001	% Rec	Flag	Limits	Units	Analysis Date
surrogate 4-Bromofluorobenzene Dibromofluorometharie Toluene-D8	129 107 98	*	82-126 92-113 94-105	% % %	02/09/17 16:44 02/09/17 16:44 02/09/17 16:44

Analytical Method: SW-846 8260 Sec Number: 139832			Matrix:	Sol		Prep Method Date Prep	( SW50308 ( 02/10/2017
PSS Sample ID:	17020710-001	%Rec	Flag		Livits	Units	Analysis Date
Surrogate 4-Brómófluorobenz Dibromófluorometh Toluene D8	éne ane	105 107 96			86-111 91-119 90-117	% % %	02/10/17 16:10 02/10/17 16:10 02/10/17 16:10

F = RPD exceeded the laboratory control limits X = Recovery of MS, MSD or both outside of QC Criteria H= Recovery of BS,BSD or both exceeded the laboratory control limits L = Recovery of BS,BSD or both below the laboratory control limits

Rolfe St.

Analytical Method	I: SW-846 9014							Pre	p Meth	d SW	9010C	
Seq Number:	139767			Matrix:	Solid				Date Pro	эр: 02/(	)9/17	
MB Sample Id:	64790-1-BLK		LCS San	nple id:	64790-1-	BKS		LCSE	Sample	ld: 647	90-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LC SD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Cyanide, Total	<0.06383	0.6383	0.5986	94	0.5157	93	85-115	15	25	ing/kg	02/09/17 13:42	

<b>Analytical Method</b>	: SW-846 9014							Pre	ip Metho	od: SW	9010C	
Seq Number:	139767			Matrix:	Sol			1	Date Pre	ep: 02/	09/17	
Parent Sample Id:	17020710-001		MS Sar	nple Id.	1702071	0-001 S		MSC	Saniple	id: 170	)20710-001 SD	ŧ
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	M SD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Cyanide, Total	<0.06853	0.6853	0.6091	89	0.6881	89	80-120	12	25	mg/kg	02/09/17 13:51	:

Analytical Metho Seq Number: MB Sample Id:	d: SW-846 6020 A 139727 64753-1-BLK		LCS San	Matrix: nple ld:	Water 64753-1-BKS	Prep Method: SW3010A Date Prep: 02/08/17					
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag			
Arsenic	<0.05000	0.4000	0.4239	106	80-120	mg/L	02/08/17 13:46				
Barlum	<1.000	2.000	2.007	100	80-120	mg/L	02/08/17 13:46				
Cadmium	<0.05000	0.4000	0.3596	90	80-120	mg/L	02/08/17 13:46				
Chromium	<0.05000	0.4000	0:3980	100	80-120	mg/L	02/08/17 13:46				
Lead	<0.05000	0.4000	0.4236	106	80-120	mg/L	02/08/17 13:46				
Mercury	<0.002000	0.01000	0.01040	104	80-120	mg/L	02/08/17 13:46				
Selenium	<0.05000	0.4000	0.4213	105	80-120	mg/L	02/08/17 13:46				
Silver	<0.05000	0.4000	0.3547	89	80-120	mg/L	02/08/17 13:46				

.

Rolfe St.

Analytical Method: Seq Number:	SW-846 6020 A 139807 64775-1-BI K		LCS San	Matrix: nple ld:	Solid 64775-1-BKS		Prep Method: Date Prep:	8W3 02/0	10508 8/17	
Me Salipie IV.	MB	Spike	LCS			Limits	1	Inits	Analysis Date	Flag
1.9191310.001	Result	AMOUR	4030	444		80-120	r	ng/kg	02/09/17 22:45	
Aluminum	<46.31	92.63	102.9	140		80.120	I	ng/kg	02/09/17 22:45	
Antimony	<2,316	18.53	20.40	1,19		80-120	1	ng/kg	02/09/17 22:45	
Arsenic	<0.4631	18.55	19.99	100		80-120	.1	ng/kg	02/09/17 22:45	
Barium	<2.316	18.53	20.5/	101		80-120		mg/kg	02/09/17 22:45	
Beryllium	<2.316	18.53	19.31	104		80-120		mg/kg	02/09/17 22:45	
Cadmium	<2.316	18.53	18.86	102		80.120		ma/kg	02/09/17 22:45	:
Chromium	<2.316	18.53	20.15	109		80.120		ma/ka	02/09/17 22:45	,
Copper	<2,316	18.53	20.45	130		90 120		mo/ko	02/09/17 22:45	i.
เต่ก	<46.31	185.3	202.4	109		00-120		ma/ka	02/09/17 22:45	į
lead	<2.316	18.53	19.65	106		00-120		ma/ko	02/09/17 22:45	ŝ
Manganese	<2.316	18.53	20.77	112		01-120		maika	02/09/17 22:45	i.
Nercury	<0.09263	0.4631	0,4770	103	k .	00-120		maika	02/09/17 22:45	5
Nickel	<2.316	18.53	20.33	- 110	)	80-120		maika	02/09/17 22.45	5
Selensim	<2.316	18.53	17.06	92	2	80-120		maika	02/09/17 22:45	j.
Cihar	<2.316	18.53	20.07	108	3	80-120		maila	02/09/17 22:45	5
Thollum	<1.853	18.53	17,88	96	3	80-120		málka	02/09/17 22:45	6
1330(8161-1	<4.631	18.53	19.89	10	7	80-120		ng/kg	07/19/17 22:4	5
jätt Site over utterne	<2.316	18.53	19.79	10	7	80-120		mg/Ag	02.00117 22.4	5
Zinc	<9.263	92.63	9124	9	8	80-120		mgrkg	V2/V3/11 22.74	

Analytical Method Seq Number:	SW-846 6020 A 139807		MS Sam	Matrix: Indie Id.	Soil 17020710	⊷001 S		Pre I MSD	p Metho Date Pro Sample	od: SW: ep: 02/0 eld: 170	30508 8/17 20710-001 SD	k
Parent Sample Io:	1/UZU/ IU-UU I Darent	Spike	MS	MS	MSD	MSD	Lîmits	%RPD	RPD	Units	Analysis Date	Flag
Parameter	Result	Amount	Result	%Rec	Result	%Rec			LIMM		0000 07 77 57	r · <b>x</b>
Ser Indae and	5213	106.4	8191	2799	6971	1577	75-125	16	30	mg/kg	02/05/11 22:51	7 X
	2 659	21.27	13.00	61	12.09	54	75-125	7	30	mgykg	02/03/11 22:37	, ^`
Antimony	<0.5319	21.27	20.91	98	19.46	87	75-125		30	ngyay	02000 (1 20.0)	,
Alseinu	27.81	21.27	53.35	120	48.02	91	75-125	11	30	ngaty	N2/05/11 22:57	,
Darium	<2.659	21.27	21.09	99	19.49	87	75-125	8	30	ngag	02/03/11 22:01	7
Berynaun	<2 659	21.27	21.85	103	20.27	91	75-125	8	30	myrky	600047 92.5	7
C admium	6.072	21.27	31.16	118	28.78	102	75-125	8	- 30	пулку — — Пол	02/03/11 22/05	7
Chromium	-2 659	21.27	24.05	113	22.44	101	75-125	7	30	morku	02/05/11 22:0	7 X
Copper	2780	212.7	3997	572	3521	332	75-125	13	30	талка	020011122.5	7
1100	<2.659	21.27	25.64	121	23.51	105	75 125	9	30	mgrkg	020011220	7 X
Lead	16 92	21.27	36.76	93	32.06	68	75 125	14	30	mg/kg	0205017 22.5	7 1
Manganese	40.4064	0 5319	0 5585	105	0.5186	93	75-125	7	30	mg/Kg	0200011 22.0	1 7
Mercury	-1 650	21 27	24.57	116	23.03	103	75-125	6	30	mg/kg	0209/11 22:0	
Nickel	~2.000 .7 èco	21 27	18-56	87	17.24	77	75-125	7	30	mg/kg	0209117 22.5	1
Selenium	SZ.035	21 27	22.91	108	21.46	- 96	75-125	7	30	mg/kg	0209617-22.5	्र जन्म
Silver	~2.002 -5 497	2127	21 48	101	20.19	90	75-125	6	20	mg/kg	02/09/17 22.3	.1. .⇒
Thallium	SZ_121 (	21.41	23.11	10	21.35	96	75 125	8	30	mg/kg	02/09/17 22:5	11
Tín	<3.019 	24.27	24.84	116	32.55	101	75-125	7	30	mg/kg	02/09/17 22:5	1 
Vanadium Zinc	10.05 ≪10.64	106.4	107	10	1 99.82	90	75-125	7	30	mg/kg	02/09/17 22:5	il –

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Rolfe St.

Analytical Method: Seq Number:	SW-846 7196 A 139905		Matrix: Solid LCS Sample Id: 64839-1-BKS			Prep Method: SW3060A Date Prep: 02/13/17 LCSD Sample Id: 64839-1-BSD						
MB Sample IO. Parameter	04635-5-DEN . ŇB Pesiit	Spike	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Héxavaler	it <0.9990	4.995	4,697	94	4,176	. 85	80-120	12	20	mg/kg	02/14/17 11:34	

Analytical Method: Seq Number: MB Samole Id:	SW-846 8081 B 139837 64784-1-BLK		LCS Sam	Vatrix: ple ld:	Solid 64784-1-	BKS		Pre I LCSD	p Metho Date Pre Sample	d: SW: p: 02/0 1d: 647	3550C 9/17 84-1-BSD	
Parameter	MB	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
	Kesun		10.08	94	20.23	- 98	58-120	6	25	ug/kg	02/10/17 21:43	,
alpha-BHC	<4.073	28.31	10.00	05	20.62	100	57-120	6	25	u <u>o</u> /ko	02/10/17 21:43	t
gamma-BHC (Lindane	) <4.073	20.31	10.01	0¢	20 33	99	59 118	5	25	ugika	02/10/17 21:43	i i
beta-BHC	<4.0/3	20.3/ 	19,33	90	19.26	93	52 123	5	25	uo/ko	02/10/17 21:43	ŀ
delta-BHC	<4.073	20.37	1020	24	18 60	90	44-130	8	25	ug/kg	02/10/17 21:43	ŕ
Heptáchlor	<4.073	20.3/	40.42	04	20.87	101	59-123	7	25	ug/kg	02/10/17 21:43	<b>š</b> .
Aldrin	<4.073	ZU.37	10.43	08	21.45	104	61-119	7	25	ug/kg	02/10/17 21:43	\$
Heptachior epoxide	<4.073	20.31	15.53	100	21.96	107	61-122	8	25	ug/kg	02/10/17 21:43	\$
gamma-Chlordane	<4.073	20.31	20.33	07	21.44	104	61-123	8	25	ug/kg	02/10/17 21:43	\$
alpha-Chlordane	<4.073	20.37	19.01	404	22 30	108	49-131	8	25	ug/kg	02/10/17 21:43	}
4,4-DDE	<4.073	20.37	20.00	00	21 73	105	66 118	8	25	ug/kg	02/10/17 21:4:	3
Endosulten i	<b>&lt;4.073</b>	20.37	10.02	22	21.67	105	60-122	8	25	úg/kg	02/10/17 21:4	3
Dieldrin	<4,073	20.31	19,90	-90 70	47 52	85	39 133	. 9	25	ug/kg	02/10/17 21:43	3
Endrin	<4.073	20.37	10.01	5-1 5-01-	22 70	111	44 130	7	25	ug/kg	02/10/17 21:4	3
4,4-00D	<4.073	20.37	21.19	104	29.79	113	59-118	8	25	ugikg	02/10/17 21 4	3
Endosulfan II	<4.073	20.37	21.00	00	20,20	107	28-134	12	25	ug/kg	02/10/17 21:4	3
4,4-DDT	<4.073	20.37	19:50	100	22.00	117	51-129	9	25	ug/kg	02/10/17 21.4	3
Endrin aldehyde	<4_073	20.37	<u>22.14</u> 60.61	00	32.14	112	33-13	13	25	ugikg	02/10/17 21:4	3
Methocychlor	<4.073	20.3/	20.24 10.10	הים לימ	20.67	105	54.124	9	25	ug/kg	02/10/17 21.4	3
Endosultan sulfate	<4.073	20.37	19.70	371 '455	21.00	117	58.12	9	25	ug/kg	02/10/17 21:4	3
Endrin ketone	<4,073	20.37	21.99	1,04C	: 24,03	·	. 00-12.				a - 6	
Surrogate	MB # Dec	MB	R	LCS esuit	LCS Flag	LC Res	SD LC ult Fl	SD I ag	inits	Units	Anaiysis Date	
· ··	70 H070	, nay		445	2	12	9	12	23-165	%	02/10/17 21:	43
Decachlorobiphenyl Tetrachloro-m-xylene	131 e 80			84		8	7		31-145	%	02/10/17 21:	43

Rolfe St.

