Jensen's RI Data Summary
Port of Friday Harbor
November 22, 2022

RI field work was performed in general accordance with the RI Work Plan to address data gaps and define the extent of contamination. The following field activities were performed:

- Direct push soil and groundwater sampling and monitoring well installation were performed between July 25 and 29, 2022
- A tidal study was performed August 12 to 14, 2022
- Monitoring well groundwater sampling was performed September 6 to 8, 2022

This data package is intended to present the RI data collected to-date and initiate discussion regarding the completeness of these data.

Site Geology and Hydrogeology

Fill appears to be limited in the SRWA and the FDA. In the SRWA, it appears that fill is limited to the upper foot. In the FDA fill is up to 5 feet thick but the lateral extent is limited based on test pits and review of the 1941 aerial photograph.

More extensive fill is present in the BLWA. It is difficult to differentiate the fill from the native material, suggesting that most of the fill was derived locally, potentially from on-site grading from the southern portion of the site. Maximum fill thickness is estimated to be about 4 to 6 feet near the shoreline.

The shallow water bearing zone is tidally-influenced and is present in a gravelly sand unit that consists of both native soil and fill in the BLWA.

Six monitoring wells located closest to the shoreline (MW-2, 3, 5, 7, 8, and 9) were evaluated during the tidal study. Tidal efficiencies varied between 1% and 17%. MW-7 had the highest tidal efficiency at 16 to 17% per quarter cycle. MW-3 had the lowest tidal efficiency at 1 to 2% per quarter cycle. Tidal study average lag times range from approximately 3.5 to 7 hours. Wells will be sampled at the appropriate lag times relative to negative low tides.

The net groundwater flow evaluation from the tidal study largely confirmed groundwater flow toward surface water. The net groundwater flow from the tidal study is shown on the groundwater figure.

Groundwater Contamination

Dissolved metals (copper, nickel, and zinc) and dioxin/furan impacts to groundwater are concentrated in the shoreline area of the BLWA, with copper and zinc plumes extending further east into the SRWA. The data is summarized in Table 3 and the attached groundwater figure illustrates the extent of groundwater exceedances for each COI based on September 2022 groundwater well sampling results and July 2022 direct push groundwater samples. Isolated single location exceedances for chromium, TBT, lead, cPAHs, and dioxins/furans are present within the larger dissolved metals plume. A separate area of arsenic and copper impacts is located downgradient of the former shop floor drain (SFD) at MW-4 and SFD-4. Another separate area of cPAH impacts is located at BLWA-11.

The next round of groundwater well sampling is schedule to be performed in the second week of December 2022. Due to analytical interferences from sea water with Method 6020, all future groundwater metals analyses will be performed using EPA Method 1638.

Soil Contamination

Tables 1 and 2 summarize the RI soil data. Figures are provided to illustrate the extent of soil contamination for each of the soil COIs – TPH-Dx, metals (arsenic, cadmium, copper, lead, mercury, and zinc), and cPAHs. The RI data is generally consistent with the extent of soil contamination presented in the RI Work Plan.

TPH-Dx exceedances are limited to shallow and vadose soils in the immediate vicinity of the former AST behind the shop building and the SFD. RI data indicate that the SRWA-3 shallow soil TPH impact was isolated to this location.

Soil impacts for the other COIs are concentrated in the work areas, the BLWA and SRWA. Impacts are primarily from ground surface sources, consistent with boat maintenance activities. Surface soil impacts of copper, mercury, zinc, and cPAHs are widespread and stretch from Shipyard Cove (SYC) to the west to the former dump area (FDA) to the east.

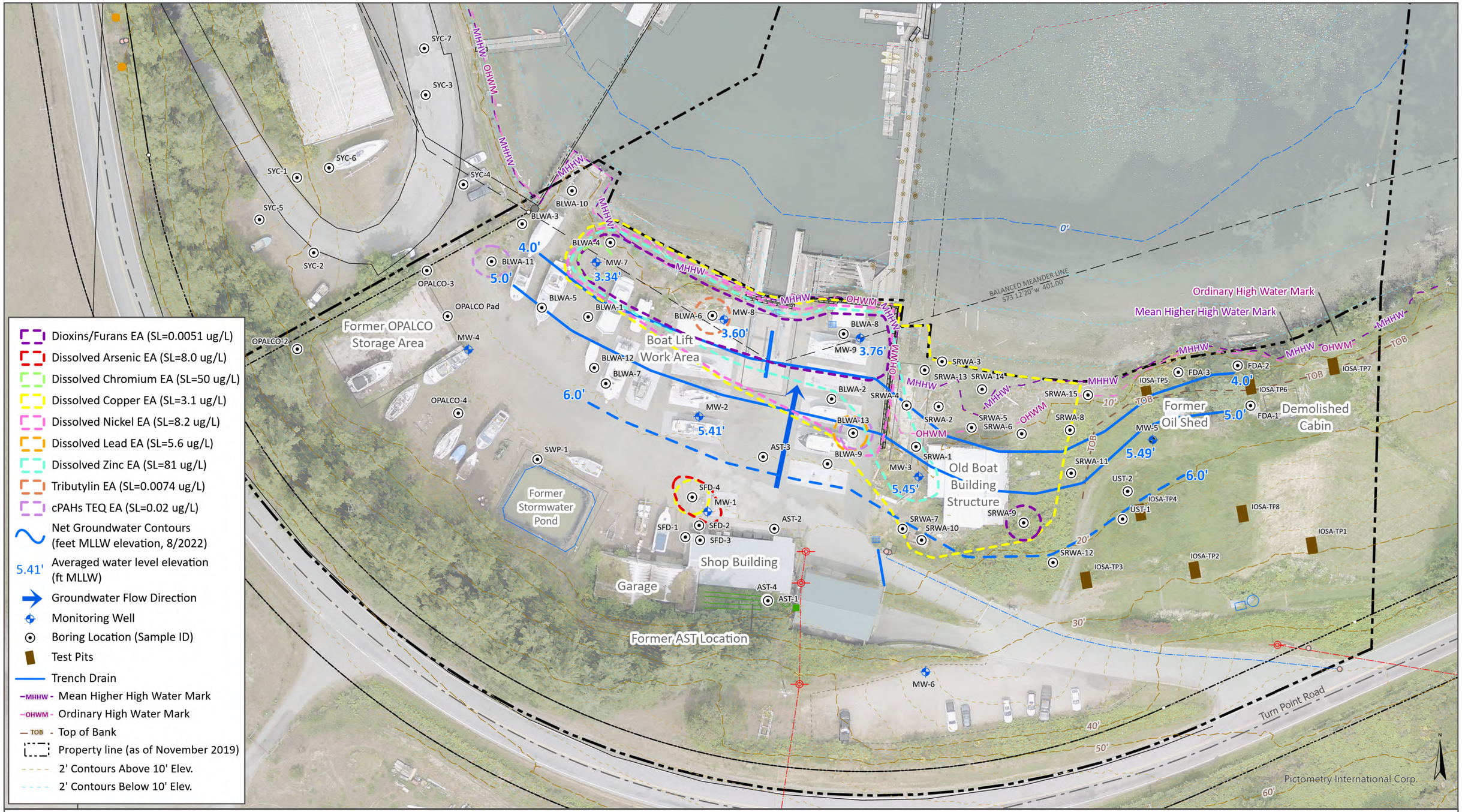
The visual inspection of the wooded hillside located south of the OPALCO building pad and shop building did not produce any new findings or potential up-gradient sources of contamination. The walk-through noted trash debris largely originating from Turn Point Road.

Remaining Data Gaps

The RI work addressed most data gaps and largely defined the extent of contamination. Due to access issues (AST) and surface soil impacts extending beyond where sampling was performed (SYC), a few data gaps remain as follows:

- Extent of metals (Hg, Cu) and cPAH in surface soil beyond SYC-1 and SYC-7.
- Horizontal extent of TPH-Dx (and copper, zinc, and cPAH) impacts (less than 4 feet deep) in the AST area.

We propose to advance hand augers and collect soil samples in these areas to better define the extent of contamination and complete RI soil data collection. Copper and cPAH in surface soil at SYC may be associated with the access road rather than Jensen's sources so the extent of Jensen's impacts may be difficult to determine.



Filename: /Friday Harbor/GIS/UplandGIS/RIWP_Groundwater User: Springborn Version date: 11/24/2022

Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
Crete Consulting, Inc. (2021), San Juan Surveying (2019), San Juan County (2019), Shannon and Wilson, Inc. (2019), Star surveying, Inc. (2022), Whatcom Environmental (2018)

Notes:
COI = contaminant of interest
cPAH = carcinogenic polyaromatic hydrocarbons
PQL = practical quantitation limit
TEQ = toxicity equivalency factor
EA = exceedance area
SL = screening level

0 30 60 120 Feet

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Remedial Investigation Work Plan
Net Groundwater Flow and COI Groundwater Plumes

LEON Environmental, LLC
CRETE CONSULTING, INC.

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
AST-1	---	18000	---
AST-2	---	---	ND
AST-3	---	---	ND
AST-4	---	7500, ND	---
BLWA-1	630	---	---
BLWA-10	---	ND	---
BLWA-11	ND	---	---
BLWA-12	ND	---	---
BLWA-13	ND	ND	---
BLWA-2	470	---	---
BLWA-3	ND	ND	---
BLWA-4	81	ND	---
BLWA-5	271	ND	---
BLWA-6	355	1060, 2340	ND

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
BLWA-7	180	ND	---
BLWA-8	56	290, 98	---
BLWA-9	221	ND	---
FDA-1	---	ND	---
FDA-2	ND	---	---
FDA-3	---	420	---
MW-1	---	---	ND
MW-2	192	---	ND
MW-3	280	---	ND
MW-4	120	---	ND
MW-5	96	---	ND
MW-6	ND	---	ND
MW-7	---	NA, ND	---
MW-8	---	440	---
MW-9	ND	ND	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
OPALCO Pad	130	---	---
OPALCO-2	ND	ND	---
OPALCO-3	ND	ND	---
OPALCO-4	ND	ND	---
SFD-1	---	190	---
SFD-2	---	ND	---
SFD-3	13100	13100	---
SFD-4	ND	ND	---
SRWA-1	1280	---	---
SRWA-10	---	ND	---
SRWA-13	ND	---	---
SRWA-14	ND	ND	ND
SRWA-15	ND	---	---
SRWA-2	311	---	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
SRWA-3	4840	---	---
SRWA-4	269	---	ND
SRWA-5	72	ND	ND
SRWA-6	760	ND	---
SRWA-7	860	270	---
SRWA-8	360	---	---
SRWA-9	---	ND	---
SYC-1	120	ND	---
SYC-2	130	ND	---
SYC-3	70	ND	---
SYC-4	140	ND	---
UST-1	---	ND	---
UST-2	---	ND	---

Former OPALCO Storage Area
Boat Lift Work Area
Former Stormwater Pond
Shop Building
Garage
Former AST Location
Old Boat Building Structure
Former Oil Shed
Demolished Cabin
Ordinary High Water Mark
Mean Higher High Water Mark
BALANCED MEANDER LINE S73 12' 20" w 401.00'
Turn Point Road
Pictometry International Corp.

- Total TPH-Dx Surface Soil Concentration EA (SL = 2,000 mg/kg MTCA Method A)
- Total TPH-Dx Vadose Soil Concentration EA (SL = 2,000 mg/kg MTCA Method A)
- Total TPH-Dx Saturated Soil Concentration EA (SL = 2,000 mg/kg MTCA Method A)
- Monitoring Well
- Boring Location (Sample ID)
- Test Pits
- Trench Drain
- MHHW - Mean Higher High Water Mark
- OHWM - Ordinary High Water Mark
- TOB - Top of Bank
- Property line (as of November 2019)
- 2' Contours Above 10' Elev.
- 2' Contours Below 10' Elev.

