

**PHASE II LIMITED & TARGETED
SUBSURFACE INVESTIGATION**

Client: **CORVID GENERAL CONTRACTORS, LLC**

Address: 6346 6th Avenue South
Seattle, Washington 98108

Point of Contact: Mary Dziejeczynski
Owner, Corvid General Contractors, LLC
mary@corvidseattle.com / 206 456-6215

Property: **Dziejeczynski Property**
6346 6th Avenue South
Seattle, Washington 98108

County: King County, Washington

Parcel Number: 536720-1465

Commercial Activity: Office/Warehouse

Licensed Geologist: Simon Payne (Washington State License No. 2712)

Project Number:

Report Date: May 18, 2018

EXECUTIVE SUMMARY

A *Phase I Environmental Site Assessment*, completed May 3, 2018 by CBRE, Inc., identified Contaminants of Concern as compounds related to the former presence of the heating oil UST and compounds related to the identified impacted soil at Emerald Tool, north of the Property which include chlorinated VOCs (“cVOCs”) and petroleum hydrocarbons as diesel and oil.

A 300-gallon heating oil underground storage tank (“UST”) was reportedly decommissioned by removal in 2000.

A property north of the subject Property, Emerald Tool, is utilized for the manufacturing of small parts. The Emerald Tool property has been identified by the Washington State Department of Ecology (“Ecology”) as containing soil impacted by metals and halogenated volatile organic compounds (“VOCs”).

On May 14, 2018, direct push soil borings were advanced at six (6) locations on Property in order to collect soil and groundwater samples for analysis: Soil Borings B-1 through B-3 were advanced on the along the north boundary of the Property in order to assess for the presence of chlorinated VOCs (“cVOCs”) and Soil Boring B-4 through B-6 were advanced in the area of the former heating oil UST on the southern portion of the Property.

Select soil samples collected from Soil Borings B-1 through B-3 were analyzed for the presence of cVOCs. None of the analyzed soil samples contained concentrations of cVOCs above analytical method reporting limits or Model Toxics Control Act (“MTCA”) cleanup levels, except for soil sample B-3-3.5-4, which was collected from between 3.5 and 4 feet below ground surface in Soil Boring B-3. The cVOC, trichloroethene (TCE) was detected in soil sample B-3-3.5-4 at a concentration of 0.16 milligrams/kilogram, above the MTCA Method A cleanup level of 0.03 mg/kg.

A groundwater sample collected from Soil Boring B-2 was also analyzed for the presence of cVOCs. None of the analytical parameters were detected above analytical method reporting limits or MTCA cleanup levels, except for vinyl chloride, which was detected at a concentration of 12 micrograms per liter ($\mu\text{g/L}$), above the MTCA Method A groundwater cleanup level of 0.2 $\mu\text{g/L}$.

Soil and groundwater samples collected from Soil Borings B-4 through B-6 were analyzed for the presence of petroleum hydrocarbons as diesel and oil. None of the soil or groundwater samples contained concentrations of diesel and oil above the analytical method minimum reporting limits or the MTCA Method A Cleanup Levels.

Conclusions & Recommendations:

Chlorinated volatile organic compounds were detected at concentrations above the MTCA Method A cleanup level in both soil and groundwater samples collected from the north portion of the Property. The detected substances included vinyl chloride in groundwater and trichloroethene (TCE) in soil. Vinyl chloride is a byproduct from the dechlorination of tetrachloroethene (PCE) and TCE, indicating that the contaminant release has been ongoing.

Based on the presence of cVOCs in soil and groundwater, Aerotech recommends additional delineation of these compounds in both soil and groundwater through the collection of additional soil samples and groundwater samples from installed groundwater monitoring wells. Furthermore Aerotech recommends the assessment of impacts to indoor air due to vapor intrusion.

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INTRODUCTION

Ms. Mary Dzieweczynski of Corvid General Contractors, LLC (Corvid), engaged Aerotech Environmental Consulting, Inc. ("Aerotech") of Seattle, Washington to perform a *Phase II Limited & Targeted Subsurface Investigation*¹ at the subject property. The purpose of this report is to summarize environmental characterization activities completed at the subject property herein referred to as the "Site". Aerotech advanced six soil borings on exterior of the onsite building.

