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REMEDIAL INVESTIGATION REPORT
South Park Marina Site

Prepared for:

City of Seattle, Seattle City Light,
The Port of Seattle, and
South Park Marina Limited Partnership

Project No. AS190293A • September 1, 2026 • Final

Aspect
A Geosyntec Company

BLACK RIVER
environmental

earth + water

TABLES

Table 4.1. Summary of Environmental Investigations

South Park Marina Site, Seattle, Washington

Year	Author	Title / Subject	Prepared For	Date	Reference
Environmental Investigations and Cleanups Prior to the Agreed Order					
2006	Integral	Site Characterization Data Report, South Park Remediation Project	Seattle Public Utilities	May 23, 2006	Integral, 2006
2006	Windward	T-117 Upland Area Soil Investigation Field Sampling and Data Report	US Environmental Protection Agency	July 7, 2006	Windward, 2006
2008	SAIC	South Park Marina Seattle, Washington, Additional Site Characterization Activities Data Report Final	Washington State Department of Ecology	June 2008	SAIC, 2008a
2008	SAIC	Final Technical Memorandum Subject: Transmittal of Low-Level Mercury Results, July 2008 Groundwater Sampling Round, South Park Marina Site	Mark Edens, Washington State Department of Ecology	December 31, 2008	SAIC, 2008b
2010	Windward et al.	Revised Engineering Evaluation/Cost Analysis	The Port of Seattle and The City of Seattle	June 3, 2010	Windward et al., 20210
2011	OnSite Environmental Inc.	Analytical Data for Project 289-001	Farallon Consulting, LLC	August, 2011	Farallon, 2011
2007 - 2012	Sealask and Crete	Terminal 117 - Interim Groundwater Monitoring Completion Report	Port of Seattle	Septembery 17, 2012	Sealaska and Crete, 2012
2012	Integral	Terminal 117 - Removal Action Design Report - Residential Yards Area	Port of Seattle and City of Seattle	November 30, 2012	Integral, 2012
2014	AECOM Environment	Terminal 117 - Upland and Sediment NTCRA, Sheen in Seeps Bordering Dredge Unit 3 Memorandum	Port of Seattle	April 7, 2014	AECOM Environment, 2014
2014	Integral et al.	Terminal 117 - Removal Action Design Report - Adjacent Strees and Stormwater	Port of Seattle and City of Seattle	October 1, 2014	Integral et al., 2014
2015	Leidos	NPDES Inspection Sampling Support 2014/2015	Washington State Department of Ecology	June 2015	Leidos, 2015
2016	AECOM Environment	Removal Action Construction Report Terminal 117 Sediment and Upland Cleanup	US Environmental Protection Agency	March 31, 2016	AECOM Environment, 2016
2016	The Intelligence Group	Field Report No. 1 - Transformer Inventory	South Park Marina	September 20, 2016	The Intelligence Group, 2016a
2016	The Intelligence Group	Field Report No. 2 - Chemical and Hazardous Material Inventory	South Park Marina	September 20-22, 2016	The Intelligence Group, 2016b
2016	The Intelligence Group	Field Report No. 3 - Water Treatment Systems Inspection and Initial Interview with Steven Brown Regarding System Operation	South Park Marina	September 21-22, 2016	The Intelligence Group, 2016c
2016	The Intelligence Group	Field Report No. 4 - Interview with Steven Brown Regarding Marina Operations and Inspection of a Room Not Previously Accessed	South Park Marina	October 18, 2016	The Intelligence Group, 2016d
2016	The Intelligence Group	Field Report No. 3 - Visual Inspection of Air Compressors, Air Compressor Lubricants, and Any Maintenance Information Available for On-Site Air Compressors	South Park Marina	October 18, 2016	The Intelligence Group, 2016e
2016	The Intelligence Group	Field Report No. 2 - Visual Inspection of Electrical Poles and Pole-Mount Transformers Located on the South Park Marina Property	South Park Marina	October 18, 2016	The Intelligence Group, 2016f
2016	The Intelligence Group	Field Report No. 1 - Water Treatment Systems Inspection and Interview with Steven Brown Regarding System Operation	South Park Marina	October 18, 2016	The Intelligence Group, 2016g
2016	The Intelligence Group	Data Report, 2016 Soil, Sediment and Catch Basin Sampling and Analysis, Lower Duwamish Superfund Site	South Park Marina and Karr Tuttle Campbell	September 20, 2016	The Intelligence Group, 2016h
2016	TIG Environmental	Field Report - Investigate Locations of Potential Septic Tanks and Investigate Drainage Pathways	South Park Marina	February 22-23, 2017	TIG Environmental, 2017
2018	TIG Environmental	Stormwater and Boat Wash Water Systems Evaluation South Park Marina	South Park Marina	February 2018	TIG Environmental, 2018a
2018	TIG Environmental	South Park Marina (Facility/Site ID 44653368) Supplemental PCB Investigation Memorandum	South Park Marina	September 11, 2018	TIG Environmental, 2018b
2019	TIG Environmental	Results of Drainage Pathway Investigation	South Park Marina	January 16, 2019	TIG Environmental, 2019
Environmental Investigations and Conducted Concurrently with the Agreed Order					
2019	Windward	Lower Duwamish Waterway Surface Sediment Data Report	Lower Duwamish Waterway Group	February 8, 2019	Windward, 2019
2020	Windward	Lower Duwamish Waterway Pre-Design Studies Data Evaluation Report (Task 6)	Lower Duwamish Waterway Group	June 26, 2020	Windward, 2020
2021	Ecology	March 2021 National Pollution Discharge Elimination System Permit Inspection	South Park Marina	March 11, 2021	Ecology, 2021
2021	Anchor QEA	T-117 Early Action Area Summary of Year 6 Sediment Monitoring	Port of Seattle	June 9, 2021	Anchor QEA, 2021
2021	TIG Environmental	South Park Marina Post-Fire Sampling Memo	South Park Marina	October 2, 2023	TIG Environmental, 2023d
2022	Ecology	March 2022 National Pollution Discharge Elimination System Permit Inspection	South Park Marina	February 25, 2022	Ecology, 2022
2022	TIG Environmental	Field Sampling and Data Report, September 2022 Soil Sampling Event, South Park Marina	South Park Marina	May 23, 2023	TIG Environmental, 2023c
2022	Windward and Anchor	Preliminary (30%) Remedial Design Basis of Design Report for Lower Duwamish Waterway Upper Reach	Lower Duwamish Waterway Group	August 29, 2022	Windward and Anchor, 2022
2023	TIG Environmental	Level Three Response Engingeering Report for Zinc and Copper	South Park Marina	January 2023	TIG Environmental, 2023a
2023	Windward and Anchor	Intermediate (60%) Remedial Design Basis of Design Report for Lower Duwamish Waterway Upper Reach	Lower Duwamish Waterway Group	February 20, 2023	Windward and Anchor, 2023a
2023	TIG Environmental	Summary of Findings Related to Historic Dry Cleaner Site, 8500 to 8510 14th Avenue South, Seattle, WA	South Park Marina	March 8, 2023	TIG Environmental, 2023b
2023	SPU et al., 2023	Termainl 117 - 2022 (Year 7) Annual Monitoring and Maintenance Report	Seattle Public Utilities	April 2023	SPU et al., 2023
2023	SPU	T-117 Polychlorinated Biphenyl Source Tracing Memorandum	Seattle Public Utilities	May 16, 2023	SPU, 2023
2023	Windward and Anchor	Pre-Final (90%) Remedial Design Basis of Design Report for Lower Duwamish Waterway Upper Reach	Lower Duwamish Waterway Group	July 24, 2023	Windward and Anchor, 2023b
2024	Windward and Anchor	Final (100%) Remedial Design Basis of Design Report for Lower Duwamish Waterway Upper Reach	Lower Duwamish Waterway Group	January 16, 2024	Windward and Anchor, 2024
2024	TIG Environmental	Field Report - APS Camera Survey of CB-10 and CB-11, October 1, 2024	South Park Marina	October 1, 2024	TIG Environmental, 2024
2025	SPU	Terminal 117 2024 Sampling and Results	Seattle Public Utilities	Undated	SPU, 2025

Table 5.1. Investigation Location Details

South Park Marina Site, Seattle, Washington

Exploration Name	Exploration Type	Installation Date	Northing (NAD83)	Easting (NAD83)	Ground Surface Elevation[(1)] (feet NAVD88)	Top of Well Casing Elevation (feet NAVD88[(2)])	Monitoring Well Screen Construction	Screen Interval (feet bgs)	Filter Pack Sand Interval (feet bgs)
MW-01	Decommissioned Monitoring Well	9/27/2007	195846.44	1275012.35	N/A	15.43 (msl)	3/4-inch, prepacked, 0.01-inch (10-slot), Schedule 40 polyvinyl chloride with 2/12 silica sand filter pack	8-18	6-20
MW-02		9/28/2007	195798.01	1275078.33	N/A	14.84 (msl)		12-17	10-20
MW-03		9/27/2007	195780.67	1275100.79	N/A	14.91 (msl)		12.25-17.25	10-20
MW-04	Monitoring Well	3/4/2021	195754.72	1275105.60	15.48	15.02	2-inch, prepacked, 0.01-inch (10-slot), Schedule 40 polyvinyl chloride with 10/20 or 12/20 silica sand filter pack	6-11	5-11
MW-04D		9/22/2022	195753.84	1275103.21	15.21	14.89		16-21	14-22
MW-05		3/5/2021	195772.22	1275102.60	15.09	14.50		4.5-9.5	3.5-9.5
MW-05D		9/22/2022	195774.24	1275105.99	14.81	14.40		14-19	13-21
MW-06		3/5/2021	195786.82	1275103.00	14.47	14.27		3.5-8.5	2.5-8.5
MW-06D		9/21/2022	195787.94	1275093.61	14.85	14.63		15-20	13-21
MW-07		3/9/2021	195833.02	1275052.10	15.61	15.20		4-9	3-9
MW-08		3/9/2021	195900.62	1274976.90	15.33	14.95		7-12	6-12
MW-08D		9/15/2022	195886.26	1274991.82	15.21	14.67		15-20	9-20
MW-09		3/9/2021	195985.22	1274877.00	14.56	14.24		4.5-9.5	3.5-9.5
MW-09D		9/15/2022	195976.70	1274881.58	14.70	14.29		15-20	10-20
MW-10		3/8/2021	196115.82	1274735.30	15.04	14.69		5-10	4-10
MW-11		3/8/2021	196211.32	1274632.40	15.11	14.74		5-10	4-10
MW-11D		9/15/2022	196225.56	1274618.11	15.44	15.03		18-23	12-25
MW-12		3/3/2021	196055.22	1274617.00	15.97	15.40		7-12	6-12
MW-13		3/2/2021	195881.92	1274529.40	18.88	18.36		10-15	9-15
MW-13D		9/23/2022	195887.03	1274524.45	18.72	18.49		29-34	27-34
MW-14		3/2/2021	195834.12	1274742.90	19.22	18.32		10.5-15.5	9.5-15.5
MW-15		3/3/2021	195788.52	1274881.10	17.13	16.57		8-13	7-13
MW-16		9/23/2022	195745.57	1275074.53	16.30	16.04		5.5-10.5	3.5-10.5
MW-16D		9/23/2022	195747.39	1275071.73	16.23	15.86		15-20	13-21
MW-17		9/16/2022	195731.75	1274845.20	19.25	18.97		12.5-17.5	10.5-18.5
MW-18		9/13/2022	195651.02	1275041.82	20.14	19.63		7-12	6-12
MW-18D		9/12/2022	195647.58	1275040.12	20.31	19.88		15-20	14-21
MW-19		9/16/2022	195922.26	1274694.01	13.90	13.54		3-8	2-8
MW-19D		9/16/2022	195917.19	1274694.63	14.06	13.61		12.5-17.5	11.5-19
MW-20		9/14/2022	195851.53	1274523.19	18.92	18.43		11.5-16.5	10-18
MW-21		9/14/2022	195906.08	1274486.42	17.91	17.63		6.5-11.5	5.5-12
MW-22		9/14/2022	195934.16	1274528.30	17.80	17.40		6.5-11.5	5.5-11.5
B-01	Soil Boring	11/17/2017	195772	1275087	15.0	--	--	--	--
B-02		11/17/2017	195769	1275101	15.1	--	--	--	--
B-03		11/17/2017	195754	1275086	15.2	--	--	--	--
B-04		11/17/2017	195770	1275092	15.1	--	--	--	--
SB-01		9/27/2007	195846	1275012	15.4	--	--	--	--
SB-02		9/28/2007	195798	1275078	14.9	--	--	--	--
SB-03		9/27/2007	195781	1275101	14.8	--	--	--	--
SB-04		9/27/2007	195793	1275006	15.2	--	--	--	--
SB-05		9/27/2007	195788	1275033	15.2	--	--	--	--
SB-06		9/27/2007	195780	1275060	15.0	--	--	--	--
SB-07		9/27/2007	195803	1275059	15.0	--	--	--	--
SB-08		9/27/2007	195744	1275013	16.9	--	--	--	--
SB-09		9/27/2007	195720	1274935	18.5	--	--	--	--
SB-10		9/28/2007	195787	1274893	16.9	--	--	--	--
SB-11		9/28/2007	195753	1275087	15.2	--	--	--	--
SB-12		9/28/2007	195762	1275082	15.2	--	--	--	--
SB-13		10/1/2007	195767	1275115	14.7	--	--	--	--
SB-14		10/1/2007	195778	1275085	15.0	--	--	--	--
SB-15		10/1/2007	195764	1275103	15.2	--	--	--	--
SB-16		10/1/2007	195757	1275094	15.1	--	--	--	--
SB-17		7/27/2011	195780	1275099	14.8	--	--	--	--
SB-18		7/27/2011	195760	1275082	15.1	--	--	--	--
SB-18A		7/27/2011	195763	1275073	15.1	--	--	--	--
SB-19		7/28/2011	195741	1275082	16.3	--	--	--	--
SB-20		7/27/2011	195748	1275089	15.3	--	--	--	--
SB-20A		7/27/2011	195732	1275094	17.0	--	--	--	--
SB-21		7/27/2011	195767	1275116	14.5	--	--	--	--
SB-22		7/27/2011	195750	1275103	15.4	--	--	--	--
SB-23		7/28/2011	195807	1275000	14.9	--	--	--	--
SB-24		7/28/2011	195782	1275021	15.4	--	--	--	--
SB-25		7/28/2011	195707	1274991	18.7	--	--	--	--
SB-26		3/4/2021	195753	1275078	14.9	--	--	--	--
SB-27		3/9/2021	195869	1274993	15.5	--	--	--	--
SB-28		3/1/2021	195890	1274935	16.0	--	--	--	--
SB-29		3/1/2021	195986	1274644	13.3	--	--	--	--
SB-30		3/1/2021	195861	1274566	19.6	--	--	--	--
SB-31		3/1/2021	195900	1274518	18.4	--	--	--	--
SB-32		3/8/2021	196065	1274710	14.9	--	--	--	--
SB-33		3/3/2021	195940	1274765	13.5	--	--	--	--
SB-34		3/2/2021	195917	1274626	14.7	--	--	--	--
SB-35		9/12/2022	195691	1275038	19.3	--	--	--	--
SB-36		9/12/2022	195711	1275067	18.6	--	--	--	--
SB-37		9/13/2022	195711	1275019	18.5	--	--	--	--
SB-38		9/12/2022	195690	1274997	19.4	--	--	--	--
SB-39		9/13/2022	195747	1275043	16.2	--	--	--	--
SB-40		9/26/2022	195842	1274947	15.8	--	--	--	--
SB-41		9/13/2022	195868	1275012	15.2	--	--	--	--
SB-42		9/22/2022	195766	1275090	15.0	--	--	--	--
SB-43		9/26/2022	195769	1275084	15.1	--	--	--	--
T117 A10		1/17/2006	195771	1275121	12.9	--	--	--	--
T117 A11		1/24/2006	195767	1275115	14.7	--	--	--	--
T117 A12		1/24/2006	195773	1275112	14.7	--	--	--	--
HA-01	Hand Auger	3/11/2021	195669	1275051	20.1	--	--	--	--
HA-02		3/11/2021	195715	1275079	18.0	--	--	--	--
HA-03		9/20/2022	195837	1274811	16.3	--	--	--	--
HA-04		9/20/2022	195847	1274668	16.8	--	--	--	--
HA-05		9/20/2022	195977	1274815	13.6	--	--	--	--
HA-06		9/20/2022	196005	1274707	13.5	--	--	--	--
HA-07		9/20/2022	196120	1274680	15.7	--	--	--	--

Table 5.1. Investigation Location Details

South Park Marina Site, Seattle, Washington

Exploration Name	Exploration Type	Installation Date	Northing (NAD83)	Easting (NAD83)	Ground Surface Elevation[(1)] (feet NAVD88)	Top of Well Casing Elevation (feet NAVD88[(2)])	Monitoring Well Screen Construction	Screen Interval (feet bgs)	Filter Pack Sand Interval (feet bgs)
SS-01	Surface Soil	2/9/2016	196048	1274613	15.9	--	--	--	--
SS-02		2/9/2016	196103	1274617	16.1	--	--	--	--
SS-03		2/9/2016	196205	1274634	15.1	--	--	--	--
SS-04		2/10/2016	195839	1274641	17.7	--	--	--	--
SS-05		2/10/2016	195934	1274653	13.6	--	--	--	--
SS-06		2/10/2016	195996	1274666	13.1	--	--	--	--
SS-07		2/10/2016	196039	1274676	13.6	--	--	--	--
SS-08		2/9/2016	196125	1274697	15.1	--	--	--	--
SS-09		2/10/2016	195819	1274690	18.1	--	--	--	--
SS-10		2/10/2016	195882	1274737	15.6	--	--	--	--
SS-11		2/10/2016	195941	1274783	13.3	--	--	--	--
SS-12		2/9/2016	196038	1274779	14.2	--	--	--	--
SS-13		2/10/2016	195793	1274779	19.8	--	--	--	--
SS-14		2/10/2016	195848	1274799	16.3	--	--	--	--
SS-15		2/9/2016	195914	1274801	13.8	--	--	--	--
SS-16		2/9/2016	195977	1274847	14.4	--	--	--	--
SS-17		2/10/2016	195746	1274832	18.9	--	--	--	--
SS-18		2/10/2016	195802	1274838	17.2	--	--	--	--
SS-19		2/10/2016	195834	1274855	16.3	--	--	--	--
SS-20		2/10/2016	195919	1274915	15.3	--	--	--	--
SS-21		2/8/2016	195708	1274896	19.9	--	--	--	--
SS-22		2/8/2016	195751	1274929	17.3	--	--	--	--
SS-23		2/8/2016	195822	1274962	16.0	--	--	--	--
SS-24		2/10/2016	195894	1274986	15.3	--	--	--	--
SS-25		2/8/2016	195689	1274963	19.7	--	--	--	--
SS-26		2/8/2016	195751	1275001	16.6	--	--	--	--
SS-27		2/8/2016	195820	1275030	15.4	--	--	--	--
SS-28		2/11/2016	195623	1274999	20.0	--	--	--	--
SS-29		2/11/2016	195579	1274970	20.1	--	--	--	--
SS-30		2/11/2016	195410	1275129	20.7	--	--	--	--
SS-31		11/17/2017	195743	1275100	16.0	--	--	--	--
SS-32		11/17/2017	195695	1274924	20.1	--	--	--	--
SS-33		11/17/2017	195705	1274894	20.5	--	--	--	--
SS-34		11/17/2017	195710	1274878	20.4	--	--	--	--
SS-35		11/17/2017	195727	1274833	19.6	--	--	--	--
SS-36		11/17/2017	195670	1274985	20.0	--	--	--	--
SS-37		11/17/2017	195657	1275012	19.8	--	--	--	--
SS-38		11/17/2017	195720	1274858	20.3	--	--	--	--
SS-39		11/17/2017	195741	1275091	15.5	--	--	--	--
21F-SS-01		9/14/2021	195800	1275092	14.5	--	--	--	--
21F-SS-02		9/14/2021	195788	1275098	14.7	--	--	--	--
CB-01	Catch Basin Solids and/or Stormwater	--	196158	1274665	--	--	--	--	--
CB-02		--	196004	1274675	--	--	--	--	--
CB-03		--	196021	1274633	--	--	--	--	--
CB-04		--	195894	1274607	--	--	--	--	--
CB-05		--	195964	1274769	--	--	--	--	--
CB-06		--	195957	1274787	--	--	--	--	--
CB-07		--	195799	1274931	--	--	--	--	--
CB-08		--	195805	1274998	--	--	--	--	--
CB-09		--	195787	1275065	--	--	--	--	--
SWRX-PRE		--	195804	1275080	--	--	--	--	--
SG-01	Subslab Soil Gas Sample Location	10/7/2022	195912	1274544	19	--	--	--	--
SG-02		10/7/2022	195907	1274565	19	--	--	--	--
SG-03		3/21/2023	195897	1274603	19	--	--	--	--
SG-04		3/21/2023	195985	1274594	15	--	--	--	--
AMB-1	Air Sampling Location	3/21/2023	195830	1274484	--	--	--	--	--
AMB-2		3/21/2023	196061	1274650	--	--	--	--	--
IA-01		3/21/2023	195908	1274558	--	--	--	--	--
IA-02		3/21/2023	195903	1274609	--	--	--	--	--
IA-03		3/21/2023	195872	1274550	--	--	--	--	--
IA-04		3/21/2023	195985	1274592	--	--	--	--	--

Notes:

NAD83 - North American Datum of 1983; State Plane Washington North; feet

NAVD88 - North American Vertical Datum of 1988

(1) - Monitoring well locations surveyed by a Washington state licensed professional surveyor; elevations for all other exploration types derived from King County LiDAR (2023).

(2) - Except for historical monitoring wells MW-01 through MW-03 whose elevations were reported in mean sea level (msl).

bgs = below ground surface

Wells MW-01 to MW-03 have been decommissioned.

Table 6.1. Summary of Analytes that Exceed Preliminary RI SLs by Media

South Park Marina Site, Seattle, Washington

		Analytes Exceeding the Preliminary RI SLs by Media (Step #3)				
Analyte Class	**Analyte**	**Groundwater**	**Vadose Soil (0 to 6 ft bgs)**	**Saturated Soil (6+ ft bgs)**	**Soil Gas**	**Indoor Air**
Metals	Arsenic	X (T,D)	X	X		
	Barium		X			
	Cadmium		X	X		
	Chromium	X (T,D)	X	X		
	Copper	X (T,D)	X	X		
	Lead		X	X		
	Mercury		X	X		
	Nickel	X (T,D)	X	X		
	Selenium		X			
	Zinc	X (T,D)	X	X		
Org. Metals	Tributyltin		X	X		
PCBs	Total PCB Aroclors (ND = 0)	X	X	X		
	Total PCB Congeners (ND = 0)	X	X	X		
	Total PCB TEQ (ND = 0)	X	X	X		
Dioxins / Furans	Total Dioxin/Furan TEQ (ND = 1/2 RDL)	X	X	X		
	2,3,7,8-TCDD	X	X	X		
Polycyclic Aromatic Hydrocarbons	1-Methylnaphthalene	X				
	2-Methylnaphthalene		X	X		
	Acenaphthene			X		
	Acenaphthylene					
	Anthracene			X		
	Benzo(g,h,i)perylene		X			
	Fluoranthene		X	X		
	Fluorene		X	X		
	Naphthalene		X	X		
	Phenanthrene			X		
	Pyrene		X	X		
	Benz(a)anthracene	X	X			
	Benzo(a)pyrene	X	X	X		
	Benzo(b)fluoranthene	X				
	Benzo(k)fluoranthene	X				
	Chrysene	X	X			
	Dibenzo(a,h)anthracene		X			
	Indeno(1,2,3 cd)pyrene	X	X			
	Total Benzofluoranthenes		X			
	Total HPAHs (ND = 1/2 RDL)		X	X		
	Total LPAHs (ND = 1/2 RDL)		X	X		
	Total cPAH TEQ (ND = 1/2 RDL)	X	X	X		
Other Semivolatile Organic Compounds	2,4,6-Trichlorophenol		X			
	2,4-Dimethylphenol			X		
	2,4-Dinitrophenol			X		
	2-Methylphenol		X			
	Benzoic acid		X	X		
	Benzyl alcohol		X			
	Benzyl butyl phthalate		X	X		
	Bis(2 ethylhexyl) phthalate	X	X	X		
	Dibenzofuran			X		
	Diethyl phthalate		X	X		
	Dimethyl phthalate		X	X		
	Di-n-butyl phthalate		X			
	Hexachlorobenzene			X		
	Hexachlorobutadiene			X		
	Hexachloroethane		X			
	Isophorone		X	X		
	N-Nitrosodiphenylamine		X	X		
	Pentachlorophenol		X	X		
Pesticides	4,4'-DDD		X	X		
	4,4'-DDE	X	X	X		
	4,4'-DDT	X	X	X		
	Aldrin	X	X	X		
	Alpha-BHC	X	X	X		
	cis-Chlordane		X	X		
	Delta-BHC			X		
	Dieldrin	X	X	X		
	Endosulfan I		X			
	Endrin		X			
	Endrin Aldehyde			X		
	Heptachlor			X		
	Heptachlor Epoxide			X		
	trans Chlordane	X	X	X		
Total Petroleum Hydrocarbons	Gasoline-Range Organics		X	X		
	Diesel-Range Organics	X	X	X		
	Motor Oil-Range Organics	X	X	X		
	Diesel and Oil Extended-Range Organics	X	X	X		
BTEX	Benzene	X	X	X		
	Ethylbenzene		X	X		
	Toluene		X			
	Total Xylenes		X	X		
Volatile Organic Compounds	1,1,2-Trichloroethane		X			
	1,2,3-Trichloropropane		X			
	1,2,4-Trichlorobenzene		X	X		
	1,2-Dichlorobenzene		X	X		
	1,3-Dichlorobenzene			X		
	1,4-Dichlorobenzene			X		
	Bromomethane			X		
	Chlorobenzene			X		
	cis-1,2-Dichloroethene (DCE)	X				
	Methylene Chloride			X		
	Tetrachloroethene (PCE)	X	X	X	X	X
	Trichloroethene (TCE)	X	X	X	X	
	Vinyl Chloride	X	X	X		

Notes:

Preliminary RI SL = Preliminary Remedial Investigation Screening Level

ft bgs = feet below ground surface

X = screening level was exceeded for one or more detected samples

T = total; D = dissolved

Blank = No detected results exceeded the screening level, analyte was not analyzed, or there is no screening level for the analyte/matrix.

Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with non-detects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is shown as nondetect at the maximum RDL for any individual Aroclor.

RDL = Reported Detection Limit

Total PCB Congeners (ND=0) and Total PCB TEQ (ND=0) calculated using zero for nondetected components.

TEQ = Toxic Equivalency

cPAHs = carcinogenic polycyclic aromatic hydrocarbons: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

HPAHs = high molecular weight polycyclic aromatic hydrocarbons: fluoranthene, pyrene, benz(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.

LPAHs = low molecular weight polycyclic aromatic hydrocarbons: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene.

Total Dioxin/Furan TEQ (ND = 1/2 RDL), Total LPAHs (ND = 1/2 RDL), Total HPAHS (ND = 1/2 RDL), and Total cPAH TEQ (ND = 1/2 RDL) are calculated using one-half the RDL for nondetected

Table 6.2. Groundwater Screening Summary

South Park Marina Site, Seattle, Washington

				Step #4		Step #5	Step #6		Step #7		Step #8			Step #9				
				Refine Preliminary RI SL - PQL		Compare to Refined SL	Evaluate if Transport/Exposure Pathways Complete		Establish Proposed RI CUL		Compare to Proposed RI CUL			MTCA Statistical Compliance Test				
Analyte Class	Analyte	Preliminary RI SL (ug/L)	Source of SL	PQL Adjustment[1]	Refined RI SL (ug/L)	Max. Detection Exceeds?	Refined RI SL Pathway	Rationale, If Incomplete	Potentially Complete Pathway	Pathway SL (ug/L)	Proposed RI CUL (ug/L)	Max. Detection (ug/L)	Max. Detection Exceeds?	Max. Detect >2x CUL?	>10% of Samples Exceed?	95% UCL True Mean	95% UCL Mean > Proposed RI CUL?	COPC
Metals	Arsenic	8	GW-5	--	--	--	--	--	--	--	8.0	22.4	Yes	Yes	--	--	--	Yes
	Chromium	27	GW-2	--	--	--	--	--	--	--	27	5,760	Yes	Yes	--	--	--	Yes
	Copper	3.1	GW-2	--	--	--	--	--	--	--	3.1	18.8	Yes	Yes	--	--	--	Yes
	Nickel	8.2	GW-2	--	--	--	--	--	--	--	8.2	207	Yes	Yes	--	--	--	Yes
	Zinc	81	GW-2	--	--	--	--	--	--	--	81	1,830	Yes	Yes	--	--	--	Yes
PCBs	Total PCB Aroclors (ND = 0)	7.00E-06	GW-2	PQL	3.5E-03	Yes	--	--	--	--	3.5E-03	1.7E+01	Yes	Yes	--	--	--	Yes
	Total PCB Congeners (ND = 0)	7.00E-06	GW-2	PQL	4.2E-04	Yes	--	--	--	--	4.2E-04	3.0E-01	Yes	Yes	--	--	--	Yes
	Total PCB TEQ (ND = 0)	4.40E-09	GW-2	PQL	1.5E-07	Yes	--	--	--	--	1.5E-07	4.7E-06	Yes	Yes	--	--	--	Yes
Dioxins/Furans	Total Dioxin/Furan TEQ (ND = 1/2 RDL)	2.76E-08	GW-2	PQL	5.7E-05	No	--	--	--	--	5.7E-05	2.8E-05	No	--	--	--	--	No
	2,3,7,8-TCDD	5.10E-09	GW-2	PQL	5.0E-06	No	--	--	--	--	5.0E-06	1.1E-06	No	--	--	--	--	No
PAHs	1-Methylnaphthalene	0.17	GW-4	--	--	--	--	--	--	--	0.17	2.63	Yes	Yes	--	--	--	Yes
	Benz(a)anthracene	1.6E-04	GW-2	PQL	1.0E-02	Yes	--	--	--	--	0.01	0.052	Yes	Yes	--	--	--	Yes
	Benzo(a)pyrene	1.6E-05	GW-2	PQL	1.0E-02	Yes	--	--	--	--	0.01	0.046	Yes	Yes	--	--	--	Yes
	Benzo(b)fluoranthene	1.6E-04	GW-2	PQL	1.0E-02	Yes	--	--	--	--	0.01	0.056	Yes	Yes	--	--	--	Yes
	Benzo(k)fluoranthene	1.6E-03	GW-2	PQL	1.0E-02	Yes	--	--	--	--	0.01	0.018	Yes	No	No	0.0090	No	No
	Chrysene	1.6E-02	GW-2	--	--	--	--	--	--	--	0.02	0.092	Yes	Yes	--	--	--	Yes
	Indeno(1,2,3 cd)pyrene	1.6E-04	GW-2	PQL	1.0E-02	Yes	--	--	--	--	0.01	0.015	Yes	No	No	0.0022	No	No
	Total cPAH TEQ (ND = 1/2 RDL)	1.6E-05	GW-2	PQL	1.5E-02	Yes	--	--	--	--	0.02	0.062	Yes	Yes	--	--	--	Yes
Other SVOCs	Bis(2-ethylhexyl) phthalate	0.046	GW-2	PQL	0.20	Yes	--	--	--	--	0.20	2.6	Yes	Yes	--	--	--	Yes
Pesticides	4,4'-DDE	8.8E-07	GW-2	PQL	1.3E-03	Yes	--	--	--	--	1.3E-03	1.4E-02	Yes	Yes	--	--	-	Yes
	4,4'-DDT	1.2E-06	GW-2	PQL	1.3E-03	Yes	--	--	--	--	1.3E-03	2.2E-03	Yes	No	--	--	--	Yes
	Aldrin	4.1E-08	GW-2	PQL	6.3E-04	Yes	--	--	--	--	6.3E-04	7.8E-01	Yes	Yes	--	--	--	Yes
	Alpha-BHC	4.8E-05	GW-2	PQL	6.3E-04	Yes	--	--	--	--	6.3E-04	3.8E-03	Yes	Yes	--	--	--	Yes
	Dieldrin	7.0E-08	GW-2	PQL	1.3E-03	Yes	--	--	--	--	1.3E-03	1.1E-01	Yes	Yes	--	--	--	Yes
	trans-Chlordane	7.80E-05	GW-3	PQL	6.3E-04	No	--	--	--	--	6.3E-04		No	--	--	--	--	No
Total Petroleum Hydrocarbons	Gasoline-Range Organics	800	GW-2	--	--	--	--	--	--	--	800	470	No	--	--	--	--	Yes
	Diesel-Range Organics	500	GW-2	--	--	--	--	--	--	--	500	4,430	Yes	Yes	--	--	--	Yes
	Motor Oil-Range Organics	500	GW-2	--	--	--	--	--	--	--	500	1,400	Yes	Yes	--	--	--	Yes
	Diesel and Oil Extended-Range Organics	500	GW-2	--	--	--	--	--	--	--	500	5,350	Yes	Yes	--	--	--	Yes
BTEX	Benzene	1.6	GW-2	--	--	--	--	--	--	--	1.6	9.1	Yes	Yes	--	--	--	Yes
Volatile Organic Compounds	cis-1,2-Dichloroethene (DCE)	180	GW-4	--	--	--	VI	No SG/IA Exceedances	No applicable pathway		na	1,400	na	--	--	--	--	No
	Tetrachloroethene (PCE)	2.9	GW-2	--	--	--	--	--	--	--	2.9	4,640	Yes	Yes	--	--	--	Yes
	Trichloroethene (TCE)	0.7	GW-2	--	--	--	--	--	--	--	0.70	280	Yes	Yes	--	--	--	Yes
	Vinyl Chloride	0.18	GW-2	--	--	--	--	--	--	--	0.18	12	Yes	Yes	--	--	--	Yes

Notes:

(1) = PQL adjustments are the MRLs listed in Table C.6 - Measurement Quality Objectives for Water of the RIWP Addendum SAP/QAPP.

Blue Shading = Proposed RI CUL adjusted from Preliminary RI SL

RIWP = Remedial Investigation Work Plan

SAP/QAPP = Sampling and Analysis Plan / Quality Assurance Project Plan

SL= screening level

CUL = cleanup level

COPC = contaminant of potential concern

Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with non-detects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is shown as nondetect at the maximum reporting limit for any individual Aroclor available.

Total Dioxin/Furan TEQ (ND=0) is calculated using zero for nondetected components.

cPAHs = carcinogenic polycyclic aromatic hydrocarbons: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene

Total cPAH TEQ (ND = 1/2 RDL) are calculated using one-half the RDL for nondetected components. All cPAHs (even those not displayed) are included in Total cPAH TEQ calculations.

TEQ = Toxic Equivalency

PQL = practical quantitation limit

ug/L = micrograms per liter

UCL = upper confidence limit

COC = contaminant of concern

SVOCs = semivolatile organic compounds

-- = no adjustment made and/or not applicable

na = no applicable screening level

SW = Groundwater protective of surface water (GW-2)

Sed = Groundwater protective of sediment (GW-3)

VI = Groundwater protective of indoor air (GW-4)

IA = indoor air

SG = soil gas

Table 6.3. Vadose Soil Screening Summary

South Park Marina Site, Seattle, Washington

				Step #4		Step #5	Step #6		Step #7		Step #8			Step #9				
				Refine Preliminary RI SL - PQL		Compare to Refined SL	Evaluate if Transport/Exposure Pathways Complete		Establish Proposed RI CUL		Compare to Proposed RI CUL			MTCA Statistical Compliance Test				
Analyte Class	Analyte	Preliminary RI SL (mg/kg)	Source of SL	PQL Adjustment[1]	Refined RI SL (mg/kg)	Max. Detection Exceeds?	Refined RI SL Pathway	Rationale, If Incomplete	Potentially Complete Pathway	Pathway SL (mg/kg)	Proposed RI CUL (mg/kg)	Max. Detection (mg/kg)	Max. Detection Exceeds?	Max. Detect >2x CUL?	>10% of Samples Exceed?	95% UCL True Mean	95% UCL Mean > Proposed RI CUL?	COPC
Metals	Arsenic	7.3	SL-10	--	--	--	--	--	--	--	7.3	27.4	Yes	Yes	--	--	--	Yes
	Barium	250	SL-10	--	--	--	--	--	--	--	250	541	Yes	Yes	--	--	--	Yes
	Cadmium	0.77	SL-10	--	--	--	NB/Sed, SW via GW	Not GW COC	Sed via Erosion	5.1	5.1	115	Yes	Yes	--	--	--	Yes
	Chromium	67	SL-9	--	--	--	--	--	--	--	67	615	Yes	Yes	--	--	--	Yes
	Copper	36	SL-10	--	--	--	--	--	--	--	36	2,470	Yes	Yes	--	--	--	Yes
	Lead	120	SL-9	--	--	--	--	--	--	--	120	4,640	Yes	Yes	--	--	--	Yes
	Mercury	0.07	SL-10	--	--	--	NB/SW via GW	Not GW COC	Sed via Erosion	0.41	0.41	30	Yes	Yes	--	--	--	Yes
	Nickel	48	SL-10	--	--	--	--	--	--	--	48	441	Yes	Yes	--	--	--	Yes
	Selenium	0.78	SL-10				--	--	--	--	0.78	9.46	Yes	Yes	--	--	--	Yes
	Zinc	100	SL-3	--	--	--	--	--	--	--	100	41,800	Yes	Yes	--	--	--	Yes
Org. Metals	Tributyltin	0.0021	SL-8	PQL	3.9E-03	Yes	Sed via GW	Not GW COC	Sed via Erosion	0.0021	0.0039	1.1	Yes	Yes	--	--	--	Yes
PCBs	Total PCB Aroclors (ND = 0)	1.1E-05	SL-3	PQL	3.6E-02	Yes	--	--	--	--	3.6E-02	66	Yes	Yes	--	--	--	Yes
	Total PCB Congeners (ND = 0)	1.1E-05	SL-3	PQL	1.8E-04	Yes	--	--	--	--	1.8E-04	107	Yes	Yes	--	--	--	Yes
	Total PCB TEQ (ND = 0)	6.9E-09	SL-3	PQL	7.0E-07	Yes	--	--	--	--	7.0E-07	1.92E-03	Yes	Yes	--	--	--	Yes
Dioxins/Furans	Total Dioxin/Furan TEQ (ND = 1/2 RDL)	5.2E-06	SL-10	PQL	5.7E-06	Yes	--	--	--	--	5.7E-06	6.4E-03	Yes	Yes	--	--	--	Yes
	2,3,7,8-TCDD	5.2E-06	SL-10	--	--	--	--	--	--	--	5.2E-06	4.4E-05	Yes	Yes	--	--	--	Yes
Polycyclic Aromatic Hydrocarbons	2-Methylnaphthalene	0.67	SL-8	--	--	--	--	--	--	--	0.67	3.0	Yes	Yes	--	--	--	Yes
	Benzo(g,h,i)perylene	0.67	SL-8	--	--	--	--	--	--	--	0.67	8.5	Yes	Yes	--	--	--	Yes
	Fluoranthene	1.7	SL-8	--	--	--	--	--	--	--	1.7	4.3	Yes	Yes	--	--	--	Yes
	Fluorene	0.54	SL-4	--	--	--	--	--	--	--	0.54	0.67	Yes	No	No	0.012	No	No
	Naphthalene	0.039	SL-3	--	--	--	SW via GW	Not GW COC	Sed via Erosion	2.1	2.1	2.5	Yes	No	No	0.41	No	No
	Pyrene	2.6	SL-8	--	--	--	--	--	--	--	2.6	5.5	Yes	Yes	--	--	--	Yes
	Benz(a)anthracene	0.73	SL-9	--	--	--	--	--	--	--	0.73	21	Yes	Yes	--	--		Yes
	Benzo(a)pyrene	0.00031	SL-3	PQL	5.0E-04	Yes	--	--	--	--	0.0005	22	Yes	Yes	--	--		Yes
	Chrysene	1.4	SL-8	--	--	--	--	--	--	--	1.4	11	Yes	Yes	--	--	--	Yes
	Dibenzo(a,h)anthracene	0.23	SL-8	--	--	--	--	--	--	--	0.23	1.7	Yes	Yes	--	--	--	Yes
	Indeno(1,2,3-cd)pyrene	0.6	SL-8	--	--	--	--	--	--	--	0.6	11	Yes	Yes	--	--	--	Yes
	Total Benzofluoranthenes	1.1	SL-9	--	--	--	--	--	--	--	1.1	28	Yes	Yes	--	--	--	Yes
	Total LPAHs (ND = 1/2 RDL)	5.2	SL-8	--	--	--	--	--	--	--	5.2	5.85	Yes	No	No	0.70	No	No
	Total HPAHs (ND = 1/2 RDL)	1.1	SL-9	--	--	--	--	--	--	--	1.1	83	Yes	Yes	--		--	Yes
	Total cPAHs TEQ (ND = 1/2 RDL)	3.1E-04	SL-10	PQL	7.6E-04	Yes	--	--	--	--	7.6E-04	28	Yes	Yes	--	--	--	Yes
Other SVOCs	2-Methylphenol	0.063	SL-8	--	--	--	--	--	--	--	0.063	0.0902	Yes	No	No	0.090	Yes	Yes
	2,4,6-Trichlorophenol	0.0033	SL-3	PQL	2.5E-02	Yes	SW via GW	Not GW COC	TEE	9.9	9.9	0.026	No	--	--	--	--	No
	Benzyl alcohol	0.057	SL-8	--	--	--	--	--	--	--	0.057	0.53	Yes	Yes	--	--	--	Yes
	Benzyl butyl phthalate	0.0036	SL-3	PQL	2.5E-02	Yes	SW via GW	Not GW COC	Sed via Erosion	0.06	0.063	2.2	Yes	Yes	--	--	--	Yes
	Bis(2-ethylhexyl) phthalate	0.02	SL-9	PQL	0.04	Yes	--	--	--	--	0.04	7.0	Yes	Yes	--	--	--	Yes
	Diethyl phthalate	0.20	SL-8	--	--	--	--	--	--	--	0.20	0.98	Yes	Yes	--	--	--	Yes
	Dimethyl phthalate	0.071	SL-8	--	--	--	--	--	--	--	0.071	0.76	Yes	Yes	--	--	--	Yes
	Di-n-butyl phthalate	0.011	SL-9	PQL	2.50E-02						0.025	3.6	Yes	Yes	--	--	--	Yes
	Hexachloroethane	0.00016	SL-3	PQL	2.5E-03	Yes	SW via GW	Not GW COC	TEE	0.60	0.6	0.014	No	--	--	--	--	No
	Isophorone	0.58	SL-3	--	--	--	SW via GW	Not GW COC	TEE	140	140	1.6	No	--	--	--	--	No
	N-Nitrosodiphenylamine	0.028	SL-4	--	--	--	--	--	--	--	0.028	0.051	Yes	No	No	0.051	Yes	Yes
	Pentachlorophenol	3.2E-05	SL-3	PQL	1.3E-02	Yes	SW via GW	Not GW COC	Sed via Erosion	0.36	0.36	14	Yes	Yes	--	--	--	Yes
Pesticides	4,4'-DDD	7.3E-06	SL-3	PQL	1.0E-03	Yes	SW via GW	Not GW COC	TEE	0.75	7.5E-01	0.80	Yes	No	No	0.081	No	No
	4,4'-DDE	1.5E-06	SL-3	PQL	1.0E-03	Yes	--	--	--	--	1.0E-03	0.75	Yes	Yes	--	--	--	Yes
	4,4'-DDT	1.6E-05	SL-3	PQL	1.0E-03	Yes	--	--	--	--	1.0E-03	4.0	Yes	Yes	--	--	--	Yes
	Aldrin	4.0E-08	SL-3	PQL	1.7E-03	Yes	--	--	--	--	1.7E-03	3.5	Yes	Yes	--	--	--	Yes
	Alpha-BHC	1.9E-06	SL-3	PQL	5.0E-04	Yes	--	--	--	--	5.0E-04	0.032	Yes	Yes	--	--	--	Yes
	cis-Chlordane	1.0E-04	SL-8	PQL	5.0E-04	Yes	--	--	Sed via Erosion	1.0E-04	5.0E-04	0.016	Yes	Yes	--	--	--	Yes
	Dieldrin	3.6E-08	SL-3	PQL	1.0E-03	Yes	--	--	--	--	1.0E-03	0.92	Yes	Yes	--	--	--	Yes
	Endosulfan I	1.2E-03	SL-3	--	--	--	SW via GW	Not GW COC	TEE	0.12	1.2E-01	0.061	No	--	--	--	--	No
	Endrin	4.4E-04	SL-3	PQL	1.0E-03	Yes	SW via GW	Not GW COC	TEE	2.0E-01	2.0E-01	0.19	No	--	--	--	--	No
	trans-Chlordane	1.0E-04	SL-8	PQL	1.7E-03	Yes	--	--	--	--	1.7E-03	0.014	Yes	Yes	--	--	--	Yes
Total Petroleum Hydrocarbons	Gasoline Range Organics	30	SL-3	--	--	--	--	--	--	--	30	570	Yes	Yes	--	--	--	Yes
	Diesel Range Organics	2,000	SL-9	--	--	--	--	--	--	--	2,000	12,000	Yes	Yes	--	--	--	Yes
	Motor Oil Range Organics	2,000	SL-9	--	--	--	--	--	--	--	2,000	34,000	Yes	Yes	--	--	--	Yes
	Diesel and Oil Extended Range Organics	2,000	SL-9	--	--	--	--	--	--	--	2,000	40,300	Yes	Yes	--	--	--	Yes

Table 6.3. Vadose Soil Screening Summary

South Park Marina Site, Seattle, Washington

				Step #4		Step #5	Step #6		Step #7		Step #8			Step #9				
				Refine Preliminary RI SL - PQL		Compare to Refined SL	Evaluate if Transport/Exposure Pathways Complete		Establish Proposed RI CUL		Compare to Proposed RI CUL			MTCA Statistical Compliance Test				
Analyte Class	Analyte	Preliminary RI SL (mg/kg)	Source of SL	PQL Adjustment[(1)]	Refined RI SL (mg/kg)	Max. Detection Exceeds?	Refined RI SL Pathway	Rationale, If Incomplete	Potentially Complete Pathway	Pathway SL (mg/kg)	Proposed RI CUL (mg/kg)	Max. Detection (mg/kg)	Max. Detection Exceeds?	Max. Detect >2x CUL?	>10% of Samples Exceed?	95% UCL True Mean	95% UCL Mean > Proposed RI CUL?	COPC
BTEX	Benzene	0.0088	SL-3	--	--	--	--	--	--	--	0.0088	0.078	Yes	Yes	--	--	--	Yes
	Toluene	0.72	SL-3	--	--	--	SW via GW	Not GW COC	TEE	23	23	7.2	No	--	--	--	--	No
	Ethylbenzene	0.18	SL-3	--	--	--	SW via GW	Not GW COC	TEE	5.2	5.2	9.3	Yes	No	No	0.89	No	No
	Total Xylenes	0.94	SL-3	--	--	--	SW via GW	Not GW COC	TEE	1.9	1.9	25	Yes	Yes	--	--	--	Yes
Volatile Organic Compounds	1,1,2-Trichloroethane	0.005	SL-3	--	--	--	SW via GW	Not GW COC	DC	18	18	0.022	No	--	--	--	--	No
	1,2,3-Trichloropropane	0.0063	SL-1	PQL	5.0E-02	Yes	--	--	--	--	0.050	0.15	Yes	Yes	--	--	--	Yes
	1,2,4-Trichlorobenzene	0.0014	SL-3	PQL	1.0E-02	Yes	SW via GW	Not GW COC	Sed via Erosion	0.031	0.031	0.011	No	--	--	--	--	No
	1,2-Dichlorobenzene	0.035	SL-8	PQL	5.0E-02	Yes	--	--	--	--	0.050	0.31	Yes	Yes	--	--	--	Yes
	Tetrachloroethene (PCE)	0.029	SL-3	--	--	--	--	--	--	--	0.029	2.7	Yes	Yes	--	--	--	Yes
	Trichloroethene (TCE)	0.0044	SL-3	--	--	--	--	--	--	--	0.0044	0.17	Yes	Yes	--	--	--	Yes
	Vinyl Chloride	0.0011	SL-3	--	--	--	--	--	--	--	0.0011	0.87	Yes	Yes	--	--	--	Yes

Notes:

(1) = PQL adjustments are the MRLs listed in Table C.7 - Measurement Quality Objectives for Soil of the RIWP Addendum SAP/QAPP

Blue = Proposed RI CUL adjusted from Preliminary RI SL

RIWP = Remedial Investigation Work Plan

SAP/QAPP = Sampling and Analysis Plan / Quality Assurance Project Plan

SL= screening level

CUL = cleanup level

mg/kg = milligrams per kilogram

COPC = contaminant of potential concern

UCL = upper confidence limit

-- = no adjustment made and/or not applicable

na = no applicable screening level

TEQ = Toxic Equivalency

PQL = practical quantitation limit

AB = area background

GW = groundwater

DC = soil protective of direct contact pathway (SL-1)

SW via GW = vadose zone soil protective of surface water via groundwater (SL-3)

Sed via GW = vadose zone soil protective of sediment via groundwater (SL-4)

Sed via Erosion = soil protective of sediment via erosion (SL-8)

TEE = Site-specific terrestrial ecological evaluation (SL-9)

NB = natural background (SL-10)

Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with non-detects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is shown as non-detect at the maximum reporting limit for any individual Aroclor available.

Total Dioxin/Furan TEQ (ND=0) is calculated using zero for non-detected components.

cPAHs = carcinogenic polycyclic aromatic hydrocarbons: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

LPAHs = low molecular weight polycyclic aromatic hydrocarbons: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene.

HPAHs = high molecular weight polycyclic aromatic hydrocarbons: fluoranthene, pyrene, benz(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.

Total LPAHs (ND = 1/2 RDL), Total HPAHS (ND = 1/2 RDL), and Total cPAH TEQ (ND = 1/2 RDL) are calculated using one-half the RDL for nondetected components. All appropriate PAHs for each, including those not displayed here, are included in the calculations.

Table 6.4. Saturated Soil Screening Summary

South Park Marina Site, Seattle, Washington

				Step #4		Step #5	Step #6		Step #7		Step #8			Step #9				
				Refine Preliminary RI SL - PQL Adjustment		Compare to Refined SL	Evaluate if Transport/Exposure Pathways Complete		Establish Proposed RI CUL		Compare to Proposed RI CUL			MTCA Statistical Compliance Test				
Analyte Class	Analyte	Preliminary RI SL (mg/kg)	Source of SL	PQL Adjustment[1]	Refined RI SL (mg/kg)	Max. Detection Exceeds?	Preliminary RI SL Pathway	Rationale, If Incomplete	Potentially Complete Pathway	Pathway SL (mg/kg)	Proposed RI CUL (mg/kg)	Max. Detection (mg/kg)	Max. Detection Exceeds?	Max. Detect >2x CUL?	>10% of Samples Exceed?	95% UCL True Mean	95% UCL Mean > Proposed RI CUL?	COPC
Metals	Arsenic	7.3	SL-10	--	--	--	--	--	--	--	7.3	29.3	Yes	Yes	--	--	--	Yes
	Cadmium	0.77	SL-10	--	--	--	NB/Sed via GW	Not a GW COC	Sed via Erosion	5.1	5.1	4.97	No	--	--	--	--	No
	Chromium	67	SL-9	--	--	--	--	--	--	--	67	77.3	Yes	No	No	23	No	No
	Copper	36	SL-10	--	--	--	--	--	--	--	36	209	Yes	Yes	--	--	--	Yes
	Lead	81	SL-6	--	--	--	SW via GW	Not a GW COC	TEE	120	120	1030	Yes	Yes	--	--	--	Yes
	Mercury	0.070	SL-10	--	--	--	NB/SW via GW	Not a GW COC	Sed via Erosion	0.41	0.41	5.81	Yes	Yes	--	--	--	Yes
	Nickel	48	SL-10	--	--	--	--	--	--	--	48	58.4	Yes	No	No	16	No	No
	Zinc	85	SL-10	--	--	--	--	--	--	--	85	515	Yes	Yes	--	--	--	Yes
Org. Metals	Tributyltin	0.00011	SL-7	PQL	3.9E-03	Yes	Sed via GW	Not a GW COC	Sed via Erosion	0.0021	0.0039	0.126	Yes	Yes	--	--	--	Yes
PCBs	Total PCB Aroclors (ND = 0)	5.5E-07	SL-6	PQL	3.6E-02	Yes	--	--	--	--	3.6E-02	144	Yes	Yes	--	--	--	Yes
	Total PCB Congeners (ND = 0)	5.5E-07	SL-6	PQL	1.8E-04	Yes	--	--	--	--	1.8E-04	110	Yes	Yes	--	--	--	Yes
	Total PCB TEQ (ND = 0)	3.5E-10	SL-6	PQL	7.0E-07	Yes	--	--	--	--	7.0E-07	2.51E-03	Yes	Yes	--	--	--	Yes
Dioxins/ Furans	Total Dioxin/Furan TEQ (ND = 0)	5.2E-06	SL-10	PQL	5.7E-06	Yes	--	--	--	--	5.7E-06	1.0E-03	Yes	Yes	--	--	--	Yes
	2,3,7,8-TCDD	5.2E-06	SL-10	--	--	--	--	--	--	--	5.2E-06	4.5E-05	Yes	Yes	--	--	--	Yes
Polycyclic Aromatic Hydrocarbons	2-Methylnaphthalene	0.039	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	0.67	0.67	4.5	Yes	Yes	--	--	--	Yes
	Acenaphthene	0.028	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	0.50	0.50	0.51	Yes	No	No	0.046	No	No
	Anthracene	0.051	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	0.96	0.96	1.2	Yes	No	No	0.021	No	No
	Fluoranthene	0.090	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	1.7	1.7	0.88	No	--	--	--	--	No
	Fluorene	0.029	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	0.54	0.54	1.0	Yes	No	No	0.086	No	No
	Naphthalene	0.0021	SL-6	--	--	--	SW via GW	Not a GW COC	Sed via Erosion	2.1	2.1	0.54	No	--	--	--	--	No
	Phenanthrene	1.5	SL-8	--	--	--	--	--	--	--	1.5	2.4	Yes	No	No	0.18	No	No
	Pyrene	0.14	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	2.6	2.6	0.99	No	--	--	--	--	No
	Benzo(a)pyrene	1.6E-05	SL-6	PQL	5.0E-04	Yes	--	--	--	--	5.0E-04	0.17	Yes	Yes	--	--	--	Yes
	Total LPAHs (ND = 1/2 RDL)	5.2	SL-8	--	--	--	--	--	--	--	5.2	6.12	Yes	No	No	0.47	No	No
	Total HPAHs (ND = 1/2 RDL)	1.1	SL-9	--	--	--	--	--	--	--	1.1	5.9	Yes	Yes	--	--	--	Yes
	Total cPAH TEQ (ND = 1/2 RDL)	1.6E-05	SL-6	PQL	7.6E-04	Yes	--	--	--	--	7.6E-04	0.755	Yes	Yes	--	--	--	Yes
Other Semivolatile Organic Compounds	2,4-Dimethylphenol	0.0023	SL-7	PQL	2.5E-02	Yes	Sed via GW	Not a GW COC	Sed via Erosion	0.029	0.029	0.0376	Yes	No	No	0.038	Yes	Yes
	2,4-Dinitrophenol	0.029	SL-6	PQL	7.5E-02	Yes	SW via GW	Not a GW COC	TEE	0.075	0.075	2.3	Yes	Yes	--		--	Yes
	Benzoic acid	0.17	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	0.65	0.65	0.433	No	--	--		--	No
	Benzyl butyl phthalate	0.00018	SL-6	PQL	2.5E-02	Yes	SW via GW	Not a GW COC	Sed via Erosion	0.063	0.063	0.093	Yes	No	No	0.011	No	No
	Bis(2-ethylhexyl) phthalate	0.0051	SL-6	PQL	4.0E-02	Yes	--	--	--	--	0.040	2.8	Yes	Yes	--		--	Yes
	Dibenzofuran	0.029	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	0.54	0.54	0.6	Yes	No	No	0.011	No	No
	Diethyl phthalate	0.034	SL-7	--	--	--	Sed via GW	Not a GW COC	Sed via Erosion	0.20	0.20	0.124	No	--	--		--	No
	Dimethyl phthalate	0.019	SL-7	PQL	2.5E-02	Yes	Sed via GW	Not a GW COC	Sed via Erosion	0.071	0.071	0.026	No	--	--		--	No
	Hexachlorobenzene	4E-07	SL-6	PQL	2.5E-03	Yes	SW via GW	Not a GW COC	Sed via Erosion	0.022	0.022	0.0469	Yes	Yes	--		--	Yes
	Hexachlorobutadiene	1.1E-05	SL-6	PQL	1.0E-02	Yes	SW via GW	Not a GW COC	Sed via Erosion	0.011	0.011	0.0115	Yes	No	No	0.0021	No	No
	Isophorone	0.039	SL-6	--	--	--	Sed via GW	Not a GW COC	TEE	140	140	0.0688	No	--	--		--	No
	N-Nitrosodiphenylamine	0.0016	SL-7	PQL	2.5E-03	Yes	Sed via GW	Not a GW COC	Sed via Erosion	0.028	0.028	0.0995	Yes	Yes	--		--	Yes
	Pentachlorophenol	1.8E-06	SL-6	PQL	1.3E-02	Yes	SW via GW	Not a GW COC	Sed via Erosion	0.36	0.36	0.079	No	--	--		--	No
Pesticides	4,4'-DDD	3.6E-07	SL-6	PQL	1.0E-03	Yes	SW via GW	Not a GW COC	TEE	0.75	7.5E-01	2.0E-01	No	--	--		--	No
	4,4'-DDE	7.6E-08	SL-6	PQL	1.0E-03	Yes	--	--	--	--	1.0E-03	3.9E-01	Yes	Yes	--		--	Yes
	4,4'-DDT	8.1E-07	SL-6	PQL	1.0E-03	Yes	--	--	--	--	1.0E-03	1.6E+00	Yes	Yes	--		--	Yes
	Aldrin	2.0E-09	SL-6	PQL	1.7E-03	Yes	--	--	--	--	1.7E-03	2.0E+01	Yes	Yes	--		--	Yes
	Alpha-BHC	9.8E-08	SL-6	PQL	5.0E-04	Yes	--	--	--	--	5.0E-04	1.4E-02	Yes	Yes	--		--	Yes
	cis-Chlordane	7.0E-06	SL-7	PQL	5.0E-04	Yes	SW via GW	Not a GW COC	Sed via Erosion	1.0E-04	5.0E-04	4.7E-02	Yes	Yes	--		--	Yes
	Delta-BHC	4.8E-03	SL-1	--	--	--	--	--	--	--	4.8E-03	5.6E-02	Yes	Yes				Yes
	Dieldrin	3.1E-08	SL-6	PQL	1.0E-03	Yes	--	--	--	--	1.0E-03	3.1E+00	Yes	Yes	--		--	Yes
	Endrin Aldehyde	1.2E-04	SL-6	PQL	1.0E-03	Yes	SW via GW	Not a GW COC	TEE	1.10E-02	1.1E-02	1.6E-01	Yes	Yes	--		--	Yes
	Heptachlor	3.3E-09	SL-6	PQL	5.0E-04	Yes	SW via GW	Not a GW COC	Sed via Erosion	1.0E-04	5.0E-04	1.7E-02	Yes	Yes	--		--	Yes
	Heptachlor Epoxide	2.5E-08	SL-6	PQL	5.0E-04	Yes	SW via GW	Not a GW COC	DC	0.11	1.1E-01	9.2E-04	No	--	--		--	No
	trans-Chlordane	7.0E-06	SL-7	PQL	1.7E-03	Yes	--	--	--	--	1.7E-03	1.8E-01	Yes	Yes	--		--	Yes
Total Petroleum Hydrocarbons	Gasoline-Range Organics	30	SL-3	--	--	--	--	--	--	--	30	5,440	Yes	Yes	--		--	Yes
	Diesel-Range Organics	2,000	SL-9	--	--	--	--	--	--	--	2,000	9,550	Yes	Yes	--		--	Yes
	Motor Oil-Range Organics	2,000	SL-9	--	--	--	--	--	--	--	2,000	49,000	Yes	Yes	--		--	Yes
	Diesel and Oil Extended-Range Organics	2,000	SL-9	--	--	--	--	--	--	--	2,000	57,700	Yes	Yes	--		--	Yes

Table 6.4. Saturated Soil Screening Summary

South Park Marina Site, Seattle, Washington

				Step #4		Step #5	Step #6		Step #7		Step #8			Step #9				
				Refine Preliminary RI SL - PQL Adjustment		Compare to Refined SL	Evaluate if Transport/Exposure Pathways Complete		Establish Proposed RI CUL		Compare to Proposed RI CUL			MTCA Statistical Compliance Test				
Analyte Class	Analyte	Preliminary RI SL (mg/kg)	Source of SL	PQL Adjustment[(1)]	Refined RI SL (mg/kg)	Max. Detection Exceeds?	Preliminary RI SL Pathway	Rationale, If Incomplete	Potentially Complete Pathway	Pathway SL (mg/kg)	Proposed RI CUL (mg/kg)	Max. Detection (mg/kg)	Max. Detection Exceeds?	Max. Detect >2x CUL?	>10% of Samples Exceed?	95% UCL True Mean	95% UCL Mean > Proposed RI CUL?	COPC
BTEX	Benzene	0.00056	SL-6	PQL	1.0E-03	Yes	--	--	--	--	0.0010	0.016	Yes	Yes	--		--	Yes
	Ethylbenzene	0.01	SL-6	--	--	--	SW via GW	Not a GW COC	TEE	5.2	5.2	0.62	No	--	--		--	No
	Total Xylenes	0.055	SL-6	--	--	--	SW via GW	Not a GW COC	TEE	1.4	1.4	4.16	Yes	Yes	--		--	Yes
Volatile Organic Compounds	1,2,4-Trichlorobenzene	7.2E-05	SL-6	PQL	1.0E-02	No	SW via GW	Not a GW COC	Sed via Erosion	0.031	0.031	0.0065	No	--	--		--	No
	1,2-Dichlorobenzene	0.003	SL-7	PQL	5.0E-02	Yes	Sed via GW	Not a GW COC	Sed via Erosion	0.035	0.050	0.11	Yes	Yes	--		--	Yes
	1,3-Dichlorobenzene	0.0013	SL-6	PQL	5.0E-02	No	SW via GW	Not a GW COC	TEE	0.74	0.740	0.00328	No	--	--		--	No
	1,4-Dichlorobenzene	0.0081	SL-7	PQL	5.0E-02	No	SW via GW	Not a GW COC	Sed via Erosion	0.11	0.11	0.014	No	--	--		--	No
	Bromomethane	0.079	SL-6	PQL	1.0E-01	Yes	SW via GW	Not a GW COC	TEE	0.24	0.24	0.115	No	--	--		--	No
	Chlorobenzene	0.10	SL-6	--	--	--	SW via GW	Not a GW COC	TEE	43	43	0.11	No	--	--		--	No
	Methylene Chloride	0.03	SL-6	PQL	1.0E-01	Yes	SW via GW	Not a GW COC	TEE	2.6	2.6	10.7	Yes	Yes	--		--	Yes
	Tetrachloroethene (PCE)	0.0016	SL-6	--	--	--	--	--	--	--	0.0016	18.7	Yes	Yes	--		--	Yes
	Trichloroethene (TCE)	0.00027	SL-6	PQL	1.0E-03	Yes	--	--	--	--	0.0010	0.672	Yes	Yes	--		--	Yes
	Vinyl Chloride	5.6E-05	SL-6	PQL	1.0E-03	Yes	--	--	--	--	0.0010	0.0029	Yes	Yes	--		--	Yes

Notes:

(1) = PQL adjustments are the MRLs listed in Table C.7 - Measurement Quality Objectives for Soil of the RIWP Addendum SAP/QAPP.
Blue = Proposed RI CUL adjusted from Preliminary RI SL
RIWP = Remedial Investigation Work Plan
SAP/QAPP = Sampling and Analysis Plan / Quality Assurance Project Plan
SL= screening level
CUL = cleanup level
mg/kg = milligrams per kilogram
UCL = upper confidence limit
COPC = contaminant of potential concern
-- = no adjustment made and/or not applicable
na = no applicable screening level
TEQ = Toxic Equivalency
PQL = practical quantitation limit
AB = area background
GW = groundwater
DC = soil protective of direct contact pathway (SL-1)
SW via GW = saturated zone soil protective of surface water via groundwater (SL-6)
Sed via GW = vadose zone soil protective of sediment via groundwater (SL-7)
Sed via Erosion = soil protective of sediment via erosion (SL-8)
TEE = Site-specific terrestrial ecological evaluation (SL-9)
NB = natural background (SL-10)
Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with non-detects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is shown as nondetect at the maximum reporting limit for any individual Aroclor available.
Total Dioxin/Furan TEQ (ND=0) is calculated using zero for nondetected components.
cPAHs = carcinogenic polycyclic aromatic hydrocarbons: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene.
LPAHs = low molecular weight polycyclic aromatic hydrocarbons: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene.
HPAHs = high molecular weight polycyclic aromatic hydrocarbons: fluoranthene, pyrene, benz(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.
Total LPAHs (ND = 1/2 RDL), Total HPAHS (ND = 1/2 RDL), and Total cPAH TEQ (ND = 1/2 RDL) are calculated using one-half the RDL for nondetected components. All appropriate PAHs for each, including those not displayed here, are included in the calculations.

Table 6.5. Chemical-Specific Analysis for Vadose-Leaching-to-Groundwater Pathway

South Park Marina Site, Seattle, Washington

Analyte Class	Analyte	Refined SL Pathway	Refined SL (mg/kg)	Locations Where Concentrations Exceed Refined SL[1]	Concentration (mg/kg)	Depth (ft bgs)	Surface Condition	Discussion of Vadose-Leaching-to-Groundwater Pathways	Vadose Leaching Pathways Removed?
Metals	Cadmium	NB/Sed, SW via GW	0.77	SB-26	5.09	0 - 1	Pervious	The majority of the locations where Cadmium was detected in vadose soil at elevated concentrations (compared to the rest of the Site analytical results) are within pervious surface areas, including numerous locations in the Pond Area. Cadmium concentrations in groundwater did not exceed the groundwater screening level at any well across the Site.	Yes
				MW-16	5.59	1.5 - 2	Impervious		
				SB-36	5.69	0 - 1	Pervious		
				MW-16	10.6	0 -1	Impervious		
				SB-12	14.6	1.5	Pervious		
				SB-38	18	0 - 1	Impervious		
				SB-16	23.5	3.5	Pervious		
				SB-11	31.4	2.5	Pervious		
				SB-42	43.8	3.5 - 4.5	Pervious		
				SB-37	115	1 - 2	Impervious		
	Mercury	NB/SW via GW	0.07	MW-04D	3.9	0 - 1	Pervious	Nearly all locations where Mercury was detected in vadose soil at elevated concentrations, including the location where Mercury was detected at the maximum concentration at the Site (29.5 mg/kg, SB-11), are within pervious surface areas. Mercury was not detected in groundwater samples from any well across the Site.	Yes
				SB-12	3.96	1.5	Pervious		
				SB-36	4.3	0 - 1	Pervious		
				SB-42	9.5	0 - 1	Pervious		
				MW-16	11	0 - 1	Impervious		
				SB-26	11.5	0 - 1	Pervious		
				SB-16	25.2	3.5	Pervious		
				SB-11	29.5	2.5	Pervious		
Butyl Tins	Tributyl Tin	SW via GW	0.0039	HA-07	0.0894	0 - 1	Pervious	Only one of the locations where TBT was detected in vadose soil at elevation concentrations was an impervious area at SB-27. However, TBT was not detected in groundwater at the nearby well, MW-08. Likewise, TBT was detected frequently in vadose zone soil in pervious surface areas at concentrations between 0.01 and 0.06 mg/kg (not shown here), and TBT was never detected in groundwater.	Yes
				MW-05	0.0894	0 - 1	Pervious		
				HA-03	0.114	0 - 1	Pervious		
				SB-42	0.582	0 - 1	Pervious		
				SB-39	0.874	5 - 6	Pervious		
				SB-27	1.12	0 - 1	Impervious		
Polycyclic Aromatic Hydrocarbons	2-Methylnaphthalene	Sed via Erosion	0.67	SB-15	1.1	3.5	Pervious	All locations where 2-Methylnaphthalene was detected in vadose soil above the Preliminary RI SL are within a pervious surface. 2-Methylnaphthalene concentrations in groundwater did not exceed groundwater screening levels at any well across the Site.	Yes
				SB-11	2	2.5	Pervious		
				SB-16	3	2.5	Pervious		
	Naphthalene	SW via GW	0.039	SB-36	0.21	0 - 1	Pervious	All locations where Naphthalene was detected in vadose soil at elevated concentrations are within pervious surface areas, including the highest detected concentration in the Pond Area. Naphthalene concentrations in groundwater did not exceed groundwater screening levels at any well across the Site.	Yes
				SB-12	0.36	1.5	Pervious		
				SB-42	1.3	3.5 - 4.5	Pervious		
				SB-16	2.4	3.5	Pervious		
				SB-11	2.5	2.5	Pervious		
	Fluoranthene	Sed via Erosion	1.7	MW-17	4.3	0 - 1	Impervious	The location with the highest detected concentration (by orders of magnitude) in vadose soil was impervious, and therefore the soil-leaching-to-groundwater pathways may be complete.	No
	Fluorene	Sed via Erosion	0.54	SB-16	0.67	3.5	Pervious	Fluorene was only detected at one location in vadose soil at a concentration above the Preliminary RI SL in a pervious surface. Fluorene concentrations in groundwater did not exceed groundwater screening levels in any well across the Site.	Yes
	Dibenz(a,h)anthracene	Sed via Erosion	0.23	MW-17	2.2	0 - 1	Impervious	The location with the highest detected concentration (by orders of magnitude) in vadose soil was impervious, and therefore the soil-leaching-to-groundwater pathways may be complete.	No
	Pyrene	Sed via Erosion	5.5	MW-17	5.5	0 - 1	Impervious	The location with the highest detected concentration (by orders of magnitude) in vadose soil was impervious, and therefore the soil-leaching-to-groundwater pathways may be complete.	No

Table 6.5. Chemical-Specific Analysis for Vadose-Leaching-to-Groundwater Pathway

South Park Marina Site, Seattle, Washington

Analyte Class	Analyte	Refined SL Pathway	Refined SL (mg/kg)	Locations Where Concentrations Exceed Refined SL[(1)]	Concentration (mg/kg)	Depth (ft bgs)	Surface Condition	Discussion of Vadose-Leaching-to-Groundwater Pathways	Vadose Leaching Pathways Removed?
Semivolatile Organic Compounds	2,4,6-Trichlorophenol	SW via GW	0.0033	HA-01	0.026	2 - 3	Pervious	2,4,6-Trichlorophenol was only detected at one location in vadose soil across the entirety of the Site, and that location is within a pervious surface. 2,4,6-Trichlorophenol concentrations in groundwater did not exceed groundwater screening levels at any well across the Site.	Yes
	2-Methylphenol	Sed via Erosion	0.063	MW-04	0.0902	0 - 1	Pervious	2-Methylphenol was only detected at one location in vadose soil across the entirety of the Site, and that location is within a pervious surface. 2-Methylphenol concentrations in groundwater did not exceed groundwater screening levels at any well across the Site.	Yes
	Benzyl alcohol	Sed via Erosion	0.057	21F-SS-01	0.71	0 - 1	Pervious	All locations where benzyl alcohol was detected in vadose soil were in pervious surfaces. Benzyl alcohol concentrations in groundwater did not exceed groundwater screening levels at any well across the Site.	Yes
				21F-SS-02	0.17	0 - 1	Pervious		
				HA-02	0.531	0 - 1	Pervious		
				MW-14	0.138	0 - 1	Pervious		
	Diethyl phthalate	Sed via Erosion	0.20	MW-07	0.263	0 - 1	Pervious	Both locations where diethyl phthalate concentrations in vadose soil exceeded the Preliminary RI SL are in pervious surfaces. Diethyl phthalate concentrations in groundwater did not exceed groundwater screening levels at any well across the Site.	Yes
				MW-11	0.982	0 - 1	Pervious		
	Dimethyl phthalate	Sed via Erosion	0.071	MW-14	0.271	0 - 1	Pervious	The highest concentrations of dimethyl phthalate in vadose soil were all detected in pervious locations. Dimethyl phthalate concentrations in groundwater did not exceed groundwater screening levels in any well across the Site.	Yes
				MW-05	0.292	0 - 1	Pervious		
				HA-01	0.543	0 -1	Pervious		
				SB-42	0.76	0 -1	Pervious		
				21F-SS-01	2.3	0 - 1	Pervious		
	Benzyl butyl phthalate	SW via GW	0.0036	SB-32	0.0412	0 - 1	Pervious	Nearly all locations where Benzyl butyl phthalate was detected at elevated concentrations in vadose soil, including the location with the highest detection, are within pervious surface areas. Benzyl butyl phthalate was not detected in groundwater samples from any well across the Site.	Yes
				HA-01	0.0616	0 - 1	Pervious		
				MW-04	0.0913	0 - 1	Pervious		
				HA-02	0.0919	0 -1	Pervious		
				SB-27	0.122	0 - 1	Impervious		
				SB-11	2.2	0 - 1	Pervious		
	Di-n-butyl phthalate	SW via GW	0.28	MW-04	0.378	0 - 1	Pervious	Nearly all locations where Di-n-butyl phthalate were detected in vadose soil are in pervious surface areas, and there were very few detections of Di-n-butyl phthalate in vadose soil across the Site (4 samples). Di-n-butyl phthalate concentrations in groundwater did not exceed the groundwater SL in any well across the Site, and where detected, was two orders of magnitude below the screening level in groundwater.	Yes
				HA-01	0.395	0 - 1	Pervious		
				SB-16	1.1	3.5	Pervious		
				MW-16	3.6	1.5 - 2	Impervious		
	Hexachloroethane	SW via GW	0.00016	HA-02	0.0143	0 - 1	Pervious	Hexachloroethane was only detected in one vadose soil sample across the Site, and that location is pervious. Hexachloroethane was not detected in groundwater samples from any well across the Site.	Yes
	Isophorone	SW via GW	0.58	MW-04	1.59	0 -1	Pervious	Isophorone was only detected in one vadose soil sample across the Site, and that location is pervious. Isophorone was not detected in groundwater samples from any well across the Site.	Yes
	N-Nitrosodiphenylamine	Sed via Erosion	0.028	SB-26	0.0506	0 - 1	Pervious	N-Nitrosodiphenylamine was only detected at one location in vadose soil, in a pervious surface. N-Nitrosodiphenylamine concentrations in groundwater did not exceed groundwater screening levels in any well across the Site.	Yes
	Pentachlorophenol	SW via GW	0.000032	HA-02	0.385	0 -1	Pervious	Nearly all locations where Pentachlorophenol was detected in vadose soil are in pervious surface areas, including numerous locations within the Pond Area. At the one impervious location, Pentachlorophenol was not detected in groundwater at the corresponding monitoring well (MW-17), or at any well across the Site.	Yes
				SB-42	0.39	0 - 1	Pervious		
				SB-26	0.429	0 - 1	Pervious		
				HA-01	0.473	0 - 1	Pervious		
				SB-36	0.56	0 - 1	Pervious		
				HA-01	1.08	2 - 3	Pervious		
				SB-11	2.3	2.5	Pervious		
				SB-12	2.8	1.5	Pervious		
				MW-16	2.9	0 - 1	Impervious		
				MW-16	14	1.5 - 2	Impervious		

Table 6.5. Chemical-Specific Analysis for Vadose-Leaching-to-Groundwater Pathway

South Park Marina Site, Seattle, Washington

Analyte Class	Analyte	Refined SL Pathway	Refined SL (mg/kg)	Locations Where Concentrations Exceed Refined SL[(1)]	Concentration (mg/kg)	Depth (ft bgs)	Surface Condition	Discussion of Vadose-Leaching-to-Groundwater Pathways	Vadose Leaching Pathways Removed?
Pesticides	4,4'-DDD	SW via GW	7.3E-06	SB-38	0.14	0 - 1	Pervious	Nearly all locations where 4,4'-DDD was detected at elevated concentrations in vadose soil are in pervious surface areas, including the highest detected concentration (0.8 mg/kg, SB-11) at the Site. 4,4'-DDD was not detected in groundwater samples from any well across the Site.	Yes
				MW-16	0.36	0 -1	Impervious		
				SB-16	0.53	3.5	Pervious		
				SB-14	0.58	3	Pervious		
				SB-11	0.8	2.5	Pervious		
	cis-Chlordane	Sed via Erosion	0.0001	SB-40	0.0087	0 - 1	Impervious	Cis-Chlordane was only detected in two samples in vadose soil across the Site, and the location of the highest detection was pervious. Cis-chlordane was not detected in groundwater samples from any well across the Site.	Yes
				HA-06	0.016	0 - 1	Pervious		
	Endosulfan I	SW via GW	0.0012	MW-16	0.061	1.5 - 2	Impervious	Endosulfan I was only detected in one sample in vadose soil across the Site. While the location is impervious, Endosulfan I was not detected in groundwater at the corresponding well (MW-17). Likewise, Endosulfan I was not detected in groundwater samples from any well across the Site.	Yes
	Endrin	SW via GW	0.00044	SB-39	0.0092	5 - 6	Pervious	Endrin was only detected in one sample in vadose soil across the Site in a pervious location. Endrin was not detected in groundwater samples from any well across the Site.	Yes
Volatile Organic Compounds	Ethylbenzene	Protect SW via GW	0.18	SB-42	3.9	3.5 - 4.5	Pervious	All three locations where ethylbenzene exceeded the Preliminary RI SL in vadose soil are pervious. Ethylbenzene was not detected at a concentrations above the groundwater screening levels at wells across the Site.	Yes
				SB-11	4.1	2.5	Pervious		
				SB-16	9.3	3.5	Pervious		
	Toluene	Protect SW via GW	0.72	SB-11	4.1	2.5	Pervious	Both locations where toluene exceeded the Preliminary RI SL in vadose soil are pervious. Toluene was not detected at a concentration above the groundwater screening levels at any well across the Site.	Yes
				SB-16	7.2	3.5	Pervious		
	Total Xylenes	Protect SW via GW	0.94	SB-42	25.2	3.5 - 4.5	Pervious	All three locations where total xylenes exceeded the Preliminary RI SL in vadose soil are pervious. Total xylenes were not detected at a concentration above the groundwater screening levels at wells across the Site.	Yes
				SB-11	35	2.5	Pervious		
				SB-16	68	3.5	Pervious		
	1,1,2-Trichloroethane	Protect SW via GW	0.005	MW-20	0.022	5 - 6	Impervious	1,1,2-Trichloroethane was only detected in one sample in vadose soil across the Site. While the location is impervious, 1,1,2-Trichloroethane was not detected in groundwater at the corresponding well (MW-20). Likewise, 1,1,2-Trichloroethane was not detected in groundwater at any well across the Site.	Yes
	1,2,3-Trichloropropane	Direct Contact	0.0063	MW-17	0.15	0 - 1	Impervious	1,2,3-Trichloropropane was only detected in one sample in vadose soil across the Site. While the location is impervious, 1,2,3-Trichloropropane was not detected in groundwater at the corresponding well (MW-17). Likewise, 1,2,3-Trichloropropane was not detected in groundwater at any well across the Site.	Yes
	1,2,4-Trichlorobenzene	Protect SW via GW	0.0014	MW-16	0.011	1.5 - 2	Impervious	1,2,4-Trichlorobenzene was only detected in one sample in vadose soil across the Site. While the location is impervious, 1,2,4-Trichlorobenzene was not detected in groundwater at the corresponding well (MW-16). Likewise, 1,2,4-Trichlorobenzene was not detected in groundwater at any well across the Site.	Yes
	1,2-Dichlorobenzene	Sed via Erosion	0.035	MW-16	0.097	1.5 - 2	Impervious	1,2-Dichlorobenzene was only detected in three vadose soil samples across the Site, and the two highest concentrations were in pervious locations. 1,2-Dichlorobenzene was not detected in groundwater samples from any well across the Site.	Yes
				SB-11	0.24	2.5	Pervious		
				SB-16	0.31	3.5	Pervious		

Notes:

(1) = vadose soil samples with a concentration greater than the screening level for each analyte are shown. If greater than 5 vadose soil samples exceeded the screening level, the samples with the highest exceedance factors were selected.

SL= screening level

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

SW via GW = vadose soil protective of surface water via groundwater (SL-3)

Sed via GW = vadose soil protective of sediment via groundwater (SL-4)

NB = natural background (SL-10)

Table 6.6. COPCs by Media - Summary of Proposed RI CUL Exceedances

South Park Marina Site, Seattle, Washington

		Site Contaminants of Potential Concern (Output of Step #9)				
Analyte Class	**Analyte**	**Groundwater**	**Vadose Soil (0 to 6 ft bgs)**	**Saturated Soil (6+ ft bgs)**	**Soil Gas**	**Indoor Air**
Metals	Arsenic	X (T,D)	X	X	NA	NA
	Barium		X		NA	NA
	Cadmium		X		NA	NA
	Chromium	X (T,D)	X		NA	NA
	Copper	X (T,D)	X	X	NA	NA
	Lead		X	X	NA	NA
	Mercury		X	X	NA	NA
	Nickel	X (T,D)	X		NA	NA
	Selenium	NA	X		NA	NA
	Zinc	X (T,D)	X	X	NA	NA
	Tributyltin Ion		X	X	NA	NA
Polychlorinated Biphenyls	Total PCB Aroclors (ND = 0)	X	X	X	NA	NA
	Total PCB Congeners (ND = 0)	X	X	X	NA	NA
	Total PCB TEQ (ND = 0)	X	X	X	NA	NA
Dioxins / Furans	Total Dioxin/Furan TEQ (ND = 0)		X	X	NA	NA
	2,3,7,8-TCDD		X	X	NA	NA
Polycyclic Aromatic Hydrocarbons	1-Methylnaphthalene	X			NA	NA
	2-Methylnaphthalene		X	X	NA	NA
	Benzo(g,h,i)perylene		X		NA	NA
	Fluoranthene		X		NA	NA
	Pyrene		X		NA	NA
	Benz(a)anthracene	X	X		NA	NA
	Benzo(a)pyrene	X	X	X	NA	NA
	Benzo(b)fluoranthene	X			NA	NA
	Chrysene	X	X		NA	NA
	Dibenzo(a,h)anthracene		X		NA	NA
	Indeno(1,2,3-cd)pyrene		X		NA	NA
	Total Benzofluoranthenes		X		NA	NA
	Total HPAHs (ND = 1/2 RDL)		X	X	NA	NA
	Total cPAHs TEQ (ND = 1/2 RDL)	X	X	X	NA	NA
Other Semivolatile Organic Compounds	2,4-Dimethylphenol			X	NA	NA
	2,4-Dinitrophenol			X	NA	NA
	2-Methylphenol		X		NA	NA
	Benzyl alcohol		X		NA	NA
	Benzyl butyl phthalate		X		NA	NA
	Bis(2-ethylhexyl) phthalate	X	X	X	NA	NA
	Diethyl phthalate		X		NA	NA
	Dimethyl phthalate		X		NA	NA
	Di-n-butyl phthalate		X		NA	NA
	Hexachlorobenzene			X	NA	NA
	N-Nitrosodiphenylamine		X	X	NA	NA
	Pentachlorophenol		X		NA	NA
Pesticides	4,4'-DDE	X	X	X	NA	NA
	4,4'-DDT	X	X	X	NA	NA
	Aldrin	X	X	X	NA	NA
	Alpha-BHC	X	X	X	NA	NA
	cis-Chlordane		X	X	NA	NA
	Delta-BHC			X	NA	NA
	Dieldrin	X	X	X	NA	NA
	Endrin Aldehyde			X	NA	NA
	Heptachlor			X	NA	NA
	trans-Chlordane		X	X	NA	NA
Total Petroleum Hydrocarbons	Gasoline-Range Organics		X	X		
	Diesel-Range Organics	X	X	X		
	Motor Oil-Range Organics	X	X	X		
	Diesel and Oil Extended-Range Organics	X	X	X		
BTEX	Benzene	X	X	X		
	Total Xylenes		X	X		
Volatile Organic Compounds	1,2,3-Trichloropropane		X			
	1,2-Dichlorobenzene		X	X		
	Methylene Chloride			X		
	Tetrachloroethene (PCE)	X	X	X	X	X
	Trichloroethene (TCE)	X	X	X	X	
	Vinyl Chloride	X	X	X		

Notes:

COPC = Contaminant of Potential Concern

Proposed RI CUL = Proposed Remedial Investigation Cleanup Level

ft bgs = feet below ground surface

X = screening level was exceeded for one or more detected samples

T = total; D = dissolved

Blank = No detected results exceeded the Proposed RI CUL.

NA = Analyte not analyzed in this media

Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with nondetects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is shown as nondetect at the maximum RDL for any individual Aroclor.

RDL = Reported Detection Limit

Total Dioxin/Furan TEQ (ND=0), Total PCB Congeners (ND = 0), and Total PCB TEQ (ND = 0) are calculated using zero for nondetected components.

TEQ = Toxic Equivalency

cPAHs = carcinogenic polycyclic aromatic hydrocarbons: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

HPAHs = high molecular weight polycyclic aromatic hydrocarbons: fluoranthene, pyrene, benz(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.

Total HPAHS (ND = 1/2 RDL) and Total cPAH TEQ (ND = 1/2 RDL) are calculated using one-half the RDL for nondetected components. All appropriate PAHs for each, including those not displayed here, are included in the calculations.

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Blue Shaded = Detected result exceeded Proposed RI CUL

Site Area				South Area									
Location				MW-02			MW-03			MW-04			MW-04D
Sample Date				10/09/07	03/12/08	07/31/08	10/08/07	03/12/08	07/31/08	03/31/21	05/27/21	10/27/22	10/26/22
Sample				MW-2-100907	MW-2-031208	MW-02-073108	MW-3-100807	MW-3-031208	MW-03-073108	MW-04-210331	MW-04-210527	MW-04-221027	MW-04D-221026
Hydrostatigraphic Unit				Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Fill	Fill	Fill	Alluvial
Tidal Stage				--	--	--	--	--	--	Lower-Low	Lower-Low	Higher-Low	Higher-Low
Tidal Trend				--	--	--	--	--	--	Incoming	Incoming	Outgoing	Outgoing
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**										
Metals, Total													
Arsenic	ug/L	8.0	GW-5	**8.07**	**1.56**	--	**3.13**	**1.59**	--	**0.575**	--	**1.98**	**3.03**
Barium	ug/L	200	GW-2	--	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	**0.091**	**0.015**	--	**0.04**	**0.017**	--	< 0.1 U	--	**0.466 J**	**0.221 J**
Chromium	ug/L	27	GW-2	**40.4**	**15.7**	--	**1.52**	**19.4**	--	< 0.5 U	--	**1.35**	**0.631 J**
Copper	ug/L	3.1	GW-2	**9.7**	**5.81**	--	**5.23**	**9.83**	--	< 0.5 U	--	**1.6 J**	**2.35 J**
Lead	ug/L	8.1	GW-2	**0.046**	**0.189**	--	**0.191**	**0.519**	--	< 0.1 U	--	**0.221 J**	< 0.2 U
Mercury	ug/L	0.025	GW-2	< 0.2 U	< 0.2 U	**0.00141**	< 0.2 U	< 0.2 U	**0.0156**	< 0.02 U	--	< 0.0008 U	< 0.0008 U
Nickel	ug/L	8.2	GW-2	--	--	--	--	--	--	**11.5**	--	**31.6**	**20**
Selenium	ug/L	71	GW-2	--	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	**4.9**	**3.5**	--	**4.5**	**3.84**	--	< 6 U	--	**87.5**	**23.3**
Metals, Dissolved													
Arsenic	ug/L	8.0	GW-5	**8.08**	--	--	**3.26**	--	--	**0.567**	--	**1.94**	**3.48**
Cadmium	ug/L	1.2	GW-3	**0.105**	--	--	**0.032**	--	--	**0.076 J**	--	**0.369 J**	**0.212 J**
Chromium	ug/L	27	GW-2	**25.2**	--	--	**1.25**	--	--	**1.05**	--	**1.07**	**1.19**
Copper	ug/L	3.1	GW-2	**6.27**	--	--	**5.11**	--	--	**1.84**	--	**2.55 J**	**2.2 J**
Lead	ug/L	8.1	GW-2	**0.021**	--	--	**0.055**	--	--	**0.183**	--	< 0.2 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	< 0.2 U	--	--	< 0.2 U	--	--	< 0.02 U	--	< 0.0008 U	< 0.0008 U
Nickel	ug/L	8.2	GW-2	--	--	--	--	--	--	**11.2**	--	**30.4**	**20.1**
Zinc	ug/L	81	GW-2	**4.1**	--	--	**5.2**	--	--	**26.2**	--	**78.7**	**24.1**
Metals, Total, Prepared Using Reductive Precipitation													
Arsenic	ug/L	8.0	GW-5	--	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	--	--	--	--	--	--	--	--	--
Chromium	ug/L	27	GW-2	--	--	--	--	--	--	--	--	--	--
Copper	ug/L	3.1	GW-2	--	--	--	--	--	--	--	--	--	--
Lead	ug/L	8.1	GW-2	--	--	--	--	--	--	--	--	--	--
Nickel	ug/L	8.2	GW-2	--	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	--	--	--	--	--	--	--	--	--
Metals, Dissolved, Prepared Using Reductive Precipitation													
Arsenic	ug/L	8.0	GW-5	--	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	--	--	--	--	--	--	--	--	--
Chromium	ug/L	27	GW-2	--	--	--	--	--	--	--	--	--	--
Copper	ug/L	3.1	GW-2	--	--	--	--	--	--	--	--	--	--
Lead	ug/L	8.1	GW-2	--	--	--	--	--	--	--	--	--	--
Nickel	ug/L	8.2	GW-2	--	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	--	--	--	--	--	--	--	--	--
Butyl Tins													
Tributyltin Ion	ug/L	0.0052	GW-3, PQL Adj.	--	--	--	--	--	--	< 0.193 UJ	--	< 0.0052 U	< 0.0052 U
Polychlorinated Biphenyl (PCB) Aroclors													
Total PCB Aroclors (ND = 0)	ug/L	0.0035	GW-2, PQL Adj.	< 0.21 UA	--	--	< 0.2 UA	--	--	**0.103 J**	--	**0.213**	< 0.0035 U
Polychlorinated Biphenyl (PCB) Congeners													
Total PCB Congeners (ND = 0)	ug/L	4.20E-04	GW-2, PQL Adj.	--	--	--	--	--	--	--	**1.53E-1 J**	--	--
Total PCB TEQ (ND = 0)	ug/L	1.50E-07	GW-2, PQL Adj.	--	--	--	--	--	--	--	**2.66E-6 J**	--	--
Dioxins/Furans													
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	ug/L	5.70E-05	GW-2, PQL Adj.	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	ug/L	5.00E-06	GW-2, PQL Adj.	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)													
1-Methylnaphthalene	ug/L	0.17	GW-4	--	--	--	--	--	--	**0.024**	--	< 0.1 U	< 0.1 U
2-Methylnaphthalene	ug/L	14	GW-3	< 0.21 U	--	--	< 0.21 U	--	--	< 0.01 U	--	< 0.1 U	< 0.1 U
Benzo(g,h,i)perylene	ug/L			< 0.21 U	--	--	< 0.21 U	--	--	**0.002 J**	--	< 0.02 U	< 0.02 U
Fluoranthene	ug/L	1.8	GW-3	< 0.21 U	--	--	< 0.21 U	--	--	**0.021**	--	**0.097**	< 0.01 U
Pyrene	ug/L	2.0	GW-3	< 0.21 U	--	--	< 0.21 U	--	--	**0.021**	--	**0.12**	< 0.01 U
Benz(a)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.21 U	--	--	< 0.21 U	--	--	< 0.01 U	--	**0.024**	< 0.01 U
Benzo(a)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.21 U	--	--	< 0.21 U	--	--	< 0.01 U	--	**0.017**	< 0.01 U
Benzo(b)fluoranthene	ug/L	0.010	GW-2, PQL Adj.	< 0.21 U	--	--	< 0.21 U	--	--	< 0.01 U	--	**0.018**	< 0.01 U
Chrysene	ug/L	0.016	GW-2	< 0.21 U	--	--	< 0.21 U	--	--	**0.002 J**	--	**0.031**	< 0.01 U
Dibenzo(a,h)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.21 U	--	--	< 0.21 U	--	--	< 0.01 UJ	--	< 0.01 U	< 0.01 U
Indeno(1,2,3-cd)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.21 U	--	--	< 0.21 U	--	--	< 0.01 U	--	< 0.01 U	< 0.01 U
Total Benzofluoranthenes	ug/L			< 0.21 UA	--	--	< 0.21 UA	--	--	< 0.01 U	--	**0.023**	< 0.01 U
Total HPAHs (ND = 1/2 RDL)	ug/L			< 0.21 U	--	--	< 0.21 U	--	--	**0.081 J**	--	**0.332**	< 0.02 U
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	0.015	GW-2, PQL Adj.	< 0.159 U	--	--	< 0.159 U	--	--	**0.00752 J**	--	**0.023**	< 0.00755 U
Semi-Volatile Organic Compounds (SVOCs)													
2,4-Dimethylphenol	ug/L	2.9	GW-3	< 4.1 U	--	--	< 4.1 U	--	--	< 1 U	--	< 1 U	< 1 UJ
2-Methylphenol	ug/L	9.8	GW-3	< 0.51 U	--	--	< 0.51 U	--	--	< 0.2 U	--	< 1 U	< 1 U
Benzyl alcohol	ug/L	56	GW-3	< 5.1 U	--	--	< 5.1 U	--	--	< 0.2 U	--	< 1 U	< 1 U
Benzyl butyl phthalate	ug/L	1.0	GW-2, PQL Adj.	< 0.21 U	--	--	< 0.21 U	--	--	< 0.2 U	--	< 1 U	< 1 U
Bis(2-ethylhexyl) phthalate	ug/L	0.20	GW-2, PQL Adj.	< 1.1 U	--	--	< 1.1 U	--	--	**0.6**	--	< 1.6 U	< 1.6 U
Diethyl phthalate	ug/L	93	GW-3	**0.059**	--	--	**0.047**	--	--	**1.4**	--	< 1 U	< 1 U
Dimethyl phthalate	ug/L	59	GW-3	< 0.21 U	--	--	< 0.21 U	--	--	< 0.2 U	--	< 1 U	< 1 U
Di-n-butyl phthalate	ug/L	8.0	GW-2	**0.08**	--	--	**0.08**	--	--	< 0.2 U	--	< 1 U	< 1 U
Hexachlorobenzene	ug/L	0.10	GW-2, PQL Adj.	< 0.21 U	--	--	< 0.21 U	--	--	< 0.0013 U	--	< 0.1 U	< 0.1 U
N-Nitrosodiphenylamine	ug/L	0.55	GW-3	< 0.21 U	--	--	< 0.21 U	--	--	< 0.2 U	--	< 0.1 U	< 0.1 U
Pentachlorophenol	ug/L	0.50	GW-2, PQL Adj.	< 1.1 U	--	--	< 1.1 U	--	--	< 1 U	--	< 0.5 U	< 0.5 U
Pesticides													
4,4'-DDE	ug/L	0.0013	GW-2, PQL Adj.	< 0.011 U	< 0.00049 U	--	< 0.01 U	< 0.0005 U	--	< 0.0013 U	--	**0.014**	< 0.00125 U
4,4'-DDT	ug/L	0.0013	GW-2, PQL Adj.	**0.0022 J**	**0.00082**	--	< 0.01 U	**0.0014**	--	< 0.0013 U	--	< 0.00125 U	< 0.00125 U
Aldrin	ug/L	0.00063	GW-2, PQL Adj.	< 0.011 U	< 0.00049 U	--	**0.0012**	**0.0012 J**	--	**0.0364**	--	**0.78**	**0.019**
Alpha-BHC	ug/L	0.00063	GW-2, PQL Adj.	--	--	--	--	--	--	< 0.0006 U	--	< 0.000625 U	< 0.000625 U
cis-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	--	< 0.00049 U	--	--	< 0.0005 U	--	< 0.0006 U	--	< 0.000625 U	< 0.000625 U
Delta-BHC	ug/L			--	--	--	--	--	--	< 0.0006 U	--	< 0.000625 U	< 0.000625 U
Dieldrin	ug/L	0.0013	GW-2, PQL Adj.	**0.0015**	**0.00071**	--	**0.021**	**0.041**	--	**0.037**	--	**0.042**	**0.11**
Heptachlor	ug/L	0.00063	GW-2, PQL Adj.	< 0.011 U	< 0.00049 U	--	< 0.01 U	< 0.0005 U	--	< 0.0006 U	--	< 0.000625 U	< 0.000625 U
trans-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	--	< 0.00049 U	--	--	< 0.0005 U	--	< 0.0006 U	--	< 0.000625 U	< 0.000625 U
Total Petroleum Hydrocarbons (TPH)													
Gasoline-Range Organics	ug/L	800	GW-2	< 250 U	--	--	< 250 U	--	--	< 100 UJ	--	< 100 U	< 100 U
Diesel-Range Organics	ug/L	500	GW-2	< 630 U	--	--	< 630 U	--	--	**744**	--	**620**	< 50 U
Motor Oil-Range Organics	ug/L	500	GW-2	< 630 U	--	--	< 630 U	--	--	**630**	--	**1400**	< 250 U
Diesel and Oil Extended-Range Organics	ug/L	500	GW-2	< 630 U	--	--	< 630 U	--	--	**1370**	--	**2020**	< 250 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)													
Benzene	ug/L	1.6	GW-2	< 0.5 U	< 0.5 U	--	< 0.5 U	< 0.5 U	--	< 0.2 U	--	< 0.35 U	< 0.35 U
Total Xylenes	ug/L	110	GW-2	< 0.5 U	< 0.5 U	--	< 0.5 U	< 0.5 U	--	< 0.6 U	--	< 2 U	< 2 U
Volatile Organic Compounds (VOCs)													
1,2,3-Trichloropropane	ug/L	20	GW-4	< 0.5 U	< 0.5 U	--	< 0.5 U	< 0.5 U	--	< 0.5 U	--	< 1 U	< 1 U
1,2-Dichlorobenzene	ug/L	4.5	GW-3	< 0.21 U	< 0.5 U	--	< 0.21 U	< 0.5 U	--	**0.11 J**	--	< 1 U	< 0.1 U
Methylene Chloride	ug/L	100	GW-2	< 2 U	< 2 U	--	< 2 U	< 2 U	--	< 1 U	--	< 5 U	**6 J**
Tetrachloroethene (PCE)	ug/L	2.9	GW-2	< 0.5 U	**0.2**	--	**0.16**	**0.18**	--	**1.3**	--	**1**	< 1 U
Trichloroethene (TCE)	ug/L	0.70	GW-2	< 0.5 U	< 0.5 U	--	< 0.5 U	< 0.5 U	--	**0.11 J**	--	< 0.5 U	< 0.5 U
Vinyl Chloride	ug/L	0.18	GW-2	< 0.5 U	< 0.5 U	--	< 0.5 U	< 0.5 U	--	< 0.2 U	--	< 0.02 U	< 0.02 U
Conventionals													
Total Organic Carbon	ug/L			--	--	--	--	--	--	**11500**	--	--	--
Total Suspended Solids	mg/L			--	--	--	--	--	--	< 1 U	--	**6.4 J**	< 5 U
Field Parameters													
Temperature	deg C			--	--	--	--	--	--	**11.4**	**14.2**	**15.3**	**13.6**
Specific Conductance	uS/cm			--	--	--	--	--	--	**118**	**222**	**746**	**2180**
Dissolved Oxygen	mg/L			--	--	--	--	--	--	**0.33**	**1.52**	**1.93**	**0.65**
pH	pH units			--	--	--	--	--	--	**6.23**	**6.27**	**5.91**	**5.92**
Oxidation Reduction Potential	mV			--	--	--	--	--	--	**94**	**69.5**	**126**	**-14.9**
Turbidity	NTU			--	--	--	--	--	--	**2.43**	**3.07**	**30.8**	**10**

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Blue Shaded = Detected result exceeded Proposed RI CUL

