

2020 Riverfront Park Soil Management Report

Riverfront Park
Spokane, Washington

for
City of Spokane Parks and Recreation

December 14, 2020



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523 East Second Avenue
Spokane, Washington 99202
509.363.3125

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Prepared for:

City of Spokane
Parks and Recreation
808 West Spokane Falls Boulevard, 5th Floor
Spokane, Washington 99201

Attention: Berry Ellison

Prepared by:

GeoEngineers, Inc.
523 East Second Avenue
Spokane, Washington 99202
509.363.3125



Jedidiah R. Sugalski, PE
Environmental Engineer



Bruce D. Williams
Principal

JML:JRS:BDW:tjh

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1.0 INTRODUCTION

This report documents results of soil sampling and earthwork activities conducted from February 2020 through September 2020 at Riverfront Park (the Park) in Spokane, Washington. Two areas of the Park, the North Bank and Havermale Island, were under construction during this time period. This is the fifth and final year of redevelopment activities planned for the Park.

Before the Park was established as part of the World's Fair of 1974 (Expo '74), it was occupied by many industrial facilities and as a result, contaminants of concern (COCs) associated with historical industrial use have been identified in soil throughout the Park. Soil sampling conducted in the Park (GeoEngineers 2016b and 2016c) has identified the following COCs with soil concentrations greater than the Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs):

- Polycyclic Aromatic Hydrocarbons (PAHs);
- Lead;
- Cadmium;
- Arsenic; and
- Diesel- and oil-range petroleum hydrocarbons (DRPH and ORPH, respectively).

In 2014, the city of Spokane (City) passed a \$64 million bond for the revitalization of the Park. The city of Spokane Parks and Recreation Department (Parks) expected to encounter contamination because of the historical uses and decided to engage regulatory agencies to ensure soil management was conducted with regulatory approval. Riverfront Park was entered into the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) under Site CSID 13026, VCP project number EA0318. To manage contaminated soil at the site in a manner protective of human health and the environment, a Soil Management Plan (SMP) was developed to provide guidance for the Park revitalization projects. The SMP included requirements to collect characterization samples of soil left in place and to document contaminated soil uses at the site. This report describes soil handling and characterization activities for the Riverfront Park revitalization projects from February 2020 through October 2020.

2.0 SITE DESCRIPTION AND BACKGROUND

The following sections provide information on the historical use of the site and previous environmental investigations and reports.

2.1. Site History

The project site is located at 507 North Howard Street, in Spokane, Washington and is bound by Spokane Falls Boulevard to the south, Post Street to the west, Division Street to the east and West Cataldo Avenue to the north. The property is currently owned by the City and used as a public park and outdoor recreation area. The site includes portions of Havermale Island, Snxw? Meme Island and areas on the north and south banks of the Spokane River (Vicinity Map, Figure 1).

Development in the Park area began in the late 1870s. The falls were the source of early power for industries in the city, then known as Spokane Falls. Factories, mills (flour and lumber) and various commercial, industrial and railroad properties near the project site were constructed in the 1880s to harness the power of the falls.

Development and building density on Havermale Island and the North Bank started in the late 1800's and occurred until about 1910. From 1910 through 1970, the building density in these areas remained similar, though the occupants of some buildings changed. By 1929, the area currently occupied by the Park was almost completely developed with buildings and railroad infrastructure. Howard Street went through the Park from north to south and Havermale Avenue connected Howard Street to Washington Street on Havermale Island.

The North Bank of Riverfront Park was primarily occupied by multiple railroad lines running east/west across the site as far back as 1891 according to Sanborn maps. A small passenger depot was present in 1910 and was removed by 1950. According to Sanborn maps, the Van Water and Rogers Chemical warehouse was present on the east side of the North Bank from about 1950 and was vacated about 1968. A lumber yard was also present in the southeast portion of the North Bank in the early 1900's.

Mill activities utilized the channel between the South Bank and Havermale Island to transport logs down the river and store them for mill use. In a 1952 Sanborn map, an auto service station was present at the northeast corner of the intersection of Howard Street and Havermale Avenue and a laundry facility was present on the west side of Howard Street located on Snxw? Meme Island. A 1960 photograph shows that many of the buildings on Havermale Island had been demolished and parking areas occupied most of the island. By 1970, a railroad depot was located on Havermale Island. The City acquired the railroad properties in the Park in 1972. The railroad yards and industrial structures on Havermale Island were removed by 1973, according to documents from the Spokane Public Library's Northwest Room.

Riverfront Park was constructed to host Expo '74. Construction for Expo '74 began in 1973 and the existing structures on the islands, North Bank and South Bank were demolished except for the clock tower on Havermale Island. Plans for Expo '74 called for a radical alteration of the Park, including site elevations (Youngs 1996). Large amounts of fill (including topsoil) were brought in to grade the Park and according to one source (Youngs 1996), at least 200,000 cubic yards (CY) of fill were used in support of construction. It is not documented how much fill was used, but aerial photographs and Sanborn maps indicate that large portions of the Park were altered with fill.

Temporary buildings constructed for Expo '74 were demolished within about a year after Expo '74. Relatively few changes were made to the Park between removal of the temporary buildings from Expo '74 and 2016, except for the removal of almost 17 acres of asphalt, concrete and pavement that covered the Park at the time of Expo '74. The former Van Water and Rogers Chemical warehouse on the east side of the North Bank was eventually converted to a maintenance shop for Riverfront Park.

2.2. Previous Investigations and Reports

GeoEngineers has conducted environmental and geotechnical sampling at the site in support of redevelopment activities. Reports documenting previous investigations and soil characterization include:

- Access Road from Post Street to the Sister Cities Garden (GeoEngineers 2016a);

- Ice Ribbon (GeoEngineers 2016b);
- Loeff Carrousel (GeoEngineers 2016c);
- North Bank (GeoEngineers 2016e);
- Canada Island (GeoEngineers 2016e);
- Central Green (GeoEngineers 2016e);
- Theme Stream (GeoEngineers 2016e);
- 2016 and 2017 Soil Management Report (GeoEngineers 2018a);
- US Pavilion (GeoEngineers 2018b);
- 2018 Soil Management Report (GeoEngineers 2019b); and
- 2019 Riverfront Park Soil Management report (GeoEngineers 2020).

Soil sample locations and laboratory analytical results for past work are provided in the above referenced reports.

3.0 SUMMARY OF 2020 EARTH MOVING ACTIVITIES AND ENVIRONMENTAL SAMPLING

In 2020, revitalization construction took place primarily on the North Bank and west Havermale Island. The following sections describe earthwork activities and soil sampling conducted in support of the construction projects. Results are described as follows:

- Contaminated – concentrations for one or more COCs are greater than MTCA Method A cleanup levels
- Impacted – concentrations for one or more COCs are less than MTCA Method A cleanup levels, but are greater than the laboratory reporting limits. For metals, concentrations are less than MTCA Method A cleanup levels, but more than twice the background concentrations.
- Clean – concentrations for COCs are less than laboratory reporting limits. For metals, concentrations are less than twice the background concentrations.

Analytical reports and a data validation report for the soil samples collected are provided in Appendix A.

3.1. North Bank

Construction activities in 2020 for the North Bank generally included removal of petroleum contaminated soil (PCS), removal of the former maintenance building and construction of a parking lot, new maintenance building and new playground with various features. Soil samples were collected when site grading was near completion to characterize soil left in place before it was covered with soil or park infrastructure in accordance with the soil management plan (GeoEngineers 2017). Samples were field screened and if field screening indicated the presence of petroleum contamination, the soil sample was analyzed for petroleum contamination. Characterization samples were generally analyzed for metals and PAHs.

3.1.1. PCS Excavation

Starting on March 2, 2020, T. LaRiviere began excavating known PCS from the North Bank using a Caterpillar 345C excavator. The PCS had been partially excavated in March 2017 but the extents of the

PCS had not been fully defined or removed because the area was needed to construct a temporary soil stockpile (GeoEngineers 2018a). Samples RFPNB-1C through RFPNB-6C were collected at the extent of the excavation in 2017.

The southern extent of the previous excavation was located using GPS coordinates obtained in 2017. T. LaRiviere then excavated soil and stockpiled it on site. Field screening of the soil was conducted to guide the excavation and characterization samples were collected at the excavation limits (RFPNB-7C through RFPNB-11C). Analytical samples were submitted on an accelerated turn-around time and if petroleum concentrations were greater than the MTCA Method A Cleanup Level, additional soil was excavated from the sample location. PCS was excavated from the area down to bedrock.

As the excavation progressed west, shallow perched groundwater was encountered on the bedrock surface. The water was about 6 to 12 inches deep over the irregular bedrock surface. An oily sheen was observed on the water and over the bedrock surface. T. LaRiviere used the Caterpillar 345C excavator to rip through the bedrock and remove the oil coated rocks. The oil appeared to be very dense and resembled Bunker C oil. The excavator continued vertically until multiple scrapes with the bucket removed little fractured rock and further vertical excavation using the excavator was not practicable.

Analytical results for the characterization samples are summarized in Table 1. Laboratory analytical reports are provided in Appendix A and the excavation extents are shown on North Bank Sample Locations, Figure 2. Approximately 820 tons of PCS were removed from the North Bank. Disposal tickets for the PCS are included in Appendix B.

3.1.2. Removal of Former Maintenance Building

After removal of the former maintenance building, soil under the building was sampled to evaluate it for reuse or offsite disposal. Soil samples from locations RFPMB-1, RFPMB-2 and RFPMB-3 were collected at various depths to characterize soil previously under the maintenance building. The soil was removed as part of site grading activities to level out the area and accommodate construction of a parking lot.

Analytical results indicated the lead concentration at location RFPMB-1 was greater than 1,000 milligrams per kilogram (mg/kg) from about 0 to 1 foot below ground surface (bgs). On March 18, 2020, T. LaRiviere excavated soil from this location and stockpiled it at the site pending additional analysis to assist with off-site disposal. Samples RFPMB-1A, RFPMB-1B, RFPMB-1C and RFPMB-1D were collected from the excavation sidewalls from 0 to 1 foot bgs. Lead concentrations greater than 1,000 mg/kg could designate as dangerous waste in Washington unless further analysis did not exhibit characteristics of dangerous waste. Therefore, additional analysis was conducted for sample RFPNB-MB1 (Toxicity Characteristic Leaching Procedure [TCLP] for lead and Bioassay); results indicated the soil did not designate as a state regulated dangerous waste. Therefore, approximately 66 tons of soil was allowed to be hauled to and disposed at Waste Management's Graham Road Landfill (Graham Road). The remaining soil from beneath the maintenance building as represented by RFPMB-1A, RFPMB-1B, RFPMB-1C and RFPMB-1D was added to a soil stockpile and used for general grading at the North Bank. Disposal tickets for the lead contaminated soil under the former maintenance building are included in Appendix C.

3.1.3. North Bank Characterization Samples

On April 24 and 28, 2020, characterization samples RFPNB-12C through RFPNB-22C were collected to characterize soil left in place at the park. Analysis of RFPNB-13C and RFPNB-22C indicated the lead

concentrations in soil were 3,600 mg/kg and 6,500 mg/kg respectively. These samples were submitted on a standard turnaround time and by the time the analytical results were available, soil near RFPNB-22C had been moved and added to the soil stockpile for the North Bank. A composite sample of the stockpile collected on May 15, 2020 (RFPNB-SP1) indicated that the lead was greater than the cleanup level, but it was less than 1,000 mg/kg, which meant the stockpile was not considered a dangerous waste in the state of Washington. Soil from the stockpile was used for grading during construction of the North Bank. A majority of the soil used for grading was covered with an impermeable surface or at least 12 inches of clean imported soil before it was vegetated in accordance with the soil management plan (GeoEngineers 2017). The remaining areas will be covered with 12 inches of clean imported soil in the spring of 2021.

On April 25 and May 5, 2020, soil samples were collected from locations RFPNB-28C and RFPNB-29C and RFPNB-40C. Soil samples were analyzed to evaluate if contaminated soil was present in the unlined stormwater swales. Analysis of these samples indicated COCs were less than the MTCA Method A cleanup levels and the soil was left in place.

On May 5, 2020, T. LaRiviere excavated soil represented by location RFPNB-13C. Between May 5, 2020 and May 26, 2020, T. LaRiviere excavated additional soil from the area in an iterative process. Soil samples were submitted on an expedited turn-around time and if analytical results indicated lead concentrations were greater than the MTCA Method A cleanup Level of 250 mg/kg, additional soil was removed (RFPNB-24C, RFPNB-26C, RFPNB-27C, RFPNB-30C and RFPNB-38C). Location RFPNB-13C was located within the extents of an unlined stormwater swale and therefore soil with COC concentrations greater than the MTCA Method A cleanup level were removed from the swale footprint. Soil samples representing soil at the extents of the excavation include locations RFPNB-23C, RFPNB-25C, RFPNB-31C, RFPNB-32C and RFPNB-39C. TCLP and bioassay analysis was conducted on sample RFPNB-13C to evaluate if the soil designated as a hazardous waste. TCLP analysis and the bioassay testing indicated the soil did not designate as hazardous waste and approximately 237 tons of soil from this location was hauled and disposed at Graham Road. Disposal tickets for the lead contaminated soil located around original characterization sample RFPNB-13C are in Appendix C.

On May 12, 2020, soil samples RFPNB-33C, RFPNB-34C, RFPNB-35C, RFPNB-36C and RFPNB-37C were collected from the excavation extents where RFPNB-22C was collected. Chemical analysis indicated that lead concentrations were less than 1,000 mg/kg in these samples.

On June 29, 2020, samples RFPNB-41C, RFPNB-42C and RFPNB-43C were collected to characterize soil left in place after site grading activities were near completion.

Analytical results for the soil samples collected from the North Bank are shown on Table 1. North Bank sample locations are shown on Figure 2. Laboratory analytical reports are provided in Appendix A. In general, lead cadmium, arsenic and PAHs were present at concentrations greater than the cleanup level in soil left in place at the North Bank except in the stormwater swale areas.

3.2. Havermale Island

Havermale Island activities included construction of the west Havermale playground and Theme Stream area. On April 14, 2020, samples WH-1C through WH-8C were collected to characterize soil left in place in the area when site grading was near completion and before placement of cover soil and impermeable surface (asphalt and concrete). Analytical results for the samples collected from West Havermale are

provided on Table 2. West Havermale sample locations are shown on Figure 3. Three locations had PAHs greater than the cleanup level and one location (WH-7C) also had lead greater than the MTCA Method A cleanup level.

4.0 SUMMARY

In 2020, construction projects at the Park occurred at the North Bank and Havermale Island. Approximately 820 tons of PCS and 303 tons of soil contaminated with elevated lead concentrations were removed from the site.

Confirmation soil samples collected in designated stormwater swale areas did not contain concentrations of COCs greater than MTCA Method A cleanup levels.

Soil with COCs greater than the MTCA Method A cleanup levels at the North Bank and west Havermale Island was covered with concrete, asphalt or at least 12 inches of imported soil in general accordance with the project soil management plan. Characterization samples of soil left in place were collected and analytical results are summarized in Tables 2 and 3. A geographic information system (GIS) database has been developed for this project to document soil samples collected during construction activities. The database was developed by GeoEngineers and can be utilized by the city to identify contaminated soil left in place at Riverfront Park in the future. The North Bank and west Havermale Island construction projects are the last construction projects anticipated under the \$64 million bond. Major construction projects at the park are not anticipated after these projects are completed.

5.0 REFERENCES

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Table 1
North Bank Soil Chemical Analytical Data - TPH, Metals, and PAHs¹
 Riverfront Park
 Spokane, Washington

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPMB-1A(0-1) 3/18/2020 0 - 1 ft	RFPMB-1B(0-1) 3/18/2020 0 - 1 ft	RFPMB-1C(0-1) 3/18/2020 0 - 1 ft	RFPMB-1D(0-1) 3/18/2020 0 - 1 ft	RFPMB-1(0-1) 2/28/2020 0 - 1 ft	RFPMB-1(2-3) 2/28/2020 2 - 3 ft	RFPMB-2(0-1) 2/28/2020 0 - 1 ft	RFPMB-2(1-2) 2/28/2020 1 - 2 ft	RFPMB-3(0.5-1.5) 2/28/2020 0.5 - 1.5 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample
Fate	North Bank Construction Stockpile	North Bank Construction Stockpile	North Bank Construction Stockpile	North Bank Construction Stockpile	Graham Road	Left in Place	North Bank Construction Stockpile	North Bank Construction Stockpile	North Bank Construction Stockpile					
TPH ²	Diesel-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--	--
	Lube oil-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--	--
Metals ³	Arsenic	mg/Kg	9.34	20	--	--	--	--	15	5.9	6.1	7.8	3.9	
	Barium	mg/Kg	NE	NE	--	--	--	--	--	--	--	--	--	
	Cadmium	mg/Kg	0.7	2	0.68 J	0.94	1.7	0.69 J	2.8	0.23 J	0.23 J	0.10 J	0.067 J	
	Chromium	mg/Kg	17.8	2,000 ⁸	--	--	--	--	--	--	--	--	--	
	Lead	mg/Kg	14.9	250	120 J	580	390	220	1,300	140	42	12	11	
	Lead (TCLP)	mg/L	NE	5 ¹²	--	--	--	--	4.5	--	--	--	--	
	Mercury ⁷	ug/Kg	20	2,000	--	--	--	--	--	--	--	--	--	
	Selenium	mg/Kg	NE	NE	--	--	--	--	--	--	--	--	--	
Silver	mg/Kg	NE	NE	--	--	--	--	--	--	--	--	--		
PAHs ⁴	1-Methylnaphthalene	ug/Kg	NE	5,000 ⁹	--	--	--	--	18	11 U	30	11 U	10 U	
	2-Methylnaphthalene	ug/Kg	NE		--	--	--	--	24	11 U	39	11 U	10 U	
	Naphthalene	ug/Kg	NE		--	--	--	--	13	11 U	20	11 U	10 U	
	Acenaphthene	ug/Kg	NE	NE	--	--	--	--	2.9 J	11 U	4.5 J	11 U	10 U	
	Acenaphthylene	ug/Kg	NE	NE	--	--	--	--	5.7 J	11 U	12 U	11 U	10 U	
	Anthracene	ug/Kg	NE	NE	--	--	--	--	9.4 J	11 U	4.9 J	11 U	10 U	
	Benzo(a)anthracene	ug/Kg	NE	NE	--	--	--	--	38	9.3 J	14	11 U	10 U	
	Benzo(a)pyrene	ug/Kg	NE	100	--	--	--	--	40	9.7 J	16	11 U	10 U	
	Benzo(b)fluoranthene	ug/Kg	NE	NE	--	--	--	--	60	13	22	11 U	10 U	
	Benzo(g,h,i)perylene	ug/Kg	NE	NE	--	--	--	--	33	7.3 J	13	11 U	10 U	
	Benzo(k)fluoranthene	ug/Kg	NE	NE	--	--	--	--	19	5.4 J	8.8 J	11 U	10 U	
	Chrysene	ug/Kg	NE	NE	--	--	--	--	53	13	19	11 U	10 U	
Dibenzo(a,h)anthracene	ug/Kg	NE	NE	--	--	--	--	9.8 J	3.8 J	5.5 J	11 U	10 U		
Fluoranthene	ug/Kg	NE	NE	--	--	--	--	59	12	22	11 U	10 U		

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPMB-1A(0-1) 3/18/2020 0 - 1 ft	RFPMB-1B(0-1) 3/18/2020 0 - 1 ft	RFPMB-1C(0-1) 3/18/2020 0 - 1 ft	RFPMB-1D(0-1) 3/18/2020 0 - 1 ft	RFPMB-1(0-1) 2/28/2020 0 - 1 ft	RFPMB-1(2-3) 2/28/2020 2 - 3 ft	RFPMB-2(0-1) 2/28/2020 0 - 1 ft	RFPMB-2(1-2) 2/28/2020 1 - 2 ft	RFPMB-3(0.5-1.5) 2/28/2020 0.5 - 1.5 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample
Fate	North Bank Construction Stockpile	North Bank Construction Stockpile	North Bank Construction Stockpile	North Bank Construction Stockpile	Graham Road	Left in Place	North Bank Construction Stockpile	North Bank Construction Stockpile	North Bank Construction Stockpile					
	Fluorene	ug/Kg	NE	NE	--	--	--	--	--	2.4 J	11 U	12 U	11 U	10 U
	Indeno(1,2,3-c,d)pyrene	ug/Kg	NE	NE	--	--	--	--	--	25	6.0 J	10 J	11 U	10 U
	Phenanthrene	ug/Kg	NE	NE	--	--	--	--	--	39	4.7 J	28	11 U	10 U
	Pyrene	ug/Kg	NE	NE	--	--	--	--	--	67	18	24	11 U	10 U
	Total cPAH TEQ ⁵ (ND=0.5RL) ⁶	ug/Kg	NE	100	--	--	--	--	--	56	14	22	8 U	8 U

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPNB-7C(1.5-2) 3/3/2020 1.5 - 2 ft	RFPNB-8C(0.5-1) 3/3/2020 0.5 - 1 ft	RFPNB-9C(3-4) 3/3/2020 3 - 4 ft	RFPNB-10C(1.5-2) 3/3/2020 1.5 - 2 ft	RFPNB-11C(2-2.5) 3/3/2020 2 - 2.5 ft	RFPNB-12C (4-4.5) 4/24/2020 4 - 4.5 ft	RFPNB-13C (4-4.5) 4/24/2020 4 - 4.5 ft	RFPNB-14C (4-4.5) 4/24/2020 4 - 4.5 ft	RFPNB-15C(0-0.5) 4/28/2020 0 - 0.5 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample
				Fate	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Graham Road Landfill	Left in Place	Left in Place
TPH ²	Diesel-range hydrocarbons	mg/Kg	NE	2,000	100 J	39	11 U	130 J	230 J	-	-	-	-	-
	Lube oil-range hydrocarbons	mg/Kg	NE	2,000	1,100	170	6.5 J	1,200	710	-	-	-	-	-
Metals ³	Arsenic	mg/Kg	9.34	20	3.0	7.6	8.0	5.6	7.4	5.9 J	22	9.8	10	
	Barium	mg/Kg	NE	NE	-	-	-	-	-	39 J	140	44	78	
	Cadmium	mg/Kg	0.7	2	0.45 J	0.33 J	0.068 J	0.58 J	0.34 J	0.37 J	3.8 J	0.059 J	0.67 J	
	Chromium	mg/Kg	17.8	2,000 ⁸	-	-	-	-	-	6.9	6.7	8.2	11	
	Lead	mg/Kg	14.9	250	120	120	12	130	52	76	3,600	7.1	180 J	
	Lead (TCLP)	mg/L	NE	5 ¹²	-	-	-	-	-	-	3.2	-	-	
	Mercury ⁷	ug/Kg	20	2,000	-	-	-	-	-	55	1,900	50 U	150	
	Selenium	mg/Kg	NE	NE	-	-	-	-	-	3.7 U	22 U	3.9 U	20 U	
	Silver	mg/Kg	NE	NE	-	-	-	-	-	0.92 U	3.3 J	0.98 U	5.0 U	
PAHs ⁴	1-Methylnaphthalene	ug/Kg	NE	5,000 ⁹	130 J	110	11 U	93	9.0 J	10 U	17	9.8 U	2.7 J	
	2-Methylnaphthalene	ug/Kg	NE		170 J	130	11 U	120	12	10 U	25	9.8 U	4.2 J	
	Naphthalene	ug/Kg	NE		89 J	61	11 U	68	8.3 J	10 U	11	9.8 U	2.3 J	
	Acenaphthene	ug/Kg	NE	NE	220 U	3.8 J	11 U	16 J	5.8 J	10 U	4.9 J	9.8 U	10 U	
	Acenaphthylene	ug/Kg	NE	NE	220 U	5.4 J	11 U	17 J	3.7 J	10 U	12	9.8 U	5.8 J	
	Anthracene	ug/Kg	NE	NE	54 J	9.8 J	11 U	28	11	10 U	15	9.8 U	8.0 J	
	Benzo(a)anthracene	ug/Kg	NE	NE	130 J	26	11 U	93	18	4.9 J	73	9.8 U	33	
	Benzo(a)pyrene	ug/Kg	NE	100	150 J	25	11 U	98	27	5.3 J	88	9.8 U	39	
	Benzo(b)fluoranthene	ug/Kg	NE	NE	270	41	11 U	140	37	7.0 J	120	9.8 U	45	
	Benzo(g,h,i)perylene	ug/Kg	NE	NE	160 J	19	11 U	55	17	4.6 J	79	9.8 U	33	
	Benzo(k)fluoranthene	ug/Kg	NE	NE	110 J	14	11 U	55	11	3.4 J	45	9.8 U	20	
	Chrysene	ug/Kg	NE	NE	220	39	11 U	120	45	4.1 J	92	9.8 U	41	
	Dibenzo(a,h)anthracene	ug/Kg	NE	NE	75 J	8.0 J	11 U	20 J	7.7 J	10 U	19	9.8 U	8.2 J	
Fluoranthene	ug/Kg	NE	NE	190 J	37	11 U	140	36	6.2 J	140	9.8 U	57		

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval										
					RFPNB-7C(1.5-2)	RFPNB-8C(0.5-1)	RFPNB-9C(3-4)	RFPNB-10C(1.5-2)	RFPNB-11C(2-2.5)	RFPNB-12C (4-4.5)	RFPNB-13C (4-4.5)	RFPNB-14C (4-4.5)	RFPNB-15C(0-0.5)		
					3/3/2020 1.5 - 2 ft	3/3/2020 0.5 - 1 ft	3/3/2020 3 - 4 ft	3/3/2020 1.5 - 2 ft	3/3/2020 2 - 2.5 ft	4/24/2020 4 - 4.5 ft	4/24/2020 4 - 4.5 ft	4/24/2020 4 - 4.5 ft	4/28/2020 0 - 0.5 ft		
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	
Fate	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Graham Road Landfill	Left in Place	Left in Place						
	Fluorene	ug/Kg	NE	NE	220 U	5.2 J	11 U	10 J	5.1 J	10 U	4.1 J	9.8 U	2.2 J		
	Indeno(1,2,3-c,d)pyrene	ug/Kg	NE	NE	100 J	16	11 U	44	11	3.4 J	63	9.8 U	25		
	Phenanthrene	ug/Kg	NE	NE	210 J	92	11 U	150	32	10 U	73	9.8 U	23		
	Pyrene	ug/Kg	NE	NE	210 J	44	11 U	150	52	5.9 J	140	9.8 U	62		
	Total cPAH TEQ ⁵ (ND=0.5RL) ⁶	ug/Kg	NE	100	221	36	8 U	134	36	8	121	7 U	53		

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPNB-16C(0-0.5) 4/28/2020 0 - 0.5 ft	RFPNB-17C(0-0.5) 4/28/2020 0 - 0.5 ft	RFPNB-18C(0-0.5) 4/28/2020 0 - 0.5 ft	RFPNB-19C(0-0.5) 4/28/2020 0 - 0.5 ft	RFPNB-20C(0-0.5) 4/28/2020 0 - 0.5 ft	RFPNB-21C(0-0.5) 4/28/2020 0 - 0.5 ft	RFPNB-22C(0-0.5) 4/28/2020 0 - 0.5 ft	RFPNB-23C (7-7.5) 5/5/2020 7 - 7.5 ft	RFPNB-24C (4-4.5) 5/5/2020 4 - 4.5 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample
Fate	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	North Bank Construction Stockpile	Left in Place	Graham Road				
TPH ²	Diesel-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--	--
	Lube oil-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--	--
Metals ³	Arsenic	mg/Kg	9.34	20	20	11	10	3.4	7.4	9.5	44	5.1 U	6.8	
	Barium	mg/Kg	NE	NE	65	79	81	59	120	79	170	59	83	
	Cadmium	mg/Kg	0.7	2	0.28 J	0.95	1.4	0.21 J	1.3 J	1.0	5.6 J	0.24 ¹³ U	0.89	
	Chromium	mg/Kg	17.8	2,000 ⁸	9.8	12	23	6.7	11	12	8.3 J	1.1 J	4.8	
	Lead	mg/Kg	14.9	250	51	330	270	70	600	330	6,500	24	250	
	Lead (TCLP)	mg/L	NE	5 ¹²	--	--	--	--	--	--	--	--	--	--
	Mercury ⁷	ug/Kg	20	2,000	120	140	360	36 J	240	150	1,700	30 J	240	
	Selenium	mg/Kg	NE	NE	4.1 U	3.8 U	3.9 U	6.8 U	7.7 U	3.6 U	39 U	20 U	4.2 U	
	Silver	mg/Kg	NE	NE	0.14 J	0.98	0.68 J	1.7 U	1.1 J	0.65 J	6.8 J	5.1 U	0.52 J	
PAHs ⁴	1-Methylnaphthalene	ug/Kg	NE	5,000 ⁹	6.6 J	5.4 J	18	7.7 J	25 J	12	37	10 U	6.6 J	
	2-Methylnaphthalene	ug/Kg	NE		13	7.4 J	24	12 J	37 J	15	48	10 U	8.8 J	
	Naphthalene	ug/Kg	NE		6.9 J	3.8 J	14	6.6 J	19 J	9.8 J	23	10 U	4.3 J	
	Acenaphthene	ug/Kg	NE	NE	3.1 J	3.0 J	21	5.2 J	51 U	16	25	10 U	10 U	
	Acenaphthylene	ug/Kg	NE	NE	16	8.8 J	13	20 U	51 U	16	9.8 J	10 U	5.5 J	
	Anthracene	ug/Kg	NE	NE	19	9.3 J	58	11 J	23 J	48	56	2.5 J	7.3 J	
	Benzo(a)anthracene	ug/Kg	NE	NE	67	29	160	37	52	130	120	5.6 J	22	
	Benzo(a)pyrene	ug/Kg	NE	100	78	37	180	44	72	150	140	6.1 J	30	
	Benzo(b)fluoranthene	ug/Kg	NE	NE	130	50	220	64	97	200	180	8.3 J	44	
	Benzo(g,h,i)perylene	ug/Kg	NE	NE	63	25	70	24	51	59	52	5.3 J	26	
	Benzo(k)fluoranthene	ug/Kg	NE	NE	17	18	90	19 J	37 J	77	71	4.1 J	15	
	Chrysene	ug/Kg	NE	NE	85	36	180	81	90	150	150	5.5 J	30	
	Dibenzo(a,h)anthracene	ug/Kg	NE	NE	17	7.2 J	22	9.1 J	18 J	18	16	10 U	7.2 J	
Fluoranthene	ug/Kg	NE	NE	91	44	290	66	83	250	260	10	36		

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPNB-16C(0-0.5)	RFPNB-17C(0-0.5)	RFPNB-18C(0-0.5)	RFPNB-19C(0-0.5)	RFPNB-20C(0-0.5)	RFPNB-21C(0-0.5)	RFPNB-22C(0-0.5)	RFPNB-23C (7-7.5)	RFPNB-24C (4-4.5)	
					4/28/2020 0 - 0.5 ft	4/28/2020 0 - 0.5 ft	4/28/2020 0 - 0.5 ft	4/28/2020 0 - 0.5 ft	4/28/2020 0 - 0.5 ft	4/28/2020 0 - 0.5 ft	4/28/2020 0 - 0.5 ft	5/5/2020 7 - 7.5 ft	5/5/2020 4 - 4.5 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample
Fate	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	North Bank Construction Stockpile	Left in Place	Graham Road					
	Fluorene	ug/Kg	NE	NE	7.0 J	9.9 U	14	4.8 J	51 U	13	14	10 U	10 U	
	Indeno(1,2,3-c,d)pyrene	ug/Kg	NE	NE	54	21	65	17 J	34 J	54	47	4.2 J	22	
	Phenanthrene	ug/Kg	NE	NE	30	19	190	41	60	160	230	5.1 J	19	
	Pyrene	ug/Kg	NE	NE	110	48	340	86	110	290	300	9.2 J	38	
	Total cPAH TEQ ⁵ (ND=0.5RL) ⁶	ug/Kg	NE	100	107	50	238	59	97	199	185	9	41	

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPNB-25C (3.5-4) 5/5/2020 3.5 - 4 ft	RFPNB-26C (4-4.5) 5/5/2020 4 - 4.5 ft	RFPNB-27C (4-4.5) 5/5/2020 4 - 4.5 ft	RFPNB-28C (3-3.5) 5/5/2020 3 - 3.5 ft	RFPNB-29C (3-3.5) 5/5/2020 3 - 3.5 ft	RFPNB-30C (4.5-5) 5/12/2020 4.5 - 5 ft	RFPNB-31C (4.5-5) 5/12/2020 4.5 - 5 ft	RFPNB-32C (4.5-5) 5/12/2020 4.5 - 5 ft	RFPNB-33C (1-1.5) 5/12/2020 1 - 1.5 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample
					Fate	Left in Place	Graham Road	Graham Road	Left in Place	Left in Place	Graham Road	Left in Place	Left in Place	Left in Place
TPH ²	Diesel-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--	--
	Lube oil-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--	--
Metals ³	Arsenic	mg/Kg	9.34	20	3.0	4.2	14	4.5	5.6	9.5	1.4	0.52 J	9.5	
	Barium	mg/Kg	NE	NE	69	75	120	33	57	100 J	58	58	100	
	Cadmium	mg/Kg	0.7	2	0.14 J	0.57 J	4.3 J	0.064 J	0.10 J	1.0 J	0.22 J	0.12 J	0.72 J	
	Chromium	mg/Kg	17.8	2,000 ⁸	2.7	3.0	9.6 J	7.1	8.5	7.4 J	0.25 J	0.17 J	9.8	
	Lead	mg/Kg	14.9	250	25	180	5,000	7.4	13	1,400 J	3.3	7.0	330	
	Lead (TCLP)	mg/L	NE	5 ¹²	--	--	0.5	--	--	--	--	--	--	
	Mercury ⁷	ug/Kg	20	2,000	290	260	320	9.5 J	13 J	140	20 J	36 J	200	
	Selenium	mg/Kg	NE	NE	4.2 U	4.3 U	41 U	4.0 U	3.8 U	20 U	4.2 U	4.1 U	4.2 U	
	Silver	mg/Kg	NE	NE	0.13 J	0.34 J	6.0 J	1.0 U	0.96 U	5.0 U	1.0 U	1.0 U	1.1 U	
PAHs ⁴	1-Methylnaphthalene	ug/Kg	NE	5,000 ⁹	11 U	4.7 J	5.1 J	10 U	6.1 J	3.8 J	10 U	10 U	50 U	
	2-Methylnaphthalene	ug/Kg	NE		3.4 J	6.5 J	6.4 J	10 U	9.0 J	4.6 J	10 U	10 U	50 U	
	Naphthalene	ug/Kg	NE		11 U	3.8 J	3.1 J	10 U	4.5 J	3.3 J	10 U	10 U	50 U	
	Acenaphthene	ug/Kg	NE	NE	11 U	4.7 J	10 U	10 U	10 U	10 U	10 U	10 U	50 U	
	Acenaphthylene	ug/Kg	NE	NE	11 U	8.2 J	4.4 J	10 U	10 U	7.5 J	10 U	10 U	17 J	
	Anthracene	ug/Kg	NE	NE	2.4 J	25	5.4 J	10 U	10 U	7.9 J	10 U	10 U	29 J	
	Benzo(a)anthracene	ug/Kg	NE	NE	6.0 J	110	16	10 U	2.5 J	28	11	3.7 J	89	
	Benzo(a)pyrene	ug/Kg	NE	100	6.9 J	120	23	10 U	10 U	43	14	10 U	120	
	Benzo(b)fluoranthene	ug/Kg	NE	NE	8.8 J	150	33	10 U	4.0 J	55	16	5.1 J	130	
	Benzo(g,h,i)perylene	ug/Kg	NE	NE	6.2 J	70	19	10 U	2.6 J	37	10	3.4 J	82	
	Benzo(k)fluoranthene	ug/Kg	NE	NE	4.4 J	52	12	10 U	10 U	18	6.7 J	10 U	48 J	
	Chrysene	ug/Kg	NE	NE	5.8 J	120	23	10 U	2.2 J	36	12	3.3 J	110	
	Dibenzo(a,h)anthracene	ug/Kg	NE	NE	11 U	21	5.3 J	10 U	10 U	9.1 J	10 U	10 U	23 J	
Fluoranthene	ug/Kg	NE	NE	9.0 J	200	26	10 U	3.5 J	41	22	6.4 J	160		

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPNB-25C (3.5-4)	RFPNB-26C (4-4.5)	RFPNB-27C (4-4.5)	RFPNB-28C (3-3.5)	RFPNB-29C (3-3.5)	RFPNB-30C (4.5-5)	RFPNB-31C (4.5-5)	RFPNB-32C (4.5-5)	RFPNB-33C (1-1.5)	
					5/5/2020 3.5 - 4 ft	5/5/2020 4 - 4.5 ft	5/5/2020 4 - 4.5 ft	5/5/2020 3 - 3.5 ft	5/5/2020 3 - 3.5 ft	5/12/2020 4.5 - 5 ft	5/12/2020 4.5 - 5 ft	5/12/2020 4.5 - 5 ft	5/12/2020 1 - 1.5 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample
Fate	Left in Place	Graham Road	Graham Road	Left in Place	Left in Place	Graham Road	Left in Place	Left in Place	Left in Place					
	Fluorene	ug/Kg	NE	NE	11 U	3.4 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U
	Indeno(1,2,3-c,d)pyrene	ug/Kg	NE	NE	4.8 J	67	15	10 U	10 U	29	8.2 J	10 U	10 U	59
	Phenanthrene	ug/Kg	NE	NE	11 U	57	13	10 U	10 U	18	7.2 J	10 U	10 U	86
	Pyrene	ug/Kg	NE	NE	9.5 J	190	27	10 U	10 U	45	21	6.0 J	10 U	170
	Total cPAH TEQ ⁵ (ND=0.5RL) ⁶	ug/Kg	NE	100	10	161	31	8 U	7	57	19	7	156	

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPNB-34C (1-1.5) 5/12/2020 1 - 1.5 ft	RFPNB-35C (1-1.5) 5/12/2020 1 - 1.5 ft	RFPNB-36C (3.5-4) 5/12/2020 3.5 - 4 ft	RFPNB-37C (3.5-4) 5/12/2020 3.5 - 4 ft	RFPNB-38C (4-4.5) 5/19/2020 4 - 4.5 ft	RFPNB-39C(4.5-5) 5/26/2020 4.5 - 5 ft	RFPNB-40C (7-8) 4/28/2020 7 - 8 ft	RFPNB-41C (0.5-1) 6/29/2020 0.5 - 1 ft	RFPNB-DUP1 6/29/2020 0.5 - 1 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Duplicate for RFPNB-41C
Fate	Left in Place	Left in Place	Left in Place	Left in Place	Graham Road	Left in Place	Left in Place	Left in Place	Left in Place					
TPH ²	Diesel-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--	--
	Lube oil-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--	--
Metals ³	Arsenic	mg/Kg	9.34	20	12	13	8.8	4.6	--	7.0	4.6	11	13	
	Barium	mg/Kg	NE	NE	110	78	75	63	--	--	35	61	64	
	Cadmium	mg/Kg	0.7	2	2.8	0.82	0.63 J	0.090 J	--	0.050 J	0.070 J	0.27 J	0.21 J	
	Chromium	mg/Kg	17.8	2,000 ⁸	11	8.6	7.0	8.8	--	--	8.9	8.2	9.2	
	Lead	mg/Kg	14.9	250	530	310	310	27	500	8.0	6.3	63 J	44 J	
	Lead (TCLP)	mg/L	NE	5 ¹²	--	--	--	--	--	--	--	--	--	
	Mercury ⁷	ug/Kg	20	2,000	240	120	140	120	--	--	50 UR	58	50 U	
	Selenium	mg/Kg	NE	NE	4.1 U	4.0 U	4.3 U	3.9 U	--	--	3.5 U	4.1 U	3.9 U	
	Silver	mg/Kg	NE	NE	0.39 J	0.99 U	1.1 U	0.99 U	--	--	0.88 U	0.13 J	0.11 J	
PAHs ⁴	1-Methylnaphthalene	ug/Kg	NE	5,000 ⁹	16	9.3 J	6.2 J	10 U	--	10 U	9.8 UR	3.3 J	4.6 J	
	2-Methylnaphthalene	ug/Kg	NE		19	12	8.3 J	10 U	--	10 U	9.8 UR	3.4 J	6.0 J	
	Naphthalene	ug/Kg	NE		18	7.2 J	5.3 J	10 U	--	10 U	9.8 UR	4.2 J	5.5 J	
	Acenaphthene	ug/Kg	NE	NE	32	4.9 J	11 U	10 U	--	10 U	9.8 UR	21	17	
	Acenaphthylene	ug/Kg	NE	NE	22	6.2 J	8.9 J	10 U	--	3.4 J	9.8 UR	14	16	
	Anthracene	ug/Kg	NE	NE	78	14	11	2.6 J	--	7.9 J	9.8 UR	44	43	
	Benzo(a)anthracene	ug/Kg	NE	NE	180	54	46	12	--	29	9.8 UR	130	140	
	Benzo(a)pyrene	ug/Kg	NE	100	130	66	56	15	--	28	9.8 UR	160	170	
	Benzo(b)fluoranthene	ug/Kg	NE	NE	220	86	72	16	--	31	9.8 UR	170	190	
	Benzo(g,h,i)perylene	ug/Kg	NE	NE	100	35	31	7.6 J	--	16	9.8 UR	100 J	69 J	
	Benzo(k)fluoranthene	ug/Kg	NE	NE	31	31	25	6.9 J	--	12	9.8 UR	59	68	
	Chrysene	ug/Kg	NE	NE	190	65	57	12	--	34	9.8 UR	150 J	160	
	Dibenzo(a,h)anthracene	ug/Kg	NE	NE	28	11	8.6 J	10 U	--	4.4 J	9.8 UR	25	19	
Fluoranthene	ug/Kg	NE	NE	360	90	74	18	--	59	9.8 UR	260	250		

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					RFPNB-34C (1-1.5) 5/12/2020 1 - 1.5 ft	RFPNB-35C (1-1.5) 5/12/2020 1 - 1.5 ft	RFPNB-36C (3.5-4) 5/12/2020 3.5 - 4 ft	RFPNB-37C (3.5-4) 5/12/2020 3.5 - 4 ft	RFPNB-38C (4-4.5) 5/19/2020 4 - 4.5 ft	RFPNB-39C(4.5-5) 5/26/2020 4.5 - 5 ft	RFPNB-40C (7-8) 4/28/2020 7 - 8 ft	RFPNB-41C (0.5-1) 6/29/2020 0.5 - 1 ft	RFPNB-DUP1 6/29/2020 0.5 - 1 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Duplicate for RFPNB-41C
Fate	Left in Place	Left in Place	Left in Place	Left in Place	Graham Road	Left in Place	Left in Place	Left in Place	Left in Place					
	Fluorene	ug/Kg	NE	NE	28	3.4 J	2.7 J	10 U	--	10 U	9.8 UR	15	13	
	Indeno(1,2,3-c,d)pyrene	ug/Kg	NE	NE	88	28	27	6.9 J	--	13	9.8 UR	79 J	60	
	Phenanthrene	ug/Kg	NE	NE	280	52	34	7.4 J	--	25	9.8 UR	160	130	
	Pyrene	ug/Kg	NE	NE	340	96	78	18	--	61	9.8 UR	280	280	
	Total cPAH TEQ ⁵ (ND=0.5RL) ⁶	ug/Kg	NE	100	187	88	74	20	--	37	7 UR	208	219	

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval				
					RFPNB-42C (0.5-1) 6/29/2020 0.5 - 1 ft	RFPNB-DUP2 6/29/2020 0.5 - 1 ft	RFPNB-43C (0.5-1) 6/29/2020 0.5 - 1 ft	RFPNB-DUP3 6/29/2020 0.5 - 1 ft	RFPNB-SP1 (0-0.5) 5/15/2020 0.0 - 0.5 ft
					Justification	Characterization Sample	Duplicate for RFPNB-42C	Characterization Sample	Duplicate for RFPNB-43C
Fate	Left in Place	Left in Place	Left in Place	Left in Place	Used as fill with the North Bank Site				
TPH ²	Diesel-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--
	Lube oil-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--
Metals ³	Arsenic	mg/Kg	9.34	20	6.1	4.6	3.9 J	5.9 J	12
	Barium	mg/Kg	NE	NE	46	55	68 J	98 J	--
	Cadmium	mg/Kg	0.7	2	0.22 J	0.29 J	0.47 J	0.66 J	1.4
	Chromium	mg/Kg	17.8	2,000 ⁸	11	12	1,100	1,300	--
	Lead	mg/Kg	14.9	250	25	32	56 J	82 J	530
	Lead (TCLP)	mg/L	NE	5 ¹²	--	--	--	--	--
	Mercury ⁷	ug/Kg	20	2,000	50 U	50 U	49 U	49 U	--
	Selenium	mg/Kg	NE	NE	3.9 U	4.0 U	3.7 U	8.1 U	--
	Silver	mg/Kg	NE	NE	0.98 U	1.0 U	0.18 J	0.24 J	--
PAHs ⁴	1-Methylnaphthalene	ug/Kg	NE	5,000 ⁹	50 U	51 U	20 U	49 U	--
	2-Methylnaphthalene	ug/Kg	NE		50 U	51 U	20 U	49 U	--
	Naphthalene	ug/Kg	NE		50 U	51 U	5.1 J	49 U	--
	Acenaphthene	ug/Kg	NE	NE	50 U	51 U	20 U	49 U	--
	Acenaphthylene	ug/Kg	NE	NE	50 U	51 U	48	24 J	--
	Anthracene	ug/Kg	NE	NE	50 U	51 U	39	33 J	--
	Benzo(a)anthracene	ug/Kg	NE	NE	50 U	51 U	90 J	31 J	--
	Benzo(a)pyrene	ug/Kg	NE	100	23 J	51 U	150 J	42 J	--
	Benzo(b)fluoranthene	ug/Kg	NE	NE	50 U	51 U	200 J	70 J	--
	Benzo(g,h,i)perylene	ug/Kg	NE	NE	38 J	33 J	120 J	55 J	--
	Benzo(k)fluoranthene	ug/Kg	NE	NE	50 U	51 U	60	23 J	--
	Chrysene	ug/Kg	NE	NE	50 U	51 U	110 J	42 J	--
	Dibenzo(a,h)anthracene	ug/Kg	NE	NE	50 U	51 U	32	49 U	--
Fluoranthene	ug/Kg	NE	NE	50 U	51 U	98 J	42 J	--	

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval				
					RFPNB-42C (0.5-1) 6/29/2020 0.5 - 1 ft	RFPNB-DUP2 6/29/2020 0.5 - 1 ft	RFPNB-43C (0.5-1) 6/29/2020 0.5 - 1 ft	RFPNB-DUP3 6/29/2020 0.5 - 1 ft	RFPNB-SP1 (0-0.5) 5/15/2020 0.0 - 0.5 ft
					Justification	Characterization Sample	Duplicate for RFPNB-42C	Characterization Sample	Duplicate for RFPNB-43C
Fate	Left in Place	Left in Place	Left in Place	Left in Place	Used as fill with the North Bank Site				
	Fluorene	ug/Kg	NE	NE	50 U	51 U	5.6 J	49 UJ	--
	Indeno(1,2,3-c,d)pyrene	ug/Kg	NE	NE	50 U	51 U	87 J	28 J	--
	Phenanthrene	ug/Kg	NE	NE	50 U	51 U	21	49 U	--
	Pyrene	ug/Kg	NE	NE	50 U	21 J	120 J	45 J	--
	Total cPAH TEQ ⁵ (ND=0.5RL) ⁶	ug/Kg	NE	100	36	39 U	198	60	--

Notes

¹Samples analyzed by TestAmerica Laboratories, Inc. located in Spokane Valley, Washington.

²Total Petroleum Hydrocarbons (TPH) analyzed using Method Northwest Method TPH-Dx.

³Metals analyzed using Environmental Protection Agency (EPA) Method 6010D.

⁴Polycyclic aromatic hydrocarbons analyzed using EPA Method 8270ESIM.

⁵Carcinogenic PAH (cPAH) toxic equivalency (TEQ) calculated using toxicity equivalency factors (TEF) from MTCA Table 708-2, based on methodology described in MTCA Cleanup Regulation Washington Administrative Code (WAC) 173-340-708.

⁶The TEQ reported was calculated using half the laboratory reporting limits for cPAHs less than reporting limits.

⁷Mercury analyzed using EPA Method 7471B.

⁸Chromium III cleanup level is 2,000 mg/kg. MTCA Method A cleanup level for Chromium VI is 19 mg/kg.

⁹Sum total value for naphthalene, 1-methyl naphthalene and 2-methyl naphthalene.

¹⁰Model Toxics Control Act (MTCA) Method A unrestricted land use cleanup levels (CUL).

¹¹Background level used for metals in soil is the Washington State Department of Ecology (Ecology) Natural Background 90th percentile value for the Spokane basin (Ecology 1994).

¹²RCRA maximum toxicity characteristic concentration

¹³Non-detected result is reported at method detection limit

mg/kg = milligrams per kilogram; mg/L = milligrams per liter; NE = not established; µg/kg = micrograms per kilogram;

J = estimated result; U = analyte was not detected above the reporting limit; R = rejected result.

Bold indicates analyte was detected.

Bold and gray shading indicates the analyte was detected above the MTCA Method A CUL.

Table 2

West Havermale Soil Chemical Analytical Data - TPH, Metals, and PAHs¹
 Riverfront Park
 Spokane, Washington

Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval								
					WH-1C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-2C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-3C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-4C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-5C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-6C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-7C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-8C(0-0.5) 4/14/2020 0 - 0.5 ft	
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	
					Fate	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	
TPH ²	Diesel-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--
	Lube oil-range hydrocarbons	mg/Kg	NE	2,000	--	--	--	--	--	--	--	--	--
Metals ³	Arsenic	mg/Kg	9.34	20	7.0	9.1	13	17	14	13	10	11	
	Barium	mg/Kg	NE	NE	34	52	82	87	55	66	87	74	
	Cadmium	mg/Kg	0.7	2	0.070 J	0.15 J	0.72 J	0.15 J	0.10 J	0.31 J	0.90 J	0.53 J	
	Chromium	mg/Kg	17.8	2,000 ⁸	7.5	8.8	9.2	12	11	9.2	11	9.4	
	Lead	mg/Kg	14.9	250	13	29	230	17	7.9	110	300	160	
	Lead (TCLP)	mg/L	NE	5 ¹²	--	--	--	--	--	--	--	--	
	Mercury ⁷	ug/Kg	20	2,000	14 J	32 J	230	11 J	46 U	82	230	220	
	Selenium	mg/Kg	NE	NE	4.3 U	4.2 U	4.4 U	3.9 U	4.2 U	4.5 U	8.8 U	4.1 U	
	Silver	mg/Kg	NE	NE	1.1 U	1.0 U	1.1 U	0.97 U	1.1 U	1.1 U	2.2 U	1.0 U	
PAHs ⁴	1-Methylnaphthalene	ug/Kg	NE	5,000 ⁹	10 U	9.7 U	8.8 J	10 U	10 U	5.8 J	19 J	17	
	2-Methylnaphthalene	ug/Kg	NE		10 U	9.7 U	13 J	10 U	10 U	9.6 J	38	16	
	Naphthalene	ug/Kg	NE		10 U	9.7 U	10 J	10 U	10 U	6.1 J	22	13	
	Acenaphthene	ug/Kg	NE	NE	10 U	9.7 U	22	10 U	10 U	3.0 J	25	34	
	Acenaphthylene	ug/Kg	NE	NE	5.6 J	4.1 J	61	10 U	10 U	12	37	90	
	Anthracene	ug/Kg	NE	NE	11	5.8 J	110	2.3 J	2.2 J	18	86	180	
	Benzo(a)anthracene	ug/Kg	NE	NE	30	18	330	5.7 J	5.9 J	38	200	480	
	Benzo(a)pyrene	ug/Kg	NE	100	53	22	340	6.7 J	7.0 J	50	240	490	
	Benzo(b)fluoranthene	ug/Kg	NE	NE	70 J	28	420	8.3 J	8.3 J	67	300	620	
	Benzo(g,h,i)perylene	ug/Kg	NE	NE	37	21 U	200	10 U	10 U	39	140	230	
	Benzo(k)fluoranthene	ug/Kg	NE	NE	26	11	150	4.1 J	4.5 J	23	120	240	
	Chrysene	ug/Kg	NE	NE	44 J	22	360	5.2 J	6.3 J	51	240	490	
Dibenzo(a,h)anthracene	ug/Kg	NE	NE	11	5.1 J	58	10 U	10 U	9.8 J	37	71		

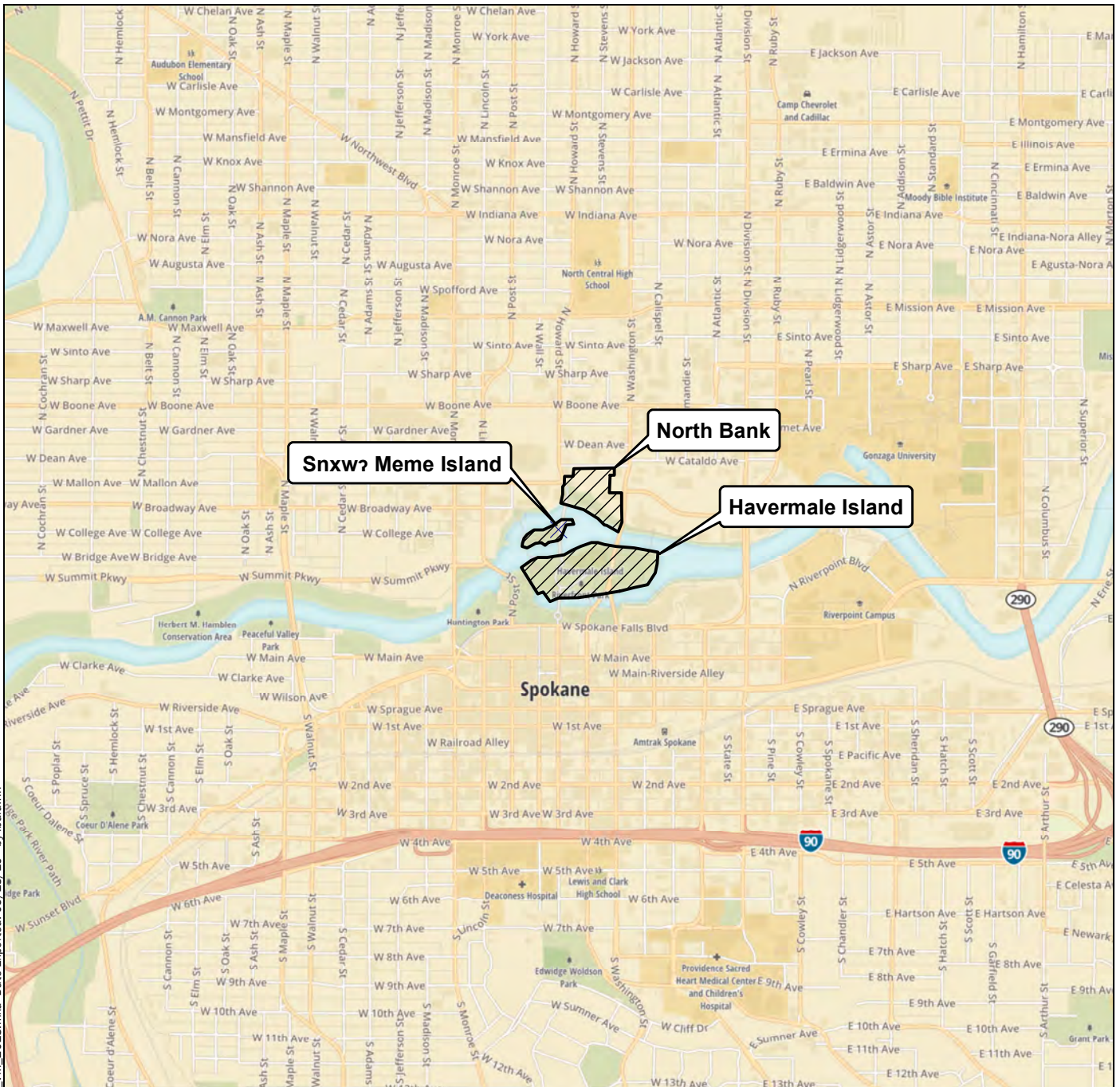
Analyte Group	Analyte	Units	Spokane Basin Background Metal Concentration ¹¹	MTCA Method A Cleanup Level ¹⁰	Location ID, Date, and Depth Interval									
					WH-1C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-2C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-3C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-4C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-5C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-6C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-7C(0-0.5) 4/14/2020 0 - 0.5 ft	WH-8C(0-0.5) 4/14/2020 0 - 0.5 ft		
					Justification	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample	Characterization Sample
				Fate	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place	Left in Place
	Fluoranthene	ug/Kg	NE	NE	24	31	600	10 U	10 U	62	400	840		
	Fluorene	ug/Kg	NE	NE	10 U	9.7 U	18 J	10 U	10 U	2.3 J	22	42		
	Indeno(1,2,3-c,d)pyrene	ug/Kg	NE	NE	30	15	180	3.3 J	3.8 J	30	120	210		
	Phenanthrene	ug/Kg	NE	NE	8.9 J	14	310	4.1 J	4.8 J	34	280	480		
	Pyrene	ug/Kg	NE	NE	32	32	600	10 U	11 U	64	420	870		
	Total cPAH TEQ ⁵ (ND=0.5RL) ⁶	ug/Kg	NE	100	70	30	457	9	10	67	320	657		

Notes

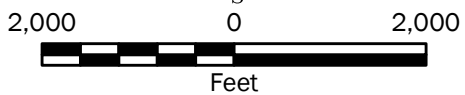
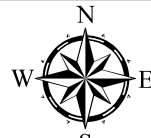
- ¹Samples analyzed by TestAmerica Laboratories, Inc. located in Spokane Valley, Washington.
 - ²Total Petroleum Hydrocarbons (TPH) analyzed using Method Northwest Method TPH-Dx.
 - ³Metals analyzed using Environmental Protection Agency (EPA) Method 6010D.
 - ⁴Polycyclic aromatic hydrocarbons analyzed using EPA Method 8270ESIM.
 - ⁵Carcinogenic PAH (cPAH) toxic equivalency (TEQ) calculated using toxicity equivalency factors (TEF) from MTCA Table 708-2, based on methodology described in MTCA Cleanup Regulation Washington Administrative Code (WAC) 173-340-708.
 - ⁶The TEQ reported was calculated using half the laboratory reporting limits for cPAHs less than reporting limits.
 - ⁷Mercury analyzed using EPA Method 7471B.
 - ⁸Chromium III cleanup level is 2,000 mg/kg. MTCA Method A cleanup level for Chromium VI is 19 mg/kg.
 - ⁹Sum total value for naphthalene, 1-methyl naphthalene and 2-methyl naphthalene.
 - ¹⁰Model Toxics Control Act (MTCA) Method A unrestricted land use cleanup levels (CUL).
 - ¹¹Background level used for metals in soil is the Washington State Department of Ecology (Ecology) Natural Background 90th percentile value for the Spokane basin (Ecology 1994).
 - ¹²RCRA maximum toxicity characteristic concentration
 - ¹³Non-detected result is reported at method detection limit
- mg/kg = milligrams per kilogram; mg/L = milligrams per liter; NE = not established; ug/kg = micrograms per kilogram;
 J = estimated result; U = analyte was not detected above the reporting limit; R = rejected result.

Bold indicates analyte was detected.

Bold and gray shading indicates the analyte was detected above the MTCA Method A CUL.