SECTION I.

SITE DESCRIPTION

Property Exterior Description:

This *Phase II Limited & Targeted Subsurface Investigation*¹ was conducted on a rectangular-shaped approximately 0.09-acre (4,000 square foot) Parcel of commercial land located in Seattle, Washington, occupied by an approximately 2,620 square foot, single story structure with a basement occupied by *Corvid General Contractors*.

The Property is configured with the building occupying the eastern portion and an asphalt paved parking lot occupying the western portion. The building is utilized as an office and warehouse space for Corvid. A canopied storage area occupies the southern portion of the Property and the area is used to store building materials including wooden construction beams. The undeveloped portions of the property between the building and Property boundaries to the north and east are surfaced with gravel and vegetation.

Site History and Reported Conditions:

The subject Property was originally developed in 1905 for residential use and subsequently converted for commercial use in the 1980's. Since commercial improvements were completed, the Property has been utilized as a facility for the distribution of photography equipment, a photography studio, and its current use, as an office/warehouse space for Corvid.

A 300-gallon heating oil underground storage tank ("UST") was reportedly decommissioned by removal in 2000.

¹ This Phase II Site Assessment is "targeted" as defined by the ASTM *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*, Designation E 1903-97 (Reapproved 2002); "an assessment performed in accordance with the process described in this [E 1903-97] practice, which addresses only certain *releases* or potential *releases*, or certain *target analytes*, at a property as selected by the *User* but which does not address all *releases*, potential *releases*, and *target analytes*.[E 1903-97, § 3.1.43]"

The subject Property is located in a mixed-use industrial/commercial area. To the north is Silk Screen Co., a light manufacturing facility. The property located adjacent north to Silk Screen Co., Emerald Tool is utilized for the manufacturing of small parts. The Emerald Tool property has been identified by the Washington State Department of Ecology (“Ecology”) as containing soil impacted by metals and halogenated volatile organic compounds (“VOCs”). The property adjacent south, consists of a multi-tenant commercial building. Additional commercial buildings are located west of the Property beyond 6th Avenue South and east of the Property beyond an alleyway.

Previously Identified Contaminants of Concern:

A *Phase I Environmental Site Assessment*, completed May 3, 2018 by CBRE, Inc., identified Contaminants of Concern as compounds related to the former presence of the heating oil UST and compounds related to the identified impacted soil at Emerald Tool, north of the Property which include chlorinated VOCs (“cVOCs”) and petroleum hydrocarbons as diesel and oil.

Utility	Company	Address	Phone	Website
AT&T	AT&T CORP	1800 12TH AVENUE	(206) 464-1200	att.net
CELESTIS	CELESTIS	1800 12TH AVENUE	(206) 464-1200	celestis.com
NORTHSTAR	NORTHSTAR ENERGY SERVICES	1800 12TH AVENUE	(206) 464-1200	nse.com
MTS	MTS	1800 12TH AVENUE	(206) 464-1200	mts.com
PUJ	PUJ	1800 12TH AVENUE	(206) 464-1200	puj.com
QWEST	QWEST	1800 12TH AVENUE	(206) 464-1200	qwest.com
SEATTLE	SEATTLE CITY LIGHT	1800 12TH AVENUE	(206) 464-1200	seattlecitylight.com
SEATTLE	SEATTLE PUBLIC UTILITIES WATER	1800 12TH AVENUE	(206) 464-1200	spu.com
SEATTLE	SEATTLE D.O.T.	1800 12TH AVENUE	(206) 464-1200	seattle.gov
SEATTLE	SEATTLE PUBLIC UTILITIES POWER	1800 12TH AVENUE	(206) 464-1200	spu.com

Utility Locations

Additionally, Aerialis engaged personnel of Mountain View Landscaping Services LLC (“Mountain View”) of Burien, WA, Washington to break building and site surfaces on May 14, 2018 prior to the start of the soil boring activities. No unexpected or unexpected conditions were discovered or encountered during the “pre-boring” activities.