Analytical Method: Seq Number:	SW-846 8081 B 139834		LCS Sar	Matrix: npte ld:	Water 64798-1-	BKS		Pre LCSD	p Metho Date Pro Sample	xd: SW ap: 02/( 1d: 647	3510C )9/17 '98-1-BSD	
Mei Sample Iu. Parameter	MB Result	Spike	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gamma-BHC (Lindan Heptachlor Heptachlor Epoxide Endrin Methocychlor	e) <0.00004 <0.00004 <0.00004 <0.00004 <0.00004 <0.00004	0.0002 0.0002 0.0002 0.0002 0.0002	0.0001838 0.0001597 0.0001891 0.0001504 0.0001814	92 80 95 75 91	0.0001836 0.0001605 0.0001878 0.0001446 0.0001751	92 80 94 72 88	57-120 49-127 62-116 48-132 26-156	0 0 1 4 4	20 20 20 20 20	mg/L mg/L mg/L mg/L mg/L	02/10/17 15:39 02/10/17 15:39 02/10/17 15:39 02/10/17 15:39 02/10/17 15:39	: F P
Surrogate	MB % Rec	MB Flag	R	LCS esuit	LCS Flag	LC9 Resi	SD LCS uft fla	SD L	imits	Units	Analysis Date	
Decechiombiphenyl Tetrachioro-m-xylene	92 68	_		106 81		95 76	5. 5.	4	3-150 0-126	% %	02/10/17 15:3 02/10/17 15:3	9 9

Analytical Method	SW-846 8081 B			Matrix:	Sol			Pi	ep Metho Date Pro	od: SW ap: 02/0	3550C 9/17	
Daront Sample ld	17020710-001		MS Sam	iple Id:	17020710	)-001 S		MSI	) Sample	eld: 170	20/10-001 50	
Parameter	Parent	Spike	MS Result	MS %Rec	MSD Result	MSD %Rec	Linits	%RPD	RPD Limit	Units	Analysis Date	Flag
		79 71	19.31	85	16.57	71	56-114	15	30	ug/kg	02/10/17 20:47	
alpha-BHC	54.042 -> = # 547	22.11	20 19	89	18.32	79	55-116	10	30	ug/kg	02/10/17 20:47	
gamma-BHC (Lindan	e) 44.042 	20.74	20 20	89	20.26	87	62-111	Ū.	30	ug/kg	02/10/17 20:47	
beta-BHC	\$4.042	22.11	1969	87	19.82	85	52-122	Ť	30	ug/kg	02/10/17 20:47	
delta-BHC	54.042 24 640	22.11	10.03	88	17.54	76	48-127	13	30	ug/kg	02/10/17 20:47	
Heptachlor	54.242	7771	19.88	88	18.29	79	65-120	8	30	ug/kg	02/10/17 20:47	
Aldrin	54.04Z 24.04Z	22.11	21 36	94	20.92	90	61-118	2	30	ugikg	02/10/17 20:47	•
Heptachlor epoxice	54.U4A 	22.7	71-51	95	21.52	93	56-126	0	30	ųg/kg	02/10/17 20:47	
gamma-Chlordane	54.04Z	22.1	21.71	93	20.99	90	54-127	1	30	ug/kg	02/10/17 20:47	,
alpha-Chlordane	59.044 	22.13	27.14	97	22.33	96	52-124	1	30	ug/kg	02/10/17 20:47	t
4,4-DDE	<4.04Z	22.01	26.17	Q.	21.02	91	61-123	1	30	ug/kg	02/10/17 20:47	,
Endosulfan i	<4.542	22.11	2120	05	27 30	118	64-118	23	30	ug/kg	02/10/17 20:47	1
Dieldrin	\$4.09Z	22.01	21.00	07 07	20.42	88	51-122	8	30	ug/kg	02/10/17 20:47	٢
Endrin	<b>44.04</b> 2	22.11	22.03	00	22.69	98	48-119	1	30	ug/kg	02/10/17 20 47	t
4,4-DDD	<4.542	22.71	22.44	102	23.18	100	59-118	Ũ	30	ug/kg	02/10/17 20:47	1
Endosulfan II	<4.54Z	22.17	23.05	144	24.74	104	35-148	6	30	ug/kg	02/10/17 20:47	ſ
4,4-DDT	<4.542	44.11	23.00	104	39.75	100	48.123	3	30	ug/kg	02/10/17 20:47	r
Endrin aldehyde	<4.542	ZZ 71	23.80	100	20.25	106	40.137	9	30	uqíkg	02/10/17 20:47	1
Methoxychior	<b>&lt;4.542</b>	22.71	Z7.10	112	77 20	. 09	ED.121	2	30	ua/ka	02/10/17 20:47	7
Endosultan sulfate	<4.542	<b>ZZ</b> .71	23.15	102	22.03 51 51		52.127	1	30	uo/ka	02/10/17 20:41	7
Endrin ketone	<4.542	22.71	24.09	1.00	24.34	-30-0	F - 047 HCI					
Surrogate			R	MS esult	MS Flad	MS Res	D M ult Fl	SD ag	Limits	Units	Analysis Date	
-				400		19	i1		23-165	%	02/10/17 20:4	7
Decachlorobiphenyl				103		A.	di i		31-145	%	02/10/17 20:4	17
Take ob low mailant				QΩ		Q.	4					

Tetrachloro-m-xylene

Rolfe St.

Analytical Method: Seq Number:	SW-846 8082 A 139869		I CS Sar	Matrix: note id:	Solid 64750-1-	BKS		Pr LCSE	ep Melho Date Pro Sample	od: SW ep: 02/0 1d: 647	3550C )8/17 50-1-BSD	
MB Sample 10. Parameter	. MB Result	Spike	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016 PCB-1260	<0.05092 <0.05092	0.5092	0:4222 0:4933	83 97	0.4100 0.4799	. 79 92	60-110 60-98	3 3	25 26	mg/kg mg/kg	02/09/17 10:14 02/09/17 10:14	
Surrogate	MB %Rec	MB Flag	, 1 Re	LCS esuit	LCS Flag	LCS Rest	D LC: At Fk	SD L XG .	imits	Units	Analysis Date	
Decachlorobiphenyl Tetachloro-m-xylene	99 89			95 90		103 96	3	6	1-150 2-142	% %	02/09/17 10:14	ŀ
								P	ren Meth	iod: SV	/8151A_PREP	

Analytical Method: Seq Number:	SW-846 8151 A 139747		LCS Sar	Matrix: note id:	Water 64758-1-	BKS		LCSD	Date Pro Sample	p: 02/0 ld: 647	)8/17 58-1-BSD	
MB Sample 10:	04708-1-DLN MB	Spîke	LCS	LCS * Rec	LCSD	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Anelysis Date	Flag
2,4-D	Result <0,001880 <0,00019	0.005640	0.004945	88 77	0.005527	98 89	70-104 59-122	11 15	20 20	mg/L mg/L	02/08/07 21:42 02/08/07 21:42	
2,4,0-17 (Silver)	MB	MB	R	LCS	LCS Flag	LCS Resu	n LCS M Fla	id g	rnits	Units	Analysis Date	
2.4-Dichlorophenylac	etic Acidi 68			96	•	103	i	6	1-126	%	02/08/07 21:42	ľ

Analytical Method: Seq Number:	SW-846 8151 A 139746		LCS San	Matrix: Note Id:	Solid 64762-1-	BKS		Pre LCSD	p Metho Date Pro Sample	od: SW ep: 02/0 1d: 647	8151A_PREP )8/17 62-1-BSD	
MB Sample 10:	04702-1-BLN	Spike	LCS	LCS	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Dalapon Dicamba MCPP MCPA Dichloroprop	<pre>&lt;470 &lt;19.42 &lt;19420 &lt;19210 &lt;194.2 &lt;194.2 &lt;194.2 </pre>	1410 58.26 58260 57640 582.6 582.6	7962 53.02 46560 45900 5515 565.6	56 91 80 80 95 97	615.9 47.42 40840 40220 487.3 491.6	46 85 73 73 88 88	66-117 73-126 51-138 70-133 88-162 66-133	26 11 13 13 12 14	25 25 25 25 25 25 25 25	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	02/08/07 15:37 02/08/07 15:37 02/08/07 15:37 02/08/07 15:37 02/08/07 15:37 02/08/07 15:37 02/08/07 15:37	
2,4-0 2,4,5-TP (Silvex) 2,4,5-T Dinoseb 2,4-DB	<19.63 <19.63 <98.14 <198.3	58.88 58.88 294.4 595	52.51 61.93 229.8 549.4	89 105 78 92	44.93 45.30 168.6 440.8	80 81 60 78	71-126 66-125 52-101 63-134	16 31 31 22	25 25 25 25	ug/kg ug/kg ug/kg	02/08/07 15:37 02/08/07 15:37 02/08/07 15:37	/F F F 7
Surrogate 2.4-Dichlorophenylace	MB %Re dic Acid 82	MB : Flag	R	LCS esult 90	LĊŠ Flag	LCS Resi 87	so LC: uit Fla 7	SD L ig 6	imi <b>ts</b> 1-144	Units %	Analysis Date 02/08/07 15:3	17

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Analytical Method	: SW-846 8082 A							Pr	ep Meth	od: SW	3550C	
Seq Number	139869			Matrix:	Solid			ر م د ي د	Date Pri	ep: 02/	)8/17	
MB Sample Id:	64750-1-BLK		LCS San	nple Id:	64750-1	BKS		LCSE	) Sample	e ld: 647	50-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LC SD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
PCB-1016	<0.05092	0.5092	0.4222	83	0.4100	79	60-110	3	25	mg/kg	02/09/17 10:14	,
PCB-1260	<0.05092	0.5092	0.4933	97	0.4799	92	60-98	3	25	mg/kg	02/09/17 10:14	
Surrogate	MB %Rec	MB Flag	l Re	CS suit	LCS Flag	LCS Resu	D LCS It Fla	10 Li 19	imits	Units	Analysis Date	
Decachiombiohenvi	99	. –		95		103	3	6	1-150	%	02/09/17 10:14	4
Tetrachioro-m-xylene	89			90		96		-4:	2-142	%	02/09/17 10:14	4