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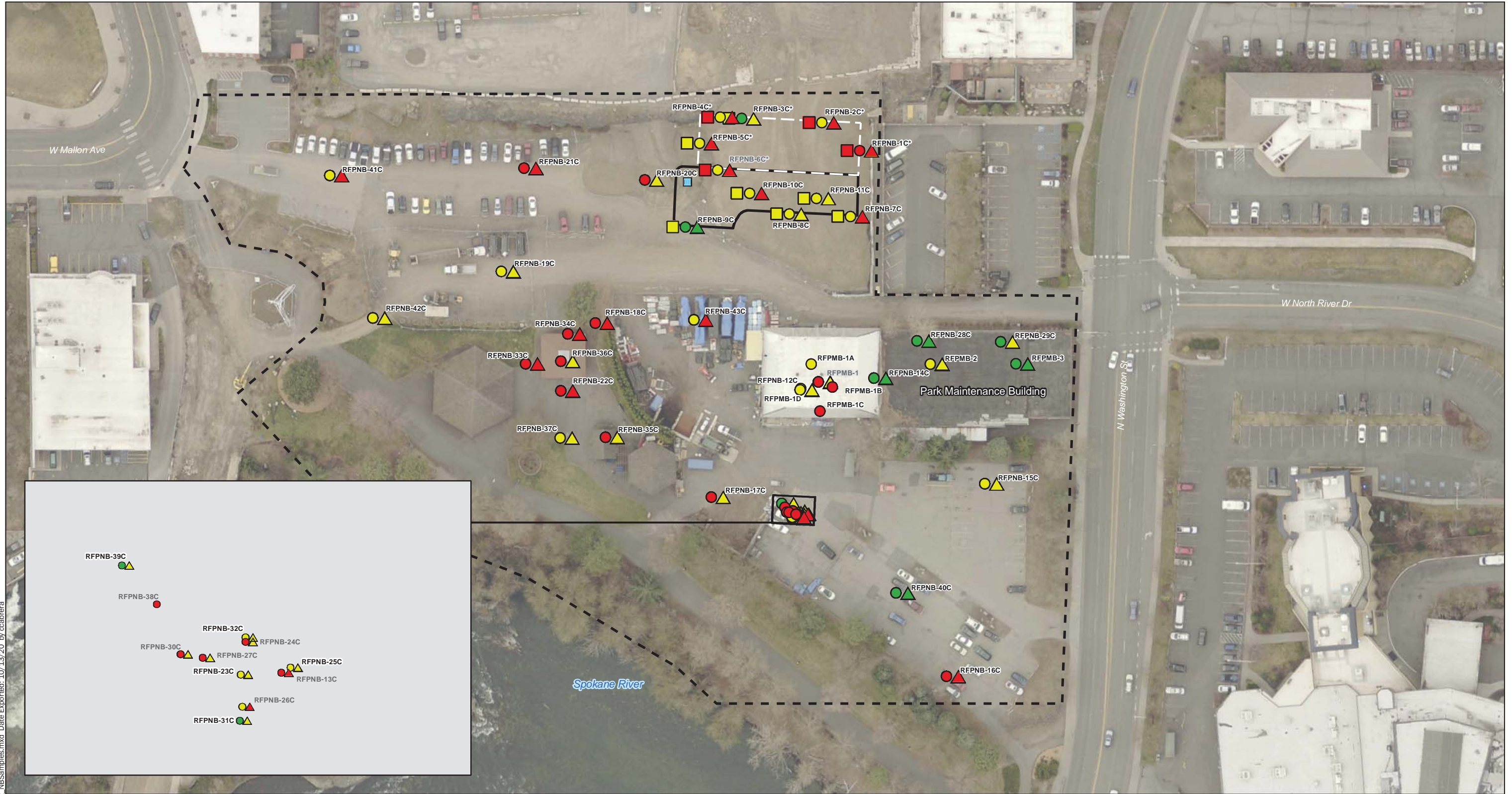


Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2016
 Projection: NAD 1983 UTM Zone 11N

Vicinity Map	
Riverfront Park Spokane, Washington	
	Figure 1



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Notes:
 1. The locations of all features shown are approximate.
 2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
 3. * = 2017 Sample

Data Source: ESRI World Imagery
 Projection: NAD 1983 UTM Zone 11N

- Legend**
- Contaminated - Concentration greater than MTCA Method A Cleanup Level for one or more COC analyzed
 - Impacted - Concentration less than MTCA Method A Cleanup Levels and greater than laboratory reporting limits or twice the available background metals concentration for each COC analyzed
 - Clean - Concentration less than laboratory reporting limits or less than twice the available background metals concentrations for each COC analyzed

- TPH
- Metals
- PAHs
- Approximate Limits of Remedial Excavation (2017)
- Approximate Limits of Remedial Excavation (2020)
- North Bank Area
- Oily Water
- RFPNB-13C = Sample Hauled Off Site

60 0 60
Feet

North Bank Sample Locations

Riverfront Park
Spokane, Washington

Figure 2



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Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

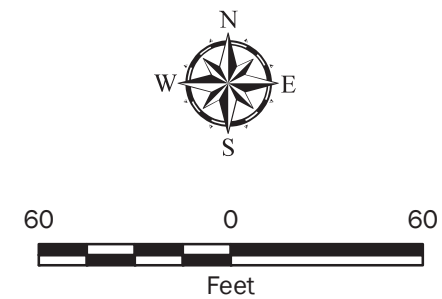
Data Source: ESRI World Imagery

Projection: NAD 1983 UTM Zone 11N

Legend

- Contaminated - Concentration greater than MTCA Method A Cleanup Level for one or more COC analyzed
- Impacted - Concentration less than MTCA Method A Cleanup Levels and greater than laboratory reporting limits or twice the available background metals concentration for each COC analyzed
- Clean - Concentration less than laboratory reporting limits or less than twice the available background metals concentrations for each COC analyzed

- Metals
- ▲ PAHs



West Havermale Island Sample Locations	
Riverfront Park Spokane, Washington	
	Figure 3

APPENDIX A
Analytical Laboratory Reports and Data Validation

Project: City of Spokane –Riverfront Park
February, March, April, May, and June 2020 Soil Samples

GEI File No: 00110-148-14

Date: July 27, 2020

This report documents the results of a United States Environmental Protection Agency (EPA)-defined Stage 2A data validation (EPA Document 540-R-08-005; EPA 2009) of analytical data from the analyses of soil samples collected as part of the February, March, April, May, and June 2020 sampling events, and the associated laboratory quality control (QC) samples. The samples were obtained from the Riverfront Park site located in Spokane, Washington.

OBJECTIVE AND QUALITY CONTROL ELEMENTS

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the EPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (EPA 2017a) and Inorganic Superfund Methods Data Review (EPA 2017b) (National Functional Guidelines) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Quality Assurance Project Plan (QAPP), Appendix A of the Work Plan, Riverfront Park Geotechnical and Environmental Services (GeoEngineers 2016), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method and Rinsate Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory/Field Duplicates
- Miscellaneous

VALIDATED SAMPLE DELIVERY GROUPS

This data validation included review of the sample delivery groups (SDGs) listed below in Table 1.

TABLE 1: SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
590-12823-1	RFPMB-1(0-1), RFPMB-1(2-3), RFPMB-2(0-1), RFPMB-2(1-2), RFPMB-3(0.5-1.5)
590-12823-2	RFPMB-1(0-1)
590-12833-1	RFPNB-7C(1.5-2), RFPNB-8C(0.5-1), RFPNB-9C(3-4), RFPNB-10C(1.5-2), RFPNB-11C(2-2.5)
590-12833-2	
590-12931-1	RFPMB-1A(0-1), RFPMB-1B(0-1), RFPMB-1C(0-1), RFPMB-1D(0-1)
590-13048-1	WH-1C(0-0.5), WH-2C(0-0.5), WH-3C(0-0.5), WH-4C(0-0.5), WH-5C(0-0.5), WH-6C(0-0.5), WH-7C(0-0.5), WH-8C(0-0.5)
590-13087-1	RFPNB-12C (4-4.5), RFPNB-13C (4-4.5), RFPNB-14C (4-4.5)
590-13087-2	RFPNB-13C (4-4.5)
590-13092-1	RFPNB-15C(0-0.5), RFPNB-16C(0-0.5), RFPNB-17C(0-0.5), RFPNB-18C(0-0.5), RFPNB-19C(0-0.5), RFPNB-20C(0-0.5), RFPNB-21C(0-0.5), RFPNB-22C(0-0.5)
590-13122-1	RFPNB-23C (7-7.5), RFPNB-24C (4-4.5), RFPNB-25C (3.5-4), RFPNB-26C (4-4.5), RFPNB-27C (4-4.5), RFPNB-28C (3-3.5), RFPNB-29C (3-3.5)
590-13122-3	RFPNB-27C (4-4.5)
590-13171-1	RFPNB-33C (1-1.5), RFPNB-34C (1-1.5), RFPNB-35C (1-1.5), RFPNB-36C (3.5-4), RFPNB-37C (3.5-4)
590-13171-2	RFPNB-30C (4.5-5), RFPNB-31C (4.5-5), RFPNB-32C (4.5-5), RFPNB-33C (1-1.5), RFPNB-34C (1-1.5), RFPNB-35C (1-1.5), RFPNB-36C (3.5-4), RFPNB-37C (3.5-4)
590-13195-1	RFPNB-SP1(0-0.5)
590-13217-1	RFPNB-38C (4-4.5)
590-13239-1	RFPNB-39C(4.5-5)
590-13239-2	
590-13394-1	RFPNB-40C (7-8)
590-13423-1	RFPNB-41C (0.5-1), RFPNB-DUP1, RFPNB-42C (0.5-1), RFPNB-DUP2, RFPNB-43C (0.5-1), RFPNB-DUP3, RFPNB-Rinsate

CHEMICAL ANALYSIS PERFORMED

Eurofins TestAmerica Laboratories, Inc. (TestAmerica), located in Spokane, Washington, performed laboratory analyses on the samples using one or more of the following methods:

- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx;
- Polycyclic Aromatic Hydrocarbons (PAHs) by Method SW8270E-SIM;
- Total Metals by Methods EPA6010D/EPA7470A/EPA7471B; and
- Toxicity Characteristic Leaching Procedure (TCLP) for Lead by Method EPA6010D

DATA VALIDATION SUMMARY

The results for each of the QC elements are summarized below.

Data Package Completeness

TestAmerica provided the required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the relevant laboratory case narrative.

Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were accurate and complete when submitted to the laboratory, with the following exceptions:

SDG 590-12823-2: The laboratory noted that TCLP analysis was requested for Sample RFPMB-1(0-1) on 3/18/2020, which was not originally requested on the COC.

SDG 590-13087-2: The laboratory noted that TCLP analysis was requested for Sample RFPNB-13C (4-4.5) on 5/4/2020, which was not originally requested on the COC.

SDG 590-13122-3: The laboratory noted that TCLP analysis was requested for Sample RFPNB-27C (4-4.5) on 5/28/2020, which was not originally requested on the COC.

SDG 590-13239-2: The laboratory noted that metals and PAH analyses were requested for Sample RFPNB-39C(4.5-5) on 5/28/2020, which were not originally requested on the COC.

Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for each analysis, with the exceptions noted below. The sample coolers arrived at the laboratory within the appropriate temperatures of between 2 and 6 degrees Celsius, with the exceptions noted below.

SDGs 590-12823-1 and 590-12823-2: The sample cooler temperature recorded at the laboratory was 11.7 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory the same day they were collected, and the cooling process had begun, this temperature should likely not affect the sample analytical results.

SDG 590-12931-1: The sample cooler temperature recorded at the laboratory was 1.1 degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDGs 590-13087-1 and 590-13087-2: The sample cooler temperature recorded at the laboratory was 9.9 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory the same day they were collected, and the cooling process had begun, this temperature should likely not affect the sample analytical results.

SDG 590-130921-1: The sample cooler temperature recorded at the laboratory was 1.6 degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDGs 590-13122-1 and 590-13122-3: The sample cooler temperature recorded at the laboratory was 14.4 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory the same day they were collected, and the cooling process had begun, this temperature should likely not affect the sample analytical results.

SDGs 590-13171-1 and 590-13171-2: The sample cooler temperature recorded at the laboratory was 20.8 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory the same day they were collected, and the cooling process had begun, this temperature should likely not affect the sample analytical results.

SDG 590-13195-1: The sample cooler temperature recorded at the laboratory was 6.5 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory the same day they were collected, and the cooling process had begun, this temperature should likely not affect the sample analytical results.

SDG 590-13517-1: The sample cooler temperature recorded at the laboratory was 14.1 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory the same day they were collected, and the cooling process had begun, this temperature should likely not affect the sample analytical results.

SDGs 590-13239-1 and 590-13239-2: The sample cooler temperature recorded at the laboratory was 1.8 degrees Celsius. It was determined through professional judgment that since the samples were not frozen, this temperature should not affect the sample analytical results.

SDG 590-13394-1: (PAHs) The 14-day holding time for PAH analysis was grossly exceeded by 43 days in Sample RFPNB-40C (7-8). The reporting limits for the PAH target analytes were qualified as rejected (R) in this sample. These data are considered unusable.

(Total Metals) The 28-day holding time for mercury analysis was grossly exceeded by 29 days in Sample RFPNB-40C (7-8). The laboratory reported a positive result for total mercury in this sample; however, the result was qualified as non-detected due to blank contamination. The reporting limit for total mercury was qualified as rejected (R) in this sample. This datum is considered unusable.

SDG 590-13423-1: The sample cooler temperature recorded at the laboratory was 10.5 degrees Celsius. It was determined through professional judgment that since the samples were received on ice at the laboratory the same day they were collected, and the cooling process had begun, this temperature should likely not affect the sample analytical results.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in an environmental sample. Surrogates are used for organic analyses and are added to the samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries are calculated following analysis. The surrogate percent recoveries for field samples were within the laboratory control limits, with the following exceptions:

SDG 590-13048-1: (PAHs) The percent recovery for surrogate p-Terphenyl-d14 was less than the control limits in Sample WH-6C(0-0.5); however, the sample was spiked with two additional surrogates each within their control limits. No action was required for this outlier.

SDG 590-13423-1: (PAHs) The percent recovery for surrogate p-Terphenyl-d14 was less than the control limits in Sample RFPNB-Rinsate; however, the sample was spiked with two additional surrogates each within their control limits. No action was required for this outlier.

Method and Rinsate Blanks

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For each sample batch, method blanks for the applicable methods were analyzed at the required frequency. None of the analytes of interest were detected in the method blanks, with the following exceptions:

SDG 590-13048-1: (PAHs) There was a positive result for benzo(g,h,i)perylene, fluoranthene, and pyrene detected above the method detection limit, but below the reporting limit in the method blank extracted on 4/21/2020. The positive result for benzo(g,h,i)perylene was qualified as non-detected (U) in Sample WH-2C(0-0.5). The positive results for benzo(g,h,i)perylene, fluoranthene, and pyrene were qualified as non-detected (U) in Samples WH-4C(0-0.5) and WH-5C(0-0.5). The positive results for fluoranthene and pyrene in Sample WH-2C(0-0.5) and the positive results for benzo(g,h,i)perylene, fluoranthene, and pyrene in Samples WH-1C(0-0.5), WH-3C(0-0.5), WH-6C(0-0.5), WH-7C(0-0.5), and WH-8C(0-0.5) were greater than 5X the concentration detected in the method blank; therefore, no qualifications were required.

SDG 590-13394-1: (PAHs) There was a positive result for fluorene detected above the method detection limit, but below the reporting limit in the method blank extracted on 6/24/2020. There were no positive results for this target analyte in the associated field sample; therefore, no qualification was required.

(Total Metals) There was a positive result for total mercury detected above the method detection limit, but below the reporting limit in the method blank digested on 6/24/2020. The positive result for this target analyte was qualified as non-detected (U) in Sample RFPNB-40C (7-8).

SDG 590-13423-1: (Total Metals) There was a positive result for total mercury detected above the method detection limit, but below the reporting limit in the method blank digested on 7/13/2020. The positive results for this target analyte were qualified as non-detected (U) in Samples RFPNB-41C (0.5-1), RFPNB-DUP1, RFPNB-42C (0.5-1), RFPNB-DUP2, RFPNB-43C (0.5-1), and RFPNB-DUP3.

Rinsate Blanks

Equipment rinsate blanks are analyzed to provide an indication as to whether field decontamination and sampling procedures effectively prevent cross-contamination in field activities. None of the analytes of interest were detected in the rinsate blank, with the following exception:

SDG 590-13423-1: (PAHs) There was a positive result for benzo(a)pyrene detected above the method detection limit, but below the reporting limit in the rinsate blank collected on 6/29/2020. The positive results for this target analyte were greater than 5X the concentration detected in the rinsate blank in Samples RFPNB-41C (0.5-1), RFPNB-DUP1, RFPNB-42C (0.5-1), RFPNB-43C (0.5-1), and RFPNB-DUP3 and there were no positive results for this target analyte in Sample RFPNB-DUP2; therefore, no qualifications were required.

Matrix Spikes/Matrix Spike Duplicates

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the result values from the MS and MSD, the relative percent difference (RPD) is calculated. The percent recovery control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for each analysis and the percent recovery and RPD values were within the proper control limits, with the following exceptions:

SDG 590-12931-1: (Total Metals) The laboratory performed an MS/MSD sample set on Sample RFPMB-1A(0-1). The percent recoveries for total lead were less than the control limits in the MS/MSD digested on 3/18/2020. The positive result for this target analyte was qualified as estimated (J) in this sample.

SDG 590-13048-1: (PAHs) The laboratory performed an MS/MSD sample set on Sample WH-1C(0-0.5). The RPD values for benzo(b)fluoranthene and chrysene were greater than the control limits in the MS/MSD extracted on 4/21/2020. The positive results for these target analytes were qualified as estimated (J) in this sample.

Additionally, in the same MS/MSD sample set, the percent recovery for benzo(b)fluoranthene was less than the control limits in the MS and the percent recovery for 1-Methylnaphthalene was less than the control limits in the MSD; however, the percent recoveries for these target analytes were within the control limits in the corresponding MSD and MS, respectively. No action was required for these outliers.

SDG 590-13087-1: (Total Metals) The laboratory performed an MS/MSD sample set on Sample RFPNB-12C (4-4.5). The percent recovery for total barium was greater than the control limits in the MSD digested on 4/28/2020; however, the percent recovery for this target analyte was within the control limits in the corresponding MS. No action was required for this outlier.

SDG 590-13092-1: (Total Metals) The laboratory performed an MS/MSD sample set on Sample RFPNB-15C(0-0.5). The percent recoveries and RPD for total lead were greater than the control limits in the MS/MSD digested on 5/1/2020. The positive result for this target analyte was qualified as estimated (J) in this sample.

The laboratory performed an MS/MSD sample set on Sample RFPNB-15C(0-0.5). The percent recovery for total mercury was greater than the control limits in the MS digested on 5/6/2020; however, the percent recovery for this target analyte was within the control limits in the corresponding MSD. No action was required for this outlier.

SDG 590-13122-3: (TCLP) The laboratory performed an MS/MSD sample set on Sample RFPNB-27C (4-4.5). The percent recovery for total lead was greater than the control limits in the MSD digested on 5/29/2020; however, the percent recovery for this target analyte was within the control limits in the corresponding MS. No action was required for this outlier.

SDG 590-13171-2: (Total Metals) The laboratory performed an MS/MSD sample set on Sample RFPNB-30C (4.5-5). The percent recoveries for total barium were less than the control limits in the MS/MSD digested on 5/13/2020 at 09:03. The positive result for this target analyte was qualified as estimated (J) in this sample.

The laboratory performed an MS/MSD sample set on Sample RFPNB-30C (4.5-5). The percent recovery for total mercury was greater than the control limits in the MS digested on 5/13/2020 at 09:05; however, the percent recovery for this target analyte was within the control limits in the corresponding MSD. No action was required for this outlier.

SDG 590-13423-1: (PAHs) The laboratory performed an MS/MSD sample set on Sample RFPNB-41C (0.5-1). The RPD values for benzo(g,h,i)perylene, chrysene, and indeno(1,2,3-cd)pyrene were greater than the control limits in the MS/MSD extracted on 7/7/2020. The positive results for these target analytes were qualified as estimated (J) in this sample.

Additionally, in the same MS/MSD sample set, the percent recoveries for benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene were less than the control limits in the MSD; however, the percent recoveries for these target analytes were within the control limits in the corresponding MS. No action was required for these outliers.

(Total Metals) The laboratory performed an MS/MSD sample set on Sample RFPNB-41C (0.5-1). The percent recoveries for total lead were less than the control limits in the MS/MSD digested on 7/7/2020. The positive result for this target analyte was qualified as estimated (J) in this sample.

The laboratory performed an MS/MSD sample set on Sample RFPNB-41C (0.5-1). The percent recoveries for total mercury were outside the control limits in the MS/MSD digested on 7/13/2020. The laboratory reported positive result was qualified non-detected due to method blank contamination; therefore, the reporting limit for this target analyte was qualified as estimated (UJ) in this sample.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, the LCS/LCSD control limits for accuracy and precision are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to all samples in the associated batch, instead of just the parent sample. The percent recovery control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery values were within the proper control limits.

Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. The RPD control limits are specified in the laboratory documents. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met, with the following exceptions:

SDG 590-12931-1: (Total Metals) The laboratory performed a laboratory duplicate sample set on Sample RFPMB-1A(0-1). The RPD for total lead was greater than the control limits in the laboratory duplicate digested on 3/18/2020. The positive result for this target analyte was qualified as estimated (J) in this sample.

SDG 590-13087-1: (Total Metals) The laboratory performed a laboratory duplicate sample set on Sample RFPNB-12C (4-4.5). The RPD values for total arsenic and total barium were greater than the control limits in the laboratory duplicate digested on 4/28/2020. The positive results for these target analytes were qualified as estimated (J) in this sample.

SDG 590-13092-1: (Total Metals) The laboratory performed a laboratory duplicate sample set on Sample RFPNB-15C(0-0.5). The RPD for total lead was greater than the control limits in the laboratory duplicate digested on 5/1/2020. The positive result for this target analyte was qualified as estimated (J) in this sample.

SDG 590-13171-2: (Total Metals) The laboratory performed a laboratory duplicate sample set on Sample RFPNB-30C (4.5-5). The RPD values for total barium, total chromium, and total lead were greater than the control limits in the laboratory duplicate digested on 5/13/2020. The positive results for these target analytes were qualified as estimated (J) in this sample.

SDG 590-13423-1: (Total Metals) The laboratory performed a laboratory duplicate sample set on Sample RFPNB-41C (0.5-1). The RPD for total lead was greater than the control limits in the laboratory duplicate digested on 7/7/2020. The positive result for this target analyte was qualified as estimated (J) in this sample.

Field Duplicates

In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed sample batches. The duplicate samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit 35 percent.

SDG 590-13423-1: Three field duplicate sample pairs, RFPNB-41C (0.5-1)/RFPNB-DUP1, RFPNB-42C (0.5-1)/RFPNB-DUP2, and RFPNB-43C (0.5-1)/RFPNB-DUP3, were submitted with this SDG. The precision criteria for all target analytes were met for these sample pairs, with the following exceptions:

RFPNB-41C (0.5-1)/RFPNB-DUP1: The positive results for benzo(g,h,i)perylene and total lead were qualified as estimated (J) in this sample pair.

RFPNB-43C (0.5-1)/RFPNB-DUP3: The positive results and reporting limits for total arsenic, total barium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, total lead, naphthalene, and pyrene were qualified as estimated (J and UJ, accordingly) in this sample pair.

Miscellaneous

SDG 590-12833-2: (NWTPH-Dx) The positive results for diesel-range hydrocarbons in Samples RFPNB-7C(1.5-2), RFPNB-10C(1.5-2), and RFPNB-11C(2-2.5) may be influenced by the relative concentration of lube oil-range hydrocarbons in the samples. For this reason, the positive results for

diesel-range hydrocarbons were qualified as estimated (J) in these samples, in order to signify a potential high bias.

OVERALL ASSESSMENT

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS, and MS/MSD percent recovery values, with the exceptions noted above. Precision was acceptable, as demonstrated by the MS/MSD and laboratory duplicate RPD values, with the exceptions noted above.

With the exception of rejected data, as noted above, the data are acceptable for the intended use with the following qualifications listed below in Table 2.

TABLE 2: SUMMARY OF QUALIFIED SAMPLES

Sample ID	Analyte	Qualifier	Reason
RFPMB-1A(0-1)	Total lead	J	MS/MSD Recovery/Laboratory Duplicate Precision
RFPNB-7C(1.5-2)	Diesel-range hydrocarbons	J	See Miscellaneous
RFPNB-10C(1.5-2)	Diesel-range hydrocarbons	J	See Miscellaneous
RFPNB-11C(2-2.5)	Diesel-range hydrocarbons	J	See Miscellaneous
RFPNB-12C (4-4.5)	Total arsenic	J	Laboratory Duplicate Precision
	Total barium	J	Laboratory Duplicate Precision
RFPNB-15C(0-0.5)	Total lead	J	MS/MSD Recovery and Precision/Laboratory Duplicate Precision
RFPNB-30C (4.5-5)	Total barium	J	MS/MSD Recovery/Laboratory Duplicate Precision
	Total chromium	J	Laboratory Duplicate Precision
	Total lead	J	Laboratory Duplicate Precision
RFPNB-40C (7-8)	All PAH target analytes	R	Holding Time
	Total mercury	R	Holding Time
RFPNB-41C (0.5-1)	Benzo(g,h,i)perylene	J	MS/MSD Precision/Field Duplicate Precision
	Chrysene	J	MS/MSD Precision
	Indeno(1,2,3-cd)pyrene	J	MS/MSD Precision
	Total lead	J	MS/MSD Recovery/Laboratory and Field Duplicate Precision
	Total mercury	UJ	Method Blank Contamination/MS/MSD Recovery
RFPNB-DUP1	Benzo(g,h,i)perylene	J	Field Duplicate Precision
	Total lead	J	Field Duplicate Precision
	Total mercury	U	Method Blank Contamination
RFPNB-42C (0.5-1)	Total mercury	U	Method Blank Contamination
RFPNB-DUP2	Total mercury	U	Method Blank Contamination

REFERENCES

- U.S. Environmental Protection Agency (EPA). "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.
- U.S. Environmental Protection Agency (EPA), 2017a. "Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review," EPA-540-R-2017-002. January 2017.
- U.S. Environmental Protection Agency (EPA), 2017b. "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review," EPA-540-R-2017-001. January 2017.
- GeoEngineers, Inc. "Work Plan, Riverfront Park Geotechnical and Environmental Services," prepared for City of Spokane. April 1, 2016.





Environment Testing
TestAmerica

WDOE 80-12 DESIGNATION REPORT

Project Name:

ET-Spokane

Location:

SPOKANE, WASHINGTON

Attention: Randee Arrington

Prepared by:

Eurofins TestAmerica - Corvallis

1100 NE Circle Boulevard, Suite 310
Corvallis, Oregon 97330
541-243-6137



Oregon Environmental Laboratory Accreditation Program #OR100022 (NELAP)
State of Washington DOE Environmental Laboratory Accreditation Program, Lab ID C556
California State Environmental Laboratory Accreditation Program, Certificate No.: 1726

Report Date: April 7, 2020 Released by: Michelle Bennett

Eurofins TestAmerica – Corvallis Lab I.D. No. B4637
Eurofins TestAmerica Spokane Job Number: 590-12823-2

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LABORATORY CONTACT: Alise Lampi, Aquatic Toxicity Department Manager
alyssa.lampi@testamericainc.com (541) 243-0964

INTRODUCTION

Eurofins TestAmerica – Corvallis (ET-C) Aquatic Toxicology Laboratory conducted 96-hour Washington State Hazardous Waste Regulation bioassay testing using rainbow trout (*Oncorhynchus mykiss*) on sample(s) provided by Eurofins TestAmerica Spokane, from Spokane, Washington.

The testing was initiated on March 20, 2020, on sample(s) labeled:

- ‘RFPMB-1(0-1)’

Regulatory threshold tested:

- ‘Dangerous Waste’ or DW designation (a sample concentration of 100 mg/L)

OVERVIEW OF REGULATORY GUIDANCE

The following provides an overview and excerpts of applicable permit specifics, regulatory guidance, and other relevant information. This is intended only as a helpful guide, from a laboratory perspective, for understanding test outcomes. The final responsibility for interpretation of results remains with the client and/or regulatory agency.

The following is taken from the WDOE guidance (Method 80-12, Part A, June 2009 revision):

- “The Washington State Department of Ecology (Ecology) developed the acute fish toxicity test (Method 80-12) to determine if a waste meets the definition of dangerous waste in the *Dangerous Waste Regulations*, Chapter 173-303 WAC.”
- “If the toxicity of a waste is unknown, the waste must be tested for dangerous waste designation using Method 80-12. The waste concentrations of 100 mg/L and 10 mg/L were selected to correspond with the definitions of dangerous waste and extremely hazardous waste, respectively.”
- “This method determines if the sample waste LC₅₀ is significantly less than or equal to the regulatory threshold of 100 mg/L dangerous waste (DW), 10 mg/L extremely hazardous waste (EHW) ...”
- “Waste designated by Method 80-12 [as DW or EHW] must be regulated and managed as specified in WAC 173-303 ...”

The following is taken from *Dangerous Waste Regulations*, Chapter 173-303 WAC:

- 100 (5)(c)(ii): “The EHW ... bioassay. To determine if a waste is EHW, a person must establish the toxicity of a waste by means of the fish bioassay at 10 mg/L ...”
 - **“If the data from the test indicates that the waste is EHW, then the person will assign the dangerous waste number WT01.”**
 - **“Otherwise, the waste will be designated DW, and the person will assign the dangerous waste number WT02.”** [unless DW testing proves otherwise]
- 100 (5)(c)(i): “The DW bioassay. To determine if a waste is DW, a person must establish the toxicity category range of a waste by means of the 100 mg/L acute static fish test ...”

- “If the data from the test indicates that the waste is DW, then the person will assign the dangerous waste number WT02.”
- “Otherwise, the waste is not regulated as toxic dangerous waste.”
- 100 (5)(d): “If the designation acquired from book designation and bioassay data do not agree, then bioassay data will be used to designate a waste. If a waste is designated as DW or EHW following the book designation procedure, a person may test the waste by means of the ... static acute fish ... method, to demonstrate that the waste is not a dangerous waste or should be designated as DW and not EHW.”

SUMMARY OF TEST RESULTS

Exhibit 1 provides a summary of the final test results.

EXHIBIT 1

Summary of Static Acute Test Results

Sample ID	Does the sample designate as an Extremely Hazardous Waste	Does the sample designate as a Dangerous Waste (DW)?
’ RFPMB-1(0-1) ’	NA	No

METHODS AND MATERIALS

TEST METHODS

The test was performed according to: *Biological Testing Methods*, Washington State Department of Ecology, DOE 80-12, Revised June 2009.

DEVIATIONS FROM PROTOCOLS

Deviations from required procedures in the test methods:

- None noted.

Deviations from recommended procedures in the test methods:

- None noted.

TEST DESIGN

The following summarizes the conditions used for both overall testing and the specifics for each test (observations and notations can be found on the datasheets in Appendix A):

Overall Test Design:

- *O. mykiss* Acute test: 100 mg/L sample (dangerous waste designation) + dilution water for the control.

Test Organism Conditions:

- All organisms tested were fed and maintained during culturing, acclimation, and testing as prescribed by WDOE (2009).
- The test organisms appeared vigorous and in good condition prior to testing.

O. mykiss acute test:

- Source: Thomas Fish Company, Anderson, California
- Age:
 - 30 to 90 days old (After Swim Up), within a 24 hour age range
 - Minimum 7 day acclimation period prior to test initiation
- Design: Three test vessels per concentration, Ten organisms per vessel
- Loading of Test Chambers: Less than 0.8 g of fish per Liter of water
- Test Solution Preparation:
 - Sample particles were reduced (as needed) to smaller than ~ 1 cm in its narrowest dimension.
 - Appropriate amount of sample was placed into borosilicate glass jar with 200 ml of dilution water and tumbled for ~ 18 hours at ambient lab temperatures (~ 23 °C).
 - Jar and all contents placed into aquaria containing additional volume of dilution water to create final sample concentration.
 - Test organisms introduced to test chambers within 30 minutes of jar addition.
- Test Solution Renewal: None
- Monitoring:
 - Test Initiation: DO and pH; all test chambers
 - Test Initiation: Temperature, Conductivity, Hardness, and Alkalinity; all concentrations
 - Daily: Survival, DO, and pH; all test chambers
 - Daily: Temperature and Survival, DO, pH, and temperature; all concentrations.
 - Test Termination: Survival, DO, and pH; all test chambers
 - Test Termination: Temperature, Conductivity, Hardness, and Alkalinity; all concentrations
- Termination: 96 hours.
- Endpoints: Survival (at termination)

DILUTION WATER

The dilution water used was the standard culture water used by ET-C:

- Reconstituted, moderately hard water (as per EPA protocol) with a total hardness of 75 to 105 mg/L as CaCO₃ and an alkalinity of 50 to 75 mg/L as CaCO₃.

SAMPLE COLLECTION AND STORAGE

Sample collection was performed by ET-Spokane personnel. The samples were accepted as scheduled by ET-C. Chain of Custody and Sample Receipt Records are provided in Appendix C.

- Following receipt, the samples were stored in the dark at 0 to 6 °C until test solutions were prepared and tested.

DATA ANALYSIS

The statistical analyses performed for the acute tests were those outlined in *Biological Testing Methods*, Washington State Department of Ecology, DOE 80-12, Revised June 2009.

- The statistical outputs are included with each test's datasheets in Appendix A.

RESULTS AND DISCUSSION

The raw data sheets for all tests are presented in Appendix A.

WDOE Method 80-12 DEFINITION

Extremely Hazardous Waste (EHW): 96 hr LC₅₀ concentration less than or equal to 10 mg/L.
Dangerous Waste (DW): 96 hr LC₅₀ concentration less than or equal to 100 mg/L.

ACUTE BIOASSAY

Table 1 summarizes the survival data for the *O. mykiss* acute testing.

Table 1 Summary of Acute Results – 96 hour exposure <i>O. mykiss</i>		
Sample	Concentration (mg/L)	Number Dead/ Number Tested
Control	0	0/30
‘ RFPMB-1(0-1)’	100	0/30

According to the definitions listed above, samples should not be classified as a “Dangerous Waste”.

The dissolved oxygen concentration remained at 6.0 mg/L or greater throughout the testing period. Test temperatures remained in the range of 12±1.0 °C.

The *O. mykiss* acute test meets Test Acceptability Criteria (TAC) of a minimum 90 percent control survival. The test proceeded without any noted deviations or interruptions that could have affected test results. The testing should be considered “valid”.

REFERENCE TOXICANT TEST

Reference toxicant (reftox) testing is performed to document both initial and ongoing laboratory performance of the test method(s). While the health of the test organisms is primarily evaluated by the performance of the laboratory control, reftox test results also may be used to assess the health and sensitivity of the test organisms. Reftox test results within their respective cumulative summary (Cusum) chart limits are indicative of consistent laboratory performance and normal test organism sensitivity.

The results of the reftox test indicate that the test organisms were within their respective cusum chart limits based on EPA guidelines. This demonstrates ongoing laboratory proficiency of the test methods and suggests normal test organism sensitivity in the associated client testing.

The *O. mykiss* reftox test was conducted using potassium chloride.

The data sheets for the reference toxicant test are provided in Appendix B.

Table 2 summarizes the reference toxicant test results and Cusum chart limits.

Table 2		
Acute Reference Toxicant Test (g/L)		
Species	LC₅₀	Cusum Chart Limits
<i>Oncorhynchus mykiss</i>	1.62	0.60 to 2.74

APPENDIX A
RAW DATA SHEETS

FRESHWATER TOXICITY TEST: SAMPLE AND DILUTION WATER DATA

Client ET-Spokane SDG # B4637 Test Initiation: Date 3/20/20
 Contact Randee Arrington Test Termination: Date 03/24/2020

Sample ID Number	Field ID	Collected		Date Received	Temp (°C) <small>as Rcv'd</small>	Sample Concentration (mg/L)	Ammonia NH ₃ -N	Hardness (mg/l as CaCO ₃)		Alkalinity (mg/l as CaCO ₃)	
		Date (mm/dd/yy)	Time (Pacific Zone)					0 hrs	96 hrs	0 hrs	96 hrs
B4637 -01	RFPMB-1(0-1)	02/28/20	12:54	03/19/20	12.2	100 mg/L	-	117	110	70	75
Reporting Limits:					na	na	0.10 mg/L	4 mg/L		4 mg/L	

Note: "-" Indicates data collection or dechlorination not needed. Any other adjustments to samples prior to use are documented in Comments below or on Dilutions page.

Dilution Water	ID#	Hardness (mg/l as CaCO ₃)		Alkalinity (mg/l as CaCO ₃)		Comments: <input checked="" type="checkbox"/> Indicates the action was taken, (□= action not taken): " - " = sample not dechlorinated, or analyte not collected/needed.
		0 hrs	96 hrs	0 hrs	96 hrs	
Recon MH (FHM)	5063	92	103	66	80	

Water Quality Meters Used/ID#: Dissolved Oxygen #4 pH #11 Conductivity #2

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FRESHWATER TOXICITY TEST: TEST ORGANISM INFORMATION

Client ET-Spokane Sample Designation (SDG): B B4637

Test Species Information	RBT # <u>417</u> <i>Oncorhynchus mykiss</i> Acute				
Organism Age at Initiation	<u>29</u> Days				
Test Container Size	<u>2.5</u> gallon				
Test Volume	5 L				
Feeding: Type and Amount	<i>TetraMin</i> during acclimation				
Aeration:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Prior to use				
In Test Chambers via Slow Bubble :	<input type="checkbox"/> @ _____ hrs				
Acclimation Period	<u>19</u> Days				
Organism Source	<u>Thomas fish co</u>				
Size	31.9 mm				
Loading Rate	0.56 g/L				

Dissolved Oxygen aeration justifications (in test chambers):

Test(s): All _____
Date:

Comments:

SAMPLE WEIGHT

Client ET-Spokane

Tumbling Start Date: 3/14/20 Time: 1617 Initials: BC

Client ID#	Lab ID#	Concentration (mg/L)	Target Weight (g)	Actual Weight (g)
RFPMB-1(0-1)	B4637-01	100 mg/L A	0.500	0.50004
		100 mg/L B	0.500	0.50095
		100 mg/L C	0.500	.50075

96 HOUR FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Waterbath/Incubator Used: # 7109

SDG's # B4637

Sample Description see below

Test Initiation Date: 3 / 20 / 20 Time: 13 : 05

Also collect: Hardness and Alkalinity in 100 mg/L @ 0 hrs. AND Hard & Alk in both Control & 100 mg/L @ 96 hrs (or when survival = 0%)

Termination Date: 3 / 24 / 20 Time: 12 : 00

Client ET-Spokane

Technician 0 hr BC 24 hr JK 48 hr JD
 Time 0 hr 13 : 05 24 hr 10 : 25 48 hr 10 : 35

72 hr BC 96 hr BC Collect Hardness and Alkalinity @ 96 hrs
 72 hr 11 : 35 96 hr 09 : 45 / 200
 72 hr # 250 96 hr # 250

Test Species Oncorhynchus mykiss ID# RBT 417

Therm. ID# 0 hr # 264 24 hr # 256 48 hr # 250

Concentration	Test Container Number	Number of Live Organisms					Dissolved Oxygen (mg/l)					pH					Temperature (°C)					Conductivity (µmhos/cm)					
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
Control	A	10	10	10	10	10	9.5	9.8	9.9	9.2	9.4	7.6	7.2	7.0	6.9	6.9	12.7	12.1	12.1	12.2	12.0	315					340
	B	10	10	10	10	10	9.7	9.8	9.5	9.3	9.4	7.6	7.2	6.9	7.0	6.9	315	12.1	12.1	12.2	12.0	315					
	C	10	10	10	10	10	9.7	9.9	9.6	9.2	9.3	7.6	7.2	6.9	6.9	6.9											
-01 100 mg/L RFPMB-1(0-1)	A	10	10	10	10	10	9.4	9.5	10.0	9.0	9.1	7.4	7.1	6.9	6.9	6.8	12.8	12.2	12.1	12.1	11.8	332					371
	B	10	10	10	10	10	9.4	9.5	10.1	9.2	9.3	7.5	7.1	6.9	6.9	6.9											
	C	10	10	10	10	10	9.4	9.4	9.6	9.2	9.3	7.5	7.1	6.9	6.9	6.9											

APPENDIX B
REFERENCE TOXICANT DATA SHEETS

REFERENCE TOXICANT DATA SHEET

Client QA/QC Test Chamber Size 2.5 gal. Reference Toxicant KCl Test Begin: Date 2/11/2020 Time 14:00
 Organism Oncorhynchus mykiss Volume per Replicate 5 L Stock Solution 50 g/L in DI (ASTM Type I) water Test End: Date 2/15/2020 Time 10:15
 Source = Thomas Fish Co. = Reagent Log ID # ZB078-06 *Dilution Water (Recon MH) ID# 5042
 ID# RBT # 417 Dilution Water Total Alkalinity as CaCO₃ 60
 Dilution Water Total Hardness as CaCO₃ 88
 **Age 22 ^{BC} 72 ^{BC} days ASU Technician 0 hr BC 24 hr BC 48 hr BC 72 hr BC 96 hr BC
 Organism size 28.4 mm Time 0 hr 09:20 ^{BC} 14:00 24 hr 10:00 48 hr 09:20 72 hr 10:00 96 hr 10:15
 Loading rate 0.32 g/L Therm. ID # 0 hr 264 24 hr 250 48 hr 250 72 hr 264 96 hr 264

Page 15 of 20

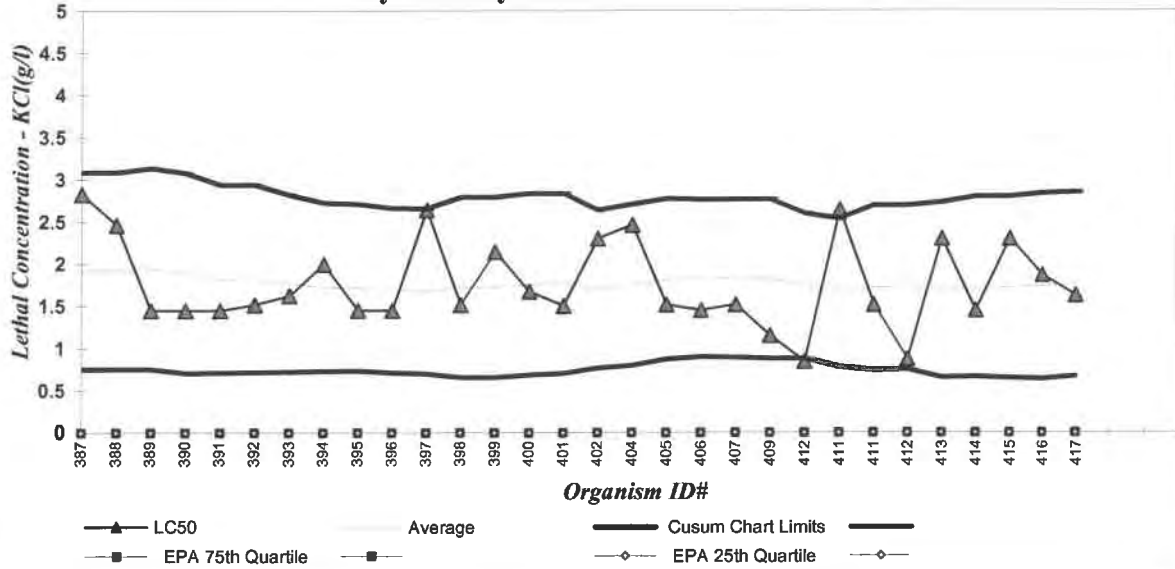
Conc. (g/L)	Rep	Number of Live Organisms (use 10 per replicate)					Dissolved Oxygen (mg/l)					pH					Temperature (°C)					Conductivity (mS)				
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
Cont.	A	10	10	10	10	10	9.6	9.4	9.6	9.8	9.8	8.1	8.0	7.3	7.2	7.4	12.1	11.8	11.6	11.5	11.5	313				341
0.5	A	10	10	10	10	10	10.1	9.7	9.8	9.9	9.9	8.1	7.9	7.5	7.5	7.6	12.2	11.6	11.6	11.5	11.5	1196				1240
1.0	A	10	10	10	10	10	10.3	9.7	9.7	9.9	9.8	8.1	7.8	7.5	7.5	7.5	12.0	12.2	12.0	12.0	11.9	2140				2280
2.0	A	10	34	2	2	2	10.3	9.7	9.8	10.2	10.2	8.1	7.9	7.7	7.9	7.9	11.8	11.7	11.7	11.6	11.6	3960				4150
4.0	A	10	0				10.4	9.8				8.0	7.9				12.3	12.5				7420	7810			
8.0	A	10	0				10.3	9.8				8.0	7.9				12.1	11.9				14070	14090			
		Survival in Controls: ≥ 90% (required Test Acceptability Criteria)					DO: (@ 12°C): > 4.0 and < 10.8 (recommended QA)					pH: > 6.0 and < 9.0 (recommended QA)					Temperature: ± 1 °C (recommended QA)					(QA) none				

*Dilution Water Code: Recon = reconstituted water MH = moderately hard

We verify this data is true and correct.

48 Hour LC₅₀ 1.62 96 Hour LC₅₀ 1.62 Task Manager Brett Cowden
 **Age Cusum Chart Limits 0.66 to 2.95 Cusum Chart Limits 0.60 to 2.74 Project Manager [Signature]
 ASU = After Swim 1 Statistical Method Spearman-Kärber Statistical Method Spearman-Kärber QA Officer [Signature]

REFERENCE TOXICANT CUMLATIVE SUMMARY (CUSUM) CHART
Oncorhynchus mykiss Acute Survival - LC50 Values



***Oncorhynchus mykiss* - ACUTE (EPA Test Method 2019.0)**

POTASIAM CHLORIDE (g/L)

From EPA 833-R-00-003:

Organism age: 15 to 90 days

10th Quartile CV (control limit) = na

Endpoint: 48 hour Survival

25th Quartile CV (warning limit) = na

Stats Method: Probit, Spearman-Kärber, Linear Interpolation

75th Quartile CV (warning limit) = na

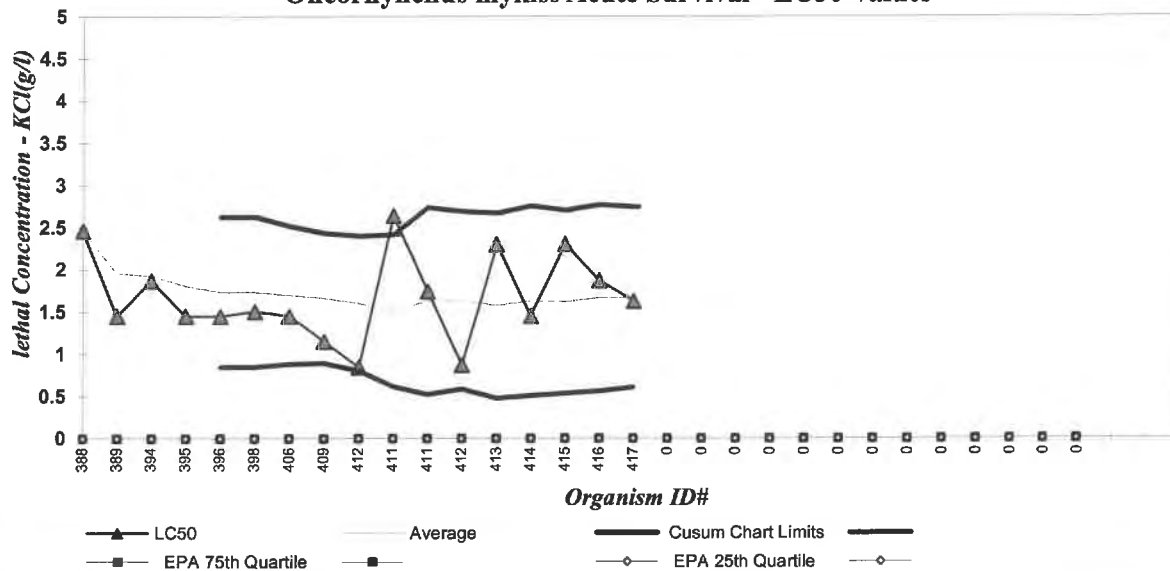
Test Conditions: Recon MH, 12 oC

90th Quartile CV (control limit) = na

As per EPA 833-R-00-003, section B.2.1, the quartiles listed above are from just a few labs (5) and therefore not to be considered typical or representative. Cusum limits are based on ASL data only.

Event #	RBT ID #	Test Start Date	LC50	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
98	396	2/12/2019	1.45	1.68	0.49	0.71	2.66	0.29
99	397	2/27/2019	2.64	1.68	0.49	0.70	2.65	0.31
100	398	3/28/2019	1.52	1.72	0.54	0.65	2.79	0.31
101	399	4/5/2019	2.14	1.72	0.54	0.65	2.79	0.31
102	400	4/25/2019	1.67	1.76	0.54	0.68	2.83	0.30
103	401	5/16/2019	1.51	1.77	0.53	0.70	2.84	0.28
104	402	5/22/2019	2.30	1.70	0.47	0.76	2.64	0.27
105	404	6/21/2019	2.46	1.75	0.48	0.79	2.70	0.26
106	405	7/17/2019	1.52	1.82	0.48	0.87	2.77	0.26
107	406	7/31/2019	1.45	1.83	0.47	0.90	2.76	0.26
108	407	8/15/2019	1.52	1.83	0.47	0.89	2.76	0.26
109	409	10/1/2019	1.15	1.82	0.47	0.88	2.76	0.25
110	412	10/16/2019	0.84	1.74	0.43	0.87	2.60	0.27
111	411	10/22/2019	2.64	1.65	0.44	0.78	2.53	0.28
112	411	10/28/2019	1.52	1.71	0.49	0.74	2.69	0.28
113	412	10/16/2019	0.87	1.72	0.49	0.75	2.69	0.31
114	413	11/6/2019	2.30	1.69	0.52	0.65	2.73	0.31
115	414	11/20/2019	1.45	1.73	0.53	0.66	2.80	0.31
116	415	12/3/2019	2.30	1.72	0.54	0.64	2.79	0.32
117	416	12/31/2019	1.87	1.73	0.55	0.63	2.83	0.31
118	417	2/11/2020	1.62	1.75	0.55	0.66	2.85	0.31
119								
120								

REFERENCE TOXICANT CUMLATIVE SUMMARY (CUSUM) CHART
Oncorhynchus mykiss Acute Survival - LC50 Values



***Oncorhynchus mykiss* - ACUTE (EPA Test Method 2019.0)**

POTASIUUM CHLORIDE (g/L)

Organism age: 15 to 90 days

Endpoint: 96 hour Survival

Stats Method: Probit, Spearman-Kärber, Linear Interpolation

Test Conditions: Recon MH, 12 oC

From EPA 833-R-00-003:

10th Quartile CV (*control limit*) = na

25th Quartile CV (*warning limit*) = na

75th Quartile CV (*warning limit*) = na

90th Quartile CV (*control limit*) = na

As per EPA 833-R-00-003, section B.2.1, the quartiles listed above are from just a few labs (5) and therefore not to be considered typical or representative. Cusum limits are based on ASL data only.

Event #	RBT ID #	Test Start Date	LC50	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
1	388	8/4/2018	2.46	2.46				
2	389	10/13/2018	1.45	1.96				
3	394	1/9/2019	1.87	1.93	0.51			
4	395	1/17/2019	1.45	1.81	0.48			
5	396	2/12/2019	1.45	1.74	0.44	0.85	2.62	0.27
6	398	3/28/2019	1.51	1.74	0.44	0.85	2.62	0.26
7	406	7/31/2019	1.45	1.70	0.41	0.88	2.51	0.24
8	409	10/1/2019	1.15	1.66	0.38	0.89	2.43	0.23
9	412	10/16/2019	0.84	1.60	0.40	0.80	2.40	0.25
10	411	10/22/2019	2.64	1.51	0.45	0.61	2.41	0.30
11	411	10/28/2019	1.74	1.63	0.55	0.52	2.73	0.34
12	412	11/6/2019	0.87	1.64	0.53	0.58	2.69	0.32
13	413	11/6/2019	2.30	1.57	0.55	0.47	2.67	0.35
14	414	11/20/2019	1.45	1.63	0.56	0.50	2.75	0.35
15	415	12/3/2019	2.30	1.62	0.54	0.53	2.70	0.34
16	416	12/31/2019	1.87	1.66	0.55	0.56	2.76	0.33
17	417	2/11/2020	1.62	1.67	0.54	0.60	2.74	0.32
18								

APPENDIX C
CHAIN OF CUSTODY



Sample Receipt Record

Batch Number: B4637-01
Client/Project: ET-Spokane

Date Received: 3/19/20
Received By: SD

- Were custody seals intact? Yes No N/A
- Packing Material: Ice Blue Ice Box
- Temp OK? ($\leq 6^{\circ}\text{C}$) Therm ID: TH253 Expires: 12/13/2020 Observed: 13.2^{\circ}\text{C}, Actual Temp: 12.2^{\circ}\text{C} Yes No N/A
- If sample is noted @ $\leq 0.0^{\circ}\text{C}$, is the sample frozen or partially frozen? Yes No N/A
- Was a Chain of Custody (CoC) Provided? Yes No N/A
- Was the CoC correctly filled out? (If No, document below) Yes No N/A
- Were the sample containers in good condition (not broken or leaking)? Yes No N/A
- Are all samples within 36 hours of collection? Yes No N/A
- Method of Shipment: Hand Delivered, FedEx, UPS, Greyhound, Other: _____ N/A

Sample Exception Report (The following exceptions were noted)

TRK: 1502 8756 5820

Client was notified on: _____ Client contact: _____

Resolution to Exception:

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab P/N: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-5190.1
Client Contact: Shipping/Receiving		E-Mail: randee.arrington@testamericainc.com	State of Origin: Washington	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Washington		
Address: 1100 NE Circle Blvd, Suite 310, Corvallis, OR, 97330		Due Date Requested: 3/30/2020		
Phone: 541-243-0980(Tel)		TAT Requested (days):		
Email:		PO #:		
WO #:		Project #:		
Project Name: Riverfront Park (0110-148-06)		SSOW#:		
Site:		Field Filtered Sample (Yes or No)		
Sample Identification - Client ID (Lab ID)		SUB (VA Method 80-12 DW) VA Method 80-12 DW		
RFPMB-1(0-1)(590-12823-1)		Perform MS/MSD (Yes or No)		
Sample Date: 2/28/20		X		
Sample Time: 12:54 Pacific		Field Filtered Sample (Yes or No)		
Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=water, BT=Tissue, A=Ab)		
Sample Time: 12:54 Pacific		Solid		
Preservation Code:		Total Number of Containers		
1		1		
Special Instructions/Note:		B4637-01		
Preservation Codes:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - BH 4-5 Z - other (specify)		
Other:				

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Reinquired by: _____ Date: _____

Reinquired by: MAITA 0700 ce Date/Time: 3/18/20 15:09 Company: TASPO

Reinquired by: Jessica Davis Date/Time: 3/19/20 10:10 Company: E.I. Corvallis

Reinquired by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.: _____

Special Instructions/QC Requirements: Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Method of Shipment: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: _____



Environment Testing
TestAmerica

WDOE 80-12 DESIGNATION REPORT

Project Name: ET-Spokane
Location: SPOKANE, WASHINGTON
Attention: Randee Arrington

Prepared by: Eurofins TestAmerica - Corvallis

1100 NE Circle Boulevard, Suite 310
Corvallis, Oregon 97330
541-243-6137



Oregon Environmental Laboratory Accreditation Program #OR100022 (NELAP)
State of Washington DOE Environmental Laboratory Accreditation Program, Lab ID C556
California State Environmental Laboratory Accreditation Program, Certificate No.: 1726

Report Date: May 15, 2020 Released by: Brett Muckey

Eurofins TestAmerica – Corvallis Lab I.D. No. B4685
Eurofins TestAmerica Spokane Job Number: 590-13087-3

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LABORATORY CONTACT: Alise Lampi, Aquatic Toxicity Department Manager
alyssa.lampi@testamericainc.com (541) 243-0964

INTRODUCTION

Eurofins TestAmerica – Corvallis (ET-C) Aquatic Toxicology Laboratory conducted 96-hour Washington State Hazardous Waste Regulation bioassay testing using rainbow trout (*Oncorhynchus mykiss*) on sample(s) provided by Eurofins TestAmerica Spokane, from Spokane, Washington.

The testing was initiated on May 7, 2020, on sample(s) labeled:

- ‘RFPNB-13C (4-4.5)’

Regulatory threshold tested:

- ‘Dangerous Waste’ or DW designation (a sample concentration of 100 mg/L)

OVERVIEW OF REGULATORY GUIDANCE

The following provides an overview and excerpts of applicable permit specifics, regulatory guidance, and other relevant information. This is intended only as a helpful guide, from a laboratory perspective, for understanding test outcomes. The final responsibility for interpretation of results remains with the client and/or regulatory agency.

The following is taken from the WDOE guidance (Method 80-12, Part A, June 2009 revision):

- “The Washington State Department of Ecology (Ecology) developed the acute fish toxicity test (Method 80-12) to determine if a waste meets the definition of dangerous waste in the *Dangerous Waste Regulations*, Chapter 173-303 WAC.”
- “If the toxicity of a waste is unknown, the waste must be tested for dangerous waste designation using Method 80-12. The waste concentrations of 100 mg/L and 10 mg/L were selected to correspond with the definitions of dangerous waste and extremely hazardous waste, respectively.”
- “This method determines if the sample waste LC₅₀ is significantly less than or equal to the regulatory threshold of 100 mg/L dangerous waste (DW), 10 mg/L extremely hazardous waste (EHW) ...”
- “Waste designated by Method 80-12 [as DW or EHW] must be regulated and managed as specified in WAC 173-303 ...”

The following is taken from *Dangerous Waste Regulations*, Chapter 173-303 WAC:

- 100 (5)(c)(ii): “The EHW ... bioassay. To determine if a waste is EHW, a person must establish the toxicity of a waste by means of the fish bioassay at 10 mg/L ...”
 - **“If the data from the test indicates that the waste is EHW, then the person will assign the dangerous waste number WT01.”**
 - **“Otherwise, the waste will be designated DW, and the person will assign the dangerous waste number WT02.”** [unless DW testing proves otherwise]

- 100 (5)(c)(i): “The DW bioassay. To determine if a waste is DW, a person must establish the toxicity category range of a waste by means of the 100 mg/L acute static fish test ...”
 - “**If the data from the test indicates that the waste is DW, then the person will assign the dangerous waste number WT02.**”
 - “**Otherwise, the waste is not regulated as toxic dangerous waste.**”
- 100 (5)(d): “If the designation acquired from book designation and bioassay data do not agree, then bioassay data will be used to designate a waste. If a waste is designated as DW or EHW following the book designation procedure, a person may test the waste by means of the ... static acute fish ... method, to demonstrate that the waste is not a dangerous waste or should be designated as DW and not EHW.”

SUMMARY OF TEST RESULTS

Exhibit 1 provides a summary of the final test results.

EXHIBIT 1

Summary of Static Acute Test Results

Sample ID	Does the sample designate as an Extremely Hazardous Waste	Does the sample designate as a Dangerous Waste (DW)?
‘RFPNB-13C (4-4.5)’	NA	No

METHODS AND MATERIALS

TEST METHODS

The test was performed according to: *Biological Testing Methods*, Washington State Department of Ecology, DOE 80-12, Revised June 2009.

DEVIATIONS FROM PROTOCOLS

Deviations from required procedures in the test methods:

- None noted.

Deviations from recommended procedures in the test methods:

- None noted.

TEST DESIGN

The following summarizes the conditions used for both overall testing and the specifics for each test (observations and notations can be found on the datasheets in Appendix A):

Overall Test Design:

- *O. mykiss* Acute test: 100 mg/L sample (dangerous waste designation) + dilution water for the control.

Test Organism Conditions:

- All organisms tested were fed and maintained during culturing, acclimation, and testing as prescribed by WDOE (2009).
- The test organisms appeared vigorous and in good condition prior to testing.

O. mykiss acute test:

- Source: Thomas Fish Company, Anderson, California
- Age:
 - 30 to 90 days old (After Swim Up), within a 24 hour age range
 - Minimum 7 day acclimation period prior to test initiation
- Design: Three test vessels per concentration, Ten organisms per vessel
- Loading of Test Chambers: Less than 0.8 g of fish per Liter of water
- Test Solution Preparation:
 - Sample particles were reduced (as needed) to smaller than ~ 1 cm in its narrowest dimension.
 - Appropriate amount of sample was placed into borosilicate glass jar with 200 ml of dilution water and tumbled for ~ 18 hours at ambient lab temperatures (~ 23 °C).
 - Jar and all contents placed into aquaria containing additional volume of dilution water to create final sample concentration.
 - Test organisms introduced to test chambers within 30 minutes of jar addition.
- Test Solution Renewal: None
- Monitoring:
 - Test Initiation: DO and pH; all test chambers
 - Test Initiation: Temperature, Conductivity, Hardness, and Alkalinity; all concentrations
 - Daily: Survival, DO, and pH; all test chambers
 - Daily: Temperature and Survival, DO, pH, and temperature; all concentrations.
 - Test Termination: Survival, DO, and pH; all test chambers
 - Test Termination: Temperature, Conductivity, Hardness, and Alkalinity; all concentrations
- Termination: 96 hours.
- Endpoints: Survival (at termination)

DILUTION WATER

The dilution water used was the standard culture water used by ET-C:

- Reconstituted, moderately hard water (as per EPA protocol) with a total hardness of 75 to 105 mg/L as CaCO₃ and an alkalinity of 50 to 75 mg/L as CaCO₃.