Based on past experience with the pavement markings made by utility location technicians, the presence of utility markers such as water, electrical, gas, and the presence of materials detected by induction or ground penetrating radar (GPR) techniques, field and boring locations were chosen. Refer to Figure 3 for details regarding the soil boring locations and site features.

SECTION II. FIELD WORK

Notifications – “Public Utilities:

Due to the age and nature of the Site, a “public” utilities notification was performed prior to the start of work. Corvid requested the notification on May 7, 2018, and was issued ticket number 18184733 by the Utilities Underground Location Center (“UULC”).

According to the UULC the utilities in the vicinity of the Site that required notification included:

District	Company	Marking Concerns	Customer Service	Repair
ATT08	AT&T CORP	(800)252-1133	(800)222-0300	(800)222-0300
CC7700	COMCAST CABLE	(800)778-9140	(800)266-2278	(855)537-6296
KCMTRO01	KING CNTY METRO SEWER	(206)263-5722	(206)263-3700	(206)263-3840
MTRMED01	ZAYO FNA ABOVENET	(888)267-1063	(443)403-2023	(888)267-1063
PUGG03	PUGET SOUND ENERGY GAS	(888)728-9343	(888)225-5773	(888)225-5773
QLNWA16	CTLQL-CENTURYLINK	(800)778-9140	(800)283-4237	(800)573-1311
SEACL01	SEATTLE CITY LIGHT	(206)684-4239	(206)684-4239	(206)684-3000
SEAH2001	SEATTLE PUBLIC UTILITIES-WATER	(206)386-1849	(206)386-1800	(206)386-1800
SEASIG01	SEATTLE D.O.T.	(206)391-3718	(206)386-1206	(206)386-1206
SEAWW01	SEATTLE PUBLIC UTILITIES- DWW	(206)386-1849	(206)684-3000	--

Private Utilities Location:

Additionally, Aerotech engaged personnel of Mountain View Locating Services LLC. (“Mountain View”) of Bonney Lake, Washington to locate building and site utilities on May 14th, 2018, prior to the start of the on Site drilling activities. No anticipated or unexpected situations were discovered or encountered during the “private” locating activities.

Based in part upon the pavement markings made by utility location technicians; the locations of utility fixtures such as water, electrical, or manholes, and the presence of anomalies detected by induction or ground penetrating radar methodologies, final soil boring locations were chosen. Refer to Figure 5 for details regarding the soil boring locations and site features.

Ground Penetrating Radar Survey:

Mountain View staff conducted a Ground Penetrating Radar (“GPR”) Survey on May 14, 2018 to augment the induced current methodology, and to verify the 2000 removal of the heating oil UST. Mountain View employed radar equipment utilizing Dual Frequency Antennae (300 MHz/800 MHz) manufactured by Geophysical Survey Systems. No geophysical anomalies indicative of a UST were observed during the May 14, 2018 GPR survey.

Site Activities:

Six soil borings were completed during the *Phase II Limited & Targeted Subsurface Investigation*, performed on May 14, 2018, under contract with Aerotech. No unusual or unforeseen circumstances occurred during the Site activities.

The subsurface borings were advanced by equipment owned by and operated by Drillers from Standard Environmental Probe (“SEP”) of Tumwater, Washington. The on Site drilling equipment was operated by personnel employed by SEP, supervised by Mr. Chris Ross (State of Washington Department of Ecology Well Driller’s License No. 3018). Soil samples and groundwater ‘grab’ samples were collected, soils were characterized, and drilling was supervised by Mr. Simon Payne, LG. The laboratory analytical services were performed by a State of Washington Certified Laboratory, Advanced Analytical of Redmond, Washington.

Drilling Activities:

Drilling operations utilized a Limited Access Jackhammer-mounted Direct Push Drilling Device. The subsurface soil borings were performed by equipment owned and operated by a Licensed Driller from Standard Environmental Probe of Olympia. All subsurface work was overseen by State of Washington Licensed Geologist, Mr. Simon Payne (State of Washington License No. 2712). The laboratory analytical services were performed by a State of Washington certified lab, Advanced Analytical Laboratory located in Bellevue, Washington.