Analytical Method: Seg Number:	SW-846 8151 A 139747		n ee ne	Matrix:	Water	1.2.2		Pr	ep Meth Date Pri	ep: 02/	8151A_PREP 08/17	
MB Sample Id:	64758-1-BLK		LCS Sar	npie Id.	64/58-1-	HKS		LUSU	rsampie	10. 04/	20-1-000	
Parameter	MB Résult	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2.4-D	<0.00188	0.005640	0.004945	88	0.005527	98	70-104	11	20	mg/L	02/08/07 21:42	<u>'</u>
2,4,5-TP (Silvex)	<0.00011	9 0.00057	0.000437	77	0.0005073	89	59-122	15	20	mg/L	02/08/07 21:42	ž
Surrogate	MB %Re	MB c Flag	. I Re	LCS esult	LCS Flag	LCS Resu	D LCS It Fla	id Li gr	mits	Units	Analysis Date	
2,4-Dichlorophenylace	tic Acid 68	-	÷ .	96		103	ł	64	1-126	%	02/08/07 21:4	2

Analytical Method:	SW-846,8151 A							Pr	ep Meth	od: SW	(8151A_PREP	
Sea Number:	139746			Matrix:	Solid				Date Pr	ep: 02/	08/17	
MB Sample Id:	64762-1-BLK		LCS Sar	nple lo:	64762-1-	BKS		LCSE	) Sample	ə Id: 1647	'62-1-8SD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lîmit	Units	Analysis Date	Flag
Dalanon	<470	1410	796.2	56	615.9	46	66-117	26	25	ug/kg	02/08/07 15:37	' LF
Dicamba	<19.42	58.26	53.02	91	47.42	85	73-126	11	25	ug/kg	02/08/07 15:37	<i>,</i>
MCPP	<19420	58260	46560	30	40840	73	51-138	13	25	ug/kg	02/08/07 15:37	ţ.
мсра	<19210	57640	45900	80	40220	73	70-133	13	25	ugikg	02/08/07 15:37	t
Dichlomoton	<194.2	582.6	551.5	95	487.3	88	88-162	12	25	ugikg	02/08/07 15:37	r
240	<194.2	582.6	565.6	97	491.6	88	66-133	14	25	ug/kg	02/08/07 15:37	ŗ
245 TP (Silver)	<19.63	58.88	52.51	89	44.93	80	71-126	16	25	ug/kg	02/08/07 15:37	r
245.T	<19.63	58.88	61.93	105	45.30	81	66-125	-31	25	ug/kg	02/08/07 15:37	l F
Dinnseh	<98.14	294.4	229.8	78	168.6	60	52-101	31	25	ug/kg	02/08/07 15:37	F
2,4-08	<198.3	595	549.4	92	440.8	78	63-134	22	25	ug/kg	02/08/07 15:37	ŗ
Surrogate	MB %Rec	MB Flag	l Re	LCS esuit	LCS Flag	LCS Resi	id LC: At Fla	SD L Ig	imits	Units	Analysis Date	
2,4-Dichlorophenylace	tic Acid 82			90		87		6	1-144	%	02/08/07 15:3	7

Version 1.000

1 - 2 - 1 - <u>1</u> - 1

Rolfe St.

				N.				Pr	ep Melho	d: SW	8151A_PREP	
Analytical Method: 1 Seq Number:	SW-846 8151 A 139746		MS Sam	Matrix: Inte Id:	Sol 1702071(	)-001S		MSI	Date Pre D Sample	p: 02/0 1d: 170	8/17 20710-001 SD	
Parent Sample Id:	1/020710-001 Parent	Spike	MS	MS	MSD	MSD	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Parameter Dalapon Dicamba MCPP MCPA Dichloroprop 2,4-D 2,4,5-TP (Silvex) 2,4,5-T Dinoseb	Result <552.4 <22.83 <22830 <22580 <228.3 <228.3 <228.3 <228.3 <228.3 <228.3 <23.07 <23.07 <115.3	Amount 1657 68.48 68480 67750 684.8 684.8 684.8 684.8 69.20 69.20 346	1077 63.57 50570 51160 6134 6316 56.75 69.55 0	%Rec 65 93 74 76 90 92 82 82 101	xesun 939.5 55.81 44730 45840 559 552.3 51.75 57.69 151.8	56 81 65 67 81 80 74 83 44 80	29-140 78-127 35-151 66-140 88-160 63-137 71-134 74-127 36-126 59-139	14 13 12 11 9 13 9 19 200 13	30 30 30 30 30 30 30 30 30 30	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	02/08/07 16:43 02/08/07 16:43 02/08/07 16:43 02/08/07 16:43 02/08/07 16:43 02/08/07 16:43 02/08/07 16:43 02/08/07 16:43 02/08/07 16:43 02/08/07 16:43	X X X XF
2,4-DB Surrogate	<233.1	699.3	645.9 R	92 MS esuit 89	MS Flag	MS Res 7	D M utt Fl 5	SD ag	Limits 61-144	Units %	Analysis Date 02/08/07 16:4	3

Analytical Method: Seq Number:	SW-846 8151 A 139747		MS Sar	Matrix: nple lot	Soll 17020710-001 S		Prep Method: Date Prep	SW 02/0	8151A_PREP )8/17	
Parent Sample Id:	1/0207 10-001	C - Mar	115	NIS		Limits		Units	Analysis	Flag
Parameter 2,4-D	Parem Result <0.009400	Amount 0.02820 0.002850	Result 0.02393 0.002233	%Rec 85 78		51-124 48-124		mg/L mg/L	02/08/07 20:36 02/08/07 20:36	
2,4,5-TP (Sivex)	~0.00000			MS	MS		Limits	Units	Analysis Date	
Surrogate	an a sa		R	esuit 98	riag		64-126	96	02/08/07 20:36	Ē
2,4-Dichlorophenylace	nic acio									

Analytical Method: Seq Number:	SW-846 8 139763	8015 C		I CS San	Matrix.	Solid 64770-1	-BKS		Pre 1 LCSD	p Métho Date Pro Sample	od: SW ep: 02/0 id: 647	3550C )8/17 70-1-BSD	
MB Sample Id:	64770-1-	BLK MB	Spike	LCS	LCS	LCSD	LCSD	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Parameter		Result	Amount	Result	%Rec	Result 26.13	%Rec 79	54-123	19	25	mg/kg	02/09/17 09:57	
TPH-DRO (Diesel Range	e Organics)	≪9.908 MB	33.03 MB	5105	CS	LCS	LCS	D LC	SD Li	mits	Units	Analysis Date	
Surrogate o-Terphenyl		% Rec 84	Flag	Ra	90	riag	73	<b>.</b>	3	1-133	%	02/09/17 09:5	7

Version 1.000

Rolfe St.

Analytical Method:	SW-846 8270 C				· · .			Pa	ep Metho	od: SW	35100	
Seq Number:	139815			Matrix:	Water				Date Pro	ep: 02/	09/17	
MB Sample Id.	64786-1-BLK		LCS San	npie id:	64786-1	BKS		LCSE	Sample	e ld:: 647	'86-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2.4-Dinitratoluene	<0.005000	0,04000	0.03941	99	0.03908	. 98	70-119	1	20	mg/L	02/09/17 18:38	
Hexachlorobenzene	<0.005000	0.04000	0.03720	93	0.03539	- 88	76-110	5	20	ing/L	02/09/17 18:38	
Hexachlorobutadiene	<0.005000	0.04000	0.03441	86	0.03216	80	64-113	7	20	mg/L	02/09/17 18:38	
Hexachloroethane	<0.005000	0.04000	0.03173	79	0.02941	74	62-105	8	20	mg/L	02/09/17 18:38	
2-Methvionenoi	<0.005000	0.04000	0.03344	84	0.03149	79	67-111	6	20	mg/L	02/09/17 18:38	
384-Methylohenol	<0.005000	0.04000	0.03321	83	0.03110	78	67-107	7	20	mg/L	02/09/17 18:38	
Nirobenzene	<0.005000	0.04000	0.03333	83	0.03186	80	60-107	. 5	20	mg/L	02/09/17 18:38	
Pentachiomohenoi	<0.005000	0.04000	0.03182	80	0.03054	. 76	63-119	4	20	mg/L	02/09/17 18:38	
Pyridine	<0.005000	0.04000	0.03081	77	0.02914	73	47-105	6	20	mg/L	02/09/17 18:38	
246 Trichlorophenol	<0.005000	0.04000	0.04025	101	0.03823	96	68-118	5	20	mg/L	02/09/17 18:38	
2,4,5-Trichlorophenol	<0.005000	0.04000	0.03916	98	0.03774	94	69-114	• 4	20	mg/L	02/09/17 18:38	
Surrogate	MB %Rec	MB Flag	i Re	.C.S esult	LCS Flag	LCS Resi	i) LCS iit Fla	SD (1) Ig	imits	Units	Analysis Date	
2-Fluorobioheovi	102	_		104		97		3	5-107	%	02/09/17 18:38	\$
2 Flueronenal	95					83		-3/	2 106	%	02/09/17 18:38	<b>}</b>
Ninopenzene-ri5	93			91		86	F	3	1-123	%	02/09/17 18:38	Ś
PhenoLdia	95			90		83	E.	3	8-111	%	02/09/17 18:38	3
TernhenyL014	135		•	132		13	4	4	3-143	%	02/09/17 18:38	3
2,4,6-Tribromophenol	94		·.	106		10	t	2	5-122	%	02/09/17 18:38	3.

Rolfe St.