Filename: /Friday Harbor/GIS/UplandGIS/RIWP_TPH_Dx_Table User: Springborn Version date: 11/24/2022

Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
Crete Consulting, Inc. (2021), San Juan Surveying (2019), San Juan County (2019), Shannon and Wilson, Inc. (2019), Star surveying, Inc. (2022), Whatcom Environmental (2018)

Notes:
Surface concentrations are less than 1-ft bgs.
ND = not detected at compound detection limits
--- = not analyzed in samples
EA = exceedance area
SL = screening level

0 30 60 120 Feet

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Remedial Investigation Work Plan
Soil TPH-Dx Diesel Concentration Map

LEON Environmental, LLC
CRETE CONSULTING, INC.

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
AST-1	---	3.3	---
AST-2	---	---	2.21, 2.30
AST-3	---	---	4.56, 4.84
AST-4	---	3.05, 1.62	---
BLWA-1	12	---	---
BLWA-10	2.7	ND(<5), 3.41	---
BLWA-11	2.83	2.83, 2.05	3.99
BLWA-12	6.84	6.84, 3.66, 2.32	---
BLWA-13	3.48	3.48, 1.85	---
BLWA-2	7.1	---	---
BLWA-3	3.5	3	---
BLWA-4	5.2	3.9	---
BLWA-5	10	3.1	---
BLWA-6	9.7	150, 3.7	4.6
BLWA-7	13	3.7	---
BLWA-8	5.1	6.2	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
BLWA-9	5.7	3.3	---
FDA-1	---	3.5	---
FDA-2	8.7	---	---
FDA-3	---	3.5	---
IOSA-TP1	2.4	---	---
IOSA-TP2	2.51	---	---
IOSA-TP3	2.84 ca	1.85	---
IOSA-TP4	2.33	---	---
IOSA-TP5	2.88 ca	2.58 ca, 3.92	---
IOSA-TP6	2.4	3.67 ca	---
IOSA-TP7	2.03	---	---
IOSA-TP8	2.21	---	---
MW-1	---	---	3.4, 2.1
MW-2	7.2	---	6.2
MW-3	13	---	5.6
MW-4	7.9	---	8.4
MW-5	4.9	---	2.4

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
MW-6	4	---	3
MW-7	---	1.59, 1.98	4.01
MW-8	---	2.08	2.44
MW-9	2.59	2.59, 1.21	2.29
OPALCO Pad	7.1	---	---
OPALCO-2	4.8	3.2	---
OPALCO-3	7.1	4.1	---
OPALCO-4	5.5	3.3	---
SFD-1	---	2.2	---
SFD-2	---	1.9	---
SFD-3	22	22	---
SFD-4	2.41	2.41, 1.95	---
SRWA-1	30	---	---
SRWA-10	---	6.3	1.71
SRWA-11	3.24	---	---
SRWA-13	11.9	10.6	6.56
SRWA-14	2.91	2.91	2.3
SRWA-15	1.8	---	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
SRWA-2	14	---	---
SRWA-3	17	---	---
SRWA-4	54	---	7.7
SRWA-5	12	4.2	5.1
SRWA-6	16	5	---
SRWA-7	9.1	4.3	---
SRWA-8	7.14	3.62, 3.93	---
SRWA-9	---	2.94	---
SWP-1	---	3.41, 1.46	---
SYC-1	4	4.2	---
SYC-2	4.2	4.2	---
SYC-3	6.3	3.9	---
SYC-4	6.9	4.6	---
SYC-5	3.98	---	---
SYC-6	3.21	---	---
SYC-7	5.75	---	---

Former OPALCO Storage Area
Boat Lift Work Area
Former Stormwater Pond
Shop Building
Garage
Former AST Location
Old Boat Building Structure
Former Oil Shed
Demolished Cabin
BALANCED MEANDER LINE S73 12' 20" W 401.00'
Turn Point Road
Pictometry International Corp.

- Total Arsenic Surface Soil Concentration EA (SL = 7.3 mg/kg Natural Background)
- Total Arsenic Vadose Soil Concentration EA (SL = 7.3 mg/kg Natural Background)
- Total Arsenic Saturated Soil Concentration EA (SL = 7.3 mg/kg Natural Background)
- Monitoring Well
- Boring Location (Sample ID)
- Test Pits
- Trench Drain
- MHHW - Mean Higher High Water Mark
- OHWM - Ordinary High Water Mark
- TOB - Top of Bank
- Property line (as of November 2019)
- 2' Contours Above 10' Elev.
- 2' Contours Below 10' Elev.

Filename: /Friday Harbor/GIS/UplandGIS/RIWP_As_Table User: Springborn Version date: 11/24/2022

Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
Crete Consulting, Inc. (2021), San Juan Surveying (2019), San Juan County (2019), Shannon and Wilson, Inc. (2019), Star surveying, Inc. (2022), Whatcom Environmental (2018)

Notes:
Surface concentrations are less than 1-ft bgs.
ND = not detected at compound detection limits
--- = not analyzed in samples
EA = exceedance area
SL = screening level

0 30 60 120 Feet

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Remedial Investigation Work Plan
Soil Arsenic Concentration Map

LEON Environmental, LLC
CRETE CONSULTING, INC.

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
AST-1	---	ND(<0.2)	---
AST-2	---	---	ND(<1), ND(<1)
AST-3	---	---	2.01, ND(<1)
AST-4	---	ND(<1), ND(<1)	---
BLWA-1	1.3	---	---
BLWA-10	ND(<1)	ND(<1), ND(<1)	---
BLWA-11	ND(<1)	ND(<1), ND(<1)	ND(<1)
BLWA-12	ND(<1)	ND(<1), ND(<1), ND(<1)	---
BLWA-13	ND(<1)	ND(<1), ND(<1)	---
BLWA-2	0.94	---	---
BLWA-3	0.2	ND(<0.2)	---
BLWA-4	0.43	ND(<0.19)	---
BLWA-5	0.81	ND(<0.19)	---
BLWA-6	1.2	2.6, ND(<0.19)	ND(<0.19)
BLWA-7	1.8	ND(<0.19)	---
BLWA-8	0.48	0.23	---
BLWA-9	0.96	ND(<0.19)	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
FDA-1	---	ND(<0.5)	---
FDA-2	ND(<0.5)	---	---
FDA-3	---	ND(<0.5)	---
IOSA-TP1	<1	---	---
IOSA-TP2	<1	---	---
IOSA-TP3	<1	<1	---
IOSA-TP4	<1	---	---
IOSA-TP5	<1	<1, <1	---
IOSA-TP6	<1	<1	---
IOSA-TP7	<1	---	---
IOSA-TP8	<1	---	---
MW-1	---	---	ND(<0.2), ND(<0.2)
MW-2	2.3	---	0.67
MW-3	0.74	---	ND(<0.21)
MW-4	0.79	---	ND(<0.23)
MW-5	0.7	---	ND(<0.22)
MW-6	ND(<0.19)	---	ND(<0.2)

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
MW-7	---	ND(<1), ND(<1)	ND(<1)
MW-8	---	ND(<1)	ND(<1)
MW-9	ND(<1)	ND(<1), ND(<1)	ND(<1)
OPALCO Pad	2.2	---	---
OPALCO-2	0.92	ND(<0.19)	---
OPALCO-3	1.1	ND(<0.19)	---
OPALCO-4	ND(<0.19)	ND(<0.19)	---
SFD-1	---	ND(<0.50)	---
SFD-2	---	ND(<0.50)	---
SFD-3	57	57	---
SFD-4	1.37	1.37, ND(<1)	---
SRWA-1	0.54	---	---
SRWA-10	---	ND(<1)	ND(<1)
SRWA-11	ND(<1)	---	---
SRWA-13	ND(<1)	ND(<1)	ND(<1)
SRWA-14	ND(<1)	ND(<1)	ND(<1)
SRWA-15	ND(<1)	---	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
SRWA-2	ND(<0.5)	---	---
SRWA-3	ND(<0.5)	---	---
SRWA-4	0.39	---	ND(<0.22)
SRWA-5	0.32	1.5	ND(<0.23)
SRWA-6	0.64	ND(<0.21)	---
SRWA-7	2.6	0.38	---
SRWA-8	ND(<1)	ND(<1), ND(<1)	---
SRWA-9	---	ND(<1)	---
SWP-1	---	ND(<1), ND(<1)	---
SYC-1	ND(<0.19)	ND(<0.19)	---
SYC-2	0.21	ND(<0.19)	---
SYC-3	0.4	ND(<0.19)	---
SYC-4	0.32	ND(<0.19)	---
SYC-5	ND(<1)	---	---
SYC-6	ND(<1)	---	---
SYC-7	ND(<1)	---	---

Total Cadmium Surface Soil Concentration EA (SL = 1.09 mg/kg Calculated Soil Concentration Protective of Groundwater)

Total Cadmium Vadose Soil Concentration EA (SL = 1.09 mg/kg Calculated Soil Concentration Protective of Groundwater)

Total Cadmium Saturated Soil Concentration EA (SL = 1.0 for mg/kg Practical Quantitation Limit)

Monitoring Well

Boring Location (Sample ID)

Test Pits

Trench Drain

MHHW - Mean Higher High Water Mark

OHWM - Ordinary High Water Mark

TOB - Top of Bank

Property line (as of November 2019)

2' Contours Above 10' Elev.

2' Contours Below 10' Elev.

Former OPALCO Storage Area

Boat Lift Work Area

Former Stormwater Pond

Shop Building

Garage

Former AST Location

Old Boat Building Structure

Former Oil Shed

Demolished Cabin

Ordinary High Water Mark

Mean Higher High Water Mark

BALANCED MEANDER LINE S73 12' 20" W 401.00'

Turn Point Road

Pictometry International Corp.

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Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
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Notes:
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0 30 60 120 Feet

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Remedial Investigation Work Plan
Soil Cadmium Concentration Map

LEON Environmental, LLC
CRETE CONSULTING, INC.

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
AST-1	---	40	---
AST-2	---	---	18.1. 18.8
AST-3	---	---	110, 8.66
AST-4	---	53.3, 17.8	---
BLWA-1	6700	---	---
BLWA-10	350	54.2, 112	---
BLWA-11	125	125, 18.1	150
BLWA-12	629	629, 82.0, 36.8	---
BLWA-13	295	295, 20.9	---
BLWA-2	6100	---	---
BLWA-3	180	32	---
BLWA-4	680	86	---
BLWA-5	1100	28	---
BLWA-6	9300	3500, 84	20
BLWA-7	2100	50	---
BLWA-8	1100	170	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
BLWA-9	2900	49	---
FDA-1	---	16	---
FDA-2	79	---	---
FDA-3	---	29	---
IOSA-TP1	11.1	---	---
IOSA-TP2	9.72	---	---
IOSA-TP3	60.9	13.7	---
IOSA-TP4	18.5	---	---
IOSA-TP5	56.9	30.1, 37	---
IOSA-TP6	33.9	15.1 J	---
IOSA-TP7	19.8	---	---
IOSA-TP8	12.9	---	---
MW-1	---	---	32, 23
MW-2	2100	---	24
MW-3	400	---	82
MW-4	590	---	31
MW-5	140	---	14

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
MW-6	28	---	16
MW-7	---	15.9, 18.5	39.3
MW-8	---	58.3	43.6
MW-9	173	173, 24.1	80.7
OPALCO Pad	1100	---	---
OPALCO-2	68	45	---
OPALCO-3	1300	44	---
OPALCO-4	120	34	---
SFD-1	---	56	---
SFD-2	---	29	---
SFD-3	8800	8800	---
SFD-4	172	172, 19.7	---
SRWA-1	2400	---	---
SRWA-10	---	34.1	14.3
SRWA-11	69.3	---	---
SRWA-13	2140	919	20.8
SRWA-14	59.1	59.1	14.3

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
SRWA-15	12.5	---	---
SRWA-2	1100	---	---
SRWA-3	690	---	---
SRWA-4	2000	---	35
SRWA-5	420	43	16
SRWA-6	220	11	---
SRWA-7	920	63	---
SRWA-8	87.3	12.6, 26.8	---
SRWA-9	---	8.32	---
SWP-1	---	51.2, 17.6	---
SYC-1	42	26	---
SYC-2	48	37	---
SYC-3	99	33	---
SYC-4	140	63	---
SYC-5	32.2	---	---
SYC-6	60.7	---	---
SYC-7	143	---	---

Former OPALCO Storage Area
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Demolished Cabin
Turn Point Road
BALANCED MEANDER LINE S73 12' 20" W 401.00'
Pictometry International Corp.