SAMPLE COLLECTION AND STORAGE

Sample collection was performed by ET-Spokane personnel. The samples were accepted as scheduled by ET-C. Chain of Custody and Sample Receipt Records are provided in Appendix C.

- Following receipt, the samples were stored in the dark at 0 to 6 °C until test solutions were prepared and tested.

DATA ANALYSIS

The statistical analyses performed for the acute tests were those outlined in *Biological Testing Methods*, Washington State Department of Ecology, DOE 80-12, Revised June 2009.

- The statistical outputs are included with each test's datasheets in Appendix A.

RESULTS AND DISCUSSION

The raw data sheets for all tests are presented in Appendix A.

WDOE Method 80-12 DEFINITION

Extremely Hazardous Waste (EHW): 96 hr LC₅₀ concentration less than or equal to 10 mg/L.
Dangerous Waste (DW): 96 hr LC₅₀ concentration less than or equal to 100 mg/L.

ACUTE BIOASSAY

Table 1 summarizes the survival data for the *O. mykiss* acute testing.

Sample	Concentration (mg/L)	Number Dead/ Number Tested
Control	0	0/30
'RFPNB-13C (4-4.5)'	100	0/30

According to the definitions listed above, samples should not be classified as a “Dangerous Waste”.

The dissolved oxygen levels in the chronic tests remained above 6.0 mg/L. Test temperatures remained at 12±1°C. Test pH remained within the recommended 6.0 to 9.0 range

The *O. mykiss* acute test meets Test Acceptability Criteria (TAC) of a minimum 90 percent control survival. Other than noted above, the test proceeded without any deviations or interruptions that could have affected test results. The testing should be considered “valid”.

REFERENCE TOXICANT TEST

Reference toxicant (reftox) testing is performed to document both initial and ongoing laboratory performance of the test method(s). While the health of the test organisms is primarily evaluated by the performance of the laboratory control, reftox test results also may be used to assess the health and sensitivity of the test organisms. Reftox test results within their respective cumulative summary (Cusum) chart limits are indicative of consistent laboratory performance and normal test organism sensitivity.

The results of the reftox test indicate that the test organisms were within their respective cusum chart limits based on EPA guidelines. This demonstrates ongoing laboratory proficiency of the test methods and suggests normal test organism sensitivity in the associated client testing.

The *O. mykiss* reftox test was conducted using potassium chloride.

The data sheets for the reference toxicant test are provided in Appendix B.

Table 2 summarizes the reference toxicant test results and Cusum chart limits.

Table 2		
Acute Reference Toxicant Test (g/L)		
Species	LC₅₀	Cusum Chart Limits
<i>Oncorhynchus mykiss</i>	2.30	0.63 to 2.86

APPENDIX A
RAW DATA SHEETS

FRESHWATER TOXICITY TEST: SAMPLE AND DILUTION WATER DATA

Client ET-Spokane SDG # 4685 Test Initiation: Date 5-7-20
 Contact Randee Arrington Test Termination: Date 5-11-20

Sample ID Number	Field ID	Collected		Date Received	Temp (°C) <small>as Rcv'd</small>	Sample Concentration (mg/L)	Ammonia NH ₃ -N	Hardness (mg/l as CaCO ₃)		Alkalinity (mg/l as CaCO ₃)	
		Date (mm/dd/yy)	Time (Pacific Zone)					0 hrs	96 hrs	0 hrs	96 hrs
4685 -01	RFPNB-13C(4-4-5)	04/24/20	09:00	05/05/20	NA	100 mg/L	-	93	97	67	73
Reporting Limits:						na	0.10 mg/L	4 mg/L	4 mg/L	4 mg/L	

Note: "-" Indicates data collection or dechlorination not needed. Any other adjustments to samples prior to use are documented in Comments below or on Dilutions page.

Dilution Water	ID#	Hardness (mg/l as CaCO ₃)		Alkalinity (mg/l as CaCO ₃)	
		0 hrs	96 hrs	0 hrs	96 hrs
Recon MH (FHM)	5095	88	98	60	70

Comments: Indicates the action was taken, (= action not taken):
 " - " = sample not dechlorinated, or analyte not collected/needed.

Water Quality Meters Used/ID#: Dissolved Oxygen # 4 pH # 1 Conductivity # 2

FRESHWATER TOXICITY TEST: TEST ORGANISM INFORMATION

Client ET-Spokane

Sample Designation (SDG): B 4685

Test Species Information	RBT # <u>420</u> <i>Oncorhynchus mykiss</i> Acute				
Organism Age at Initiation	<u>51</u> 65 Days <i>received 5/15/20</i>				
Test Container Size	<u>2.5</u> gallon				
Test Volume	5 L				
Feeding: Type and Amount	<i>TetraMin</i> during acclimation				
Aeration: In Test Chambers via Slow Bubble :	<input checked="" type="checkbox"/> None <input type="checkbox"/> Prior to use <input type="checkbox"/> @ _____ hrs				
Acclimation Period	<u>22</u> Days				
Organism Source	<i>Thomas Fish</i>				
Size	<u>35.0 mm</u>				
Loading Rate	<u>0.75 g/L</u>				

Dissolved Oxygen aeration justifications (in test chambers):

Test(s): All _____
Date:

Comments:

SAMPLE WEIGHT

Client ET-Spokane

Tumbling Start Date: 5/6/20 Time: 1400 Initials: JD

Client ID#	Lab ID#	Concentration (mg/L)	Target Weight (g)	Actual Weight (g)
RFPNB-13C (4-4.5)	4685-01	100 mg/L A	0.500	0.50230
		100 mg/L B	0.500	0.50150
		100 mg/L C	0.500	0.50525

96 HOUR FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Waterbath/Incubator Used: # 9 SDC's # 4685 Sample Description see below Date: 5/7/20 Time: 09:45

Also collect: Hardness and Alkalinity in 100 mg/L @ 0 hrs. AND Hard & Alk in both Control & 100 mg/L @ 96 hrs (or when survival = 0%)

Table with 10 columns: Test Container Number, Concentration, Number of Live Organisms, Dissolved Oxygen (mg/l), pH, Temperature (°C), Conductivity (umohs/cm)

Control row with handwritten data: A 10 16 10 10 9.3 9.1 9.4 9.1 8.3 7.5 7.5 7.5 11.5 11.3 11.8 11.9 11.7 325

Control row with handwritten data: B 10 10 10 10 9.1 9.2 9.7 9.1 8.4 7.7 7.5 7.5 12.1 12.0 12.3 11.9 12.6 324

Control row with handwritten data: C 10 10 10 10 9.2 9.4 9.7 9.0 8.3 7.7 7.6 7.5 7.5

-01 100 mg/L RFPNB-13C (4.5) row with handwritten data: A 10 10 10 10 9.0 9.4 9.9 9.1 8.3 7.7 7.5 7.5 7.5

-01 100 mg/L RFPNB-13C (4.5) row with handwritten data: B 10 10 10 10 9.0 9.4 9.9 8.8 8.3 7.7 7.5 7.5 7.5

-01 100 mg/L RFPNB-13C (4.5) row with handwritten data: C 10 10 10 10 9.0 9.4 9.9 8.9 8.4 7.7 7.6 7.4 7.5

Empty table grid for additional data points.

Summary of Test Results						
for		ET-Spokane				
LabID: B4685		Start Date: 05/07/20				
Control		10 mg/L		100 mg/L		
Replicate	Number	Proport.	Number	Proport.	Number	Proport.
	Dead	Dead	Dead	Dead	Dead	Dead
A	0	0.0000	n/a	n/a	0	0.0000
B	0	0.0000	n/a	n/a	0	0.0000
C	0	0.0000	n/a	n/a	0	0.0000
Mean		0.0000		n/a		0.0000
Variance		0.0000		n/a		0.0000

F statistic for variance test		
	10 mg/L	100 mg/L
Calculated F statistic	n/a	Equal Variance
Critical F degrees of freedom (Numerator, Denominator)	2 , 2	2 , 2
Critical F (See Table 2 WDOE 80-12)	39	39
Equal Variance?	n/a	Yes

t-Test		
	10 mg/L	100 mg/L
Calculated t staistic	n/a	n/a
Critical t degrees of freedom	n/a	4
Critical t value (See Table 3 WDOE 80-12)	n/a	-1.53
Does Waste Designate as an Extremely Hazardous Waste ?	... as a Dangerous Waste ?
	n/a	No

APPENDIX B
REFERENCE TOXICANT DATA SHEETS

REFERENCE TOXICANT DATA SHEET

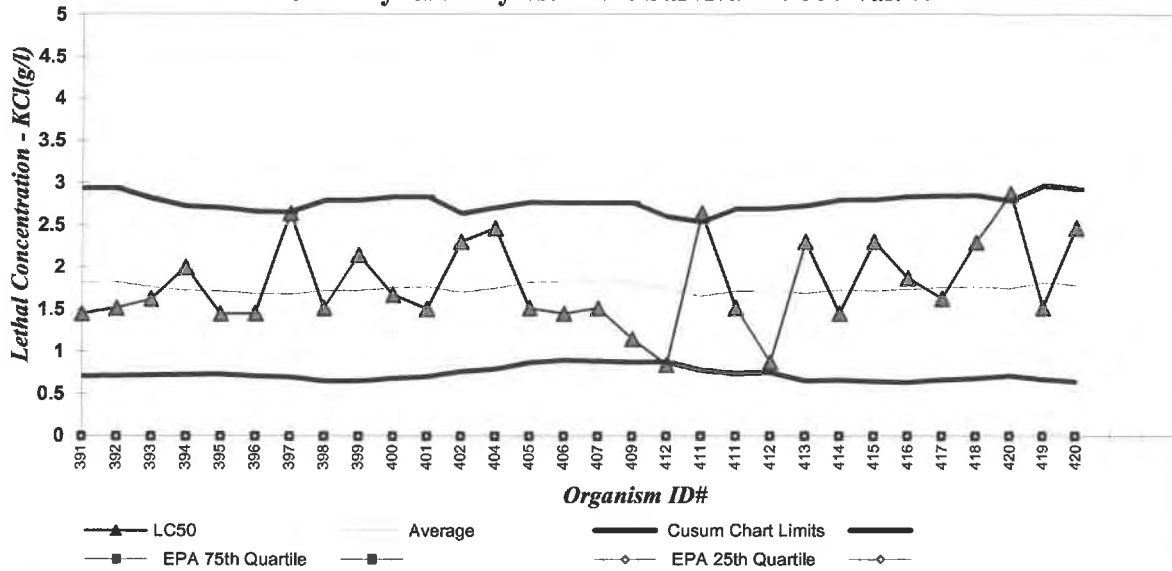
Client: QA/QC Reference Toxicant: KCl Test Begin: Date: 1/27/20 Time: 15:35
 Organism: Oncorhynchus mykiss Stock Solution: 50 g/L in DI (ASTM Type I) water Test End: Date: 5/1/20 Time: 15:00
 Source: = Thomas Fish Co. Reagent Log ID #: 2 B 081-01 *Dilution Water (Recon MH) ID#: 5086
 Test Chamber Size: 2.5 gal. Dilution Water Total Alkalinity as CaCO₃: 67
 Volume per Replicate: 5 L Dilution Water Total Hardness as CaCO₃: 92
 Designed Temperature: 12 ± 1 °C
 24 hr: 50 48 hr: BC 96 hr: BC
 Technician: BC 24 hr: 0945 48 hr: 0930 96 hr: 1500
 0 hr: 1535 24 hr: 250 48 hr: 252 96 hr: 250
 Therm. ID #: 250

Conc. (g/L)	Rep	Number of Live Organisms (use 10 per replicate)					Dissolved Oxygen (mg/l)					pH					Temperature (°C)					Conductivity (mS)				
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96
Cont.	A	10	10	10	10	10	9.8	9.8	9.8	9.6	9.5	7.6	7.6	7.6	7.6	7.5	11.6	11.6	11.4	11.0	11.6	289				
0.5	A	10	10	10	10	10	9.6	9.7	9.6	9.7	9.5	7.6	7.6	7.6	7.6	7.6	12.1	11.2	11.1	10.8	11.4	1155				
1.0	A	10	10	10	10	10	9.8	9.8	9.8	9.7	9.5	7.6	7.5	7.6	7.6	7.6	11.5	11.0	10.8	10.6	11.0	2090				
2.0	A	10	8	8	7	7	9.7	9.8	9.7	9.6	9.6	7.6	7.5	7.7	7.6	7.6	11.6	11.3	11.1	10.7	11.5	3600				
4.0	A	10	0	0	—	—	9.6	9.6	—	—	—	7.7	—	—	—	—	12.3	11.6	—	—	—	6900	6880			
8.0	A	10	0	0	—	—	9.7	9.7	—	—	—	7.7	—	—	—	—	12.0	11.6	—	—	—	12900	12900			
		Survival in Controls: ≥ 90% (required Test Acceptability Criteria)					DO: (@ 12°C): > 4.0 and < 10.8 (recommended QA)					pH: > 6.0 and < 9.0 (recommended QA)					Temperature: ± 1 °C (recommended QA)					(QA) none				

We verify this data is true and correct.

*Dilution Water Code: Recon = reconstituted water MH = moderately hard
 48 Hour LC₅₀: 2.46 96 Hour LC₅₀: 2.30
 Cusum Chart Limits: 0.64 to 2.97 Cusum Chart Limits: 0.63 to 2.86
 Statistical Method: Spearman - Karber Statistical Method: Spearman - Karber
 **Age: ASU = After Swim 1 Project Manager: [Signature]
 QA Officer: [Signature]

REFERENCE TOXICANT CUMULATIVE SUMMARY (CUSUM) CHART
Oncorhynchus mykiss Acute Survival - LC50 Values



***Oncorhynchus mykiss* - ACUTE (EPA Test Method 2019.0)**

POTASIAM CHLORIDE (g/L)

From EPA 833-R-00-003:

Organism age: 15 to 90 days

10th Quartile CV (*control limit*) = na

Endpoint: 48 hour Survival

25th Quartile CV (*warning limit*) = na

Stats Method: Probit, Spearman-Kärber, Linear Interpolation

75th Quartile CV (*warning limit*) = na

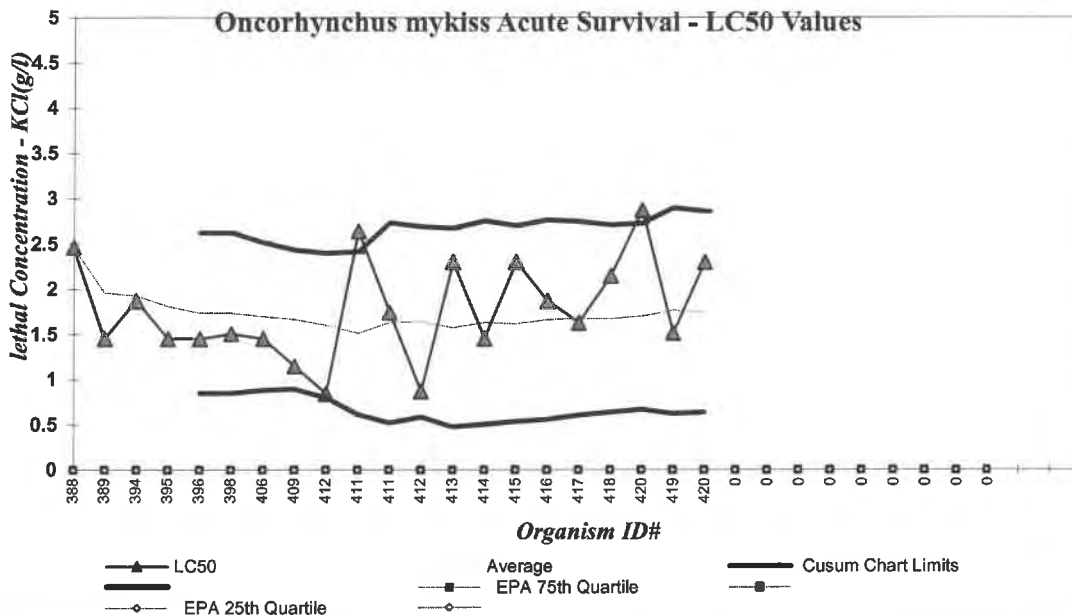
Test Conditions: Recon MH, 12 oC

90th Quartile CV (*control limit*) = na

As per EPA 833-R-00-003, section B.2.1, the quartiles listed above are from just a few labs (5) and therefore not to be considered typical or representative. Cusum limits are based on ASL data only.

Event #	RBT ID #	Test Start Date	LC50	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
102	400	4/25/2019	1.67	1.76	0.54	0.68	2.83	0.30
103	401	5/16/2019	1.51	1.77	0.53	0.70	2.84	0.28
104	402	5/22/2019	2.30	1.70	0.47	0.76	2.64	0.27
105	404	6/21/2019	2.46	1.75	0.48	0.79	2.70	0.26
106	405	7/17/2019	1.52	1.82	0.48	0.87	2.77	0.26
107	406	7/31/2019	1.45	1.83	0.47	0.90	2.76	0.26
108	407	8/15/2019	1.52	1.83	0.47	0.89	2.76	0.26
109	409	10/1/2019	1.15	1.82	0.47	0.88	2.76	0.25
110	412	10/16/2019	0.84	1.74	0.43	0.87	2.60	0.27
111	411	10/22/2019	2.64	1.65	0.44	0.78	2.53	0.28
112	411	10/28/2019	1.52	1.71	0.49	0.74	2.69	0.28
113	412	10/16/2019	0.87	1.72	0.49	0.75	2.69	0.31
114	413	11/6/2019	2.30	1.69	0.52	0.65	2.73	0.31
115	414	11/20/2019	1.45	1.73	0.53	0.66	2.80	0.31
116	415	12/3/2019	2.30	1.72	0.54	0.64	2.79	0.32
117	416	12/31/2019	1.87	1.73	0.55	0.63	2.83	0.31
118	417	2/11/2020	1.62	1.75	0.55	0.66	2.85	0.31
119	418	3/16/2020	2.30	1.76	0.54	0.68	2.85	0.30
120	420	4/17/2020	2.87	1.75	0.52	0.71	2.78	0.32
121	419	4/22/2020	1.52	1.81	0.57	0.67	2.96	0.32
122	420	4/27/2020	2.46	1.78	0.57	0.64	2.92	0.32
123								
124								

**REFERENCE TOXICANT CUMULATIVE SUMMARY (CUSUM)
CHART**



***Oncorhynchus mykiss* - ACUTE (EPA Test Method 2019.0)**

POTASIAM CHLORIDE (g/L)

From EPA 833-R-00-003:

Organism age: 15 to 90 days

10th Quartile CV (*control limit*) = na

Endpoint: 96 hour Survival

25th Quartile CV (*warning limit*) = na

Stats Method: Probit, Spearman-Karber, Linear Interpolation

75th Quartile CV (*warning limit*) = na

Test Conditions: Recon MH, 12 oC

90th Quartile CV (*control limit*) = na

As per EPA 833-R-00-003, section B.2.1, the quartiles listed above are from just a few labs (5) and therefore not to be considered typical or representative. Cusum limits are based on ASL data only.

Event #	RBT ID #	Test Start Date	LC50	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
4	395	1/17/2019	1.45	1.81	0.48			
5	396	2/12/2019	1.45	1.74	0.44	0.85	2.62	0.27
6	398	3/28/2019	1.51	1.74	0.44	0.85	2.62	0.26
7	406	7/31/2019	1.45	1.70	0.41	0.88	2.51	0.24
8	409	10/1/2019	1.15	1.66	0.38	0.89	2.43	0.23
9	412	10/16/2019	0.84	1.60	0.40	0.80	2.40	0.25
10	411	10/22/2019	2.64	1.51	0.45	0.61	2.41	0.30
11	411	10/28/2019	1.74	1.63	0.55	0.52	2.73	0.34
12	412	11/6/2019	0.87	1.64	0.53	0.58	2.69	0.32
13	413	11/6/2019	2.30	1.57	0.55	0.47	2.67	0.35
14	414	11/20/2019	1.45	1.63	0.56	0.50	2.75	0.35
15	415	12/3/2019	2.30	1.62	0.54	0.53	2.70	0.34
16	416	12/31/2019	1.87	1.66	0.55	0.56	2.76	0.33
17	417	2/11/2020	1.62	1.67	0.54	0.60	2.74	0.32
18	418	3/16/2020	2.14	1.67	0.52	0.63	2.71	0.31
19	420	4/17/2020	2.87	1.70	0.52	0.67	2.73	0.30
20	419	4/22/2020	1.52	1.76	0.57	0.62	2.90	0.32
21	420	4/27/2020	2.30	1.75	0.56	0.63	2.86	0.31
22								

APPENDIX C
CHAIN OF CUSTODY



Environment Testing
TestAmerica

Sample Receipt Record

Batch Number: B41685-01

Date Received: 5/5/20

Client/Project: ET-Spokane

Received By: APL

Were custody seals intact? Yes No N/A

Packing Material: Ice Blue Ice Box

Temp OK? ($\leq 6^{\circ}\text{C}$) Therm ID: _____ Expires: / /20 Observed: $^{\circ}\text{C}$, Actual Temp: $^{\circ}\text{C}$ Yes No N/A

If sample is noted @ $\leq 0.0^{\circ}\text{C}$, is the sample frozen or partially frozen? Yes No N/A

Was a Chain of Custody (CoC) Provided? Yes No N/A

Was the CoC correctly filled out? (If No, document below) Yes No N/A

Were the sample containers in good condition (not broken or leaking)? Yes No N/A

Are all samples within 36 hours of collection? Yes No N/A

Method of Shipment: Hand Delivered, FedEx, UPS, Greyhound, Other: _____ N/A

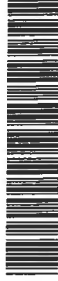
Sample Exception Report (The following exceptions were noted)

Tracking No: 1502 8756 7524

Client was notified on: _____ Client contact: _____

Resolution to Exception: _____

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Shipping/Receiving		Phone:	Arrington, Randee E	590-5268.1	590-5268.1
Company:		E-Mail:	randee.arrington@testamericainc.com	State of Origin:	Page: 1 of 1
TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #:	590-13087-3
Address:		State Program - Washington		Preservation Codes:	
1100 NE Circle Blvd, Suite 310,		Due Date Requested:		A - HCL	
Corvallis		5/5/2020		M - Hexane	
State, Zip:		TAT Requested (days):		N - None	
OR, 97330		PO #:		O - AsNaO2	
Phone:		WO #:		P - Na2O4S	
541-243-0980(Tel)		Project #:		Q - Na2SO3	
Email:		59000877		R - Na2SO3	
Project Name:		SSOW#:		S - H2SO4	
Riverfront Park (0110-148-06)		Sample Date:		T - TSP Dodecahydrate	
Site:		4/24/20		U - Acetone	
Sample Identification - Client ID (Lab ID)		Sample Time		V - MCAA	
RFPNB-13C (4-4.5) (590-13087-2)		09:00 Pacific		W - pH 4-5	
Matrix (W=water, S=solid, O=water/soil, BT=Trace, A=At)		Sample Type (C=comp, G=grab)		X - EDTA	
Solid		Preservation Code:		L - EDA	
Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		Other:	
X		X		Total Number of Containers	
SUB (WA Method 80-12 DW) / WA Method 80-12 DW		SUB (WA Method 80-12 DW) / WA Method 80-12 DW		Special Instructions/Note:	
X		X		1 B4685-01	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify)
 Empty Kit Relinquished by: _____ Date: _____
 Primary Deliverable Rank: 2
 Relinquished by: *MARIA GRODE* Date/Time: *4/24/20 15:48*
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Custody Seals Intact: Yes No
 Custody Seal No.: _____
 Received by: *Alyssa Lampa* Date/Time: *5/5/20 09:55*
 Company: *TESTA*
 Received by: _____ Date/Time: _____
 Company: _____
 Received by: _____ Date/Time: _____
 Company: _____
 Cooler: Temperature(s) °C and Other Remarks: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements: _____
 Method of Shipment: _____



Environment Testing
TestAmerica

WDOE 80-12 DESIGNATION REPORT

Project Name: ET-Spokane
Location: SPOKANE, WASHINGTON
Attention: Randee Arrington

Prepared by: Eurofins TestAmerica - Corvallis

1100 NE Circle Boulevard, Suite 310
Corvallis, Oregon 97330
541-243-6137



Oregon Environmental Laboratory Accreditation Program #OR100022 (NELAP)
State of Washington DOE Environmental Laboratory Accreditation Program, Lab ID C556
California State Environmental Laboratory Accreditation Program, Certificate No.: 1726

Report Date: June 24, 2020 Released by: Michelle Bennett

Eurofins TestAmerica – Corvallis Lab I.D. No. B4704
Eurofins TestAmerica Spokane Job Number: 590-13122-4

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METHODS AND MATERIALS	4
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DEVIATIONS FROM PROTOCOLS	4
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LABORATORY CONTACT: Alise Lampi, Aquatic Toxicity Department Manager
alyssa.lampi@testamericainc.com (541) 243-0964

INTRODUCTION

Eurofins TestAmerica – Corvallis (ET-C) Aquatic Toxicology Laboratory conducted 96-hour Washington State Hazardous Waste Regulation bioassay testing using rainbow trout (*Oncorhynchus mykiss*) on sample(s) provided by Eurofins TestAmerica Spokane, from Spokane, Washington.

The testing was initiated on June 4, 2020, on sample(s) labeled:

- ‘RFPNB-27C (4-4.5)’

Regulatory threshold tested:

- ‘Dangerous Waste’ or DW designation (a sample concentration of 100 mg/L)

OVERVIEW OF REGULATORY GUIDANCE

The following provides an overview and excerpts of applicable permit specifics, regulatory guidance, and other relevant information. This is intended only as a helpful guide, from a laboratory perspective, for understanding test outcomes. The final responsibility for interpretation of results remains with the client and/or regulatory agency.

The following is taken from the WDOE guidance (Method 80-12, Part A, June 2009 revision):

- “The Washington State Department of Ecology (Ecology) developed the acute fish toxicity test (Method 80-12) to determine if a waste meets the definition of dangerous waste in the *Dangerous Waste Regulations*, Chapter 173-303 WAC.”
- “If the toxicity of a waste is unknown, the waste must be tested for dangerous waste designation using Method 80-12. The waste concentrations of 100 mg/L and 10 mg/L were selected to correspond with the definitions of dangerous waste and extremely hazardous waste, respectively.”
- “This method determines if the sample waste LC₅₀ is significantly less than or equal to the regulatory threshold of 100 mg/L dangerous waste (DW), 10 mg/L extremely hazardous waste (EHW) ...”
- “Waste designated by Method 80-12 [as DW or EHW] must be regulated and managed as specified in WAC 173-303 ...”

The following is taken from *Dangerous Waste Regulations*, Chapter 173-303 WAC:

- 100 (5)(c)(ii): “The EHW ... bioassay. To determine if a waste is EHW, a person must establish the toxicity of a waste by means of the fish bioassay at 10 mg/L ...”
 - **“If the data from the test indicates that the waste is EHW, then the person will assign the dangerous waste number WT01.”**
 - **“Otherwise, the waste will be designated DW, and the person will assign the dangerous waste number WT02.”** [unless DW testing proves otherwise]
- 100 (5)(c)(i): “The DW bioassay. To determine if a waste is DW, a person must establish the toxicity category range of a waste by means of the 100 mg/L acute static fish test ...”

- “If the data from the test indicates that the waste is DW, then the person will assign the dangerous waste number WT02.”
- “Otherwise, the waste is not regulated as toxic dangerous waste.”
- 100 (5)(d): “If the designation acquired from book designation and bioassay data do not agree, then bioassay data will be used to designate a waste. If a waste is designated as DW or EHW following the book designation procedure, a person may test the waste by means of the ... static acute fish ... method, to demonstrate that the waste is not a dangerous waste or should be designated as DW and not EHW.”

SUMMARY OF TEST RESULTS

Exhibit 1 provides a summary of the final test results.

EXHIBIT 1

Summary of Static Acute Test Results

Sample ID	Does the sample designate as an Extremely Hazardous Waste	Does the sample designate as a Dangerous Waste (DW)?
‘RFPNB-27C (4-4.5)’	NA	No

METHODS AND MATERIALS

TEST METHODS

The test was performed according to: *Biological Testing Methods*, Washington State Department of Ecology, DOE 80-12, Revised June 2009.

DEVIATIONS FROM PROTOCOLS

Deviations from required procedures in the test methods:

- For the *O. mykiss* WDOE 80-12 test, some of the instantaneous temperature readings fell outside of the required range of 12±1°C. This situation is detailed further in the Results and Discussion section of this report.
- The required conductivity was not collected at test initiation. This situation is detailed further in the Results and Discussion section of this report.

Deviations from recommended procedures in the test methods:

- None noted.

TEST DESIGN

The following summarizes the conditions used for both overall testing and the specifics for each test (observations and notations can be found on the datasheets in Appendix A):

Overall Test Design:

- *O. mykiss* Acute test: 100 mg/L sample (dangerous waste designation) + dilution water for the control.

Test Organism Conditions:

- All organisms tested were fed and maintained during culturing, acclimation, and testing as prescribed by WDOE (2009).
- The test organisms appeared vigorous and in good condition prior to testing.

O. mykiss acute test:

- Source: Thomas Fish Company, Anderson, California
- Age:
 - 30 to 90 days old (After Swim Up), within a 24 hour age range
 - Minimum 7 day acclimation period prior to test initiation
- Design: Three test vessels per concentration, Ten organisms per vessel
- Loading of Test Chambers: Less than 0.8 g of fish per Liter of water
- Test Solution Preparation:
 - Sample particles were reduced (as needed) to smaller than ~ 1 cm in its narrowest dimension.
 - Appropriate amount of sample was placed into borosilicate glass jar with 200 ml of dilution water and tumbled for ~ 18 hours at ambient lab temperatures (~ 23 °C).
 - Jar and all contents placed into aquaria containing additional volume of dilution water to create final sample concentration.
 - Test organisms introduced to test chambers within 30 minutes of jar addition.
- Test Solution Renewal: None
- Monitoring:
 - Test Initiation: DO and pH; all test chambers
 - Test Initiation: Temperature, Conductivity, Hardness, and Alkalinity; all concentrations
 - Daily: Survival, DO, and pH; all test chambers
 - Daily: Temperature and Survival, DO, pH, and temperature; all concentrations.
 - Test Termination: Survival, DO, and pH; all test chambers
 - Test Termination: Temperature, Conductivity, Hardness, and Alkalinity; all concentrations
- Termination: 96 hours.
- Endpoints: Survival (at termination)

DILUTION WATER

The dilution water used was the standard culture water used by ET-C:

- Reconstituted, moderately hard water (as per EPA protocol) with a total hardness of 75 to 105 mg/L as CaCO₃ and an alkalinity of 50 to 75 mg/L as CaCO₃.

SAMPLE COLLECTION AND STORAGE

Sample collection was performed by ET-Spokane personnel. The samples were accepted as scheduled by ET-C. Chain of Custody and Sample Receipt Records are provided in Appendix C.

- Following receipt, the samples were stored in the dark at 0 to 6 °C until test solutions were prepared and tested.

DATA ANALYSIS

The statistical analyses performed for the acute tests were those outlined in *Biological Testing Methods*, Washington State Department of Ecology, DOE 80-12, Revised June 2009.

- The statistical outputs are included with each test's datasheets in Appendix A.

RESULTS AND DISCUSSION

The raw data sheets for all tests are presented in Appendix A.

WDOE Method 80-12 DEFINITION

Extremely Hazardous Waste (EHW): 96 hr LC₅₀ concentration less than or equal to 10 mg/L.
Dangerous Waste (DW): 96 hr LC₅₀ concentration less than or equal to 100 mg/L.

ACUTE BIOASSAY

Table 1 summarizes the survival data for the *O. mykiss* acute testing.

Sample	Concentration (mg/L)	Number Dead/ Number Tested
Control	0	1/30
‘RFPNB-27C (4-4.5)’	100	1/30

According to the definitions listed above, samples should not be classified as a “Dangerous Waste”.

WDOE guidance requires test temperature to remain at 12.0±1.0°C for the acute tests. On day 4 of the *O. mykiss* test, the instantaneous temperatures in the test concentrations were slightly outside of this range at 10.8 to 12.8 °C. It is the laboratory’s professional judgment that the minor deviation in the test temperature did not appear to affect the test results and the test should be accepted.

The conductivity was not taken at test initiation as required by the WDOE manual. WDOE manual states that the conductivity must be measured in the test and control tanks at the start of the test and at the end of the test. However, it is ET-C’s professional opinion that missing the required conductivity had no significant impact on test results.

The dissolved oxygen levels in the chronic tests remained above 6.0 mg/L. Except as noted, test temperatures remained at 12±1°C.

The *O. mykiss* acute test meets Test Acceptability Criteria (TAC) of a minimum 90 percent control survival. Other than noted above, the test proceeded without any deviations or interruptions that could have affected test results. The testing should be considered “valid”.

REFERENCE TOXICANT TEST

Reference toxicant (reftox) testing is performed to document both initial and ongoing laboratory performance of the test method(s). While the health of the test organisms is primarily evaluated by the performance of the laboratory control, reftox test results also may be used to assess the health and sensitivity of the test organisms. Reftox test results within their respective cumulative summary (Cusum) chart limits are indicative of consistent laboratory performance and normal test organism sensitivity.

The results of the reftox test indicate that the test organisms were within their respective cusum chart limits based on EPA guidelines. This demonstrates ongoing laboratory proficiency of the test methods and suggests normal test organism sensitivity in the associated client testing.

The *O. mykiss* reftox test was conducted using potassium chloride.

The data sheets for the reference toxicant test are provided in Appendix B.

Table 2 summarizes the reference toxicant test results and Cusum chart limits.

Table 2		
Acute Reference Toxicant Test (g/L)		
Species	LC₅₀	Cusum Chart Limits
<i>Oncorhynchus mykiss</i>	1.52	0.67 to 2.96

APPENDIX A
RAW DATA SHEETS

FRESHWATER TOXICITY TEST: SAMPLE AND DILUTION WATER DATA

Client ET-Spokane
Contact Randee Arrington

SDG # B4704

Test Initiation: Date 6-4-20
Test Termination: Date 6-8-20

Sample ID Number	Field ID	Date (mm/dd/yy)	Collected Time (Pacific Zone)	Date Received	Temp (°C) <small>as Rcv'd</small>	Sample Concentration (mg/L)	Ammonia NH ₃ -N	Hardness (mg/l as CaCO ₃)	Alkalinity (mg/l as CaCO ₃)
B4704	-01 RFPNB-27C (4-4.5)	5/5/20	14:05	6/3/20	NA	100 mg/L	-	0 hrs: 80 96 hrs: 75	0 hrs: 60 96 hrs: 60

Note: "-" Indicates data collection or dechlorination not needed. Any other adjustments to samples prior to use are documented in Comments below or on Dilutions page.

Dilution Water	ID#	Hardness (mg/l as CaCO ₃)		Alkalinity (mg/l as CaCO ₃)	
		0 hrs	96 hrs	0 hrs	96 hrs
Recon MH (FHM)	5109	80	80	60	50

Reporting Limits: na

Comments: Indicates the action was taken, (☐ = action not taken):

" - " = sample not dechlorinated, or analyte not collected/needed.

FRESHWATER TOXICITY TEST: TEST ORGANISM INFORMATION

Client ET-Spokane Sample Designation (SDG): B B4704

Test Species Information	RBT # <u>419</u> <i>Oncorhynchus mykiss</i> Acute				
Organism Age at Initiation	<u>66</u> Days <u>ASU</u>				
Test Container Size	<u>2.5</u> gallon				
Test Volume	5 L				
Feeding: Type and Amount	<i>TetraMin</i> during acclimation				
Aeration:	<input checked="" type="checkbox"/> None <input type="checkbox"/> Prior to use <input type="checkbox"/> @ _____ hrs				
In Test Chambers via Slow Bubble :					
Acclimation Period	<u>58</u> Days				
Organism Source	<i>Thomas Fish</i>				
Size	<u>29.2 mm</u>				
Loading Rate	<u>0.41g/L</u>				

Dissolved Oxygen aeration justifications (in test chambers):

Test(s): All _____
Date: _____

Comments:

SAMPLE WEIGHT

Client _____ ET-Spokane

Tumbling Start Date: 6/3/20 Time: 1500 Initials: BC

Client ID#	Lab ID#	Concentration (mg/L)	Target Weight (g)	Actual Weight (g)
RFPNB-27C (4-4.5)	B4704-01	100 mg/L A	0.500	0.50196
		100 mg/L B	0.500	0.50177
		100 mg/L C	0.500	0.50186

96 HOUR FRESHWATER TOXICITY TEST SURVIVAL AND WATER QUALITY DATA

Waterbath/Incubator Used: # INC 9 SDG's # B4704 Sample Description: see below

Also collect: Hardness and Alkalinity in 100 mg/L @ 0 hrs. AND Hard & Alk in both Control & 100 mg/L @ 96 hrs (or when survival = 0%)

Client: ET-Spokane Technician: BC 0 hr BC 24 hr BC 48 hr BC

Test Species: Oncorhynchus mykiss ID# RBT 419 Therm. ID# 280 Time: 0 hr 09:15 24 hr 09:20 48 hr 09:20 96 hr 09:20

Test Initiation Date: 6/4/20 72 hr 09:20 96 hr 09:20

Termination Date: 6/8/20 72 hr 11:25 96 hr 11:25

Conductivity (µmols/cm): 250 # 250 72 hr 250 96 hr 250

Collect Hardness and Alkalinity @ 96 hrs

Concentration	Test Container Number	Number of Live Organisms					Dissolved Oxygen (mg/l)					pH					Temperature (°C)					Conductivity (µmols/cm)						
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96		
Control	A	10	10	10	10	10	10.1	9.8	9.7	9.6	9.5	8.1	7.9	7.5	7.8	7.7	7.3	11.5	11.2	11.6	11.4	10.8	*	290				301
	B	10	10	10	10	9	10.3	9.3	9.8	9.5	9.1	8.3	7.8	7.5	7.7	7.3												
	C	10	10	10	10	10	10.3	9.5	9.7	9.5	9.5	8.1	7.8	7.5	7.7	7.3												
-01 100 mg/L RFPNB-27C (4.5)	A	10	10	10	10	10	10.1	9.8	9.7	9.6	9.6	8.3	7.8	7.5	7.6	7.6	7.6	12.9	12.6	12.3	12.6	12.8	*	289				305
	B	10	10	10	10	10	10.1	9.3	9.1	9.4	8.4	7.7	7.6	7.5	7.7													
	C	10	10	10	10	9	10.2	9.5	9.7	9.4	9.7	8.3	7.9	7.6	7.6	7.7												

* Missed measurement BC 6/5/20

Summary of Test Results						
for		ET-Spokane				
LabID: B4707		Start Date: 06/04/20				
Control		10 mg/L		100 mg/L		
Replicate	Number	Proport.	Number	Proport.	Number	Proport.
	Dead	Dead	Dead	Dead	Dead	Dead
A	0	0.0000	n/a	n/a	0	0.0000
B	1	0.1000	n/a	n/a	0	0.0000
C	0	0.0000	n/a	n/a	1	0.1000
Mean		0.0333		n/a		0.0333
Variance		0.0033		n/a		0.0033

F statistic for variance test		
	10 mg/L	100 mg/L
Calculated F statistic	n/a	1.00
Critical F degrees of freedom (Numerator, Denominator)	2 , 2	2 , 2
Critical F (See Table 2 WDOE 80-12)	39	39
Equal Variance?	n/a	Yes

t-Test		
	10 mg/L	100 mg/L
Calculated t statistic	n/a	-10.66
Critical t degrees of freedom	n/a	4
Critical t value (See Table 3 WDOE 80-12)	n/a	-1.53
Does Waste Designate as an Extremely Hazardous Waste ?	... as a Dangerous Waste ?
	n/a	No

APPENDIX B
REFERENCE TOXICANT DATA SHEETS

REFERENCE TOXICANT DATA SHEET

Client QA/QC Reference Toxicant KCl Test Chamber Size 2.5 gal. Test Begin: Date 4/22/2020 Time 15:15

Organism Oncorhynchus mykiss Stock Solution 50 g/L in DI (ASTM Type I) water Volume per Replicate 5 L Test End: Date 4/26/20 Time 13:40

Source Thomas Fish Co. Reagent Log ID # 2 B 081 Dilution Water Total Alkalinity as CaCO₃ 4.22 *Dilution Water (Recon MH) ID# 5083

□ = Dilution Water Total Hardness as CaCO₃ 90

ID# 419 Technician JK 24 hr BC 48 hr BC 96 hr TA/SD

**Age 2.3 days ASU Time 15:15 24 hr 1040 48 hr 0815 96 hr 1340

Organism size 29.7 mm Therm. ID # 250 24 hr 250 48 hr 250 96 hr 250

Loading rate 0.31 g/L

Conc. (g/L)	Rep	Number of Live Organisms (use 10 per replicate)			Dissolved Oxygen (mg/l)			pH			Temperature (°C)			Conductivity (mS)							
		0	24	48	72	96	0	24	48	72	96	0	24	48	72	96					
Cont.	A	10	10	10	10	10	10.0	9.7	9.5	9.5	7.8	7.1	7.7	6.9	7.0	12.2	12.5	12.6	12.6	315	301
0.5	A	10	10	10	10	10	10.0	9.8	9.6	9.7	7.8	7.2	7.7	7.2	7.2	11.6	12.3	12.3	11.94	1159	
1.0	A	10	10	10	10	10	9.9	9.8	9.7	9.8	7.8	7.2	7.7	7.3	7.4	11.3	12.6	12.1	12.1	2080	2010
2.0	A	10	6	1	1	1	10.1	9.9	9.7	10.1	2.8	7.3	8.0	7.5	7.7	11.3	12.1	12.1	12.3	3680	3440
4.0	A	10	0	0	0	0	10.1	10.0	—	—	7.9	7.4	—	—	—	11.3	—	—	—	7090	7200
8.0	A	10	0	0	0	0	10.2	9.8	—	—	7.9	7.5	—	—	—	11.5	—	—	—	13610	13650
		Survival in Controls: ≥ 90% (required Test Acceptability Criteria)			DO: (@ 12°C): > 4.0 and < 10.8 (recommended QA)			pH: > 6.0 and < 9.0 (recommended QA)			Temperature: ± 1 °C (recommended QA)			Conductivity: (QA) none							

*Dilution Water Code: Recon = reconstituted water MH = moderately hard 96 Hour LC₅₀ 1.52

Task Manager [Signature]

Project Manager [Signature]

QA Officer [Signature]

**Age 2.67 to 2.96 Cusum Chart Limits 0.62 to 2.90

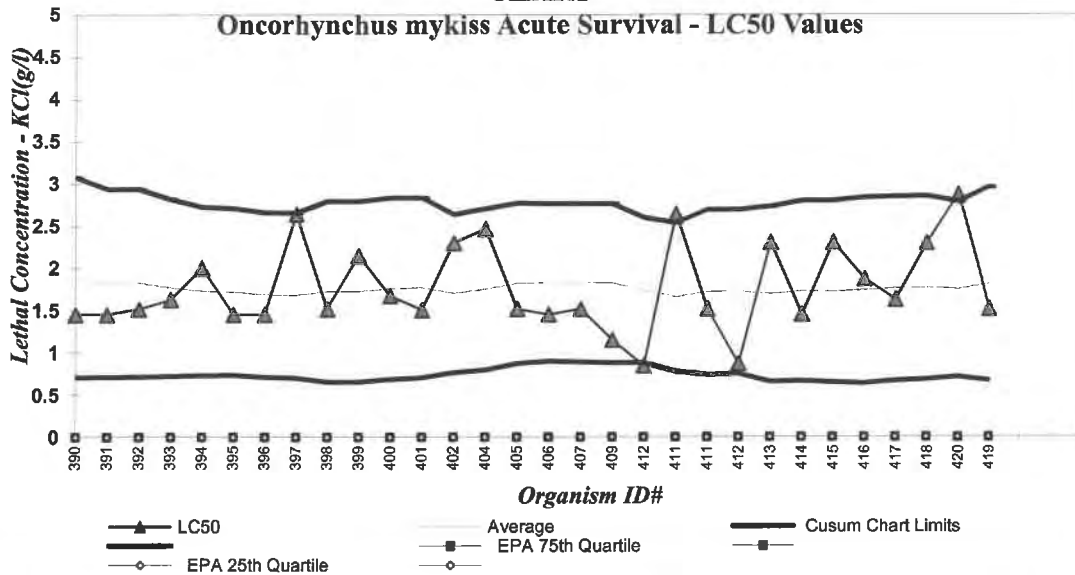
Statistical Method Sporn-Krebs

Statistical Method Sporn-Krebs

Statistical Method Sporn-Krebs

We verify this data is true and correct.

**REFERENCE TOXICANT CUMULATIVE SUMMARY (CUSUM)
CHART**



Oncorhynchus mykiss - ACUTE (EPA Test Method 2019.0)

POTASIUUM CHLORIDE (g/L)

Organism age: 15 to 90 days

Endpoint: 48 hour Survival

Stats Method: Probit, Spearman-Kärber, Linear Interpolation

Test Conditions: Recon MH, 12 oC

From EPA 833-R-00-003:

10th Quartile CV (*control limit*) = na

25th Quartile CV (*warning limit*) = na

75th Quartile CV (*warning limit*) = na

90th Quartile CV (*control limit*) = na

As per EPA 833-R-00-003, section B.2.1, the quartiles listed above are from just a few labs (5) and therefore not to be considered typical or representative. Cusum limits are based on ASL data only.

Event #	RBT ID #	Test Start Date	LC50	Running Average	Running SD	Cusum Chart Limits		Intralab CV
						AVG-2SD	AVG+2SD	
102	400	4/25/2019	1.67	1.76	0.54	0.68	2.83	0.30
103	401	5/16/2019	1.51	1.77	0.53	0.70	2.84	0.28
104	402	5/22/2019	2.30	1.70	0.47	0.76	2.64	0.27
105	404	6/21/2019	2.46	1.75	0.48	0.79	2.70	0.26
106	405	7/17/2019	1.52	1.82	0.48	0.87	2.77	0.26
107	406	7/31/2019	1.45	1.83	0.47	0.90	2.76	0.26
108	407	8/15/2019	1.52	1.83	0.47	0.89	2.76	0.26
109	409	10/1/2019	1.15	1.82	0.47	0.88	2.76	0.25
110	412	10/16/2019	0.84	1.74	0.43	0.87	2.60	0.27
111	411	10/22/2019	2.64	1.65	0.44	0.78	2.53	0.28
112	411	10/28/2019	1.52	1.71	0.49	0.74	2.69	0.28
113	412	10/16/2019	0.87	1.72	0.49	0.75	2.69	0.31
114	413	11/6/2019	2.30	1.69	0.52	0.65	2.73	0.31
115	414	11/20/2019	1.45	1.73	0.53	0.66	2.80	0.31
116	415	12/3/2019	2.30	1.72	0.54	0.64	2.79	0.32
117	416	12/31/2019	1.87	1.73	0.55	0.63	2.83	0.31
118	417	2/11/2020	1.62	1.75	0.55	0.66	2.85	0.31
119	418	3/16/2020	2.30	1.76	0.54	0.68	2.85	0.30
120	420	4/17/2020	2.87	1.75	0.52	0.71	2.78	0.32
121	419	4/22/2020	1.52	1.81	0.57	0.67	2.96	0.32
122								
123								
124								

APPENDIX C
CHAIN OF CUSTODY



Environment Testing
TestAmerica

Sample Receipt Record

Batch Number: B 4704-01
Client/Project: ET Spokane

Date Received: 6-3-20
Received By: JF

Were custody seals intact?

Yes No N/A

Packing Material:

Ice Blue Ice Box

Temp OK? ($\leq 6^{\circ}\text{C}$) Therm ID: 123 Expires: 7/21/2020 Observed: 9.0 $^{\circ}\text{C}$, Actual Temp: 8.6 $^{\circ}\text{C}$

Yes No N/A

If sample is noted @ $\leq 0.0^{\circ}\text{C}$, is the sample frozen or partially frozen?

Yes No N/A

Was a Chain of Custody (CoC) Provided?

Yes No N/A

Was the CoC correctly filled out? (If No, document below)

Yes No N/A

Were the sample containers in good condition (not broken or leaking)?

Yes No N/A

Are all samples within 36 hours of collection?

Yes No N/A

Method of Shipment: Hand Delivered, FedEx, UPS, Greyhound, Other: _____ N/A

Sample Exception Report (The following exceptions were noted)

TRK # 1502 8756 8520

sample is rocks in liquid @ 9.0 TR

Client was notified on:

Client contact:

Resolution to Exception:

Chain of Custody Record



Environment Testing
 America



Client Information (Sub Contract Lab)
 Shipping/Receiving
 Company:
 TestAmerica Laboratories, Inc.
 Address:
 1100 NE Circle Blvd, Suite 310,
 Corvallis
 State, Zip:
 OR, 97330
 Phone:
 541-243-0980(Tel)
 Email:

Lab P/N:
 Arrington, Randee E
 E-Mail:
 randee.arrington@testamericainc.com
 Accreditations Required (See note):
 State Program - Washington

Carrier Tracking No(s):
 State of Origin:
 Washington
 COC No:
 590-5315.1
 Page:
 Page 1 of 1
 Job #:
 590-13122-4

Analysis Requested

M - Hexane
N - None
O - As/NaO2
P - Na2O4S
Q - Na2SO3
R - MeOH
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Sample Identification - Client ID (Lab ID)
 RFPNB-27C (4-4.5) (590-13122-5)

Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oresterol, BT=titania, AA=Al)	Preservation Code:
5/5/20	14:05 Pacific		Solid	

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For: _____ Months
 Special Instructions/QC Requirements:

Received by: *[Signature]*
 Date: 6-2-20 1:00
 Company: ETC
 Received by:
 Date/Time:
 Company:
 Received by:
 Date/Time:
 Company:
 Cooler Temperature(s) °C and Other Remarks:

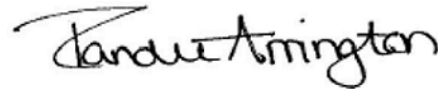
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-12823-1
Laboratory Sample Delivery Group: 0110-148-06
Client Project/Site: Riverfront Park (0110-148-06)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
3/16/2020 4:30:34 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

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results through
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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Job ID: 590-12823-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 2/28/2020 4:07 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 11.7° C.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: RFPMB-1(0-1) (590-12823-1), RFPMB-1(2-3) (590-12823-2), RFPMB-2(0-1) (590-12823-3), RFPMB-2(1-2) (590-12823-4) and RFPMB-3(0.5-1.5) (590-12823-5). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS Semi VOA

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

Metals

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

General Chemistry

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

Organic Prep

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

Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-12823-1	RFPMB-1(0-1)	Solid	02/28/20 12:54	02/28/20 16:07	
590-12823-2	RFPMB-1(2-3)	Solid	02/28/20 13:00	02/28/20 16:07	
590-12823-3	RFPMB-2(0-1)	Solid	02/28/20 13:05	02/28/20 16:07	
590-12823-4	RFPMB-2(1-2)	Solid	02/28/20 13:07	02/28/20 16:07	
590-12823-5	RFPMB-3(0.5-1.5)	Solid	02/28/20 13:11	02/28/20 16:07	

1

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12

Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Client Sample ID: RFPMB-1(0-1)

Lab Sample ID: 590-12823-1

Date Collected: 02/28/20 12:54

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 95.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	13		10	2.2	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
2-Methylnaphthalene	24		10	3.2	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
1-Methylnaphthalene	18		10	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Acenaphthylene	5.7	J	10	3.4	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Acenaphthene	2.9	J	10	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Fluorene	2.4	J	10	2.2	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Phenanthrene	39		10	3.7	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Anthracene	9.4	J	10	2.0	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Fluoranthene	59		10	2.5	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Pyrene	67		10	3.9	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Benzo[a]anthracene	38		10	2.2	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Chrysene	53		10	1.5	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Benzo[b]fluoranthene	60		10	3.6	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Benzo[k]fluoranthene	19		10	2.5	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Benzo[a]pyrene	40		10	4.3	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Indeno[1,2,3-cd]pyrene	25		10	3.0	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Dibenz(a,h)anthracene	9.8	J	10	2.9	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1
Benzo[g,h,i]perylene	33		10	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	73		43 - 120	03/05/20 07:37	03/05/20 15:11	1
2-Fluorobiphenyl (Surr)	92		56 - 120	03/05/20 07:37	03/05/20 15:11	1
p-Terphenyl-d14	92		74 - 136	03/05/20 07:37	03/05/20 15:11	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15		1.2	0.47	mg/Kg	☼	03/09/20 07:57	03/11/20 10:28	1
Cadmium	2.8		0.96	0.056	mg/Kg	☼	03/09/20 07:57	03/16/20 13:39	1
Lead	1300		2.9	1.4	mg/Kg	☼	03/09/20 07:57	03/11/20 10:28	1

Client Sample ID: RFPMB-1(2-3)

Lab Sample ID: 590-12823-2

Date Collected: 02/28/20 13:00

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 94.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		11	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
2-Methylnaphthalene	ND		11	3.3	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
1-Methylnaphthalene	ND		11	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Acenaphthylene	ND		11	3.5	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Acenaphthene	ND		11	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Fluorene	ND		11	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Phenanthrene	4.7	J	11	3.9	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Anthracene	ND		11	2.1	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Fluoranthene	12		11	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Pyrene	18		11	4.0	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Benzo[a]anthracene	9.3	J	11	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Chrysene	13		11	1.6	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Benzo[b]fluoranthene	13		11	3.7	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Benzo[k]fluoranthene	5.4	J	11	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Client Sample ID: RFPMB-1(2-3)

Lab Sample ID: 590-12823-2

Date Collected: 02/28/20 13:00

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 94.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	9.7	J	11	4.5	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Indeno[1,2,3-cd]pyrene	6.0	J	11	3.2	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Dibenz(a,h)anthracene	3.8	J	11	3.0	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Benzo[g,h,i]perylene	7.3	J	11	2.5	ug/Kg	☼	03/05/20 07:37	03/05/20 15:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	57		43 - 120				03/05/20 07:37	03/05/20 15:38	1
2-Fluorobiphenyl (Surr)	73		56 - 120				03/05/20 07:37	03/05/20 15:38	1
p-Terphenyl-d14	82		74 - 136				03/05/20 07:37	03/05/20 15:38	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		1.2	0.47	mg/Kg	☼	03/09/20 07:57	03/11/20 10:32	1
Cadmium	0.23	J	0.94	0.056	mg/Kg	☼	03/09/20 07:57	03/16/20 13:43	1
Lead	140		2.8	1.4	mg/Kg	☼	03/09/20 07:57	03/11/20 10:32	1

Client Sample ID: RFPMB-2(0-1)

Lab Sample ID: 590-12823-3

Date Collected: 02/28/20 13:05

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 84.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	20		12	2.5	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
2-Methylnaphthalene	39		12	3.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
1-Methylnaphthalene	30		12	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Acenaphthylene	ND		12	3.9	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Acenaphthene	4.5	J	12	3.0	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Fluorene	ND		12	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Phenanthrene	28		12	4.2	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Anthracene	4.9	J	12	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Fluoranthene	22		12	2.9	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Pyrene	24		12	4.4	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Benzo[a]anthracene	14		12	2.5	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Chrysene	19		12	1.8	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Benzo[b]fluoranthene	22		12	4.1	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Benzo[k]fluoranthene	8.8	J	12	2.9	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Benzo[a]pyrene	16		12	4.9	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Indeno[1,2,3-cd]pyrene	10	J	12	3.5	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Dibenz(a,h)anthracene	5.5	J	12	3.3	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Benzo[g,h,i]perylene	13		12	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 16:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	58		43 - 120				03/05/20 07:37	03/05/20 16:04	1
2-Fluorobiphenyl (Surr)	71		56 - 120				03/05/20 07:37	03/05/20 16:04	1
p-Terphenyl-d14	85		74 - 136				03/05/20 07:37	03/05/20 16:04	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		1.2	0.49	mg/Kg	☼	03/09/20 07:57	03/11/20 10:35	1
Cadmium	0.23	J	0.98	0.058	mg/Kg	☼	03/09/20 07:57	03/16/20 13:46	1
Lead	42		2.9	1.4	mg/Kg	☼	03/09/20 07:57	03/11/20 10:35	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Client Sample ID: RFPMB-2(1-2)

Lab Sample ID: 590-12823-4

Date Collected: 02/28/20 13:07

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 92.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		11	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
2-Methylnaphthalene	ND		11	3.3	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
1-Methylnaphthalene	ND		11	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Acenaphthylene	ND		11	3.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Acenaphthene	ND		11	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Fluorene	ND		11	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Phenanthrene	ND		11	3.9	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Anthracene	ND		11	2.1	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Fluoranthene	ND		11	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Pyrene	ND		11	4.1	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Benzo[a]anthracene	ND		11	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Chrysene	ND		11	1.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Benzo[b]fluoranthene	ND		11	3.8	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Benzo[k]fluoranthene	ND		11	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Benzo[a]pyrene	ND		11	4.5	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Indeno[1,2,3-cd]pyrene	ND		11	3.2	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Dibenz(a,h)anthracene	ND		11	3.0	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1
Benzo[g,h,i]perylene	ND		11	2.5	ug/Kg	☼	03/05/20 07:37	03/05/20 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	61		43 - 120	03/05/20 07:37	03/05/20 16:30	1
2-Fluorobiphenyl (Surr)	71		56 - 120	03/05/20 07:37	03/05/20 16:30	1
p-Terphenyl-d14	81		74 - 136	03/05/20 07:37	03/05/20 16:30	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.8		1.2	0.49	mg/Kg	☼	03/09/20 07:57	03/11/20 10:39	1
Cadmium	0.10	J	0.99	0.058	mg/Kg	☼	03/09/20 07:57	03/16/20 13:50	1
Lead	12		3.0	1.5	mg/Kg	☼	03/09/20 07:57	03/11/20 10:39	1

Client Sample ID: RFPMB-3(0.5-1.5)

Lab Sample ID: 590-12823-5

Date Collected: 02/28/20 13:11

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 94.2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
2-Methylnaphthalene	ND		10	3.2	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
1-Methylnaphthalene	ND		10	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Acenaphthylene	ND		10	3.4	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Fluorene	ND		10	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Phenanthrene	ND		10	3.7	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Anthracene	ND		10	2.1	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Fluoranthene	ND		10	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Pyrene	ND		10	3.9	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Benzo[a]anthracene	ND		10	2.2	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Chrysene	ND		10	1.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Benzo[b]fluoranthene	ND		10	3.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Benzo[k]fluoranthene	ND		10	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
 SDG: 0110-148-06

Client Sample ID: RFPMB-3(0.5-1.5)

Lab Sample ID: 590-12823-5

Date Collected: 02/28/20 13:11

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 94.2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		10	4.3	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Indeno[1,2,3-cd]pyrene	ND		10	3.1	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Dibenz(a,h)anthracene	ND		10	2.9	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	65		43 - 120	03/05/20 07:37	03/05/20 16:56	1
2-Fluorobiphenyl (Surr)	77		56 - 120	03/05/20 07:37	03/05/20 16:56	1
p-Terphenyl-d14	83		74 - 136	03/05/20 07:37	03/05/20 16:56	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.9		1.1	0.45	mg/Kg	☼	03/09/20 07:57	03/11/20 10:43	1
Cadmium	0.067	J	0.92	0.054	mg/Kg	☼	03/09/20 07:57	03/16/20 14:03	1
Lead	11		2.7	1.3	mg/Kg	☼	03/09/20 07:57	03/11/20 10:43	1

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-26633/1-A
Matrix: Solid
Analysis Batch: 26635

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26633

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Naphthalene	ND		10	2.2	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Acenaphthylene	ND		10	3.3	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Acenaphthene	ND		10	2.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Fluorene	ND		10	2.2	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Phenanthrene	ND		10	3.6	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Anthracene	ND		10	2.0	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Fluoranthene	ND		10	2.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Pyrene	ND		10	3.8	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Chrysene	ND		10	1.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		03/05/20 07:33	03/05/20 10:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5	75		43 - 120	03/05/20 07:33	03/05/20 10:50	1
2-Fluorobiphenyl (Surr)	81		56 - 120	03/05/20 07:33	03/05/20 10:50	1
p-Terphenyl-d14	89		74 - 136	03/05/20 07:33	03/05/20 10:50	1

Lab Sample ID: LCS 590-26633/2-A
Matrix: Solid
Analysis Batch: 26635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26633

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Naphthalene	267	204		ug/Kg		77		39 - 120
2-Methylnaphthalene	267	202		ug/Kg		76		48 - 120
1-Methylnaphthalene	267	202		ug/Kg		76		55 - 120
Acenaphthylene	267	232		ug/Kg		87		59 - 120
Acenaphthene	267	209		ug/Kg		79		53 - 120
Fluorene	267	225		ug/Kg		85		63 - 120
Phenanthrene	267	220		ug/Kg		82		65 - 121
Anthracene	267	224		ug/Kg		84		60 - 129
Fluoranthene	267	239		ug/Kg		89		63 - 127
Pyrene	267	247		ug/Kg		93		68 - 125
Benzo[a]anthracene	267	248		ug/Kg		93		61 - 125
Chrysene	267	243		ug/Kg		91		67 - 127
Benzo[b]fluoranthene	267	240		ug/Kg		90		67 - 127
Benzo[k]fluoranthene	267	238		ug/Kg		89		63 - 127
Benzo[a]pyrene	267	220		ug/Kg		83		60 - 120
Indeno[1,2,3-cd]pyrene	267	244		ug/Kg		91		63 - 128
Dibenz(a,h)anthracene	267	247		ug/Kg		93		60 - 128
Benzo[g,h,i]perylene	267	243		ug/Kg		91		58 - 129

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
 SDG: 0110-148-06

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-26633/2-A
Matrix: Solid
Analysis Batch: 26635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26633

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	81		43 - 120
2-Fluorobiphenyl (Surr)	91		56 - 120
p-Terphenyl-d14	89		74 - 136

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-26679/2-A
Matrix: Solid
Analysis Batch: 26726

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26679

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		03/09/20 07:56	03/11/20 09:29	1
Cadmium	ND		1.0	0.059	mg/Kg		03/09/20 07:56	03/11/20 09:29	1
Lead	ND		3.0	1.5	mg/Kg		03/09/20 07:56	03/11/20 09:29	1

Lab Sample ID: MB 590-26679/2-A
Matrix: Solid
Analysis Batch: 26801

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26679

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		03/09/20 07:56	03/16/20 13:21	1
Cadmium	ND		1.0	0.059	mg/Kg		03/09/20 07:56	03/16/20 13:21	1
Lead	ND		3.0	1.5	mg/Kg		03/09/20 07:56	03/16/20 13:21	1

Lab Sample ID: LCS 590-26679/1-A
Matrix: Solid
Analysis Batch: 26726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26679

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	100	102		mg/Kg		102	80 - 120
Lead	50.0	52.5		mg/Kg		105	80 - 120

Lab Sample ID: LCS 590-26679/1-A
Matrix: Solid
Analysis Batch: 26801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26679

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	100	100		mg/Kg		100	80 - 120
Cadmium	50.0	50.6		mg/Kg		101	80 - 120
Lead	50.0	52.4		mg/Kg		105	80 - 120

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
 SDG: 0110-148-06

Client Sample ID: RFPMB-1(0-1)

Lab Sample ID: 590-12823-1

Date Collected: 02/28/20 12:54

Matrix: Solid

Date Received: 02/28/20 16:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPMB-1(0-1)

Lab Sample ID: 590-12823-1

Date Collected: 02/28/20 12:54

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.50 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			26635	03/05/20 15:11	NMI	TAL SPK
Total/NA	Prep	3050B			1.10 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 10:28	SJK	TAL SPK
Total/NA	Prep	3050B			1.10 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 13:39	SJK	TAL SPK

Client Sample ID: RFPMB-1(2-3)

Lab Sample ID: 590-12823-2

Date Collected: 02/28/20 13:00

Matrix: Solid

Date Received: 02/28/20 16:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPMB-1(2-3)

Lab Sample ID: 590-12823-2

Date Collected: 02/28/20 13:00

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 94.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.02 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			26635	03/05/20 15:38	NMI	TAL SPK
Total/NA	Prep	3050B			1.13 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 10:32	SJK	TAL SPK
Total/NA	Prep	3050B			1.13 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 13:43	SJK	TAL SPK

Client Sample ID: RFPMB-2(0-1)

Lab Sample ID: 590-12823-3

Date Collected: 02/28/20 13:05

Matrix: Solid

Date Received: 02/28/20 16:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Client Sample ID: RFPMB-2(0-1)

Lab Sample ID: 590-12823-3

Date Collected: 02/28/20 13:05

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.29 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			26635	03/05/20 16:04	NMI	TAL SPK
Total/NA	Prep	3050B			1.21 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 10:35	SJK	TAL SPK
Total/NA	Prep	3050B			1.21 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 13:46	SJK	TAL SPK

Client Sample ID: RFPMB-2(1-2)

Lab Sample ID: 590-12823-4

Date Collected: 02/28/20 13:07

Matrix: Solid

Date Received: 02/28/20 16:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPMB-2(1-2)

Lab Sample ID: 590-12823-4

Date Collected: 02/28/20 13:07

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 92.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.04 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			26635	03/05/20 16:30	NMI	TAL SPK
Total/NA	Prep	3050B			1.09 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 10:39	SJK	TAL SPK
Total/NA	Prep	3050B			1.09 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 13:50	SJK	TAL SPK

Client Sample ID: RFPMB-3(0.5-1.5)

Lab Sample ID: 590-12823-5

Date Collected: 02/28/20 13:11

Matrix: Solid

Date Received: 02/28/20 16:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPMB-3(0.5-1.5)

Lab Sample ID: 590-12823-5

Date Collected: 02/28/20 13:11

Matrix: Solid

Date Received: 02/28/20 16:07

Percent Solids: 94.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.50 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			26635	03/05/20 16:56	NMI	TAL SPK
Total/NA	Prep	3050B			1.16 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 10:43	SJK	TAL SPK
Total/NA	Prep	3050B			1.16 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 14:03	SJK	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

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Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-1
SDG: 0110-148-06

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK

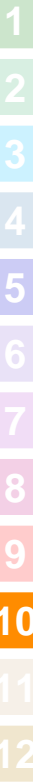
Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



TestAmerica

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11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

TURNAROUND REQUEST


In Business Days*

Organic & Inorganic Analysis
 Petroleum Hydrocarbon Analysis
 Other Specify:

STD: 7 5 4 3 2 1 <1
 STD: 5 4 3 2 1 <1

* Turnaround Request less than standard may incur Rush Charges.