Site Area				South Area								
Location				MW-05				MW-05D	MW-06			MW-06D
Sample Date				03/31/21	05/27/21	10/26/22	03/23/23	10/26/22	03/29/21	10/26/22	03/23/23	10/31/22
Sample				MW-05-210331	MW-05-210527	MW-05-221026	MW-05-230323	MW-05D-221026	MW-06-210329	MW-06-221026	MW-06-230323	MW-06D-221031
Hydrostatigraphic Unit				Fill	Fill	Fill	Fill	Alluvial	Fill	Fill	Fill	Alluvial
Tidal Stage				Lower-Low	Lower-Low	Higher-Low	Lower-Low	Higher-Low	Lower-High	Higher-Low	Higher-High	Higher-Low
Tidal Trend				Incoming	Incoming	Outgoing	Incoming	Outgoing	Incoming	Outgoing	Outgoing	Outgoing
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**									
Metals, Total												
Arsenic	ug/L	8.0	GW-5	**0.833**	--	**3.25**	**1.33**	**3.46**	**0.267**	**14.8**	**6.58**	**2.23**
Barium	ug/L	200	GW-2	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	< 0.1 U	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.1 U	< 1 U	< 0.2 UJ	< 0.2 U
Chromium	ug/L	27	GW-2	**2.37**	--	**1.25**	**2.15 J**	**1.31**	**0.444 J**	**33.5**	**1.6 J**	**0.873 J**
Copper	ug/L	3.1	GW-2	< 0.5 U	--	**0.662 J**	< 0.5 U	**1.47 J**	**3.06**	**17.6 J**	**3.78 J**	**3.76 J**
Lead	ug/L	8.1	GW-2	**2.44**	--	**1.34**	**2.16**	**0.3 J**	**0.13**	< 1 U	< 0.2 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	< 0.02 U	--	< 0.0008 U	--	**0.0013**	< 0.02 UJ	**0.00084**	--	**0.0016 J**
Nickel	ug/L	8.2	GW-2	**25.1**	--	**12.2**	**4.43**	**4.11**	**0.463 J**	**158**	**7.54**	**2.32**
Selenium	ug/L	71	GW-2	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	**1830**	--	**29.1**	**11.4**	**8.16**	**6.01**	**73.6**	**17.1**	**2.22 J**
Metals, Dissolved												
Arsenic	ug/L	8.0	GW-5	**0.798**	--	**3.15**	**1.28**	**3.19**	**0.288**	**14.2**	**5.8**	**2.03**
Cadmium	ug/L	1.2	GW-3	< 0.1 U	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.1 U	< 1 U	< 0.2 UJ	< 0.2 U
Chromium	ug/L	27	GW-2	**2.34**	--	**1**	**2.12**	**0.737 J**	**0.465 J**	**16.4**	**1.21**	**0.909 J**
Copper	ug/L	3.1	GW-2	**0.297 J**	--	**0.54 J**	< 0.5 UJ	**1.21 J**	**2.73**	**16.3 J**	**3.44**	**3.38 J**
Lead	ug/L	8.1	GW-2	**0.226**	--	< 0.2 U	**1.38**	< 0.2 U	**0.068 J**	< 1 U	< 0.2 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	< 0.02 U	--	< 0.0008 U	--	**0.001**	< 0.02 UJ	**0.0018**	--	**0.0013**
Nickel	ug/L	8.2	GW-2	**22.2**	--	**12.6**	**5.04**	**3.87**	**0.41 J**	**149**	**7.35**	**2.14**
Zinc	ug/L	81	GW-2	**1490**	--	**19.4**	**9.94**	**8.28**	**5.71**	**72.3**	**16.3**	**2.11 J**
Metals, Total, Prepared Using Reductive Precipitation												
Arsenic	ug/L	8.0	GW-5	--	--	--	< 0.50 U	--	--	--	< 0.50 U	--
Cadmium	ug/L	1.2	GW-3	--	--	--	**0.028**	--	--	--	**0.170**	--
Chromium	ug/L	27	GW-2	--	--	--	**2.59**	--	--	--	**0.69**	--
Copper	ug/L	3.1	GW-2	--	--	--	**0.48**	--	--	--	**2.70**	--
Lead	ug/L	8.1	GW-2	--	--	--	**2.37**	--	--	--	< 0.050 U	--
Nickel	ug/L	8.2	GW-2	--	--	--	**4.33**	--	--	--	**5.08**	--
Zinc	ug/L	81	GW-2	--	--	--	**11.4**	--	--	--	**17.6**	--
Metals, Dissolved, Prepared Using Reductive Precipitation												
Arsenic	ug/L	8.0	GW-5	--	--	--	< 0.50 U	--	--	--	< 0.50 U	--
Cadmium	ug/L	1.2	GW-3	--	--	--	< 0.020 U	--	--	--	**0.173**	--
Chromium	ug/L	27	GW-2	--	--	--	**2.21**	--	--	--	**0.57**	--
Copper	ug/L	3.1	GW-2	--	--	--	**0.28**	--	--	--	**2.95**	--
Lead	ug/L	8.1	GW-2	--	--	--	**1.55**	--	--	--	< 0.050 U	--
Nickel	ug/L	8.2	GW-2	--	--	--	**4.27**	--	--	--	**5.40**	--
Zinc	ug/L	81	GW-2	--	--	--	**9.47**	--	--	--	**18.1**	--
Butyl Tins												
Tributyltin Ion	ug/L	0.0052	GW-3, PQL Adj.	< 0.193 U	--	< 0.0052 U	--	< 0.0052 U	< 0.193 UJ	< 0.0052 U	--	< 0.0052 U
Polychlorinated Biphenyl (PCB) Aroclors												
Total PCB Aroclors (ND = 0)	ug/L	0.0035	GW-2, PQL Adj.	**0.679 J**	--	**17**	**0.35**	< 0.0035 U	**0.02 J**	< 0.0035 U	< 0.0035 U	< 0.0035 U
Polychlorinated Biphenyl (PCB) Congeners												
Total PCB Congeners (ND = 0)	ug/L	4.20E-04	GW-2, PQL Adj.	--	**3.04E-1 J**	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	ug/L	1.50E-07	GW-2, PQL Adj.	--	**4.73E-6**	--	--	--	--	--	--	--
Dioxins/Furans												
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	ug/L	5.70E-05	GW-2, PQL Adj.	--	--	--	**2.88E-5 J**	--	--	--	**1.23E-6 J**	--
2,3,7,8-TCDD	ug/L	5.00E-06	GW-2, PQL Adj.	--	--	--	**1.12E-6 J**	--	--	--	< 5.61E-7 U	--
Polycyclic Aromatic Hydrocarbons (PAHs)												
1-Methylnaphthalene	ug/L	0.17	GW-4	**2.63 J**	--	**2.6**	--	< 0.1 U	**0.002 J**	< 0.1 U	--	< 0.1 U
2-Methylnaphthalene	ug/L	14	GW-3	**0.441 J**	--	< 0.1 U	--	< 0.1 U	**0.003 J**	< 0.1 U	--	< 0.1 U
Benzo(g,h,i)perylene	ug/L			**0.002 J**	--	< 0.02 UJ	--	< 0.02 U	< 0.01 U	< 0.02 U	--	< 0.02 U
Fluoranthene	ug/L	1.8	GW-3	**0.06**	--	**0.18**	--	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U
Pyrene	ug/L	2.0	GW-3	**0.051**	--	**0.3**	--	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U
Benz(a)anthracene	ug/L	0.010	GW-2, PQL Adj.	**0.007 J**	--	**0.052**	--	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U
Benzo(a)pyrene	ug/L	0.010	GW-2, PQL Adj.	**0.003 J**	--	**0.046 J**	--	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U
Benzo(b)fluoranthene	ug/L	0.010	GW-2, PQL Adj.	**0.003 J**	--	**0.056 J**	--	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U
Chrysene	ug/L	0.016	GW-2	**0.011**	--	**0.092**	--	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U
Dibenzo(a,h)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 UJ	--	< 0.01 UJ	--	< 0.01 U	< 0.01 UJ	< 0.01 U	--	< 0.01 U
Indeno(1,2,3-cd)pyrene	ug/L	0.010	GW-2, PQL Adj.	**0.001 J**	--	**0.015 J**	--	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U
Total Benzofluoranthenes	ug/L			**0.006 J**	--	**0.074 J**	--	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U
Total HPAHs (ND = 1/2 RDL)	ug/L			**0.153 J**	--	**0.774 J**	--	< 0.02 U	< 0.01 UJ	< 0.02 U	--	< 0.02 U
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	0.015	GW-2, PQL Adj.	**0.00521 J**	--	**0.0615 J**	--	< 0.00755 U	< 0.00755 UJ	< 0.00755 U	--	< 0.00755 U
Semi-Volatile Organic Compounds (SVOCs)												
2,4-Dimethylphenol	ug/L	2.9	GW-3	< 1 U	--	< 1 UJ	--	< 1 UJ	< 1.1 U	< 1 UJ	--	< 1 U
2-Methylphenol	ug/L	9.8	GW-3	**0.06 J**	--	< 1 U	--	< 1 U	< 0.2 U	< 1 U	--	< 1 U
Benzyl alcohol	ug/L	56	GW-3	< 0.2 U	--	< 1 U	--	< 1 U	< 0.2 U	< 1 U	--	< 1 U
Benzyl butyl phthalate	ug/L	1.0	GW-2, PQL Adj.	< 0.2 U	--	< 1 U	--	< 1 U	< 0.2 U	< 1 U	--	< 1 U
Bis(2-ethylhexyl) phthalate	ug/L	0.20	GW-2, PQL Adj.	**0.6 J**	--	< 1.6 U	--	< 1.6 U	< 0.2 U	< 1.6 U	--	< 1.6 U
Diethyl phthalate	ug/L	93	GW-3	< 0.2 U	--	< 1 U	--	< 1 U	< 0.2 U	< 1 U	--	< 1 U
Dimethyl phthalate	ug/L	59	GW-3	< 0.2 U	--	< 1 U	--	< 1 U	< 0.2 U	< 1 U	--	< 1 U
Di-n-butyl phthalate	ug/L	8.0	GW-2	**0.5**	--	< 1 U	--	< 1 U	< 0.2 U	< 1 U	--	< 1 U
Hexachlorobenzene	ug/L	0.10	GW-2, PQL Adj.	< 0.0013 U	--	< 0.1 U	--	< 0.1 U	< 0.0013 U	< 0.1 U	--	< 0.1 U
N-Nitrosodiphenylamine	ug/L	0.55	GW-3	**0.3**	--	**0.4**	--	< 0.1 U	< 0.2 U	< 0.1 U	--	< 0.1 U
Pentachlorophenol	ug/L	0.50	GW-2, PQL Adj.	< 1 U	--	< 0.5 U	--	< 0.5 U	< 1.1 U	< 0.5 U	--	< 0.5 U
Pesticides												
4,4'-DDE	ug/L	0.0013	GW-2, PQL Adj.	< 0.0013 U	--	< 0.00125 U	--	< 0.00125 U	< 0.0013 U	< 0.00125 U	< 0.00125 U	< 0.00125 U
4,4'-DDT	ug/L	0.0013	GW-2, PQL Adj.	< 0.0013 U	--	< 0.00125 U	--	< 0.00125 U	< 1 U	< 0.00125 U	< 0.00125 U	< 0.00125 U
Aldrin	ug/L	0.00063	GW-2, PQL Adj.	**0.0663 J**	--	< 0.000625 U	--	**0.0053**	< 1 U	< 0.000625 U	< 0.000625 U	< 0.000625 U
Alpha-BHC	ug/L	0.00063	GW-2, PQL Adj.	< 1 U	--	< 0.000625 U	--	< 0.000625 U	**0.0031**	< 0.000625 U	< 0.000625 U	< 0.000625 U
cis-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.0006 U	--	< 0.000625 U	--	< 0.000625 U	< 0.0006 U	< 0.000625 U	< 0.0007 U	< 0.000625 U
Delta-BHC	ug/L			< 0.0006 U	--	< 0.000625 U	--	< 0.000625 U	< 0.0006 U	< 0.000625 U	< 0.000625 U	< 0.000625 U
Dieldrin	ug/L	0.0013	GW-2, PQL Adj.	**0.0158**	--	< 0.00125 U	--	**0.027**	**0.0265**	**0.071**	**0.044**	**0.0066**
Heptachlor	ug/L	0.00063	GW-2, PQL Adj.	< 1 U	--	< 0.000625 U	--	< 0.000625 U	< 0.0006 U	< 0.000625 U	< 0.000625 U	< 0.000625 U
trans-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.0006 U	--	< 0.000625 U	--	< 0.000625 U	< 0.0006 U	< 0.000625 U	< 0.000625 U	< 0.000625 U
Total Petroleum Hydrocarbons (TPH)												
Gasoline-Range Organics	ug/L	800	GW-2	**282 J**	--	< 100 U	--	< 100 U	< 100 U	< 100 U	--	< 100 U
Diesel-Range Organics	ug/L	500	GW-2	**4430**	--	**2100**	--	**770**	< 105 U	**100**	--	< 50 U
Motor Oil-Range Organics	ug/L	500	GW-2	**923**	--	**1300**	--	**860**	< 211 U	< 250 U	--	< 250 U
Diesel and Oil Extended-Range Organics	ug/L	500	GW-2	**5350**	--	**3400**	--	**1630**	< 211 U	**100**	--	< 250 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)												
Benzene	ug/L	1.6	GW-2	**0.63**	--	**0.54**	--	< 0.35 U	< 0.2 U	< 0.35 U	--	< 0.35 U
Total Xylenes	ug/L	110	GW-2	**2.72**	--	< 2 U	--	< 2 U	< 0.6 U	< 2 U	--	< 2 U
Volatile Organic Compounds (VOCs)												
1,2,3-Trichloropropane	ug/L	20	GW-4	< 0.5 U	--	< 1 U	--	< 1 U	< 0.5 U	< 1 U	--	< 1 U
1,2-Dichlorobenzene	ug/L	4.5	GW-3	**3.34**	--	**0.69**	--	< 0.1 U	< 0.2 U	< 1 U	--	< 1 U
Methylene Chloride	ug/L	100	GW-2	< 1 U	--	**6.5 J**	--	**6.2 J**	< 1 U	**7.8 J**	--	< 5 U
Tetrachloroethene (PCE)	ug/L	2.9	GW-2	**0.1 J**	--	< 1 U	--	< 1 U	**2.99**	< 1 U	--	< 1 U
Trichloroethene (TCE)	ug/L	0.70	GW-2	< 0.2 U	--	< 0.5 U	--	< 0.5 U	**0.09 J**	< 0.5 U	--	< 0.5 U
Vinyl Chloride	ug/L	0.18	GW-2	**0.35**	--	**0.23**	--	< 0.02 U	< 0.2 U	< 0.02 U	--	< 0.02 U
Conventionals												
Total Organic Carbon	ug/L			**14200**	--	--	--	--	**2040**	--	--	--
Total Suspended Solids	mg/L			**17**	--	**6**	**14**	**7.2**	< 1 U	< 5 U	< 5 U	**7.6 J**
Field Parameters												
Temperature	deg C			**11.6**	**12.8**	**17.2**	**10.4**	**15.2**	**9.7**	**9.32**	**8.45**	**13.7**
Specific Conductance	uS/cm			**259**	**198**	**843**	**521**	**704**	**109**	**6670**	**5350**	**934**
Dissolved Oxygen	mg/L			**0.51**	**0.84**	**0.11**	**0.12**	**0.27**	**5.27**	**5.77**	**10.5**	**0.97**
pH	pH units			**5.84**	**6.1**	**5.85**	**6.4**	**6.2**	**6.34**	**5.9**	**6.38**	**6.42**
Oxidation Reduction Potential	mV			**72.4**	**65.6**	**-66**	**3.2**	**-30.3**	**73.3**	**192**	**223**	**36.2**
Turbidity	NTU			**5.38**	**2.81**	**15.2**	**2.69**	**7.87**	**3.17**	**6.91**	**1.43**	**23.8**

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Blue Shaded = Detected result exceeded Proposed RI CUL

				Site Area	South Area			Central Area					
				Location	MW-16	MW-16D		MW-18D	MW-01			MW-07		
				Sample Date	03/24/23	10/26/22	03/23/23	10/31/22	10/09/07	03/12/08	07/31/08	03/29/21	10/27/22	03/23/23
				Sample	MW-16-230324	MW-16D-221026	MW-16D-230323	MW-18D-221031	MW-1-100907	MW-1-031208	MW-01-073108	MW-07-210329	MW-07-221027	MW-07-230323
				Hydrostatigraphic Unit	Fill	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Fill	Fill	Fill
				Tidal Stage	Higher-High	Higher-High	Lower-Low	Higher-High	--	--	--	Lower-Low	Higher-High	Higher-High
				Tidal Trend	Outgoing	Outgoing	Outgoing	Outgoing	--	--	--	Incoming	Outgoing	Outgoing
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**											
Metals, Total														
Arsenic	ug/L	8.0	GW-5	**1.9**	**1.98**	**4.41**	< 0.5 U	**4.68**	**2.91**	--	--	**14.5**	**7.31**
Barium	ug/L	200	GW-2	--	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	**0.26**	< 0.2 U	< 0.2 U	< 0.2 U	**0.022**	**0.013**	--	--	< 1 U	< 0.2 UJ
Chromium	ug/L	27	GW-2	**1.21 J**	< 2.5 U	**1.21 J**	< 0.5 U	**2.03**	**27.3**	--	--	**11.4**	**1.69 J**
Copper	ug/L	3.1	GW-2	**9.33**	**3.73 J**	**4.04 J**	**3.19 J**	**2.83**	**6.63**	--	--	**11.3 J**	**4.22 J**
Lead	ug/L	8.1	GW-2	**0.452**	< 0.2 U	**0.211**	< 0.2 U	**0.07**	**0.128**	--	--	< 1 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	**0.0019**	**0.0009**	--	**0.0012 J**	< 0.2 U	< 0.2 U	**0.00169**	--	< 0.0008 U	--
Nickel	ug/L	8.2	GW-2	**2.49**	**53.7**	**49.6**	**3.4**	--	--	--	--	**122**	**4.67**
Selenium	ug/L	71	GW-2	--	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	**41.2**	**6.41**	**5.08**	**1.96 J**	**4.7**	**2.93**	--	--	**22.7 J**	**6.32**
Metals, Dissolved													
Arsenic	ug/L	8.0	GW-5	**1.66**	**2.01**	**3.75**	< 0.5 U	**4.46**	--	--	--	**15.6**	**7.37**
Cadmium	ug/L	1.2	GW-3	**0.247**	< 0.2 U	< 0.2 U	< 0.2 U	**0.026**	--	--	--	< 1 U	< 0.2 UJ
Chromium	ug/L	27	GW-2	**1.19**	**1.08**	**0.985 J**	**0.934 J**	**1.61**	--	--	--	**9.68**	**1.61**
Copper	ug/L	3.1	GW-2	**9.62**	**4 J**	**3.79**	**3.32 J**	**2.77**	--	--	--	**11 J**	**4.22**
Lead	ug/L	8.1	GW-2	**0.421**	**0.606 J**	< 0.2 U	< 0.2 U	**0.057**	--	--	--	< 0.2 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	**0.0019**	**0.0013**	--	**0.0011**	< 0.2 U	--	--	--	**0.00088**	--
Nickel	ug/L	8.2	GW-2	**2.42**	**56.6**	**51.8**	**3.44**	--	--	--	--	**131**	**5.29**
Zinc	ug/L	81	GW-2	**37.5**	**8.28**	**5.18**	**2.63 J**	**2.1**	--	--	--	**24.8 J**	**8.1**
Metals, Total, Prepared Using Reductive Precipitation													
Arsenic	ug/L	8.0	GW-5	< 0.50 U	--	**0.69**	--	--	--	--	--	--	< 0.50 U
Cadmium	ug/L	1.2	GW-3	**0.251**	--	**0.120**	--	--	--	--	--	--	**0.047**
Chromium	ug/L	27	GW-2	< 0.20 U	--	**0.55**	--	--	--	--	--	--	**0.69**
Copper	ug/L	3.1	GW-2	**8.98**	--	**3.60**	--	--	--	--	--	--	**2.31**
Lead	ug/L	8.1	GW-2	**0.514**	--	**0.223**	--	--	--	--	--	--	**0.052**
Nickel	ug/L	8.2	GW-2	**1.23**	--	**40.1**	--	--	--	--	--	--	**2.31**
Zinc	ug/L	81	GW-2	**39.1**	--	**5.03**	--	--	--	--	--	--	**5.48**
Metals, Dissolved, Prepared Using Reductive Precipitation													
Arsenic	ug/L	8.0	GW-5	< 0.50 U	--	< 0.50 U	--	--	--	--	--	--	< 0.50 U
Cadmium	ug/L	1.2	GW-3	**0.252**	--	**0.118**	--	--	--	--	--	--	**0.045**
Chromium	ug/L	27	GW-2	**0.68**	--	**0.38**	--	--	--	--	--	--	**0.31**
Copper	ug/L	3.1	GW-2	**8.98**	--	**2.93**	--	--	--	--	--	--	**2.11**
Lead	ug/L	8.1	GW-2	**0.493**	--	**0.071**	--	--	--	--	--	--	< 0.050 U
Nickel	ug/L	8.2	GW-2	**1.23**	--	**41.7**	--	--	--	--	--	--	**2.50**
Zinc	ug/L	81	GW-2	**37.9**	--	**4.96**	--	--	--	--	--	--	**5.20**
Butyl Tins													
Tributyltin Ion	ug/L	0.0052	GW-3, PQL Adj.	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	--	--	--	< 0.193 UJ	< 0.0052 U	--
Polychlorinated Biphenyl (PCB) Aroclors													
Total PCB Aroclors (ND = 0)	ug/L	0.0035	GW-2, PQL Adj.	**0.044**	**0.17**	**0.16**	< 0.0035 U	< 0.21 UA	--	--	**0.01 J**	< 0.0035 U	< 0.0035 U
Polychlorinated Biphenyl (PCB) Congeners													
Total PCB Congeners (ND = 0)	ug/L	4.20E-04	GW-2, PQL Adj.	--	--	--	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	ug/L	1.50E-07	GW-2, PQL Adj.	--	--	--	--	--	--	--	--	--	--
Dioxins/Furans													
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	ug/L	5.70E-05	GW-2, PQL Adj.	**1.97E-6 J**	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	ug/L	5.00E-06	GW-2, PQL Adj.	< 4.61E-7 U	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)													
1-Methylnaphthalene	ug/L	0.17	GW-4	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	--	--	--	**0.002 J**	< 0.1 U	--
2-Methylnaphthalene	ug/L	14	GW-3	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.21 U	--	--	**0.003 J**	< 0.1 U	--
Benzo(g,h,i)perylene	ug/L			< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.21 U	--	--	< 0.01 U	< 0.02 U	--
Fluoranthene	ug/L	1.8	GW-3	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 U	--	--	**0.002 J**	< 0.01 U	--
Pyrene	ug/L	2.0	GW-3	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 U	--	--	< 0.01 U	< 0.01 U	--
Benz(a)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 U	--	--	< 0.01 U	< 0.01 U	--
Benzo(a)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 U	--	--	< 0.01 U	< 0.01 U	--
Benzo(b)fluoranthene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 U	--	--	< 0.01 U	< 0.01 U	--
Chrysene	ug/L	0.016	GW-2	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 U	--	--	**0.002 J**	< 0.01 U	--
Dibenzo(a,h)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 U	--	--	< 0.01 UJ	< 0.01 U	--
Indeno(1,2,3-cd)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 U	--	--	< 0.01 U	< 0.01 U	--
Total Benzofluoranthenes	ug/L			< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.21 UA	--	--	< 0.01 U	< 0.01 U	--
Total HPAHs (ND = 1/2 RDL)	ug/L			< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.21 U	--	--	**0.049 J**	< 0.02 U	--
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	0.015	GW-2, PQL Adj.	< 0.00755 U	< 0.00755 U	< 0.00755 U	< 0.00755 U	< 0.159 U	--	--	**0.00752 J**	< 0.00755 U	--
Semi-Volatile Organic Compounds (SVOCs)													
2,4-Dimethylphenol	ug/L	2.9	GW-3	< 1 U	< 1 UJ	< 1 U	< 1 U	< 4.1 U	--	--	< 1 U	< 1 U	--
2-Methylphenol	ug/L	9.8	GW-3	< 1 U	< 1 U	< 1 U	< 1 U	< 0.51 U	--	--	< 0.2 U	< 1 U	--
Benzyl alcohol	ug/L	56	GW-3	< 1 U	< 1 U	< 1 U	< 1 U	< 5.1 U	--	--	< 0.2 U	< 1 U	--
Benzyl butyl phthalate	ug/L	1.0	GW-2, PQL Adj.	< 1 U	< 1 U	< 1 U	< 1 U	< 0.21 U	--	--	< 0.2 U	< 1 U	--
Bis(2-ethylhexyl) phthalate	ug/L	0.20	GW-2, PQL Adj.	< 1.6 U	< 1.6 U	< 1.6 U	**2.6**	< 1.1 U	--	--	< 0.2 U	< 1.6 U	--
Diethyl phthalate	ug/L	93	GW-3	< 1 U	< 1 U	< 1 U	< 1 U	**0.036**	--	--	< 0.2 U	< 1 U	--
Dimethyl phthalate	ug/L	59	GW-3	< 1 U	< 1 U	< 1 U	< 1 U	< 0.21 U	--	--	< 0.2 U	< 1 U	--
Di-n-butyl phthalate	ug/L	8.0	GW-2	< 1 U	< 1 U	< 1 U	< 1 U	**0.065**	--	--	**0.05 J**	< 1 U	--
Hexachlorobenzene	ug/L	0.10	GW-2, PQL Adj.	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.21 U	--	--	< 0.0013 U	< 0.1 U	--
N-Nitrosodiphenylamine	ug/L	0.55	GW-3	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.21 U	--	--	< 0.2 U	< 0.1 U	--
Pentachlorophenol	ug/L	0.50	GW-2, PQL Adj.	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 1.1 U	--	--	< 1 U	< 0.5 U	--
Pesticides													
4,4'-DDE	ug/L	0.0013	GW-2, PQL Adj.	< 0.00125 U	< 0.00125 U	--	< 0.00125 U	< 0.011 U	< 0.0005 U	--	< 0.0013 U	< 0.00125 U	--
4,4'-DDT	ug/L	0.0013	GW-2, PQL Adj.	< 0.00125 U	< 0.00125 U	--	< 0.00125 U	< 0.011 U	< 0.0005 U	--	< 0.0013 U	< 0.00125 U	--
Aldrin	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	< 0.011 U	< 0.0005 U	--	< 0.0006 U	< 0.000625 U	--
Alpha-BHC	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	--	--	< 0.0006 U	< 0.000625 U	--
cis-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.0007 U	< 0.000625 U	--	< 0.000625 U	--	< 0.0005 U	--	< 0.0006 U	< 0.000625 U	--
Delta-BHC	ug/L			< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	--	--	< 0.0006 U	< 0.000625 U	--
Dieldrin	ug/L	0.0013	GW-2, PQL Adj.	**0.0043**	**0.01**	--	< 0.00125 U	< 0.011 U	< 0.0005 U	--	< 0.0013 U	< 0.00125 U	--
Heptachlor	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	< 0.011 U	< 0.0005 U	--	< 0.0006 U	< 0.000625 U	--
trans-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	< 0.0005 U	--	< 0.0006 U	< 0.000625 U	--
Total Petroleum Hydrocarbons (TPH)													
Gasoline-Range Organics	ug/L	800	GW-2	< 100 U	< 100 U	< 100 U	< 100 U	< 250 U	--	--	< 100 U	< 100 U	--
Diesel-Range Organics	ug/L	500	GW-2	**95**	**140**	**100**	< 50 U	< 630 U	--	--	< 125 U	**55**	--
Motor Oil-Range Organics	ug/L	500	GW-2	< 250 U	< 250 U	< 250 U	< 250 U	< 630 U	--	--	< 250 U	< 250 U	--
Diesel and Oil Extended-Range Organics	ug/L	500	GW-2	**95**	**140**	**100**	< 250 U	< 630 U	--	--	< 250 U	**55**	--
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)													
Benzene	ug/L	1.6	GW-2	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.5 U	< 0.5 U	--	< 0.2 U	< 0.35 UJ	--
Total Xylenes	ug/L	110	GW-2	< 2 U	< 2 U	< 2 U	< 2 U	< 0.5 U	< 0.5 U	--	< 0.6 U	< 2 UJ	--
Volatile Organic Compounds (VOCs)													
1,2,3-Trichloropropane	ug/L	20	GW-4	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 0.5 U	--	< 0.5 U	< 1 UJ	--
1,2-Dichlorobenzene	ug/L	4.5	GW-3	< 0.1 U	< 1 U	< 1 U	< 1 U	< 0.21 U	< 0.5 U	--	< 0.2 U	< 0.1 U	--
Methylene Chloride	ug/L	100	GW-2	< 5 U	**6 J**	< 5 U	< 5 UJ	< 2 U	< 2 U	--	< 1 U	< 5 UJ	--
Tetrachloroethene (PCE)	ug/L	2.9	GW-2	**2.6**	< 1 U	**1**	< 1 U	< 0.5 U	< 0.5 U	--	< 0.2 U	< 1 UJ	--
Trichloroethene (TCE)	ug/L	0.70	GW-2	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	< 0.2 U	< 0.5 UJ	--
Vinyl Chloride	ug/L	0.18	GW-2	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.5 U	< 0.5 U	--	< 0.2 U	< 0.02 UJ	--
Conventionals													
Total Organic Carbon	ug/L			--	--	--	--	--	--	--	--	--	--
Total Suspended Solids	mg/L			< 5 U	< 5 U	< 5 U	< 5 U	--	--	--	--	< 5 UJ	< 5 U
Field Parameters													
Temperature	deg C			**10.1**	**14.3**	**11.6**	**15.5**	--	--	--	**10.6**	**17.1**	**7.14**
Specific Conductance	uS/cm			**176**	**667**	**427**	**369**	--	--	--	**1580**	**12100**	**4350**
Dissolved Oxygen	mg/L			**7.16**	**1.4**	**7.85**	**2.53**	--	--	--	**7.53**	**7.4**	**11.6**
pH	pH units			**5.57**	**6.05**	**6.26**	**6.38**	--	--	--	**7.75**	**6.32**	**6.67**
Oxidation Reduction Potential	mV			**194**	**167**	**148**	**180**	--	--	--	**92.4**	**63.8**	**194**
Turbidity	NTU			**1.56**	**0.65**	**4.92**	**0.8**	--	--	--	**143 J**	**6.39**	**2.67**

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Blue Shaded = Detected result exceeded Proposed RI CUL

Site Area				Central Area									
Location				MW-08				MW-08D	MW-09			MW-09D	
Sample Date				03/29/21	05/27/21	10/31/22	03/22/23	10/25/22	03/29/21	10/31/22	03/22/23	10/24/22	03/22/23
Sample				MW-08-210329	MW-08-210527	MW-08-221031	MW-08-230322	MW-08D-221025	MW-09-210329	MW-09-221031	MW-09-230322	MW-09D-221024	MW-09D-230322
Hydrostatigraphic Unit				Fill	Fill	Fill	Fill	Alluvial	Fill	Fill	Fill	Alluvial	Alluvial
Tidal Stage				Lower-Low	Higher-High	Higher-High	Lower-Low	Higher-High	Lower-Low	Higher-High	Higher-High	Higher-High	Lower-Low
Tidal Trend				Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**										
Metals, Total													
Arsenic	ug/L	8.0	GW-5	**0.666**	--	**24.7**	**12.4**	**3.47**	--	**18.9**	**4.16**	**3.48**	**1.8**
Barium	ug/L	200	GW-2	--	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	< 0.1 U	--	< 1 U	< 0.2 UJ	< 0.2 U	--	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
Chromium	ug/L	27	GW-2	**0.816**	--	**7.07 J**	**1.9**	**1.58**	--	**3.76 J**	**1.6**	**0.826 J**	< 0.5 U
Copper	ug/L	3.1	GW-2	**2.17**	--	**13.1 J**	**7.45**	**3.32 J**	--	**11.1 J**	**2.41**	**4.89 J**	**2.24**
Lead	ug/L	8.1	GW-2	**0.924**	--	< 1 U	< 0.2 U	< 0.2 U	--	< 1 U	< 0.2 U	< 0.2 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	< 0.02 UJ	--	**0.002 J**	--	**0.0015**	--	**0.0012 J**	--	**0.0023**	--
Nickel	ug/L	8.2	GW-2	**0.366 J**	--	**19.8**	**10.7**	**2.81**	--	**5.29**	**2.85**	**2.86**	**1.31**
Selenium	ug/L	71	GW-2	--	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	< 6 U	--	**10.5 J**	**5.76**	**1.1 J**	--	**10.4 J**	**1.16**	**1.04 J**	< 0.68 U
Metals, Dissolved													
Arsenic	ug/L	8.0	GW-5	**0.592**	--	**20.6**	**13.2**	**4.74**	--	**14.7**	**3.42**	**3.46**	**1.46**
Cadmium	ug/L	1.2	GW-3	< 0.1 U	--	< 0.2 U	< 0.2 UJ	< 0.2 U	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Chromium	ug/L	27	GW-2	**0.443 J**	--	**5.9**	**1.82**	**0.936 J**	--	**3.25 J**	**1.01**	**1.08**	< 0.5 U
Copper	ug/L	3.1	GW-2	**2**	--	**5.23 J**	**4.41**	**2.39 J**	--	**6.11 J**	**1.4**	**4.52 J**	**1.81**
Lead	ug/L	8.1	GW-2	**0.073 J**	--	< 0.2 U	< 0.2 U	< 0.2 U	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	< 0.02 UJ	--	**0.0018**	--	**0.0011**	--	**0.00084**	--	**0.0019**	--
Nickel	ug/L	8.2	GW-2	**0.272 J**	--	**23.9**	**9.85**	**1.24**	--	**4.99 J**	**2.59**	**2.82**	**1.13**
Zinc	ug/L	81	GW-2	< 5 U	--	**10.6 J**	**5.12**	**2.16 J**	--	**8.65 J**	**0.795**	**1.43 J**	< 0.68 U
Metals, Total, Prepared Using Reductive Precipitation													
Arsenic	ug/L	8.0	GW-5	--	--	--	< 0.50 U	--	--	--	< 0.50 U	--	< 0.50 U
Cadmium	ug/L	1.2	GW-3	--	--	--	**0.090**	--	--	--	< 0.020 U	--	< 0.020 U
Chromium	ug/L	27	GW-2	--	--	--	**0.72**	--	--	--	**0.87**	--	< 0.20 U
Copper	ug/L	3.1	GW-2	--	--	--	**1.26**	--	--	--	**1.44**	--	**1.93**
Lead	ug/L	8.1	GW-2	--	--	--	< 0.050 U	--	--	--	< 0.050 U	--	< 0.050 U
Nickel	ug/L	8.2	GW-2	--	--	--	**7.95**	--	--	--	**2.75**	--	**1.27**
Zinc	ug/L	81	GW-2	--	--	--	**3.78**	--	--	--	**0.87**	--	< 0.50 U
Metals, Dissolved, Prepared Using Reductive Precipitation													
Arsenic	ug/L	8.0	GW-5	--	--	--	< 0.50 U	--	--	--	< 0.50 U	--	< 0.50 U
Cadmium	ug/L	1.2	GW-3	--	--	--	**0.075**	--	--	--	< 0.020 U	--	< 0.020 U
Chromium	ug/L	27	GW-2	--	--	--	**1.13**	--	--	--	**0.39**	--	< 0.20 U
Copper	ug/L	3.1	GW-2	--	--	--	**1.14**	--	--	--	**1.26**	--	**1.94**
Lead	ug/L	8.1	GW-2	--	--	--	< 0.050 U	--	--	--	< 0.050 U	--	< 0.050 U
Nickel	ug/L	8.2	GW-2	--	--	--	**6.88**	--	--	--	**2.49**	--	**1.19**
Zinc	ug/L	81	GW-2	--	--	--	**3.05**	--	--	--	**1.01**	--	< 0.50 U
Butyl Tins													
Tributyltin Ion	ug/L	0.0052	GW-3, PQL Adj.	< 0.193 U	--	< 0.0052 U	--	< 0.0052 U	--	< 0.0052 U	--	< 0.0052 U	--
Polychlorinated Biphenyl (PCB) Aroclors													
Total PCB Aroclors (ND = 0)	ug/L	0.0035	GW-2, PQL Adj.	**0.003 J**	--	< 0.0035 U	< 0.0035 U	< 0.0035 U	--	< 0.0035 U	--	< 0.0035 U	--
Polychlorinated Biphenyl (PCB) Congeners													
Total PCB Congeners (ND = 0)	ug/L	4.20E-04	GW-2, PQL Adj.	--	**2.88E-3 J**	--	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	ug/L	1.50E-07	GW-2, PQL Adj.	--	**7.21E-10**	--	--	--	--	--	--	--	--
Dioxins/Furans													
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	ug/L	5.70E-05	GW-2, PQL Adj.	--	--	--	**1.01E-6**	--	--	--	--	--	--
2,3,7,8-TCDD	ug/L	5.00E-06	GW-2, PQL Adj.	--	--	--	< 4.88E-7 U	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)													
1-Methylnaphthalene	ug/L	0.17	GW-4	< 0.013 U	--	< 0.1 U	--	< 0.1 U	--	< 0.1 U	--	< 0.1 U	--
2-Methylnaphthalene	ug/L	14	GW-3	**0.003 J**	--	< 0.1 U	--	< 0.1 U	--	< 0.1 U	--	< 0.1 U	--
Benzo(g,h,i)perylene	ug/L			< 0.013 U	--	< 0.02 U	--	< 0.02 U	--	< 0.02 U	--	< 0.02 U	--
Fluoranthene	ug/L	1.8	GW-3	< 0.013 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Pyrene	ug/L	2.0	GW-3	< 0.013 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Benz(a)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.013 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Benzo(a)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.013 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Benzo(b)fluoranthene	ug/L	0.010	GW-2, PQL Adj.	< 0.013 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Chrysene	ug/L	0.016	GW-2	< 0.013 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Dibenzo(a,h)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.013 UJ	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Indeno(1,2,3-cd)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.013 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Total Benzofluoranthenes	ug/L			< 0.013 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Total HPAHs (ND = 1/2 RDL)	ug/L			< 0.013 UJ	--	< 0.02 U	--	< 0.02 U	--	< 0.02 U	--	< 0.02 U	--
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	0.015	GW-2, PQL Adj.	< 0.00982 UJ	--	< 0.00755 U	--	< 0.00755 U	--	< 0.00755 U	--	< 0.00755 U	--
Semi-Volatile Organic Compounds (SVOCs)													
2,4-Dimethylphenol	ug/L	2.9	GW-3	--	--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	--
2-Methylphenol	ug/L	9.8	GW-3	--	--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	--
Benzyl alcohol	ug/L	56	GW-3	--	--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	--
Benzyl butyl phthalate	ug/L	1.0	GW-2, PQL Adj.	--	--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	--
Bis(2-ethylhexyl) phthalate	ug/L	0.20	GW-2, PQL Adj.	--	--	< 1.6 U	--	< 1.6 U	--	< 1.6 U	--	< 1.6 U	--
Diethyl phthalate	ug/L	93	GW-3	--	--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	--
Dimethyl phthalate	ug/L	59	GW-3	--	--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	--
Di-n-butyl phthalate	ug/L	8.0	GW-2	--	--	< 1 U	--	< 1 U	--	< 1 U	--	< 1 U	--
Hexachlorobenzene	ug/L	0.10	GW-2, PQL Adj.	< 0.0013 U	--	< 0.1 U	--	< 0.1 U	--	< 0.1 U	--	< 0.1 U	--
N-Nitrosodiphenylamine	ug/L	0.55	GW-3	--	--	< 0.1 U	--	< 0.1 U	--	< 0.1 U	--	< 0.1 U	--
Pentachlorophenol	ug/L	0.50	GW-2, PQL Adj.	--	--	< 0.5 U	--	< 0.5 U	--	< 0.5 U	--	< 0.5 U	--
Pesticides													
4,4'-DDE	ug/L	0.0013	GW-2, PQL Adj.	< 0.0013 U	--	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U	--
4,4'-DDT	ug/L	0.0013	GW-2, PQL Adj.	< 0.0013 U	--	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U	--
Aldrin	ug/L	0.00063	GW-2, PQL Adj.	**0.0027**	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--
Alpha-BHC	ug/L	0.00063	GW-2, PQL Adj.	**0.0027**	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--
cis-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.0006 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--
Delta-BHC	ug/L			< 0.0006 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--
Dieldrin	ug/L	0.0013	GW-2, PQL Adj.	< 0.0013 U	--	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U	--
Heptachlor	ug/L	0.00063	GW-2, PQL Adj.	< 0.0006 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--
trans-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.0006 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U	--
Total Petroleum Hydrocarbons (TPH)													
Gasoline-Range Organics	ug/L	800	GW-2	< 100 U	--	< 100 U	--	< 100 U	**101**	< 100 U	--	**290**	--
Diesel-Range Organics	ug/L	500	GW-2	< 123 U	--	< 50 U	--	< 50 U	--	**60**	--	< 50 U	--
Motor Oil-Range Organics	ug/L	500	GW-2	< 247 U	--	< 250 U	--	< 250 U	--	< 250 U	--	< 250 U	--
Diesel and Oil Extended-Range Organics	ug/L	500	GW-2	< 247 U	--	< 250 U	--	< 250 U	--	**60**	--	< 250 U	--
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)													
Benzene	ug/L	1.6	GW-2	< 0.2 U	--	< 0.35 U	--	< 0.35 U	< 0.2 U	< 0.35 U	< 0.35 U	< 0.35 U	< 3.5 U
Total Xylenes	ug/L	110	GW-2	< 0.6 U	--	< 2 U	--	< 2 U	< 0.6 U	< 2 U	< 2 U	< 2 U	< 20 U
Volatile Organic Compounds (VOCs)													
1,2,3-Trichloropropane	ug/L	20	GW-4	< 0.5 U	--	< 1 U	--	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 10 U
1,2-Dichlorobenzene	ug/L	4.5	GW-3	< 0.2 U	--	< 1 U	--	< 1 U	< 0.2 U	< 1 U	< 1 U	< 0.1 U	< 10 U
Methylene Chloride	ug/L	100	GW-2	< 1 U	--	< 5 UJ	--	< 5 U	< 1 U	< 5 U	< 5 U	**5.8 J**	< 50 U
Tetrachloroethene (PCE)	ug/L	2.9	GW-2	**0.2**	--	< 1 U	--	< 1 U	**28.1**	**12**	**21**	**420**	**190**
Trichloroethene (TCE)	ug/L	0.70	GW-2	< 0.2 U	--	< 0.5 U	--	< 0.5 U	**15.2**	**2.7**	**5.7**	**120**	**70**
Vinyl Chloride	ug/L	0.18	GW-2	< 0.2 U	--	< 0.02 U	--	< 0.02 U	< 0.2 U	< 0.02 U	< 0.02 U	**0.048**	< 0.2 U
Conventionals													
Total Organic Carbon	ug/L			--	--	--	--	--	--	--	--	--	--
Total Suspended Solids	mg/L			--	--	< 5 U	< 5 U	< 5 U	--	< 5 U	**15**	< 5 U	< 5 U
Field Parameters													
Temperature	deg C			**7.7**	**12.4**	**11.5**	**7.8**	**15.3**	**7.2**	--	**7.72**	**14.8**	**12.6**
Specific Conductance	uS/cm			**2170**	**496**	**11000**	**9620**	**3140**	**1180**	--	**2810**	**2480**	**902**
Dissolved Oxygen	mg/L			**10.3**	**7.38**	**9.27**	**11.7**	**5.46**	**8.73**	--	**11.6**	**0.75**	**3.88**
pH	pH units			**8**	**7.76**	**7.44**	**7.46**	**7.45**	**7.59**	--	**7.08**	**6.46**	**6.34**
Oxidation Reduction Potential	mV			**103**	**70.4**	**63.9**	**192**	**148**	**119**	--	**205**	**130**	**175**
Turbidity	NTU			**2.38**	**8.45**	**1.91**	**1.45**	**0.82**	**56.4**	**28**	**5.79**	**0.08**	**1.88**

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Blue Shaded = Detected result exceeded Proposed RI CUL

Site Area				Central Area							
Location				MW-10				MW-11			MW-11D
Sample Date				03/30/21	10/31/22	03/22/23	03/24/23	03/30/21	10/27/22	03/23/23	10/25/22
Sample				MW-10-210330	MW-10-221031	MW-10-230322	MW-10-230324	MW-11-210330	MW-11-221027	MW-11-230323	MW-11D-221024
Hydrostatigraphic Unit				Fill	Fill	Fill	Fill	Fill	Fill	Fill	Alluvial
Tidal Stage				Higher-High	Higher-High	Lower-Low	Higher-High	Higher-High	Higher-High	Higher-High	Higher-High
Tidal Trend				Outgoing	Outgoing	Incoming	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	ug/L	8.0	GW-5	--	**30.4**	**7.43**	**7.64**	**0.734**	**16.7**	**7.61**	**3.57**
Barium	ug/L	200	GW-2	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	< 1 U	< 0.2 U	< 0.2 UJ	**0.036 J**	< 1 U	< 0.2 UJ	< 0.2 U
Chromium	ug/L	27	GW-2	--	**91.5**	**5760**	**4.39 J**	**1.03**	**28.8**	**34.4**	**2.05**
Copper	ug/L	3.1	GW-2	--	**12.3 J**	**18.8**	**3.32 J**	**3.34**	**8.99 J**	**5.63 J**	**3.32 J**
Lead	ug/L	8.1	GW-2	--	< 1 U	**3.98**	< 0.2 U	**0.505**	< 1 U	< 0.2 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	--	**0.0012 J**	--	--	< 0.02 UJ	< 0.0008 U	--	**0.0013**
Nickel	ug/L	8.2	GW-2	--	**207**	**38.2**	**10.1**	**0.873**	**12.1**	**8.07**	**2.82**
Selenium	ug/L	71	GW-2	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	**9.13 J**	**10.7**	**2.12**	< 6 U	**12.1 J**	**5.33**	**1.15 J**
Metals, Dissolved											
Arsenic	ug/L	8.0	GW-5	--	**22.4**	**5.85**	**6.11**	**0.552**	**17.6**	**7.03**	**3.51**
Cadmium	ug/L	1.2	GW-3	--	< 1 U	< 0.2 U	< 0.2 UJ	< 0.1 U	< 1 U	< 0.2 UJ	< 0.2 U
Chromium	ug/L	27	GW-2	--	**28.6**	**15.7**	< 2 U	**0.596**	**6.33**	**8.89**	**1.5**
Copper	ug/L	3.1	GW-2	--	**35.5 J**	**4.36**	**2.42**	**1.77**	**8.57 J**	**3.73**	**3.13 J**
Lead	ug/L	8.1	GW-2	--	< 1 U	< 0.2 U	< 0.2 U	**0.115**	< 1 U	< 0.2 U	< 0.2 U
Mercury	ug/L	0.025	GW-2	--	**0.001**	--	--	< 0.02 UJ	**0.00083**	--	**0.0012**
Nickel	ug/L	8.2	GW-2	--	**206**	**11.9**	**9.25**	**0.534**	**12.4**	**7.97**	**2.85**
Zinc	ug/L	81	GW-2	--	**8.77 J**	**1.89**	**2.89**	< 5 U	**12.6 J**	**4.13**	**1.53 J**
Metals, Total, Prepared Using Reductive Precipitation											
Arsenic	ug/L	8.0	GW-5	--	--	**1.03**	< 0.50 U	--	--	< 0.50 U	--
Cadmium	ug/L	1.2	GW-3	--	--	< 0.020 U	**0.025**	--	--	**0.036**	--
Chromium	ug/L	27	GW-2	--	--	**1370**	< 0.20 U	--	--	**88.0**	--
Copper	ug/L	3.1	GW-2	--	--	**6.05**	< 0.10 U	--	--	**5.36**	--
Lead	ug/L	8.1	GW-2	--	--	**1.44**	< 0.050 U	--	--	**0.716**	--
Nickel	ug/L	8.2	GW-2	--	--	**21.2**	**9.86**	--	--	**7.90**	--
Zinc	ug/L	81	GW-2	--	--	**2.83**	**0.70**	--	--	**3.71**	--
Metals, Dissolved, Prepared Using Reductive Precipitation											
Arsenic	ug/L	8.0	GW-5	--	--	< 0.50 U	< 0.50 U	--	--	< 0.50 U	--
Cadmium	ug/L	1.2	GW-3	--	--	< 0.020 U	**0.023**	--	--	**0.030**	--
Chromium	ug/L	27	GW-2	--	--	**0.87**	**0.36**	--	--	**94.6**	--
Copper	ug/L	3.1	GW-2	--	--	**0.99**	**0.97**	--	--	**3.62**	--
Lead	ug/L	8.1	GW-2	--	--	< 0.050 U	< 0.050 U	--	--	**0.330**	--
Nickel	ug/L	8.2	GW-2	--	--	**9.30**	**10.1**	--	--	**8.58**	--
Zinc	ug/L	81	GW-2	--	--	< 0.50 U	**0.70**	--	--	**3.13**	--
Butyl Tins											
Tributyltin Ion	ug/L	0.0052	GW-3, PQL Adj.	--	< 0.0052 U	--	--	< 0.193 UJ	< 0.0052 U	--	< 0.0052 U
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	ug/L	0.0035	GW-2, PQL Adj.	--	< 0.0035 U	--	--	**0.006 J**	< 0.0035 U	< 0.0035 U	< 0.0035 U
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	ug/L	4.20E-04	GW-2, PQL Adj.	--	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	ug/L	1.50E-07	GW-2, PQL Adj.	--	--	--	--	--	--	--	--
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	ug/L	5.70E-05	GW-2, PQL Adj.	--	--	--	--	--	--	**1.56E-6 J**	--
2,3,7,8-TCDD	ug/L	5.00E-06	GW-2, PQL Adj.	--	--	--	--	--	--	< 5.47E-7 U	--
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	ug/L	0.17	GW-4	--	< 0.1 U	--	--	**0.002 J**	< 0.1 U	--	< 0.1 U
2-Methylnaphthalene	ug/L	14	GW-3	--	< 0.1 U	--	--	**0.003 J**	< 0.1 U	--	< 0.1 U
Benzo(g,h,i)perylene	ug/L			--	< 0.02 U	--	--	< 0.01 U	< 0.02 U	--	< 0.02 U
Fluoranthene	ug/L	1.8	GW-3	--	< 0.01 U	--	--	**0.003 J**	< 0.01 U	--	< 0.01 U
Pyrene	ug/L	2.0	GW-3	--	< 0.01 U	--	--	< 0.01 U	< 0.01 U	--	< 0.01 U
Benz(a)anthracene	ug/L	0.010	GW-2, PQL Adj.	--	< 0.01 U	--	--	< 0.01 U	< 0.01 U	--	< 0.01 U
Benzo(a)pyrene	ug/L	0.010	GW-2, PQL Adj.	--	< 0.01 U	--	--	< 0.01 U	< 0.01 U	--	< 0.01 U
Benzo(b)fluoranthene	ug/L	0.010	GW-2, PQL Adj.	--	< 0.01 U	--	--	< 0.01 U	< 0.01 U	--	< 0.01 U
Chrysene	ug/L	0.016	GW-2	--	< 0.01 U	--	--	**0.002 J**	< 0.01 U	--	< 0.01 U
Dibenzo(a,h)anthracene	ug/L	0.010	GW-2, PQL Adj.	--	< 0.01 U	--	--	< 0.01 UJ	< 0.01 U	--	< 0.01 U
Indeno(1,2,3-cd)pyrene	ug/L	0.010	GW-2, PQL Adj.	--	< 0.01 U	--	--	< 0.01 U	< 0.01 U	--	< 0.01 U
Total Benzofluoranthenes	ug/L			--	< 0.01 U	--	--	< 0.01 U	< 0.01 U	--	< 0.01 U
Total HPAHs (ND = 1/2 RDL)	ug/L			--	< 0.02 U	--	--	**0.05 J**	< 0.02 U	--	< 0.02 U
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	0.015	GW-2, PQL Adj.	--	< 0.00755 U	--	--	**0.00752 J**	< 0.00755 U	--	< 0.00755 U
Semi-Volatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	ug/L	2.9	GW-3	--	< 1 U	--	--	< 1.1 U	< 1 U	--	< 1 U
2-Methylphenol	ug/L	9.8	GW-3	--	< 1 U	--	--	< 0.2 U	< 1 U	--	< 1 U
Benzyl alcohol	ug/L	56	GW-3	--	< 1 U	--	--	< 0.2 U	< 1 U	--	< 1 U
Benzyl butyl phthalate	ug/L	1.0	GW-2, PQL Adj.	--	< 1 U	--	--	< 0.2 U	< 1 U	--	< 1 U
Bis(2-ethylhexyl) phthalate	ug/L	0.20	GW-2, PQL Adj.	--	< 1.6 U	--	--	< 0.2 U	< 1.6 U	--	< 1.6 U
Diethyl phthalate	ug/L	93	GW-3	--	< 1 U	--	--	**0.1 J**	< 1 U	--	< 1 U
Dimethyl phthalate	ug/L	59	GW-3	--	< 1 U	--	--	< 0.2 U	< 1 U	--	< 1 U
Di-n-butyl phthalate	ug/L	8.0	GW-2	--	< 1 U	--	--	< 0.2 U	< 1 U	--	< 1 U
Hexachlorobenzene	ug/L	0.10	GW-2, PQL Adj.	--	< 0.1 U	--	--	< 0.0013 U	< 0.1 U	--	< 0.1 U
N-Nitrosodiphenylamine	ug/L	0.55	GW-3	--	< 0.1 U	--	--	< 0.2 U	< 0.1 U	--	< 0.1 U
Pentachlorophenol	ug/L	0.50	GW-2, PQL Adj.	--	< 0.5 U	--	--	< 1.1 U	< 0.5 U	--	< 0.5 U
Pesticides											
4,4'-DDE	ug/L	0.0013	GW-2, PQL Adj.	--	< 0.00125 U	--	--	< 0.0013 U	< 0.00125 U	--	< 0.00125 U
4,4'-DDT	ug/L	0.0013	GW-2, PQL Adj.	--	< 0.00125 U	--	--	< 0.0013 U	< 0.00125 U	--	< 0.00125 U
Aldrin	ug/L	0.00063	GW-2, PQL Adj.	--	< 0.000625 U	--	--	**0.0032**	< 0.000625 U	--	< 0.000625 U
Alpha-BHC	ug/L	0.00063	GW-2, PQL Adj.	--	< 0.000625 U	--	--	**0.0033**	< 0.000625 U	--	< 0.000625 U
cis-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	--	< 0.000625 U	--	--	< 0.0006 U	< 0.000625 U	--	< 0.000625 U
Delta-BHC	ug/L			--	< 0.000625 U	--	--	< 0.0006 U	< 0.000625 U	--	< 0.000625 U
Dieldrin	ug/L	0.0013	GW-2, PQL Adj.	--	< 0.00125 U	--	--	< 0.0013 U	< 0.00125 U	--	< 0.00125 U
Heptachlor	ug/L	0.00063	GW-2, PQL Adj.	--	< 0.000625 U	--	--	< 0.0006 U	< 0.000625 U	--	< 0.000625 U
trans-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	--	< 0.000625 U	--	--	< 0.0006 U	< 0.000625 U	--	< 0.000625 U
Total Petroleum Hydrocarbons (TPH)											
Gasoline-Range Organics	ug/L	800	GW-2	< 100 U	< 100 U	--	--	< 100 U	< 100 U	--	< 100 U
Diesel-Range Organics	ug/L	500	GW-2	--	< 50 U	--	--	< 105 U	< 50 U	--	< 50 U
Motor Oil-Range Organics	ug/L	500	GW-2	--	< 250 U	--	--	< 211 U	< 250 U	--	< 250 U
Diesel and Oil Extended-Range Organics	ug/L	500	GW-2	--	< 250 U	--	--	< 211 U	< 250 U	--	< 250 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	ug/L	1.6	GW-2	< 0.2 U	< 0.35 U	--	--	< 0.2 U	< 0.35 UJ	--	< 0.35 U
Total Xylenes	ug/L	110	GW-2	< 0.6 U	< 2 U	--	--	< 0.6 U	< 2 UJ	--	< 2 U
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	ug/L	20	GW-4	< 0.5 U	< 1 U	--	--	< 0.5 U	< 1 UJ	--	< 1 U
1,2-Dichlorobenzene	ug/L	4.5	GW-3	< 0.2 U	< 0.1 U	--	--	< 0.2 U	< 0.1 U	--	< 1 U
Methylene Chloride	ug/L	100	GW-2	< 1 U	< 5 U	--	--	< 1 U	< 5 UJ	--	**8 J**
Tetrachloroethene (PCE)	ug/L	2.9	GW-2	**0.09 J**	< 1 U	--	--	< 0.2 U	< 1 UJ	--	< 1 U
Trichloroethene (TCE)	ug/L	0.70	GW-2	< 0.2 U	< 0.5 U	--	--	< 0.2 U	< 0.5 UJ	--	< 0.5 U
Vinyl Chloride	ug/L	0.18	GW-2	< 0.2 U	< 0.02 U	--	--	< 0.2 U	< 0.02 UJ	--	< 0.02 U
Conventionals											
Total Organic Carbon	ug/L			--	--	--	--	**1290**	--	--	--
Total Suspended Solids	mg/L			--	**46**	**8**	**7.6**	**6**	< 5 UJ	**5.6**	< 5 U
Field Parameters											
Temperature	deg C			**6.9**	--	**12.2**	**6.63**	**7.6**	**15**	**7.85**	--
Specific Conductance	uS/cm			**1640**	**16800**	**3520**	**6190**	**2660**	**12900**	**5580**	**2380**
Dissolved Oxygen	mg/L			**10.5**	**9.22**	**10.5**	**12**	**9.38**	**6.4**	**10.7**	**0.1**
pH	pH units			**7.54**	**6.85**	**7.05**	**7.2**	**7.17**	**6.34**	**6.77**	**7**
Oxidation Reduction Potential	mV			**123**	**112**	**224**	**220**	**145**	**145**	**223**	**-35.1**
Turbidity	NTU			**93.6**	**3.58**	**66.7**	**3.83**	**9.98**	**7.84**	**21.7**	**15.3**

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Blue Shaded = Detected result exceeded Proposed RI CUL

Site Area				Central Area								
Location				MW-12		MW-14			MW-15			
Sample Date				03/30/21	10/27/22	03/31/21	10/24/22	03/22/23	03/30/21	05/27/21	10/24/22	03/22/23
Sample				MW-12-210330	MW-12-221027	MW-14-210331	MW-14-221024	MW-14-230322	MW-15-210330	MW-15-210527	MW-15-221024	MW-15-230322
Hydrostatigraphic Unit				Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Tidal Stage				Lower-Low	Higher-High	Lower-Low	Higher-High	Lower-Low	Lower-Low	Lower-Low	Higher-High	Lower-Low
Tidal Trend				Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**									
Metals, Total												
Arsenic	ug/L	8.0	GW-5	**0.765**	**0.824 J**	< 0.2 U	< 0.5 U	--	**0.832**	--	**1.99**	**0.559**
Barium	ug/L	200	GW-2	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	**0.104**	< 0.2 U	< 0.1 U	< 0.2 U	--	**0.083 J**	--	< 0.2 U	< 0.2 U
Chromium	ug/L	27	GW-2	**0.342 J**	< 0.5 U	< 0.5 U	< 0.5 U	--	**0.769**	--	**1.12**	< 0.5 U
Copper	ug/L	3.1	GW-2	**10.4**	**7.02**	< 0.5 U	**1.61 J**	--	**9.53**	--	**9.26**	**8.94**
Lead	ug/L	8.1	GW-2	**0.163**	< 0.2 U	< 0.1 U	< 0.2 U	--	**4.67**	--	**2.41**	**0.307**
Mercury	ug/L	0.025	GW-2	< 0.02 UJ	**0.00097**	< 0.02 U	**0.00083**	--	< 0.02 UJ	--	**0.0059**	--
Nickel	ug/L	8.2	GW-2	**7.11**	**7.38**	< 0.5 U	**3.75**	--	**2.48**	--	**2.48**	**1.75**
Selenium	ug/L	71	GW-2	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	**5.66 J**	**6.27**	< 6 U	**1.72 J**	--	**13.8**	--	**5.46**	**4.11**
Metals, Dissolved												
Arsenic	ug/L	8.0	GW-5	**0.749**	**0.871 J**	**0.254**	< 0.5 U	--	**0.698**	--	**1.83**	< 0.5 U
Cadmium	ug/L	1.2	GW-3	**0.114**	< 0.2 U	< 0.1 U	< 0.2 U	--	**0.076 J**	--	< 0.2 U	< 0.2 U
Chromium	ug/L	27	GW-2	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	**0.289 J**	--	< 0.5 U	< 0.5 U
Copper	ug/L	3.1	GW-2	**10.1**	**7.23**	**3.28**	**1.58 J**	--	**6.42**	--	**4.6 J**	**8.11**
Lead	ug/L	8.1	GW-2	**0.065 J**	< 0.2 U	**0.052 J**	< 0.2 U	--	**1.99**	--	**0.29 J**	**0.204**
Mercury	ug/L	0.025	GW-2	< 0.02 UJ	**0.0017**	< 0.02 U	< 0.0008 U	--	< 0.02 UJ	--	**0.0028**	--
Nickel	ug/L	8.2	GW-2	**7.07**	**7.76**	**1.34**	**3.49**	--	**2.23**	--	**2.28**	**1.56**
Zinc	ug/L	81	GW-2	**5.88**	**6.95**	**5.1**	**1.53 J**	--	**10.9**	--	**3.75 J**	**3.85**
Metals, Total, Prepared Using Reductive Precipitation												
Arsenic	ug/L	8.0	GW-5	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	--	--	--	--	--	--	--	--
Chromium	ug/L	27	GW-2	--	--	--	--	--	--	--	--	--
Copper	ug/L	3.1	GW-2	--	--	--	--	--	--	--	--	--
Lead	ug/L	8.1	GW-2	--	--	--	--	--	--	--	--	--
Nickel	ug/L	8.2	GW-2	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	--	--	--	--	--	--	--	--
Metals, Dissolved, Prepared Using Reductive Precipitation												
Arsenic	ug/L	8.0	GW-5	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	--	--	--	--	--	--	--	--
Chromium	ug/L	27	GW-2	--	--	--	--	--	--	--	--	--
Copper	ug/L	3.1	GW-2	--	--	--	--	--	--	--	--	--
Lead	ug/L	8.1	GW-2	--	--	--	--	--	--	--	--	--
Nickel	ug/L	8.2	GW-2	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	--	--	--	--	--	--	--	--
Butyl Tins												
Tributyltin Ion	ug/L	0.0052	GW-3, PQL Adj.	--	< 0.0052 U	< 0.193 UJ	< 0.0052 U	--	< 0.193 UJ	--	< 0.0052 U	--
Polychlorinated Biphenyl (PCB) Aroclors												
Total PCB Aroclors (ND = 0)	ug/L	0.0035	GW-2, PQL Adj.	< 0.01 U	< 0.0035 U	< 0.012 U	< 0.0035 U	--	**0.007 J**	--	< 0.0035 U	< 0.0035 U
Polychlorinated Biphenyl (PCB) Congeners												
Total PCB Congeners (ND = 0)	ug/L	4.20E-04	GW-2, PQL Adj.	--	--	--	--	--	--	**1.19E-3 J**	--	--
Total PCB TEQ (ND = 0)	ug/L	1.50E-07	GW-2, PQL Adj.	--	--	--	--	--	--	**1.22E-9**	--	--
Dioxins/Furans												
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	ug/L	5.70E-05	GW-2, PQL Adj.	--	--	--	--	--	--	--	--	< 8.71E-7 U
2,3,7,8-TCDD	ug/L	5.00E-06	GW-2, PQL Adj.	--	--	--	--	--	--	--	--	< 3.64E-7 U
Polycyclic Aromatic Hydrocarbons (PAHs)												
1-Methylnaphthalene	ug/L	0.17	GW-4	**0.002 J**	< 0.1 U	< 0.01 U	< 0.1 U	--	**0.003 J**	--	< 0.1 U	--
2-Methylnaphthalene	ug/L	14	GW-3	**0.003 J**	< 0.1 U	< 0.01 U	< 0.1 U	--	**0.005 J**	--	< 0.1 U	--
Benzo(g,h,i)perylene	ug/L			< 0.01 U	< 0.02 U	< 0.01 U	< 0.02 U	--	< 0.01 U	--	< 0.02 U	--
Fluoranthene	ug/L	1.8	GW-3	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	--	**0.002 J**	--	< 0.01 U	--
Pyrene	ug/L	2.0	GW-3	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Benz(a)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Benzo(a)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Benzo(b)fluoranthene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Chrysene	ug/L	0.016	GW-2	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Dibenzo(a,h)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 UJ	< 0.01 U	< 0.01 UJ	< 0.01 U	--	< 0.01 UJ	--	< 0.01 U	--
Indeno(1,2,3-cd)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Total Benzofluoranthenes	ug/L			< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Total HPAHs (ND = 1/2 RDL)	ug/L			< 0.01 UJ	< 0.02 U	< 0.01 UJ	< 0.02 U	--	**0.052 J**	--	< 0.02 U	--
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	0.015	GW-2, PQL Adj.	< 0.00755 UJ	< 0.00755 U	< 0.00755 UJ	< 0.00755 U	--	< 0.00755 UJ	--	< 0.00755 U	--
Semi-Volatile Organic Compounds (SVOCs)												
2,4-Dimethylphenol	ug/L	2.9	GW-3	--	< 1 U	< 1 U	< 1 U	--	< 1 U	--	< 1 U	--
2-Methylphenol	ug/L	9.8	GW-3	--	< 1 U	< 0.2 U	< 1 U	--	< 0.2 U	--	< 1 U	--
Benzyl alcohol	ug/L	56	GW-3	--	< 1 U	< 0.2 U	< 1 U	--	< 0.2 U	--	< 1 U	--
Benzyl butyl phthalate	ug/L	1.0	GW-2, PQL Adj.	--	< 1 U	< 0.2 U	< 1 U	--	< 0.2 U	--	< 1 U	--
Bis(2-ethylhexyl) phthalate	ug/L	0.20	GW-2, PQL Adj.	--	< 1.6 U	< 0.2 U	< 1.6 U	--	< 0.2 U	--	< 1.6 U	--
Diethyl phthalate	ug/L	93	GW-3	--	< 1 U	**0.07 J**	< 1 U	--	< 0.2 U	--	< 1 U	--
Dimethyl phthalate	ug/L	59	GW-3	--	< 1 U	< 0.2 U	< 1 U	--	< 0.2 U	--	< 1 U	--
Di-n-butyl phthalate	ug/L	8.0	GW-2	--	< 1 U	< 0.2 U	< 1 U	--	< 0.2 U	--	< 1 U	--
Hexachlorobenzene	ug/L	0.10	GW-2, PQL Adj.	--	< 0.1 U	< 0.2 U	< 0.1 U	--	< 0.0013 U	--	< 0.1 U	--
N-Nitrosodiphenylamine	ug/L	0.55	GW-3	--	< 0.1 U	< 0.2 U	< 0.1 U	--	< 0.2 U	--	< 0.1 U	--
Pentachlorophenol	ug/L	0.50	GW-2, PQL Adj.	--	< 0.5 U	< 1 U	< 0.5 U	--	< 1 U	--	< 0.5 U	--
Pesticides												
4,4'-DDE	ug/L	0.0013	GW-2, PQL Adj.	--	< 0.00125 U	--	< 0.00125 U	--	< 0.0013 U	--	< 0.00125 U	--
4,4'-DDT	ug/L	0.0013	GW-2, PQL Adj.	--	< 0.00125 U	--	< 0.00125 U	--	< 0.0013 U	--	< 0.00125 U	--
Aldrin	ug/L	0.00063	GW-2, PQL Adj.	--	< 0.000625 U	--	< 0.000625 U	--	< 0.0006 U	--	< 0.000625 U	--
Alpha-BHC	ug/L	0.00063	GW-2, PQL Adj.	--	< 0.000625 U	--	< 0.000625 U	--	**0.0038**	--	< 0.000625 U	--
cis-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	--	< 0.000625 U	--	< 0.000625 U	--	< 0.0006 U	--	< 0.000625 U	--
Delta-BHC	ug/L			--	< 0.000625 U	--	< 0.000625 U	--	< 0.0006 U	--	< 0.000625 U	--
Dieldrin	ug/L	0.0013	GW-2, PQL Adj.	--	< 0.00125 U	--	< 0.00125 U	--	< 0.0013 U	--	< 0.00125 U	--
Heptachlor	ug/L	0.00063	GW-2, PQL Adj.	--	< 0.000625 U	--	< 0.000625 U	--	< 0.0006 U	--	< 0.000625 U	--
trans-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	--	< 0.000625 U	--	< 0.000625 U	--	< 0.0006 U	--	< 0.000625 U	--
Total Petroleum Hydrocarbons (TPH)												
Gasoline-Range Organics	ug/L	800	GW-2	< 100 U	< 100 U	< 100 UJ	< 100 U	--	< 100 U	--	< 100 U	--
Diesel-Range Organics	ug/L	500	GW-2	< 105 U	**73**	< 100 U	< 50 U	--	< 100 U	--	< 50 U	--
Motor Oil-Range Organics	ug/L	500	GW-2	< 211 U	< 250 U	< 200 U	< 250 U	--	< 200 U	--	< 250 U	--
Diesel and Oil Extended-Range Organics	ug/L	500	GW-2	< 211 U	**73**	< 200 U	< 250 U	--	< 200 U	--	< 250 U	--
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)												
Benzene	ug/L	1.6	GW-2	< 0.2 U	< 0.35 UJ	< 0.2 U	< 0.35 U	< 0.35 U	< 0.2 U	--	< 0.35 U	< 0.35 U
Total Xylenes	ug/L	110	GW-2	< 0.6 U	< 2 UJ	< 0.6 U	< 2 U	< 2 U	< 0.6 U	--	< 2 U	< 2 U
Volatile Organic Compounds (VOCs)												
1,2,3-Trichloropropane	ug/L	20	GW-4	< 0.5 U	< 1 UJ	< 0.5 U	< 1 U	< 1 U	< 0.5 U	--	< 1 U	< 1 U
1,2-Dichlorobenzene	ug/L	4.5	GW-3	< 0.2 U	< 0.1 U	< 0.2 U	< 0.1 U	< 1 U	< 0.2 U	--	< 1 U	< 1 U
Methylene Chloride	ug/L	100	GW-2	< 1 U	< 5 UJ	< 1 U	**6.8 J**	< 5 U	< 1 U	--	**8.8 J**	< 5 U
Tetrachloroethene (PCE)	ug/L	2.9	GW-2	< 0.2 U	< 1 UJ	**0.32**	< 1 U	< 1 U	< 0.2 U	--	**1.2**	< 1 U
Trichloroethene (TCE)	ug/L	0.70	GW-2	< 0.2 U	< 0.5 UJ	< 0.2 U	< 0.5 U	< 0.5 U	< 0.2 U	--	< 0.5 U	< 0.5 U
Vinyl Chloride	ug/L	0.18	GW-2	< 0.2 U	< 0.02 UJ	< 0.2 U	< 0.02 U	< 0.02 U	< 0.2 U	--	< 0.02 U	< 0.02 U
Conventionals												
Total Organic Carbon	ug/L			**6840**	--	**890**	--	--	**2190**	--	--	--
Total Suspended Solids	mg/L			**4**	< 5 UJ	< 1 U	< 5 U	--	**6**	--	< 5 U	< 5 U
Field Parameters												
Temperature	deg C			**12.6**	**15**	**11.6**	**13.6**	**11.4**	**11.8**	**13.4**	**15.3**	**13.1**
Specific Conductance	uS/cm			**938**	**635**	**122**	**227**	**116**	**183**	**236**	**194**	**168**
Dissolved Oxygen	mg/L			**1.78**	**1.21**	**5.39**	**2.86**	**7.14**	**0.63**	**3.04**	**3.84**	**2.11**
pH	pH units			**6.37**	**6.12**	**6.03**	**5.91**	**6.28**	**6.88**	**6.4**	**6.57**	**6.59**
Oxidation Reduction Potential	mV			**116**	**81.8**	**67.2**	**78.4**	**158**	**57.9**	**62.2**	**-65.9**	**164**
Turbidity	NTU			**1.87**	**0.83**	**11.8**	**0.05**	**2.2**	**11.8**	**3.15**	**7.57**	**1.97**

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Blue Shaded = Detected result exceeded Proposed RI CUL

				Site Area	Central Area					Northwest Area			
				Location	MW-17	MW-19		MW-19D		MW-13			
				Sample Date	10/27/22	10/27/22	03/24/23	10/27/22	03/23/23	03/31/21	05/27/21	10/26/22	03/24/23
				Sample	MW-17-221027	MW-19-221027	MW-19-230324	MW-19D-221027	MW-19D-230323	MW-13-210331	MW-13-210527	MW-13-221026	MW-13-230324
				Hydrostatigraphic Unit	Alluvial	Fill	Fill	Alluvial	Alluvial	Fill	Fill	Fill	Fill
				Tidal Stage	Higher-High	Higher-High	Lower-Low	Higher-High	Lower-Low	Lower-Low	Lower-Low	Higher-High	Lower-Low
				Tidal Trend	Outgoing	Outgoing	Incoming	Outgoing	Incoming	Outgoing	Outgoing	Outgoing	Outgoing
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**										
Metals, Total													
Arsenic	ug/L	8.0	GW-5	< 0.5 U	**1.78**	**1.06**	**0.774 J**	**0.573**	**1.51**	--	**1.58**	--
Barium	ug/L	200	GW-2	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.1 U	--	< 0.2 U	--
Chromium	ug/L	27	GW-2	< 0.5 U	**0.84 J**	< 1.11 UJ	< 0.5 U	< 0.5 U	< 0.5 U	--	**3.28 J**	--
Copper	ug/L	3.1	GW-2	**3.32 J**	**4.21 J**	**3.1 J**	**1.27 J**	**2.35 J**	< 0.5 U	--	**4.62 J**	--
Lead	ug/L	8.1	GW-2	< 0.2 U	**0.754 J**	**1.01**	< 0.2 U	< 0.2 U	< 0.1 U	--	< 0.2 U	--
Mercury	ug/L	0.025	GW-2	< 0.0008 U	**0.0042**	--	< 0.0008 U	--	< 0.02 U	--	**0.0012**	--
Nickel	ug/L	8.2	GW-2	**3.99**	**1.34**	**1.34**	**2.22**	**3.59**	**5.86**	--	**5.79**	--
Selenium	ug/L	71	GW-2	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	**2.04 J**	**2.42 J**	**2.18**	**1.28 J**	**0.967**	< 6 U	--	**3.59 J**	--
Metals, Dissolved													
Arsenic	ug/L	8.0	GW-5	**0.516 J**	**1.67**	**1.01**	**0.71 J**	< 0.5 U	**1.72**	--	**1.57**	--
Cadmium	ug/L	1.2	GW-3	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	**0.053 J**	--	< 0.2 U	--
Chromium	ug/L	27	GW-2	< 0.5 U	**0.842 J**	< 0.5 U	< 0.5 U	< 0.5 U	**0.385 J**	--	**1.03**	--
Copper	ug/L	3.1	GW-2	**3.23 J**	**3.05 J**	**3.03**	**5.91**	**2.2**	**4.43**	--	**5.45**	--
Lead	ug/L	8.1	GW-2	< 0.2 U	< 0.2 U	**0.964**	**0.217 J**	< 0.2 U	**0.061 J**	--	< 0.2 U	--
Mercury	ug/L	0.025	GW-2	**0.00083**	**0.0008**	--	< 0.0008 U	--	< 0.02 U	--	**0.0037**	--
Nickel	ug/L	8.2	GW-2	**3.67**	**1.21**	**1.25**	**2.15**	**3.58**	**6.23**	--	**5.52**	--
Zinc	ug/L	81	GW-2	**2.09 J**	**1.09 J**	**1.98**	**4.79 J**	**0.911**	**8.69**	--	**3.51 J**	--
Metals, Total, Prepared Using Reductive Precipitation													
Arsenic	ug/L	8.0	GW-5	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	--	--	--	--	--	--	--	--
Chromium	ug/L	27	GW-2	--	--	--	--	--	--	--	--	--
Copper	ug/L	3.1	GW-2	--	--	--	--	--	--	--	--	--
Lead	ug/L	8.1	GW-2	--	--	--	--	--	--	--	--	--
Nickel	ug/L	8.2	GW-2	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	--	--	--	--	--	--	--	--
Metals, Dissolved, Prepared Using Reductive Precipitation													
Arsenic	ug/L	8.0	GW-5	--	--	--	--	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	--	--	--	--	--	--	--	--
Chromium	ug/L	27	GW-2	--	--	--	--	--	--	--	--	--
Copper	ug/L	3.1	GW-2	--	--	--	--	--	--	--	--	--
Lead	ug/L	8.1	GW-2	--	--	--	--	--	--	--	--	--
Nickel	ug/L	8.2	GW-2	--	--	--	--	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	--	--	--	--	--	--	--	--
Butyl Tins													
Tributyltin Ion	ug/L	0.0052	GW-3, PQL Adj.	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	--	--	--	< 0.0052 U	--
Polychlorinated Biphenyl (PCB) Aroclors													
Total PCB Aroclors (ND = 0)	ug/L	0.0035	GW-2, PQL Adj.	< 0.0035 U	< 0.0035 U	--	< 0.0035 U	--	< 0.01 U	--	< 0.0035 U	--
Polychlorinated Biphenyl (PCB) Congeners													
Total PCB Congeners (ND = 0)	ug/L	4.20E-04	GW-2, PQL Adj.	--	--	--	--	--	--	**3.74E-5 J**	--	--
Total PCB TEQ (ND = 0)	ug/L	1.50E-07	GW-2, PQL Adj.	--	--	--	--	--	--	< 4.97E-6 U	--	--
Dioxins/Furans													
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	ug/L	5.70E-05	GW-2, PQL Adj.	--	--	< 1.41E-6 U	--	--	--	--	--	--
2,3,7,8-TCDD	ug/L	5.00E-06	GW-2, PQL Adj.	--	--	< 5.71E-7 U	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)													
1-Methylnaphthalene	ug/L	0.17	GW-4	< 0.1 U	< 0.1 U	--	< 0.1 U	--	**0.011**	--	< 0.1 U	--
2-Methylnaphthalene	ug/L	14	GW-3	< 0.1 U	< 0.1 U	--	< 0.1 U	--	< 0.01 U	--	< 0.1 U	--
Benzo(g,h,i)perylene	ug/L			< 0.02 U	< 0.02 U	--	< 0.02 U	--	< 0.01 U	--	< 0.02 U	--
Fluoranthene	ug/L	1.8	GW-3	< 0.01 U	< 0.01 U	--	< 0.01 U	--	**0.003 J**	--	< 0.01 U	--
Pyrene	ug/L	2.0	GW-3	< 0.01 U	< 0.01 U	--	< 0.01 U	--	**0.002 J**	--	< 0.01 U	--
Benz(a)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Benzo(a)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Benzo(b)fluoranthene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Chrysene	ug/L	0.016	GW-2	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Dibenzo(a,h)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 UJ	--	< 0.01 U	--
Indeno(1,2,3-cd)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Total Benzofluoranthenes	ug/L			< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--	< 0.01 U	--
Total HPAHs (ND = 1/2 RDL)	ug/L			< 0.02 U	< 0.02 U	--	< 0.02 U	--	**0.05 J**	--	< 0.02 U	--
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	0.015	GW-2, PQL Adj.	< 0.00755 U	< 0.00755 U	--	< 0.00755 U	--	< 0.00755 UJ	--	< 0.00755 U	--
Semi-Volatile Organic Compounds (SVOCs)													
2,4-Dimethylphenol	ug/L	2.9	GW-3	< 1 U	< 1 U	--	< 1 U	--	--	--	< 1 UJ	--
2-Methylphenol	ug/L	9.8	GW-3	< 1 U	< 1 U	--	< 1 U	--	--	--	< 1 U	--
Benzyl alcohol	ug/L	56	GW-3	< 1 U	< 1 U	--	< 1 U	--	--	--	< 1 U	--
Benzyl butyl phthalate	ug/L	1.0	GW-2, PQL Adj.	< 1 U	< 1 U	--	< 1 U	--	--	--	< 1 U	--
Bis(2-ethylhexyl) phthalate	ug/L	0.20	GW-2, PQL Adj.	< 1.6 U	**1.6**	--	< 1.6 U	--	--	--	< 1.6 U	--
Diethyl phthalate	ug/L	93	GW-3	< 1 U	< 1 U	--	< 1 U	--	--	--	< 1 U	--
Dimethyl phthalate	ug/L	59	GW-3	< 1 U	< 1 U	--	< 1 U	--	--	--	< 1 U	--
Di-n-butyl phthalate	ug/L	8.0	GW-2	< 1 U	< 1 U	--	< 1 U	--	--	--	< 1 U	--
Hexachlorobenzene	ug/L	0.10	GW-2, PQL Adj.	< 0.1 U	< 0.1 U	--	< 0.1 U	--	--	--	< 0.1 U	--
N-Nitrosodiphenylamine	ug/L	0.55	GW-3	< 0.1 U	< 0.1 U	--	< 0.1 U	--	--	--	< 0.1 U	--
Pentachlorophenol	ug/L	0.50	GW-2, PQL Adj.	< 0.5 U	< 0.5 U	--	< 0.5 U	--	--	--	< 0.5 U	--
Pesticides													
4,4'-DDE	ug/L	0.0013	GW-2, PQL Adj.	< 0.00125 U	< 0.00125 U	--	< 0.00125 U	--	--	--	< 0.00125 U	--
4,4'-DDT	ug/L	0.0013	GW-2, PQL Adj.	< 0.00125 U	< 0.00125 U	--	< 0.00125 U	--	--	--	< 0.00125 U	--
Aldrin	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	--	--	< 0.000625 U	--
Alpha-BHC	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	--	--	< 0.000625 U	--
cis-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	--	--	< 0.000625 U	--
Delta-BHC	ug/L			< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	--	--	< 0.000625 U	--
Dieldrin	ug/L	0.0013	GW-2, PQL Adj.	< 0.00125 U	< 0.00125 U	--	< 0.00125 U	--	--	--	< 0.00125 U	--
Heptachlor	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	--	--	< 0.000625 U	--
trans-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.000625 U	< 0.000625 U	--	< 0.000625 U	--	--	--	< 0.000625 U	--
Total Petroleum Hydrocarbons (TPH)													
Gasoline-Range Organics	ug/L	800	GW-2	< 100 U	< 100 U	--	< 100 U	--	R	--	R	R
Diesel-Range Organics	ug/L	500	GW-2	< 50 U	< 50 U	--	< 50 U	--	< 100 U	--	< 50 U	< 50 U
Motor Oil-Range Organics	ug/L	500	GW-2	< 250 U	< 250 U	--	< 250 U	--	< 200 U	--	< 250 U	< 250 U
Diesel and Oil Extended-Range Organics	ug/L	500	GW-2	< 250 U	< 250 U	--	< 250 U	--	< 200 U	--	< 250 U	< 250 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)													
Benzene	ug/L	1.6	GW-2	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 UJ	< 0.35 U	**0.07 J**	--	< 0.35 U	< 35 U
Total Xylenes	ug/L	110	GW-2	< 2 U	< 2 U	< 2 U	< 2 UJ	< 2 U	< 0.6 U	--	< 2 U	< 200 U
Volatile Organic Compounds (VOCs)													
1,2,3-Trichloropropane	ug/L	20	GW-4	< 1 U	< 1 U	< 1 U	< 1 UJ	< 1 U	< 0.5 U	--	< 1 U	< 100 U
1,2-Dichlorobenzene	ug/L	4.5	GW-3	< 0.1 U	< 0.1 U	< 1 U	< 1 UJ	< 1 U	**0.21**	--	< 0.1 U	< 100 U
Methylene Chloride	ug/L	100	GW-2	< 5 UJ	< 5 U	< 5 U	< 5 UJ	< 5 U	< 1 U	--	**8.8 J**	< 500 U
Tetrachloroethene (PCE)	ug/L	2.9	GW-2	< 1 U	< 1 U	< 1 U	**57 J**	**140**	**4640**	--	**2900**	**4400**
Trichloroethene (TCE)	ug/L	0.70	GW-2	< 0.5 U	< 0.5 U	< 0.5 U	**2.6 J**	**11**	**259**	--	**280**	**170**
Vinyl Chloride	ug/L	0.18	GW-2	< 0.02 U	< 0.02 U	< 0.02 U	**0.48 J**	**0.95**	**0.53**	--	**1.2**	< 2 U
Conventionals													
Total Organic Carbon	ug/L			--	--	--	--	--	**4830**	--	--	--
Total Suspended Solids	mg/L			< 5 UJ	**30 J**	**73**	**6 J**	< 5 U	**4**	--	**5.2**	**20**
Field Parameters													
Temperature	deg C			**14.7**	--	**10.4**	--	**12.1**	**14.6**	**13.7**	--	**12.4**
Specific Conductance	uS/cm			**417**	**117**	**83.6**	**198**	**185**	**482**	**406**	**330**	**313**
Dissolved Oxygen	mg/L			**2.75**	**1.15**	**3.33**	**0.22**	**0.3**	**1.21**	**4.9**	**3.35**	**1.4**
pH	pH units			**6.21**	**6.46**	**6.49**	**6.39**	**6.43**	**6.41**	**6.48**	**5.92**	**6.19**
Oxidation Reduction Potential	mV			**182**	**129**	**49.3**	**48.1**	**85.4**	**112**	**94.7**	**166**	**16**
Turbidity	NTU			**0**	**62.7**	**64.2**	**9.29**	**4.89**	**6.41**	**22.9**	**50.6**	**7**

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Blue Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**Northwest Area**				
			Location	MW-13D		MW-20		MW-22
			Sample Date	10/26/22	03/24/23	10/31/22	03/24/23	10/24/22
			Sample	MW-13D-221026	MW-13D-230324	MW-20-221031	MW-20-230324	MW-22-221024
			Hydrostatigraphic Unit	Alluvial	Alluvial	Alluvial	Alluvial	Fill
			Tidal Stage	Higher-High	Lower-Low	Higher-Low	Higher-High	Higher-Low
			Tidal Trend	Outgoing	Outgoing	Outgoing	Outgoing	Outgoing
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**					
Metals, Total								
Arsenic	ug/L	8.0	GW-5	**8.52**	--	**0.837 J**	--	**1.25**
Barium	ug/L	200	GW-2	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	< 0.2 U	--	< 0.2 U	--	< 0.2 U
Chromium	ug/L	27	GW-2	**1.52**	--	< 0.5 U	--	**0.728 J**
Copper	ug/L	3.1	GW-2	**1.03 J**	--	**2.72 J**	--	**4.39 J**
Lead	ug/L	8.1	GW-2	< 0.2 U	--	< 0.2 U	--	**0.528 J**
Mercury	ug/L	0.025	GW-2	< 0.0008 U	--	**0.0015 J**	--	**0.0022**
Nickel	ug/L	8.2	GW-2	**3.48**	--	**1.6**	--	**3.63**
Selenium	ug/L	71	GW-2	--	--	--	--	--
Zinc	ug/L	81	GW-2	**9.47**	--	**0.888 J**	--	**9.17**
Metals, Dissolved								
Arsenic	ug/L	8.0	GW-5	**8.33**	--	**0.784 J**	--	**1.09**
Cadmium	ug/L	1.2	GW-3	< 0.2 U	--	< 0.2 U	--	< 0.2 U
Chromium	ug/L	27	GW-2	**0.979 J**	--	**1.73**	--	**3.46**
Copper	ug/L	3.1	GW-2	**0.799 J**	--	**2.76 J**	--	**3.84 J**
Lead	ug/L	8.1	GW-2	< 0.2 U	--	< 0.2 U	--	< 0.2 U
Mercury	ug/L	0.025	GW-2	**0.00099**	--	**0.0013**	--	**0.0016**
Nickel	ug/L	8.2	GW-2	**3.21**	--	**2.01**	--	**4.25**
Zinc	ug/L	81	GW-2	**9.64**	--	**1.24 J**	--	**7.59**
Metals, Total, Prepared Using Reductive Precipitation								
Arsenic	ug/L	8.0	GW-5	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	--	--	--	--
Chromium	ug/L	27	GW-2	--	--	--	--	--
Copper	ug/L	3.1	GW-2	--	--	--	--	--
Lead	ug/L	8.1	GW-2	--	--	--	--	--
Nickel	ug/L	8.2	GW-2	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	--	--	--	--
Metals, Dissolved, Prepared Using Reductive Precipitation								
Arsenic	ug/L	8.0	GW-5	--	--	--	--	--
Cadmium	ug/L	1.2	GW-3	--	--	--	--	--
Chromium	ug/L	27	GW-2	--	--	--	--	--
Copper	ug/L	3.1	GW-2	--	--	--	--	--
Lead	ug/L	8.1	GW-2	--	--	--	--	--
Nickel	ug/L	8.2	GW-2	--	--	--	--	--
Zinc	ug/L	81	GW-2	--	--	--	--	--
Butyl Tins								
Tributyltin Ion	ug/L	0.0052	GW-3, PQL Adj.	< 0.0052 U	--	< 0.0052 U	--	< 0.0052 U
Polychlorinated Biphenyl (PCB) Aroclors								
Total PCB Aroclors (ND = 0)	ug/L	0.0035	GW-2, PQL Adj.	< 0.0035 U	--	< 0.0035 U	--	< 0.0035 U
Polychlorinated Biphenyl (PCB) Congeners								
Total PCB Congeners (ND = 0)	ug/L	4.20E-04	GW-2, PQL Adj.	--	--	--	--	--
Total PCB TEQ (ND = 0)	ug/L	1.50E-07	GW-2, PQL Adj.	--	--	--	--	--
Dioxins/Furans								
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	ug/L	5.70E-05	GW-2, PQL Adj.	--	--	--	--	--
2,3,7,8-TCDD	ug/L	5.00E-06	GW-2, PQL Adj.	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)								
1-Methylnaphthalene	ug/L	0.17	GW-4	< 0.1 U	--	< 0.1 U	--	< 0.1 U
2-Methylnaphthalene	ug/L	14	GW-3	< 0.1 U	--	< 0.1 U	--	< 0.1 U
Benzo(g,h,i)perylene	ug/L			< 0.02 U	--	< 0.02 U	--	< 0.02 U
Fluoranthene	ug/L	1.8	GW-3	< 0.01 U	--	< 0.01 U	--	< 0.01 U
Pyrene	ug/L	2.0	GW-3	< 0.01 U	--	< 0.01 U	--	< 0.01 U
Benz(a)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	--	< 0.01 U	--	< 0.01 U
Benzo(a)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	--	< 0.01 U	--	< 0.01 U
Benzo(b)fluoranthene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	--	< 0.01 U	--	< 0.01 U
Chrysene	ug/L	0.016	GW-2	< 0.01 U	--	< 0.01 U	--	< 0.01 U
Dibenzo(a,h)anthracene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	--	< 0.01 U	--	< 0.01 U
Indeno(1,2,3-cd)pyrene	ug/L	0.010	GW-2, PQL Adj.	< 0.01 U	--	< 0.01 U	--	< 0.01 U
Total Benzofluoranthenes	ug/L			< 0.01 U	--	< 0.01 U	--	< 0.01 U
Total HPAHs (ND = 1/2 RDL)	ug/L			< 0.02 U	--	< 0.02 U	--	< 0.02 U
Total cPAHs TEQ (ND = 1/2 RDL)	ug/L	0.015	GW-2, PQL Adj.	< 0.00755 U	--	< 0.00755 U	--	< 0.00755 U
Semi-Volatile Organic Compounds (SVOCs)								
2,4-Dimethylphenol	ug/L	2.9	GW-3	< 1 UJ	--	< 1 U	--	< 1 U
2-Methylphenol	ug/L	9.8	GW-3	< 1 U	--	< 1 U	--	< 1 U
Benzyl alcohol	ug/L	56	GW-3	< 1 U	--	< 1 U	--	< 1 U
Benzyl butyl phthalate	ug/L	1.0	GW-2, PQL Adj.	< 1 U	--	< 1 U	--	< 1 U
Bis(2-ethylhexyl) phthalate	ug/L	0.20	GW-2, PQL Adj.	< 1.6 U	--	< 1.6 U	--	< 1.6 U
Diethyl phthalate	ug/L	93	GW-3	< 1 U	--	< 1 U	--	< 1 U
Dimethyl phthalate	ug/L	59	GW-3	< 1 U	--	< 1 U	--	< 1 U
Di-n-butyl phthalate	ug/L	8.0	GW-2	< 1 U	--	< 1 U	--	< 1 U
Hexachlorobenzene	ug/L	0.10	GW-2, PQL Adj.	< 0.1 U	--	< 0.1 U	--	< 0.1 U
N-Nitrosodiphenylamine	ug/L	0.55	GW-3	< 0.1 U	--	< 0.1 U	--	< 0.1 U
Pentachlorophenol	ug/L	0.50	GW-2, PQL Adj.	< 0.5 U	--	< 0.5 U	--	< 0.5 U
Pesticides								
4,4'-DDE	ug/L	0.0013	GW-2, PQL Adj.	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U
4,4'-DDT	ug/L	0.0013	GW-2, PQL Adj.	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U
Aldrin	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U
Alpha-BHC	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U
cis-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U
Delta-BHC	ug/L			< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U
Dieldrin	ug/L	0.0013	GW-2, PQL Adj.	< 0.00125 U	--	< 0.00125 U	--	< 0.00125 U
Heptachlor	ug/L	0.00063	GW-2, PQL Adj.	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U
trans-Chlordane	ug/L	0.00063	GW-3, PQL Adj.	< 0.000625 U	--	< 0.000625 U	--	< 0.000625 U
Total Petroleum Hydrocarbons (TPH)								
Gasoline-Range Organics	ug/L	800	GW-2	**470 J**	**120 J**	R	R	< 100 U
Diesel-Range Organics	ug/L	500	GW-2	**380**	< 50 U	< 50 U	< 50 U	< 50 U
Motor Oil-Range Organics	ug/L	500	GW-2	**380**	< 250 U	< 250 U	< 250 U	< 250 U
Diesel and Oil Extended-Range Organics	ug/L	500	GW-2	**760**	< 250 U	< 250 U	< 250 U	< 250 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)								
Benzene	ug/L	1.6	GW-2	**9.1**	**4.2**	< 0.35 U	< 3.5 U	< 0.35 U
Total Xylenes	ug/L	110	GW-2	< 2 U	< 2 U	< 2 U	< 20 U	< 2 U
Volatile Organic Compounds (VOCs)								
1,2,3-Trichloropropane	ug/L	20	GW-4	< 1 U	< 1 U	< 1 U	< 10 U	< 1 U
1,2-Dichlorobenzene	ug/L	4.5	GW-3	< 0.1 U	< 1 U	< 0.1 U	< 10 U	< 0.1 U
Methylene Chloride	ug/L	100	GW-2	**7.9 J**	< 5 U	< 5 U	< 50 U	**6.1 J**
Tetrachloroethene (PCE)	ug/L	2.9	GW-2	**450**	**18**	**3300**	**1200**	**65**
Trichloroethene (TCE)	ug/L	0.70	GW-2	**42**	**20**	**9.7**	**5.4**	**1.2**
Vinyl Chloride	ug/L	0.18	GW-2	**9.9**	**12**	**0.023**	< 0.2 U	< 0.02 U
Conventionals								
Total Organic Carbon	ug/L			--	--	--	--	--
Total Suspended Solids	mg/L			**12**	**14**	< 5 U	**8.4**	< 5 U
Field Parameters								
Temperature	deg C			**--**	**12.4**	**--**	**11.4**	**17.0**
Specific Conductance	uS/cm			**1090**	**615**	**222**	**167**	**643**
Dissolved Oxygen	mg/L			**0.09**	**0.18**	**6.28**	**5.68**	**0.5**
pH	pH units			**6.87**	**7.05**	**6.22**	**6.33**	**6.52**
Oxidation Reduction Potential	mV			**-54.3**	**-106**	**149**	**220**	**135**
Turbidity	NTU			**14.2**	**8.26**	**0.28**	**5.87**	**4.56**

Table 6.7. Groundwater COPC Analytical Data

South Park Marina Site, Seattle, Washington

Notes:

Bold = detected

Gray Shaded = Nondetect result has an RDL that exceeds the Proposed RI CUL

Blue Shaded = Detected result exceeded the Proposed RI CUL

Proposed RI CUL = Proposed Remedial Investigation Cleanup Level

COPC = contaminant of potential concern

The tidal stage is the closest minimum or maximum tidal stage (lower-low, lower-high, higher-low, or higher-high) at the same of sample collection, either before or after sample collection occurred. The tidal trend was evaluated at the time of sample collection.

ug/L = micrograms per liter

mg/L = milligrams per liter

deg C = degrees Celsius

uS/cm = microseimens per centimeter

mV = millivolts

NTU = Nephelometric Turbidity Unit

"--" = Results not available

U = Analyte not detected at or above the RDL shown

J = Result value estimated

UJ = Analyte not detected, and the RDL shown is an estimate

R = Rejected, refer to data validation report

A = One or more of the nine common Aroclor groups (1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268) were not reported, and the Total PCB Aroclors (ND = 0) sum assumes the missing components were nondetect.

Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with nondetects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is shown as nondetect at the maximum RDL for any individual Aroclor.

(ND = 0) = calculated using zero for nondetected components

RDL = Reported Detection Limit

(ND = 1/2 RDL) = calculated using one-half the RDL for nondetected components

TEQ = Toxic Equivalency

HPAHs = high molecular weight polycyclic aromatic hydrocarbons: fluoranthene, pyrene, benz(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene

cPAHs = carcinogenic polycyclic aromatic hydrocarbons: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene

Groundwater CUL for chromium uses the PCUL Workbook value for trivalent chromium because total chromium does not have a groundwater SL and, in the reducing site groundwater, chromium is in the trivalent form.

Field duplicate results not displayed; field duplicate results were used to assess data quality.

Basis of Cleanup Level Codes:

GW-2	Protect Surface Water via Groundwater
GW-3	Protect Sediment via Groundwater
GW-4	Protect Indoor Air via Groundwater
GW-5	Natural Background
PQL Adj.	Practical Quantitation Limit, basis was adjusted to the method reporting limit (MRL) listed in the Sampling and Analysis Plan / Quality Assurance Project Plan. Refer to the Remedial Investigation Work Plan Addendum, Appendix C.