Soil Borings:

Direct push soil borings were advanced at six (6) locations on Site: Soil Borings B-1 through B-3 were advanced on the along the north boundary of the Property in order to assess for the presence of cVOCs and Soil Boring B-4 through B-6 were advanced in the area of the former heating oil UST on the southern portion of the Property.

The soils encountered during this investigation are documented in the form of Soil Boring Logs, included as an appendix to this report. Boring locations are depicted on Figure 5. No visual or olfactory indications of contamination in soil borings B1 through B6 were observed.

Soil Sample Collection:

A total of eight (6) discrete soil samples were collected on May 14, 2018 from six (6) soil boring locations. The soil samples were submitted for analyses based on the Scope of work discussed in the previous section.

Soils from each location were visually inspected for color quality and evidence of discoloration, and physically observed for the purpose of recording composition and noting color,

where distinctive. Each sample was handled with a fresh pair of clean latex gloves. Samples were then placed into sterile four-ounce glass jars and/or 40cc glass vials preserved with 5 ml of methanol in accordance with procedures specified for USEPA Method 5035A.

Each sample was given a unique identifier number and placed into an iced cooler for preservation. Samples were held in the custody of Simon Payne until delivery to Advance Analytical Laboratory of Redmond, Washington.

Groundwater Sample Collection:

A total of three (3) groundwater 'grab' samples were collected on May 14, 2018. The groundwater samples were collected through temporary well casings inserted in Soil Borings B-2, B-4, and B-5. The groundwater samples were submitted for analyses based on the Scope of work discussed in the previous section.

The groundwater samples were extracted from the temporary well casings using a peristaltic pump. Each groundwater sample was extracted using new disposable polyethylene tubing with a fresh pair of clean latex gloves. Samples were then placed into laboratory supplied containers.

Each sample was given a unique identifier number and placed into an iced cooler for preservation. Samples were held in the custody of Simon Payne until delivery to Advance Analytical Laboratory of Redmond, Washington.

Equipment Decontamination:

All sample acquisition equipment was decontaminated before and after the completion of each borehole to eliminate the potential for cross-contamination between borings, as required. All reusable sampling equipment for soil sampling, drive rods, and probes were decontaminated after each sampling point by washing with an Alconox-distilled water solution and rinsing with distilled water.

Site Restoration:

Each borehole was backfilled with bentonite chips and patched with asphalt or concrete to match with the surrounding grade.

SECTION III.

GEOLOGY AND HYDROGEOLOGY

Physical Setting Source:

In order to ascertain the physical setting of the subject Property, a review was conducted of the appropriate current United States Geological Survey ("USGS") 7.5 Minute Topographic Quadrangle (quad) Map. The USGS 7.5 minute quad map has an approximate scale of 1" to 2,000 feet, shows physical features such as wetlands, water bodies, roadways, mines, and buildings. These physical and natural features shown should be the areas of visual emphasis, when conducting the on-site inspection of the subject Property. The USGS 7.5 quad map is considered to be the only Standard Physical Setting Source, and is sufficient as a single reference. The applicable USGS 7.5 minute topo map is *Seattle South, WA*. 2014 (Figure 3).

Surface Characteristics:

The Site elevation is approximately 15 feet above mean sea level. As observed during the Site visit and confirmed on the USGS topographic map, the subject Property exhibits a surficial drainage towards the west-southwest, based upon overall Site topography. Additionally, the assumed general groundwater flow is to the west-southwest.

Geology - Regional:

The *Geologic Map of Seattle* mapped shallow soils at the Property as Quaternary alluvium (unit Qal). The unit is described as loose to sand, silt, gravel, and cobbles deposited by streams and running surficial water. The nearest surface water to the site is the Duwamish Waterway located approximately 1,220 feet southwest of the site. Groundwater flow direction beneath the Site is unknown, however, based on a review of regional topography, the inferred groundwater flow direction is towards the west-southwest, towards the Duwamish Waterway. Groundwater was encountered during this investigation and is discussed further in the following sections of this report.

