

Phase II Environmental Site Assessment Soil Sampling Report

Duwamish Waterway Park Addition - Tax Parcel 732-790-1215
1024 S. Elmgrove Street, Seattle, King County, Washington

Prepared for: City of Seattle Parks and Recreation
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Project Number 21-04001



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Executive Summary

Eco Compliance Corporation was retained by the City of Seattle Parks and Recreation to conduct a Phase II Environmental Site Assessment (ESA) consisting of soil sampling at the property located at 1024 South Elmgrove Street (the Subject Property). The location of the Subject Property is shown on Figure 1.

A previous Phase I ESA was conducted for the Subject Property. The previous Phase I ESA identified the potential for impacted dredge spoils to have been deposited from the Duwamish Waterway onto the Subject Property.

The purpose of this sampling and analysis project is to document the nature and extent of potential soil impacts associated with potential dredge spoils from the Duwamish Waterway.

Detected concentrations of PCBs did not exceed the State of Washington Department of Ecology (DOE) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Use.

Detected concentrations of the metals Antimony, Barium, Cadmium, Lead, Mercury, Selenium, or Silver did not exceed the State of Washington DOE MTCA Method A soil cleanup levels for Unrestricted Land Use. Concentrations of Arsenic exceeded the MTCA Method A Unrestricted Land use value of 20 mg/Kg in samples B1-4, B2, and B5. Concentrations of Chromium exceeded the MTCA Method A Unrestricted Land use value of 19 mg/Kg in samples B1-4, B2, B3-4, and B5; however the screening value used is for hexavalent chromium, trivalent chromium has a MTCA Method A Unrestricted Land use value of 2,000 mg/Kg. In the natural environment, total chromium detected tends to be predominantly trivalent chromium.



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1.0 Introduction

Eco Compliance Corporation was retained by the City of Seattle Parks and Recreation to conduct a Phase II Environmental Site Assessment (ESA) consisting of soil sampling at the property located at 1024 South Elmgrove Street (the Subject Property). The location of the Subject Property is shown on Figure 1.

This project was conducted pursuant to authorization of the scope of work, estimated costs and schedule, and terms and conditions outlined in the proposal dated June 17, 2021 and in general accordance with the scope of work and limitations of the American Society of Testing and Materials (ASTM) Standard Guide for Soil Sampling from the Vadose Zone, Designation D4700-91(2006) and the ASTM Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process, Designation E1903-19.

1.1 Purpose

The purpose of this soil sampling and analysis project is to document the nature and extent of potential soil impacts associated with the former use of the Subject Property as an automotive repair facility.

1.2 Limitations and Exceptions of Assessment

The property assessment described in this report should not be construed as a complete characterization of environmental regulatory compliance or of above and below ground environmental conditions. Eco Compliance Corporation utilized standard data collection techniques while completing the work; however, a comprehensive characterization of all sub-surface conditions is neither appropriate nor feasible. Therefore, reliance by the Client on the information presented in this report shall be consistent with the limitations expressed herein, and subject to the project scope of work and terms of the contract between Eco Compliance Corporation and the Client.

The services provided were in accordance with the standard of care and skill ordinarily exercised by members of the profession currently participating in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended in this report.

The investigation described herein and this report are not intended to be submitted to a regulatory agency and is for the Client use only. A field investigation and resulting report intended for submittal to a regulatory agency would require much more in-depth descriptions of the field, laboratory, quality control and other materials and methods along with operation under an agency-approved work plan for the scope of work. In the interest of efficiency for both schedule and budget, these activities were not conducted as part of this scope of work.



2.0 Background

2.1 Site Description and Features

The Subject Property consists of a portable toilet rental facility with a concrete masonry unit (CMU) building in the northwest portion, a wood and steel frame storage building in the central-northern portion of the property, and a steel frame and steel panel building in the southeast portion of the Subject Property. Portable toilets, hand wash stations, and service trucks are stored throughout the property. Service truck maintenance is performed in the southern portion of the northwestern building. Storage and employee areas are located in the northern portion of the main building with offices and a conference room upstairs. Repairs and maintenance of the portable toilets and hand wash stations is performed in the steel building in the southeast portion of the Subject Property.

The property is located in a mixed commercial/industrial and residential area of King County, consisting of commercial businesses, single-family housing and the Duwamish Waterway Park. The Duwamish Waterway is located adjacent and to the north of the Subject Property.

2.2 Previous Investigations

Eco Compliance Corporation performed a Phase I ESA of the Subject Property dated June 15, 2021. The previous Phase I ESA identified the potential for impacted dredge spoils to have been deposited from the Duwamish Waterway onto the Subject Property.

The purpose of this sampling and analysis project is to document the nature and extent of potential soil impacts associated with potential dredge spoils from the Duwamish Waterway.

2.3 Pre-Field Preparation

Prior to conducting field activities, a project-specific health and safety plan (HASP) was developed outlining the various hazards associated with the proposed scope of work. The HASP was developed to cover risks of exposure to potential contaminants as well as biological hazards and physical hazards associated with the performance of the work and the equipment used to complete the work. Additional pre-field activities included coordination with the laboratory and other tasks necessary to ensure a seamless and problem-free field mobilization.



3.0 *Geology and Hydrogeology*

3.1 Geologic Setting

The Subject Property is located within the Puget Lowland Physiographic Province of the State of Washington. The Puget Lowland region is a wide low-lying area between the Cascade Range to the east and the Olympic Mountains to the west. The region extends from the San Juan Islands in the north to past the southern end of the Puget Sound (WADNR).

Local geology consists of Quaternary sediments, dominantly glacial drift, including alluvium. According to the Environmental Data Resources, Inc. (EDR) GeoCheck Physical Setting Source Summary, the dominant soil composition in the vicinity of the Subject Property is classified as, Urban Land- Alterwood Complex, 0 to 5 percent slopes. Parent material includes glacial drift and/or glacial outwash over dense glaciomarine deposits. This soil consists of deep, moderately well-drained soils consisting of loam. The soil extends to a depth of 60 inches. Permeability is very low to moderately low, and the available water capacity is very low. Depth to densic material is approximately 20 to 39 inches; the depth to bedrock is typically greater than 60 inches.

3.2 Site Geology

During borehole advancement, the type of soil encountered included fine-grained sands and gravely/course grained sands. Soils were brown to dark, greyish brown.

3.3 Hydrogeology

Depth to groundwater is approximately nine feet below ground surface as encountered in borehole B1. The regional groundwater flow direction is expected to be north and east towards the Duwamish Waterway.



4.0 *Sampling Activities*

4.1 Scope of Assessment

A total 12 soil samples were collected from each of six borings advanced in the northeast portion of the Subject Property and submitted the laboratory for analysis. A photographic log of field investigations conducted is included in Appendix A.

4.2 Field Explorations and Methods

A total three soil samples were collected utilizing a hand auger. Soils encountered were described for the texture, structure, color, and any staining, discoloration, and / or odors were noted in the field notes. A total nine soil samples were collected from each of four borings advanced utilizing a GeoProbe® hydraulic push-type rig operated by Holt Drilling. Soil samples were field-screened and any staining, discoloration, and / or odors were noted on a Borehole Log form. Soil sample locations are identified on Figure 2. Borehole log forms are included in Appendix B.

Soil samples were packaged in new laboratory-provided four ounce glass jars. Samples were labeled and transmitted to Friedman & Bruya Laboratories, an environmental laboratory certified by the State of Washington utilizing a chain of custody and an ice chest packed with ice as a preservative. Analysis was requested on an expedited 24-hour turnaround basis.

4.3 Laboratory Analysis Methods

The laboratory was requested to analyze soil samples collected to characterize the potential compounds of concern by the following methods:

- Resource Conservation and Recovery Act (RCRA) eight (8) Metals by EPA Method 6020;
- Polycyclic Aromatic Hydrocarbons by EPA Method 8270;
- Polychlorinated Biphenyls (PCBs) by EPA Method 8082; and
- Total Petroleum Hydrocarbons-diesel range (TPHd) by Method NWTPH-Dx.