CLIENT: GEI	INVOICE TO:	REPORT TO: JR Singsalski	ADDRESS: 523 E 2nd Ave, Spokane, WA
PHONE: (509)	FAX:	PHONE NUMBER: 5900877	PRESERVATIVE:
PROJECT NAME: Riverfront Park North Bank	PROJECT NUMBER: 0110-149-06	DATE: 5-28-2020	TIME: 16:07
SAMPLED BY: Justin Orr	DATE: 5-28-2020	DATE: 5-28-2020	TIME: 16:07
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	REQUESTED ANALYSES	MATRIX (W, S, O)
1. R F P M B-1 (0-1)	2-28-2020 12:54	metals* PAHs	S
2. R F P M B-1 (2-3)	1300		S
3. R F P M B-2 (0-1)	1305		S
4. R F P M B-2 (1-2)	1307		S
5. R F P M B-3 (0.5-1.5)	1311		S
6.			
7.			
8.			
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590-12823 Chain of Custody

RECEIVED BY: MARIA STOOE	DATE: 5/28/20	TIME: 16:07
PRINT NAME:	DATE:	TIME:



Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-12823-1
SDG Number: 0110-148-06

Login Number: 12823
List Number: 1
Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
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	No analysis requiring residual chlorine check assigned.



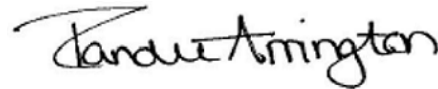
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-12823-2
Laboratory Sample Delivery Group: 0110-148-06
Client Project/Site: Riverfront Park (0110-148-06)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
4/7/2020 1:45:40 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

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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.



Table of Contents

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Table of Contents	2
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Sample Summary	4
Definitions	5
Client Sample Results	6
QC Sample Results	7
Chronicle	8
Certification Summary	9
Method Summary	10
Chain of Custody	11
Receipt Checklists	12

Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-2
SDG: 0110-148-06

Job ID: 590-12823-2

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 2/28/2020 4:07 PM; the samples arrived in good condition. The temperature of the cooler at receipt was 11.7° C.

Receipt Exceptions

The following sample was activated for TCLP Lead and Method 80-12 Bioassay analysis by the client on 03/18/2020: RFPMB-1(0-1) (590-12823-1). This analysis was not originally requested on the chain-of-custody (COC).

Metals

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

General Chemistry

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

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Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-2
SDG: 0110-148-06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-12823-1	RFPMB-1(0-1)	Solid	02/28/20 12:54	02/28/20 16:07	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-2
SDG: 0110-148-06

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-2
 SDG: 0110-148-06

Client Sample ID: RFPMB-1(0-1)

Lab Sample ID: 590-12823-1

Date Collected: 02/28/20 12:54

Matrix: Solid

Date Received: 02/28/20 16:07

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.5		0.060	0.0051	mg/L		03/20/20 07:39	03/20/20 15:57	1

- 1
- 2
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QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-2
 SDG: 0110-148-06

Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 590-26907/1-A
Matrix: Solid
Analysis Batch: 26931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	1.15		mg/L		115	80 - 120

Lab Sample ID: LB 590-26892/1-B
Matrix: Solid
Analysis Batch: 26931

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 26907

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		03/20/20 07:39	03/20/20 15:53	1

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-2
SDG: 0110-148-06

Client Sample ID: RFPMB-1(0-1)

Lab Sample ID: 590-12823-1

Date Collected: 02/28/20 12:54

Matrix: Solid

Date Received: 02/28/20 16:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.05 g	2000.01 mL	26892	03/19/20 08:45	AMB	TAL SPK
TCLP	Prep	3010A			50 mL	50 mL	26907	03/20/20 07:39	AMB	TAL SPK
TCLP	Analysis	6010C		1			26931	03/20/20 15:57	JSP	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-2
SDG: 0110-148-06

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

Laboratory: Eurofins TestAmerica, ASL

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

Authority	Program	Identification Number	Expiration Date
Iowa	State Program	418	09-01-20
US Fish & Wildlife	Federal	058448	07-31-20
USDA	Federal	P330-17-00268	08-02-20
Washington	State Program	C556	06-21-20



Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-12823-2
SDG: 0110-148-06

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL SPK
1311	TCLP Extraction	SW846	TAL SPK
3010A	Preparation, Total Metals	SW846	TAL SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



TestAmerica

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11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

TURNAROUND REQUEST

In Business Days*

Organic & Inorganic Analysis
 Petroleum Hydrocarbon Analysis
 Other Specify:

STD: 7 5 4 3 2 1 <1
 STD: 5 4 3 2 1 <1

* Turnaround Request less than standard may incur Rush Charges.

CLIENT: GEI		INVOICE TO:		P.O. NUMBER: 5900877	
REPORT TO: JR Singsalski		ADDRESS: 523 E 2nd Ave, Spokane, WA		PRESERVATIVE:	
PHONE: (509)		FAX:		REQUESTED ANALYSES:	
PROJECT NAME: Riverfront Park North Bank		PROJECT NUMBER: 0110-149-06		MATRIX (W, S, O):	
SAMPLED BY: Justin Orr		SAMPLING DATE/TIME:		# OF CONT.:	
CLIENT SAMPLE IDENTIFICATION:		DATE/TIME:		LOCATION/ COMMENTS:	
1. R F P M B-1 (0-1)		2-28-2020 1254		2 *As, Cd, Pb	
2. R F P M B-1 (2-3)		1300		2	
3. R F P M B-2 (0-1)		1305		2	
4. R F P M B-2 (1-2)		1307		2	
5. R F P M B-3 (0.5-1.5)		1311		2	
6.					
7.					
8.					
9.					
10.					



RELEASED BY: **Justin Orr** DATE: **2-28-2020** RECEIVED BY: **Maria Spool** DATE: **2/28/20**

PRINT NAME: **Justin Orr** FIRM: **GEI** DATE: **1607** PRINT NAME: **Maria Spool** FIRM: **ASPO** DATE: **16.07**

ADDITIONAL REMARKS: FIRM: **ASPO** TEMP: **11.7** PAGE: **11.7** OF

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-12823-2
SDG Number: 0110-148-06

Login Number: 12823
List Number: 1
Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



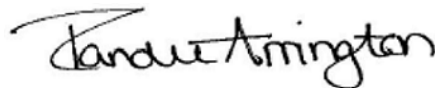
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-12833-1
Client Project/Site: Riverfront Park (0110-148-14)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
3/17/2020 9:28:28 AM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Job ID: 590-12833-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 3/3/2020 1:49 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

GC/MS Semi VOA

Method 8270E SIM: The following sample was diluted due to the nature of the sample matrix: RFPNB-7C(1.5-2) (590-12833-1). Elevated reporting limits (RLs) are provided.

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

Metals

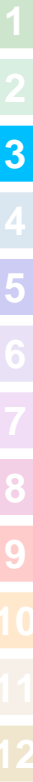
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

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

Organic Prep

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



Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-12833-1	RFPNB-7C(1.5-2)	Solid	03/03/20 11:20	03/03/20 13:49	
590-12833-2	RFPNB-8C(0.5-1)	Solid	03/03/20 11:30	03/03/20 13:49	
590-12833-3	RFPNB-9C(3-4)	Solid	03/03/20 08:50	03/03/20 13:49	
590-12833-4	RFPNB-10C(1.5-2)	Solid	03/03/20 08:55	03/03/20 13:49	
590-12833-5	RFPNB-11C(2-2.5)	Solid	03/03/20 09:00	03/03/20 13:49	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Client Sample ID: RFPNB-7C(1.5-2)

Lab Sample ID: 590-12833-1

Date Collected: 03/03/20 11:20

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 87.4

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	89	J	220	48	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
2-Methylnaphthalene	170	J	220	69	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
1-Methylnaphthalene	130	J	220	50	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Acenaphthylene	ND		220	74	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Acenaphthene	ND		220	57	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Fluorene	ND		220	49	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Phenanthrene	210	J	220	81	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Anthracene	54	J	220	45	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Fluoranthene	190	J	220	56	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Pyrene	210	J	220	85	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Benzo[a]anthracene	130	J	220	48	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Chrysene	220		220	34	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Benzo[b]fluoranthene	270		220	78	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Benzo[k]fluoranthene	110	J	220	56	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Benzo[a]pyrene	150	J	220	95	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Indeno[1,2,3-cd]pyrene	100	J	220	66	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Dibenz(a,h)anthracene	75	J	220	63	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20
Benzo[g,h,i]perylene	160	J	220	53	ug/Kg	☼	03/05/20 07:37	03/05/20 17:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	72		43 - 120	03/05/20 07:37	03/05/20 17:22	20
2-Fluorobiphenyl (Surr)	89		56 - 120	03/05/20 07:37	03/05/20 17:22	20
p-Terphenyl-d14	85		74 - 136	03/05/20 07:37	03/05/20 17:22	20

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.0		1.2	0.48	mg/Kg	☼	03/09/20 07:57	03/16/20 14:14	1
Cadmium	0.45	J	0.96	0.057	mg/Kg	☼	03/09/20 07:57	03/16/20 14:14	1
Lead	120		2.9	1.4	mg/Kg	☼	03/09/20 07:57	03/16/20 14:14	1

Client Sample ID: RFPNB-8C(0.5-1)

Lab Sample ID: 590-12833-2

Date Collected: 03/03/20 11:30

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 74.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	61		13	2.9	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
2-Methylnaphthalene	130		13	4.2	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
1-Methylnaphthalene	110		13	3.0	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Acenaphthylene	5.4	J	13	4.5	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Acenaphthene	3.8	J	13	3.4	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Fluorene	5.2	J	13	3.0	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Phenanthrene	92		13	4.9	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Anthracene	9.8	J	13	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Fluoranthene	37		13	3.4	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Pyrene	44		13	5.1	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Benzo[a]anthracene	26		13	2.9	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Chrysene	39		13	2.0	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Benzo[b]fluoranthene	41		13	4.7	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Benzo[k]fluoranthene	14		13	3.4	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Client Sample ID: RFPNB-8C(0.5-1)

Lab Sample ID: 590-12833-2

Date Collected: 03/03/20 11:30

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 74.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	25		13	5.7	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Indeno[1,2,3-cd]pyrene	16		13	4.0	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Dibenz(a,h)anthracene	8.0	J	13	3.8	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Benzo[g,h,i]perylene	19		13	3.2	ug/Kg	☼	03/05/20 07:37	03/05/20 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	63		43 - 120				03/05/20 07:37	03/05/20 17:49	1
2-Fluorobiphenyl (Surr)	77		56 - 120				03/05/20 07:37	03/05/20 17:49	1
p-Terphenyl-d14	81		74 - 136				03/05/20 07:37	03/05/20 17:49	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6		1.2	0.49	mg/Kg	☼	03/09/20 07:57	03/11/20 11:00	1
Cadmium	0.33	J	0.99	0.058	mg/Kg	☼	03/09/20 07:57	03/16/20 14:18	1
Lead	120		3.0	1.5	mg/Kg	☼	03/09/20 07:57	03/11/20 11:00	1

Client Sample ID: RFPNB-9C(3-4)

Lab Sample ID: 590-12833-3

Date Collected: 03/03/20 08:50

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 91.4

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		11	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
2-Methylnaphthalene	ND		11	3.4	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
1-Methylnaphthalene	ND		11	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Acenaphthylene	ND		11	3.6	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Acenaphthene	ND		11	2.8	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Fluorene	ND		11	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Phenanthrene	ND		11	4.0	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Anthracene	ND		11	2.2	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Fluoranthene	ND		11	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Pyrene	ND		11	4.2	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Benzo[a]anthracene	ND		11	2.3	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Chrysene	ND		11	1.7	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Benzo[b]fluoranthene	ND		11	3.8	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Benzo[k]fluoranthene	ND		11	2.7	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Benzo[a]pyrene	ND		11	4.6	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Indeno[1,2,3-cd]pyrene	ND		11	3.2	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Dibenz(a,h)anthracene	ND		11	3.1	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Benzo[g,h,i]perylene	ND		11	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 18:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	75		43 - 120				03/05/20 07:37	03/05/20 18:15	1
2-Fluorobiphenyl (Surr)	87		56 - 120				03/05/20 07:37	03/05/20 18:15	1
p-Terphenyl-d14	85		74 - 136				03/05/20 07:37	03/05/20 18:15	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.0		1.1	0.45	mg/Kg	☼	03/09/20 07:57	03/11/20 11:03	1
Cadmium	0.068	J	0.90	0.053	mg/Kg	☼	03/09/20 07:57	03/16/20 14:22	1
Lead	12		2.7	1.3	mg/Kg	☼	03/09/20 07:57	03/11/20 11:03	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Client Sample ID: RFPNB-10C(1.5-2)

Lab Sample ID: 590-12833-4

Date Collected: 03/03/20 08:55

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 81.5

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	68		24	5.2	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
2-Methylnaphthalene	120		24	7.6	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
1-Methylnaphthalene	93		24	5.4	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Acenaphthylene	17	J	24	8.1	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Acenaphthene	16	J	24	6.1	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Fluorene	10	J	24	5.4	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Phenanthrene	150		24	8.8	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Anthracene	28		24	4.9	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Fluoranthene	140		24	6.0	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Pyrene	150		24	9.3	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Benzo[a]anthracene	93		24	5.2	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Chrysene	120		24	3.7	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Benzo[b]fluoranthene	140		24	8.5	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Benzo[k]fluoranthene	55		24	6.1	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Benzo[a]pyrene	98		24	10	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Indeno[1,2,3-cd]pyrene	44		24	7.2	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Dibenz(a,h)anthracene	20	J	24	6.9	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2
Benzo[g,h,i]perylene	55		24	5.7	ug/Kg	☼	03/05/20 07:37	03/05/20 18:41	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	69		43 - 120	03/05/20 07:37	03/05/20 18:41	2
2-Fluorobiphenyl (Surr)	85		56 - 120	03/05/20 07:37	03/05/20 18:41	2
p-Terphenyl-d14	85		74 - 136	03/05/20 07:37	03/05/20 18:41	2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.6		1.2	0.49	mg/Kg	☼	03/09/20 07:57	03/11/20 11:07	1
Cadmium	0.58	J	0.99	0.058	mg/Kg	☼	03/09/20 07:57	03/16/20 14:26	1
Lead	130		3.0	1.5	mg/Kg	☼	03/09/20 07:57	03/11/20 11:07	1

Client Sample ID: RFPNB-11C(2-2.5)

Lab Sample ID: 590-12833-5

Date Collected: 03/03/20 09:00

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 87.8

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	8.3	J	11	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
2-Methylnaphthalene	12		11	3.5	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
1-Methylnaphthalene	9.0	J	11	2.5	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Acenaphthylene	3.7	J	11	3.7	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Acenaphthene	5.8	J	11	2.8	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Fluorene	5.1	J	11	2.5	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Phenanthrene	32		11	4.1	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Anthracene	11		11	2.2	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Fluoranthene	36		11	2.8	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Pyrene	52		11	4.3	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Benzo[a]anthracene	18		11	2.4	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Chrysene	45		11	1.7	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Benzo[b]fluoranthene	37		11	3.9	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Benzo[k]fluoranthene	11		11	2.8	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Client Sample ID: RFPNB-11C(2-2.5)

Lab Sample ID: 590-12833-5

Date Collected: 03/03/20 09:00

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 87.8

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	27		11	4.7	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Indeno[1,2,3-cd]pyrene	11		11	3.3	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Dibenz(a,h)anthracene	7.7	J	11	3.2	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1
Benzo[g,h,i]perylene	17		11	2.6	ug/Kg	☼	03/05/20 07:37	03/05/20 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	71		43 - 120	03/05/20 07:37	03/05/20 19:07	1
2-Fluorobiphenyl (Surr)	90		56 - 120	03/05/20 07:37	03/05/20 19:07	1
p-Terphenyl-d14	93		74 - 136	03/05/20 07:37	03/05/20 19:07	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		1.2	0.46	mg/Kg	☼	03/09/20 07:57	03/11/20 11:11	1
Cadmium	0.34	J	0.93	0.055	mg/Kg	☼	03/09/20 07:57	03/16/20 14:29	1
Lead	52		2.8	1.4	mg/Kg	☼	03/09/20 07:57	03/11/20 11:11	1

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-26633/1-A
Matrix: Solid
Analysis Batch: 26635

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Acenaphthylene	ND		10	3.3	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Acenaphthene	ND		10	2.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Fluorene	ND		10	2.2	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Phenanthrene	ND		10	3.6	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Anthracene	ND		10	2.0	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Fluoranthene	ND		10	2.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Pyrene	ND		10	3.8	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Chrysene	ND		10	1.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		03/05/20 07:33	03/05/20 10:50	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		03/05/20 07:33	03/05/20 10:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	75		43 - 120	03/05/20 07:33	03/05/20 10:50	1
2-Fluorobiphenyl (Surr)	81		56 - 120	03/05/20 07:33	03/05/20 10:50	1
p-Terphenyl-d14	89		74 - 136	03/05/20 07:33	03/05/20 10:50	1

Lab Sample ID: LCS 590-26633/2-A
Matrix: Solid
Analysis Batch: 26635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	204		ug/Kg		77	39 - 120
2-Methylnaphthalene	267	202		ug/Kg		76	48 - 120
1-Methylnaphthalene	267	202		ug/Kg		76	55 - 120
Acenaphthylene	267	232		ug/Kg		87	59 - 120
Acenaphthene	267	209		ug/Kg		79	53 - 120
Fluorene	267	225		ug/Kg		85	63 - 120
Phenanthrene	267	220		ug/Kg		82	65 - 121
Anthracene	267	224		ug/Kg		84	60 - 129
Fluoranthene	267	239		ug/Kg		89	63 - 127
Pyrene	267	247		ug/Kg		93	68 - 125
Benzo[a]anthracene	267	248		ug/Kg		93	61 - 125
Chrysene	267	243		ug/Kg		91	67 - 127
Benzo[b]fluoranthene	267	240		ug/Kg		90	67 - 127
Benzo[k]fluoranthene	267	238		ug/Kg		89	63 - 127
Benzo[a]pyrene	267	220		ug/Kg		83	60 - 120
Indeno[1,2,3-cd]pyrene	267	244		ug/Kg		91	63 - 128
Dibenz(a,h)anthracene	267	247		ug/Kg		93	60 - 128
Benzo[g,h,i]perylene	267	243		ug/Kg		91	58 - 129

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-26633/2-A
Matrix: Solid
Analysis Batch: 26635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26633

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	81		43 - 120
2-Fluorobiphenyl (Surr)	91		56 - 120
p-Terphenyl-d14	89		74 - 136

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-26679/2-A
Matrix: Solid
Analysis Batch: 26726

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26679

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		03/09/20 07:56	03/11/20 09:29	1
Cadmium	ND		1.0	0.059	mg/Kg		03/09/20 07:56	03/11/20 09:29	1
Lead	ND		3.0	1.5	mg/Kg		03/09/20 07:56	03/11/20 09:29	1

Lab Sample ID: MB 590-26679/2-A
Matrix: Solid
Analysis Batch: 26801

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26679

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		03/09/20 07:56	03/16/20 13:21	1
Cadmium	ND		1.0	0.059	mg/Kg		03/09/20 07:56	03/16/20 13:21	1
Lead	ND		3.0	1.5	mg/Kg		03/09/20 07:56	03/16/20 13:21	1

Lab Sample ID: LCS 590-26679/1-A
Matrix: Solid
Analysis Batch: 26726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26679

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	100	102		mg/Kg		102	80 - 120
Lead	50.0	52.5		mg/Kg		105	80 - 120

Lab Sample ID: LCS 590-26679/1-A
Matrix: Solid
Analysis Batch: 26801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26679

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	100	100		mg/Kg		100	80 - 120
Cadmium	50.0	50.6		mg/Kg		101	80 - 120
Lead	50.0	52.4		mg/Kg		105	80 - 120

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Client Sample ID: RFPNB-7C(1.5-2)

Lab Sample ID: 590-12833-1

Date Collected: 03/03/20 11:20

Matrix: Solid

Date Received: 03/03/20 13:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPNB-7C(1.5-2)

Lab Sample ID: 590-12833-1

Date Collected: 03/03/20 11:20

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.37 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		20			26635	03/05/20 17:22	NMI	TAL SPK
Total/NA	Prep	3050B			1.19 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 14:14	SJK	TAL SPK

Client Sample ID: RFPNB-8C(0.5-1)

Lab Sample ID: 590-12833-2

Date Collected: 03/03/20 11:30

Matrix: Solid

Date Received: 03/03/20 13:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPNB-8C(0.5-1)

Lab Sample ID: 590-12833-2

Date Collected: 03/03/20 11:30

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 74.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.04 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			26635	03/05/20 17:49	NMI	TAL SPK
Total/NA	Prep	3050B			1.37 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 11:00	SJK	TAL SPK
Total/NA	Prep	3050B			1.37 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 14:18	SJK	TAL SPK

Client Sample ID: RFPNB-9C(3-4)

Lab Sample ID: 590-12833-3

Date Collected: 03/03/20 08:50

Matrix: Solid

Date Received: 03/03/20 13:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPNB-9C(3-4)

Lab Sample ID: 590-12833-3

Date Collected: 03/03/20 08:50

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.01 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			26635	03/05/20 18:15	NMI	TAL SPK

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Client Sample ID: RFPNB-9C(3-4)

Lab Sample ID: 590-12833-3

Date Collected: 03/03/20 08:50

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.21 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 11:03	SJK	TAL SPK
Total/NA	Prep	3050B			1.21 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 14:22	SJK	TAL SPK

Client Sample ID: RFPNB-10C(1.5-2)

Lab Sample ID: 590-12833-4

Date Collected: 03/03/20 08:55

Matrix: Solid

Date Received: 03/03/20 13:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPNB-10C(1.5-2)

Lab Sample ID: 590-12833-4

Date Collected: 03/03/20 08:55

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.16 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		2			26635	03/05/20 18:41	NMI	TAL SPK
Total/NA	Prep	3050B			1.24 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 11:07	SJK	TAL SPK
Total/NA	Prep	3050B			1.24 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 14:26	SJK	TAL SPK

Client Sample ID: RFPNB-11C(2-2.5)

Lab Sample ID: 590-12833-5

Date Collected: 03/03/20 09:00

Matrix: Solid

Date Received: 03/03/20 13:49

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26624	03/04/20 16:07	NMI	TAL SPK

Client Sample ID: RFPNB-11C(2-2.5)

Lab Sample ID: 590-12833-5

Date Collected: 03/03/20 09:00

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.23 g	2 mL	26633	03/05/20 07:37	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			26635	03/05/20 19:07	NMI	TAL SPK
Total/NA	Prep	3050B			1.22 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26726	03/11/20 11:11	SJK	TAL SPK
Total/NA	Prep	3050B			1.22 g	50 mL	26679	03/09/20 07:57	SJK	TAL SPK
Total/NA	Analysis	6010D		1			26801	03/16/20 14:29	SJK	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins TestAmerica, Spokane

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Laboratory: Eurofins TestAmerica, Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK

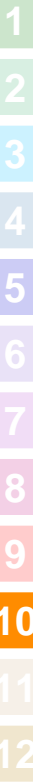
Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



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CHAIN OF CUSTODY RECORD

GeoEngineers
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

DATE 3/3/20
 PAGE 1 OF 1
 LAB NO. _____

PROJECT NAME/LOCATION Riverfront Park ANALYSIS REQUIRED _____
 PROJECT NUMBER 0110-148-06
 PROJECT MANAGER J. Sugelski
 SAMPLED BY J. Sugelski

LAB	GEOENGINEERS	DATE	TIME	MATRIX	# OF JARS	ANALYSIS REQUIRED			NOTES/COMMENTS (Preserved, filtered, etc.)
						PAHs	Dx	As, Pb, Cd	
	REFNB-7C(15-2)	3/2/20	1120	S	2	X	X	X	72hr TAT for each sample or only
	REFNB-8C(0.5-1)	3/2/20	1130	S	2	X	X	X	
	REFNB-9C(3-4)	3/2/20	0850	S	2	X	X	X	
	REFNB-10C(1.5-2)	3/2/20	0855	S	2	X	X	X	
	REFNB-11C(2-2.5)	3/2/20	0900	S	2	X	X	X	



RELINQUISHED BY		FIRM		RELINQUISHED BY		FIRM		RELINQUISHED BY		FIRM	
SIGNATURE	PRINTED NAME	DATE	TIME	SIGNATURE	PRINTED NAME	DATE	TIME	SIGNATURE	PRINTED NAME	DATE	TIME
<u>[Signature]</u>	<u>Jedrich Sugelski</u>	<u>3/3/2020</u>	<u>1349</u>								
<u>[Signature]</u>	<u>Maura Groble</u>	<u>3/3/20</u>	<u>13:49</u>								

ADDITIONAL COMMENTS:

72 TAT for Dx only. Other analysis or standard TAT

1.8 -> 2.0°C

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-12833-1

Login Number: 12833

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

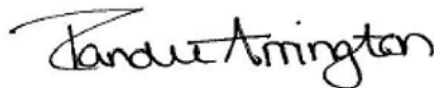
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-12833-2
Client Project/Site: Riverfront Park (0110-148-14)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
3/6/2020 6:15:23 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

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results through
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Have a Question?



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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Job ID: 590-12833-2

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 3/3/2020 1:49 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

GC Semi VOA

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to oil overlap in the following samples: RFPNB-7C(1.5-2) (590-12833-1), RFPNB-10C(1.5-2) (590-12833-4) and RFPNB-11C(2-2.5) (590-12833-5).

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

Organic Prep

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

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Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-12833-1	RFPNB-7C(1.5-2)	Solid	03/03/20 11:20	03/03/20 13:49	
590-12833-2	RFPNB-8C(0.5-1)	Solid	03/03/20 11:30	03/03/20 13:49	
590-12833-3	RFPNB-9C(3-4)	Solid	03/03/20 08:50	03/03/20 13:49	
590-12833-4	RFPNB-10C(1.5-2)	Solid	03/03/20 08:55	03/03/20 13:49	
590-12833-5	RFPNB-11C(2-2.5)	Solid	03/03/20 09:00	03/03/20 13:49	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Client Sample ID: RFPNB-7C(1.5-2)

Date Collected: 03/03/20 11:20

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-1

Matrix: Solid

Percent Solids: 87.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	100		70	29	mg/Kg	☼	03/05/20 10:12	03/05/20 16:13	1
Residual Range Organics (RRO) (C25-C36)	1100		180	35	mg/Kg	☼	03/05/20 10:12	03/05/20 16:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	92		50 - 150				03/05/20 10:12	03/05/20 16:13	1
<i>n</i> -Triacontane-d62	103		50 - 150				03/05/20 10:12	03/05/20 16:13	1

Client Sample ID: RFPNB-8C(0.5-1)

Date Collected: 03/03/20 11:30

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-2

Matrix: Solid

Percent Solids: 74.0

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	39		13	5.6	mg/Kg	☼	03/05/20 10:12	03/05/20 16:57	1
Residual Range Organics (RRO) (C25-C36)	170		33	6.7	mg/Kg	☼	03/05/20 10:12	03/05/20 16:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	96		50 - 150				03/05/20 10:12	03/05/20 16:57	1
<i>n</i> -Triacontane-d62	115		50 - 150				03/05/20 10:12	03/05/20 16:57	1

Client Sample ID: RFPNB-9C(3-4)

Date Collected: 03/03/20 08:50

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-3

Matrix: Solid

Percent Solids: 91.4

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		11	4.5	mg/Kg	☼	03/05/20 10:12	03/05/20 17:20	1
Residual Range Organics (RRO) (C25-C36)	6.5 J		27	5.4	mg/Kg	☼	03/05/20 10:12	03/05/20 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	88		50 - 150				03/05/20 10:12	03/05/20 17:20	1
<i>n</i> -Triacontane-d62	92		50 - 150				03/05/20 10:12	03/05/20 17:20	1

Client Sample ID: RFPNB-10C(1.5-2)

Date Collected: 03/03/20 08:55

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-4

Matrix: Solid

Percent Solids: 81.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	130		18	7.7	mg/Kg	☼	03/05/20 10:12	03/05/20 17:42	1
Residual Range Organics (RRO) (C25-C36)	1200		46	9.2	mg/Kg	☼	03/05/20 10:12	03/05/20 17:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	103		50 - 150				03/05/20 10:12	03/05/20 17:42	1
<i>n</i> -Triacontane-d62	133		50 - 150				03/05/20 10:12	03/05/20 17:42	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Client Sample ID: RFPNB-11C(2-2.5)

Lab Sample ID: 590-12833-5

Date Collected: 03/03/20 09:00

Matrix: Solid

Date Received: 03/03/20 13:49

Percent Solids: 87.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	230		17	7.1	mg/Kg	☼	03/05/20 10:12	03/05/20 18:04	1
Residual Range Organics (RRO) (C25-C36)	710		42	8.5	mg/Kg	☼	03/05/20 10:12	03/05/20 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150				03/05/20 10:12	03/05/20 18:04	1
<i>n</i> -Triacontane-d62	109		50 - 150				03/05/20 10:12	03/05/20 18:04	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-26638/1-A
Matrix: Solid
Analysis Batch: 26642

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26638

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (DRO) (C10-C25)	ND		10	4.2	mg/Kg		03/05/20 10:12	03/05/20 12:52	1
Residual Range Organics (RRO) (C25-C36)	ND		25	5.0	mg/Kg		03/05/20 10:12	03/05/20 12:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	98		50 - 150				03/05/20 10:12	03/05/20 12:52	1
<i>n</i> -Triacontane-d62	96		50 - 150				03/05/20 10:12	03/05/20 12:52	1

Lab Sample ID: LCS 590-26638/2-A
Matrix: Solid
Analysis Batch: 26642

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Residual Range Organics (RRO) (C25-C36)	66.7	63.4		mg/Kg		95	50 - 150	
Surrogate	%Recovery	Qualifier	Limits					
<i>o</i> -Terphenyl	97		50 - 150					
<i>n</i> -Triacontane-d62	98		50 - 150					

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Client Sample ID: RFPNB-7C(1.5-2)

Date Collected: 03/03/20 11:20

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-1

Matrix: Solid

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			2.44 g	5 mL	26638	03/05/20 10:12	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			26642	03/05/20 16:13	NMI	TAL SPK

Client Sample ID: RFPNB-8C(0.5-1)

Date Collected: 03/03/20 11:30

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-2

Matrix: Solid

Percent Solids: 74.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.16 g	5 mL	26638	03/05/20 10:12	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			26642	03/05/20 16:57	NMI	TAL SPK

Client Sample ID: RFPNB-9C(3-4)

Date Collected: 03/03/20 08:50

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-3

Matrix: Solid

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.11 g	5 mL	26638	03/05/20 10:12	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			26642	03/05/20 17:20	NMI	TAL SPK

Client Sample ID: RFPNB-10C(1.5-2)

Date Collected: 03/03/20 08:55

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-4

Matrix: Solid

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			10.02 g	5 mL	26638	03/05/20 10:12	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			26642	03/05/20 17:42	NMI	TAL SPK

Client Sample ID: RFPNB-11C(2-2.5)

Date Collected: 03/03/20 09:00

Date Received: 03/03/20 13:49

Lab Sample ID: 590-12833-5

Matrix: Solid

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			10.08 g	5 mL	26638	03/05/20 10:12	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			26642	03/05/20 18:04	NMI	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-12833-2

Method	Method Description	Protocol	Laboratory
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



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CHAIN OF CUSTODY RECORD

GeoEngineers
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

DATE 3/3/20
 PAGE 1 OF 1
 LAB NO. _____
 LAB NO. _____

PROJECT NAME/LOCATION Riverfront Park

PROJECT NUMBER 0110-148-06

PROJECT MANAGER J. Sugelski

SAMPLED BY J. Sugelski

ANALYSIS REQUIRED

NOTES/COMMENTS
(Preserved, filtered, etc.)

LAB	GEOENGINEERS	DATE	TIME	MATRIX	# OF JARS	ANALYSIS REQUIRED			NOTES/COMMENTS
						PAHs	Dx	As, Pb, Cd	
	REFNB-7C(15-2)	3/2/20	1120	S	2	X	X	X	72hr TAT for each sample or only
	REFNB-8C(0.5-1)	3/2/20	1130	S	2	X	X	X	
	REFNB-9C(3-4)	3/3/20	0850	S	2	X	X	X	
	REFNB-10C(1.5-2)	3/3/20	0855	S	2	X	X	X	
	REFNB-11C(2-2.5)	3/3/20	0900	S	2	X	X	X	

590-12833 Chain of Custody



RELINQUISHED BY		FIRM		RELINQUISHED BY		FIRM		RELINQUISHED BY		FIRM		
SIGNATURE	DATE	TIME	DATE	SIGNATURE	DATE	TIME	SIGNATURE	DATE	TIME	SIGNATURE	DATE	TIME
<u>[Signature]</u>	<u>3/3/2020</u>	<u>1349</u>										
<u>[Signature]</u>	<u>3/3/2020</u>	<u>1349</u>										

ADDITIONAL COMMENTS:

72 TAT for Dx only. Other analysis or standard TAT

1.8 -> 2.0°C

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-12833-2

Login Number: 12833

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



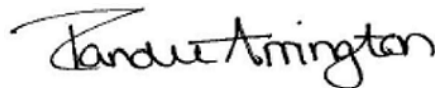
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-12931-1
Client Project/Site: Riverfront Park (0110-148-D6)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
3/20/2020 4:12:18 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

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results through
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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Job ID: 590-12931-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 3/18/2020 1:17 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1° C.

Metals

Method 6010D: The sample duplicate (DUP) precision for preparation batch 590-26873 and analytical batch 590-26912 was outside control limits. Sample non-homogeneity is suspected.

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

General Chemistry

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

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Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-12931-1	RFPMB-1A(0-1)	Solid	03/18/20 12:07	03/18/20 13:17	
590-12931-2	RFPMB-1B(0-1)	Solid	03/18/20 12:09	03/18/20 13:17	
590-12931-3	RFPMB-1C(0-1)	Solid	03/18/20 12:11	03/18/20 13:17	
590-12931-4	RFPMB-1D(0-1)	Solid	03/18/20 12:13	03/18/20 13:17	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Client Sample ID: RFPMB-1A(0-1)

Date Collected: 03/18/20 12:07

Date Received: 03/18/20 13:17

Lab Sample ID: 590-12931-1

Matrix: Solid

Percent Solids: 92.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.68	J	0.81	0.048	mg/Kg	☼	03/18/20 13:35	03/19/20 08:37	1
Lead	120	F1	2.4	1.2	mg/Kg	☼	03/18/20 13:35	03/19/20 08:37	1

Client Sample ID: RFPMB-1B(0-1)

Date Collected: 03/18/20 12:09

Date Received: 03/18/20 13:17

Lab Sample ID: 590-12931-2

Matrix: Solid

Percent Solids: 93.7

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.94		0.78	0.046	mg/Kg	☼	03/18/20 13:35	03/19/20 08:58	1
Lead	580		12	5.8	mg/Kg	☼	03/18/20 13:35	03/20/20 12:21	5

Client Sample ID: RFPMB-1C(0-1)

Date Collected: 03/18/20 12:11

Date Received: 03/18/20 13:17

Lab Sample ID: 590-12931-3

Matrix: Solid

Percent Solids: 94.6

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.7		0.77	0.046	mg/Kg	☼	03/18/20 13:35	03/19/20 09:02	1
Lead	390		2.3	1.1	mg/Kg	☼	03/18/20 13:35	03/19/20 09:02	1

Client Sample ID: RFPMB-1D(0-1)

Date Collected: 03/18/20 12:13

Date Received: 03/18/20 13:17

Lab Sample ID: 590-12931-4

Matrix: Solid

Percent Solids: 96.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.69	J	0.76	0.045	mg/Kg	☼	03/18/20 13:35	03/19/20 09:15	1
Lead	220		2.3	1.1	mg/Kg	☼	03/18/20 13:35	03/19/20 09:15	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-26873/2-A
Matrix: Solid
Analysis Batch: 26912

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26873

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.059	mg/Kg		03/18/20 13:35	03/19/20 08:34	1
Lead	ND		3.0	1.5	mg/Kg		03/18/20 13:35	03/19/20 08:34	1

Lab Sample ID: LCS 590-26873/1-A
Matrix: Solid
Analysis Batch: 26912

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	50.0	52.7		mg/Kg		105	80 - 120
Lead	50.0	55.9		mg/Kg		112	80 - 120

Lab Sample ID: 590-12931-1 MS
Matrix: Solid
Analysis Batch: 26912

Client Sample ID: RFPMB-1A(0-1)
Prep Type: Total/NA
Prep Batch: 26873

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.68	J	53.1	48.7		mg/Kg	☼	90	75 - 125
Lead	120	F1	53.1	150	F1	mg/Kg	☼	54	75 - 125

Lab Sample ID: 590-12931-1 MSD
Matrix: Solid
Analysis Batch: 26912

Client Sample ID: RFPMB-1A(0-1)
Prep Type: Total/NA
Prep Batch: 26873

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cadmium	0.68	J	53.1	47.0		mg/Kg	☼	87	75 - 125	3	20
Lead	120	F1	53.1	151	F1	mg/Kg	☼	57	75 - 125	1	20

Lab Sample ID: 590-12931-1 DU
Matrix: Solid
Analysis Batch: 26912

Client Sample ID: RFPMB-1A(0-1)
Prep Type: Total/NA
Prep Batch: 26873

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cadmium	0.68	J	0.527	J F5	mg/Kg	☼	25	20
Lead	120	F1	83.2	F3	mg/Kg	☼	37	20

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Client Sample ID: RFPMB-1A(0-1)

Lab Sample ID: 590-12931-1

Date Collected: 03/18/20 12:07

Matrix: Solid

Date Received: 03/18/20 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26874	03/18/20 13:39	AMB	TAL SPK

Client Sample ID: RFPMB-1A(0-1)

Lab Sample ID: 590-12931-1

Date Collected: 03/18/20 12:07

Matrix: Solid

Date Received: 03/18/20 13:17

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.34 g	50 mL	26873	03/18/20 13:35	AMB	TAL SPK
Total/NA	Analysis	6010D		1			26912	03/19/20 08:37	AMB	TAL SPK

Client Sample ID: RFPMB-1B(0-1)

Lab Sample ID: 590-12931-2

Date Collected: 03/18/20 12:09

Matrix: Solid

Date Received: 03/18/20 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26874	03/18/20 13:39	AMB	TAL SPK

Client Sample ID: RFPMB-1B(0-1)

Lab Sample ID: 590-12931-2

Date Collected: 03/18/20 12:09

Matrix: Solid

Date Received: 03/18/20 13:17

Percent Solids: 93.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.36 g	50 mL	26873	03/18/20 13:35	AMB	TAL SPK
Total/NA	Analysis	6010D		1			26912	03/19/20 08:58	AMB	TAL SPK
Total/NA	Prep	3050B			1.36 g	50 mL	26873	03/18/20 13:35	AMB	TAL SPK
Total/NA	Analysis	6010D		5			26924	03/20/20 12:21	AMB	TAL SPK

Client Sample ID: RFPMB-1C(0-1)

Lab Sample ID: 590-12931-3

Date Collected: 03/18/20 12:11

Matrix: Solid

Date Received: 03/18/20 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26874	03/18/20 13:39	AMB	TAL SPK

Client Sample ID: RFPMB-1C(0-1)

Lab Sample ID: 590-12931-3

Date Collected: 03/18/20 12:11

Matrix: Solid

Date Received: 03/18/20 13:17

Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.37 g	50 mL	26873	03/18/20 13:35	AMB	TAL SPK
Total/NA	Analysis	6010D		1			26912	03/19/20 09:02	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Client Sample ID: RFPMB-1D(0-1)

Lab Sample ID: 590-12931-4

Date Collected: 03/18/20 12:13

Matrix: Solid

Date Received: 03/18/20 13:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			26874	03/18/20 13:39	AMB	TAL SPK

Client Sample ID: RFPMB-1D(0-1)

Lab Sample ID: 590-12931-4

Date Collected: 03/18/20 12:13

Matrix: Solid

Date Received: 03/18/20 13:17

Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.36 g	50 mL	26873	03/18/20 13:35	AMB	TAL SPK
Total/NA	Analysis	6010D		1			26912	03/19/20 09:15	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
- 3
- 4
- 5
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- 7
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- 9
- 10
- 11
- 12

Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-D6)

Job ID: 590-12931-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



- 1
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- 12

CHAIN OF CUSTODY RECORD

GeoEngineers
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

DATE 3/18/20 OF
 PAGE _____ OF
 LAB _____
 LAB NO. _____

PROJECT NAME/LOCATION Riverfront Park ANALYSIS REQUIRED _____ NOTES/COMMENTS
 (Preserved, filtered, etc.)

PROJECT NUMBER 616-148-B6

PROJECT MANAGER J. Sogalski

SAMPLED BY J. Sogalski

LAB	GEOENGINEERS	DATE	TIME	SAMPLE COLLECTION	MATRIX	# OF JARS	ANALYSIS REQUIRED	NOTES/COMMENTS
	REFMB-1A(0-1)	3/18/20	1207		Soil	1		X
	REFMB-1B(0-1)	3/18/20	1209		Soil	1		X
	REFMB-1C(0-1)	3/18/20	1211		Soil	1		X
	REFMB-1D(0-1)	3/18/20	1213		Soil	1		X



RELINQUISHED BY	SIGNATURE	DATE	TIME	FIRM	RECEIVED BY	SIGNATURE	DATE	TIME	FIRM
RELINQUISHED BY	<u>[Signature]</u>			<u>GEE</u>	RECEIVED BY	<u>[Signature]</u>			<u>[Firm]</u>
PRINTED NAME	<u>Jessica Sogalski</u>				PRINTED NAME				
DATE	<u>3/18/20</u>				DATE				
TIME	<u>1317</u>				TIME				
FIRM	<u>GEE</u>				FIRM				

ADDITIONAL COMMENTS:

0.9 → 1.1°C

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-12931-1

Login Number: 12931

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

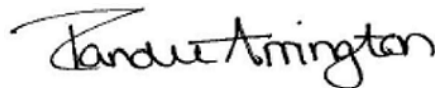
Laboratory Job ID: 590-13048-1

Client Project/Site: Riverfront Park - Havermale Island

For:

GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
4/29/2020 4:16:56 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Job ID: 590-13048-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 4/14/2020 1:18 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS Semi VOA

Method 8270E SIM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 590-27247 and analytical batch 590-27246 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270E SIM: The method blank for preparation batch 590-27247 and analytical batch 590-27246 contained Pyrene, Fluoranthene and Benzo[g,h,i]perylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E SIM: Surrogate recovery for the following sample was outside control limits: WH-6C(0-0.5) (590-13048-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Metals

Method 7471B: The sample duplicate (DUP) precision for preparation batch 590-27255 and analytical batch 590-27288 was outside control limits. Sample non-homogeneity is suspected.

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

General Chemistry

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

Organic Prep

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

Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13048-1	WH-1C(0-0.5)	Solid	04/14/20 08:15	04/14/20 13:18	
590-13048-2	WH-2C(0-0.5)	Solid	04/14/20 08:20	04/14/20 13:18	
590-13048-3	WH-3C(0-0.5)	Solid	04/14/20 08:25	04/14/20 13:18	
590-13048-4	WH-4C(0-0.5)	Solid	04/14/20 08:30	04/14/20 13:18	
590-13048-5	WH-5C(0-0.5)	Solid	04/14/20 08:35	04/14/20 13:18	
590-13048-6	WH-6C(0-0.5)	Solid	04/14/20 08:40	04/14/20 13:18	
590-13048-7	WH-7C(0-0.5)	Solid	04/14/20 08:45	04/14/20 13:18	
590-13048-8	WH-8C(0-0.5)	Solid	04/14/20 08:50	04/14/20 13:18	

Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

Metals

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-1C(0-0.5)

Lab Sample ID: 590-13048-1

Date Collected: 04/14/20 08:15

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 97.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
2-Methylnaphthalene	ND		10	3.2	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
1-Methylnaphthalene	ND	F1	10	2.3	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Acenaphthylene	5.6	J	10	3.4	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Fluorene	ND		10	2.3	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Phenanthrene	8.9	J	10	3.7	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Anthracene	11		10	2.0	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Fluoranthene	24	B	10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Pyrene	32	B	10	3.9	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Benzo[a]anthracene	30		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Chrysene	44	F2	10	1.6	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Benzo[b]fluoranthene	70	F1 F2	10	3.6	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Benzo[k]fluoranthene	26		10	2.6	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Benzo[a]pyrene	53		10	4.3	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Indeno[1,2,3-cd]pyrene	30		10	3.0	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Dibenz(a,h)anthracene	11		10	2.9	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1
Benzo[g,h,i]perylene	37	B	10	2.4	ug/Kg	☼	04/21/20 13:26	04/21/20 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	73		43 - 120	04/21/20 13:26	04/21/20 17:54	1
2-Fluorobiphenyl (Surr)	75		56 - 120	04/21/20 13:26	04/21/20 17:54	1
p-Terphenyl-d14	80		74 - 136	04/21/20 13:26	04/21/20 17:54	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		1.1	0.43	mg/Kg	☼	04/22/20 09:55	04/29/20 13:46	1
Barium	34		1.1	0.29	mg/Kg	☼	04/22/20 09:55	04/29/20 13:46	1
Cadmium	0.070	J	0.86	0.051	mg/Kg	☼	04/22/20 09:55	04/29/20 13:46	1
Chromium	7.5		1.1	0.15	mg/Kg	☼	04/22/20 09:55	04/29/20 13:46	1
Lead	13		2.6	1.3	mg/Kg	☼	04/22/20 09:55	04/29/20 13:46	1
Selenium	ND		4.3	2.6	mg/Kg	☼	04/22/20 09:55	04/29/20 13:46	1
Silver	ND		1.1	0.11	mg/Kg	☼	04/22/20 09:55	04/29/20 13:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	14	J	49	3.5	ug/Kg	☼	04/22/20 09:45	04/24/20 14:51	1

Client Sample ID: WH-2C(0-0.5)

Lab Sample ID: 590-13048-2

Date Collected: 04/14/20 08:20

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 97.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		9.7	2.1	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
2-Methylnaphthalene	ND		9.7	3.0	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
1-Methylnaphthalene	ND		9.7	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Acenaphthylene	4.1	J	9.7	3.2	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Acenaphthene	ND		9.7	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Fluorene	ND		9.7	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Phenanthrene	14		9.7	3.5	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-2C(0-0.5)

Lab Sample ID: 590-13048-2

Date Collected: 04/14/20 08:20

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 97.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	5.8	J	9.7	1.9	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Fluoranthene	31	B	9.7	2.4	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Pyrene	32	B	9.7	3.7	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Benzo[a]anthracene	18		9.7	2.1	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Chrysene	22		9.7	1.5	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Benzo[b]fluoranthene	28		9.7	3.4	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Benzo[k]fluoranthene	11		9.7	2.4	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Benzo[a]pyrene	22		9.7	4.1	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Indeno[1,2,3-cd]pyrene	15		9.7	2.9	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Dibenz(a,h)anthracene	5.1	J	9.7	2.8	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Benzo[g,h,i]perylene	21	B	9.7	2.3	ug/Kg	☼	04/21/20 13:26	04/21/20 19:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	63		43 - 120				04/21/20 13:26	04/21/20 19:13	1
2-Fluorobiphenyl (Surr)	73		56 - 120				04/21/20 13:26	04/21/20 19:13	1
p-Terphenyl-d14	84		74 - 136				04/21/20 13:26	04/21/20 19:13	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.1		1.0	0.42	mg/Kg	☼	04/22/20 09:55	04/29/20 14:00	1
Barium	52		1.0	0.28	mg/Kg	☼	04/22/20 09:55	04/29/20 14:00	1
Cadmium	0.15	J	0.84	0.049	mg/Kg	☼	04/22/20 09:55	04/29/20 14:00	1
Chromium	8.8		1.0	0.15	mg/Kg	☼	04/22/20 09:55	04/29/20 14:00	1
Lead	29		2.5	1.2	mg/Kg	☼	04/22/20 09:55	04/29/20 14:00	1
Selenium	ND		4.2	2.5	mg/Kg	☼	04/22/20 09:55	04/29/20 14:00	1
Silver	ND		1.0	0.11	mg/Kg	☼	04/22/20 09:55	04/29/20 14:00	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	32	J	47	3.4	ug/Kg	☼	04/22/20 09:45	04/24/20 15:00	1

Client Sample ID: WH-3C(0-0.5)

Lab Sample ID: 590-13048-3

Date Collected: 04/14/20 08:25

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 91.5

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	10	J	21	4.6	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
2-Methylnaphthalene	13	J	21	6.6	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
1-Methylnaphthalene	8.8	J	21	4.7	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Acenaphthylene	61		21	7.0	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Acenaphthene	22		21	5.4	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Fluorene	18	J	21	4.7	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Phenanthrene	310		21	7.7	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Anthracene	110		21	4.2	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Fluoranthene	600	B	21	5.3	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Pyrene	600	B	21	8.1	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Benzo[a]anthracene	330		21	4.5	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Chrysene	360		21	3.2	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Benzo[b]fluoranthene	420		21	7.4	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Benzo[k]fluoranthene	150		21	5.3	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-3C(0-0.5)

Lab Sample ID: 590-13048-3

Date Collected: 04/14/20 08:25

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 91.5

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	340		21	9.0	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Indeno[1,2,3-cd]pyrene	180		21	6.3	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Dibenz(a,h)anthracene	58		21	6.0	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Benzo[g,h,i]perylene	200	B	21	5.0	ug/Kg	☼	04/21/20 13:26	04/21/20 19:39	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	81		43 - 120				04/21/20 13:26	04/21/20 19:39	2
2-Fluorobiphenyl (Surr)	83		56 - 120				04/21/20 13:26	04/21/20 19:39	2
p-Terphenyl-d14	82		74 - 136				04/21/20 13:26	04/21/20 19:39	2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		1.1	0.43	mg/Kg	☼	04/22/20 09:55	04/29/20 14:10	1
Barium	82		1.1	0.29	mg/Kg	☼	04/22/20 09:55	04/29/20 14:10	1
Cadmium	0.72	J	0.87	0.052	mg/Kg	☼	04/22/20 09:55	04/29/20 14:10	1
Chromium	9.2		1.1	0.15	mg/Kg	☼	04/22/20 09:55	04/29/20 14:10	1
Lead	230		2.6	1.3	mg/Kg	☼	04/22/20 09:55	04/29/20 14:10	1
Selenium	ND		4.4	2.6	mg/Kg	☼	04/22/20 09:55	04/29/20 14:10	1
Silver	ND		1.1	0.12	mg/Kg	☼	04/22/20 09:55	04/29/20 14:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	230		49	3.5	ug/Kg	☼	04/22/20 09:45	04/24/20 15:03	1

Client Sample ID: WH-4C(0-0.5)

Lab Sample ID: 590-13048-4

Date Collected: 04/14/20 08:30

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 93.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
2-Methylnaphthalene	ND		10	3.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
1-Methylnaphthalene	ND		10	2.3	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Acenaphthylene	ND		10	3.4	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Fluorene	ND		10	2.3	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Phenanthrene	4.1	J	10	3.7	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Anthracene	2.3	J	10	2.0	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Fluoranthene	8.1	J B	10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Pyrene	8.4	J B	10	3.9	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Benzo[a]anthracene	5.7	J	10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Chrysene	5.2	J	10	1.6	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Benzo[b]fluoranthene	8.3	J	10	3.6	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Benzo[k]fluoranthene	4.1	J	10	2.6	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Benzo[a]pyrene	6.7	J	10	4.3	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Indeno[1,2,3-cd]pyrene	3.3	J	10	3.0	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Dibenz(a,h)anthracene	ND		10	2.9	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Benzo[g,h,i]perylene	6.2	J B	10	2.4	ug/Kg	☼	04/21/20 13:26	04/21/20 20:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	58		43 - 120				04/21/20 13:26	04/21/20 20:06	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-4C(0-0.5)

Lab Sample ID: 590-13048-4

Date Collected: 04/14/20 08:30

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 93.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		56 - 120	04/21/20 13:26	04/21/20 20:06	1
p-Terphenyl-d14	76		74 - 136	04/21/20 13:26	04/21/20 20:06	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17		0.97	0.39	mg/Kg	☼	04/22/20 09:55	04/29/20 14:24	1
Barium	87		0.97	0.26	mg/Kg	☼	04/22/20 09:55	04/29/20 14:24	1
Cadmium	0.15	J	0.78	0.046	mg/Kg	☼	04/22/20 09:55	04/29/20 14:24	1
Chromium	12		0.97	0.14	mg/Kg	☼	04/22/20 09:55	04/29/20 14:24	1
Lead	17		2.3	1.1	mg/Kg	☼	04/22/20 09:55	04/29/20 14:24	1
Selenium	ND		3.9	2.3	mg/Kg	☼	04/22/20 09:55	04/29/20 14:24	1
Silver	ND		0.97	0.10	mg/Kg	☼	04/22/20 09:55	04/29/20 14:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	11	J	49	3.5	ug/Kg	☼	04/22/20 09:45	04/24/20 15:05	1

Client Sample ID: WH-5C(0-0.5)