Geology - On-Site Conditions:

Lithologic conditions below the Property consist of coarse-grained sediments, predominantly a dark brown silty sand (SP-SM) to as deep as 5 feet below ground surface. A horizon of fine-grained sediments, predominantly silt with sand lie below the coarse-grained surficial sediments. Below the fine grained sediments are water-bearing coarse-grained sediments consisting of silty sand (SM) to 8 feet below ground surface, the greatest depth explored.

Subsurface Hydrogeological Characteristics – Groundwater Occurrence:

Groundwater was observed in soil borings B-2, B-4, and B-5 ranging from 5 to 5.5 feet below ground surface.

SECTION IV. ANALYTICAL RESULTS

Chlorinated Volatile Organic Compounds and Petroleum Hydrocarbons

Select soil samples collected from Soil Borings B-1 through B-3 were analyzed for the presence of CVOCs. None of the analyzed soil samples contained concentrations of cVOCs above analytical method reporting limits or MTCA cleanup levels, except for soil sample B-3-3.5-4, which was collected from between 3.5 and 4 feet below ground surface in Soil Boring B-3. The cVOC, trichloroethene (TCE) was detected in soil sample B-3-3.5-4 at a concentration of 0.16 milligrams/kilogram, above the MTCA Method A cleanup level of 0.03 mg/kg.

A groundwater sample collected from Soil Boring B-2 was also analyzed for the presence of CVOCs. None of the analytical parameters were detected above analytical method reporting limits or MTCA cleanup levels, except for vinyl chloride, which was detected at a concentration of 12 micrograms per liter ($\mu\text{g/L}$), above the MTCA Method A groundwater cleanup level of 0.2 $\mu\text{g/L}$.

Soil and groundwater samples collected from Soil Borings B-4 through B-6 were analyzed for the presence of petroleum hydrocarbons as diesel and oil. None of the soil or groundwater samples contained concentrations of diesel and oil above the analytical method minimum reporting limits or the MTCA Method A Cleanup Levels.

APPLICABLE ANALYTICAL METHODOLOGIES AND PARAMETERS

The analytical parameters were chosen based upon the results of previous investigations to provide a comprehensive characterization of the subsurface soils and groundwater present at the Site Areas of Concern and to comply with State of Washington recommendations.

Analytical Methodology:

Soil and Groundwater:	Volatile Organic Compounds ("VOCs") USEPA 8260B
Soil and Groundwater:	Total Petroleum Hydrocarbons as Diesel and Oil Ecology Method NWTPH-Dx/Extended

Laboratory analysis was provided by:

Advanced Analytical Laboratory, LLC
4078 148 Avenue NE
Redmond, WA 98052
425.702.8571
aachemlab@yahoo.com

DEFINITIONS SPECIFIC TO LIMITED & TARGETED PHASE II ASSESSMENT

Background Concentration..... the concentration of a target analyte in groundwater, surface water, air, soil gas, sediment, or soil at a referenced location near a release or potential release area under investigation, which is not attributable to the release under investigation. Background samples may contain the target analyte, due to either naturally occurring or manmade sources, but not due to the release(s) in question. (See, E 1903-97, § 3.1.3).

Phase II Environmental Site Assessment.... This practice (ASTM E 1903-97, Reapproved 2002) defines a commercially practical process for sound Phase II investigation that includes sampling and chemical testing. Such Phase II investigation is performed, at a minimum, to confirm the actual presence of contamination in environmental media at a property where prior assessment had indicated that contaminants may occur due to releases or potential releases of substances to the environment at the property, or to demonstrate prior to property acquisition that contamination by targeted analytes is absent. (See, E 1903-97, § 1.1.1).