Metals analysis was originally scoped and intended to be for Target Analyte List (TAL) metals by EPA Method 6010; however, the laboratory informed Eco Compliance Corporation following submittal of the samples the analysis would be performed by the newer Method 6020. Additionally the TAL list was not going to be able to be completed in the requested, expedited turnaround time and therefore metals analysis was reduced to the RCRA eight list with the addition of antimony.



5.0 Results and Conclusions

5.1 Results

Results of petroleum hydrocarbon and PCB analysis is presented on Table 1. Concentrations of petroleum hydrocarbons were not detected above the respective laboratory detection limit of 50 mg/Kg for diesel-range hydrocarbons and 250 mg/Kg for motor oil range hydrocarbons. Concentrations of PCBs were not detected above the respective laboratory detection limit of 0.02 mg/Kg with the exception of Aroclor 1254 and Aroclor 1260 which were detected at 0.13 mg/Kg and 0.11 mg/Kg respectively in B3-4, 0.035 mg/Kg and 0.026 mg/Kg respectively in B5, and 0.029 mg/Kg and 0.026 mg/Kg in B6-10.

Results of metals analysis is presented on Table 2. Concentrations of Mercury, Selenium, and Silver were not detected above their respective laboratory detection limits. Concentrations of Antimony ranged from below the detection limit of 2 mg/Kg to 27.4. Concentrations of Arsenic ranged from below the detection limit of 1 mg/Kg to 82.6 mg/Kg. Concentrations of Barium ranged from 16.0 mg/Kg to 543 mg/Kg. Concentrations of Chromium ranged from 5.65 mg/Kg to 37.1 mg/Kg. Concentrations of Lead ranged from below the detection limit of 1 mg/Kg to 178 mg/Kg.

Results of Semivolatile Organic Compound analysis is presented on Table 3. Concentrations of Acenaphthylene were not detected above their respective detection limit. Concentrations of Naphtalene, 2-Methylnaphthalene, 1-Methylnaphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, and Benzo(g,h,i)perylene ranged from 0.051 mg/Kg to 0.64 mg/Kg. Concentrations of Carcinogenic Polyaromatic Hydrocarbons (cPAHs) consisting of Benzo(a)anthracene, Chysene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene ranged from 0.022 mg/Kg to 0.94 mg/Kg. Laboratory results for all compounds analyzed are presented in Appendix C.

5.2 Conclusions

Detected concentrations of PCBs did not exceed the State of Washington Department of Ecology (DOE) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Use.

Detected concentrations of the metals Antimony, Barium, Cadmium, Lead, Mercury, Selenium, or Silver did not exceed the State of Washington DOE MTCA Method A soil cleanup levels for Unrestricted Land Use. Concentrations of Arsenic exceeded the MTCA Method A Unrestricted Land use value of 20 mg/Kg in samples B1-4, B2, and B5. Concentrations of Chromium exceeded the MTCA Method A Unrestricted Land use value of 19 mg/Kg in samples B1-4, B2, B3-4, and B5; however the screening value used is for hexavalent chromium, trivalent chromium has a MTCA Method A Unrestricted Land use value of 2,000 mg/Kg. In the natural environment, total chromium detected tends to be predominantly trivalent chromium.



Concentrations of cPAHs were evaluated using the Toxic Equivalent Concentration (TEC) values as outlined in WAC 173-340-708(8)(e)(iii). Total PAH concentrations exceeded the MTCA Method A Unrestricted value of 0.1 mg/Kg in B1-4, B2, B5, and B6-4 at concentrations of 1.0538 mg/Kg, 0.8426 mg/Kg, 0.4623 mg/Kg, and 0.1687 mg/Kg respectively. Total PAH concentrations did not exceed the MTCA Method A Industrial value of 2 mg/Kg.

The soil sampling and analysis detailed herein was conducted for the purpose of documenting the nature and extent of potential soil impacts associated with the former use of the Subject Property and the potential for contaminated dredge spoils to have been deposited on the Subject Property. The results of this investigation have determined soil at the Subject Property is not impacted with petroleum hydrocarbons or PCBs above the MTCA Method A Unrestricted Land use screening value.

Concentrations of Arsenic, Chromium, and cPAHs are present in B1-4, B2, and B5. Elevated chromium concentrations are present in B3-4 when compared to hexavalent chromium, but not when compared to trivalent chromium. A risk determination may need to be performed on the speciation of hexavalent to trivalent chromium in these samples. Sample B6-4 contained cPAHs at concentrations exceeding the MTCA Method A Unrestricted land use screening value.

Soils in the area of borehole B1, B2, and B5 should be managed during excavation and / or redevelopment activities. Field screening and disposal of the Arsenic and Chromium impacted soil would be sufficient. Soil mixing methods may be sufficient to address the concentrations of cPAHs present in borings B1, B2, B5 and shallow portions of B6.



6.0 *Signature*

Mr. David McAlister performed all work associated with this Phase II ESA including the oversight of drilling contractors, field staff, and laboratory reports. The signature of Mr. McAlister is included in this Section of the report.

A handwritten signature in blue ink, appearing to read "David McAlister", with a long horizontal flourish extending to the right.

David C. McAlister L. G.
State of Washington Licensed Geologist #3369



7.0 *References*

American Society for Testing and Materials (ASTM) 2006. Practice D4700-91(2006) Standard Guide for Soil Sampling from the Vadose Zone.

American Society for Testing and Materials (ASTM) 2019. Practice E1903-19 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process.

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P.G. Schruben, R.E. Arndt and W.J. Bawiec, *Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map*, USGS Digital Data Series DDS - 11 (1994).

Eco Compliance Corporation. *Phase I Environmental Site Assessment / Duwamish Waterway Park Addition - Tax Parcel 732-790-1215 / 1024 Elmgrove Street, Seattle, King County, Washington. June 15, 2021.*



Tables

TABLE 1
Soil Sampling Results - Petroleum Hydrocarbons and Polychlorinated Biphenyls
1024 South Elmgrove Street Seattle, Washington

Sample	Depth (bgs)	TPH		PCBs								
		NWTPH-Dx		EPA Method 8082								
		Diesel	Motor Oil	Aroclor 1221	Aroclor 1232	Aroclor 1016	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268
MTCA A Unrestricted	2,000	2,000.00	1 Total									
MTCA A Industrial	2,000	2,000.00	10 Total									
B1-4	4	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B1B-4	4	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B1B-10	10	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B2	2	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B3-4	4	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	0.13	0.11	ND (<0.02)	ND (<0.02)
B3-5	5	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B3-10	10	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B4	5	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B4-10	10	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B5	2	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	0.035	0.026	ND (<0.02)	ND (<0.02)
B6-4	4	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)
B6-10	10	ND (<50)	ND (<250)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	ND (<0.02)	0.029	0.026	ND (<0.02)	ND (<0.02)

Note:

bgs - Below Ground Surface

All results in Milligrams per Kilogram (mg/Kg)

TPHs- Total Petroleum Hydrocarbons

PCBs- Polychlorinated biphenyls

ND(<5.0) - Not Detected at the detection limit indicated

NA - Not Analyzed

TABLE 2
Soil Sampling Results - Metals Analysis
1024 South Elmgrove Street Seattle, Washington