Lab Sample ID: 590-13048-5

Date Collected: 04/14/20 08:35

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 98.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Acenaphthylene	ND		10	3.3	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Acenaphthene	ND		10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Fluorene	ND		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Phenanthrene	4.8	J	10	3.7	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Anthracene	2.2	J	10	2.0	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Fluoranthene	9.8	J B	10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Pyrene	11	B	10	3.8	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Benzo[a]anthracene	5.9	J	10	2.1	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Chrysene	6.3	J	10	1.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Benzo[b]fluoranthene	8.3	J	10	3.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Benzo[k]fluoranthene	4.5	J	10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Benzo[a]pyrene	7.0	J	10	4.3	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Indeno[1,2,3-cd]pyrene	3.8	J	10	3.0	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Dibenz(a,h)anthracene	ND		10	2.9	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1
Benzo[g,h,i]perylene	5.9	J B	10	2.4	ug/Kg	☼	04/21/20 13:26	04/21/20 20:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	55		43 - 120	04/21/20 13:26	04/21/20 20:32	1
2-Fluorobiphenyl (Surr)	59		56 - 120	04/21/20 13:26	04/21/20 20:32	1
p-Terphenyl-d14	75		74 - 136	04/21/20 13:26	04/21/20 20:32	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		1.1	0.42	mg/Kg	☼	04/22/20 09:55	04/29/20 14:28	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-5C(0-0.5)

Lab Sample ID: 590-13048-5

Date Collected: 04/14/20 08:35

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 98.9

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	55		1.1	0.28	mg/Kg	☼	04/22/20 09:55	04/29/20 14:28	1
Cadmium	0.10	J	0.85	0.050	mg/Kg	☼	04/22/20 09:55	04/29/20 14:28	1
Chromium	11		1.1	0.15	mg/Kg	☼	04/22/20 09:55	04/29/20 14:28	1
Lead	7.9		2.5	1.2	mg/Kg	☼	04/22/20 09:55	04/29/20 14:28	1
Selenium	ND		4.2	2.6	mg/Kg	☼	04/22/20 09:55	04/29/20 14:28	1
Silver	ND		1.1	0.11	mg/Kg	☼	04/22/20 09:55	04/29/20 14:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		46	3.3	ug/Kg	☼	04/22/20 09:45	04/24/20 15:07	1

Client Sample ID: WH-6C(0-0.5)

Lab Sample ID: 590-13048-6

Date Collected: 04/14/20 08:40

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 95.7

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.1	J	10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
2-Methylnaphthalene	9.6	J	10	3.1	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
1-Methylnaphthalene	5.8	J	10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Acenaphthylene	12		10	3.4	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Acenaphthene	3.0	J	10	2.6	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Fluorene	2.3	J	10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Phenanthrene	34		10	3.7	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Anthracene	18		10	2.0	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Fluoranthene	62	B	10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Pyrene	64	B	10	3.9	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Benzo[a]anthracene	38		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Chrysene	51		10	1.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Benzo[b]fluoranthene	67		10	3.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Benzo[k]fluoranthene	23		10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Benzo[a]pyrene	50		10	4.3	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Indeno[1,2,3-cd]pyrene	30		10	3.0	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Dibenz(a,h)anthracene	9.8	J	10	2.9	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1
Benzo[g,h,i]perylene	39	B	10	2.4	ug/Kg	☼	04/21/20 13:26	04/21/20 20:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	56		43 - 120	04/21/20 13:26	04/21/20 20:58	1
2-Fluorobiphenyl (Surr)	63		56 - 120	04/21/20 13:26	04/21/20 20:58	1
p-Terphenyl-d14	73	X	74 - 136	04/21/20 13:26	04/21/20 20:58	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		1.1	0.45	mg/Kg	☼	04/22/20 09:55	04/29/20 14:31	1
Barium	66		1.1	0.30	mg/Kg	☼	04/22/20 09:55	04/29/20 14:31	1
Cadmium	0.31	J	0.90	0.053	mg/Kg	☼	04/22/20 09:55	04/29/20 14:31	1
Chromium	9.2		1.1	0.16	mg/Kg	☼	04/22/20 09:55	04/29/20 14:31	1
Lead	110		2.7	1.3	mg/Kg	☼	04/22/20 09:55	04/29/20 14:31	1
Selenium	ND		4.5	2.7	mg/Kg	☼	04/22/20 09:55	04/29/20 14:31	1
Silver	ND		1.1	0.12	mg/Kg	☼	04/22/20 09:55	04/29/20 14:31	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-6C(0-0.5)

Lab Sample ID: 590-13048-6

Date Collected: 04/14/20 08:40

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 95.7

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	82		49	3.5	ug/Kg	☼	04/22/20 09:45	04/24/20 15:14	1

Client Sample ID: WH-7C(0-0.5)

Lab Sample ID: 590-13048-7

Date Collected: 04/14/20 08:45

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 94.8

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	22		21	4.4	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
2-Methylnaphthalene	38		21	6.4	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
1-Methylnaphthalene	19	J	21	4.6	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Acenaphthylene	37		21	6.8	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Acenaphthene	25		21	5.2	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Fluorene	22		21	4.6	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Phenanthrene	280		21	7.5	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Anthracene	86		21	4.1	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Fluoranthene	400	B	21	5.1	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Pyrene	420	B	21	7.8	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Benzo[a]anthracene	200		21	4.4	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Chrysene	240		21	3.1	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Benzo[b]fluoranthene	300		21	7.2	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Benzo[k]fluoranthene	120		21	5.1	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Benzo[a]pyrene	240		21	8.7	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Indeno[1,2,3-cd]pyrene	120		21	6.1	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Dibenz(a,h)anthracene	37		21	5.8	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2
Benzo[g,h,i]perylene	140	B	21	4.8	ug/Kg	☼	04/21/20 13:26	04/21/20 21:25	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	81		43 - 120	04/21/20 13:26	04/21/20 21:25	2
2-Fluorobiphenyl (Surr)	82		56 - 120	04/21/20 13:26	04/21/20 21:25	2
p-Terphenyl-d14	86		74 - 136	04/21/20 13:26	04/21/20 21:25	2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		2.2	0.87	mg/Kg	☼	04/22/20 09:55	04/29/20 14:35	2
Barium	87		2.2	0.59	mg/Kg	☼	04/22/20 09:55	04/29/20 14:35	2
Cadmium	0.90	J	1.8	0.10	mg/Kg	☼	04/22/20 09:55	04/29/20 14:35	2
Chromium	11		2.2	0.31	mg/Kg	☼	04/22/20 09:55	04/29/20 14:35	2
Lead	300		5.3	2.6	mg/Kg	☼	04/22/20 09:55	04/29/20 14:35	2
Selenium	ND		8.8	5.3	mg/Kg	☼	04/22/20 09:55	04/29/20 14:35	2
Silver	ND		2.2	0.24	mg/Kg	☼	04/22/20 09:55	04/29/20 14:35	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	230		48	3.4	ug/Kg	☼	04/22/20 09:45	04/24/20 15:16	1

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-8C(0-0.5)

Lab Sample ID: 590-13048-8

Date Collected: 04/14/20 08:50

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 95.6

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	13		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
2-Methylnaphthalene	16		10	3.2	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
1-Methylnaphthalene	17		10	2.3	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Acenaphthylene	90		10	3.4	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Acenaphthene	34		10	2.6	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Fluorene	42		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Phenanthrene	480		10	3.7	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Anthracene	180		10	2.0	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Fluoranthene	840	B	10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Pyrene	870	B	10	3.9	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Benzo[a]anthracene	480		10	2.2	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Chrysene	490		10	1.5	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Benzo[b]fluoranthene	620		10	3.6	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Benzo[k]fluoranthene	240		10	2.5	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Benzo[a]pyrene	490		10	4.3	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Indeno[1,2,3-cd]pyrene	210		10	3.0	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Dibenz(a,h)anthracene	71		10	2.9	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1
Benzo[g,h,i]perylene	230	B	10	2.4	ug/Kg	☼	04/21/20 13:26	04/21/20 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	69		43 - 120	04/21/20 13:26	04/21/20 21:51	1
2-Fluorobiphenyl (Surr)	77		56 - 120	04/21/20 13:26	04/21/20 21:51	1
p-Terphenyl-d14	84		74 - 136	04/21/20 13:26	04/21/20 21:51	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		1.0	0.41	mg/Kg	☼	04/22/20 09:55	04/29/20 14:39	1
Barium	74		1.0	0.27	mg/Kg	☼	04/22/20 09:55	04/29/20 14:39	1
Cadmium	0.53	J	0.82	0.048	mg/Kg	☼	04/22/20 09:55	04/29/20 14:39	1
Chromium	9.4		1.0	0.14	mg/Kg	☼	04/22/20 09:55	04/29/20 14:39	1
Lead	160		2.5	1.2	mg/Kg	☼	04/22/20 09:55	04/29/20 14:39	1
Selenium	ND		4.1	2.5	mg/Kg	☼	04/22/20 09:55	04/29/20 14:39	1
Silver	ND		1.0	0.11	mg/Kg	☼	04/22/20 09:55	04/29/20 14:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	220		48	3.5	ug/Kg	☼	04/22/20 09:45	04/24/20 15:19	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-27247/1-A
Matrix: Solid
Analysis Batch: 27246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27247

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Acenaphthylene	ND		10	3.3	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Acenaphthene	ND		10	2.5	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Fluorene	ND		10	2.2	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Phenanthrene	ND		10	3.6	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Anthracene	ND		10	2.0	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Fluoranthene	4.02	J	10	2.5	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Pyrene	4.75	J	10	3.8	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Chrysene	ND		10	1.5	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		04/21/20 13:26	04/21/20 15:43	1
Benzo[g,h,i]perylene	7.57	J	10	2.4	ug/Kg		04/21/20 13:26	04/21/20 15:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	61		43 - 120	04/21/20 13:26	04/21/20 15:43	1
2-Fluorobiphenyl (Surr)	67		56 - 120	04/21/20 13:26	04/21/20 15:43	1
p-Terphenyl-d14	82		74 - 136	04/21/20 13:26	04/21/20 15:43	1

Lab Sample ID: LCS 590-27247/2-A
Matrix: Solid
Analysis Batch: 27246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	167		ug/Kg		63	39 - 120
2-Methylnaphthalene	267	174		ug/Kg		65	48 - 120
1-Methylnaphthalene	267	170		ug/Kg		64	55 - 120
Acenaphthylene	267	194		ug/Kg		73	59 - 120
Acenaphthene	267	195		ug/Kg		73	53 - 120
Fluorene	267	194		ug/Kg		73	63 - 120
Phenanthrene	267	211		ug/Kg		79	65 - 121
Anthracene	267	221		ug/Kg		83	60 - 129
Fluoranthene	267	215		ug/Kg		81	63 - 127
Pyrene	267	211		ug/Kg		79	68 - 125
Benzo[a]anthracene	267	217		ug/Kg		81	61 - 125
Chrysene	267	214		ug/Kg		80	67 - 127
Benzo[b]fluoranthene	267	218		ug/Kg		82	67 - 127
Benzo[k]fluoranthene	267	216		ug/Kg		81	63 - 127
Benzo[a]pyrene	267	190		ug/Kg		71	60 - 120
Indeno[1,2,3-cd]pyrene	267	222		ug/Kg		83	63 - 128
Dibenz(a,h)anthracene	267	222		ug/Kg		83	60 - 128
Benzo[g,h,i]perylene	267	220		ug/Kg		83	58 - 129

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-27247/2-A
Matrix: Solid
Analysis Batch: 27246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27247

<i>Surrogate</i>	<i>LCS</i> <i>%Recovery</i>	<i>LCS</i> <i>Qualifier</i>	<i>Limits</i>
Nitrobenzene-d5	70		43 - 120
2-Fluorobiphenyl (Surr)	74		56 - 120
p-Terphenyl-d14	84		74 - 136

Lab Sample ID: 590-13048-1 MS
Matrix: Solid
Analysis Batch: 27246

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27247

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MS</i> <i>Result</i>	<i>MS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>
Naphthalene	ND		259	155		ug/Kg	☼	60	39 - 120
2-Methylnaphthalene	ND		259	167		ug/Kg	☼	65	48 - 120
1-Methylnaphthalene	ND	F1	259	164		ug/Kg	☼	63	55 - 120
Acenaphthylene	5.6	J	259	197		ug/Kg	☼	74	59 - 120
Acenaphthene	ND		259	195		ug/Kg	☼	75	53 - 120
Fluorene	ND		259	200		ug/Kg	☼	77	63 - 120
Phenanthrene	8.9	J	259	209		ug/Kg	☼	77	65 - 121
Anthracene	11		259	227		ug/Kg	☼	84	60 - 129
Fluoranthene	24	B	259	228		ug/Kg	☼	79	63 - 127
Pyrene	32	B	259	228		ug/Kg	☼	76	68 - 125
Benzo[a]anthracene	30		259	224		ug/Kg	☼	75	61 - 125
Chrysene	44	F2	259	224		ug/Kg	☼	69	67 - 127
Benzo[b]fluoranthene	70	F1 F2	259	227	F1	ug/Kg	☼	60	67 - 127
Benzo[k]fluoranthene	26		259	217		ug/Kg	☼	74	63 - 127
Benzo[a]pyrene	53		259	214		ug/Kg	☼	62	60 - 120
Indeno[1,2,3-cd]pyrene	30		259	231		ug/Kg	☼	78	63 - 128
Dibenz(a,h)anthracene	11		259	221		ug/Kg	☼	81	60 - 128
Benzo[g,h,i]perylene	37	B	259	229		ug/Kg	☼	74	58 - 129

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
Nitrobenzene-d5	76		43 - 120
2-Fluorobiphenyl (Surr)	84		56 - 120
p-Terphenyl-d14	83		74 - 136

Lab Sample ID: 590-13048-1 MSD
Matrix: Solid
Analysis Batch: 27246

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27247

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
Naphthalene	ND		272	130		ug/Kg	☼	48	39 - 120	17	35
2-Methylnaphthalene	ND		272	142		ug/Kg	☼	52	48 - 120	16	30
1-Methylnaphthalene	ND	F1	272	146	F1	ug/Kg	☼	54	55 - 120	11	24
Acenaphthylene	5.6	J	272	184		ug/Kg	☼	66	59 - 120	7	20
Acenaphthene	ND		272	173		ug/Kg	☼	63	53 - 120	12	17
Fluorene	ND		272	190		ug/Kg	☼	70	63 - 120	5	21
Phenanthrene	8.9	J	272	225		ug/Kg	☼	79	65 - 121	7	18
Anthracene	11		272	242		ug/Kg	☼	85	60 - 129	6	18
Fluoranthene	24	B	272	245		ug/Kg	☼	81	63 - 127	7	18
Pyrene	32	B	272	250		ug/Kg	☼	80	68 - 125	9	16

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QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 590-13048-1 MSD
Matrix: Solid
Analysis Batch: 27246

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27247

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Benzo[a]anthracene	30		272	247		ug/Kg	☼	80	61 - 125	10	16
Chrysene	44	F2	272	274	F2	ug/Kg	☼	84	67 - 127	20	15
Benzo[b]fluoranthene	70	F1 F2	272	285	F2	ug/Kg	☼	79	67 - 127	23	16
Benzo[k]fluoranthene	26		272	230		ug/Kg	☼	75	63 - 127	6	16
Benzo[a]pyrene	53		272	261		ug/Kg	☼	76	60 - 120	20	20
Indeno[1,2,3-cd]pyrene	30		272	256		ug/Kg	☼	83	63 - 128	10	18
Dibenz(a,h)anthracene	11		272	225		ug/Kg	☼	79	60 - 128	2	18
Benzo[g,h,i]perylene	37	B	272	263		ug/Kg	☼	83	58 - 129	14	17
Surrogate	MSD	MSD	Limits								
	%Recovery	Qualifier									
Nitrobenzene-d5	59		43 - 120								
2-Fluorobiphenyl (Surr)	68		56 - 120								
p-Terphenyl-d14	82		74 - 136								

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27256/2-A
Matrix: Solid
Analysis Batch: 27324

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27256

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		04/22/20 09:48	04/29/20 13:43	1
Barium	ND		1.3	0.34	mg/Kg		04/22/20 09:48	04/29/20 13:43	1
Cadmium	ND		1.0	0.059	mg/Kg		04/22/20 09:48	04/29/20 13:43	1
Chromium	ND		1.3	0.18	mg/Kg		04/22/20 09:48	04/29/20 13:43	1
Lead	ND		3.0	1.5	mg/Kg		04/22/20 09:48	04/29/20 13:43	1
Selenium	ND		5.0	3.0	mg/Kg		04/22/20 09:48	04/29/20 13:43	1
Silver	ND		1.3	0.13	mg/Kg		04/22/20 09:48	04/29/20 13:43	1

Lab Sample ID: LCS 590-27256/1-A
Matrix: Solid
Analysis Batch: 27324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27256

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Added	Result					
Arsenic	100	109		mg/Kg		109	80 - 120	
Barium	100	117		mg/Kg		117	80 - 120	
Cadmium	50.0	55.4		mg/Kg		111	80 - 120	
Chromium	50.0	55.5		mg/Kg		111	80 - 120	
Lead	50.0	55.7		mg/Kg		111	80 - 120	
Selenium	100	114		mg/Kg		114	80 - 120	
Silver	5.00	5.40		mg/Kg		108	80 - 120	

Lab Sample ID: 590-13048-1 MS
Matrix: Solid
Analysis Batch: 27324

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27256

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Arsenic	7.0		102	104		mg/Kg	☼	95	75 - 125	
Barium	34		102	147		mg/Kg	☼	111	75 - 125	

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QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 590-13048-1 MS
Matrix: Solid
Analysis Batch: 27324

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27256

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.070	J	51.0	47.5		mg/Kg	☼	93	75 - 125
Chromium	7.5		51.0	55.1		mg/Kg	☼	93	75 - 125
Lead	13		51.0	59.4		mg/Kg	☼	91	75 - 125
Selenium	ND		102	97.2		mg/Kg	☼	95	75 - 125
Silver	ND		5.10	4.40		mg/Kg	☼	86	75 - 125

Lab Sample ID: 590-13048-1 MSD
Matrix: Solid
Analysis Batch: 27324

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27256

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	7.0		103	102		mg/Kg	☼	92	75 - 125	2	20
Barium	34		103	147		mg/Kg	☼	110	75 - 125	0	20
Cadmium	0.070	J	51.5	47.2		mg/Kg	☼	92	75 - 125	1	20
Chromium	7.5		51.5	55.9		mg/Kg	☼	94	75 - 125	1	20
Lead	13		51.5	66.8		mg/Kg	☼	105	75 - 125	12	20
Selenium	ND		103	96.3		mg/Kg	☼	94	75 - 125	1	20
Silver	ND		5.15	4.31		mg/Kg	☼	84	75 - 125	2	20

Lab Sample ID: 590-13048-1 DU
Matrix: Solid
Analysis Batch: 27324

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27256

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	7.0		7.74		mg/Kg	☼	10	20
Barium	34		38.7		mg/Kg	☼	14	20
Cadmium	0.070	J	0.0753	J	mg/Kg	☼	7	20
Chromium	7.5		7.87		mg/Kg	☼	5	20
Lead	13		11.6		mg/Kg	☼	11	20
Selenium	ND		ND		mg/Kg	☼	NC	20
Silver	ND		ND		mg/Kg	☼	NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-27255/9-A
Matrix: Solid
Analysis Batch: 27288

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27255

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		50	3.6	ug/Kg		04/22/20 09:44	04/24/20 14:49	1

Lab Sample ID: LCS 590-27255/8-A
Matrix: Solid
Analysis Batch: 27288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27255

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	200	215		ug/Kg		108	80 - 120

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 590-13048-1 MS
Matrix: Solid
Analysis Batch: 27288

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27255

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	14	J	202	213		ug/Kg	☼	99	80 - 120

Lab Sample ID: 590-13048-1 MSD
Matrix: Solid
Analysis Batch: 27288

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27255

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	14	J	202	243		ug/Kg	☼	114	80 - 120	13	20

Lab Sample ID: 590-13048-1 DU
Matrix: Solid
Analysis Batch: 27288

Client Sample ID: WH-1C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27255

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Hg	14	J	17.3	J F5	ug/Kg	☼	25	20

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-1C(0-0.5)

Date Collected: 04/14/20 08:15

Date Received: 04/14/20 13:18

Lab Sample ID: 590-13048-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27223	04/17/20 14:20	AMB	TAL SPK

Client Sample ID: WH-1C(0-0.5)

Date Collected: 04/14/20 08:15

Date Received: 04/14/20 13:18

Lab Sample ID: 590-13048-1

Matrix: Solid

Percent Solids: 97.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.13 g	2 mL	27247	04/21/20 13:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27246	04/21/20 17:54	NMI	TAL SPK
Total/NA	Prep	3050B			1.20 g	50 mL	27256	04/22/20 09:55	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27324	04/29/20 13:46	AMB	TAL SPK
Total/NA	Prep	7471B			0.53 g	50 mL	27255	04/22/20 09:45	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27288	04/24/20 14:51	AMB	TAL SPK

Client Sample ID: WH-2C(0-0.5)

Date Collected: 04/14/20 08:20

Date Received: 04/14/20 13:18

Lab Sample ID: 590-13048-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27223	04/17/20 14:20	AMB	TAL SPK

Client Sample ID: WH-2C(0-0.5)

Date Collected: 04/14/20 08:20

Date Received: 04/14/20 13:18

Lab Sample ID: 590-13048-2

Matrix: Solid

Percent Solids: 97.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.74 g	2 mL	27247	04/21/20 13:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27246	04/21/20 19:13	NMI	TAL SPK
Total/NA	Prep	3050B			1.22 g	50 mL	27256	04/22/20 09:55	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27324	04/29/20 14:00	AMB	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27255	04/22/20 09:45	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27288	04/24/20 15:00	AMB	TAL SPK

Client Sample ID: WH-3C(0-0.5)

Date Collected: 04/14/20 08:25

Date Received: 04/14/20 13:18

Lab Sample ID: 590-13048-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27223	04/17/20 14:20	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-3C(0-0.5)

Lab Sample ID: 590-13048-3

Date Collected: 04/14/20 08:25

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 91.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.46 g	2 mL	27247	04/21/20 13:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		2			27246	04/21/20 19:39	NMI	TAL SPK
Total/NA	Prep	3050B			1.25 g	50 mL	27256	04/22/20 09:55	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27324	04/29/20 14:10	AMB	TAL SPK
Total/NA	Prep	7471B			0.56 g	50 mL	27255	04/22/20 09:45	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27288	04/24/20 15:03	AMB	TAL SPK

Client Sample ID: WH-4C(0-0.5)

Lab Sample ID: 590-13048-4

Date Collected: 04/14/20 08:30

Matrix: Solid

Date Received: 04/14/20 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27223	04/17/20 14:20	AMB	TAL SPK

Client Sample ID: WH-4C(0-0.5)

Lab Sample ID: 590-13048-4

Date Collected: 04/14/20 08:30

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.63 g	2 mL	27247	04/21/20 13:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27246	04/21/20 20:06	NMI	TAL SPK
Total/NA	Prep	3050B			1.37 g	50 mL	27256	04/22/20 09:55	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27324	04/29/20 14:24	AMB	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27255	04/22/20 09:45	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27288	04/24/20 15:05	AMB	TAL SPK

Client Sample ID: WH-5C(0-0.5)

Lab Sample ID: 590-13048-5

Date Collected: 04/14/20 08:35

Matrix: Solid

Date Received: 04/14/20 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27223	04/17/20 14:20	AMB	TAL SPK

Client Sample ID: WH-5C(0-0.5)

Lab Sample ID: 590-13048-5

Date Collected: 04/14/20 08:35

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 98.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.07 g	2 mL	27247	04/21/20 13:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27246	04/21/20 20:32	NMI	TAL SPK
Total/NA	Prep	3050B			1.19 g	50 mL	27256	04/22/20 09:55	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27324	04/29/20 14:28	AMB	TAL SPK
Total/NA	Prep	7471B			0.55 g	50 mL	27255	04/22/20 09:45	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27288	04/24/20 15:07	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-6C(0-0.5)

Lab Sample ID: 590-13048-6

Date Collected: 04/14/20 08:40

Matrix: Solid

Date Received: 04/14/20 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27223	04/17/20 14:20	AMB	TAL SPK

Client Sample ID: WH-6C(0-0.5)

Lab Sample ID: 590-13048-6

Date Collected: 04/14/20 08:40

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.51 g	2 mL	27247	04/21/20 13:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27246	04/21/20 20:58	NMI	TAL SPK
Total/NA	Prep	3050B			1.16 g	50 mL	27256	04/22/20 09:55	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27324	04/29/20 14:31	AMB	TAL SPK
Total/NA	Prep	7471B			0.53 g	50 mL	27255	04/22/20 09:45	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27288	04/24/20 15:14	AMB	TAL SPK

Client Sample ID: WH-7C(0-0.5)

Lab Sample ID: 590-13048-7

Date Collected: 04/14/20 08:45

Matrix: Solid

Date Received: 04/14/20 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27223	04/17/20 14:20	AMB	TAL SPK

Client Sample ID: WH-7C(0-0.5)

Lab Sample ID: 590-13048-7

Date Collected: 04/14/20 08:45

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.37 g	2 mL	27247	04/21/20 13:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		2			27246	04/21/20 21:25	NMI	TAL SPK
Total/NA	Prep	3050B			1.20 g	50 mL	27256	04/22/20 09:55	AMB	TAL SPK
Total/NA	Analysis	6010D		2			27324	04/29/20 14:35	AMB	TAL SPK
Total/NA	Prep	7471B			0.55 g	50 mL	27255	04/22/20 09:45	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27288	04/24/20 15:16	AMB	TAL SPK

Client Sample ID: WH-8C(0-0.5)

Lab Sample ID: 590-13048-8

Date Collected: 04/14/20 08:50

Matrix: Solid

Date Received: 04/14/20 13:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27223	04/17/20 14:20	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Client Sample ID: WH-8C(0-0.5)

Lab Sample ID: 590-13048-8

Date Collected: 04/14/20 08:50

Matrix: Solid

Date Received: 04/14/20 13:18

Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.42 g	2 mL	27247	04/21/20 13:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27246	04/21/20 21:51	NMI	TAL SPK
Total/NA	Prep	3050B			1.28 g	50 mL	27256	04/22/20 09:55	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27324	04/29/20 14:39	AMB	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27255	04/22/20 09:45	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27288	04/24/20 15:19	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
- 3
- 4
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- 10
- 11
- 12

Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park - Havermale Island

Job ID: 590-13048-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
7471B	Mercury (CVAA)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
7471B	Preparation, Mercury	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: GEI		INVOICE TO: Same		TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. <input type="checkbox"/> OTHER Specify:																																			
REPORT TO: JR Sugalski ADDRESS: 523 E 2nd Ave, Spokane, WA 99202		P.O. NUMBER:																																					
PHONE: (509) 363-3125 FAX:		PRESERVATIVE		* Turnaround Requests less than standard may incur Rush Charges.																																			
PROJECT NAME: Riverfront Park-Hawermale Island		REQUESTED ANALYSES																																					
PROJECT NUMBER: 0110-148-06				<table border="1"> <thead> <tr> <th>MATRIX (W, S, O)</th> <th># OF CONT.</th> <th>LOCATION/ COMMENTS</th> <th>TA WO ID</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>* Arsenic,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>barium,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>cadmium,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>chromium,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>lead, mercury,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Selenium,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Silver</td> <td></td> </tr> </tbody> </table>				MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID			* Arsenic,				barium,				cadmium,				chromium,				lead, mercury,				Selenium,				Silver	
MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID																																				
		* Arsenic,																																					
		barium,																																					
		cadmium,																																					
		chromium,																																					
		lead, mercury,																																					
		Selenium,																																					
		Silver																																					
SAMPLED BY: Justin Orr																																							
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	Metals*	PAHs																																				
1 WH-1C(0-0.5)	4-14-20 / 0815	X	X																																				
2 WH-2C(0-0.5)	0820	X	X																																				
3 WH-3C(0-0.5)	0825	X	X																																				
4 WH-4C(0-0.5)	0830	X	X																																				
5 WH-5C(0-0.5)	0835	X	X																																				
6 WH-6C(0-0.5)	0840	X	X																																				
7 WH-7C(0-0.5)	0845	X	X																																				
8 WH-8C(0-0.5)	0850	X	X																																				
9																																							
10																																							
RELEASED BY: Justin Orr PRINT NAME: Justin Orr FIRM: GEI		DATE: 4/14/20 TIME: 1027		RECEIVED BY: Indee Amngtz PRINT NAME: Indee Amngtz FIRM: TASCO		DATE: 4/14/20 TIME: 1027																																	
RELEASED BY: PRINT NAME: FIRM:		DATE: TIME:		RECEIVED BY: PRINT NAME: FIRM:		DATE: TIME:																																	
ADDITIONAL REMARKS:				TEMP: 24°C PAGE 1 of 1		TAL-1000 (0714)																																	



Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13048-1

Login Number: 13048

List Source: Eurofins TestAmerica, Spokane

List Number: 1

Creator: Arrington, Randee E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

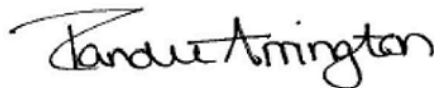
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13087-1
Client Project/Site: Riverfront Park (0110-148-06)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
4/30/2020 2:06:12 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Job ID: 590-13087-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 4/24/2020 11:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 9.9° C.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: RFPNB-12C (4-4.5) (590-13087-1), RFPNB-13C (4-4.5) (590-13087-2) and RFPNB-14C (4-4.5) (590-13087-3). The samples are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS Semi VOA

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

Metals

Method 6010D: The low level continuing calibration verification (CCVL) associated with batch 590-27334 recovered above the upper control limit for Lead. The samples associated with this CCV were >10x for the affected analytes; therefore, the data have been reported.

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

General Chemistry

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

Organic Prep

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

Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13087-1	RFPNB-12C (4-4.5)	Solid	04/24/20 08:55	04/24/20 11:05	
590-13087-2	RFPNB-13C (4-4.5)	Solid	04/24/20 09:00	04/24/20 11:05	
590-13087-3	RFPNB-14C (4-4.5)	Solid	04/24/20 09:10	04/24/20 11:05	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Client Sample ID: RFPNB-12C (4-4.5)

Lab Sample ID: 590-13087-1

Date Collected: 04/24/20 08:55

Matrix: Solid

Date Received: 04/24/20 11:05

Percent Solids: 96.5

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
2-Methylnaphthalene	ND		10	3.2	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
1-Methylnaphthalene	ND		10	2.3	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Acenaphthylene	ND		10	3.4	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Fluorene	ND		10	2.3	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Phenanthrene	ND		10	3.7	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Anthracene	ND		10	2.0	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Fluoranthene	6.2	J	10	2.5	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Pyrene	5.9	J	10	3.9	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Benzo[a]anthracene	4.9	J	10	2.2	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Chrysene	4.1	J	10	1.5	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Benzo[b]fluoranthene	7.0	J	10	3.6	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Benzo[k]fluoranthene	3.4	J	10	2.5	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Benzo[a]pyrene	5.3	J	10	4.3	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Indeno[1,2,3-cd]pyrene	3.4	J	10	3.0	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Dibenz(a,h)anthracene	ND		10	2.9	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1
Benzo[g,h,i]perylene	4.6	J	10	2.4	ug/Kg	☼	04/28/20 12:47	04/28/20 16:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	63		43 - 120	04/28/20 12:47	04/28/20 16:25	1
2-Fluorobiphenyl (Surr)	70		56 - 120	04/28/20 12:47	04/28/20 16:25	1
p-Terphenyl-d14	80		74 - 136	04/28/20 12:47	04/28/20 16:25	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		0.92	0.37	mg/Kg	☼	04/28/20 07:15	04/29/20 18:26	1
Barium	39	F1	0.92	0.25	mg/Kg	☼	04/28/20 07:15	04/29/20 18:26	1
Cadmium	0.37	J	0.74	0.044	mg/Kg	☼	04/28/20 07:15	04/29/20 18:26	1
Chromium	6.9		0.92	0.13	mg/Kg	☼	04/28/20 07:15	04/29/20 18:26	1
Lead	76		2.2	1.1	mg/Kg	☼	04/28/20 07:15	04/29/20 18:26	1
Selenium	ND		3.7	2.2	mg/Kg	☼	04/28/20 07:15	04/29/20 18:26	1
Silver	ND		0.92	0.099	mg/Kg	☼	04/28/20 07:15	04/29/20 18:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	55		48	3.4	ug/Kg	☼	04/28/20 08:04	04/29/20 12:28	1

Client Sample ID: RFPNB-13C (4-4.5)

Lab Sample ID: 590-13087-2

Date Collected: 04/24/20 09:00

Matrix: Solid

Date Received: 04/24/20 11:05

Percent Solids: 92.7

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	11		11	2.3	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
2-Methylnaphthalene	25		11	3.3	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
1-Methylnaphthalene	17		11	2.4	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Acenaphthylene	12		11	3.6	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Acenaphthene	4.9	J	11	2.7	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Fluorene	4.1	J	11	2.4	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Phenanthrene	73		11	3.9	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Client Sample ID: RFPNB-13C (4-4.5)

Lab Sample ID: 590-13087-2

Date Collected: 04/24/20 09:00

Matrix: Solid

Date Received: 04/24/20 11:05

Percent Solids: 92.7

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	15		11	2.1	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Fluoranthene	140		11	2.7	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Pyrene	140		11	4.1	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Benzo[a]anthracene	73		11	2.3	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Chrysene	92		11	1.6	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Benzo[b]fluoranthene	120		11	3.8	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Benzo[k]fluoranthene	45		11	2.7	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Benzo[a]pyrene	88		11	4.5	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Indeno[1,2,3-cd]pyrene	63		11	3.2	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Dibenz(a,h)anthracene	19		11	3.0	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Benzo[g,h,i]perylene	79		11	2.5	ug/Kg	☼	04/28/20 12:47	04/28/20 17:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	74		43 - 120				04/28/20 12:47	04/28/20 17:44	1
2-Fluorobiphenyl (Surr)	81		56 - 120				04/28/20 12:47	04/28/20 17:44	1
p-Terphenyl-d14	85		74 - 136				04/28/20 12:47	04/28/20 17:44	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	22		5.5	2.2	mg/Kg	☼	04/28/20 07:15	04/30/20 12:45	5
Barium	140		5.5	1.5	mg/Kg	☼	04/28/20 07:15	04/30/20 12:45	5
Cadmium	3.8	J	4.4	0.26	mg/Kg	☼	04/28/20 07:15	04/30/20 12:45	5
Chromium	6.7		5.5	0.78	mg/Kg	☼	04/28/20 07:15	04/30/20 12:45	5
Lead	3600	^	13	6.5	mg/Kg	☼	04/28/20 07:15	04/30/20 12:45	5
Selenium	ND		22	13	mg/Kg	☼	04/28/20 07:15	04/30/20 12:45	5
Silver	3.3	J	5.5	0.59	mg/Kg	☼	04/28/20 07:15	04/30/20 12:45	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	1900		270	19	ug/Kg	☼	04/28/20 08:04	04/29/20 13:00	5

Client Sample ID: RFPNB-14C (4-4.5)

Lab Sample ID: 590-13087-3

Date Collected: 04/24/20 09:10

Matrix: Solid

Date Received: 04/24/20 11:05

Percent Solids: 97.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		9.8	2.1	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
2-Methylnaphthalene	ND		9.8	3.1	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
1-Methylnaphthalene	ND		9.8	2.2	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Acenaphthylene	ND		9.8	3.3	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Acenaphthene	ND		9.8	2.5	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Fluorene	ND		9.8	2.2	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Phenanthrene	ND		9.8	3.6	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Anthracene	ND		9.8	2.0	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Fluoranthene	ND		9.8	2.4	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Pyrene	ND		9.8	3.7	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Benzo[a]anthracene	ND		9.8	2.1	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Chrysene	ND		9.8	1.5	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Benzo[b]fluoranthene	ND		9.8	3.4	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Benzo[k]fluoranthene	ND		9.8	2.5	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Client Sample ID: RFPNB-14C (4-4.5)

Lab Sample ID: 590-13087-3

Date Collected: 04/24/20 09:10

Matrix: Solid

Date Received: 04/24/20 11:05

Percent Solids: 97.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		9.8	4.2	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Indeno[1,2,3-cd]pyrene	ND		9.8	2.9	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Dibenz(a,h)anthracene	ND		9.8	2.8	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1
Benzo[g,h,i]perylene	ND		9.8	2.3	ug/Kg	☼	04/28/20 12:47	04/28/20 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	73		43 - 120	04/28/20 12:47	04/28/20 18:10	1
2-Fluorobiphenyl (Surr)	75		56 - 120	04/28/20 12:47	04/28/20 18:10	1
p-Terphenyl-d14	86		74 - 136	04/28/20 12:47	04/28/20 18:10	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.8		0.98	0.39	mg/Kg	☼	04/28/20 07:15	04/29/20 18:51	1
Barium	44		0.98	0.26	mg/Kg	☼	04/28/20 07:15	04/29/20 18:51	1
Cadmium	0.059	J	0.79	0.046	mg/Kg	☼	04/28/20 07:15	04/29/20 18:51	1
Chromium	8.2		0.98	0.14	mg/Kg	☼	04/28/20 07:15	04/29/20 18:51	1
Lead	7.1		2.4	1.2	mg/Kg	☼	04/28/20 07:15	04/29/20 18:51	1
Selenium	ND		3.9	2.4	mg/Kg	☼	04/28/20 07:15	04/29/20 18:51	1
Silver	ND		0.98	0.11	mg/Kg	☼	04/28/20 07:15	04/29/20 18:51	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		50	3.6	ug/Kg	☼	04/28/20 08:04	04/29/20 12:51	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-27308/1-A
Matrix: Solid
Analysis Batch: 27306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27308

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Acenaphthylene	ND		10	3.3	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Acenaphthene	ND		10	2.5	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Fluorene	ND		10	2.2	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Phenanthrene	ND		10	3.6	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Anthracene	ND		10	2.0	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Fluoranthene	ND		10	2.5	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Pyrene	ND		10	3.8	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Chrysene	ND		10	1.5	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		04/28/20 12:47	04/28/20 14:40	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		04/28/20 12:47	04/28/20 14:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	74		43 - 120	04/28/20 12:47	04/28/20 14:40	1
2-Fluorobiphenyl (Surr)	77		56 - 120	04/28/20 12:47	04/28/20 14:40	1
p-Terphenyl-d14	88		74 - 136	04/28/20 12:47	04/28/20 14:40	1

Lab Sample ID: LCS 590-27308/2-A
Matrix: Solid
Analysis Batch: 27306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	151		ug/Kg		57	39 - 120
2-Methylnaphthalene	267	155		ug/Kg		58	48 - 120
1-Methylnaphthalene	267	152		ug/Kg		57	55 - 120
Acenaphthylene	267	188		ug/Kg		71	59 - 120
Acenaphthene	267	172		ug/Kg		65	53 - 120
Fluorene	267	192		ug/Kg		72	63 - 120
Phenanthrene	267	197		ug/Kg		74	65 - 121
Anthracene	267	207		ug/Kg		77	60 - 129
Fluoranthene	267	200		ug/Kg		75	63 - 127
Pyrene	267	193		ug/Kg		72	68 - 125
Benzo[a]anthracene	267	205		ug/Kg		77	61 - 125
Chrysene	267	198		ug/Kg		74	67 - 127
Benzo[b]fluoranthene	267	203		ug/Kg		76	67 - 127
Benzo[k]fluoranthene	267	200		ug/Kg		75	63 - 127
Benzo[a]pyrene	267	185		ug/Kg		69	60 - 120
Indeno[1,2,3-cd]pyrene	267	210		ug/Kg		79	63 - 128
Dibenz(a,h)anthracene	267	210		ug/Kg		79	60 - 128
Benzo[g,h,i]perylene	267	206		ug/Kg		77	58 - 129

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-27308/2-A
Matrix: Solid
Analysis Batch: 27306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27308

<u>Surrogate</u>	<u>LCS</u> <u>%Recovery</u>	<u>LCS</u> <u>Qualifier</u>	<u>Limits</u>
Nitrobenzene-d5	59		43 - 120
2-Fluorobiphenyl (Surr)	71		56 - 120
p-Terphenyl-d14	81		74 - 136

Lab Sample ID: 590-13087-1 MS
Matrix: Solid
Analysis Batch: 27306

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27308

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MS</u> <u>Result</u>	<u>MS</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec.</u> <u>Limits</u>
Naphthalene	ND		266	166		ug/Kg	☼	62	39 - 120
2-Methylnaphthalene	ND		266	180		ug/Kg	☼	68	48 - 120
1-Methylnaphthalene	ND		266	176		ug/Kg	☼	66	55 - 120
Acenaphthylene	ND		266	203		ug/Kg	☼	76	59 - 120
Acenaphthene	ND		266	195		ug/Kg	☼	73	53 - 120
Fluorene	ND		266	205		ug/Kg	☼	77	63 - 120
Phenanthrene	ND		266	211		ug/Kg	☼	79	65 - 121
Anthracene	ND		266	233		ug/Kg	☼	88	60 - 129
Fluoranthene	6.2	J	266	219		ug/Kg	☼	80	63 - 127
Pyrene	5.9	J	266	216		ug/Kg	☼	79	68 - 125
Benzo[a]anthracene	4.9	J	266	223		ug/Kg	☼	82	61 - 125
Chrysene	4.1	J	266	218		ug/Kg	☼	80	67 - 127
Benzo[b]fluoranthene	7.0	J	266	225		ug/Kg	☼	82	67 - 127
Benzo[k]fluoranthene	3.4	J	266	224		ug/Kg	☼	83	63 - 127
Benzo[a]pyrene	5.3	J	266	217		ug/Kg	☼	79	60 - 120
Indeno[1,2,3-cd]pyrene	3.4	J	266	232		ug/Kg	☼	86	63 - 128
Dibenz(a,h)anthracene	ND		266	232		ug/Kg	☼	87	60 - 128
Benzo[g,h,i]perylene	4.6	J	266	234		ug/Kg	☼	86	58 - 129

<u>Surrogate</u>	<u>MS</u> <u>%Recovery</u>	<u>MS</u> <u>Qualifier</u>	<u>Limits</u>
Nitrobenzene-d5	73		43 - 120
2-Fluorobiphenyl (Surr)	81		56 - 120
p-Terphenyl-d14	87		74 - 136

Lab Sample ID: 590-13087-1 MSD
Matrix: Solid
Analysis Batch: 27306

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27308

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MSD</u> <u>Result</u>	<u>MSD</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec.</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>Limit</u>
Naphthalene	ND		268	166		ug/Kg	☼	62	39 - 120	0	35
2-Methylnaphthalene	ND		268	172		ug/Kg	☼	64	48 - 120	5	30
1-Methylnaphthalene	ND		268	166		ug/Kg	☼	62	55 - 120	6	24
Acenaphthylene	ND		268	204		ug/Kg	☼	76	59 - 120	0	20
Acenaphthene	ND		268	179		ug/Kg	☼	67	53 - 120	8	17
Fluorene	ND		268	205		ug/Kg	☼	77	63 - 120	0	21
Phenanthrene	ND		268	208		ug/Kg	☼	78	65 - 121	2	18
Anthracene	ND		268	217		ug/Kg	☼	81	60 - 129	7	18
Fluoranthene	6.2	J	268	210		ug/Kg	☼	76	63 - 127	4	18
Pyrene	5.9	J	268	208		ug/Kg	☼	75	68 - 125	4	16

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 590-13087-1 MSD
Matrix: Solid
Analysis Batch: 27306

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27308

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
Benzo[a]anthracene	4.9	J	268	214		ug/Kg	☼	78	61 - 125	4	16	
Chrysene	4.1	J	268	204		ug/Kg	☼	75	67 - 127	7	15	
Benzo[b]fluoranthene	7.0	J	268	218		ug/Kg	☼	79	67 - 127	3	16	
Benzo[k]fluoranthene	3.4	J	268	214		ug/Kg	☼	79	63 - 127	5	16	
Benzo[a]pyrene	5.3	J	268	203		ug/Kg	☼	74	60 - 120	6	20	
Indeno[1,2,3-cd]pyrene	3.4	J	268	220		ug/Kg	☼	81	63 - 128	5	18	
Dibenz(a,h)anthracene	ND		268	218		ug/Kg	☼	81	60 - 128	7	18	
Benzo[g,h,i]perylene	4.6	J	268	221		ug/Kg	☼	81	58 - 129	5	17	

Surrogate	MSD		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	68		43 - 120
2-Fluorobiphenyl (Surr)	78		56 - 120
p-Terphenyl-d14	82		74 - 136

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27296/2-A
Matrix: Solid
Analysis Batch: 27328

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27296

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		04/28/20 07:15	04/29/20 17:23	1
Barium	ND		1.3	0.34	mg/Kg		04/28/20 07:15	04/29/20 17:23	1
Cadmium	ND		1.0	0.059	mg/Kg		04/28/20 07:15	04/29/20 17:23	1
Chromium	ND		1.3	0.18	mg/Kg		04/28/20 07:15	04/29/20 17:23	1
Lead	ND		3.0	1.5	mg/Kg		04/28/20 07:15	04/29/20 17:23	1
Selenium	ND		5.0	3.0	mg/Kg		04/28/20 07:15	04/29/20 17:23	1
Silver	ND		1.3	0.13	mg/Kg		04/28/20 07:15	04/29/20 17:23	1

Lab Sample ID: LCS 590-27296/1-A
Matrix: Solid
Analysis Batch: 27328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27296

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.	
		Added	Result				Qualifier	Limits
Arsenic	100	100		mg/Kg		100	80 - 120	
Barium	100	110		mg/Kg		110	80 - 120	
Cadmium	50.0	49.5		mg/Kg		99	80 - 120	
Chromium	50.0	51.8		mg/Kg		104	80 - 120	
Lead	50.0	51.4		mg/Kg		103	80 - 120	
Selenium	100	101		mg/Kg		101	80 - 120	
Silver	5.00	4.99		mg/Kg		100	80 - 120	

Lab Sample ID: 590-13087-1 MS
Matrix: Solid
Analysis Batch: 27328

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27296

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	RPD
Arsenic	5.9		99.6	95.0		mg/Kg	☼	89	75 - 125	
Barium	39	F1	99.6	145		mg/Kg	☼	106	75 - 125	

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 590-13087-1 MS
Matrix: Solid
Analysis Batch: 27328

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27296

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.37	J	49.8	44.6		mg/Kg	☼	89	75 - 125
Chromium	6.9		49.8	52.3		mg/Kg	☼	91	75 - 125
Lead	76		49.8	121		mg/Kg	☼	90	75 - 125
Selenium	ND		99.6	89.1		mg/Kg	☼	89	75 - 125
Silver	ND		4.98	4.39		mg/Kg	☼	88	75 - 125

Lab Sample ID: 590-13087-1 MSD
Matrix: Solid
Analysis Batch: 27328

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27296

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.9		97.7	95.9		mg/Kg	☼	92	75 - 125	1	20
Barium	39	F1	97.7	177	F1	mg/Kg	☼	141	75 - 125	20	20
Cadmium	0.37	J	48.9	43.8		mg/Kg	☼	89	75 - 125	2	20
Chromium	6.9		48.9	53.7		mg/Kg	☼	96	75 - 125	3	20
Lead	76		48.9	119		mg/Kg	☼	87	75 - 125	2	20
Selenium	ND		97.7	87.8		mg/Kg	☼	90	75 - 125	1	20
Silver	ND		4.89	4.18		mg/Kg	☼	86	75 - 125	5	20

Lab Sample ID: 590-13087-1 DU
Matrix: Solid
Analysis Batch: 27328

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27296

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	5.9		8.76	F3	mg/Kg	☼	39	20
Barium	39	F1	50.4	F3	mg/Kg	☼	25	20
Cadmium	0.37	J	0.426	J	mg/Kg	☼	14	20
Chromium	6.9		6.87		mg/Kg	☼	0	20
Lead	76		76.5		mg/Kg	☼	0.8	20
Selenium	ND		ND		mg/Kg	☼	NC	20
Silver	ND		ND		mg/Kg	☼	NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-27299/9-A
Matrix: Solid
Analysis Batch: 27323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		50	3.6	ug/Kg		04/28/20 08:04	04/29/20 11:56	1

Lab Sample ID: LCS 590-27299/8-A
Matrix: Solid
Analysis Batch: 27323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	200	202		ug/Kg		101	80 - 120

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 590-13087-1 MS
Matrix: Solid
Analysis Batch: 27323

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27299

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	55		207	300		ug/Kg	☼	119	80 - 120

Lab Sample ID: 590-13087-1 MSD
Matrix: Solid
Analysis Batch: 27323

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27299

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	55		207	272		ug/Kg	☼	105	80 - 120	10	20

Lab Sample ID: 590-13087-1 DU
Matrix: Solid
Analysis Batch: 27323

Client Sample ID: RFPNB-12C (4-4.5)
Prep Type: Total/NA
Prep Batch: 27299

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Hg	55		63.8		ug/Kg	☼	15	20

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Client Sample ID: RFPNB-12C (4-4.5)

Lab Sample ID: 590-13087-1

Date Collected: 04/24/20 08:55

Matrix: Solid

Date Received: 04/24/20 11:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27297	04/28/20 07:48	AMB	TAL SPK

Client Sample ID: RFPNB-12C (4-4.5)

Lab Sample ID: 590-13087-1

Date Collected: 04/24/20 08:55

Matrix: Solid

Date Received: 04/24/20 11:05

Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.26 g	2 mL	27308	04/28/20 12:47	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27306	04/28/20 16:25	NMI	TAL SPK
Total/NA	Prep	3050B			1.40 g	50 mL	27296	04/28/20 07:15	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27328	04/29/20 18:26	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27299	04/28/20 08:04	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27323	04/29/20 12:28	AMB	TAL SPK

Client Sample ID: RFPNB-13C (4-4.5)

Lab Sample ID: 590-13087-2

Date Collected: 04/24/20 09:00

Matrix: Solid

Date Received: 04/24/20 11:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27297	04/28/20 07:48	AMB	TAL SPK

Client Sample ID: RFPNB-13C (4-4.5)

Lab Sample ID: 590-13087-2

Date Collected: 04/24/20 09:00

Matrix: Solid

Date Received: 04/24/20 11:05

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.10 g	2 mL	27308	04/28/20 12:47	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27306	04/28/20 17:44	NMI	TAL SPK
Total/NA	Prep	3050B			1.22 g	50 mL	27296	04/28/20 07:15	AMB	TAL SPK
Total/NA	Analysis	6010D		5			27334	04/30/20 12:45	JSP	TAL SPK
Total/NA	Prep	7471B			0.50 g	50 mL	27299	04/28/20 08:04	AMB	TAL SPK
Total/NA	Analysis	7471B		5			27323	04/29/20 13:00	AMB	TAL SPK

Client Sample ID: RFPNB-14C (4-4.5)

Lab Sample ID: 590-13087-3

Date Collected: 04/24/20 09:10

Matrix: Solid

Date Received: 04/24/20 11:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27297	04/28/20 07:48	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Client Sample ID: RFPNB-14C (4-4.5)

Lab Sample ID: 590-13087-3

Date Collected: 04/24/20 09:10

Matrix: Solid

Date Received: 04/24/20 11:05

Percent Solids: 97.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.60 g	2 mL	27308	04/28/20 12:47	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27306	04/28/20 18:10	NMI	TAL SPK
Total/NA	Prep	3050B			1.30 g	50 mL	27296	04/28/20 07:15	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27328	04/29/20 18:51	JSP	TAL SPK
Total/NA	Prep	7471B			0.51 g	50 mL	27299	04/28/20 08:04	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27323	04/29/20 12:51	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
- 3
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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
7471B	Mercury (CVAA)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
7471B	Preparation, Mercury	SW846	TAL SPK

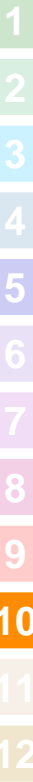
Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

TURNAROUND REQUEST

In Business Days*

Organic & Inorganic Analyses
 STD: 10 7 5 4 3 2 1 <1

Petroleum Hydrocarbon Analyses
 STD: 5 4 3 2 1 <1

OTHER Specify:

* Turnaround Request less than standard may incur Rush Charges.

CLIENT: GEI		REPORT TO: JR Suga 1561 523 E 2nd Avenue Spokane, WA 99202		PHONE: (509) 363-3125 FAX:		PROJECT NAME: Riverfront Park, Env. + GT		PROJECT NUMBER: 0110-148-06		SAMPLED BY: Justin Orr		CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		PRESERVATIVE		REQUESTED ANALYSES		DATE		RECEIVED BY:		FIRM:	
INVOICE TO: Same		P.O. NUMBER:		DATE: 4/24/20		DATE: 1105		DATE: 4/24/20		DATE: 1105		RECEIVED BY: Myra Grabele		FIRM: TASH/10		DATE: 4/24/20		DATE: 1105		FIRM: TASH/10		DATE: 4/24/20		DATE: 1105	
RCRAB metals		PATHS		DATE: 4/24/20		DATE: 1105		DATE: 4/24/20		DATE: 1105		RECEIVED BY: Myra Grabele		FIRM: TASH/10		DATE: 4/24/20		DATE: 1105		FIRM: TASH/10		DATE: 4/24/20		DATE: 1105	
1	RFPNB-12C (4-4-5)																								
2	RFPNB-13C (4-4-5)																								
3	RFPNB-14C (4-5-5)																								
4																									
5																									
6																									
7																									
8																									
9																									
10																									



Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13087-1

Login Number: 13087

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



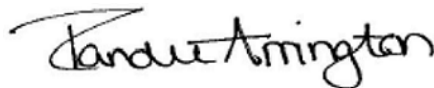
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13087-2
Client Project/Site: Riverfront Park (0110-148-06)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



*Authorized for release by:
5/5/2020 4:00:19 PM*

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-2

Job ID: 590-13087-2

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 4/24/2020 11:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 9.9° C.

Receipt Exceptions

The following sample was activated for TCLP Lead analysis by the client on 05/04/20: RFPNB-13C (4-4.5) (590-13087-2). This analysis was not originally requested on the chain-of-custody (COC).

The following sample was logged in for Method 80-12 Part A on hold pending TCLP Lead analysis by the client on 05/04/20: RFPNB-13C (4-4.5) (590-13087-2). This analysis was not originally requested on the chain-of-custody (COC).

Metals

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

General Chemistry

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

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Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13087-2	RFPNB-13C (4-4.5)	Solid	04/24/20 09:00	04/24/20 11:05	

- 1
- 2
- 3
- 4
- 5
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- 7
- 8
- 9
- 10
- 11
- 12

Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-2

Client Sample ID: RFPNB-13C (4-4.5)

Lab Sample ID: 590-13087-2

Date Collected: 04/24/20 09:00

Matrix: Solid

Date Received: 04/24/20 11:05

Method: 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3.2		0.060	0.0051	mg/L		05/05/20 07:19	05/05/20 12:30	1

- 1
- 2
- 3
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- 5
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- 7
- 8
- 9
- 10
- 11
- 12

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-2

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 590-27359/1-A
Matrix: Solid
Analysis Batch: 27364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	1.15		mg/L		115	80 - 120

Lab Sample ID: LB 590-27352/1-B
Matrix: Solid
Analysis Batch: 27364

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 27359

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		05/05/20 07:19	05/05/20 12:03	1

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-2

Client Sample ID: RFPNB-13C (4-4.5)

Lab Sample ID: 590-13087-2

Date Collected: 04/24/20 09:00

Matrix: Solid

Date Received: 04/24/20 11:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.01 g	2000.08 mL	27352	05/04/20 07:58	AMB	TAL SPK
TCLP	Prep	3010A			50 mL	50 mL	27359	05/05/20 07:19	AMB	TAL SPK
TCLP	Analysis	6010D		1			27364	05/05/20 12:30	JSP	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-2

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13087-2

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL SPK
1311	TCLP Extraction	SW846	TAL SPK
3010A	Preparation, Total Metals	SW846	TAL SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302
9405 SW Nimbus Ave., Beaverton, OR 97008-7145
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
503-906-9200 FAX 906-9210
907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

TURNAROUND REQUEST

In Business Days*

10 STD.	7	5	4	3	2	1	<1
	5 STD.	4	3	2	1	<1	

Organic & Inorganic Analyses
Petroleum Hydrocarbon Analyses

OTHER Specify:

CLIENT: GEI		REPORT TO: JR Suga 1561		ADDRESS: 523 E 2nd Avenue Spokane, WA 99202		PHONE: (509) 363-3125 FAX:		PROJECT NAME: Riverfront Park, Env. + GT		PROJECT NUMBER: 0110-148-06		SAMPLED BY: Justin Orr		CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		PRESERVATIVE		REQUESTED ANALYSES		DATE		TIME		FIRM:					
INVOICE TO: Same		P.O. NUMBER:		DATE: 4/24/20		TIME: 1105		FIRM: GEI		RECEIVED BY: Marta Grabele		PRINT NAME:		DATE: 4/24/20		TIME: 11:05		FIRM: TAS/10		DATE: 4/24/20		TIME: 11:05		FIRM: TAS/10		DATE: 4/24/20		TIME: 11:05		FIRM: TAS/10	
1		RFPNB-12C (4-4-5)		4/24/20/0835				RCRA 8 metals		PATHS		X		X																	
2		RFPNB-13C (4-4-5)		4/24/20/0900				X		X		X																			
3		RFPNB-14C (4-5-5)		4/24/20/0910				X		X		X																			
4																															
5																															
6																															
7																															
8																															
9																															
10																															



Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13087-2

Login Number: 13087

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
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	No analysis requiring residual chlorine check assigned.



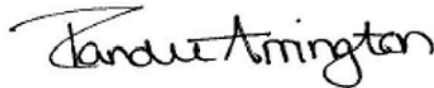
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13092-1
Client Project/Site: Riverfront Park (0110-148-14)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



*Authorized for release by:
5/8/2020 12:59:41 PM*

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Job ID: 590-13092-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 4/28/2020 4:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

GC/MS Semi VOA

Method 8270E SIM: The following samples were diluted due to the nature of the sample matrix: RFPNB-19C(0-0.5) (590-13092-5) and RFPNB-20C(0-0.5) (590-13092-6). Elevated reporting limits (RLs) are provided.

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

Metals

Method 6010D: The matrix spike duplicate (MSD) recoveries for preparation batch 590-27341 and analytical batch 590-27374 were outside control limits. Sample non homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010D: The sample duplicate (DUP) precision for preparation batch 590-27341 and analytical batch 590-27391 was outside control limits. Sample matrix interference is suspected.

Method 6010D: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 590-27341 and analytical batch 590-27391 was outside control limits. Sample non-homogeneity is suspected.

Method 6010D: The low level initial calibration verification (ICVL) associated with batch 590-27392 recovered above the upper control limit for Selenium. The samples associated with this ICV were non-detects for the affected analytes; therefore, the data have been reported.