- Total Copper Surface Soil Concentration EA (SL = 36.4 mg/kg Natural Background)
- Total Copper Vadose Soil Concentration EA (SL = 36.4 mg/kg Natural Background)
- Total Copper Saturated Soil Concentration EA (SL = 36.4 mg/kg Natural Background)
- Monitoring Well
- Boring Location (Sample ID)
- Test Pits
- Trench Drain
- MHHW - Mean Higher High Water Mark
- OHWM - Ordinary High Water Mark
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- 2' Contours Below 10' Elev.

Filename: /Friday Harbor/GIS/UplandGIS/RIWP_Cu_Table User: Springborn Version date: 11/24/2022

Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
Crete Consulting, Inc. (2021), San Juan Surveying (2019), San Juan County (2019), Shannon and Wilson, Inc. (2019), Star surveying, Inc. (2022), Whatcom Environmental (2018)

Notes:
Surface concentrations are less than 1-ft bgs.
ND = not detected at compound detection limits
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0 30 60 120 Feet

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Remedial Investigation Work Plan
Soil Copper Concentration Map

LEON Environmental, LLC
CRETE CONSULTING, INC.

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
AST-1	---	0.037	---
AST-2	---	---	ND(<0.1), ND(<1)
AST-3	---	---	0.2, ND(<0.1)
AST-4	---	0.16, ND(<0.1)	---
BLWA-1	0.81	---	---
BLWA-10	ND(<0.1)	ND(<0.1), ND(<1)	---
BLWA-11	0.16	0.16, ND(<0.1)	0
BLWA-12	0.8	0.80, 0.2, ND(<1)	---
BLWA-13	0.28	0.28, ND(<0.1)	---
BLWA-2	0.39	---	---
BLWA-3	0.032	0.028	---
BLWA-4	0.17	0.18	---
BLWA-5	0.36	0.038	---
BLWA-6	1.1	0.31, 0.11	ND(<0.02)
BLWA-7	0.92	ND(<0.02)	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
BLWA-8	0.18	0.12	---
BLWA-9	1.5	0.048	---
FDA-1	---	0.028	---
FDA-2	ND(<0.02)	---	---
FDA-3	---	0.16	---
IOSA-TP1	<1	---	---
IOSA-TP2	<1	---	---
IOSA-TP3	<1	<1	---
IOSA-TP4	<1	---	---
IOSA-TP5	<1	<1, <1	---
IOSA-TP6	<1	<1	---
IOSA-TP7	<1	---	---
IOSA-TP8	<1	---	---
MW-1	---	---	D(<0.02), ND(<0.02)
MW-2	0.64	---	0.024
MW-3	1.3	---	0.16
MW-4	0.22	---	ND(<0.02)
MW-5	0.1	---	ND(<0.02)

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
MW-6	0.027	---	ND(<0.02)
MW-7	---	ND(<0.1), ND(<0.1)	ND(<0.1)
MW-8	---	0.23	ND(<0.1)
MW-9	0.12	0.12, ND(<0.1)	0.22
OPALCO Pad	0.15	---	---
PALCO-2	0.026	ND(<0.02)	---
PALCO-3	0.34	0.025	---
PALCO-4	0.67	ND(<0.02)	---
SFD-1	---	ND(<0.02)	---
SFD-2	---	0.021	---
SFD-3	0.25	0.25	---
SFD-4	0.21	0.21, ND(<0.1)	---
SRWA-1	13	---	---
SRWA-10	---	ND(<0.1)	ND(<0.1)
SRWA-11	0.15	---	---
SRWA-13	1.5	3.5	0.3
SRWA-14	0.3	0.3	ND(<0.1)

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
SRWA-15	ND(<0.1)	---	---
SRWA-2	6.3	---	---
SRWA-3	0.54	---	---
SRWA-4	11	---	0.098
SRWA-5	0.33	0.04	ND(<0.02)
SRWA-6	2.8	ND(<0.02)	---
SRWA-7	0.23	0.1	---
SRWA-8	0.3	ND(<0.1), ND(<1)	---
SRWA-9	---	ND(<0.1)	---
SWP-1	---	0.085, ND(<0.1)	---
SYC-1	0.026	0.026	---
SYC-2	0.036	0.022	---
SYC-3	0.063	ND(<0.02)	---
SYC-4	0.27	0.23	---
SYC-5	0.14	---	---
SYC-6	0.68	---	---
SYC-7	0.4	---	---

Total Mercury Surface Soil Concentration EA (SL = 0.209 mg/kg Calculated Soil Concentration Protective of Groundwater)

Total Mercury Vadose Soil Concentration EA (SL = 0.209 mg/kg Calculated Soil Concentration Protective of Groundwater)

Total Mercury Saturated Soil Concentration EA (SL = 0.1 mg/kg Practical Quantitation Limit)

Monitoring Well

Boring Location (Sample ID)

Test Pits

Trench Drain

MHHW - Mean Higher High Water Mark

OHWM - Ordinary High Water Mark

TOB - Top of Bank

Property line (as of November 2019)

2' Contours Above 10' Elev.

2' Contours Below 10' Elev.

Filename: /Friday Harbor/GIS/UplandGIS/RIWP_Hg_Table User: Springborn Version date: 11/24/2022

Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
Crete Consulting, Inc. (2021), San Juan Surveying (2019), San Juan County (2019), Shannon and Wilson, Inc. (2019), Star surveying, Inc. (2022), Whatcom Environmental (2018)

Notes:
Surface concentrations are less than 1-ft bgs.
ND = not detected at compound detection limits
--- = not analyzed in samples
EA = exceedance area
SL = screening level

0 30 60 120 Feet

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Remedial Investigation Work Plan
Soil Mercury Concentration Map

LEON Environmental, LLC
CRETE CONSULTING, INC.

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
AST-1	---	27	---
AST-2	---	---	2.72, 3.79
AST-3	---	---	73.9, 1.67
AST-4	---	95.4, 3.02	---
BLWA-1	700	---	---
BLWA-10	73.3	98.1, 94.1	---
BLWA-11	42.3	42.3, 3.64	181
BLWA-12	147	147, 31.4, 87.3	---
BLWA-13	57.8	57.8, 1.79	---
BLWA-2	350	---	---
BLWA-3	150	3	---
BLWA-4	150	540	---
BLWA-5	270	3.2	---
BLWA-6	760	3400, 560	1.9
BLWA-7	340	3	---
BLWA-8	470	200	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
BLWA-9	310	11	---
FDA-1	---	6.4	---
FDA-2	52	---	---
FDA-3	---	190	---
IOSA-TP1	5.01	---	---
IOSA-TP2	5.78	---	---
IOSA-TP3	56.4	4.29	---
IOSA-TP4	12.2	---	---
IOSA-TP5	248	46.4, 80.7	---
IOSA-TP6	241	3.21	---
IOSA-TP7	20.8	---	---
IOSA-TP8	8.14	---	---
MW-1	---	---	4.4, 1.8
MW-2	230	---	29
MW-3	190	---	25
MW-4	390	---	3.4
MW-5	120	---	2.1

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
MW-6	13	---	1.5
MW-7	---	1.84, 5.45	70.8
MW-8	---	64.9	2.47
MW-9	35	35, 5.17	165
OPALCO Pad	530	---	---
OPALCO-2	54	2.1	---
OPALCO-3	990	4.5	---
OPALCO-4	50	2.2	---
SFD-1	---	2.9	---
SFD-2	---	1.9	---
SFD-3	10000	10000	---
SFD-4	71.8	71.8, 2.39	---
SRWA-1	920	---	---
SRWA-10	---	16.1	2.68
SRWA-11	75	---	---
SRWA-13	170	389	11.6
SRWA-14	115	115	2.58

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
SRWA-15	35.1	---	---
SRWA-2	1000	---	---
SRWA-3	90	---	---
SRWA-4	1800	---	15
SRWA-5	940	21	3.6
SRWA-6	1200	11	---
SRWA-7	160	110	---
SRWA-8	49.9	3.04, 3.24	---
SRWA-9	---	2.18	---
SWP-1	---	10.6, 2.01	---
SYC-1	19	6.6	---
SYC-2	46	8.3	---
SYC-3	57	2.9	---
SYC-4	63	51	---
SYC-5	4.62	---	---
SYC-6	22.2	---	---
SYC-7	56	---	---

Total Lead Surface Soil Concentration EA (SL = 1120 mg/kg Calculated Soil Concentration Protective of Groundwater)

Total Lead Vadose Soil Concentration EA (SL = 1120 mg/kg Calculated Soil Concentration Protective of Groundwater)

Total Lead Saturated Soil Concentration EA (SL = 56.0 mg/kg Calculated Soil Concentration Protective of Groundwater)

Monitoring Well

Boring Location (Sample ID)

Test Pits

Trench Drain

MHHW - Mean Higher High Water Mark

OHWM - Ordinary High Water Mark

TOB - Top of Bank

Property line (as of November 2019)

2' Contours Above 10' Elev.

2' Contours Below 10' Elev.

Filename: /Friday Harbor/GIS/UplandGIS/RIWP_Pb_Table User: Springborn Version date: 11/24/2022

Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
Crete Consulting, Inc. (2021), San Juan Surveying (2019), San Juan County (2019), Shannon and Wilson, Inc. (2019), Star surveying, Inc. (2022), Whatcom Environmental (2018)

Notes:
Surface concentrations are less than 1-ft bgs.
ND = not detected at compound detection limits
--- = not analyzed in samples
EA = exceedance area
SL = screening level

0 30 60 120 Feet

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Remedial Investigation Work Plan
Soil Lead Concentration Map

LEON Environmental, LLC
CRETE CONSULTING, INC.

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
AST-1	---	100	---
AST-2	---	---	17.9, 20.0
AST-3	---	---	47.0, 22.2
AST-4	---	91.4, 20.2	---
BLWA-1	950	---	---
BLWA-10	92.7	58.5, 65.3	---
BLWA-11	101	101, 16.7	67.9
BLWA-12	291	291, 58.8, 25.2	---
BLWA-13	140	140, 17.9	---
BLWA-2	1700	---	---
BLWA-3	99	29	---
BLWA-4	260	110	---
BLWA-5	390	31	---
BLWA-6	1400	3800, 72	47
BLWA-7	630	39	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
BLWA-8	350	110	---
BLWA-9	690	92	---
FDA-1	---	30	---
FDA-2	270	---	---
FDA-3	---	220	---
IOSA-TP1	27.5	---	---
IOSA-TP2	16.4	---	---
IOSA-TP3	208	23	---
IOSA-TP4	70.8	---	---
IOSA-TP5	287	95.1, 115	---
IOSA-TP6	182	19.6 J	---
IOSA-TP7	34.7	---	---
IOSA-TP8	40.2	---	---
MW-1	---	---	30, 24
MW-2	540	---	37
MW-3	310	---	110
MW-4	620	---	45
MW-5	190	---	26

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
MW-6	65	---	23
MW-7	---	18, 54.1	61.9
MW-8	---	156	31.6
MW-9	83.4	83.4, 32.4	67.4
OPALCO Pad	2300	---	---
OPALCO-2	2600	250	---
OPALCO-3	720	39	---
OPALCO-4	74	31	---
SFD-1	---	100	---
SFD-2	---	29	---
SFD-3	7100	7100	---
SFD-4	150	150, 19.9	---
SRWA-1	840	---	---
SRWA-10	---	51.7	35.5
SRWA-11	105	---	---
SRWA-13	519	317	31.7
SRWA-14	52.4	52.4	28.7

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
SRWA-15	26.7	---	---
SRWA-2	330	---	---
SRWA-3	580	---	---
SRWA-4	450	---	64
SRWA-5	460	58	55
SRWA-6	1100	32	---
SRWA-7	400	140	---
SRWA-8	79.1	20.3, 36.1	---
SRWA-9	---	18.6	---
SWP-1	---	41.3, 17.8	---
SYC-1	74	54	---
SYC-2	87	46	---
SYC-3	1000	34	---
SYC-4	140	76	---
SYC-5	24.6	---	---
SYC-6	68.3	---	---
SYC-7	91.1	---	---

Total Zinc Surface Soil Concentration EA (SL = 100.7 mg/kg Calculated Soil Concentration Protective of Groundwater)

Total Zinc Vadose Soil Concentration EA (SL = 100.7 mg/kg Calculated Soil Concentration Protective of Groundwater)

Total Zinc Saturated Soil Concentration EA (SL = 85.1 mg/kg Natural Background)

Monitoring Well

Boring Location (Sample ID)

Test Pits

Trench Drain

MHHW - Mean Higher High Water Mark

OHWM - Ordinary High Water Mark

TOB - Top of Bank

Property line (as of November 2019)

2' Contours Above 10' Elev.