Sample	Depth	Antimony	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
MTCA A Unrestricted		N/A	20	N/A	2	19	250	2	N/A	N/A
MTCA A Industrial		N/A	20	N/A	2	19	1,000	2	N/A	N/A
B1-4	4	27.4	82.6	61.8	ND (<1)	22.6	99.1	ND (<1)	ND (<1)	ND (<1)
B1B-4	4	ND (<2) ^{ca}	2.36	525	ND (<1)	5.65	3.69	ND (<1)	ND (<1)	ND (<1)
B1B-10	10	ND (<2) ^{ca}	1.50	16.0	ND (<1)	9.26	2.16	ND (<1)	ND (<1)	ND (<1)
B2	2	19.9	33.8	88.4	ND (<1)	37.1	103	ND (<1)	ND (<1)	ND (<1)
B3-4	4	ND (<2) ^{ca}	12.0	161	1.11	24.7	178	ND (<1)	ND (<1)	ND (<1)
B3-5	5	ND (<2) ^{ca}	5.02	41.5	ND (<1)	10.7	13.8	ND (<1)	ND (<1)	ND (<1)
B3-10	10	ND (<2) ^{ca}	ND (<1)	28.9	ND (<1)	9.74	1.91	ND (<1)	ND (<1)	ND (<1)
B4	5	2.31 ^{ca}	5.48	61.9	ND (<1)	10.2	41.5	ND (<1)	ND (<1)	ND (<1)
B4-10	10	ND (<2) ^{ca}	ND (<1)	13.4	ND (<1)	6.83	ND (<1)	ND (<1)	ND (<1)	ND (<1)
B5	2	10.8	21.4	73.3	ND (<1)	21.1	53.4	ND (<1)	ND (<1)	ND (<1)
B6-4	4	ND (<2) ^{ca}	3.79	543	ND (<1)	6.13	17.4	ND (<1)	ND (<1)	ND (<1)
B6-10	10	ND (<2) ^{ca}	4.74	428	ND (<1)	9.73	117	ND (<1)	ND (<1)	ND (<1)

Note:

Resource Conservation and Recovery Act (RCRA) 8 Metals Analyzed by EPA Method 6020

Results presented in milligrams per kilogram of soil (mg/Kg)

Bold - Detected above the MTCA A Unrestricted Level

Bold Red - Detected above the MTCA A Industrial Level

ND(<5.0) - Not Detected at the detection limit indicated

N/A - Not Applicable

Chromium value shown is for hexavalent chromium, trivalent chromium values are 2,000 mg/Kg for unrestricted and Industrial use.

Table 3
Soil Sampling Results - Semivolatile Organic Compounds
1024 South Elmgrove Street Seattle, Washington

Sample	Depth (bgs)	Semivolatile Organic Compounds by EPA Method 8270										
		Naphtalene	2-MN	1-MN	Acenaphthylene	Acenaphthene	Flourene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	B(g,h,i)perylene
MTCA A Unrestricted		5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MTCA A Industrial		5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B1-4	4	0.051	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.17	0.10	1.1	0.22	1.5	1.4	0.40
B1B-4	4	0.23	0.39	0.30	ND (<0.01)	ND (<0.01)	ND (<0.01)	0.12	0.024	0.033	0.043	0.013
B1B-10	10	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)
B2	2	0.085	0.085	0.086	ND (<0.05)	0.11	0.10	0.91	0.20	1.1	1.1	0.32
B3-4	4	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.10	ND (<0.05)	0.14	0.12	ND (<0.05)
B3-5	5	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)
B3-10	10	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)
B4	5	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)
B4-10	10	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)
B5	2	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.068	ND (<0.05)	0.43	0.083	0.64	0.58	0.19
B6-4	4	0.24	0.40	0.31	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.15	ND (<0.05)	0.067	0.098	0.11
B6-10	10	0.32	0.51	0.40	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.20		0.13	0.13	ND (<0.05)

Sample	Depth (bgs)	Total TEC PAHs ^a	Semivolatile Organic Compounds by EPA Method 8270							
			TEC Factor	B(a)Anth	Chrysene	B(a)pyrene	B(b)fluor	B(k)fluor	I(1,2,3-cd)P	D(a,h)anth
MTCA A Unrestricted		0.1 ^b								
MTCA A Industrial		2 ^b								
B1-4	4	1.0538		0.72	0.78	0.79	0.94	0.34	0.45	0.11
B1B-4	4	0.0303		0.034	0.030	0.022	0.046			
B1B-10	10	ND (<0.01)		ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)
B2	2	0.8426		0.56	0.63	0.63	0.80	0.25	0.36	0.093
B3-4	4	0.0932		0.065	0.071	0.076	0.10	ND (<0.05)	ND (<0.05)	ND (<0.05)
B3-5	5	ND (<0.01)		ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)
B3-10	10	ND (<0.01)		ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)
B4	5	ND (<0.05)		ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)
B4-10	10	ND (<0.01)		ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<0.01)
B5	2	0.4623		0.30	0.33	0.35	0.42	0.16	0.21	ND (<0.05)
B6-4	4	0.1687		0.09	0.09	0.15	0.17	ND (<0.05)	0.090	ND (<0.05)
B6-10	10	0.0910		0.082	0.075	0.071	0.11	ND (<0.05)	ND (<0.05)	ND (<0.05)

Note:

Results presented in milligrams per kilogram of soil (mg/Kg)

Bold - Detected above the MTCA A Unrestricted Level

Bold Red - Detected above the MTCA A Industrial Level

2-MN - 2-Methylnaphthalene

1-MN - 1-Methylnaphthalene

B(g,h,i)perylene - Benzo(g,h,i)perylene

B(a)Anth - Benzo(a)anthracene

B(a)pyrene - Benzo(a)pyrene

B(b)fluor - Benzo(b)fluoranthene

B(k)fluor - Benzo(k)fluoranthene

I(1,2,3-cd)P - Indeno(1,2,3-cd)pyrene

D(a,h)anth - Dibenzo(a,h)anthracene

ND (<5.0) - Not Detected at the detection limit indicated

N/A - Not Applicable

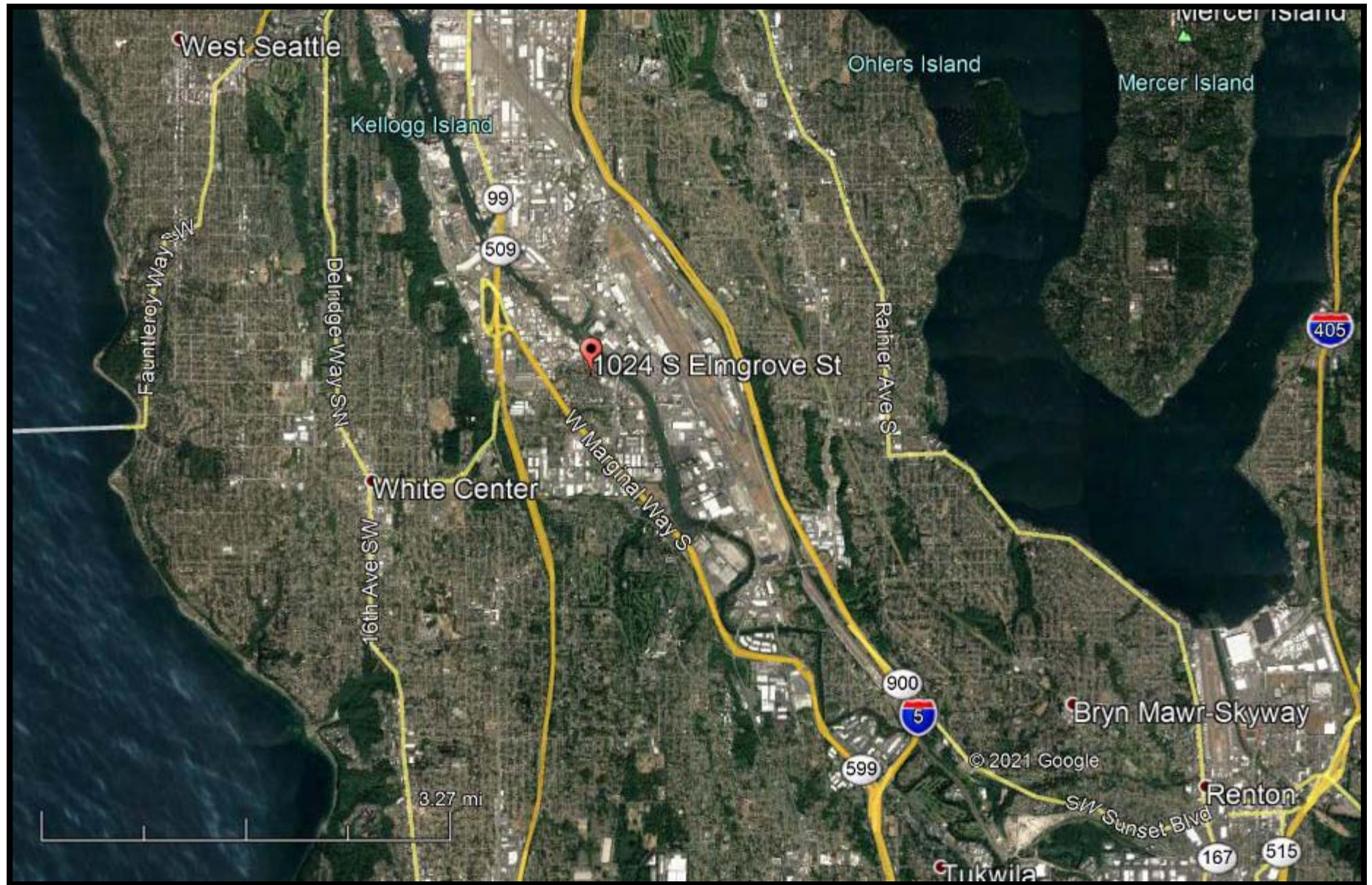
^{fb} - Analyte was also detected in the laboratory method blank