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**South Area**									
			Location	**21F-SS-01**	**21F-SS-02**	**A10**	**A11**	**A12**		**B-01**			
			Sample Date	09/14/21	09/14/21	01/17/06	01/24/06	01/24/06	01/24/06	11/17/17	11/17/17		
			Sample	SPM 20210914 SS-1-TIG	SPM 20210914 SS-2-TIG	T117-A10-SB-01	T117-A11-SB-0.0-0.5	T117-A12-SB-0.0-0.5	T117-A12-SB-0.5-1.5	B-01-2-3	B-01-3.5-4.5		
			Depth	0 - 0.07 ft	0 - 0.07 ft	0 - 1.5 ft	0 - 0.5 ft	0 - 0.5 ft	0.5 - 1.5 ft	2 - 3 ft	3.5 - 4.5 ft		
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill		
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**										
Metals, Total													
Arsenic	mg/kg	7.3	SL-10	**9.4**	**4.0**	--	--	--	--	--	--		
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--		
Cadmium	mg/kg	5.1	SL-8	**1.1**	**0.35**	--	--	--	--	--	--		
Chromium	mg/kg	67	SL-9	**15**	**10**	--	--	--	--	--	--		
Copper	mg/kg	36	SL-10	**380**	**78**	--	--	--	--	--	--		
Lead	mg/kg	120	SL-9	**71**	**25**	--	--	--	--	--	--		
Mercury	mg/kg	0.41	SL-8	--	--	--	--	--	--	--	--		
Nickel	mg/kg	48	SL-10	**19**	**7.8**	--	--	--	--	--	--		
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--		
Zinc	mg/kg	100	SL-3	**180**	**78**	--	--	--	--	--	--		
Butyl Tins													
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--	--		
Polychlorinated Biphenyl (PCB) Aroclors													
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.23 A**	**0.126 A**	**0.088 A**	**0.219 JA**	**3.2 JA**	**0.59 A**	**6.8 A**	**3.4 A**		
Polychlorinated Biphenyl (PCB) Congeners													
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	--	**5.91E+0 J**	--		
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	--	**1.51E-4**	--		
Dioxins/Furans													
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--	--	--		
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--		
Polycyclic Aromatic Hydrocarbons (PAHs)													
1-Methylnaphthalene	mg/kg	20	SL-1	**0.011**	< 0.0041 U	< 0.066 U	--	--	--	--	--		
2-Methylnaphthalene	mg/kg	0.67	SL-8	**0.016**	< 0.0041 U	< 0.066 U	--	--	--	--	--		
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.20**	**0.020**	< 0.066 U	--	--	--	--	--		
Fluoranthene	mg/kg	1.7	SL-8	**0.57**	**0.093**	< 0.066 U	--	--	--	--	--		
Pyrene	mg/kg	2.6	SL-8	**0.54**	**0.069**	< 0.066 U	--	--	--	--	--		
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.3**	**0.029**	< 0.066 U	--	--	--	--	--		
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.31**	**0.021**	< 0.066 U	--	--	--	--	--		
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.46**	**0.041**	< 0.066 U	--	--	--	--	--		
Chrysene	mg/kg	1.4	SL-8	**0.45**	**0.040**	< 0.066 U	--	--	--	--	--		
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.051**	**0.0052**	< 0.066 U	--	--	--	--	--		
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.22**	**0.017**	< 0.066 U	--	--	--	--	--		
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.61**	**0.056**	< 0.066 UA	--	--	--	--	--		
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**3.25**	**0.350**	< 0.066 U	--	--	--	--	--		
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.433**	**0.0321**	< 0.0498 U	--	--	--	--	--		
Other Semivolatile Organic Compounds (SVOCs)													
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.041 U	< 0.020 U	--	--	--	--	--	--		
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.26 UJ	< 0.13 UJ	--	--	--	--	--	--		
2-Methylphenol	mg/kg	0.063	SL-8	< 0.041 U	< 0.020 U	--	--	--	--	--	--		
Benzyl alcohol	mg/kg	0.057	SL-8	**0.71**	**0.17**	--	--	--	--	--	--		
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.21 U	< 0.10 U	--	--	--	--	--	--		
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	**0.41**	**0.18**	--	--	--	--	--	--		
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.21 U	< 0.10 U	--	--	--	--	--	--		
Dimethyl phthalate	mg/kg	0.071	SL-8	**2.3**	**0.20**	--	--	--	--	--	--		
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.21 U	< 0.1 U	--	--	--	--	--	--		
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.041 U	< 0.020 U	--	--	--	--	--	--		
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.041 U	< 0.020 U	--	--	--	--	--	--		
Pentachlorophenol	mg/kg	0.36	SL-8	**0.27**	< 0.10 U	--	--	--	--	--	--		
Pesticides													
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	**0.014 J**	**0.0091 J**	--	--	--	--	--	--		
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
Delta-BHC	mg/kg	0.0048	SL-1	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.0051 U	< 0.0051 U	--	--	--	--	--	--		
Total Petroleum Hydrocarbons (TPH)													
Gasoline Range Organics	mg/kg	30	SL-3	< 5.6 U	< 5.3 U	--	--	--	--	--	--		
Diesel Range Organics	mg/kg	2000	SL-3	**73**	< 25 U	**94**	--	--	--	--	--		
Motor Oil Range Organics	mg/kg	2000	SL-3	**310**	**76**	**100**	--	--	--	--	--		
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**383**	**76**	**194**	--	--	--	--	--		
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)													
Benzene	mg/kg	0.0088	SL-3	< 0.0013 U	< 0.0011 U	--	--	--	--	--	--		
Total Xylenes	mg/kg	1.4	SL-9	< 0.0025 U	< 0.0022 U	--	--	--	--	--	--		
Volatile Organic Compounds (VOCs)													
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.0013 U	< 0.0011 U	--	--	--	--	--	--		
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.0013 U	< 0.0011 U	--	--	--	--	--	--		
Methylene Chloride	mg/kg	0.43	SL-3	< 0.0063 U	< 0.0055 U	--	--	--	--	--	--		
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	< 0.0013 U	< 0.0011 U	--	--	--	--	--	--		
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.0013 U	< 0.0011 U	--	--	--	--	--	--		
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.0013 U	< 0.0011 U	--	--	--	--	--	--		
Conventionals													
Total Organic Carbon	%			--	--	**0.945**	**0.721**	**1.25**	--	--	--		
Total Solids	%			--	--	**85.5**	**89.2**	**84.8**	**87.3**	--	--		

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	South Area						
			Location	B-02	B-03			B-04		
			Sample Date	11/17/17	11/17/17	11/17/17	11/17/17	11/17/17	11/17/17	11/17/17
			Sample	B-02-2.5-3	B-03-0-1	B-03-2-3	B-03-5-6	B-04-0-1	B-04-2-2.5	B-04-5-6
			Depth	2.5 - 3 ft	0 - 1 ft	2 - 3 ft	5 - 6 ft	0 - 1 ft	2 - 2.5 ft	5 - 6 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**							
Metals, Total										
Arsenic	mg/kg	7.3	SL-10	--	--	--	--	--	--	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	--	--	--	--	--	--	--
Chromium	mg/kg	67	SL-9	--	--	--	--	--	--	--
Copper	mg/kg	36	SL-10	--	--	--	--	--	--	--
Lead	mg/kg	120	SL-9	--	--	--	--	--	--	--
Mercury	mg/kg	0.41	SL-8	--	--	--	--	--	--	--
Nickel	mg/kg	48	SL-10	--	--	--	--	--	--	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	--	--	--	--	--	--	--
Butyl Tins										
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors										
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**3.5 A**	**20.1 A**	**16.5 A**	**31.4 A**	**1.34 A**	**28.3 A**	**44 A**
Polychlorinated Biphenyl (PCB) Congeners										
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	**1.44E+1 J**	--	--	--	--	**1.07E+2 J**
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	**4.07E-4**	--	--	--	--	**1.92E-3 J**
Dioxins/Furans										
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)										
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	--	--	--	--
Pyrene	mg/kg	2.6	SL-8	--	--	--	--	--	--	--
Benz(a)anthracene	mg/kg	0.73	SL-9	--	--	--	--	--	--	--
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	--	--	--	--	--	--	--
Chrysene	mg/kg	1.4	SL-8	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	--	--	--	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	--	--	--	--	--	--	--
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	--	--	--	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	--	--	--	--	--	--	--
Other Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	--	--	--	--	--
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	--	--	--	--	--	--	--
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--
Pesticides										
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	--	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	--	--	--	--
Diesel Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--
Motor Oil Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)										
Benzene	mg/kg	0.0088	SL-3	--	--	--	--	--	--	--
Total Xylenes	mg/kg	1.4	SL-9	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)										
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.43	SL-3	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	--	--	--	--	--	--	--
Vinyl Chloride	mg/kg	0.0011	SL-3	--	--	--	--	--	--	--
Conventionals										
Total Organic Carbon	%			--	--	--	--	--	--	--
Total Solids	%			--	--	--	--	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**South Area**							
			Location	**HA-01**		**HA-02**		**MW-04**	
			Sample Date	03/11/21	03/11/21	03/11/21	03/11/21	03/04/21	03/04/21
			Sample	HA-1-0-1	HA-1-2-3	HA-2-0-1	HA-2-2-3	MW-4-0-1	MW-4-4-5
			Depth	0 - 1 ft	2 - 3 ft	0 - 1 ft	2 - 3 ft	0 - 1 ft	4 - 5 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**						
Metals, Total									
Arsenic	mg/kg	7.3	SL-10	**7.4 J**	**4.87 J**	**6.57 J**	**3.81 J**	**5.03**	**1.48**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**3.25**	**0.68**	**3.4**	**0.96**	**0.86**	**0.24**
Chromium	mg/kg	67	SL-9	**65.4**	**18**	**71.3**	**23.2**	**33.1**	**20.3**
Copper	mg/kg	36	SL-10	**135**	**23.5**	**148**	**27.9**	**66.3**	**8.76**
Lead	mg/kg	120	SL-9	**426 J**	**129 J**	**512 J**	**179 J**	**587 J**	**23.4**
Mercury	mg/kg	0.41	SL-8	**1.96 J**	**0.253 J**	**2.42 J**	**0.676 J**	**0.997**	**--**
Nickel	mg/kg	48	SL-10	**23.3 J**	**13.3 J**	**18 J**	**8.98 J**	**16.6**	**6.71**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**338**	**342**	**471**	**184**	**124**	**43**
Butyl Tins									
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.0507**	**0.000985 J**	**0.0103**	< 0.0038 U	--	--
Polychlorinated Biphenyl (PCB) Aroclors									
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**7.24**	**6.57**	**8.31**	**7.18**	**4.19**	**3.54**
Polychlorinated Biphenyl (PCB) Congeners									
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	**5.65E+0 J**	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	**2.35E-4**	--
Dioxins/Furans									
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)									
1-Methylnaphthalene	mg/kg	20	SL-1	**0.0168**	**0.0225**	**0.0234**	**0.00237 J**	**0.00706 J**	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	**0.028**	**0.0355**	**0.0278**	**0.00543**	**0.0111 J**	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.0985**	**0.108**	**0.0726**	**0.0307**	**0.0358**	--
Fluoranthene	mg/kg	1.7	SL-8	**0.11**	**0.053**	**0.1**	**0.00458 J**	**0.0356**	--
Pyrene	mg/kg	2.6	SL-8	**0.106**	**0.0589**	**0.103**	**0.00481 J**	**0.0362**	--
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.0469**	**0.0222**	**0.0359**	**0.00204 J**	**0.0186**	**--**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.0723**	**0.0412**	**0.0528**	**0.00336 J**	**0.0252**	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.0823**	**0.0618**	**0.0588**	**0.00624**	**0.0274**	**--**
Chrysene	mg/kg	1.4	SL-8	**0.0825**	**0.0622**	**0.071**	**0.00548**	**0.0331**	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.0168**	**0.0136**	**0.0131 J**	**0.00226 J**	**0.00688 J**	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.0681**	**0.0744**	**0.0516**	**0.0084**	**0.0226**	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.164**	**0.116**	**0.117**	**0.0125**	**0.0584**	**--**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.766**	**0.551**	**0.614 J**	**0.0736 J**	**0.269 J**	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0985**	**0.0613**	**0.0721 J**	**0.00554 J**	**0.0344 J**	--
Other Semivolatile Organic Compounds (SVOCs)									
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.0999 U	< 0.0996 U	< 0.0998 U	< 0.0994 U	< 0.1 U	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.2 UJ	< 0.199 UJ	< 0.2 UJ	< 0.199 UJ	< 0.2 UJ	**--**
2-Methylphenol	mg/kg	0.063	SL-8	< 0.02 U	< 0.0199 U	< 0.02 U	< 0.0199 U	**0.0902**	--
Benzyl alcohol	mg/kg	0.057	SL-8	**0.034**	< 0.0199 U	**0.531**	< 0.0199 U	< 0.02 U	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	**0.0616 J**	< 0.0199 U	**0.0919 J**	< 0.0199 U	**0.0913**	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	**0.475**	**0.059**	**0.264**	< 0.0497 U	**0.258**	--
Diethyl phthalate	mg/kg	0.20	SL-8	**0.0286**	< 0.0199 U	< 0.02 U	**0.0185 J**	< 0.02 U	--
Dimethyl phthalate	mg/kg	0.071	SL-8	**0.543**	**0.012 J**	**0.0792**	< 0.0199 U	**0.0095 J**	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**0.395**	**0.0196 J**	**0.1**	**0.0054 J**	**0.378**	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.00998 U	< 0.0005 U	< 0.01 U	< 0.00249 U	< 0.00996 U	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.02 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U	--
Pentachlorophenol	mg/kg	0.36	SL-8	**0.473 J**	**1.08 J**	**0.385 J**	**0.0652 J**	**0.118 J**	--
Pesticides									
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 1.8 U	< 0.001 U	< 6.66 U	< 0.329 U	< 5.97 U	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.02 U	< 0.001 U	< 15.5 U	< 0.553 U	< 13.9 U	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.998 U	< 0.0005 U	< 0.88 U	< 0.00249 U	**0.074**	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.00998 U	< 0.0005 U	< 0.44 U	< 0.00249 U	< 0.00996 U	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 5.99 U	< 0.00798 U	< 1.98 U	< 0.00249 U	< 3.98 U	--
Delta-BHC	mg/kg	0.0048	SL-1	< 0.00998 U	< 0.002 U	< 0.01 U	< 0.00249 U	< 0.00996 U	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.02 U	< 0.001 U	< 11.1 U	< 1.11 U	**0.85**	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 3.99 U	< 0.00499 U	< 2.22 U	< 0.11 U	< 3.98 U	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.00998 U	< 0.0005 U	< 0.01 U	< 0.00249 U	< 0.00996 U	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.00998 U	< 0.0005 U	< 0.88 U	< 0.00249 U	< 3.98 U	--
Total Petroleum Hydrocarbons (TPH)									
Gasoline Range Organics	mg/kg	30	SL-3	< 5.35 U	< 6.37 U	< 7.01 U	**17.2**	< 6.76 U	--
Diesel Range Organics	mg/kg	2000	SL-3	**144**	**986**	**124**	**464**	**305**	**--**
Motor Oil Range Organics	mg/kg	2000	SL-3	**579**	**2840**	**593**	**1670**	**1640**	**--**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**723**	**3830**	**717**	**2130**	**1950**	**--**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)									
Benzene	mg/kg	0.0088	SL-3	**0.00096 J**	< 0.00125 U	< 0.00166 U	< 0.00117 U	< 0.00127 U	--
Total Xylenes	mg/kg	1.4	SL-9	**0.00847**	< 0.00249 U	**0.00163 J**	< 0.00234 U	< 0.00253 U	--
Volatile Organic Compounds (VOCs)									
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.00213 U	< 0.00249 U	< 0.00331 U	< 0.00234 U	< 0.00253 U	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.00107 U	< 0.00125 U	< 0.00166 U	< 0.00117 U	**0.016 J**	--
Methylene Chloride	mg/kg	0.43	SL-3	< 0.00533 U	< 0.00623 U	< 0.00828 U	< 0.00584 U	< 0.00633 U	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.00956**	**0.0142**	**0.0325**	**0.00485**	**0.00517**	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	**0.00285**	< 0.00125 U	**0.00186**	< 0.00117 U	**0.00071 J**	--
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.00107 U	< 0.00125 U	< 0.00166 U	< 0.00117 U	< 0.00127 U	--
Conventionals									
Total Organic Carbon	%			**1.76**	**2.02**	**2.75**	**1.3**	**0.95**	--
Total Solids	%			**91.0**	**89.8**	**81.7**	**91**	**91.5**	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				**South Area**							
Location				**MW-04D**			**MW-05**	**MW-05D**	**MW-06**		
Sample Date				09/22/22	09/22/22	09/22/22	03/05/21	09/21/22	03/05/21	03/05/21	
Sample				MW-04D-0-1	MW-04D-0-1-TIG	MW-04D-4.5-5.5	MW-5-0-1	MW-05D-0-1	MW-6-0-1	MW-6-4-5	
Depth				0 - 1 ft	0 - 1 ft	4.5 - 5.5 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	4 - 5 ft	
Geologic Unit				Fill	Fill	Fill	Fill	Fill	Fill	Fill	
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	**3.61**	--	**0.89 J**	**20.7**	**1.33**	**6.81**	**2.44**	
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	
Cadmium	mg/kg	5.1	SL-8	**1.25**	--	**0.257 J**	**2.09**	**1.01**	**0.35**	**0.09 J**	
Chromium	mg/kg	67	SL-9	**28.4**	--	**17**	**50.2**	**33.9**	**17.9**	**15.1**	
Copper	mg/kg	36	SL-10	**29.9**	--	**5.39**	**135**	**25.4**	**99.9**	**31.1**	
Lead	mg/kg	120	SL-9	**187 J**	--	**74.8 J**	**313 J**	**223**	**64.8 J**	**19.7 J**	
Mercury	mg/kg	0.41	SL-8	--	**3.9**	**0.034**	**0.392**	**0.73 J**	**0.0668**	**0.0162 J**	
Nickel	mg/kg	48	SL-10	**9.71**	--	**4.34**	**14.9**	**5.52**	**15.7**	**11.7**	
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	
Zinc	mg/kg	100	SL-3	**90.6 J**	--	**84.8 J**	**337**	**104**	**127**	**38.9**	
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.00464**	--	< 0.0192 U	**0.0894**	< 0.00382 U	--	--	
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**4.4**	--	**34**	**3.75**	**22.3**	**0.231**	**0.144**	
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	**6.05E+0 J**	--	--	--	--	--	
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	**3.08E-4 J**	--	--	--	--	--	
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	**2.94E-3 J**	--	--	--	--	--	
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	**2.98E-5**	--	--	--	--	--	
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.02 U	--	< 0.01 U	**0.00643**	< 0.1 U	< 0.00498 U	< 0.00496 U	
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.02 U	--	< 0.01 U	< 0.005 U	< 0.1 U	< 0.00498 U	< 0.00496 U	
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.052 J**	--	**0.068 J**	**0.0281**	< 0.1 UJ	**0.0199**	**0.00241 J**	
Fluoranthene	mg/kg	1.7	SL-8	**0.023**	--	< 0.01 U	**0.0419**	< 0.1 U	**0.0158**	**0.00173 J**	
Pyrene	mg/kg	2.6	SL-8	**0.03**	--	**0.012 J**	**0.0388**	< 0.1 U	**0.0166**	**0.00191 J**	
Benz(a)anthracene	mg/kg	0.73	SL-9	< 0.02 U	--	< 0.01 UJ	**0.0145**	< 0.1 U	**0.00827**	**0.00098 J**	
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.017 J**	--	< 0.01 UJ	**0.0191**	< 0.1 UJ	**0.0124**	**0.00167 J**	
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.028 J**	--	< 0.01 UJ	**0.0265**	< 0.1 UJ	**0.0254**	**0.00178 J**	
Chrysene	mg/kg	1.4	SL-8	< 0.02 U	--	< 0.01 UJ	**0.0368**	< 0.1 U	**0.0194**	**0.00167 J**	
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.02 U	--	< 0.01 UJ	**0.00598**	< 0.1 UJ	**0.00392 J**	< 0.00496 U	
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.029 J**	--	**0.046 J**	**0.0207**	< 0.1 UJ	**0.0151**	**0.00245 J**	
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.038 J**	--	< 0.01 J	**0.0522**	< 0.1 J	**0.0454**	**0.00386 J**	
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.219 J**	--	**0.161 J**	**0.255**	< 0.1 U	**0.158 J**	**0.019 J**	
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0258 J**	--	**0.0117 J**	**0.0273**	< 0.0755 U	**0.0189 J**	**0.00254 J**	
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 1 U	--	< 0.5 U	< 0.998 U	< 5 U	< 0.1 U	< 0.0996 U	
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 3 U	--	< 1.5 U	< 2 UJ	< 15 U	< 0.2 UJ	< 0.199 UJ	
2-Methylphenol	mg/kg	0.063	SL-8	< 1 U	--	< 0.5 U	< 0.2 U	< 5 U	< 0.02 U	< 0.0199 U	
Benzyl alcohol	mg/kg	0.057	SL-8	< 1 U	--	< 0.5 U	< 0.2 U	< 5 U	< 0.02 U	< 0.0199 U	
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 1 U	--	< 0.5 UJ	< 0.2 U	< 5 U	< 0.02 U	< 0.0199 U	
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 1.6 U	--	< 0.8 UJ	< 0.499 U	< 8 U	**0.0654**	< 0.0498 U	
Diethyl phthalate	mg/kg	0.20	SL-8	< 1 U	--	< 0.5 U	< 0.2 U	< 5 U	< 0.02 U	< 0.0199 U	
Dimethyl phthalate	mg/kg	0.071	SL-8	< 1 U	--	< 0.5 U	**0.292**	< 5 U	**0.0358**	< 0.0199 U	
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 1 U	--	< 0.5 U	**0.0648 J**	< 5 U	**0.0077 J**	< 0.0199 U	
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.1 U	--	< 0.05 U	< 0.00998 U	< 0.5 U	< 0.00497 U	< 0.0005 U	
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.1 U	--	< 0.05 U	< 0.2 U	< 0.5 U	< 0.02 U	< 0.0199 U	
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.5 U	--	< 0.25 U	< 0.998 UJ	< 2.5 U	< 0.1 UJ	< 0.0996 UJ	
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.2 U	--	**0.3 J**	< 3.99 U	**0.35 J**	< 0.00994 U	< 0.001 U	
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.2 U	--	< 0.2 U	< 9.98 U	< 0.1 U	< 0.00994 U	< 0.015 U	
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.34 U	--	< 0.34 U	**0.0694**	< 0.17 U	< 0.00497 U	< 0.0005 U	
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.1 U	--	< 0.1 U	< 0.00998 U	< 0.05 U	< 0.00497 U	< 0.0005 U	
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.1 U	--	< 0.1 U	< 0.00998 U	< 0.05 U	< 0.00497 U	< 0.0005 U	
Delta-BHC	mg/kg	0.0048	SL-1	< 0.34 UJ	--	< 0.34 UJ	< 0.00998 U	< 0.05 U	< 0.00497 U	< 0.0005 U	
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.2 U	--	**0.9**	< 3.99 U	**0.5**	< 0.00994 U	< 0.00799 U	
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.2 U	--	< 0.2 U	< 2 U	< 0.1 U	< 0.00994 U	< 0.004 U	
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.1 U	--	< 0.1 U	< 0.00998 U	< 0.05 U	< 0.00497 U	< 0.0005 U	
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.34 U	--	< 0.34 U	< 0.00998 U	< 0.17 U	< 0.00497 U	**0.00065**	
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	--	--	**2.6 J**	**14.1**	< 5 U	**11.8**	< 7.01 U	
Diesel Range Organics	mg/kg	2000	SL-3	**120 XJ**	--	**1400**	**137**	**490 J**	< 57.6 U	< 58.4 U	
Motor Oil Range Organics	mg/kg	2000	SL-3	**760 J**	--	**6000**	**626**	**3100**	< 115 U	**122**	
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**880**	--	**7400**	**763**	**3590 J**	< 115 U	**122**	
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	< 0.001 U	--	< 0.001 U	< 0.00161 U	< 0.001 U	**0.00108 J**	< 0.00124 U	
Total Xylenes	mg/kg	1.4	SL-9	**0.0011**	--	< 0.002 U	< 0.00322 U	< 0.002 U	< 0.00239 U	< 0.00249 U	
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	--	< 0.05 U	< 0.00322 U	< 0.05 U	< 0.00239 U	< 0.00249 U	
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.1 U	--	< 0.05 U	< 0.00161 U	< 0.5 U	< 0.0012 U	< 0.00124 U	
Methylene Chloride	mg/kg	0.43	SL-3	R	--	R	< 0.00804 U	< 0.2 U	< 0.00598 U	< 0.00621 U	
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.014**	--	**0.028**	< 0.00161 U	< 0.001 U	**0.00122**	**0.0006 J**	
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.001 U	--	< 0.001 U	< 0.00161 U	< 0.001 U	< 0.0012 U	< 0.00124 U	
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.001 U	--	< 0.001 U	< 0.00161 U	< 0.001 U	< 0.0012 U	< 0.00124 U	
Conventionals											
Total Organic Carbon	%			--	--	--	**0.74**	--	**0.56**	**0.1**	
Total Solids	%			--	**94.8**	--	**90.4**	--	**88.9**	**85.5**	

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				**South Area**								
Location				**MW-06D**		**MW-16**		**MW-18D**				
Sample Date				09/21/22	09/21/22	09/23/22	09/23/22	09/12/22	09/12/22	09/12/22		
Sample				MW-06D-0-1	MW-06D-4-5	MW-16-0-1	MW-16-1.5-2	MW-18D-0-1	MW-18D-0-1-TIG	MW-18D-5-6		
Depth				0 - 1 ft	4 - 5 ft	0 - 1 ft	1.5 - 2 ft	0 - 1 ft	0 - 1 ft	5 - 6 ft		
Geologic Unit				Fill	Fill	Fill	Fill	Fill	Fill	Fill		
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**									
Metals, Total												
Arsenic	mg/kg	7.3	SL-10	**11.3**	--	**4.82**	**3.95**	**4.13**	--	--		
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--		
Cadmium	mg/kg	5.1	SL-8	**1.21**	**--**	**10.6**	**5.59**	< 0.2 U	**--**	**--**		
Chromium	mg/kg	67	SL-9	**22.5**	**--**	**162**	**186**	**10.8**	**--**	**--**		
Copper	mg/kg	36	SL-10	**221**	--	**95.6 J**	**56.3**	**21.3**	--	--		
Lead	mg/kg	120	SL-9	**150**	**--**	**1260**	**1740**	**5.82**	**--**	**--**		
Mercury	mg/kg	0.41	SL-8	**0.15 J**	**--**	**11**	**1.9**	**0.08**	**--**	**0.027**		
Nickel	mg/kg	48	SL-10	**13.9**	--	**44.4**	**22.3**	**8.03**	--	--		
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--		
Zinc	mg/kg	100	SL-3	**191**	**--**	**936**	**1010**	**23.2**	**--**	**--**		
Butyl Tins												
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.0186**	< 0.00383 U	**0.000807 J**	< 0.00386 U	< 0.00382 U	--	--		
Polychlorinated Biphenyl (PCB) Aroclors												
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**1.47**	--	**36**	**36.1**	< 0.004 U	--	--		
Polychlorinated Biphenyl (PCB) Congeners												
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	**7.28E-4 J**	--		
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	**3.32E-10 J**	--		
Dioxins/Furans												
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	**1.94E-5 J**	--	--	**6.37E-3 J**	--	--	--		
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	**2.92E-7**	--	--	**4.38E-5**	--	--	--		
Polycyclic Aromatic Hydrocarbons (PAHs)												
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.005 U	--	**0.08**	**0.58**	< 0.0005 U	--	< 0.0005 U		
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.005 U	--	**0.1**	**0.56**	< 0.0005 U	--	< 0.0005 U		
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.012 J**	--	**0.06**	**0.052**	**0.0012**	--	< 0.0005 U		
Fluoranthene	mg/kg	1.7	SL-8	**0.036**	--	**0.054**	**0.07**	**0.0022**	--	< 0.0005 U		
Pyrene	mg/kg	2.6	SL-8	**0.038**	--	**0.12**	**0.34**	**0.0033**	--	< 0.0005 U		
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.018**	**--**	< 0.05 U	< 0.05 U	**0.0015**	**--**	< 0.0005 U		
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.024 J**	--	**0.04 J**	**0.031 J**	**0.0027**	--	< 0.0005 U		
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.049 J**	**--**	**0.08**	**0.055**	**0.0028**	**--**	< 0.0005 U		
Chrysene	mg/kg	1.4	SL-8	**0.03**	--	**0.088**	**0.11**	**0.0018**	--	< 0.0005 U		
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.005 UJ	--	< 0.05 U	< 0.05 U	< 0.0005 U	--	< 0.0005 U		
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.015 J**	--	**0.051**	< 0.05 U	**0.0013**	--	< 0.0005 U		
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.065 J**	**--**	**0.105**	**0.08**	**0.0038**	**--**	< 0.0005 U		
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.241 J**	--	**0.568 J**	**0.758 J**	**0.0181**	--	< 0.0005 U		
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0344 J**	--	**0.0615 J**	**0.0476 J**	**0.0034**	--	< 0.000378 U		
Other Semivolatile Organic Compounds (SVOCs)												
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.25 U	--	< 2.5 U	< 2.5 U	< 0.025 U	--	--		
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.75 U	**--**	< 7.5 U	< 7.5 U	< 0.075 U	**--**	**--**		
2-Methylphenol	mg/kg	0.063	SL-8	< 0.25 U	--	< 2.5 U	< 2.5 U	< 0.025 U	--	--		
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.25 U	--	< 2.5 U	< 2.5 U	< 0.025 U	--	--		
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.25 U	--	< 2.5 U	< 2.5 U	< 0.025 U	--	--		
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 0.4 U	--	< 4 U	< 4 U	< 0.04 U	--	--		
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.25 U	--	< 2.5 U	< 2.5 U	< 0.025 U	--	--		
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.25 U	--	< 2.5 U	< 2.5 U	< 0.025 U	--	--		
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.25 U	**--**	< 2.5 U	**3.6**	< 0.025 U	**--**	**--**		
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.025 U	--	< 0.25 U	< 0.25 U	< 0.0025 U	--	--		
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.025 U	--	< 0.25 U	< 0.25 U	< 0.0025 U	--	--		
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.12 U	--	**2.9**	**14**	< 0.012 U	--	--		
Pesticides												
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.01 U	--	**0.75**	**0.12 J**	< 0.001 U	--	< 0.001 U		
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.01 U	--	< 0.05 U	< 0.1 U	< 0.001 U	--	< 0.001 U		
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.017 U	--	**0.27**	< 0.17 U	< 0.0017 U	--	< 0.0017 U		
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.005 U	--	< 0.025 U	< 0.05 U	< 0.0005 U	--	< 0.0005 U		
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.005 U	--	< 0.025 U	< 0.05 U	< 0.0005 U	--	< 0.0005 U		
Delta-BHC	mg/kg	0.0048	SL-1	< 0.005 U	--	< 0.085 UJ	< 0.17 UJ	< 0.0005 U	--	< 0.0005 U		
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.01 U	--	**0.88**	< 0.1 U	< 0.001 U	--	< 0.001 U		
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.01 U	--	< 0.05 U	< 0.1 U	< 0.001 U	--	< 0.001 U		
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.005 U	--	< 0.025 U	< 0.05 U	< 0.0005 U	--	< 0.0005 U		
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.017 U	--	< 0.085 U	< 0.17 U	< 0.0017 U	--	< 0.0017 U		
Total Petroleum Hydrocarbons (TPH)												
Gasoline Range Organics	mg/kg	30	SL-3	< 5 U	--	**2.5 J**	**16**	< 5 U	--	--		
Diesel Range Organics	mg/kg	2000	SL-3	**42 J**	**--**	**900**	**1200**	< 10 U	**--**	**--**		
Motor Oil Range Organics	mg/kg	2000	SL-3	**320**	**--**	**4200**	**3700**	< 50 U	**--**	**--**		
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**362 J**	**--**	**5100**	**4900**	< 50 U	**--**	**--**		
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)												
Benzene	mg/kg	0.0088	SL-3	< 0.001 U	--	< 0.001 UJ	< 0.001 U	< 0.001 U	--	--		
Total Xylenes	mg/kg	1.4	SL-9	< 0.002 U	--	< 0.002 UJ	**0.034**	< 0.002 U	--	--		
Volatile Organic Compounds (VOCs)												
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	--	< 0.05 UJ	< 0.05 U	< 0.05 U	--	--		
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.025 U	--	< 0.05 UJ	**0.097 J**	< 0.05 U	--	--		
Methylene Chloride	mg/kg	0.43	SL-3	< 0.2 U	--	< 0.2 UJ	< 0.2 UJ	< 0.2 U	--	--		
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.0041 J**	--	**0.014 J**	**0.064**	**0.013**	--	--		
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.001 U	--	**0.0013 J**	**0.0013 J**	< 0.001 U	--	--		
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.001 U	--	< 0.001 UJ	< 0.001 UJ	< 0.001 U	--	--		
Conventionals												
Total Organic Carbon	%			--	--	--	--	--	--	--		
Total Solids	%			--	--	--	--	--	**68.3**	--		

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**South Area**							
			Location	**SB-02**	**SB-11**	**SB-12**	**SB-13**		**SB-14**	**SB-15**	
			Sample Date	10/01/07	09/28/07	09/28/07	10/01/07	10/01/07	10/01/07	10/01/07	
			Sample	SB-02-1	SB-11-2.5	SB-12-1.5	SB-13-1	SB-13-3.5	SB-14-3	SB-15-3.5	
			Depth	1 - 1.5 ft	2.5 - 2.75 ft	1.5 - 2 ft	1 - 2 ft	3.5 - 4 ft	3 - 3.5 ft	3.5 - 4 ft	
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	**1.5**	**6.7**	**7.2**	**1.7**	**1.3**	**2.3**	**4.5**	
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	
Cadmium	mg/kg	5.1	SL-8	**0.087**	**31.4**	**14.6**	**0.118**	**0.135**	**0.501**	**4.97**	
Chromium	mg/kg	67	SL-9	**9**	**465**	**212**	**6.08**	**6.04**	**24.2**	**192**	
Copper	mg/kg	36	SL-10	**8.9**	**198**	**111**	**8.71**	**8.02**	**9.72**	**69.6**	
Lead	mg/kg	120	SL-9	**4.53**	**3100 J**	**1000 J**	**2.05**	**1.18**	**198**	**1030**	
Mercury	mg/kg	0.41	SL-8	**0.011**	**29.5**	**3.96**	**0.013**	**0.006**	**0.327**	**5.81**	
Nickel	mg/kg	48	SL-10	--	--	--	--	--	--	--	
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	
Zinc	mg/kg	100	SL-3	**20.3**	**1480**	**649**	**42.1**	**30.6**	**118**	**515**	
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	< 0.0099 UA	**29 A**	**4.9 A**	**0.0084 A**	< 0.01 UA	**10.6 A**	**12 A**	
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	--	--	
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	--	--	
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--	--	
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	--	--	--	
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.009 U	**2**	**0.26**	< 0.0093 U	< 0.0098 U	< 0.48 U	**1.1**	
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	< 0.009 U	< 0.25 U	**0.13**	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Fluoranthene	mg/kg	1.7	SL-8	< 0.009 U	**0.46**	**0.12**	< 0.0093 U	< 0.0098 U	< 0.48 U	**0.3 J**	
Pyrene	mg/kg	2.6	SL-8	< 0.009 U	**0.82**	**0.17**	< 0.0093 U	< 0.0098 U	< 0.48 U	**0.5 J**	
Benz(a)anthracene	mg/kg	0.73	SL-9	< 0.009 U	**0.24 J**	**0.074 J**	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	< 0.009 U	< 0.25 U	< 0.099 U	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Benzo(b)fluoranthene	mg/kg	44	SL-9	< 0.009 U	< 0.25 U	**0.13**	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Chrysene	mg/kg	1.4	SL-8	< 0.009 U	**0.49**	**0.17**	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.009 U	< 0.25 U	< 0.099 U	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	< 0.009 U	< 0.25 U	**0.1**	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Total Benzofluoranthenes	mg/kg	1.1	SL-9	< 0.009 UA	< 0.25 UA	**0.13 A**	< 0.0093 UA	< 0.0098 UA	< 0.48 UA	< 0.99 UA	
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	< 0.009 U	**2.76 J**	**1.04 J**	< 0.0093 U	< 0.0098 U	< 0.48 U	**4.76 J**	
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	< 0.0068 U	**0.204 J**	**0.0915 J**	< 0.00702 U	< 0.0074 U	< 0.362 U	< 0.747 U	
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	R	R	R	R	R	R	R	
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	--	--	--	--	--	
2-Methylphenol	mg/kg	0.063	SL-8	< 0.009 U	< 0.25 U	< 0.099 U	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.018 U	< 0.49 U	< 0.2 U	< 0.019 U	< 0.02 U	< 0.96 U	< 2 U	
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.009 U	**2.2**	< 0.099 U	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 0.09 U	< 3.7 U	< 1.1 U	< 0.093 U	< 0.098 U	< 4.8 U	**2.8 J**	
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.009 U	< 0.25 U	< 0.099 U	< 0.0025 U	< 0.0097 U	< 0.48 U	< 0.99 U	
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.009 U	< 0.25 U	**0.23**	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.018 U	< 0.8 U	< 0.42 U	< 0.019 U	< 0.02 U	< 0.96 U	**1.3 J**	
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.009 U	< 0.25 U	< 0.099 U	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.009 U	< 0.25 U	< 0.099 U	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.99 U	
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.09 U	**2.3 J**	**2.8**	< 0.093 U	< 0.098 U	< 4.8 U	< 9.9 U	
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.00099 U	< 0.26 U	< 0.02 U	< 0.00099 U	< 0.001 U	**0.37 J**	< 0.18 U	
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	**0.00087 J**	< 3.2 U	**0.6**	**0.0013 J**	< 0.001 U	**1.1 J**	**1.5 J**	
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.00099 U	**3.5**	< 0.019 U	< 0.00099 U	< 0.001 U	**0.24**	**0.76**	
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	--	
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	--	--	--	
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.00099 U	< 0.14 U	< 0.035 U	**0.0021**	< 0.001 U	**0.92**	< 0.1 U	
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	--	--	--	--	
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.00099 U	< 0.1 U	< 0.019 U	< 0.00099 U	< 0.001 U	< 0.01 U	< 0.1 U	
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	--	--	--	--	
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	< 20 U	< 2000 U	< 100 U	< 20 U	< 20 U	< 200 U	**150 J**	
Diesel Range Organics	mg/kg	2000	SL-3	< 50 U	**9600 J**	**1300 J**	< 1.8 U	< 50 U	**2100 J**	**4100 J**	
Motor Oil Range Organics	mg/kg	2000	SL-3	< 100 U	**26000 J**	**3700 J**	< 6.5 U	< 100 U	**8200 J**	**10000 J**	
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	< 100 U	**35600 J**	**5000 J**	< 6.5 U	< 100 U	**10300 J**	**14100 J**	
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	--	**0.072**	< 0.0041 U	--	--	--	< 0.0075 U	
Total Xylenes	mg/kg	1.4	SL-9	--	**35**	**0.00179**	--	--	--	**0.0059 J**	
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	< 0.071 U	< 0.0041 U	--	--	--	< 0.0075 U	
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.009 U	**0.24**	< 0.0041 U	< 0.0093 U	< 0.0098 U	< 0.48 U	< 0.0075 U	
Methylene Chloride	mg/kg	0.43	SL-3	--	**0.034**	< 0.00044 U	--	--	--	< 0.00097 UJ	
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	--	**0.16**	**0.0015**	--	--	--	**0.00073 J**	
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	--	**0.17**	**0.0005**	--	--	--	< 0.0075 U	
Vinyl Chloride	mg/kg	0.0011	SL-3	--	**0.09**	**0.0014**	--	--	--	**0.0027 J**	
Conventionals											
Total Organic Carbon	%			--	--	--	--	--	--	--	
Total Solids	%			**94.8**	**84**	**89.3**	**95.5**	**94.9**	**90.5**	**75.1**	

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**South Area**						
			Location	**SB-16**	**SB-18**	**SB-20**	**SB-26**		**SB-35**	
			Sample Date	10/01/07	07/27/11	07/27/11	03/04/21	03/03/21	09/12/22	09/12/22
			Sample	SB-16-3.5	SB18-5.0 072711	SB20-4.0 072711	SB-26-0-1	SB-26-4-5	SB-35-0-1	SB-35-3-4
			Depth	3.5 - 4 ft	5 - 5 ft	4 - 4 ft	0 - 1 ft	4 - 5 ft	0 - 1 ft	3 - 4 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**							
Metals, Total										
Arsenic	mg/kg	7.3	SL-10	**9.4**	--	--	**4.77**	**1.43**	**2.72**	**1.06**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**23.5**	**--**	**--**	**5.09 J**	**0.16**	**1.83**	< 0.2 U
Chromium	mg/kg	67	SL-9	**415**	**--**	**--**	**150 J**	**23.7**	**43.6**	**8.29**
Copper	mg/kg	36	SL-10	**132**	--	--	**2470 J**	**7.97**	**85.7**	**9.34**
Lead	mg/kg	120	SL-9	**3180**	**--**	**--**	**1490 J**	**23.9**	**502**	**1.22**
Mercury	mg/kg	0.41	SL-8	**25.2**	**--**	**--**	**11.5 J**	**--**	**1.2**	**0.036**
Nickel	mg/kg	48	SL-10	--	--	--	**35.7**	**6.77**	**10.5**	**6.69**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**1510**	**--**	**--**	**771**	**85.7**	**209**	**19.3**
Butyl Tins										
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	**0.059 J**	< 0.00385 U
Polychlorinated Biphenyl (PCB) Aroclors										
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**36 A**	--	--	**43.5 J**	--	--	< 0.004 U
Polychlorinated Biphenyl (PCB) Congeners										
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	**6.68E+1 J**	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	**1.88E-3**	--	--	--
Dioxins/Furans										
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	**2.55E-3 J**	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	< 1.17E-4 U	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)										
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	**0.0277**	--	< 0.1 U	< 0.0005 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	**3**	--	--	**0.0555 J**	--	< 0.1 U	< 0.0005 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	< 0.92 U	--	--	**0.516 J**	--	< 0.1 U	< 0.0005 U
Fluoranthene	mg/kg	1.7	SL-8	**0.5 J**	--	--	**0.283 J**	--	< 0.1 U	< 0.0005 U
Pyrene	mg/kg	2.6	SL-8	**0.81 J**	--	--	**0.211 J**	--	< 0.1 U	< 0.0005 U
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.22 J**	**--**	**--**	**0.178 J**	**--**	< 0.1 U	< 0.0005 U
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	< 0.92 U	--	--	**0.276 J**	--	**0.12**	< 0.0005 U
Benzo(b)fluoranthene	mg/kg	44	SL-9	< 0.92 U	**--**	**--**	**0.24 J**	**--**	**0.18**	< 0.0005 U
Chrysene	mg/kg	1.4	SL-8	**0.39 J**	--	--	**0.252 J**	--	**0.17**	< 0.0005 U
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.92 U	--	--	**0.0657**	--	< 0.1 U	< 0.0005 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	< 0.92 U	--	--	**0.373 J**	--	< 0.1 U	< 0.0005 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	< 0.92 UA	**--**	**--**	**0.489 J**	**--**	**0.23**	< 0.0005 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**4.68 J**	--	--	**2.66 J**	--	**0.82**	< 0.0005 U
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.67 J**	--	--	**0.377 J**	--	**0.16**	< 0.000378 U
Other Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	mg/kg	0.029	SL-8	R	--	--	< 0.1 U	--	< 5 U	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	**--**	**--**	**--**	< 0.2 UJ	**--**	< 15 U	**--**
2-Methylphenol	mg/kg	0.063	SL-8	< 0.92 U	--	--	< 0.02 U	--	< 5 U	--
Benzyl alcohol	mg/kg	0.057	SL-8	< 1.9 U	--	--	< 0.02 U	--	< 5 U	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.92 U	--	--	< 0.02 UJ	--	< 5 U	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	**7 J**	--	--	< 0.5 UJ	--	< 8 U	--
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.92 U	--	--	< 0.02 U	--	< 5 U	--
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.92 U	--	--	< 0.02 UJ	--	< 5 U	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**1.1 J**	**--**	**--**	**0.113 J**	**--**	< 5 U	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.92 U	--	--	< 0.00998 U	--	< 0.5 U	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.92 U	--	--	**0.0506 J**	--	< 0.5 U	--
Pentachlorophenol	mg/kg	0.36	SL-8	< 9.2 U	--	--	**0.429 J**	--	< 2.5 U	--
Pesticides										
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.3 U	--	--	< 39.9 U	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	**4 J**	--	--	< 39.9 U	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	**1.9**	--	--	< 7.99 UJ	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	< 0.00998 U	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	< 0.00998 U	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	< 0.00998 U	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.1 U	--	--	< 39.9 UJ	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	< 2.99 U	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.1 U	--	--	< 0.998 U	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	< 0.00998 U	--	--	--
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	**12.6**	--	< 5 U	< 5 U
Diesel Range Organics	mg/kg	2000	SL-3	**12000 J**	**6300 J**	**1400 J**	**1670**	**--**	**63**	< 5 UJ
Motor Oil Range Organics	mg/kg	2000	SL-3	**27000 J**	**34000**	**8500**	**7100**	**--**	**450**	< 25 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**39000 J**	**40300 J**	**9900 J**	**8770**	**--**	**513**	< 25 UJ
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)										
Benzene	mg/kg	0.0088	SL-3	**0.078**	--	--	< 0.00105 UJ	--	< 0.001 U	< 0.001 U
Total Xylenes	mg/kg	1.4	SL-9	**68**	--	--	< 0.00209 UJ	--	< 0.002 U	< 0.002 U
Volatile Organic Compounds (VOCs)										
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.068 U	--	--	< 0.00209 UJ	--	< 0.05 U	< 0.05 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	**0.31**	--	--	**0.0123 J**	--	< 0.05 U	< 0.05 U
Methylene Chloride	mg/kg	0.43	SL-3	< 0.27 U	--	--	< 0.00524 UJ	--	< 0.2 U	< 0.2 U
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.17**	--	--	**0.0213 J**	--	**0.014**	**0.0016 J**
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	**0.15**	--	--	**0.0005 J**	--	< 0.001 U	< 0.001 U
Vinyl Chloride	mg/kg	0.0011	SL-3	**0.87**	--	--	< 0.00105 UJ	--	< 0.001 U	< 0.001 U
Conventionals										
Total Organic Carbon	%			--	--	--	**2.98**	--	--	--
Total Solids	%			**82.2**	--	--	**87.4**	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**South Area**						
			Location	**SB-36**			**SB-37**			
			Sample Date	09/12/22	09/12/22	09/12/22	09/13/22	09/13/22	09/13/22	09/13/22
			Sample	SB-36-0-1	SB-36-0-1-TIG	SB-36-2-3	SB-37-0-1	SB-37-0-2-TIG	SB-37-1-2	SB-37-5-6
			Depth	0 - 1 ft	0 - 1 ft	2 - 3 ft	0 - 1 ft	0 - 2 ft	1 - 2 ft	5 - 6 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**							
Metals, Total										
Arsenic	mg/kg	7.3	SL-10	**4.27**	--	**1.56**	**3.37**	--	**14.2 J**	**0.958 J**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**5.69**	**--**	**0.555 J**	**0.787 J**	**--**	**115**	**0.871 J**
Chromium	mg/kg	67	SL-9	**87.6**	**--**	**8.65**	**246**	**--**	**212**	**12**
Copper	mg/kg	36	SL-10	**40.7**	--	**11.2**	**16.8**	--	**25.2**	**7.16**
Lead	mg/kg	120	SL-9	**749**	**--**	**12.3**	**916**	**--**	**637**	**1.25**
Mercury	mg/kg	0.41	SL-8	**4.3**	**--**	**0.042**	**0.18**	**--**	**0.058**	**0.057**
Nickel	mg/kg	48	SL-10	**11.8**	--	**6.66**	**7.12**	--	**9.65**	**4.89**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**459**	**--**	**89.5**	**175**	**--**	**41800**	**87.9**
Butyl Tins										
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.00087 J**	--	< 0.00386 U	**0.00131 J**	--	< 0.00386 U	--
Polychlorinated Biphenyl (PCB) Aroclors										
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	--	--	**0.105**	**6.8**	--	**6.5**	< 0.004 U
Polychlorinated Biphenyl (PCB) Congeners										
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	**4.85E+0 J**	--	--	**9.73E-1 J**	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	**1.62E-4**	--	--	**2.47E-5**	--	--
Dioxins/Furans										
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	**2.30E-3**	--	--	--	**1.79E-4 J**	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	**2.57E-5**	--	--	--	**2.96E-6**	--
Polycyclic Aromatic Hydrocarbons (PAHs)										
1-Methylnaphthalene	mg/kg	20	SL-1	**0.039**	--	< 0.005 U	< 0.01 U	--	**0.018**	< 0.0005 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	**0.066**	--	< 0.005 U	**0.012**	--	**0.022**	< 0.0005 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.046 J**	--	**0.015**	**0.12 J**	--	**0.027**	< 0.0005 U
Fluoranthene	mg/kg	1.7	SL-8	**0.067**	--	< 0.005 U	**0.036**	--	**0.023**	< 0.0005 U
Pyrene	mg/kg	2.6	SL-8	**0.11**	--	< 0.005 U	**0.11**	--	**0.038**	< 0.0005 U
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.033**	**--**	< 0.005 U	**0.037**	**--**	**0.011**	< 0.0005 U
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.047 J**	--	< 0.005 U	**0.081 J**	--	**0.015**	< 0.0005 U
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.076 J**	**--**	< 0.005 U	**0.14 J**	**--**	**0.036**	< 0.0005 U
Chrysene	mg/kg	1.4	SL-8	**0.059**	--	< 0.005 U	**0.13**	--	**0.033**	< 0.0005 U
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.01 UJ	--	< 0.005 U	**0.02 J**	--	< 0.01 U	< 0.0005 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.039 J**	--	**0.0098**	**0.097 J**	--	**0.017**	< 0.0005 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.1 J**	**--**	< 0.005 U	**0.185 J**	**--**	**0.048**	< 0.0005 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.506 J**	--	**0.0448**	**0.816 J**	--	**0.217**	< 0.0005 U
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0653 J**	--	**0.00451**	**0.116 J**	--	**0.0234**	< 0.000378 U
Other Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.5 U	--	< 0.25 U	< 0.5 U	--	< 0.5 U	< 0.025 U
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 1.5 U	**--**	< 0.75 U	< 1.5 U	**--**	< 1.5 U	< 0.075 U
2-Methylphenol	mg/kg	0.063	SL-8	< 0.5 U	--	< 0.25 U	< 0.5 U	--	< 0.5 U	< 0.025 U
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.5 U	--	< 0.25 U	< 0.5 U	--	< 0.5 U	< 0.025 U
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.5 U	--	< 0.25 U	< 0.5 U	--	< 0.5 U	< 0.025 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 0.8 U	--	< 0.4 U	< 0.8 U	--	**2.2**	< 0.04 U
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.5 U	--	< 0.25 U	< 0.5 U	--	< 0.5 U	< 0.025 U
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.5 U	--	< 0.25 U	< 0.5 U	--	< 0.5 U	< 0.025 U
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.5 U	**--**	< 0.25 U	< 0.5 U	**--**	< 0.5 U	< 0.025 U
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.05 U	--	< 0.025 U	< 0.05 U	--	< 0.05 U	< 0.0025 U
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.05 U	--	< 0.025 U	< 0.05 U	--	< 0.05 U	< 0.0025 U
Pentachlorophenol	mg/kg	0.36	SL-8	**0.56**	--	**0.18**	**0.27**	--	< 0.25 U	< 0.012 U
Pesticides										
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.01 U	--	--	< 0.01 U	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.01 U	--	--	< 0.01 U	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	**0.017**	--	--	< 0.017 U	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.005 U	--	--	< 0.005 U	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.005 U	--	--	< 0.005 U	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	< 0.005 U	--	--	< 0.005 U	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	**0.26 J**	--	--	< 0.01 U	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.01 U	--	--	< 0.01 U	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.005 U	--	--	< 0.005 U	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.017 U	--	--	< 0.017 U	--	--	--
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Organics	mg/kg	30	SL-3	**2.4 J**	--	< 5 U	**22**	--	**2.6 J**	**2.6 J**
Diesel Range Organics	mg/kg	2000	SL-3	**240**	**--**	**190 J**	**90**	**--**	**220 J**	< 5 UJ
Motor Oil Range Organics	mg/kg	2000	SL-3	**1100**	**--**	**760**	**630**	**--**	**650**	< 25 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**1340**	**--**	**950 J**	**720**	**--**	**870 J**	< 25 UJ
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)										
Benzene	mg/kg	0.0088	SL-3	< 0.001 U	--	< 0.001 U	< 0.001 U	--	--	< 0.001 U
Total Xylenes	mg/kg	1.4	SL-9	**0.005**	--	< 0.002 U	**0.0158**	--	--	< 0.002 U
Volatile Organic Compounds (VOCs)										
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	--	< 0.05 U	< 0.05 U	--	--	< 0.05 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.05 U	--	< 0.025 U	< 0.05 U	--	< 0.05 U	< 0.05 U
Methylene Chloride	mg/kg	0.43	SL-3	< 0.2 U	--	< 0.2 U	**0.34**	--	--	R
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.059**	--	**0.038**	**0.024**	--	--	< 0.001 U
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	**0.0053**	--	< 0.001 U	**0.0022**	--	--	< 0.001 U
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.001 U	--	< 0.001 U	< 0.001 U	--	--	< 0.001 U
Conventionals										
Total Organic Carbon	%			--	--	--	--	--	--	--
Total Solids	%			--	**94.8**	--	--	**71.5**	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**South Area**								
			Location	**SB-38**		**SB-39**		**SB-42**				**SB-43**
			Sample Date	09/12/22	09/12/22	09/13/22	09/13/22	09/22/22	09/22/22			09/26/22
			Sample	SB-38-0-1	SB-38-5-6	SB-39-0-1	SB-39-5-6	SB-42-0-1	SB-42-3.5-4.5			SB-43-2.5-3.5
			Depth	0 - 1 ft	5 - 6 ft	0 - 1 ft	5 - 6 ft	0 - 1 ft	3.5 - 4.5 ft			2.5 - 3.5 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill			Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**									
Metals, Total												
Arsenic	mg/kg	7.3	SL-10	**6.44**	**0.944 J**	**3.01**	**9.42 J**	**7.92**	**8.94**			**2.61**
Barium	mg/kg	250	SL-10	**310**	--	--	--	--	**551**			--
Cadmium	mg/kg	5.1	SL-8	**12.8**	< 0.2 U	**1.2**	**1.02**	**1.23**	**43.8**			**2.5**
Chromium	mg/kg	67	SL-9	**385**	**7.21**	**64.5**	**615**	**36.4**	**185**			**77.1**
Copper	mg/kg	36	SL-10	**266**	**7.18**	**32.4**	**2360**	**1200**	**64.2**			**52.9**
Lead	mg/kg	120	SL-9	**4640**	**0.953 J**	**642**	**183**	**276**	**1420**			**851**
Mercury	mg/kg	0.41	SL-8	**0.88**	**0.18**	**0.28**	**0.028**	**9.5**	**4.2**			**1.8**
Nickel	mg/kg	48	SL-10	**19.5**	**5.09**	**10.4**	**441**	**36.3**	**18.6**			**7.37**
Selenium	mg/kg	0.78	SL-10	< 5 U	--	--	--	--	**9.46**			--
Zinc	mg/kg	100	SL-3	**1770**	**15.6**	**276**	**443**	**242**	**744**			**763**
Butyl Tins												
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.0105**	**0.000478 J**	< 0.00369 U	**0.874**	**0.582**	< 0.0116 U			< 0.00386 U
Polychlorinated Biphenyl (PCB) Aroclors												
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**3.5**	< 0.004 U	**24**	**1.42**	**50**	**11.3**			**8.1**
Polychlorinated Biphenyl (PCB) Congeners												
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	**2.25E+1 J**	--	**6.09E+1 J**	--			--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	**7.28E-4**	--	**1.02E-3 J**	--			--
Dioxins/Furans												
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	**1.07E-3**	--	**1.75E-3 J**	--	**1.35E-3 J**	--			--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	**1.99E-5**	--	**2.06E-5**	--	**2.43E-6**	--			--
Polycyclic Aromatic Hydrocarbons (PAHs)												
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.2 U	< 0.0005 U	< 0.02 U	< 0.02 U	< 0.01 U	**0.88**			< 0.05 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.2 U	< 0.0005 U	< 0.02 U	< 0.02 U	< 0.01 U	**1.3**			< 0.05 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.21**	< 0.0005 U	**0.059 J**	**0.069**	**0.14**	**0.04**			**0.44**
Fluoranthene	mg/kg	1.7	SL-8	< 0.2 U	< 0.0005 U	**0.057**	**0.042**	**0.059**	**0.16**			**1.6**
Pyrene	mg/kg	2.6	SL-8	< 0.2 U	**0.00061**	**0.07**	**0.041**	**0.067**	**0.24**			**1.5**
Benz(a)anthracene	mg/kg	0.73	SL-9	< 0.2 U	< 0.0005 U	**0.03**	**0.023**	**0.03**	**0.056**			**0.75**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.21**	< 0.0005 U	**0.084 J**	**0.072**	**0.076**	**0.046**			**0.86**
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.35**	< 0.0005 U	**0.18 J**	**0.13**	**0.11**	**0.13**			**1.1**
Chrysene	mg/kg	1.4	SL-8	**0.28**	< 0.0005 U	**0.056**	**0.059**	**0.066**	**0.21**			**0.71**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.2 U	< 0.0005 U	< 0.02 UJ	< 0.02 U	**0.03**	< 0.04 U			**0.081**
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.2**	< 0.0005 U	**0.06 J**	**0.086**	**0.18**	**0.048**			**0.55**
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.45**	< 0.0005 U	**0.246 J**	**0.171**	**0.141**	**0.15**			**1.43**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**1.75**	**0.00286**	**0.672 J**	**0.573**	**0.789**	**0.97**			**7.92**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.298**	< 0.000378 U	**0.119 J**	**0.102**	**0.115**	**0.0755**			**1.15**
Other Semivolatile Organic Compounds (SVOCs)												
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 10 U	--	< 1 U	< 1 U	< 0.5 U	< 2 U			< 2.5 U
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 30 U	--	< 3 U	< 3 U	< 1.5 U	< 6 U			< 7.5 U
2-Methylphenol	mg/kg	0.063	SL-8	< 10 U	--	< 1 U	< 1 U	< 0.5 U	< 2 U			< 2.5 U
Benzyl alcohol	mg/kg	0.057	SL-8	< 10 U	--	< 1 U	< 1 U	< 0.5 U	< 2 U			< 2.5 U
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 10 U	--	< 1 U	< 1 U	< 0.5 U	< 2 U			< 2.5 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 16 U	--	**5**	**3.7**	< 0.8 U	< 3.2 U			< 4 U
Diethyl phthalate	mg/kg	0.20	SL-8	< 10 U	--	< 1 U	< 1 U	< 0.5 U	< 2 U			< 2.5 U
Dimethyl phthalate	mg/kg	0.071	SL-8	< 10 U	--	< 1 U	< 1 U	**0.76**	< 2 U			< 2.5 U
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 10 U	--	< 1 U	< 1 U	< 0.5 U	< 2 U			< 2.5 U
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 1 U	--	< 0.1 U	< 0.1 U	< 0.05 U	< 0.2 U			< 0.25 U
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 1 U	--	< 0.1 U	< 0.1 U	< 0.05 U	< 0.2 U			< 0.25 UJ
Pentachlorophenol	mg/kg	0.36	SL-8	< 5 U	--	< 0.5 U	< 0.5 U	**0.39**	< 1 U			< 1.2 U
Pesticides												
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	**0.14 J**	< 0.001 U	< 0.01 U	**0.015 J**	**0.23**	< 0.05 U			**0.0042 J**
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	**0.57 J**	< 0.001 U	**1.7 J**	< 0.001 U	< 0.1 U	< 0.05 U			< 0.001 UJ
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.17 U	< 0.0017 U	< 0.017 U	< 0.0017 U	< 0.17 U	< 0.085 U			< 0.0017 UJ
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.05 U	< 0.0005 U	< 0.005 U	< 0.0005 U	< 0.05 U	< 0.025 U			< 0.0005 UJ
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.05 U	< 0.0005 U	< 0.005 U	< 0.0005 U	< 0.05 U	< 0.025 U			< 0.0005 UJ
Delta-BHC	mg/kg	0.0048	SL-1	< 0.05 U	< 0.0005 U	< 0.005 U	< 0.0017 U	< 0.17 UJ	< 0.085 UJ			< 0.0017 UJ
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.1 U	< 0.001 U	< 0.01 U	< 0.001 U	**0.33**	< 0.05 U			< 0.001 UJ
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.1 U	< 0.001 U	< 0.01 U	< 0.001 U	< 0.1 U	< 0.05 U			< 0.001 UJ
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.05 U	< 0.0005 U	< 0.005 U	< 0.0005 U	< 0.05 U	< 0.025 U			< 0.0005 UJ
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.17 U	< 0.0017 U	< 0.017 U	< 0.0017 U	< 0.17 U	< 0.085 U			< 0.0017 UJ
Total Petroleum Hydrocarbons (TPH)												
Gasoline Range Organics	mg/kg	30	SL-3	**4.7 J**	< 5 U	< 5 U	**2.1 J**	< 5 U	**570**			**2.2 J**
Diesel Range Organics	mg/kg	2000	SL-3	**440**	< 5 UJ	**350**	**18 J**	**93**	**2200**			**710**
Motor Oil Range Organics	mg/kg	2000	SL-3	**1700**	< 25 U	**1500**	**99 J**	**220 J**	**4100**			**2600**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**2140**	< 25 UJ	**1850**	**117 J**	**313**	**6300**			**3310**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)												
Benzene	mg/kg	0.0088	SL-3	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	**0.012**	**0.0095**			< 0.001 U
Total Xylenes	mg/kg	1.4	SL-9	**0.0134**	< 0.002 U	< 0.002 U	**0.0063**	**0.037**	**25.2**			< 0.002 U
Volatile Organic Compounds (VOCs)												
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U			< 0.05 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.05 U	< 0.05 U	< 0.05 U	< 0.1 U	< 0.05 U	< 0.05 U			< 0.25 U
Methylene Chloride	mg/kg	0.43	SL-3	< 0.2 U	< 0.2 U	**0.24**	R	< 0.2 U	R			R
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.023**	< 0.001 U	**0.041**	**0.0054 J**	**0.0022 J**	**0.0016 J**			**2.7**
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	**0.0048**	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	**0.0017 J**			**0.056**
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	**0.0047 J**			< 0.001 U
Conventionals												
Total Organic Carbon	%			--	--	--	--	--	--			--
Total Solids	%			--	--	--	--	--	--			--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	South Area						Central Area	
			Location	SS-25	SS-26	SS-31	SS-36	SS-37	SS-39	HA-03	
			Sample Date	02/08/16	02/08/16	11/17/17	11/17/17	11/17/17	11/17/17	09/20/22	09/20/22
			Sample	SPM-SS-25-02082016	SPM-SS-26-02082016	SS-31-0-1.5	SS-36-0-1.5	SS-37-0-1.5	SS-39-0-1.25	HA-03-0-1	HA-03-2-3
			Depth	0 - 1.6 ft	0 - 1.6 ft	0 - 1.5 ft	0 - 1.5 ft	0 - 1.5 ft	0 - 1.25 ft	0 - 1 ft	2 - 3 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	--	--	--	--	--	--	**6.61**	**1.33**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**--**	**--**	**--**	**--**	**--**	**--**	**0.634 J**	< 0.2 U
Chromium	mg/kg	67	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**9.31**	**5.76 J**
Copper	mg/kg	36	SL-10	--	--	--	--	--	--	**182**	**47**
Lead	mg/kg	120	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**73.3**	**7.09**
Mercury	mg/kg	0.41	SL-8	**--**	**--**	**--**	**--**	**--**	**--**	**0.1**	**0.06**
Nickel	mg/kg	48	SL-10	--	--	--	--	--	--	**8.6**	**5.21**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**76**	**29.8**
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	**0.114**	**0.0274**
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.6**	**0.61**	**0.064 A**	**5.6 A**	< 0.053 UA	**10 A**	--	--
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	**6.11E-1 J**	**2.87E-1 J**	--	--	--	**6.04E+0 J**	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	**1.72E-5**	**8.41E-6 J**	--	--	--	**2.19E-4**	--	--
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--	--
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	--	--	--	--	--
Pyrene	mg/kg	2.6	SL-8	--	--	--	--	--	--	--	--
Benz(a)anthracene	mg/kg	0.73	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Chrysene	mg/kg	1.4	SL-8	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	--	--	--	--	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	--	--	--	--	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--	--
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	**0.0092**	**0.001 J**
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	**0.017**	**0.0018 J**
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	--	--	--	--	< 0.0017 U	< 0.0017 U
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	**0.032 J**	**0.0052 J**
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	< 0.0005 U	< 0.0005 UJ
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	--	--	< 0.0005 U	< 0.0005 UJ
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	< 0.001 U	< 0.001 UJ
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	--	--	--	< 0.001 U	< 0.001 U
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	< 0.0005 U	< 0.0005 UJ
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	--	--	--	< 0.0017 U	< 0.0017 U
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	--	--	--	--	--
Diesel Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Motor Oil Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	--	--	--	--	--	--	--	--
Total Xylenes	mg/kg	1.4	SL-9	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.43	SL-3	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	--	--	--	--	--	--	--	--
Vinyl Chloride	mg/kg	0.0011	SL-3	--	--	--	--	--	--	--	--
Conventionals											
Total Organic Carbon	%			**0.573**	**0.13**	--	--	--	--	--	--
Total Solids	%			--	--	--	--	--	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area						
			Location	HA-04		HA-05			HA-06	
			Sample Date	09/20/22	09/20/22	09/20/22	09/20/22	09/20/22	09/20/22	09/20/22
			Sample	HA-04-0-1	HA-04-2-3	HA-05-0-1	HA-05-0-1-TIG	HA-05-2-3	HA-06-0-1	HA-06-2-3
			Depth	0 - 1 ft	2 - 3 ft	0 - 1 ft	0 - 1 ft	2 - 3 ft	0 - 1 ft	2 - 3 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**							
Metals, Total										
Arsenic	mg/kg	7.3	SL-10	**2.17**	**6.29**	--	--	--	--	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**0.207 J**	**0.339 J**	**--**	**--**	**--**	**--**	**--**
Chromium	mg/kg	67	SL-9	**7.87**	**12.2**	**--**	**--**	**--**	**--**	**--**
Copper	mg/kg	36	SL-10	**22**	**26.9**	--	--	--	--	--
Lead	mg/kg	120	SL-9	**27.5**	**97.6**	**--**	**--**	**--**	**--**	**--**
Mercury	mg/kg	0.41	SL-8	**0.068**	**0.096**	**--**	**--**	**--**	**--**	**--**
Nickel	mg/kg	48	SL-10	**5.91**	**7.64**	--	--	--	--	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**42.6**	**51.1**	**--**	**--**	**--**	**--**	**--**
Butyl Tins										
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.00652**	< 0.00384 U	**0.0134**	--	**0.00786**	**0.0299**	< 0.00386 U
Polychlorinated Biphenyl (PCB) Aroclors										
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners										
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	--	--
Dioxins/Furans										
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	**5.19E-6**	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	< 4.96E-7 U	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)										
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	--	--	--	--
Pyrene	mg/kg	2.6	SL-8	--	--	--	--	--	--	--
Benz(a)anthracene	mg/kg	0.73	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Chrysene	mg/kg	1.4	SL-8	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	--	--	--	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	--	--	--	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	--	--	--	--	--	--	--
Other Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	**--**	**--**	**--**
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--
Pesticides										
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	< 0.01 U	--	--	< 0.001 U	< 0.001 U
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	< 0.01 U	--	--	**0.0091**	< 0.001 U
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.0017 U	--	< 0.017 U	--	--	< 0.0017 U	< 0.0017 U
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	--	< 0.005 U	--	--	< 0.0005 U	< 0.0005 U
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0005 U	--	< 0.005 U	--	--	**0.016 J**	< 0.0005 U
Delta-BHC	mg/kg	0.0048	SL-1	< 0.0005 U	--	< 0.005 U	--	--	< 0.0005 U	< 0.0005 UJ
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	< 0.01 U	--	--	**0.0024**	< 0.001 U
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.001 U	--	< 0.01 U	--	--	< 0.001 U	< 0.001 U
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	--	< 0.005 U	--	--	< 0.0005 U	< 0.0005 U
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.0017 U	--	< 0.017 U	--	--	**0.014**	< 0.0017 U
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	--	--	--	--
Diesel Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Motor Oil Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)										
Benzene	mg/kg	0.0088	SL-3	--	--	--	--	--	--	--
Total Xylenes	mg/kg	1.4	SL-9	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)										
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.43	SL-3	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	--	--	--	--	--	--	--
Vinyl Chloride	mg/kg	0.0011	SL-3	--	--	--	--	--	--	--
Conventionals										
Total Organic Carbon	%			--	--	--	--	--	--	--
Total Solids	%			--	--	--	**95.6**	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**Central Area**					
			Location	**HA-07**			**MW-07**		
			Sample Date	09/20/22	09/20/22	09/20/22	03/09/21	03/09/21	03/09/21
			Sample	HA-07-0-1	HA-07-0-1-TIG	HA-07-2-3	MW-7-0-1	MW-7-3-5	MW-7-5-6
			Depth	0 - 1 ft	0 - 1 ft	2 - 3 ft	0 - 1 ft	3 - 5 ft	5 - 6 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**						
Metals, Total									
Arsenic	mg/kg	7.3	SL-10	--	--	--	**3.71 J**	**2.26**	**2.03 J**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**--**	**--**	**--**	**0.25**	**0.06 J**	**0.06 J**
Chromium	mg/kg	67	SL-9	**--**	**--**	**--**	**14.6 J**	**10.5**	**17.9 J**
Copper	mg/kg	36	SL-10	--	--	--	**65.3**	**15**	**18.1**
Lead	mg/kg	120	SL-9	**--**	**--**	**--**	**40 J**	**8.22**	**13.3 J**
Mercury	mg/kg	0.41	SL-8	**--**	**--**	**--**	**0.0469 J**	**--**	**0.0252 J**
Nickel	mg/kg	48	SL-10	--	--	--	**16.3 J**	**7.9**	**7.97 J**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**--**	**--**	**--**	**71.7**	**36.8**	**47.5**
Butyl Tins									
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.0894 J**	--	**0.0333**	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors									
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	--	--	--	**0.0925**	--	**0.0422**
Polychlorinated Biphenyl (PCB) Congeners									
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	--
Dioxins/Furans									
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	**3.13E-6**	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	< 4.94E-7 U	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)									
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	< 0.00498 U	--	< 0.00496 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	< 0.00498 U	--	< 0.00496 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	**0.017**	--	**0.00129 J**
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	**0.0181**	--	**0.00166 J**
Pyrene	mg/kg	2.6	SL-8	--	--	--	**0.0206**	--	**0.00177 J**
Benz(a)anthracene	mg/kg	0.73	SL-9	**--**	**--**	**--**	**0.00996**	**--**	< 0.00496 U
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	**0.0163**	--	**0.00128 J**
Benzo(b)fluoranthene	mg/kg	44	SL-9	**--**	**--**	**--**	**0.0173**	**--**	**0.00144 J**
Chrysene	mg/kg	1.4	SL-8	--	--	--	**0.0172**	--	**0.00152 J**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	**0.00355 J**	--	< 0.00496 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	**0.0119**	--	< 0.00496 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**--**	**--**	**--**	**0.0376**	**--**	< 0.00991 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	**0.153 J**	--	**0.0214 J**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	--	--	--	**0.0217 J**	--	**0.00243 J**
Other Semivolatile Organic Compounds (SVOCs)									
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	< 0.0995 U	--	< 0.0995 U
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	**--**	**--**	**--**	< 0.199 UJ	**--**	< 0.199 UJ
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	< 0.0199 U	--	< 0.0199 U
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	< 0.0199 U	--	< 0.0199 U
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	< 0.0199 U	--	< 0.0199 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	**0.0671**	--	< 0.0498 U
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	**0.263**	--	**0.023**
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	**0.0262**	--	< 0.0199 U
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**--**	**--**	**--**	**0.0093 J**	**--**	< 0.0199 U
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	< 0.0005 U	--	< 0.0005 U
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	< 0.0199 U	--	< 0.0199 U
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	< 0.0995 UJ	--	< 0.0995 UJ
Pesticides									
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	**0.0045 J**	--	< 0.001 U	< 0.001 U	--	< 0.001 U
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.0017 U	--	< 0.0017 U	< 0.0005 U	--	< 0.0005 U
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	< 0.002 U
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U
Delta-BHC	mg/kg	0.0048	SL-1	< 0.0005 U	--	< 0.0005 UJ	< 0.0005 U	--	< 0.0005 U
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	< 0.001 U	< 0.00599 U	--	< 0.001 U
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.001 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.0017 U	--	< 0.0017 U	< 0.0005 U	--	< 0.0005 U
Total Petroleum Hydrocarbons (TPH)									
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	< 6.5 U	--	< 7.63 U
Diesel Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	< 55.2 U	**--**	< 59 U
Motor Oil Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**117**	**--**	< 118 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**117**	**--**	< 118 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)									
Benzene	mg/kg	0.0088	SL-3	--	--	--	< 0.00131 U	--	< 0.00174 U
Total Xylenes	mg/kg	1.4	SL-9	--	--	--	< 0.00262 U	--	< 0.00349 U
Volatile Organic Compounds (VOCs)									
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	--	< 0.00262 U	--	< 0.00349 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	--	< 0.00131 U	--	< 0.00174 U
Methylene Chloride	mg/kg	0.43	SL-3	--	--	--	< 0.00654 U	--	< 0.00872 U
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	--	--	--	< 0.00131 U	--	< 0.00174 U
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	--	--	--	< 0.00131 U	--	< 0.00174 U
Vinyl Chloride	mg/kg	0.0011	SL-3	--	--	--	< 0.00131 U	--	< 0.00174 U
Conventionals									
Total Organic Carbon	%			--	--	--	**0.21**	--	< 0.02 U
Total Solids	%			**--**	**94.1**	--	**90.3**	--	**79.4**

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**Central Area**							
			Location	**MW-08**		**MW-08D**		**MW-09**		**MW-09D**	
			Sample Date	03/09/21	03/09/21	09/15/22	09/15/22	03/09/21	03/09/21	09/14/22	
			Sample	MW-8-0-1	MW-8-3-5	MW-08D-0-1	MW-08D-5-6	MW-9-0-1	MW-9-5-6	MW-09D-0-1	
			Depth	0 - 1 ft	3 - 5 ft	0 - 1 ft	5 - 6 ft	0 - 1 ft	5 - 6 ft	0 - 1 ft	
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	**5.42 J**	**2.62**	--	--	**1.84 J**	**5.58 J**	--	
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	
Cadmium	mg/kg	5.1	SL-8	**0.48**	**0.06 J**	**--**	**--**	**0.04 J**	< 0.12 U	**--**	
Chromium	mg/kg	67	SL-9	**10.3 J**	**9.14**	**--**	**--**	**14.3 J**	**9.5 J**	**--**	
Copper	mg/kg	36	SL-10	**45.7**	**12.8**	--	--	**12.6**	**15.5**	--	
Lead	mg/kg	120	SL-9	**206 J**	**1.93**	**--**	**--**	**1.81 J**	**2 J**	**--**	
Mercury	mg/kg	0.41	SL-8	**0.174 J**	**--**	**--**	**--**	**0.0103 J**	**0.0168 J**	**--**	
Nickel	mg/kg	48	SL-10	**15.8 J**	**8.9**	--	--	**22.1 J**	**8.3 J**	--	
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	
Zinc	mg/kg	100	SL-3	**90.2**	**21.3**	**--**	**--**	**24.6**	**21.2**	**--**	
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.00291 J**	--	< 0.00383 U	< 0.00384 U	< 0.00381 U	**0.00317 J**	--	
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.0801**	--	--	--	**0.0009 J**	< 0.004 U	--	
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	**2.16E-1 J**	--	--	--	--	--	--	
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	**7.57E-6**	--	--	--	--	--	--	
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--	--	
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.005 U	--	--	< 0.0005 U	< 0.005 U	< 0.00498 U	--	
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.005 U	--	--	< 0.0005 U	< 0.005 U	< 0.00498 U	--	
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.0594**	--	--	< 0.0005 U	< 0.005 U	< 0.00498 U	--	
Fluoranthene	mg/kg	1.7	SL-8	**0.0263**	--	--	< 0.0005 U	< 0.005 U	**0.00225 J**	--	
Pyrene	mg/kg	2.6	SL-8	**0.0303**	--	--	< 0.0005 U	< 0.005 U	**0.0028 J**	--	
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.0165**	**--**	**--**	< 0.0005 U	< 0.005 U	**0.00091 J**	**--**	
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.04**	--	--	< 0.0005 U	< 0.005 U	**0.00088 J**	--	
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.0611**	**--**	**--**	< 0.0005 U	< 0.005 U	< 0.00498 U	**--**	
Chrysene	mg/kg	1.4	SL-8	**0.0391**	--	--	< 0.0005 U	< 0.005 U	**0.00167 J**	--	
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.0103**	--	--	< 0.0005 U	< 0.005 U	< 0.00498 U	--	
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.049**	--	--	< 0.0005 U	< 0.005 U	< 0.00498 U	--	
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.115**	**--**	**--**	< 0.0005 U	< 0.00999 U	< 0.00996 U	**--**	
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.387**	--	--	< 0.0005 U	< 0.005 U	**0.0234 J**	--	
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0568**	--	--	< 0.000378 U	< 0.00377 U	**0.00198 J**	--	
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.1 U	--	--	< 0.025 U	< 0.1 U	< 0.0995 U	--	
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.2 U	**--**	**--**	< 0.075 U	< 0.2 UJ	< 0.199 UJ	**--**	
2-Methylphenol	mg/kg	0.063	SL-8	< 0.02 U	--	--	< 0.025 U	< 0.02 U	< 0.0199 U	--	
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.02 U	--	--	< 0.025 U	< 0.02 U	< 0.0199 U	--	
Benzyl butyl phthalate	mg/kg	0.063	SL-8	**0.0126 J**	--	--	< 0.025 U	< 0.02 U	< 0.0199 U	--	
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	**0.0665**	--	--	< 0.04 U	< 0.05 U	< 0.0497 U	--	
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.02 U	--	--	< 0.025 U	< 0.02 U	< 0.0199 U	--	
Dimethyl phthalate	mg/kg	0.071	SL-8	**0.114**	--	--	< 0.025 U	< 0.02 U	< 0.0199 U	--	
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**0.0166 J**	**--**	**--**	< 0.025 U	< 0.02 U	< 0.0199 U	**--**	
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.0005 U	--	--	< 0.0025 U	< 0.0005 U	< 0.0005 U	--	
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.02 U	--	--	< 0.0025 U	< 0.02 U	< 0.0199 U	--	
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.1 UJ	--	--	< 0.012 U	< 0.1 UJ	< 0.0995 UJ	--	
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U	--	
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.00798 U	--	--	--	< 0.001 U	< 0.001 U	--	
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.0005 U	--	--	--	**0.00079**	< 0.0005 U	--	
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U	--	
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U	--	
Delta-BHC	mg/kg	0.0048	SL-1	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U	--	
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U	--	
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.00299 U	--	--	--	< 0.001 U	< 0.001 U	--	
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U	--	
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U	--	
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	< 6.31 U	--	--	--	**15.6**	< 7.13 U	--	
Diesel Range Organics	mg/kg	2000	SL-3	< 55.1 U	**--**	**--**	**--**	< 58.7 U	< 65.9 U	**--**	
Motor Oil Range Organics	mg/kg	2000	SL-3	< 110 U	**--**	**--**	**--**	< 117 U	< 132 U	**--**	
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	< 110 U	**--**	**--**	**--**	< 117 U	< 132 U	**--**	
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	< 0.00158 U	--	--	--	< 0.00117 U	**0.00056 J**	< 0.001 U	
Total Xylenes	mg/kg	1.4	SL-9	< 0.00316 U	--	--	--	< 0.00235 U	< 0.00218 U	< 0.002 U	
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.00316 U	--	--	--	< 0.00235 U	< 0.00218 U	< 0.05 U	
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.00158 U	--	--	< 0.0025 U	< 0.00117 U	< 0.00109 U	< 0.05 U	
Methylene Chloride	mg/kg	0.43	SL-3	< 0.00789 U	--	--	--	< 0.00587 U	< 0.00544 U	< 0.2 U	
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	< 0.00158 U	--	--	--	**0.00111 J**	**0.0163**	**0.013**	
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.00158 U	--	--	--	< 0.00117 U	**0.00209**	< 0.001 U	
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.00158 U	--	--	--	< 0.00117 U	< 0.00109 U	< 0.001 U	
Conventionals											
Total Organic Carbon	%			**0.22**	--	--	--	< 0.02 U	**0.22**	--	
Total Solids	%			**90.9**	--	--	--	**94.7**	**76.4**	--	

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area						
			Location	MW-10	MW-11		MW-11D		MW-12	
			Sample Date	03/08/21	03/08/21	03/08/21	09/15/22	09/15/22	03/03/21	03/03/21
			Sample	MW-10-0-1	MW-11-0-1	MW-11-3-5	MW-11D-0-1	MW-11D-5-6	MW-12-0-1	MW-12-3-5
			Depth	0 - 1 ft	0 - 1 ft	3 - 5 ft	0 - 1 ft	5 - 6 ft	0 - 1 ft	3 - 5 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**							
Metals, Total										
Arsenic	mg/kg	7.3	SL-10	**5.08**	**5.75**	--	**3.36**	**3.19**	**3.59**	**10.3**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**0.26**	**0.66**	--	< 0.2 U	**0.377 J**	**0.15**	**0.67**
Chromium	mg/kg	67	SL-9	**12.4**	**15.1**	--	**7.37**	**16.1**	**23.1**	**14.8**
Copper	mg/kg	36	SL-10	**31.5**	**71.3**	--	**16.2**	**47.7**	**22.9**	**88.1**
Lead	mg/kg	120	SL-9	**34.4**	**23.4**	--	**315**	**4.74**	**39.4 J**	**332 J**
Mercury	mg/kg	0.41	SL-8	**0.0382**	**0.0339**	--	< 0.025 U	--	**0.0276**	**0.302**
Nickel	mg/kg	48	SL-10	**12.4**	**19.7**	--	**7.18**	**7.62**	**32.3**	**12**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**60.5**	**104**	--	**31.6**	**32.9**	**48.7**	**134**
Butyl Tins										
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.00058 J**	**0.0496**	--	< 0.00371 U	< 0.00386 U	--	--
Polychlorinated Biphenyl (PCB) Aroclors										
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.0527**	**0.0799**	**0.0234**	**0.041**	--	**0.0226**	**0.0542**
Polychlorinated Biphenyl (PCB) Congeners										
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	**3.62E-2 J**	--	--	**1.22E-1 J**	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	**1.69E-6**	--	--	**1.34E-6 J**	--	--	--
Dioxins/Furans										
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	**1.18E-6 J**	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	**4.80E-8**	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)										
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.005 U	< 0.0249 U	--	< 0.005 U	< 0.0005 U	< 0.00498 U	< 0.005 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.005 U	< 0.0249 U	--	< 0.005 U	< 0.0005 U	< 0.00498 U	< 0.005 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.065**	**0.14**	--	**0.011**	< 0.0005 U	**0.0067**	**0.0142**
Fluoranthene	mg/kg	1.7	SL-8	**0.0136**	**0.0299**	--	**0.041**	< 0.0005 U	**0.00864**	**0.0197**
Pyrene	mg/kg	2.6	SL-8	**0.0172**	**0.0399**	--	**0.066**	< 0.0005 U	**0.0119**	**0.0241**
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.0126**	**0.0181 J**	--	**0.023**	< 0.0005 U	**0.00356 J**	**0.0112**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.0627**	**0.0404**	--	**0.025**	< 0.0005 U	**0.00587**	**0.0127**
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.107**	**0.0495**	--	**0.033**	< 0.0005 U	**0.00574**	**0.0137**
Chrysene	mg/kg	1.4	SL-8	**0.0423**	**0.0568**	--	**0.038**	< 0.0005 U	**0.00663**	**0.0159**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.012**	**0.0171 J**	--	< 0.005 U	< 0.0005 U	**0.0019 J**	**0.00326 J**
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.0557**	**0.0703**	--	**0.01**	< 0.0005 U	**0.00467 J**	**0.0125**
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.194**	**0.089**	--	**0.043**	< 0.0005 U	**0.0128**	**0.0303**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.475**	**0.502 J**	--	**0.26**	< 0.0005 U	**0.0627 J**	**0.142 J**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0861**	**0.0583 J**	--	**0.0332**	< 0.000378 U	**0.00786 J**	**0.0176 J**
Other Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.0999 U	< 0.0997 U	--	< 0.25 U	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.2 UJ	< 0.199 UJ	--	< 0.75 U	--	--	--
2-Methylphenol	mg/kg	0.063	SL-8	< 0.02 U	< 0.0199 U	--	< 0.25 U	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.02 U	< 0.0199 U	--	< 0.25 U	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.02 U	**0.0303**	--	< 0.25 U	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 0.0499 U	**0.0811**	--	< 0.4 U	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.02 U	**0.982**	--	< 0.25 U	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.02 U	**0.0178 J**	--	< 0.25 U	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.02 U	**0.0066 J**	--	< 0.25 U	--	--	--
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.02 U	< 0.0199 U	--	< 0.025 U	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.02 U	< 0.0199 U	--	< 0.025 UJ	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.0999 UJ	< 0.0997 UJ	--	< 0.12 U	--	--	--
Pesticides										
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	< 0.01 U	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	< 0.01 U	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	--	< 0.017 U	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	< 0.005 U	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	< 0.005 U	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	< 0.005 U	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	< 0.01 U	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	< 0.01 U	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	< 0.005 U	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	< 0.017 U	--	--	--
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Organics	mg/kg	30	SL-3	< 6.31 U	**31.9**	--	**2.3 J**	--	< 5.71 U	< 5.26 U
Diesel Range Organics	mg/kg	2000	SL-3	< 56.9 U	< 54.1 U	--	**9.9 J**	--	< 54.6 U	< 58.8 U
Motor Oil Range Organics	mg/kg	2000	SL-3	< 114 U	**462**	--	**160 J**	--	< 109 U	**145**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	< 114 U	**462**	--	**170 J**	--	< 109 U	**145**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)										
Benzene	mg/kg	0.0088	SL-3	**0.00067 J**	< 0.0011 U	--	< 0.001 U	--	**0.00056 J**	**0.00062 J**
Total Xylenes	mg/kg	1.4	SL-9	< 0.00207 U	< 0.00221 U	--	< 0.002 U	--	< 0.0019 U	< 0.00186 U
Volatile Organic Compounds (VOCs)										
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.00207 U	< 0.00221 U	--	< 0.05 U	--	< 0.0019 U	< 0.00186 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.00103 U	< 0.0011 U	--	< 0.05 U	--	< 0.00095 U	< 0.00093 U
Methylene Chloride	mg/kg	0.43	SL-3	< 0.00517 U	< 0.00552 U	--	< 0.2 U	--	< 0.00474 U	< 0.00466 U
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	< 0.00103 U	< 0.0011 U	--	< 0.001 U	--	< 0.00095 U	< 0.00093 U
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.00103 U	< 0.0011 U	--	< 0.001 U	--	< 0.00095 U	< 0.00093 U
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.00103 U	< 0.0011 U	--	< 0.001 U	--	< 0.00095 U	< 0.00093 U
Conventionals										
Total Organic Carbon	%			**0.24**	**1.23**	--	--	--	**0.19**	**0.71**
Total Solids	%			**87.7**	**92.3**	--	--	--	**91.3**	**80.1**

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**Central Area**							
			Location	**MW-14**		**MW-15**		**MW-17**			
			Sample Date	03/10/21	03/01/21	03/03/21	03/03/21	09/14/22	09/16/22	09/16/22	
			Sample	MW-14A-0-1	MW-14-4.5-5	MW-15-0-1	MW-15-3-5	MW-17-0-1	MW-17-0-1-TIG	MW-17-5-6	
			Depth	0 - 1 ft	4.5 - 5 ft	0 - 1 ft	3 - 5 ft	0 - 1 ft	0 - 1 ft	5 - 6 ft	
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	**27.4 J**	**2.14 J**	**3.24**	**1.47**	**12.7**	--	--	
Barium	mg/kg	250	SL-10	--	--	--	--	**146 J**	--	--	
Cadmium	mg/kg	5.1	SL-8	**0.3**	**0.11**	**0.2**	< 0.1 U	**1.25**	**--**	**--**	
Chromium	mg/kg	67	SL-9	**34.3**	**9.81**	**8.27**	**7.75**	**22.8**	**--**	**--**	
Copper	mg/kg	36	SL-10	**292**	**14 J**	**20**	**8.39**	**102**	--	--	
Lead	mg/kg	120	SL-9	**42 J**	**29.5 J**	**24.2 J**	**1.18 J**	**384**	**--**	**--**	
Mercury	mg/kg	0.41	SL-8	**0.187 J**	**0.0142 J**	**0.0183 J**	**0.00523 J**	**0.16**	**--**	**--**	
Nickel	mg/kg	48	SL-10	**52 J**	**8.34**	**8.07**	**6.63**	**27.2**	--	--	
Selenium	mg/kg	0.78	SL-10	--	--	--	--	< 5 U	--	--	
Zinc	mg/kg	100	SL-3	**145**	**44**	**93.1**	**17.9**	**287**	**--**	**--**	
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.0136**	< 0.00386 U	< 0.00386 U	< 0.00385 U	**0.00925**	--	< 0.00385 U	
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.0515**	**0.0066 J**	**0.123**	< 0.004 U	**4.8**	--	--	
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	--	--	
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	--	--	
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	**2.06E-6**	--	
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	< 4.99E-7 U	--	
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	**0.00459 J**	< 0.00499 U	< 0.00499 U	< 0.00497 U	< 0.05 U	--	< 0.0005 U	
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.00498 U	< 0.00499 U	< 0.00499 U	< 0.00497 U	< 0.05 U	--	**0.00052**	
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.027**	**0.00296 J**	**0.0146**	< 0.00497 U	**8.5**	--	**0.071**	
Fluoranthene	mg/kg	1.7	SL-8	**0.061**	**0.00237 J**	**0.0181**	< 0.00497 U	**4.3**	--	**0.04**	
Pyrene	mg/kg	2.6	SL-8	**0.0533**	**0.0029 J**	**0.0177**	< 0.00497 U	**5.5**	--	**0.048**	
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.0277**	**0.00141 J**	**0.00895**	< 0.00497 U	**8.7**	**--**	**0.055**	
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.0307**	**0.00189 J**	**0.0134**	< 0.00497 U	**22**	--	**0.14**	
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.0305**	**0.00213 J**	**0.0158**	< 0.00497 U	**28**	**--**	**0.16**	
Chrysene	mg/kg	1.4	SL-8	**0.0413**	**0.00198 J**	**0.0136**	< 0.00497 U	**11**	--	**0.083**	
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.00565**	**0.00149 J**	**0.00322 J**	< 0.00497 U	**2.2**	--	**0.016**	
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.0211**	**0.00237 J**	**0.0125**	< 0.00497 U	**11**	--	**0.089**	
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.0687**	**0.00511 J**	**0.0309**	< 0.00993 U	**28**	**--**	**0.216**	
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.334**	**0.0224 J**	**0.134 J**	< 0.00497 U	**111**	--	**0.758**	
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0414**	**0.00278 J**	**0.0183 J**	< 0.00375 U	**28.1**	--	**0.178**	
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.0997 U	< 0.0997 U	< 0.0994 U	< 0.0996 U	< 2.5 U	--	--	
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.199 UJ	< 0.199 UJ	< 0.199 UJ	< 0.199 UJ	< 7.5 U	**--**	**--**	
2-Methylphenol	mg/kg	0.063	SL-8	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 2.5 U	--	--	
Benzyl alcohol	mg/kg	0.057	SL-8	**0.138**	< 0.0199 UJ	< 0.0199 U	< 0.0199 U	< 2.5 U	--	--	
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 2.5 U	--	--	
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	**0.0521**	< 0.0499 U	< 0.0497 U	< 0.0498 U	< 4 U	--	--	
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 2.5 U	--	--	
Dimethyl phthalate	mg/kg	0.071	SL-8	**0.271**	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 2.5 U	--	--	
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**0.0055 J**	< 0.0199 U	**0.223**	< 0.0199 U	< 2.5 U	**--**	**--**	
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.0199 U	< 0.0199 U	< 0.0005 U	< 0.0005 U	< 0.25 U	--	--	
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 0.0199 U	< 0.25 UJ	--	--	
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.0997 UJ	< 0.0997 UJ	< 0.0994 U	< 0.0996 U	< 1.2 U	--	--	
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	< 0.001 U	< 0.001 U	< 0.01 U	--	--	
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	< 0.025 U	< 0.001 U	< 0.01 U	--	--	
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	< 0.0005 U	< 0.0005 U	< 0.017 U	--	--	
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	< 0.0005 U	< 0.0005 U	< 0.005 U	--	--	
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	< 0.0005 U	< 0.0005 U	< 0.005 U	--	--	
Delta-BHC	mg/kg	0.0048	SL-1	--	--	< 0.0005 U	< 0.0005 U	< 0.005 U	--	--	
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	< 0.00599 U	< 0.001 U	< 0.01 U	--	--	
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	< 0.001 U	< 0.001 U	< 0.01 U	--	--	
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	< 0.0005 U	< 0.0005 U	< 0.005 U	--	--	
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	< 0.0005 U	< 0.0005 U	< 0.017 U	--	--	
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	< 5.12 U	R	**18.9**	< 7.2 U	< 5 U	--	< 5 U	
Diesel Range Organics	mg/kg	2000	SL-3	**82.4**	< 53.9 U	< 62.9 U	< 53.5 U	**55 J**	**--**	< 10 U	
Motor Oil Range Organics	mg/kg	2000	SL-3	**187**	< 108 U	< 126 U	< 107 U	**790 J**	**--**	< 50 U	
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**269**	< 108 U	< 126 U	< 107 U	**845 J**	**--**	< 50 U	
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	< 0.00093 U	< 0.00146 U	< 0.00154 U	< 0.0022 U	< 0.001 U	--	< 0.001 U	
Total Xylenes	mg/kg	1.4	SL-9	< 0.00186 U	< 0.00293 U	< 0.00308 U	< 0.00441 U	< 0.002 U	--	< 0.002 U	
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.00186 U	< 0.00293 U	< 0.00308 U	< 0.00441 U	**0.15**	--	< 0.05 U	
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.00093 U	< 0.00146 U	< 0.00154 U	< 0.0022 U	< 0.05 U	--	< 0.05 U	
Methylene Chloride	mg/kg	0.43	SL-3	< 0.00465 U	< 0.00732 U	< 0.00769 U	**0.00962 J**	< 0.2 U	--	R	
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	< 0.00093 U	< 0.00146 U	< 0.00154 U	< 0.0022 U	**0.0023 J**	--	< 0.001 U	
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.00093 U	< 0.00146 U	< 0.00154 U	< 0.0022 U	< 0.001 U	--	< 0.001 U	
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.00093 U	< 0.00146 U	< 0.00154 U	< 0.0022 U	< 0.001 U	--	< 0.001 U	
Conventionals											
Total Organic Carbon	%			**0.26**	< 0.07 U	**0.15**	< 0.02 U	--	--	--	
Total Solids	%			**86.3**	**92.0**	**91.7**	**92.4**	--	**97.8**	--	

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area					
			Location	MW-19D	SB-23	SB-27		SB-28	
			Sample Date	09/14/22	07/28/11	03/09/21	03/09/21	03/01/21	03/01/21
			Sample	MW-19D-0-1	SB23-1.0-072811	SB-27-0-1	SB-27-3-5	SB-28-0-1	SB-28-3-5
			Depth	0 - 1 ft	1 - 1 ft	0 - 1 ft	3 - 5 ft	0 - 1 ft	3 - 5 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**						
Metals, Total									
Arsenic	mg/kg	7.3	SL-10	**3.21**	--	**5.43 J**	**2.18**	**4.68 J**	**2.02**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**0.335 J**	**--**	**0.25**	**0.04 J**	**0.32**	**0.04 J**
Chromium	mg/kg	67	SL-9	**6.53**	**--**	**10.9**	**8.23**	**13.2**	**10.2**
Copper	mg/kg	36	SL-10	**12.7**	--	**111**	**9.95**	**35.8 J**	**9.63**
Lead	mg/kg	120	SL-9	**20.9**	**--**	**57.6 J**	**1.32**	**54.6 J**	**2.39**
Mercury	mg/kg	0.41	SL-8	**0.038**	**--**	**0.0796 J**	**--**	**0.0472**	**--**
Nickel	mg/kg	48	SL-10	**5.33**	--	**13.8 J**	**6.75**	**13.3**	**7.99**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**66.6**	**--**	**77.9**	**18.6**	**75.5**	**24.2**
Butyl Tins									
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	< 0.00384 U	--	**1.12**	--	**0.00143 J**	--
Polychlorinated Biphenyl (PCB) Aroclors									
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	< 0.004 U	--	**0.255**	--	**0.0521**	--
Polychlorinated Biphenyl (PCB) Congeners									
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	--
Dioxins/Furans									
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	**1.73E-6 J**	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	< 4.90E-7 U	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)									
1-Methylnaphthalene	mg/kg	20	SL-1	**0.0064**	--	**0.0125 J**	--	< 0.005 U	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	**0.0063**	--	**0.0125 J**	--	< 0.005 U	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.062**	--	**0.0766**	--	**0.0298**	--
Fluoranthene	mg/kg	1.7	SL-8	**0.19**	--	**0.104**	--	**0.0161**	--
Pyrene	mg/kg	2.6	SL-8	**0.21**	--	**0.0905**	--	**0.0214**	--
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.059**	**--**	**0.0363**	**--**	**0.0123**	**--**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.14**	--	**0.0593**	--	**0.0243**	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.16**	**--**	**0.0803**	**--**	**0.0347**	**--**
Chrysene	mg/kg	1.4	SL-8	**0.098**	--	**0.107**	--	**0.0329**	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.0071**	--	**0.0107 J**	--	**0.00566**	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.06**	--	**0.0504**	--	**0.0201**	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.216**	**--**	**0.143**	**--**	**0.0603**	**--**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**1.04**	--	**0.68 J**	--	**0.224**	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.175**	--	**0.081 J**	--	**0.0332**	--
Other Semivolatile Organic Compounds (SVOCs)									
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.12 U	--	< 0.0996 U	--	< 0.0997 U	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.37 U	**--**	< 0.199 UJ	**--**	< 0.199 UJ	**--**
2-Methylphenol	mg/kg	0.063	SL-8	< 0.12 U	--	< 0.0199 U	--	< 0.0199 U	--
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.12 U	--	**0.0149 J**	--	< 0.0199 UJ	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.12 U	--	**0.122**	--	< 0.0199 U	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 0.2 U	--	**0.981**	--	**0.0466 J**	--
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.12 U	--	< 0.0199 U	--	< 0.0199 U	--
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.12 U	--	**0.197**	--	< 0.0199 U	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.12 U	**--**	**0.268**	**--**	< 0.0199 U	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.012 U	--	< 0.0199 U	--	< 0.0199 U	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.012 UJ	--	< 0.0199 U	--	< 0.0199 U	--
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.062 U	--	< 0.0996 UJ	--	< 0.0997 UJ	--
Pesticides									
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	--	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.0017 U	--	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	--	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0005 U	--	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	< 0.0005 U	--	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	--	--	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.001 U	--	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	--	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.0017 U	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)									
Gasoline Range Organics	mg/kg	30	SL-3	< 5 U	--	**77.7**	--	< 6.92 U	--
Diesel Range Organics	mg/kg	2000	SL-3	< 5 UJ	< 27 U	**266**	**--**	< 54.4 U	**--**
Motor Oil Range Organics	mg/kg	2000	SL-3	< 25 U	**81**	**994**	**--**	**540**	**--**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	< 25 UJ	**81**	**1260**	**--**	**540**	**--**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)									
Benzene	mg/kg	0.0088	SL-3	< 0.001 U	--	< 0.00133 U	--	< 0.001 UJ	--
Total Xylenes	mg/kg	1.4	SL-9	< 0.002 U	--	< 0.00266 U	--	< 0.00199 UJ	--
Volatile Organic Compounds (VOCs)									
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	--	< 0.00266 U	--	< 0.00199 UJ	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.012 U	--	< 0.00133 U	--	< 0.001 UJ	--
Methylene Chloride	mg/kg	0.43	SL-3	< 0.2 U	--	< 0.00665 U	--	< 0.00499 UJ	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	< 0.001 U	--	< 0.00133 U	--	**0.00085 J**	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.001 U	--	< 0.00133 U	--	< 0.001 UJ	--
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.001 U	--	< 0.00133 U	--	< 0.001 UJ	--
Conventionals									
Total Organic Carbon	%			--	--	**0.34**	--	**0.75**	--
Total Solids	%			--	--	**93.8**	--	**89.8**	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area					
			Location	SB-29		SB-32		SB-33	
			Sample Date	03/01/21	03/01/21	03/08/21	03/08/21	03/03/21	03/03/21
			Sample	SB-29-0-1	SB-29A-3-5	SB-32-0-1	SB-32-4-5	SB-33-0-1	SB-33-3-5
			Depth	0 - 1 ft	3 - 5 ft	0 - 1 ft	4 - 5 ft	0 - 1 ft	3 - 5 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**						
Metals, Total									
Arsenic	mg/kg	7.3	SL-10	**4.28 J**	**3.14 J**	**7.47**	**3.73**	**4.09**	**1.99**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**0.27**	**0.05 J**	**0.49**	**0.06 J**	**0.46**	**0.05 J**
Chromium	mg/kg	67	SL-9	**14.6**	**10.8**	**12.2 J**	**12.7**	**9.99**	**11.6**
Copper	mg/kg	36	SL-10	**25.8 J**	**15.5 J**	**50.2 J**	**25.2**	**51.5**	**11.8**
Lead	mg/kg	120	SL-9	**33.5 J**	**3.27 J**	**30.7 J**	**20.6**	**41.3 J**	**2.54 J**
Mercury	mg/kg	0.41	SL-8	**0.025**	**0.0134 J**	**0.0482**	**0.0334**	**0.0213 J**	**0.00687 J**
Nickel	mg/kg	48	SL-10	**17**	**10.4**	**13.7 J**	**11.4**	**13.2**	**8.49**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**60.8**	**27.7**	**73.8 J**	**81.5**	**83.7**	**27.5**
Butyl Tins									
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.00057 J**	< 0.00383 U	**0.0667 J**	< 0.00382 U	**0.000964 J**	**0.00567**
Polychlorinated Biphenyl (PCB) Aroclors									
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.0199**	< 0.0039 U	**0.746 J**	**0.024**	**0.738**	**0.0348**
Polychlorinated Biphenyl (PCB) Congeners									
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	**2.77E-1 J**	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	**4.19E-6**	--	--	--
Dioxins/Furans									
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	**2.56E-5**	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	< 1.13E-6 U	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)									
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.005 U	< 0.00499 U	**0.00553**	< 0.005 U	< 0.015 U	< 0.00499 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.005 U	< 0.00499 U	**0.0114**	< 0.005 U	< 0.015 U	< 0.00499 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.0408**	< 0.00499 U	**0.0236 J**	< 0.005 U	**0.0422**	**0.0137**
Fluoranthene	mg/kg	1.7	SL-8	**0.0213**	**0.00122 J**	**0.0201 J**	**0.0007 J**	**0.0207**	**0.00457 J**
Pyrene	mg/kg	2.6	SL-8	**0.0284**	**0.00098 J**	**0.022**	**0.00097 J**	**0.0226**	**0.00631**
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.0136**	< 0.00499 U	**0.00936 J**	< 0.005 U	**0.0127 J**	**0.00446 J**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.0259**	< 0.00499 U	**0.0128 J**	< 0.005 U	**0.0207**	**0.00562**
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.0259**	< 0.00499 U	**0.0183 J**	< 0.005 U	**0.0325**	**0.0083**
Chrysene	mg/kg	1.4	SL-8	**0.0245**	< 0.00499 U	**0.0185 J**	< 0.005 U	**0.0667**	**0.022**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.00542**	< 0.00499 U	**0.00365 J**	< 0.005 U	**0.00715 J**	**0.00173 J**
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.0214**	< 0.00499 U	**0.0131 J**	< 0.005 U	**0.0165**	**0.00324 J**
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.0529**	< 0.00999 U	**0.0391 J**	< 0.01 U	**0.0508**	**0.0161**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.233**	**0.0247 J**	**0.16 J**	**0.0242 J**	**0.26 J**	**0.0742 J**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.034**	< 0.00377 U	**0.0183 J**	< 0.00377 U	**0.0292 J**	**0.00782 J**
Other Semivolatile Organic Compounds (SVOCs)									
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.0998 U	< 0.1 U	< 0.0994 U	< 0.1 U	< 0.0997 U	< 0.0998 U
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.2 UJ	< 0.2 UJ	< 0.199 UJ	< 0.2 UJ	< 0.199 UJ	< 0.2 UJ
2-Methylphenol	mg/kg	0.063	SL-8	< 0.02 U	< 0.02 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.02 UJ	< 0.02 UJ	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.02 U	< 0.02 U	**0.0412**	< 0.02 U	**0.0096 J**	< 0.02 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 0.0499 U	< 0.05 U	**0.255 J**	< 0.05 U	**0.067**	< 0.0499 U
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.02 U	< 0.02 U	< 0.0199 U	< 0.02 U	< 0.0199 U	**0.0471**
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.02 U	< 0.02 U	**0.254 J**	< 0.02 U	< 0.0199 U	< 0.02 U
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.02 U	< 0.02 U	**0.0448**	< 0.02 U	**0.0224**	< 0.02 U
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.0005 U	< 0.0005 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.02 U	< 0.02 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.0998 UJ	< 0.1 UJ	< 0.0994 UJ	< 0.1 UJ	< 0.0997 U	< 0.0998 U
Pesticides									
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	< 0.001 U	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.003 U	< 0.001 U	--	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.0005 U	< 0.0005 U	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	< 0.0005 U	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0005 U	< 0.0005 U	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	< 0.0005 U	< 0.0005 U	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.001 U	< 0.001 U	--	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.002 U	< 0.001 U	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.0005 U	< 0.0005 U	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.0005 U	< 0.0005 U	--	--	--	--
Total Petroleum Hydrocarbons (TPH)									
Gasoline Range Organics	mg/kg	30	SL-3	R	< 7.78 U	**7.88**	**49.8**	**48.6**	**15.5**
Diesel Range Organics	mg/kg	2000	SL-3	< 54.6 U	< 61.5 U	< 57.7 U	< 60.6 U	< 58.6 U	< 63.9 U
Motor Oil Range Organics	mg/kg	2000	SL-3	**137**	< 123 U	**178**	< 121 U	**327**	**340**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**137**	< 123 U	**178**	< 121 U	**327**	**340**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)									
Benzene	mg/kg	0.0088	SL-3	< 0.00116 U	< 0.00122 U	< 0.00172 UJ	< 0.00143 U	**0.00035 J**	< 0.00152 U
Total Xylenes	mg/kg	1.4	SL-9	< 0.00232 U	< 0.00243 U	< 0.00343 U	< 0.00285 U	< 0.002 U	< 0.00305 U
Volatile Organic Compounds (VOCs)									
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.00232 U	< 0.00243 U	< 0.00343 U	< 0.00285 U	< 0.002 U	< 0.00305 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.00116 U	< 0.00122 U	< 0.00172 U	< 0.00143 U	< 0.001 U	< 0.00152 U
Methylene Chloride	mg/kg	0.43	SL-3	**0.0153**	**0.0264**	< 0.00858 U	< 0.00714 U	< 0.005 U	< 0.00762 U
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.00049 J**	< 0.00122 U	< 0.00172 U	< 0.00143 U	**0.00257**	**0.00208**
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.00116 U	< 0.00122 U	< 0.00172 U	< 0.00143 U	**0.00125**	**0.00135 J**
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.00116 U	< 0.00122 U	< 0.00172 U	< 0.00143 U	< 0.001 U	< 0.00152 U
Conventionals									
Total Organic Carbon	%			**0.25**	**0.43**	**1.08 J**	**0.22**	**0.09**	**0.07**
Total Solids	%			**93.0**	**76.2**	**86.5**	**82.3**	**92.0**	**79.6**