a	C101 0 /6 3	1970 C							Pre	p Method	I. SW3	550C		
Analytical Methou:	130036	86.838 <b>3</b> 4			Matrix:	Solid				Date Prep	) 02/10	111		
Seq Number:	139050	- : DX-E7		ICS San	note id:	64805-1-	BKS		LCSD	Sample	ld: 6480	5-1-850		
MB Sample Id:	64805-1-	MB	Spike	LCS Regult	LCS V Rec	LCSD	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
LOIONICE		Result	Amount	ACAG	442	1473	107	60-116	6	25	ug/kg	02/11/17 19:03		
Acenaphthene		<16.65	1332	1011	442	1417	106	61-112	6	25	ug/kg	02/11/17 19:03	Н	
Acenaphthylene		<16.65	1332	1000	1.151 QX	1063	80	57-114	5	25	ndyka	02/11/17 19:03		
Acetophenone		<166.5	1332	1211	Q4	1192	89	66-115	5	25	ug/kg	02/11/17 19:03		
Anthracene		<16.65	1002	1/2:00	85	1059	80	7-109	6	25	ug/kg	02/11/17 19:03		
Atrazine		<165.5	1002	1340	101	1263	95	71-113	7	25	ug/kg	02/11/17 19:03		
Benzo(a)anthracene		<10.03	1332	1352	102	1273	96	69-118	6	25	ug/kg	02/11/17 19:03		
Benzo(a)pyrene		<10.00 .4c.cc	1332. 4332	4383	104	1299	98	65-126	6	25	ug/kg	02/11/17 19:03		
Benzo(b)fluoranthene		<10.00	4232	1407	106	1369	103	69-112	3	25	ug/kg	02/11/17 19:03		
Benzh(g.h.i)perviene		< 10.00	1002	1330	100	1225	92	57-129	8	25	ug/kg	02/11/17 19:03		
Benzo(k)fluorenthene	ř	< 10.00	4999	1297	97	1218	91	62-117	6	25	uq/kg	02/11/17 19:03	) เบ	
Biphenyl (Diphenyl)		~100.0	1332	1505	113	1424	107	81-111	6	25	ug/kg	02/11/17/19:03	) · n.	
Butyl benzyl phthalat	e	< 100.0 .400 E	1232	1146	86	1072	80	56-119	7	25	ug/kg	02/11/17 19:03	ь	
bis(2-chloroethoxy) n	1emane	4 100 J	1932	1135	85	1073	81	55-107	6	25	ug/kg	02/11/17 19:03	*	
bis(2-chloroethyl) eth		~ 100.0 _100.0	1332	1082	81	1036	78	44-103	4.	25	ug/kg	02/11/17 19:03	) 	
bis(2-chlaroisopropy	) erner	- 100.0 - 168 S	1332	1567	118	1483	111	84-109	6	25	រាជានុច្	02011111 19:05	) 11 1	
bis(2-ethylhexyl) phu		-166.5	1332	1278	96	1207	91	63-125	6	25	ug/kg	UZN1117 15.0.	<b>)</b> )	
4-Bromophenyiphen	y) etnet	~166.5	1332	1424	107	1381	104	76-110	3	25	úğ/Kg	0211111 15.0	у Э	
Di-n-bury primalate		~166.5	1332	124	94	1191	89	58-133	5	25	nđikđ	0241111 15.0	2	
Carbazole		~166 5	1332	134.	3 101	1250	) 94	51-122	7	25	ยญ/๙ฎ	02/11/17 13:0	3	
Caprolaciam	Inner	<168.5	1332	125	i 94	1 117	88 88	74-119	6	25	UUKU	0211117 10:0	3	
4-CRIOR-2-Incury P	164101	<166.5	1332	116	38 6	3 1094	4 82	45-107	7	. 25	ບບູນເບ	novi 1/17 19:0	3. Н	1
4-CRIOCOZINNIC		<166.5	1332	160	2 120	) 151	3 .114	4 56-113	6	25	ugyky	0211111100	3	
2-CHDIDINApitura.com	¥	<166.5	1332	115	5 87	7 109	7 82	2 59-113	5	23	บฐกษ	02/11/17 19:0	3	
2-Cillouphonor Dhe	rwl ether	<166.5	5 1332	146	2 11	0 136	4 10	2 62-111		20	ugika	02/11/17 19:0	3	
4-Chlorophenys Che	ii) i diise.	<16.65	5 1332	2 132	0 9	9 124	9 94	\$ 72-114		20	uging	02/11/17 19:0	3	
Diheo ve hiAnth(SP	ene	<16.65	5 1333	2 140	6 10	6 135	9 10	2 72-110	) A 	20	uging	02/11/17 19:0	3	
Othen main and		<166.5	5 133	2 147	7 11	1 138	0 10	4 62-113	i i	23	uging	02/11/17 19:0	3	
2 3 Dichlorobenzidi	ne	<166.	5 133	2 182	9 13	7 175	9 13	2 65-14		2.0	un/ka	02/11/17 19:0	3	
2 & Dichlorophenol		<166.	5 133	2 115	38	7 107	5 8	16 - 100-114 16 - 164 442	1 C	25	uaka	02/11/17 19:0	13 1	H.
Diethy of thalate		<166.	5 133	2 163	8 12	3 153	6 11	5 01-11 n 20-404	5 U 5 7	25	úcíka	02/11/17 19:0	13 1	đ,
Dimethyl ohthalate		×166.	5 133	2 153	7 11	5 144	U 10	10 02-10 n 57 10	, , , ,	25	ua/ka	02/11/17 19:0	3	
2.4-Dimethylohenol		<b>&lt;166</b> .	5 133	2 111	0 8	3 105	10 /	5 50 12 7 50 13	4 5	25	ua/ka	02/11/17 19:0	33	
4.6-Dinitro-2-methy	l phenol	<166.	5 133	2 108	32 8	1 102		7 00-10 9 94.14	a 1	25	uqikg	02/11/17 19:0	13	
2.4-Dinitrophenol	-	<33	3 133	2 97	6 /	3 902 n 124	4 ( 5 40	2 24-17	4 7	25	ug/kg	02/11/17 19:0	03	
2.4-Dinitrotoluene		<166.	5 133	2 14	18 11	µ) ⊪at ⊪a 491	10 E	14 59-12	4 6	25	ug/kg	02/11/17 19:	03	
2.6-Dinitrotoluene		<166	5 133	2 141	j1 141 (m. 17	10 10 10 10	t4 C	69-11	9 5	25	ug/kg	02/11/17 19:	03	
Fluoranthene		<16.6	5 133	2 13	133 ∓ n⊌ '43	10 144 10 141	nn '11	05 65 11	5 7	25	ug/kg	02/11/17 19:	03	
Fluorene		< 16.6	5 133	NZ 101 NA 404	uk t∣ e⊂ 44	10 12	90 \$	07 63 11	8 6	25	ug/kg	02/11/17 19:	03	
Hexachlorobenzen	<b>e</b>	<166	5 15.	)∠ 134 Vot 144	ព្នា ស្រុ ស្រុក ស្រុ	on 11	38	35 55 12	0 5	25	ug/kg	02/11/17 19:	03	
Hexachlorobutadie	ne	×166	5 13	5 <u>7</u> FF	31 <u>1</u>	77 10	02	75 29-13	8 2	25	ug/kg	02/11/17 19:	03	
Hexachlorocyclope	ntadiene	<166	5 13	)2 ເບ ນາ 11	10	86 11	23 1	84 54-11	0 2	25	ug/kg	02/11/17 19:	03	
Hexachloroethane		<166	10 10 10 404	<u>12</u> (1) 470	60 1	03 13	21	99 60-12	7 4	25	ug/kg	02/11/17 19	.03	
Indeno(1,2,3-c,d)P	yrene	<16.0	55 ¥0. (* 45*	32 IV 10 11	se s	89 11	08	83 57-1	6 7	25	ug/kg	02/11/17 19	:03	
isophorone		×166	),5, 13, er €2/	22. 11	29	85 10	62	80 70-10	)9 6	25	ug/kg	02/11/17 19	00	
2-Methylnaphtnaie	ne -	<16.0	¢30 1,55 ⊳r 400	ມ∠ ∔.! ຊາງ: 144	53 53	87 10	96	82 59-1	18 5	25	ug/kg	02/11/17 19	:03 -02	
2-Methyl phenol		<100	),⊡ 1,J 1,D 4⊐	ນະ 11 ຊຽງ 40	97	82 10	57	79 59-1	13 4	25	ព <b>ថា</b> រូវថ្	02/11/17 19	.05 .05	
384-Methylphenol		<166	0.3 T.3 02 40	u∠. ⊧u 1,5, 40	131	92 11	57	87 59-1	08 E	25	រាច់ស្រួ	) 02/11/17 19	03	
Naphthalene		<16.	00) IO 1.E. 49	32 14 32 14	166 1	10 13	177 1	03 51-1	16 6	25	ug/kg	02/11/17 19	.U.5 .no	
2-Nitroaniline		<101	1.0 I.0 5 E. 40	30 1	396 1	05 1	23	99 57-1	11 5	5 25	ug/ki	g 02/11/1/19	.0.5	
3-Nitoaniline		<160	9,0 IJ	دول <u>ک</u> رس										

Rolfe St.

Analytical Metho	d: SW-846 8	270 C				, <b></b> -			Pre	p Metho	nd: SW	3550C	
Sea Number:	139836				Matrix:	Solid			2 2	Date Pri	ip: 021	W17	
MB Sample Id:	64805-1-1	BLK		LCS San	nple ld:	64805-1-	<b>BKS</b>		LCSD	Sample	d: 648	05-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LC SD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
4. Mitrospiline		<166.5	1332	1302	98	1258	. 94	55-125	3	25	ug/kg	02/11/17 19:03	
Vitrobenzene		<166.5	1332	1198	90	1119	84	53-110	7	25	ug/kg	02/11/17 19:03	i
7 filtonbeno		<166.5	1332	1251	94	1182	89	58-124	6	25	ug/kg	02/11/17 19:03	F
<u>A</u> .Niiraohenai		<166.5	1332	1295	97	1236	93	51-116	5	25	ug/kg	02/11/17 19:03	•
M Nitrogodi n. nrnmi	amine	<166.5	1332	1135	85	1066	80	60-98	6	25	ug/kg	02/11/17 19:03	
AL Mitrogodinhenvist	nine	<166.5	1332	1276	96	1211	91	65-111	- 5	25	ug/kg	02/11/17 19:03	6
Din nchil nhthalste		<166.5	1332	1414	106	1281	96	69-120	10	25	ug/kg	02/11/17 19:03	k .
Dentschismohanai		<166.5	1332	1185	89	1100	83	56-124	7	25	ugikg	02/11/17 19:03	\$
Discontinente		<16.65	1332	1377	103	1308	. 98	67-117	<u>5</u>	25	ug/kg	02/11/17 19:03	k –
Bhanal		<166.5	1332	1154	87	1094	82	58-114	5	25	ug/kg	02/11/17 19:03	}
Discon		<18.65	1332	1353	102	1285	96	77-111	- 5	25	ug/kg	02/11/17 19:0	\$
Fylcius Distrituse		<166.5	1332	1105	83	1048	79	37-110	5	25	ug/kg	02/11/17 19:03	3
7 A C Trichlorooban	of	¢166 5	1332	1375	103	1299	98	64-114	6	25	ug/kg	02/11/17 19:03	3
24,5-Trichlorophen	01	<166.5	1332	1433	108	1330	100	60-125	7	25	ug/kg	02/11/17 19:03	3
Surrogate	_	MB %Rec	MB Flag	i Re	LCS esuit	LCS Flag	LC: Resi	an LC Mt Fl	SD L Sg	imits	Units	Analysis Date	
2 Ekiscohinhanul		107			106		10	2	.3	2-107	.%	02/11/17 19:0	3
2-Faultoupronys		100			89		86	5	3	4-113	%	02/11/17 19:0	3
Z-FILOLOPHCION		00			92		88	3	3	5-123	%	02/11/17 19:0	3
NutoDejiZeno-00		08			89		86	3	3	4-120	%	02/11/17 19:0	3
FRENDHUD		50 17#			117		11	2	4	6-154	%	02/11/17 19:0	3
2.4.6-Tribromopher		93			108		10	3	3	1-113	96	02/11/17 19:0	3

Rolfe St.