^b - MTCA Method A cleanup standard for carcinogenic PAHs based on Benzo(a)pyrene. WAC 173-340-708(8)(e)(iii)

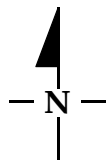
^{vc} - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.


^a - Total toxic equivalent concentration (TEC) of carcinogenic PAHs (Benzo(a)anthracene, Chrysene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno[1,2,3-cd]pyrene and Dibenzo(a,h)anthracene). WAC 173-340-708(8)(e)(iii) and -708(8)(e)(iii).

Figures








SOURCE: Google Earth, 2021

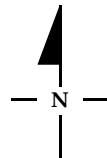


TITLE:	Site Location Map		
LOCATION:	Duwamish Waterway Park Addition 1024 S. Elmgrove Seattle, Washington		
 Eco Compliance Corporation 800 5th Avenue, Suite 101-313 Seattle, WA 98104 562-489-7908 DirtyProperty.com	CHECKED:	D.McAlister	FIGURE: 1
	DRAFTED:		
	FILE:		
	DATE:	02/24/2021	



Legend:

-  Subject Property Boundary
-  Pole-Mounted Transformer
-  Area of Sewer Connection Excavation
-  Storm Water Inlet
-  Proposed Soil Boring Location



SOURCE: Google Earth, 2021

TITLE:		Site Plan	
LOCATION:		Duwamish Waterway Park Addition 1024 S. Elmgrove Seattle, Washington	
	CHECKED:	D. McAlister	FIGURE: 2
	DRAFTED:		
	FILE:		
	DATE:	02/24/2021	
Eco Compliance Corporation 800 5th Avenue, Suite 101-313 Seattle, WA 98104 562-489-7908 DirtyProperty.com			

Appendix A

Photographic Log

Appendix A - Photographic Log

1024 S. Elm Grove Street Seattle, Washington

Photo: 1

Description:

Drilling equipment setup and staging.

Orientation:

Facing north



Photo: 2

Description:

Borehole location B6 along the Duwamish Waterway.

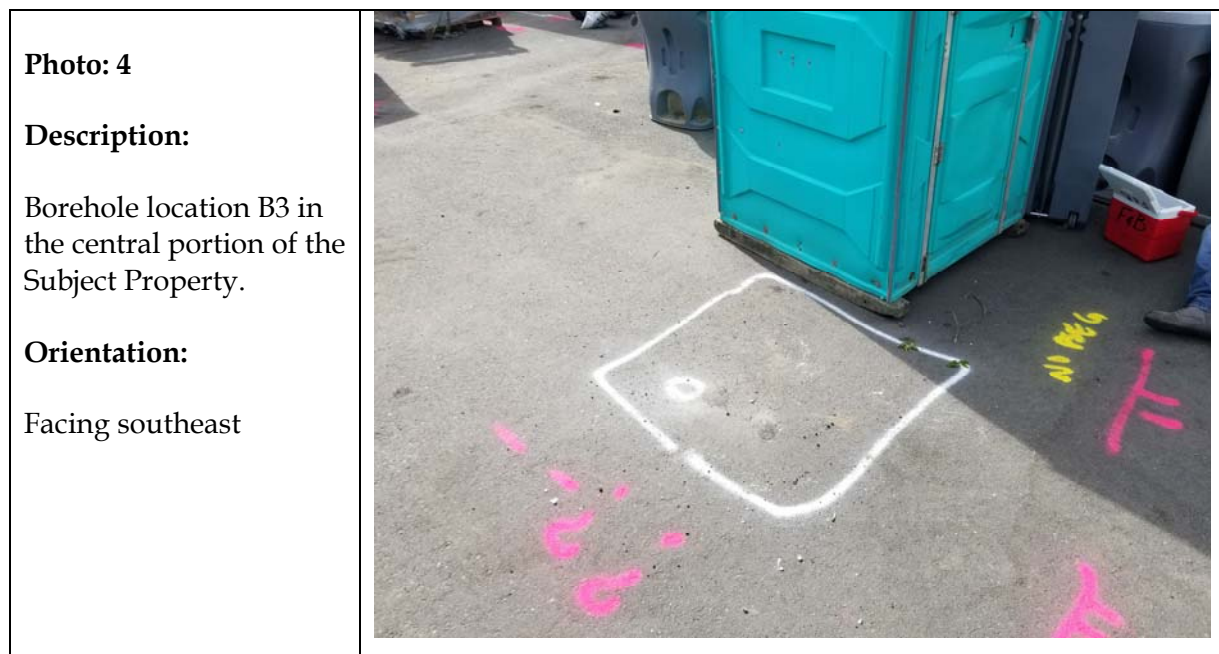
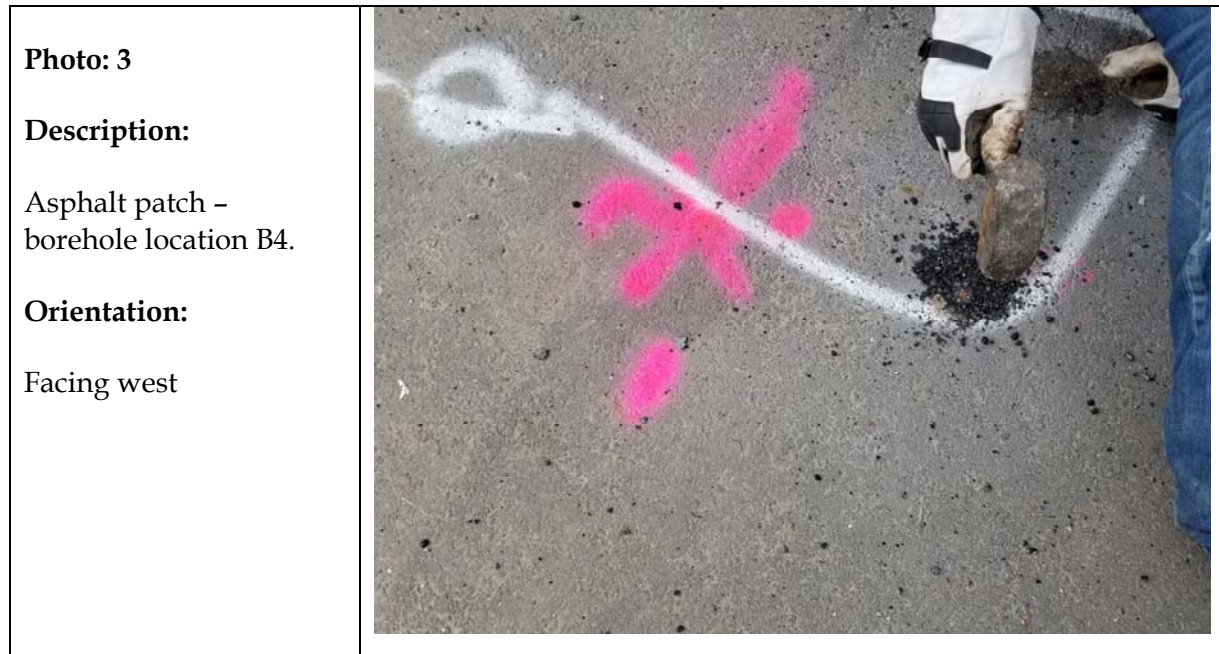
Orientation:

Facing north



Appendix A - Photographic Log

1024 S. Elmgrove Street Seattle, Washington



Appendix A - Photographic Log

1024 S. Elmgrove Street Seattle, Washington

Photo: 5

Description:

Borehole location B1 along the fence and the Duwamish Waterway as seen from borehole location B3.