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area						
			Location	SB-34				SB-40		
			Sample Date	03/01/21	03/23/21	03/01/21	03/23/21	09/26/22	09/26/22	09/26/22
			Sample	SB-34-0-1	SB-34R-0-1	SB-34-3-4	SB-34R-3-4	SB-40-0-1	SB-40-0-1-TIG	SB-40-5-6
			Depth	0 - 1 ft	0 - 1 ft	3 - 4 ft	3 - 4 ft	0 - 1 ft	0 - 1 ft	5 - 6 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**							
Metals, Total										
Arsenic	mg/kg	7.3	SL-10	**4.43**	--	**1.87**	--	**11.8**	--	**1.59**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**0.62**	**--**	< 0.1 U	**--**	**0.798 J**	**--**	< 0.2 U
Chromium	mg/kg	67	SL-9	**11.3**	**--**	**6.93**	**--**	**13.1**	**--**	**7.34 J**
Copper	mg/kg	36	SL-10	**25.5 J**	--	**8.97 J**	--	**41.5**	--	**10.2 J**
Lead	mg/kg	120	SL-9	**47.7 J**	**--**	**1.31 J**	**--**	**208**	**--**	**5.32**
Mercury	mg/kg	0.41	SL-8	**0.0093 J**	**--**	**0.00938 J**	**--**	**0.11**	**--**	**0.046**
Nickel	mg/kg	48	SL-10	**14.8**	--	**6.6**	--	**9.89**	--	**4.87**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**106**	**--**	**17.3**	**--**	**93.2**	**--**	**18.6**
Butyl Tins										
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	**0.00534**	--	**0.00126 J**
Polychlorinated Biphenyl (PCB) Aroclors										
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.0937**	--	**0.0027 J**	--	**1.32**	--	**0.028**
Polychlorinated Biphenyl (PCB) Congeners										
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	**2.69E-2 J**	--	--	--	**1.27E+0**	**1.57E+0 J**	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	**8.63E-7 J**	--	--	--	**3.73E-5**	**3.40E-5 J**	--
Dioxins/Furans										
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	**3.00E-5 J**	**3.64E-5 J**	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	**7.46E-7**	**9.28E-7**	--
Polycyclic Aromatic Hydrocarbons (PAHs)										
1-Methylnaphthalene	mg/kg	20	SL-1	**0.0189**	--	**0.00613**	--	< 0.01 U	--	< 0.005 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	**0.0207**	--	< 0.00456 U	--	< 0.01 U	--	< 0.005 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.0603**	--	< 0.00433 U	--	**0.028**	--	< 0.005 U
Fluoranthene	mg/kg	1.7	SL-8	**0.115**	--	**0.00101 J**	--	**0.038**	--	< 0.005 U
Pyrene	mg/kg	2.6	SL-8	**0.156**	--	**0.00157 J**	--	**0.049**	--	< 0.005 U
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.0507**	**--**	**0.00083 J**	**--**	**0.019**	**--**	< 0.005 U
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.0678**	--	**0.00086 J**	--	**0.029**	--	**0.0028 J**
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.0459**	**--**	< 0.00433 U	**--**	**0.045**	**--**	< 0.005 U
Chrysene	mg/kg	1.4	SL-8	**0.0731**	--	**0.00134 J**	--	**0.033**	--	**0.0088**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.0103**	--	< 0.00433 U	--	< 0.01 U	--	< 0.005 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.0451**	--	< 0.00433 U	--	**0.026**	--	< 0.005 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.102**	**--**	< 0.00866 U	**--**	**0.058**	**--**	< 0.005 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.681**	--	**0.0186 J**	--	**0.285**	--	**0.0316 J**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0863**	--	**0.00182 J**	--	**0.0401**	--	**0.00414 J**
Other Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	< 0.5 U	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	< 1.5 U	**--**	**--**
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	< 0.5 U	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	< 0.5 U	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	< 0.5 U	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	< 0.8 U	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	< 0.5 U	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	< 0.5 U	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	< 0.5 U	**--**	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	< 0.05 U	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	< 0.05 UJ	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	< 0.25 U	--	--
Pesticides										
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	**0.0019**	--	< 0.001 U
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	< 0.001 U	--	< 0.001 U
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	--	--	< 0.0017 U	--	< 0.0017 U
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	< 0.0005 U	--	< 0.0005 U
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	**0.0087**	--	< 0.0005 U
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	< 0.0017 UJ	--	< 0.0017 UJ
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	**0.0094**	--	< 0.001 U
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	--	< 0.001 U	--	< 0.001 U
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	< 0.0005 U	--	< 0.0005 U
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	--	**0.014**	--	< 0.0017 U
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Organics	mg/kg	30	SL-3	< 6.5 U	--	< 7.93 U	--	< 5 U	--	--
Diesel Range Organics	mg/kg	2000	SL-3	< 55.9 U	**--**	< 54.3 U	**--**	**11 XJ**	**--**	**--**
Motor Oil Range Organics	mg/kg	2000	SL-3	**233**	**--**	< 109 U	**--**	**160 J**	**--**	**--**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**233**	**--**	< 109 U	**--**	**171**	**--**	**--**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)										
Benzene	mg/kg	0.0088	SL-3	**0.00067 J**	**0.00065 J**	< 0.00108 UJ	< 0.00104 U	< 0.001 U	--	--
Total Xylenes	mg/kg	1.4	SL-9	< 0.00272 UJ	**0.00105 J**	< 0.00217 UJ	< 0.00209 U	< 0.002 U	--	--
Volatile Organic Compounds (VOCs)										
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.00272 UJ	< 0.002 U	< 0.00217 UJ	< 0.00209 U	< 0.05 U	--	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.00136 UJ	< 0.001 U	< 0.00108 UJ	< 0.00104 U	< 0.05 U	--	--
Methylene Chloride	mg/kg	0.43	SL-3	< 0.0068 UJ	< 0.005 U	< 0.00542 UJ	< 0.00522 U	R	--	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.00086 J**	**0.0015**	< 0.00108 UJ	< 0.00104 U	< 0.001 U	--	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.00136 UJ	< 0.001 U	< 0.00108 UJ	< 0.00104 U	< 0.001 U	--	--
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.00136 UJ	< 0.001 U	< 0.00108 UJ	< 0.00104 U	< 0.001 U	--	--
Conventionals										
Total Organic Carbon	%			**0.14**	--	< 0.04 U	--	--	--	--
Total Solids	%			**90.1**	--	**90.3**	--	--	**91.6**	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area							
			Location	SB-41		SS-01	SS-02	SS-03	SS-04	SS-05	SS-06
			Sample Date	09/13/22	09/13/22	02/09/16	02/09/16	02/09/16	02/10/16	02/10/16	02/10/16
			Sample	SB-41-0-1	SB-41-5-6	SPM-SS-01-02092016	SPM-SS-02-02092016	SPM-SS-03-02092016	SPM-SS-04-02102016	SPM-SS-05-02102016	SPM-SS-06-02102016
			Depth	0 - 1 ft	5 - 6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	**4.28**	**2.35 J**	--	--	--	--	--	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**0.484 J**	< 0.2 U	**--**	**--**	**--**	**--**	**--**	**--**
Chromium	mg/kg	67	SL-9	**23.1**	**6.15**	**--**	**--**	**--**	**--**	**--**	**--**
Copper	mg/kg	36	SL-10	**74.3**	**9.14**	--	--	--	--	--	--
Lead	mg/kg	120	SL-9	**65.5**	**5.63**	**--**	**--**	**--**	**--**	**--**	**--**
Mercury	mg/kg	0.41	SL-8	**0.049**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Nickel	mg/kg	48	SL-10	**12.5**	**5.05**	--	--	--	--	--	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**77.4**	**26.5**	**--**	**--**	**--**	**--**	**--**	**--**
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	**0.00236 J**	< 0.00385 U	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.145**	< 0.004 U	**0.0075**	**0.014**	**0.094**	**0.21**	**0.82**	< 0.08 U
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	**2.06E-2 J**	**3.08E-2 J**	**1.24E-1 J**	**2.21E-1 J**	**5.96E-1 J**	**1.84E-2 J**
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	**7.37E-7 J**	**8.84E-7 J**	**2.52E-6 J**	**7.67E-6 J**	**6.28E-6 J**	**5.71E-7 J**
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	**1.53E-5 J**	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	**2.76E-7**	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.01 U	< 0.0005 U	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.01 U	< 0.0005 U	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.033 J**	**0.0006**	--	--	--	--	--	--
Fluoranthene	mg/kg	1.7	SL-8	**0.032**	**0.0014**	--	--	--	--	--	--
Pyrene	mg/kg	2.6	SL-8	**0.055**	**0.0014**	--	--	--	--	--	--
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.018**	**0.00064**	**--**	**--**	**--**	**--**	**--**	**--**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.035 J**	**0.0012**	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.06 J**	**0.0023**	**--**	**--**	**--**	**--**	**--**	**--**
Chrysene	mg/kg	1.4	SL-8	**0.032**	**0.0011**	--	--	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.01 UJ	< 0.0005 U	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.031 J**	**0.0006**	--	--	--	--	--	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.077 J**	**0.00288**	**--**	**--**	**--**	**--**	**--**	**--**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.318 J**	**0.0101**	--	--	--	--	--	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0484 J**	**0.00165**	--	--	--	--	--	--
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.5 U	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 1.5 U	**--**	**--**	**--**	**--**	**--**	**--**	**--**
2-Methylphenol	mg/kg	0.063	SL-8	< 0.5 U	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.5 U	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.5 U	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	< 0.8 U	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.5 U	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.5 U	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.5 U	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	< 0.05 U	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.05 U	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.25 U	--	--	--	--	--	--	--
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	< 0.02 U	--	--	--	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	< 0.02 U	--	--	--	--	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	< 0.034 U	--	--	--	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	< 0.01 U	--	--	--	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.01 U	--	--	--	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	< 0.01 U	--	--	--	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	< 0.02 U	--	--	--	--	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	< 0.02 U	--	--	--	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	< 0.01 U	--	--	--	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	< 0.034 U	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	< 5 U	< 5 U	--	--	--	--	--	--
Diesel Range Organics	mg/kg	2000	SL-3	**18 XJ**	**42 J**	**--**	**--**	**--**	**--**	**--**	**--**
Motor Oil Range Organics	mg/kg	2000	SL-3	**280**	**180 J**	**--**	**--**	**--**	**--**	**--**	**--**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**298**	**222 J**	**--**	**--**	**--**	**--**	**--**	**--**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	< 0.001 U	--	--	--	--	--	--	--
Total Xylenes	mg/kg	1.4	SL-9	< 0.002 U	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.05 U	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.43	SL-3	< 0.2 U	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	< 0.001 U	--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.001 U	--	--	--	--	--	--	--
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.001 U	--	--	--	--	--	--	--
Conventionals											
Total Organic Carbon	%			--	--	**0.205**	**0.349**	**0.526**	**0.56**	**0.496**	**0.276**
Total Solids	%			--	--	--	--	--	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area							
			Location	SS-07	SS-08	SS-09	SS-10	SS-11	SS-12	SS-13	SS-14
			Sample Date	02/09/16	02/09/16	02/10/16	02/10/16	02/10/16	02/09/16	02/10/16	02/10/16
			Sample	SPM-SS-07-02092016	SPM-SS-08-02092016	SPM-SS-09-02102016	SPM-SS-10-02102016	SPM-SS-11-02102016	SPM-SS-12-02092016	SPM-SS-13-02102016	SPM-SS-14-02102016
			Depth	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	--	--	--	--	--	--	--	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Chromium	mg/kg	67	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Copper	mg/kg	36	SL-10	--	--	--	--	--	--	--	--
Lead	mg/kg	120	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Mercury	mg/kg	0.41	SL-8	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Nickel	mg/kg	48	SL-10	--	--	--	--	--	--	--	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.0048**	**0.0715**	**0.05**	< 0.004 U	**0.019**	**0.017**	**0.061**	**0.027**
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	**5.86E-3 J**	**8.17E-2**	**5.44E-2 J**	**4.82E-3 J**	**2.57E-2 J**	**6.38E-3 J**	**1.64E-2**	**2.75E-2 J**
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	**2.93E-7 J**	**2.82E-6**	**1.78E-6 J**	**1.48E-7 J**	**5.54E-7 J**	**2.77E-7 J**	**4.66E-7**	**1.24E-6 J**
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--	--
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	--	--	--	--	--
Pyrene	mg/kg	2.6	SL-8	--	--	--	--	--	--	--	--
Benz(a)anthracene	mg/kg	0.73	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Chrysene	mg/kg	1.4	SL-8	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	--	--	--	--	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	--	--	--	--	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--	--
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	--	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	--	--	--	--	--
Diesel Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Motor Oil Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	--	--	--	--	--	--	--	--
Total Xylenes	mg/kg	1.4	SL-9	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.43	SL-3	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	--	--	--	--	--	--	--	--
Vinyl Chloride	mg/kg	0.0011	SL-3	--	--	--	--	--	--	--	--
Conventionals											
Total Organic Carbon	%			**0.218**	**0.37**	**0.366**	**0.0643**	**0.337**	**1.06**	**0.217**	**0.107**
Total Solids	%			--	--	--	--	--	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area							
			Location	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22
			Sample Date	02/09/16	02/09/16	02/10/16	02/10/16	02/10/16	02/10/16	02/08/16	02/08/16
			Sample	SPM-SS-15-02102016	SPM-SS-16-02092016	SPM-SS-17-02102016	SPM-SS-18-02102016	SPM-SS-19-02102016	SPM-SS-20-02102016	SPM-SS-21-02082016	SPM-SS-22-02082016
			Depth	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	--	--	--	--	--	--	--	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	--	--	--	--	--	--	--	--
Chromium	mg/kg	67	SL-9	--	--	--	--	--	--	--	--
Copper	mg/kg	36	SL-10	--	--	--	--	--	--	--	--
Lead	mg/kg	120	SL-9	--	--	--	--	--	--	--	--
Mercury	mg/kg	0.41	SL-8	--	--	--	--	--	--	--	--
Nickel	mg/kg	48	SL-10	--	--	--	--	--	--	--	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	--	--	--	--	--	--	--	--
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.052**	**0.36**	< 0.004 U	**0.25**	**0.77**	< 0.08 U	**16 J**	**0.22**
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	**7.36E-2 J**	**1.07E-1 J**	**4.96E-3 J**	**3.69E-1 J**	**9.30E-1 J**	**1.01E-1 J**	**2.21E+1 J**	**4.16E-1 J**
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	**3.53E-6 J**	**3.14E-6 J**	**1.20E-9 J**	**1.02E-5 J**	**2.64E-5**	**3.03E-6 J**	**3.48E-4**	**1.19E-5**
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--	--
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	--	--	--	--	--
Pyrene	mg/kg	2.6	SL-8	--	--	--	--	--	--	--	--
Benz(a)anthracene	mg/kg	0.73	SL-9	--	--	--	--	--	--	--	--
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	--	--	--	--	--	--	--	--
Chrysene	mg/kg	1.4	SL-8	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	--	--	--	--	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	--	--	--	--	--	--	--	--
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	--	--	--	--	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	--	--	--	--	--	--
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	--	--	--	--	--	--	--	--
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--	--
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	--	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	--	--	--	--	--
Diesel Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--	--
Motor Oil Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--	--
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--	--
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	--	--	--	--	--	--	--	--
Total Xylenes	mg/kg	1.4	SL-9	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.43	SL-3	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	--	--	--	--	--	--	--	--
Vinyl Chloride	mg/kg	0.0011	SL-3	--	--	--	--	--	--	--	--
Conventionals											
Total Organic Carbon	%			**0.701**	**0.514**	**0.0516**	**1.45**	**0.246**	**0.128**	**1.14**	**0.507**
Total Solids	%			--	--	--	--	--	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	Central Area							
			Location	SS-23	SS-24	SS-27	SS-32	SS-33	SS-34	SS-35	SS-38
			Sample Date	02/08/16	02/10/16	02/08/16	11/17/17	11/17/17	11/17/17	11/17/17	11/17/17
			Sample	SPM-SS-23-02082016	SPM-SS-24-02102016	SPM-SS-27-02082016	SS-32-0-1.5	SS-33-0-1.5	SS-34-0-1.5	SS-35-0-1.5	SS-38-0-1
			Depth	0 - 1.6 ft	0 - 1.6 ft	0 - 1.6 ft	0 - 1.5 ft	0 - 1.5 ft	0 - 1.5 ft	0 - 1.5 ft	0 - 1 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**								
Metals, Total											
Arsenic	mg/kg	7.3	SL-10	--	--	--	--	--	--	--	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	--	--	--	--	--	--	--	--
Chromium	mg/kg	67	SL-9	--	--	--	--	--	--	--	--
Copper	mg/kg	36	SL-10	--	--	--	--	--	--	--	--
Lead	mg/kg	120	SL-9	--	--	--	--	--	--	--	--
Mercury	mg/kg	0.41	SL-8	--	--	--	--	--	--	--	--
Nickel	mg/kg	48	SL-10	--	--	--	--	--	--	--	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	--	--	--	--	--	--	--	--
Butyl Tins											
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors											
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	**0.083**	**0.074**	**0.041**	**0.2 A**	**29 A**	< 0.053 UA	< 0.052 UA	**66 A**
Polychlorinated Biphenyl (PCB) Congeners											
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	**1.86E-1 J**	**1.05E-1 J**	**8.35E-2 J**	--	**7.65E+1 J**	--	--	**4.92E+1 J**
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	**6.79E-6 J**	**3.95E-6 J**	**4.67E-6 J**	--	**1.30E-3**	--	--	**8.38E-4**
Dioxins/Furans											
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)											
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	--	--	--	--	--
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	--	--	--	--	--
Pyrene	mg/kg	2.6	SL-8	--	--	--	--	--	--	--	--
Benz(a)anthracene	mg/kg	0.73	SL-9	--	--	--	--	--	--	--	--
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	--	--	--	--	--	--	--	--
Chrysene	mg/kg	1.4	SL-8	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	--	--	--	--	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	--	--	--	--	--	--	--	--
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	--	--	--	--	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Other Semivolatile Organic Compounds (SVOCs)											
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	--	--	--	--	--	--
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	--	--	--	--	--	--	--	--
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--	--
Pesticides											
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	--	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	--	--	--	--	--
Diesel Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--	--
Motor Oil Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--	--
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	--	--	--	--	--	--	--	--
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)											
Benzene	mg/kg	0.0088	SL-3	--	--	--	--	--	--	--	--
Total Xylenes	mg/kg	1.4	SL-9	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)											
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--
Methylene Chloride	mg/kg	0.43	SL-3	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	--	--	--	--	--	--	--	--
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	--	--	--	--	--	--	--	--
Vinyl Chloride	mg/kg	0.0011	SL-3	--	--	--	--	--	--	--	--
Conventionals											
Total Organic Carbon	%			**0.46**	**0.446**	**0.252**	--	--	--	--	--
Total Solids	%			--	--	--	--	--	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				**Northwest Area**						
Location				**MW-13**		**MW-13D**			**MW-20**	
Sample Date				03/01/21	03/01/21	09/23/22	09/23/22	09/23/22	09/14/22	09/14/22
Sample				MW-13-0-1	MW-13-3-5	MW-13D-0-1	MW-13D-0-1-TIG	MW-13D-4-5	MW-20-0.5-1.5	MW-20-5-6
Depth				0 - 1 ft	3 - 5 ft	0 - 1 ft	0 - 1 ft	4 - 5 ft	0.5 - 1.5 ft	5 - 6 ft
Geologic Unit				Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**							
Metals, Total										
Arsenic	mg/kg	7.3	SL-10	**3.77 J**	**2.23 J**	--	--	--	**3.42**	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	**42.5 J**	--
Cadmium	mg/kg	5.1	SL-8	**0.07 J**	**0.04 J**	**--**	**--**	**--**	< 0.2 U	**--**
Chromium	mg/kg	67	SL-9	**7.88**	**9.85**	**--**	**--**	**--**	**7.5**	**--**
Copper	mg/kg	36	SL-10	**9.65 J**	**10.2 J**	--	--	--	**12**	--
Lead	mg/kg	120	SL-9	**9.53 J**	**4.98 J**	**--**	**--**	**--**	**11.3**	**--**
Mercury	mg/kg	0.41	SL-8	**0.0192 J**	**0.0161 J**	**--**	**--**	**--**	**0.031**	**--**
Nickel	mg/kg	48	SL-10	**6.57**	**8.34**	--	--	--	**6.38**	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	< 5 U	--
Zinc	mg/kg	100	SL-3	**21.7**	**23.1**	**--**	**--**	**--**	**30.2**	**--**
Butyl Tins										
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors										
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	< 0.004 U	< 0.004 U	--	--	--	< 0.004 U	--
Polychlorinated Biphenyl (PCB) Congeners										
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	--	--
Dioxins/Furans										
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	--	--	**1.30E-5 J**	--	**4.63E-7 J**	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	< 4.91E-7 U	--	< 5.62E-8 U	--
Polycyclic Aromatic Hydrocarbons (PAHs)										
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.00497 U	< 0.005 U	--	--	--	< 0.0025 U	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.00497 U	< 0.005 U	--	--	--	< 0.0025 U	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.00935**	**0.0106**	--	--	--	**0.097**	--
Fluoranthene	mg/kg	1.7	SL-8	**0.0102**	**0.0106 J**	--	--	--	**0.18**	--
Pyrene	mg/kg	2.6	SL-8	**0.0132**	**0.0145 J**	--	--	--	**0.27**	--
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.00469 J**	**0.00579**	**--**	**--**	**--**	**0.11**	**--**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.0077**	**0.00909 J**	--	--	--	**0.22**	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.00676**	**0.00744**	**--**	**--**	**--**	**0.27**	**--**
Chrysene	mg/kg	1.4	SL-8	**0.0067**	**0.00739**	--	--	--	**0.14**	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.00174 J**	**0.00199 J**	--	--	--	**0.017**	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.00638**	**0.00749**	--	--	--	**0.092**	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.0154**	**0.0174**	**--**	**--**	**--**	**0.366**	**--**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.0742 J**	**0.0848 J**	--	--	--	**1.49**	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0101 J**	**0.0119 J**	--	--	--	**0.28**	--
Other Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	**--**	**--**	**--**
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--
Pesticides										
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	< 0.001 U	--	< 0.001 U	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	< 0.001 U	--	< 0.001 U	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	< 0.0017 U	--	< 0.0017 U	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	< 0.0005 U	--	< 0.0005 U	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	< 0.0005 U	--	< 0.0005 U	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	< 0.0017 UJ	--	< 0.0017 UJ	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	< 0.001 U	--	< 0.001 U	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	< 0.001 U	--	< 0.001 U	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	< 0.0005 U	--	< 0.0005 U	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	< 0.0017 U	--	< 0.0017 U	--	--
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Organics	mg/kg	30	SL-3	R	< 8.91 U	--	--	--	R	--
Diesel Range Organics	mg/kg	2000	SL-3	< 54.3 U	< 53.8 U	**--**	**--**	**--**	< 5 UJ	**--**
Motor Oil Range Organics	mg/kg	2000	SL-3	< 109 U	< 108 U	**--**	**--**	**--**	< 25 U	**--**
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	< 109 U	< 108 U	**--**	**--**	**--**	< 25 UJ	**--**
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)										
Benzene	mg/kg	0.0088	SL-3	< 0.0013 U	< 0.00135 U	--	--	--	< 0.001 U	< 0.001 U
Total Xylenes	mg/kg	1.4	SL-9	< 0.00261 U	< 0.0027 U	--	--	--	< 0.002 U	< 0.002 U
Volatile Organic Compounds (VOCs)										
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.00261 U	< 0.0027 U	--	--	--	< 0.05 U	< 0.05 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.0013 U	< 0.00135 U	--	--	--	< 0.05 U	< 0.05 U
Methylene Chloride	mg/kg	0.43	SL-3	**0.00789**	**0.14 J**	--	--	--	< 0.2 U	< 0.2 UJ
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.878**	**0.252 J**	--	--	--	**1.9**	**0.85**
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	**0.00471**	**0.00273**	--	--	--	**0.0042 J**	**0.0025 J**
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.0013 U	< 0.00135 U	--	--	--	< 0.001 U	< 0.001 U
Conventionals										
Total Organic Carbon	%			< 0.02 U	< 0.02 U	--	--	--	--	--
Total Solids	%			**92.1**	**92.9**	--	**76.2**	--	--	--

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

			Site Area	**Northwest Area**						
			Location	**MW-21**	**MW-22**		**SB-30**		**SB-31**	
			Sample Date	09/14/22	09/14/22	09/14/22	03/01/21	03/01/21	03/01/21	03/01/21
			Sample	MW-21-5-6	MW-22-0-2-TIG	MW-22-5-6	SB-30-0-1	SB-30A-3-5	SB-31-0-1	SB-31A-3-5
			Depth	5 - 6 ft	0 - 2 ft	5 - 6 ft	0 - 1 ft	3 - 5 ft	0 - 1 ft	3 - 5 ft
			Geologic Unit	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**							
Metals, Total										
Arsenic	mg/kg	7.3	SL-10	**2.76**	--	**3.41**	**2.9 J**	**6.01 J**	**6.42 J**	**3.38 J**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	< 0.2 U	--	< 0.2 U	**0.12**	**0.24**	**0.08 J**	**0.14**
Chromium	mg/kg	67	SL-9	**6.94**	--	**6.79**	**25.1**	**9.83**	**16.2**	**17.2**
Copper	mg/kg	36	SL-10	**12**	--	**11.2**	**19.9 J**	**19.5 J**	**37.4 J**	**19.7 J**
Lead	mg/kg	120	SL-9	**2.2**	--	**1.67**	**3.75 J**	**20.8 J**	**6.25 J**	**27.2 J**
Mercury	mg/kg	0.41	SL-8	**0.029**	--	< 0.025 U	**0.278**	**0.0234 J**	**0.0268**	**0.0194 J**
Nickel	mg/kg	48	SL-10	**5.66**	--	**6.42**	**38.5**	**10**	**22.9**	**20.2**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--
Zinc	mg/kg	100	SL-3	**20.1**	--	**16.7**	**37.3**	**41.8**	**40.9**	**117**
Butyl Tins										
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors										
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-3, PQL Adj.	< 0.004 U	--	< 0.004 U	**0.0033 J**	**0.0022 J**	**0.0291**	**0.0019 J**
Polychlorinated Biphenyl (PCB) Congeners										
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-3, PQL Adj.	--	--	--	--	--	**2.26E-2 J**	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-3, PQL Adj.	--	--	--	--	--	**6.98E-7 J**	--
Dioxins/Furans										
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-3, PQL Adj.	--	**2.91E-6 J**	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	< 4.99E-7 U	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)										
1-Methylnaphthalene	mg/kg	20	SL-1	**0.00059**	--	< 0.0005 U	< 0.00498 U	< 0.00498 U	< 0.00499 U	< 0.005 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	**0.00079**	--	< 0.0005 U	< 0.00498 U	< 0.00594 U	< 0.00499 U	< 0.005 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.0075**	--	**0.0011**	**0.0129**	**0.0759**	**0.00805**	**0.00968**
Fluoranthene	mg/kg	1.7	SL-8	**0.023**	--	**0.00081**	**0.00658**	**0.097**	**0.0023 J**	**0.00937**
Pyrene	mg/kg	2.6	SL-8	**0.029**	--	**0.0012**	**0.0337**	**0.114**	**0.00328 J**	**0.0113**
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.011**	--	**0.00075**	**0.00556**	**0.0543**	**0.00134 J**	**0.00395 J**
Benzo(a)pyrene	mg/kg	0.00050	SL-3, PQL Adj.	**0.012**	--	**0.0014**	**0.00518**	**0.0831**	**0.00217 J**	**0.00643**
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.013**	--	**0.0019**	**0.00737**	**0.0718**	**0.00336 J**	**0.00611**
Chrysene	mg/kg	1.4	SL-8	**0.013**	--	**0.0012**	**0.0137**	**0.067**	**0.003 J**	**0.00577**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	**0.0015**	--	< 0.0005 U	**0.00205 J**	**0.013**	**0.00123 J**	**0.00149 J**
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.0078**	--	**0.0011**	**0.00287 J**	**0.0544**	**0.00319 J**	**0.00617**
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.0175**	--	**0.00261**	**0.012**	**0.148**	**0.00631 J**	**0.0132**
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.122**	--	**0.0104**	**0.0949 J**	**0.708**	**0.031 J**	**0.0671 J**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-3, PQL Adj.	**0.0159**	--	**0.00188**	**0.00732 J**	**0.107**	**0.00328 J**	**0.00857 J**
Other Semivolatile Organic Compounds (SVOCs)										
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	--	--	--	--	--
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-9, PQL Adj.	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	--	--	--	--	--	--	--
Hexachlorobenzene	mg/kg	0.0025	SL-3, PQL Adj.	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--
Pesticides										
4,4'-DDE	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--
Aldrin	mg/kg	0.0017	SL-3, PQL Adj.	--	--	--	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-3, PQL Adj.	--	--	--	--	--	--	--
Endrin Aldehyde	mg/kg	0.0024	SL-3	--	--	--	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-3, PQL Adj.	--	--	--	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-8, PQL Adj.	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH)										
Gasoline Range Organics	mg/kg	30	SL-3	**3 J**	--	< 5 U	< 5 U	< 6.37 U	< 7.76 U	< 9.99 U
Diesel Range Organics	mg/kg	2000	SL-3	< 5 UJ	--	< 5 UJ	< 54.7 U	< 55.1 U	< 52.5 U	< 54.8 U
Motor Oil Range Organics	mg/kg	2000	SL-3	< 25 U	--	< 25 U	**212**	< 110 U	< 105 U	< 110 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-3	< 25 UJ	--	< 25 UJ	**212**	< 110 U	< 105 U	< 110 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)										
Benzene	mg/kg	0.0088	SL-3	< 0.001 U	--	< 0.001 U	< 0.00102 U	**0.00037 J**	< 0.00132 U	< 0.00147 U
Total Xylenes	mg/kg	1.4	SL-9	< 0.002 U	--	< 0.002 U	< 0.00204 U	< 0.00222 U	< 0.00263 U	< 0.00294 U
Volatile Organic Compounds (VOCs)										
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	--	< 0.05 U	< 0.00204 U	< 0.00222 U	< 0.00263 U	< 0.00294 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.05 U	--	< 0.05 U	< 0.00102 U	< 0.00111 U	< 0.00132 U	< 0.00147 U
Methylene Chloride	mg/kg	0.43	SL-3	**0.23**	--	< 0.2 U	< 0.00511 U	< 0.00556 U	< 0.00658 U	**0.00682 J**
Tetrachloroethene (PCE)	mg/kg	0.029	SL-3	**0.055**	--	**0.069**	**0.0181**	**0.187**	**0.0547**	**0.0415**
Trichloroethene (TCE)	mg/kg	0.0044	SL-3	< 0.001 U	--	< 0.001 U	< 0.00102 U	**0.00069 J**	< 0.00132 U	< 0.00147 U
Vinyl Chloride	mg/kg	0.0011	SL-3	< 0.001 U	--	< 0.001 U	< 0.00102 U	< 0.00111 U	< 0.00132 U	< 0.00147 U
Conventionals										
Total Organic Carbon	%			--	--	--	**0.26**	**0.58**	**0.1**	**0.19**
Total Solids	%			--	**92.8**	--	**81.8**	**89.1**	**93.7**	**86.6**

Table 6.8. Vadose Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Notes:

Bold = detected

Gray Shaded = Nondetect result has an RDL that exceeds the Proposed RI CUL.

Blue Shaded = Detected result exceeded the Proposed RI CUL.

Proposed RI CUL = Proposed Remedial Investigation Cleanup Level

COPC = contaminant of potential concern

mg/kg = milligrams per kilogram

% = percent

"--" = results not available

U = Analyte not detected at or above the RDL shown

J = Result value estimated

UJ = Analyte not detected, and the RDL shown is an estimate

R = Rejected, refer to data validation report

A = One or more of the nine common Aroclor groups (1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268) were not reported, and the Total PCB Aroclors (ND = 0) sum assumes the missing components were nondetect.

Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with nondetects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is shown as nondetect at the maximum RDL for any individual Aroclor.

(ND = 0) = Calculated using zero for nondetected components

RDL = Reported Detection Limit

(ND = 1/2 RDL) = Calculated using one-half the RDL for nondetected components.

TEQ = Toxic Equivalency

HPAHs = high molecular weight polycyclic aromatic hydrocarbons: fluoranthene, pyrene, benz(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene

cPAHs = carcinogenic polycyclic aromatic hydrocarbons: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene

Field duplicate results not displayed; field duplicate results were used to assess data quality.

Basis of Cleanup Level Codes:

SL-1	Direct Contact Unrestricted
SL-3	Protection of Surface Water via Groundwater - Vadose Zone
SL-8	Protect Sediment via Erosion
SL-9	Site-Specific Terrestrial Ecological Evaluation Unrestricted
SL-10	Natural Background
PQL Adj.	Practical Quantitation Limit, basis was adjusted to the method reporting limit (MRL) listed in the Sampling and Analysis Plan / Quality Assurance Project Plan. Refer to the Remedial Investigation Work Plan Addendum, Appendix C.

Table 6.9. Saturated Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				South Area																				
Location				B-01	B-02	B-03	B-04	MW-04				MW-04D								MW-05				
Sample Date				11/17/17	11/17/17	11/17/17	11/17/17	03/04/21	03/04/21	03/04/21	03/04/21	09/22/22	09/22/22	09/22/22	09/22/22	09/22/22	09/22/22	09/22/22	09/22/22	03/05/21	03/05/21	03/05/21	03/05/21	03/05/21
Sample				B-01-8.5-9.5	B-02-6.5-7	B-03-6.5-7	B-04-6.5-7	MW-4-7-8	MW-4-10.5-11.5	MW-4-13.5-14.5	MW-4-18-20	MW-04D-10-11	MW-04D-10-11-TIG	MW-04D-14-15	MW-04D-16-17	MW-04D-19-20	MW-04D-21-22	MW-04D-25-26	MW-04D-29-30	MW-5-6-7	MW-5-8-9.5	MW-5-15-16	MW-5-20-22.5	MW-5-26.5-28
Depth (ft)				8.5 - 9.5	6.5 - 7	6.5 - 7	6.5 - 7	7 - 8	10.5 - 11.5	13.5 - 14.5	18 - 20	10 - 11	10 - 11	14 - 15	16 - 17	19 - 20	21 - 22	25 - 26	29 - 30	6 - 7	8 - 9.5	15 - 16	20 - 22.5	26.5 - 28
Geologic Unit				Fill	Fill	Tidal Flat	Tidal Flat	Fill	Tidal Flat	Alluvial	Alluvial	Tidal Flat	Tidal Flat	Tidal Flat	Tidal Flat	Alluvial	Alluvial	Till	Till	Fill	Fill	Alluvial	Alluvial	Till
Analyte	Unit	Proposed RI CUL	Basis of CUL																					
Metals, Total																								
Arsenic	mg/kg	7.3	SL-10	--	--	--	--	**1.88**	**29.3**	**2.92**	**1.7**	**3.38**	--	**0.787 J**	**1.45**	--	--	**1.8**	--	**1.4**	**1.12 J**	**1.75**	**1.43**	**5.29**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	--	--	--	--	**0.08 J**	**0.07 J**	**0.7**	**0.05 J**	**2.11**	--	**0.43 J**	< 0.2 U	--	--	**0.232 J**	--	**3.74**	**0.26**	**0.17**	**0.08 J**	**0.13**
Chromium	mg/kg	67	SL-9	--	--	--	--	**21.6**	**9.92**	**35.5**	**8.78**	**46.7**	--	**20.2**	**5.78**	--	--	**17.4**	--	**77.3**	**20.6 J**	**12.6**	**11.6**	**50**
Copper	mg/kg	36	SL-10	--	--	--	--	**9.18**	**20.7**	**37.9**	**10.4**	**47.2**	--	**7.51**	**7.36**	--	--	**17.9**	--	**35**	**14.2**	**12.4**	**10.5**	**31**
Lead	mg/kg	120	SL-9	--	--	--	--	**9.7 J**	**3.18 J**	**166 J**	**1.34**	**366**	--	**96**	**2.09 J**	--	--	**5.06 J**	--	**586 J**	**64.5 J**	**39.3**	**10**	**7.64**
Mercury	mg/kg	0.41	SL-8	--	--	--	--	**0.0141 J**	**0.0234 J**	**0.422**	--	--	--	--	**0.074**	--	--	< 0.025 U	--	**0.211**	**0.045**	**0.0566**	--	**0.0432**
Nickel	mg/kg	48	SL-10	--	--	--	--	**9.59**	**8.51**	**12.3**	**7.66**	**12.4**	--	**4.72**	**5.36**	--	--	**24.9**	--	**8.5**	**8.52**	**7.49**	**8.37**	**58.4**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	mg/kg	85	SL-10	--	--	--	--	**30.4**	**25.5**	**94.8**	**26.1**	**179**	--	**93.5**	**16.3 J**	--	--	**23.9 J**	--	**418**	**110 J**	**44.3**	**26.2**	**70.2**
Butyl Tins																								
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--	--	**0.00387**	--	**0.000596 J**	**0.000562 J**	< 0.0115 U	--	< 0.00381 U	< 0.00386 U	< 0.0382 U	**0.00749 J**	**0.00281 J**	--	**0.026**
Polychlorinated Biphenyl (PCB) Aroclors																								
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-6, PQL Adj.	< 0.064 UA	**131 JA**	**13.6 A**	**10.7 A**	**26.4**	**0.171**	**5.78**	**0.006 J**	**14**	--	**10**	**2.75**	--	< 0.004 U	< 0.004 U	< 0.004 U	**25.9**	**7.77 J**	**0.954**	**0.233**	**0.011 J**
Polychlorinated Biphenyl (PCB) Congeners																								
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-6, PQL Adj.	--	**9.91E+1 J**	--	--	**2.21E+1 J**	--	--	--	--	**8.72E+0 J**	--	--	--	--	--	--	**3.69E+1 J**	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-6, PQL Adj.	--	**2.51E-3 J**	--	--	**4.71E-4**	--	--	--	--	**2.77E-4 J**	--	--	--	--	--	--	**9.64E-4**	--	--	--	--
Dioxins/Furans																								
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-6, PQL Adj.	--	--	--	--	**1.00E-3 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	**4.45E-5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)																								
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	**0.0836 J**	**0.00784**	**0.0122**	**0.00107 J**	< 0.05 U	--	< 0.05 U	**0.0059 J**	--	--	< 0.0005 U	--	**1.05**	**0.383 J**	**0.0517**	**0.00471 J**	< 0.00499 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	--	**0.102 J**	**0.0151**	**0.0216**	**0.00142 J**	< 0.05 U	--	< 0.05 U	**0.0012 J**	--	--	< 0.0005 U	--	**0.342**	**0.511 J**	**0.0554**	**0.00556**	< 0.00499 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	--	**0.0756**	**0.0361**	**0.0259**	< 0.00498 U	< 0.05 U	--	< 0.05 U	**0.0035 J**	--	--	< 0.0005 U	--	**0.0811**	**0.0221 J**	**0.00627**	**0.00152 J**	**0.00152 J**
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	--	**0.681**	**0.0443**	**0.185**	< 0.00498 U	< 0.05 U	--	< 0.05 U	**0.033 J**	--	--	< 0.0005 U	--	**0.62**	**0.118**	**0.0307**	**0.00489 J**	**0.00233 J**
Pyrene	mg/kg	2.6	SL-8	--	--	--	--	**0.517**	**0.0457**	**0.17**	< 0.00498 U	**0.052**	--	< 0.05 U	**0.099 J**	--	--	< 0.0005 U	--	**0.587**	**0.121**	**0.0276**	**0.00564**	**0.00298 J**
Benz(a)anthracene	mg/kg	0.73	SL-9	--	--	--	--	**0.179**	**0.0156**	**0.054**	< 0.00498 U	< 0.05 U	--	< 0.05 U	**0.013 J**	--	--	< 0.0005 U	--	**0.184**	**0.0372 J**	**0.00845**	**0.00267 J**	< 0.00499 U
Benzo(a)pyrene	mg/kg	0.00050	SL-6, PQL Adj.	--	--	--	--	**0.108**	**0.0171**	**0.0343**	< 0.00498 U	**0.016 J**	--	< 0.05 U	**0.0089 J**	--	--	< 0.0005 U	--	**0.133**	**0.0314 J**	**0.00629**	**0.00188 J**	< 0.00499 U
Benzo(b)fluoranthene	mg/kg	44	SL-9	--	--	--	--	**0.106**	**0.0163**	**0.0297**	< 0.00498 U	< 0.05 U	--	< 0.05 U	**0.0085 J**	--	--	< 0.0005 U	--	**0.118**	**0.0148 J**	**0.00704**	**0.00201 J**	< 0.00499 U
Chrysene	mg/kg	1.4	SL-8	--	--	--	--	**0.282**	**0.0233**	**0.0873**	< 0.00498 U	< 0.05 U	--	< 0.05 U	**0.018 J**	--	--	< 0.0005 U	--	**0.266**	**0.0736**	**0.0166**	**0.00355 J**	**0.00199 J**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	--	**0.0195 J**	**0.00336 J**	**0.00704**	< 0.00498 U	< 0.05 U	--	< 0.05 U	**0.0012 J**	--	--	< 0.0005 U	--	**0.0226 J**	< 0.0499 U	**0.00119 J**	< 0.00498 U	< 0.00499 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	--	**0.0595**	**0.0161**	**0.0175**	< 0.00498 U	< 0.05 U	--	< 0.05 U	**0.0035 J**	--	--	< 0.0005 U	--	**0.0918**	**0.0244 J**	**0.00514**	< 0.00498 U	< 0.00499 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	--	--	--	--	**0.208**	**0.0363**	**0.0655**	< 0.00997 U	< 0.05 U	--	< 0.05 U	**0.0123 J**	--	--	< 0.0005 U	--	**0.257**	**0.0451 J**	**0.0152**	**0.00479 J**	< 0.00997 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	--	**2.14 J**	**0.238 J**	**0.643**	< 0.00498 U	**0.268**	--	< 0.05 U	**0.192 J**	--	--	< 0.0005 U	--	**2.25 J**	**0.495 J**	**0.118 J**	**0.0297 J**	**0.0263 J**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-6, PQL Adj.	--	--	--	--	**0.153 J**	**0.0234 J**	**0.0477**	< 0.00376 U	**0.0288**	--	< 0.0378 U	**0.0121 J**	--	--	< 0.000378 U	--	**0.185 J**	**0.0433 J**	**0.00903 J**	**0.00302 J**	**0.00376 J**
Semi-Volatile Organic Compounds (SVOCs)																								
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	**0.0376 J**	< 0.0997 U	< 0.1 U	< 0.0999 U	< 2.5 U	--	< 2.5 U	< 0.025 U	--	--	--	--	< 0.0997 U	< 0.0996 U	< 0.1 U	< 0.0997 U	< 0.0999 U
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	--	--	< 0.199 UJ	< 0.199 UJ	< 0.2 UJ	< 0.2 UJ	< 7.5 U	--	< 7.5 U	< 0.075 U	--	--	--	--	< 0.199 UJ	< 0.199 UJ	< 0.2 UJ	< 0.199 UJ	< 0.2 UJ
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.02 U	< 2.5 U	--	< 2.5 U	< 0.025 U	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.02 U	< 2.5 U	--	< 2.5 U	< 0.025 U	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.02 U	< 2.5 U	--	< 2.5 U	**0.052 J**	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-6, PQL Adj.	--	--	--	--	**1.52**	**0.0373 J**	**0.617**	< 0.0499 U	< 4 U	--	< 4 U	**0.098 J**	--	--	--	--	**1.56**	**0.939 J**	**0.113**	**0.0438 J**	< 0.05 U
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	< 0.0199 U	< 0.0199 U	**0.0667**	< 0.02 U	< 2.5 U	--	< 2.5 U	< 0.025 U	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.02 U	< 2.5 U	--	< 2.5 U	< 0.025 U	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.02 U	< 2.5 U	--	< 2.5 U	< 0.025 U	--	--	--	--	< 0.0199 U	< 0.0199 U	**0.0092 J**	< 0.0199 U	< 0.02 U
Hexachlorobenzene	mg/kg	0.022	SL-8	--	--	--	--	< 0.01 U	< 0.0025 U	< 0.00498 U	< 0.0005 U	< 0.25 U	--	< 0.25 U	< 0.0025 U	--	--	--	--	**0.0469**	< 0.005 U	< 0.00499 U	< 0.00249 U	< 0.0005 U
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	< 0.0199 U	< 0.0199 U	< 0.02 U	< 0.02 U	< 0.25 U	--	< 0.25 UJ	< 0.0025 U	--	--	--	--	**0.0995 J**	< 0.0199 U	< 0.02 U	< 0.0199 U	< 0.02 U
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	< 0.0997 UJ	< 0.0997 UJ	< 0.1 UJ	< 0.0999 UJ	< 1.2 U	--	< 1.2 U	< 0.012 U	--	--	--	--	< 0.0997 UJ	< 0.0996 UJ	< 0.1 UJ	< 0.0997 U	< 0.0999 UJ
Pesticides and Herbicides																								
4,4'-DDE	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	< 6.66 U	< 0.005 U	< 2.99 U	< 0.001 U	**0.12 J**	--	**0.13 J**	< 0.1 U	--	--	< 0.001 U	--	< 22.2 U	< 2 U	< 0.549 U	< 0.00498 U	< 0.001 U
4,4'-DDT	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	< 11.1 U	< 0.005 U	< 2.99 U	< 0.001 U	< 0.1 U	--	< 0.1 U	< 0.1 U	--	--	< 0.001 U	--	< 44.3 U	< 2.22 U	< 0.00998 U	< 0.00498 U	< 0.001 U
Aldrin	mg/kg	0.0017	SL-6, PQL Adj.	--	--	--	--	**7.46**	**0.0439**	**2.39**	< 0.0005 U	**0.19**	--	**0.23**	**0.76**	--	--	< 0.0017 U	--	**20.3**	**2.45 J**	**0.525**	**0.0732**	**0.00523**
Alpha-BHC	mg/kg	0.00050	SL-6, PQL Adj.	--	--	--	--	< 0.01 U	< 0.0025 U	**0.014**	< 0.0005 U	< 0.05 U	--	< 0.05 U	< 0.05 U	--	--	< 0.0005 U	--	< 0.00998 U	< 0.005 U	< 0.00499 U	< 0.00249 U	< 0.0005 U
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	< 1.98 U	< 0.0025 U	< 0.997 U	< 0.0005 U	< 0.05 U	--	< 0.05 U	< 0.05 U	--	--	< 0.0005 U	--	< 6.64 U	< 0.005 U	< 0.00499 U	< 0.00249 U	< 0.0005 U
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	< 0.01 U	< 0.0025 U	< 0.00498 U	< 0.0005 U	< 0.17 UJ	--	< 0.17 UJ	< 0.17 UJ	--	--	< 0.0017 UJ	--	< 0.00998 U	< 0.005 U	< 0.00499 U	< 0.00249 U	< 0.0005 U
Dieldrin	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	**1.75**	**0.00585 J**	< 2.99 U	< 0.001 U	**0.45**	--	**0.92**	**0.13 J**	--	--	< 0.001 U	--	**3.1**	< 2 U	< 0.00998 U	**0.0121**	< 0.001 U
Endrin Aldehyde	mg/kg	0.011	SL-9	--	--	--	--	< 0.02 U	< 0.005 U	< 0.00997 U	< 0.001 U	< 0.1 U	--	< 0.1 U	< 0.1 U	--	--	< 0.001 U	--	< 0.02 U	< 0.01 U	< 0.00998 U	< 0.00498 U	< 0.001 U
Heptachlor	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	< 1.32 U	< 0.0025 U	< 0.00498 U	< 0.0005 U	< 0.05 U	--	< 0.05 U	< 0.05 U	--	--	< 0.0005 U	--	< 4.43 U	< 0.2 U	< 0.00499 U	< 0.00249 U	< 0.0005 U
trans-Chlordane	mg/kg	0.0017	SL-7, PQL Adj.	--	--	--	--	< 6.66 U	< 0.0025 U	< 0.997 U	< 0.0005 U	< 0.17 U	--	< 0.17 U	< 0.17 U	--	--	< 0.0017 U	--	< 0.00998 U	< 0.005 U	< 0.00499 U	< 0.00249 U	< 0.0005 U
Total Petroleum Hydrocarbons																								
Gasoline Range Organics	mg/kg	30	SL-3	--	--	--	--	**650**	< 12.8 U	< 8.72 U	< 8.16 U	**17**	--	< 5 U	< 5 U	--	--	--	--	**534**	< 6.27 U	< 7.73 U	< 6.74 U	< 8.69 U
Diesel Range Organics	mg/kg	2000	SL-6	--	--	--	--	**7090**	< 83.7 U	**1770**	< 67.5 U	**6200**	--	**8700**	**660**	--	--	--	--	**9550**	**964 J**	**248**	< 60.7 U	< 63 U
Motor Oil Range Organics	mg/kg	2000	SL-6	--	--	--	--	**18700**	**202**	**5150**	< 135 U	**39000**	--	**49000**	**1600**	--	--	--	--	**26800**	**2490 J**	**777**	**191**	< 126 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-6	--	--	--	--	**25800**	**202**	**6920**	< 135 U	**45200**	--	**57700**	**2260**	--	--	--	--	**36400**	**3450 J**	**1030**	**191**	< 126 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																								
Benzene	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	< 0.057 U	**0.00356**	< 0.00133 U	< 0.00138 U	--	--	--	< 0.001 U	--	--	--	--	**0.00079 J**	**0.00055 J**	< 0.00128 U	< 0.00126 U	< 0.00147 U
Total Xylenes	mg/kg	1.4	SL-9	--	--	--	--	< 0.114 U	**0.00836**	< 0.00267 U	< 0.00275 U	--	--	--	< 0.002 U	--	--	--	--	**0.123**	< 0.00202 U	< 0.00255 U	< 0.00252 U	< 0.00294 U
Volatile Organic Compounds (VOCs)																								
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	--	--	< 0.114 U	< 0.00367 U	< 0.00267 U	< 0.00275 U	--	--	--	< 0.05 U	--	--	--	--	< 0.00238 UJ	< 0.00202 U	< 0.00255 U	< 0.00252 U	< 0.00294 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	--	--	**0.035**	< 0.00183 U	**0.0107 J**	< 0.00138 U	< 0.25 U	--	< 0.25 U	< 0.0025 U	--	--	--	--	**0.0538**	**0.0359**	< 0.00128 U	< 0.00126 U	< 0.00147 U
Methylene Chloride	mg/kg	2.6	SL-9	--	--	--	--	**0.114 J**	< 0.00917 U	< 0.00667 U	< 0.00688 U	--	--	--	R	--	--	--	--	< 0.00596 U	< 0.00504 U	< 0.00638 U	< 0.00629 U	< 0.00736 U
Tetrachloroethene (PCE)	mg/kg	0.0016	SL-6	--	--	--	--	< 0.057 U	< 0.00183 U	< 0.00133 U	< 0.00138 U	--	--	--	< 0.001 U	--	--	--	--	< 0.00119 U	**0.00307 J**	< 0.00128 U	< 0.00126 U	< 0.00147 U
Trichloroethene (TCE)	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	< 0.057 U	< 0.00183 U	< 0.00133 U	< 0.00138 U	--	--	--	< 0.001 U	--	--	--	--	**0.0007 J**	**0.00063 J**	< 0.00128 U	< 0.00126 U	< 0.00147 U
Vinyl Chloride	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	< 0.057 U	< 0.00183 U	< 0.00133 U	< 0.00138 U	--	--	--	< 0.001 U	--	--	--	--	< 0.00119 U	< 0.00101 U	< 0.00128 U	< 0.00126 U	< 0.00147 U
Conventionals																								
Total Organic Carbon	%			--	--	--	--	**2.28**	**1.49**	**1.05**	--	--	--	--	--	--	--	--	--	--	**0.21**	**0.1**	< 0.02 U	**0.38**
Total Solids	%			--	--	--	--	**79.8**	**63.2**	**76.8**	--	--	**83.2**	--	--	--	--	--	--	--	**73.3**	**77.5**	**82.3**	**79.3**

Table 6.9. Saturated Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				South Area																									
Location				MW-05D										MW-06		MW-06D						MW-16	MW-16D					MW-18	
Sample Date				09/21/22	09/21/22	09/21/22	09/21/22	09/21/22	09/21/22	09/21/22	09/21/22	09/21/22	09/21/22	03/05/21	03/05/21	09/21/22	09/21/22	09/21/22	09/21/22	09/21/22	09/21/22	09/23/22	09/22/22	09/22/22	09/22/22	09/23/22	09/23/22	09/13/22	09/13/22
Sample				MW-05D-6-7	MW-05D-9-10	MW-05D-10-11	MW-05D-13-14	MW-05D-13-14-TIG	MW-05D-15-16	MW-05D-18-19	MW-05D-21.5-22.5	MW-05D-26-27	MW-05D-30-31	MW-05D-39-40	MW-6-9	MW-6-18-20	MW-06D-8.5-9.5	MW-06D-12.5-13.5	MW-06D-19-20	MW-06D-19-20-TIG	MW-06D-26-27	MW-06D-29-30	MW-16-5.5-6.5	MW-16D-10.5-11.5	MW-16D-17-18	MW-16D-19-20	MW-16D-24-25	MW-16D-29-30	MW-18-13-14	MW-18-FD-13-14
Depth (ft)				6 - 7	9 - 10	10 - 11	13 - 14	13 - 14	15 - 16	18 - 19	21.5 - 22.5	26 - 27	30 - 31	39 - 40	9 - 9	18 - 20	8.5 - 9.5	12.5 - 13.5	19 - 20	19 - 20	26 - 27	29 - 30	5.5 - 6.5	10.5 - 11.5	17 - 18	19 - 20	24 - 35	29 - 30	13 - 14	13 - 14
Geologic Unit				Fill	Fill	Tidal Flat	Tidal Flat	Tidal Flat	Alluvial	Alluvial	Alluvial	Till	Till	Till	Tidal Flat	Alluvial	Tidal Flat	Tidal Flat	Alluvial	Alluvial	Till	Till	Fill	Tidal Flat	Alluvial	Alluvial	Till	Till	Alluvial	Alluvial
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**																										
Metals, Total																													
Arsenic	mg/kg	7.3	SL-10	--	--	**11.2**	**2.5**	--	--	--	--	**3.41**	**2.02**	--	**1.33**	**1.53**	--	--	--	--	**2.66**	--	--	--	**1.26**	--	--	--	**0.672 J**	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	--	--	**0.284 J**	< 0.2 U	--	--	--	--	**0.471 J**	**0.304 J**	--	< 0.13 U	< 0.12 U	--	--	--	--	**0.301 J**	--	--	--	< 0.2 U	--	--	--	< 0.2 U	--
Chromium	mg/kg	67	SL-9	--	--	**9.94**	**7.91**	--	--	--	--	**19.4**	**18**	--	**10.7**	**8.37**	--	--	--	--	**22.7**	--	--	--	**5.08**	--	--	--	**8.54**	--
Copper	mg/kg	36	SL-10	--	--	**14.5**	**9.17**	--	--	--	--	**19.3**	**13.4**	--	**8.8**	**11.4**	--	--	--	--	**18.7**	--	--	--	**6.84**	--	--	--	**11**	--
Lead	mg/kg	120	SL-9	--	--	**4.37**	**4.24**	--	--	--	--	**3.45**	**2.24**	--	**1.67**	**1.36**	--	--	--	--	**3.24**	--	--	--	**1.06 J**	--	--	--	**1.39**	--
Mercury	mg/kg	0.41	SL-8	--	--	**0.032 J**	**0.065 J**	--	--	--	--	**0.054 J**	**0.03 J**	--	--	--	--	--	--	--	**0.035 J**	--	--	--	< 0.025 U	--	--	--	< 0.025 U	< 0.025 U
Nickel	mg/kg	48	SL-10	--	--	**8.25**	**4.99**	--	--	--	--	**27.1**	**24.8**	--	**6.06**	**6.94**	--	--	--	--	**32.8**	--	--	--	**5.07**	--	--	--	**8.79**	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	mg/kg	85	SL-10	--	--	**23.3**	**19.7**	--	--	--	--	**36.9**	**26**	--	**34.5**	**21.7**	--	--	--	--	**33.9**	--	--	--	**15.2 J**	--	--	--	**18.6**	--
Butyl Tins																														
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	< 0.00382 U	< 0.00381 U	< 0.00384 U	< 0.0116 U	--	< 0.00384 U	--	--	< 0.00381 U	< 0.00359 U	--	--	--	< 0.00386 U	**0.0433**	< 0.00384 U	--	< 0.00376 U	< 0.00381 U	--	--	< 0.00385 U	< 0.00386 U	--	--	< 0.00382 U	--
Polychlorinated Biphenyl (PCB) Aroclors																														
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-6, PQL Adj.	--	--	**1.52**	**1.52**	--	< 0.004 U	< 0.004 U	< 0.004 U	**0.0058**	< 0.004 U	--	**0.0551 J**	< 0.004 U	**0.0174**	**0.06**	--	--	< 0.004 U	--	**0.56**	**0.092**	**0.0045**	< 0.004 U	< 0.004 U	< 0.004 U	< 0.004 U	--
Polychlorinated Biphenyl (PCB) Congeners																														
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-6, PQL Adj.	--	--	--	--	**1.07E+0 J**	--	--	--	--	--	--	--	--	--	--	--	**5.69E-6 J**	--	--	--	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-6, PQL Adj.	--	--	--	--	**2.47E-5**	--	--	--	--	--	--	--	--	--	--	--	< 2.48E-6 U	--	--	--	--	--	--	--	--	--	--
Dioxins/Furans																														
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)																														
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	**0.088**	**0.061**	--	--	< 0.0005 U	--	**0.00064**	< 0.0005 U	< 0.0005 U	**0.00315 J**	**0.00116 J**	--	**0.00082**	--	--	**0.00063**	< 0.0005 U	< 0.05 U	< 0.001 U	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	**0.073**	**0.0063**	--	--	< 0.0005 U	--	**0.00093**	< 0.0005 U	< 0.0005 U	**0.00608**	**0.0018 J**	--	**0.001**	--	--	**0.00084**	< 0.0005 U	< 0.05 U	< 0.001 U	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	**0.0056**	**0.0053 J**	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	**0.00317 J**	< 0.005 U	--	**0.0094**	--	--	**0.00059**	< 0.0005 U	< 0.05 U	**0.0011 J**	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Fluoranthene	mg/kg	1.7	SL-8	--	--	**0.041**	**0.0029**	--	--	< 0.0005 U	--	**0.00085**	< 0.0005 U	< 0.0005 U	**0.00597**	< 0.005 U	--	**0.023**	--	--	**0.00056**	< 0.0005 U	< 0.05 U	**0.0028**	**0.00068**	--	--	--	< 0.0005 U	< 0.0005 U
Pyrene	mg/kg	2.6	SL-8	--	--	**0.046**	**0.19 J**	--	--	< 0.0005 U	--	**0.0014**	< 0.0005 U	< 0.0005 U	**0.00606**	**0.00075 J**	--	**0.025**	--	--	**0.00095**	< 0.0005 U	< 0.05 U	**0.0037**	**0.00057**	--	--	--	< 0.0005 U	< 0.0005 U
Benz(a)anthracene	mg/kg	0.73	SL-9	--	--	**0.014**	**0.025 J**	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	**0.00245 J**	< 0.005 U	--	**0.017**	--	--	< 0.0005 U	< 0.0005 U	< 0.05 U	< 0.001 U	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Benzo(a)pyrene	mg/kg	0.00050	SL-6, PQL Adj.	--	--	**0.012**	**0.014 J**	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	**0.00322 J**	< 0.005 U	--	**0.018**	--	--	< 0.0005 U	< 0.0005 U	**0.025 J**	**0.0008 J**	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Benzo(b)fluoranthene	mg/kg	44	SL-9	--	--	**0.013**	**0.014 J**	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	**0.00342 J**	< 0.005 U	--	**0.021**	--	--	< 0.0005 U	< 0.0005 U	< 0.05 U	**0.0021 J**	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Chrysene	mg/kg	1.4	SL-8	--	--	**0.021**	**0.036 J**	--	--	< 0.0005 U	--	**0.00059**	< 0.0005 U	< 0.0005 U	**0.00464 J**	< 0.005 U	--	**0.02**	--	--	**0.00058**	< 0.0005 U	**0.067**	**0.0013**	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	< 0.005 U	**0.0021 J**	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.00499 U	< 0.005 U	--	**0.0021**	--	--	< 0.0005 U	< 0.0005 U	< 0.05 U	< 0.001 UJ	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	**0.007**	**0.0059 J**	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	**0.00199 J**	< 0.005 U	--	**0.01**	--	--	< 0.0005 U	< 0.0005 U	< 0.05 U	**0.0012 J**	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	--	--	**0.0155**	**0.0194 J**	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	**0.0071 J**	< 0.00999 U	--	**0.0291**	--	--	< 0.0005 U	< 0.0005 U	< 0.05 U	**0.0026 J**	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	**0.165**	**0.301 J**	--	--	< 0.0005 U	--	**0.00459**	< 0.0005 U	< 0.0005 U	**0.0372 J**	**0.0258 J**	--	**0.154**	--	--	**0.00418**	< 0.0005 U	**0.292 J**	**0.0145 J**	**0.00325**	--	--	--	< 0.0005 U	< 0.0005 U
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-6, PQL Adj.	--	--	**0.0161**	**0.0196 J**	--	--	< 0.000378 U	--	**0.000381**	< 0.000378 U	< 0.000378 U	**0.00447 J**	< 0.00377 U	--	**0.024**	--	--	**0.000381**	< 0.000378 U	**0.0382 J**	**0.00129 J**	< 0.000378 U	--	--	--	< 0.000378 U	< 0.000378 U
Semi-Volatile Organic Compounds (SVOCs)																														
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	< 0.25 U	< 0.025 U	--	--	< 0.025 UJ	--	< 0.025 U	--	--	< 0.0998 U	< 0.1 U	--	< 0.025 U	--	--	< 0.025 U	--	< 2.5 U	< 0.05 U	< 0.025 U	--	--	--	< 0.025 U	< 0.025 U
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	< 0.75 U	< 0.075 U	--	--	< 0.075 U	--	< 0.075 U	--	--	< 0.2 UJ	< 0.2 UJ	--	< 0.075 U	--	--	< 0.075 UJ	--	< 7.5 U	< 0.15 U	< 0.075 U	--	--	--	< 0.075 U	< 0.075 U
2-Methylphenol	mg/kg	0.063	SL-8	--	--	< 0.25 U	< 0.025 U	--	--	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	--	< 2.5 U	< 0.05 U	< 0.025 U	--	--	--	< 0.025 U	< 0.025 U
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	< 0.25 U	< 0.025 U	--	--	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	--	< 2.5 U	< 0.05 U	< 0.025 U	--	--	--	< 0.025 U	< 0.025 U
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	< 0.25 U	**0.093 J**	--	--	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	--	< 2.5 U	< 0.05 U	< 0.025 U	--	--	--	< 0.025 U	< 0.025 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-6, PQL Adj.	--	--	< 0.4 U	**0.16 J**	--	--	< 0.04 U	--	< 0.04 U	--	--	< 0.0499 U	< 0.05 U	--	< 0.04 U	--	--	< 0.04 U	--	< 4 U	< 0.08 U	< 0.04 U	--	--	--	< 0.04 U	< 0.04 U
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	< 0.25 U	< 0.025 U	--	--	< 0.025 U	--	< 0.025 U	--	--	**0.0496**	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	--	< 2.5 U	< 0.05 U	< 0.025 U	--	--	--	< 0.025 U	< 0.025 U
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	< 0.25 U	< 0.025 U	--	--	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	--	< 2.5 U	< 0.05 U	< 0.025 U	--	--	--	< 0.025 U	< 0.025 U
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	--	--	< 0.25 U	< 0.025 U	--	--	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	--	< 2.5 U	< 0.05 U	< 0.025 U	--	--	--	< 0.025 U	< 0.025 U
Hexachlorobenzene	mg/kg	0.022	SL-8	--	--	< 0.025 U	< 0.0025 U	--	--	< 0.0025 U	--	< 0.0025 U	--	--	< 0.0005 U	< 0.0005 U	--	< 0.0025 U	--	--	< 0.0025 U	--	< 0.25 U	< 0.005 U	< 0.0025 U	--	--	--	< 0.0025 U	< 0.0025 U
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	< 0.025 U	< 0.0025 U	--	--	< 0.0025 UJ	--	< 0.0025 U	--	--	< 0.02 U	< 0.02 U	--	< 0.025 UJ	--	--	< 0.0025 U	--	< 0.25 U	< 0.005 U	< 0.0025 U	--	--	--	< 0.0025 U	< 0.0025 U
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	< 0.12 U	< 0.012 U	--	--	< 0.012 U	--	< 0.012 U	--	--	< 0.0998 UJ	< 0.1 UJ	--	< 0.012 U	--	--	< 0.012 U	--	< 1.2 U	< 0.025 U	< 0.012 U	--	--	--	< 0.012 U	< 0.012 U
Pesticides and Herbicides																														
4,4'-DDE	mg/kg	0.0010	SL-6, PQL Adj.	--	--	< 0.05 U	< 0.05 U	--	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--	**0.00354**	< 0.001 U	--	--	--	--	< 0.001 U	--	< 0.1 U	< 0.2 U	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U
4,4'-DDT	mg/kg	0.0010	SL-6, PQL Adj.	--	--	< 0.05 U	< 0.05 U	--	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--	< 0.001 U	< 0.001 U	--	--	--	--	< 0.001 U	--	< 0.1 U	< 0.2 U	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U
Aldrin	mg/kg	0.0017	SL-6, PQL Adj.	--	--	< 0.085 U	**0.84**	--	--	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	--	< 0.002 U	< 0.0005 U	--	--	--	--	< 0.0017 U	--	< 0.17 U	< 0.34 U	< 0.0017 U	--	--	--	< 0.0017 U	< 0.0017 U
Alpha-BHC	mg/kg	0.00050	SL-6, PQL Adj.	--	--	< 0.025 U	< 0.025 U	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	--	--	--	< 0.0005 U	--	< 0.05 U	< 0.1 U	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	< 0.025 U	< 0.025 U	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	--	--	--	< 0.0005 U	--	< 0.05 U	< 0.1 U	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
Delta-BHC	mg/kg	0.0048	SL-1	--	--	< 0.025 U	< 0.025 U	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	--	--	--	< 0.0005 U	--	< 0.17 UJ	< 0.34 UJ	< 0.0017 UJ	--	--	--	< 0.0005 U	< 0.0005 U
Dieldrin	mg/kg	0.0010	SL-6, PQL Adj.	--	--	< 0.05 U	< 0.05 U	--	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--	**0.0175**	**0.00114**	--	--	--	--	< 0.001 U	--	< 0.1 U	< 0.2 U	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U
Endrin Aldehyde	mg/kg	0.011	SL-9	--	--	< 0.05 U	< 0.05 U	--	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--	< 0.001 U	< 0.001 U	--	--	--	--	< 0.001 U	--	< 0.1 U	< 0.2 U	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U
Heptachlor	mg/kg	0.00050	SL-8, PQL Adj.	--	--	< 0.025 U	< 0.025 U	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	--	--	--	< 0.0005 U	--	< 0.05 U	< 0.1 U	< 0.0005 U	--	--	--	< 0.0005 U	< 0.0005 U
trans-Chlordane	mg/kg	0.0017	SL-7, PQL Adj.	--	--	< 0.085 U	< 0.085 U	--	--	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	--	< 0.0005 U	< 0.0005 U	--	--	--	--	< 0.0017 U	--	< 0.17 U	< 0.34 U	< 0.0017 U	--	--	--	< 0.0017 U	< 0.0017 U
Total Petroleum Hydrocarbons																														
Gasoline Range Organics	mg/kg	30	SL-3	--	--	**77**	< 5 U	--	--	--	--	--	--	--	< 7.24 U	< 9.26 U	--	--	--	--	--	--	< 5 U	--	< 5 U	--	--	--	< 5 U	< 5 U
Diesel Range Organics	mg/kg	2000	SL-6	--	--	**120 J**	**590 J**	--	--	< 10 U	--	--	--	--	< 65.3 U	< 63.8 U	--	--	--	--	--	--	**61 XJ**	--	< 10 U	--	--	--	< 10 U	< 10 U
Motor Oil Range Organics	mg/kg	2000	SL-6	--	--	**460**	**1500**	--	--	< 50 U	--	--	--	--	< 131 U	< 128 U	--	--	--	--	--	--	**570 J**	--	< 50 U	--	--	--	< 50 U	< 50 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-6	--	--	**580 J**	**2090 J**	--	--	< 50 U	--	--	--	--	< 131 U	< 128 U	--	--	--	--	--	--	**631**	--	< 50 U	--	--	--	< 50 U	< 50 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																														
Benzene	mg/kg	0.0010	SL-6, PQL Adj.	--	--	**0.0076**	< 0.001 U	--	--	--	--	--	--	--	< 0.00131 U	**0.00118**	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	< 0.001 U	< 0.001 U	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U
Total Xylenes	mg/kg	1.4	SL-9	--	--	**0.111**	**0.0017**	--	--	--	--	--	--	--	< 0.00261 U	< 0.00233 U	--	< 0.002 U	< 0.002 U	--	< 0.002 U	--	< 0.002 U	**0.0014**	< 0.002 U	--	--	--	< 0.002 U	< 0.002 U
Volatile Organic Compounds (VOCs)																														
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	< 0.05 U	< 0.05 U	--	--	--	--	--	--	--	< 0.00261 U	< 0.00233 U	--	< 0.05 U	< 0.05 U	--	< 0.05 U	--	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	< 0.05 U	< 0.05 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	< 0.025 U	**0.0049**	--	--	< 0.0025 U	--	< 0.0025 U	--	--	< 0.00131 U	< 0.00116 U	--	< 0.0025 U	< 0.05 U	--	< 0.05 U	--	< 0.05 U	< 0.005 U	< 0.0025 U	--	--	--	< 0.05 U	< 0.05 U
Methylene Chloride	mg/kg	2.6	SL-9	--	--	< 0.2 U	< 0.2 U	--	--	--	--	--	--	--	< 0.00653 U	< 0.00582 U	--	< 0.2 U	< 0.2 U	--	< 0.2 U	--	< 0.2 U	R	R	--	--	--	< 0.2 U	< 0.2 U
Tetrachloroethene (PCE)	mg/kg	0.0016	SL-6	--	--	< 0.001 U	< 0.001 U	--	--	--	--	--	--	--	**0.00381**	< 0.00116 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	**0.0029 J**	< 0.001 U	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U
Trichloroethene (TCE)	mg/kg	0.0010	SL-6, PQL Adj.	--	--	< 0.001 U	< 0.001 U	--	--	--	--	--	--	--	< 0.00131 U	< 0.00116 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	< 0.001 U	< 0.001 U	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U
Vinyl Chloride	mg/kg	0.0010	SL-6, PQL Adj.	--	--	< 0.001 U	< 0.001 U	--	--	--	--	--	--	--	< 0.00131 U	< 0.00116 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	< 0.001 U	< 0.001 U	< 0.001 U	--	--	--	< 0.001 U	< 0.001 U
Conventionals																														
Total Organic Carbon	%			--	--	--	--	--	--	--	--	--	--	--	**0.07**	< 0.02 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Solids	%			--	--	--	--	**65.5**	--	--	--	--	--	--	**75.3**	**77.9**	--	--	--	**77.9**	--	--	--	--	--	--	--	--	--	--	--

Table 6.9. Saturated Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				South Area																										
Location				MW-18D		SB-02	SB-03			SB-05	SB-06	SB-07	SB-08	SB-13	SB-14	SB-17	SB-18	SB-19	SB-20	SB-21	SB-22		SB-25	SB-26			SB-35			SB-36		
Sample Date				09/12/22	09/12/22	09/28/07	09/27/07	09/27/07		09/27/07	09/28/07	09/28/07	09/27/07	10/01/07	10/01/07	07/27/11	07/27/11	07/27/11	07/27/11	07/27/11	07/27/11	07/27/11	07/28/11	03/04/21	03/04/21	03/04/21	09/12/22	09/12/22	09/12/22	09/12/22	09/12/22	09/12/22
Sample				MW-18D-15-16	MW-18D-24-24.5	SB-02-9	SB-03-7	SB-03-13.5		SB-05-8	SB-06-8	SB-07-9	SB-08-9	SB-13-7	SB-14-7.5	SB17-10.0-072711	SB18A-9.0-072711	SB19-8.0-072811	SB20A-8.5-072711	SB21-9.0-072711	SB22-10.0-072711	SB22-14.0-072711	SB25-10.0-072811	SB-26-5.5-6.5	SB-26-12.5	SB-26-18-20	SB-35-11-12	SB-35-13-13.75	SB-35-18-18.75	SB-36-10.5-11.5	SB-36-13-14	SB-36-19-20
Depth (ft)				15 - 16	24 - 24.5	9 - 11	7 - 8	13.5 - 14.5		8 - 9	8 - 9	9 - 10	9 - 10	7 - 7.5	7.5 - 8	10 - 10	9 - 9	8 - 8	8.5 - 8.5	9 - 9	10 - 10	14 - 14	10 - 10	5.5 - 6.5	12.5 - 12.5	18 - 20	11 - 12	13 - 13.75	18 - 18.75	10.5 - 11.5	13 - 14	19 - 20
Geologic Unit				Alluvial	Till	Tidal Flat	Fill	Tidal Flat		Fill	Fill	Fill	Tidal Flat	Tidal Flat	Fill									Fill	Tidal Flat	Alluvial	Fill	Tidal Flat	Alluvial	Fill	Tidal Flat	Alluvial
Analyte	Unit	Proposed RI CUL	Basis of CUL																												
Metals, Total																															
Arsenic	mg/kg	7.3	SL-10	**0.943 J**	--	**2.2**	**1**	**1.7**		**8.7**	**1.9**	**1.4**	**2.1**	**1.2**	**1.6**	--	--	--	--	< 12 U	< 13 U	--	--	**1.6**	--	**1.4**	**1.22**	--	--	**2.31**	--	--
Barium	mg/kg	250	SL-10	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	**31**	**35**	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	< 0.2 U	--	**0.063**	**0.281**	**0.029**		**0.084**	**0.021**	**0.025**	**0.061**	**0.577**	**0.159**	--	--	--	--	**0.61**	< 0.65 U	--	--	**0.04 J**	--	**0.05 J**	< 0.2 U	--	--	< 0.2 U	--	--
Chromium	mg/kg	67	SL-9	**7.41**	--	**9.47**	**23.1**	**8.4**		**13.4**	**7.51**	**6.37**	**10.6**	**21.5**	**22.1**	--	--	--	--	**27**	**25**	--	--	**35.4**	--	**8.48**	**6.94**	--	--	**8.6**	--	--
Copper	mg/kg	36	SL-10	**8.35**	--	**56**	**10.8**	**7.58**		**21.7**	**7.19**	**7.38**	**13.9**	**5.43**	**9.88**	--	--	--	--	--	--	--	--	**11.3**	--	**8.6**	**9.36**	--	--	**9.89**	--	--
Lead	mg/kg	120	SL-9	**1.1**	--	**13.7 J**	**31.8 J**	**2.23 J**		**4.39 J**	**1.49 J**	**2.13 J**	**2.09 J**	**33.9**	**18.2**	--	--	--	--	**46**	**23**	--	--	**7.02 J**	--	**1.19**	**1.2**	--	--	**2.5**	--	--
Mercury	mg/kg	0.41	SL-8	**0.026**	--	**0.009**	**0.015**	**0.01**		**0.064**	**0.004**	**0.005**	**0.028**	**0.021**	**0.274**	--	--	--	--	< 0.3 U	< 0.32 U	--	--	< 0.0301 U	--	--	**0.049**	**0.063**	--	**0.076**	**0.053**	**0.059**
Nickel	mg/kg	48	SL-10	**5.05**	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.63**	--	**7.16**	**5.81**	--	--	**6.92**	--	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	< 12 U	< 13 U	--	--	--	--	--	--	--	--	--	--	--
Zinc	mg/kg	85	SL-10	**17.2**	--	**29.3**	**33**	**15**		**28.9**	**15.4**	**14.8**	**22.6**	**122**	**26.4**	--	--	--	--	--	--	--	--	**24.8**	--	**19**	**15.9**	--	--	**19.9**	--	--
Butyl Tins																															
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	< 0.00351 U	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00374 U	--	--	< 0.00363 U	--	--
Polychlorinated Biphenyl (PCB) Aroclors																															
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-6, PQL Adj.	< 0.004 U	--	**0.021 A**	**0.18 A**	**0.039 A**		< 0.0099 UA	**0.023 A**	**0.0059 JA**	< 0.01 UA	**13 A**	**11.9 A**	--	--	--	--	**8.9 A**	**3.1 A**	--	--	**0.0975**	**0.0909**	< 0.004 U	**0.036**	< 0.008 U	< 0.004 U	**0.043**	< 0.004 U	< 0.004 U
Polychlorinated Biphenyl (PCB) Congeners																															
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-6, PQL Adj.	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-6, PQL Adj.	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxins/Furans																															
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-6, PQL Adj.	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)																															
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.0005 U	--	--	--	--		--	--	--	--	--	--	--	--	--	--	< 0.016 U	**0.13**	--	--	< 0.00499 U	**0.00469 J**	--	**0.00062**	< 0.02 U	< 0.0005 U	**0.0012**	< 0.0005 U	< 0.0005 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.0005 U	--	< 0.01 U	< 0.01 U	< 0.0099 U		**0.0058**	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	**4.5**	--	--	--	--	< 0.016 U	< 0.015 U	--	--	< 0.00499 U	**0.00714**	--	**0.00059**	< 0.02 U	< 0.0005 U	**0.002**	< 0.0005 U	< 0.0005 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	< 0.0005 U	--	**0.0064**	< 0.01 U	< 0.0099 U		**0.0058**	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.016 U	**0.035**	--	--	**0.00146 J**	**0.00223 J**	--	< 0.0005 U	**0.03**	< 0.0005 U	**0.00067**	< 0.0005 U	< 0.0005 U
Fluoranthene	mg/kg	1.7	SL-8	< 0.0005 U	--	**0.0091**	**0.0046**	**0.003**		**0.011**	< 0.0098 U	< 0.0099 U	**0.0024**	< 0.19 U	**0.88 J**	--	--	--	--	**0.023**	**0.46**	--	--	**0.00074 J**	**0.00378 J**	--	**0.00057**	**0.095**	< 0.0005 U	**0.0016**	< 0.0005 U	< 0.0005 U
Pyrene	mg/kg	2.6	SL-8	< 0.0005 U	--	**0.0083**	**0.0051**	**0.0033**		**0.014**	< 0.0098 U	< 0.0099 U	**0.0025**	< 0.19 U	**0.99 J**	--	--	--	--	**0.031**	**0.45**	--	--	**0.001 J**	**0.00533**	--	**0.00093**	**0.12**	< 0.0005 U	**0.0031**	< 0.0005 U	< 0.0005 U
Benz(a)anthracene	mg/kg	0.73	SL-9	< 0.0005 U	--	**0.0052**	< 0.01 U	< 0.0099 U		**0.0048**	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.016 U	**0.12**	--	--	< 0.00499 U	**0.00212 J**	--	< 0.0005 U	**0.05**	< 0.0005 U	**0.00064**	< 0.0005 U	< 0.0005 U
Benzo(a)pyrene	mg/kg	0.00050	SL-6, PQL Adj.	< 0.0005 U	--	**0.006**	< 0.01 U	< 0.0099 U		**0.0061**	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.016 U	**0.17**	--	--	< 0.00499 U	**0.00166 J**	--	< 0.0005 U	**0.071**	< 0.0005 U	**0.00092**	< 0.0005 U	< 0.0005 U
Benzo(b)fluoranthene	mg/kg	44	SL-9	< 0.0005 U	--	**0.01**	< 0.01 U	< 0.0099 U		**0.0072**	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.016 U	**0.081**	--	--	< 0.00499 U	**0.00214 J**	--	< 0.0005 U	**0.081**	< 0.0005 U	**0.0014**	< 0.0005 U	< 0.0005 U
Chrysene	mg/kg	1.4	SL-8	< 0.0005 U	--	**0.0071**	< 0.01 U	< 0.0099 U		**0.0064**	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	**0.53 J**	--	--	--	--	**0.022**	**0.19**	--	--	< 0.00499 U	**0.00405 J**	--	**0.00053**	**0.063**	< 0.0005 U	**0.0019**	< 0.0005 U	< 0.0005 U
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.0005 U	--	**0.0022**	< 0.01 U	< 0.0099 U		< 0.01 U	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.016 U	**0.017**	--	--	< 0.00499 U	**0.00498 U**	--	< 0.0005 U	< 0.02 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	< 0.0005 U	--	**0.006**	< 0.01 U	< 0.0099 U		**0.0066**	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.016 U	**0.029**	--	--	< 0.00499 U	**0.00135 J**	--	< 0.0005 U	**0.035**	< 0.0005 U	**0.00064**	< 0.0005 U	< 0.0005 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	< 0.0005 U	--	**0.0136 A**	< 0.01 UA	< 0.0099 UA		**0.0072 A**	< 0.0098 UA	< 0.0099 UA	< 0.0099 UA	< 0.19 UA	< 1 UA	--	--	--	--	< 0.016 U	**0.147**	--	--	< 0.00997 U	**0.00411 J**	--	< 0.0005 U	**0.107**	< 0.0005 U	**0.00165**	< 0.0005 U	< 0.0005 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	< 0.0005 U	--	**0.0639**	**0.0497**	**0.0459**		**0.0719**	< 0.0098 U	< 0.0099 U	**0.0445**	< 0.19 U	**5.9 J**	--	--	--	--	**0.132**	**1.62**	--	--	**0.0232 J**	**0.0272 J**	--	**0.00378**	**0.581**	< 0.0005 U	**0.0114**	< 0.0005 U	< 0.0005 U
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-6, PQL Adj.	< 0.000378 U	--	**0.00877**	< 0.00755 U	< 0.00747 U		**0.00902**	< 0.0074 U	< 0.00747 U	< 0.00747 U	< 0.143 U	**0.755 J**	--	--	--	--	**0.0122**	**0.203**	--	--	< 0.00377 U	**0.0026 J**	--	**0.00038**	**0.0918**	< 0.000378 U	**0.00126**	< 0.000378 U	< 0.000378 U
Semi-Volatile Organic Compounds (SVOCs)																															
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.025 U	--	R	R	R		R	R	R	R	R	R	--	--	--	--	< 4 U	< 4.3 U	--	--	< 0.0996 U	< 0.1 U	--	< 0.025 U	--	--	< 0.025 U	< 0.025 U	< 0.025 U
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.075 U	--	--	--	--		--	--	--	--	--	--	--	--	--	--	**2.3**	< 2.2 U	--	--	< 0.199 UJ	< 0.2 UJ	--	< 0.075 U	--	--	< 0.075 U	< 0.075 U	< 0.075 U
2-Methylphenol	mg/kg	0.063	SL-8	< 0.025 U	--	< 0.01 U	< 0.01 U	< 0.0099 U		< 0.01 U	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.4 U	< 0.43 U	--	--	< 0.0199 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	< 0.025 U	< 0.025 U
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.025 U	--	**0.0077**	< 0.02 U	< 0.02 U		< 0.02 U	< 0.02 U	< 0.02 U	**0.0041**	< 0.38 U	< 2 U	--	--	--	--	< 0.4 U	< 0.43 U	--	--	< 0.0199 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	< 0.025 U	< 0.025 U
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.025 U	--	**0.0052**	< 0.01 U	< 0.0099 U		< 0.01 U	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 4 U	< 4.3 U	--	--	< 0.0199 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	< 0.025 U	< 0.025 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-6, PQL Adj.	< 0.04 U	--	< 0.035 U	< 0.014 U	< 0.012 U		< 0.1 U	< 0.018 U	< 0.099 U	< 0.012 U	< 1.9 U	**2 J**	--	--	--	--	< 0.4 U	**0.74**	--	--	< 0.0498 U	< 0.05 U	--	< 0.04 U	--	--	< 0.04 U	< 0.04 U	< 0.04 U
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.025 U	--	< 0.0021 U	< 0.01 U	< 0.0019 U		< 0.01 U	< 0.0036 U	< 0.0019 U	< 0.003 U	< 0.19 U	< 1 U	--	--	--	--	< 2 U	< 2.2 U	--	--	**0.124**	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	< 0.025 U	< 0.025 U
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.025 U	--	**0.026**	< 0.01 U	< 0.0099 U		< 0.01 U	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.4 U	< 0.43 U	--	--	< 0.0199 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	< 0.025 U	< 0.025 U
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.025 U	--	< 0.017 U	< 0.016 U	< 0.019 U		< 0.02 U	< 0.011 U	< 0.0095 U	< 0.012 U	< 0.38 U	< 2 U	--	--	--	--	< 4 U	< 4.3 U	--	--	< 0.0199 U	< 0.02 U	--	< 0.025 U	--	--	< 0.025 U	< 0.025 U	< 0.025 U
Hexachlorobenzene	mg/kg	0.022	SL-8	< 0.0025 U	--	< 0.01 U	< 0.01 U	< 0.0099 U		< 0.01 U	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.4 U	< 0.43 U	--	--	< 0.00249 U	< 0.0005 U	--	< 0.0025 U	--	--	< 0.0025 U	< 0.0025 U	< 0.0025 U
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.0025 U	--	< 0.01 U	< 0.01 U	< 0.0099 U		< 0.01 U	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 1 U	--	--	--	--	< 0.4 U	< 0.43 U	--	--	< 0.0199 U	< 0.02 U	--	< 0.0025 U	--	--	< 0.0025 U	< 0.0025 U	< 0.0025 U
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.012 U	--	**0.041**	**0.028**	< 0.099 U		< 0.1 U	< 0.098 U	< 0.099 U	< 0.099 U	< 1.9 U	< 10 U	--	--	--	--	< 2 U	< 2.2 U	--	--	< 0.0996 UJ	< 0.1 UJ	--	< 0.012 U	--	--	**0.014**	< 0.012 U	< 0.012 U
Pesticides and Herbicides																															
4,4'-DDE	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	< 0.001 U	**0.00045**	**0.0029 J**	< 0.00099 U		< 0.00099 U	**0.0016**	**0.0021**	**0.00049**	< 0.1 U	**0.39 J**	--	--	--	--	**0.32**	**0.19**	--	--	< 0.00498 U	**0.00323**	--	**0.0027 J**	--	--	**0.0047 J**	< 0.001 U	--
4,4'-DDT	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	< 0.001 U	**0.0018**	**0.01**	< 0.00099 U		< 0.00099 U	**0.0018**	**0.0033**	< 0.001 U	**1.6 J**	**1.2 J**	--	--	--	--	< 0.012 U	< 0.013 U	--	--	< 0.00498 U	< 0.001 U	--	< 0.001 U	--	--	< 0.001 U	< 0.001 U	--
Aldrin	mg/kg	0.0017	SL-6, PQL Adj.	< 0.0017 UJ	< 0.0017 U	< 0.001 U	**0.0061**	< 0.00099 U		< 0.00099 U	< 0.001 U	**0.002**	< 0.001 U	< 0.1 U	**9.4**	--	--	--	--	**0.018 J**	**3.5**	--	--	**0.015**	< 0.0005 U	--	< 0.0017 U	--	--	< 0.0017 U	< 0.0017 U	--
Alpha-BHC	mg/kg	0.00050	SL-6, PQL Adj.	< 0.0005 U	**0.00073 J**	--	--	--		--	--	--	--	--	--	--	--	--	--	< 0.0059 U	< 0.0065 U	--	--	< 0.00249 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.0005 U	< 0.0005 U	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0005 U	< 0.0005 U	--	--	--		--	--	--	--	--	--	--	--	--	--	**0.047**	< 0.013 U	--	--	< 0.00249 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.0005 U	< 0.0005 U	--
Delta-BHC	mg/kg	0.0048	SL-1	< 0.0005 U	< 0.0005 U	--	--	--		--	--	--	--	--	--	--	--	--	--	< 0.0059 U	**0.056 J**	--	--	< 0.00249 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.0005 U	< 0.0005 U	--
Dieldrin	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	< 0.001 U	**0.00058 J**	**0.027**	< 0.00099 U		< 0.00099 U	< 0.001 U	**0.0017**	< 0.001 U	< 0.12 U	< 0.071 U	--	--	--	--	**0.18 J**	**0.082 J**	--	--	< 0.00498 U	< 0.001 U	--	< 0.001 U	--	--	< 0.001 U	< 0.001 U	--
Endrin Aldehyde	mg/kg	0.011	SL-9	< 0.001 U	< 0.001 U	--	--	--		--	--	--	--	--	--	--	--	--	--	**0.16**	**0.036 J**	--	--	< 0.00498 U	< 0.001 U	--	< 0.001 U	--	--	< 0.001 U	< 0.001 U	--
Heptachlor	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0005 U	< 0.0005 U	< 0.001 U	< 0.00099 U	< 0.00099 U		**0.00056**	< 0.001 U	< 0.001 U	< 0.001 U	< 0.1 U	< 0.0099 U	--	--	--	--	**0.0076**	**0.017**	--	--	< 0.00249 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.0005 U	< 0.0005 U	--
trans-Chlordane	mg/kg	0.0017	SL-7, PQL Adj.	< 0.0017 U	< 0.0017 U	--	--	--		--	--	--	--	--	--	--	--	--	--	**0.18 J**	< 0.013 U	--	--	< 0.00249 U	< 0.0005 U	--	< 0.0017 U	--	--	< 0.0017 U	< 0.0017 U	--
Total Petroleum Hydrocarbons																															
Gasoline Range Organics	mg/kg	30	SL-3	**2.1 J**	--	< 20 U	< 20 U	< 20 U		< 20 U	< 20 U	< 20 U	< 20 U	< 1.6 U	**350 J**	--	--	--	< 6 U	< 6.6 U	< 7.2 U	--	--	< 6.33 U	< 7.48 U	--	< 5 U	--	--	< 5 U	--	--
Diesel Range Organics	mg/kg	2000	SL-6	< 10 U	--	< 50 U	< 50 U	< 50 U		**23 U**	**3.7 U**	< 50 U	< 50 U	**950 J**	**3000 J**	**34 J**	< 29 U	< 170 U	**170 J**	**400 J**	**1600 J**	< 32 U	< 28 U	< 59.1 U	< 65.1 U	--	< 10 U	--	--	**12 XJ**	--	--
Motor Oil Range Organics	mg/kg	2000	SL-6	< 50 U	--	< 100 U	< 100 U	< 100 U		**220 J**	**21 U**	< 100 U	< 100 U	**4700 J**	**8900 J**	**220**	**82**	**780**	**1200**	**2900**	**6700**	< 63 U	< 56 U	**186**	< 130 U	--	< 50 U	--	--	**52 J**	--	--
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-6	< 50 U	--	< 100 U	< 100 U	< 100 U		**243 J**	**24.7**	< 100 U	< 100 U	**5650 J**	**11900 J**	**254 J**	**82**	**780**	**1370 J**	**3300 J**	**8300 J**	< 63 U	< 56 U	**186**	< 130 U	--	< 50 U	--	--	**64**	--	--
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																															
Benzene	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	--	--	--	--		--	--	--	--	--	< 0.0063 U	--	--	--	< 0.02 U	< 0.0011 U	< 0.076 U	--	--	< 0.00107 U	< 0.00113 U	--	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Total Xylenes	mg/kg	1.4	SL-9	< 0.002 U	--	--	--	--		--	--	--	--	--	< 0.0063 U	--	--	--	< 0.06 U	< 0.0023 U	< 0.15 U	--	--	< 0.00214 U	< 0.00226 U	--	< 0.002 U	**0.0038**	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Volatile Organic Compounds (VOCs)																															
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	--	--	--	--		--	--	--	--	--	< 0.0063 U	--	--	--	--	< 0.066 U	< 0.076 U	--	--	< 0.00214 U	< 0.00226 U	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.05 U	--	< 0.01 U	< 0.01 U	< 0.0099 U		< 0.01 U	< 0.0098 U	< 0.0099 U	< 0.0099 U	< 0.19 U	< 0.0063 U	--	--	--	--	< 0.066 U	**0.11**	--	--	< 0.00107 U	< 0.00113 U	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.0025 U	< 0.05 U	< 0.0025 U
Methylene Chloride	mg/kg	2.6	SL-9	< 0.2 U	--	--	--	--		--	--	--	--	--	< 0.001 U	--	--	--	--	< 0.011 U	< 0.76 U	--	--	< 0.00536 U	< 0.00565 U	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Tetrachloroethene (PCE)	mg/kg	0.0016	SL-6	< 0.001 U	--	--	--	--		--	--	--	--	--	**0.002**	--	--	--	--	**0.002**	< 0.076 U	--	--	**0.00108**	**0.00192**	--	**0.011**	< 0.001 U	< 0.001 U	**0.0097**	< 0.001 U	< 0.001 U
Trichloroethene (TCE)	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	--	--	--	--		--	--	--	--	--	< 0.0063 U	--	--	--	--	< 0.0011 U	< 0.076 U	--	--	< 0.00107 U	< 0.00113 U	--	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Vinyl Chloride	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	--	--	--	--		--	--	--	--	--	< 0.0063 U	--	--	--	--	< 0.0011 U	< 0.076 U	--	--	< 0.00107 U	< 0.00113 U	--	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Conventionals																															
Total Organic Carbon	%			--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	**0.52**	--	--	--	--	--	--	--
Total Solids	%			--	--	**82.7**	**81.5**	**84.2**		**60.5**	**81.1**	**87.5**	**76.4**	**77.4**	**76.6**	--	--	--	--	--	--	--	--	**82.2**	**77.4**	--	--	--	--	--	--	--