2' Contours Below 10' Elev.

Filename: /Friday Harbor/GIS/UplandGIS/RIWP_Zn_Table User: Springborn Version date: 11/24/2022

Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
Crete Consulting, Inc. (2021), San Juan Surveying (2019), San Juan County (2019), Shannon and Wilson, Inc. (2019), Star surveying, Inc. (2022), Whatcom Environmental (2018)

Notes:
Surface concentrations are less than 1-ft bgs.
ND = not detected at compound detection limits
--- = not analyzed in samples
EA = exceedance area
SL = screening level

0 30 60 120 Feet

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Remedial Investigation Work Plan
Soil Zinc Concentration Map

LEON Environmental, LLC
CRETE CONSULTING, INC.

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
AST-1	---	0.015	---
BLWA-10	0.08	---	---
BLWA-11	0.575	0.575	---
BLWA-12	0.127	0.127	---
BLWA-13	0.147	0.147	---
BLWA-2	---	---	---
BLWA-3	0.529	ND(<0.02)	---
BLWA-4	0.098	0.061	---
BLWA-5	0.529	ND(<0.02)	---
BLWA-6	0.706	0.015, ND(<0.02)	ND(<0.02)
BLWA-7	0.25	ND(<0.02)	---
BLWA-8	0.122	0.043	---
BLWA-9	0.863	ND(<0.02)	---
MW-1	---	---	ND(<0.02), ND(<0.02)

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
MW-2	0.119	---	0.065
MW-3	0.114	---	0.018
MW-4	0.111	---	ND(<0.02)
MW-5	0.07	---	ND(<0.02)
MW-6	ND(<0.02)	---	ND(<0.02)
MW-7	---	ND(<0.01)	---
MW-8	---	ND(<0.05)	---
MW-9	0.047	0.046	---
OPALCO Pad	---	---	---
OPALCO-2	0.03	ND(<0.02)	---
OPALCO-3	0.096	ND(<0.02)	---
OPALCO-4	0.036	ND(<0.02)	---
SRWA-1	0.725	---	---
SRWA-10	---	0.049	---
SRWA-11	0.14 E	---	---
SRWA-13	0.612	---	---

Name	Surficial Conc.	Vadose Conc.	Saturated Conc.
SRWA-14	0.073	0.073	ND(<0.01)
SRWA-15	ND(<0.01)	---	---
SRWA-2	0.186	---	---
SRWA-3	0.304	---	---
SRWA-4	0.661	---	ND(<0.02)
SRWA-5	0.23	0.074	ND(<0.02)
SRWA-6	1.446	ND(<0.02)	---
SRWA-7	0.077	0.215	---
SRWA-8	0.076	---	---
SRWA-9	---	ND(<0.01)	---
SYC-1	0.015	ND(<0.02)	---
SYC-2	ND(<0.02)	ND(<0.02)	---
SYC-3	ND(<0.02)	ND(<0.02)	---
SYC-4	0.037	0.038	---

Former OPALCO Storage Area
Boat Lift Work Area
Former Oil Shed
Demolished Cabin
Old Boat Building Structure
Former Stormwater Pond
Shop Building
Garage
Former AST Location
Turn Point Road
BALANCED MEANDER LINE S73 12' 20" W 401.00'
Pictometry International Corp.

- Total cPAH TEQ Surface Soil Concentration EA (SL = 0.01 mg/kg Practical Quantitation Limit)
- Total cPAH TEQ Vadose Soil Concentration EA (SL = 0.01 mg/kg Practical Quantitation Limit)
- Total cPAH TEQ Saturated Soil Concentration EA (SL = 0.01 mg/kg Practical Quantitation Limit)
- Monitoring Well
- Boring Location (Sample ID)
- Test Pits
- Trench Drain
- MHHW – Mean Higher High Water Mark
- OHWM – Ordinary High Water Mark
- TOB – Top of Bank
- Property line (as of November 2019)
- 2' Contours Above 10' Elev.
- 2' Contours Below 10' Elev.

Port of Friday Harbor
Jensen and Sons Boatyard and Marina

Data Sources:
Crete Consulting, Inc. (2021), San Juan Surveying (2019), San Juan County (2019), Shannon and Wilson, Inc. (2019), Star surveying, Inc. (2022), Whatcom Environmental (2018)

Notes:
Surface concentrations are less than 1-ft bgs.
ND = not detected at compound detection limits
--- = not analyzed in samples
EA = exceedance area
SL = screening level

0 30 60 120 Feet

DRAFT

Remedial Investigation Work Plan
Soil cPAH TEQ Concentration Map

LEON Environmental, LLC
CRETE CONSULTING, INC.

Filename: /Friday Harbor/GIS/UplandGIS/RIWP_cPAH_TEQ_Table User: Springborn Version date: 11/24/2022

Table 1 - Summary of Uplands Soil Data (TPH, Metals)
Jensen's Shipyard and Marina
Port of Friday Harbor