					134	200 QL				i da da la	-	CEN/3		
Analutioni Hathod	SML846 8	270 C							Pre	p Method	1 2443 00141	0300		
Analyuca menioa.	139836			1	Matrix:	Sof				Jale Prep	L UZIN	111 0710 001 9D		
Sed Manines	100000710	001		MS San	pie id.	17020710	)-001 S		MSD	Sample	0: 1/02	0110-001 30		
Parent Sample to	17 UZAT 1V	-001 -001	Califra	211	NIS	MSD	MSD	Limits	%RPD	RPD	Units	Analysis	Flag	
Parameter		Parent	Amount	Result	%Rec	Result	%Rec			Limit		1485 		
- /		~10.57	1561	1561	100	1621	102	61-106	4	30	ug/kg	02011117 19:37		
Acenaphmene		a19.52	1561	1518	97	1585	100	60-104	4	30	€lg/Kg	0211111 13.01		
Acenaphinyiene		<195.2	1561	1151	74	1213	76	57-103	5	30	ndika	02/11/17 19:57		
Aceophenone		<19.52	1561	1365	87	1429	90	68-110	- 5	30	ugyky	A7H1/17 19 57		
Ammacene		<195.2	1561	1243	80	1287	81	6-106	- 3	-0U -00	ugrky	02/11/17 19:57		
Augure Au		<19.52	1561	1486	95	1570	99	70-111	· 51	30	uniko	02/11/17 19:57		
Ben mis nirene		<19.52	1561	1514	97	1594	101	71-114	. D. -7	0C. NC	ាល់ លោក	02/11/17 19:57		
Penzo(b)//woraninene	:	<19.52	1561	1577	101	1625	102	68-120	3. 2	20	4909 10/20	02/11/17 19:57		
Benzhin h inerviene		<19.52	1561	1611	103	1705	108	64-117	. 0	30	្មាស់ដែល	02/11/17 19:57		
Benzolk Winorshihent	ł	<19.52	1561	1410	90	1511	95	01-120		าก	noka	02/11/17 19:57		
Rinhered (Dinhered)		<195.2	1561	1332	85	1397	88	01-107		าก	na/ka	02/11/17 19:57	x	
Butul benzví phihalat	e	<195.2	1561	1754	112	1725	109	- 14-111 - CE 400	· 2 5	าก	uoika	02/11/17 19:57	,	
his(2_chlaroethoxy) f	rethane	<b>≼195.2</b>	1561	1183	76	1249	79	50-105	7	้จัก	unka	02/11/17 19:57	r	
bis/2-chloroethyl) eth	er	<195.2	1561	1146	73	1229	f (	33-30	r R	30	ua/ka	02/11/17 19:57	5	
his/2-chloroisopropy	) ether	<195.2	1561	1107	71	11/2			1	30	uá/ka	02/11/17 19:57	X	
his/2-ethylhexyl) pht	ialate	<195.2	1561	1837	118	1815	114	- 20-114 - 27-14X	- <u>A</u>	30	uo.ko	02/11/17 19:57	Į	
4-Bromophenylphem	lether	<195.2	1561	1391	89	1441	31	77 1ñg	5	30	uo/ko	02/11/17 19:5	7	
Di-n-buty phinalate		<1952	1561	1592	102	1000	i (iv:	63.137	7	30	uq/kg	02/11/17 19:5	7	
Carbazole		<195.2	156/1	1352	8	1900	04	\$1.119	7	30	ua/kg	02/11/17 19:5	7	
Caprolactam		<195.2	1561	1426	6 91 . w	:  023  -  023	87	68.113	4	30	ug/kg	02/11/17 19:5	7	
4-Chloro-3-methyl pl	ienol	<195.2	1561	1324	F 105	) ) JU4 6 (203	8	45 100	6	30	ug/kg	02/11/17 19:5	7	
4-Chloroaniline		≮195.2	1561	122	14 707 7	a 4723	) 101 ) 101	56 104	4	30	ug/kg	02/11/17 19:5	7 X	•
2-Chloronaphthalen	Э	<195.2	1561	1001	, 1994 1. 77	c 1040	a 79	60-97	6	30	ugikg	02/11/17 19:5	7	
2-Chlorophenol		<195.2	1561	TEME A C A	5 - 14 5 - 14	D 1573	ý 9	9 61-104	2	30	ug/kg	02/11/17 19:5	7	
4-Chlorophenyl Phe	nyi ether	<195.2	1561	134	n 0	3 151	R 94	6 72-114	¢ 5	30	ug/kg	02/11/17 19:5	7	
Chrysene		<19.5	2 1561	144	a 10.	4 172	2 10	9 69-112	2 6	-30	ug/kg	02/11/17 19:5	7	
Dibenz(a,h)Anthrao	ene	<19.5		101	9 9 9 9	7 157	7 9	9 63-10	<b>4</b>	30	ug/kg	02/11/17 19:5	7	
Dibenzofuran		<195.	2 1301 4004	202	a .13	1 216	4 13	6 74-13	46	30	ug/kg	02/11/17 19:5	₩ -1 	í.
3,3 Dichlorobenzidi	ne	<195.	2 1001 - 4564	110	6 7	7 125	9 7	9 63-10	95	30	ug/kg	02/11/17 19:5	nt 	
2,4-Dichiorophenol		<193. 	Z 1904 X 4664	176	9 11	3 185	2 11	7 60-10	85	30	ug/kg	02/11/17 19:	M	X. V
Diethyl phthalate		540E1	2 1500 I 76 1561	162	8 10	4 170	8 10	8 64-10	4 5	30	ug/kg	02/11/17 19::	35 - 36 777	~
Dimethyl phthalate		< 190.	2 1561	104	6 6	7 108	26	B 44-10	7 3	30	ug/kg	02/11/1/ 19:	3/ :	
2,4-Dimethylphenol		~ [33.	2 1581 2 1581	120	11 7	133	9 8	4 51-13	0 11	30	ug/kg	02011111193	31. 57	
4,6-Dinito-2-methy	i prieno)	- 100.	a 156	110	2 7	1 128	8 8	11 12-15	0 16	30	ប្រវkg	02017171719.	31 57	
2,4-Dinitrophenol		~ 105	2 156	156	10	166	6 10	15 61-12	36	30	ndvka	021 U 11 13	57 67	
2,4-Dintrotoluene		-195	2 156	1 156	1	0 163	17 11	13 58-12	4	30	ugwag	02/11/17 19	57	
2,6-Dinamotoluene		<19.5	2 156	1 142	28 1	91 152	22	6 69-11	4 6	30	ugaxg	02/11/17 19:	57	
T NUMBRUNDER		<19.5	2 156	1 15!	59 11	00 162	23 1	02 66 10	6 4	-00-	uging	02/11/17 19:	57	
r notenc	¢.	<195	2 156	1 14	90 9	95 15	i9 (	98 63-11	4 5	20	្មប្បភេទ មកស្រីក	02/11/17 19:	57	
Hendelsenbuladie		<195	2 156	1 12	35	79 12	95 1	82 55-10	11 D		uging	02/11/17 19	57	
	ntadiene	<195	2 156	1 10	25	<b>66</b> 11	59	73 36-1.	au 14 a 7	: JU 20:	19/20 10/20	02/11/17 19:	57	
Havechlomethane		<195	2 156	1 11	67	75 12	53	79 52-9	9	20	ាលនៃព	02/11/17 19	57	
Indepn(123-rd)P	VIERE	<19	52 156	1 15	94 1	02 16	94 1	0/ 63-14	(3 D Ka E	30	uniko	02/11/17 19	57	
invenv()~i~~	,	<195	2 156	1 12	19	78 12	7.7	01 07-10 70 00-10	00 D 10 P	00. Nr	10/140	02/11/17 19	57	
2.Methvinanhthale	ne	<19	52 156	i1 11	68	75 12	36	18 03-1 70 204	v∠ 0 ∧∵ ≮	30	UOK	02/11/17 19	:57	
2-Methylinheini		<195	.2. 156	it 11	80	76 12	36	10 00-1	00 D 01 2	. 30 . 30	nak	02/11/17 19	:57	
384 Methvinhend		<195	5,2 158	51 [11	50	74 11	90	10 00-1	ני ויט 17 בי	30	ua/ki	02/11/17 19	:57	
Nanhihalene		<19.	52 156	st 12	37	79 13	18	03 3945 	ם _{אַז} הס פּ	10	uarki	02/11/17 19	:57	
2-Nitroaniline		<19	5.2 156	51 15	42	99 16	16 176	1112 32-1 (nn 50+	ນອ ຊິ ຄວິ 7	30	uok	02/11/17 19	:57	
3-Nitroaniline		<19́	5.2 150	61 14	79	95 15	02	IVU - 35+1	-u-u- 1			-		
-														
Roffe St.

Analytical Method:       SW-846 8270 C       Prep Method:       SW 3550C         Seq Number:       139836       Matrix:       Soil       Date Prep:       02/10/17         Parent Sample Id:       17020710-001       MS Sample Id:       17020710-001 S       MSD Sample Id:       17020710-001 SD         Parent Sample Id:       MS MS       MSD       MSD       MSD Sample Id:       17020710-001 SD         Parameter       Parent Result       Amount       Result       MS MS       MSD       MSD       Limits       MPD       Units       Analysis         4-Nitroaniline       <195.2       1561       1414       91       1544       97       60-121       9       30       ug/kg       02/11/17       19:57         Nitrobenzene       <195.2       1561       1207       77       1290       81       52-100       7       30       ug/kg       02/11/17       19:57         Nitrobenzene       <195.2       1561       1207       77       1290       81       52-100       7       30       ug/kg       02/11/17       19:57	
Seq Number:         139836         Matrix:         Sol         Date Prep:         02/10/17           Parent Sample Id:         17020710-001         MS Sample Id:         17020710-001 S         MSD Sample Id:         17020710-001 SD           Parent Sample Id:         17020710-001         MS Sample Id:         17020710-001 S         MSD Sample Id:         17020710-001 SD           Parameter         Parent         Spike         MS         MS         MSD         MSD         Limits         %RPD         RPD         Units         Analysis           4-Nitroaniline         <195.2         1661         1414         91         1544         97         60-121         9         30         ug/kg         02/11/17         19:57           Nitrobenzene         <195.2         1561         1207         77         1290         81         52-100         7         30         ug/kg         02/11/17         19:57           Nitrobenzene         <195.2         1561         1207         77         1290         81         52-100         7         30         ug/kg         02/11/17         19:57	
Parent Sample Id:         17020710-001         MS Sample Id:         17020710-001 S         MSD Sample Id:         17020710-001 SD           Parent Sample Id:         17020710-001 S         MSD Sample Id:         17020710-001 SD         MSD Sample Id:         17020710-001 SD           Parameter         Parent Spike         MS         MSD         MSD         MSD         Limits         %RPD         RPD         Units         Analysis           4-Nitroaniline         <195.2         1661         1414         91         1544         97         60-121         9         30         ug/kg         02/11/17.19:57           Nitrobenzene         <195.2         1561         1207         77         1290         81         52-100         7         30         ug/kg         02/11/17.19:57           Nitrobenzene         <195.2         1561         1207         77         1290         81         52-100         7         30         ug/kg         02/11/17.19:57	
Parameter         Parent Result         Spike Amount         MS         MSD         MSD         MSD         Limits         %RPD         RPD         Units         Analysis           4-Nitroaniline         <195.2         1561         1414         91         1544         97         60-121         9         30         ug/kg         02/11/17.19:57.           Nitrobenzene         <195.2         1561         1207         77         1290         81         52-100         7         30         ug/kg         02/11/17.19:57.	
4-Nitroaniline         <195.2	Flag
Nitrobenzene <195.2 1561 1207 77 1290 81 52-100 7 30 ug/kg 02/11/17 19.57	
100 0 100 100 100 00 100 00 00 00 00 00	
2-Nitrophenol <195,2 1561 1261 62 1565 67 62-108 6 50 8000 021 111 1551	
4-Nitrophenol <195.2 1561 1411 90 1538 97 48-114 9 30 ug/kg 02/11/17/19:57	
N-Nitrosodi-n-propylamine <195.2 1561 1151 74 1217 77 50-96 6 30 ug/kg 02/11/17 19:57	
N-Nitrosodiphenylamine <195.2 1561 1392 89 1454 92 64-108 4 30 ug/kg 02/11/17 19:57	
Di-p-octv) ohthalate <195.2 1581 1679 108 1707 108 69-117 2 30 ug/kg 02/11/17 19:57	
Pentachlorophenol <195.2 1561 1321 85 1403 88 66-114 6 30 ug/kg 02/11/17 19:57	
Phereanthrene <19.52 1561 1483 95 1563 99 67-115 5 30 ug/kg 02/11/17 19:57	
Phenni <195.2 1561 1186 76 1245 78 55-106 5 30 ug/kg 02/11/17 19:57	
Purene \$19.52 1561 1537 98 1532 97 67-116 0 30 ug/kg 02/11/17 19:57	
Puridine <195.2 1561 1084 69 1160 73 41-92 7 30 ug/kg 02/11/17 19:57	
2 4.5.Tichlcrophenol <195.2 1561 1482 95 1537 97 65-107 4 30 ug/kg 02/11/17 19:57	
2,4,6-Trichlorophenol <195.2 1561 1523 98 1550 98 62-114 2 30 ug/kg 02/11/17 19:57	
Súrrogate MS MS MSD MSD Limits Units Analysis Result Flag Result Flag Date	
2-Eluprohinhenvi 98 101 32-107 % 02/11/17 19:57	
2-Flidrobendi 78 83 34-113 % 02/11/47 19:57	
24 documents 82 88 35-123 % 02/11/17 19:57	
Denotifie 85 34-120 % 02/11/17 19:57	
Terobend 014 115 117 46-154 % 02/11/17 19:57	
2,4,6-Tribomophenol 104 108 31-113 % 02/11/17 19:57	