Table 6.9. Saturated Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				South Area													Central Area												
Location				SB-37			SB-38			SB-39			SB-42		SB-43			MW-07	MW-08			MW-08D	MW-09D					MW-10	MW-11
Sample Date				09/13/22	09/13/22	09/13/22	09/12/22	09/12/22	09/12/22	09/13/22	09/13/22	09/13/22	09/22/22	09/22/22	09/26/22	09/26/22	09/26/22	03/09/21	03/09/21	03/09/21	03/09/21	09/15/22	09/15/22	09/15/22	09/15/22	09/15/22	03/08/21	03/08/21
Sample				SB-37-10-11	SB-37-13-13.75	SB-37-19-19.5	SB-38-10.5-11.5	SB-38-15-16	SB-38-18.5-19.25	SB-39-7-8	SB-39-10.5-11.5	SB-39-18.5-19.5	SB-42-6-8-TIG	SB-42-10-11	SB-43-8-9	SB-43-10-11	SB-43-11-12	MW-7-17-19	MW-8-8-9	MW-8-18-20	MW-08D-15-16	MW-09D-6.5-7.5	MW-09D-11-12	MW-09D-15-16	MW-09D-18.5-19.5	MW-09D-24-25	MW-10-5.5-6.5	MW-11-6-7
Depth (ft)				10 - 11	13 - 13.75	19 - 19.5	10.5 - 11.5	15 - 16	18.5 - 19.25	7 - 8	10.5 - 11.5	18.5 - 19.5	6 - 8	10 - 11	8 - 9	10 - 11	11 - 12	17 - 19	8 - 9	18 - 20	15 - 16	6.5 - 7.5	11 - 12	15 - 16	18.5 - 19.5	24 - 25	5.5 - 6.5	6 - 9
Geologic Unit				Fill	Tidal Flat	Alluvial	Tidal Flat	Tidal Flat	Tidal Flat	Fill	Tidal Flat	Alluvial	Fill	Tidal Flat	Fill	Tidal Flat	Alluvial	Alluvial	Fill	Alluvial	Alluvial	Tidal Flat	Tidal Flat	Alluvial	Alluvial	Alluvial	Fill	Fill
Analyte	**Unit**	**Proposed RI CUL**	**Basis of CUL**																									
Metals, Total																												
Arsenic	mg/kg	7.3	SL-10	**3.42**	--	--	**2.42**	--	--	**1.1**	--	--	--	**16.9**	**2.8**	--	**2.67**	**1.75**	**1.78 J**	--	**0.885 J**	**1.59**	--	**0.902 J**	--	--	**3.17**	**2.66**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	< 0.2 U	--	--	< 0.2 U	--	--	< 0.2 U	--	--	--	**4.6**	< 0.2 U	--	< 0.2 U	< 0.12 U	< 0.12 U	--	< 0.2 U	< 0.2 U	--	< 0.2 U	--	--	**0.05 J**	< 0.13 U
Chromium	mg/kg	67	SL-9	**9.46**	--	--	**8.51**	--	--	**6.9**	--	--	--	**66.4**	**9.59**	--	**10.7**	**10.8**	**6.99 J**	--	**4.4 J**	**6.1 J**	--	**5.14 J**	--	--	**10.3**	**10.9**
Copper	mg/kg	36	SL-10	**12.7**	--	--	**14.2**	--	--	**7.8**	--	--	--	**209**	**12.4**	--	**8.78 J**	**10.7**	**8.7**	--	**7.34**	**10.6**	--	**7.42**	--	--	**15.6**	**18.3**
Lead	mg/kg	120	SL-9	**3.44**	--	--	**2.96**	--	--	**1.97**	--	--	--	**310**	**3.42**	--	**1.84**	**1.6**	**1.15 J**	--	**1.06**	**1.6**	--	**1.12**	--	--	**2.08**	**2.77**
Mercury	mg/kg	0.41	SL-8	**0.046**	--	--	**0.1**	**0.047**	**0.38**	**0.029**	--	--	--	**3.5**	**0.046**	--	< 0.025 U	--	< 0.0256 U	--	< 0.025 U	< 0.025 U	--	< 0.025 U	--	--	**0.0312**	**0.0157 J**
Nickel	mg/kg	48	SL-10	**13.4**	--	--	**6.8**	--	--	**4.48**	--	--	--	**18**	**8.77**	--	**6.62**	**11.3**	**5.26 J**	--	**5.04**	**4.87**	--	**4.94**	--	--	**9.07**	**8.9**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	mg/kg	85	SL-10	**21.9**	--	--	**19**	--	--	**14.1**	--	--	--	**272**	**24**	--	**17.4**	**28.7**	**19.4**	--	**20.4**	**15.3**	--	**14.8**	--	--	**24.1**	**24.1**
Butyl Tins																												
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	< 0.00381 U	--	--	**0.00113 J**	**0.00344 J**	< 0.00386 U	< 0.00384 U	**0.00262 J**	--	--	**0.126**	< 0.00385 U	< 0.00385 U	< 0.00383 U	--	< 0.00383 U	--	< 0.00376 U	< 0.0038 U	--	< 0.00383 U	--	--	< 0.00386 U	< 0.00382 U
Polychlorinated Biphenyl (PCB) Aroclors																												
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-6, PQL Adj.	**0.021**	< 0.004 U	< 0.004 U	< 0.004 U	--	--	**0.02**	**0.023**	< 0.004 U	--	**15.6**	**0.054**	--	< 0.004 U	**0.0009 J**	**0.0089 J**	< 0.004 U	< 0.004 U	< 0.004 U	--	< 0.004 U	--	--	**0.0008 J**	**0.0021 J**
Polychlorinated Biphenyl (PCB) Congeners																												
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	**1.10E+2 J**	**6.84E+0**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	**2.01E-3**	**1.54E-4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxins/Furans																												
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	**4.01E-3 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--	--	**1.50E-4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)																												
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.0005 U	< 0.001 U	< 0.0005 U	< 0.0005 U	< 0.005 U	< 0.0005 U	< 0.0005 U	--	--	--	**0.85**	**0.00072**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	< 0.00497 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.0005 U	< 0.001 U	< 0.0005 U	< 0.0005 U	< 0.005 U	< 0.0005 U	< 0.0005 U	--	--	--	**1.3**	**0.0011**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	< 0.00497 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	**0.00052**	< 0.001 U	< 0.0005 U	**0.0015**	< 0.005 U	< 0.0005 U	< 0.0005 U	--	--	--	**0.049**	< 0.0005 U	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	**0.00164 J**
Fluoranthene	mg/kg	1.7	SL-8	**0.0015**	< 0.001 U	< 0.0005 U	**0.0053**	**0.0069**	< 0.0005 U	< 0.0005 U	--	--	--	**0.23**	**0.0024**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	**0.0006 J**
Pyrene	mg/kg	2.6	SL-8	**0.0022**	< 0.001 U	< 0.0005 U	**0.0073**	**0.008**	< 0.0005 U	< 0.0005 U	--	--	--	**0.22**	**0.0029**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	**0.00076 J**
Benz(a)anthracene	mg/kg	0.73	SL-9	**0.00073**	< 0.001 U	< 0.0005 U	**0.003**	< 0.005 U	< 0.0005 U	< 0.0005 U	--	--	--	**0.11**	**0.00066**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	< 0.00497 U
Benzo(a)pyrene	mg/kg	0.00050	SL-6, PQL Adj.	**0.00082**	< 0.001 U	< 0.0005 U	**0.0044**	**0.0055**	< 0.0005 U	< 0.0005 U	--	--	--	**0.072**	**0.00052**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	< 0.00497 U
Benzo(b)fluoranthene	mg/kg	44	SL-9	**0.001**	< 0.001 U	< 0.0005 U	**0.0045**	**0.0087**	< 0.0005 U	< 0.0005 U	--	--	--	**0.095**	**0.00073**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	< 0.00497 U
Chrysene	mg/kg	1.4	SL-8	**0.00089**	< 0.001 U	< 0.0005 U	**0.0031**	**0.0055**	< 0.0005 U	< 0.0005 U	--	--	--	**0.15**	**0.001**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	**0.00118 J**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.0005 U	< 0.001 U	< 0.0005 U	< 0.0005 U	< 0.005 U	< 0.0005 U	< 0.0005 U	--	--	--	< 0.02 U	< 0.0005 U	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	< 0.00497 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	**0.00053**	< 0.001 U	< 0.0005 U	**0.0018**	< 0.005 U	< 0.0005 U	< 0.0005 U	--	--	--	**0.065**	< 0.0005 U	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	< 0.00497 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	**0.00125**	< 0.001 U	< 0.0005 U	**0.006**	**0.0112**	< 0.0005 U	< 0.0005 U	--	--	--	**0.166**	**0.00098**	< 0.01 U	< 0.0005 U	--	< 0.00993 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00996 U	< 0.00995 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	**0.00869**	< 0.001 U	< 0.0005 U	**0.0327**	**0.0471**	< 0.0005 U	< 0.0005 U	--	--	--	**1.03**	**0.00921**	< 0.01 U	< 0.0005 U	--	< 0.00497 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	< 0.00498 U	**0.0216 J**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-6, PQL Adj.	**0.0011**	< 0.000755 U	< 0.000378 U	**0.00554**	**0.00743**	< 0.000378 U	< 0.000378 U	--	--	--	**0.105**	**0.000744**	< 0.00755 U	< 0.000378 U	--	< 0.00375 U	--	< 0.000378 U	< 0.000378 U	--	< 0.000378 U	--	--	< 0.00376 U	**0.00374 J**
Semi-Volatile Organic Compounds (SVOCs)																												
2,4-Dimethylphenol	mg/kg	0.029	SL-8	< 0.025 U	--	--	< 0.025 U	--	--	< 0.025 U	--	--	--	< 1 U	< 0.025 U	--	< 0.025 U	--	< 0.0995 U	--	< 0.025 U	< 0.025 U	--	< 0.025 U	--	--	< 0.0998 U	< 0.0995 U
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	< 0.075 U	--	--	< 0.075 U	--	--	< 0.075 U	--	--	--	< 3 U	< 0.075 U	--	< 0.075 U	--	< 0.199 UJ	--	< 0.075 U	< 0.075 U	--	< 0.075 U	--	--	< 0.2 UJ	< 0.199 UJ
2-Methylphenol	mg/kg	0.063	SL-8	< 0.025 U	--	--	< 0.025 U	--	--	< 0.025 U	--	--	--	< 1 U	< 0.025 U	--	< 0.025 U	--	< 0.0199 U	--	< 0.025 U	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.0199 U
Benzyl alcohol	mg/kg	0.057	SL-8	< 0.025 U	--	--	< 0.025 U	--	--	< 0.025 U	--	--	--	< 1 U	< 0.025 U	--	< 0.025 U	--	< 0.0199 U	--	< 0.025 U	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.0199 U
Benzyl butyl phthalate	mg/kg	0.063	SL-8	< 0.025 U	--	--	< 0.025 U	--	--	< 0.025 U	--	--	--	< 1 U	< 0.025 U	--	< 0.025 U	--	< 0.0199 U	--	< 0.025 U	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.0199 U
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-6, PQL Adj.	< 0.04 U	--	--	< 0.04 U	--	--	< 0.04 U	--	--	--	< 1.6 U	< 0.04 U	--	< 0.04 U	--	< 0.0497 U	--	< 0.04 U	< 0.04 U	--	< 0.04 U	--	--	< 0.0499 U	< 0.0497 U
Diethyl phthalate	mg/kg	0.20	SL-8	< 0.025 U	--	--	< 0.025 U	--	--	< 0.025 U	--	--	--	< 1 U	< 0.025 U	--	< 0.025 U	--	< 0.0199 U	--	< 0.025 U	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.0199 U
Dimethyl phthalate	mg/kg	0.071	SL-8	< 0.025 U	--	--	< 0.025 U	--	--	< 0.025 U	--	--	--	< 1 U	< 0.025 U	--	< 0.025 U	--	< 0.0199 U	--	< 0.025 U	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.0199 U
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	< 0.025 U	--	--	< 0.025 U	--	--	< 0.025 U	--	--	--	< 1 U	< 0.025 U	--	< 0.025 U	--	< 0.0199 U	--	< 0.025 U	< 0.025 U	--	< 0.025 U	--	--	< 0.02 U	< 0.0199 U
Hexachlorobenzene	mg/kg	0.022	SL-8	< 0.0025 U	--	--	< 0.0025 U	--	--	< 0.0025 U	--	--	--	< 0.1 U	< 0.0025 U	--	< 0.0025 U	--	< 0.0005 U	--	< 0.0025 U	< 0.0025 U	--	< 0.0025 U	--	--	< 0.02 U	< 0.0199 U
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	< 0.0025 U	--	--	< 0.0025 U	--	--	< 0.0025 U	--	--	--	< 0.1 UJ	< 0.0025 UJ	--	< 0.0025 UJ	--	< 0.0199 U	--	< 0.0025 UJ	< 0.0025 UJ	--	< 0.0025 UJ	--	--	< 0.02 U	< 0.0199 U
Pentachlorophenol	mg/kg	0.36	SL-8	< 0.012 U	--	--	< 0.012 U	--	--	< 0.012 U	--	--	--	< 0.5 U	< 0.012 U	--	< 0.012 U	--	< 0.0995 UJ	--	< 0.012 U	< 0.012 U	--	< 0.012 U	--	--	< 0.0998 UJ	< 0.0995 UJ
Pesticides and Herbicides																												
4,4'-DDE	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	< 0.001 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	**0.2**	**0.0052**	< 0.01 UJ	< 0.001 U	--	< 0.001 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	< 0.001 U	--	< 0.001 U	< 0.001 U	--	< 0.001 UJ	--	< 0.1 U	< 0.001 U	< 0.01 UJ	< 0.001 U	--	< 0.001 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	--	--	--
Aldrin	mg/kg	0.0017	SL-6, PQL Adj.	--	--	--	< 0.0017 U	--	< 0.0017 U	< 0.0017 U	--	< 0.0017 U	--	**1.2**	< 0.0017 U	< 0.01 UJ	< 0.0017 U	--	< 0.0005 U	--	< 0.0017 UJ	< 0.0017 U	--	< 0.0017 U	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-6, PQL Adj.	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	< 0.05 U	< 0.0005 U	< 0.01 UJ	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 UJ	< 0.0005 U	--	< 0.0005 U	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	< 0.05 U	< 0.0005 U	< 0.01 UJ	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 UJ	< 0.0005 U	--	< 0.0005 U	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0017 U	--	< 0.0017 U	--	< 0.17 UJ	< 0.0017 UJ	**0.017 J**	< 0.0017 UJ	--	< 0.0005 U	--	< 0.0005 UJ	< 0.0005 U	--	< 0.0005 U	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	< 0.001 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	< 0.1 U	< 0.001 U	< 0.01 UJ	**0.0016 J**	--	< 0.001 U	--	< 0.001 UJ	< 0.001 U	--	< 0.001 U	--	--	--	--
Endrin Aldehyde	mg/kg	0.011	SL-9	--	--	--	< 0.001 U	--	< 0.001 U	< 0.001 U	--	< 0.001 U	--	< 0.1 U	< 0.001 U	< 0.01 UJ	< 0.001 U	--	< 0.001 U	--	< 0.001 UJ	< 0.001 U	--	< 0.001 U	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	< 0.05 U	< 0.0005 U	< 0.01 UJ	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 UJ	< 0.0005 U	--	< 0.0005 U	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-7, PQL Adj.	--	--	--	< 0.0017 U	--	< 0.0017 U	< 0.0017 U	--	< 0.0017 U	--	< 0.17 U	< 0.0017 U	< 0.01 UJ	< 0.0017 U	--	< 0.0005 U	--	< 0.0017 U	< 0.0017 U	--	< 0.0017 U	--	--	--	--
Total Petroleum Hydrocarbons																												
Gasoline Range Organics	mg/kg	30	SL-3	**2.2 J**	--	--	< 5 U	--	--	< 5 U	--	--	--	**78**	< 5 U	--	< 5 U	--	< 8.85 U	--	< 5 U	**2.2 J**	--	**2 J**	--	--	< 6.54 U	< 6.56 U
Diesel Range Organics	mg/kg	2000	SL-6	< 10 U	--	--	< 10 U	--	--	< 10 U	--	--	--	**1200**	< 10 U	--	< 10 U	--	< 62.9 U	--	< 5 UJ	< 5 UJ	--	< 5 UJ	--	--	< 63.8 U	< 63.7 U
Motor Oil Range Organics	mg/kg	2000	SL-6	< 50 U	--	--	< 50 U	--	--	< 50 U	--	--	--	**3900**	< 50 U	--	< 50 U	--	< 126 U	--	< 25 U	< 25 U	--	< 25 U	--	--	< 128 U	< 127 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-6	< 50 U	--	--	< 50 U	--	--	< 50 U	--	--	--	**5100**	< 50 U	--	< 50 U	--	< 126 U	--	< 25 UJ	< 25 UJ	--	< 25 UJ	--	--	< 128 U	< 127 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																												
Benzene	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--	**0.016**	< 0.001 U	--	< 0.001 U	--	< 0.00115 U	--	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	**0.0006 J**	**0.00075 J**
Total Xylenes	mg/kg	1.4	SL-9	< 0.002 U	< 0.002 U	**0.0025**	< 0.002 U	--	--	< 0.002 U	**0.0056**	< 0.002 U	--	**4.16**	< 0.002 U	--	< 0.002 U	--	< 0.0023 U	--	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.00203 U	< 0.00225 U
Volatile Organic Compounds (VOCs)																												
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	< 0.05 U	< 0.05 U	< 0.05 U	--	< 0.05 U	< 0.05 U	--	< 0.05 U	--	< 0.0023 U	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.00203 U	< 0.00225 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	< 0.0025 U	< 0.05 U	< 0.05 U	--	**0.083**	< 0.05 U	--	< 0.05 U	--	< 0.00115 U	--	< 0.05 U	< 0.0025 U	< 0.05 U	< 0.0025 U	< 0.05 U	< 0.05 U	< 0.00102 U	< 0.00113 U
Methylene Chloride	mg/kg	2.6	SL-9	**0.32**	R	R	< 0.2 U	--	--	< 0.2 U	R	R	--	R	R	--	R	--	< 0.00574 U	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.00508 U	< 0.00563 U
Tetrachloroethene (PCE)	mg/kg	0.0016	SL-6	**0.0024**	< 0.001 U	< 0.001 U	< 0.001 U	--	--	**0.011**	< 0.001 U	< 0.001 U	--	**0.0033 J**	< 0.001 U	--	< 0.001 U	--	< 0.00115 U	--	< 0.001 U	**0.032**	**0.023**	**0.036**	**0.042**	**0.31**	< 0.00102 U	< 0.00113 U
Trichloroethene (TCE)	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--	**0.0062**	< 0.001 U	--	< 0.001 U	--	< 0.00115 U	--	< 0.001 U	**0.0016 J**	**0.0023 J**	**0.0044 J**	**0.015**	**0.026**	< 0.00102 U	< 0.00113 U
Vinyl Chloride	mg/kg	0.0010	SL-6, PQL Adj.	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	--	--	< 0.001 U	< 0.001 U	< 0.001 U	--	**0.001 J**	< 0.001 U	--	< 0.001 U	--	< 0.00115 U	--	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.00102 U	< 0.00113 U
Conventionals																												
Total Organic Carbon	%			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	--	--	--	--	--	--	--	**0.12**	**0.19**
Total Solids	%			--	--	--	--	--	--	--	--	--	**86.3**	--	--	--	--	--	**77.5**	--	--	--	--	--	--	--	**78.2**	**78.3**

Table 6.9. Saturated Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				Central Area																								Northwest Area	
Location				MW-11D			MW-12	MW-17		MW-19D			SB-01	SB-04	SB-09	SB-10	SB-23	SB-24	SB-27		SB-28	SB-32	SB-33	SB-34	SB-40	SB-41		MW-13	
Sample Date				09/15/22	09/15/22	09/15/22	03/03/21	09/16/22	09/16/22	09/16/22	09/16/22	09/16/22	09/27/07	09/27/07	09/27/07	09/28/07	07/28/11	07/28/11	03/09/21	03/09/21	03/01/21	03/08/21	03/03/21	03/01/21	09/26/22	09/13/22	09/13/22	03/01/21	03/01/21
Sample				MW-11D-10-11	MW-11D-11-12-TIG	MW-11D-20-21	MW-12-9.5-10.5	MW-17-12-13	MW-17-16.25-17.25	MW-19D-6-7	MW-19D-10-11-TIG	MW-19D-15-16	SB-01-9	SB-04-8	SB-09-10	SB-10-14	SB23-8.0-072811	SB24-7.0-072811	SB-27-8-9	SB-27-18-20	SB-28-14.5-15.5	SB-32-7-8	SB-33-5.5-6.5	SB-34-5.5-6.5	SB-40-12-13	SB-41-7-8	SB-41-10-11	MW-13-9.5-10.5	MW-13-18-19.5
Depth (ft)				10 - 11	11 - 12	20 - 21	9.5 - 10.5	12 - 13	16.25 - 17.25	6 - 7	10 - 11	15 - 16	9 - 11	8 - 9	10 - 11	14 - 15	8 - 8	7 - 7	8 - 9	18 - 20	14.5 - 15.5	7 - 8	5.5 - 6.5	5.5 - 6.5	12 - 13	7 - 8	10 - 11	9.5 - 10.5	18 - 19.5
Geologic Unit				Fill	Fill	Alluvial	Fill	Fill	Alluvial	Fill	Alluvial	Alluvial	Tidal Flat	Fill	Fill	Tidal Flat			Alluvial	Alluvial	Alluvial	Tidal Flat	Tidal Flat	Fill	Tidal Flat	Fill	Alluvial	Fill	Tidal Flat
Analyte	Unit	Proposed RI CUL	Basis of CUL																										
Metals, Total																													
Arsenic	mg/kg	7.3	SL-10	**4.73**	--	**1.26**	**1.41**	**0.59 J**	--	**2.61**	--	**1.2**	**1.5**	**4.2**	**2**	**1.8**	--	--	**4.06 J**	**1.79**	**2 J**	--	--	--	**2.16**	**1.14 J**	**0.848 J**	**1.78 J**	--
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	< 0.2 U	--	< 0.2 U	**0.1 J**	< 0.2 U	--	< 0.2 U	--	< 0.2 U	**0.037**	**0.097**	**0.029**	**0.141**	--	--	**0.17**	< 0.11 U	< 0.12 U	--	--	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.12 U	--
Chromium	mg/kg	67	SL-9	**18.9**	--	**6.26 J**	**9.88**	**6.21**	--	**7.19**	--	**6.67**	**7.98**	**11.8**	**7.66**	**8.6**	--	--	**69.2**	**9.65**	**8.91**	--	--	--	**5.48 J**	**7.7**	**6.04**	**8.61**	--
Copper	mg/kg	36	SL-10	**53.5**	--	**5.9**	**12.9**	**9.34**	--	**11.4**	--	**8.32**	**9.74**	**19.9**	**10.6**	**10.8**	--	--	**38.2**	**9.8**	**9.02 J**	--	--	--	**7.56 J**	**10.6**	**8.05**	**11.2 J**	--
Lead	mg/kg	120	SL-9	**8.11**	--	**1.17**	**2.03**	**1.2**	--	**2.17**	--	**2.08**	**1.29 J**	**3.32 J**	**1.46 J**	**16.3 J**	--	--	**11 J**	**1.38**	**1.39 J**	--	--	--	**1.43 J**	**1.27**	**1.32**	**1.39 J**	--
Mercury	mg/kg	0.41	SL-8	--	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	**0.007**	**0.048**	**0.008**	**0.007**	--	--	**0.0162 J**	--	**0.00968 J**	--	--	--	< 0.025 U	--	< 0.025 U	**0.016 J**	--
Nickel	mg/kg	48	SL-10	**11.6**	--	**4.16**	**7.3**	**4.45**	--	**5.35**	--	**5.74**	--	--	--	--	--	--	**14.7 J**	**9.62**	**8.17**	--	--	--	**7.86**	**6.91**	**5.86**	**6.38**	--
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	mg/kg	85	SL-10	**49.9**	--	**14.2**	**40**	**16.7**	--	**15.5**	--	**15.4**	**19.1**	**26.3**	**17.6**	**28.7**	--	--	**53.2**	**26.4**	**23.9**	--	--	--	**17.7**	**18.9**	**15**	**17.9**	--
Butyl Tins																													
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	< 0.00369 U	--	< 0.00383 U	--	< 0.00376 U	--	< 0.00381 U	--	--	--	--	--	--	**0.01**	--	< 0.00381 U	--	--	--	< 0.00383 U	--	< 0.00377 U	--	--
Polychlorinated Biphenyl (PCB) Aroclors																													
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-6, PQL Adj.	< 0.004 U	--	< 0.004 U	**0.0053 J**	< 0.004 U	--	< 0.004 U	--	< 0.004 U	< 0.0099 UA	< 0.01 UA	< 0.0099 UA	**0.046 A**	--	--	**0.0125 J**	< 0.004 U	< 0.004 U	< 0.004 U	< 0.004 U	< 0.004 U	< 0.004 U	< 0.004 U	< 0.004 U	< 0.004 U	< 0.004 U	--
Polychlorinated Biphenyl (PCB) Congeners																													
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-6, PQL Adj.	--	**9.05E-6 J**	--	--	--	--	--	**6.53E-5 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-6, PQL Adj.	--	< 2.49E-6 U	--	--	--	--	--	< 2.44E-6 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxins/Furans																													
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)																													
1-Methylnaphthalene	mg/kg	20	SL-1	< 0.0005 U	--	< 0.0005 U	--	**0.00058**	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	--	--	--	--	--	--	< 0.0248 U	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
2-Methylnaphthalene	mg/kg	0.67	SL-8	< 0.0005 U	--	< 0.0005 U	--	**0.00052**	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 U	< 0.01 U	< 0.0098 U	< 0.01 U	--	--	< 0.0248 U	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 U	**0.0065**	< 0.0098 U	**0.0058**	--	--	**0.0152 J**	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Fluoranthene	mg/kg	1.7	SL-8	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	**0.00068**	--	< 0.0005 U	< 0.01 U	**0.013**	**0.0021**	**0.003**	--	--	**0.0106 J**	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Pyrene	mg/kg	2.6	SL-8	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	**0.00085**	--	< 0.0005 U	< 0.01 U	**0.017**	**0.0026**	**0.0043**	--	--	**0.00767 J**	--	**0.00065 J**	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Benz(a)anthracene	mg/kg	0.73	SL-9	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 U	**0.0063**	< 0.0098 U	**0.0022**	--	--	< 0.0248 U	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Benzo(a)pyrene	mg/kg	0.00050	SL-6, PQL Adj.	< 0.0005 U	--	< 0.0005 U	--	**0.00057**	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 U	**0.0075**	< 0.0098 U	**0.0044**	--	--	**0.0103 J**	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Benzo(b)fluoranthene	mg/kg	44	SL-9	< 0.0005 U	--	< 0.0005 U	--	**0.001**	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 U	**0.0079**	< 0.0098 U	**0.0084**	--	--	**0.0111 J**	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Chrysene	mg/kg	1.4	SL-8	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 U	**0.0071**	< 0.0098 U	**0.0063**	--	--	**0.0246 J**	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 U	< 0.01 U	< 0.0098 U	< 0.01 U	--	--	< 0.0248 U	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	< 0.0005 U	--	< 0.0005 U	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 U	**0.0061**	< 0.0098 U	**0.0057**	--	--	**0.00606 J**	--	< 0.00497 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Total Benzofluoranthenes	mg/kg	1.1	SL-9	< 0.0005 U	--	< 0.0005 U	--	**0.00125**	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.01 UA	**0.0102 A**	< 0.0098 UA	**0.0103 A**	--	--	**0.0223 J**	--	< 0.00994 U	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.0099 U	--
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	< 0.0005 U	--	< 0.0005 U	--	**0.00357**	< 0.0005 U	**0.00353**	--	< 0.0005 U	< 0.01 U	**0.0787**	**0.0439**	**0.047**	--	--	**0.127 J**	--	**0.0255 J**	--	--	--	< 0.0005 U	--	< 0.0005 U	< 0.00495 U	--
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-6, PQL Adj.	< 0.000378 U	--	< 0.000378 U	--	**0.000773**	< 0.000378 U	< 0.000378 U	--	< 0.000378 U	< 0.00755 U	**0.0103**	< 0.0074 U	**0.00678**	--	--	**0.016 J**	--	< 0.00375 U	--	--	--	< 0.000378 U	--	< 0.000378 U	< 0.00374 U	--
Semi-Volatile Organic Compounds (SVOCs)																													
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	R	R	R	R	--	--	< 0.1 U	--	< 0.0996 U	--	--	--	< 0.025 U	--	< 0.025 U	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	< 0.075 U	--	< 0.075 U	--	< 0.075 U	--	< 0.075 U	--	--	--	--	--	--	< 0.2 UJ	--	< 0.199 UJ	--	--	--	< 0.075 U	--	< 0.075 U	--	--
2-Methylphenol	mg/kg	0.063	SL-8	--	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	< 0.01 U	< 0.01 U	< 0.0098 U	< 0.01 U	--	--	< 0.02 U	--	< 0.0199 U	--	--	--	< 0.025 U	--	< 0.025 U	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	< 0.02 U	--	< 0.0199 UJ	--	--	--	< 0.025 U	--	< 0.025 U	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	< 0.01 U	< 0.01 U	< 0.0098 U	< 0.01 U	--	--	< 0.02 U	--	< 0.0199 U	--	--	--	< 0.025 U	--	< 0.025 U	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-6, PQL Adj.	--	--	< 0.04 U	--	< 0.04 U	--	< 0.04 U	--	< 0.04 U	< 0.0095 U	< 0.1 U	< 0.011 U	< 0.021 U	--	--	**0.03 J**	--	< 0.0498 U	--	--	--	< 0.04 U	--	< 0.04 U	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	< 0.01 U	< 0.0023 U	< 0.0023 U	< 0.0021 U	--	--	< 0.02 U	--	< 0.0199 U	--	--	--	< 0.025 U	--	< 0.025 U	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	< 0.01 U	< 0.01 U	< 0.0098 U	**0.0067**	--	--	< 0.02 U	--	< 0.0199 U	--	--	--	< 0.025 U	--	< 0.025 U	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	--	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	--	< 0.025 U	< 0.011 U	< 0.019 U	< 0.02 U	< 0.11 U	--	--	**0.006 J**	--	< 0.0199 U	--	--	--	< 0.025 U	--	< 0.025 U	--	--
Hexachlorobenzene	mg/kg	0.022	SL-8	--	--	< 0.0025 U	--	< 0.0025 U	--	< 0.0025 U	--	< 0.0025 U	< 0.01 U	< 0.01 U	< 0.0098 U	< 0.01 U	--	--	< 0.02 U	--	< 0.0199 U	--	--	--	< 0.0025 U	--	< 0.0025 U	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	< 0.0025 UJ	--	< 0.0025 UJ	--	< 0.0025 UJ	--	< 0.0025 UJ	< 0.01 U	< 0.01 U	< 0.0098 U	< 0.01 U	--	--	< 0.02 U	--	< 0.0199 U	--	--	--	< 0.0025 UJ	--	< 0.0025 UJ	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	< 0.012 U	--	< 0.012 U	--	< 0.012 U	--	< 0.012 U	< 0.1 U	< 0.1 U	< 0.098 U	**0.079**	--	--	< 0.1 UJ	--	< 0.0996 UJ	--	--	--	< 0.012 U	--	< 0.012 U	--	--
Pesticides and Herbicides																													
4,4'-DDE	mg/kg	0.0010	SL-6, PQL Adj.	< 0.0017 UJ	--	< 0.001 U	--	< 0.001 UJ	--	< 0.001 U	--	< 0.001 U	< 0.00099 U	< 0.001 U	< 0.00099 U	< 0.00099 U	--	--	--	--	--	--	--	--	< 0.001 UJ	--	< 0.001 U	--	--
4,4'-DDT	mg/kg	0.0010	SL-6, PQL Adj.	< 0.0017 UJ	--	< 0.001 U	--	< 0.001 UJ	--	< 0.001 U	--	< 0.001 U	< 0.00099 U	< 0.001 U	< 0.00099 U	**0.0036**	--	--	--	--	--	--	--	--	< 0.001 UJ	--	< 0.001 U	--	--
Aldrin	mg/kg	0.0017	SL-6, PQL Adj.	< 0.0017 UJ	--	< 0.0017 U	--	< 0.0017 UJ	--	< 0.0017 U	--	< 0.0017 U	< 0.00099 U	< 0.001 U	< 0.00099 U	< 0.00099 U	--	--	--	--	--	--	--	--	< 0.0017 UJ	--	< 0.0017 U	--	--
Alpha-BHC	mg/kg	0.00050	SL-6, PQL Adj.	< 0.0017 UJ	--	< 0.0005 U	--	< 0.0005 UJ	--	< 0.0005 U	--	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0005 UJ	--	< 0.0005 U	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0017 UJ	--	< 0.0005 U	--	< 0.0005 UJ	--	< 0.0005 U	--	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0005 UJ	--	< 0.0005 U	--	--
Delta-BHC	mg/kg	0.0048	SL-1	< 0.0017 UJ	--	< 0.0005 U	--	< 0.0005 UJ	--	< 0.0005 U	--	< 0.0005 U	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0017 UJ	--	< 0.0005 U	--	--
Dieldrin	mg/kg	0.0010	SL-6, PQL Adj.	< 0.0017 UJ	--	< 0.001 U	--	< 0.001 UJ	--	< 0.001 U	--	< 0.001 U	< 0.00099 U	< 0.001 U	< 0.00099 U	< 0.0017 U	--	--	--	--	--	--	--	--	< 0.001 UJ	--	< 0.001 U	--	--
Endrin Aldehyde	mg/kg	0.011	SL-9	< 0.0017 UJ	--	< 0.001 U	--	< 0.001 UJ	--	< 0.001 U	--	< 0.001 U	--	--	--	--	--	--	--	--	--	--	--	--	< 0.001 UJ	--	< 0.001 U	--	--
Heptachlor	mg/kg	0.00050	SL-8, PQL Adj.	< 0.0017 UJ	--	< 0.0005 U	--	< 0.0005 UJ	--	< 0.0005 U	--	< 0.0005 U	< 0.00099 U	< 0.001 U	< 0.00099 U	< 0.00099 U	--	--	--	--	--	--	--	--	< 0.0005 UJ	--	< 0.0005 U	--	--
trans-Chlordane	mg/kg	0.0017	SL-7, PQL Adj.	< 0.0017 UJ	--	< 0.0017 U	--	< 0.0017 UJ	--	< 0.0017 U	--	< 0.0017 U	--	--	--	--	--	--	--	--	--	--	--	--	< 0.0017 UJ	--	< 0.0017 U	--	--
Total Petroleum Hydrocarbons																													
Gasoline Range Organics	mg/kg	30	SL-3	**2.4 J**	--	< 5 U	--	**2.5 J**	< 5 U	**2.1 J**	--	< 5 U	< 20 U	< 20 U	< 20 U	< 20 U	--	--	**7.64**	--	< 7.46 U	--	--	< 8.06 U	< 5 U	--	< 5 U	**10.4 J**	**71.9 J**
Diesel Range Organics	mg/kg	2000	SL-6	< 5 UJ	--	< 5 UJ	--	< 10 U	< 10 U	< 5 UJ	--	< 5 UJ	< 50 U	< 50 U	< 50 U	< 50 U	< 27 U	< 28 U	< 60.2 U	--	< 62.1 U	--	--	< 62.8 U	< 10 U	--	< 10 U	< 62.1 U	< 70 U
Motor Oil Range Organics	mg/kg	2000	SL-6	< 25 U	--	< 25 U	--	< 50 U	< 50 U	< 25 U	--	< 25 U	< 100 U	< 100 U	< 100 U	< 100 U	< 54 U	< 55 U	**284**	--	< 124 U	--	--	< 126 U	< 50 U	--	< 50 U	< 124 U	< 140 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-6	< 25 UJ	--	< 25 UJ	--	< 50 U	< 50 U	< 25 UJ	--	< 25 UJ	< 100 U	< 100 U	< 100 U	< 100 U	< 54 U	< 55 U	**284**	--	< 124 U	--	--	< 126 U	< 50 U	--	< 50 U	< 124 U	< 140 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																													
Benzene	mg/kg	0.0010	SL-6, PQL Adj.	--	--	< 0.001 U	--	< 0.001 U	< 0.001 U	< 0.001 U	--	< 0.001 U	--	--	--	--	--	--	< 0.00094 U	--	< 0.00141 U	--	--	**0.00048 J**	< 0.001 U	--	< 0.001 U	**0.00064 J**	**0.00071 J**
Total Xylenes	mg/kg	1.4	SL-9	--	--	< 0.002 U	--	< 0.002 U	< 0.002 U	< 0.002 U	--	< 0.002 U	--	--	--	--	--	--	< 0.00189 U	--	< 0.00283 U	--	--	< 0.00245 U	< 0.002 U	--	< 0.002 U	< 0.00251 U	< 0.00261 U
Volatile Organic Compounds (VOCs)																													
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	--	--	< 0.05 U	--	< 0.05 U	< 0.05 U	< 0.05 U	--	< 0.05 U	--	--	--	--	--	--	< 0.00189 U	--	< 0.00283 U	--	--	< 0.00245 U	< 0.05 U	--	< 0.05 U	< 0.00251 U	< 0.00261 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	--	--	< 0.0025 U	--	< 0.0025 U	< 0.05 U	< 0.05 U	--	< 0.0025 U	< 0.01 U	< 0.01 U	< 0.0098 U	< 0.01 U	--	--	< 0.00094 U	--	< 0.00141 U	--	--	< 0.00122 U	< 0.05 U	--	< 0.05 U	< 0.00125 U	< 0.00131 U
Methylene Chloride	mg/kg	2.6	SL-9	--	--	< 0.2 U	--	R	R	< 0.2 U	--	< 0.2 U	--	--	--	--	--	--	< 0.00472 U	--	< 0.00707 U	--	--	< 0.00612 U	R	--	< 0.2 U	**0.0277**	**0.00729**
Tetrachloroethene (PCE)	mg/kg	0.0016	SL-6	--	--	< 0.001 U	--	< 0.001 U	< 0.001 U	< 0.001 U	--	< 0.001 U	--	--	--	--	--	--	< 0.00094 U	--	< 0.00141 U	--	--	**0.0006 J**	< 0.001 U	--	< 0.001 U	**3.28**	**7.44**
Trichloroethene (TCE)	mg/kg	0.0010	SL-6, PQL Adj.	--	--	< 0.001 U	--	< 0.001 U	< 0.001 U	< 0.001 U	--	< 0.001 U	--	--	--	--	--	--	< 0.00094 U	--	< 0.00141 U	--	--	< 0.00122 U	< 0.001 U	--	< 0.001 U	**0.0189**	**0.00654**
Vinyl Chloride	mg/kg	0.0010	SL-6, PQL Adj.	--	--	< 0.001 U	--	< 0.001 U	< 0.001 U	< 0.001 U	--	< 0.001 U	--	--	--	--	--	--	< 0.00094 U	--	< 0.00141 U	--	--	< 0.00122 U	< 0.001 U	--	< 0.001 U	< 0.00125 U	< 0.00131 U
Conventionals																													
Total Organic Carbon	%			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.38**	--	< 0.05 U	--	--	< 0.03 U	--	--	--	**0.13**	**0.2**
Total Solids	%			--	**71.5**	--	--	--	--	--	**76.6**	--	**84.3**	**71.8**	**78.6**	**85.9**	--	--	**74.3**	--	**77.7**	--	--	**78.4**	--	--	--	**80.0**	**71.4**

Table 6.9. Saturated Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Highlighting Key (see last page for detailed notes):
Bold = Detected
Gray = Nondetected result exceeded Proposed RI CUL
Purple Shaded = Detected result exceeded Proposed RI CUL

Site Area				Northwest Area																			
Location				MW-13D					MW-20			MW-21		MW-22				SB-30			SB-31		
Sample Date				09/23/22	09/23/22	09/23/22	09/23/22	09/23/22	09/14/22	09/14/22	09/14/22	09/14/22	09/14/22	09/14/22	09/14/22	09/14/22	09/14/22	03/01/21	03/01/21	03/01/21	03/01/21	03/01/21	03/01/21
Sample				MW-13D-23-24	MW-13D-28-29	MW-13D-32-33	MW-13D-35.5-36.5	MW-13D-39-40	MW-20-11-12	MW-20-12.5-13.5	MW-20-18.5-19.5	MW-21-10.5-11.5	MW-21-18.5-19.5	MW-22-10.5-11.5	MW-22-13-13.75	MW-22-17.5-18.5	MW-22-17.5 18.5-TIG	SB-30-11.5-12.5	SB-30-12.5-14.5	SB-30-23-25	SB-31-10-11	SB-31-13-14.5	SB-31-19-20
Depth (ft)				23 - 24	28 - 29	32 - 33	35.5 - 36.5	39 - 40	11 - 12	12.5 - 13.5	18.5 - 19.5	10.5 - 11.5	18.5 - 19.5	10.5 - 11.5	13 - 13.75	17.5 - 18.5	17.5 - 18.5	11.5 - 12.5	12.5 - 14.5	23 - 25	10 - 11	13 - 14.5	19 - 20
Geologic Unit				Tidal Flat	Alluvial	Alluvial	Till	Till	Fill	Fill	Alluvial	Fill	Alluvial	Fill	Tidal Flat	Alluvial	Alluvial	Fill	Fill	Alluvial	Fill	Tidal Flat	Alluvial
Analyte	Unit	Proposed RI CUL	Basis of CUL																				
Metals, Total																							
Arsenic	mg/kg	7.3	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.27 J**	**4.78**	**3.05 J**	**1.53 J**
Barium	mg/kg	250	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/kg	5.1	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.05 J**	**0.12 J**	**0.05 J**	< 0.12 U
Chromium	mg/kg	67	SL-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.1**	**27.8**	**15**	**9.89**
Copper	mg/kg	36	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**12.1 J**	**27.3**	**20 J**	**10.1 J**
Lead	mg/kg	120	SL-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.27 J**	**4.42**	**3.37 J**	**1.37 J**
Mercury	mg/kg	0.41	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.01 J**	--	**0.0285**	< 0.0271 U
Nickel	mg/kg	48	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**10.8**	**20.7**	**17.5**	**7.96**
Selenium	mg/kg	0.78	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	mg/kg	85	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**21.3**	**35.3**	**29.2**	**22.2**
Butyl Tins																							
Tributyltin Ion	mg/kg	0.0039	SL-8, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Aroclors																							
Total PCB Aroclors (ND = 0)	mg/kg	0.036	SL-6, PQL Adj.	--	--	--	--	--	< 0.004 U	--	--	< 0.004 U	--	< 0.004 U	--	--	--	--	--	< 0.004 U	--	< 0.004 U	**0.0026 J**
Polychlorinated Biphenyl (PCB) Congeners																							
Total PCB Congeners (ND = 0)	mg/kg	1.80E-04	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	**8.03E-6 J**	--	--	--	--	--	--
Total PCB TEQ (ND = 0)	mg/kg	7.00E-07	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.47E-6 U	--	--	--	--	--	--
Dioxins/Furans																							
Total Dioxin/Furan TEQ (ND = 1/2 RDL)	mg/kg	5.70E-06	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	mg/kg	5.20E-06	SL-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs)																							
1-Methylnaphthalene	mg/kg	20	SL-1	--	--	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.005 U	< 0.0005 U	--	--	--	**0.00551**	--	**0.745**	< 0.0109 U
2-Methylnaphthalene	mg/kg	0.67	SL-8	--	--	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	**0.00053**	--	< 0.0005 U	< 0.005 U	< 0.0005 U	--	--	--	< 0.00553 U	--	**0.284**	< 0.00948 U
Benzo(g,h,i)perylene	mg/kg	0.67	SL-8	--	--	--	--	--	**0.00065**	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0018**	**0.014**	< 0.0005 U	--	--	--	< 0.00498 U	--	**0.0014 J**	< 0.00498 U
Fluoranthene	mg/kg	1.7	SL-8	--	--	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0052**	**0.047**	< 0.0005 U	--	--	--	**0.00153 J**	--	< 0.00498 U	< 0.00498 U
Pyrene	mg/kg	2.6	SL-8	--	--	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0069**	**0.052**	< 0.0005 U	--	--	--	**0.00277 J**	--	**0.00293 J**	**0.00279 J**
Benz(a)anthracene	mg/kg	0.73	SL-9	--	--	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0028**	**0.016**	< 0.0005 U	--	--	--	**0.00215 J**	--	**0.00111 J**	**0.00167 J**
Benzo(a)pyrene	mg/kg	0.00050	SL-6, PQL Adj.	--	--	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0034**	**0.021**	< 0.0005 U	--	--	--	**0.00112 J**	--	< 0.00498 U	**0.00116 J**
Benzo(b)fluoranthene	mg/kg	44	SL-9	--	--	--	--	--	**0.00076**	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0032**	**0.024**	< 0.0005 U	--	--	--	**0.0016 J**	--	< 0.00498 U	**0.0015 J**
Chrysene	mg/kg	1.4	SL-8	--	--	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.003**	**0.019**	< 0.0005 U	--	--	--	**0.00368 J**	--	**0.00211 J**	**0.00334 J**
Dibenzo(a,h)anthracene	mg/kg	0.23	SL-8	--	--	--	--	--	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	< 0.0005 U	< 0.005 U	< 0.0005 U	--	--	--	< 0.00498 U	--	< 0.00498 U	< 0.00498 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.60	SL-8	--	--	--	--	--	**0.00067**	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0018**	**0.015**	< 0.0005 U	--	--	--	< 0.00498 U	--	< 0.00498 U	< 0.00498 U
Total Benzofluoranthenes	mg/kg	1.1	SL-9	--	--	--	--	--	**0.00101**	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0043**	**0.031**	< 0.0005 U	--	--	--	**0.00367 J**	--	< 0.00996 U	< 0.00996 U
Total HPAHs (ND = 1/2 RDL)	mg/kg	1.1	SL-9	--	--	--	--	--	**0.00383**	< 0.0005 U	< 0.0005 U	< 0.0005 U	--	**0.0295**	**0.218**	< 0.0005 U	--	--	--	**0.0239 J**	--	**0.025 J**	**0.0236 J**
Total cPAHs TEQ (ND = 1/2 RDL)	mg/kg	0.00076	SL-6, PQL Adj.	--	--	--	--	--	**0.000471**	< 0.000378 U	< 0.000378 U	< 0.000378 U	--	**0.00435**	**0.0276**	< 0.000378 U	--	--	--	**0.00228 J**	--	**0.00362 J**	**0.00226 J**
Semi-Volatile Organic Compounds (SVOCs)																							
2,4-Dimethylphenol	mg/kg	0.029	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	mg/kg	0.075	SL-9, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol	mg/kg	0.057	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl butyl phthalate	mg/kg	0.063	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	mg/kg	0.040	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	0.20	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	mg/kg	0.071	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate	mg/kg	0.025	SL-9, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	mg/kg	0.022	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	mg/kg	0.028	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	mg/kg	0.36	SL-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides and Herbicides																							
4,4'-DDE	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aldrin	mg/kg	0.0017	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Alpha-BHC	mg/kg	0.00050	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-Chlordane	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Delta-BHC	mg/kg	0.0048	SL-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	mg/kg	0.0010	SL-6, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin Aldehyde	mg/kg	0.011	SL-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	mg/kg	0.00050	SL-8, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-Chlordane	mg/kg	0.0017	SL-7, PQL Adj.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons																							
Gasoline Range Organics	mg/kg	30	SL-3	**4.1 J**	--	< 5 U	--	--	R	--	--	R	--	**2.1 J**	--	--	--	--	< 7 U	< 8.2 U	--	**5440 J**	**81.6 J**
Diesel Range Organics	mg/kg	2000	SL-6	< 10 U	--	< 10 U	--	--	< 5 UJ	--	--	< 5 UJ	--	< 5 UJ	--	--	--	< 67.7 U	< 64.7 U	< 69.6 U	--	< 67.8 U	< 62.8 U
Motor Oil Range Organics	mg/kg	2000	SL-6	< 50 U	--	< 50 U	--	--	< 25 U	--	--	< 25 U	--	< 25 U	--	--	--	< 135 U	< 129 U	< 139 U	--	< 136 U	< 126 U
Diesel and Oil Extended Range Organics	mg/kg	2000	SL-6	< 50 U	--	< 50 U	--	--	< 25 UJ	--	--	< 25 UJ	--	< 25 UJ	--	--	--	< 135 U	< 129 U	< 139 U	--	< 136 U	< 126 U
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)																							
Benzene	mg/kg	0.0010	SL-6, PQL Adj.	**0.0031 J**	< 0.001 UJ	**0.0047 J**	**0.01 J**	< 0.001 UJ	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	--	--	< 0.00128 UJ	**0.00104 J**	--	< 7.93 U	< 0.0014 U
Total Xylenes	mg/kg	1.4	SL-9	< 0.002 U	< 0.002 UJ	**0.003 J**	< 0.002 UJ	< 0.002 UJ	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	--	--	< 0.00257 UJ	< 0.00299 U	--	< 15.9 U	< 0.0028 U
Volatile Organic Compounds (VOCs)																							
1,2,3-Trichloropropane	mg/kg	0.050	SL-1, PQL Adj.	< 0.05 U	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	< 0.00257 UJ	< 0.00299 U	--	< 15.9 U	< 0.0028 U
1,2-Dichlorobenzene	mg/kg	0.050	SL-8, PQL Adj.	< 0.05 U	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 UJ	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	< 0.00128 UJ	< 0.00149 U	--	< 7.93 U	< 0.0014 U
Methylene Chloride	mg/kg	2.6	SL-9	< 0.2 U	< 0.2 UJ	< 0.2 UJ	< 0.2 UJ	< 0.2 UJ	< 0.2 U	< 0.2 UJ	< 0.2 U	**0.31**	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	--	--	**0.00659 J**	< 0.00747 U	--	**10.7 J**	< 0.00699 U
Tetrachloroethene (PCE)	mg/kg	0.0016	SL-6	< 0.001 U	< 0.001 UJ	< 0.001 UJ	< 0.001 UJ	< 0.001 UJ	**0.073**	**0.32**	**0.0071**	**0.62**	**1.9**	**0.019**	< 0.001 U	**0.24**	--	--	**0.729 J**	**0.0163**	--	**18.7**	**7.07**
Trichloroethene (TCE)	mg/kg	0.0010	SL-6, PQL Adj.	**0.0011 J**	< 0.001 UJ	< 0.001 UJ	< 0.001 UJ	< 0.001 UJ	< 0.001 U	< 0.001 U	**0.0027 J**	**0.0016 J**	**0.016**	< 0.001 U	< 0.001 U	**0.029**	--	--	**0.00347 J**	**0.0362**	--	< 7.93 U	**0.672**
Vinyl Chloride	mg/kg	0.0010	SL-6, PQL Adj.	**0.0014 J**	< 0.001 UJ	< 0.001 UJ	**0.0016 J**	< 0.001 UJ	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	**0.0029 J**	< 0.001 U	--	--	< 0.00128 UJ	**0.0012 J**	--	< 7.93 U	< 0.0014 U
Conventionals																							
Total Organic Carbon	%			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.13**	**0.12**	--	**0.48**	< 0.06 U
Total Solids	%			--	--	--	--	--	--	--	--	--	--	--	--	--	**78.1**	--	**73.1**	**72.6**	--	**72.2**	**78.0**

Table 6.9. Saturated Soil COPC Analytical Data

South Park Marina Site, Seattle, Washington

Notes:

Bold = Detected

Gray Shaded = Nondetect result has an RDL that exceeds the Proposed RI CUL.

Blue Shaded = Detected result exceeded the Proposed RI CUL.

Proposed RI CUL = Proposed Remedial Investigation Cleanup Level

COPC = contaminant of potential concern

mg/kg = milligrams per kilogram

% = percent

"--" = Results not available

U = Analyte not detected at or above the RDL shown.

J = Result value estimated

UJ = Analyte not detected, and the RDL shown is an estimate.

R = Rejected, refer to data validation report

A = One or more of the nine common Aroclor groups (1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268) were not reported, and the Total PCB Aroclors (ND = 0) sum assumes the missing components were nondetect.

Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with nondetects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is shown as nondetect at the maximum RDL for any individual Aroclor.

(ND = 0) = Calculated using zero for nondetected components.

RDL = Reported Detection Limit

(ND = 1/2 RDL) = Calculated using one-half the RDL for nondetected components.

TEQ = Toxic Equivalency

HPAHs = high molecular weight polycyclic aromatic hydrocarbons: fluoranthene, pyrene, benz(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene

cPAHs = carcinogenic polycyclic aromatic hydrocarbons: benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene

Field duplicate results not displayed; field duplicate results were used to assess data quality.

Basis of Cleanup Level Codes:

SL-1	Direct Contact Unrestricted
SL-6	Protect Surface Water via Groundwater - Saturated Zone
SL-7	Protect Sediment via Groundwater - Saturated Zone
SL-8	Protect Sediment via Erosion
SL-9	Site-Specific Terrestrial Ecological Evaluation Unrestricted
SL-10	Natural Background
PQL Adj.	Practical Quantitation Limit, basis was adjusted to the method reporting limit (MRL) listed in the Sampling and Analysis Plan / Quality Assurance Project Plan. Refer to the Remedial Investigation Work Plan Addendum, Appendix C.

Table 6.10. Soil Gas COPC Analytical Data

South Park Marina Site, Seattle, Washington

Remedial Investigation Area					Northwest Area					
Location					SG-01		SG-02		SG-03	SG-04
Date					10/07/2022	03/21/2023	10/07/2022	03/21/2023	03/21/2023	03/21/2023
Sample					SG-01-221007	SG-01-230321	SG-02-221007	SG-02-230321	SG-03-230321	SG-04-230321
Analyte	**Unit**		**Unrestricted Use Proposed RI SL**	**Commercial Worker Proposed RI SL**						
Volatile Organic Compounds										
Tetrachloroethene (PCE)	ug/m3		320	1500	**43000 J**	**12000 J**	**10000 J**	**1900 J**	**1000 J**	**140**
Trichloroethene (TCE)	ug/m3		11	95	**75**	**24**	**12**	**2.4**	**1.8**	< 0.85 U

Notes:

Light Gray Shaded = Nondetect result has a reporting limit that exceeds an unrestricted use Proposed RI SL.

Blue Shaded = Detected result exceeded the unrestricted use Proposed RI SL.

Dark Gray Shaded = Nondetect result has a reporting limit that exceeds the commercial worker Proposed RI SL.

Dark Blue Shaded = Detected result exceeded commercial worker Proposed RI SL.

Proposed RI SL = Proposed Remedial Investigation Screening Level

COPC = contaminant of potential concern

ug/m3 = micrograms per cubic meter

U = Analyte not detected at or above the reported detection limit shown.

J = Result value estimated

COPC = contaminant of potential concern

Field duplicate results not displayed; field duplicate results were used to assess data quality.

Table 6.11. Indoor Air COPC Analytical Data

South Park Marina Site, Seattle, Washington

Remedial Investigation Area				Northwest Area					
Location				AMB-1	AMB-2	IA-1	IA-2	IA-3	IA-4
Date				03/21/2023	03/21/2023	03/21/2023	03/21/2023	03/21/2023	03/21/2023
Sample				AMB-1-230321	AMB-2-230321	IA-1-230321	IA-2-230321	IA-3-230321	IA-4-230321
Analyte	**Unit**	**Unrestricted Use Proposed RI CUL**	**Commercial Worker Proposed RI SL**						
Volatile Organic Compounds									
Tetrachloroethene (PCE)	ug/m3	9.6	45	< 6.8 U	< 6.8 U	**260 J**	**470 J**	**36**	**4700 J**
Trichloroethene (TCE)	ug/m3	0.33	2.8	< 0.11 U	< 0.11 U	< 0.11 U	< 0.14 U	< 0.11 U	**0.16**

Notes:

Light Gray Shaded = Nondetect result has a reporting limit that exceeds an unrestricted use Proposed RI CUL.

Blue Shaded - Detected result exceeded the unrestricted use Proposed RI CUL

Dark Gray Shaded = Nondetect result has a reporting limit that exceeds the commercial worker Proposed RI SL.

Dark Blue Shaded = Detected result exceeded commercial worker Proposed RI SL

Proposed RI CUL = Proposed Remedial Investigation Cleanup Level

COPC = contaminant of potential concern

AMB = ambient air sample

IA = indoor air sample

ug/m3 = micrograms per cubic meter

U = Analyte not detected at or above the reported detection limit shown.

J = Result value estimated

Field duplicate results not displayed; field duplicate results were used to assess data quality.

Table 8.1. Summary of Potentially Complete Pathways by Site Area

South Park Marina Site, Seattle, Washington

				South Area						Central Area						Northwest Area					
	Exposure Media			Soil		Sediment		SW	IA	Soil		Sediment		SW	IA	Soil		Sediment		SW	IA
	Exposure Route / Transport Pathway			DC	TEE	Erosion	GW	GW	VI	DC	TEE	Erosion	GW	GW	VI	DC	TEE	Erosion	GW	GW	VI
	Exposure Pathway-Specific SLs			SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW-2	GW-4	SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW-2	GW-4	SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW-2	GW-4
	Point of Compliance for Pathway Evaluation Purposes			Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW	Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW	Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW
COPC	**Matrix**	**Proposed RI CUL and Basis**																			
Metals																					
Arsenic	Vadose Soil	7.3 mg/kg	NB	X		X		X	nv	X		X		X	nv						nv
	Saturated Soil	7.3 mg/kg	NB	X		X		X	nv					X	nv						nv
	Groundwater	8 ug/L	NB					X	nv					X	nv						nv
Cadmium	Vadose Soil	5.1 mg/kg	Sed via Erosion	X	X	F			nv						nv						nv
Chromium	Vadose Soil	67 mg/kg	TEE		X	F		X	nv						nv						nv
	Groundwater	27 ug/L	SW					X	nv					X	nv						nv
Copper	Vadose Soil	36 mg/kg	NB		X	F		X	nv		X			X	nv						nv
	Saturated Soil	36 mg/kg	NB					X	nv					X	nv						nv
	Groundwater	3.1 ug/L	SW					X	nv					X	nv						nv
Lead	Vadose Soil	120 mg/kg	TEE	X	X	F			nv	X	X				nv						nv
	Saturated Soil	50 mg/kg	NB	X	X	F			nv						nv						nv
Mercury	Vadose Soil	0.41 mg/kg	Sed via Erosion		X	F			F												
	Saturated Soil	0.41 mg/kg	Sed via Erosion			F															
Nickel	Vadose Soil	48 mg/kg	NB					X	nv					X	nv						nv
	Groundwater	8.2 ug/L	SW					X	nv					X	nv						nv
Zinc	Vadose Soil	100 mg/kg	SW	X	X	F	F	F	nv						nv						nv
	Saturated Soil	85 mg/kg	NB		X	F	F	F	nv						nv						nv
	Groundwater	81 ug/L	SW				F	F	nv						nv						nv
Tributyltin Ion	Vadose Soil	0.0039 mg/kg	PQL			X			nv			X			nv						nv
	Saturated Soil	0.0039 mg/kg	PQL			X			nv			X			nv						nv
Polychlorinated Biphenyls (PCBs)																					
Total PCBs	Vadose Soil	3.6E-02 mg/kg	PQL	X	X	X	X	X	nv	X	X	X	X	X	nv						nv
	Saturated Soil	3.6E-02 mg/kg	PQL	X	X	X	X	X	nv			X	X	X	nv						nv
	Groundwater	3.5E-03 ug/L	PQL				X	X	nv				X	X	nv						nv
Dioxins/Furans																					
Total Dioxin/Furan TEQ	Vadose Soil	5.7E-06 mg/kg	PQL	X		F			nv	X		F			nv			F			nv
	Saturated Soil	5.7E-06 mg/kg	PQL	X		F			nv						nv						nv
Polycyclic Aromatic Hydrocarbons (PAHs)																					
1-Methylnaphthalene	Groundwater	0.17 ug/L	VI						F												
2-Methylnaphthalene	Vadose Soil	0.67 mg/kg	Sed via Erosion			F			nv						nv						nv
	Saturated Soil	0.67 mg/kg	Sed via Erosion			F			nv						nv						nv
Fluoranthene	Vadose Soil	1.7 mg/kg	Sed via Erosion						nv			F			nv						nv
Pyrene	Vadose Soil	2.6 mg/kg	Sed via Erosion						nv			F			nv						nv
Total HPAHs	Vadose Soil	1.1 mg/kg	TEE		X				nv		X	F			nv						nv
	Saturated Soil	1.1 mg/kg	TEE		X				nv						nv						nv
Total cPAH TEQ	Vadose Soil	0.00076 mg/kg	PQL	X		F	F	F	nv	X		F			nv	X					nv
	Saturated Soil	0.00076 mg/kg	PQL	X		F	F	F	nv						nv						nv
	Groundwater	0.015 ug/L	PQL				F	F	nv						nv						nv

Pathway Symbols / Color Codes:

X	Potentially Complete Pathway of Concern
F	Potentially Complete Pathway of Potential Concern in the Future
	Potentially Complete Pathway but Not of Concern Now and in the Future
	Incomplete Pathway Now and in the Future
nv = non-volatile	Incomplete Pathway Now and in the Future
	No data for that analyte, media, and area.

See last page of table for Notes and Abbreviations.

Table 8.1. Summary of Potentially Complete Pathways by Site Area

South Park Marina Site, Seattle, Washington

			South Area						Central Area						Northwest Area					
	Exposure Media		Soil		Sediment		SW	IA	Soil		Sediment		SW	IA	Soil		Sediment		SW	IA
	Exposure Route / Transport Pathway		DC	TEE	Erosion	GW	GW	VI	DC	TEE	Erosion	GW	GW	VI	DC	TEE	Erosion	GW	GW	VI
	Exposure Pathway-Specific SLs		SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW-2	GW-4	SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW-2	GW-4	SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW 2	GW-4
	Point of Compliance for Pathway Evaluation Purposes		Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW	Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW	Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW
COPC	**Matrix**	**Proposed RI CUL and Basis**																		
Other Semivolatile Organic Compounds (SVOCs)																				
2,4-Dimethylphenol	Saturated Soil	0.029 mg/kg	Sed via Erosion			F			nv						nv						nv
2,4-Dinitrophenol	Saturated Soil	0.075 mg/kg	PQL		X				nv						nv						nv
2-Methylphenol	Vadose Soil	0.063 mg/kg	Sed via Erosion			F			nv						nv						nv
Benzyl alcohol	Vadose Soil	0.057 mg/kg	Sed via Erosion			X			nv			X			nv						nv
Benzyl butyl phthalate	Vadose Soil	0.063 mg/kg	Sed via Erosion			F			nv			F			nv						nv
Bis(2-ethylhexyl) phthalate	Vadose Soil	0.04 mg/kg	PQL		X	F		F	nv		X				nv						nv
	Saturated Soil	0.04 mg/kg	SW		X	F		F	nv						nv						nv
	Groundwater	0.2 ug/L	PQL					F	nv						nv						nv
Dimethyl phthalate	Vadose Soil	0.071 mg/kg	Sed via Erosion			F			nv			F			nv						nv
Diethyl phthalate	Vadose Soil	0.2 mg/kg	Sed via Erosion						nv			F			nv						nv
Di-n-butyl phthalate	Vadose Soil	0.025 mg/kg	PQL		X	F			nv		X				nv						nv
Hexachlorobenzene	Saturated Soil	0.025 mg/kg	PQL			F			nv						nv						nv
N-Nitrosodiphenylamine	Vadose Soil	0.028 mg/kg	Sed via Erosion			F			nv						nv						nv
	Saturated Soil	0.028 mg/kg	Sed via Erosion			F			nv						nv						nv
Pentachlorophenol	Vadose Soil	0.36 mg/kg	Sed via Erosion	X	X	F			nv						nv						nv
Pesticides																				
4,4'-DDE	Vadose Soil	0.001 mg/kg	PQL					F	nv						nv						nv
	Saturated Soil	0.001 mg/kg	PQL					F	nv						nv						nv
	Groundwater	0.0013 ug/L	PQL					F	nv						nv						nv
4,4'-DDT	Vadose Soil	0.001 mg/kg	PQL	X	X	F			nv			F			nv						nv
	Saturated Soil	0.001 mg/kg	PQL		X	F			nv			F			nv						nv
	Groundwater	0.0013 ug/L	PQL						nv						nv						nv
Aldrin	Vadose Soil	0.0017 mg/kg	PQL	X	X	F	F	X	nv						nv						nv
	Saturated Soil	0.0017 mg/kg	PQL	X	X	F	F	X	nv						nv						nv
	Groundwater	0.00063 ug/L	PQL				F	X	nv					X	nv						nv
Alpha-BHC	Vadose Soil	0.0005 mg/kg	PQL					X	nv						nv						nv
	Saturated Soil	0.0005 mg/kg	PQL					X	nv						nv						nv
	Groundwater	0.00063 ug/L	PQL					X	nv					X	nv						nv
cis-Chlordane	Vadose Soil	0.0028 mg/kg	Sed via Erosion						nv			F			nv						nv
	Saturated Soil	0.0028 mg/kg	Sed via Erosion			F			nv						nv						nv
Dieldrin	Vadose Soil	0.001 mg/kg	PQL	X	X	F	F	X	nv			F			nv						nv
	Saturated Soil	0.001 mg/kg	PQL	X	X	F	F	X	nv						nv						nv
	Groundwater	0.0013 ug/L	PQL				F	X	nv						nv						nv
Endrin Aldehyde	Saturated Soil	0.011 mg/kg	TEE		X				nv						nv						nv
Heptachlor	Saturated Soil	0.0015 mg/kg	Sed via Erosion			F			nv						nv						nv
trans-Chlordane	Vadose Soil	0.0028 mg/kg	Sed via Erosion						nv			F			nv						nv
	Saturated Soil	0.0017 mg/kg	PQL			F			nv						nv						nv
Total Petroleum Hydrocarbons (TPH)																				
Diesel+Oil Range Organics	Vadose Soil	2000 mg/kg	SW		X			F	F												
	Saturated Soil	2000 mg/kg	SW		X			F													
	Groundwater	500 ug/L	SW					F	F												
Gasoline Range Organics	Vadose Soil	30 mg/kg	SW						F												
	Saturated Soil	30 mg/kg	SW													X	X				

Pathway Symbols / Color Codes:

X	Potentially Complete Pathway of Concern
F	Potentially Complete Pathway of Potential Concern in the Future
	Potentially Complete Pathway but Not of Concern Now and in the Future
	Incomplete Pathway Now and in the Future
nv = non-volatile	Incomplete Pathway Now and in the Future
	No data for that analyte, media, and area.

See last page of table for Notes and Abbreviations.

Table 8.1. Summary of Potentially Complete Pathways by Site Area

South Park Marina Site, Seattle, Washington

			South Area						Central Area						Northwest Area					
	Exposure Media		Soil		Sediment		SW	IA	Soil		Sediment		SW	IA	Soil		Sediment		SW	IA
	Exposure Route / Transport Pathway		DC	TEE	Erosion	GW	GW	VI	DC	TEE	Erosion	GW	GW	VI	DC	TEE	Erosion	GW	GW	VI
	Exposure Pathway-Specific SLs		SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW-2	GW-4	SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW-2	GW-4	SL-1	SL-9	SL-8	SL-4, SL-7, GW-3	SL-3, SL-6, GW-2	GW-4
	Point of Compliance for Pathway Evaluation Purposes		Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW	Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW	Soil 0-15 ft bgs	Soil 0-15 ft bgs	Soil 0-15 ft bgs	All soil, shoreline GW	All soil, shoreline GW	Vadose soil, Fill GW
COPC	**Matrix**	**Proposed RI CUL and Basis**																		
Volatile Organic Compounds (VOCs)																				
1,2,3-Trichloropropane	Vadose Soil	0.05 mg/kg	PQL						X					F						
1,2-Dichlorobenzene	Vadose Soil	0.05 mg/kg	PQL			F														
	Saturated Soil	0.05 mg/kg	PQL			F														
Total Xylenes	Vadose Soil	1.4 mg/kg	PQL		X															
	Saturated Soil	1.4 mg/kg	PQL		X															
Benzene	Vadose Soil	0.0088 mg/kg	SW					F												
	Saturated Soil	0.001 mg/kg	PQL																	
	Groundwater	1.6 ug/L	SW																	
Methylene Chloride	Saturated Soil	2.6 mg/kg	TEE													X				
Tetrachloroethene (PCE)	Vadose Soil	0.029 mg/kg	SW		X			X	F							X			X	F
	Saturated Soil	0.0016 mg/kg	SW					X			X			X		X			X	
	Groundwater	2.7 ug/L	SW					X						X	F				X	F
Trichloroethene (TCE)	Vadose Soil	0.0044 mg/kg	SW						F											F
	Saturated Soil	0.001 mg/kg	PQL											X					X	
	Groundwater	0.7 ug/L	SW											X	F				X	F
Vinyl Chloride	Vadose Soil	0.0011 mg/kg	SW	X	X			F	F											
	Saturated Soil	0.001 mg/kg	PQL																X	
	Groundwater	0.18 ug/L	SW					F	F										X	

Pathway Symbols / Color Codes:

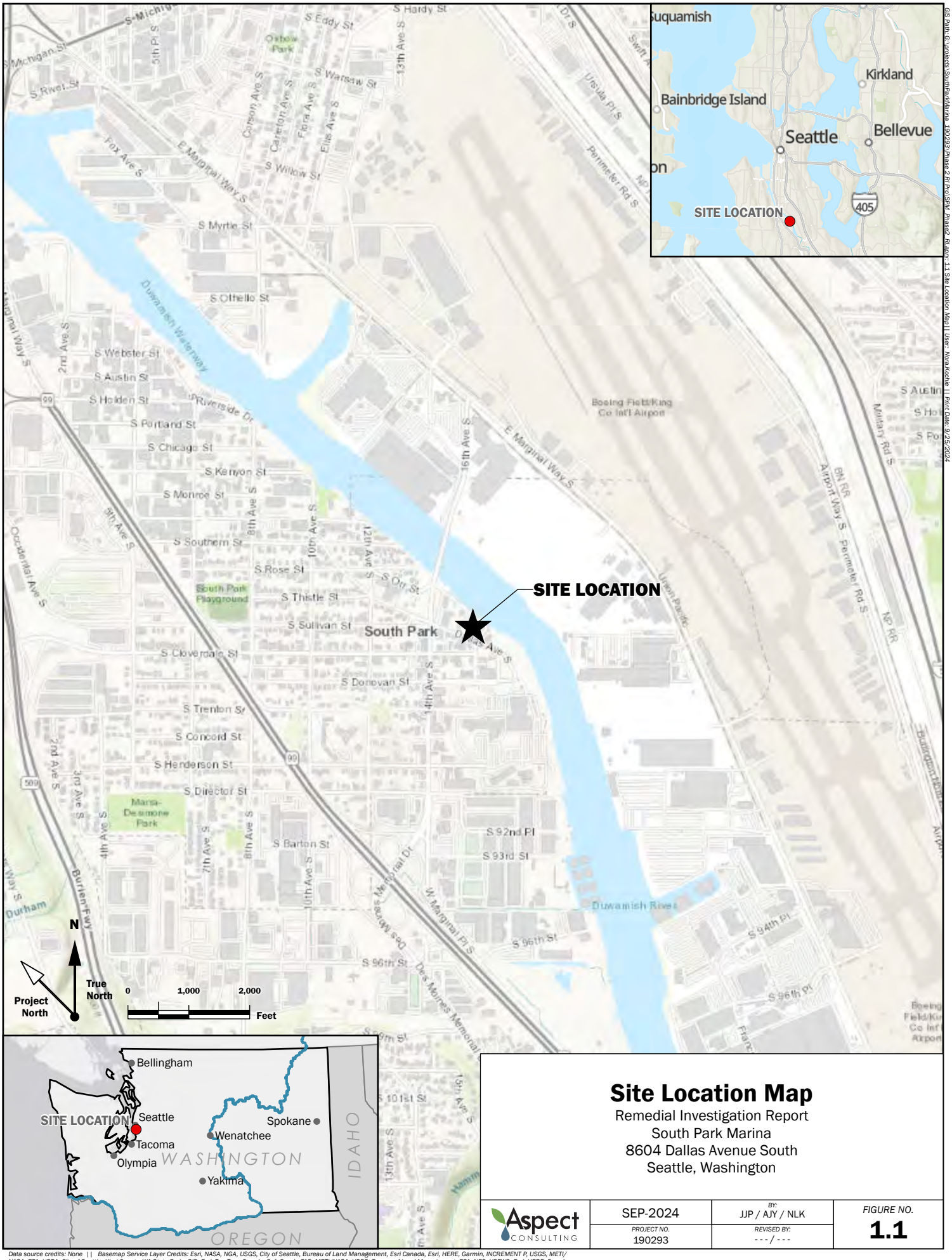
X	Potentially Complete Pathway of Concern
F	Potentially Complete Pathway of Potential Concern in the Future
	Potentially Complete Pathway but Not of Concern Now and in the Future
	Incomplete Pathway Now and in the Future
nv = non-volatile	Incomplete Pathway Now and in the Future
	No data for that analyte, media, and area.

Notes:

This table summarizes evaluates exposure pathways or components of exposure pathways to assess the potential applicability of screening levels and developing cleanup levels but does not represent a comprehensive evaluation of all exposure pathways.
Proposed RI CUL - Proposed Remedial Investigation Cleanup Level
ft bgs - feet below ground surface
mg/kg - milligrams per kilogram
ug/L - micrograms per liter
SW - Surface Water
IA - Indoor Air
DC - Direct Contact
TEE - Terrestrial Ecological Exposure
Erosion / Sed via Erosion - Sediment via Soil Erosion
GW - Sediment or Surface Water via Groundwater Discharge; both consider groundwater discharge and soil leaching to that groundwater
VI - Vapor Intrusion
NB - Natural Background
PQL - Practical Quantification Limit

FIGURES

SECTION 1 FIGURE



Site Location Map

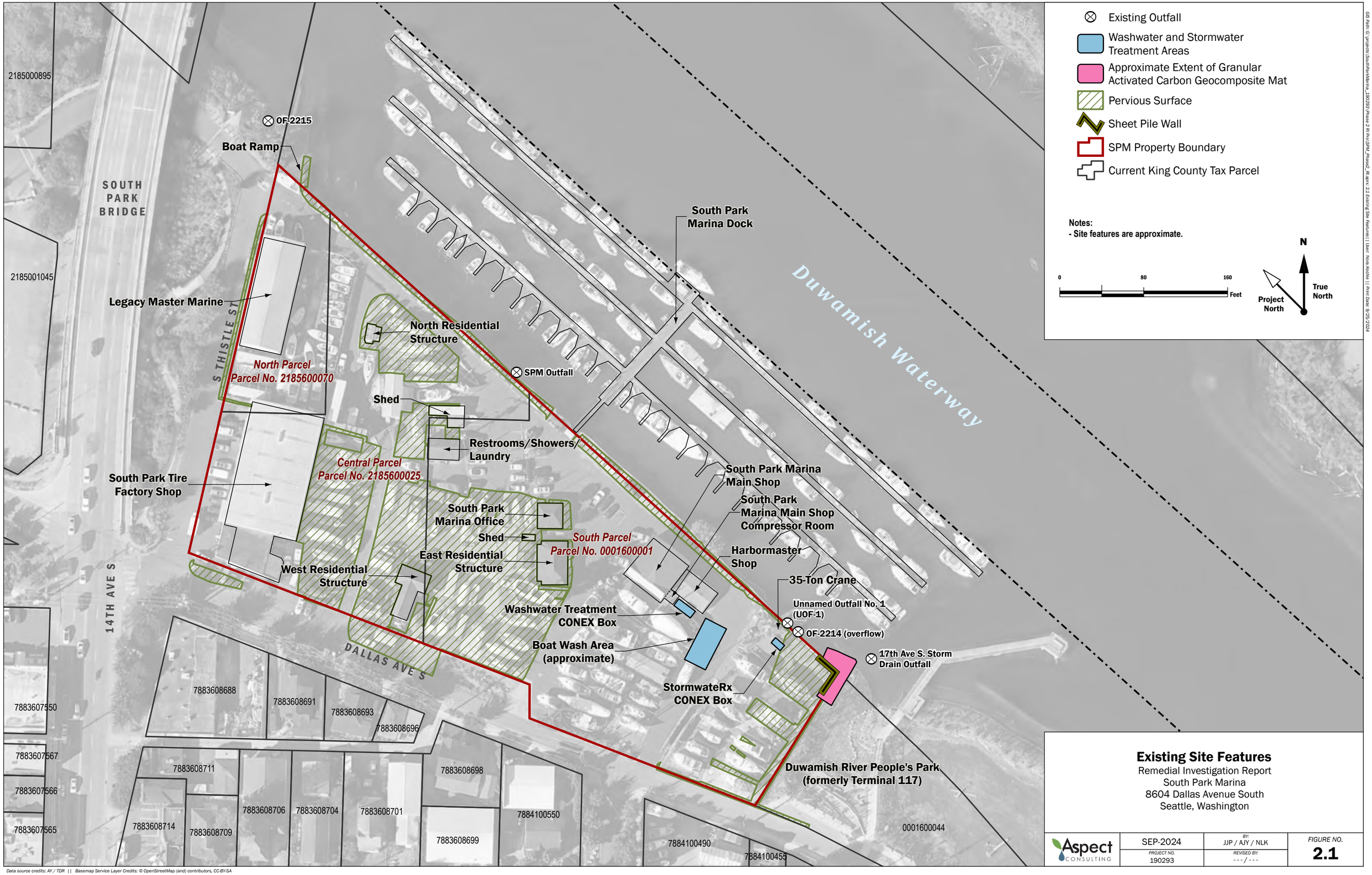
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect CONSULTING	SEP-2024	BY: JJP / AJY / NLK	FIGURE NO. 1.1
	PROJECT NO. 190293	REVISED BY: ---/---	

Data source credits: None || Basemap Service Layer Credits: Esri, NASA, NGA, USGS, City of Seattle, Bureau of Land Management, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, City of Seattle, King County, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS, Esri, HERE, Garmin, USGS, EPA, NPS

GIS Path: G:\projects\SouthPar\Marina_190293\Phase 2 RI\Pro\SPM_Phase2_RI.aprx | Layout: 1.1 Site Location Map | User: NoraKoehle | Print Date: 9/25/2024

SECTION 2 FIGURES



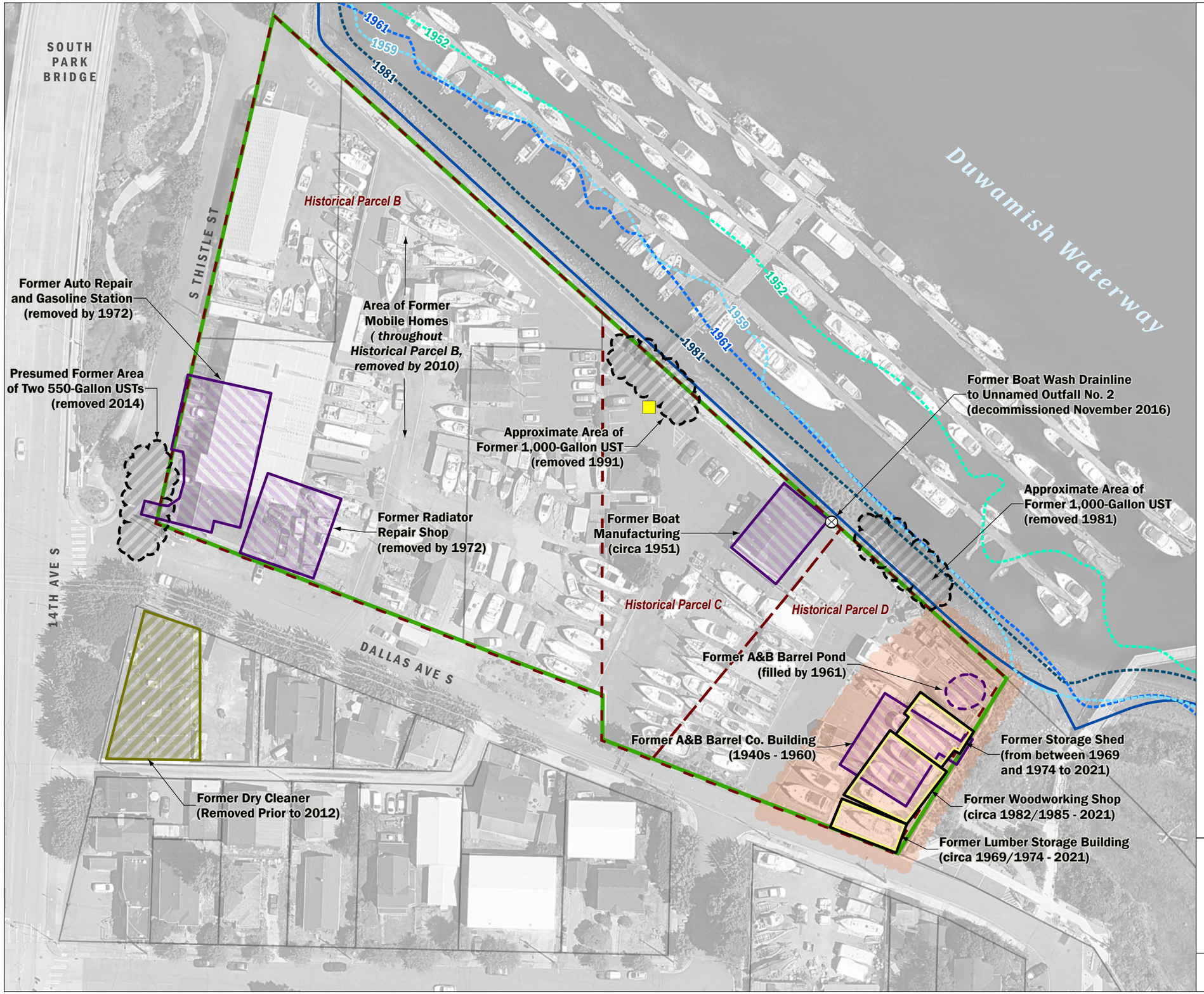
GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 PH Pro\SPM_Phase2_Report 2.1 Existing Site Features\ | User: Nina Kotchi | Print Date: 9/25/2024

Existing Site Features

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	SEP-2024	BY: JJP / AJY / NLK	FIGURE NO. 2.1
	PROJECT NO. 190293	REVISED BY: ---/---	

Data source credits: AY / TDR || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA



Current Shoreline (approximate) – 1992

Historical Shoreline Configurations (approximate)

- 1981
- 1961
- 1959
- 1952

Historical Features

- Decommissioned Outfall
- Septic Tank*
- Former UST Areas (approximate)
- Historical Site Feature
- Historical Off-Property Feature
- Historical Structures Destroyed in 2021 Fire
- 2021 Approximate Fire-Affected Area

Property and Parcel Boundaries

- SPM Property Boundary
- Historical Parcel Boundary
- Current King County Tax Parcel

Notes:
- Site features are approximate.
- A&B Barrel parcel is a historical parcel.
- UST = Underground Storage Tank.
* Septic tank location is based on historical information.

Map References:
- TIG Environmental, 2019 geospatial data (e.g. historical site features)
- Sanborn Map Company, 1951, "Sanborn Fire Insurance Maps: Seattle, Washington, Volume 7, Sheets 1254-1255.
- TIG Environmental, 2016, Data Gaps Evaluation Ecology Meeting Handout.

0 70 140 Feet

N
True North
Project North

Historical Site Features

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	APR-2025	BY: JJP / AJY / NLK	FIGURE NO. 2.2
	PROJECT NO. 190293	REVISED BY: ---/---	

Data source credits: AY / TDR || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_Rpt\c 2.2 Historical Site Features\ | User: hallyn\run | | Print Date: 4/9/2025



- Catch Basin
- Cleanout
- Discharge Location
- Manhole
- Decommissioned Outfall; Outfall
- Pump Vault
- Sanitary Sewer Hook Up
- Sanitary Sewer Vault
- Sewer feature investigated 2/22/17-2/23/17
- Shower Drain
- Vessel Wash Wastewater Catch Basin
- Water Utility Vault
- Septic Tank*
- Water Line Pipe
- Combined Sewer Pipe
- Combined Sewer Pipe (inferred)
- Sanitary Sewer Pipe
- Sanitary Sewer Pipe (inferred)
- Storm Sewer Pipe
- Storm Sewer Pipe (inferred)
- Vessel Wash Collection Pipe
- Decommissioned Pipe
- Bioswale Area
- Boat Wash Pad
- Pervious Surface
- SPM Property Boundary
- Current King County Tax Parcel

Notes:
- Site features are approximate.
- Sewer feature investigated 2/22/17 - 2/23/17.

Map References:
- TIG Environmental, 2019 geospatial data.
- Seattle Public Utility (Water Line Pipe location from Boundary & Topographic Survey of South Park Marina, Axis Survey and Mapping, July 5, 2022.).

*Septic tank location is inferred.

0 80 160 Feet

N
Project North
True North

Current Underground Utilities

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 2.3
	PROJECT NO 190293	REVISED BY: ---/---	

Data source credits: TIGR || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase2 RI Rpt\SPM_Phase2_RI.aprx, 2.3 Current Underground Utilities || User: haleyduran || Print Date: 6/20/2025



Stormwater Infrastructure

- Catch Basin
- Discharge Location
- Manhole
- Metal Roof Drain
- Non Metal Roof Drain
- Decommissioned Outfall; Outfall
- Pump Vault
- Vessel Wash Wastewater Catch Basin
- Combined Sewer Pipe
- Combined Sewer Pipe (inferred)
- Sanitary Sewer Pipe
- Sanitary Sewer Pipe (inferred)
- Storm Sewer Pipe
- Storm Sewer Pipe (inferred)
- Bioswale
- Vessel Wash Collection Pipe
- Decommissioned Pipe

Stormwater Areas

Main Areas

- Shoreline Area (Infiltrates through gravel surface)
- Southern Catchment (Outfall UOF-1)
- Central Catchment (SPM Outfall)
- Northern Catchment (Outfall OF-2215)

Smaller Areas

- City Sewer System Area
- Boat Ramp Area (Directly to LDW)
- 17th Avenue S Storm Drain (17th Avenue S Storm Drain Outfall)
- Bioswale Area
- Boat Wash Pad
- SPM Property Boundary
- Current King County Tax Parcel

Notes:
- Site features are approximate.

0 80 160 Feet

N
Project North
True North

Stormwater Catchment Areas and Infrastructure

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	APR-2025	BY: JJP / AJY / NLK	FIGURE NO. 2.4
	PROJECT NO. 190293	REVISED BY: ---/---	

Data source credits: TDR || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 PH Pro\SPM_Phase2_Report 2-4 Stormwater Catchment Areas and Infrastructure.mxd | User: hallejulian | | Print Date: 6/9/2025

SOUTH PARK BRIDGE

South Park Marina Bridge Project

S THISTLE ST

Lower Duwamish Waterway Superfund Site

Duwamish Waterway

South Park Marina

14TH AVE S

DALLAS AVE S

Former Dry Cleaner

Independent SPU Cleanup Action

T-117 EAA Sediment Removal Area

T-117 EAA Upland Removal Area (Duwamish River People's Park)

T-117 EAA Streets and Yards

Adjacent Areas of Interest

- Historical Off-Property Feature
- Lower Duwamish Waterway Superfund Site
- South Park Bridge Project

Adjacent Cleanups

- Independent SPU Cleanup Action
- T-117 Sediment Removal Area
- T-117 Upland Removal Area
- T-117 Adjacent Streets and Yards Removal Area

Property Boundaries

- SPM Property Boundary
- Duwamish River People's Park (Formerly Port T-117)
- King County Tax Parcel

Note:
- Site features are approximate

Map References:
- Digitized from a TIG Environmental Figure, South Park Marina Proposed Upland Investigation Overview, Page 1 2017.

0 90 180 Feet

N

True North

Project North

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 PH\ProjSPM_Phase2_Report\2.5 Surrounding Sites.mxd | User: haley.duan | Print Date: 6/11/2025

Surrounding Sites
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 2.5
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: AY / TDR || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

SECTION 3 FIGURES

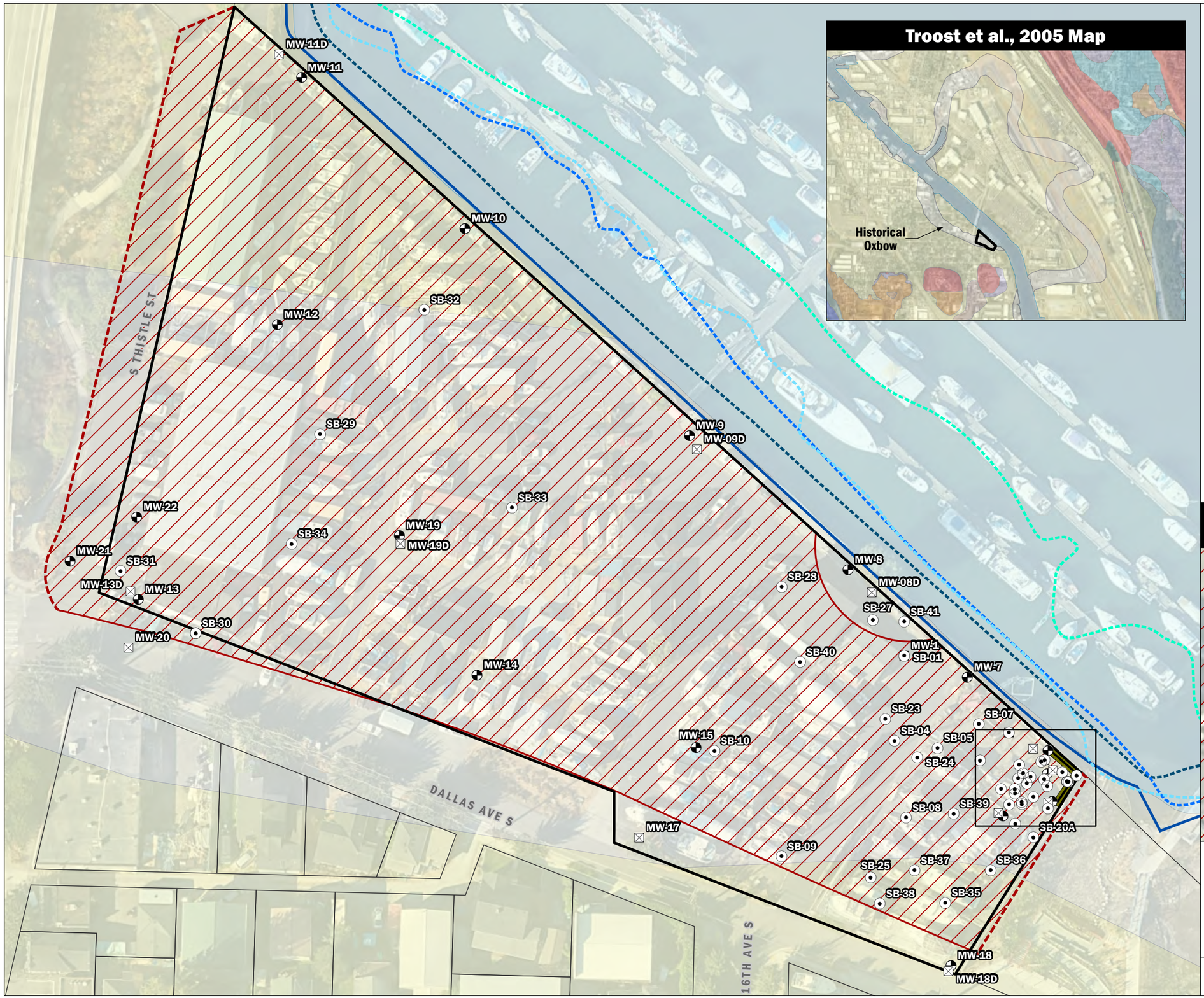
Subsurface Investigation Locations

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	APR-2025	BY: JJP / AJY / NLK	FIGURE NO. 3.1
	PROJECT NO. 190293	REVISED BY: ---/---	

Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 PH Pro\SPM_Phase2_Rpt.aprx: 3.1 Subsurface Investigation Locations | | User: hakyuroun | | Print Date: 6/9/2025



Troost et al., 2005 Map

Subsurface Exploration Location

- Soil Boring
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Inferred Lateral Extent of Tidal Flat Unit (dashed where inferred to extend beyond SPM Property boundary)
- Sheet Pile Wall
- King County Tax Parcel

Troost and Booth Geologic Units

- Qal - Alluvium
- Qyal - Younger alluvium (Limits of Historical Oxbow)
- water - Water
- Current Shoreline (approximate)

Historical Shoreline Configurations (approximate)

- 1981
- 1961
- 1959
- 1952

N

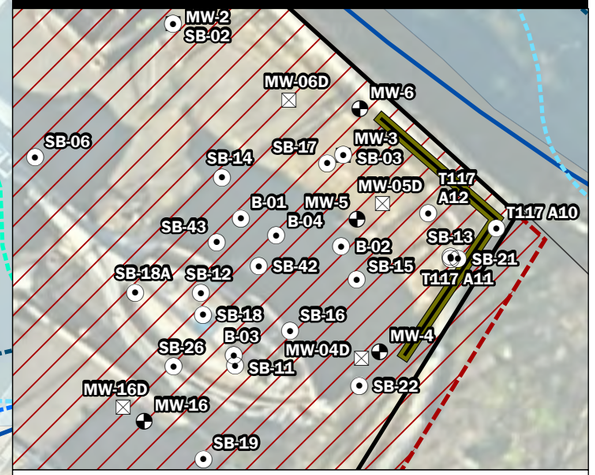
True North

Project North

0 30 60 Feet

Note: Site features are approximate

INSET MAP



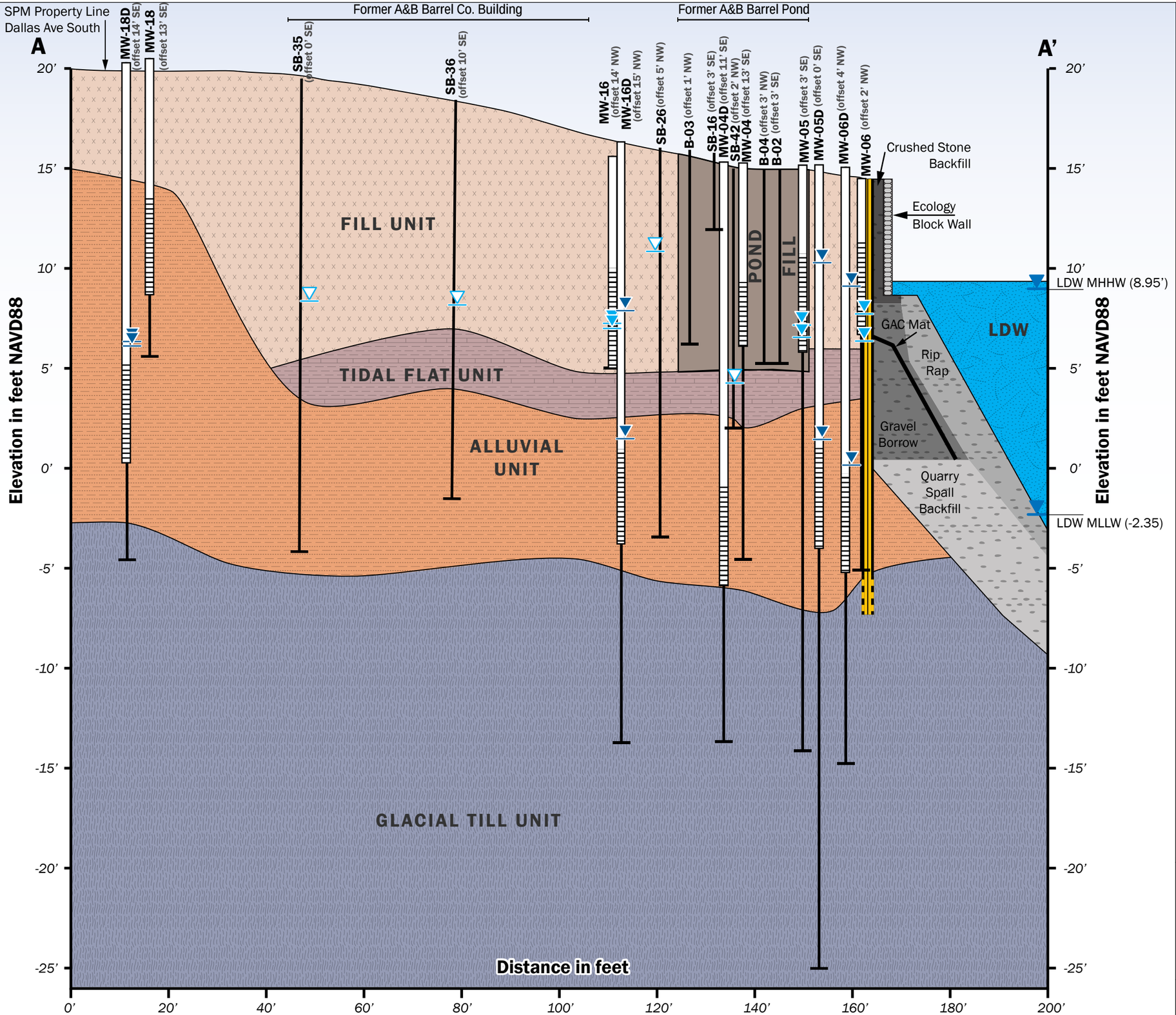
Inferred Lateral Extents of Tidal Flat Unit

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	SEP-2024	BY: JJP / AJY / NLK	FIGURE NO. 3.2
	PROJECT NO. 190293	REVISED BY: ---/---	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 PH Pro\SPM_Phase2_ReApnr_3.2 InferredLateralExtents of Tidal Flats.t | User: NoraKlochke | | Print Date: 9/25/2024



MW-18 — Monitoring Well Name
Blank PVC Casing
Well Screen
Approximate Depth

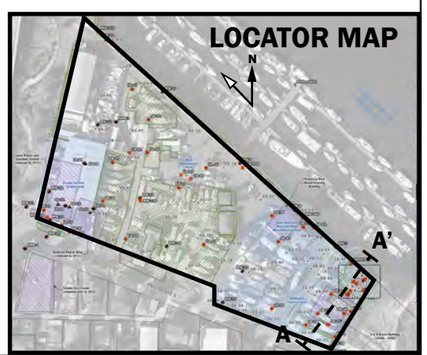
SB-35 — Soil Boring Name
Groundwater at Time of Drilling (Soil Borings Only)
Range of Measured Groundwater Elevations (Fill Unit)
Range of Measured Groundwater Elevations (Alluvial Unit)
Boring Depth

Sheet Pile Wall
Bottom depth 20 to 22 feet below ground surface; exact depth unknown

Notes:
- *Configuration of sheet pile wall, GAC mat, and shoreline armoring from AECOM (2014).*
- *Grade elevations are approximate.*

0 20 40 ft

Horizontal Scale
Vertical Exaggeration =4X
SCALE IS APPROXIMATE

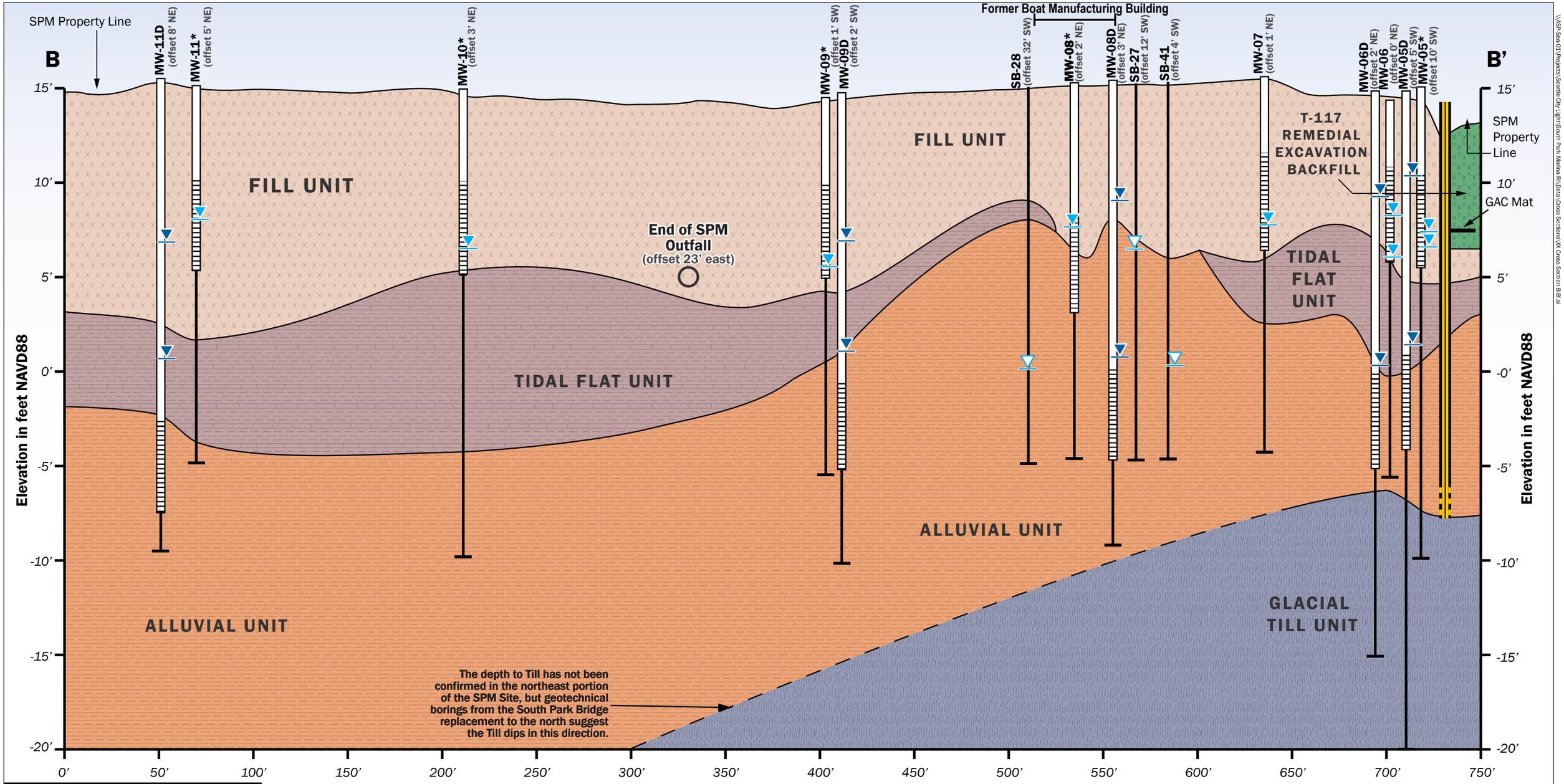


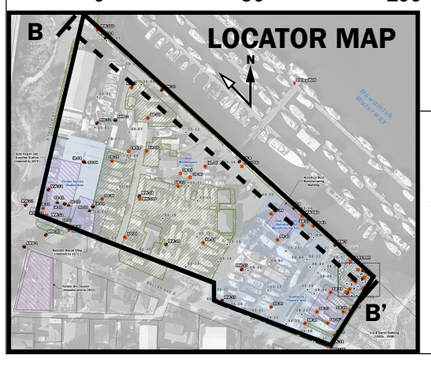
Cross Section A-A'

Remedial Investigation Report
South Park Marina
Seattle, Washington

Aspect Consulting	AUG-2024	BY: AY / RAC / AWP	FIGURE NO. 3.3
	PROJECT NO. 190293	REV BY: AY / JBM	

T:\projects_8\Seattle\DL\Light1\SouthParkMarina_190293\Delivered\RIWP 2021\Cross Sections\XX Cross Section B-B'.ai





MW-18 — Monitoring Well Name; Blank PVC Casing; Well Screen; Approximate Depth

SB-28 — Soil Boring Name; Groundwater at Time of Drilling (Soil Borings Only); Range of Measured Groundwater Elevations (Fill Unit); Range of Measured Groundwater Elevations (Alluvial Unit); Boring Depth

Sheet Pile Wall — Bottom depth 20 to 22 feet below ground surface; exact depth unknown

Notes:
- **Tidally influenced well; groundwater elevation drops below bottom of screened interval during low tide.*
- *Configuration of sheet pile wall from AECOM (2014).*
- *Grade elevations are approximate.*
- *Well illustrations have been adjusted for visual clarity.*

0 — 50 — 100 ft

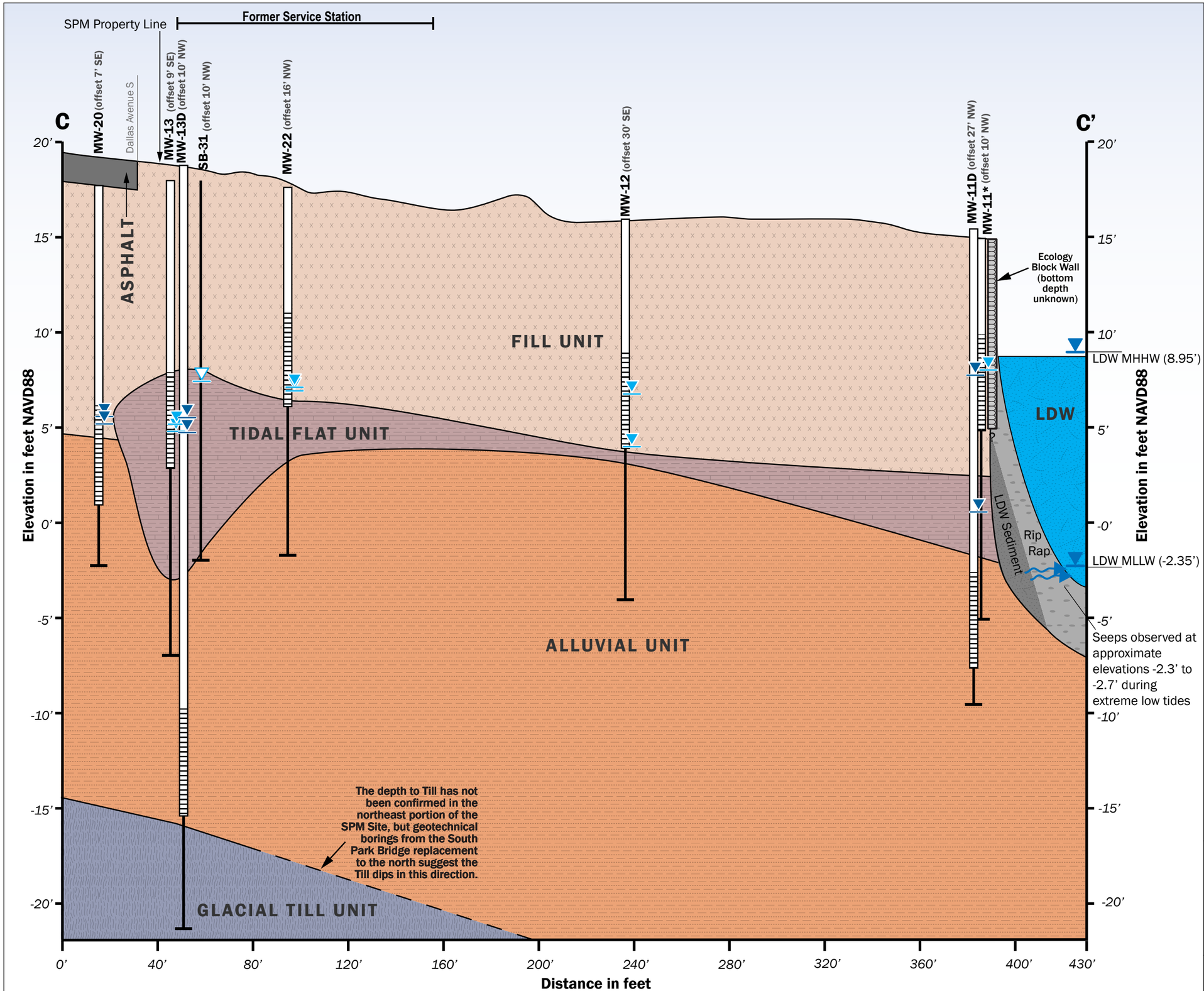
Horizontal Scale
Vertical Exaggeration = 10X
SCALE IS APPROXIMATE