Method 7471B: The matrix spike (MS) recoveries for preparation batch 590-27376 and analytical batch 590-27400 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

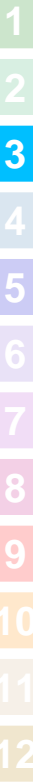
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

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

Organic Prep

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

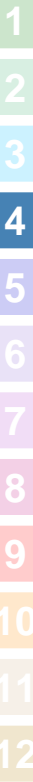


Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13092-1	RFPNB-15C(0-0.5)	Solid	04/28/20 06:58	04/28/20 16:10	
590-13092-2	RFPNB-16C(0-0.5)	Solid	04/28/20 07:03	04/28/20 16:10	
590-13092-3	RFPNB-17C(0-0.5)	Solid	04/28/20 07:07	04/28/20 16:10	
590-13092-4	RFPNB-18C(0-0.5)	Solid	04/28/20 07:10	04/28/20 16:10	
590-13092-5	RFPNB-19C(0-0.5)	Solid	04/28/20 07:15	04/28/20 16:10	
590-13092-6	RFPNB-20C(0-0.5)	Solid	04/28/20 07:38	04/28/20 16:10	
590-13092-7	RFPNB-21C(0-0.5)	Solid	04/28/20 07:43	04/28/20 16:10	
590-13092-8	RFPNB-22C(0-0.5)	Solid	04/28/20 07:54	04/28/20 16:10	



Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-15C(0-0.5)

Lab Sample ID: 590-13092-1

Date Collected: 04/28/20 06:58

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 94.5

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.3	J	10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
2-Methylnaphthalene	4.2	J	10	3.1	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
1-Methylnaphthalene	2.7	J	10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Acenaphthylene	5.8	J	10	3.3	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Acenaphthene	ND		10	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Fluorene	2.2	J	10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Phenanthrene	23		10	3.7	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Anthracene	8.0	J	10	2.0	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Fluoranthene	57		10	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Pyrene	62		10	3.8	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Benzo[a]anthracene	33		10	2.1	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Chrysene	41		10	1.5	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Benzo[b]fluoranthene	45		10	3.5	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Benzo[k]fluoranthene	20		10	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Benzo[a]pyrene	39		10	4.3	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Indeno[1,2,3-cd]pyrene	25		10	3.0	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Dibenz(a,h)anthracene	8.2	J	10	2.9	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1
Benzo[g,h,i]perylene	33		10	2.4	ug/Kg	☼	05/04/20 12:23	05/04/20 15:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	77		43 - 120	05/04/20 12:23	05/04/20 15:04	1
2-Fluorobiphenyl (Surr)	89		56 - 120	05/04/20 12:23	05/04/20 15:04	1
p-Terphenyl-d14	87		74 - 136	05/04/20 12:23	05/04/20 15:04	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		5.0	2.0	mg/Kg	☼	05/01/20 08:43	05/06/20 16:32	5
Barium	78		5.0	1.4	mg/Kg	☼	05/01/20 08:43	05/06/20 16:32	5
Cadmium	0.67	J	4.0	0.24	mg/Kg	☼	05/01/20 08:43	05/06/20 16:32	5
Chromium	11		5.0	0.71	mg/Kg	☼	05/01/20 08:43	05/06/20 16:32	5
Lead	180	F1 F2	12	5.9	mg/Kg	☼	05/01/20 08:43	05/06/20 16:32	5
Selenium	ND		20	12	mg/Kg	☼	05/01/20 08:43	05/06/20 16:32	5
Silver	ND		5.0	0.54	mg/Kg	☼	05/01/20 08:43	05/06/20 16:32	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	150	F1	49	3.5	ug/Kg	☼	05/06/20 10:35	05/08/20 08:57	1

Client Sample ID: RFPNB-16C(0-0.5)

Lab Sample ID: 590-13092-2

Date Collected: 04/28/20 07:03

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 95.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.9	J	10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
2-Methylnaphthalene	13		10	3.2	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
1-Methylnaphthalene	6.6	J	10	2.3	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Acenaphthylene	16		10	3.4	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Acenaphthene	3.1	J	10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Fluorene	7.0	J	10	2.3	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Phenanthrene	30		10	3.7	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-16C(0-0.5)

Lab Sample ID: 590-13092-2

Date Collected: 04/28/20 07:03

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 95.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	19		10	2.1	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Fluoranthene	91		10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Pyrene	110		10	3.9	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Benzo[a]anthracene	67		10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Chrysene	85		10	1.6	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Benzo[b]fluoranthene	130		10	3.6	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Benzo[k]fluoranthene	17		10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Benzo[a]pyrene	78		10	4.4	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Indeno[1,2,3-cd]pyrene	54		10	3.1	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Dibenz(a,h)anthracene	17		10	2.9	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Benzo[g,h,i]perylene	63		10	2.4	ug/Kg	☼	05/04/20 12:23	05/04/20 16:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	78		43 - 120				05/04/20 12:23	05/04/20 16:23	1
2-Fluorobiphenyl (Surr)	87		56 - 120				05/04/20 12:23	05/04/20 16:23	1
p-Terphenyl-d14	90		74 - 136				05/04/20 12:23	05/04/20 16:23	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20		1.0	0.40	mg/Kg	☼	05/01/20 08:43	05/05/20 16:07	1
Barium	65		1.0	0.27	mg/Kg	☼	05/01/20 08:43	05/05/20 16:07	1
Cadmium	0.28	J	0.82	0.048	mg/Kg	☼	05/01/20 08:43	05/05/20 16:07	1
Chromium	9.8		1.0	0.14	mg/Kg	☼	05/01/20 08:43	05/05/20 16:07	1
Lead	51		2.4	1.2	mg/Kg	☼	05/01/20 08:43	05/05/20 16:07	1
Selenium	ND		4.1	2.5	mg/Kg	☼	05/01/20 08:43	05/05/20 16:07	1
Silver	0.14	J	1.0	0.11	mg/Kg	☼	05/01/20 08:43	05/05/20 16:07	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	120		49	3.5	ug/Kg	☼	05/06/20 10:35	05/08/20 09:07	1

Client Sample ID: RFPNB-17C(0-0.5)

Lab Sample ID: 590-13092-3

Date Collected: 04/28/20 07:07

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 94.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.8	J	9.9	2.1	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
2-Methylnaphthalene	7.4	J	9.9	3.1	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
1-Methylnaphthalene	5.4	J	9.9	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Acenaphthylene	8.8	J	9.9	3.3	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Acenaphthene	3.0	J	9.9	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Fluorene	ND		9.9	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Phenanthrene	19		9.9	3.6	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Anthracene	9.3	J	9.9	2.0	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Fluoranthene	44		9.9	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Pyrene	48		9.9	3.8	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Benzo[a]anthracene	29		9.9	2.1	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Chrysene	36		9.9	1.5	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Benzo[b]fluoranthene	50		9.9	3.5	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Benzo[k]fluoranthene	18		9.9	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-17C(0-0.5)

Lab Sample ID: 590-13092-3

Date Collected: 04/28/20 07:07

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 94.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	37		9.9	4.2	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Indeno[1,2,3-cd]pyrene	21		9.9	2.9	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Dibenz(a,h)anthracene	7.2	J	9.9	2.8	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Benzo[g,h,i]perylene	25		9.9	2.3	ug/Kg	☼	05/04/20 12:23	05/04/20 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	73		43 - 120				05/04/20 12:23	05/04/20 16:49	1
2-Fluorobiphenyl (Surr)	77		56 - 120				05/04/20 12:23	05/04/20 16:49	1
p-Terphenyl-d14	88		74 - 136				05/04/20 12:23	05/04/20 16:49	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		0.95	0.38	mg/Kg	☼	05/01/20 08:43	05/05/20 16:10	1
Barium	79		0.95	0.25	mg/Kg	☼	05/01/20 08:43	05/05/20 16:10	1
Cadmium	0.95		0.76	0.045	mg/Kg	☼	05/01/20 08:43	05/05/20 16:10	1
Chromium	12		0.95	0.13	mg/Kg	☼	05/01/20 08:43	05/05/20 16:10	1
Lead	330		2.3	1.1	mg/Kg	☼	05/01/20 08:43	05/05/20 16:10	1
Selenium	ND		3.8	2.3	mg/Kg	☼	05/01/20 08:43	05/05/20 16:10	1
Silver	0.98		0.95	0.10	mg/Kg	☼	05/01/20 08:43	05/05/20 16:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	140		45	3.2	ug/Kg	☼	05/06/20 10:35	05/08/20 09:11	1

Client Sample ID: RFPNB-18C(0-0.5)

Lab Sample ID: 590-13092-4

Date Collected: 04/28/20 07:10

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 95.5

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	14		9.9	2.1	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
2-Methylnaphthalene	24		9.9	3.1	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
1-Methylnaphthalene	18		9.9	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Acenaphthylene	13		9.9	3.3	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Acenaphthene	21		9.9	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Fluorene	14		9.9	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Phenanthrene	190		9.9	3.6	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Anthracene	58		9.9	2.0	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Fluoranthene	290		9.9	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Pyrene	340		9.9	3.8	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Benzo[a]anthracene	160		9.9	2.1	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Chrysene	180		9.9	1.5	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Benzo[b]fluoranthene	220		9.9	3.5	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Benzo[k]fluoranthene	90		9.9	2.5	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Benzo[a]pyrene	180		9.9	4.2	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Indeno[1,2,3-cd]pyrene	65		9.9	2.9	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Dibenz(a,h)anthracene	22		9.9	2.8	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Benzo[g,h,i]perylene	70		9.9	2.3	ug/Kg	☼	05/04/20 12:23	05/04/20 17:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	78		43 - 120				05/04/20 12:23	05/04/20 17:15	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-18C(0-0.5)

Lab Sample ID: 590-13092-4

Date Collected: 04/28/20 07:10

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 95.5

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	81		56 - 120	05/04/20 12:23	05/04/20 17:15	1
p-Terphenyl-d14	92		74 - 136	05/04/20 12:23	05/04/20 17:15	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		0.98	0.39	mg/Kg	☼	05/01/20 08:43	05/05/20 16:13	1
Barium	81		0.98	0.26	mg/Kg	☼	05/01/20 08:43	05/05/20 16:13	1
Cadmium	1.4		0.79	0.046	mg/Kg	☼	05/01/20 08:43	05/05/20 16:13	1
Chromium	23		0.98	0.14	mg/Kg	☼	05/01/20 08:43	05/05/20 16:13	1
Lead	270		2.4	1.2	mg/Kg	☼	05/01/20 08:43	05/05/20 16:13	1
Selenium	ND		3.9	2.4	mg/Kg	☼	05/01/20 08:43	05/05/20 16:13	1
Silver	0.68	J	0.98	0.11	mg/Kg	☼	05/01/20 08:43	05/05/20 16:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	360		43	3.1	ug/Kg	☼	05/06/20 10:35	05/08/20 09:13	1

Client Sample ID: RFPNB-19C(0-0.5)

Lab Sample ID: 590-13092-5

Date Collected: 04/28/20 07:15

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 98.3

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	6.6	J	20	4.3	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
2-Methylnaphthalene	12	J	20	6.2	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
1-Methylnaphthalene	7.7	J	20	4.4	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Acenaphthylene	ND		20	6.6	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Acenaphthene	5.2	J	20	5.0	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Fluorene	4.8	J	20	4.4	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Phenanthrene	41		20	7.2	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Anthracene	11	J	20	4.0	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Fluoranthene	66		20	4.9	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Pyrene	86		20	7.5	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Benzo[a]anthracene	37		20	4.2	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Chrysene	81		20	3.0	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Benzo[b]fluoranthene	64		20	6.9	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Benzo[k]fluoranthene	19	J	20	4.9	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Benzo[a]pyrene	44		20	8.4	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Indeno[1,2,3-cd]pyrene	17	J	20	5.9	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Dibenz(a,h)anthracene	9.1	J	20	5.6	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2
Benzo[g,h,i]perylene	24		20	4.7	ug/Kg	☼	05/04/20 12:23	05/04/20 17:42	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	85		43 - 120	05/04/20 12:23	05/04/20 17:42	2
2-Fluorobiphenyl (Surr)	93		56 - 120	05/04/20 12:23	05/04/20 17:42	2
p-Terphenyl-d14	97		74 - 136	05/04/20 12:23	05/04/20 17:42	2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.4		1.7	0.67	mg/Kg	☼	05/01/20 08:43	05/06/20 16:50	2

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-19C(0-0.5)

Lab Sample ID: 590-13092-5

Date Collected: 04/28/20 07:15

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 98.3

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	59		1.7	0.45	mg/Kg	☼	05/01/20 08:43	05/06/20 16:50	2
Cadmium	0.21	J	1.4	0.080	mg/Kg	☼	05/01/20 08:43	05/06/20 16:50	2
Chromium	6.7		1.7	0.24	mg/Kg	☼	05/01/20 08:43	05/06/20 16:50	2
Lead	70		4.1	2.0	mg/Kg	☼	05/01/20 08:43	05/06/20 16:50	2
Selenium	ND		6.8	4.1	mg/Kg	☼	05/01/20 08:43	05/06/20 16:50	2
Silver	ND		1.7	0.18	mg/Kg	☼	05/01/20 08:43	05/06/20 16:50	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	36	J	48	3.4	ug/Kg	☼	05/06/20 10:35	05/08/20 09:16	1

Client Sample ID: RFPNB-20C(0-0.5)

Lab Sample ID: 590-13092-6

Date Collected: 04/28/20 07:38

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 96.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	19	J	51	11	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
2-Methylnaphthalene	37	J	51	16	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
1-Methylnaphthalene	25	J	51	11	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Acenaphthylene	ND		51	17	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Acenaphthene	ND		51	13	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Fluorene	ND		51	11	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Phenanthrene	60		51	19	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Anthracene	23	J	51	10	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Fluoranthene	83		51	13	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Pyrene	110		51	20	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Benzo[a]anthracene	52		51	11	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Chrysene	90		51	7.8	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Benzo[b]fluoranthene	97		51	18	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Benzo[k]fluoranthene	37	J	51	13	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Benzo[a]pyrene	72		51	22	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Indeno[1,2,3-cd]pyrene	34	J	51	15	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Dibenz(a,h)anthracene	18	J	51	15	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5
Benzo[g,h,i]perylene	51		51	12	ug/Kg	☼	05/04/20 12:23	05/04/20 18:08	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		43 - 120	05/04/20 12:23	05/04/20 18:08	5
2-Fluorobiphenyl (Surr)	84		56 - 120	05/04/20 12:23	05/04/20 18:08	5
p-Terphenyl-d14	90		74 - 136	05/04/20 12:23	05/04/20 18:08	5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		1.9	0.76	mg/Kg	☼	05/01/20 08:43	05/06/20 16:53	2
Barium	120		1.9	0.52	mg/Kg	☼	05/01/20 08:43	05/06/20 16:53	2
Cadmium	1.3	J	1.5	0.091	mg/Kg	☼	05/01/20 08:43	05/06/20 16:53	2
Chromium	11		1.9	0.27	mg/Kg	☼	05/01/20 08:43	05/06/20 16:53	2
Lead	600		4.6	2.3	mg/Kg	☼	05/01/20 08:43	05/06/20 16:53	2
Selenium	ND		7.7	4.6	mg/Kg	☼	05/01/20 08:43	05/06/20 16:53	2
Silver	1.1	J	1.9	0.21	mg/Kg	☼	05/01/20 08:43	05/06/20 16:53	2

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-20C(0-0.5)

Date Collected: 04/28/20 07:38

Date Received: 04/28/20 16:10

Lab Sample ID: 590-13092-6

Matrix: Solid

Percent Solids: 96.1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	240		48	3.4	ug/Kg	☼	05/06/20 10:35	05/08/20 09:22	1

Client Sample ID: RFPNB-21C(0-0.5)

Date Collected: 04/28/20 07:43

Date Received: 04/28/20 16:10

Lab Sample ID: 590-13092-7

Matrix: Solid

Percent Solids: 95.8

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	9.8	J	10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
2-Methylnaphthalene	15		10	3.2	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
1-Methylnaphthalene	12		10	2.3	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Acenaphthylene	16		10	3.4	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Acenaphthene	16		10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Fluorene	13		10	2.3	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Phenanthrene	160		10	3.7	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Anthracene	48		10	2.1	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Fluoranthene	250		10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Pyrene	290		10	3.9	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Benzo[a]anthracene	130		10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Chrysene	150		10	1.6	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Benzo[b]fluoranthene	200		10	3.6	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Benzo[k]fluoranthene	77		10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Benzo[a]pyrene	150		10	4.3	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Indeno[1,2,3-cd]pyrene	54		10	3.0	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Dibenz(a,h)anthracene	18		10	2.9	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1
Benzo[g,h,i]perylene	59		10	2.4	ug/Kg	☼	05/04/20 12:23	05/04/20 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	77		43 - 120	05/04/20 12:23	05/04/20 18:34	1
2-Fluorobiphenyl (Surr)	81		56 - 120	05/04/20 12:23	05/04/20 18:34	1
p-Terphenyl-d14	97		74 - 136	05/04/20 12:23	05/04/20 18:34	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.5		0.89	0.35	mg/Kg	☼	05/01/20 08:43	05/05/20 16:23	1
Barium	79		0.89	0.24	mg/Kg	☼	05/01/20 08:43	05/05/20 16:23	1
Cadmium	1.0		0.71	0.042	mg/Kg	☼	05/01/20 08:43	05/05/20 16:23	1
Chromium	12		0.89	0.13	mg/Kg	☼	05/01/20 08:43	05/05/20 16:23	1
Lead	330		2.1	1.0	mg/Kg	☼	05/01/20 08:43	05/05/20 16:23	1
Selenium	ND		3.6	2.1	mg/Kg	☼	05/01/20 08:43	05/05/20 16:23	1
Silver	0.65	J	0.89	0.095	mg/Kg	☼	05/01/20 08:43	05/05/20 16:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	150		48	3.5	ug/Kg	☼	05/06/20 10:35	05/08/20 09:25	1

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-22C(0-0.5)

Lab Sample ID: 590-13092-8

Date Collected: 04/28/20 07:54

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 93.3

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	23		10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
2-Methylnaphthalene	48		10	3.2	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
1-Methylnaphthalene	37		10	2.3	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Acenaphthylene	9.8	J	10	3.4	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Acenaphthene	25		10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Fluorene	14		10	2.3	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Phenanthrene	230		10	3.7	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Anthracene	56		10	2.0	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Fluoranthene	260		10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Pyrene	300		10	3.9	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Benzo[a]anthracene	120		10	2.2	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Chrysene	150		10	1.6	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Benzo[b]fluoranthene	180		10	3.6	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Benzo[k]fluoranthene	71		10	2.6	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Benzo[a]pyrene	140		10	4.3	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Indeno[1,2,3-cd]pyrene	47		10	3.0	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Dibenz(a,h)anthracene	16		10	2.9	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1
Benzo[g,h,i]perylene	52		10	2.4	ug/Kg	☼	05/04/20 12:23	05/04/20 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	60		43 - 120	05/04/20 12:23	05/04/20 19:01	1
2-Fluorobiphenyl (Surr)	70		56 - 120	05/04/20 12:23	05/04/20 19:01	1
p-Terphenyl-d14	87		74 - 136	05/04/20 12:23	05/04/20 19:01	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	44		9.8	3.9	mg/Kg	☼	05/01/20 08:45	05/06/20 16:56	10
Barium	170		9.8	2.6	mg/Kg	☼	05/01/20 08:45	05/06/20 16:56	10
Cadmium	5.6	J	7.8	0.46	mg/Kg	☼	05/01/20 08:45	05/06/20 16:56	10
Chromium	8.3	J	9.8	1.4	mg/Kg	☼	05/01/20 08:45	05/06/20 16:56	10
Lead	6500		47	23	mg/Kg	☼	05/01/20 08:45	05/07/20 14:54	20
Selenium	ND		39	24	mg/Kg	☼	05/01/20 08:45	05/06/20 16:56	10
Silver	6.8	J	9.8	1.0	mg/Kg	☼	05/01/20 08:45	05/06/20 16:56	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	1700		240	17	ug/Kg	☼	05/06/20 10:35	05/08/20 10:06	5

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-27358/1-A
Matrix: Solid
Analysis Batch: 27357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27358

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Acenaphthylene	ND		10	3.3	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Acenaphthene	ND		10	2.5	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Fluorene	ND		10	2.2	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Phenanthrene	ND		10	3.6	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Anthracene	ND		10	2.0	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Fluoranthene	ND		10	2.5	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Pyrene	ND		10	3.8	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Chrysene	ND		10	1.5	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		05/04/20 12:23	05/04/20 13:45	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		05/04/20 12:23	05/04/20 13:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	67		43 - 120	05/04/20 12:23	05/04/20 13:45	1
2-Fluorobiphenyl (Surr)	67		56 - 120	05/04/20 12:23	05/04/20 13:45	1
p-Terphenyl-d14	84		74 - 136	05/04/20 12:23	05/04/20 13:45	1

Lab Sample ID: LCS 590-27358/2-A
Matrix: Solid
Analysis Batch: 27357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27358

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	153		ug/Kg		57	39 - 120
2-Methylnaphthalene	267	153		ug/Kg		57	48 - 120
1-Methylnaphthalene	267	154		ug/Kg		58	55 - 120
Acenaphthylene	267	184		ug/Kg		69	59 - 120
Acenaphthene	267	176		ug/Kg		66	53 - 120
Fluorene	267	182		ug/Kg		68	63 - 120
Phenanthrene	267	192		ug/Kg		72	65 - 121
Anthracene	267	211		ug/Kg		79	60 - 129
Fluoranthene	267	201		ug/Kg		75	63 - 127
Pyrene	267	199		ug/Kg		75	68 - 125
Benzo[a]anthracene	267	207		ug/Kg		78	61 - 125
Chrysene	267	212		ug/Kg		80	67 - 127
Benzo[b]fluoranthene	267	214		ug/Kg		80	67 - 127
Benzo[k]fluoranthene	267	210		ug/Kg		79	63 - 127
Benzo[a]pyrene	267	194		ug/Kg		73	60 - 120
Indeno[1,2,3-cd]pyrene	267	223		ug/Kg		84	63 - 128
Dibenz(a,h)anthracene	267	224		ug/Kg		84	60 - 128
Benzo[g,h,i]perylene	267	220		ug/Kg		82	58 - 129

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-27358/2-A
Matrix: Solid
Analysis Batch: 27357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27358

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>LCS</i> Qualifier	<i>Limits</i>
Nitrobenzene-d5	66		43 - 120
2-Fluorobiphenyl (Surr)	73		56 - 120
p-Terphenyl-d14	84		74 - 136

Lab Sample ID: 590-13092-1 MS
Matrix: Solid
Analysis Batch: 27357

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27358

<i>Analyte</i>	<i>Sample</i> Result	<i>Sample</i> Qualifier	<i>Spike</i> Added	<i>MS</i> Result	<i>MS</i> Qualifier	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> Limits
Naphthalene	2.3	J	278	178		ug/Kg	☼	63	39 - 120
2-Methylnaphthalene	4.2	J	278	190		ug/Kg	☼	67	48 - 120
1-Methylnaphthalene	2.7	J	278	189		ug/Kg	☼	67	55 - 120
Acenaphthylene	5.8	J	278	239		ug/Kg	☼	84	59 - 120
Acenaphthene	ND		278	207		ug/Kg	☼	74	53 - 120
Fluorene	2.2	J	278	230		ug/Kg	☼	83	63 - 120
Phenanthrene	23		278	248		ug/Kg	☼	81	65 - 121
Anthracene	8.0	J	278	254		ug/Kg	☼	89	60 - 129
Fluoranthene	57		278	283		ug/Kg	☼	81	63 - 127
Pyrene	62		278	286		ug/Kg	☼	81	68 - 125
Benzo[a]anthracene	33		278	271		ug/Kg	☼	85	61 - 125
Chrysene	41		278	261		ug/Kg	☼	79	67 - 127
Benzo[b]fluoranthene	45		278	274		ug/Kg	☼	82	67 - 127
Benzo[k]fluoranthene	20		278	255		ug/Kg	☼	85	63 - 127
Benzo[a]pyrene	39		278	268		ug/Kg	☼	82	60 - 120
Indeno[1,2,3-cd]pyrene	25		278	230		ug/Kg	☼	74	63 - 128
Dibenz(a,h)anthracene	8.2	J	278	219		ug/Kg	☼	76	60 - 128
Benzo[g,h,i]perylene	33		278	219		ug/Kg	☼	67	58 - 129

<i>Surrogate</i>	<i>MS</i> %Recovery	<i>MS</i> Qualifier	<i>Limits</i>
Nitrobenzene-d5	68		43 - 120
2-Fluorobiphenyl (Surr)	85		56 - 120
p-Terphenyl-d14	87		74 - 136

Lab Sample ID: 590-13092-1 MSD
Matrix: Solid
Analysis Batch: 27357

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27358

<i>Analyte</i>	<i>Sample</i> Result	<i>Sample</i> Qualifier	<i>Spike</i> Added	<i>MSD</i> Result	<i>MSD</i> Qualifier	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> Limits	<i>RPD</i>	<i>RPD</i> Limit
Naphthalene	2.3	J	276	161		ug/Kg	☼	57	39 - 120	10	35
2-Methylnaphthalene	4.2	J	276	176		ug/Kg	☼	62	48 - 120	8	30
1-Methylnaphthalene	2.7	J	276	175		ug/Kg	☼	62	55 - 120	8	24
Acenaphthylene	5.8	J	276	203		ug/Kg	☼	71	59 - 120	16	20
Acenaphthene	ND		276	186		ug/Kg	☼	67	53 - 120	11	17
Fluorene	2.2	J	276	201		ug/Kg	☼	73	63 - 120	14	21
Phenanthrene	23		276	232		ug/Kg	☼	76	65 - 121	6	18
Anthracene	8.0	J	276	240		ug/Kg	☼	84	60 - 129	6	18
Fluoranthene	57		276	270		ug/Kg	☼	77	63 - 127	5	18
Pyrene	62		276	274		ug/Kg	☼	77	68 - 125	4	16

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 590-13092-1 MSD
Matrix: Solid
Analysis Batch: 27357

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27358

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Benzo[a]anthracene	33		276	254		ug/Kg	☼	80	61 - 125	6	16
Chrysene	41		276	245		ug/Kg	☼	74	67 - 127	6	15
Benzo[b]fluoranthene	45		276	257		ug/Kg	☼	77	67 - 127	7	16
Benzo[k]fluoranthene	20		276	241		ug/Kg	☼	80	63 - 127	6	16
Benzo[a]pyrene	39		276	250		ug/Kg	☼	76	60 - 120	7	20
Indeno[1,2,3-cd]pyrene	25		276	218		ug/Kg	☼	70	63 - 128	5	18
Dibenz(a,h)anthracene	8.2	J	276	210		ug/Kg	☼	73	60 - 128	4	18
Benzo[g,h,i]perylene	33		276	209		ug/Kg	☼	64	58 - 129	5	17
Surrogate	MSD	MSD	Qualifier	Limits							
Nitrobenzene-d5	62			43 - 120							
2-Fluorobiphenyl (Surr)	74			56 - 120							
p-Terphenyl-d14	83			74 - 136							

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27341/2-A
Matrix: Solid
Analysis Batch: 27374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27341

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		05/01/20 08:41	05/05/20 15:34	1
Barium	ND		1.3	0.34	mg/Kg		05/01/20 08:41	05/05/20 15:34	1
Cadmium	ND		1.0	0.059	mg/Kg		05/01/20 08:41	05/05/20 15:34	1
Chromium	ND		1.3	0.18	mg/Kg		05/01/20 08:41	05/05/20 15:34	1
Lead	ND		3.0	1.5	mg/Kg		05/01/20 08:41	05/05/20 15:34	1
Selenium	ND		5.0	3.0	mg/Kg		05/01/20 08:41	05/05/20 15:34	1
Silver	ND		1.3	0.13	mg/Kg		05/01/20 08:41	05/05/20 15:34	1

Lab Sample ID: LCS 590-27341/1-A
Matrix: Solid
Analysis Batch: 27374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27341

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Added	Result				Qualifier
Arsenic	100	99.6		mg/Kg		100	80 - 120
Barium	100	99.2		mg/Kg		99	80 - 120
Cadmium	50.0	51.5		mg/Kg		103	80 - 120
Chromium	50.0	57.2		mg/Kg		114	80 - 120
Lead	50.0	54.4		mg/Kg		109	80 - 120
Selenium	100	107		mg/Kg		107	80 - 120
Silver	5.00	5.18		mg/Kg		104	80 - 120

Lab Sample ID: 590-13092-1 MS
Matrix: Solid
Analysis Batch: 27391

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27341

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Arsenic	10		105	104		mg/Kg	☼	90	75 - 125
Barium	78		105	175		mg/Kg	☼	93	75 - 125

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QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 590-13092-1 MS
Matrix: Solid
Analysis Batch: 27391

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27341

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.67	J	52.4	52.1		mg/Kg	☼	98	75 - 125
Chromium	11		52.4	65.4		mg/Kg	☼	105	75 - 125
Lead	180	F1 F2	52.4	275	F1	mg/Kg	☼	180	75 - 125
Selenium	ND		105	99.8		mg/Kg	☼	95	75 - 125
Silver	ND		5.24	5.11	J	mg/Kg	☼	97	75 - 125

Lab Sample ID: 590-13092-1 MSD
Matrix: Solid
Analysis Batch: 27391

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27341

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	10		106	107		mg/Kg	☼	92	75 - 125	3	20
Barium	78		106	190		mg/Kg	☼	106	75 - 125	8	20
Cadmium	0.67	J	52.9	53.3		mg/Kg	☼	99	75 - 125	2	20
Chromium	11		52.9	65.9		mg/Kg	☼	105	75 - 125	1	20
Lead	180	F1 F2	52.9	1380	F1 F2	mg/Kg	☼	2271	75 - 125	134	20
Selenium	ND		106	101		mg/Kg	☼	96	75 - 125	1	20
Silver	ND		5.29	6.27	J	mg/Kg	☼	119	75 - 125	20	20

Lab Sample ID: 590-13092-1 DU
Matrix: Solid
Analysis Batch: 27391

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27341

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Arsenic	10		8.48	F5	mg/Kg	☼	21	20
Barium	78		82.4		mg/Kg	☼	6	20
Cadmium	0.67	J	0.505	J F5	mg/Kg	☼	28	20
Chromium	11		10.4		mg/Kg	☼	2	20
Lead	180	F1 F2	134	F3	mg/Kg	☼	30	20
Selenium	ND		ND		mg/Kg	☼	NC	20
Silver	ND		ND		mg/Kg	☼	NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-27376/9-A
Matrix: Solid
Analysis Batch: 27400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		50	3.6	ug/Kg		05/06/20 10:35	05/08/20 08:55	1

Lab Sample ID: LCS 590-27376/8-A
Matrix: Solid
Analysis Batch: 27400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	200	205		ug/Kg		103	80 - 120

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 590-13092-1 MS
Matrix: Solid
Analysis Batch: 27400

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27376

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	150	F1	212	408	F1	ug/Kg	☼	121	80 - 120

Lab Sample ID: 590-13092-1 MSD
Matrix: Solid
Analysis Batch: 27400

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27376

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	150	F1	207	389		ug/Kg	☼	114	80 - 120	5	20

Lab Sample ID: 590-13092-1 DU
Matrix: Solid
Analysis Batch: 27400

Client Sample ID: RFPNB-15C(0-0.5)
Prep Type: Total/NA
Prep Batch: 27376

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Hg	150	F1	169		ug/Kg	☼	11	20

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-15C(0-0.5)

Lab Sample ID: 590-13092-1

Date Collected: 04/28/20 06:58

Matrix: Solid

Date Received: 04/28/20 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27342	05/01/20 09:05	AMB	TAL SPK

Client Sample ID: RFPNB-15C(0-0.5)

Lab Sample ID: 590-13092-1

Date Collected: 04/28/20 06:58

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.77 g	2 mL	27358	05/04/20 12:23	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27357	05/04/20 15:04	NMI	TAL SPK
Total/NA	Prep	3050B			1.31 g	50 mL	27341	05/01/20 08:43	AMB	TAL SPK
Total/NA	Analysis	6010D		5			27391	05/06/20 16:32	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 08:57	AMB	TAL SPK

Client Sample ID: RFPNB-16C(0-0.5)

Lab Sample ID: 590-13092-2

Date Collected: 04/28/20 07:03

Matrix: Solid

Date Received: 04/28/20 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27342	05/01/20 09:05	AMB	TAL SPK

Client Sample ID: RFPNB-16C(0-0.5)

Lab Sample ID: 590-13092-2

Date Collected: 04/28/20 07:03

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 95.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.29 g	2 mL	27358	05/04/20 12:23	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27357	05/04/20 16:23	NMI	TAL SPK
Total/NA	Prep	3050B			1.29 g	50 mL	27341	05/01/20 08:43	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27374	05/05/20 16:07	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:07	AMB	TAL SPK

Client Sample ID: RFPNB-17C(0-0.5)

Lab Sample ID: 590-13092-3

Date Collected: 04/28/20 07:07

Matrix: Solid

Date Received: 04/28/20 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27342	05/01/20 09:05	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-17C(0-0.5)

Lab Sample ID: 590-13092-3

Date Collected: 04/28/20 07:07

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.95 g	2 mL	27358	05/04/20 12:23	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27357	05/04/20 16:49	NMI	TAL SPK
Total/NA	Prep	3050B			1.39 g	50 mL	27341	05/01/20 08:43	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27374	05/05/20 16:10	JSP	TAL SPK
Total/NA	Prep	7471B			0.58 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:11	AMB	TAL SPK

Client Sample ID: RFPNB-18C(0-0.5)

Lab Sample ID: 590-13092-4

Date Collected: 04/28/20 07:10

Matrix: Solid

Date Received: 04/28/20 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27342	05/01/20 09:05	AMB	TAL SPK

Client Sample ID: RFPNB-18C(0-0.5)

Lab Sample ID: 590-13092-4

Date Collected: 04/28/20 07:10

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.93 g	2 mL	27358	05/04/20 12:23	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27357	05/04/20 17:15	NMI	TAL SPK
Total/NA	Prep	3050B			1.33 g	50 mL	27341	05/01/20 08:43	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27374	05/05/20 16:13	JSP	TAL SPK
Total/NA	Prep	7471B			0.61 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:13	AMB	TAL SPK

Client Sample ID: RFPNB-19C(0-0.5)

Lab Sample ID: 590-13092-5

Date Collected: 04/28/20 07:15

Matrix: Solid

Date Received: 04/28/20 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27342	05/01/20 09:05	AMB	TAL SPK

Client Sample ID: RFPNB-19C(0-0.5)

Lab Sample ID: 590-13092-5

Date Collected: 04/28/20 07:15

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 98.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.41 g	2 mL	27358	05/04/20 12:23	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		2			27357	05/04/20 17:42	NMI	TAL SPK
Total/NA	Prep	3050B			1.50 g	50 mL	27341	05/01/20 08:43	AMB	TAL SPK
Total/NA	Analysis	6010D		2			27391	05/06/20 16:50	JSP	TAL SPK
Total/NA	Prep	7471B			0.53 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:16	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-20C(0-0.5)

Lab Sample ID: 590-13092-6

Date Collected: 04/28/20 07:38

Matrix: Solid

Date Received: 04/28/20 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27342	05/01/20 09:05	AMB	TAL SPK

Client Sample ID: RFPNB-20C(0-0.5)

Lab Sample ID: 590-13092-6

Date Collected: 04/28/20 07:38

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.17 g	2 mL	27358	05/04/20 12:23	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		5			27357	05/04/20 18:08	NMI	TAL SPK
Total/NA	Prep	3050B			1.35 g	50 mL	27341	05/01/20 08:43	AMB	TAL SPK
Total/NA	Analysis	6010D		2			27391	05/06/20 16:53	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:22	AMB	TAL SPK

Client Sample ID: RFPNB-21C(0-0.5)

Lab Sample ID: 590-13092-7

Date Collected: 04/28/20 07:43

Matrix: Solid

Date Received: 04/28/20 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27342	05/01/20 09:05	AMB	TAL SPK

Client Sample ID: RFPNB-21C(0-0.5)

Lab Sample ID: 590-13092-7

Date Collected: 04/28/20 07:43

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.27 g	2 mL	27358	05/04/20 12:23	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27357	05/04/20 18:34	NMI	TAL SPK
Total/NA	Prep	3050B			1.47 g	50 mL	27341	05/01/20 08:43	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27374	05/05/20 16:23	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:25	AMB	TAL SPK

Client Sample ID: RFPNB-22C(0-0.5)

Lab Sample ID: 590-13092-8

Date Collected: 04/28/20 07:54

Matrix: Solid

Date Received: 04/28/20 16:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27342	05/01/20 09:05	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Client Sample ID: RFPNB-22C(0-0.5)

Lab Sample ID: 590-13092-8

Date Collected: 04/28/20 07:54

Matrix: Solid

Date Received: 04/28/20 16:10

Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.70 g	2 mL	27358	05/04/20 12:23	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27357	05/04/20 19:01	NMI	TAL SPK
Total/NA	Prep	3050B			1.37 g	50 mL	27341	05/01/20 08:45	AMB	TAL SPK
Total/NA	Analysis	6010D		10			27391	05/06/20 16:56	JSP	TAL SPK
Total/NA	Prep	3050B			1.37 g	50 mL	27341	05/01/20 08:45	AMB	TAL SPK
Total/NA	Analysis	6010D		20			27394	05/07/20 14:54	JSP	TAL SPK
Total/NA	Prep	7471B			0.55 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		5			27400	05/08/20 10:06	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13092-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
7471B	Mercury (CVAA)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
7471B	Preparation, Mercury	SW846	TAL SPK

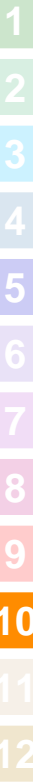
Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

TURNAROUND REQUEST

In Business Days *

Organic & Inorganic Analyses
 Petroleum Hydrocarbon Analyses

10	7	5	4	3	2	1	<1
STD	STD						

Petroleum Hydrocarbon Analyses

5	4	3	2	1	<1
STD					

OTHER Specify:

* Turnaround Request less than standard may incur Rush Charges.

CLIENT: GEI	INVOICE TO: Same	P.O. NUMBER:	DATE: 4-28-2020	RECEIVED BY: Spencer Fung	FIRM: EA SPO	DATE: 4/28/20
REPORT TO: JR Sugalski	ADDRESS: 523 E 2nd Ave Spokane, WA	PHONE: (509) 363-8133	DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
PROJECT NAME: Riverview Park - Construction	PROJECT NUMBER: 0110-148-06	PROJECT NUMBER: 0110-148-06	DATE: 1610	PRINT NAME: Justin Orr	FIRM: GEI	DATE: 1610
SAMPLED BY: Justin Orr	PROJECT NUMBER: 0110-148-06	PROJECT NUMBER: 0110-148-06	DATE: 1610	PRINT NAME: Justin Orr	FIRM: GEI	DATE: 1610
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	REQUESTED ANALYSES	DATE: 4-28-2020	RECEIVED BY: Spencer Fung	FIRM: EA SPO	DATE: 4/28/20
1 RFPNB-15C(005)	4-28-2020 / 0658	X RCRAD X PAHs	DATE: 4-28-2020	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 4/28/20
2 RFPNB-16C(005)	1 / 0703		DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
3 RFPNB-17C(005)	1 / 0707		DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
4 RFPNB-18C(005)	1 / 0710		DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
5 RFPNB-19C(005)	1 / 0715		DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
6 RFPNB-20C(005)	1 / 0738		DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
7 RFPNB-21C(005)	1 / 0743		DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
8 RFPNB-22C(005)	1 / 0754		DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
9			DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610
10			DATE: 1610	PRINT NAME: Spencer Fung	FIRM: EA SPO	DATE: 1610



1108 PAGE 1 OF 1
 IPR000A1-1000 (07/14)

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13092-1

Login Number: 13092
List Number: 1
Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



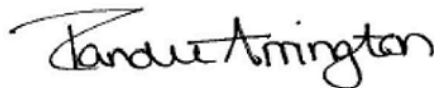
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13122-1
Client Project/Site: Riverfront Park (0110-148-14)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



*Authorized for release by:
5/8/2020 3:01:23 PM*

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Job ID: 590-13122-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 5/5/2020 4:26 PM; the samples arrived in good condition, properly preserved, and where required, on ice. The temperature of the cooler at receipt time was 14.4°C

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: RFPNB-23C (7-7.5) (590-13122-1), RFPNB-24C (4-4.5) (590-13122-2), RFPNB-25C (3.5-4) (590-13122-3), RFPNB-26C (4-4.5) (590-13122-4), RFPNB-27C (4-4.5) (590-13122-5), RFPNB-28C (3-3.5) (590-13122-6) and RFPNB-29C (3-3.5) (590-13122-7). The sample(s) is considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS Semi VOA

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

Metals

Method 6010D: The low level initial calibration verification (ICVL) associated with batch 590-27392 recovered above the upper control limit for Selenium. The samples associated with this ICV were non-detects for the affected analytes; therefore, the data have been reported.

Method 6010D: The low level initial calibration verification (ICVL) associated with batch 590-27393 recovered above the upper control limit for Selenium. The samples associated with this ICV were non-detects for the affected analytes; therefore, the data have been reported.

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

General Chemistry

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

Organic Prep

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

Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13122-1	RFPNB-23C (7-7.5)	Solid	05/05/20 13:45	05/05/20 16:26	
590-13122-2	RFPNB-24C (4-4.5)	Solid	05/05/20 13:50	05/05/20 16:26	
590-13122-3	RFPNB-25C (3.5-4)	Solid	05/05/20 13:55	05/05/20 16:26	
590-13122-4	RFPNB-26C (4-4.5)	Solid	05/05/20 14:00	05/05/20 16:26	
590-13122-5	RFPNB-27C (4-4.5)	Solid	05/05/20 14:05	05/05/20 16:26	
590-13122-6	RFPNB-28C (3-3.5)	Solid	05/05/20 14:40	05/05/20 16:26	
590-13122-7	RFPNB-29C (3-3.5)	Solid	05/05/20 14:45	05/05/20 16:26	

Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-23C (7-7.5)

Lab Sample ID: 590-13122-1

Date Collected: 05/05/20 13:45

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 95.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
2-Methylnaphthalene	ND		10	3.2	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
1-Methylnaphthalene	ND		10	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Acenaphthylene	ND		10	3.4	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Fluorene	ND		10	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Phenanthrene	5.1	J	10	3.7	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Anthracene	2.5	J	10	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Fluoranthene	10		10	2.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Pyrene	9.2	J	10	3.9	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Benzo[a]anthracene	5.6	J	10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Chrysene	5.5	J	10	1.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Benzo[b]fluoranthene	8.3	J	10	3.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Benzo[k]fluoranthene	4.1	J	10	2.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Benzo[a]pyrene	6.1	J	10	4.4	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Indeno[1,2,3-cd]pyrene	4.2	J	10	3.1	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Dibenz(a,h)anthracene	ND		10	2.9	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1
Benzo[g,h,i]perylene	5.3	J	10	2.4	ug/Kg	☼	05/06/20 12:38	05/06/20 17:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		43 - 120	05/06/20 12:38	05/06/20 17:24	1
2-Fluorobiphenyl (Surr)	81		56 - 120	05/06/20 12:38	05/06/20 17:24	1
p-Terphenyl-d14	92		74 - 136	05/06/20 12:38	05/06/20 17:24	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.1	2.0	mg/Kg	☼	05/06/20 10:40	05/07/20 14:32	5
Barium	59		5.1	1.4	mg/Kg	☼	05/06/20 10:40	05/07/20 14:32	5
Cadmium	ND		4.0	0.24	mg/Kg	☼	05/06/20 10:40	05/07/20 14:32	5
Chromium	1.1	J	5.1	0.72	mg/Kg	☼	05/06/20 10:40	05/07/20 14:32	5
Lead	24		12	5.9	mg/Kg	☼	05/06/20 10:40	05/07/20 14:32	5
Selenium	ND	^	20	12	mg/Kg	☼	05/06/20 10:40	05/07/20 14:32	5
Silver	ND		5.1	0.54	mg/Kg	☼	05/06/20 10:40	05/07/20 14:32	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	30	J	48	3.4	ug/Kg	☼	05/06/20 10:35	05/08/20 09:43	1

Client Sample ID: RFPNB-24C (4-4.5)

Lab Sample ID: 590-13122-2

Date Collected: 05/05/20 13:50

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 91.4

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4.3	J	10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
2-Methylnaphthalene	8.8	J	10	3.3	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
1-Methylnaphthalene	6.6	J	10	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Acenaphthylene	5.5	J	10	3.5	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Fluorene	ND		10	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Phenanthrene	19		10	3.8	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-24C (4-4.5)

Lab Sample ID: 590-13122-2

Date Collected: 05/05/20 13:50

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 91.4

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	7.3	J	10	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Fluoranthene	36		10	2.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Pyrene	38		10	4.0	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Benzo[a]anthracene	22		10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Chrysene	30		10	1.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Benzo[b]fluoranthene	44		10	3.7	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Benzo[k]fluoranthene	15		10	2.6	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Benzo[a]pyrene	30		10	4.4	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Indeno[1,2,3-cd]pyrene	22		10	3.1	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Dibenz(a,h)anthracene	7.2	J	10	3.0	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Benzo[g,h,i]perylene	26		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 17:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	84		43 - 120				05/06/20 12:38	05/06/20 17:51	1
2-Fluorobiphenyl (Surr)	86		56 - 120				05/06/20 12:38	05/06/20 17:51	1
p-Terphenyl-d14	93		74 - 136				05/06/20 12:38	05/06/20 17:51	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		1.0	0.41	mg/Kg	☼	05/06/20 10:40	05/06/20 17:50	1
Barium	83		1.0	0.28	mg/Kg	☼	05/06/20 10:40	05/06/20 17:50	1
Cadmium	0.89		0.83	0.049	mg/Kg	☼	05/06/20 10:40	05/06/20 17:50	1
Chromium	4.8		1.0	0.15	mg/Kg	☼	05/06/20 10:40	05/06/20 17:50	1
Lead	250		2.5	1.2	mg/Kg	☼	05/06/20 10:40	05/06/20 17:50	1
Selenium	ND		4.2	2.5	mg/Kg	☼	05/06/20 10:40	05/06/20 17:50	1
Silver	0.52	J	1.0	0.11	mg/Kg	☼	05/06/20 10:40	05/06/20 17:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	240		51	3.6	ug/Kg	☼	05/06/20 10:35	05/08/20 09:45	1

Client Sample ID: RFPNB-25C (3.5-4)

Lab Sample ID: 590-13122-3

Date Collected: 05/05/20 13:55

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 92.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		11	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
2-Methylnaphthalene	3.4	J	11	3.4	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
1-Methylnaphthalene	ND		11	2.4	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Acenaphthylene	ND		11	3.6	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Acenaphthene	ND		11	2.7	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Fluorene	ND		11	2.4	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Phenanthrene	ND		11	3.9	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Anthracene	2.4	J	11	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Fluoranthene	9.0	J	11	2.7	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Pyrene	9.5	J	11	4.1	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Benzo[a]anthracene	6.0	J	11	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Chrysene	5.8	J	11	1.6	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Benzo[b]fluoranthene	8.8	J	11	3.8	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Benzo[k]fluoranthene	4.4	J	11	2.7	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-25C (3.5-4)

Lab Sample ID: 590-13122-3

Date Collected: 05/05/20 13:55

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 92.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	6.9	J	11	4.6	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Indeno[1,2,3-cd]pyrene	4.8	J	11	3.2	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Dibenz(a,h)anthracene	ND		11	3.1	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Benzo[g,h,i]perylene	6.2	J	11	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 18:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	70		43 - 120				05/06/20 12:38	05/06/20 18:17	1
2-Fluorobiphenyl (Surr)	78		56 - 120				05/06/20 12:38	05/06/20 18:17	1
p-Terphenyl-d14	89		74 - 136				05/06/20 12:38	05/06/20 18:17	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.0		1.1	0.42	mg/Kg	☼	05/06/20 10:40	05/06/20 17:53	1
Barium	69		1.1	0.28	mg/Kg	☼	05/06/20 10:40	05/06/20 17:53	1
Cadmium	0.14	J	0.85	0.050	mg/Kg	☼	05/06/20 10:40	05/06/20 17:53	1
Chromium	2.7		1.1	0.15	mg/Kg	☼	05/06/20 10:40	05/06/20 17:53	1
Lead	25		2.5	1.2	mg/Kg	☼	05/06/20 10:40	05/06/20 17:53	1
Selenium	ND		4.2	2.6	mg/Kg	☼	05/06/20 10:40	05/06/20 17:53	1
Silver	0.13	J	1.1	0.11	mg/Kg	☼	05/06/20 10:40	05/06/20 17:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	290		48	3.5	ug/Kg	☼	05/06/20 10:35	05/08/20 09:48	1

Client Sample ID: RFPNB-26C (4-4.5)

Lab Sample ID: 590-13122-4

Date Collected: 05/05/20 14:00

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 93.3

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.8	J	11	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
2-Methylnaphthalene	6.5	J	11	3.3	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
1-Methylnaphthalene	4.7	J	11	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Acenaphthylene	8.2	J	11	3.5	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Acenaphthene	4.7	J	11	2.7	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Fluorene	3.4	J	11	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Phenanthrene	57		11	3.8	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Anthracene	25		11	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Fluoranthene	200		11	2.6	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Pyrene	190		11	4.0	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Benzo[a]anthracene	110		11	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Chrysene	120		11	1.6	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Benzo[b]fluoranthene	150		11	3.7	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Benzo[k]fluoranthene	52		11	2.6	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Benzo[a]pyrene	120		11	4.5	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Indeno[1,2,3-cd]pyrene	67		11	3.1	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Dibenz(a,h)anthracene	21		11	3.0	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Benzo[g,h,i]perylene	70		11	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 18:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	83		43 - 120				05/06/20 12:38	05/06/20 18:43	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-26C (4-4.5)

Lab Sample ID: 590-13122-4

Date Collected: 05/05/20 14:00

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 93.3

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	89		56 - 120	05/06/20 12:38	05/06/20 18:43	1
p-Terphenyl-d14	94		74 - 136	05/06/20 12:38	05/06/20 18:43	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.2		1.1	0.42	mg/Kg	☼	05/06/20 10:40	05/06/20 17:55	1
Barium	75		1.1	0.28	mg/Kg	☼	05/06/20 10:40	05/06/20 17:55	1
Cadmium	0.57	J	0.85	0.050	mg/Kg	☼	05/06/20 10:40	05/06/20 17:55	1
Chromium	3.0		1.1	0.15	mg/Kg	☼	05/06/20 10:40	05/06/20 17:55	1
Lead	180		2.6	1.3	mg/Kg	☼	05/06/20 10:40	05/06/20 17:55	1
Selenium	ND		4.3	2.6	mg/Kg	☼	05/06/20 10:40	05/06/20 17:55	1
Silver	0.34	J	1.1	0.11	mg/Kg	☼	05/06/20 10:40	05/06/20 17:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	260		47	3.4	ug/Kg	☼	05/06/20 10:35	05/08/20 09:55	1

Client Sample ID: RFPNB-27C (4-4.5)

Lab Sample ID: 590-13122-5

Date Collected: 05/05/20 14:05

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 94.9

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.1	J	10	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
2-Methylnaphthalene	6.4	J	10	3.1	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
1-Methylnaphthalene	5.1	J	10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Acenaphthylene	4.4	J	10	3.3	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Acenaphthene	ND		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Fluorene	ND		10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Phenanthrene	13		10	3.6	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Anthracene	5.4	J	10	2.0	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Fluoranthene	26		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Pyrene	27		10	3.8	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Benzo[a]anthracene	16		10	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Chrysene	23		10	1.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Benzo[b]fluoranthene	33		10	3.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Benzo[k]fluoranthene	12		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Benzo[a]pyrene	23		10	4.2	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Indeno[1,2,3-cd]pyrene	15		10	3.0	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Dibenz(a,h)anthracene	5.3	J	10	2.8	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1
Benzo[g,h,i]perylene	19		10	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 19:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	77		43 - 120	05/06/20 12:38	05/06/20 19:09	1
2-Fluorobiphenyl (Surr)	84		56 - 120	05/06/20 12:38	05/06/20 19:09	1
p-Terphenyl-d14	89		74 - 136	05/06/20 12:38	05/06/20 19:09	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		10	4.0	mg/Kg	☼	05/06/20 10:40	05/07/20 14:35	10

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-27C (4-4.5)

Lab Sample ID: 590-13122-5

Date Collected: 05/05/20 14:05

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 94.9

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	120		10	2.7	mg/Kg	☼	05/06/20 10:40	05/07/20 14:35	10
Cadmium	4.3	J	8.1	0.48	mg/Kg	☼	05/06/20 10:40	05/07/20 14:35	10
Chromium	9.6	J	10	1.4	mg/Kg	☼	05/06/20 10:40	05/07/20 14:35	10
Lead	5000		49	24	mg/Kg	☼	05/06/20 10:40	05/08/20 14:08	20
Selenium	ND	^	41	24	mg/Kg	☼	05/06/20 10:40	05/07/20 14:35	10
Silver	6.0	J	10	1.1	mg/Kg	☼	05/06/20 10:40	05/07/20 14:35	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	320		49	3.5	ug/Kg	☼	05/06/20 10:35	05/08/20 09:57	1

Client Sample ID: RFPNB-28C (3-3.5)

Lab Sample ID: 590-13122-6

Date Collected: 05/05/20 14:40

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 99.6

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Acenaphthylene	ND		10	3.3	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Acenaphthene	ND		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Fluorene	ND		10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Phenanthrene	ND		10	3.6	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Anthracene	ND		10	2.0	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Fluoranthene	ND		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Pyrene	ND		10	3.8	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Chrysene	ND		10	1.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1
Benzo[g,h,i]perylene	ND		10	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		43 - 120	05/06/20 12:38	05/06/20 19:36	1
2-Fluorobiphenyl (Surr)	84		56 - 120	05/06/20 12:38	05/06/20 19:36	1
p-Terphenyl-d14	91		74 - 136	05/06/20 12:38	05/06/20 19:36	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5		1.0	0.40	mg/Kg	☼	05/06/20 10:40	05/06/20 18:02	1
Barium	33		1.0	0.27	mg/Kg	☼	05/06/20 10:40	05/06/20 18:02	1
Cadmium	0.064	J	0.80	0.047	mg/Kg	☼	05/06/20 10:40	05/06/20 18:02	1
Chromium	7.1		1.0	0.14	mg/Kg	☼	05/06/20 10:40	05/06/20 18:02	1
Lead	7.4		2.4	1.2	mg/Kg	☼	05/06/20 10:40	05/06/20 18:02	1
Selenium	ND		4.0	2.4	mg/Kg	☼	05/06/20 10:40	05/06/20 18:02	1
Silver	ND		1.0	0.11	mg/Kg	☼	05/06/20 10:40	05/06/20 18:02	1

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Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-28C (3-3.5)

Lab Sample ID: 590-13122-6

Date Collected: 05/05/20 14:40

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 99.6

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	9.5	J	42	3.0	ug/Kg	☼	05/06/20 10:35	05/08/20 09:59	1

Client Sample ID: RFPNB-29C (3-3.5)

Lab Sample ID: 590-13122-7

Date Collected: 05/05/20 14:45

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 99.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4.5	J	10	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
2-Methylnaphthalene	9.0	J	10	3.1	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
1-Methylnaphthalene	6.1	J	10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Acenaphthylene	ND		10	3.3	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Acenaphthene	ND		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Fluorene	ND		10	2.2	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Phenanthrene	ND		10	3.6	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Anthracene	ND		10	2.0	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Fluoranthene	3.5	J	10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Pyrene	ND		10	3.8	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Benzo[a]anthracene	2.5	J	10	2.1	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Chrysene	2.2	J	10	1.5	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Benzo[b]fluoranthene	4.0	J	10	3.5	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1
Benzo[g,h,i]perylene	2.6	J	10	2.3	ug/Kg	☼	05/06/20 12:38	05/06/20 20:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	78		43 - 120	05/06/20 12:38	05/06/20 20:02	1
2-Fluorobiphenyl (Surr)	82		56 - 120	05/06/20 12:38	05/06/20 20:02	1
p-Terphenyl-d14	92		74 - 136	05/06/20 12:38	05/06/20 20:02	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.6		0.96	0.38	mg/Kg	☼	05/06/20 10:40	05/06/20 18:04	1
Barium	57		0.96	0.26	mg/Kg	☼	05/06/20 10:40	05/06/20 18:04	1
Cadmium	0.10	J	0.76	0.045	mg/Kg	☼	05/06/20 10:40	05/06/20 18:04	1
Chromium	8.5		0.96	0.14	mg/Kg	☼	05/06/20 10:40	05/06/20 18:04	1
Lead	13		2.3	1.1	mg/Kg	☼	05/06/20 10:40	05/06/20 18:04	1
Selenium	ND		3.8	2.3	mg/Kg	☼	05/06/20 10:40	05/06/20 18:04	1
Silver	ND		0.96	0.10	mg/Kg	☼	05/06/20 10:40	05/06/20 18:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	13	J	44	3.2	ug/Kg	☼	05/06/20 10:35	05/08/20 10:01	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-27384/1-A
Matrix: Solid
Analysis Batch: 27372

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27384

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Acenaphthylene	ND		10	3.3	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Acenaphthene	ND		10	2.5	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Fluorene	ND		10	2.2	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Phenanthrene	ND		10	3.6	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Anthracene	ND		10	2.0	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Fluoranthene	ND		10	2.5	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Pyrene	ND		10	3.8	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Chrysene	ND		10	1.5	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		05/06/20 12:38	05/06/20 13:09	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		05/06/20 12:38	05/06/20 13:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	65		43 - 120	05/06/20 12:38	05/06/20 13:09	1
2-Fluorobiphenyl (Surr)	69		56 - 120	05/06/20 12:38	05/06/20 13:09	1
p-Terphenyl-d14	83		74 - 136	05/06/20 12:38	05/06/20 13:09	1

Lab Sample ID: LCS 590-27384/2-A
Matrix: Solid
Analysis Batch: 27372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27384

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	159		ug/Kg		59	39 - 120
2-Methylnaphthalene	267	168		ug/Kg		63	48 - 120
1-Methylnaphthalene	267	167		ug/Kg		63	55 - 120
Acenaphthylene	267	188		ug/Kg		70	59 - 120
Acenaphthene	267	170		ug/Kg		64	53 - 120
Fluorene	267	186		ug/Kg		70	63 - 120
Phenanthrene	267	211		ug/Kg		79	65 - 121
Anthracene	267	224		ug/Kg		84	60 - 129
Fluoranthene	267	216		ug/Kg		81	63 - 127
Pyrene	267	202		ug/Kg		76	68 - 125
Benzo[a]anthracene	267	217		ug/Kg		82	61 - 125
Chrysene	267	208		ug/Kg		78	67 - 127
Benzo[b]fluoranthene	267	213		ug/Kg		80	67 - 127
Benzo[k]fluoranthene	267	213		ug/Kg		80	63 - 127
Benzo[a]pyrene	267	200		ug/Kg		75	60 - 120
Indeno[1,2,3-cd]pyrene	267	225		ug/Kg		84	63 - 128
Dibenz(a,h)anthracene	267	232		ug/Kg		87	60 - 128
Benzo[g,h,i]perylene	267	222		ug/Kg		83	58 - 129

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-27384/2-A
Matrix: Solid
Analysis Batch: 27372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27384

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	76		43 - 120
2-Fluorobiphenyl (Surr)	75		56 - 120
p-Terphenyl-d14	91		74 - 136

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27378/2-A
Matrix: Solid
Analysis Batch: 27391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27378

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		05/06/20 10:39	05/06/20 17:12	1
Barium	ND		1.3	0.34	mg/Kg		05/06/20 10:39	05/06/20 17:12	1
Cadmium	ND		1.0	0.059	mg/Kg		05/06/20 10:39	05/06/20 17:12	1
Chromium	ND		1.3	0.18	mg/Kg		05/06/20 10:39	05/06/20 17:12	1
Lead	ND		3.0	1.5	mg/Kg		05/06/20 10:39	05/06/20 17:12	1
Selenium	ND		5.0	3.0	mg/Kg		05/06/20 10:39	05/06/20 17:12	1
Silver	ND		1.3	0.13	mg/Kg		05/06/20 10:39	05/06/20 17:12	1

Lab Sample ID: LCS 590-27378/1-A
Matrix: Solid
Analysis Batch: 27391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27378

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	100	101		mg/Kg		101	80 - 120
Barium	100	103		mg/Kg		103	80 - 120
Cadmium	50.0	52.2		mg/Kg		104	80 - 120
Chromium	50.0	52.3		mg/Kg		105	80 - 120
Lead	50.0	53.5		mg/Kg		107	80 - 120
Selenium	100	103		mg/Kg		103	80 - 120
Silver	5.00	4.85		mg/Kg		97	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-27376/9-A
Matrix: Solid
Analysis Batch: 27400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27376

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hg	ND		50	3.6	ug/Kg		05/06/20 10:35	05/08/20 08:55	1

Lab Sample ID: LCS 590-27376/8-A
Matrix: Solid
Analysis Batch: 27400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27376

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Hg	200	205		ug/Kg		103	80 - 120

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-23C (7-7.5)

Date Collected: 05/05/20 13:45

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27375	05/06/20 10:33	AMB	TAL SPK

Client Sample ID: RFPNB-23C (7-7.5)

Date Collected: 05/05/20 13:45

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-1

Matrix: Solid

Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.21 g	2 mL	27384	05/06/20 12:38	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27372	05/06/20 17:24	NMI	TAL SPK
Total/NA	Prep	3050B			1.29 g	50 mL	27378	05/06/20 10:40	AMB	TAL SPK
Total/NA	Analysis	6010D		5			27393	05/07/20 14:32	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:43	AMB	TAL SPK

Client Sample ID: RFPNB-24C (4-4.5)

Date Collected: 05/05/20 13:50

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27375	05/06/20 10:33	AMB	TAL SPK

Client Sample ID: RFPNB-24C (4-4.5)

Date Collected: 05/05/20 13:50

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-2

Matrix: Solid

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.68 g	2 mL	27384	05/06/20 12:38	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27372	05/06/20 17:51	NMI	TAL SPK
Total/NA	Prep	3050B			1.31 g	50 mL	27378	05/06/20 10:40	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27391	05/06/20 17:50	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:45	AMB	TAL SPK

Client Sample ID: RFPNB-25C (3.5-4)

Date Collected: 05/05/20 13:55

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27375	05/06/20 10:33	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-25C (3.5-4)

Lab Sample ID: 590-13122-3

Date Collected: 05/05/20 13:55

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.06 g	2 mL	27384	05/06/20 12:38	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27372	05/06/20 18:17	NMI	TAL SPK
Total/NA	Prep	3050B			1.28 g	50 mL	27378	05/06/20 10:40	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27391	05/06/20 17:53	JSP	TAL SPK
Total/NA	Prep	7471B			0.56 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:48	AMB	TAL SPK

Client Sample ID: RFPNB-26C (4-4.5)

Lab Sample ID: 590-13122-4

Date Collected: 05/05/20 14:00

Matrix: Solid

Date Received: 05/05/20 16:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27375	05/06/20 10:33	AMB	TAL SPK

Client Sample ID: RFPNB-26C (4-4.5)

Lab Sample ID: 590-13122-4

Date Collected: 05/05/20 14:00

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.21 g	2 mL	27384	05/06/20 12:38	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27372	05/06/20 18:43	NMI	TAL SPK
Total/NA	Prep	3050B			1.26 g	50 mL	27378	05/06/20 10:40	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27391	05/06/20 17:55	JSP	TAL SPK
Total/NA	Prep	7471B			0.57 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:55	AMB	TAL SPK

Client Sample ID: RFPNB-27C (4-4.5)

Lab Sample ID: 590-13122-5

Date Collected: 05/05/20 14:05

Matrix: Solid

Date Received: 05/05/20 16:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27375	05/06/20 10:33	AMB	TAL SPK

Client Sample ID: RFPNB-27C (4-4.5)

Lab Sample ID: 590-13122-5

Date Collected: 05/05/20 14:05

Matrix: Solid

Date Received: 05/05/20 16:26

Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.88 g	2 mL	27384	05/06/20 12:38	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27372	05/06/20 19:09	NMI	TAL SPK
Total/NA	Prep	3050B			1.30 g	50 mL	27378	05/06/20 10:40	AMB	TAL SPK
Total/NA	Analysis	6010D		20			27402	05/08/20 14:08	AMB	TAL SPK
Total/NA	Prep	3050B			1.30 g	50 mL	27378	05/06/20 10:40	AMB	TAL SPK
Total/NA	Analysis	6010D		10			27393	05/07/20 14:35	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:57	AMB	TAL SPK

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Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Client Sample ID: RFPNB-28C (3-3.5)

Date Collected: 05/05/20 14:40

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27375	05/06/20 10:33	AMB	TAL SPK

Client Sample ID: RFPNB-28C (3-3.5)

Date Collected: 05/05/20 14:40

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-6

Matrix: Solid

Percent Solids: 99.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.08 g	2 mL	27384	05/06/20 12:38	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27372	05/06/20 19:36	NMI	TAL SPK
Total/NA	Prep	3050B			1.26 g	50 mL	27378	05/06/20 10:40	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27391	05/06/20 18:02	JSP	TAL SPK
Total/NA	Prep	7471B			0.60 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 09:59	AMB	TAL SPK

Client Sample ID: RFPNB-29C (3-3.5)

Date Collected: 05/05/20 14:45

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27375	05/06/20 10:33	AMB	TAL SPK

Client Sample ID: RFPNB-29C (3-3.5)

Date Collected: 05/05/20 14:45

Date Received: 05/05/20 16:26

Lab Sample ID: 590-13122-7

Matrix: Solid

Percent Solids: 99.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.15 g	2 mL	27384	05/06/20 12:38	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27372	05/06/20 20:02	NMI	TAL SPK
Total/NA	Prep	3050B			1.32 g	50 mL	27378	05/06/20 10:40	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27391	05/06/20 18:04	JSP	TAL SPK
Total/NA	Prep	7471B			0.57 g	50 mL	27376	05/06/20 10:35	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27400	05/08/20 10:01	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13122-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
7471B	Mercury (CVAA)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
7471B	Preparation, Mercury	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

TestAmerica


THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: GEI		INVOICE TO: Same		TURNAROUND REQUEST in Business Days * See comments Organic & Inorganic Analyses 10 7 5 4 3 2 1 <1 STD. Petroleum Hydrocarbon Analyses 5 4 3 2 1 <1 STD. OTHER Specify: * Turnaround Requests less than standard may incur Rush Charges.			
REPORT TO: JR Sugalski		P.O. NUMBER:					
ADDRESS: 523 E 2nd Ave Spokane, WA 99202							
PHONE: (509) 363-3125 FAX:							
PROJECT NAME: Riverfront Park - GI + Env. Services		PRESERVATIVE					
PROJECT NUMBER: 0110-148-06		REQUESTED ANALYSES					
SAMPLED BY: Justin Orr							
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	ROSA	PAHs				
★ RFPNB-13C(7-7.5)	5/5/20	1345	X	X			S ★ = Metals
* RFPNB-24C(4-4.5)		1350	X	X			1 and PAHs on 3day
* RFPNB-25C(3.5-4)		1355	X	X			TAT
* RFPNB-26C(4-4.5)		1400	X	X			
* RFPNB-27C(4-4.5)		1405	X	X			* = Metals on 3-day TAT
★ RFPNB-28C(3-3.5)		1440	X	X			1 PAHs on 10 day TAT
★ RFPNB-29C(3-3.5)		1445	X	X			TAT
				 590-13122 Chain of Custody			
RELEASED BY: Justin Orr		DATE: 5/5/2020		RECEIVED BY: MAREK OTOOLE		DATE: 5/5/20	
PRINT NAME: Justin Orr		FIRM: GEI		PRINT NAME: MAREK OTOOLE		FIRM: TASPC	
RELEASED BY:		DATE:		RECEIVED BY:		DATE:	
PRINT NAME:		FIRM:		PRINT NAME:		FIRM:	
ADDITIONAL REMARKS: all metals on 3day						TEMP: 14.4	
						PAGE OF	

sample 1, 6, 7 on 3day for PAH's

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302
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 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: GEI		INVOICE TO: Same		TURNAROUND REQUEST in Business Days* See comments Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. <input type="checkbox"/> OTHER Specify:				
REPORT TO: JR Sugalski ADDRESS: 523 E 2nd Ave Spokane, WA 99202		P.O. NUMBER:						
PHONE: (509) 363-3125 FAX:		PROJECT NAME: Riverfront Park - GI + Env. Services		* Turnaround Requests less than standard may incur Rush Charges.				
PROJECT NUMBER: 0110-148-06		PRESERVATIVE						
SAMPLED BY: Justin Orr		REQUESTED ANALYSES		MATRIX (W, S, O)				
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	RCSA	PAHs			# OF CONT.	LOCATION/ COMMENTS	TA WO ID
* RFPNB-23C(7-7.5)	5/5/20	1345	X	X		1	* = Metals	
* RFPNB-24C(4-4.5)		1350	X	X		1	and PAHs on 3day	
* RFPNB-25C(3.5-4)		1355	X	X		1	TAT	
* RFPNB-26C(4-4.5)		1400	X	X		1		
* RFPNB-27C(4-4.5)		1405	X	X		1	* = Metals on 3-day TAT	
* RFPNB-28C(3-3.5)		1440	X	X		1	PAHs on 10 day TAT	
* RFPNB-29C(3-3.5)		1445	X	X		1	TAT	



RELEASED BY: Justin Orr	FIRM: GEI	DATE: 5/5/2020	TIME: 1625	RECEIVED BY: MAREK OTTOLE	FIRM: TASPE	DATE: 5/5/20	TIME: 16:26	
ADDITIONAL REMARKS:	all metals on 3day						TEMP: 14.44	PAGE OF

sample 1, 6, 7 on 3day for PAH's

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13122-1

Login Number: 13122
List Number: 1
Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



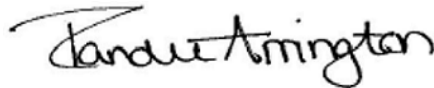
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13122-3
Client Project/Site: Riverfront Park (0110-148-06)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
6/1/2020 9:36:53 AM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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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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Chain of Custody	11
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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13122-3

Job ID: 590-13122-3

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 5/5/2020 4:26 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 14.4° C.