Analytical Method: Seq Number: MB Sample (d.	SW-846 8 139743 64778-2-1	8015C BLK		LCS San	Matrix: nple ld:	Solid 64778-2-BKS		Prep Metho Date Pro	od: S₩ ≆p: 02/0	5030 )8/17	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec		Limits		Units	Analysis Date	Flag
TPH-GRO (Gasoline Ran	ge Orgánic:	<100	5000	4612	92		75-123		ugikg	02/08/17 21:29	•
Surrogate		MB %Rec	MB Flag	L Re	CS sult	LCS Flag		Limits	Units	Analysis Date	
a,a,a-Trifluorotoluene		74			91			50-122	%	02/08/17 21:2	<b>ə</b>

Rolfe St.

	0 03C0 5L0 5L0					Prep Method: Sws	usu -
Analytical Methoo:	SW-840 8200 D			Matrix.	Solid	Date Prep: 02/0	9/17
Seq Number:	139///		LCS Sar	note Id:	64809-1-BKS		
MB Sample Id:	04809-1-BLK	t Criika	lics	ICS	Limits	Units	Analysis Flag
Parameter	Resu	it Amount	Result	%Rec			Dans
a silaina.	20.0	60.00	69.63	116	46-127	ug/kg	0209/17 17:22
Acemie	<5.0	60.0	63.02	105	70-127	UQ/KG	1200911 11.44 000047 11:02
Delizene Recención amotheog	<5.0	60.01	63.87	106	68-122	ndika	0203/11 11.44
Bromodichtoromethan	e <5.01	0 60.0	63.80	106	68-122	UWKY	0200717 11:22
Dininguionagongenes	<5.0	0.00	59.90	100	57-127	UQXQ	102/05/11 11-22 102/06/17 11-22
Division in Division in	<5.0	60.0	56.40	94	68-123	цуку	02000011 11-44 02000117 11-44
Diginomenane Diginomenane	<20.	00 60.0	7185	120	41-136	UGAG	N2N3(11 16.22
Z-Duranone (inc. 14	<10.	00 60.0	0 59.38	- 99	66-135	ugikg	N2003117 11:22
Carbon Tetrachinride	<5.0	00 60.0	0 63.19	105	64-147	ប <b>្</b> រកឫ មក/ស្ត	02/03/11 10:22
Chiershenzene	<5.0	00 60.0	0 63.75	106	70-121	uyny	0200/11 11.22
Chiccosthene	⊲5.0	60.0	0 51.18	85	66-142	uging	n200/17 11:22
Chioroform	<5.0	00 60.0	0 63.86	106	; 68-123	uyaya	02/09/17 11:22
Chloromethane	<5.0	00 60.0	0 53.86	90	) 65-136	uyiny	n2n0/17 11:22
Chartonesiano	<20	00 60.0	0 62.03	103	y 62-138	ugwyg	nong/17 11:22
t 2 Dibrama & Chlon	propane <40	00 60.0	0 63.72	2 106	55-122	បច្ចរស្ស	02/00/11 11:22
Disconschlorometra	ne <5.0	00 60.0	0 64.05	5 107	61-122	បញ្ញុកថ្ម រទៅវិទា	6200811 11:22
4.7 Dibromoethane (	-na) <5.0	60.0	62.41	104	<b>63-119</b>	uyny	02/03/11 (1:22
1,2-Diobiorobenzene	<5.(	60.0	0 67.8	3 11	3 65-121	u u v v v v v v v v v v v v v v v v v v	02/00/17 11:27
4.3 Dichlorobenzene	<5.0	00 60.0	0 68.97	7 11	5 69-121	uging	02/00/11 11:22
1 A Oichlarabeazeile	<5.(	00 60.0	68.6	) (†	4 69-118	ugeny	02/09/17 11:22
Dichlomdifiuorometh	ane <5.0	00 60.(	69.0	4 11	5 53-162	uging	02/09/17 11:22
1 1. Dichioroethane	<5.	00 60.	XO 60.0	5. 1.0	0 /0512/	unika	02/09/17 11:22
† 2. Dichloroethane	<5.	)00 <b>6</b> 0.	N 62.1	0 10	4 .00-110	unka	02/09/17 11:22
1 1-Dichinroethene	<5.	60.	)0 <b>63.6</b>	4 10	6 69-133	្មម្នាស្ន	02/09/17 11:22
1 2-Dichloropropane	×5.1	000 60.	00 60.8	1 10	1 70-122	ualka	02/09/17 11:22
ris-1 2-Dichloroether	1e <5	000 60.	00 612	0 10	2 68-126	រក្រវែត	02/09/17 11:22
cis-1 3-Dichlomprop	ene <5.	000 <u>6</u> 0.	00 62.6	6 10	4 00-121	บอสัต	02/09/17 11:22
trans-1 2-Dichloroet	неле <5.	000 60.	00 65.5	8 10	9 70-132	unika	02/09/17 11:22
trans-1 3-Dichloroon	opene ≮5.	000 60.	00 60.1	9 10	0 0/-113	uo/ka	02/09/17 11:22
Flavibenzene	<5.	000 60.	00 65.9	G 11	0 70-123	uaka	02/09/17 11:22
2.Hexanone	×2(	1.00 60.	00 58.1	8 9	7 40-121 00-430	ndka	02/09/17 11:22
tennroovibenzene	<5.	000 60	00 75.8	0 12	26 68-130	ម្មារម្ន ពេលវ័រព	02/09/17 11:22
Methyl Acetate	<2	0.00 60	00 74	3 12	24 09-122	មុនសុទ ពេលវ័រព	02/09/17 11:22
Methylovciohexane	<2	0.00 60	00 68.0	<b>13 11</b>	3 02-100	110/80	02/09/17 11:22
Menviene Chloride	<5	000 60	00 56.4	12	94 07-121	10/ka	02/09/17 11:22
4-Methvl-2-Pentano	ne <2	0.00 60	.00 63.1	30 10	97 40-117 	ug/kg	02/09/17 11:22
Methyl-t-buiyl ether	<5	.000 60	00 65.	31 11	10 00-115	ua/ka	02/09/17 11:22
Nachthalene	~5	.000 60	.00 61.0	50 11	03 Jan 71 120	ua/ka	02/09/17 11:22
Styrene	<5	.000 60	00 62	83 U	05 7 - 120 50 472	ua/ka	02/09/17 11:22
1,1,2,2-Tetrachloro	emane 😽	000 60	00 68.	90 1	10 35124	ua/ka	02/09/17 11:22
Tetrachiomethene	<5	000 60	00 65	62 1	og 60 120	uo/ko	02/09/17 11:22
Toluene	<b>~</b> 5	000 60	00 61.	59 1ª	(13 03-120 60.414	ua/ka	02/09/17 11:22
1.2.3-Trichlorobenz	ene 🤫	.000 60	00 66.	65 1	11. OUTT	ua/ka	02/09/17 11:22 H
1,2,4-Trichlorobenz	ene <	6000 60	69.	49 1	10 04110	uo/ko	02/09/17 11:22
1.1.1-Trichloroetha	ne <	6.000 60	63	90 1	(J) 50-155 (a) 64 125	ud/ko	02/09/17 11:22
1,1,2-Trichloroetha	ne <	5.000 G(	1.00 65	43 1	05 04-120	u u u k	02/09/17 11:22
Trichloroethene	4	5.000 6	00 62	69 1	04 03-134 AD 50-663	u uuki	02/09/17 11:22
Trichlorofluorometh	але <	5.000 6	).00 59	.17	99 00-100	า เลงห	02/09/17 11:22
1,1,2-Tachioro-1,2,2-1	frituoroethane <	5.000 6	0.00 57	33	90 02-133 E0-143	ວ ມ <b>ດ</b> ໃห	02/09/17 11:22
Vinyl Chloride	~	5.000 6	5.00 60	63 1	07 02 142 08 74 424	a uo/k	02/09/17 11:22
m p-Xylenes	4	10.00	120 13	UD 1	(UB , (*)2-		

Version 1.000

Prep Method: SW5030

Rolfe St.

Analytical Method:	SW-846 8260 B		Matrix:	Solid		Prep Metho Date Pro	od: SW ep: 02/0	5030 )9/17
MR Sample Id.	64809-1-BLK		LCS Sample Id:	64809-1-BNO			Boils	Analysis Flag
and considered	МВ	Spike	LCS LCS		Limits		011100	Date
Parameter	Result	Amount	Result %Rec		72.123		ugikg	02/09/17 11:22
o-Xylene	<5.000	60.00	64.05 1.07	100	1 74 1990	Limits	Units	Analysis
Surrogate	MB %Re	i MB c Flag	Result	Flag		82126	%	Date 02/09/17 11:22
4-Bromofluorobenzen Dibromofluoromethan Totrang-DR	e 133 e 97 97	đ	103 97 99			92-113 94-105	%	02/09/17 11:22 02/09/17 11:22

Analytical Method: Seq Number:	SW-846 8260 B 139832		M L CS-Somn	atrix: te let	Water 64837-1-BKS		Prep Method: Date Prep:	02/1	0/17	
MB Sample Id:	64837-1-BLK	Snike	LCS	LCS		Limits		Units	Anatysis Date	Flag
Parameter Vinyl chloride 1,1-Dichloroethène 2-Butanone (MEK) Chloroform 1,2-Dichloroethane Carbon tetrachloride Benzene Trichloroethene Tetrachloroethene Carbonzene	Rèsult <0,001000 <0,001000 <0,001000 <0,001000 <0,001000 <0,001000 <0,001000 <0,001000 <0,001000 <0,001000 <0,001000	Amount 0.05000 0.05000 0.05000 0.05000 0.05000 0.05000 0.05000 0.05000 0.05000 0.05000 0.05000	Result \$ 0.06076 0.05234 0.03746 0.04966 0.05656 0.05348 0.05086 0.05216 0.04969 0.05159	%Rec 122 105 75 99 113 107 102 104 99 103		74-138 85-127 39-135 85-128 86-138 81-138 85-123 87-127 83-138 85-120 84-121		mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	02/10/17 10:48 02/10/17 10:48	
1,4-Dichlorobenzene	0.001000> 848	0.05000 MB	0.05136	103 CS	LCS	01-121	Limits	Units	Analysis Date	
Surrogate	%Rec 101	: Flag	Res 1	suit 01	Flag		86-111	% %	02/10/17 10:4	8 8
4-Bromofluorobenzen Dibromofluoromethan Toluene-D8	ne 106 98		1) 9	04 98			90-117	%	02/10/17 10:4	8