Orientation:

Facing north



Photo: 6

Description:

Soil core extracted from borehole location B3.

Orientation:

Facing north



Appendix B

Borehole Log Forms

**FIELD SOIL LOG:
 DRILLING /
 WELL CONSTRUCTION**

Client: City of Seattle Parks and Recreation	Location: 1024 S. Elmgrove Seattle, WA	Map: See Attached
Project: Duwamish Waterway Park Addition		
Elevation/Datum: N/A	Subcontractor: Holt Drilling	
Sampling Date(s): 6/23/2021	Hammer Weight: N/A	
Sampling Method: Direct Push (Geoprobe)	Memo:	
Drop Height: N/A	Angle:	
DTW: 1st 9 feet bgs Static N/A		

Depth Below Surface (ft.)	Blows/6 in On Sampler Recovery	PID Reading (ppm)	Unified Classification	Soil Description	Sampler and Bit	Annular Fill	Well Construction Details
---------------------------	--------------------------------	-------------------	------------------------	------------------	-----------------	--------------	---------------------------

0				Wood chips & bare soil surface			
2			SM	Silty Sand. Yellowish Brown (10YR 5/4) poorly graded sub-angular fine sand, low toughness. Moist.			
4				<u>B1@740</u>			
				<u>B1B-4@920</u>			
6				Second borehole location stepped out three feet to the east.			
8			SM	Silty Sand. Very Dark Grayish Brown (10YR 3/2) poorly graded sub-angular fine sand, low toughness. Wet.			
10				<u>B1B-10@926</u>			
12				Total depth of borehole = 10 feet below ground surface			
14							
16							
18							
20							
22							
24							
26							
28							
30							

**FIELD SOIL LOG:
 DRILLING /
 WELL CONSTRUCTION**

Client: City of Seattle Parks and Recreation	Location: 1024 S. Elm Grove Seattle, WA	Map: See Attached
Project: Duwamish Waterway Park Addition		
Elevation/Datum: N/A	Subcontractor: Holt Drilling	
Sampling Date(s): 6/23/2021	Hammer Weight: N/A	
Sampling Method: Hand Auger	Memo:	
Drop Height: N/A	Angle:	
DTW: 1st <u>N/A</u> Static <u>N/A</u>		

Depth Below Surface (ft.)	Blows/6 in On Sampler Recovery	PID Reading (ppm)	Unified Classification	Soil Description	Sampler and Bit	Annular Fill	Well Construction Details
---------------------------	--------------------------------	-------------------	------------------------	------------------	-----------------	--------------	---------------------------

0				Wood chips & bare soil surface			
2			SM	Silty Sand. Yellowish Brown (10YR 5/4) poorly graded sub-angular fine sand, with medium cobbles. Low toughness. Moist.			
4				<u>B2@815</u>			
				Refusal. Total depth of borehole = 2 feet below ground surface			
6							
8							
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							

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**FIELD SOIL LOG:
 DRILLING /
 WELL CONSTRUCTION**

Geologist: D. McAlister
 Boring No: B3

Client: City of Seattle Parks and Recreation	Location: 1024 S. Elmgrove Seattle, WA	Map: See Attached
Project: Duwamish Waterway Park Addition		
Elevation/Datum: N/A	Subcontractor: Holt Drilling	
Sampling Date(s): 6/23/2021	Hammer Weight: N/A	
Sampling Method: Direct Push (Geoprobe)	Memo:	
Drop Height: N/A	Angle:	
DTW: 1st <u>N/A</u> Static <u>N/A</u>		

Depth Below Surface (ft.)	Blows/6 in On Sampler Recovery	PID Reading (ppm)	Unified Classification	Soil Description	Sampler and Bit	Annular Fill	Well Construction Details
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0				Asphalt Surface			
2			SM	Silty Sand. Yellowish Brown (10YR 5/4) poorly graded sub-angular fine sand, with small cobbles. Low toughness. Moist.			
4					B3-4@823		
					B3-5@936		
6				Second borehole location stepped out one foot to the east			
8			SM	Silty Sand. Very Dark Grayish Brown (10YR 3/2) poorly graded sub-angular fine sand, low toughness. Moist.			
10					B3-10@936		
12				Total depth of borehole = 10 feet below ground surface			
14							
16							
18							
20							
22							
24							
26							
28							
30							

**FIELD SOIL LOG:
 DRILLING /
 WELL CONSTRUCTION**

Geologist: D. McAlister
 Boring No: B4

Client: City of Seattle Parks and Recreation	Location: 1024 S. Elmgrove Seattle, WA	Map: See Attached
Project: Duwamish Waterway Park Addition		
Elevation/Datum: N/A	Subcontractor: Holt Drilling	
Sampling Date(s): 6/23/2021	Hammer Weight: N/A	
Sampling Method: Direct Push (Geoprobe)	Memo:	
Drop Height: N/A	Angle:	
DTW: 1st <u>N/A</u> Static <u>N/A</u>		

Depth Below Surface (ft.)	Blows/6 in On Sampler Recovery	PID Reading (ppm)	Unified Classification	Soil Description	Sampler and Bit	Annular Fill	Well Construction Details
---------------------------	--------------------------------	-------------------	------------------------	------------------	-----------------	--------------	---------------------------

0				Asphalt Surface			
2			SM	Silty Sand. Yellowish Brown (10YR 5/4) poorly graded sub-angular fine sand, with small cobbles. Low toughness. Moist.			
4					B4@847		
6							
8			SP	Sand. Very Dark Grayish Brown (10YR 3/2) poorly graded sub-angular fine sand, low toughness. Moist.			
10					B4-10@948		
12				Total depth of borehole = 10 feet below ground surface			
14							
16							
18							
20							
22							
24							
26							
28							
30							

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**FIELD SOIL LOG:
 DRILLING /
 WELL CONSTRUCTION**

Geologist: D. McAlister
 Boring No: B5

Client: City of Seattle Parks and Recreation	Location: 1024 S. Elm Grove Seattle, WA	Map: See Attached
Project: Duwamish Waterway Park Addition		
Elevation/Datum: N/A	Subcontractor: Holt Drilling	
Sampling Date(s): 6/23/2021	Hammer Weight: N/A	
Sampling Method: Hand Auger	Memo:	
Drop Height: N/A	Angle:	
DTW: 1st N/A Static N/A		

Depth Below Surface (ft.)	Blows/6 in On Sampler Recovery	PID Reading (ppm)	Unified Classification	Soil Description	Sampler and Bit	Annular Fill	Well Construction Details
---------------------------	--------------------------------	-------------------	------------------------	------------------	-----------------	--------------	---------------------------

0				Wood chips & natural vegetation surface			
2			SM	Silty Sand. Yellowish Brown (10YR 5/4) poorly graded sub-angular fine sand, with medium cobbles. Low toughness. Moist.			
4				<u>B5@850</u>			
				Refusal. Total depth of borehole = 2 feet below ground surface			
6							
8							
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							