Receipt Exceptions

The following sample was activated for TCLP Lead analysis by the client on 05/28/20: RFPNB-27C (4-4.5) (590-13122-5). This analysis was not originally requested on the chain-of-custody (COC).

Metals

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

General Chemistry

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

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Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13122-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13122-5	RFPNB-27C (4-4.5)	Solid	05/05/20 14:05	05/05/20 16:26	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13122-3

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds 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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13122-3

Client Sample ID: RFPNB-27C (4-4.5)

Lab Sample ID: 590-13122-5

Date Collected: 05/05/20 14:05

Matrix: Solid

Date Received: 05/05/20 16:26

Method: 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.50	F1	0.060	0.0051	mg/L		05/29/20 08:15	05/29/20 12:11	1

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QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13122-3

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 590-27656/1-A
Matrix: Solid
Analysis Batch: 27660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27656

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	1.04		mg/L		104	80 - 120

Lab Sample ID: LB 590-27652/1-B
Matrix: Solid
Analysis Batch: 27660

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 27656

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.060	0.0051	mg/L		05/29/20 08:15	05/29/20 12:07	1

Lab Sample ID: 590-13122-5 MS
Matrix: Solid
Analysis Batch: 27660

Client Sample ID: RFPNB-27C (4-4.5)
Prep Type: TCLP
Prep Batch: 27656

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.50	F1	1.00	1.74		mg/L		124	75 - 125

Lab Sample ID: 590-13122-5 MSD
Matrix: Solid
Analysis Batch: 27660

Client Sample ID: RFPNB-27C (4-4.5)
Prep Type: TCLP
Prep Batch: 27656

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.50	F1	1.00	1.81	F1	mg/L		131	75 - 125	4	20

Lab Sample ID: 590-13122-5 DU
Matrix: Solid
Analysis Batch: 27660

Client Sample ID: RFPNB-27C (4-4.5)
Prep Type: TCLP
Prep Batch: 27656

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	0.50	F1	0.523		mg/L		4	20

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13122-3

Client Sample ID: RFPNB-27C (4-4.5)

Lab Sample ID: 590-13122-5

Date Collected: 05/05/20 14:05

Matrix: Solid

Date Received: 05/05/20 16:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.03 g	2000.63 mL	27652	05/28/20 10:49	AMB	TAL SPK
TCLP	Prep	3010A			50 mL	50 mL	27656	05/29/20 08:15	AMB	TAL SPK
TCLP	Analysis	6010D		1			27660	05/29/20 12:11	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13122-3

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13122-3

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL SPK
1311	TCLP Extraction	SW846	TAL SPK
3010A	Preparation, Total Metals	SW846	TAL SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



TestAmerica


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509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: GEI		INVOICE TO: Same		TURNAROUND REQUEST in Business Days * See comments Organic & Inorganic Analyses 10 7 5 4 3 2 1 <1 STD. Petroleum Hydrocarbon Analyses 5 4 3 2 1 <1 STD. OTHER Specify: * Turnaround Requests less than standard may incur Rush Charges.			
REPORT TO: JR Sugalski		P.O. NUMBER:					
ADDRESS: 523 E 2nd Ave Spokane, WA 99202							
PHONE: (509) 363-3125 FAX:							
PROJECT NAME: Riverfront Park - GI + Env. Services		PRESERVATIVE					
PROJECT NUMBER: 0110-148-06		REQUESTED ANALYSES					
SAMPLED BY: Justin Orr							
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	ROSA	PAHs				
* RFPNB-23C(7-7.5)	5/5/20	1345	X	X			S 1 * = Metals
* RFPNB-24C(4-4.5)		1350	X	X			1 and PAHs on 3day
* RFPNB-25C(3.5-4)		1355	X	X			1 TAT
* RFPNB-26C(4-4.5)		1400	X	X			1
* RFPNB-27C(4-4.5)		1405	X	X			1 * = Metals on 3-day TAT
* RFPNB-28C(3-3.5)		1440	X	X			1 PAHs on 10 day TAT
* RFPNB-29C(3-3.5)		1445	X	X			1 TAT
				 590-13122 Chain of Custody			
RELEASED BY: Justin Orr		DATE: 5/5/2020		RECEIVED BY: MAREK OTOOLE		DATE: 5/5/20	
PRINT NAME:		FIRM: GEI		PRINT NAME:		FIRM: TASPC	
TIME: 16:25				TIME:		TIME: 16:20	
RELEASED BY:		DATE:		RECEIVED BY:		DATE:	
PRINT NAME:		FIRM:		PRINT NAME:		FIRM:	
TIME:		TIME:		TIME:		TIME:	
ADDITIONAL REMARKS: all metals on 3day						TEMP: 14.4	
						PAGE OF	

sample 1, 6, 7 on 3day for PAH's

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 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: GEI		INVOICE TO: Same		TURNAROUND REQUEST in Business Days* See comments Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. <input type="checkbox"/> OTHER Specify:				
REPORT TO: JR Sugalski ADDRESS: 523 E 2nd Ave Spokane, WA 99202		P.O. NUMBER:						
PHONE: (509) 363-3125 FAX:		PROJECT NAME: Riverfront Park - GI + Env. Services		* Turnaround Requests less than standard may incur Rush Charges.				
PROJECT NUMBER: 0110-148-06		PRESERVATIVE						
SAMPLED BY: Justin Orr		REQUESTED ANALYSES		MATRIX (W, S, O)				
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	RCSA	PAHs			# OF CONT.	LOCATION/ COMMENTS	TA WO ID
★ RFPNB-23C(7-7.5)	5/5/20	1345	X	X		1	★ = Metals	
* RFPNB-24C(4-4.5)		1350	X	X		1	and PAHs on 3day	
* RFPNB-25C(3.5-4)		1355	X	X		1	TAT	
* RFPNB-26C(4-4.5)		1400	X	X		1		
* RFPNB-27C(4-4.5)		1405	X	X		1	* = Metals on 3-day TAT	
★ RFPNB-28C(3-3.5)		1440	X	X		1	PAHs on 10 day TAT	
★ RFPNB-29C(3-3.5)		1445	X	X		1	TAT	
				 590-13122 Chain of Custody				
RELEASED BY: Justin Orr		DATE: 5/5/2020		RECEIVED BY: MAREK OTTOLE		DATE: 5/5/20		
PRINT NAME: Justin Orr		FIRM: GEI		TIME: 1625		FIRM: TASPE		TIME: 16:26
RELEASED BY:		DATE:		RECEIVED BY:		DATE:		
PRINT NAME:		FIRM:		PRINT NAME:		FIRM:		TIME:
ADDITIONAL REMARKS: all metals on 3day							TEMP: 14.44	PAGE OF

sample 1, 6, 7 on 3day for PAH's

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13122-3

Login Number: 13122

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13171-1
Client Project/Site: Riverfront Park (0110-148-14)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
5/15/2020 4:47:35 PM
Ashley Worthy, Project Manager I
(253)248-4965
ashley.worthy@testamericainc.com
Designee for
Ranee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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



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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Job ID: 590-13171-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Job Narrative 590-13171-1

Receipt

The samples were received on 5/12/2020 3:54 PM; the samples arrived in good condition, properly preserved, and where required, on ice. The temperature of the cooler at receipt time was 20.8°C

Receipt Exceptions

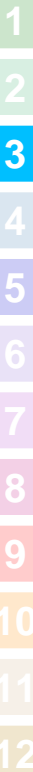
The following samples were received at the laboratory outside the required temperature criteria: RFPNB-30C (4.5-5) (590-13171-1), RFPNB-31C (4.5-5) (590-13171-2), RFPNB-32C (4.5-5) (590-13171-3), RFPNB-33C (1-1.5) (590-13171-4), RFPNB-34C (1-1.5) (590-13171-5), RFPNB-35C (1-1.5) (590-13171-6), RFPNB-36C (3.5-4) (590-13171-7) and RFPNB-37C (3.5-4) (590-13171-8). The sample(s) is considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS Semi VOA

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

Organic Prep

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



Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13171-4	RFPNB-33C (1-1.5)	Solid	05/12/20 14:10	05/12/20 15:54	
590-13171-5	RFPNB-34C (1-1.5)	Solid	05/12/20 14:15	05/12/20 15:54	
590-13171-6	RFPNB-35C (1-1.5)	Solid	05/12/20 14:20	05/12/20 15:54	
590-13171-7	RFPNB-36C (3.5-4)	Solid	05/12/20 14:25	05/12/20 15:54	
590-13171-8	RFPNB-37C (3.5-4)	Solid	05/12/20 14:30	05/12/20 15:54	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Client Sample ID: RFPNB-33C (1-1.5)

Lab Sample ID: 590-13171-4

Date Collected: 05/12/20 14:10

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 96.1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		50	11	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
2-Methylnaphthalene	ND		50	15	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
1-Methylnaphthalene	ND		50	11	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Acenaphthylene	17	J	50	16	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Acenaphthene	ND		50	13	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Fluorene	ND		50	11	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Phenanthrene	86		50	18	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Anthracene	29	J	50	9.9	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Fluoranthene	160		50	12	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Pyrene	170		50	19	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Benzo[a]anthracene	89		50	11	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Chrysene	110		50	7.6	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Benzo[b]fluoranthene	130		50	17	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Benzo[k]fluoranthene	48	J	50	12	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Benzo[a]pyrene	120		50	21	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Indeno[1,2,3-cd]pyrene	59		50	15	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Dibenz(a,h)anthracene	23	J	50	14	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5
Benzo[g,h,i]perylene	82		50	12	ug/Kg	☼	05/13/20 14:50	05/13/20 23:48	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	78		43 - 120	05/13/20 14:50	05/13/20 23:48	5
2-Fluorobiphenyl (Surr)	79		56 - 120	05/13/20 14:50	05/13/20 23:48	5
p-Terphenyl-d14	82		74 - 136	05/13/20 14:50	05/13/20 23:48	5

Client Sample ID: RFPNB-34C (1-1.5)

Lab Sample ID: 590-13171-5

Date Collected: 05/12/20 14:15

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 95.2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	18		10	2.2	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
2-Methylnaphthalene	19		10	3.1	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
1-Methylnaphthalene	16		10	2.2	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Acenaphthylene	22		10	3.4	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Acenaphthene	32		10	2.6	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Fluorene	28		10	2.2	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Phenanthrene	280		10	3.7	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Anthracene	78		10	2.0	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Fluoranthene	360		10	2.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Pyrene	340		10	3.8	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Benzo[a]anthracene	180		10	2.1	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Chrysene	190		10	1.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Benzo[b]fluoranthene	220		10	3.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Benzo[k]fluoranthene	31		10	2.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Benzo[a]pyrene	130		10	4.3	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Indeno[1,2,3-cd]pyrene	88		10	3.0	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Dibenz(a,h)anthracene	28		10	2.9	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1
Benzo[g,h,i]perylene	100		10	2.4	ug/Kg	☼	05/13/20 14:50	05/14/20 00:14	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Client Sample ID: RFPNB-34C (1-1.5)

Date Collected: 05/12/20 14:15

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-5

Matrix: Solid

Percent Solids: 95.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	77		43 - 120	05/13/20 14:50	05/14/20 00:14	1
2-Fluorobiphenyl (Surr)	83		56 - 120	05/13/20 14:50	05/14/20 00:14	1
p-Terphenyl-d14	93		74 - 136	05/13/20 14:50	05/14/20 00:14	1

Client Sample ID: RFPNB-35C (1-1.5)

Date Collected: 05/12/20 14:20

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-6

Matrix: Solid

Percent Solids: 96.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	7.2	J	10	2.1	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
2-Methylnaphthalene	12		10	3.1	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
1-Methylnaphthalene	9.3	J	10	2.2	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Acenaphthylene	6.2	J	10	3.3	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Acenaphthene	4.9	J	10	2.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Fluorene	3.4	J	10	2.2	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Phenanthrene	52		10	3.6	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Anthracene	14		10	2.0	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Fluoranthene	90		10	2.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Pyrene	96		10	3.8	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Benzo[a]anthracene	54		10	2.1	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Chrysene	65		10	1.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Benzo[b]fluoranthene	86		10	3.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Benzo[k]fluoranthene	31		10	2.5	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Benzo[a]pyrene	66		10	4.2	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Indeno[1,2,3-cd]pyrene	28		10	3.0	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Dibenz(a,h)anthracene	11		10	2.8	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1
Benzo[g,h,i]perylene	35		10	2.3	ug/Kg	☼	05/13/20 14:50	05/14/20 00:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	82		43 - 120	05/13/20 14:50	05/14/20 00:41	1
2-Fluorobiphenyl (Surr)	85		56 - 120	05/13/20 14:50	05/14/20 00:41	1
p-Terphenyl-d14	94		74 - 136	05/13/20 14:50	05/14/20 00:41	1

Client Sample ID: RFPNB-36C (3.5-4)

Date Collected: 05/12/20 14:25

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-7

Matrix: Solid

Percent Solids: 94.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	5.3	J	11	2.3	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
2-Methylnaphthalene	8.3	J	11	3.3	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
1-Methylnaphthalene	6.2	J	11	2.4	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Acenaphthylene	8.9	J	11	3.5	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Acenaphthene	ND		11	2.7	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Fluorene	2.7	J	11	2.3	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Phenanthrene	34		11	3.9	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Anthracene	11		11	2.1	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Fluoranthene	74		11	2.6	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Pyrene	78		11	4.0	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Benzo[a]anthracene	46		11	2.3	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Client Sample ID: RFPNB-36C (3.5-4)

Lab Sample ID: 590-13171-7

Date Collected: 05/12/20 14:25

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 94.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	57		11	1.6	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Benzo[b]fluoranthene	72		11	3.7	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Benzo[k]fluoranthene	25		11	2.7	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Benzo[a]pyrene	56		11	4.5	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Indeno[1,2,3-cd]pyrene	27		11	3.2	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Dibenz(a,h)anthracene	8.6	J	11	3.0	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1
Benzo[g,h,i]perylene	31		11	2.5	ug/Kg	☼	05/13/20 14:50	05/14/20 01:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	62		43 - 120	05/13/20 14:50	05/14/20 01:07	1
2-Fluorobiphenyl (Surr)	73		56 - 120	05/13/20 14:50	05/14/20 01:07	1
p-Terphenyl-d14	91		74 - 136	05/13/20 14:50	05/14/20 01:07	1

Client Sample ID: RFPNB-37C (3.5-4)

Lab Sample ID: 590-13171-8

Date Collected: 05/12/20 14:30

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 93.2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
2-Methylnaphthalene	ND		10	3.2	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
1-Methylnaphthalene	ND		10	2.3	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Acenaphthylene	ND		10	3.4	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Fluorene	ND		10	2.3	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Phenanthrene	7.4	J	10	3.7	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Anthracene	2.6	J	10	2.1	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Fluoranthene	18		10	2.6	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Pyrene	18		10	3.9	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Benzo[a]anthracene	12		10	2.2	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Chrysene	12		10	1.6	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Benzo[b]fluoranthene	16		10	3.6	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Benzo[k]fluoranthene	6.9	J	10	2.6	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Benzo[a]pyrene	15		10	4.3	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Indeno[1,2,3-cd]pyrene	6.9	J	10	3.1	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Dibenz(a,h)anthracene	ND		10	2.9	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1
Benzo[g,h,i]perylene	7.6	J	10	2.4	ug/Kg	☼	05/13/20 14:50	05/14/20 01:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	60		43 - 120	05/13/20 14:50	05/14/20 01:33	1
2-Fluorobiphenyl (Surr)	66		56 - 120	05/13/20 14:50	05/14/20 01:33	1
p-Terphenyl-d14	84		74 - 136	05/13/20 14:50	05/14/20 01:33	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-27454/1-A
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27454

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Acenaphthylene	ND		10	3.3	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Acenaphthene	ND		10	2.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Fluorene	ND		10	2.2	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Phenanthrene	ND		10	3.6	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Anthracene	ND		10	2.0	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Fluoranthene	ND		10	2.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Pyrene	ND		10	3.8	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Chrysene	ND		10	1.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		05/13/20 14:50	05/13/20 20:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	62		43 - 120	05/13/20 14:50	05/13/20 20:44	1
2-Fluorobiphenyl (Surr)	66		56 - 120	05/13/20 14:50	05/13/20 20:44	1
p-Terphenyl-d14	85		74 - 136	05/13/20 14:50	05/13/20 20:44	1

Lab Sample ID: LCS 590-27454/2-A
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27454

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	190		ug/Kg		71	39 - 120
2-Methylnaphthalene	267	192		ug/Kg		72	48 - 120
1-Methylnaphthalene	267	195		ug/Kg		73	55 - 120
Acenaphthylene	267	214		ug/Kg		80	59 - 120
Acenaphthene	267	212		ug/Kg		80	53 - 120
Fluorene	267	222		ug/Kg		83	63 - 120
Phenanthrene	267	235		ug/Kg		88	65 - 121
Anthracene	267	231		ug/Kg		87	60 - 129
Fluoranthene	267	244		ug/Kg		91	63 - 127
Pyrene	267	235		ug/Kg		88	68 - 125
Benzo[a]anthracene	267	250		ug/Kg		94	61 - 125
Chrysene	267	239		ug/Kg		89	67 - 127
Benzo[b]fluoranthene	267	247		ug/Kg		93	67 - 127
Benzo[k]fluoranthene	267	243		ug/Kg		91	63 - 127
Benzo[a]pyrene	267	248		ug/Kg		93	60 - 120
Indeno[1,2,3-cd]pyrene	267	240		ug/Kg		90	63 - 128
Dibenz(a,h)anthracene	267	245		ug/Kg		92	60 - 128
Benzo[g,h,i]perylene	267	243		ug/Kg		91	58 - 129

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-27454/2-A
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27454

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	72		43 - 120
2-Fluorobiphenyl (Surr)	73		56 - 120
p-Terphenyl-d14	89		74 - 136

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Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Client Sample ID: RFPNB-33C (1-1.5)

Lab Sample ID: 590-13171-4

Date Collected: 05/12/20 14:10

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.70 g	2 mL	27454	05/13/20 14:50	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		5			27453	05/13/20 23:48	NMI	TAL SPK

Client Sample ID: RFPNB-34C (1-1.5)

Lab Sample ID: 590-13171-5

Date Collected: 05/12/20 14:15

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.61 g	2 mL	27454	05/13/20 14:50	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27453	05/14/20 00:14	NMI	TAL SPK

Client Sample ID: RFPNB-35C (1-1.5)

Lab Sample ID: 590-13171-6

Date Collected: 05/12/20 14:20

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 96.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.69 g	2 mL	27454	05/13/20 14:50	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27453	05/14/20 00:41	NMI	TAL SPK

Client Sample ID: RFPNB-36C (3.5-4)

Lab Sample ID: 590-13171-7

Date Collected: 05/12/20 14:25

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.04 g	2 mL	27454	05/13/20 14:50	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27453	05/14/20 01:07	NMI	TAL SPK

Client Sample ID: RFPNB-37C (3.5-4)

Lab Sample ID: 590-13171-8

Date Collected: 05/12/20 14:30

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.66 g	2 mL	27454	05/13/20 14:50	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27453	05/14/20 01:33	NMI	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Laboratory: Eurofins TestAmerica, Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

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CHAIN OF CUSTODY RECORD

GeoEngineers
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

TEMP: 20.8°C

DATE 5-12-2020
 PAGE 1 OF 1
 LAB TestAmerica
 LAB NO. Spokane Valley, WA

PROJECT NAME/LOCATION Riverfront Park
 PROJECT NUMBER 0110-148-06 (0600-02)
 PROJECT MANAGER JR Sussler
 SAMPLED BY Josh Lee

ANALYSIS REQUIRED

LAB	GEOENGINEERS	SAMPLE COLLECTION		MATRIX	# OF JARS	ANALYSIS REQUIRED	
		DATE	TIME			RCRA & Metals	PAHs
RFPNB-30C(45-5)		5/12/2020	1325	Soil	1	X	X
RFPNB-31C(45-5)			1340			X	X
RFPNB-32C(45-5)			1350			X	X
RFPNB-33C(1-15)			1410			X	X
RFPNB-34C(1-15)			1415			X	X
RFPNB-35C(5-5)			1420			X	X
RFPNB-36C(3-5-9)			1425			X	X
RFPNB-37C(3-5-9)			1430			X	X

* * * * *



* = Metals & PAHs on 3-day TAT
 and PAHs on 10-d. TAT

RELINQUISHED BY		FIRM		RECEIVED BY		FIRM	
SIGNATURE	PRINTED NAME	DATE	TIME	SIGNATURE	PRINTED NAME	DATE	TIME
<i>[Signature]</i>	<i>Josh Lee</i>	5-12-2020	1330	<i>[Signature]</i>	<i>Matthew Dool</i>	5-12-20	1539

ADDITIONAL COMMENTS:

NOTES/COMMENTS
 (Preserved, filtered, etc.)

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13171-1

Login Number: 13171

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



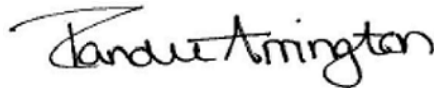
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13171-2
Client Project/Site: Riverfront Park (0110-148-14)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



*Authorized for release by:
5/15/2020 5:26:17 PM*

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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www.eurofinsus.com/Env

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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Job ID: 590-13171-2

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 5/12/2020 3:54 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 20.8° C.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: RFPNB-30C (4.5-5) (590-13171-1), RFPNB-31C (4.5-5) (590-13171-2), RFPNB-32C (4.5-5) (590-13171-3), RFPNB-33C (1-1.5) (590-13171-4), RFPNB-34C (1-1.5) (590-13171-5), RFPNB-35C (1-1.5) (590-13171-6), RFPNB-36C (3.5-4) (590-13171-7) and RFPNB-37C (3.5-4) (590-13171-8). The sample are considered acceptable since they were collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS Semi VOA

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

Metals

Method 6010D: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 590-27434 and analytical batch 590-27459 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 7471B: The matrix spike (MS) recoveries for preparation batch 590-27435 and analytical batch 590-27458 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

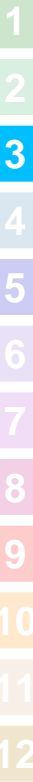
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

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

Organic Prep

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

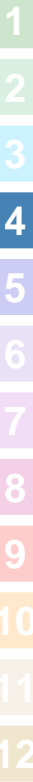


Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13171-1	RFPNB-30C (4.5-5)	Solid	05/12/20 13:25	05/12/20 15:54	
590-13171-2	RFPNB-31C (4.5-5)	Solid	05/12/20 13:40	05/12/20 15:54	
590-13171-3	RFPNB-32C (4.5-5)	Solid	05/12/20 13:50	05/12/20 15:54	
590-13171-4	RFPNB-33C (1-1.5)	Solid	05/12/20 14:10	05/12/20 15:54	
590-13171-5	RFPNB-34C (1-1.5)	Solid	05/12/20 14:15	05/12/20 15:54	
590-13171-6	RFPNB-35C (1-1.5)	Solid	05/12/20 14:20	05/12/20 15:54	
590-13171-7	RFPNB-36C (3.5-4)	Solid	05/12/20 14:25	05/12/20 15:54	
590-13171-8	RFPNB-37C (3.5-4)	Solid	05/12/20 14:30	05/12/20 15:54	



Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
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.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Client Sample ID: RFPNB-30C (4.5-5)

Lab Sample ID: 590-13171-1

Date Collected: 05/12/20 13:25

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 94.3

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.3	J	10	2.2	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
2-Methylnaphthalene	4.6	J	10	3.2	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
1-Methylnaphthalene	3.8	J	10	2.3	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Acenaphthylene	7.5	J	10	3.4	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Fluorene	ND		10	2.3	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Phenanthrene	18		10	3.8	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Anthracene	7.9	J	10	2.1	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Fluoranthene	41		10	2.6	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Pyrene	45		10	3.9	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Benzo[a]anthracene	28		10	2.2	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Chrysene	36		10	1.6	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Benzo[b]fluoranthene	55		10	3.6	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Benzo[k]fluoranthene	18		10	2.6	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Benzo[a]pyrene	43		10	4.4	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Indeno[1,2,3-cd]pyrene	29		10	3.1	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Dibenz(a,h)anthracene	9.1	J	10	2.9	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1
Benzo[g,h,i]perylene	37		10	2.4	ug/Kg	☼	05/13/20 14:50	05/13/20 21:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	63		43 - 120	05/13/20 14:50	05/13/20 21:37	1
2-Fluorobiphenyl (Surr)	73		56 - 120	05/13/20 14:50	05/13/20 21:37	1
p-Terphenyl-d14	86		74 - 136	05/13/20 14:50	05/13/20 21:37	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.5		5.0	2.0	mg/Kg	☼	05/13/20 09:03	05/13/20 17:20	5
Barium	100	F1	5.0	1.3	mg/Kg	☼	05/13/20 09:03	05/13/20 17:20	5
Cadmium	1.0	J	4.0	0.24	mg/Kg	☼	05/13/20 09:03	05/13/20 17:20	5
Chromium	7.4		5.0	0.71	mg/Kg	☼	05/13/20 09:03	05/13/20 17:20	5
Lead	1400		12	5.9	mg/Kg	☼	05/13/20 09:03	05/13/20 17:20	5
Selenium	ND		20	12	mg/Kg	☼	05/13/20 09:03	05/13/20 17:20	5
Silver	ND		5.0	0.54	mg/Kg	☼	05/13/20 09:03	05/13/20 17:20	5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	140	F1	46	3.3	ug/Kg	☼	05/13/20 09:06	05/13/20 15:30	1

Client Sample ID: RFPNB-31C (4.5-5)

Lab Sample ID: 590-13171-2

Date Collected: 05/12/20 13:40

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 95.6

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
2-Methylnaphthalene	ND		10	3.2	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
1-Methylnaphthalene	ND		10	2.3	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Acenaphthylene	ND		10	3.4	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Fluorene	ND		10	2.3	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Phenanthrene	7.2	J	10	3.8	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Client Sample ID: RFPNB-31C (4.5-5)

Lab Sample ID: 590-13171-2

Date Collected: 05/12/20 13:40

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 95.6

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		10	2.1	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Fluoranthene	22		10	2.6	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Pyrene	21		10	4.0	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Benzo[a]anthracene	11		10	2.2	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Chrysene	12		10	1.6	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Benzo[b]fluoranthene	16		10	3.6	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Benzo[k]fluoranthene	6.7	J	10	2.6	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Benzo[a]pyrene	14		10	4.4	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Indeno[1,2,3-cd]pyrene	8.2	J	10	3.1	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Dibenz(a,h)anthracene	ND		10	2.9	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Benzo[g,h,i]perylene	10		10	2.4	ug/Kg	☼	05/13/20 14:50	05/13/20 22:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	47		43 - 120				05/13/20 14:50	05/13/20 22:56	1
2-Fluorobiphenyl (Surr)	56		56 - 120				05/13/20 14:50	05/13/20 22:56	1
p-Terphenyl-d14	85		74 - 136				05/13/20 14:50	05/13/20 22:56	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.4		1.0	0.41	mg/Kg	☼	05/13/20 09:03	05/13/20 17:47	1
Barium	58		1.0	0.28	mg/Kg	☼	05/13/20 09:03	05/13/20 17:47	1
Cadmium	0.22	J	0.84	0.049	mg/Kg	☼	05/13/20 09:03	05/13/20 17:47	1
Chromium	0.25	J	1.0	0.15	mg/Kg	☼	05/13/20 09:03	05/13/20 17:47	1
Lead	3.3		2.5	1.2	mg/Kg	☼	05/13/20 09:03	05/13/20 17:47	1
Selenium	ND		4.2	2.5	mg/Kg	☼	05/13/20 09:03	05/13/20 17:47	1
Silver	ND		1.0	0.11	mg/Kg	☼	05/13/20 09:03	05/13/20 17:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	20	J	41	3.0	ug/Kg	☼	05/13/20 09:06	05/13/20 15:39	1

Client Sample ID: RFPNB-32C (4.5-5)

Lab Sample ID: 590-13171-3

Date Collected: 05/12/20 13:50

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 94.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Acenaphthylene	ND		10	3.3	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Fluorene	ND		10	2.2	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Phenanthrene	ND		10	3.7	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Anthracene	ND		10	2.0	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Fluoranthene	6.4	J	10	2.5	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Pyrene	6.0	J	10	3.8	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Benzo[a]anthracene	3.7	J	10	2.1	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Chrysene	3.3	J	10	1.5	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Benzo[b]fluoranthene	5.1	J	10	3.5	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Client Sample ID: RFPNB-32C (4.5-5)

Date Collected: 05/12/20 13:50

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-3

Matrix: Solid

Percent Solids: 94.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		10	4.3	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Dibenz(a,h)anthracene	ND		10	2.9	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Benzo[g,h,i]perylene	3.4	J	10	2.4	ug/Kg	☼	05/13/20 14:50	05/13/20 23:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	49		43 - 120				05/13/20 14:50	05/13/20 23:22	1
2-Fluorobiphenyl (Surr)	60		56 - 120				05/13/20 14:50	05/13/20 23:22	1
p-Terphenyl-d14	80		74 - 136				05/13/20 14:50	05/13/20 23:22	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.52	J	1.0	0.41	mg/Kg	☼	05/13/20 09:03	05/13/20 17:50	1
Barium	58		1.0	0.27	mg/Kg	☼	05/13/20 09:03	05/13/20 17:50	1
Cadmium	0.12	J	0.82	0.048	mg/Kg	☼	05/13/20 09:03	05/13/20 17:50	1
Chromium	0.17	J	1.0	0.14	mg/Kg	☼	05/13/20 09:03	05/13/20 17:50	1
Lead	7.0		2.5	1.2	mg/Kg	☼	05/13/20 09:03	05/13/20 17:50	1
Selenium	ND		4.1	2.5	mg/Kg	☼	05/13/20 09:03	05/13/20 17:50	1
Silver	ND		1.0	0.11	mg/Kg	☼	05/13/20 09:03	05/13/20 17:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	36	J	44	3.2	ug/Kg	☼	05/13/20 09:06	05/13/20 15:41	1

Client Sample ID: RFPNB-33C (1-1.5)

Date Collected: 05/12/20 14:10

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-4

Matrix: Solid

Percent Solids: 96.1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.5		1.1	0.42	mg/Kg	☼	05/13/20 09:03	05/13/20 17:53	1
Barium	100		1.1	0.28	mg/Kg	☼	05/13/20 09:03	05/13/20 17:53	1
Cadmium	0.72	J	0.85	0.050	mg/Kg	☼	05/13/20 09:03	05/13/20 17:53	1
Chromium	9.8		1.1	0.15	mg/Kg	☼	05/13/20 09:03	05/13/20 17:53	1
Lead	330		2.5	1.2	mg/Kg	☼	05/13/20 09:03	05/13/20 17:53	1
Selenium	ND		4.2	2.5	mg/Kg	☼	05/13/20 09:03	05/13/20 17:53	1
Silver	ND		1.1	0.11	mg/Kg	☼	05/13/20 09:03	05/13/20 17:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	200		47	3.4	ug/Kg	☼	05/13/20 09:06	05/13/20 15:43	1

Client Sample ID: RFPNB-34C (1-1.5)

Date Collected: 05/12/20 14:15

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-5

Matrix: Solid

Percent Solids: 95.2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12		1.0	0.41	mg/Kg	☼	05/13/20 09:03	05/13/20 17:57	1
Barium	110		1.0	0.27	mg/Kg	☼	05/13/20 09:03	05/13/20 17:57	1
Cadmium	2.8		0.82	0.048	mg/Kg	☼	05/13/20 09:03	05/13/20 17:57	1

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Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Client Sample ID: RFPNB-34C (1-1.5)

Date Collected: 05/12/20 14:15

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-5

Matrix: Solid

Percent Solids: 95.2

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	11		1.0	0.15	mg/Kg	☼	05/13/20 09:03	05/13/20 17:57	1
Lead	530		12	6.0	mg/Kg	☼	05/13/20 09:03	05/15/20 16:00	5
Selenium	ND		4.1	2.5	mg/Kg	☼	05/13/20 09:03	05/13/20 17:57	1
Silver	0.39	J	1.0	0.11	mg/Kg	☼	05/13/20 09:03	05/13/20 17:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	240		49	3.5	ug/Kg	☼	05/13/20 09:06	05/13/20 15:46	1

Client Sample ID: RFPNB-35C (1-1.5)

Date Collected: 05/12/20 14:20

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-6

Matrix: Solid

Percent Solids: 96.0

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		0.99	0.39	mg/Kg	☼	05/13/20 09:03	05/13/20 18:01	1
Barium	78		0.99	0.27	mg/Kg	☼	05/13/20 09:03	05/13/20 18:01	1
Cadmium	0.82		0.79	0.047	mg/Kg	☼	05/13/20 09:03	05/13/20 18:01	1
Chromium	8.6		0.99	0.14	mg/Kg	☼	05/13/20 09:03	05/13/20 18:01	1
Lead	310		2.4	1.2	mg/Kg	☼	05/13/20 09:03	05/13/20 18:01	1
Selenium	ND		4.0	2.4	mg/Kg	☼	05/13/20 09:03	05/13/20 18:01	1
Silver	ND		0.99	0.11	mg/Kg	☼	05/13/20 09:03	05/13/20 18:01	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	120		44	3.2	ug/Kg	☼	05/13/20 09:06	05/13/20 15:53	1

Client Sample ID: RFPNB-36C (3.5-4)

Date Collected: 05/12/20 14:25

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-7

Matrix: Solid

Percent Solids: 94.0

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.8		1.1	0.42	mg/Kg	☼	05/13/20 09:03	05/13/20 18:05	1
Barium	75		1.1	0.29	mg/Kg	☼	05/13/20 09:03	05/13/20 18:05	1
Cadmium	0.63	J	0.85	0.050	mg/Kg	☼	05/13/20 09:03	05/13/20 18:05	1
Chromium	7.0		1.1	0.15	mg/Kg	☼	05/13/20 09:03	05/13/20 18:05	1
Lead	310		2.6	1.3	mg/Kg	☼	05/13/20 09:03	05/13/20 18:05	1
Selenium	ND		4.3	2.6	mg/Kg	☼	05/13/20 09:03	05/13/20 18:05	1
Silver	ND		1.1	0.11	mg/Kg	☼	05/13/20 09:03	05/13/20 18:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	140		49	3.5	ug/Kg	☼	05/13/20 09:06	05/13/20 15:55	1

Client Sample ID: RFPNB-37C (3.5-4)

Date Collected: 05/12/20 14:30

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-8

Matrix: Solid

Percent Solids: 93.2

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		0.99	0.39	mg/Kg	☼	05/13/20 09:03	05/13/20 18:08	1

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Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Client Sample ID: RFPNB-37C (3.5-4)

Lab Sample ID: 590-13171-8

Date Collected: 05/12/20 14:30

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 93.2

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	63		0.99	0.26	mg/Kg	☼	05/13/20 09:03	05/13/20 18:08	1
Cadmium	0.090	J	0.79	0.047	mg/Kg	☼	05/13/20 09:03	05/13/20 18:08	1
Chromium	8.8		0.99	0.14	mg/Kg	☼	05/13/20 09:03	05/13/20 18:08	1
Lead	27		2.4	1.2	mg/Kg	☼	05/13/20 09:03	05/13/20 18:08	1
Selenium	ND		3.9	2.4	mg/Kg	☼	05/13/20 09:03	05/13/20 18:08	1
Silver	ND		0.99	0.11	mg/Kg	☼	05/13/20 09:03	05/13/20 18:08	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	120		42	3.0	ug/Kg	☼	05/13/20 09:06	05/13/20 15:57	1



QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-27454/1-A
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27454

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Acenaphthylene	ND		10	3.3	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Acenaphthene	ND		10	2.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Fluorene	ND		10	2.2	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Phenanthrene	ND		10	3.6	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Anthracene	ND		10	2.0	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Fluoranthene	ND		10	2.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Pyrene	ND		10	3.8	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Chrysene	ND		10	1.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		05/13/20 14:50	05/13/20 20:44	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		05/13/20 14:50	05/13/20 20:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	62		43 - 120	05/13/20 14:50	05/13/20 20:44	1
2-Fluorobiphenyl (Surr)	66		56 - 120	05/13/20 14:50	05/13/20 20:44	1
p-Terphenyl-d14	85		74 - 136	05/13/20 14:50	05/13/20 20:44	1

Lab Sample ID: LCS 590-27454/2-A
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27454

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	190		ug/Kg		71	39 - 120
2-Methylnaphthalene	267	192		ug/Kg		72	48 - 120
1-Methylnaphthalene	267	195		ug/Kg		73	55 - 120
Acenaphthylene	267	214		ug/Kg		80	59 - 120
Acenaphthene	267	212		ug/Kg		80	53 - 120
Fluorene	267	222		ug/Kg		83	63 - 120
Phenanthrene	267	235		ug/Kg		88	65 - 121
Anthracene	267	231		ug/Kg		87	60 - 129
Fluoranthene	267	244		ug/Kg		91	63 - 127
Pyrene	267	235		ug/Kg		88	68 - 125
Benzo[a]anthracene	267	250		ug/Kg		94	61 - 125
Chrysene	267	239		ug/Kg		89	67 - 127
Benzo[b]fluoranthene	267	247		ug/Kg		93	67 - 127
Benzo[k]fluoranthene	267	243		ug/Kg		91	63 - 127
Benzo[a]pyrene	267	248		ug/Kg		93	60 - 120
Indeno[1,2,3-cd]pyrene	267	240		ug/Kg		90	63 - 128
Dibenz(a,h)anthracene	267	245		ug/Kg		92	60 - 128
Benzo[g,h,i]perylene	267	243		ug/Kg		91	58 - 129

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QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-27454/2-A
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27454

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	72		43 - 120
2-Fluorobiphenyl (Surr)	73		56 - 120
p-Terphenyl-d14	89		74 - 136

Lab Sample ID: 590-13171-1 MS
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27454

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Naphthalene	3.3	J	281	174		ug/Kg	☼	61	39 - 120
2-Methylnaphthalene	4.6	J	281	187		ug/Kg	☼	65	48 - 120
1-Methylnaphthalene	3.8	J	281	194		ug/Kg	☼	67	55 - 120
Acenaphthylene	7.5	J	281	241		ug/Kg	☼	83	59 - 120
Acenaphthene	ND		281	234		ug/Kg	☼	83	53 - 120
Fluorene	ND		281	249		ug/Kg	☼	88	63 - 120
Phenanthrene	18		281	263		ug/Kg	☼	87	65 - 121
Anthracene	7.9	J	281	260		ug/Kg	☼	90	60 - 129
Fluoranthene	41		281	306		ug/Kg	☼	94	63 - 127
Pyrene	45		281	324		ug/Kg	☼	100	68 - 125
Benzo[a]anthracene	28		281	312		ug/Kg	☼	101	61 - 125
Chrysene	36		281	296		ug/Kg	☼	92	67 - 127
Benzo[b]fluoranthene	55		281	324		ug/Kg	☼	95	67 - 127
Benzo[k]fluoranthene	18		281	278		ug/Kg	☼	92	63 - 127
Benzo[a]pyrene	43		281	319		ug/Kg	☼	98	60 - 120
Indeno[1,2,3-cd]pyrene	29		281	290		ug/Kg	☼	93	63 - 128
Dibenz(a,h)anthracene	9.1	J	281	271		ug/Kg	☼	93	60 - 128
Benzo[g,h,i]perylene	37		281	302		ug/Kg	☼	94	58 - 129

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	54		43 - 120
2-Fluorobiphenyl (Surr)	68		56 - 120
p-Terphenyl-d14	89		74 - 136

Lab Sample ID: 590-13171-1 MSD
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27454

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier		Result	Qualifier						
Naphthalene	3.3	J	276	157		ug/Kg	☼	56	39 - 120	10	35
2-Methylnaphthalene	4.6	J	276	173		ug/Kg	☼	61	48 - 120	8	30
1-Methylnaphthalene	3.8	J	276	174		ug/Kg	☼	62	55 - 120	11	24
Acenaphthylene	7.5	J	276	228		ug/Kg	☼	80	59 - 120	6	20
Acenaphthene	ND		276	220		ug/Kg	☼	80	53 - 120	6	17
Fluorene	ND		276	235		ug/Kg	☼	85	63 - 120	6	21
Phenanthrene	18		276	264		ug/Kg	☼	89	65 - 121	0	18
Anthracene	7.9	J	276	237		ug/Kg	☼	83	60 - 129	9	18
Fluoranthene	41		276	301		ug/Kg	☼	94	63 - 127	2	18
Pyrene	45		276	309		ug/Kg	☼	96	68 - 125	5	16

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 590-13171-1 MSD
Matrix: Solid
Analysis Batch: 27453

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27454

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Benzo[a]anthracene	28		276	283		ug/Kg	☼	92	61 - 125	10	16
Chrysene	36		276	283		ug/Kg	☼	89	67 - 127	4	15
Benzo[b]fluoranthene	55		276	297		ug/Kg	☼	87	67 - 127	9	16
Benzo[k]fluoranthene	18		276	264		ug/Kg	☼	89	63 - 127	5	16
Benzo[a]pyrene	43		276	299		ug/Kg	☼	93	60 - 120	6	20
Indeno[1,2,3-cd]pyrene	29		276	266		ug/Kg	☼	86	63 - 128	9	18
Dibenz(a,h)anthracene	9.1	J	276	244		ug/Kg	☼	85	60 - 128	11	18
Benzo[g,h,i]perylene	37		276	271		ug/Kg	☼	85	58 - 129	11	17
Surrogate	MSD	MSD									
	%Recovery	Qualifier	Limits								
Nitrobenzene-d5	53		43 - 120								
2-Fluorobiphenyl (Surr)	66		56 - 120								
p-Terphenyl-d14	84		74 - 136								

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27434/2-A
Matrix: Solid
Analysis Batch: 27459

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27434

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		05/13/20 09:03	05/13/20 17:02	1
Barium	ND		1.3	0.34	mg/Kg		05/13/20 09:03	05/13/20 17:02	1
Cadmium	ND		1.0	0.059	mg/Kg		05/13/20 09:03	05/13/20 17:02	1
Chromium	ND		1.3	0.18	mg/Kg		05/13/20 09:03	05/13/20 17:02	1
Lead	ND		3.0	1.5	mg/Kg		05/13/20 09:03	05/13/20 17:02	1
Selenium	ND		5.0	3.0	mg/Kg		05/13/20 09:03	05/13/20 17:02	1
Silver	ND		1.3	0.13	mg/Kg		05/13/20 09:03	05/13/20 17:02	1

Lab Sample ID: LCS 590-27434/1-A
Matrix: Solid
Analysis Batch: 27459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27434

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
							Added
Arsenic	100	101		mg/Kg		101	80 - 120
Barium	100	106		mg/Kg		106	80 - 120
Cadmium	50.0	51.9		mg/Kg		104	80 - 120
Chromium	50.0	53.1		mg/Kg		106	80 - 120
Lead	50.0	53.1		mg/Kg		106	80 - 120
Selenium	100	102		mg/Kg		102	80 - 120
Silver	5.00	5.00		mg/Kg		100	80 - 120

Lab Sample ID: 590-13171-1 MS
Matrix: Solid
Analysis Batch: 27459

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27434

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Arsenic	9.5		106	97.4		mg/Kg	☼	83	75 - 125
Barium	100	F1	106	170	F1	mg/Kg	☼	63	75 - 125

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 590-13171-1 MS
Matrix: Solid
Analysis Batch: 27459

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27434

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	1.0	J	53.0	46.6		mg/Kg	☼	86	75 - 125
Chromium	7.4		53.0	53.9		mg/Kg	☼	88	75 - 125
Lead	1400		53.0	302	4	mg/Kg	☼	-1984	75 - 125
Selenium	ND		106	88.9		mg/Kg	☼	84	75 - 125
Silver	ND		5.30	4.38		mg/Kg	☼	83	75 - 125

Lab Sample ID: 590-13171-1 MSD
Matrix: Solid
Analysis Batch: 27459

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27434

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	9.5		106	99.8		mg/Kg	☼	85	75 - 125	2	20
Barium	100	F1	106	171	F1	mg/Kg	☼	64	75 - 125	0	20
Cadmium	1.0	J	53.0	47.2		mg/Kg	☼	87	75 - 125	1	20
Chromium	7.4		53.0	53.8		mg/Kg	☼	87	75 - 125	0	20
Lead	1400		53.0	328	4	mg/Kg	☼	-1934	75 - 125	8	20
Selenium	ND		106	91.5		mg/Kg	☼	86	75 - 125	3	20
Silver	ND		5.30	4.44		mg/Kg	☼	84	75 - 125	1	20

Lab Sample ID: 590-13171-1 DU
Matrix: Solid
Analysis Batch: 27459

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27434

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Arsenic	9.5		8.50		mg/Kg	☼	11	20
Barium	100	F1	62.5	F3	mg/Kg	☼	49	20
Cadmium	1.0	J	0.735	J F5	mg/Kg	☼	33	20
Chromium	7.4		5.55	F3	mg/Kg	☼	29	20
Lead	1400		269	F3	mg/Kg	☼	134	20
Selenium	ND		ND		mg/Kg	☼	NC	20
Silver	ND		ND		mg/Kg	☼	NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-27435/9-A
Matrix: Solid
Analysis Batch: 27458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27435

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		50	3.6	ug/Kg		05/13/20 09:05	05/13/20 15:27	1

Lab Sample ID: LCS 590-27435/8-A
Matrix: Solid
Analysis Batch: 27458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27435

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	200	196		ug/Kg		98	80 - 120

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 590-13171-1 MS
Matrix: Solid
Analysis Batch: 27458

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27435

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	140	F1	200	409	F1	ug/Kg	☼	137	80 - 120

Lab Sample ID: 590-13171-1 MSD
Matrix: Solid
Analysis Batch: 27458

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27435

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	140	F1	193	366		ug/Kg	☼	120	80 - 120	11	20

Lab Sample ID: 590-13171-1 DU
Matrix: Solid
Analysis Batch: 27458

Client Sample ID: RFPNB-30C (4.5-5)
Prep Type: Total/NA
Prep Batch: 27435

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Hg	140	F1	122		ug/Kg	☼	11	20

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Client Sample ID: RFPNB-30C (4.5-5)

Date Collected: 05/12/20 13:25

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27436	05/13/20 09:07	AMB	TAL SPK

Client Sample ID: RFPNB-30C (4.5-5)

Date Collected: 05/12/20 13:25

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-1

Matrix: Solid

Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.37 g	2 mL	27454	05/13/20 14:50	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27453	05/13/20 21:37	NMI	TAL SPK
Total/NA	Prep	3050B			1.32 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		5	10 mL	10 mL	27459	05/13/20 17:20	JSP	TAL SPK
Total/NA	Prep	7471B			0.57 g	50 mL	27435	05/13/20 09:06	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27458	05/13/20 15:30	AMB	TAL SPK

Client Sample ID: RFPNB-31C (4.5-5)

Date Collected: 05/12/20 13:40

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27436	05/13/20 09:07	AMB	TAL SPK

Client Sample ID: RFPNB-31C (4.5-5)

Date Collected: 05/12/20 13:40

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-2

Matrix: Solid

Percent Solids: 95.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.12 g	2 mL	27454	05/13/20 14:50	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27453	05/13/20 22:56	NMI	TAL SPK
Total/NA	Prep	3050B			1.25 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27459	05/13/20 17:47	JSP	TAL SPK
Total/NA	Prep	7471B			0.63 g	50 mL	27435	05/13/20 09:06	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27458	05/13/20 15:39	AMB	TAL SPK

Client Sample ID: RFPNB-32C (4.5-5)

Date Collected: 05/12/20 13:50

Date Received: 05/12/20 15:54

Lab Sample ID: 590-13171-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27436	05/13/20 09:07	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Client Sample ID: RFPNB-32C (4.5-5)

Lab Sample ID: 590-13171-3

Date Collected: 05/12/20 13:50

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.82 g	2 mL	27454	05/13/20 14:50	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27453	05/13/20 23:22	NMI	TAL SPK
Total/NA	Prep	3050B			1.30 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27459	05/13/20 17:50	JSP	TAL SPK
Total/NA	Prep	7471B			0.60 g	50 mL	27435	05/13/20 09:06	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27458	05/13/20 15:41	AMB	TAL SPK

Client Sample ID: RFPNB-33C (1-1.5)

Lab Sample ID: 590-13171-4

Date Collected: 05/12/20 14:10

Matrix: Solid

Date Received: 05/12/20 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27436	05/13/20 09:07	AMB	TAL SPK

Client Sample ID: RFPNB-33C (1-1.5)

Lab Sample ID: 590-13171-4

Date Collected: 05/12/20 14:10

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.23 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27459	05/13/20 17:53	JSP	TAL SPK
Total/NA	Prep	7471B			0.55 g	50 mL	27435	05/13/20 09:06	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27458	05/13/20 15:43	AMB	TAL SPK

Client Sample ID: RFPNB-34C (1-1.5)

Lab Sample ID: 590-13171-5

Date Collected: 05/12/20 14:15

Matrix: Solid

Date Received: 05/12/20 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27436	05/13/20 09:07	AMB	TAL SPK

Client Sample ID: RFPNB-34C (1-1.5)

Lab Sample ID: 590-13171-5

Date Collected: 05/12/20 14:15

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.28 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27459	05/13/20 17:57	JSP	TAL SPK
Total/NA	Prep	3050B			1.28 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		5			27492	05/15/20 16:00	AMB	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27435	05/13/20 09:06	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27458	05/13/20 15:46	AMB	TAL SPK

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Client Sample ID: RFPNB-35C (1-1.5)

Lab Sample ID: 590-13171-6

Date Collected: 05/12/20 14:20

Matrix: Solid

Date Received: 05/12/20 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27436	05/13/20 09:07	AMB	TAL SPK

Client Sample ID: RFPNB-35C (1-1.5)

Lab Sample ID: 590-13171-6

Date Collected: 05/12/20 14:20

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 96.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.31 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27459	05/13/20 18:01	JSP	TAL SPK
Total/NA	Prep	7471B			0.59 g	50 mL	27435	05/13/20 09:06	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27458	05/13/20 15:53	AMB	TAL SPK

Client Sample ID: RFPNB-36C (3.5-4)

Lab Sample ID: 590-13171-7

Date Collected: 05/12/20 14:25

Matrix: Solid

Date Received: 05/12/20 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27436	05/13/20 09:07	AMB	TAL SPK

Client Sample ID: RFPNB-36C (3.5-4)

Lab Sample ID: 590-13171-7

Date Collected: 05/12/20 14:25

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.25 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27459	05/13/20 18:05	JSP	TAL SPK
Total/NA	Prep	7471B			0.54 g	50 mL	27435	05/13/20 09:06	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27458	05/13/20 15:55	AMB	TAL SPK

Client Sample ID: RFPNB-37C (3.5-4)

Lab Sample ID: 590-13171-8

Date Collected: 05/12/20 14:30

Matrix: Solid

Date Received: 05/12/20 15:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27436	05/13/20 09:07	AMB	TAL SPK

Client Sample ID: RFPNB-37C (3.5-4)

Lab Sample ID: 590-13171-8

Date Collected: 05/12/20 14:30

Matrix: Solid

Date Received: 05/12/20 15:54

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.36 g	50 mL	27434	05/13/20 09:03	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27459	05/13/20 18:08	JSP	TAL SPK
Total/NA	Prep	7471B			0.64 g	50 mL	27435	05/13/20 09:06	AMB	TAL SPK
Total/NA	Analysis	7471B		1			27458	05/13/20 15:57	AMB	TAL SPK

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

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Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13171-2

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
7471B	Mercury (CVAA)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
7471B	Preparation, Mercury	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

CHAIN OF CUSTODY RECORD

GeoEngineers
523 EAST SECOND AVE.
SPOKANE, WASHINGTON 99202
(509) 363-3125

TEMP: 20.8°C

DATE 5-12-2020
 PAGE 1 OF 1
 LAB TestAmerica
 LAB NO. Spokane Valley, WA

PROJECT NAME/LOCATION Riverfront Park
 PROJECT NUMBER 0110-148-06 (0600-02)
 PROJECT MANAGER JR Sussler
 SAMPLED BY Josh Lee

ANALYSIS REQUIRED

LAB	GEOENGINEERS	SAMPLE COLLECTION		MATRIX	# OF JARS	ANALYSIS REQUIRED	
		DATE	TIME			RCRA & Metals	PAHs
RFPNB-30C(45-5)		5/12/2020	1325	Soil	1	X	X
RFPNB-31C(45-5)			1340			X	X
RFPNB-32C(45-5)			1350			X	X
RFPNB-33C(1-15)			1410			X	X
RFPNB-34C(1-15)			1415			X	X
RFPNB-35C(5-5)			1420			X	X
RFPNB-36C(3-5-9)			1425			X	X
RFPNB-37C(3-5-9)			1430			X	X

* * * * *



590-13171 Chain of Custody

* = Metals & PAHs on 3-day TAT
 3-day TAT

* = Metals on 10-d. TAT and PAHs on 10-d. TAT

RELINQUISHED BY SIGNATURE	FIRM	RECEIVED BY SIGNATURE	FIRM	DATE	TIME	RELINQUISHED BY SIGNATURE	FIRM	RECEIVED BY SIGNATURE	FIRM	DATE	TIME
<u>[Signature]</u>	<u>GET</u>	<u>[Signature]</u>	<u>[Firm]</u>	<u>5-12-2020</u>	<u>1330</u>	<u>[Signature]</u>	<u>[Firm]</u>	<u>[Signature]</u>	<u>[Firm]</u>	<u>5-12-2020</u>	<u>1539</u>

ADDITIONAL COMMENTS:

RECEIVED BY SIGNATURE [Signature] FIRM [Firm] DATE 5-12-2020 TIME 1539

PRINTED NAME Josh Lee

RECEIVED BY SIGNATURE [Signature] FIRM [Firm] DATE 5-12-2020 TIME 1539

PRINTED NAME Josh Lee

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13171-2

Login Number: 13171

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

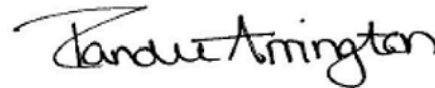
Laboratory Job ID: 590-13195-1

Client Project/Site: Riverfront Park - GT & Env Services

For:

GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



*Authorized for release by:
5/18/2020 3:03:14 PM*

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park - GT & Env Services

Job ID: 590-13195-1

Job ID: 590-13195-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The sample was received on 5/15/2020 10:32 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 6.5° C.