 $\begin{array}{l} F = RPD exceeded the laboratory control limits \\ X = Recovery of MS, MSD or both outside of QC Criteria. \\ H = Recovery of BS, BSD or both exceeded the laboratory control limits \\ L = Recovery of BS, BSD or both below the laboratory control limits \\ \end{array}$ 

Prep Method: SW5030B

Rahlmaned By		
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#### **Phase Separation Science, Inc**

#### Sample Receipt Checklist

Work Order #	17020710	Re	eceived By ate Received	Thomas 1 02/07/20	Wingate 17 10:50:00 AM
Project Name	Rolfe St.	De	elivered By	Client	
Disposal Date	03/14/2017	Т	acking No	Not Applic	cable
		Ľ	ogged in By	Barb We	ber
Shipping Cont No. of Cooler	ainer(s) s 1		100		Present
Custody Seal Seal(s) Signe	(s) Intact? d / Dated?	N/A N/A	Temp (deg Témp Blank	C) (Present	3 No
Documentatio	'n		Sampler Na	ime S	id Chapman
COC agrees Chain of Cus	with sample labels? tody	Yes Yes	MD DW Ce	nt.No. N	I/A
Sample Conta	iner		Custody Se	al(s) Intac	t? Not Applicable
Appropriate f	or Specified Analysis?	Yes Yes	Seal(s) Sig	ned / Date	d Not Applicable
Labeled and	abels Legible?	Yes			
Total No. of \$	Samples Received 1		Total No. o	f Containe	rs Received 4
Preservation			6	H~2)	N/A
Total Metals	the state of manufacture	of collection	.\P (c	H<2)	N/A
Dissolved Me	tals, filtered within 15 minutes	of collection	<b>۲</b> ۲		N/A
Orthophosph	OTUS, THIEFEO WILLIAM TO HUMBLE	S OF CONCOUNT	, Te	H>12)	N/A
Cyanides			(i	H>9)	N/A
Sunde	Fold filtored) COD Phenols		ii îi	H<2)	N/A
TOV TICK	142 Total Phas		(1	H<2)	N/A
VOC BIEV	MOA Vials Row Preserved)		(i	oH<2)	N/A
NOU, DICA	s have zero headspace?				N/A
624 VOC /P	cvd at least one unpreserved '	VOA vial)			N/A
524 VOC (R	cvd with trip blanks)		.()	oH<2)	N/A

## Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require themat preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at 0 degrees but no samples were frozen.

Date: 02/07/2017

PM Review and Approval: Mu J Logh Amber Confer

Date: 02/07/2017

Page 37 of 37

# **Analytical Report for**

# Recycled Aggregates, LLC Certificate of Analysis No.: 17022216

Project Manager: David Cantwell Project Name : Barnabas

Project ID:1



February 24, 2017 Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 Phone: (410) 747-8770 Fax: (410) 788-8723 OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

# PHASE SEPARATION SCIENCE, INC.



February 24, 2017

David Cantwell Recycled Aggregates, LLC 1721 S. Capitol St., SW Washington, DC 20003

Reference: PSS Work Order(s) No: 17022216 Project Name: Barnabas

Project ID.: 1

Dear David Cantwell:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **17022216**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on March 29, 2017, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal Laboratory Manager



#### Sample Summary Client Name: Recycled Aggregates, LLC Project Name: Barnabas

#### Work Order Number(s): 17022216

#### **Project ID: 1**

The following samples were received under chain of custody by Phase Separation Science (PSS) on 02/22/2017 at 03:16 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected	
17022216-001	20' Beech (#10)	SOIL	02/17/17 14:00	

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

#### Notes:

- 1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
- 2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
- 3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
- 4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
- 5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
- 6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
- 7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
- 8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

#### Standard Flags/Abbreviations:

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

#### **Certifications:**

NELAP Certifications: PA 68-03330, VA 460156 State Certifications: MD 179, WV 303 Regulated Soil Permit: P330-12-00268 NSWC USCG Accepted Laboratory LDBE MWAA LD1997-0041-2015 OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

# PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 17022216

Recycled Aggregates, LLC, Washington, DC February 24, 2017

Project Name: Barnabas

Project ID: 1

Sample ID: 20' Beech (#10) Matrix: SOIL		Date/Tin Date/Tim	te Sampled: e Received:	02/17/2 02/22/2	017 1 017 1	4:00 PSS Sampli 5:16   % S	e ID: 17022211 olids: 90	3-001
RCRA Metals	Analytica	I Method:	SW-846 6020	A	1990-1990-1990-1990-1990-1990-1990-1990	Preparation Meth	nod: 3050B	SEGREPTCH with
	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Arsenic	3.1	mg/kg	0.44		1	02/22/17	02/24/17 14:19	1051
Barium	33	mg/kg	2.2		1	02/22/17	02/24/17 14:19	1051
Cadmium	ND	mg/kg	2.2		1	02/22/17	02/23/17 17:08	1051
Chromium	16	mg/kg	2.2		1	02/22/17	02/24/17 14:19	1051
Lead	7,5	mg/kg	2.2		1	02/22/17	02/24/17 14:19	1051
Mercury	ND	mg/kg	0.088		1	02/22/17	02/23/17 17:08	1051
Selenium	ND	mg/kg	2.2		1	02/22/17	02/23/17 17:08	1051
Silver	ND	mg/kg	2.2		1	02/22/17	02/23/17 17:08	1051



#### **Case Narrative Summary**

**Client Name: Recycled Aggregates, LLC** 

**Project Name: Barnabas** 

Work Order Number(s): 17022216 Project ID: 1

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

#### Sample Receipt:

Sample(s) received at a temperature greater than 6 degrees C and ice was not present.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

# Analytical Data Package Information Summary

Work Order(s): 17022216 Report Prepared For: Recycled Aggregates, LLC, Washington, DC Project Name: Barnabas Project Manager: David Cantwell

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SM2540G	20' Beech (#10)	Initial	17022216-001	1062	ŝ	140255	140255	02/17/2017	02/23/2017 16:16	02/23/2017 16:16
SW-846 6020 A	20' Beech (#10)	Initial	17022216-001	1051	ŝ	64988	140252	02/17/2017	02/22/2017 16:28	02/23/2017 17:08
	64988-1-BKS	BKS	64988-1-BKS	1051	S	64988	140252		02/22/2017 16:28	02/23/2017 15:12
	64988-1-BLK	BLK	64988-1-BLK	1051	S	64988	140252		02/22/2017 16:28	02/23/2017 15:06
	SB-1 S	MS	17022118-001 S	1051	S	64988	140252	02/20/2017	02/22/2017 16:28	02/23/2017 15:55
	SB-1 SD	MSD	17022118-001 SD	1051	S	64988	140252	02/20/2017	02/22/2017 16:28	02/23/2017 16:01
	20' Beech (#10)	Reanalysis	17022216-001	1051	s	64988	140286	02/11/2017	02/22/2017 16:28	02/24/2017 14:19

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#### **Recycled Aggregates, LLC** Barnabas

#### Analytical Method: SW-846 6020 A

<b>Analytical Method:</b>	SW-846 6020 A					Prep Method:	SW3050B	
Seq Number:	140252			Matrix:	Solid	Date Prep:	02/22/17	
MB Sample Id:	64988-1-BLK		LCS San	nple ld:	64988-1-BKS			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Un	nits Analysis Date	Flag
Arsenic	<0.4209	16.84	16.56	98	80-120	mg	/kg 02/23/17 15:1	2
Barium	<2.105	16.84	16.37	97	80-120	mg	/kg 02/23/17 15:1	2
Cadmium	<2.105	16.84	15.79	94	80-120	mg	/kg 02/23/17 15:1	2
Chromium	<2.105	16.84	16.47	98	80-120	mg	j/kg 02/23/17 15:1	2
Lead	<2.105	16.84	15.87	94	80-120	mg	j/kg 02/23/17 15:1	2
Mercury	<0.08418	0.4209	0.4041	96	80-120	mg	/kg 02/23/17 15:1	2
Selenium	<2.105	16.84	14.22	84	80-120	mg	j/kg 02/23/17 15:1	2
Silver	<2.105	16.84	16.27	97	80-120	mg	/kg 02/23/17 15:1	2

F = RPD exceeded the laboratory control limits
 X = Recovery of MS, MSD or both outside of QC Criteria
 H= Recovery of BS,BSD or both exceeded the laboratory control limits
 L = Recovery of BS,BSD or both below the laboratory control limits

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#### **Phase Separation Science, Inc**

#### Sample Receipt Checklist

Work Order #	17022216		Received By	Barb Webe	ər _.
Client Name	Recycled Aggregates, LLC		Date Received	02/22/2017	′ 03:16:00 PM
Project Name	Barnabas		Delivered By	Client	
Project Number	1		Tracking No	Not Applicat	ble
Disposal Date	03/29/2017		Logged In By	Barb Webe	er
Shipping Contai	ner(s)				
No. of Coolers	0				
			lce	N	/Α
Custody Seal(s	) Intact?	N/A	Temp (deg (	C) 17	7
Seal(s) Signed	/ Dated?	N/A	Temp Blank	Present N	0
Documentation			Sampler No	me Not	Provided
COC agrees wi	th sample labels?	Yes	Campier Na		FIUMUEU
Chain of Custo	dy	Yes		<u>IN//1</u>	
Sample Contain	er		Custody Sea	al(e) intect?	Not Applicable
Appropriate for	Specified Analysis?	Yes	003100y 001		
Intact?		Yes	Seal(s) Sign	ed / Dated	Not Applicable
Labeled and La	bels Legible?	Yes			
Total No. of Sa	mples Received 1		Total No. of	Containers l	Received 2
Preservation					
Total Metals			(p⊦	l<2)	N/A
Dissolved Meta	ls, filtered within 15 minutes of	of collectio	n (p⊢	l<2)	N/A
Orthophosphor	us, filtered within 15 minutes	of collectio	on		N/A
Cyanides			(p⊦	l>12)	N/A
Sulfide			(p⊢	l>9)	N/A
TOC, DOC (fiel	d filtered), COD, Phenols		(p⊢	l<2)	N/A
TOX, TKN, NH	3, Total Phos			l<2)	N/A
VOC, BTEX (V	OA Vials Rcvd Preserved)		(p⊢	l<2)	N/A
Do VOA vials h	ave zero headspace?			·	N/A
624 VOC (Rovo	at least one unpreserved V	DA vial)			N/A
524 VOC (Rovo	l with trip blanks)	·	(p⊦	!<2)	N/A

#### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Sample(s) received at a temperature greater than 6 degrees C and ice was not present.