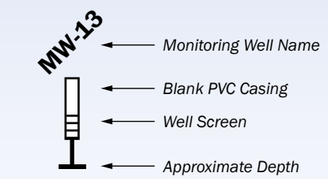
Cross Section B-B'

Remedial Investigation Report
South Park Marina
Seattle, Washington

Aspect CONSULTING	JUN-2025	BY: AY / RAC / AWP	FIGURE NO. 3.4
	PROJECT NO. 190293	REV BY: AY / JBM	

\\ASP-Sea-01\Projects\Seattle City Light\South Park Marina RI\Data\Cross Sections\XX Cross Section B-B'.ai





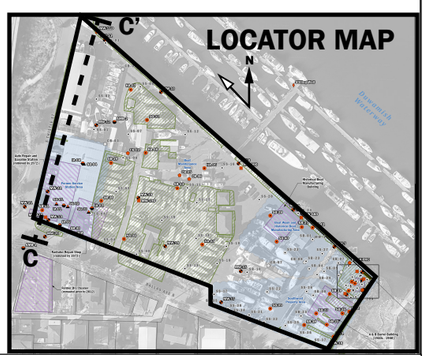
Notes:
- **Tidally influenced well; groundwater elevation drops below bottom of screened interval during low tide.*
- *Features are approximate.*
- *Grade elevations are approximate.*
- *Well illustrations have been adjusted for visual clarity.*

0 40 80 ft

Horizontal Scale

Vertical Exaggeration =8X

SCALE IS APPROXIMATE

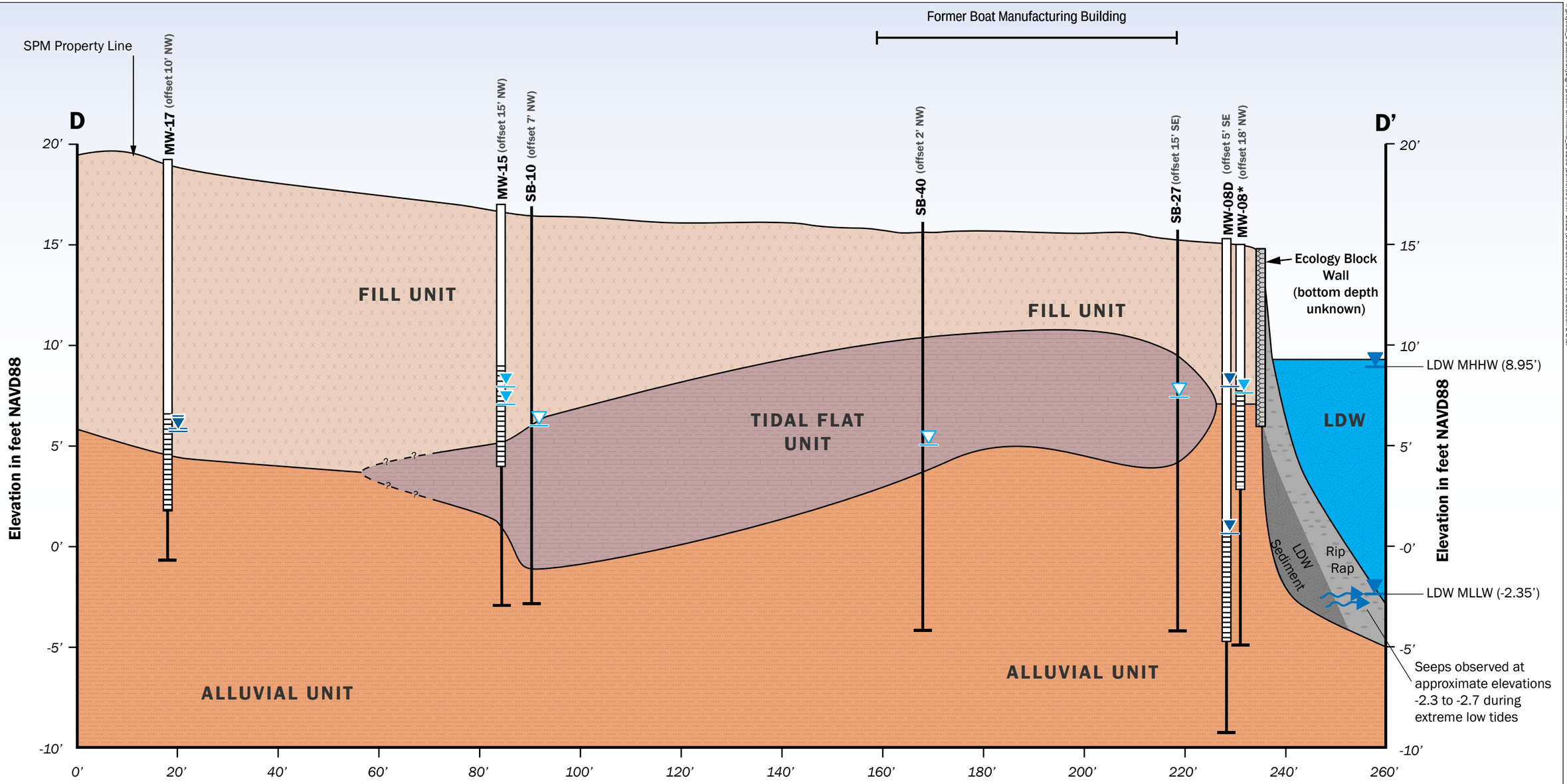


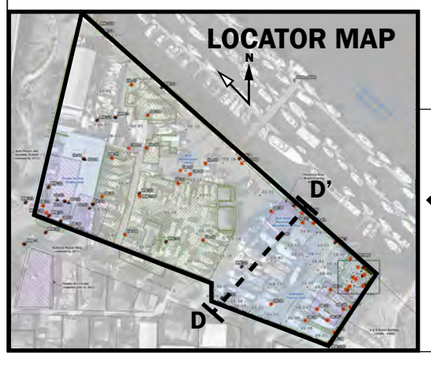
Cross Section C-C'

Remedial Investigation Report
South Park Marina
Seattle, Washington

Aspect CONSULTING	JUN-2025	BY: AY / RAC / AWP	FIGURE NO. 3.5
	PROJECT NO. 190293	REV BY: AY / JBM	

\\ASP-Sea-01\Projects\Seattle City Light\South Point Marina RI\Data\Cross Sections\XX Cross Section C_C'.ai





MW-18 — *Monitoring Well Name*; *Blank PVC Casing*; *Well Screen*; *Approximate Depth*

SB-28 — *Soil Boring Name*; *Groundwater at Time of Drilling (Soil Borings Only)*; *Range of Measured Groundwater Elevations (Fill Unit)*; *Range of Measured Groundwater Elevations (Alluvial Unit)*; *Boring Depth*

Notes:
- **Tidally influenced well; groundwater elevation drops below bottom of screened interval during low tide.*
- *Features are approximate.*
- *Grade elevations are approximate.*

0 20 40 ft

Horizontal Scale

Vertical Exaggeration =4X

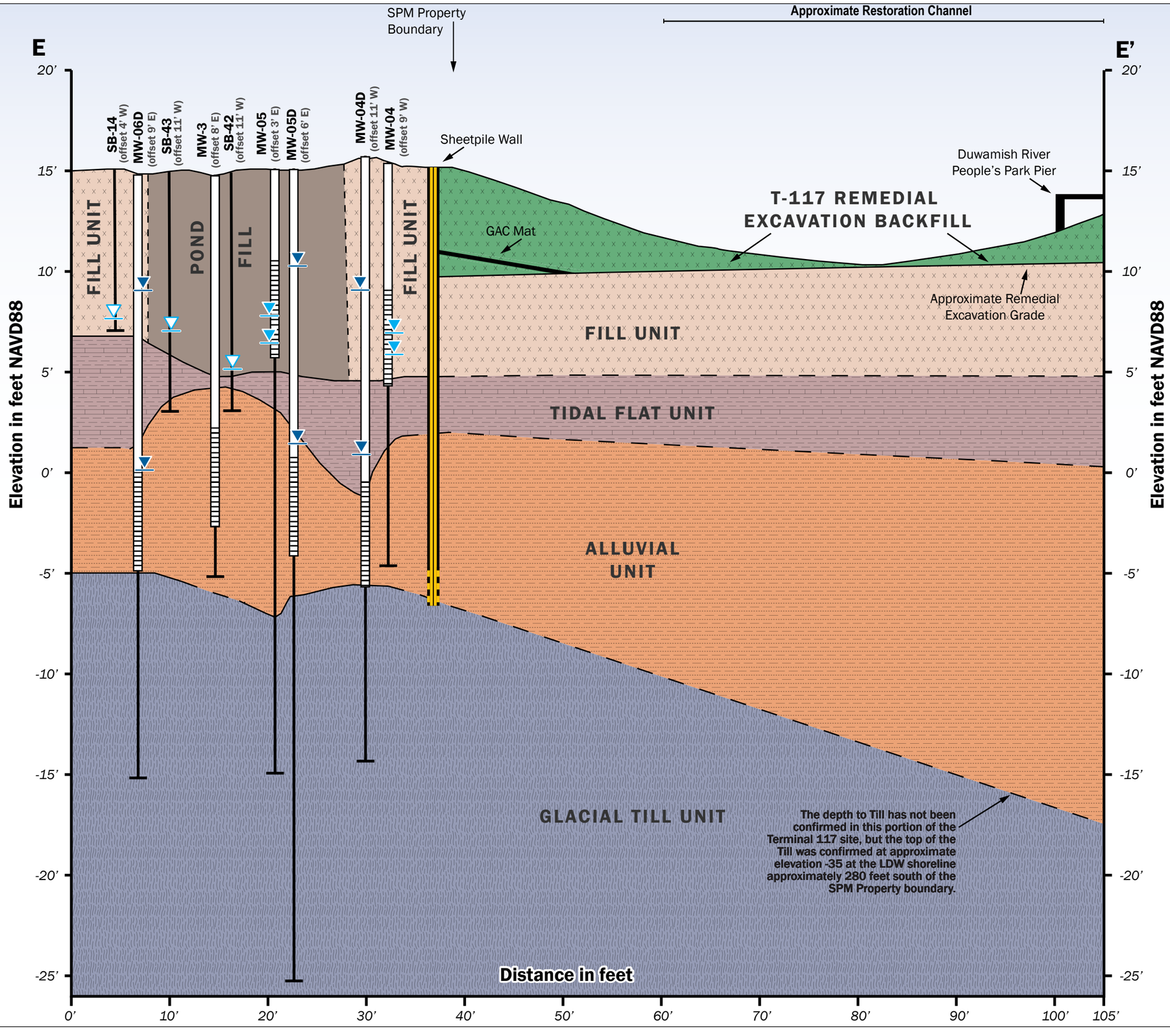
SCALE IS APPROXIMATE

Cross Section D-D'

Remedial Investigation Report
South Park Marina
Seattle, Washington

Aspect CONSULTING	AUG-2024	BY: AY / RAC / AWP	FIGURE NO. 3.6
	PROJECT NO. 190293	REV BY: AY / JBM	

T:\projects_8\Seattle\Light\SouthParkMarina_190293\Delivered\RIWP 2021\Cross Sections\XX Cross Section B-B'.ai



MW-18
- Monitoring Well Name
- Blank PVC Casing
- Well Screen
- Approximate Depth

SB-35
- Soil Boring Name
- Groundwater at Time of Drilling (Soil Borings Only)
- Range of Measured Groundwater Elevations (Fill Unit)
- Range of Measured Groundwater Elevations (Alluvial Unit)
- Boring Depth

Sheet Pile Wall

Bottom depth 20 to 22 feet below ground surface; exact depth unknown

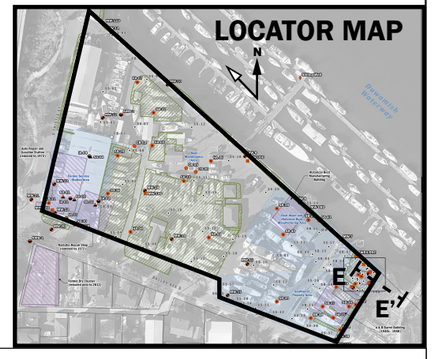
Notes:
- *Configuration of sheet pile wall, GAC mat, and shoreline armoring from AECOM (2014).*
- *Grade elevations are approximate.*

0 10 20 ft

Horizontal Scale

Vertical Exaggeration =2X

SCALE IS APPROXIMATE



Cross Section E-E'

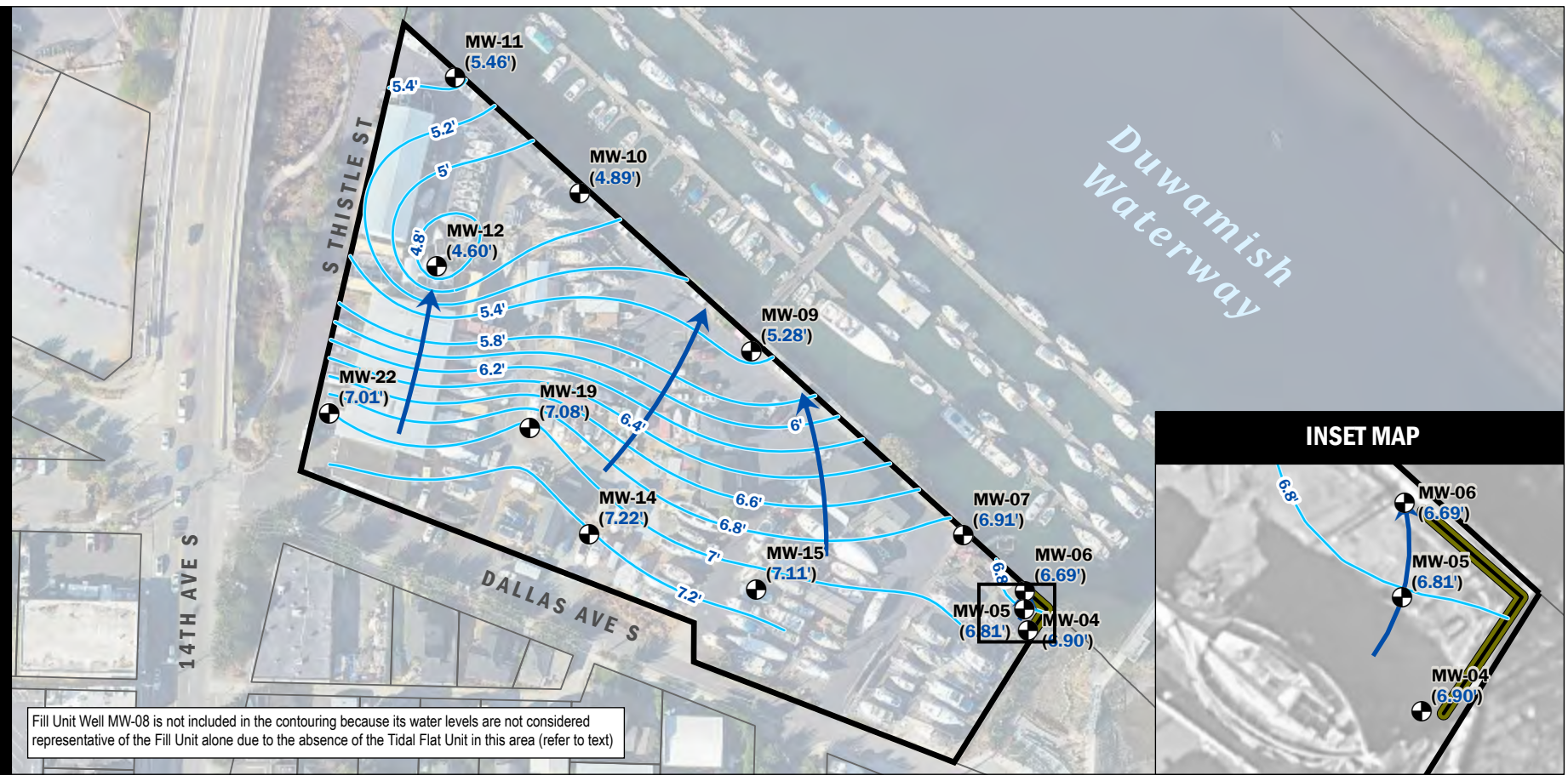
Remedial Investigation Report
South Park Marina
Seattle, Washington

Aspect CONSULTING	JUN-2025	BY: AY / JBM	FIGURE NO. 3.7
	PROJECT NO. 190293	REV BY: AY	

\\ASP-Sea-01\Projects\Seattle City Light\South Park Marina RI\Data\Cross Sections\XX Cross Section E-E'.ai

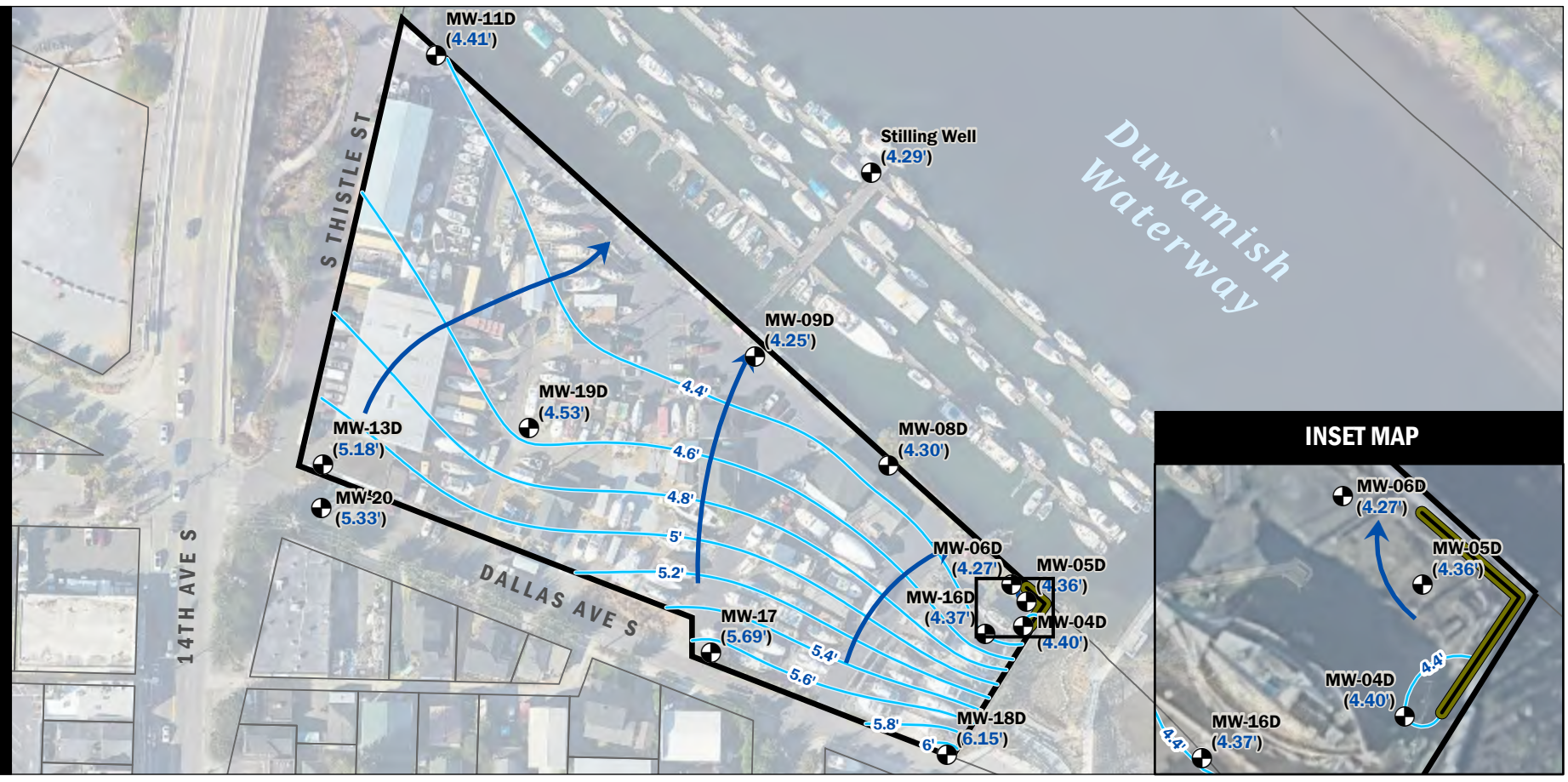
FILL UNIT

OCTOBER 8, 2022 TO OCTOBER 11, 2022

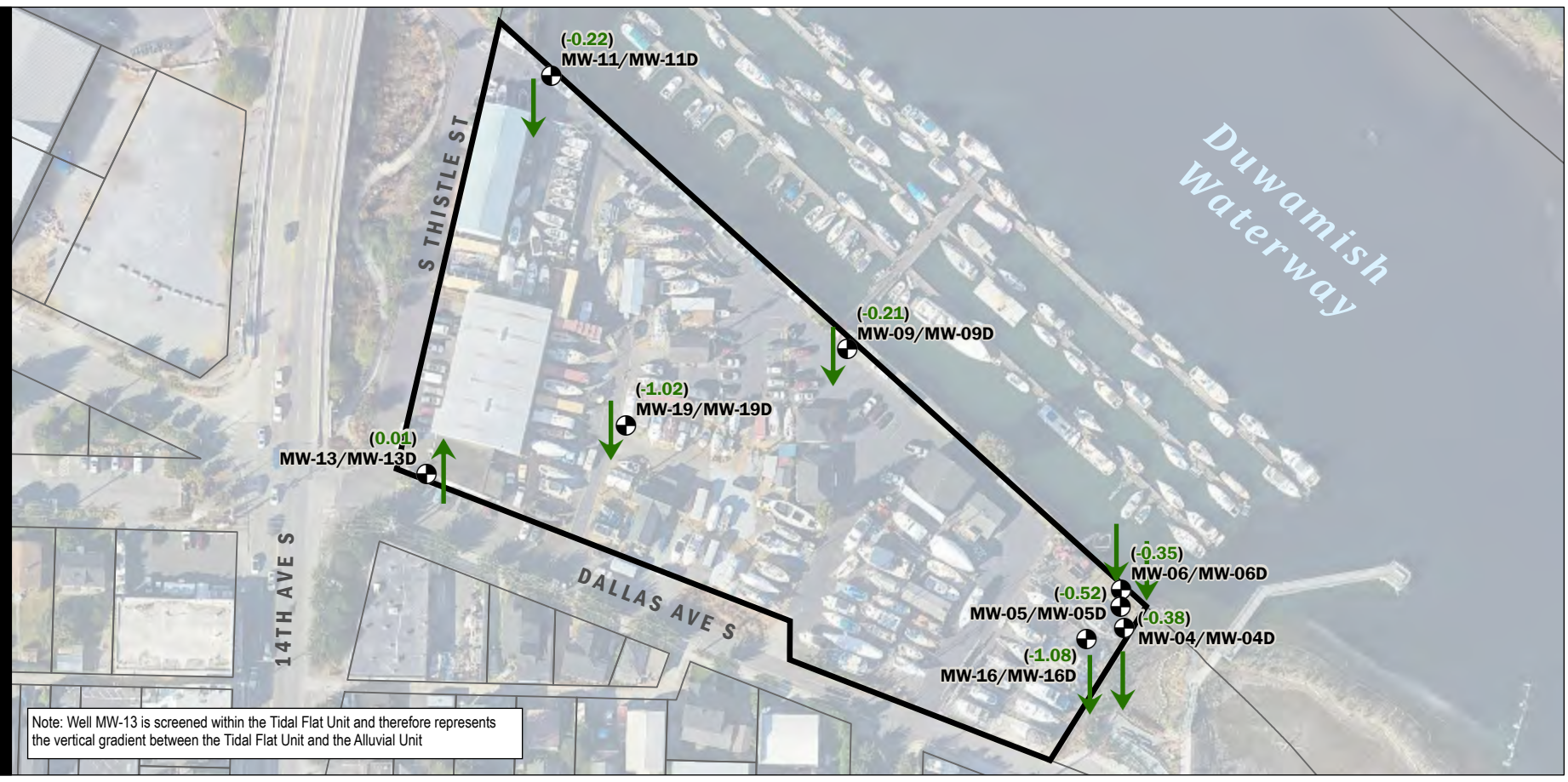


ALLUVIAL UNIT

OCTOBER 8, 2022 TO OCTOBER 11, 2022



VERTICAL HYDRAULIC GRADIENT BETWEEN FILL AND ALLUVIAL UNITS



Monitoring Well
Groundwater Elevation Contour Line (NAVD88, ft)
Groundwater Flow Arrow
Vertical Gradient Direction (Negative values indicate downward gradient; positive values indicate upward gradient)
Sheet Pile Wall
South Park Marina Property Boundary
King County Tax Parcel

MW-05 ← Monitoring Well ID
(6.81') ← Groundwater or Surface Water Elevation (NAVD88, ft)
Vertical Hydraulic Gradient Magnitude
(0.52)
MW-05/MW-05D ← Monitoring Well ID

N
True North
Project North
0 135
Feet

Note: Mean groundwater / surface water elevation calculation methodology from Serfes (1991). NAVD88 - North American Vertical Datum of 1988.

Tidally Averaged Groundwater Elevations

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South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	SEP-2024	BY: JJP / AJY / NLK	FIGURE NO. 3.8
	PROJECT NO. 190293	REVISED BY: ---	

Basemap Layer Credits || Google Satellite: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI.aprx || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/25/2024 || User: Nora.Kochie || Print Date: 9/25/2024

SECTION 4 FIGURES



Pre-AO Upland Investigation Locations

- Soil Boring / Surface Soil / Hand Auger Boring
- Stormwater and CB Solids; Stormwater and CB Solids
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- Historical Structures Destroyed in 2021 Fire
- King County Tax Parcel

Note: Site features are approximate

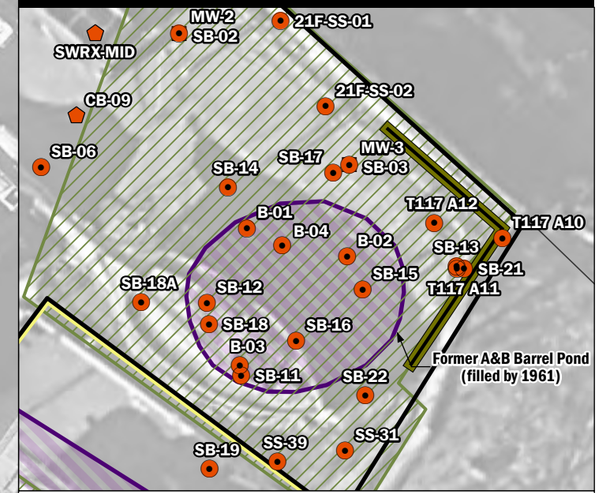
0 60 120 Feet

N

True North

Project North

INSET MAP



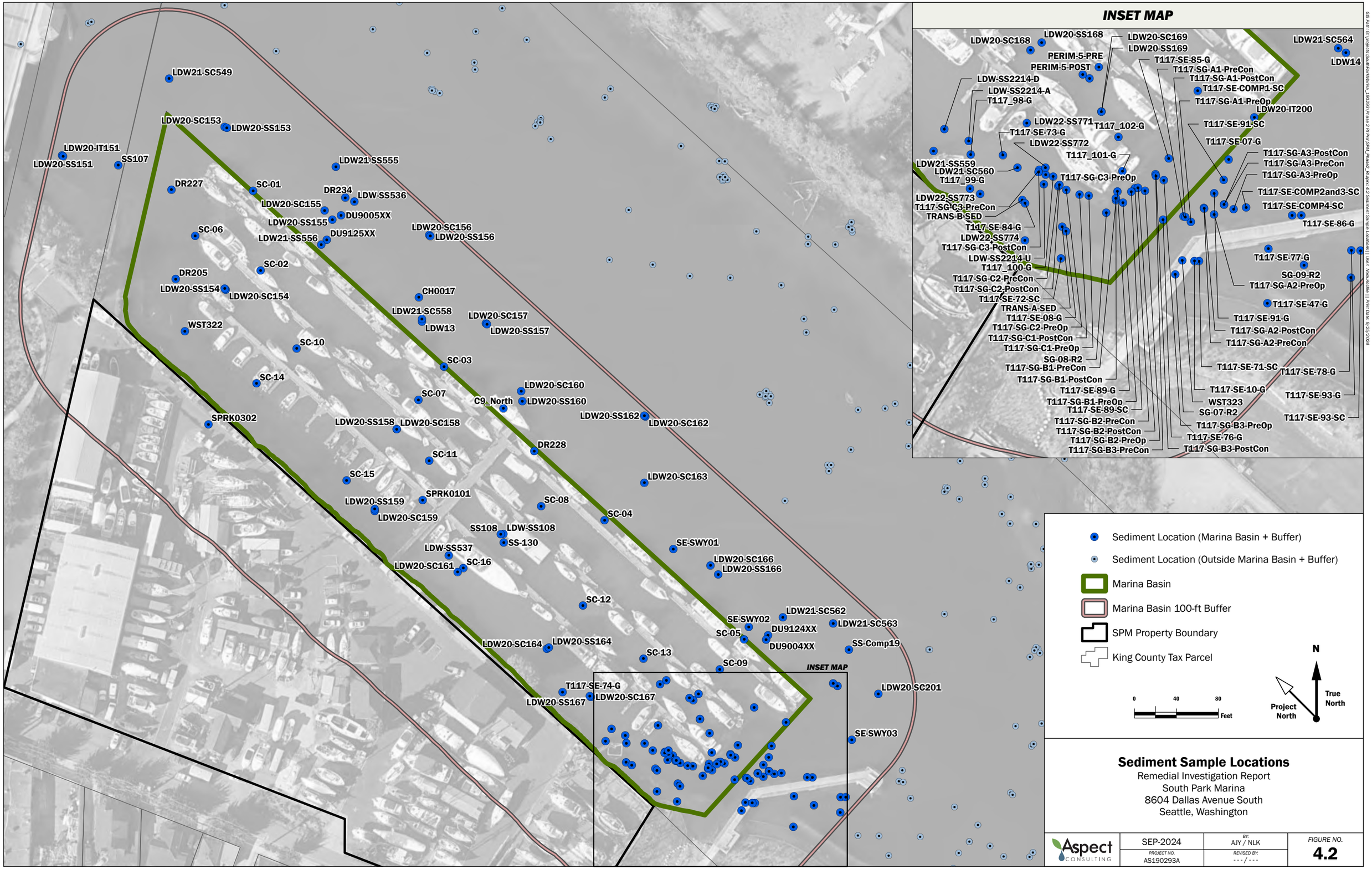
Pre-AO Upland Investigation Locations

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	OCT-2024	BY: JJP / AJY / NLK	FIGURE NO. 4.1
	PROJECT NO. 190293	REVISED BY: ---/---	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthPark\Marina_190293\Phase 2 PH Pro\SPM_Phase2_ReAgnc 4.1 Pre-AO Upland Investigation Locations.mxd | User: NoraAschle | | Print Date: 10/4/2024



Sediment Sample Locations

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	SEP-2024	BY: AJY / NLK	FIGURE NO. 4.2
	PROJECT NO. AS190293A	REVISED BY: ---/---	

Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Pro\SPM_Phase2_RI_fig\rev 4.2 Sediment Sample Locations\ | User: Nora Kiorbe | | Print Date: 9/25/2024

SECTION 5 FIGURE



Agreed Order Investigation Location

- Soil Boring / Surface Soil / Hand Auger Boring
- Alluvial Unit Monitoring Well
- Fill Unit Monitoring Well
- Air Sampling
- Subslab Soil Gas
- Stormwater and CB Solids
- Stilling Well

Historical Investigation Location

- Soil Boring / Surface Soil / Hand Auger Boring
- Stormwater and CB Solids
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Historical Structures Destroyed in 2021 Fire
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- Cross Section
- King County Tax Parcel

N

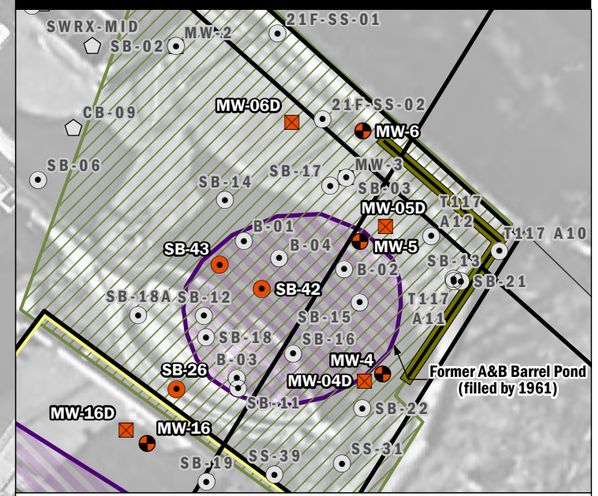
Project North

True North

0 30 60 Feet

Note: Site features are approximate

INSET MAP



Agreed Order Investigation Locations

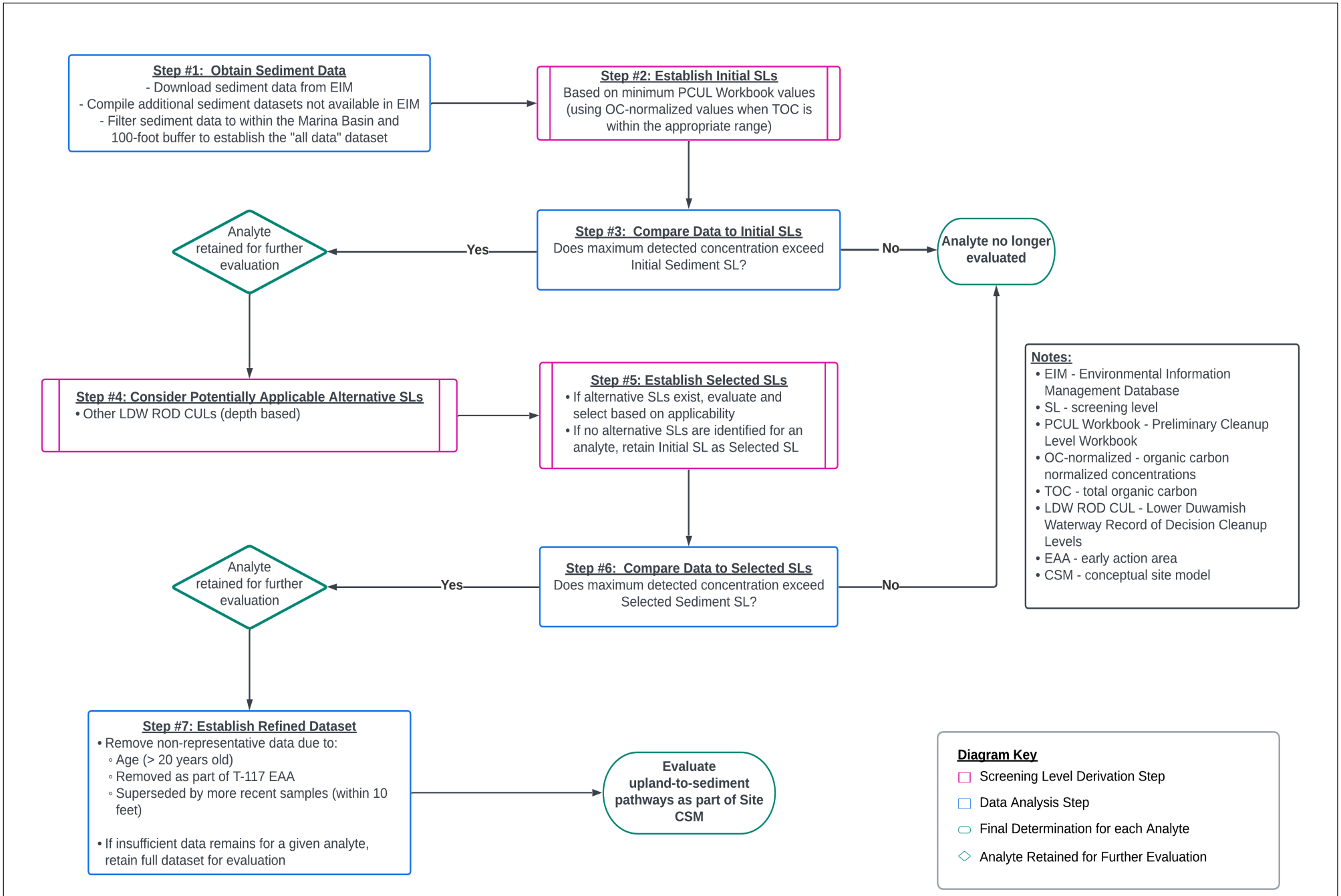
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	OCT-2024	BY: JJP / AJY / NLK	FIGURE NO. 5.1
	PROJECT NO. 190293	REVISED BY: ---/---	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthPark\Admin_190293\Phase 2 PP\Pro\SPM_Phase2_Report_5.1 Agreed Order Investigation Locations || User: Nora Kischke || Print Date: 10/1/2024

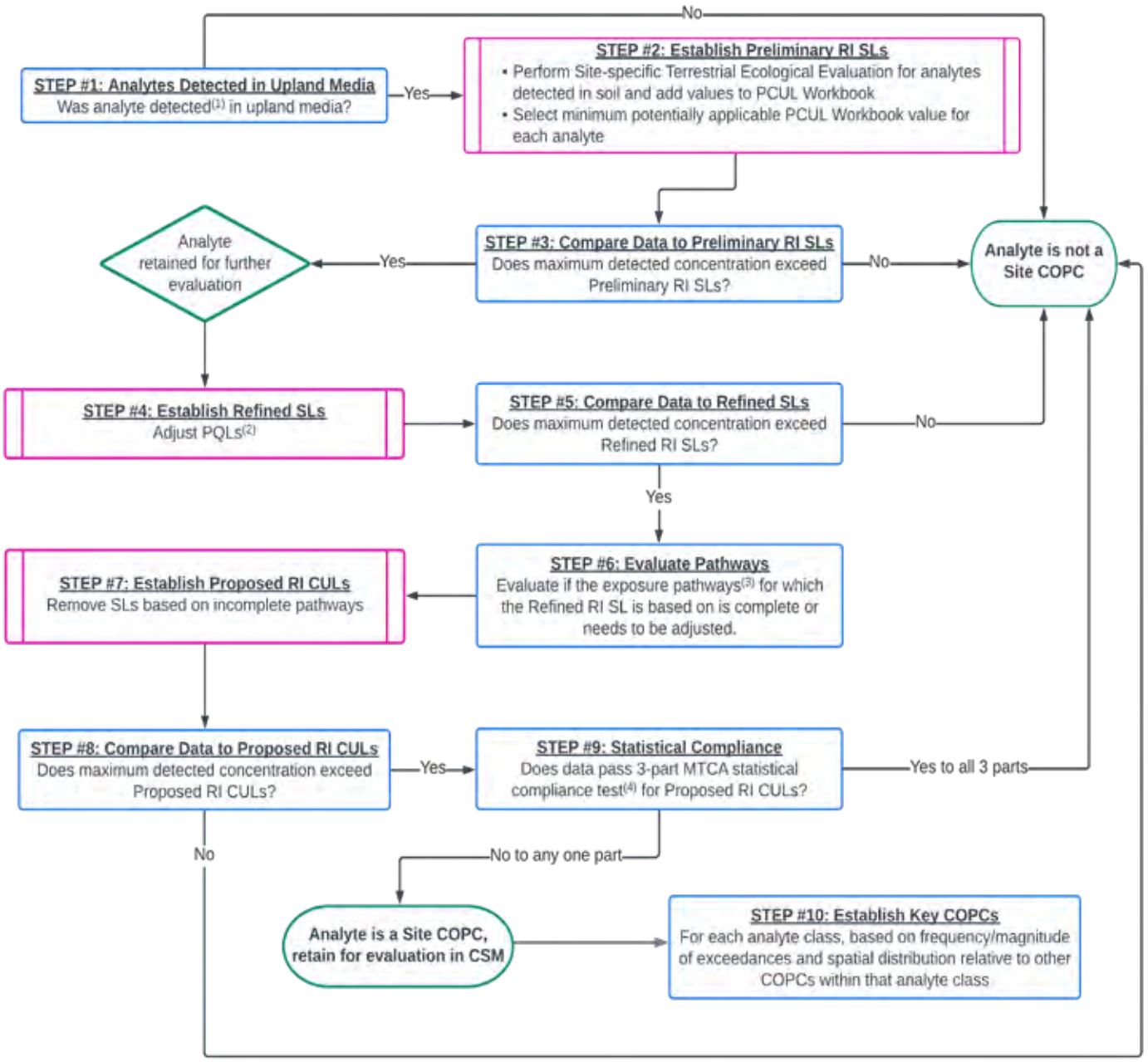
SECTION 6 FIGURES



Sediment Screening Flowchart
Remedial Investigation Report
South Park Marina
8604 Dallas Ave South
Seattle, Washington

AUG-2024	
PROJECT NO. 190293	
BY: AJY / NLK	FIGURE NO. 6.1
REV BY: ---	

Aspect CONSULTING



Notes:

1. The RIWP and RIWP Addendum identified best available reporting limits. Non-detected results with limits higher than the Preliminary RI SLs are highlighted in gray on Tables I.3.A through I.3.H
2. PQLs adjustments are based on reporting limits as identified in the RIWP Addendum. PQLs will be re-assessed as part of the FS.
3. Based on empirical demonstration for cross-media transport pathways. The vadose-leaching-to-groundwater pathway is only considered incomplete if the areas of highest concentrations of an analyte are pervious surfaces.
4. Three-part MTCA statistical compliance test:
   a. Is maximum concentration less than two times the Proposed RI CUL?
   b. Are the number of exceedances of the Proposed RI CUL less than 10% of the total number of samples?
   c. Is the 95% upper confidence limit on the true mean concentration less than the Proposed RI CUL?

   The three-part MTCA statistical compliance test was used to identify Site COPCs but not for determining whether pathways were of concern.

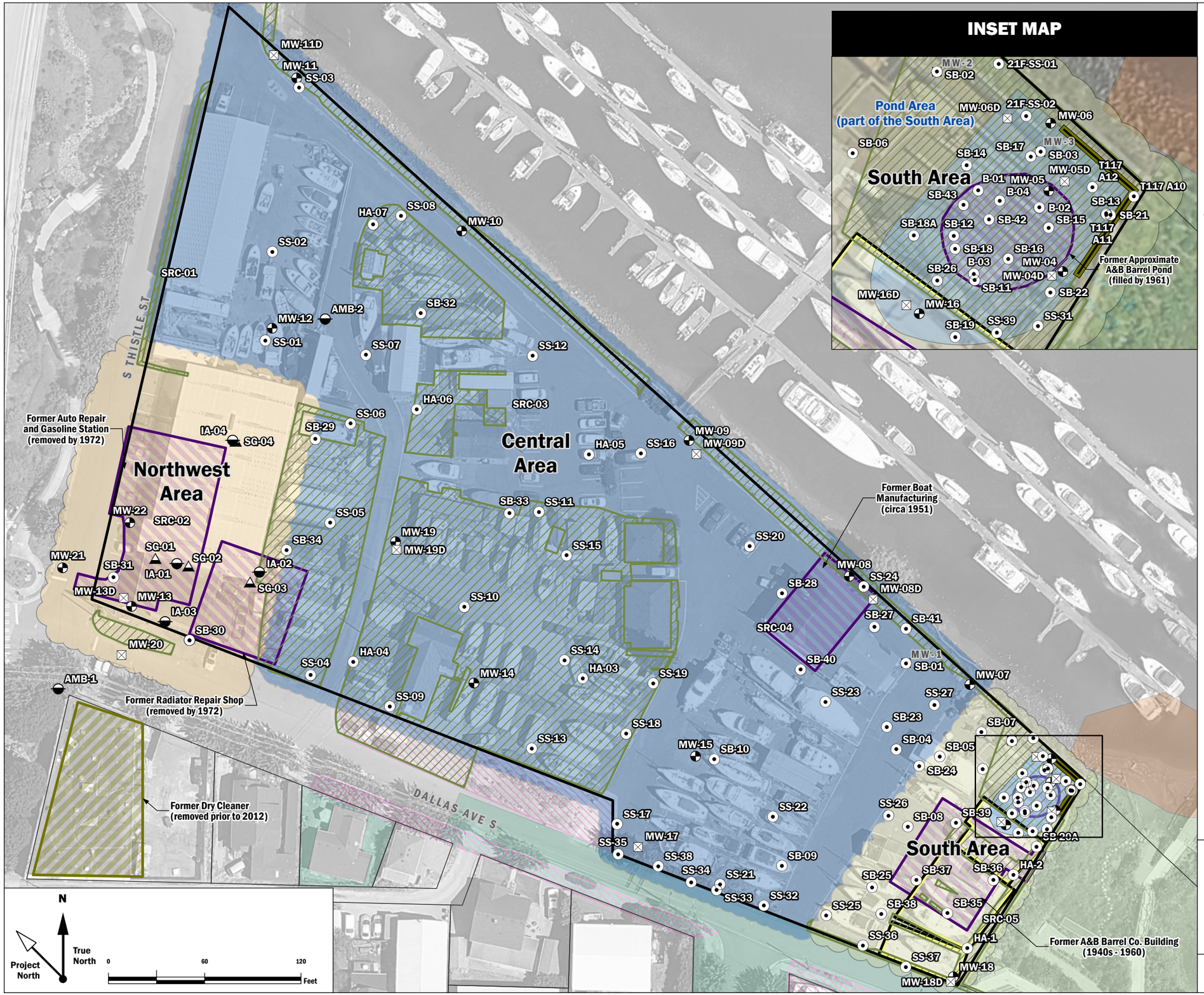
Diagram Key

- Screening Level Derivation Step
- Data Analysis Step
- Final Determination of COPC Status for each Analyte

Upland Media Screening Flowchart
Remedial Investigation Report
South Park Marina
8604 Dallas Ave South
Seattle, Washington

AUG-2024	
PROJECT NO. 190293	Aspect CONSULTING
BY: AJY / NLK	FIGURE NO. 6.2
REV BY: ---	

SECTION 7 FIGURES



Soil Boring / Surface Soil / Hand Auger Boring
Alluvial Unit Monitoring Well
Alluvial Monitoring Well – Decommissioned
Fill Unit Monitoring Well
Air Sampling
Subslab Soil Gas

Site Features

SPM Property Boundary
Sheet Pile Wall
Pervious Surface
Historical Site Feature
Historical Off-Property Feature
Historical Structures Destroyed in 2021 Fire

RI Site Areas

Central Area
Northwest Area
South Area
Pond Area (part of the South Area)
King County Tax Parcel

Adjacent Cleanups

Independent SPU Cleanup Action
T117 EAA Sediment Removal Area
T117 EAA Upland Removal Area
T117 EAA Streets and Yards Removal Area

Note: Site features are approximate

Remedial Investigation Site Areas

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

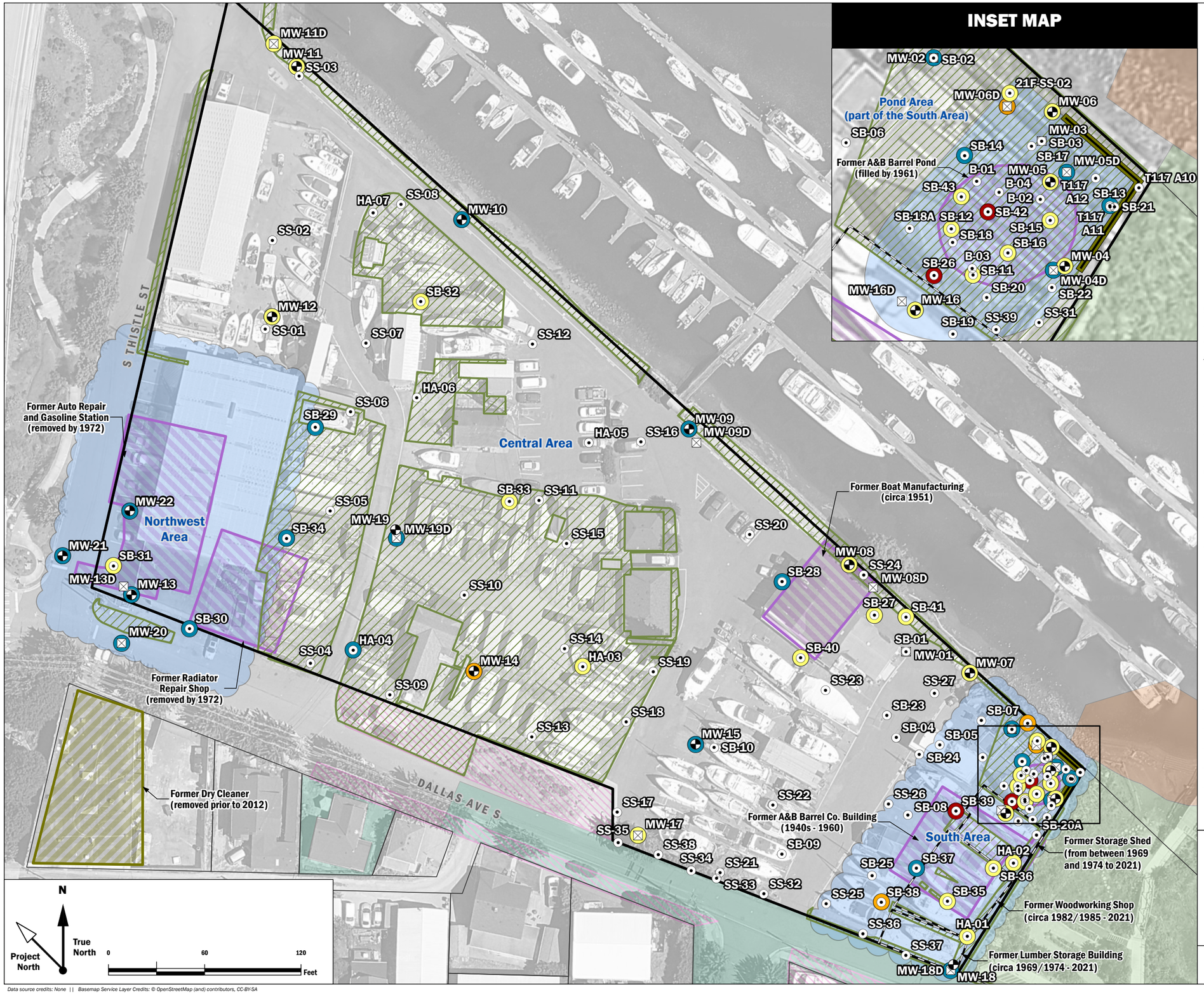
Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.0
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthPark\Admin_190293\Phase 2 RI Pro\SPM_Phase2_RI.aprx: 7.0 Remedial Investigation Site Areas | User: hatley.dunn | | Print Date: 6/11/2025

FIGURES 7.1.A - 7.1.V

Key Metal COPCs
Analytical Data Figures



Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*

Copper	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-10)	36
Terrestrial Ecological (SL-9)	220
Direct Erosion (SL-8)	390
Human Direct Contact (SL-1)	3,200

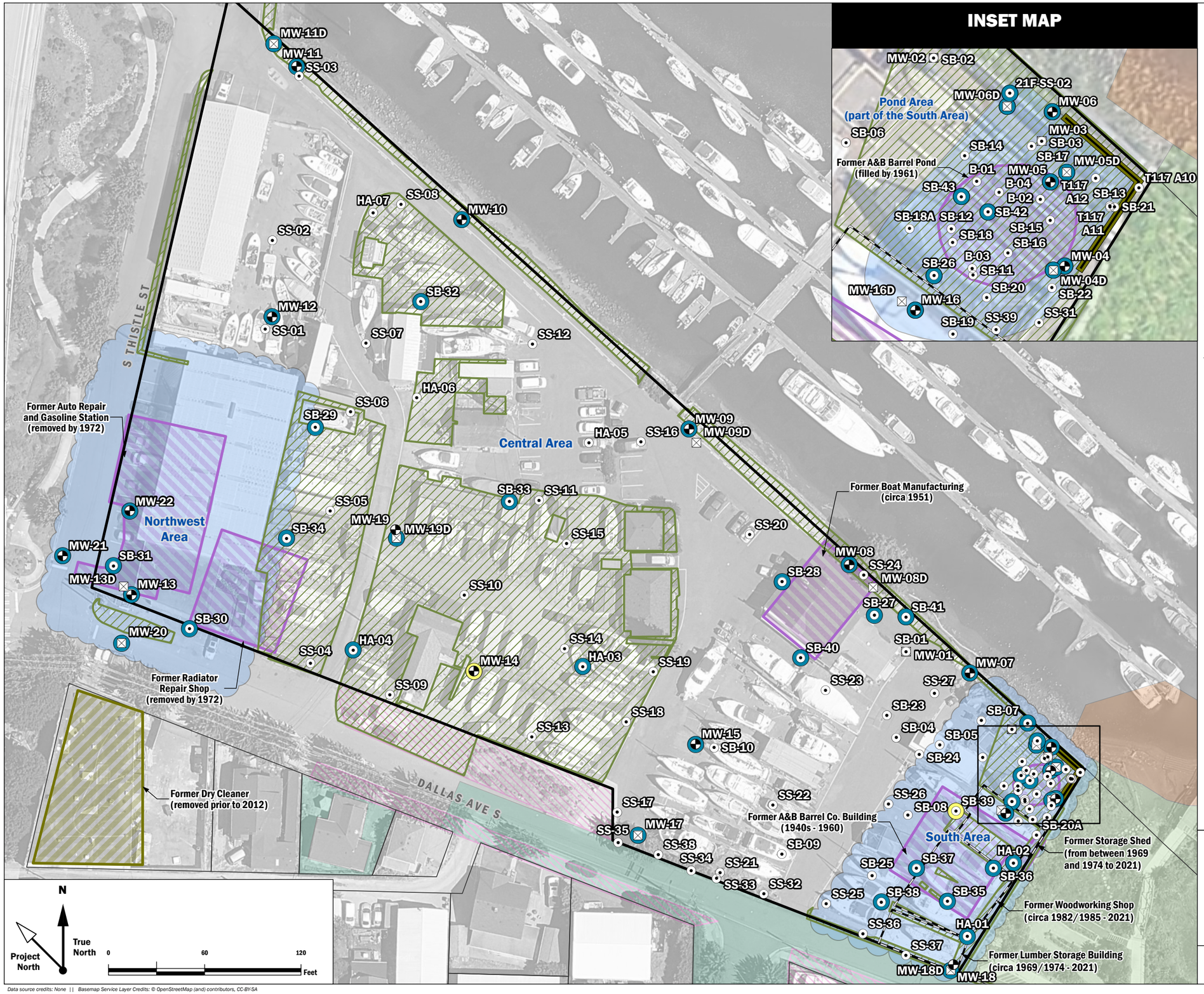
Copper Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	DEC-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.A
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.1.A Copper Results in Vadose Soil || User: hailey.duran || Print Date: 12/2/2025



Nickel was detected at a concentration equal to or greater than 4,800 mg/kg

Nickel was detected at a concentration equal to or greater than 1,600 mg/kg and less than 4,800 mg/kg

Nickel was detected at a concentration equal to or greater than 980 mg/kg and less than 1,600 mg/kg

Nickel was detected at a concentration equal to or greater than 48 mg/kg and less than 980 mg/kg

Nickel not detected and non-detect value greater than 48 mg/kg

Nickel not detected or detected at a concentration less than 48 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Nickel	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-10)	48
Terrestrial Ecological (SL-9)	980
Human Direct Contact (SL-1)	1,600
100x Proposed RI CUL (SL-10)	4,800

Nickel Results in Vadose Zone Soil

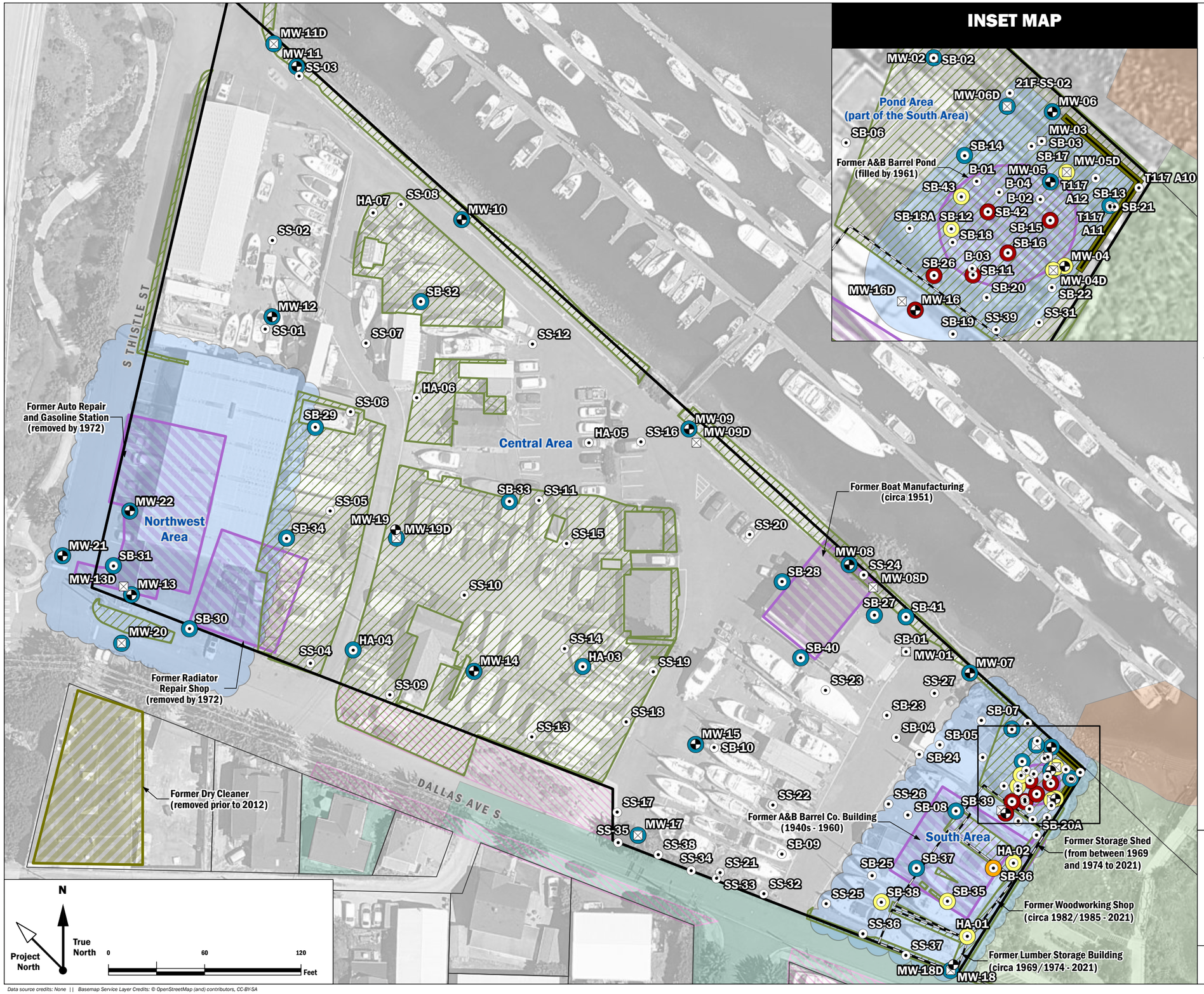
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting

DEC-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.B
PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx: 7.1.B Nickel Results in Vadose Soil || User: haley.durkin || Print Date: 12/3/2025



INSET MAP

- Mercury was detected at a concentration equal to or greater than 41 mg/kg
- Mercury was detected at a concentration equal to or greater than 5.5 mg/kg and less than 41 mg/kg
- Mercury was detected at a concentration equal to or greater than 4.1 mg/kg and less than 5.5 mg/kg
- Mercury was detected at a concentration equal to or greater than 0.41 mg/kg and less than 4.1 mg/kg
- Mercury not detected and non-detect value greater than 0.41 mg/kg
- Mercury not detected or detected at a concentration less than 0.41 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Mercury	
Basis	**Concentration (mg/kg)**
Direct Erosion (SL-8)	0.41
10x Proposed RI CUL (SL-8)	4.1
Terrestrial Ecological (SL-9)	5.5
100x Proposed RI CUL (SL-8)	41

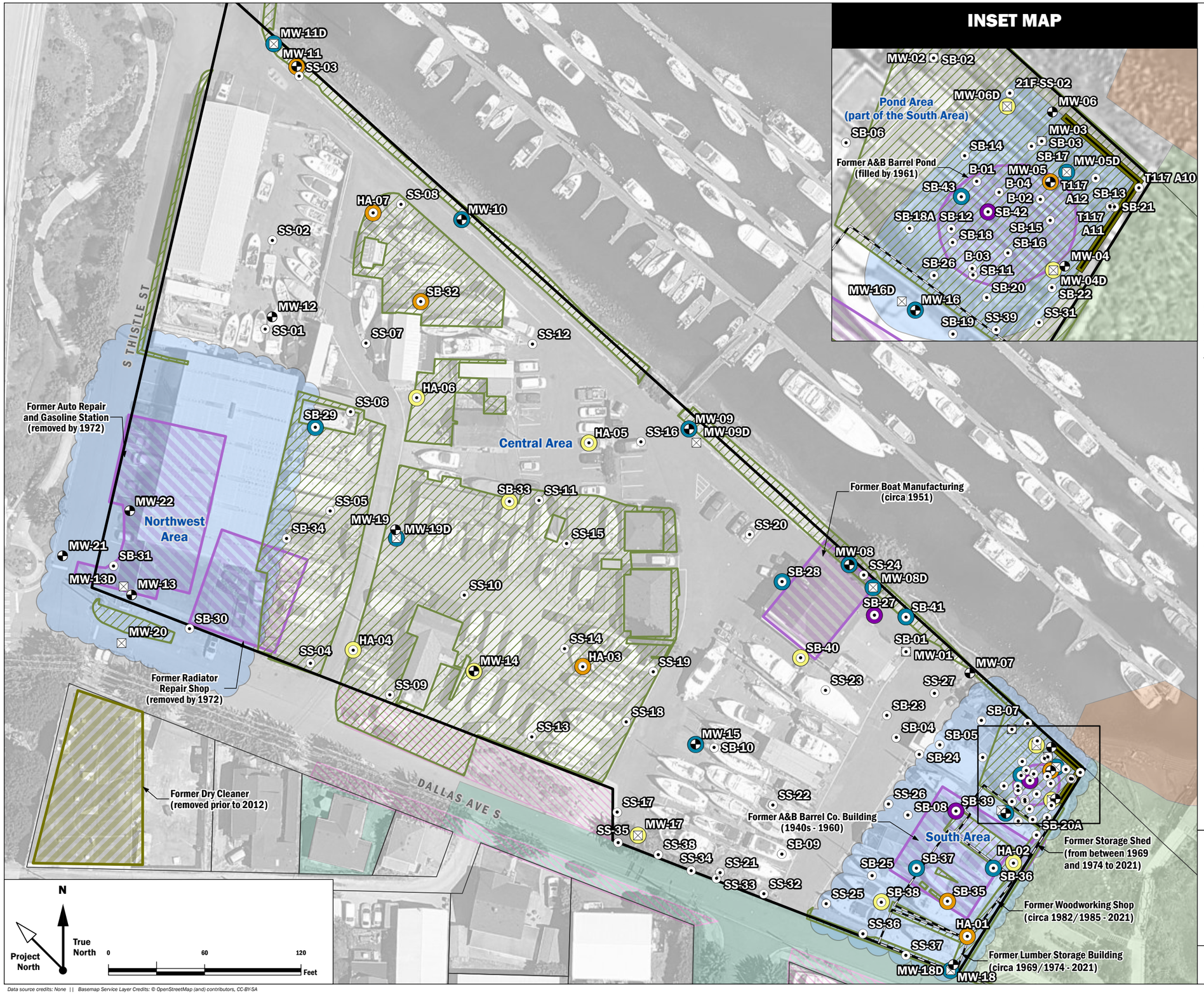
Mercury Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.1.C
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_Soil.aprx::7.1.C Mercury Results in Vadose Soil || User: haley.duran || Print Date: 1/8/2026



TBT was detected at a concentration equal to or greater than 0.39 mg/kg

TBT was detected at a concentration equal to or greater than 0.14 mg/kg and less than 0.39 mg/kg

TBT was detected at a concentration equal to or greater than 0.039 mg/kg and less than 0.14 mg/kg

TBT was detected at a concentration equal to or greater than 0.0039 mg/kg and less than 0.039 mg/kg

TBT not detected and non-detect value greater than 0.0039 mg/kg

TBT not detected or detected at a concentration less than 0.0039 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Tributyltin Ion (TBT)	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-8, PQL Adj.)	0.0039
10x Proposed RI CUL (SL-8, PQL Adj.)	0.039
East Waterway RBTC	0.14
100x Proposed RI CUL (SL-8, PQL Adj.)	0.39

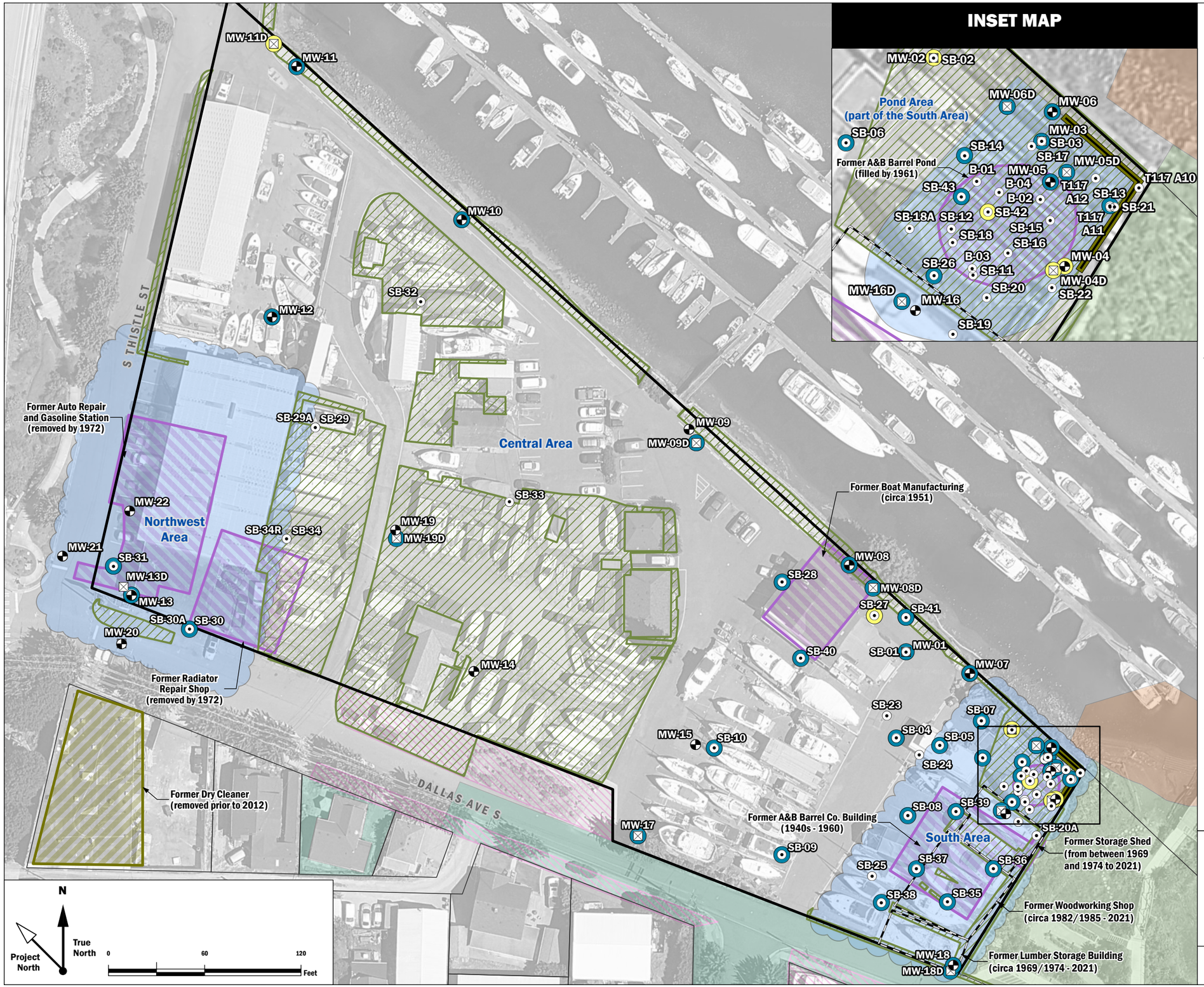
Tributyltin Ion (TBT) Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.1.D
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx: 7.1.D TBT Results in Vadose Zone Soil || User: haley.durkin || Print Date: 1/8/2026



Copper was detected at a concentration equal to or greater than 3,200 mg/kg

Copper was detected at a concentration equal to or greater than 390 mg/kg and less than 3,200 mg/kg

Copper was detected at a concentration equal to or greater than 220 mg/kg and less than 390 mg/kg

Copper was detected at a concentration equal to or greater than 36 mg/kg and less than 220 mg/kg

Copper not detected and non-detect value greater than 36 mg/kg

Copper not detected or detected at a concentration less than 36 mg/kg

Soil Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Copper	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-10)	36
Terrestrial Ecological (SL-9)	220
Direct Erosion (SL-8)	390
Human Direct Contact (SL-1)	3,200

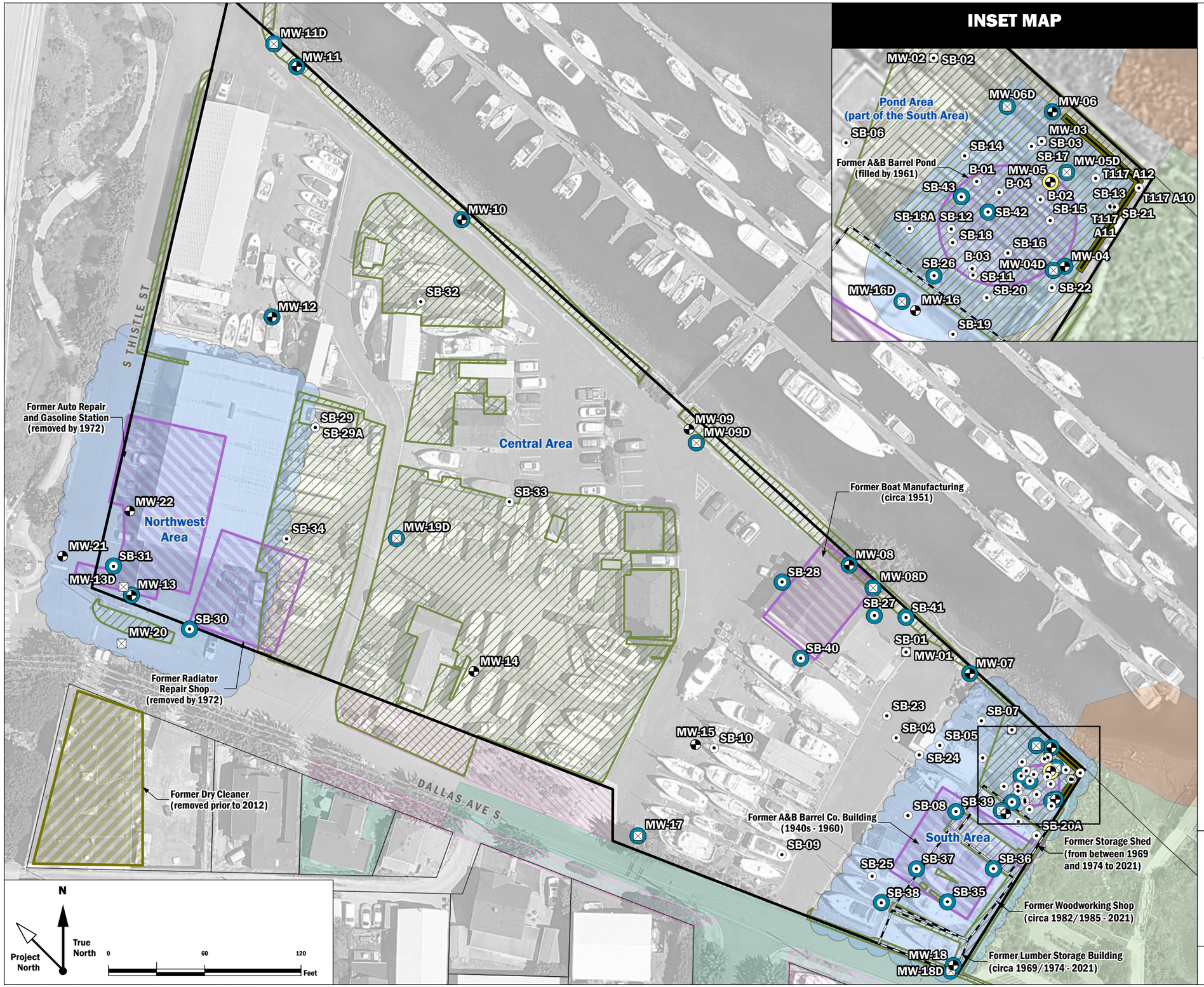
Copper Results in Saturated Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	DEC-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.E
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.1.E Copper Results in Saturated Soil || User: haley.durrin || Print Date: 12/3/2025



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

Nickel was detected at a concentration equal to or greater than 4,800 mg/kg

Nickel was detected at a concentration equal to or greater than 1,600 mg/kg and less than 4,800 mg/kg

Nickel was detected at a concentration equal to or greater than 980 mg/kg and less than 1,600 mg/kg

Nickel was detected at a concentration equal to or greater than 48 mg/kg and less than 980 mg/kg

Nickel not detected and non-detect value greater than 48 mg/kg

Nickel not detected or detected at a concentration less than 48 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Nickel	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-10)	48
Terrestrial Ecological (SL-9)	980
Human Direct Contact (SL-1)	1,600
100x Proposed RI CUL (SL-10)	4,800

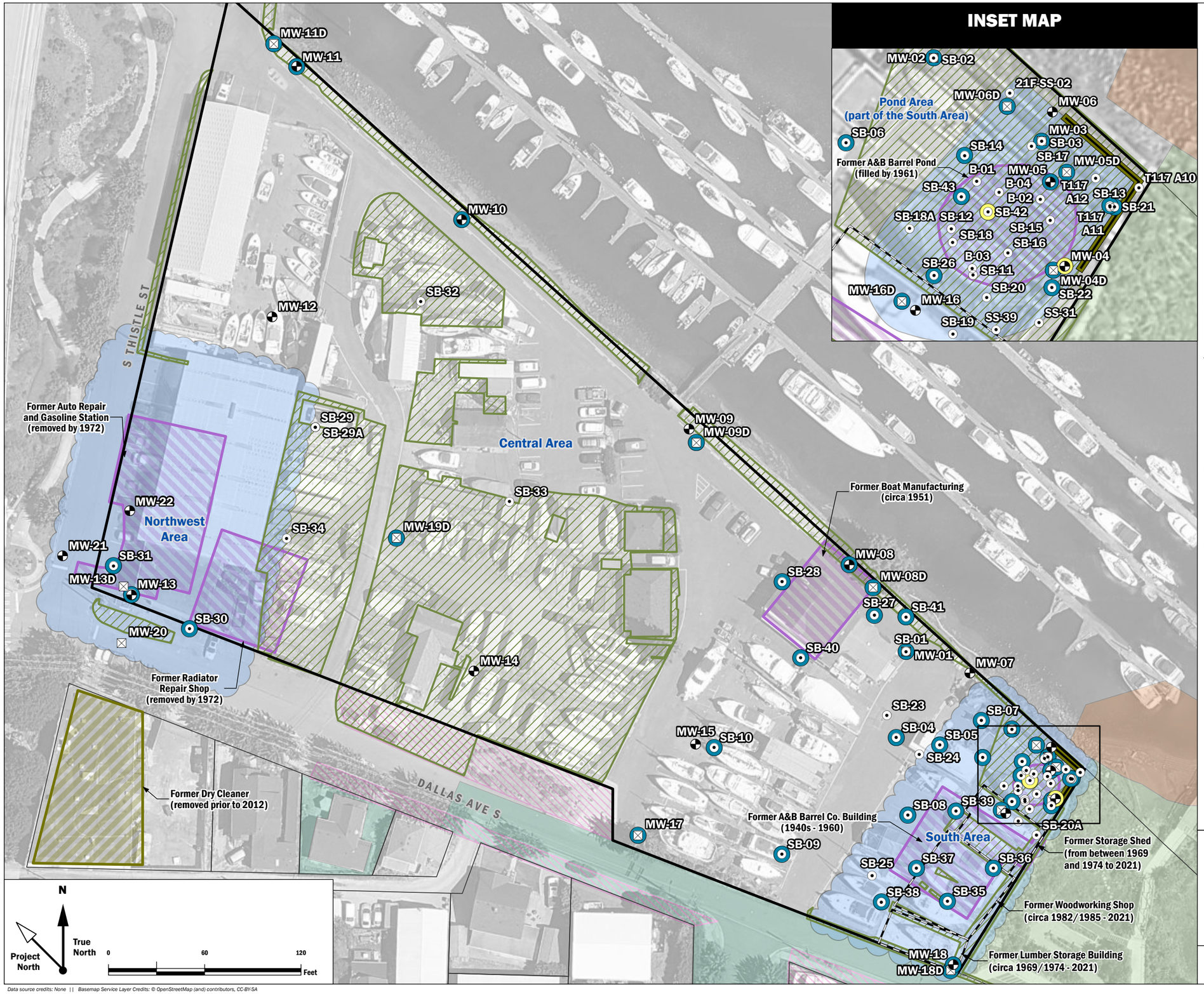
Nickel Results in Saturated Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting

DEC-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.F
PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthPark\Admin_190293\Phase 2 RI Proj\SPM_Phase2_RI_Soil.aprx::7.1.F Nickel Results in Saturated Soil || User: haley.dunn || Print Date: 12/3/2025



Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- Mercury was detected at a concentration equal to or greater than 41 mg/kg
- Mercury was detected at a concentration equal to or greater than 5.5 mg/kg and less than 41 mg/kg
- Mercury was detected at a concentration equal to or greater than 4.1 mg/kg and less than 5.5 mg/kg
- Mercury was detected at a concentration equal to or greater than 0.41 mg/kg and less than 4.1 mg/kg
- Mercury not detected and non-detect value greater than 0.41 mg/kg
- Mercury not detected or detected at a concentration less than 0.41mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

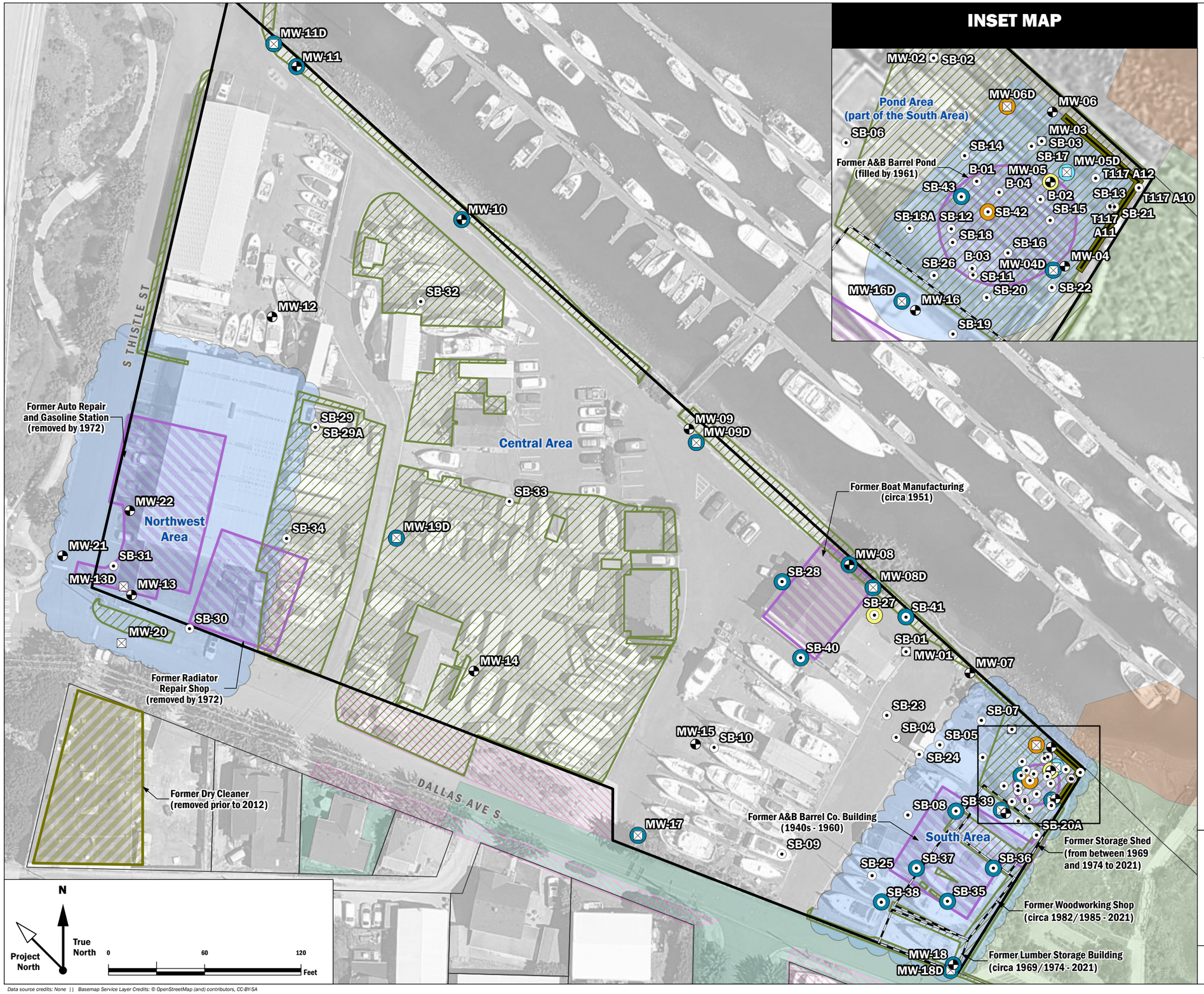
Mercury	
Basis	**Concentration (mg/kg)**
Direct Erosion (SL-8)	0.41
10x Proposed RI CUL (SL-8)	4.1
Terrestrial Ecological (SL-9)	5.5
100x Proposed RI CUL (SL-8)	41

Mercury Results in Saturated Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.1.G
	PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_Soil.aprx: 7.1.G Mercury Results in Saturated Soil | User: hallerjulian | | Print Date: 1/8/2026



TBT was detected at a concentration equal to or greater than 0.39 mg/kg

TBT was detected at a concentration equal to or greater than 0.14 mg/kg and less than 0.39 mg/kg

TBT was detected at a concentration equal to or greater than 0.039 mg/kg and less than 0.14 mg/kg

TBT was detected at a concentration equal to or greater than 0.0039 mg/kg and less than 0.039 mg/kg

TBT not detected and non-detect value greater than 0.0039 mg/kg

TBT not detected or detected at a concentration less than 0.0039 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Tributyltin Ion (TBT)	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-8, PQL Adj.)	0.0039
10x Proposed RI CUL (SL-8, PQL Adj.)	0.039
East Waterway RBTC	0.14
100x Proposed RI CUL (SL-8, PQL Adj.)	0.39

Tributyltin Ion (TBT) Results in Saturated Zone Soil

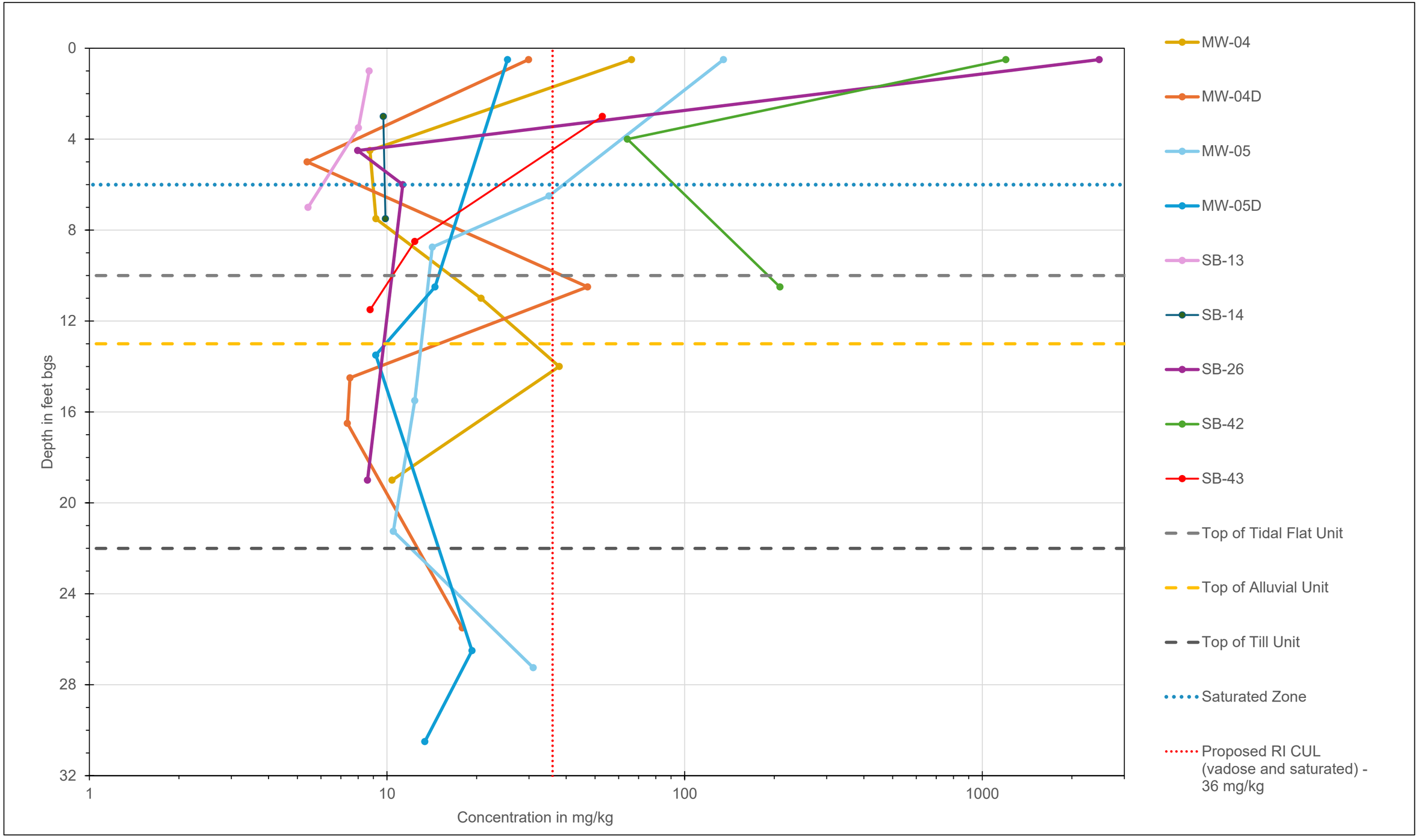
Remedial Investigation Report South
Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.1.H
	PROJECT NO. 190293	REVISED BY: HMD	

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GIS Path: G:\projects\SouthParkMarina_190293\Phase2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.1.H TBT Results in Saturated Zone Soil || User: haleyduran || Print Date: 1/8/2026

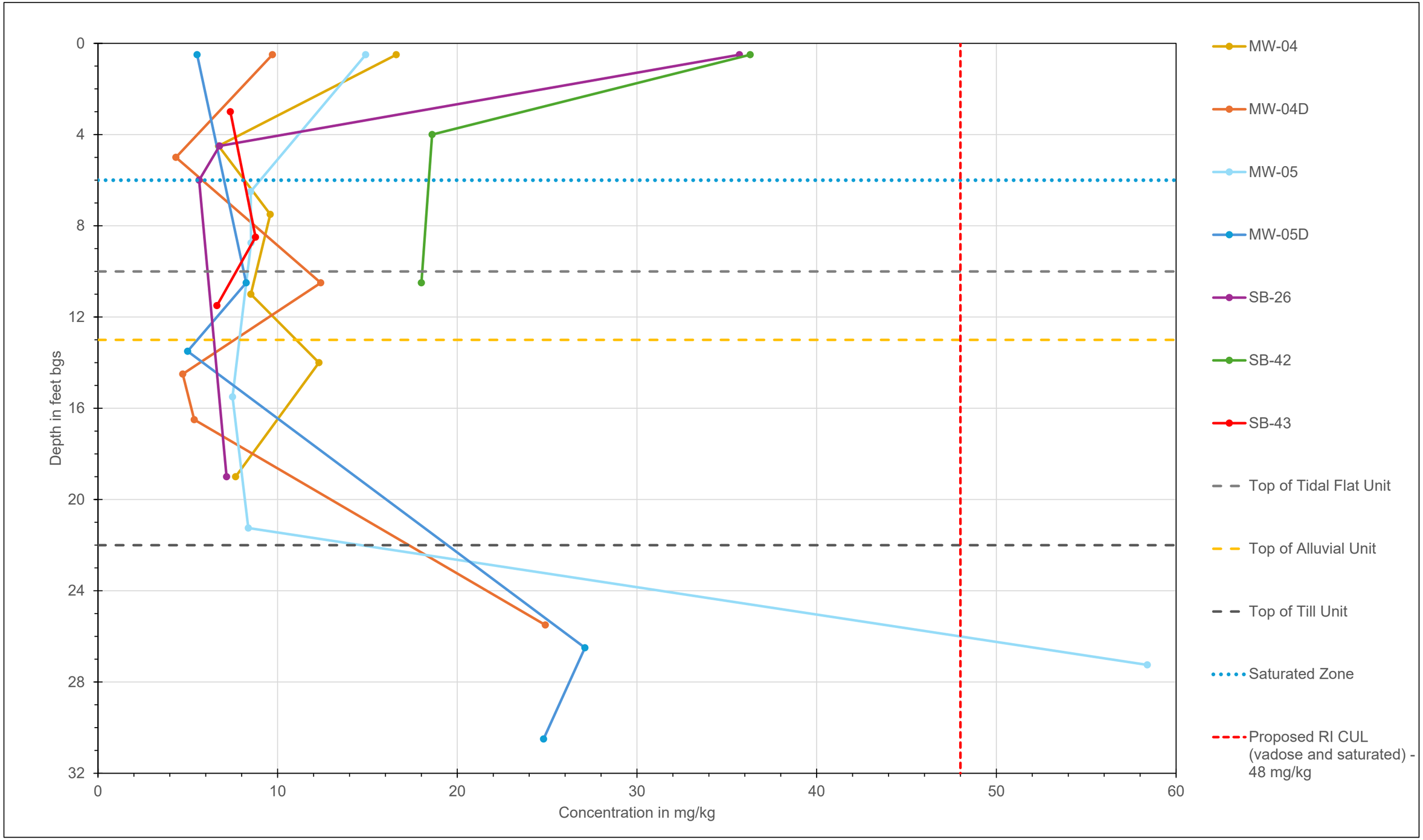
Figure 7.1.I. Vertical Distribution of Copper in the Pond Area
South Park Marina Site, Seattle, Washington



Aspect Consulting
4/5/2025
S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.1.I
Remedial Investigation Report

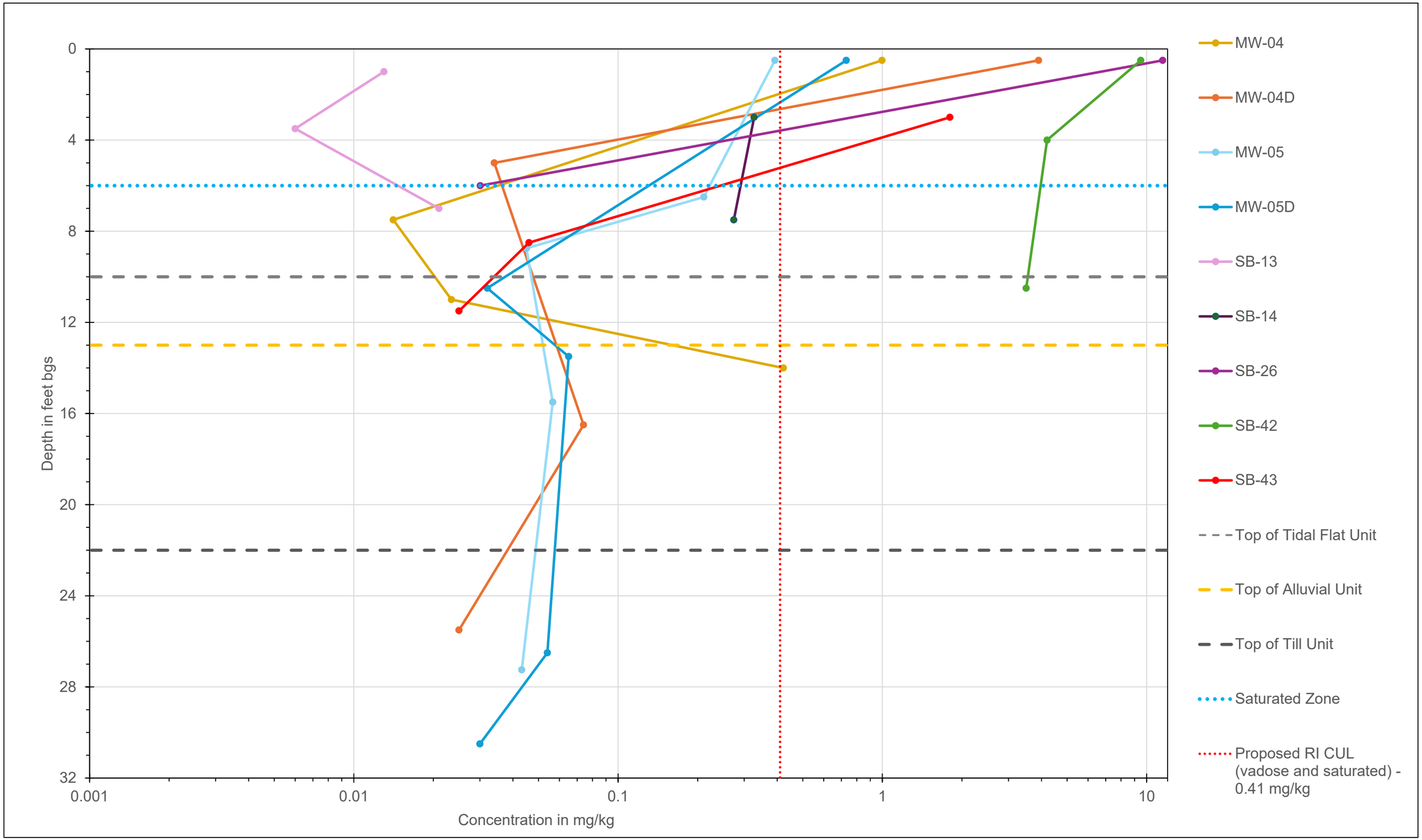
Figure 7.1.J. Vertical Distribution of Nickel in the Pond Area
South Park Marina Site, Seattle, Washington



Aspect Consulting
4/5/2025
S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.1.J
Remedial Investigation Report

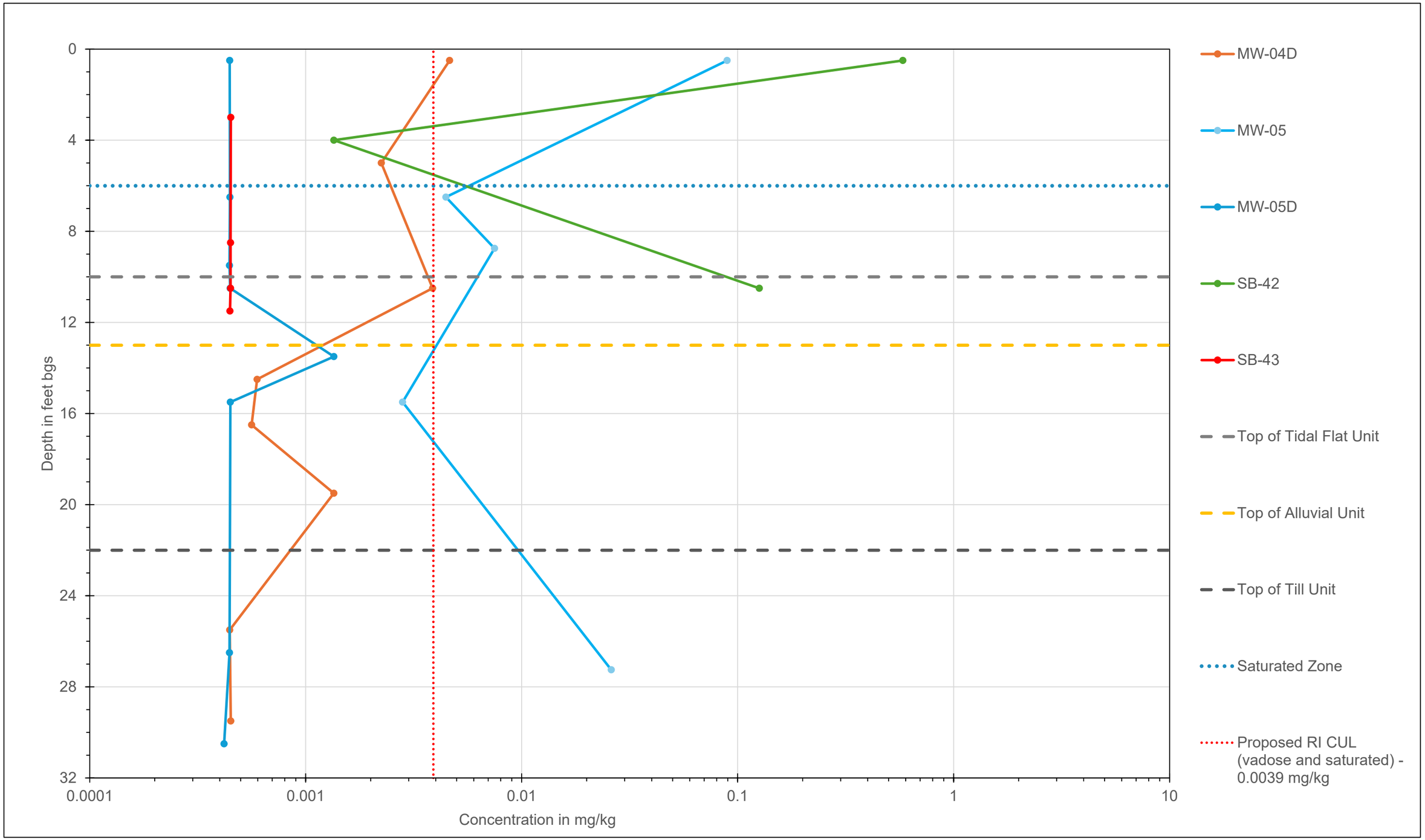
Figure 7.1.K. Vertical Distribution of Mercury in the Pond Area
South Park Marina Site, Seattle, Washington



Aspect Consulting
12/9/2025
B:\25014 - Geosyntec - South Park Marina\Report Drafts\RI Report\Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.1.K
Remedial Investigation Report

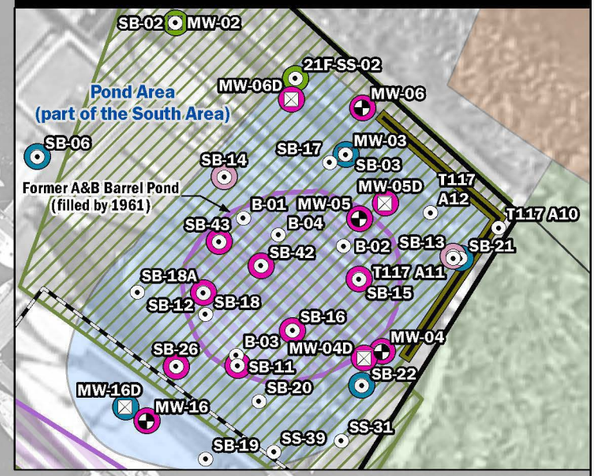
Figure 7.1.L. Vertical Distribution of TBT in the Pond Area
South Park Marina Site, Seattle, Washington



Aspect Consulting
4/5/2025
S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.1.L
Remedial Investigation Report

INSET MAP



Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-13	Zinc	7 – 7.5 ft	Tidal Flat	1.4

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-14	Lead	3 – 3.5 ft	Fill	1.6
SB-14	Zinc	3 – 3.5 ft	Fill	1.2

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-34	Zinc	0 – 1 ft	Fill	1.1

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-05	Arsenic	8 – 9 ft	Fill	1.2

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-37	Chromium	0 – 1 ft	Fill	3.7
SB-37	Lead	0 – 1 ft	Fill	7.6
SB-37	Zinc	0 – 1 ft	Fill	1.8
SB-37	Arsenic	1 – 2 ft	Fill	1.9
SB-37	Cadmium	1 – 2 ft	Fill	23
SB-37	Chromium	1 – 2 ft	Fill	3.2
SB-37	Lead	1 – 2 ft	Fill	5.3
SB-37	Zinc	1 – 2 ft	Fill	420