Sample ID	Date	TPH (mg/kg)				Metals (EPA-6020/7471) (mg/kg)							
		NWTPH-Dx Diesel Range	NWTPH-Dx Oil-Range	Dx	NWTPH-Gx	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
Soil Screening Level Vadose and Surficial Soils		NC	NC	2,000	30	7.3 [A]	1.09 [C]	48.2 [A]	36.4 [A]	1120 [C]	0.209 [B]	48 [A]	100.7 [C]
Soil Screening Level Saturated Soils		NC	NC	2,000	30	7.3 [A]	1 [B]	48.2 [A]	36.4 [A]	56.0 [C]	0.1 [B]	48 [A]	85.1 [A]
Surface Rail Work Area (SRWA)													
SRWA-1 3-6in	1/24/2018	**180**	**1,100**	**1,280**	NA	**30**	**0.54**	**29**	**2,400**	**920**	**13**	NA	**840**
SRWA-2 3-6in	1/24/2018	**91**	**220**	**311**	NA	**14**	ND(<0.5)	**18**	**1,100**	**1,000**	**6.3**	NA	**330**
SRWA-3 0-6in	1/24/2018	**3,900**	**940**	**4,840**	NA	**17**	ND(<0.5)	**21**	**690**	**90**	**0.54**	NA	**580**
SRWA-4 6in	8/1/2018	**79**	**190**	**269**	NA	**54**	**0.39**	**35**	**2,000**	**1,800**	**11**	NA	**450**
SRWA-4 3.5ft	8/1/2018	ND(<25)	ND(<50)	ND	NA	**7.7**	ND(<0.22)	**24**	**35**	**15**	**0.098**	NA	**64**
SRWA-5 2-6in	8/1/2018	ND(<25)	**72**	**72**	NA	**12**	**0.32**	**20**	**420**	**940**	**0.33**	NA	**460**
SRWA-5 3.5 ft	8/1/2018	ND(<25)	ND(<50)	ND	NA	**4.2**	**1.5**	**11**	**43**	**21**	**0.04**	NA	**58**
SRWA-5 5ft	8/1/2018	ND(<25)	ND(<50)	ND	NA	**5.1**	ND(<0.23)	**20**	**16**	**3.6**	ND(<0.02)	NA	**55**
SRWA-6 2-6in	8/1/2018	**120**	**640**	**760**	NA	**16**	**0.64**	**36**	**220**	**1,200**	**2.8**	NA	**1,100**
SRWA-6 3ft	8/1/2018	ND(<25)	ND(<50)	ND	NA	**5**	ND(<0.21)	**20**	**11**	**11**	ND(<0.02)	NA	**32**
SRWA-7 2-6in	8/1/2018	**170**	**690**	**860**	NA	**9.1**	**2.6**	**25**	**920**	**160**	**0.23**	NA	**400**
SRWA-7 3ft	8/1/2018	**40**	**230**	**270**	NA	**4.3**	**0.38**	**19**	**63**	**110**	**0.1**	NA	**140**
MW-3 2-6in	8/1/2018	ND(<25)	**280**	**280**	NA	**13**	**0.74**	**29**	**400**	**190**	**1.3**	NA	**310**
MW-3 5.5ft	8/1/2018	ND(<25)	ND(<50)	ND	NA	**5.6**	ND(<0.21)	**28**	**82**	**25**	**0.16**	NA	**110**
SRWA-8 0-1'	7/26/2022	ND(<50)	**360**	**360**	ND(<5)	**7.14**	ND(<1)	**10.4**	**87.3**	**49.9**	**0.30**	NA	**79.1**
SRWA-8 2-3'	7/26/2022	NA	NA	NA	NA	**3.62**	ND(<1)	**20.4**	**12.6**	**3.04**	ND(<0.1)	NA	**20.3**
SRWA-8 4-5'	7/26/2022	NA	NA	NA	NA	**3.93**	ND(<1)	**21.1**	**26.8**	**3.24**	ND(<0.1)	NA	**36.1**
SRWA-9 2.5-5'	7/26/2022	ND(<50)	ND(<250)	ND	ND(<5) [D]	**2.94**	ND(<1)	**7.78**	**8.32**	**2.18**	ND(<0.1)	NA	**18.6**
SRWA-10 3-5'	7/28/2022	ND(<50)	ND(<250)	ND	ND(<5)	**6.30**	ND(<1)	**12.1**	**34.1**	**16.1**	ND(<0.1)	NA	**51.7**
SRWA-10 5-7.5'	7/28/2022	NA	NA	NA	NA	**1.71**	ND(<1)	**12.2**	**14.3**	**2.68**	ND(<0.1)	NA	**35.5**
SRWA-11 0-2.5'	7/26/2022	NA	NA	NA	NA	**3.24**	ND(<1)	**16.8**	**69.3**	**75.0**	**0.15**	NA	**105**
SRWA-13 0-0.5'	7/26/2022	ND(<50)	ND(<250)	ND	ND(<5)	**11.9**	ND(<1)	**11.7**	**2,140**	**170**	**1.5**	NA	**519**
SRWA-13 0.5-1'	7/26/2022	NA	NA	NA	NA	**10.6**	ND(<1)	**12.7**	**919**	**389**	**3.5**	NA	**317**
SRWA-13 3-5'	7/26/2022	NA	NA	NA	NA	**6.56**	ND(<1)	**8.71**	**20.8**	**11.6**	**0.30**	NA	**31.7**
SRWA-14 0-1'	7/26/2022	ND(<50)	ND(<250)	ND	ND(<5)	**2.91**	ND(<1)	**5.13**	**59.1**	**115**	**0.30**	NA	**52.4**
SRWA-14 1-2'	7/26/2022	ND(<50)	ND(<250)	ND	ND(<5)	**2.30**	ND(<1)	**6.96**	**14.3**	**2.58**	ND(<0.1)	NA	**28.7**
SRWA-15 0-0.5'	7/26/2022	ND(<50)	ND(<250)	ND	ND(<5)	**1.80**	ND(<1)	**7.68**	**12.5**	**35.1**	ND(<0.1)	NA	**26.7**
Boat Lift Work Area (BLWA)													
BLWA-1 0-3in	1/24/2018	**160**	**470**	**630**	NA	**12**	**1.3**	**35**	**6,700**	**700**	**0.81**	NA	**950**
BLWA-2 0-3in	1/24/2018	**170**	**300**	**470**	NA	**7.1**	**0.94**	**20**	**6,100**	**350**	**0.39**	NA	**1,700**
BLWA-3 2-6in	7/30/2018	ND(<25)	ND(<50)	ND	NA	**3.5**	**0.2**	**28**	**180**	**150**	**0.032**	NA	**99**
BLWA-3 2ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**3**	ND(<0.2)	**15**	**32**	**3**	**0.028**	NA	**29**
BLWA-4 2-6in	7/30/2018	ND(<25)	**81**	**81**	NA	**5.2**	**0.43**	**21**	**680**	**150**	**0.17**	NA	**260**
BLWA-4 5ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**3.9**	ND(<0.19)	**17**	**86**	**540**	**0.18**	NA	**110**
BLWA-5 2-6in	7/30/2018	**91**	**180**	**271**	NA	**10**	**0.81**	**29**	**1,100**	**270**	**0.36**	NA	**390**
BLWA-5 2ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**3.1**	ND(<0.19)	**15**	**28**	**3.2**	**0.038**	NA	**31**
BLWA-6 2-6in	7/30/2018	**95**	**260**	**355**	NA	**9.7**	**1.2**	**31**	**9,300**	**760**	**1.1**	NA	**1,400**
BLWA-6 2ft	7/30/2018	**350**	**710**	**1,060**	NA	**150**	**2.6**	**78**	**3,500**	**3,400**	**0.31**	NA	**3,800**
BLWA-6 5ft	7/30/2018	**1,400**	**940**	**2,340**	NA	**3.7**	ND(<0.19)	**18**	**84**	**560**	**0.11**	NA	**72**
BLWA-6 10 ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**4.6**	ND(<0.19)	**11**	**20**	**1.9**	ND(<0.02)	NA	**47**
BLWA-7 2-6in	7/30/2018	ND(<25)	**180**	**180**	NA	**13**	**1.8**	**30**	**2100**	**340**	**0.92**	NA	**630**
BLWA-7 2ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**3.7**	ND(<0.19)	**21**	**50**	**3**	ND(<0.02)	NA	**39**
BLWA-7 5ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-8 2-6in	7/30/2018	ND(<25)	**56**	**56**	NA	**5.1**	**0.48**	**19**	**1100**	**470**	**0.18**	NA	**350**
BLWA-8 2ft	7/30/2018	ND(<25)	**290**	**290**	NA	**6.2**	**0.23**	**23**	**170**	**200**	**0.12**	NA	**110**
BLWA-8 5ft	7/30/2018	ND(<25)	**98**	**98**	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-9 2-6in	7/30/2018	**61**	**160**	**221**	NA	**5.7**	**0.96**	**25**	**2900**	**310**	**1.5**	NA	**690**
BLWA-9 2ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**3.3**	ND(<0.19)	**18**	**49**	**11**	**0.048**	NA	**92**
BLWA-9 5ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 6in	7/30/2018	**32**	**160**	**192**	NA	**7.2**	**2.3**	**27**	**2,100**	**230**	**0.64**	NA	**540**
MW-2 7ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**6.2**	**0.67**	**12**	**24**	**29**	**0.024**	NA	**37**
BLWA-10 0-1'	7/28/2022	NA	NA	NA	NA	**2.70**	ND(<1)	**11.4**	**350**	**73.3**	ND(<0.1)	NA	**92.7**
BLWA-10 3-5'	7/28/2022	ND(<50)	ND(<250)	ND	**7.0**	ND(<5)	ND(<1)	**16.3**	**54.2**	**98.1**	ND(<0.1)	NA	**58.5**
BLWA-10 5-6'	7/28/2022	NA	NA	NA	NA	**3.41**	ND(<1)	**8.90**	**112**	**94.1**	ND(<0.1)	NA	**65.3**
BLWA-11 0-2.5'	7/25/2022	ND(<50)	ND(<250)	ND	ND(<5)	**2.83**	ND(<1)	**10.8**	**125**	**42.3**	**0.16**	NA	**101**
BLWA-11 2.5-5'	7/25/2022	NA	NA	NA	NA	**2.05**	ND(<1)	**6.23**	**18.1**	**3.64**	ND(<0.1)	**8.59**	**16.7**
BLWA-11 5-7'	7/25/2022	NA	NA	NA	NA	**3.99**	ND(<1)	**15.8**	**150**	**181**		NA	**67.9**
BLWA-12 0-2'	7/25/2022	ND(<50)	ND(<250)	ND	ND(<5)	**6.84**	ND(<1)	**17.0**	**629**	**147**	**0.80**	NA	**291**
BLWA-12 3-5'	7/25/2022	NA	NA	NA	NA	**3.66**	ND(<1)	**14.4**	**82.0**	**31.4**	**0.20**	NA	**58.8**
BLWA-12 5-7'	7/25/2022	NA	NA	NA	NA	**2.32**	ND(<1)	**15.1**	**36.8**	**8.73**	ND(<0.1)	**10.3**	**25.2**
BLWA-13 0-2'	7/27/2022	ND(<50)	ND(<250)	ND	ND(<5)	**3.48**	ND(<1)	**9.97**	**295**	**57.8**	**0.28**	NA	**140**
BLWA-13 3-5'	7/27/2022	NA	NA	NA	NA	**1.85**	ND(<1)	**8.82**	**20.9**	**1.79**	ND(<0.1)	NA	**17.9**
MW-7 2-3'	7/27/2022	NA	NA	NA	NA	**1.59**	ND(<1)	**8.50**	**15.9**	**1.84**	ND(<0.1)	NA	**18.0**
MW-7 3-5'	7/27/2022	ND(<50)	ND(<250)	ND	ND(<5)	**1.98**	ND(<1)	**8.82**	**18.5**	**5.45**	ND(<0.1)	NA	**54.1**
MW-7 10-11'	7/27/2022	NA	NA	NA	NA	**4.01**	ND(<1)	**10.3**	**39.3**	**70.8**	ND(<0.1)	**13.7**	**61.9**
MW-8 4-5'	7/28/2022	**61 x**	**440**	**440**	ND(<5)	**2.08**	ND(<1)	**10.4**	**58.3**	**64.9**	**0.23**	NA	**156**
MW-8 5-7'	7/28/2022	NA	NA	NA	NA	**2.44**	ND(<1)	**9.43**	**43.6**	**2.47**	ND(<0.1)	NA	**31.6**
MW-9 0-2.5'	7/27/2022	ND(<50)	ND(<250)	ND	ND(<5)	**2.59**	ND(<1)	**8.69**	**173**	**35.0**	**0.12**	NA	**83.4**
MW-9 2.5-5'	7/27/2022	NA	NA	NA	NA	**1.21**	ND(<1)	**4.60**	**24.1**	**5.17**	ND(<0.1)	NA	**32.4**
MW-9 5-7'	7/27/2022	NA	NA	NA	NA	**2.29**	ND(<1)	**7.63**	**80.7**	**165**	**0.22**	**7.33**	**67.4**
Former Dumping Area (FDA)													
FDA-1 2ft	1/24/2018	ND(<25)	ND(<50)	ND	NA	**3.5**	ND(<0.5)	**41**	**16**	**6.4**	**0.028**	NA	**30**
FDA-2 0-6in	1/24/2018	ND(<25)	ND(<50)	ND	NA	**8.7**	ND(<0.5)	**21**	**79**	**52**	ND(<0.02)	NA	**270**
FDA-3 2.5ft	1/24/2018	ND(<25)	**420**	**420**	NA	**3.5**	ND(<0.5)	**22**	**29**	**190**	**0.16**	NA	**220**
MW-5 2-6in	7/31/2018	ND(<25)	**96**	**96**	NA	**4.9**	**0.7**	**39**	**140**	**120**	**0.1**	NA	**190**
MW-5 10ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**2.4**	ND(<0.22)	**18**	**14**	**2.1**	ND(<0.02)	NA	**26**
Former Underground Storage Tank (UST)													
UST-1 5ft	1/24/2018	ND(<25)	ND(<50)	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
UST-2 3ft	1/24/2018	ND(<25)	ND(<50)	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Former Above Ground Storage Tank (AST)													
AST-1 2ft	7/30/2018	**8,000**	**10,000**	**18,000**	NA	**3.3**	ND(<0.2)	**17**	**40**	**27**	**0.037**	NA	**100**
AST-2 7.5-10'	7/26/2022	ND(<50)	ND(<250)	ND	ND(<5)	**2.21**	ND(<1)	**9.49**	**18.1**	**2.72**	ND(<0.1)	NA	**17.9**
AST-2 10-12'	7/26/2022	NA	NA	NA	NA	**2.30**	ND(<1)	**10.8**	**18.8**	**3.79**	ND(<0.1)	NA	**20.0**
AST-3 5-7'	7/28/2022	ND(<50)	ND(<250)	ND	ND(<5)	**4.56**	**2.01**	**17.1**	**110**	**73.9**	**0.20**	NA	**47.0**
AST-3 8-10'	7/28/2022	NA	NA	NA	NA	**4.84**	ND(<1)	**9.30**	**8.66**	**1.67**	ND(<0.1)	NA	**22.2**
AST-4 1-2'	7/29/2022	**5,300**	**2,200**	**7,500**	**37**	**3.05**	ND(<1)	**9.27**	**53.3**	**95.4**	**0.16**	NA	**91.4**
AST-4 4-5'	7/29/2022	ND(<50)	ND(<250)	ND	ND(<5)	**1.62**	ND(<1)	**7.15**	**17.8**	**3.02**	ND(<0.1)	NA	**20.2**
Shop Floor Drain And Outfall													
SFD-1 3.5ft	1/24/2018	**190**	ND(<50)	**190**	NA	**2.2**	ND(<0.50)	**19**	**56**	**2.9**	ND(<0.02)	NA	**100**
SFD-2 3.5ft	1/24/2018	ND(<25)	ND(<50)	ND	NA	**1.9**	ND(<0.50)	**12**	**29**	**1.9**	**0.021**	NA	**29**
SFD-3 0-1.5'	1/24/2018	**5,300**	**7,800**	**13,100**	NA	**22**	**57**	**350**	**8,800**	**10,000**	**0.25**	NA	**7,100**
MW-1 12ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**3.4**	ND(<0.2)	**18**	**32**	**4.4**	ND(<0.02)	NA	**30**
MW-1 15ft	7/30/2018	ND(<25)	ND(<50)	ND	NA	**2.1**	ND(<0.2)	**12**	**23**	**1.8**	ND(<0.02)	NA	**24**
SFD-4 0-1.5'	7/25/2022	ND(<50)	ND(<250)	ND	ND(<5)	**2.41**	**1.37**	**10.0**	**172**	**71.8**	**0.21**	NA	**150**
SFD-4 1.5-3'	7/25/2022	NA	NA	NA	NA	**1.95**	ND(<1)	**11.9**	**19.7**	**2.39**	ND(<0.1)	NA	**19.9**
Storm Water Pond													
SWP-1 1-3'	7/25/2022	NA	NA	NA	NA	**3.41**	ND(<1)	**14.6**	**51.2**	**10.6**	**0.085**	NA	**41.3**
SWP-1 3-5'	7/25/2022	NA	NA	NA	NA	**1.46**	ND(<1)	**9.83**	**17.6**	**2.01**	ND(<0.1)	NA	**17.8**
Former Orcas Power and Light Company (OPALCO) Pad													
OPALCO Pad 1-4in	1/24/2018	ND(<25)	**130**	**130**	NA	**7.1**	**2.2**	**40**	**1,100**	**530**	**0.15**	NA	**2,300**
OPALCO-2 2-6in	7/31/2018	ND(<25)	ND(<50)	ND	NA	**4.8**	**0.92**	**17**	**68**	**54**	**0.026**	NA	**2,600**
OPALCO-2 5ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**3.2**	ND(<0.19)	**16**	**45**	**2.1**	ND(<0.02)	NA	**250**
OPALCO-3 2-6in	7/31/2018	ND(<25)	ND(<50)	ND	NA	**7.1**	**1.1**	**30**	**1,300**	**990**	**0.34**	NA	**720**
OPALCO-3 4ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**4.1**	ND(<0.19)	**16**	**44**	**4.5**	**0.025**	NA	**39**
OPALCO-4 2-6in	7/31/2018	ND(<25)	ND(<50)	ND	NA	**5.5**	ND(<0.19)	**18**	**120**	**50**	**0.67**	NA	**74**
OPALCO-4 5ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**3.3**	ND(<0.19)	**15**	**34**	**2.2**	ND(<0.02)	NA	**31**
MW-4 2-6in	7/31/2018	ND(<25)	**120**	**120**	NA	**7.9**	**0.79**	**43**	**590**	**390**	**0.22**	NA	**620**
MW-4 11ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**8.4**	ND(<0.23)	**64**	**31**	**3.4**	ND(<0.02)	NA	**45**
Ship Yard Cove (SYC)													
SYC-1 2-6in	7/31/2018	ND(<25)	**120**	**120**	NA	**4**	ND(<0.19)	**24**	**42**	**19**	**0.026**	NA	**74**
SYC-1 2ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**4.2**	ND(<0.19)	**21**	**26**	**6.6**	**0.026**	NA	**54**
SYC-2 2-6in	7/31/2018	ND(<25)	**130**	**130**	NA	**4.2**	**0.21**	**21**	**48**	**46**	**0.036**	NA	**87**
SYC-2 2ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**4.2**	ND(<0.19)	**22**	**37**	**8.3**	**0.022**	NA	**46**
SYC-3 2-6in	7/31/2018	ND(<25)	**70**	**70**	NA	**6.3**	**0.4**	**29**	**99**	**57**	**0.063**	NA	**1,000**
SYC-3 3ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**3.9**	ND(<0.19)	**14**	**33**	**2.9**	ND(<0.02)	NA	**34**
SYC-4 2-6in	7/31/2018	ND(<25)	**140**	**140**	NA	**6.9**	**0.32**	**22**	**140**	**63**	**0.27**	NA	**140**
SYC-4 2ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**4.6**	ND(<0.19)	**22**	**63**	**51**	**0.23**	NA	**76**
SYC-5 0-1'	7/27/2022	NA	NA	NA	NA	**3.98**	ND(<1)	**9.92**	**32.2**	**4.62**	**0.14**	NA	**24.6**
SYC-6 0-1'	7/27/2022	NA	NA	NA	NA	**3.21**	ND(<1)	**10.5**	**60.7**	**22.2**	**0.68**	NA	**68.3**
SYC-7 0-1'	7/27/2022	NA	NA	NA	NA	**5.75**	ND(<1)	**11.4**	**143**	**56.0**	**0.40**	NA	**91.1**
Misc. Upgradient Area													
MW-6 2-6in	7/31/2018	ND(<25)	ND(<50)	ND	NA	**4**	ND(<0.19)	**19**	**28**	**13**	**0.027**	NA	**65**
MW-6 40ft	7/31/2018	ND(<25)	ND(<50)	ND	NA	**3**	ND(<0.2)	**14**	**16**	**1.5**	ND(<0.02)	NA	**23**
Eastern Uplands Undeveloped Area - Test Pits													
IOSA-TP1-1-1020	10/19/2020	NA	NA	NA	NA	**2.4**	<1	NA	**11**	**5.01**	<1	**15.4**	**28**
IOSA-TP2-1-1020	10/19/2020	NA	NA	NA	NA	**2.51**	<1	NA	**10**	**5.78**	<1	**7.4**	**16**
IOSA-TP3-1-1020	10/19/2020	NA	NA	NA	NA	**2.84 ca**	<1	NA	**61**	**56.4**	<1	**11.9**	**208**
IOSA-TP3-3-1020	10/19/2020	NA	NA	NA	NA	**1.85**	<1	NA	**14**	**4.29**	<1	**10.9**	**23**
IOSA-TP4-1-1020	10/19/2020	NA	NA	NA	NA	**2.33**	<1	NA	**19**	**12.2**	<1	**10.5**	**71**
IOSA-TP5-1-1020	10/19/2020	NA	NA	NA	NA	**2.88 ca**	<1	NA	**57**	**248**	<1	**13.9**	**287**
IOSA-TP5-3-1020	10/19/2020	NA	NA	NA	NA	**2.58 ca**	<1	NA	**30**	**46.4**	<1	**15.9**	**95**
IOSA-TP5-5-1020	10/19/2020	<50	<250	ND	NA	**3.92**	<1	NA	**37**	**80.7**	<1	**13.6**	**115**
IOSA-TP6-1-1020	10/19/2020	NA	NA	NA	NA	**2.4**	<1	NA	**34**	**241**	<1	**9.43**	**182**
IOSA-TP6-3-1020	10/19/2020	NA	NA	NA	NA	**3.67 ca**	<1	NA	**15.1 J**	**3.21**	<1	**16.6**	**19.6 J**
IOSA-TP7-1-1020	10/19/2020	NA	NA	NA	NA	**2.03**	<1	NA	**20**	**20.8**	<1	**9.81**	**35**
IOSA-TP8-1-1020	10/19/2020	NA	NA	NA	NA	**2.21**	<1	NA	**13**	**8.14**	<1	**9.04**	**40**