Metals

Method 6010D: The low level continuing calibration verification (CCVL) and initial calibration verification (ICVL) associated with batch 590-27491 recovered above the upper control limit for Arsenic. The samples associated with this CCV either >10x or were non-detects for the affected analytes; therefore, the data have been reported.

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

General Chemistry

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

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Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park - GT & Env Services

Job ID: 590-13195-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13195-1	RFPNB-SP1(0.-0.5)	Solid	05/15/20 09:15	05/15/20 10:32	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park - GT & Env Services

Job ID: 590-13195-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance 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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park - GT & Env Services

Job ID: 590-13195-1

Client Sample ID: RFPNB-SP1(0.-0.5)

Lab Sample ID: 590-13195-1

Date Collected: 05/15/20 09:15

Matrix: Solid

Date Received: 05/15/20 10:32

Percent Solids: 93.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12	^	0.99	0.39	mg/Kg	☼	05/15/20 10:51	05/15/20 15:49	1
Cadmium	1.4		0.79	0.047	mg/Kg	☼	05/15/20 10:51	05/15/20 15:49	1
Lead	530		2.4	1.2	mg/Kg	☼	05/15/20 10:51	05/15/20 15:49	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park - GT & Env Services

Job ID: 590-13195-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27476/2-A
Matrix: Solid
Analysis Batch: 27491

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27476

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^	1.3	0.50	mg/Kg		05/15/20 08:56	05/15/20 14:14	1
Cadmium	ND		1.0	0.059	mg/Kg		05/15/20 08:56	05/15/20 14:14	1
Lead	ND		3.0	1.5	mg/Kg		05/15/20 08:56	05/15/20 14:14	1

Lab Sample ID: LCS 590-27476/1-A
Matrix: Solid
Analysis Batch: 27491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27476

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	98.4	^	mg/Kg		98	80 - 120
Cadmium	50.0	50.7		mg/Kg		101	80 - 120
Lead	50.0	52.2		mg/Kg		104	80 - 120

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park - GT & Env Services

Job ID: 590-13195-1

Client Sample ID: RFPNB-SP1(0.-0.5)

Lab Sample ID: 590-13195-1

Date Collected: 05/15/20 09:15

Matrix: Solid

Date Received: 05/15/20 10:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27477	05/15/20 10:55	AMB	TAL SPK

Client Sample ID: RFPNB-SP1(0.-0.5)

Lab Sample ID: 590-13195-1

Date Collected: 05/15/20 09:15

Matrix: Solid

Date Received: 05/15/20 10:32

Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.35 g	50 mL	27476	05/15/20 10:51	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27491	05/15/20 15:49	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park - GT & Env Services

Job ID: 590-13195-1

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
- 3
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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park - GT & Env Services

Job ID: 590-13195-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Chain of Custody Record

Spokane, WA 99206
Phone: 509.924.9200 Fax:


Regulatory Program: DW NPDES RCRA Other:

013770

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Client Contact: **Geo Engineers, Inc.**
 Address: **533 E 2nd Ave 99202**
 City/State/Zip: **Spokane WA 99202**
 Phone: **509-363-3125**
 Fax: **509-363-3125**
 Project Name: **Restaurant Park-GT + Env. Services**
 Site: **01048-06**
 P O #

Project Manager: **S.R. Sugausk**
 Tell/Fax:
 Analysis Turnaround Time:
 CALENDAR DAYS WORKING DAYS
 TAT if different from Below:
 1 day 2 days 1 week 2 weeks 3 Day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)		Carrier:	Date:	COC No. of COCs
						Perform MS / MSD (Y / N)	Lab Contact:			
RFPNB-SPIC(O-05)	5-15-20	0915	C	Soil	1			Lead Cadmium arsenic		
 590-13195 Chain of Custody										
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other _____ Possible Hazard Identification: _____ Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. _____ <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Return to Client <input type="checkbox"/> Dispose by Lab <input type="checkbox"/> Archive for _____ Months										
Special Instructions/QC Requirements & Comments: _____ Cooler Temp. (°C): Obs'd: 0.3 Corr'd: 0.5 Therm ID No.: 11009										
Relinquished by: _____	Company: _____	Date/Time: _____	Received by: MARIA GOOD	Received in Laboratory by: _____	Company: ASPD	Date/Time: 5/15/20 10:32				
Relinquished by: _____	Company: _____	Date/Time: _____	Received by: _____	Received in Laboratory by: _____	Company: _____	Date/Time: _____				

Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13195-1

Login Number: 13195

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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?	N/A	Not present
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.	N/A	
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	No analysis requiring residual chlorine check assigned.



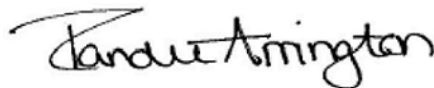
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13217-1
Client Project/Site: Riverfront Park (0110-148-14)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
5/21/2020 4:18:27 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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



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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13217-1

Job ID: 590-13217-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The sample was received on 5/19/2020 3:34 PM; the sample arrived in good condition. The temperature of the cooler at receipt was 14.1° C.

Metals

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

General Chemistry

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

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Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13217-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13217-1	RFPNB-38C (4-4.5)	Solid	05/19/20 14:15	05/19/20 15:34	

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- 11
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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13217-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13217-1

Client Sample ID: RFPNB-38C (4-4.5)

Lab Sample ID: 590-13217-1

Date Collected: 05/19/20 14:15

Matrix: Solid

Date Received: 05/19/20 15:34

Percent Solids: 94.3

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	500		13	6.1	mg/Kg	☼	05/20/20 08:12	05/21/20 14:24	5

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QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13217-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27552/2-A
Matrix: Solid
Analysis Batch: 27577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27552

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		3.0	1.5	mg/Kg		05/20/20 08:11	05/21/20 12:16	1

Lab Sample ID: LCS 590-27552/1-A
Matrix: Solid
Analysis Batch: 27577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	54.5		mg/Kg		109	80 - 120

Lab Chronicle

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13217-1

Client Sample ID: RFPNB-38C (4-4.5)

Lab Sample ID: 590-13217-1

Date Collected: 05/19/20 14:15

Matrix: Solid

Date Received: 05/19/20 15:34

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27555	05/20/20 09:19	AMB	TAL SPK

Client Sample ID: RFPNB-38C (4-4.5)

Lab Sample ID: 590-13217-1

Date Collected: 05/19/20 14:15

Matrix: Solid

Date Received: 05/19/20 15:34

Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.27 g	50 mL	27552	05/20/20 08:12	AMB	TAL SPK
Total/NA	Analysis	6010D		5			27579	05/21/20 14:24	JSP	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13217-1

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-14)

Job ID: 590-13217-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

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Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13217-1

Login Number: 13217

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	Received same day of collection; chilling process has begun.
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.



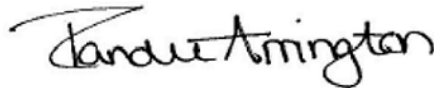
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13239-1
Client Project/Site: Riverfront Park (0110-148-06)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



*Authorized for release by:
5/27/2020 2:30:51 PM*

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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



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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-1

Job ID: 590-13239-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The sample was received on 5/26/2020 9:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

Metals

Method 6010D: The sample duplicate (DUP) precision for preparation batch 590-27608 and analytical batch 590-27636 was outside control limits. Sample non-homogeneity is suspected.

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

General Chemistry

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

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Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13239-1	RFPNB-39C(4.5-5)	Solid	05/26/20 08:20	05/26/20 09:00	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-1

Qualifiers

Metals

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-1

Client Sample ID: RFPNB-39C(4.5-5)

Lab Sample ID: 590-13239-1

Date Collected: 05/26/20 08:20

Matrix: Solid

Date Received: 05/26/20 09:00

Percent Solids: 94.5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.0		2.4	1.2	mg/Kg	☼	05/26/20 09:34	05/27/20 10:06	1

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QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27608/2-A
Matrix: Solid
Analysis Batch: 27636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27608

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		3.0	1.5	mg/Kg		05/26/20 09:34	05/27/20 10:03	1

Lab Sample ID: LCS 590-27608/1-A
Matrix: Solid
Analysis Batch: 27636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	53.7		mg/Kg		107	80 - 120

Lab Sample ID: 590-13239-1 MS
Matrix: Solid
Analysis Batch: 27636

Client Sample ID: RFPNB-39C(4.5-5)
Prep Type: Total/NA
Prep Batch: 27608

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	8.0		52.9	58.6		mg/Kg	☼	96	75 - 125

Lab Sample ID: 590-13239-1 MSD
Matrix: Solid
Analysis Batch: 27636

Client Sample ID: RFPNB-39C(4.5-5)
Prep Type: Total/NA
Prep Batch: 27608

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	8.0		51.4	57.7		mg/Kg	☼	97	75 - 125	2	20

Lab Sample ID: 590-13239-1 DU
Matrix: Solid
Analysis Batch: 27636

Client Sample ID: RFPNB-39C(4.5-5)
Prep Type: Total/NA
Prep Batch: 27608

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	8.0		9.84	F5	mg/Kg	☼	21	20

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-1

Client Sample ID: RFPNB-39C(4.5-5)

Lab Sample ID: 590-13239-1

Date Collected: 05/26/20 08:20

Matrix: Solid

Date Received: 05/26/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27603	05/26/20 09:36	AMB	TAL SPK

Client Sample ID: RFPNB-39C(4.5-5)

Lab Sample ID: 590-13239-1

Date Collected: 05/26/20 08:20

Matrix: Solid

Date Received: 05/26/20 09:00

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.30 g	50 mL	27608	05/26/20 09:34	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27636	05/27/20 10:06	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-1

Laboratory: Eurofins TestAmerica, Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

- 1
- 2
- 3
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- 10
- 11
- 12

Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13239-1

Login Number: 13239

List Source: Eurofins TestAmerica, Spokane

List Number: 1

Creator: Arrington, Randee E

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
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	

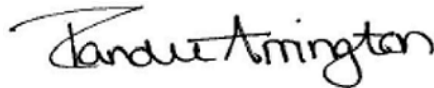
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13239-2
Client Project/Site: Riverfront Park (0110-148-06)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



Authorized for release by:
6/8/2020 10:50:07 AM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Job ID: 590-13239-2

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The sample was received on 5/26/2020 9:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

Receipt Exceptions

The following sample was activated for 6010D Arsenic & Cadmium and 8270E PAH analysis by the client on 05/28/20: RFPNB-39C(4.5-5) (590-13239-1). This analysis was not originally requested on the chain-of-custody (COC).

GC/MS Semi VOA

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

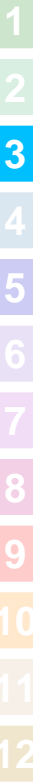
Metals

Method 6010D: The low level continuing calibration verification (CCVL) associated with batch 590-27722 recovered above the upper control limit for Arsenic. The samples associated with this CCVL were >10x or non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (LCS 590-27707/1-A) and (MB 590-27707/2-A).

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

Organic Prep

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



Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13239-1	RFPNB-39C(4.5-5)	Solid	05/26/20 08:20	05/26/20 09:00	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
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 (Radiochemistry)
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)

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Client Sample ID: RFPNB-39C(4.5-5)

Lab Sample ID: 590-13239-1

Date Collected: 05/26/20 08:20

Matrix: Solid

Date Received: 05/26/20 09:00

Percent Solids: 94.5

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
2-Methylnaphthalene	ND		10	3.2	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
1-Methylnaphthalene	ND		10	2.3	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Acenaphthylene	3.4	J	10	3.4	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Acenaphthene	ND		10	2.6	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Fluorene	ND		10	2.3	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Phenanthrene	25		10	3.7	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Anthracene	7.9	J	10	2.1	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Fluoranthene	59		10	2.6	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Pyrene	61		10	3.9	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Benzo[a]anthracene	29		10	2.2	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Chrysene	34		10	1.6	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Benzo[b]fluoranthene	31		10	3.6	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Benzo[k]fluoranthene	12		10	2.6	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Benzo[a]pyrene	28		10	4.3	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Indeno[1,2,3-cd]pyrene	13		10	3.0	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Dibenz(a,h)anthracene	4.4	J	10	2.9	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1
Benzo[g,h,i]perylene	16		10	2.4	ug/Kg	☼	06/04/20 12:26	06/04/20 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	68		43 - 120	06/04/20 12:26	06/04/20 15:13	1
2-Fluorobiphenyl (Surr)	73		56 - 120	06/04/20 12:26	06/04/20 15:13	1
p-Terphenyl-d14	95		74 - 136	06/04/20 12:26	06/04/20 15:13	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		1.1	0.42	mg/Kg	☼	06/04/20 10:00	06/05/20 14:25	1
Cadmium	0.050	J	0.85	0.050	mg/Kg	☼	06/04/20 10:00	06/04/20 17:38	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-27712/1-A
Matrix: Solid
Analysis Batch: 27711

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27712

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Acenaphthylene	ND		10	3.3	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Acenaphthene	ND		10	2.5	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Fluorene	ND		10	2.2	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Phenanthrene	ND		10	3.6	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Anthracene	ND		10	2.0	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Fluoranthene	ND		10	2.5	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Pyrene	ND		10	3.8	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Chrysene	ND		10	1.5	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		06/04/20 12:26	06/04/20 13:03	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		06/04/20 12:26	06/04/20 13:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	86		43 - 120	06/04/20 12:26	06/04/20 13:03	1
2-Fluorobiphenyl (Surr)	83		56 - 120	06/04/20 12:26	06/04/20 13:03	1
p-Terphenyl-d14	113		74 - 136	06/04/20 12:26	06/04/20 13:03	1

Lab Sample ID: LCS 590-27712/2-A
Matrix: Solid
Analysis Batch: 27711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27712

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	195		ug/Kg		73	39 - 120
2-Methylnaphthalene	267	199		ug/Kg		74	48 - 120
1-Methylnaphthalene	267	196		ug/Kg		74	55 - 120
Acenaphthylene	267	229		ug/Kg		86	59 - 120
Acenaphthene	267	237		ug/Kg		89	53 - 120
Fluorene	267	231		ug/Kg		87	63 - 120
Phenanthrene	267	242		ug/Kg		91	65 - 121
Anthracene	267	227		ug/Kg		85	60 - 129
Fluoranthene	267	249		ug/Kg		94	63 - 127
Pyrene	267	257		ug/Kg		96	68 - 125
Benzo[a]anthracene	267	271		ug/Kg		102	61 - 125
Chrysene	267	261		ug/Kg		98	67 - 127
Benzo[b]fluoranthene	267	265		ug/Kg		99	67 - 127
Benzo[k]fluoranthene	267	248		ug/Kg		93	63 - 127
Benzo[a]pyrene	267	263		ug/Kg		99	60 - 120
Indeno[1,2,3-cd]pyrene	267	256		ug/Kg		96	63 - 128
Dibenz(a,h)anthracene	267	262		ug/Kg		98	60 - 128
Benzo[g,h,i]perylene	267	258		ug/Kg		97	58 - 129

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-27712/2-A
Matrix: Solid
Analysis Batch: 27711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27712

<u>Surrogate</u>	<u>LCS</u> <u>%Recovery</u>	<u>LCS</u> <u>Qualifier</u>	<u>Limits</u>
Nitrobenzene-d5	76		43 - 120
2-Fluorobiphenyl (Surr)	78		56 - 120
p-Terphenyl-d14	101		74 - 136

Lab Sample ID: 590-13239-1 MS
Matrix: Solid
Analysis Batch: 27711

Client Sample ID: RFPNB-39C(4.5-5)
Prep Type: Total/NA
Prep Batch: 27712

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MS</u> <u>Result</u>	<u>MS</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec.</u> <u>Limits</u>
Naphthalene	ND		275	185		ug/Kg	☼	67	39 - 120
2-Methylnaphthalene	ND		275	192		ug/Kg	☼	70	48 - 120
1-Methylnaphthalene	ND		275	194		ug/Kg	☼	70	55 - 120
Acenaphthylene	3.4	J	275	234		ug/Kg	☼	85	59 - 120
Acenaphthene	ND		275	214		ug/Kg	☼	78	53 - 120
Fluorene	ND		275	230		ug/Kg	☼	84	63 - 120
Phenanthrene	25		275	229		ug/Kg	☼	74	65 - 121
Anthracene	7.9	J	275	228		ug/Kg	☼	80	60 - 129
Fluoranthene	59		275	252		ug/Kg	☼	70	63 - 127
Pyrene	61		275	260		ug/Kg	☼	72	68 - 125
Benzo[a]anthracene	29		275	273		ug/Kg	☼	89	61 - 125
Chrysene	34		275	265		ug/Kg	☼	84	67 - 127
Benzo[b]fluoranthene	31		275	268		ug/Kg	☼	86	67 - 127
Benzo[k]fluoranthene	12		275	240		ug/Kg	☼	83	63 - 127
Benzo[a]pyrene	28		275	260		ug/Kg	☼	84	60 - 120
Indeno[1,2,3-cd]pyrene	13		275	251		ug/Kg	☼	87	63 - 128
Dibenz(a,h)anthracene	4.4	J	275	253		ug/Kg	☼	90	60 - 128
Benzo[g,h,i]perylene	16		275	252		ug/Kg	☼	86	58 - 129

<u>Surrogate</u>	<u>MS</u> <u>%Recovery</u>	<u>MS</u> <u>Qualifier</u>	<u>Limits</u>
Nitrobenzene-d5	54		43 - 120
2-Fluorobiphenyl (Surr)	70		56 - 120
p-Terphenyl-d14	97		74 - 136

Lab Sample ID: 590-13239-1 MSD
Matrix: Solid
Analysis Batch: 27711

Client Sample ID: RFPNB-39C(4.5-5)
Prep Type: Total/NA
Prep Batch: 27712

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MSD</u> <u>Result</u>	<u>MSD</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec.</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>Limit</u>
Naphthalene	ND		276	174		ug/Kg	☼	63	39 - 120	6	35
2-Methylnaphthalene	ND		276	180		ug/Kg	☼	65	48 - 120	6	30
1-Methylnaphthalene	ND		276	176		ug/Kg	☼	64	55 - 120	10	24
Acenaphthylene	3.4	J	276	218		ug/Kg	☼	79	59 - 120	7	20
Acenaphthene	ND		276	214		ug/Kg	☼	78	53 - 120	0	17
Fluorene	ND		276	232		ug/Kg	☼	84	63 - 120	1	21
Phenanthrene	25		276	223		ug/Kg	☼	72	65 - 121	2	18
Anthracene	7.9	J	276	221		ug/Kg	☼	77	60 - 129	3	18
Fluoranthene	59		276	236		ug/Kg	☼	64	63 - 127	7	18
Pyrene	61		276	248		ug/Kg	☼	68	68 - 125	5	16

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 590-13239-1 MSD
Matrix: Solid
Analysis Batch: 27711

Client Sample ID: RFPNB-39C(4.5-5)
Prep Type: Total/NA
Prep Batch: 27712

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
Benzo[a]anthracene	29		276	256		ug/Kg	☼	82	61 - 125	6	16
Chrysene	34		276	254		ug/Kg	☼	80	67 - 127	4	15
Benzo[b]fluoranthene	31		276	250		ug/Kg	☼	79	67 - 127	7	16
Benzo[k]fluoranthene	12		276	233		ug/Kg	☼	80	63 - 127	3	16
Benzo[a]pyrene	28		276	252		ug/Kg	☼	81	60 - 120	3	20
Indeno[1,2,3-cd]pyrene	13		276	235		ug/Kg	☼	80	63 - 128	7	18
Dibenz(a,h)anthracene	4.4	J	276	239		ug/Kg	☼	85	60 - 128	5	18
Benzo[g,h,i]perylene	16		276	237		ug/Kg	☼	80	58 - 129	6	17
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
Nitrobenzene-d5	58		43 - 120								
2-Fluorobiphenyl (Surr)	65		56 - 120								
p-Terphenyl-d14	91		74 - 136								

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27707/2-A
Matrix: Solid
Analysis Batch: 27722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27707

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Arsenic	ND	^	1.3	0.50	mg/Kg		06/04/20 10:00	06/04/20 16:41		1
Cadmium	ND		1.0	0.059	mg/Kg		06/04/20 10:00	06/04/20 16:41		1

Lab Sample ID: LCS 590-27707/1-A
Matrix: Solid
Analysis Batch: 27722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27707

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
Arsenic	100	100	^	mg/Kg		100	80 - 120	
Cadmium	50.0	50.8		mg/Kg		102	80 - 120	

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Client Sample ID: RFPNB-39C(4.5-5)

Lab Sample ID: 590-13239-1

Date Collected: 05/26/20 08:20

Matrix: Solid

Date Received: 05/26/20 09:00

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.47 g	2 mL	27712	06/04/20 12:26	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27711	06/04/20 15:13	NMI	TAL SPK
Total/NA	Prep	3050B			1.24 g	50 mL	27707	06/04/20 10:00	JSP	TAL SPK
Total/NA	Analysis	6010D		1			27722	06/04/20 17:38	AMB	TAL SPK
Total/NA	Prep	3050B			1.24 g	50 mL	27707	06/04/20 10:00	JSP	TAL SPK
Total/NA	Analysis	6010D		1			27727	06/05/20 14:25	AMB	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Laboratory: Eurofins TestAmerica, Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13239-2

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13239-2

Login Number: 13239

List Source: Eurofins TestAmerica, Spokane

List Number: 1

Creator: Arrington, Randee E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



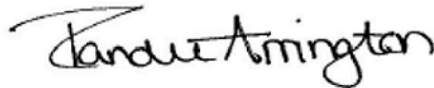
ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-13394-1
Client Project/Site: Riverfront Park (0110-148-06)

For:
GeoEngineers Inc
523 East Second Ave
Spokane, Washington 99202

Attn: JR Sugalski



*Authorized for release by:
6/30/2020 4:59:19 PM*

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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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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Case Narrative

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Job ID: 590-13394-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The sample was received on 6/23/2020 2:03 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.7° C.

Receipt Exceptions

The following sample was received outside of holding time for 8270E_SIM PAHs and 7471 Hg: RFPNB-40C (7-8) (590-13394-1).

GC/MS Semi VOA

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

Metals

Method 6010D: The low level continuing calibration verification (CCVL) associated with batch 590-27981 recovered above the upper control limit for Barium. The sample results associated with this CCV were 10x the spike amount for the affected analytes; therefore, the data have been reported.

Method 7471B: The method blank for preparation batch 590-27964 and analytical batch 590-28007 contained Hg above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

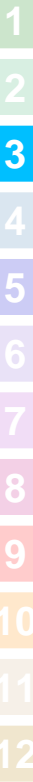
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

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

Organic Prep

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



Sample Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-13394-1	RFPNB-40C (7-8)	Solid	04/28/20 09:00	06/23/20 14:03	

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Definitions/Glossary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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)
TNTC	Too Numerous To Count

Client Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Client Sample ID: RFPNB-40C (7-8)

Lab Sample ID: 590-13394-1

Date Collected: 04/28/20 09:00

Matrix: Solid

Date Received: 06/23/20 14:03

Percent Solids: 96.0

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H3	9.8	2.1	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
2-Methylnaphthalene	ND	H3	9.8	3.1	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
1-Methylnaphthalene	ND	H3	9.8	2.2	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Acenaphthylene	ND	H3	9.8	3.3	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Acenaphthene	ND	H3	9.8	2.5	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Fluorene	ND	H3	9.8	2.2	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Phenanthrene	ND	H3	9.8	3.6	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Anthracene	ND	H3	9.8	2.0	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Fluoranthene	ND	H3	9.8	2.4	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Pyrene	ND	H3	9.8	3.7	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Benzo[a]anthracene	ND	H3	9.8	2.1	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Chrysene	ND	H3	9.8	1.5	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Benzo[b]fluoranthene	ND	H3	9.8	3.4	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Benzo[k]fluoranthene	ND	H3	9.8	2.5	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Benzo[a]pyrene	ND	H3	9.8	4.1	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Indeno[1,2,3-cd]pyrene	ND	H3	9.8	2.9	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Dibenz(a,h)anthracene	ND	H3	9.8	2.8	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1
Benzo[g,h,i]perylene	ND	H3	9.8	2.3	ug/Kg	☼	06/24/20 10:47	06/24/20 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	61		43 - 120	06/24/20 10:47	06/24/20 15:36	1
2-Fluorobiphenyl (Surr)	66		56 - 120	06/24/20 10:47	06/24/20 15:36	1
p-Terphenyl-d14	99		74 - 136	06/24/20 10:47	06/24/20 15:36	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		0.88	0.35	mg/Kg	☼	06/24/20 11:46	06/24/20 16:54	1
Barium	35	^	0.88	0.24	mg/Kg	☼	06/24/20 11:46	06/24/20 16:54	1
Cadmium	0.070	J	0.70	0.042	mg/Kg	☼	06/24/20 11:46	06/24/20 16:54	1
Chromium	8.9		0.88	0.12	mg/Kg	☼	06/24/20 11:46	06/24/20 16:54	1
Lead	6.3		2.1	1.0	mg/Kg	☼	06/24/20 11:46	06/24/20 16:54	1
Selenium	ND		3.5	2.1	mg/Kg	☼	06/24/20 11:46	06/24/20 16:54	1
Silver	ND		0.88	0.094	mg/Kg	☼	06/24/20 11:46	06/24/20 16:54	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	8.7	J H3 B	50	3.6	ug/Kg	☼	06/24/20 11:01	06/30/20 15:14	1

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-27963/1-A
Matrix: Solid
Analysis Batch: 27961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27963

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10	2.2	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
2-Methylnaphthalene	ND		10	3.1	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
1-Methylnaphthalene	ND		10	2.2	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Acenaphthylene	ND		10	3.3	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Acenaphthene	ND		10	2.5	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Fluorene	9.32	J	10	2.2	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Phenanthrene	ND		10	3.6	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Anthracene	ND		10	2.0	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Fluoranthene	ND		10	2.5	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Pyrene	ND		10	3.8	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Benzo[a]anthracene	ND		10	2.1	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Chrysene	ND		10	1.5	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Benzo[b]fluoranthene	ND		10	3.5	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Benzo[k]fluoranthene	ND		10	2.5	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Benzo[a]pyrene	ND		10	4.2	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Indeno[1,2,3-cd]pyrene	ND		10	3.0	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Dibenz(a,h)anthracene	ND		10	2.8	ug/Kg		06/24/20 10:47	06/24/20 12:06	1
Benzo[g,h,i]perylene	ND		10	2.4	ug/Kg		06/24/20 10:47	06/24/20 12:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	76		43 - 120	06/24/20 10:47	06/24/20 12:06	1
2-Fluorobiphenyl (Surr)	74		56 - 120	06/24/20 10:47	06/24/20 12:06	1
p-Terphenyl-d14	107		74 - 136	06/24/20 10:47	06/24/20 12:06	1

Lab Sample ID: LCS 590-27963/2-A
Matrix: Solid
Analysis Batch: 27961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	267	187		ug/Kg		70	39 - 120
2-Methylnaphthalene	267	185		ug/Kg		69	48 - 120
1-Methylnaphthalene	267	185		ug/Kg		69	55 - 120
Acenaphthylene	267	219		ug/Kg		82	59 - 120
Acenaphthene	267	194		ug/Kg		73	53 - 120
Fluorene	267	219		ug/Kg		82	63 - 120
Phenanthrene	267	221		ug/Kg		83	65 - 121
Anthracene	267	211		ug/Kg		79	60 - 129
Fluoranthene	267	243		ug/Kg		91	63 - 127
Pyrene	267	247		ug/Kg		93	68 - 125
Benzo[a]anthracene	267	264		ug/Kg		99	61 - 125
Chrysene	267	253		ug/Kg		95	67 - 127
Benzo[b]fluoranthene	267	255		ug/Kg		96	67 - 127
Benzo[k]fluoranthene	267	238		ug/Kg		89	63 - 127
Benzo[a]pyrene	267	252		ug/Kg		94	60 - 120
Indeno[1,2,3-cd]pyrene	267	246		ug/Kg		92	63 - 128
Dibenz(a,h)anthracene	267	251		ug/Kg		94	60 - 128
Benzo[g,h,i]perylene	267	246		ug/Kg		92	58 - 129

Eurofins TestAmerica, Spokane

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 590-27963/2-A
Matrix: Solid
Analysis Batch: 27961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27963

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	73		43 - 120
2-Fluorobiphenyl (Surr)	74		56 - 120
p-Terphenyl-d14	100		74 - 136

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-27966/2-A
Matrix: Solid
Analysis Batch: 27981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27966

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		1.3	0.50	mg/Kg		06/24/20 11:45	06/24/20 15:48	1
Barium	ND		1.3	0.34	mg/Kg		06/24/20 11:45	06/24/20 15:48	1
Cadmium	ND		1.0	0.059	mg/Kg		06/24/20 11:45	06/24/20 15:48	1
Chromium	ND		1.3	0.18	mg/Kg		06/24/20 11:45	06/24/20 15:48	1
Lead	ND		3.0	1.5	mg/Kg		06/24/20 11:45	06/24/20 15:48	1
Selenium	ND		5.0	3.0	mg/Kg		06/24/20 11:45	06/24/20 15:48	1
Silver	ND		1.3	0.13	mg/Kg		06/24/20 11:45	06/24/20 15:48	1

Lab Sample ID: LCS 590-27966/1-A
Matrix: Solid
Analysis Batch: 27981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27966

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
Arsenic	100	101		mg/Kg		101	80 - 120	
Barium	100	99.5		mg/Kg		99	80 - 120	
Cadmium	50.0	52.2		mg/Kg		104	80 - 120	
Chromium	50.0	58.6		mg/Kg		117	80 - 120	
Lead	50.0	53.4		mg/Kg		107	80 - 120	
Selenium	100	105		mg/Kg		105	80 - 120	
Silver	5.00	5.18		mg/Kg		104	80 - 120	

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-27964/9-A
Matrix: Solid
Analysis Batch: 28007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27964

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hg	5.50	J	50	3.6	ug/Kg		06/24/20 11:01	06/30/20 15:07	1

Lab Sample ID: LCS 590-27964/8-A
Matrix: Solid
Analysis Batch: 28007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27964

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
Hg	200	215		ug/Kg		108	80 - 120	

QC Sample Results

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 590-13394-1 MS
Matrix: Solid
Analysis Batch: 28007

Client Sample ID: RFPNB-40C (7-8)
Prep Type: Total/NA
Prep Batch: 27964

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	8.7	J H3 B	186	210		ug/Kg	☼	108	80 - 120

Lab Sample ID: 590-13394-1 MSD
Matrix: Solid
Analysis Batch: 28007

Client Sample ID: RFPNB-40C (7-8)
Prep Type: Total/NA
Prep Batch: 27964

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Hg	8.7	J H3 B	183	201		ug/Kg	☼	105	80 - 120	4	20

Lab Sample ID: 590-13394-1 DU
Matrix: Solid
Analysis Batch: 28007

Client Sample ID: RFPNB-40C (7-8)
Prep Type: Total/NA
Prep Batch: 27964

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Hg	8.7	J H3 B	10.9	J F5	ug/Kg	☼	22	20

Lab Chronicle

Client: GeoEngineers Inc
 Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Client Sample ID: RFPNB-40C (7-8)

Lab Sample ID: 590-13394-1

Date Collected: 04/28/20 09:00

Matrix: Solid

Date Received: 06/23/20 14:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			27962	06/24/20 10:31	NMI	TAL SPK

Client Sample ID: RFPNB-40C (7-8)

Lab Sample ID: 590-13394-1

Date Collected: 04/28/20 09:00

Matrix: Solid

Date Received: 06/23/20 14:03

Percent Solids: 96.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			15.93 g	2 mL	27963	06/24/20 10:47	NMI	TAL SPK
Total/NA	Analysis	8270E SIM		1			27961	06/24/20 15:36	NMI	TAL SPK
Total/NA	Prep	3050B			1.48 g	50 mL	27966	06/24/20 11:46	AMB	TAL SPK
Total/NA	Analysis	6010D		1			27981	06/24/20 16:54	AMB	TAL SPK
Total/NA	Prep	7471B			0.52 g	50 mL	27964	06/24/20 11:01	AMB	TAL SPK
Total/NA	Analysis	7471B		1			28007	06/30/20 15:14	JSP	TAL SPK

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Laboratory: Eurofins TestAmerica, Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

1

2

3

4

5

6

7

8

9

10

11

12

Method Summary

Client: GeoEngineers Inc
Project/Site: Riverfront Park (0110-148-06)

Job ID: 590-13394-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
6010D	Metals (ICP)	SW846	TAL SPK
7471B	Mercury (CVAA)	SW846	TAL SPK
Moisture	Percent Moisture	EPA	TAL SPK
3050B	Preparation, Metals	SW846	TAL SPK
3550C	Ultrasonic Extraction	SW846	TAL SPK
7471B	Preparation, Mercury	SW846	TAL SPK

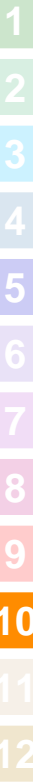
Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Login Sample Receipt Checklist

Client: GeoEngineers Inc

Job Number: 590-13394-1

Login Number: 13394

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

APPENDIX B
PCS Disposal Records

Date	Profile #	Manifest #	Ticket #	Material	Facility	Carrier	Vehicle	Tons/Tonnes	Mat. Quantity	Mat. Unit	
03/02/2020	115058WA	115058WA	<u>607747</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	MARK	27.31	27.31	TON	✓
03/02/2020	115058WA	115058WA	<u>607753</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	32.07	32.07	TON	✓
03/02/2020	115058WA	115058WA	<u>607772</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	MARK	28.92	28.92	TON	✓
03/02/2020	115058WA	115058WA	<u>607780</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	29.62	29.62	TON	✓
03/02/2020	115058WA	115058WA	<u>607794</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	MARK	23.37	23.37	TON	✓
03/02/2020	115058WA	115058WA	<u>607797</u>	Special Waste Solid Other	Graham Road Landfill		STEVE	28.99	28.99	TON	✓
03/02/2020	115058WA	115058WA	<u>607798</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	28.92	28.92	TON	✓
03/02/2020	115058WA	115058WA	<u>607805</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	26.79	26.79	TON	✓
03/02/2020	115058WA	115058wa	<u>607826</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	MARK	22.86	22.86	TON	✓
03/02/2020	115058WA	115058WA	<u>607830</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	27.7	27.70	TON	✓
03/02/2020	115058WA	115058WA	<u>607833</u>	Special Waste Solid Other	Graham Road Landfill		STEVE	31.16	31.16	TON	✓
03/02/2020	115058WA	115058WA	<u>607839</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	27.08	27.08	TON	✓
03/02/2020	115058WA	0	<u>607858</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	MARK	23.43	23.43	TON	✓
03/02/2020	115058WA	0	<u>607861</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	28.95	28.95	TON	✓
03/02/2020	115058WA	0	<u>607862</u>	Special Waste			steve	26.67	26.67	TON	✓

Date	Profile #	Manifest #	Ticket #	Material	Facility	Carrier	Vehicle	Tons/Tonnes	Mat. Quantity	Mat. Unit	
03/02/2020	115058WA	0	<u>607864</u>	Solid Other	Graham Road Landfill						
03/02/2020	115058WA	0	<u>607864</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	32.3	32.30	TON	✓
03/02/2020	115058WA	0	<u>607865</u>	Special Waste Solid Other	Graham Road Landfill	WLK JOINT VENTURE	taylor	31.89	31.89	TON	
03/02/2020	115058WA	115058wa	<u>607881</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	MARK	26	26.00	TON	✓
03/02/2020	115058WA	0	<u>607887</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	31.93	31.93	TON	✓
03/02/2020	115058WA	0	<u>607889</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	31.05	31.05	TON	✓
03/02/2020	115058WA	0	<u>607890</u>	Special Waste Solid Other	Graham Road Landfill		steve	29.11	29.11	TON	✓
03/03/2020	115058WA	115058wa	<u>607898</u>	Special Waste Solid Other	Graham Road Landfill		steve	26.07	26.07	TON	✓
03/03/2020	115058WA	115058wa	<u>607900</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	MARK	22.51	22.51	TON	✓
03/03/2020	115058WA	115058wa	<u>607901</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	ED	17.67	17.67	TON	✓
03/03/2020	115058WA	115058wa	<u>607903</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	27.85	27.85	TON	✓

Date	Profile #	Manifest #	Ticket #	Material	Facility	Carrier	Vehicle	Tons/Tonnes	Mat. Quantity	Mat. Unit	
03/03/2020	115058WA	115058WA	<u>607927</u>	Special Waste Solid Other	Graham Road Landfill		STEVE	28.11	28.11	TON	✓
03/03/2020	115058WA	115058WA	<u>607928</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	MARK	15.83	15.83	TON	✓
03/03/2020	115058WA	115058WA	<u>607929</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	ED	22.73	22.73	TON	✓
03/03/2020	115058WA	115058WA	<u>607933</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	28.14	28.14	TON	✓
03/24/2020	115058WA	115058WA	<u>609585</u>	Special Waste Solid Other	Graham Road Landfill		KIRKLAND	18.12	18.12	TON	✓
03/24/2020	115058WA	115058WA	<u>609597</u>	Special Waste Solid Other	Graham Road Landfill		KIRKLAND	16	16.00	TON	✓

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 607865
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier WLK WLK JOINT VENTURE
Ticket Date 03/02/2020 Vehicle# taylor
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 0
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	106040 lb
In 03/02/2020 14:01:24	Scale1	dbrook18		Tare	42260 lb
Out 03/02/2020 14:14:11	Scale1	dbrook18		Net	63780 lb
				Tons	31.89

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	31.89	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	31.89	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607933
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/03/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	96160 lb
In 03/03/2020 08:58:44	Scale1	ashield2		Tare	39880 lb
Out 03/03/2020 09:09:07	Scale1	ashield2		Net	56280 lb
				Tons	28.14

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	28.14	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	28.14	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607903
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/03/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058wa
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	
In	03/03/2020 07:39:21	Scale1	ashield2		Tare	95660 lb
Out	03/03/2020 07:50:54	Scale1	ashield2		Net	39960 lb
					Tons	55700 lb
						27.85

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	27.85	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				
3 SRHDL-Spokane Regional	100	27.85	Tons				

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607929
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/03/2020 Vehicle# ED
Payment Type Credit Account Container
Manual Ticket# Driver ED
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	80540 lb
In	03/03/2020 08:52:59	Scale1	ashield2		Tare	35080 lb
Out	03/03/2020 09:06:51	Scale1	ashield2		Net	45460 lb
					Tons	22.73

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	22.73	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				
3 SRHD1-Spokane Regional	100	22.73	Tons				

Total Tax/Fees
Total Ticket.

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607901
Ph: (509)244-0151


Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/03/2020 Vehicle# ED
Payment Type Credit Account Container
Manual Ticket# Driver ED
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058wa
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	70420 lb
In	03/03/2020 07:34:32	Scale1	ashield2		Tare	35080 lb
Out	03/03/2020 07:49:52	Scale1	ashield2		Net	35340 lb
					Tons	17.67

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	17.67	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	17.67	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature 

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607928
Ph: (509)244-0151

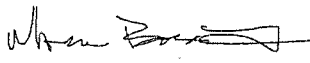
Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/03/2020 Vehicle# MARK
Payment Type Credit Account Container
Manual Ticket# Driver MARK
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	
In 03/03/2020 08:51:24	Scale1	ashield2		Tare	69000 lb
Out 03/03/2020 09:05:59	Scale1	ashield2		Net	37340 lb
				Tons	31660 lb
					15.83

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	15.83	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	15.83	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature 

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607900
Ph: (509)244-0151

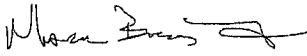
Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/03/2020 Vehicle# MARK
Payment Type Credit Account Container
Manual Ticket# Driver MARK
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058wa
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	
In	03/03/2020 07:30:01	Scale1	ashield2		Tare	82360 lb
Out	03/03/2020 07:45:36	Scale1	ashield2		Net	37340 lb
					Tons	45020 lb
						22.51

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	22.51	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	22.51	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature 

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 607927
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier TRI STATE
Ticket Date 03/03/2020 Vehicle# STEVE
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

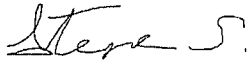
	Time	Scale	Operator	Inbound	Gross	93840 lb
In	03/03/2020 08:50:35	Scale1	ashield2		Tare	37620 lb
Out	03/03/2020 08:59:50	Scale1	ashield2		Net	56220 lb
					Tons	28.11

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	28.11	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	28.11	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607898
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier TRI STATE
Ticket Date 03/03/2020 Vehicle# steve
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058wa
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

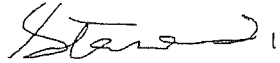
	Time	Scale	Operator	Inbound	Gross	
In	03/03/2020 07:28:29	Scale1	ashield2		Tare	89740 lb
Out	03/03/2020 07:41:29	Scale1	ashield2		Net	37600 lb
					Tons	52140 lb
						26.07

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	26.07	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	26.07	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 609585
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier TRI STATE
Ticket Date 03/24/2020 Vehicle# KIRKLAND
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	
In	03/24/2020 11:15:51	Scale1	ASHIELD2		63200 lb	
Out	03/24/2020 11:29:28	Scale1	ASHIELD2		Tare 26960 lb	
					Net 36240 lb	
					Tons 18.12	

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	18.12	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	18.12	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

AS for Kirkland

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 609597
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier TRI STATE
Ticket Date 03/24/2020 Vehicle# KIRKLAND
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	58880 lb
In 03/24/2020 12:34:54	Scale1	ASHIELD2		Tare	26880 lb
Out 03/24/2020 12:46:00	Scale1	ASHIELD2		Net	32000 lb
				Tons	16.00

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	16.00	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	16.00	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

FB

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607890
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier TRI STATE
Ticket Date 03/02/2020 Vehicle# steve
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 0
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

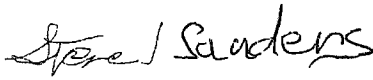
	Time	Scale	Operator	Inbound	Gross	95940 lb
In	03/02/2020 15:26:19	Scale1	fbaxter		Tare	37720 lb
Out	03/02/2020 15:38:18	Scale1	ashield2		Net	58220 lb
					Tons	29.11

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	29.11	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	29.11	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607862
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier TRI STATE
Ticket Date 03/02/2020 Vehicle# steve
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 0
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

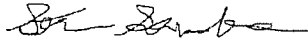
	Time	Scale	Operator	Inbound	Gross	
In	03/02/2020 13:51:50	Scale1	dbrook18		Tare	91160 lb 37820 lb
Out	03/02/2020 14:09:57	Scale1	dbrook18		Net	53340 lb
					Tons	26.67

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	26.67	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	26.67	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607833
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier TRI STATE
Ticket Date 03/02/2020 Vehicle# STEVE
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	100160 lb
In 03/02/2020 12:34:21	Scale1	ASHIELD2		Tare	37840 lb
Out 03/02/2020 12:50:22	Scale1	ASHIELD2		Net	62320 lb
				Tons	31.16

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	31.16	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	31.16	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 607797
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier TRI STATE
Ticket Date 03/02/2020 Vehicle# STEVE
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	95880 lb
In 03/02/2020 11:04:20	Scale1	ASHIELD2		Tare	37900 lb
Out 03/02/2020 11:23:12	Scale1	ASHIELD2		Net	57980 lb
				Tons	28.99

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	28.99	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	28.99	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607887
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 0
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	103600 lb*
In 03/02/2020 15:21:22	Scale1	fbaxter		Tare	39740 lb
Out 03/02/2020 15:28:08	Scale1	fbaxter		Net	63860 lb
		* Manual Weight		Tons	31.93

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	31.93	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				
3 SRHD1-Spokane Regional	100	31.93	Tons				

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607861
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 0
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	97720 lb
In 03/02/2020 13:50:42	Scale1	dbrook18		Tare	39820 lb
Out 03/02/2020 14:06:50	Scale1	dbrook18		Net	57900 lb
				Tons	28.95

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	28.95	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	28.95	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607830
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	95240 lb
In	03/02/2020 12:32:17	Scale1	ASHIELD2		Tare	39840 lb
Out	03/02/2020 12:45:47	Scale1	ASHIELD2		Net	55400 lb
					Tons	27.70

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	27.70	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				
3 SRHD1-Spokane Regional	100	27.70	Tons				

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607798
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	97780 lb
In	03/02/2020 11:09:38	Scale1	ASHIELD2		Tare	39940 lb
Out	03/02/2020 11:26:02	Scale1	ASHIELD2		Net	57840 lb
					Tons	28.92

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	28.92	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				
3 SRHD1-Spokane Regional	100	28.92	Tons				

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607881
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# MARK
Payment Type Credit Account Container
Manual Ticket# Driver MARK
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058wa
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

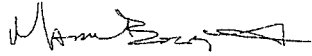
Time	Scale	Operator	Inbound	Gross	88760 lb
In 03/02/2020 14:56:00	Scale1	ashield2		Tare	36760 lb
Out 03/02/2020 15:22:36	Scale1	fbaxter		Net	52000 lb
				Tons	26.00

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	26.00	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	26.00	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607858
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# MARK
Payment Type Credit Account Container
Manual Ticket# Driver MARK
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 0
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

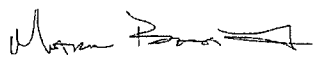
Time	Scale	Operator	Inbound	Gross	83660 lb
In 03/02/2020 13:42:27	Scale1	dbrook18		Tare	36800 lb
Out 03/02/2020 13:58:53	Scale1	dbrook18		Net	46860 lb
				Tons	23.43

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	23.43	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	23.43	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607826
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# MARK
Payment Type Credit Account Container
Manual Ticket# Driver MARK
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058wa
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

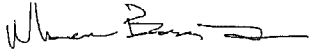
Time	Scale	Operator	Inbound	Gross	82540 lb
In 03/02/2020 12:27:04	Scale1	ASHIELD2		Tare	36820 lb
Out 03/02/2020 12:44:22	Scale1	ASHIELD2		Net	45720 lb
				Tons	22.86

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	22.86	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	22.86	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607794
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# MARK
Payment Type Credit Account Container
Manual Ticket# Driver MARK
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

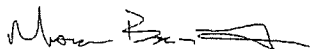
	Time	Scale	Operator	Inbound	Gross	
In	03/02/2020 10:53:33	Scale1	ASHIELD2		Tare	83600 lb 36860 lb
Out	03/02/2020 11:08:26	Scale1	ASHIELD2		Net	46740 lb
					Tons	23.37

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	23.37	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	23.37	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607772
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# MARK
Payment Type Credit Account Container
Manual Ticket# Driver MARK
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

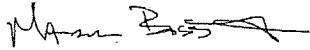
	Time	Scale	Operator	Inbound	Gross	94760 lb
In	03/02/2020 09:46:12	Scale1	ASHIELD2		Tare	36920 lb
Out	03/02/2020 10:01:00	Scale1	ASHIELD2		Net	57840 lb
					Tons	28.92

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	28.92	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	28.92	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607747
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# MARK
Payment Type Credit Account Container
Manual Ticket# Driver MARK
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

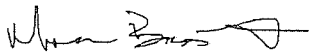
	Time	Scale	Operator	Inbound	Gross	
In	03/02/2020 08:28:39	Scale1	ASHIELD2		Tare	91580 lb 36960 lb
Out	03/02/2020 08:45:47	Scale1	ASHIELD2		Net	54620 lb
					Tons	27.31

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	27.31	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	27.31	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607889
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 0
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	
In	03/02/2020 15:23:56	Scale1	fbaxter		Tare	103540 lb 41440 lb
Out	03/02/2020 15:33:08	Scale1	ashield2		Net	62100 lb
					Tons	31.05

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	31.05	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	31.05	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607864
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 0
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334


Time	Scale	Operator	Inbound	Gross	106140 lb
In 03/02/2020 14:00:19	Scale1	dbrook18		Tare	41540 lb
Out 03/02/2020 14:12:38	Scale1	dbrook18		Net	64600 lb
				Tons	32.30

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	32.30	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	32.30	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607839
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

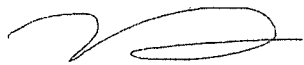
	Time	Scale	Operator	Inbound	Gross	95740 lb
In	03/02/2020 12:43:40	Scale1	ASHIELD2		Tare	41580 lb
Out	03/02/2020 13:01:49	Scale1	ASHIELD2		Net	54160 lb
					Tons	27.08

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	27.08	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	27.08	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607780
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

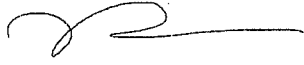
Time	Scale	Operator	Inbound	Gross	100940 lb
In 03/02/2020 10:16:03	Scale1	ASHIELD2		Tare	41700 lb
Out 03/02/2020 10:27:38	Scale1	ASHIELD2		Net	59240 lb
				Tons	29.62

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	29.62	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	29.62	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607753
Ph: (509)244-0151

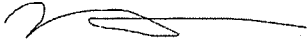
Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	
In	03/02/2020 08:57:41	Scale1	ASHIELD2		Tare	105900 lb 41760 lb
Out	03/02/2020 09:09:56	Scale1	ASHIELD2		Net	64140 lb
					Tons	32.07

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	32.07	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	32.07	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature 

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Original
Ticket# 607805
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 03/02/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115058WA
Profile 115058WA (LF01-Fuel Oil Impacted Soil/Debris)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	95240 lb
In 03/02/2020 11:30:24	Scale1	ASHIELD2		Tare	41660 lb
Out 03/02/2020 11:41:36	Scale1	ASHIELD2		Net	53580 lb
				Tons	26.79

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	26.79	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	26.79	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

APPENDIX C
Lead Contaminated Soil Disposal Records

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 611489
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 05/01/2020 Vehicle# ED
Payment Type Credit Account Container
Manual Ticket# Driver ED
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154wa
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	78960 lb
In 05/01/2020 08:06:18	Scale1	ashield2		Tare	34960 lb
Out 05/01/2020 08:22:49	Scale1	ashield2		Net	44000 lb
				Tons	22.00

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	22.00	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	22.00	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

AS Pur Ed

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 611502
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 05/01/2020 Vehicle# ED
Payment Type Credit Account Container
Manual Ticket# Driver ED
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154wa
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

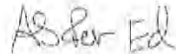
	Time	Scale	Operator	Inbound	Gross	78780 lb
In	05/01/2020 09:26:51	Scale1	ashield2		Tare	34960 lb
Out	05/01/2020 09:42:33	Scale1	ashield2		Net	43820 lb
					Tons	21.91

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	21.91	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				
3 SRHD1-Spokane Regional	100	21.91	Tons				

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 611519
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 05/01/2020 Vehicle# ED
Payment Type Credit Account Container
Manual Ticket# Driver ED
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154wa
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	79240 lb
In 05/01/2020 10:57:29	Scale1	ashield2		Tare	34740 lb
Out 05/01/2020 11:14:27	Scale1	ashield2		Net	44500 lb
				Tons	22.25

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	22.25	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	22.25	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

AS Pur Ed

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Date	Profile #	Manifest #	Ticket #	Material	Facility	Carrier	Vehicle	Tons/Tonnes	Mat. Quantity	Mat. Unit
07/09/2020	115154WA	115154wa	<u>616686</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	11.09	11.09	TON
07/09/2020	115154WA	115154WA	<u>616687</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	10.83	10.83	TON
07/09/2020	115154WA	115154WA	<u>616710</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	12.06	12.06	TON
07/09/2020	115154WA	115154WA	<u>616718</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	12.85	12.85	TON
07/09/2020	115154WA	115154wa	<u>616732</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	12.58	12.58	TON
07/09/2020	115154WA	115154WA	<u>616772</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	12.65	12.65	TON
07/09/2020	115154WA	115154wa	<u>616791</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	15	15.00	TON
07/09/2020	115154WA	115154WA	<u>616797</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	13.55	13.55	TON
07/09/2020	115154WA	115154WA	<u>616810</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	BRYCE	13.2	13.20	TON
07/09/2020	115154WA	115154wa	<u>616811</u>	Special Waste Solid Other	Graham Road Landfill	T LA RIVIERE	JOEY	13.55	13.55	TON
07/10/2020	115154WA	115154WA	<u>616855</u>	Special Waste Solid Other	Graham Road Landfill		DARREN	18.61	18.61	TON
07/10/2020	115154WA	115154WA	<u>616856</u>	Special Waste Solid Other	Graham Road Landfill		JODY	19.79	19.79	TON

Date	Profile #	Manifest #	Ticket #	Material	Facility	Carrier	Vehicle	Tons/Tonnes	Mat. Quantity	Mat. Unit
07/10/2020	115154WA	115154WA	<u>616879</u>	Special Waste Solid Other	Graham Road Landfill		DARREN	23.2	23.20	TON
07/10/2020	115154WA	115154WA	<u>616884</u>	Special Waste Solid Other	Graham Road Landfill		JODY	24.13	24.13	TON
07/10/2020	115154WA	115154WA	<u>616902</u>	Special Waste Solid Other	Graham Road Landfill		DARREN	23.46	23.46	TON

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616686
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154wa
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

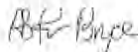
	Time	Scale	Operator	Inbound	Gross	46380 lb
In	07/09/2020 07:54:35	Scale1	ashield2		Tare	24200 lb
Out	07/09/2020 08:03:56	Scale1	ashield2		Net	22180 lb
					Tons	11.09

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	11.09	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	11.09	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616687
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	
In	07/09/2020 07:58:27	Scale1	ashield2		45480 lb	
Out	07/09/2020 08:10:00	Scale1	ashield2		Tare 23820 lb	
					Net 21660 lb	
					Tons 10.83	

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	10.83	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	10.83	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

ASR

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616710
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	48260 lb
In 07/09/2020 09:01:33	Scale1	ashield2		Tare	24140 lb*
Out 07/09/2020 09:11:00	Scale1	ASHIELD2		Net	24120 lb
		* Manual Weight		Tons	12.06

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	12.06	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				
3 SRHD1-Spokane Regional	100	12.06	Tons				

Total Tax/Fees
Total Ticket

Driver's Signature

AS-R Bryce

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616718
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	49540 lb*
In 07/09/2020 09:10:28	Scale1	ASHIELD2		Tare	23840 lb
Out 07/09/2020 09:18:28	Scale1	ashield2		Net	25700 lb
		* Manual Weight		Tons	12.85

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	12.85	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	12.85	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

AS Per Joey

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616732
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154wa
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

	Time	Scale	Operator	Inbound	Gross	49260 lb
In	07/09/2020 10:15:05	Scale1	ashield2		Tare	24100 lb
Out	07/09/2020 10:26:13	Scale1	ashield2		Net	25160 lb
					Tons	12.58

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	12.58	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				
3 SRHD1-Spokane Regional	100	12.58	Tons				

Total Tax/Fees
Total Ticket

Driver's Signature

As for Bryce

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616772
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	49360 lb
In 07/09/2020 12:26:43	Scale1	ashield2		Tare	24060 lb
Out 07/09/2020 12:35:44	Scale1	ashield2		Net	25300 lb
				Tons	12.65

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	12.65	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	12.65	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

Adam Boyer

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616791
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154wa
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	54040 lb
In 07/09/2020 13:41:06	Scale1	ashield2		Tare	24040 lb
Out 07/09/2020 13:50:34	Scale1	ashield2		Net	30000 lb
				Tons	15.00

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	15.00	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	15.00	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

AS for Bryce

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616797
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	50920 lb
In 07/09/2020 13:54:52	Scale1	ashield2		Tare	23820 lb
Out 07/09/2020 14:02:45	Scale1	ashield2		Net	27100 lb
				Tons	13.55

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	13.55	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	13.55	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

Joey

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616810
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# BRYCE
Payment Type Credit Account Container
Manual Ticket# Driver BRYCE
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	50440 lb
In 07/09/2020 14:57:11	Scale1	ashield2		Tare	24040 lb
Out 07/09/2020 15:04:42	Scale1	fbaxter		Net	26400 lb
				Tons	13.20

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	13.20	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	13.20	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature



The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616811
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier T LA RIVIERE T LA RIVIERE
Ticket Date 07/09/2020 Vehicle# JOEY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154wa
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	
In 07/09/2020 15:06:39	Scale1	fbaxter		50840 lb	
Out 07/09/2020 15:14:43	Scale1	fbaxter		Tare 23740 lb	
				Net 27100 lb	
				Tons 13.55	

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	13.55	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	13.55	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature *FB*

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616855
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier RMK
Ticket Date 07/10/2020 Vehicle# DARREN
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	
In 07/10/2020 08:21:44	Scale1	ashield2		71200 lb	
Out 07/10/2020 08:37:31	Scale1	ashield2		Tare 33980 lb	
				Net 37220 lb	
				Tons 18.61	

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	18.61	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	18.61	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

AS for Darren

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616856
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier RMK
Ticket Date 07/10/2020 Vehicle# JODY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	71880 lb
In 07/10/2020 08:25:28	Scale1	ashield2		Tare	32300 lb
Out 07/10/2020 08:39:33	Scale1	ashield2		Net	39580 lb
				Tons	19.79

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	19.79	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	19.79	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

ASHIELD JODY

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616879
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier RMK
Ticket Date 07/10/2020 Vehicle# DARREN
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	
In 07/10/2020 09:42:46	Scale1	ashield2		80300 lb	
Out 07/10/2020 09:53:54	Scale1	ashield2		Tare 33900 lb	
				Net 46400 lb	
				Tons 23.20	

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	23.20	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	23.20	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

AS for Darren

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616884
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier RMK
Ticket Date 07/10/2020 Vehicle# JODY
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	
In 07/10/2020 10:02:56	Scale1	ashield2		80440 lb	
Out 07/10/2020 10:17:21	Scale1	ashield2		Tare 32180 lb	
				Net 48260 lb	
				Tons 24.13	

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	24.13	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	24.13	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

A.S. Fr...

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Graham Road Facility
1820 S. Graham Road
Medical Lake, WA, 99022

Reprint
Ticket# 616902
Ph: (509)244-0151

Customer Name LARIVIERE INC LARIVIERE Carrier RMK
Ticket Date 07/10/2020 Vehicle# DARREN
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0001803
Destination Grid
Manifest 115154WA
Profile 115154WA (LF01-Lead Impacted Soil)
Generator WA-CITY OF SPOKANE 809 CITY OF SPOKANE_809 N WASHINGTON, SPOKANE WA 99201
PO# 2334

Time	Scale	Operator	Inbound	Gross	80760 lb
In 07/10/2020 11:09:33	Scale1	ashield2		Tare	33840 lb
Out 07/10/2020 11:24:37	Scale1	ashield2		Net	46920 lb
				Tons	23.46

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	23.46	Tons				SPOKANE
2 EVF-P-Standard Environm	100		%				SPOKANE
3 SRHD1-Spokane Regional	100	23.46	Tons				SPOKANE

Total Tax/Fees
Total Ticket

Driver's Signature

ASPR Dumen

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