- Both Key and Non-Key Site Metal COPCs Exceed Proposed RI CULs
- Only Key Site Metal COPCs Exceed Proposed RI CULs
- Only Non-Key Site Metal COPCs Exceed Proposed RI CULs
- No Site Metal COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*
- *SPU = Seattle Public Utilities*

Key Metals COPCs
Copper
Mercury
Nickel
TBT

Non-Key Metal COPCs - Proposed RI CULs in Soil - mg/kg		
	Vadose	Saturated
Arsenic	7.3	
Cadmium	5.1	
Chromium	67	
Lead	120	
Zinc	100	85

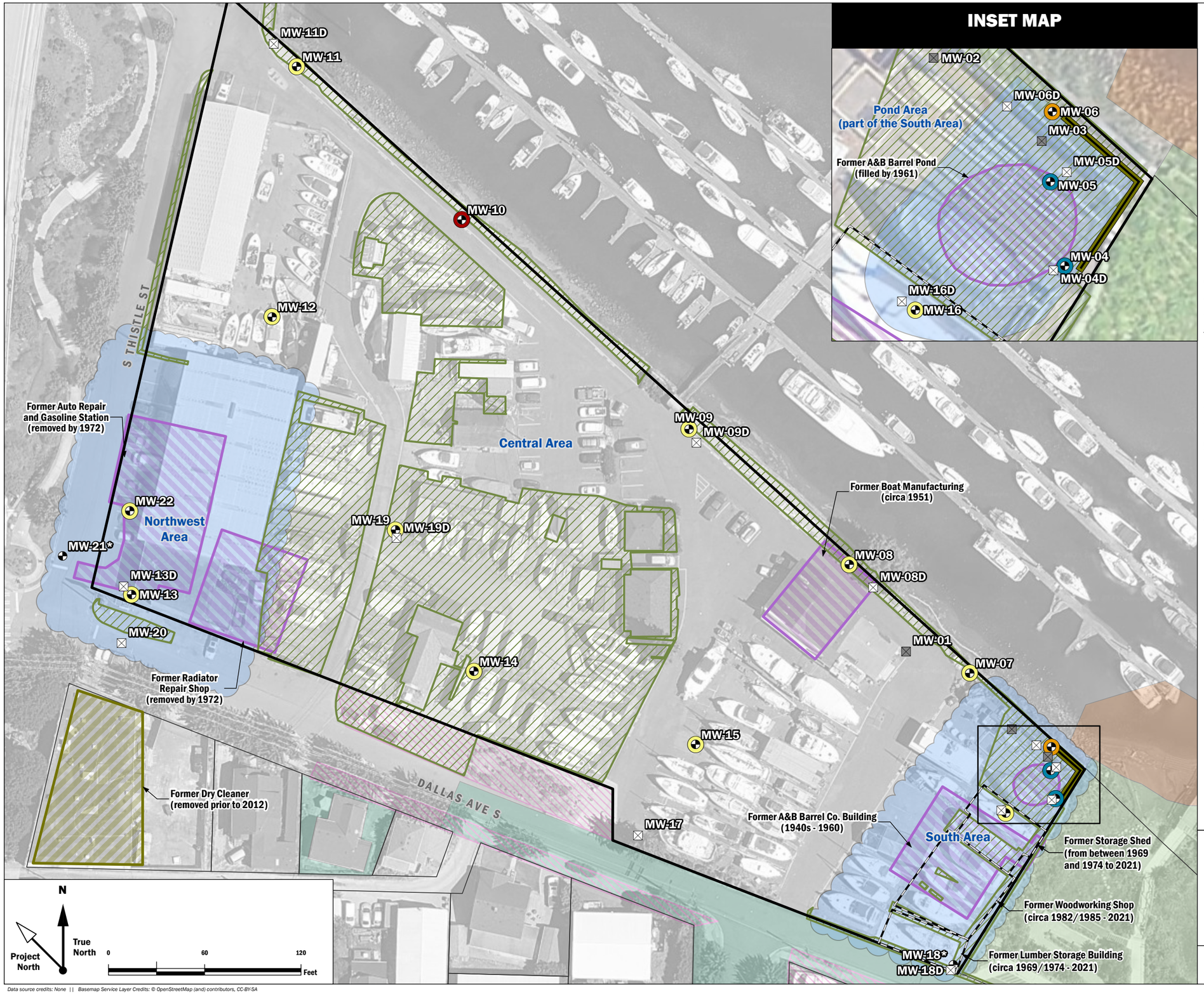
Non-Key Metal COPCs in Vadose and Saturated Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting | DEC-2025 | Project # 190293 | By: JJP / AJY / NLK | Revised By: HMD | FIGURE NO. 7.1.M

N
Project North
True North
0 60 120 Feet

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA



INSET MAP

- Copper was detected at a concentration equal to or greater than 310 ug/L
- Copper was detected at a concentration equal to or greater than 31 ug/L and less than 310 ug/L
- Copper was detected at a concentration equal to or greater than 14 ug/L and less than 31 ug/L
- Copper was detected at a concentration equal to or greater than 3.1 ug/L and less than 14 ug/L
- Copper not detected and non-detect value greater than 3.1 ug/L
- Copper not detected or detected at a concentration less than 3.1 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 (*Sample ID*)

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Both total and dissolved concentrations were compared to the screening level shown.
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

Copper	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	3.1
Protection of Sediment (GW-3)	14
10x Proposed RI CUL (GW-2)	31
100x Proposed RI CUL (GW-2)	310

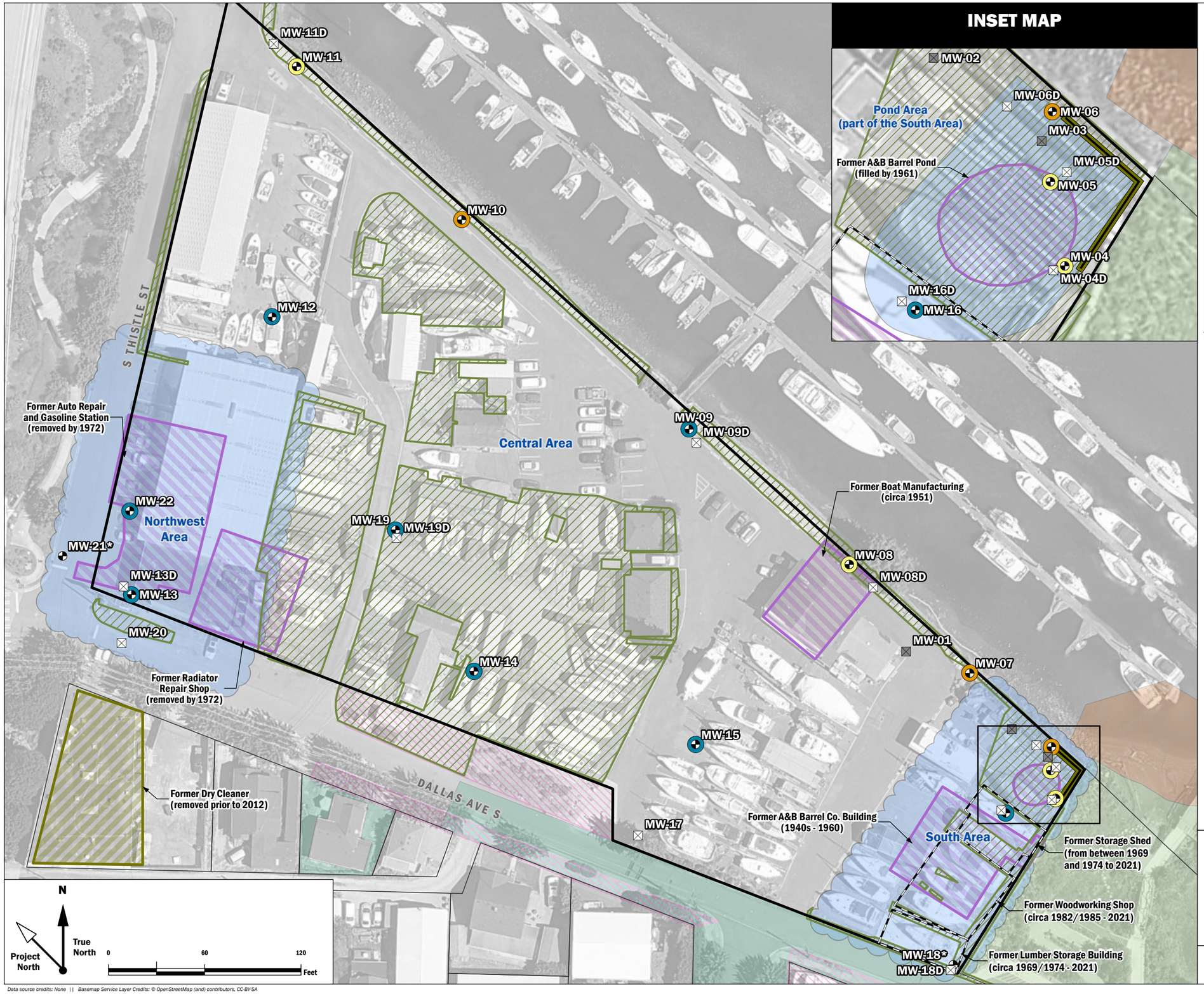
Copper Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.N
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx T.1.N Copper Results in Fill Groundwater || User: hdeyo.dnren || Print Date: 6/11/2025



Nickel was detected at a concentration equal to or greater than 8,200 ug/L

Nickel was detected at a concentration equal to or greater than 820 ug/L and less than 8,200 ug/L

Nickel was detected at a concentration equal to or greater than 82 ug/L and less than 820 ug/L

Nickel was detected at a concentration equal to or greater than 8.2 ug/L and less than 82 ug/L

Nickel not detected and non-detect value greater than 8.2 ug/L

Nickel not detected or detected at a concentration less than 8.2 ug/L

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

MW-12
Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Both total and dissolved concentrations were compared to the screening level shown.
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

Nickel	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	8.2
10x Proposed RI CUL (GW-2)	82
100x Proposed RI CUL (GW-2)	820
1000x Proposed RI CUL (GW-2)	8,200

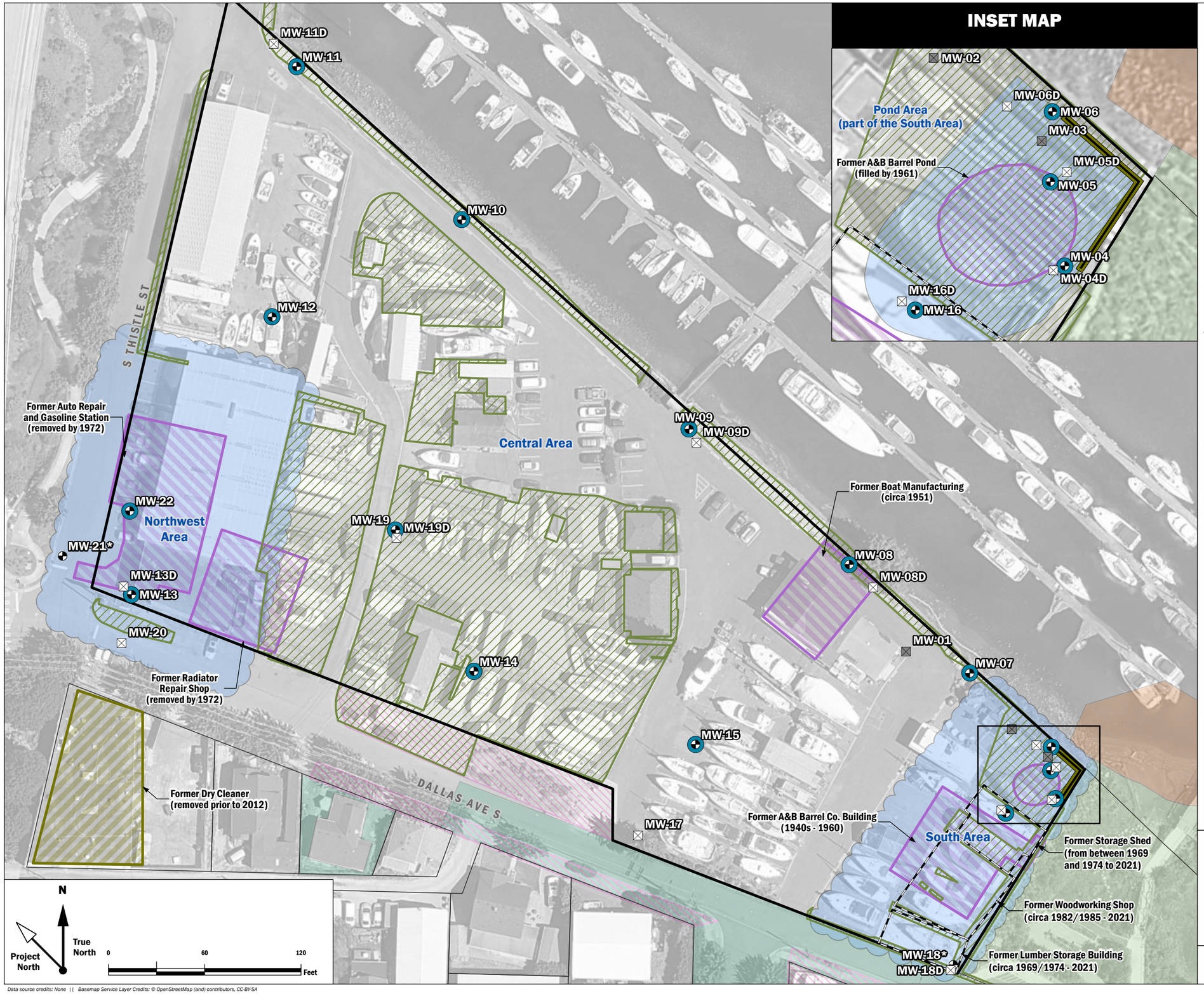
Nickel Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.0
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.1.0 Nickel Results in Fill Groundwater | | User: haleyduran | | Print Date: 6/11/2025



INSET MAP

- Mercury was detected at a concentration equal to or greater than 2.5 ug/L
- Mercury was detected at a concentration equal to or greater than 2 ug/L and less than 2.5 ug/L
- Mercury was detected at a concentration equal to or greater than 0.83 ug/L and less than 2 ug/L
- Mercury was detected at a concentration equal to or greater than 0.025 ug/L and less than 0.83 ug/L
- Mercury not detected and non-detect value greater than 0.025 ug/L
- Mercury not detected or detected at a concentration less than 0.025 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Both total and dissolved concentrations were compared to the screening level shown.
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

Mercury	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	0.025
Protective of Vapor Intrusion (GW-4)	0.83
Protection of Sediment (GW-3)	2
100x Proposed RI CUL (GW-2)	2.5

Mercury Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

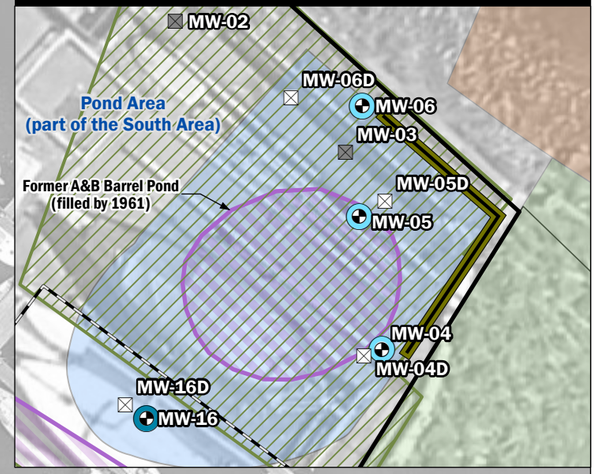
Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.P
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.1.P Mercury Results in Fill Groundwater || User: haley.duran || Print Date: 6/11/2025

GIS Path: G:\Projects\SouthParkMarina_180293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx Z.1.Q TBT Results in Fill Unit Groundwater | User: haleyjulian | | Print Date: 1/8/2026

INSET MAP



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- TBT was detected at a concentration equal to or greater than 5.2 ug/L
- TBT was detected at a concentration equal to or greater than 0.52 mg/kg and less than 5.2 ug/L
- TBT was detected at a concentration equal to or greater than 0.052 mg/kg and less than 0.52 ug/L
- TBT was detected at a concentration equal to or greater than 0.0052 mg/kg and less than 0.052 ug/L
- TBT not detected and non-detect value greater than 0.0052 ug/L
- TBT not detected or detected at a concentration less than 0.0052 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Adjacent Cleanups

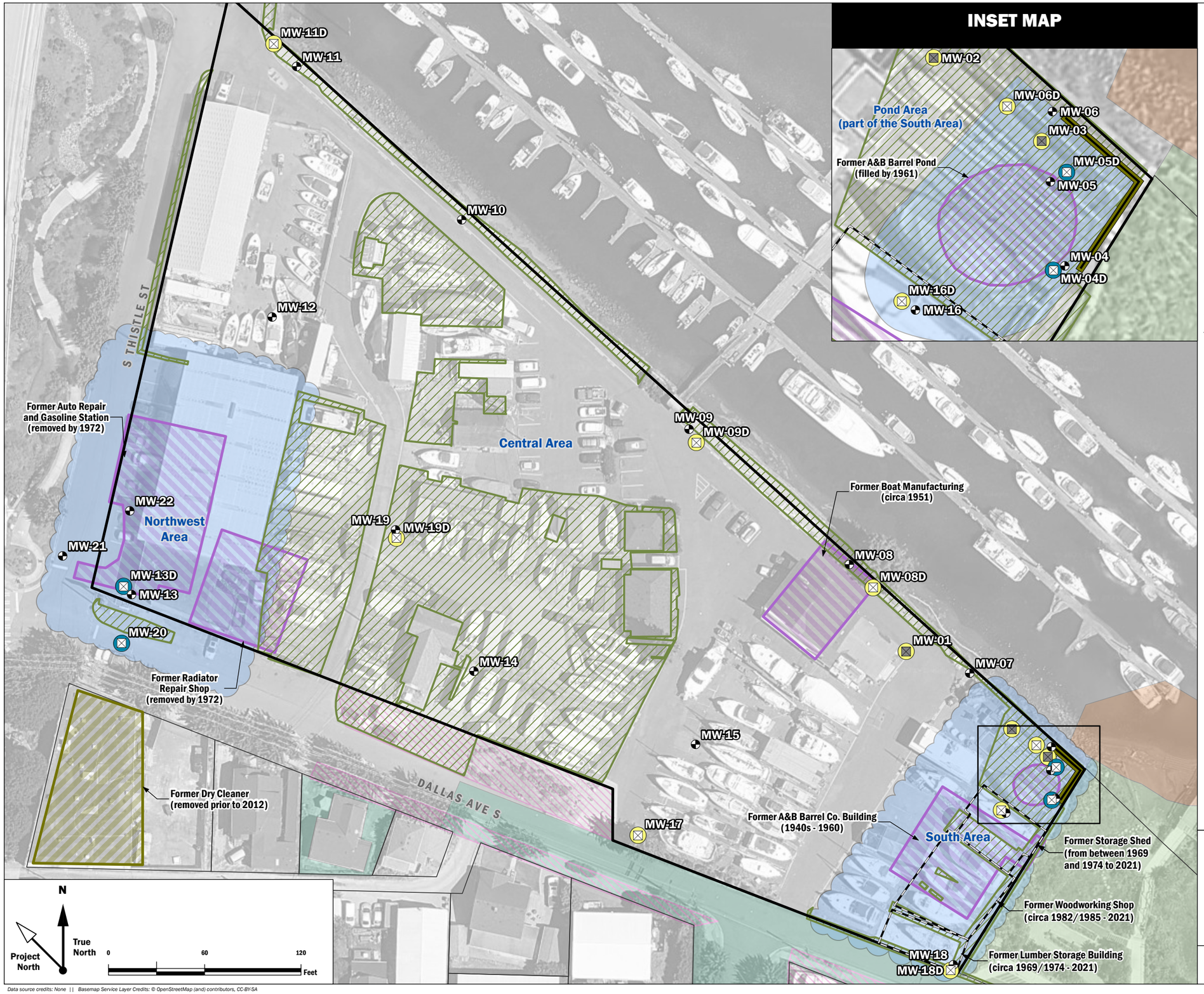
- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Tributyltin Ion (TBT)	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-3, PQL Adj.)	0.0052
10x Proposed RI CUL (GW-3, PQL Adj.)	0.052
100x Proposed RI CUL (GW-3, PQL Adj.)	0.52
1,000x Proposed RI CUL (GW-3, PQL Adj.)	5.2

Tributyltin Ion (TBT) Results in Fill Unit Groundwater

Remedial Investigation Report South
Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.1.Q
	PROJECT NO. 190293	REVISED BY: HMD	



INSET MAP

- Copper was detected at a concentration equal to or greater than 310 ug/L
- Copper was detected at a concentration equal to or greater than 31 ug/L and less than 310 ug/L
- Copper was detected at a concentration equal to or greater than 14 ug/L and less than 31 ug/L
- Copper was detected at a concentration equal to or greater than 3.1 ug/L and less than 14 ug/L
- Copper not detected and non-detect value greater than 3.1 ug/L
- Copper not detected or detected at a concentration less than 3.1 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Both total and dissolved concentrations were compared to the screening level shown.
- Central Area includes the rest of the SPM Property that is not shaded.

Copper	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	3.1
Protection of Sediment (GW-3)	14
10x Proposed RI CUL (GW-2)	31
100x Proposed RI CUL (GW-2)	310

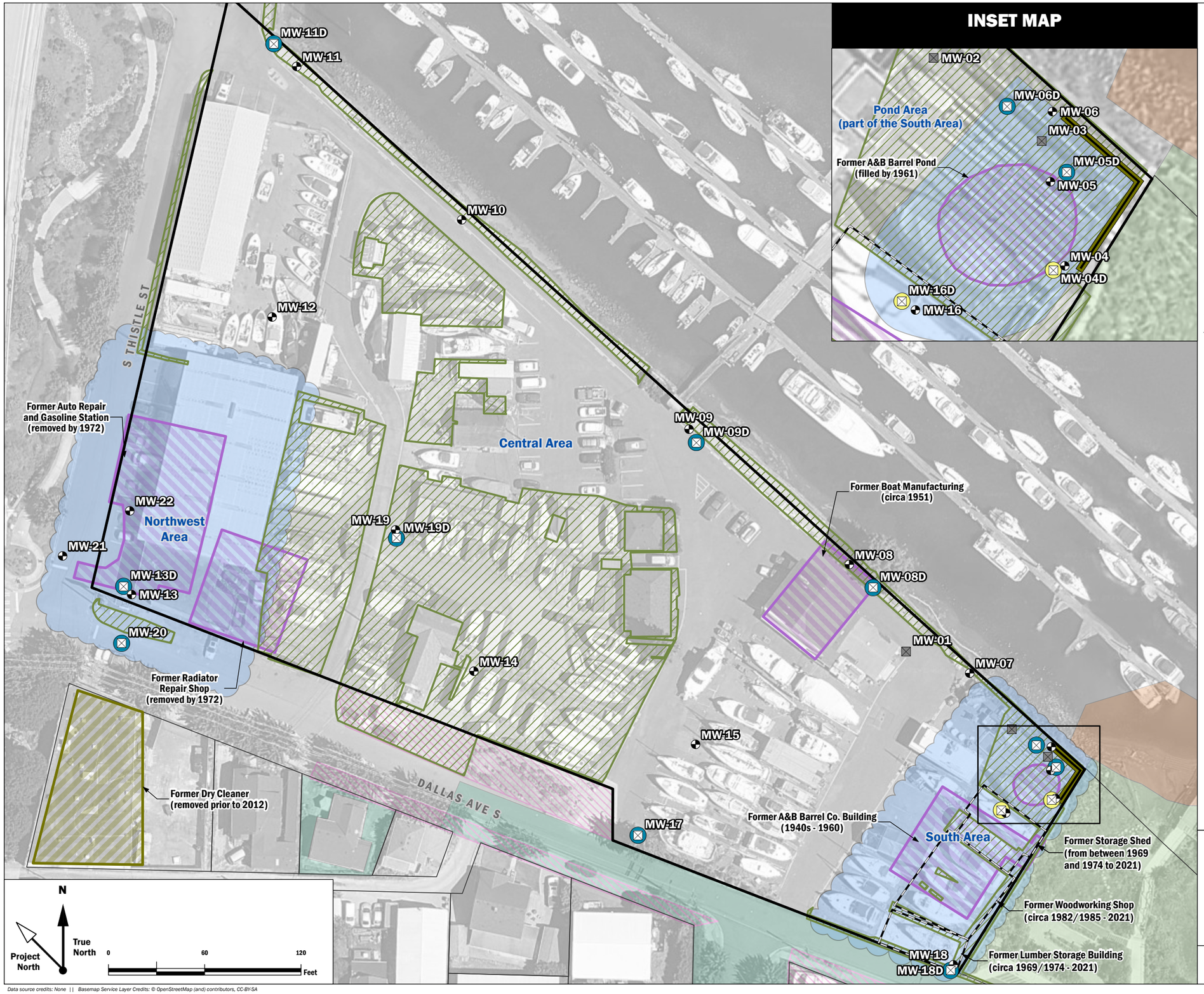
Copper Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.R
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthPark\Admin_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.1.R Copper Results in Alluvial Groundwater|| User: hailey.ilvonen || Print Date: 6/11/2025



Nickel was detected at a concentration equal to or greater than 8,200 ug/L

Nickel was detected at a concentration equal to or greater than 820 ug/L and less than 8,200 ug/L

Nickel was detected at a concentration equal to or greater than 82 ug/L and less than 820 ug/L

Nickel was detected at a concentration equal to or greater than 8.2 ug/L and less than 82 ug/L

Nickel not detected and non-detect value greater than 8.2 ug/L

Nickel not detected or detected at a concentration less than 8.2 ug/L

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Both total and dissolved concentrations were compared to the screening level shown.
- Central Area includes the rest of the SPM Property that is not shaded.

Nickel	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	8.2
10x Proposed RI CUL (GW-2)	82
100x Proposed RI CUL (GW-2)	820
1000x Proposed RI CUL (GW-2)	8,200

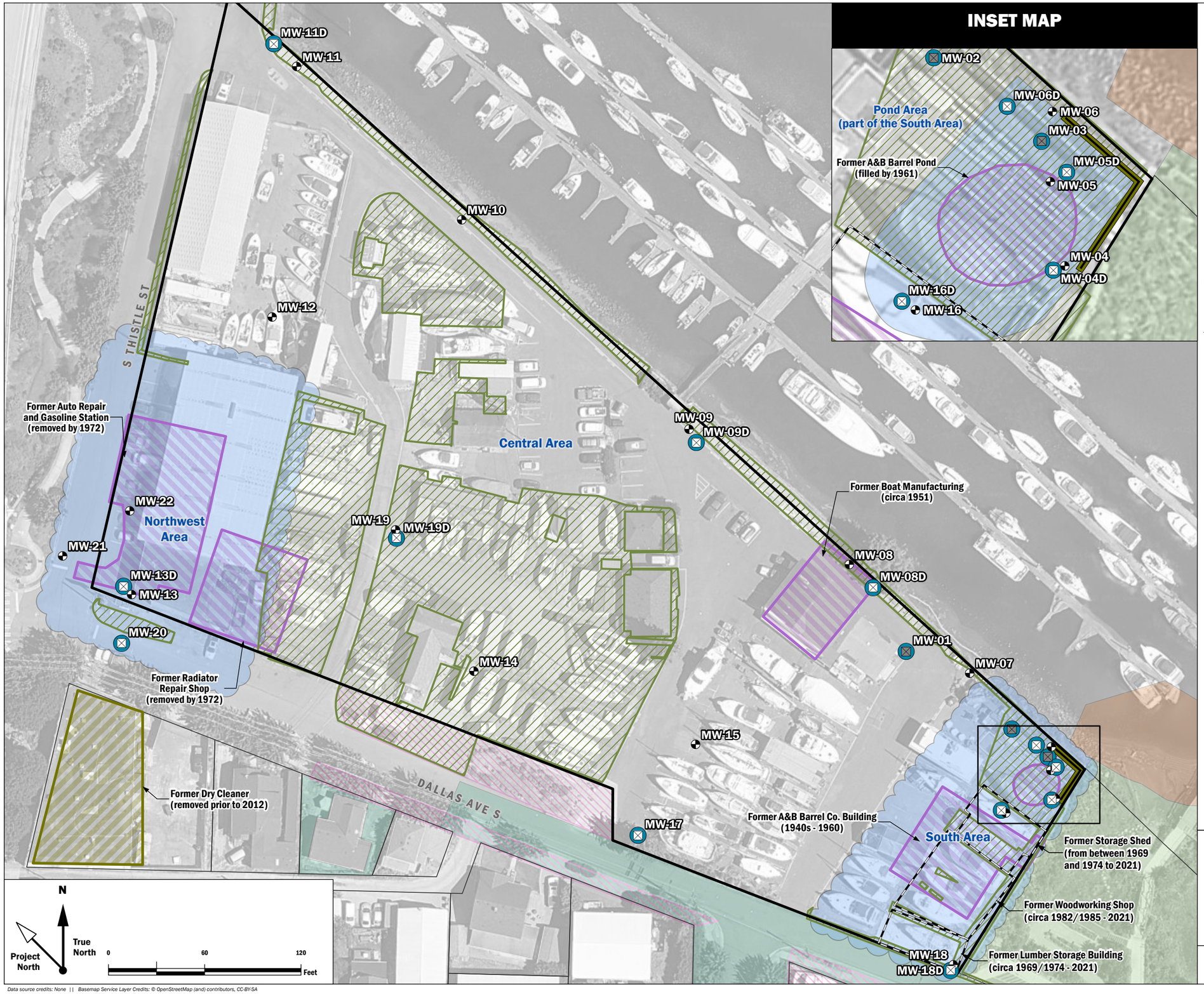
Nickel Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.S
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.1.S Nickel Results in Alluvial Groundwater || User: hehrlundun || Print Date: 6/11/2025



INSET MAP

- Mercury was detected at a concentration equal to or greater than 2.5 ug/L
- Mercury was detected at a concentration equal to or greater than 2 ug/L and less than 2.5 ug/L
- Mercury was detected at a concentration equal to or greater than 0.83 ug/L and less than 2 ug/L
- Mercury was detected at a concentration equal to or greater than 0.025 ug/L and less than 0.83 ug/L
- Mercury not detected and non-detect value greater than 0.025 ug/L
- Mercury not detected or detected at a concentration less than 0.025 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Both total and dissolved concentrations were compared to the screening level shown.
- Central Area includes the rest of the SPM Property that is not shaded.

Mercury	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	0.025
Protective of Vapor Intrusion (GW-4)	0.83
Protection of Sediment (GW-3)	2
100x Proposed RI CUL (GW-2)	2.5

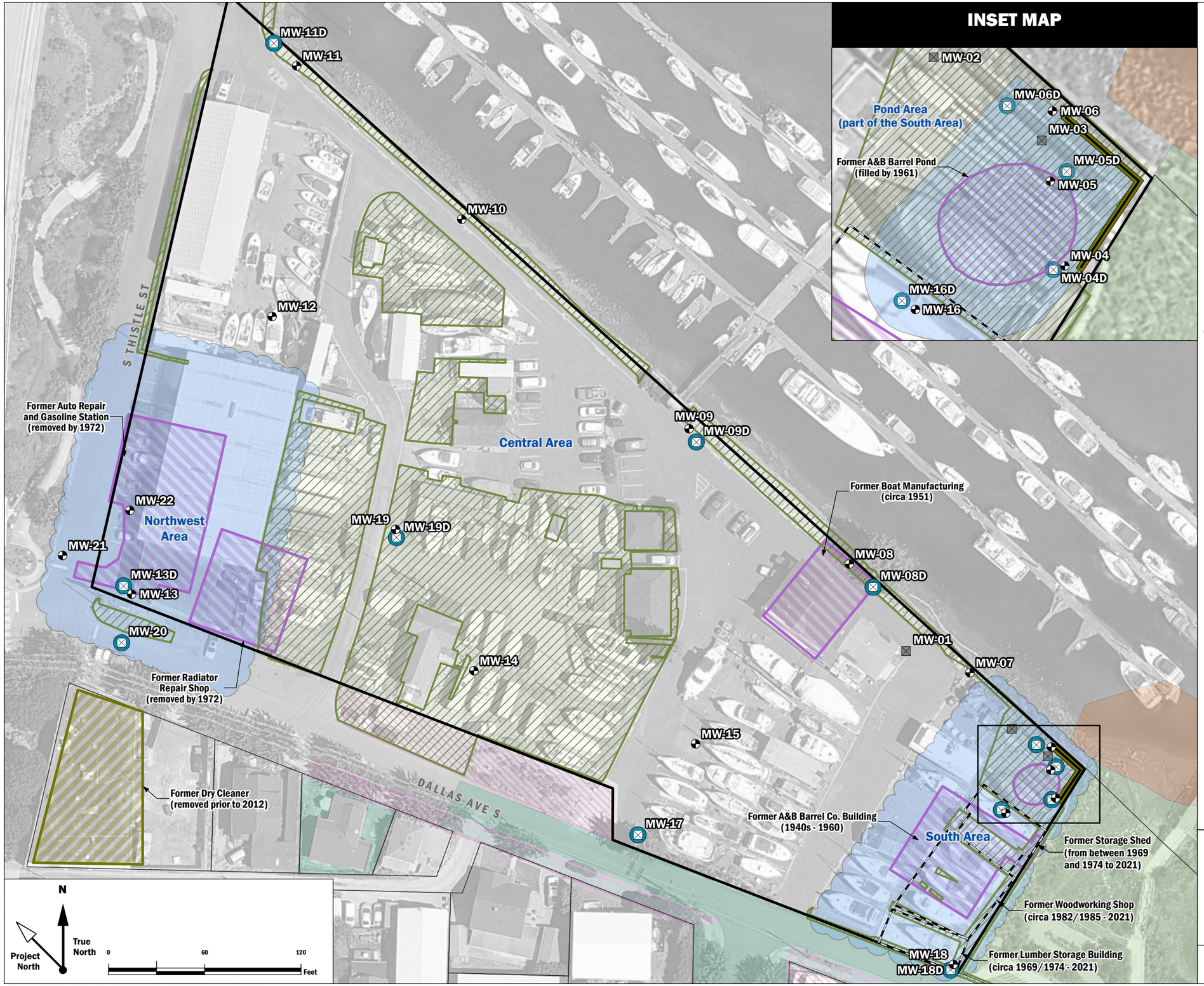
Mercury Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.T
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.1.T Mercury Results in Alluvial Groundwater || User: hubbyjaran || Print Date: 6/11/2025



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- TBT was detected at a concentration equal to or greater than 5.2 ug/L
- TBT was detected at a concentration equal to or greater than 0.52 mg/kg and less than 5.2 ug/L
- TBT was detected at a concentration equal to or greater than 0.052 mg/kg and less than 0.52 ug/L
- TBT was detected at a concentration equal to or greater than 0.0052 mg/kg and less than 0.052 ug/L
- TBT not detected and non-detect value greater than 0.0052 ug/L
- TBT not detected or detected at a concentration less than 0.0052 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

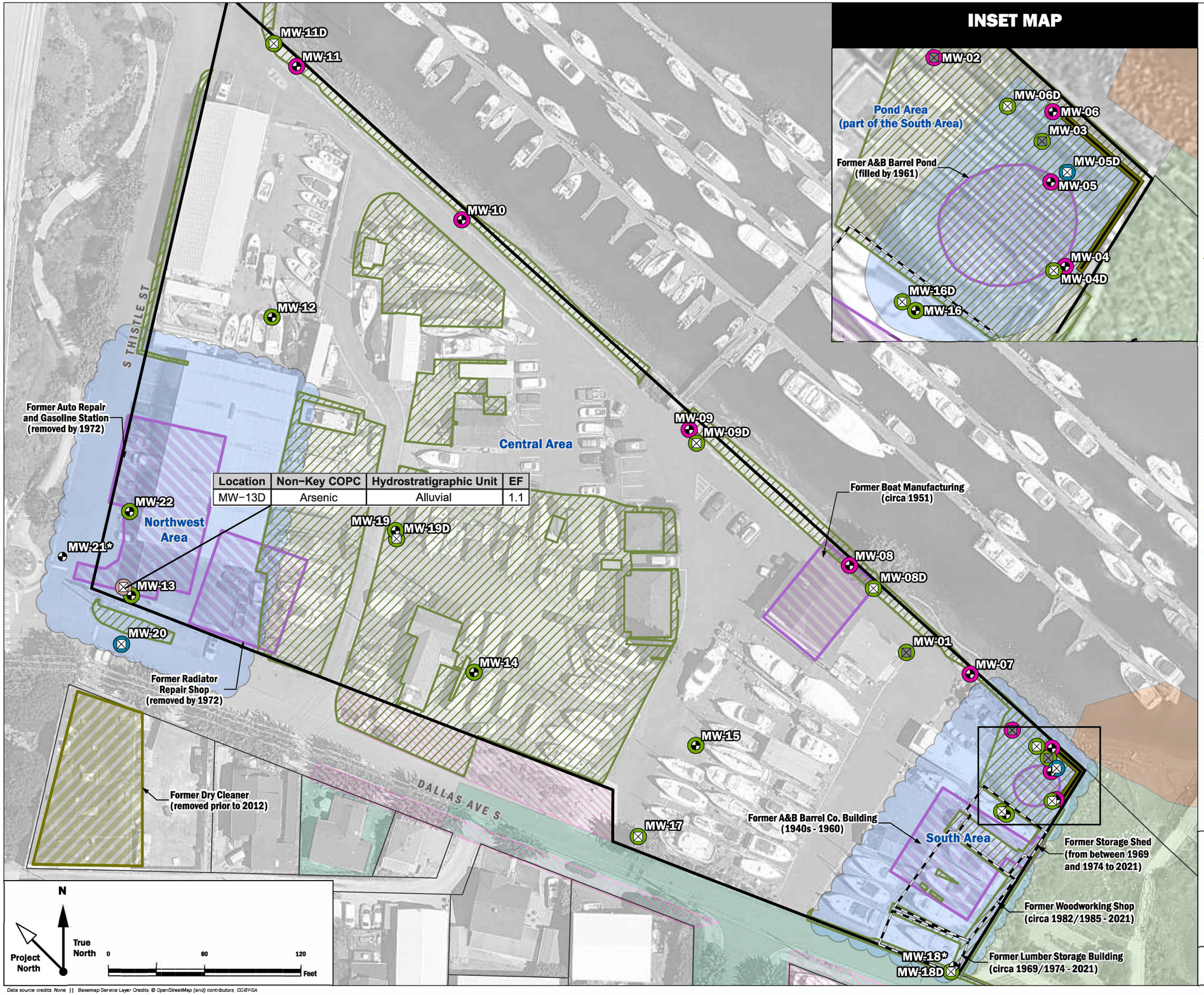
Tributyltin Ion (TBT)	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-3, PQL Adj.)	0.0052
10x Proposed RI CUL (GW-3, PQL Adj.)	0.052
100x Proposed RI CUL (GW-3, PQL Adj.)	0.52
1,000x Proposed RI CUL (GW-3, PQL Adj.)	5.2

Tributyltin Ion (TBT) Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.1.U
	PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx: 7.1.U TBT Results in Alluvial Unit Groundwater | User: haileyjulian | | Print Date: 1/8/2026



Location	Non-Key COPC	Hydrostratigraphic Unit	EF
MW-13D	Arsenic	Alluvial	1.1

INSET MAP

- Both Key and Non-Key Site Metal COPCs Exceed Proposed RI CULs
- Only Key Site Metal COPCs Exceed Proposed RI CULs
- Only Non-Key Site Metal COPCs Exceed Proposed RI CULs
- No Site Metal COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 — *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*

Key Metals COPCs
Copper
Mercury
Nickel
TBT
Non-Key Metal COPCs - Proposed RI CULs in Groundwater - ug/L
Arsenic | 8.0

Non-Key Metal COPCs in Fill and Alluvial Groundwater

Remedial Investigation Report
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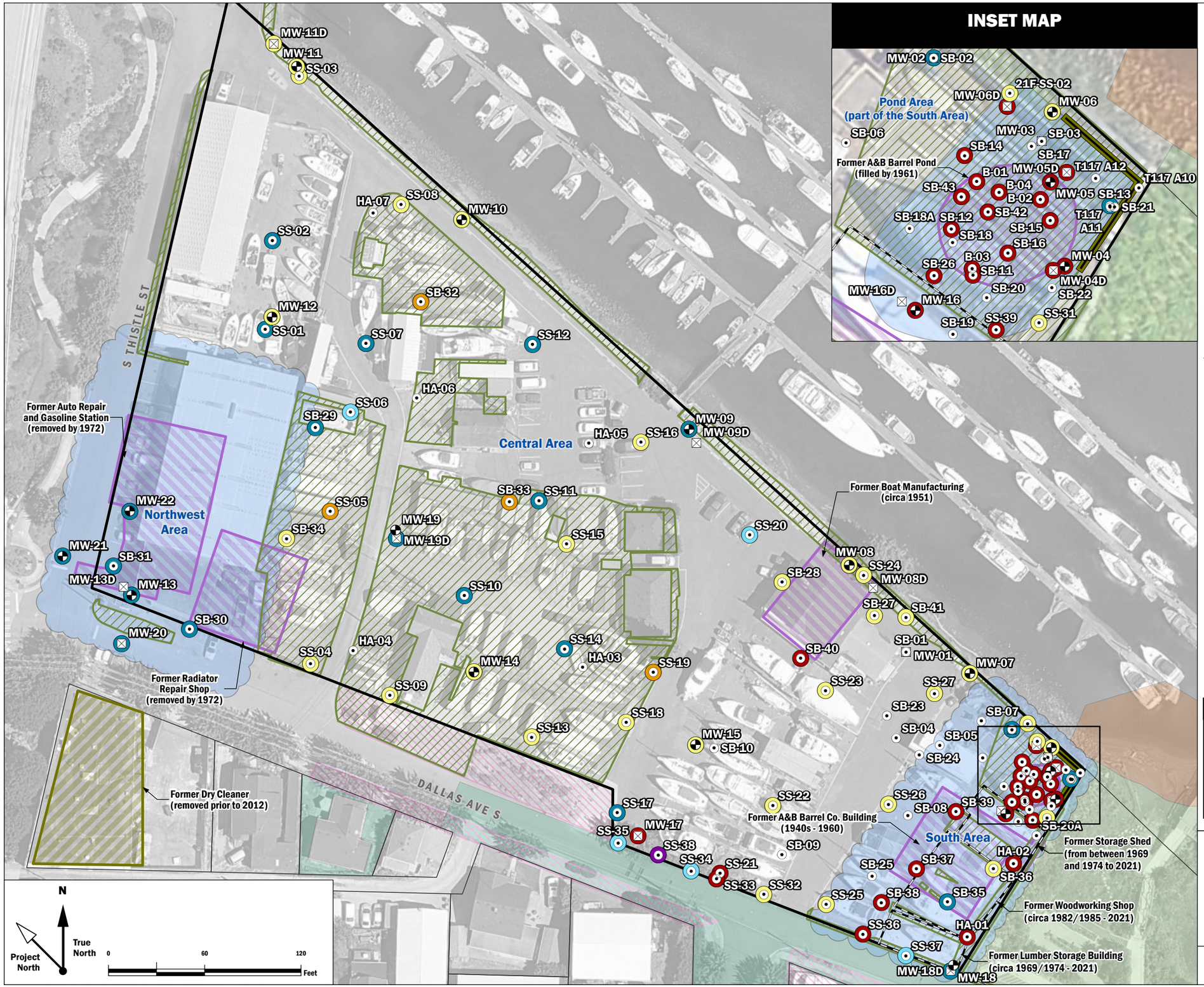
Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.1.V
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: Q:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_GW.aprx: 7.1.V Non-Key Metal COPCs in Fill and Alluvial Groundwater || User: haleyd.aren || Print Date: 6/11/2025

FIGURES 7.2.A - 7.2.E

Key PCB COPC
Analytical Data Figures



Total PCB Aroclor was detected at a concentration equal to or greater than 50 mg/kg

Total PCB Aroclor was detected at a concentration equal to or greater than 1 mg/kg and less than 50 mg/kg

Total PCB Aroclor was detected at a concentration equal to or greater than 0.65 mg/kg and less than 1 mg/kg

Total PCB Aroclor was detected at a concentration equal to or greater than 0.036 mg/kg and less than 0.65 mg/kg

Total PCB Aroclor not detected and non-detect value greater than 0.036 mg/kg

Total PCB Aroclor not detected or detected at a concentration less than 0.036 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

MW-12
Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with non-detects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is displayed as non-detect at the maximum reporting limit for any individual Aroclor.*
- *Central Area includes the rest of the SPM Property that is not shaded.*

Total PCB Aroclor	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SI-3, PQL Adj.)	0.036
Terrestrial Ecological Receptor (SL-9)	1
Human Direct Contact (SL-1)	1
Toxic Substance Control Act (TSCA)	50

Total PCB Aroclor Results in Vadose Zone Soil

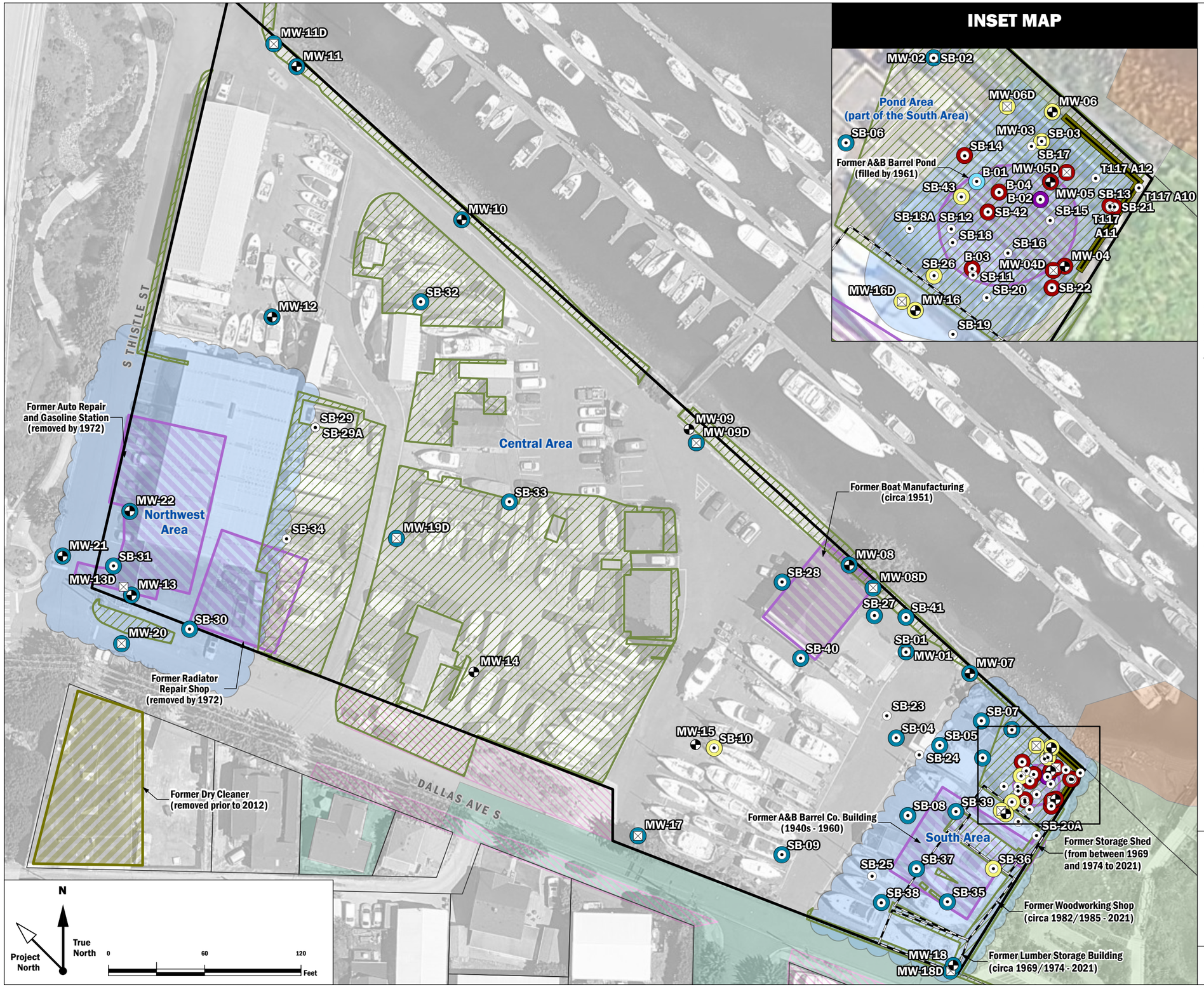
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Seattle, Washington

Aspect Consulting

JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.2.A
PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase2 RI Pro\SPM_Phase2_RI_Soil.aprx: 7.2.A PCBs Results in Vadose Soil || User: haleyjurian || Print Date: 6/11/2025



INSET MAP

- Total PCB Aroclor was detected at a concentration equal to or greater than 50 mg/kg
- Total PCB Aroclor was detected at a concentration equal to or greater than 1 mg/kg and less than 50 mg/kg
- Total PCB Aroclor was detected at a concentration equal to or greater than 0.65 mg/kg and less than 1 mg/kg
- Total PCB Aroclor was detected at a concentration equal to or greater than 0.036 mg/kg and less than 0.65 mg/kg
- Total PCB Aroclor not detected and non-detect value greater than 0.036 mg/kg
- Total PCB Aroclor not detected or detected at a concentration less than 0.036 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 — *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with non-detects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is displayed as non-detect at the maximum reporting limit for any individual Aroclor.*
- *Central Area includes the rest of the SPM Property that is not shaded.*

Total PCB Aroclor	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SI-3, PQL Adj.)	0.036
Terrestrial ecological receptor (SL-9)	0.65
Human Direct Contact (SL-1)	1
Toxic Substance Control Act (TSCA)	50

Total PCB Aroclor Results in Saturated Zone Soil

Remedial Investigation Report
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Aspect Consulting

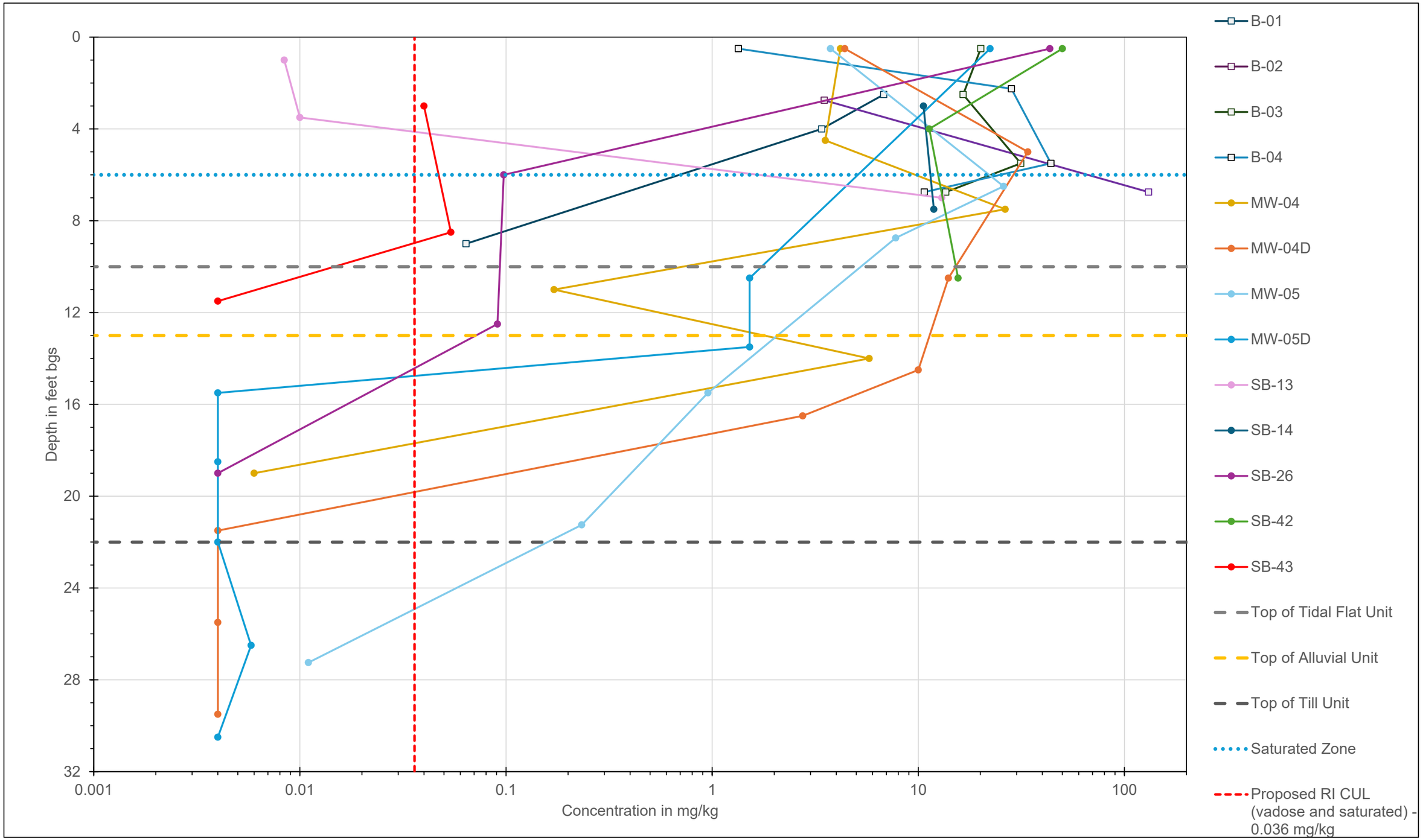
JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.2.B
PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 PH\ProjSPM_Phase2_RI_Soil.aprx: 7.2.B PCBs Results in Saturated Soil || User: haleyduran || Print Date: 6/11/2025

Figure 7.2.C. Vertical Distribution of Total PCB Aroclors in the Pond Area

South Park Marina Site, Seattle, Washington



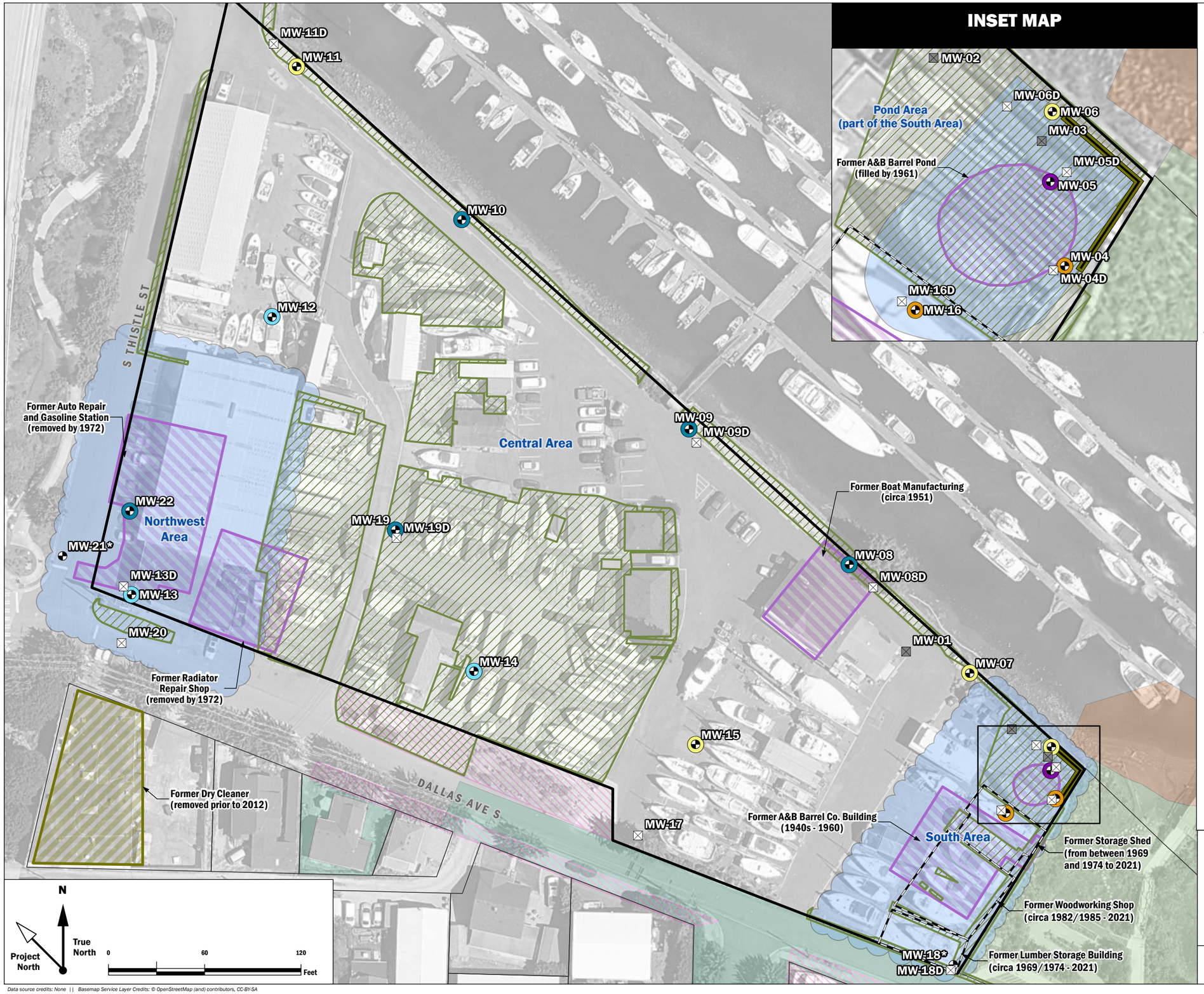
Aspect Consulting

4/5/2025

S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.2.C

Remedial Investigation Report



INSET MAP

- Total PCB Aroclor was detected at a concentration equal to or greater than 3.5 ug/L
- Total PCB Aroclor was detected at a concentration equal to or greater than 0.35 ug/L and less than 3.5 ug/L
- Total PCB Aroclor was detected at a concentration equal to or greater than 0.035 ug/L and less than 0.35 ug/L
- Total PCB Aroclor was detected at a concentration equal to or greater than 0.0035 ug/L and less than 0.035 ug/L
- Total PCB Aroclor not detected and non-detect value greater than 0.0035 ug/L
- Total PCB Aroclor not detected or detected at a concentration less than 0.0035 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 (Sample ID)

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with non-detects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is displayed as non-detect at the maximum reporting limit for any individual Aroclor.
- Central Area includes the rest of the SPM Property that is not shaded.

Total PCB Aroclor	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.0035
10x Proposed RI CUL (GW-2, PQL Adj.)	0.035
100x Proposed RI CUL (GW-2, PQL Adj.)	0.35
1000x Proposed RI CUL (GW-2, PQL Adj.)	3.5

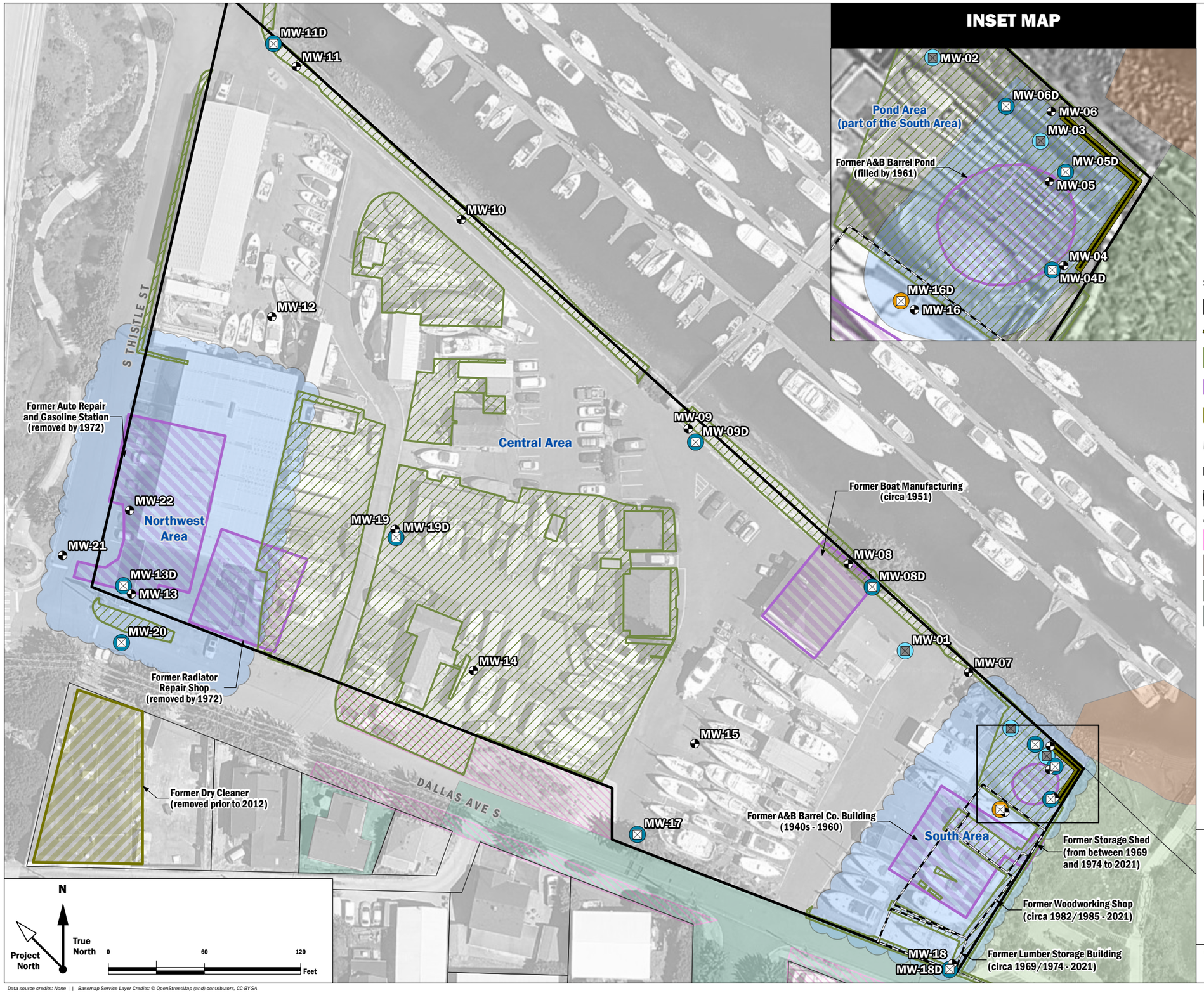
Total PCB Aroclor Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.2.D
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.2.D PCBs Results in Fill Groundwater | | User: hallyduran | | Print Date: 6/11/2025



INSET MAP

- Total PCB Aroclor was detected at a concentration equal to or greater than 3.5 ug/L
- Total PCB Aroclor was detected at a concentration equal to or greater than 0.35 ug/L and less than 3.5 ug/L
- Total PCB Aroclor was detected at a concentration equal to or greater than 0.035 ug/L and less than 0.35 ug/L
- Total PCB Aroclor was detected at a concentration equal to or greater than 0.0035 ug/L and less than 0.035 ug/L
- Total PCB Aroclor not detected and non-detect value greater than 0.0035 ug/L
- Total PCB Aroclor not detected or detected at a concentration less than 0.0035 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 ← *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Total PCB Aroclors (ND = 0) are the sum of Aroclors available, with non-detects = 0, unless all Aroclors were not detected, in which case the Total PCB Aroclors concentration is displayed as non-detect at the maximum reporting limit for any individual Aroclor.
- Central Area includes the rest of the SPM Property that is not shaded.

Total PCB Aroclor	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.0035
10x Proposed RI CUL (GW-2, PQL Adj.)	0.035
100x Proposed RI CUL (GW-2, PQL Adj.)	0.35
1000x Proposed RI CUL (GW-2, PQL Adj.)	3.5

Total PCB Aroclor Results in Alluvial Unit Groundwater

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Seattle, Washington

Aspect Consulting			
	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.2.E
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

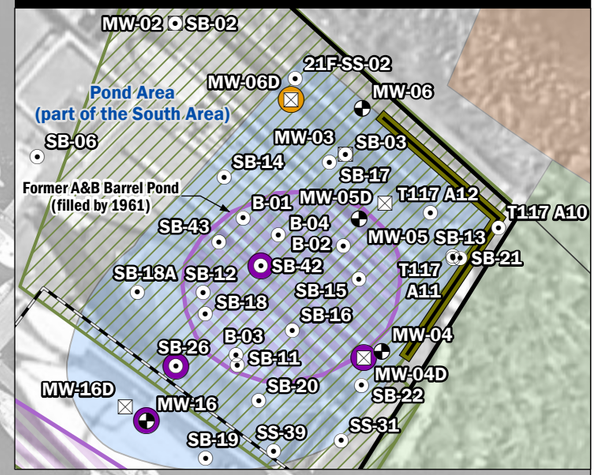
GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.2.E PCBs Results in Alluvial Groundwater | | User: haleydurian | | Print Date: 6/11/2025

FIGURES 7.3.A - 7.3.C

Key Dioxin/Furan COPC Analytical Data Figures

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI\ProjSPM_Phase2_RI_Soil.aprx | Layout: 7.3.A DF Results in Vadose Soil | User: hafeyduran | Print Date: 6/11/2025

INSET MAP



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 5.7E-04 mg/kg
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 4.6E-05 mg/kg and less than 5.7E-04 mg/kg
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 1.3E-05 mg/kg and less than 4.6E-05 mg/kg
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 5.7E-06 mg/kg and less than 1.3E-05 mg/kg
- Total Dioxin/Furan TEQ not detected and non-detect value greater than 5.7E-06 mg/kg
- Total Dioxin/Furan TEQ not detected or detected at a concentration less than 5.7E-06 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

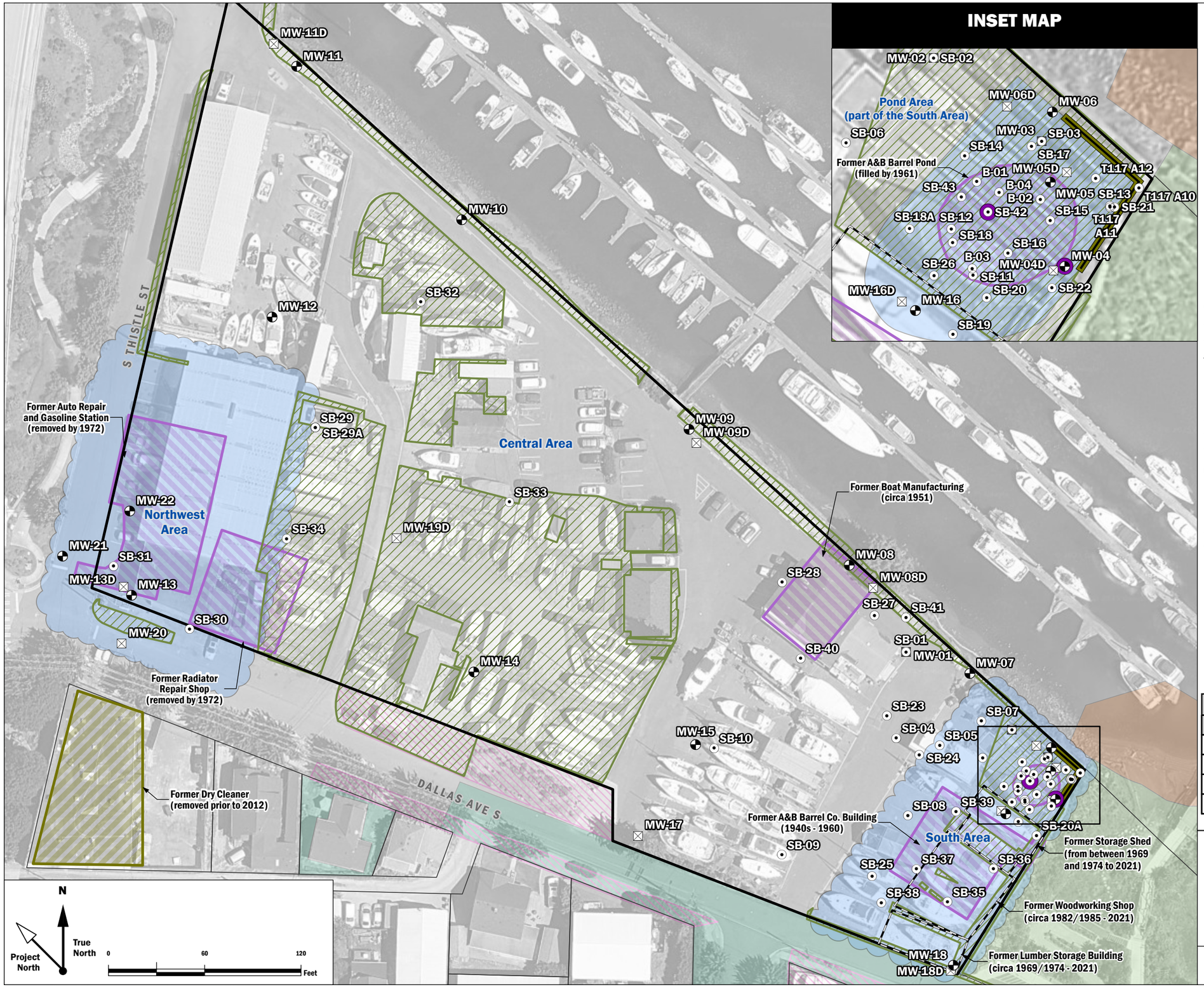
Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- TEQ (ND = 1/2 RDL) - Toxic equivalency, calculated using one half of the reporting limit for non-detected components
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Total Dioxin/Furan TEQ (ND = 1/2 RDL)	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SI-3, PQL Adj.)	0.0000057
Human Direct Contact (SL-1)	0.0000128
Area Background (AB)	0.000046
100x Proposed RI CUL (SI-3, PQL Adj.)	0.00057

Total Dioxin/Furan TEQ (ND = 1/2 RDL) Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
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Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.3.A
	PROJECT NO. 190293	REVISED BY: HMD	



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 5.7E-04 mg/kg
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 4.6E-05 mg/kg and less than 5.7E-04 mg/kg
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 1.3E-05 mg/kg and less than 4.6E-05 mg/kg
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 5.7E-06 mg/kg and less than 1.3E-05 mg/kg
- Total Dioxin/Furan TEQ not detected and non-detect value greater than 5.7E-06 mg/kg
- Total Dioxin/Furan TEQ not detected or detected at a concentration less than 5.7E-06 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- TEQ (ND = 1/2 RDL) - Toxic equivalency, calculated using one half of the reporting limit for non-detected components
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Total Dioxin/Furan TEQ (ND = 1/2 RDL)	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SI-3, PQL Adj.)	0.0000057
Human Direct Contact (SL-1)	0.0000128
Area Background (AB)	0.000046
100x Proposed RI CUL (SI-3, PQL Adj.)	0.00057

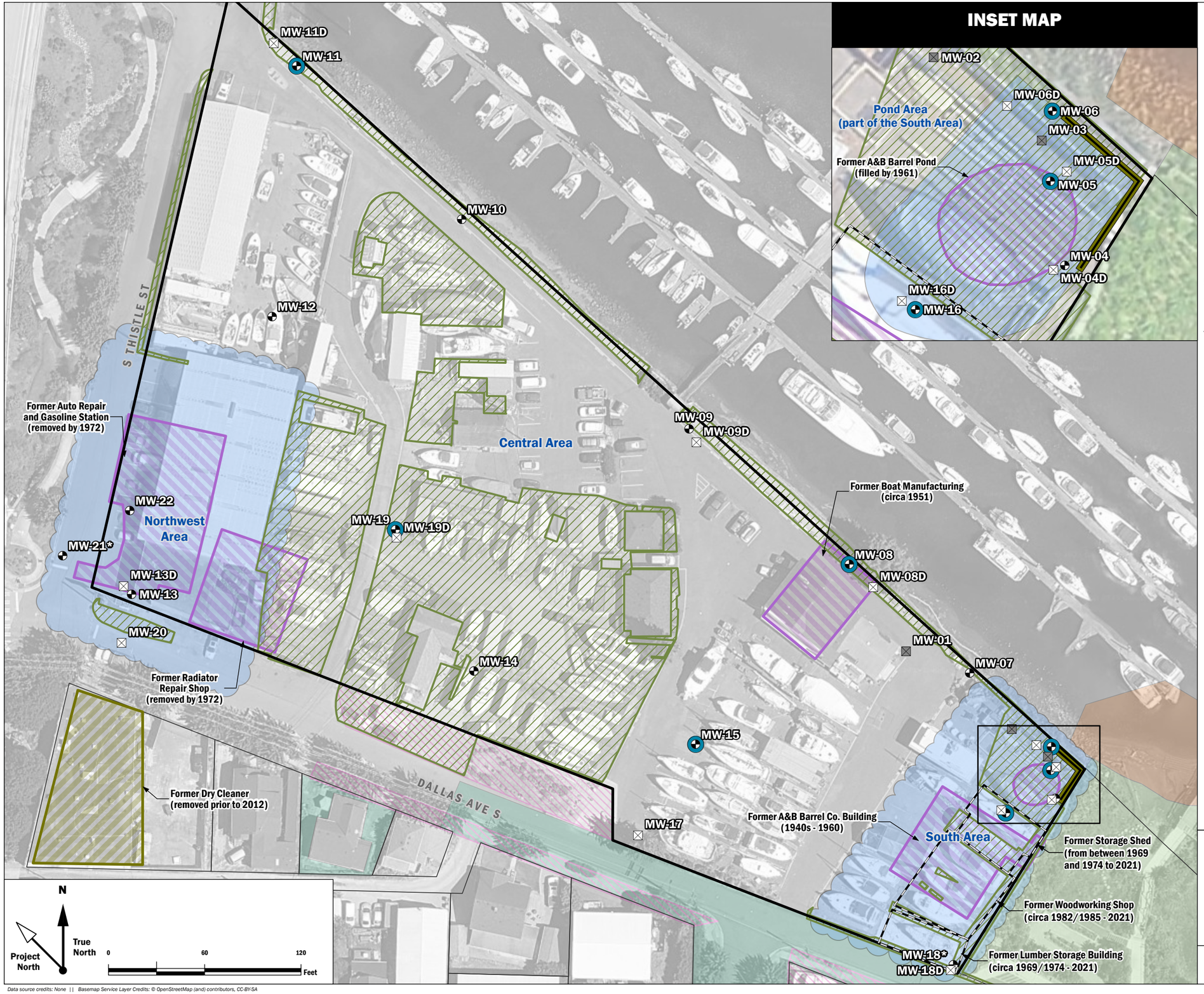
Total Dioxin/Furan TEQ (ND = 1/2 RDL) Results in Saturated Zone Soil

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Seattle, Washington

Aspect Consulting

JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.3.B
PROJECT NO. 190293	REVISED BY: HMD	

G:\Projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx - 7.3.B DF Results in Saturated Soil || User: haley.durant || Print Date: 6/11/2025



INSET MAP

- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 5.7E-02 ug/L
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 5.7E-03 ug/L and less than 5.7E-02 ug/L
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 5.7E-04 ug/L and less than 5.7E-03 ug/L
- Total Dioxin/Furan TEQ was detected at a concentration equal to or greater than 5.7E-05 ug/L and less than 5.7E-04 ug/L
- Total Dioxin/Furan TEQ not detected and non-detect value greater than 5.7E-05 ug/L
- Total Dioxin/Furan TEQ not detected or detected at a concentration less than 5.7E-05 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- TEQ (ND = 1/2 RDL) - Toxic equivalency, calculated using one half of the reporting limit for non-detected components
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

Total Dioxin/Furan TEQ (ND = 1/2 RDL)	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	5.7E-05
10x Proposed RI CUL (GW-2, PQL Adj.)	5.7E-04
100x Proposed RI CUL (GW-2, PQL Adj.)	5.7E-03
1000x Proposed RI CUL (GW-2, PQL Adj.)	5.7E-02

Total Dioxin/Furan TEQ (ND = 1/2 RDL) Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

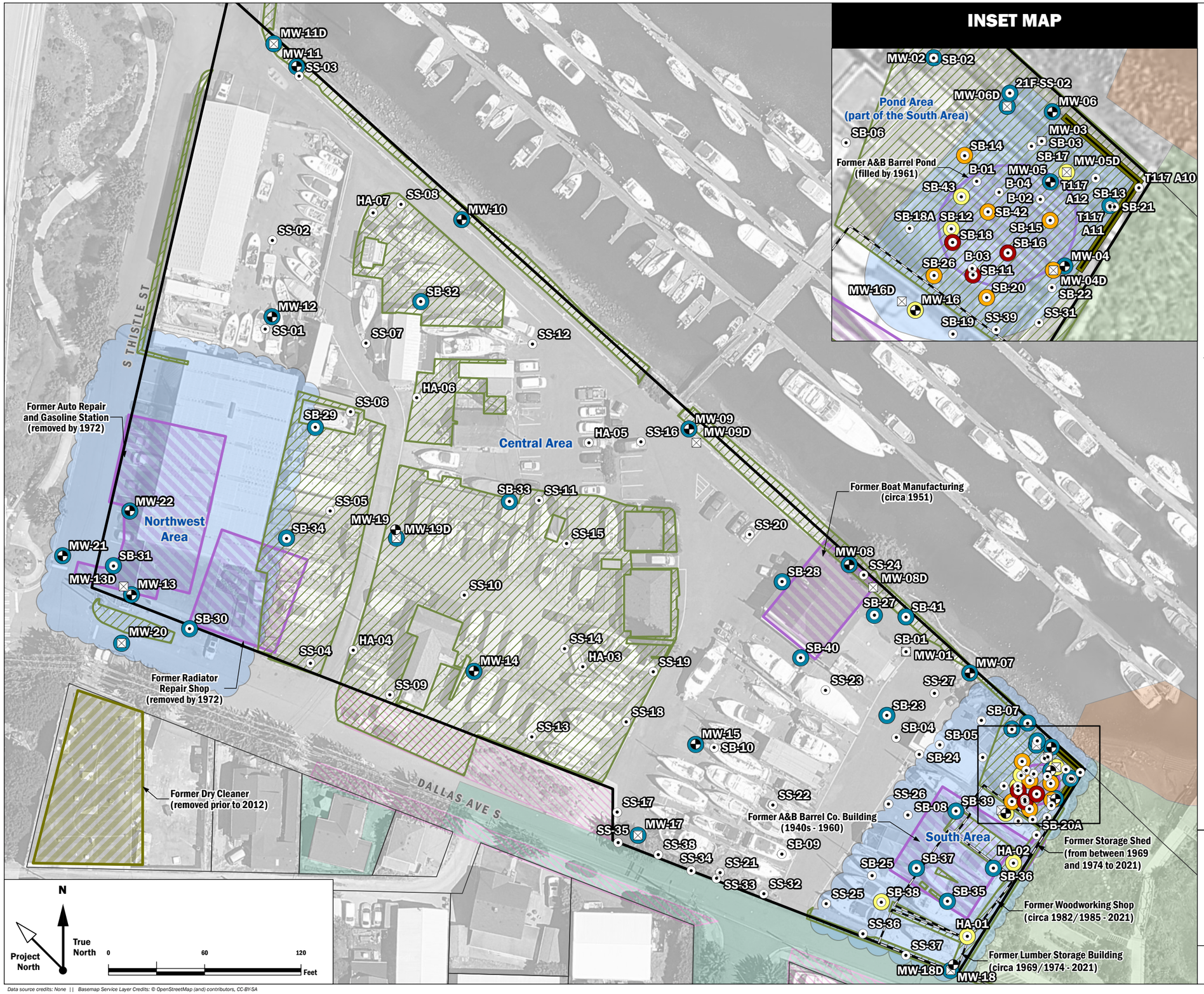
Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.3.C
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\Projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.3.C DF Results in Fill Groundwater | | User: hellej.duran | | Print Date: 6/11/2025

FIGURES 7.4.A - 7.4.G

Key TPH COPC
Analytical Data Figures



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- TPH-D+O was detected at a concentration equal to or greater than 200,000 mg/kg
- TPH-D+O was detected at a concentration equal to or greater than 20,000 mg/kg and less than 200,000 mg/kg
- TPH-D+O was detected at a concentration equal to or greater than 6,000 mg/kg and less than 20,000 mg/kg
- TPH-D+O was detected at a concentration equal to or greater than 2,000 mg/kg and less than 6,000 mg/kg
- TPH-D+O not detected and non-detect value greater than 2,000 mg/kg
- TPH-D+O not detected or detected at a concentration less than 2,000 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- TPH-D+O = Diesel- and oil-range total petroleum hydrocarbons
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

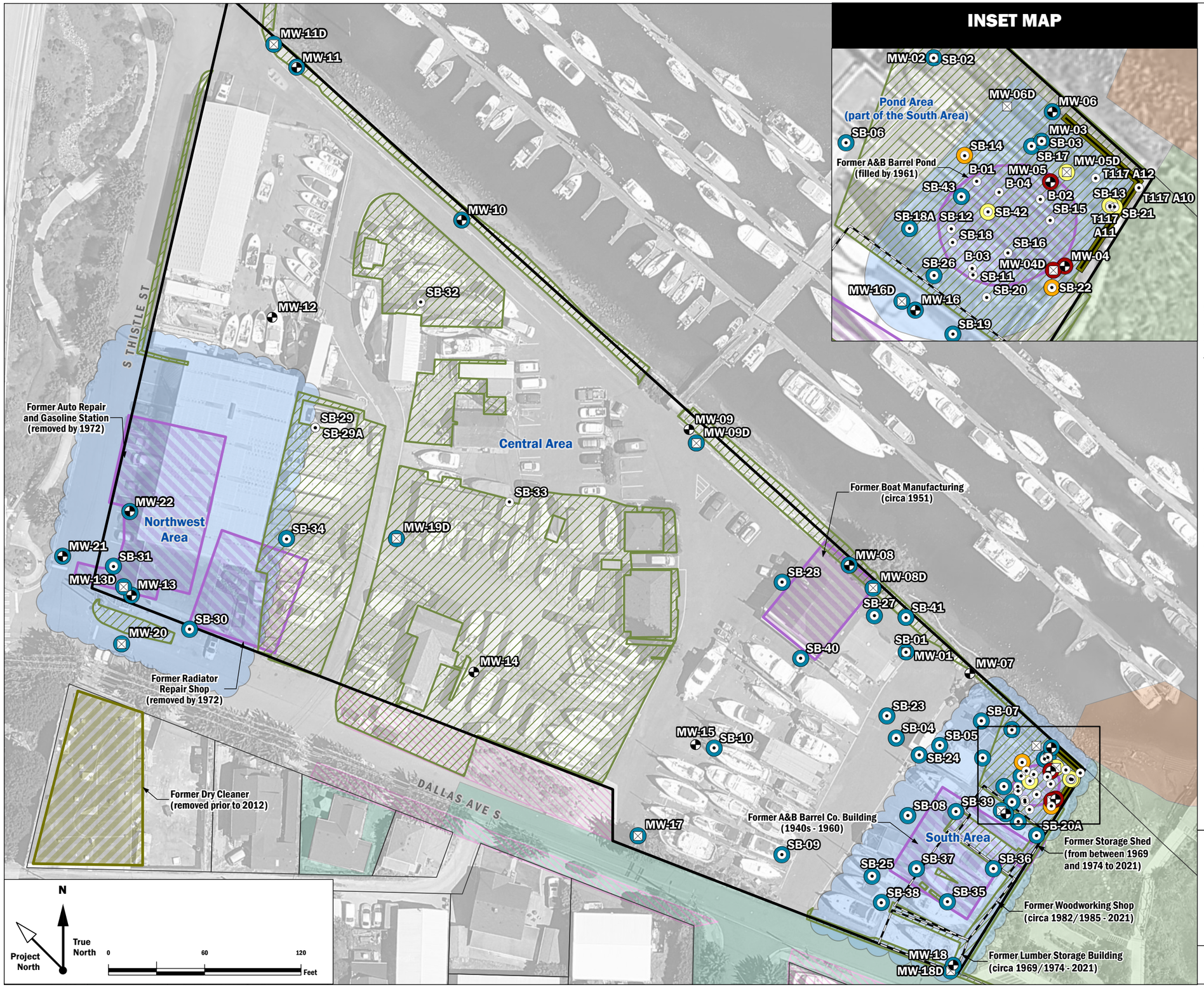
TPH-D+O	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3)	2,000
Terrestrial Ecological (SL-9)	6,000
10x Proposed RI CUL (SL-3)	20,000
100x Proposed RI CUL (SL-3)	200,000

TPH-D+O Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	DEC-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.4.A
	PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_Soil.aprx::7.4.A TPH Results in Vadose Soil || User: haileydolan || Print Date: 12/3/2025



INSET MAP

- TPH-D+0 was detected at a concentration equal to or greater than 200,000 mg/kg
- TPH-D+0 was detected at a concentration equal to or greater than 20,000 mg/kg and less than 200,000 mg/kg
- TPH-D+0 was detected at a concentration equal to or greater than 6,000 mg/kg and less than 20,000 mg/kg
- TPH-D+0 was detected at a concentration equal to or greater than 2,000 mg/kg and less than 6,000 mg/kg
- TPH-D+0 not detected and non-detect value greater than 2,000 mg/kg
- TPH-D+0 not detected or detected at a concentration less than 2,000 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- TPH-D+O = Diesel- and oil-range total petroleum hydrocarbons
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

TPH-D+O	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3)	2,000
Terrestrial Ecological (SL-9)	6,000
10x Proposed RI CUL (SL-3)	20,000
100x Proposed RI CUL (SL-3)	200,000

TPH-D+O Results in Saturated Zone Soil

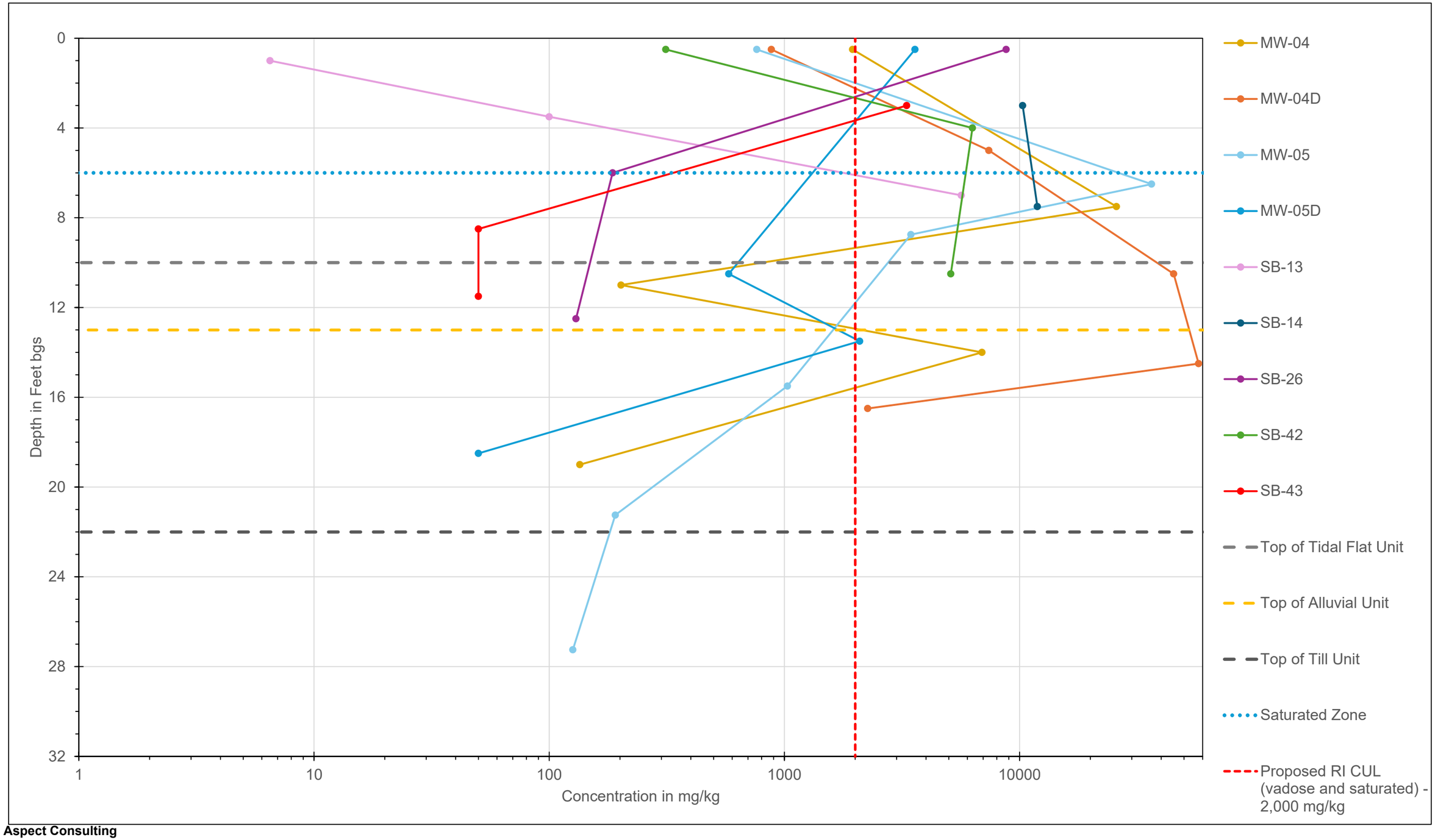
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	DEC-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.4.B
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.4.B TPH Results in Saturated Soil || User: hallyn@aspectconsulting.com || Print Date: 12/3/2025

Figure 7.4.C. Vertical Distribution of TPH D+O in the Pond Area
South Park Marina Site, Seattle, Washington



Aspect Consulting
12/9/2025
B:\25014 - Geosyntec - South Park Marina\Report Drafts\RI Report\Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.4.C
Remedial Investigation Report

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-11	Gasoline-Range Organics	0 – 1 ft	Fill	1.1

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-31	Gasoline-Range Organics	13 – 14.5 ft	Tidal Flat	180
SB-31	Gasoline-Range Organics	19 – 20 ft	Alluvial	2.7

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-32	Gasoline-Range Organics	4 – 5 ft	Fill	1.7

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-33	Gasoline-Range Organics	0 – 1 ft	Fill	1.6

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-27	Gasoline-Range Organics	0 – 1 ft	Fill	2.6

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-13	Gasoline-Range Organics	18 – 19.5 ft	Tidal Flat	2.4

INSET MAP

Pond Area (part of the South Area)

Former A&B Barrel Pond (filled by 1961)

Central Area

Northwest Area

South Area

Former Auto Repair and Gasoline Station (removed by 1972)

Former Radiator Repair Shop (removed by 1972)

Former Dry Cleaner (removed prior to 2012)

Former Boat Manufacturing (circa 1951)

Former A&B Barrel Co. Building (1940s - 1960)

Former Storage Shed (from between 1969 and 1974 to 2021)

Former Woodworking Shop (circa 1982/1985 - 2021)

Former Lumber Storage Building (circa 1969/1974 - 2021)

S THISTLE ST

DALLAS AVE S

- Both Key and Non-Key Site TPH COPCs Exceed Proposed RI CULs
- Only Key Site TPH COPCs Exceed Proposed RI CULs
- Only Non-Key Site TPH COPCs Exceed Proposed RI CULs
- No Site TPH COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 — Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*
- *SPU = Seattle Public Utilities*

Key TPH COPCs
TPH-D+O

Non-Key TPH COPCs - Proposed RI CULs in Soil - mg/kg		
	Vadose	Saturated
TPH-G	30	

N

Project North

True North

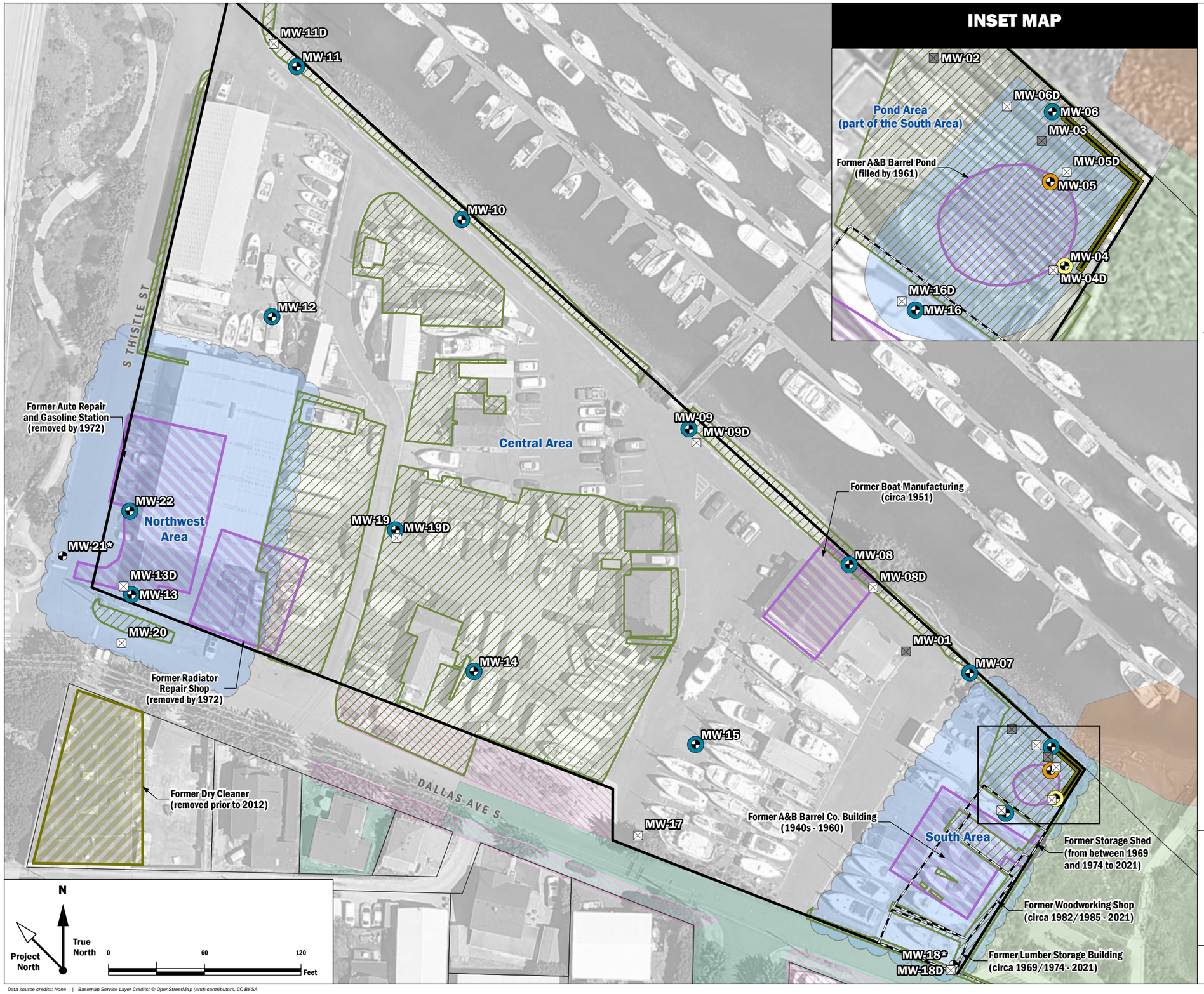
0 60 120 Feet

Non-Key TPH COPCs in Vadose and Saturated Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting | DEC-2025 | PROJECT # 190293 | BY JJP / AJY / NLK | REVISED BY HMD | FIGURE NO. 7.4.D

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA



INSET MAP

- TPH-D+O was detected at a concentration equal to or greater than 500,000 ug/L
- TPH-D+O was detected at a concentration equal to or greater than 50,000 ug/L and less than 500,000 ug/L
- TPH-D+O was detected at a concentration equal to or greater than 5,000 ug/L and less than 50,000 ug/L
- TPH-D+O was detected at a concentration equal to or greater than 500 ug/L and less than 5,000 ug/L
- TPH-D+O not detected and non-detect value greater than 500 ug/L
- TPH-D+O not detected or detected at a concentration less than 500 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- TPH-D+O = Diesel- and oil-range total petroleum hydrocarbons
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

TPH-D+O	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	500
10x Proposed RI CUL (GW-2)	5,000
100x Proposed RI CUL (GW-2)	50,000
1000x Proposed RI CUL (GW-2)	500,000

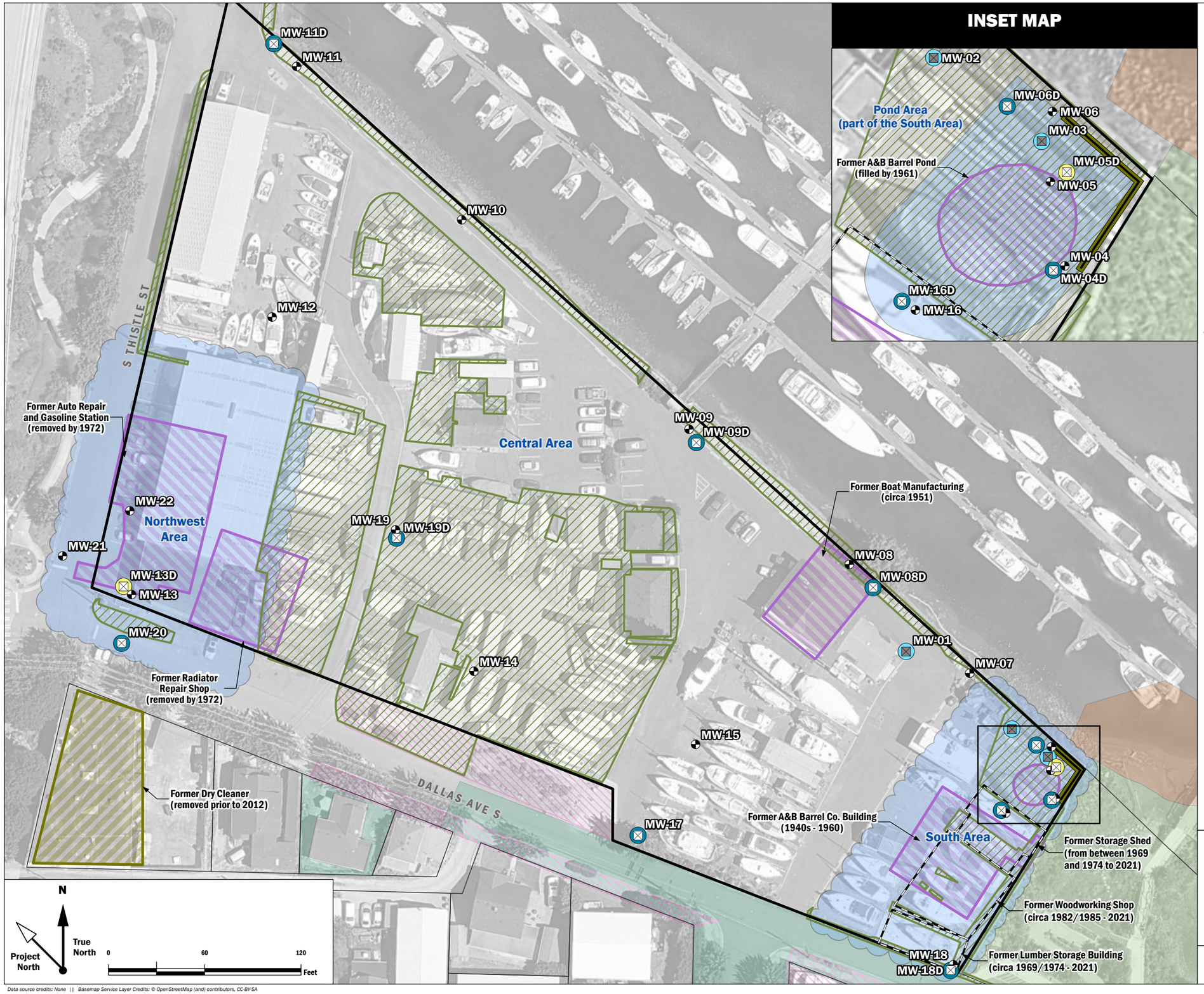
TPH-D+O Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.4.E
	PROJECT NO. 190293	REVISED BY: HMD	

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GIS Path: G:\Projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.4.E TPH Results in Fill Groundwater || User: haleyj\arcr || Print Date: 6/11/2025



TPH-D+O was detected at a concentration equal to or greater than 500,000 ug/L

TPH-D+O was detected at a concentration equal to or greater than 50,000 ug/L and less than 500,000 ug/L

TPH-D+O was detected at a concentration equal to or greater than 5,000 ug/L and less than 50,000 ug/L

TPH-D+O was detected at a concentration equal to or greater than 500 ug/L and less than 5,000 ug/L

TPH-D+O not detected and non-detect value greater than 500 ug/L

TPH-D+O not detected or detected at a concentration less than 500 ug/L

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- TPH-D+O = Diesel- and oil-range total petroleum hydrocarbons
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

TPH-D+O	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	500
10x Proposed RI CUL (GW-2)	5,000
100x Proposed RI CUL (GW-2)	50,000
1000x Proposed RI CUL (GW-2)	500,000

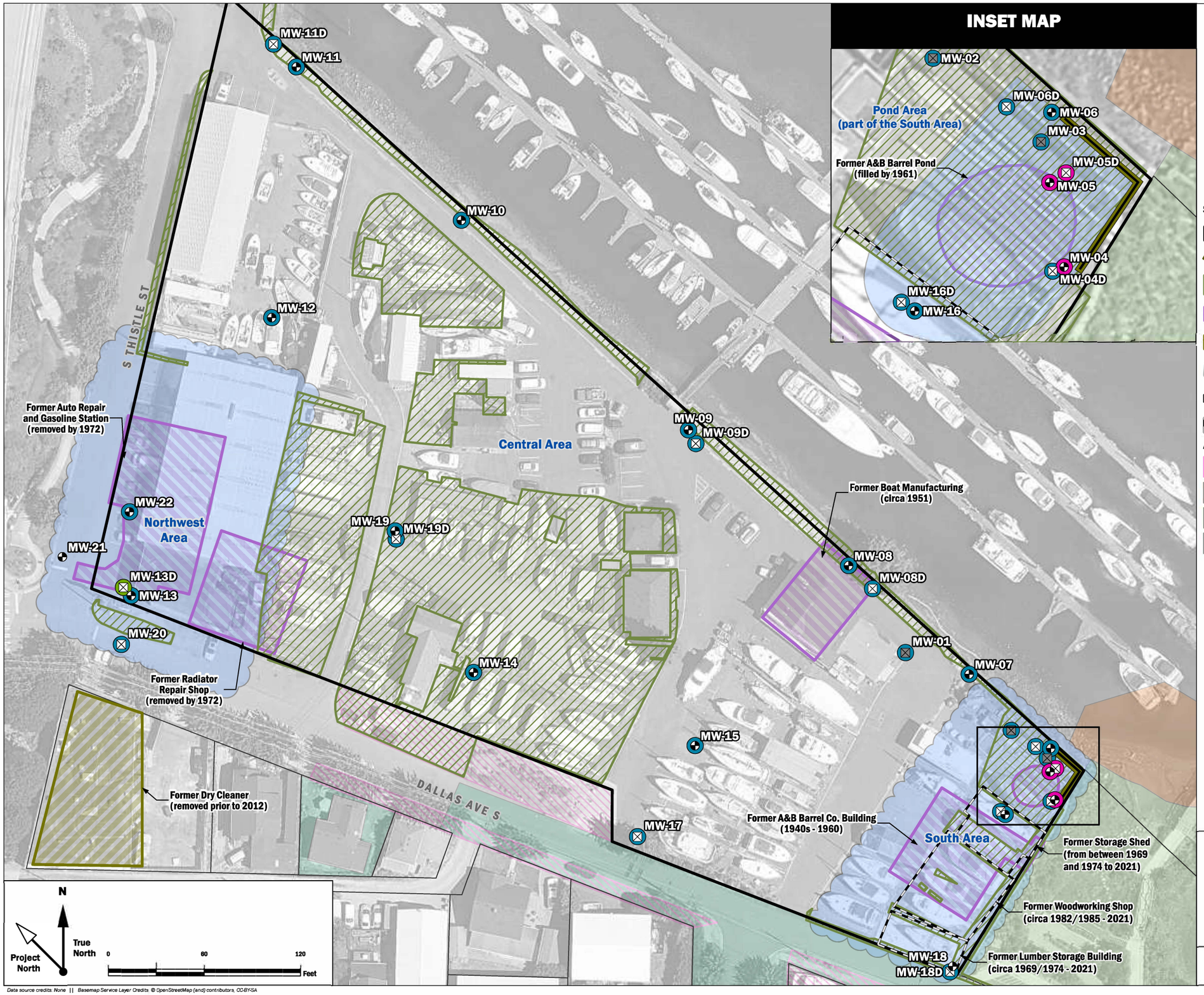
TPH-D+O Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.4.F
	PROJECT NO. 190293	REVISED BY: HMD	

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GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.4.F TPH Results in Alluvial Groundwater || User: haley.quinn || Print Date: 6/11/2025



Both Key and Non-Key Site TPH COPCs Exceed Proposed RI CULs

Only Key Site TPH COPCs Exceed Proposed RI CULs

Only Non-Key Site TPH COPCs Exceed Proposed RI CULs

No Site TPH COPCs (Key or Non-Key) Exceed Proposed RI CULs

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

MW-12
Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- TPH-D+O = Diesel- and oil-range total petroleum hydrocarbons
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
- COPC = chemical of potential concern
- Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.
- EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.
- SPU = Seattle Public Utilities

Key TPH COPCs
TPH-D+O

Non-Key TPH COPCs in Fill and Alluvial Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

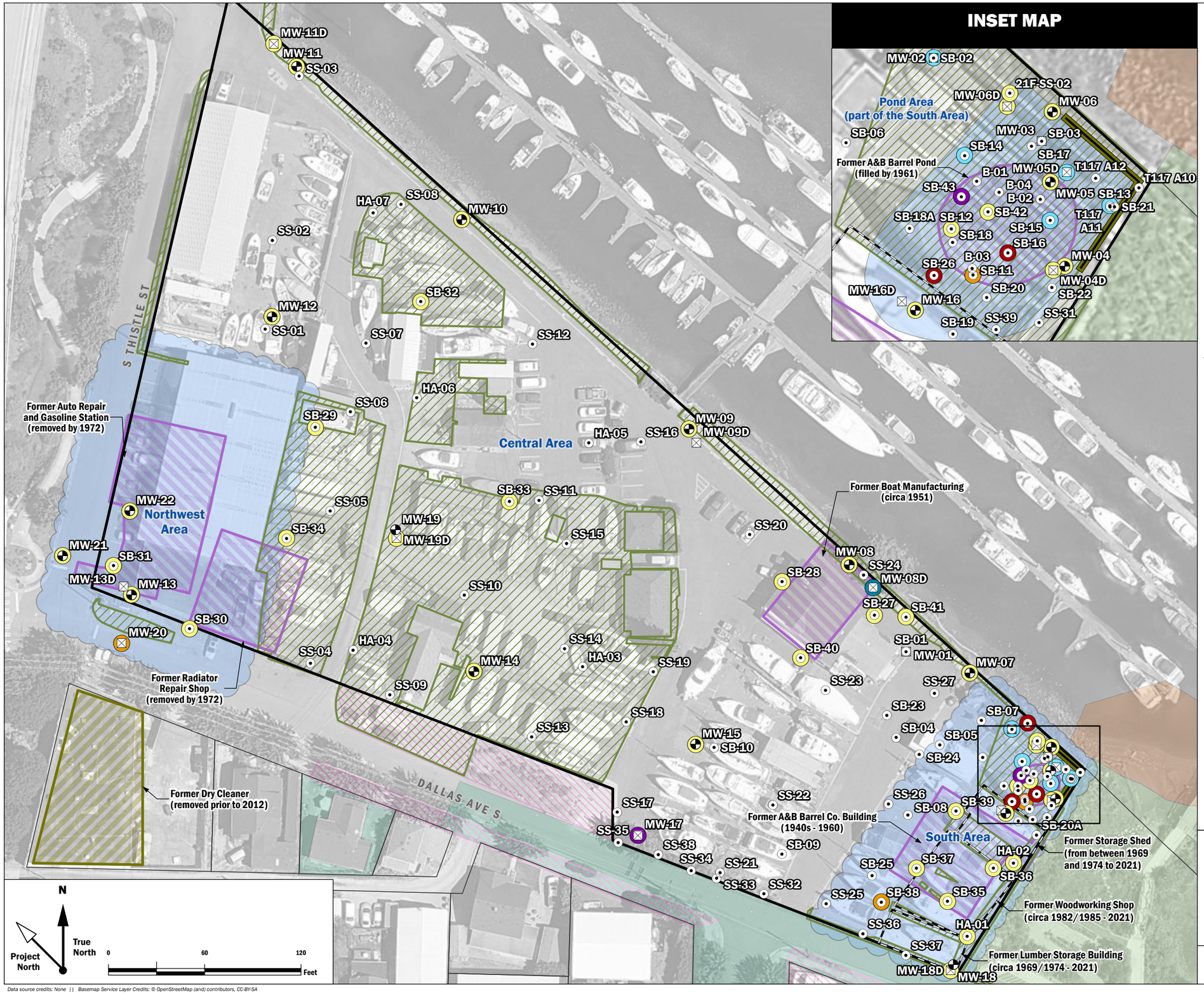
Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.4.G
	PROJECT NO. 190293	REVISED BY: HMD	

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GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_GW.aprx: 7.4.G Non-Key TPH COPCs in Fill and Alluvial Groundwater.jpg | User: haleyclarke | Print Date: 6/11/2025

FIGURES 7.5.A - 7.5.G

Key PAH COPC
Analytical Data Figures



INSET MAP

- Total cPAH TEQ was detected at a concentration equal to or greater than 0.76 mg/kg
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.34 mg/kg and less than 0.76 mg/kg
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.19 mg/kg and less than 0.34 mg/kg
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.00076 mg/kg and less than 0.19 mg/kg
- Total cPAH TEQ not detected and non-detect value greater than 0.00076 mg/kg
- Total cPAH TEQ not detected or detected at a concentration less than 0.00076 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 — Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Total cPAH TEQ (ND =1/2RDL) is the toxic equivalency of all carcinogenic polycyclic aromatic hydrocarbons calculated using one-half the reporting limit for non-detected components.*
- *Central Area includes the rest of the SPM Property that is not shaded.*

Total cPAH TEQ	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SI-3, PQL Adj.)	0.00076
Human Direct Contact (SL-1)	0.19
Area Background (AB)	0.34
1000x Proposed RI CUL (SI-3, PQL Adj.)	0.76

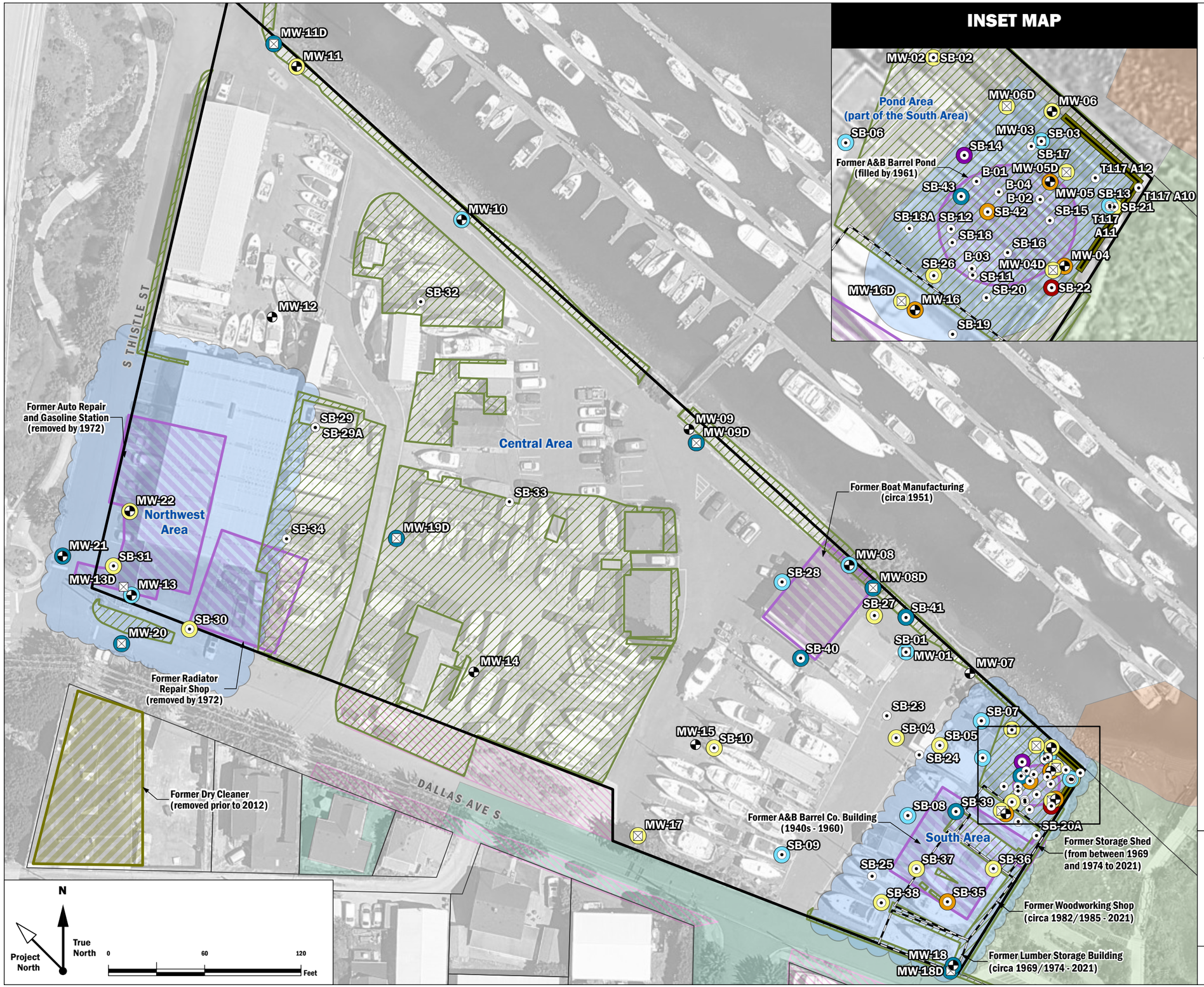
Total cPAH TEQ Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.5.A
	PROJECT NO. 190293	REVISED BY: HMD	

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GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil_agncr_7.5.A cPAHs Results in Vadose Soil || User: hdeyoung || Print Date: 6/11/2025



INSET MAP

- Total cPAH TEQ was detected at a concentration equal to or greater than 0.34 mg/kg
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.19 mg/kg and less than 0.34 mg/kg
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.03 mg/kg and less than 0.19 mg/kg
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.00076 mg/kg and less than 0.03 mg/kg
- Total cPAH TEQ not detected and non-detect value greater than 0.00076 mg/kg
- Total cPAH TEQ not detected or detected at a concentration less than 0.00076 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Total cPAH TEQ (ND =1/2RDL) is the toxic equivalency of all carcinogenic polycyclic aromatic hydrocarbons calculated using one-half the reporting limit for non-detected components.
- Central Area includes the rest of the SPM Property that is not shaded.