**FIELD SOIL LOG:
 DRILLING /
 WELL CONSTRUCTION**

Geologist: D. McAlister
 Boring No: B6

Client: City of Seattle Parks and Recreation	Location: 1024 S. Elmgrove Seattle, WA	Map: See Attached
Project: Duwamish Waterway Park Addition		
Elevation/Datum: N/A	Subcontractor: Holt Drilling	
Sampling Date(s): 6/23/2021	Hammer Weight: N/A	
Sampling Method: Direct Push (Geoprobe)	Memo:	
Drop Height: N/A	Angle:	
DTW: 1st <u>N/A</u> Static <u>N/A</u>		

Depth Below Surface (ft.)	Blows/6 in On Sampler Recovery	P/D Reading (ppm)	Unified Classification	Soil Description	Sampler and Bit	Annular Fill	Well Construction Details
---------------------------	--------------------------------	-------------------	------------------------	------------------	-----------------	--------------	---------------------------

0				Wood chips & bare soil surface			
2			SM	Silty Sand. Yellowish Brown (10YR 5/4) poorly graded sub-angular fine sand, with medium cobbles. Low toughness. Moist.			
4					B6-4@910		
6							
8			SP	Sand. Very Dark Grayish Brown (10YR 3/2) poorly graded sub-angular fine sand, low toughness. Moist. Low Recovery many cobbles. Organic Matter noted.			
10					B6-10@913		
12				Total depth of borehole = 10 feet below ground surface			
14							
16							
18							
20							
22							
24							
26							
28							
30							

Appendix C

Laboratory Analytical and Chain of Custody Forms

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

June 24, 2021

David McAlister, Project Manager
Eco Compliance
800 5th Avenue, Suite 101-313
Seattle, WA 98104

Dear Mr McAlister:

Included are the results from the testing of material submitted on June 23, 2021 from the DWWP Addition, F&BI 106402 project. There are 54 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
ECP0624R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 23, 2021 by Friedman & Bruya, Inc. from the Eco Compliance DWWP Addition, F&BI 106402 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Eco Compliance</u>
106402 -01	B1-4
106402 -02	B1B-4
106402 -03	B1B-10
106402 -04	B2
106402 -05	B3-4
106402 -06	B3-5
106402 -07	B3-10
106402 -08	B4
106402 -09	B4-10
106402 -10	B5
106402 -11	B6-4
106402 -12	B6-10

The 6020B calibration standard failed the acceptance criteria for antimony in samples B1B-4, B1B-10, B3-4, B3-5, B3-10, B4, B4-10, B6-4, and B6-10. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/21
Date Received: 06/23/21
Project: DWWP Addition, F&BI 106402
Date Extracted: 06/23/21
Date Analyzed: 06/23/21

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
B1-4 106402-01	<50	<250	86
B1B-4 106402-02	<50	<250	86
B1B-10 106402-03	<50	<250	86
B2 106402-04	<50	<250	86
B3-4 106402-05	<50	<250	86
B3-5 106402-06	<50	<250	87
B3-10 106402-07	<50	<250	87
B4 106402-08	<50	<250	84
B4-10 106402-09	<50	<250	85
B5 106402-10	<50	<250	85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/21
Date Received: 06/23/21
Project: DWWP Addition, F&BI 106402
Date Extracted: 06/23/21
Date Analyzed: 06/23/21

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-D_x**

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
B6-4 106402-11	<50	<250	84
B6-10 106402-12	<50	<250	95
Method Blank 01-1485 MB	<50	<250	85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B1-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-01
Date Analyzed:	06/23/21	Data File:	106402-01.143
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Barium	61.8
Cadmium	<1
Chromium	22.6
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B1-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-01 x5
Date Analyzed:	06/24/21	Data File:	106402-01 x5.071
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	27.4
Arsenic	82.6
Lead	99.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B1B-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-02
Date Analyzed:	06/23/21	Data File:	106402-02.144
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	2.36
Barium	525
Cadmium	<1
Chromium	5.65
Lead	3.69
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B1B-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-03
Date Analyzed:	06/23/21	Data File:	106402-03.145
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	1.50
Barium	16.0
Cadmium	<1
Chromium	9.26
Lead	2.19
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B2	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-04
Date Analyzed:	06/23/21	Data File:	106402-04.146
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	33.8
Barium	88.4
Cadmium	<1
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B2	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-04 x5
Date Analyzed:	06/24/21	Data File:	106402-04 x5.072
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	19.9
Chromium	37.1
Lead	103

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B3-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-05
Date Analyzed:	06/23/21	Data File:	106402-05.149
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	4.90 ca
Arsenic	12.0
Barium	161
Cadmium	1.11
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B3-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-05 x5
Date Analyzed:	06/24/21	Data File:	106402-05 x5.073
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<10
Chromium	24.7
Lead	178

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B3-5	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-06
Date Analyzed:	06/23/21	Data File:	106402-06.150
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	5.02
Barium	41.5
Cadmium	<1
Lead	13.8
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B3-5	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-06 x5
Date Analyzed:	06/24/21	Data File:	106402-06 x5.074
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<10
Chromium	10.7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B3-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-07
Date Analyzed:	06/23/21	Data File:	106402-07.151
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	<1
Barium	28.9
Cadmium	<1
Chromium	9.74
Lead	1.91
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-08
Date Analyzed:	06/23/21	Data File:	106402-08.152
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	2.31 ca
Arsenic	5.48
Barium	61.9
Cadmium	<1
Lead	41.5
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-08 x5
Date Analyzed:	06/24/21	Data File:	106402-08 x5.075
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<10
Chromium	10.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B4-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-09
Date Analyzed:	06/23/21	Data File:	106402-09.153
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	<1
Barium	13.4
Cadmium	<1
Chromium	6.83
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B5	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-10
Date Analyzed:	06/23/21	Data File:	106402-10.154
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	21.4
Barium	73.3
Cadmium	<1
Lead	53.4
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B5	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-10 x5
Date Analyzed:	06/24/21	Data File:	106402-10 x5.076
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	10.8
Chromium	21.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B6-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-11
Date Analyzed:	06/23/21	Data File:	106402-11.155
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	3.79
Barium	543
Cadmium	<1
Chromium	6.13
Lead	17.4
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B6-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-12
Date Analyzed:	06/23/21	Data File:	106402-12.156
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	4.74
Barium	428
Cadmium	<1
Chromium	9.73
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B6-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-12 x25
Date Analyzed:	06/24/21	Data File:	106402-12 x25.087
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Antimony	<50
Lead	117

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Eco Compliance
Date Received:	NA	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	I1-393 mb
Date Analyzed:	06/23/21	Data File:	I1-393 mb.069
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B1-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-01 1/25
Date Analyzed:	06/23/21	Data File:	062311.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	65 d	50	150
Phenol-d6	78 d	50	150
Nitrobenzene-d5	62 d	50	150
2-Fluorobiphenyl	74 d	50	150
2,4,6-Tribromophenol	86 d	50	150
Terphenyl-d14	97 d	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.051
2-Methylnaphthalene	<0.05
1-Methylnaphthalene	<0.05
Acenaphthylene	<0.05
Acenaphthene	0.17
Fluorene	0.10
Phenanthrene	1.1
Anthracene	0.22
Fluoranthene	1.5
Pyrene	1.4
Benz(a)anthracene	0.72
Chrysene	0.78
Benzo(a)pyrene	0.79
Benzo(b)fluoranthene	0.94
Benzo(k)fluoranthene	0.34
Indeno(1,2,3-cd)pyrene	0.45
Dibenz(a,h)anthracene	0.11
Benzo(g,h,i)perylene	0.40

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B1B-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-02 1/5
Date Analyzed:	06/23/21	Data File:	062310.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	29	50	150
Phenol-d6	34	50	150
Nitrobenzene-d5	65	50	150
2-Fluorobiphenyl	68	50	150
2,4,6-Tribromophenol	61	50	150
Terphenyl-d14	82	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.23
2-Methylnaphthalene	0.39
1-Methylnaphthalene	0.30
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	0.12
Anthracene	0.024
Fluoranthene	0.033
Pyrene	0.043
Benz(a)anthracene	0.034
Chrysene	0.030
Benzo(a)pyrene	0.022
Benzo(b)fluoranthene	0.046
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	0.013