NOTES:

[A] - Screening level is natural background.

[B] - Screening level is practical quantitation limit (PQL).

[C] - Screening level is calculated soil protective of groundwater.

[D] - Lab sample was collected from a non-recommended sample container.

[E] - Method 8270E sample was analyzed outside of the method holding times.

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - indicates sample was not analyzed for the constituent

BOLD - indicates that the concentration in the sample exceeds the respective detection limit (quantified value)

Pink shaded cell indicates that the concentration in the sample exceeds the above listed applicable saturated soil screening level.

Tan shaded cell indicates that the concentration in the sample exceeds the above listed applicable surface or vadose soil screening level.

Sediment sample

Table 2 - Summary of Uplands Soil Data (cPAHs, Pesticides, PCBs)
Jensen's Shipyard and Marina
Port of Friday Harbor

Sample ID	Date	Semi-Volatile Organic Compounds (SVOCs) (EPA-8270 SIM) (mg/kg)	Organochlorine Pesticides (EPA-8081B) (mg/kg)		Dioxins/Furans (D/Fs) (EPA 1613)	Butyl Tins (EPA 8720E-SIM) (ug/kg)				Polychorinated Biphenyls (PCBs) (EPA-8082A) (mg/kg)
		Total cPAH Equivalent (TEQ)	DDT	DDD	Total D/Fs Equivalent (TEQ) (pg/g)	Tributyltin (TBT)	Dibutyltin	Butyltin	Tetrabutyltin	Total PCBs
Soil Screening Level Vadose and Surficial Soils		0.01 [B]	0.01 [B]	0.01 [B]	62.5	1.7	NS	NS	NS	1
Soil Screening Level Saturated Soils		0.01 [B]	0.01 [B]	0.01 [B]	62.5	0.062	NS	NS	NS	1
Surface Rail Work Area (SRWA)										
SRWA-1 3-6in	1/24/2018	**0.725**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-2 3-6in	1/24/2018	**0.186**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-3 0-6in	1/24/2018	**0.304**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-4 6in	8/1/2018	**0.661**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-4 3.5ft	8/1/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-5 2-6in	8/1/2018	**0.230**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-5 3.5 ft	8/1/2018	**0.074**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-5 5ft	8/1/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-6 2-6in	8/1/2018	**1.446**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-6 3ft	8/1/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-7 2-6in	8/1/2018	**0.077**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-7 3ft	8/1/2018	**0.215**	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 2-6in	8/1/2018	**0.114**	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 5.5ft	8/1/2018	**0.018**	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-8 0-1'	7/26/2022	**0.076**	ND(<0.01ca)	ND(<0.01)	**25.39**	**7.22**	**6.40**	**2.59 J**	ND(<5.00)	**0.081**
SRWA-8 2-3'	7/26/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-8 4-5'	7/26/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-9 2.5-5'	7/26/2022	ND(<0.01)	ND(<0.01ca)	ND(<0.01)	**0.01**	ND(<3.86)	ND(<5.77)	ND(<4.08)	(ND<4.99)	ND(<0.02)
SRWA-10 3-5'	7/28/2022	**0.049**	ND(<0.01)	ND(<0.01)	**1.68**	**9.86**	**5.30 J**	**3.76 J**	ND(<4.96)	
SRWA-10 5-7.5'	7/28/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-11 0-2.5'	7/26/2022	**0.14** [E]	NA	NA	NA	**55.5**	**50.5**	**15.2**	ND(<4.99)	
SRWA-13 0-0.5'	7/26/2022	**0.612**	**0.063**	**0.038**	**102.54**	**486/508**	**79.7/85.6**	**759 / 921**	**5.07 /** ND(<25.0)	**1.41**
SRWA-13 0.5-1'	7/26/2022	NA	NA	NA	NA	NA	NA	NA	NA	**0.30**
SRWA-13 3-5'	7/26/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
SRWA-14 0-1'	7/26/2022	**0.073**	**0.023**	ND(<0.01)	**13.39**	**2.18 J**	**7.67**	**11.7**	ND(<4.95)	**0.19**
SRWA-14 1-2'	7/26/2022	ND(<0.01)	ND(<0.01ca)	ND(<0.01)	NA	NA	NA	NA	NA	ND(<0.02)
SRWA-15 0-0.5'	7/26/2022	ND(<0.01)	ND(<0.01ca)	ND(<0.01)	**0.36**	**0.624**	**2.21**	**2.83**	ND(<4.97)	ND(<0.02)
Boat Lift Work Area (BLWA)										
BLWA-1 0-3in	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-2 0-3in	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-3 2-6in	7/30/2018	**0.529**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-3 2ft	7/30/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-4 2-6in	7/30/2018	**0.098**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-4 5ft	7/30/2018	**0.061**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-5 2-6in	7/30/2018	**0.529**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-5 2ft	7/30/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-6 2-6in	7/30/2018	**0.706**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-6 2ft	7/30/2018	**0.015**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-6 5ft	7/30/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-6 10 ft	7/30/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-7 2-6in	7/30/2018	**0.250**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-7 2ft	7/30/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-7 5ft	7/30/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-8 2-6in	7/30/2018	**0.122**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-8 2ft	7/30/2018	**0.043**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-8 5ft	7/30/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-9 2-6in	7/30/2018	**0.863**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-9 2ft	7/30/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-9 5ft	7/30/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 6in	7/30/2018	**0.119**	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 7ft	7/30/2018	**0.065**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-10 0-1'	7/28/2022	**0.080**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-10 3-5'	7/28/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-10 5-6'	7/28/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-11 0-2.5'	7/25/2022	**0.575**	NA	NA	NA	NA	NA	NA	NA	**0.46**
BLWA-11 2.5-5'	7/25/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-11 5-7'	7/25/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-12 0-2'	7/25/2022	**0.127**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-12 3-5'	7/25/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-12 5-7'	7/25/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-13 0-2'	7/27/2022	**0.147**	NA	NA	NA	NA	NA	NA	NA	NA
BLWA-13 3-5'	7/27/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-7 2-3'	7/27/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-7 3-5'	7/27/2022	ND(<0.01)	NA	NA	NA	NA	NA	NA	NA	ND(<0.02)
MW-7 10-11'	7/27/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-8 4-5'	7/28/2022	ND(<0.05)	NA	NA	NA	NA	NA	NA	NA	**0.14**
MW-8 5-7'	7/28/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-9 0-2.5'	7/27/2022	**0.047**	ND(<0.01)	ND(<0.01)	**20.727**	**38.5**	**62.7**	**86.8**	ND(<4.99)	**0.022**
MW-9 2.5-5'	7/27/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-9 5-7'	7/27/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA

Former Dumping Area (FDA)										
FDA-1 2ft	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
FDA-2 0-6in	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
FDA-3 2.5ft	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5 2-6in	7/31/2018	**0.070**	NA	NA	NA	NA	NA	NA	NA	NA
MW-5 10ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
Former Underground Storage Tank (UST)										
UST-1 5ft	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
UST-2 3ft	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
Former Above Ground Storage Tank (AST)										
AST-1 2ft	7/30/2018	**0.015**	NA	NA	NA	NA	NA	NA	NA	NA
AST-2 7.5-10'	7/26/2022	**NA**	NA	NA	NA	NA	NA	NA	NA	NA
AST-2 10-12'	7/26/2022	**NA**	NA	NA	NA	NA	NA	NA	NA	NA
AST-3 5-7'	7/28/2022	**NA**	NA	NA	NA	NA	NA	NA	NA	NA
AST-3 8-10'	7/28/2022	**NA**	NA	NA	NA	NA	NA	NA	NA	NA
AST-4 1-2'	7/29/2022	**NA**	NA	NA	NA	NA	NA	NA	NA	NA
AST-4 4-5'	7/29/2022	**NA**	NA	NA	NA	NA	NA	NA	NA	NA
Shop Floor Drain And Outfall										
SFD-1 3.5ft	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
SFD-2 3.5ft	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
SFD-3 0-1.5'	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1 12ft	7/30/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
MW-1 15ft	7/30/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SFD-4 0-1.5'	7/25/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
SFD-4 1.5-3'	7/25/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
Storm Water Pond										
SWP-1 1-3'	7/25/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
SWP-1 3-5'	7/25/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
Former Orcas Power and Light Company (OPALCO) Pad										
OPALCO Pad 1-4in	1/24/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA
OPALCO-2 2-6in	7/31/2018	**0.030**	NA	NA	NA	NA	NA	NA	NA	NA
OPALCO-2 5ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
OPALCO-3 2-6in	7/31/2018	**0.096**	NA	NA	NA	NA	NA	NA	NA	NA
OPALCO-3 4ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
OPALCO-4 2-6in	7/31/2018	**0.036**	NA	NA	NA	NA	NA	NA	NA	NA
OPALCO-4 5ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 2-6in	7/31/2018	**0.111**	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 11ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
Ship Yard Cove (SYC)										
SYC-1 2-6in	7/31/2018	**0.015**	NA	NA	NA	NA	NA	NA	NA	NA
SYC-1 2ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SYC-2 2-6in	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SYC-2 2ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SYC-3 2-6in	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SYC-3 3ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
SYC-4 2-6in	7/31/2018	**0.037**	NA	NA	NA	NA	NA	NA	NA	NA
SYC-4 2ft	7/31/2018	**0.038**	NA	NA	NA	NA	NA	NA	NA	NA
SYC-5 0-1'	7/27/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
SYC-6 0-1'	7/27/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
SYC-7 0-1'	7/27/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA
Misc. Upgradient Area										
MW-6 2-6in	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
MW-6 40ft	7/31/2018	ND(<0.02)	NA	NA	NA	NA	NA	NA	NA	NA
Eastern Uplands Undeveloped Area - Test Pits										
IOSA-TP1-1-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP2-1-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP3-1-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP3-3-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP4-1-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP5-1-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP5-3-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP5-5-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP6-1-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP6-3-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP7-1-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA
IOSA-TP8-1-1020	10/19/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

[A] - Screening level is natural background.

[B] - Screening level is practical quantitation limit (PQL).

[C] - Screening level is calculated soil protective of groundwater.

[D] - Lab sample was collected from a non-recommended sample container.

[E] - Method 8270E sample was analyzed outside of the method holding times.

ND - indicates analyte was not detected at level above reporting limit (shown in parentheses)

NA - indicates sample was not analyzed for the constituent

BOLD - indicates that the concentration in the sample exceeds the respective detection limit (quantified value)

Pink shaded cell indicates that the concentration in the sample exceeds the above listed applicable saturated soil screening level.

Tan shaded cell indicates that the concentration in the sample exceeds the above listed applicable surface or vadose soil screening level.

Sediment sample

Table 3 - Summary of Groundwater Data
Jensen's Shipyard and Marina
Port of Friday Harbor