Samples Inspected/Checklist Completed By:
Barb Weber
Barb Weber

Date: 02/22/2017

PM Review and Approval: Amber Confer

Page 9 of 9

Date: 02/22/2017

# **Analytical Report for**

# Recycled Aggregates, LLC Certificate of Analysis No.: 17022705

Project Manager: David Cantwell Project Name : Barnabas

Project ID: 1



March 2, 2017 Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 Phone: (410) 747-8770 Fax: (410) 788-8723 OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

# PHASE SEPARATION SCIENCE, INC.



March 2, 2017

David Cantwell Recycled Aggregates, LLC 1721 S. Capitol St., SW Washington, DC 20003

Reference: PSS Work Order(s) No: 17022705 Project Name: Barnabas

Project ID.: 1

Dear David Cantwell :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered 17022705.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on March 29, 2017, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal Laboratory Manager



#### Sample Summary Client Name: Recycled Aggregates, LLC Project Name: Barnabas

#### Work Order Number(s): 17022705

#### **Project ID: 1**

The following samples were received under chain of custody by Phase Separation Science (PSS) on 02/22/2017 at 03:16 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected	
17022705-001	20' Beech (#10)	SOIL	02/17/17 14:00	

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

#### Notes:

- 1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
- 2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
- 3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
- 4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
- 5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
- 6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
- 7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
- 8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

#### Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

#### **Certifications:**

NELAP Certifications: PA 68-03330, VA 460156 State Certifications: MD 179, WV 303 Regulated Soil Permit: P330-12-00268 NSWC USCG Accepted Laboratory LDBE MWAA LD1997-0041-2015

OFFICES: 6630 BALTIMORE NATIONAL PIKE ROUTE 40 WEST BALTIMORE, MD 21228 410-747-8770 800-932-9047 FAX 410-788-8723

# PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No: 17022705

Recycled Aggregates, LLC, Washington, DC March 2, 2017

Project Name: Barnabas

Project ID: 1

Sample ID: 20' Beech (#10) Matrix: SOIL	ا ۲	Date/Tin Date/Tim	ne Sampled: 1e Received:	02/17 02/22	/2017 14 /2017 15	LIOO PSS Sampl 5:16	e ID: 1702270 olids: 87	5-001
Chromium, Hexavalent	Analytica	I Method:	SW-846 7196	A		Preparation Met	nod: SW3060A	
-	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chromium, Hexavalent	ND	mg/kg	1.1		1	02/28/17	03/01/17 12:46	5 1053
Sample ID: 20' Beech (#10) Matrix: SOIL		Date/Tin Date/Tim	ne Sampled: ie Received:	02/17 02/22	/2017 14 /2017 15	1:00 · PSS Sampl 5:16	e ID: 1702270	5-001
Trivalent Chromium by calculation	Analytica	Method:	Trivalent Calc					
-	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Trivalent Chromium (by subtraction)	16	mg/kg			1	02/24/17	02/24/17 14:19	) 1041



#### **Case Narrative Summary**

#### **Client Name: Recycled Aggregates, LLC**

**Project Name: Barnabas** 

Work Order Number(s): 17022705 Project ID: 1

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

#### Sample Receipt:

Refer to previous Work Order 17022216.

Analytical:

Chromium, Hexavalent Batch: 140429 Matrix spike and/or matrix spike duplicate (MS/MSD) exceedances identified; see MS summary form.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

Analytical Data Package Information Summary

Work Order(s): 17022705 out Prenared For: Recycled Accorecates 11(

Report Prepared For: Recycled Aggregates, LLC, Washington, DC Project Name: Barnabas Project Manager: David Cantwell

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
SW-846 7196 A	20' Beech (#10)	Initial	17022705-001	1053	S	65068	140429	02/17/2017	02/28/2017 14:26	03/01/2017 12:46
	65068-1-BKS	BKS	65068-1-BKS	1053	S	65068	140429		02/28/2017 14:26	03/01/2017 12:39
	65068-1-BLK	BLK	65068-1-BLK	1053	s	65068	140429		02/28/2017 14:26	03/01/2017 12:37
	65068-1-BSD	BSD	65068-1-BSD	1053	S	65068	140429		02/28/2017 14:26	03/01/2017 12:41
	20' Beech (#10) D	QW	17022705-001 D	1053	S	65068	140429	02/17/2017	02/28/2017 14:26	03/01/2017 12:49
	20' Beech (#10) S	WS	17022705-001 S	1053	s	65068	140429	02/17/2017	02/28/2017 14:26	03/01/2017 12:52
Trivalent Calc.	20' Beech (#10)	Initial	17022705-001	1041	S	140440	140440	02/17/2017	02/24/2017 14:19	02/24/2017 14:19

Page 6 of 9

#### Recycled Aggregates, LLC Barnabas

Analytical Method	: SW-846 7196 A							Pre	p Metho	d: SW	3060A	
Seq Number:	140429			Matrix:	Solid			I	Date Pre	ep: 02/	28/17	
MB Sample Id:	65068-1-BLK		LCS San	nple Id:	65068-1-	BKS		LCSD	Sample	ld: 650	68-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chromium, Hexavaler	.t <1.019	5.095	4.875	96	5.047	99	80-120	3	20	mg/kg	03/01/17 12:39	

#### Analytical Method: SW-846 7196 A Prep Method: SW3060A 140429 Matrix: Soil Date Prep: 02/28/17 Seq Number: MD Sample Id: 17022705-001 D Parent Sample Id: 17022705-001 RPD Parent MD %RPD Units Analysis Flag Parameter Date Result Result Limit Chromium, Hexavalent <1.155 <1.155 0 20 mg/kg 03/01/17 12:49 U

Analytical Method:	SW-846 7196 A					Prep Method:	SW3	3060A	
Seq Number:	140429			Matrix:	Soil	Date Prep:	02/2	8/17	
Parent Sample Id:	17022705-001		MS San	nple ld:	17022705-001 S				
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	U	nits	Analysis Date	Flag
Chromium, Hexavalent	t <1.164	5.821	3.143	54	75-125	m	g/kg	03/01/17 12:52	Х

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

SEPARATION SCIENCE, INC. 17.2.2.7.2 AMOUNT SEPARATION SCIENCE, INC. 17.2.2.7.2 AMOUNT SCIENCE, INC. 17.2.7.2 AMOUNT SCIENCE, INC. 17.2.7.7.2 AMOUNT SCIENCE, INC. 17.2.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7		L *MORENO: ()W) 3/2 YAU C BECKER BARMER BECKER BARMER BARMER C	SCRIMUL ALL COMPANY OF THE SECOND				ANDA SUNCE TIME MOTION & CONSTANT SUNCE A SUNCE OF A SU	A DIAL DIAL DIAL DIAL DIAL DIAL DIAL DIA					3-2 2.16 cent with the same more than the same more the same more than the same more the sam	Deta Deliteiable Request COA OCSUMM CUE LINE COA OCSUMM CUE LINE COA OCSUMM CUE LINE COA OCSUMM CUE LINE COA OCSUMM CUE LINE		Date The Develop	
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#### **Phase Separation Science, Inc**

#### Sample Receipt Checklist

Work Order #	17022705		Received By	Barb Web	er
Client Name	Recycled Aggregates, LLC		Date Received	02/22/201	7 03:16:00 PM
Project Name	Barnabas		Delivered By	Client	
Project Number	1		Tracking No	Not Applica	ble
Disposal Date Shipping Contai	03/29/2017 ner(s)		Logged In By	Barb Web	er
No. of Coolers	1		lce	Δ	bsent
Custody Seal(s) Seal(s) Signed	) Intact? / Dated?	N/A N/A	Temp (deg Temp Blank	C) 1 Present N	7 Io
COC agrees wi Chain of Custor	th sample labels? dy	Yes N/A	Sampler Na	me <u>Not</u> <u>N/A</u>	t Provided
Sample Containe Appropriate for Intact? Labeled and La	er Specified Analysis? bels Legible?	N/A N/A N/A	Custody Sea Seal(s) Sigr	ai(s) intact? ned / Dated	Not Applicable Not Applicable
Total No. of San <b>Preservation</b> Total Metals Dissolved Meta Orthophosphore Cyanides Sulfide TOC, DOC (fiel TOX, TKN, NH3 VOC, BTEX (VC Do VOA vials have 624 VOC (Revo 524 VOC (Revo	mples Received 1 ls, filtered within 15 minutes o us, filtered within 15 minutes o d filtered), COD, Phenols 3, Total Phos OA Vials Rcvd Preserved) ave zero headspace? I at least one unpreserved VC with trip blanks)	f collectio of collectic A vial)	Total No. of (pl n (pl n (pl (pl (pl (pl (pl (pl) (pl	Containers 1<2) 1<2) 1>12) 1>9) 1<2) 1<2) 1<2) 1<2)	Received 1 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

#### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Refer to previous Work Order 17022216.

Samples Inspected/Checklist Completed By: ~	NYD ackson Lynn Jackson	Date: 02/27/2017
PM Review and Approval:	NYD actidon) Lynn Jackson	Date: <u>02/27/2017</u>

Date_Perfor	2/24/2017		
Date_Prepar   2728/2017	2/24/2017		
Units 1 1 ms/ke	mg/kg		
Result_Tex RL ND	16		
ample_Nt Client_Sam Test_Grour Analysis Cas_Numb Method Qual 7022705-i 20' Beech ( Chromium, Chromium, 18540-29-5 SW-846 7196 A	7022705-i 20' Beech ( Trivalent Cl Trivalent Cl 16065-83-i Trivalent Calc.		

,

Date_Sample: Matrix_Name 2/17/2017 SOIL 2/17/2017 SOIL

[	Α	B	С	D	E	F	G
1				Clien	t: Rec	ycled Agg	regates, LLC
2			Si	ummary c	of Analy	tical Results f	or WO#(s): 17022705
3	PSS				Method	: Chromium, I	-lexavalent
4					Proj	ect Name: Ba	irnabas
5							
6				20' Beech	(#10		
. 7			-	02/17/20	17		·
8	Analyte Name	Units	Cas#				
9	Chromium, Hexavalent	mg/kg	18540-29-9	<1.1			

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Attachment 4

# **DOEE Final Inspection Approval**



GOVERNMENT OF THE DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY AND ENVIRONMENT INSPECTION AND ENFORCMENT BRANCH



Final Approval Notice

6/18/2017

Ms. Fariba Mahvi, SR. Project Manager POTOMAC ELECTRIC POWER COMPANY(PEPCO) PEPCO COOLING TOWER REMEDIATION 3400 BENNING RD., SE 701 NINTH STREET, NW Washington, DC 20019

RE: 3400 BENNING ROAD NE

Plan No. 5114, File No. 16-5114, Building Permit No. D1600373

Dear Sir or Madam:

In accordance with Title 21 of the District of Columbia Municipal Regulation, Section 503.7 and 518.12, a final inspection and receipt and approval of an As-Built Plan and supporting documents of the completed stormwater management best management practices or land cover was approved by this office on 6/1/2017. A list of BMPs may be found beginning on page 2.

The final inspection and receipt and approval of the As-Built plan for 3400 BENNING ROAD NE satisfies the District's regulations for the implementation of stormwater management for land disturbance. This letter, therefore, confers the final approval of the completed stormwater management best practice or land cover for the above referenced address and Building Permit. A maintenance and operation inspection will be completed within one year of the date of this notice.

If you have any questions regarding this matter, please contact me at (202) 497-8581 or at lawrence.omoregbe@dc.gov.

Sincerely,

LAWRENCE U. OMITREGBE, C.F.M.

Signed electronically on 6/18/2017 2:36:00 AM

Lawrence Omoregbe, , Environmental Engineer, CFM Inspection & Enforcement Branch Watershed Protection Division

This property may be eligible for a discount on stormwater and impervious fees on the DC Water bill. For more information, visit <u>doee.dc.gov/riversmartrewards</u>

#### BMPs at 3400 BENNING ROAD NE

BMP Name	BMP type
5114-1-1 Bioretention Basin #1	Traditional bioretention
5114-1-2 Bioretention Basin #2	Traditional bioretention