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B1B-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-03 1/5
Date Analyzed:	06/23/21	Data File:	062309.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	61	50	150
Phenol-d6	68	50	150
Nitrobenzene-d5	66	50	150
2-Fluorobiphenyl	67	50	150
2,4,6-Tribromophenol	71	50	150
Terphenyl-d14	89	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B2	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-04 1/25
Date Analyzed:	06/23/21	Data File:	062312.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	79 d	50	150
Phenol-d6	91 d	50	150
Nitrobenzene-d5	87 d	50	150
2-Fluorobiphenyl	90 d	50	150
2,4,6-Tribromophenol	95 d	50	150
Terphenyl-d14	106 d	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.085
2-Methylnaphthalene	0.085
1-Methylnaphthalene	0.086
Acenaphthylene	<0.05
Acenaphthene	0.11
Fluorene	0.10
Phenanthrene	0.91
Anthracene	0.20
Fluoranthene	1.1
Pyrene	1.1
Benz(a)anthracene	0.56
Chrysene	0.63
Benzo(a)pyrene	0.63
Benzo(b)fluoranthene	0.80
Benzo(k)fluoranthene	0.25
Indeno(1,2,3-cd)pyrene	0.36
Dibenz(a,h)anthracene	0.093
Benzo(g,h,i)perylene	0.32

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B3-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-05 1/25
Date Analyzed:	06/23/21	Data File:	062321.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	82 d	24	111
Phenol-d6	88 d	37	116
Nitrobenzene-d5	83 d	38	117
2-Fluorobiphenyl	92 d	45	117
2,4,6-Tribromophenol	88 d	11	158
Terphenyl-d14	100 d	50	124

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05
2-Methylnaphthalene	<0.05
1-Methylnaphthalene	<0.05
Acenaphthylene	<0.05
Acenaphthene	<0.05
Fluorene	<0.05
Phenanthrene	0.10
Anthracene	<0.05
Fluoranthene	0.14
Pyrene	0.12
Benz(a)anthracene	0.065
Chrysene	0.071
Benzo(a)pyrene	0.076
Benzo(b)fluoranthene	0.10
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B3-5	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-06 1/5
Date Analyzed:	06/23/21	Data File:	062313.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	61	50	150
Phenol-d6	71	50	150
Nitrobenzene-d5	68	50	150
2-Fluorobiphenyl	74	50	150
2,4,6-Tribromophenol	75	50	150
Terphenyl-d14	85	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B3-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-07 1/5
Date Analyzed:	06/23/21	Data File:	062314.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	63	50	150
Phenol-d6	73	50	150
Nitrobenzene-d5	65	50	150
2-Fluorobiphenyl	70	50	150
2,4,6-Tribromophenol	85	50	150
Terphenyl-d14	84	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-08 1/25
Date Analyzed:	06/23/21	Data File:	062317.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	58 d	50	150
Phenol-d6	63 d	50	150
Nitrobenzene-d5	59 d	50	150
2-Fluorobiphenyl	63 d	50	150
2,4,6-Tribromophenol	61 d	50	150
Terphenyl-d14	67 d	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05
2-Methylnaphthalene	<0.05
1-Methylnaphthalene	<0.05
Acenaphthylene	<0.05
Acenaphthene	<0.05
Fluorene	<0.05
Phenanthrene	<0.05
Anthracene	<0.05
Fluoranthene	<0.05
Pyrene	<0.05
Benz(a)anthracene	<0.05
Chrysene	<0.05
Benzo(a)pyrene	<0.05
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B4-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-09 1/5
Date Analyzed:	06/23/21	Data File:	062315.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	67	50	150
Phenol-d6	75	50	150
Nitrobenzene-d5	72	50	150
2-Fluorobiphenyl	75	50	150
2,4,6-Tribromophenol	85	50	150
Terphenyl-d14	86	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B5	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-10 1/25
Date Analyzed:	06/23/21	Data File:	062316.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	72 d	50	150
Phenol-d6	87 d	50	150
Nitrobenzene-d5	79 d	50	150
2-Fluorobiphenyl	87 d	50	150
2,4,6-Tribromophenol	90 d	50	150
Terphenyl-d14	97 d	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05
2-Methylnaphthalene	<0.05
1-Methylnaphthalene	<0.05
Acenaphthylene	<0.05
Acenaphthene	0.068
Fluorene	<0.05
Phenanthrene	0.43
Anthracene	0.083
Fluoranthene	0.64
Pyrene	0.58
Benz(a)anthracene	0.30
Chrysene	0.33
Benzo(a)pyrene	0.35
Benzo(b)fluoranthene	0.42
Benzo(k)fluoranthene	0.16
Indeno(1,2,3-cd)pyrene	0.21
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	0.19

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B6-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-11 1/25
Date Analyzed:	06/23/21	Data File:	062318.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	33 d	50	150
Phenol-d6	36 d	50	150
Nitrobenzene-d5	68 d	50	150
2-Fluorobiphenyl	74 d	50	150
2,4,6-Tribromophenol	67 d	50	150
Terphenyl-d14	84 d	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.24
2-Methylnaphthalene	0.40
1-Methylnaphthalene	0.31
Acenaphthylene	<0.05
Acenaphthene	<0.05
Fluorene	<0.05
Phenanthrene	0.15
Anthracene	<0.05
Fluoranthene	0.067
Pyrene	0.098
Benz(a)anthracene	0.088
Chrysene	0.094
Benzo(a)pyrene	0.15
Benzo(b)fluoranthene	0.17
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	0.090
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	0.11

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B6-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-12 1/25
Date Analyzed:	06/23/21	Data File:	062320.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	40 d	24	111
Phenol-d6	46 d	37	116
Nitrobenzene-d5	65 d	38	117
2-Fluorobiphenyl	80 d	45	117
2,4,6-Tribromophenol	68 d	11	158
Terphenyl-d14	92 d	50	124

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.32
2-Methylnaphthalene	0.51
1-Methylnaphthalene	0.40
Acenaphthylene	<0.05
Acenaphthene	<0.05
Fluorene	<0.05
Phenanthrene	0.20
Anthracene	<0.05
Fluoranthene	0.13
Pyrene	0.13
Benz(a)anthracene	0.082
Chrysene	0.075
Benzo(a)pyrene	0.071
Benzo(b)fluoranthene	0.11
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05
Benzo(g,h,i)perylene	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Eco Compliance
Date Received:	Not Applicable	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	01-1482 mb 1/5
Date Analyzed:	06/23/21	Data File:	062308.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	80	50	150
Phenol-d6	88	50	150
Nitrobenzene-d5	85	50	150
2-Fluorobiphenyl	88	50	150
2,4,6-Tribromophenol	87	50	150
Terphenyl-d14	106	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B1-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-01 1/6
Date Analyzed:	06/23/21	Data File:	062306.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	76	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B1B-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-02 1/6
Date Analyzed:	06/23/21	Data File:	062307.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	69	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B1B-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-03 1/6
Date Analyzed:	06/23/21	Data File:	062308.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	80	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B2	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-04 1/6
Date Analyzed:	06/23/21	Data File:	062309.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B3-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-05 1/6
Date Analyzed:	06/23/21	Data File:	062311.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	86	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.13
Aroclor 1260	0.11
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B3-5	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-06 1/6
Date Analyzed:	06/23/21	Data File:	062312.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	66	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B3-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-07 1/6
Date Analyzed:	06/23/21	Data File:	062313.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	95	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-08 1/6
Date Analyzed:	06/23/21	Data File:	062314.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	96	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B4-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-09 1/6
Date Analyzed:	06/23/21	Data File:	062315.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	87	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B5	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-10 1/6
Date Analyzed:	06/23/21	Data File:	062317.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	86	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.035
Aroclor 1260	0.026
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B6-4	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-11 1/6
Date Analyzed:	06/23/21	Data File:	062318.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	74	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B6-10	Client:	Eco Compliance
Date Received:	06/23/21	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	106402-12 1/6
Date Analyzed:	06/23/21	Data File:	062319.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	85	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.029
Aroclor 1260	0.026
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Eco Compliance
Date Received:	Not Applicable	Project:	DWWP Addition, F&BI 106402
Date Extracted:	06/23/21	Lab ID:	01-1483 mb 1/6
Date Analyzed:	06/23/21	Data File:	062305.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	94	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/21