		Lowest Screening Level	Screening Level Source	Well ID	MW-1		MW-2 [e]			MW-3				MW-4			MW-5			MW-6			MW-7 [f]		MW-8		MW-9 [g]		SFD-4	SWP-1	BLWA-11	BLWA-13	AST-2	DUP-220726-2 (AST-2)	AST-3	SRWA-9		SRWA-10
				Date	2/19/20	9/8/22	8/28/18	2/19/20	9/6/22	8/28/18	2/19/20	9/7/22		8/28/18	2/19/20	9/8/22	8/29/18	2/19/20	9/7/22	8/29/18	2/19/20	9/6/22	9/7/22		9/8/22		9/6/22		7/25/22	7/25/22	7/25/22	7/27/22	7/26/22	7/26/22	7/28/22	7/26/22		7/28/22
	Metals Method(s)				6020B	6020B/1631E	200.8/245.1	6020B	1638/1631E	6020B/1631E	200.8/245.1	6020B	1638/1631E	6020B/1631E	200.8/245.1	6020B	6020B/1631E	200.8/245.1	6020B	6020B/1631E	200.8/245.1	6020B	6020B/1631E	1638/1631E	6020B/1631E	1638/1631E	6020B/1631E	1638/1631E	6020B/1631E	1638	1638	1638	1638	1638	1638	1638	6020B, 1631E	1638	1638
Water Quality Parameters																																						
Specific Conductivity				mS/cm	0.856	0.364	5.854	8.158	2.634	2.634	4.839	6.611	13.176	13.176	0.351	0.885	0.287	0.513	0.422	0.402	0.513	0.352	0.153	34.935	34.935	34.705	34.705	37.987	37.987	NA	NA	NA	NA	0.550	0.550	1.952	NA	NA	NA
Turbidity				NTU	46.07	6.14	2.9	3.09	1.70	1.70	2.8	31.66	6.17	6.17	4.7	12.17	1.44	48.0	22.34	28.0	381	3.76	12.8	5.01	5.01	2.07	2.07	2.12	2.12	NA	NA	NA	NA	95.52	95.52	143	NA	NA	NA
Total and Dissolved Metals (EPA 6020B, 1631E, 1638, EPA 200.8, 245.1)																																						
Arsenic, Total	8.0 [h]	Natural Background		ug/L	**10.1**	**12.6**	NA	**7.21 J / 7.73 J**	**0.382 J**	**4.92**	NA	**9.56**	**1.43**	**21.0**	NA	**2.97**	**5.72**	NA	**1.07**	1 U	NA	1 U	1 U	**1.27 / 1.11**	**49.5 / 46.6**	**1.49**	**43.4**	**1.79**	**53.6**	**39.6**	**52.7**	**12.3**	**6.51**	**6.37**	NA	**5.22**	5 U	**39.7**	**4.28**
Cadmium, Total	7.9	Aquatic Life - CWA		ug/L	1 U	1 U	NA	1 UJ / 1 UJ	0.061 U	1 U	NA	1 U	**1.10**	10 U	NA	1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	**1.24 / 1.26**	10 U / 10 U	**2.28**	10 U	**0.485**	10 U	**1.79**	**0.781**	**0.477**	**1.02**	**0.195**	NA	**0.378**	1 U	**1.55**	**0.186**
Chromium, Total	50	Aquatic Life - CWA/173		ug/L	**1.52**	10 U	NA	**5.74 / 5.06**	**5.06 J**	10 U	NA	**73.8**	**53.2**	**56.3**	NA	**4.43**	10 U	NA	**1.48**	1 U	NA	1 U	10 U	**188 / 185**	**176 / 180**	**64.4**	**65.4**	1.72 U	10 U	**67.8**	**357**	**28.4**	**13.5 J**	**13.5**	NA	**24.1**	**2.85**	**631**	**21.9**
Copper, Total	3.1	Aquatic Life - CWA/173		ug/L	**3.74**	**7.33**	NA	**3.96 / 3.05**	**1.56**	5 U	NA	**29.4**	**15.5**	**20.0**	NA	**10.9**	**11.5**	NA	**5.87**	5 U	NA	2.5 U	5 U	**11.7 / 11.9**	50 U / 50 U	**44.2**	50 U	**15.1**	50 U	**520**	**1110**	**238**	**171**	**74.5**	NA	**139**	**5.37**	**617**	**63.7**
Lead, Total	5.6	Aquatic Life - CWA		ug/L	1 U	1 U	NA	1 U / 1U	**0.156**	1 U	NA	**9.42**	**5.89**	10 U	NA	**4.02**	1 U	NA	1 U	1 U	NA	1 U	1 U	**0.933 / 0.829**	10 U / 10 U	**0.466**	10 U	**1.59**	10 U	**115**	**89.2**	**50.9**	**70.6**	**12.9**	NA	**27.1**	1 U	**324**	**26.0**
Mercury, Total	0.2	PQL		ug/L	0.2 U	0.2 U	NA	0.2 U / 0.2 U	**1.65**	0.2 U	NA	0.2 U	**25.4**	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	NA	0.2 U	0.2 U	**114 / 125**	0.2 U / 0.2 U	**10.2**	0.2 U	**155**	0.2 U	**376**	**253**	**22.7**	**155**	**78.3**	NA	**28.2**	**0.022**	**2880**	**53.5**
Nickel	8.2	Aquatic Life - CWA/173		ug/L	**1.57**	NA	NA	**4.23 / 4.47**	NA	NA	NA	**3.83**	NA	NA	NA	**10.4**	NA	NA	**3.52**	NA	NA	**1.99**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc, Total	81	Aquatic Life - CWA/173		ug/L	5 U	5 U	NA	5 U / 5U	7.07 U	5 U	NA	**53.9**	**250**	**135**	NA	**11.1**	**5.41**	NA	**5.85**	5 U	NA	5 U	5 U	**408 / 395**	**323 / 323**	**233**	**196**	**137**	**114**	**199**	**511**	**134**	**502**	**12.3 J**	NA	**64.3**	5 U	**719**	**76.4**
Arsenic, Dissolved	8.0 [h]	Natural Background		ug/L	**9.56**	**11.1**	1 U	**7.63 J / 8.68 J**	**0.308 J**	**3.76**	**2.3**	**7.81 J**	**0.680 J**	**16.8**	**1.1**	**2.06**	**3.03**	**1.2**	1 U	1 U	1 U	1 U	1 U	**1.18 / 0.895**	**47.0 / 45.8**	**1.54**	**46.7**	**1.88**	**53.6**	**11.5**	**0.241 J**	**4.25**	**2.88**	**2.28**	NA	**0.694 J**	NA	**0.366 J**	**0.237 J**
Cadmium, Dissolved	7.9	Aquatic Life - CWA		ug/L	1 U	1 U	1 U	1 UJ / 1UJ	0.061 U	1 U	1 U	1 U	**1.06**	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**1.25 / 1.27**	10 U / 10 U	**2.30**	10 U	**0.438**	10 U	0.061 U	0.061 U	**0.247 J**	**0.811**	0.061 U	NA	0.061 U	NA	0.061 U	0.061 U
Chromium, Dissolved	50	Aquatic Life - CWA/173		ug/L	1U	10 U	2 U	**1.83 J / 2.17**	**3.37 J**	**5.25**	**4.9/5.0**	**2.56**	**3.82 J**	**3.72**	2 U	**1.88**	10 U	2 U	1 U	1 U	2 U	1 U	**1.30**	**119 / 120**	**105 / 109**	**48.5**	**46.7**	1.72 U	**20.1**	1.72 U	1.72 U	4.29 U	4.29 U	1.72 U	NA	**5.03 J**	NA	1.72 U	1.72 U
Copper, Dissolved	3.1	Aquatic Life - CWA/173		ug/L	2.5U	5 U	2 U	2.5 U / 2.5 U	**1.03**	5 U	**3.2**	**21.6**	**7.73**	**6.08**	**3.2**	**2.65**	5 U	2 U	**3.07**	5 U	2 U	2.5 U	5 U	**11 / 10.6**	50 U / 50 U	**57.1**	50 U	**14.5**	100 U	**8.46**	**1.91**	**2.63**	**76.9**	**6.98 J**	NA	**2.03**	NA	**4.68**	**3.47**
Lead, Dissolved	5.6	Aquatic Life - CWA		ug/L	1U	1 U	1 U	1 U / 1 UJ	**0.095 J**	1 U	1 U	**1.71**	**0.193**	10 U	1 U	1 U	1 U	1 U	1 U	**1.67**	1 U	1 U	1 U	**0.359 / 0.298**	10 U / 10 U	**0.434**	10 U	**1.28**	10 U	**0.376**	0.040 U	**0.102 J**	**24.5**	**0.262**	NA	**0.98**	NA	**0.108 J**	**0.087 J**
Mercury, Dissolved	0.2	PQL		ug/L	1U	NA	2 U	0.2 U / 0.2 UJ	NA	NA	2 U	0.2 U	NA	NA	2 U	0.2 U	NA	2 U	0.2 U	NA	2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel, Dissolved	8.2	Aquatic Life - CWA/173		ug/L	0.2 U	0.2 U	NA	**4.38 J / 4.60**	**1.20**	0.2 U	NA	**2.68**	**6.07**	0.2 U	NA	**7.05**	0.2 U	NA	**2.61**	0.2 U	NA	**2.04**	0.2 U	**18 / 19.2**	0.2 U / 0.2 U	**8.78**	0.2 U	**138**	0.2 U	**0.68**	**0.63**	**0.88**	**60.0**	**0.32 J**	NA	**0.586**	NA	**2.65**	**2.69**
Zinc, Dissolved	81	Aquatic Life - CWA/173		ug/L	5 U	5 U	2.5 U	5 UJ / 5U	7.07 U	5 U	**9.8**	**47.8**	**239**	**100**	**3**	5 U	5 U	2.5 U	5 U	5 U	2.5 U	**5.97**	5 U	**409 / 388**	**310 / 316**	**242**	**190**	**137**	**131**	**7.48 J**	7.07 U	**21.2 J**	**433**	7.07 U	NA	7.07 U	NA	7.07 U	**8.89 J**
Total Petroleum Hydrocarbons (NWTPH-Dx) and BTEX (8021 and 8260)																																						
NWTPH-Gx Gasoline Range	800	Method A, benzene present		ug/L	NA	100 U	**200**	NA	100 U		50 U	NA	NA		50 U	NA	NA	50 U	NA	NA	50 U	NA	100 U	100 U		100 U		100 U		100 U	100 U	100 U	100 U	**290**	**290**	100 U	100 U	NA	NA
NWTPH-Dx Diesel Range	See Total	Method A		ug/L	**160 x**	**77 x**	**210**	**110 x / 120 x**	**220 x**		130 U	50 U	NA		130 U	50 U	NA	130 U	50 U	NA	130 U	50 U	50 U	50 U		50 U		50 U		**160 x**	NA	**63 x**	50 U	**290 x**	**290 x**	**290 x**	**130 x**	NA	NA
NWTPH-Dx Diesel Range with SGC	See Total	Method A		ug/L	50 U	NA	NA	50 U/ 50 U	NA		NA	50 U	NA		NA	50 U	NA	NA	50 U	NA	NA	50 U	NA	NA		NA		NA		50 U	NA	50U	50 U	NA	NA	50 U	NA	NA	NA
NWTPH-Dx Oil Range	See Total	Method A		ug/L	250 U	250 U	250 U	250 U	250 U		250 U	250 U	NA		250 U	250 U	NA	250 U	250 U	NA	250 U	250 U	250 U	250 U		250 U		250 U		250 U	NA	250 U	250 U	250 U	250 U	250 U	320 U	NA	NA
NWTPH-Dx Oil Range with SGC	See Total	Method A		ug/L	250 U	NA	NA	250 U/ 250 U	NA		NA	250 U	NA		NA	250 U	NA	NA	250 U	NA	NA	250 U	NA	NA		NA		NA		250 U	NA	250 U	250 U	NA	NA	250 U	NA	NA	NA
NWTPH-Dx	500	Method A		ug/L	**160**	**77**	**210**	**110 / 120**	**220**		250 U	250 U	NA		250 U	250 U	NA	250 U	250 U	NA	250 U	250 U	250 U	250 U		250 U		250 U		**160 x**	NA	**63 x**	250 U	**290 x**	**290 x**	**290 x**	**130 x**	NA	NA
NWTPH-Dx with SGC	500	Method A		ug/L	250 U	NA	NA	250 U / 250 U	NA		NA	250 U	NA		NA	250 U	NA	NA	250 U	NA	NA	250 U	NA	NA		NA		NA		250 U	NA	250 U	250 U	NA	NA	250 U	NA	NA	NA
EPA 8021 Benzene	1.6	SW-HH-173		ug/L	0.35 U	NA	1 U	0.35 U	NA		1 U	0.35 U	NA		1 U	0.35 U	NA	1 U	0.35 U	NA	1 U	0.35 U	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA 8021 Toluene	130	SW-HH-173		ug/L	1 U	NA	1 U	1 U	NA		1 U	1 U	NA		1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA 8021 Ethylbenzene	31	SW-HH-40CFR		ug/L	1 U	NA	1 U	1 U	NA		1 U	1 U	NA		1 U	1 U	NA	1 U	1 U	NA	1 U	1 U	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA 8021 Xylenes	320	Protection of Indoor Air		ug/L	2 U	NA	3 U	2 U	NA		3 U	2 U	NA		3 U	2 U	NA	3 U	2 U	NA	3 U	2 U	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cPAH Semi-Volatile Organic Compounds (EPA 8270D, 8270 SIM)																																						
Naphthalene [a]	8.9	Protective of Indoor Air		ug/L	1 U	NA	0.02 U	1 U	NA		0.02 U	1 U	NA		0.02 U	1 U	NA	0.02 U	1 U	NA	0.02 U	1 U	NA	0.2 U		0.2 U /0.2 U		0.2 U		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	---	see cPAH TEQ		ug/L	NA	NA	0.02 U	NA	NA		0.02 U	NA	NA		0.02 U	NA	NA	0.02 U	NA	NA	0.02 U	NA	NA	0.02 U		0.02 U / 0.02 U		0.02 U		NA	NA	**0.17**	**0.080**	NA	NA	NA	0.02 U	NA	NA
Benzo(a)anthracene	---	see cPAH TEQ		ug/L	NA	NA	0.02 U	NA	NA		0.02 U	NA	NA		0.02 U	NA	NA	0.02 U	NA	NA	0.02 U	NA	NA	0.02 U		0.02 U / 0.02 U		0.02 U		NA	NA	**0.2**	**0.068**	NA	NA	NA	0.02 U	NA	NA
Benzo(b)fluoranthene	---	see cPAH TEQ		ug/L	NA	NA	0.02 U	NA	NA		0.02 U	NA	NA		0.02 U	NA	NA	0.02 U	NA	NA	0.02 U	NA	NA	0.02 U		0.02 U / 0.02 U		0.02 U		NA	NA	**0.16 fb**	**0.13**	NA	NA	NA	0.02 U	NA	NA
Benzo(k)fluoranthene	---	see cPAH TEQ		ug/L	NA	NA	0.02 U	NA	NA		0.02 U	NA	NA		0.02 U	NA	NA	0.02 U	NA	NA	0.02 U	NA	NA	0.02 U		0.02 U / 0.02 U		0.02 U		NA	NA	**0.44**	**0.043**	NA	NA	NA	0.02 U	NA	NA
Chrysene	---	see cPAH TEQ		ug/L	NA	NA	0.02 U	NA	NA		0.02 U	NA	NA		0.02 U	NA	NA	0.02 U	NA	NA	0.02 U	NA	NA	0.02 U		0.02 U / 0.02 U		0.02 U		NA	NA	**0.53**	**0.069**	NA	NA	NA	0.02 U	NA	NA
Dibenz(a,h)anthracene	---	see cPAH TEQ		ug/L	NA	NA	0.02 U	NA	NA		0.02 U	NA	NA		0.02 U	NA	NA	0.02 U	NA	NA	0.02 U	NA	NA	0.02 U		0.02 U / 0.02 U		0.02 U		NA	NA	**0.030 fb**	0.02 U	NA	NA	NA	0.02 U	NA	NA
Indeno(1,2,3-cd)pyrene	---	see cPAH TEQ		ug/L	NA	NA	0.02 U	NA	NA		0.02 U	NA	NA		0.02 U	NA	NA	0.02 U	NA	NA	0.02 U	NA	NA	0.02 U		0.02 U / 0.02 U		0.02 U		NA	NA	**0.14 fb**	**0.074**	NA	NA	NA	0.02 U	NA	NA
cPAH Equivalent (TEQ) [c]	0.02	PQL		ug/L	NA	NA	0.015	NA	NA		0.015	NA	NA		0.015	NA	NA	0.015	NA	NA	0.015	NA	NA	ND(<0.02)		ND(<0.02)		ND(<0.02)		NA	NA	**0.27**	**0.11**	NA	NA	NA	ND(<0.02)	NA	NA
Volatile Organic Compounds (EPA 8260)																																						
All 8260 Compounds	<1 [i]	PQL		ug/L	ND(<0.1,<50)	NA	NA	ND(<0.1,<50)	NA		NA	ND(<0.1,<50)	NA		NA	ND(<0.1,<50)	NA	NA	ND(<0.1,<50)	NA	NA	ND(<0.1,<50)	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychorinated Biphenyls (EPA 8082A)	0.1	PQL		ug/L	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(<0.1)		ND(<0.1)/ND(<0.1)		ND(<0.1)		NA	NA	0.1 U	NA	NA	NA	NA	ND(<0.1)	NA	NA
Organochlorine Pesticides (EPA 8081B)	0.1, 1	PQL		ug/L	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(<0.1, <1)		ND(<0.1,<1)		ND(<0.1, <1)		NA	NA	NA	NA	NA	NA	NA	ND(<0.1,<1)	NA	NA
Butyl Tins (EPA 8270E-SIM)																																						
Tributyltin	0.0074	Aquatic Life - CWA		ug/L	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U		**0.0098 / 0.0085**		0.0052 U		NA	NA	NA	NA	NA	NA	NA	ND(<0.0052)	NA	NA
Dibutyltin	---	No Screening Level		ug/L	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	ND(<0.0077)	NA	NA
Butyltin	---	No Screening Level		ug/L	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	**0.0215**	NA	NA
Tetrabutyltin	---	No Screening Level		ug/L	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	ND(<0.0300)	NA	NA
Dioxins/Furans (EPA 1613) TEQ	0.0051	PQL		pg/L	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.23**		**23.34 / 0.87**		**3.16**		NA	NA	NA	NA	NA	NA	NA	**361.1** [j]	NA	NA
Total Organic Carbon (SM 5310C)	---	No Screening Level		ug/L	NA	NA	NA	NA	NA		NA	NA	NA		NA	NA	NA	NA	**4.66**	NA	NA	**3.64**	NA	NA		NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[a] - Cleanup level dependent on BTEX concentrations
[b] - Sum of naphthalene, 1-methyl naphthalene, and 2-methylnaphthalene
[c] - cPAH level calculated using Toxicity equivalency methodology provided in WAC 173-340-708(8)
[d] - Method A cleanup level of Benzo(a)pyrene
[e] - Second value from duplicate sample MW-7A-021920
[f] - Second value from duplicate sample DUP-220907
[g] - Second value from duplicate sample DUP-220908
[h] - Value drawn from *Natural Background Groundwater Arsenic Concentrations in Washington State, Study Results*, Washington State Department of Ecology Publication 14-09-044.
[i] - Sample was greater than 1% solids. Aqeous portion of sample and solids portions of sample extracted separately and recombined prior to EPA Method 1613 analysis. See lab report case narrative for additional details.
[j] - Multiple reporting limits varying between 0.1 to 50 ug/L per compound. Most common reporting limit is 1 ug/L.
ND - indicates analyte(s) were not detected at level above corresponding reporting limit(s)
NA - indicates value not available; not analyzed; indicates that there is no MTCA Method A target cleanup level
BOLD - indicates that the concentration in the sample exceeds the respective detection limit (quantified value)
Blue shaded cell indicates that the concentration in the sample exceeds the above listed applicable screening level.
TEQ - Toxicity Equivalency, calculated by multiplying result by appropriate TEF, summing cogeners if applicable.
ug/L - micrograms per liter
mS/cm - milliSiemens per centimeter
U - indicates that the value is a laboratory reporting limit
J, j - reported concentration is an estimate.
SGC - Silica Gel Cleanup
PQL - Practical Quantitation Limit
CWA/173 - Surface Water for Human Health CWA §304 and/or 173-201A WAC
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
fb - The analyte was detected in the method blank.