Phase II Environmental Site Assessment Limitations..... “This practice [ASTM E1903-97, Reapproved 2002] recognizes that the Phase II ESA process can be applied either to an overall assessment of a property with respect to all releases and potential releases at the property, or to an evaluation targeted to a specific release or potential release. If a property-wide assessment is not necessary to meet the particular User objective, then the Phase II investigation process described herein should be applied to generate sound information regarding the specific question of problem to be resolved. If a Phase II investigation does not address all releases and potential releases identified at a property, the report of the assessment must be denoted as a “Targeted Phase II” Environmental Site Assessment. [E 1903-97, § 1.1.3]”

Phase II Targeted Environmental Site Assessment.... This Phase II Site Assessment is “targeted” as defined by the ASTM Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process, Designation E 1903-97 (Reapproved 2002); “an assessment performed in accordance with the process described in this [E 1903-97] practice, which addresses only certain releases or potential releases, or certain target analytes, at a property as selected by the User but which does not address all releases, *potential releases*, and target *analytes*. [E1903-97, § 3.1.43]”

Prior Knowledge.... “This Standard Practice [ASTM E 1903-97, Reapproved 2002] assumes ... that all reasonably ascertainable information, including but not limited to prior Phase I Environmental Site Assessment Reports, will be considered in conducting a Phase II ESA and interpreting its results. [E 1903-97, § 1.1.2].”

Targeted Analytes.... substances that have been released or potentially have been released to environmental media at the site, and which are of interest in the context of the particular Phase II ESA and its objectives, the presence of which will be sought and concentrations of which will be quantified through field screening or chemical testing. (See, E 1903-97, § 3.1.63).

TABLE 1

LABORATORY ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS

Dziewieczynski Property
6346 6th Avenue South
Seattle, Washington

Aerotech Environmental Consulting, Inc. - Phase II Limited and Targeted Subsurface Investigation, May 14, 2018

Soil Samples

Sample ID	Soil Boring	Sample Depth	Sampling Date	Kerosene/Jet Fuel	Diesel/Fuel Oil	Heavy Oil	TOTAL DIESEL and OIL	
		Feet BGS		mg/kg	mg/kg	mg/kg	mg/kg	
B-1-7.5-8	B1	7.5 - 8	05/14/18	--	--	--	--	
B-2-7.5-8	B2	7.5 - 8	05/14/18	--	--	--	--	
B-3-3.5-4	B3	3.5 - 4	05/14/18	--	--	--	--	
B-4-7.5-8	B4	7.5 - 8	05/14/18	<20	<20	<50	ND	
B-5-7.5-8	B5	7.5 - 8	05/14/18	<20	<20	<50	ND	
B-6-3.5-4	B6	3.5 - 4	05/04/18	<20	<20	<50	ND	
MTCA Method A Cleanup Level								2,000

Groundwater Samples

Sample ID	Boring Depth	Sampling Date	Kerosene/Jet Fuel	Diesel/Fuel Oil	Heavy Oil	TOTAL DIESEL and OIL	
	Feet BGS		µg/L	µg/L	µg/L	µg/L	
B-4	8.0	05/24/18	<200	<200	<500	ND	
B-5	8.0	05/24/18	<200	<200	<500	ND	
MTCA Method A Cleanup Level							500

EXPLANATION

MTCA = Model Toxic Control Act Cleanup Level (WAC173-340-900)

BGS = Below Ground Surface mg/kg = milligram of analyte per kilogram of soil µg/L = microgram per liter of groundwater

< = not detected at indicated Laboratory Detection Limits -- = not analyzed

Analysis by gas chromatography mass spectrometry by Washington Department of Ecology Method NWTPH-Dx/Extended

ND = Not Detected above Laboratory Minimum Reporting Limits or applicable cleanup levels (see laboratory report for further detail)

Bolded numbers and red-shaded cells denote concentrations above the MTCA Method A Cleanup Levels

**TABLE 2
LABORATORY ANALYTICAL RESULTS - CHLORINATED VOLATILE ORGANIC COMPOUNDS**

Dziewecynski Property
6346 6th Avenue South
Seattle, Washington

Aerotech Environmental Consulting, Inc. - Phase II limited and Targeted Subsurface Investigation, May 14, 2018