Date Received: 06/23/21

Project: DWWP Addition, F&BI 106402

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL EXTENDED USING METHOD NWTPH-D_x**

Laboratory Code: 106402-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	69	100	96	64-133	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/21

Date Received: 06/23/21

Project: DWWP Addition, F&BI 106402

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 106377-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Antimony	mg/kg (ppm)	20	<5	100	94	75-125	6
Arsenic	mg/kg (ppm)	10	<5	97	93	75-125	4
Barium	mg/kg (ppm)	50	58.6	101	110	75-125	9
Cadmium	mg/kg (ppm)	10	<5	107	102	75-125	5
Chromium	mg/kg (ppm)	50	24.3	104	114	75-125	9
Lead	mg/kg (ppm)	50	<5	95	92	75-125	3
Mercury	mg/kg (ppm)	5	<5	99	98	75-125	1
Selenium	mg/kg (ppm)	5	<5	102	99	75-125	3
Silver	mg/kg (ppm)	10	<5	104	102	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Antimony	mg/kg (ppm)	20	101	80-120
Arsenic	mg/kg (ppm)	10	88	80-120
Barium	mg/kg (ppm)	50	100	80-120
Cadmium	mg/kg (ppm)	10	101	80-120
Chromium	mg/kg (ppm)	50	113	80-120
Lead	mg/kg (ppm)	50	95	80-120
Mercury	mg/kg (ppm)	5	101	80-120
Selenium	mg/kg (ppm)	5	95	80-120
Silver	mg/kg (ppm)	10	97	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/21

Date Received: 06/23/21

Project: DWWP Addition, F&BI 106402

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES
FOR SEMIVOLATILES BY EPA METHOD 8270E**

Laboratory Code: 106402-07 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.83	<0.01	60	50-150
2-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	68	50-150
1-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	67	50-150
Acenaphthylene	mg/kg (ppm)	0.83	<0.01	71	50-150
Acenaphthene	mg/kg (ppm)	0.83	<0.01	70	50-150
Fluorene	mg/kg (ppm)	0.83	<0.01	73	50-150
Phenanthrene	mg/kg (ppm)	0.83	<0.01	76	50-150
Anthracene	mg/kg (ppm)	0.83	<0.01	78	50-150
Fluoranthene	mg/kg (ppm)	0.83	<0.01	84	50-150
Pyrene	mg/kg (ppm)	0.83	<0.01	81	50-150
Benzo(a)anthracene	mg/kg (ppm)	0.83	<0.01	85	50-150
Chrysene	mg/kg (ppm)	0.83	<0.01	84	50-150
Benzo(a)pyrene	mg/kg (ppm)	0.83	<0.01	85	50-150
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	<0.01	87	50-150
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	<0.01	86	50-150
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	<0.01	82	50-150
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	<0.01	81	50-150
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	<0.01	73	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.83	78	80	61-102	3
2-Methylnaphthalene	mg/kg (ppm)	0.83	80	82	62-108	2
1-Methylnaphthalene	mg/kg (ppm)	0.83	78	81	62-108	4
Acenaphthylene	mg/kg (ppm)	0.83	83	85	61-111	2
Acenaphthene	mg/kg (ppm)	0.83	82	84	61-110	2
Fluorene	mg/kg (ppm)	0.83	83	85	62-114	2
Phenanthrene	mg/kg (ppm)	0.83	85	86	64-112	1
Anthracene	mg/kg (ppm)	0.83	86	87	63-111	1
Fluoranthene	mg/kg (ppm)	0.83	93	92	66-115	1
Pyrene	mg/kg (ppm)	0.83	93	100	65-112	7
Benzo(a)anthracene	mg/kg (ppm)	0.83	90	93	64-116	3
Chrysene	mg/kg (ppm)	0.83	89	92	66-119	3
Benzo(a)pyrene	mg/kg (ppm)	0.83	89	91	62-116	2
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	93	93	61-118	0
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	88	91	65-119	3
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	97	101	64-130	4
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	94	98	67-131	4
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	94	99	67-126	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/21

Date Received: 06/23/21

Project: DWWP Addition, F&BI 106402

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES FOR
POLYCHLORINATED BIPHENYLS AS
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 106402-01 1/6 (Matrix Spike) 1/6

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Control Limits	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	<0.02	78	74	29-125	5
Aroclor 1260	mg/kg (ppm)	0.25	<0.02	86	82	25-137	5

Laboratory Code: Laboratory Control Sample 1/6

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	0.25	82	55-137
Aroclor 1260	mg/kg (ppm)	0.25	94	51-150

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The analyte is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits due to sample matrix effects.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

106402

SAMPLE CHAIN OF CUSTODY

ME 06/23/21

VIA ~~REG~~

Report To Dave McAlister

Company Eco Compliance

Address 800 5th Ave, Ste 101-313

City, State, ZIP Seattle, WA 98014

Phone 714-473-3796 Email dmacalister@eco.com

SAMPLERS (signature) *[Signature]*

PROJECT NAME DUMP Addition

REMARKS

Project Specific Rls - Yes / No

PO #

INVOICE TO

ANALYSES REQUESTED

Page # 1 of 2

TURNAROUND TIME
Standard Turnaround
RUSH 24 hr

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals	
B1-4	01	6/23/21	7:40 AM	Soil	1	X	X	X	X	X	X	RCRM Metals per DM 6/23/21 ME	
B1B-4	02		9:20 AM	Soil	1	X	X	X	X	X	X	+Antimony per DM 6/24/21 ME	
B1B-10	03		9:26 AM	Soil	1	X	X	X	X	X	X		
B2 B2	04		8:15 AM	Soil	1	X	X	X	X	X	X		
B3-4	05		8:23 AM	Soil	1	X	X	X	X	X	X		
B3-5	06		9:36 AM	Soil	1	X	X	X	X	X	X		
B3-10 B3-10	07		9:38 AM	Soil	1	X	X	X	X	X	X		
B4 B4	08		8:47 AM	Soil	1	X	X	X	X	X	X		
B4 B4-10	09		9:48 AM	Soil	1	X	X	X	X	X	X	Samples received at 21 00	
B5	10		8:50 AM	Soil	1	X	X	X	X	X	X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>[Signature]</i>	Bruce Reed	Eco Compliance	6/23/21	10:40 AM
Received by: <i>[Signature]</i>	Will Radford	F&BI	6/23/21	10:40
Relinquished by:				
Received by:				

Friedman & Bryga, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

106402

SAMPLE CHAIN OF CUSTODY

ME 06/23/21

VT2 ~~DD2~~

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Report To Dave McAlister

Company ECD Compliance

Address 800 5th Ave, Ste 101-313

City, State, ZIP Seattle, wa 98104

Phone 206-423-3796 Email davealister@mea.com

SAMPLERS (signature) [Signature]

PROJECT NAME Dump Addition

PO #

REMARKS

INVOICE TO

Project Specific RIs - Yes / No

TURNAROUND TIME
 Standard Turnaround
 RUSH 24 hr
 Rush charges authorized by: _____

SAMPLE DISPOSAL
 Dispose after 30 days
 Archive Samples
 Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Metals						
B6-4	11	6/23/21	9:10 AM	soil	1	X	X			X	X	X						
B6-10	12	↓	9:13 AM	soil	1	X				X	X	X						

Samples received at 21 °C

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	Bruya Rod	ECD Compliance	6/23/21	10:40 AM
<u>[Signature]</u>	Will Radford	F&BI	6/23/21	10:40
Received by:				