Soil Samples

Sample ID	Soil Boring	Sample Depth	Sampling Date	Methylene Chloride	MTBE	PCE	TCA	TCE	Other CVOCs
		Feet BGS		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B-1-7.5-8	B1	7.5 - 8	05/14/18	<0.100	<0.050	<0.020	<0.020	<0.020	ND
B-2-7.5-8	B2	7.5 - 8	05/14/18	<0.050	<0.050	<0.020	<0.020	<0.020	Below MTCA Levels
B-3-3.5-4	B3	3.5 - 4	05/14/18	<0.050	<0.050	<0.020	<0.020	0.16	ND
B-4-7.5-8	B4	7.5 - 8	05/14/18	--	--	--	--	--	ND
B-5-7.5-8	B5	7.5 - 8	05/14/18	--	--	--	--	--	ND
B-6-3.5-4	B6	3.5 - 4	05/04/18	--	--	--	--	--	ND
MTCA Method A Cleanup Levels for Industrial Properties				0.02	0.1	0.05	2	0.03	No listed Method A Cleanup Levels

Groundwater Samples

Sample ID	Boring Depth	Sampling Date	EDC	EDB	Methylene Chloride	MTBE	PCE	TCA	TCE	Vinyl Chloride	trans-1,2-Dichloroethene	1,1-Dichloroethane	cis-1,2-Dichloroethane	2-Chlorotoluene	4-Chlorotoluene	Other CVOCs
	Feet BGS		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
B-2	8.0	05/24/18	<1.0	<0.01	<1.0	<1.0	<1.0	<1.0	<1.0	12	3.5	1.1	36	1.0	1.3	ND
MTCA Method A Cleanup Level				5.0	0.01	5	5	200	5	0.2	--	--	--	--	--	No listed Method A Cleanup Levels
MTCA Method B Standard Cleanup Level (non-cancer)				48	72	48	48	16,000	4	24	160	1,600	16	160	--	Variable
MTCA Method B Standard Cleanup Level (cancer)				0.5	0.022	21.88	20.83	--	0.54	Exposure specific	--	7.68	--	--	--	Variable

EXPLANATION

MTCA = Model Toxic Control Act Cleanup Level (WAC173-340-5000)
 BGS = Below Ground Surface TOC = Top of Casing mg/kg = milligram of analyte per kilogram of soil µg/L = microgram per liter of groundwater
 < = not detected at indicated Laboratory Detection Limits -- = not analyzed
 EDC = 1,2-Dichloroethane EDB = 1,2-Dibromoethane MTBE = Methyl tert Butyl Ether TCA = 1,1,1-Trichloroethane TCE = Trichloroethene PCE = Tetrachloroethene CVOCs = Chlorinated Volatile Organic Compounds; by EPA Method 8260B
 ND = Not Detected above Laboratory Minimum Reporting Limits or applicable cleanup levels (see laboratory report for further detail)
 Bolded numbers and red-shaded cells denote concentrations above the MTCA Method A Cleanup Levels



EXPLANATION

Green numbers and symbols indicate petroleum hydrocarbon concentrations below the MTCA Method A Cleanup Levels in soil

Red numbers and symbols indicate petroleum hydrocarbon concentrations above the MTCA Method A Cleanup Levels in soil

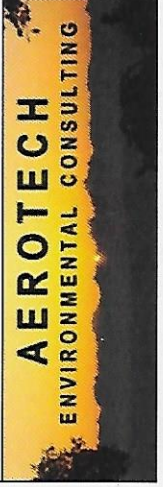
B6 ● Soil Boring

----- Property Boundary

■ Vicinity of Former Heating Oil UST

B11	Soil Boring ID
3	Depth (ft.)
180	TPHd
<20	TCE
<20	PCE

All Concentrations are reported in mg/kg



SOIL ANALYTICAL RESULTS MAP

Dzieweczynski Property
6346 6th Avenue South
Seattle, Washington

Date: 05/16/18

By: Nick Gerkin

Figure: 4

0 12 24
SCALE (feet)