Total cPAH TEQ	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SI-3, PQL Adj.)	0.00076
Leaching of Soil Contaminants from Soil to Groundwater (SL-7)	0.03
Human Direct Contact (SL-1)	0.19
Area Background (AB)	0.34

Total cPAH TEQ Results in Saturated Zone Soil

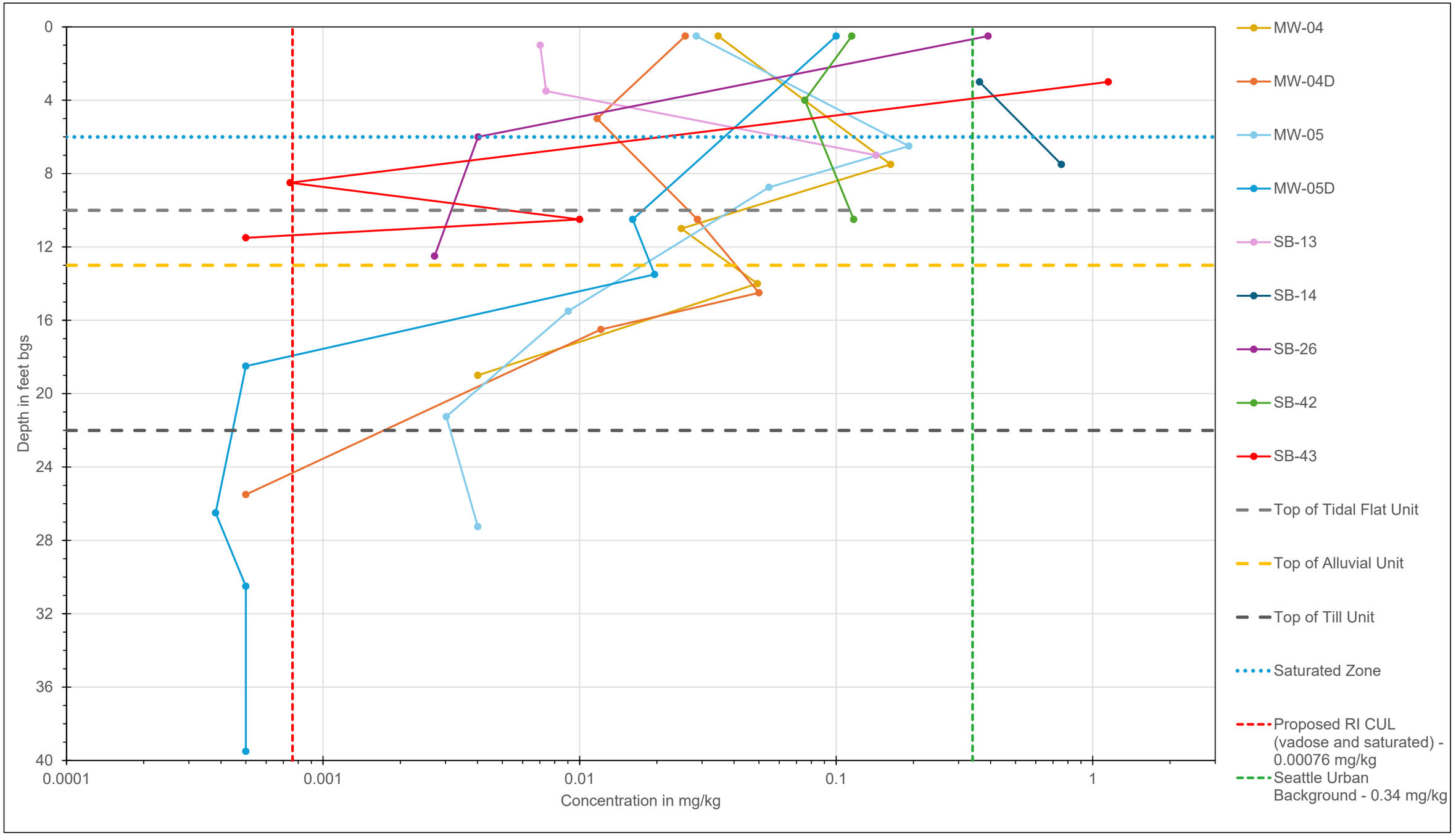
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.5.B
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

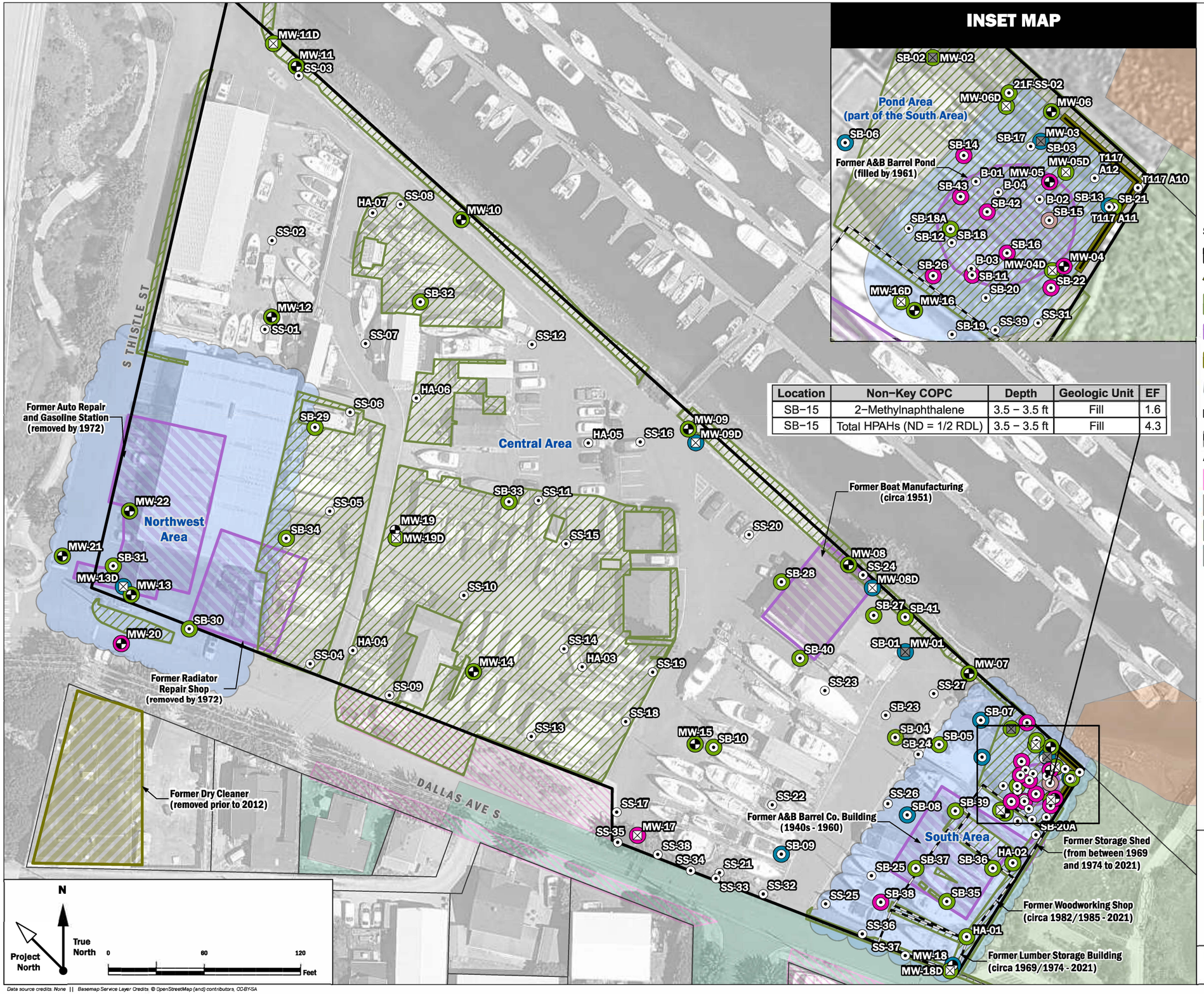
GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.5.B cPAHs Results in Saturated Soil || User: haileyjarum || Print Date: 6/11/2025

Figure 7.5.C. Vertical Distribution of Total cPAHs TEQ in the Pond Area
South Park Marina Site, Seattle, Washington



Aspect Consulting
4/5/2025
S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.5.C
Remedial Investigation Report



Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-15	2-Methylnaphthalene	3.5 - 3.5 ft	Fill	1.6
SB-15	Total HPAHs (ND = 1/2 RDL)	3.5 - 3.5 ft	Fill	4.3

Both Key and Non-Key Site PAH COPCs Exceed Proposed RI CULs

Only Key Site PAH COPCs Exceed Proposed RI CULs

Only Non-Key Site PAH COPCs Exceed Proposed RI CULs

No Site PAH COPCs (Key or Non-Key) Exceed Proposed RI CULs

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

MW-12 *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*
- *SPU = Seattle Public Utilities*

Key PAH COPCs		
Total cPAHs TEQ		
Non-Key PAH COPCs - Proposed RI CULs in Soil - mg/kg		
	Vadose	Saturated
2-methylnaphthalene	0.67	
Total HPAHs	1.1	

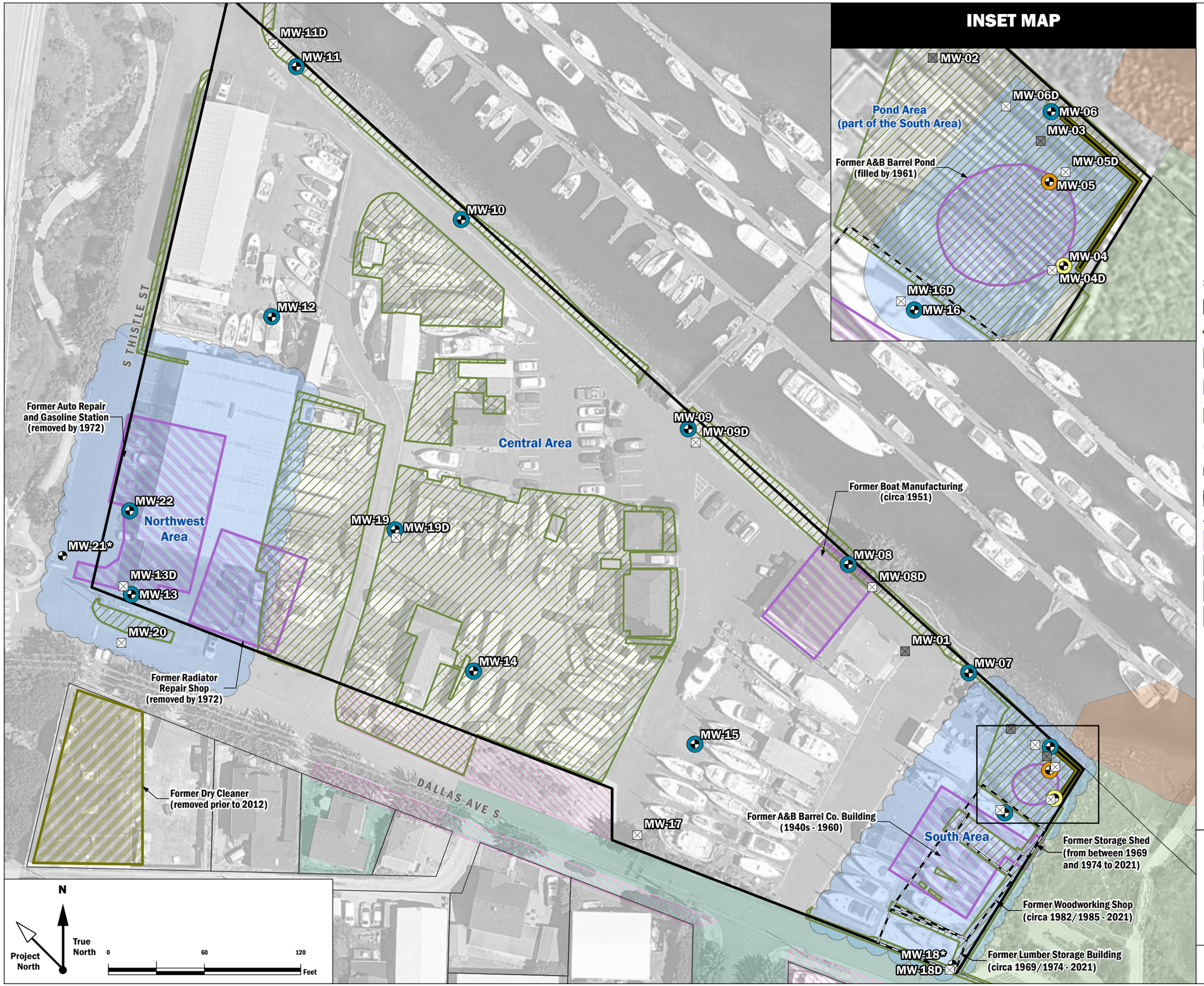
Non-Key PAH COPCs in Vadose and Saturated Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting			
	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.5.D
	PROJECT NO. 190293	REVISED BY: HMD	

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GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Proj\SPM_Phase2_RI_Soil.aprx: 7.5.D Non-Key PAH COPCs in Soil || User: haley.duten || Print Date: 6/11/2025



INSET MAP

- Total cPAH TEQ was detected at a concentration equal to or greater than 1.5 ug/L
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.15 ug/L and less than 1.5 ug/L
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.032 ug/L and less than 0.15 ug/L
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.015 ug/L and less than 0.032 ug/L
- Total cPAH TEQ not detected and non-detect value greater than 0.015 ug/L
- Total cPAH TEQ not detected or detected at a concentration less than 0.015 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 — *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Total cPAH TEQ (ND =1/2RDL) is the toxic equivalency of all carcinogenic polycyclic aromatic hydrocarbons calculated using one-half the reporting limit for non-detected components.
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

Total cPAH TEQ	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.015
Protection of Sediment (GW-3)	0.032
10x Proposed RI CUL (GW-2, PQL Adj.)	0.15
100x Proposed RI CUL (GW-2, PQL Adj.)	1.5

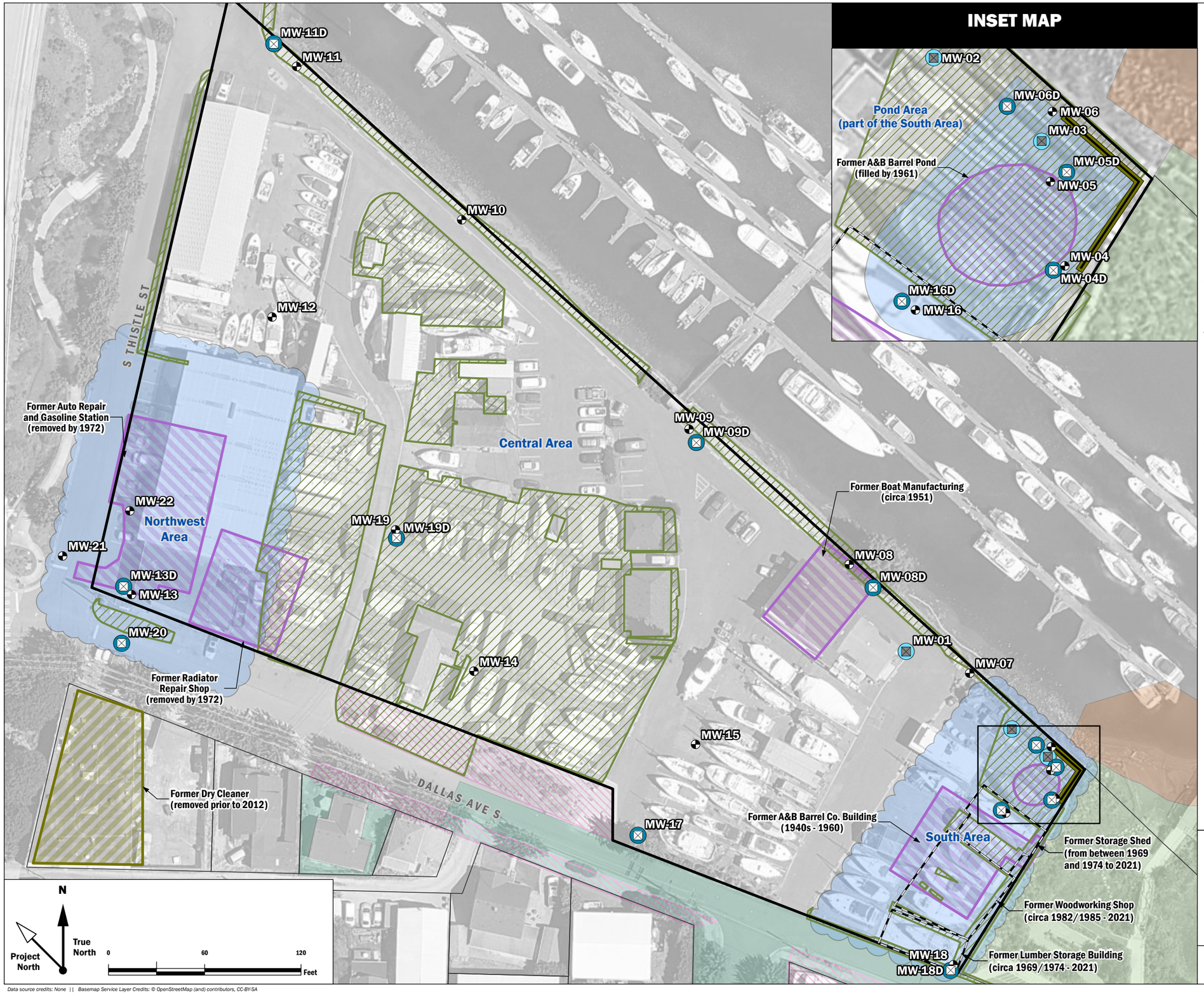
Total cPAH TEQ Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.5.E
	PROJECT NO. 190293	REVISED BY: HMD	

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GIS Path: G:\Projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx-7.5.E cPAHs Results in Fill Groundwater || User: hdeguzman || Print Date: 6/11/2025



INSET MAP

- Total cPAH TEQ was detected at a concentration equal to or greater than 1.5 ug/L
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.15 ug/L and less than 1.5 ug/L
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.032 ug/L and less than 0.15 ug/L
- Total cPAH TEQ was detected at a concentration equal to or greater than 0.015 ug/L and less than 0.032 ug/L
- Total cPAH TEQ not detected and non-detect value greater than 0.015 ug/L
- Total cPAH TEQ not detected or detected at a concentration less than 0.015 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Total cPAH TEQ (ND =1/2RDL) is the toxic equivalency of all carcinogenic polycyclic aromatic hydrocarbons calculated using one-half the reporting limit for non-detected components.
- Central Area includes the rest of the SPM Property that is not shaded.

Total cPAH TEQ	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.015
Protection of Sediment (GW-3)	0.032
10x Proposed RI CUL (GW-2, PQL Adj.)	0.15
100x Proposed RI CUL (GW-2, PQL Adj.)	1.5

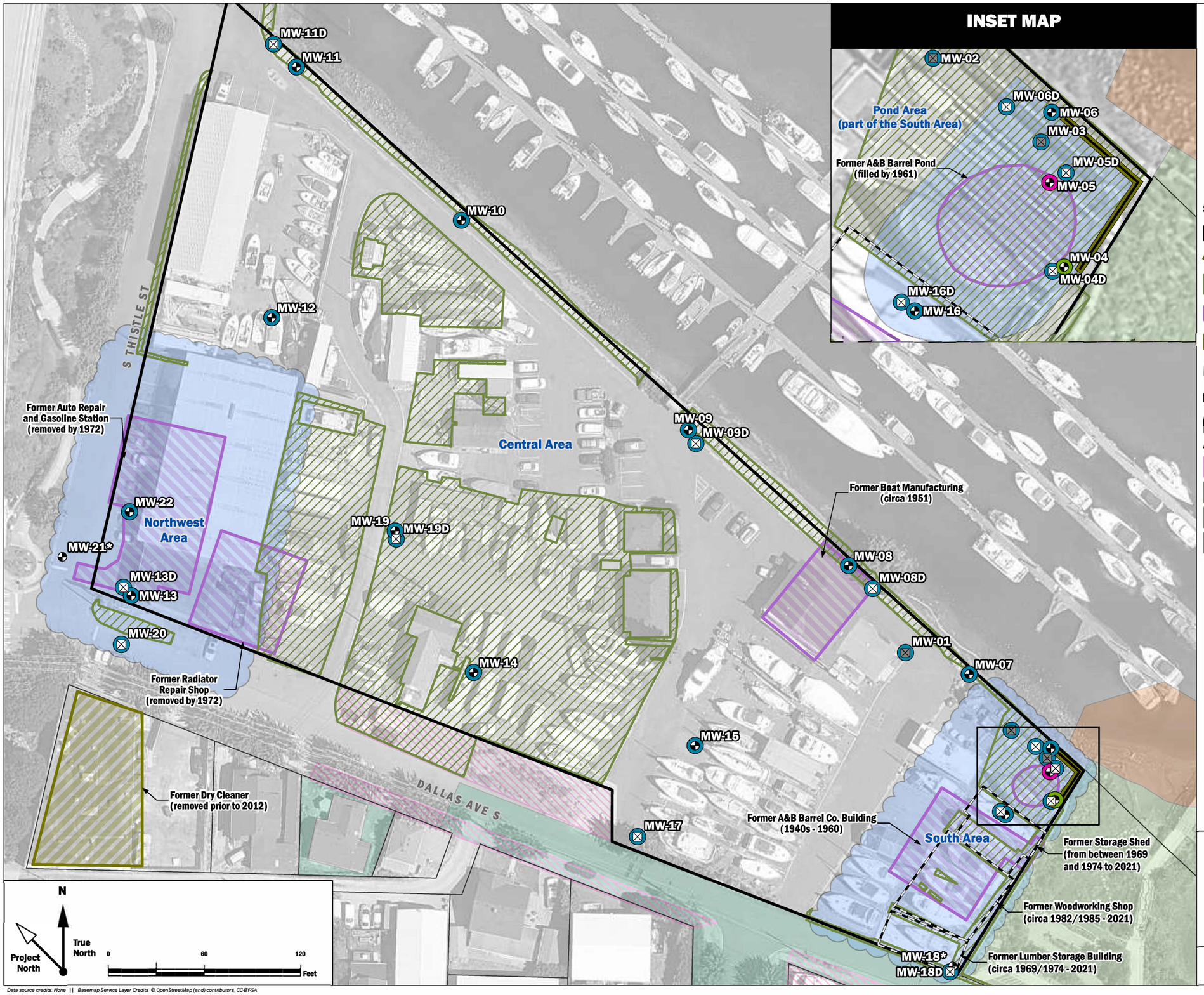
Total cPAH TEQ Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.5.F
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.5.F cPAHs Results in Alluvial Groundwater || User: hallen@aspectconsulting.com || Print Date: 6/11/2025



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- Both Key and Non-Key Site PAH COPCs Exceed Proposed RI CULs
- Only Key Site PAH COPCs Exceed Proposed RI CULs
- Only Non-Key Site PAH COPCs Exceed Proposed RI CULs
- No Site PAH COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 — Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Total cPAH TEQ (ND =1/2RDL) is the toxic equivalency of all carcinogenic polycyclic aromatic hydrocarbons calculated using one-half the reporting limit for non-detected components.
- Central Area includes the rest of the SPM Property that is not shaded.
- COPC = chemical of potential concern
- Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.
- EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.
- SPU = Seattle Public Utilities

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Key PAH COPCs
Total cPAHs TEQ

Non-Key PAH COPCs in Fill and Alluvial Groundwater

Remedial Investigation Report

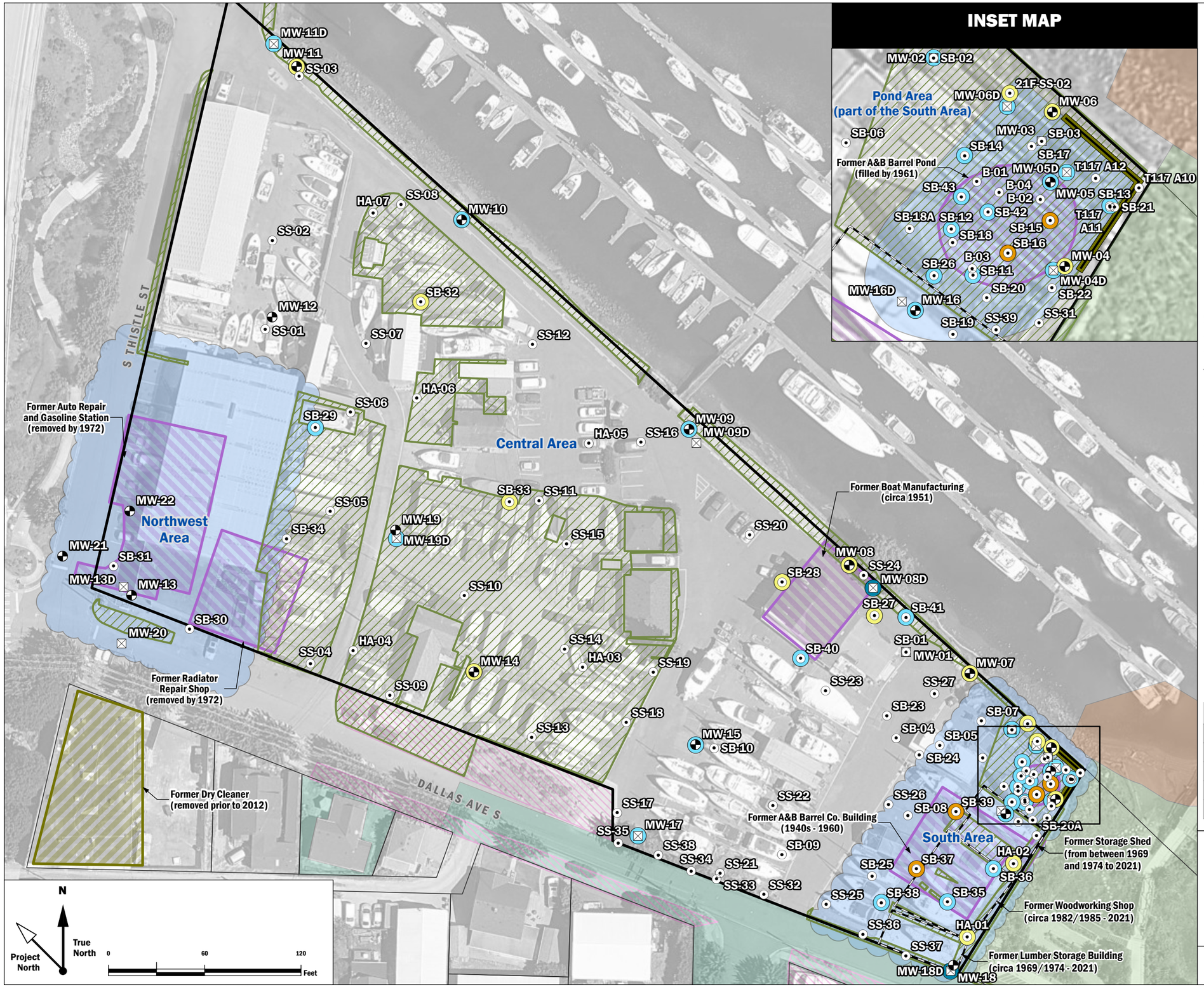
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.5.G
	PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_1902\93\Phase 2 RI Rpt\SPM_Phase2_RI_GW.aprx: 7.5.G Non-Key PAH COPCs in Fill and Alluvial Groundwater || User: hailey.darin || Print Date: 6/24/2025

FIGURES 7.6.A - 7.6.G

Key SVOC COPC
Analytical Data Figures



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

BEHP was detected at a concentration equal to or greater than 400 mg/kg

BEHP was detected at a concentration equal to or greater than 71 mg/kg and less than 400 mg/kg

BEHP was detected at a concentration equal to or greater than 1.3 mg/kg and less than 71 mg/kg

BEHP was detected at a concentration equal to or greater than 0.04 mg/kg and less than 1.3 mg/kg

BEHP not detected and non-detect value greater than 0.04 mg/kg

BEHP not detected or detected at a concentration less than 0.04 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- BEHP = Bis(2-ethylhexyl) phthalate
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

BEHP	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3)	0.04
Direct Erosion (SL-8)	1.3
Human Direct Contact (SL-1)	71
1000x Proposed RI CUL (SL-3, PQL Adj.)	400

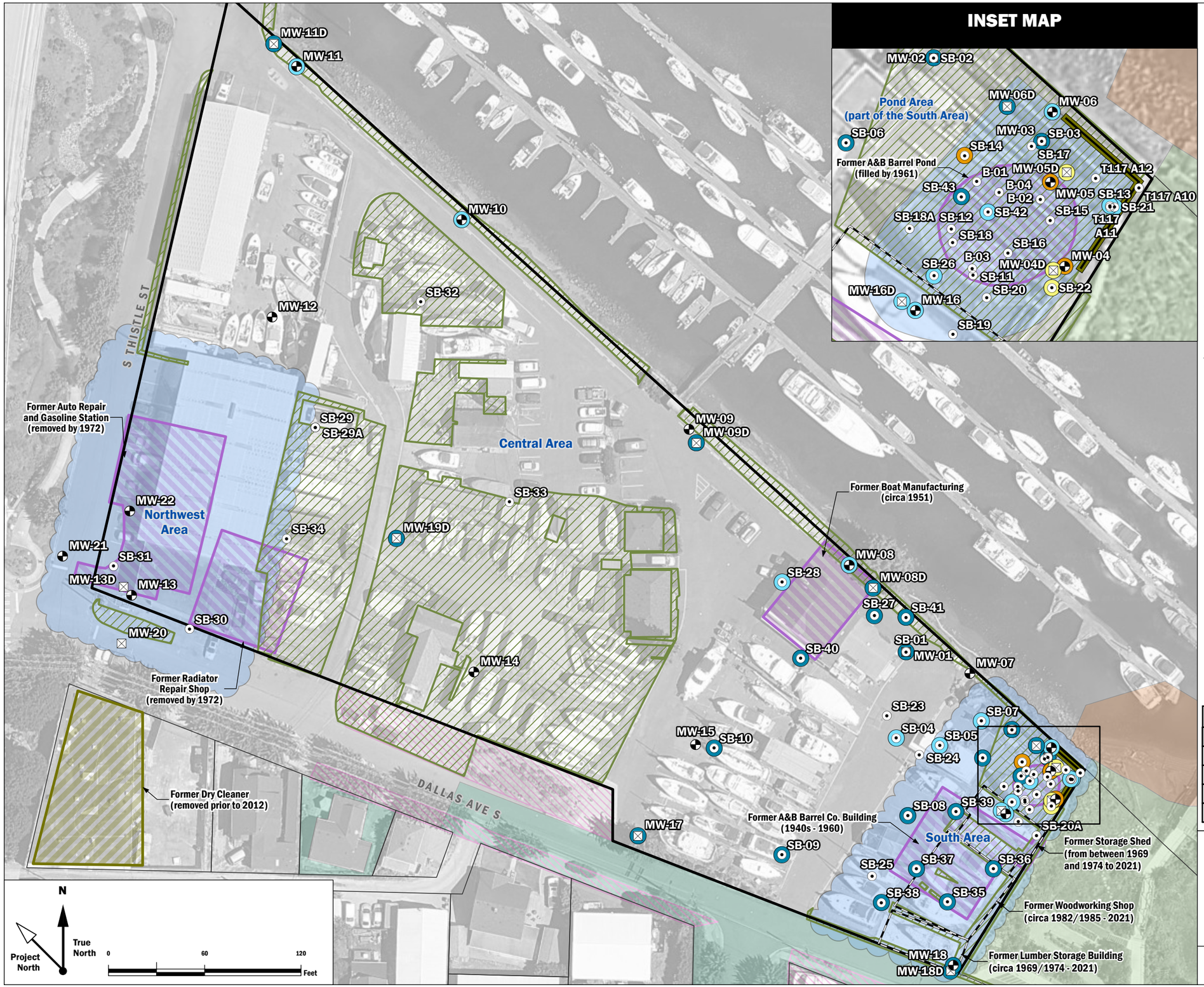
BEHP Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting

JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.6.A
PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx-7.6.A BEHP Results in Vadose Soil | User: haley.akrum || Print Date: 6/11/2025



BEHP was detected at a concentration equal to or greater than 400 mg/kg

BEHP was detected at a concentration equal to or greater than 71 mg/kg and less than 400 mg/kg

BEHP was detected at a concentration equal to or greater than 1.3 mg/kg and less than 71 mg/kg

BEHP was detected at a concentration equal to or greater than 0.04 mg/kg and less than 1.3 mg/kg

BEHP not detected and non-detect value greater than 0.04 mg/kg

BEHP not detected or detected at a concentration less than 0.04 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- BEHP = Bis(2-ethylhexyl) phthalate
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

BEHP	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-6, PQL Adj.)	0.04
Direct Erosion (SL-8)	1.3
Human Direct Contact (SL-1)	71
10000x Proposed RI CUL (SL-6, PQL Adj.)	400

BEHP Results in Saturated Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting

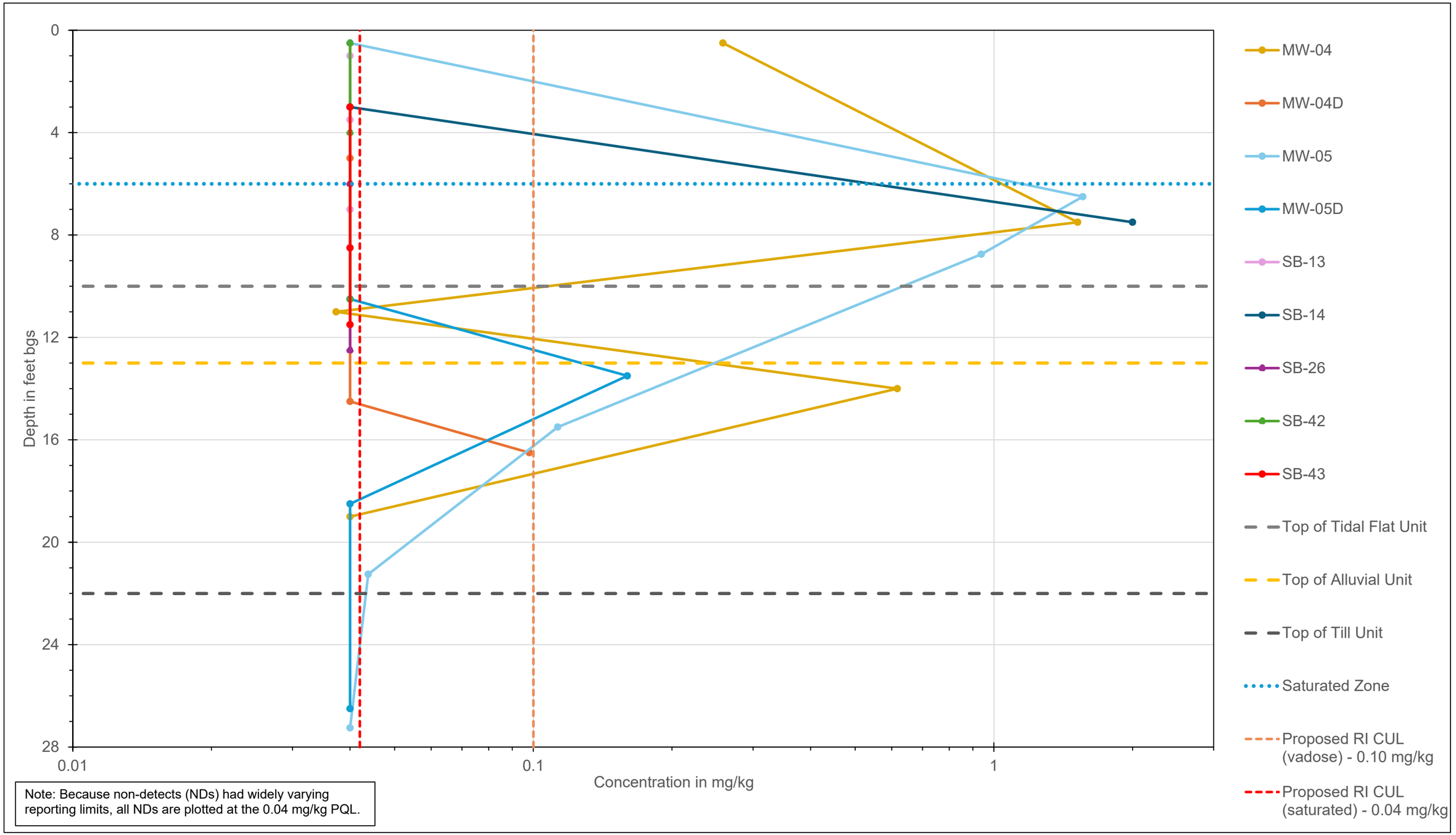
JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.6.B
PROJECT NO. 190293	REVISED BY: HMD	

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GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 PH Pro\SPM_Phase2_RI_Soil.aprx-7.6.B BEHP Results in Saturated Soil || User: hkhy/Jurian || Print Date: 6/11/2025

Figure 7.6.C. Vertical Distribution of BEHP in the Pond Area

South Park Marina Site, Seattle, Washington



Aspect Consulting

4/5/2025

S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.6.C

Remedial Investigation Report

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-42	Dimethyl phthalate	0 – 1 ft	Fill	11
SB-42	Pentachlorophenol	0 – 1 ft	Fill	1.1

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-12	Dimethyl phthalate	1.5 – 2 ft	Fill	3.2
SB-12	Pentachlorophenol	1.5 – 2 ft	Fill	7.8

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-11	Benzyl butyl phthalate	2.5 – 2.75 ft	Fill	35
SB-11	Pentachlorophenol	2.5 – 2.75 ft	Fill	6.4

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-16	Pentachlorophenol	0 – 1 ft	Fill	8.1
MW-16	Di-n-butyl phthalate	1.5 – 2 ft	Fill	140
MW-16	Pentachlorophenol	1.5 – 2 ft	Fill	39

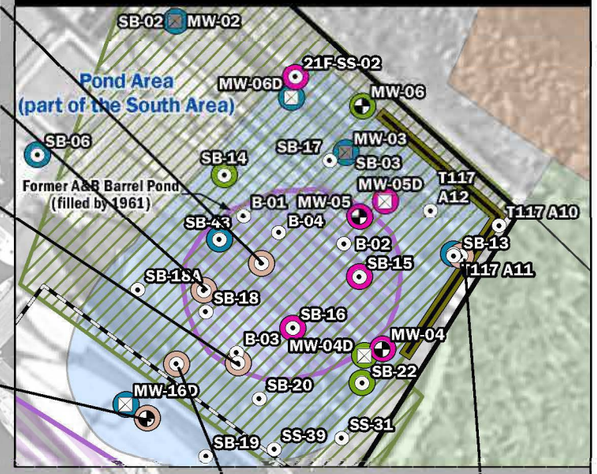
Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-26	Di-n-butyl phthalate	0 – 1 ft	Fill	4.5
SB-26	N-Nitrosodiphenylamine	0 – 1 ft	Fill	1.8
SB-26	Pentachlorophenol	0 – 1 ft	Fill	1.2

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-21	2,4-Dinitrophenol	9 – 9 ft	--	31

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-15	Di-n-butyl phthalate	0 – 1 ft	Fill	8.9

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-36	Pentachlorophenol	0 – 1 ft	Fill	1.6

INSET MAP



Both Key and Non-Key Site SVOC COPCs Exceed Proposed RI CULs

Only Key Site SVOC COPCs Exceed Proposed RI CULs

Only Non-Key Site SVOC COPCs Exceed Proposed RI CULs

No Site SVOC COPCs (Key or Non-Key) Exceed Proposed RI CULs

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

MW-12
Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*
- *SPU = Seattle Public Utilities*

Key SVOC COPCs
BEHP

Non-Key SVOC COPCs - Proposed RI CULs in Soil - mg/kg		
	Vadose	Saturated
2,4-Dinitrophenol	0.075	
Benzyl butyl phthalate	0.063	
Di-n-butyl phthalate	0.025	
Dimethyl phthalate	0.071	
N-Nitrosodiphenylamine	0.028	
Pentachlorophenol	0.36	

Non-Key SVOC COPCs in Vadose and Saturated Soil

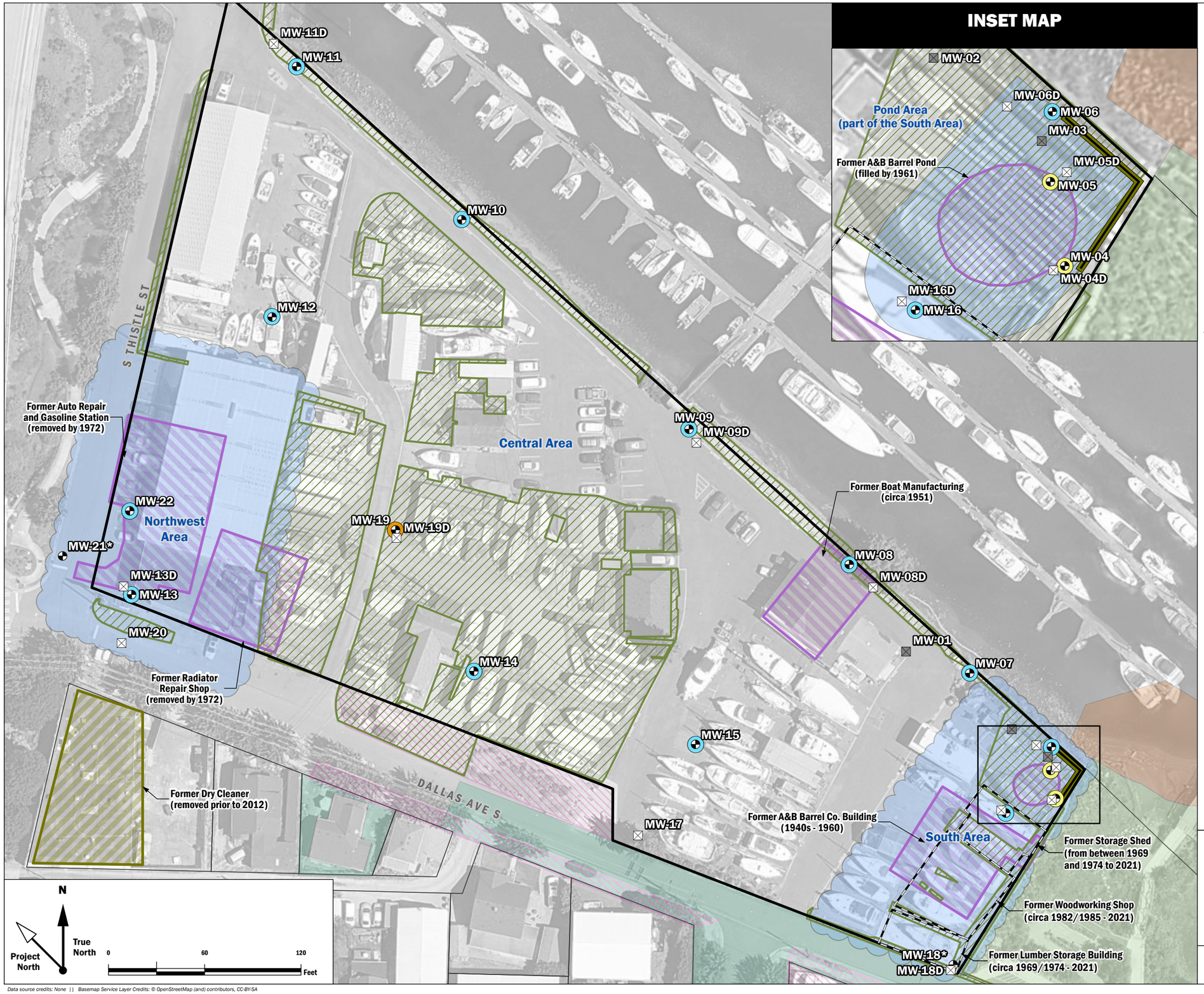
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	DEC-2025	JJP / AJY / NLK	FIGURE NO. 7.6.D
	PROJECT NO 190293	REVISED BY HMD	

N
Project North
True North
0 60 120 Feet

Former Auto Repair and Gasoline Station (removed by 1972)
Former Radiator Repair Shop (removed by 1972)
Former Dry Cleaner (removed prior to 2012)
Former Boat Manufacturing (circa 1951)
Former A&B Barrel Co. Building (1940s - 1960)
Former Storage Shed (from between 1969 and 1974 to 2021)
Former Woodworking Shop (circa 1982/1985 - 2021)
Former Lumber Storage Building (circa 1969/1974 - 2021)
Central Area
Northwest Area
South Area
S THISTLE ST
DALLAS AVE S

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA



INSET MAP

- BEHP was detected at a concentration equal to or greater than 20 ug/L
- BEHP was detected at a concentration equal to or greater than 2 ug/L and less than 20 ug/L
- BEHP was detected at a concentration equal to or greater than 0.62 ug/L and less than 2 ug/L
- BEHP was detected at a concentration equal to or greater than 0.20 ug/L and less than 0.62 ug/L
- BEHP not detected and non-detect value greater than 0.2 ug/L
- BEHP not detected or detected at a concentration less than 0.2 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Label

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- BEHP = Bis(2-ethylhexyl) phthalate
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

Bis(2-ethylhexyl) phthalate	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.20
Protection of Sediment (GW-3)	0.62
10x Proposed RI CUL (GW-2, PQL Adj.)	2
100x Proposed RI CUL (GW-2, PQL Adj.)	20

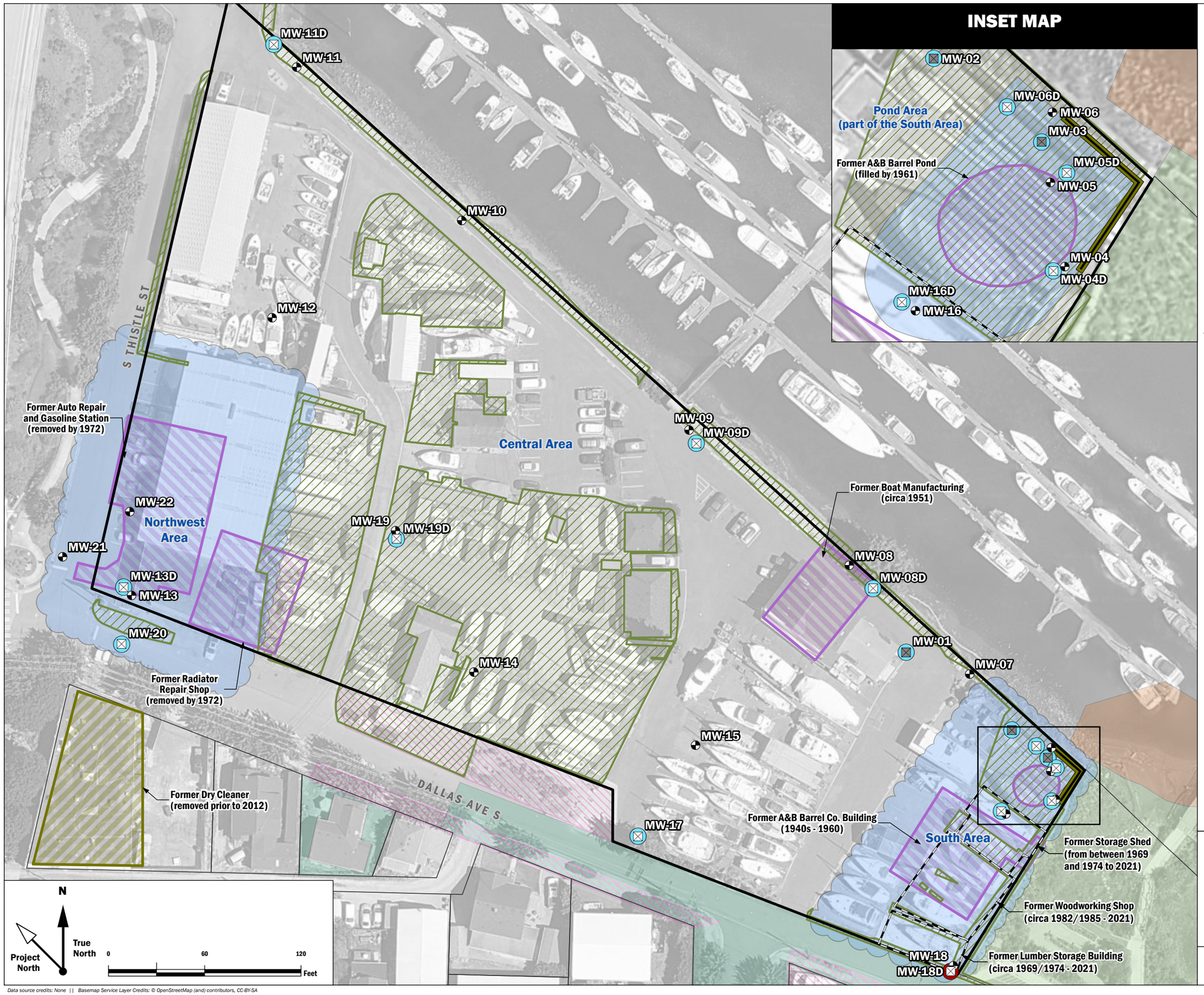
BEHP Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.6.E
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx-7.6.E BEHP Results in Fill Groundwater|| User: hehy.duran || Print Date: 6/11/2025



BEHP was detected at a concentration equal to or greater than 20 ug/L

BEHP was detected at a concentration equal to or greater than 2 ug/L and less than 20 ug/L

BEHP was detected at a concentration equal to or greater than 0.62 ug/L and less than 2 ug/L

BEHP was detected at a concentration equal to or greater than 0.20 ug/L and less than 0.62 ug/L

BEHP not detected and non-detect value greater than 0.20 ug/L

BEHP not detected or detected at a concentration less than 0.20 ug/L

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- BEHP = Bis(2-ethylhexyl) phthalate
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Bis(2-ethylhexyl) phthalate	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.20
Protection of Sediment (GW-3)	0.62
10x Proposed RI CUL (GW-2, PQL Adj.)	2
100x Proposed RI CUL (GW-2, PQL Adj.)	20

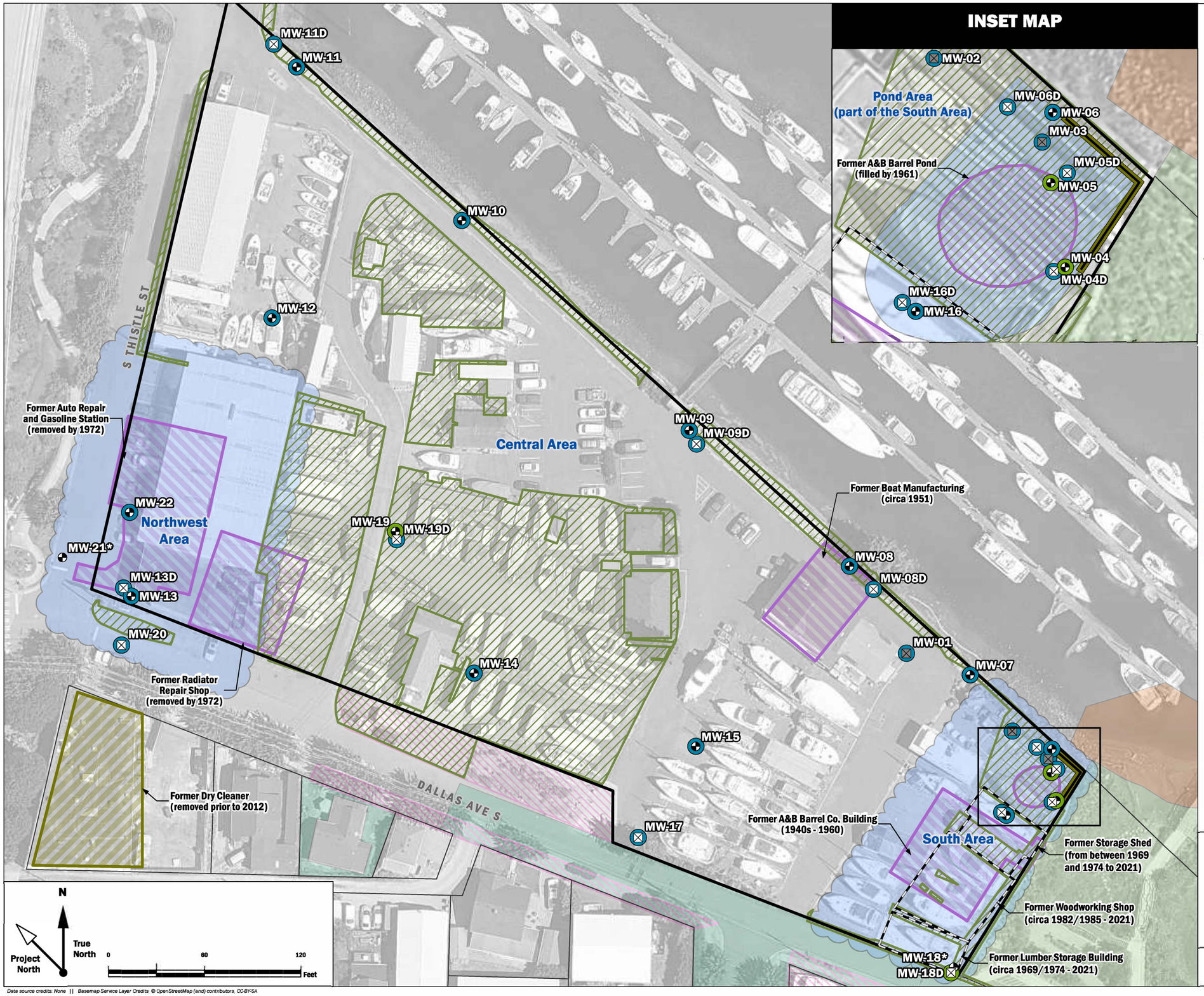
BEHP Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.6.F
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 PH Pro\SPM_Phase2_RI_GW.aprx-7.6.F BEHP Results in Alluvial Groundwater || User: hkeyduran || Print Date: 6/11/2025



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- Both Key and Non-Key Site SVOC COPCs Exceed Proposed RI CULs
- Only Key Site SVOC COPCs Exceed Proposed RI CULs
- Only Non-Key Site SVOC COPCs Exceed Proposed RI CULs
- No Site SVOC COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 — *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *BEHP = Bis(2-ethylhexyl) phthalate*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*
- *SPU = Seattle Public Utilities*

Key SVOC COPCs
BEHP

Non-Key SVOC COPCs in Fill and Alluvial Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.6.G
	PROJECT NO. 190293	REVISED BY: HMD	

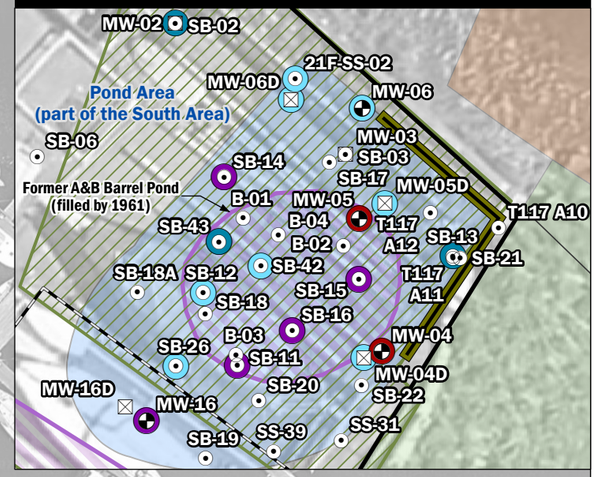
GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_GW.aprx: 7.6.G Non-Key SVOC COPCs in Fill and Alluvial Groundwater || User: hallyd.aspect || Print Date: 6/11/2025

FIGURES 7.7.A - 7.7.Q

Key Pesticide COPC
Analytical Data Figures

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.7A Aldrin Results in Vadose Soil || User: haley.duran || Print Date: 6/19/2025

INSET MAP



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- Aldrin was detected at a concentration equal to or greater than 0.1 mg/kg
- Aldrin was detected at a concentration equal to or greater than 0.059 mg/kg and less than 0.1 mg/kg
- Aldrin was detected at a concentration equal to or greater than 0.017 mg/kg and less than 0.059 mg/kg
- Aldrin was detected at a concentration equal to or greater than 0.0017 mg/kg and less than 0.017 mg/kg
- Aldrin not detected and non-detect value greater than 0.0017 mg/kg
- Aldrin not detected or detected at a concentration less than 0.0017 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 — Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

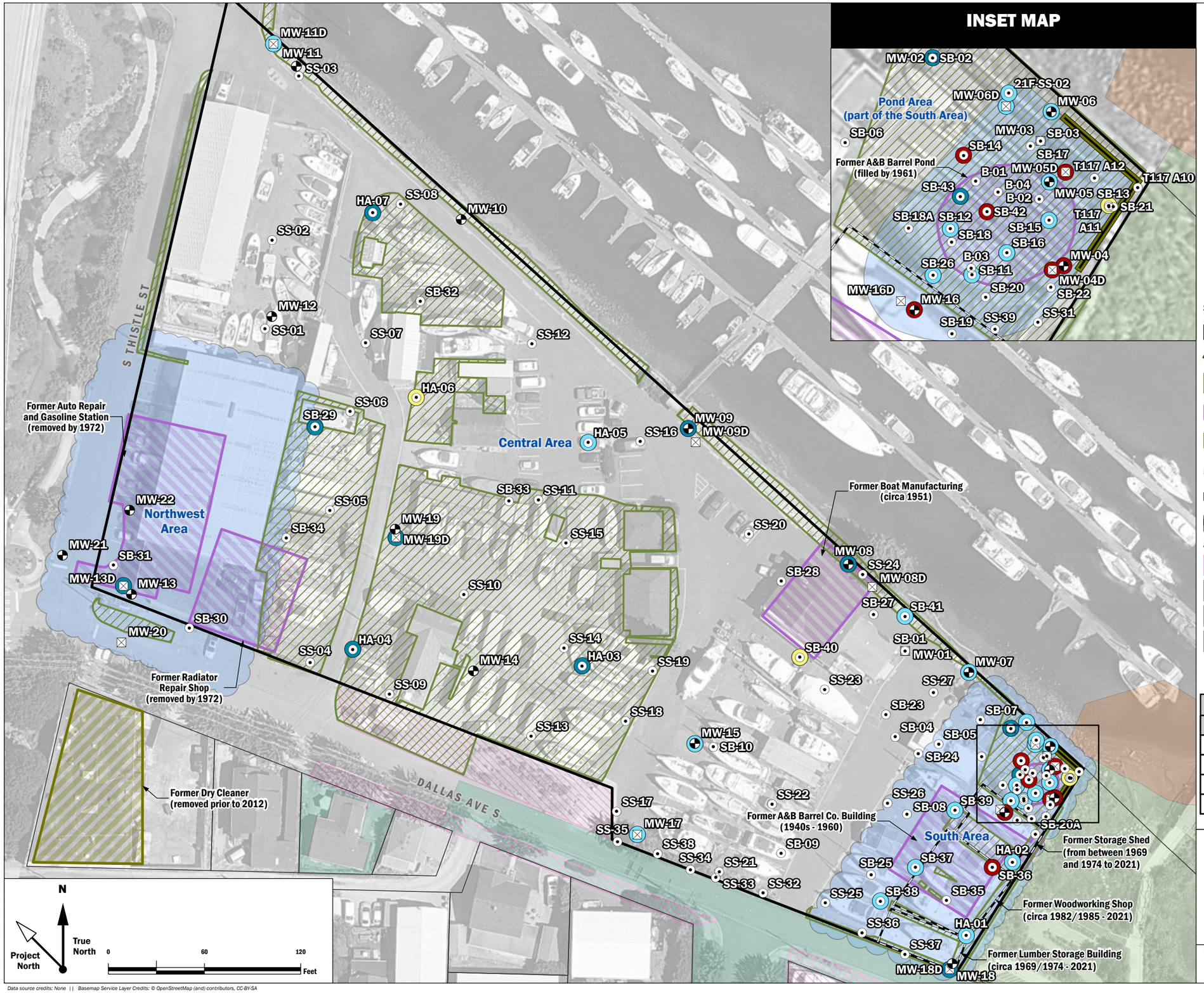
Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*

Aldrin	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3, PQL Adj.)	0.0017
Direct Erosion (SL-8)	0.017
Leaching of Soil Contaminants from Soil to Groundwater (SL-4)	0.059
Human Direct Contact (SL-1)	0.1

Aldrin Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.7.A
	PROJECT NO. 190293	REVISED BY: HMD	



Dieldrin was detected at a concentration equal to or greater than 1 mg/kg

Dieldrin was detected at a concentration equal to or greater than 0.1 mg/kg and less than 1 mg/kg

Dieldrin was detected at a concentration equal to or greater than 0.063 mg/kg and less than 0.1 mg/kg

Dieldrin was detected at a concentration equal to or greater than 0.001 mg/kg and less than 0.063 mg/kg

Dieldrin not detected and non-detect value greater than 0.001 mg/kg

Dieldrin not detected or detected at a concentration less than 0.001 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

MW-12
Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
- Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.
- EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.

Dieldrin	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3, PQL Adj.)	0.001
Direct Erosion (SL-8)	0.063
Human Direct Contact (SL-1)	0.1
100x Proposed RI CUL (SL-3, PQL Adj.)	1

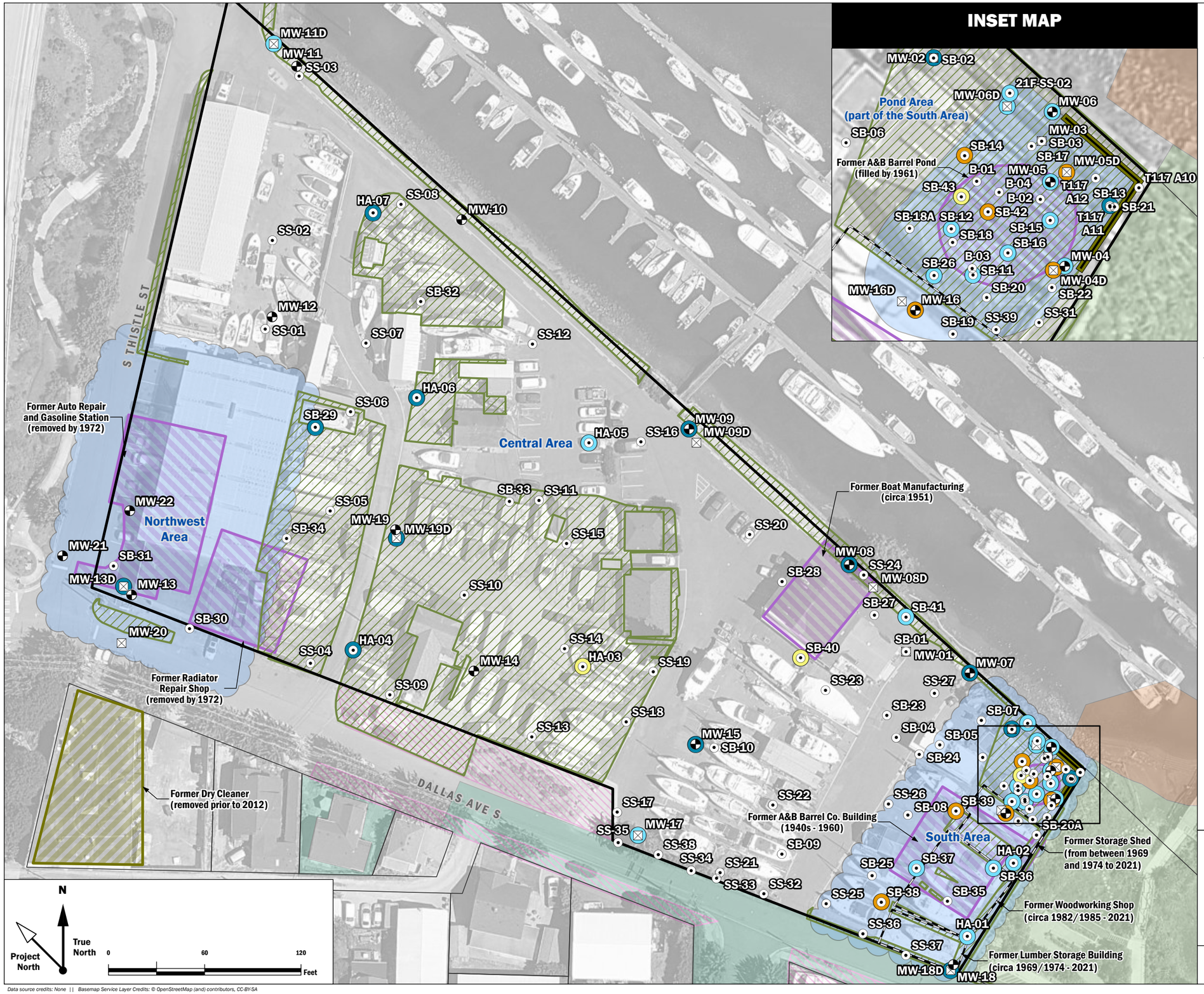
Dieldrin Results in Vadose Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.7.B
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase2 RI Pro\SPM_Phase2_RI_Soil.aprx | Layer: 7.7B Dieldrin Results in Vadose Soil | Print Date: 6/11/2025



4,4'-DDE was detected at a concentration equal to or greater than 2.9 mg/kg

4,4'-DDE was detected at a concentration equal to or greater than 0.75 mg/kg and less than 2.9 mg/kg

4,4'-DDE was detected at a concentration equal to or greater than 0.01 mg/kg and less than 0.75 mg/kg

4,4'-DDE was detected at a concentration equal to or greater than 0.001 mg/kg and less than 0.01 mg/kg

4,4'-DDE not detected and non-detect value greater than 0.001 mg/kg

4,4'-DDE not detected or detected at a concentration less than 0.001 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

4,4'-DDE	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3, PQL Adj.)	0.001
10x Proposed RI CUL (SL-3, PQL Adj.)	0.01
Terrestrial Ecological Receptor (SL-9)	0.75
Human Direct Contact (SL-1)	2.9

4,4'-DDE Results in Vadose Zone Soil

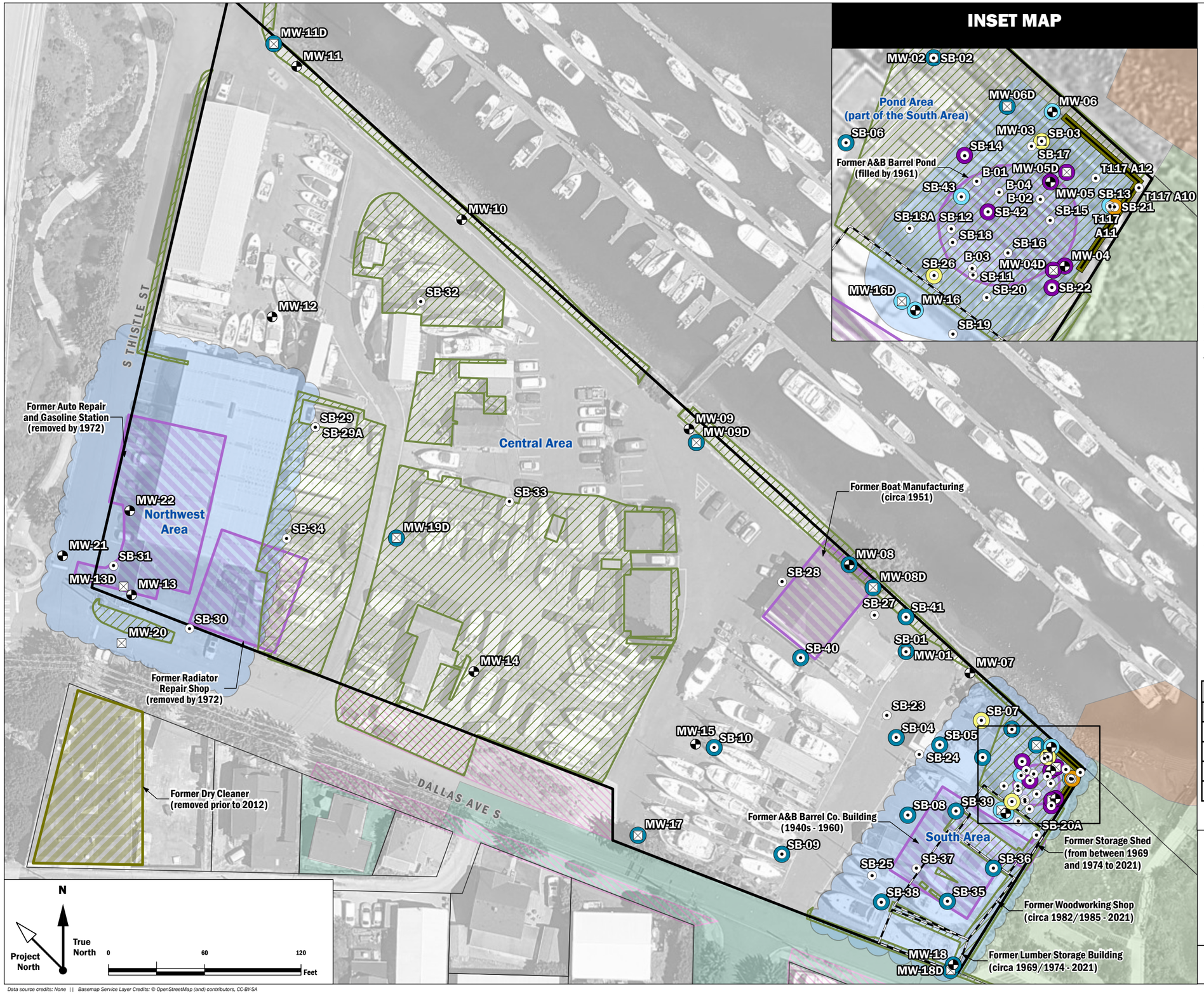
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting

JAN-2026	JJP / AJY / NLK	FIGURE NO. 7.7.C
PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.7C-4,4'-DDE Results in Vadose Zone Soil || User: haley.duron || Print Date: 1/8/2026



Aldrin was detected at a concentration equal to or greater than 0.1 mg/kg

Aldrin was detected at a concentration equal to or greater than 0.059 mg/kg and less than 0.1 mg/kg

Aldrin was detected at a concentration equal to or greater than 0.017 mg/kg and less than 0.059 mg/kg

Aldrin was detected at a concentration equal to or greater than 0.0017 mg/kg and less than 0.017 mg/kg

Aldrin not detected and non-detect value greater than 0.0017 mg/kg

Aldrin not detected or detected at a concentration less than 0.0017 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

MW-12
Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
- Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.
- EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.

Aldrin	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3, PQL Adj.)	0.0017
Direct Erosion (SL-8)	0.017
Human Direct Contact (SL-1)	0.059
100x Proposed RI CUL (SL-3, PQL Adj.)	0.1

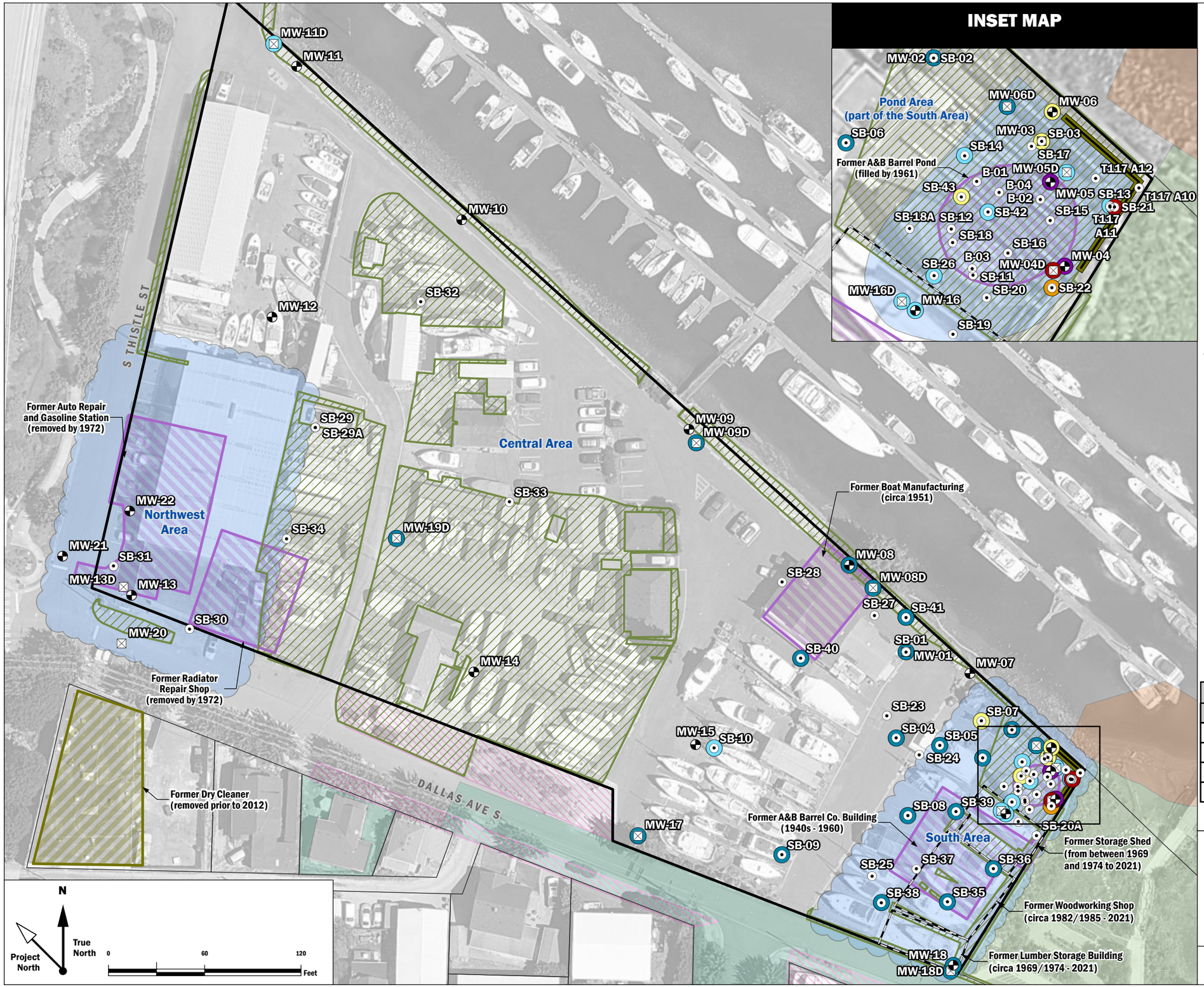
Aldrin Results in Saturated Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect CONSULTING	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.7.D
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.7D Aldrin Results in Saturated Soil || User: hkley/ajray || Print Date: 6/11/2025



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- Dieldrin was detected at a concentration equal to or greater than 1 mg/kg
- Dieldrin was detected at a concentration equal to or greater than 0.1 mg/kg and less than 1 mg/kg
- Dieldrin was detected at a concentration equal to or greater than 0.063 mg/kg and less than 0.1 mg/kg
- Dieldrin was detected at a concentration equal to or greater than 0.001 mg/kg and less than 0.063 mg/kg
- Dieldrin not detected and non-detect value greater than 0.001 mg/kg
- Dieldrin not detected or detected at a concentration less than 0.001 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
- Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.
- EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.

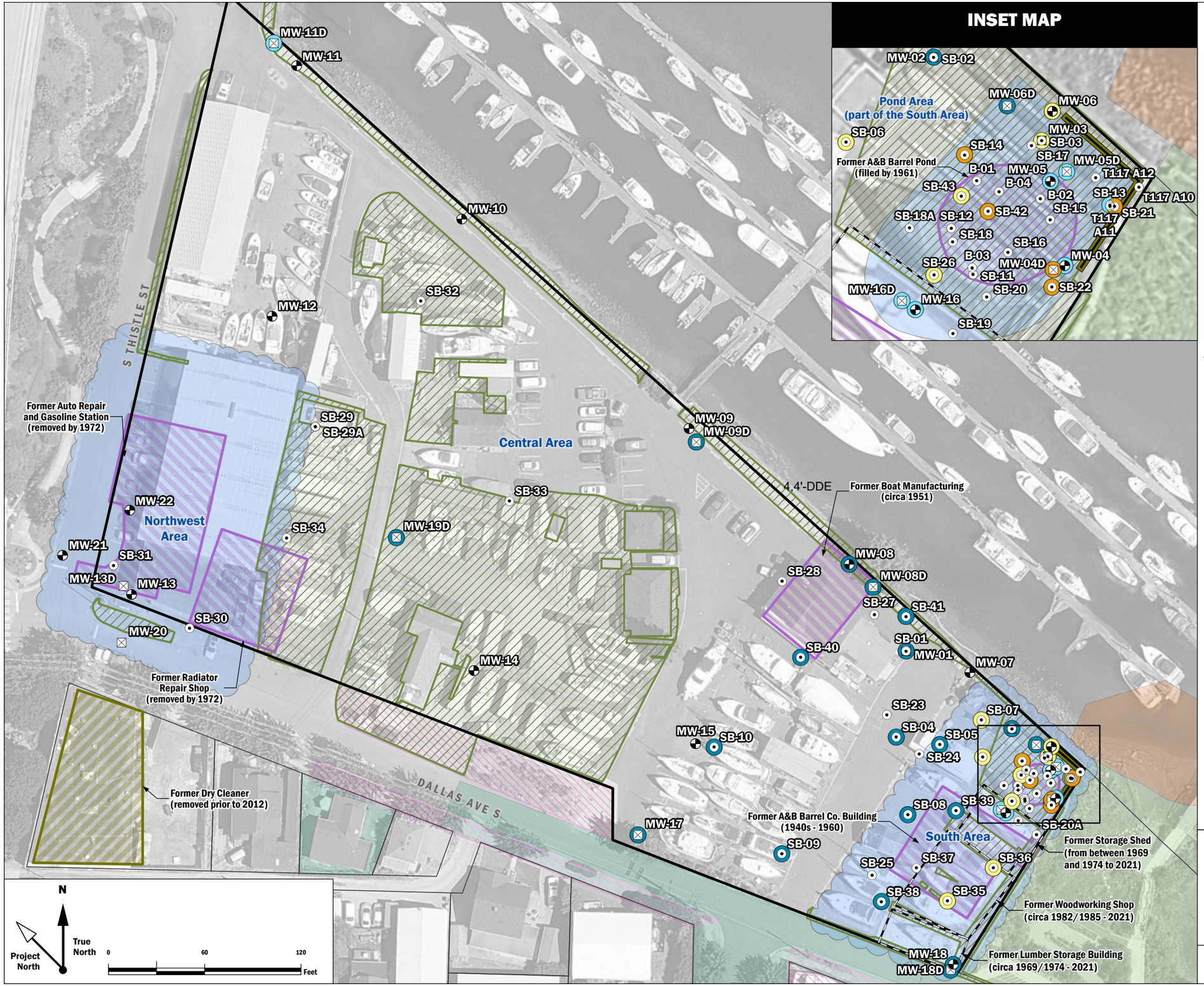
Dieldrin	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3, PQL Adj.)	0.001
Direct Erosion (SL-8)	0.0019
Human Direct Contact (SL-1)	0.063
100x Proposed RI CUL (SL-3, PQL Adj.)	0.1

Dieldrin Results in Saturated Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.7.E
	PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.7E Dieldrin Results in Saturated Soil || User: haleyd\rm || Print Date: 6/11/2025



4,4'-DDE was detected at a concentration equal to or greater than 2.9 mg/kg

4,4'-DDE was detected at a concentration equal to or greater than 0.75 mg/kg and less than 2.9 mg/kg

4,4'-DDE was detected at a concentration equal to or greater than 0.01 mg/kg and less than 0.75 mg/kg

4,4'-DDE was detected at a concentration equal to or greater than 0.001 mg/kg and less than 0.01 mg/kg

4,4'-DDE not detected and non-detect value greater than 0.001 mg/kg

4,4'-DDE not detected or detected at a concentration less than 0.001 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

MW-12
Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire
- RI Site Area

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

4,4'-DDE	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3, PQL Adj.)	0.001
10x Proposed RI CUL (SL-3, PQL Adj.)	0.01
Terrestrial Ecological Receptor (SL-9)	0.75
Human Direct Contact (SL-1)	2.9

4,4'-DDE Results in Saturated Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

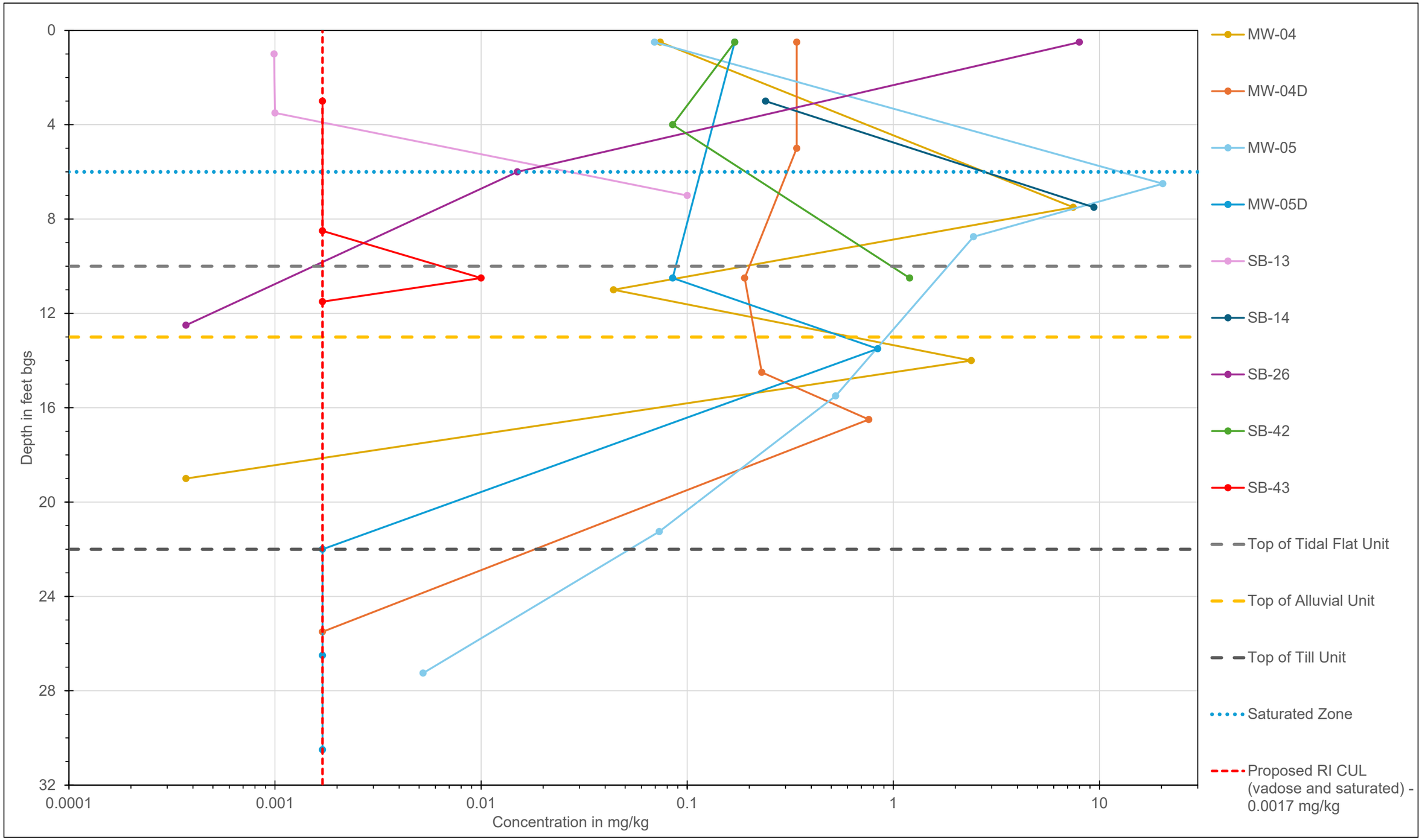
Aspect Consulting | JAN-2026 | PROJECT NO. 190293 | BY: JJP / AJY / NLK | REVISED BY: HMD | FIGURE NO. 7.7.F

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_Soil_agmc 7.7F 4,4'-DDE Results in Saturated Zone Soil.mxd | User: haileyjaruer || Print Date: 1/8/2026

Figure 7.7.G. Vertical Distribution of Aldrin in the Pond Area

South Park Marina Site, Seattle, Washington



Aspect Consulting

4/5/2025

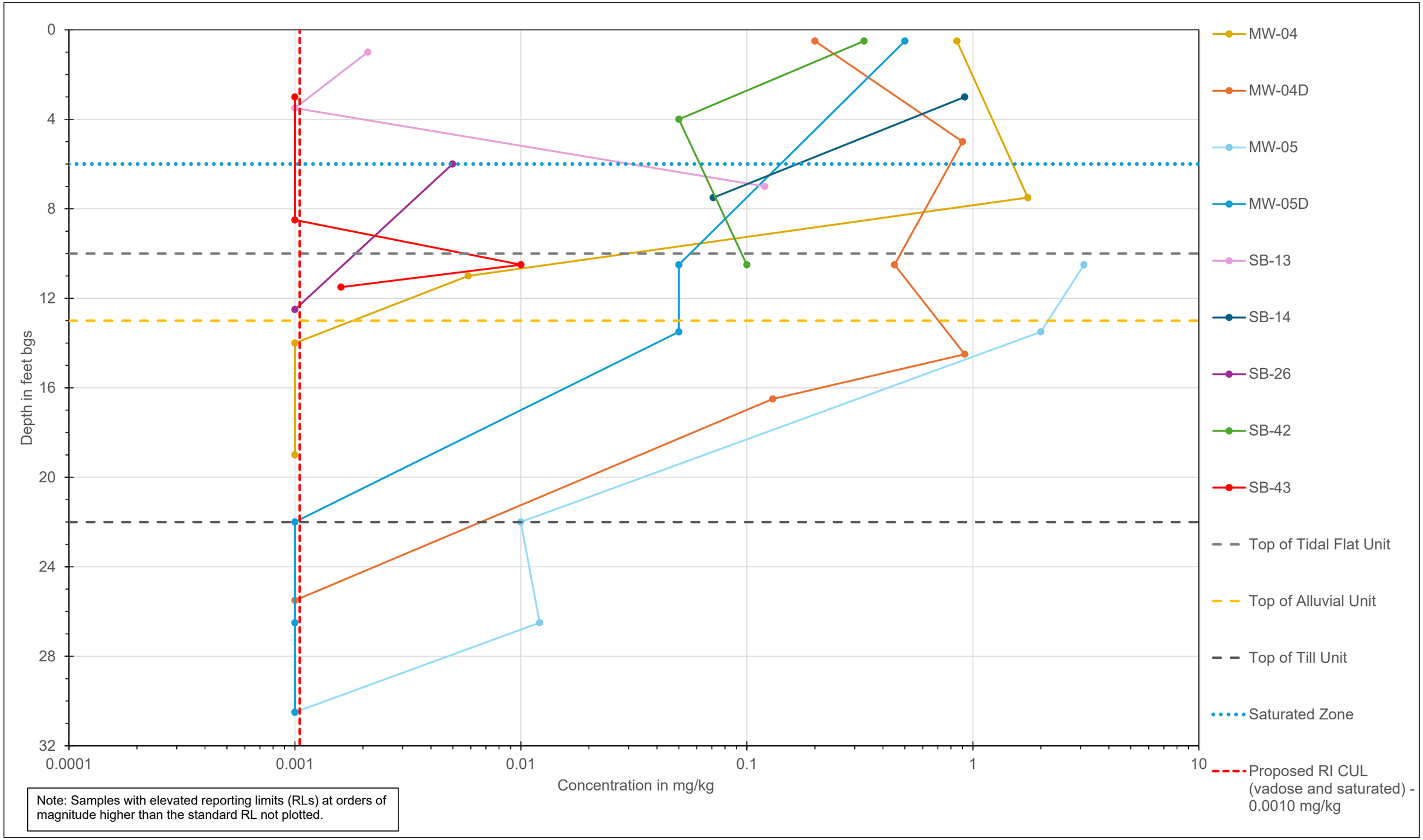
S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.7.G

Remedial Investigation Report

Figure 7.7.H. Vertical Distribution of Dieldrin in the Pond Area

South Park Marina Site, Seattle, Washington



Note: Samples with elevated reporting limits (RLs) at orders of magnitude higher than the standard RL not plotted.

Aspect Consulting

4/5/2025

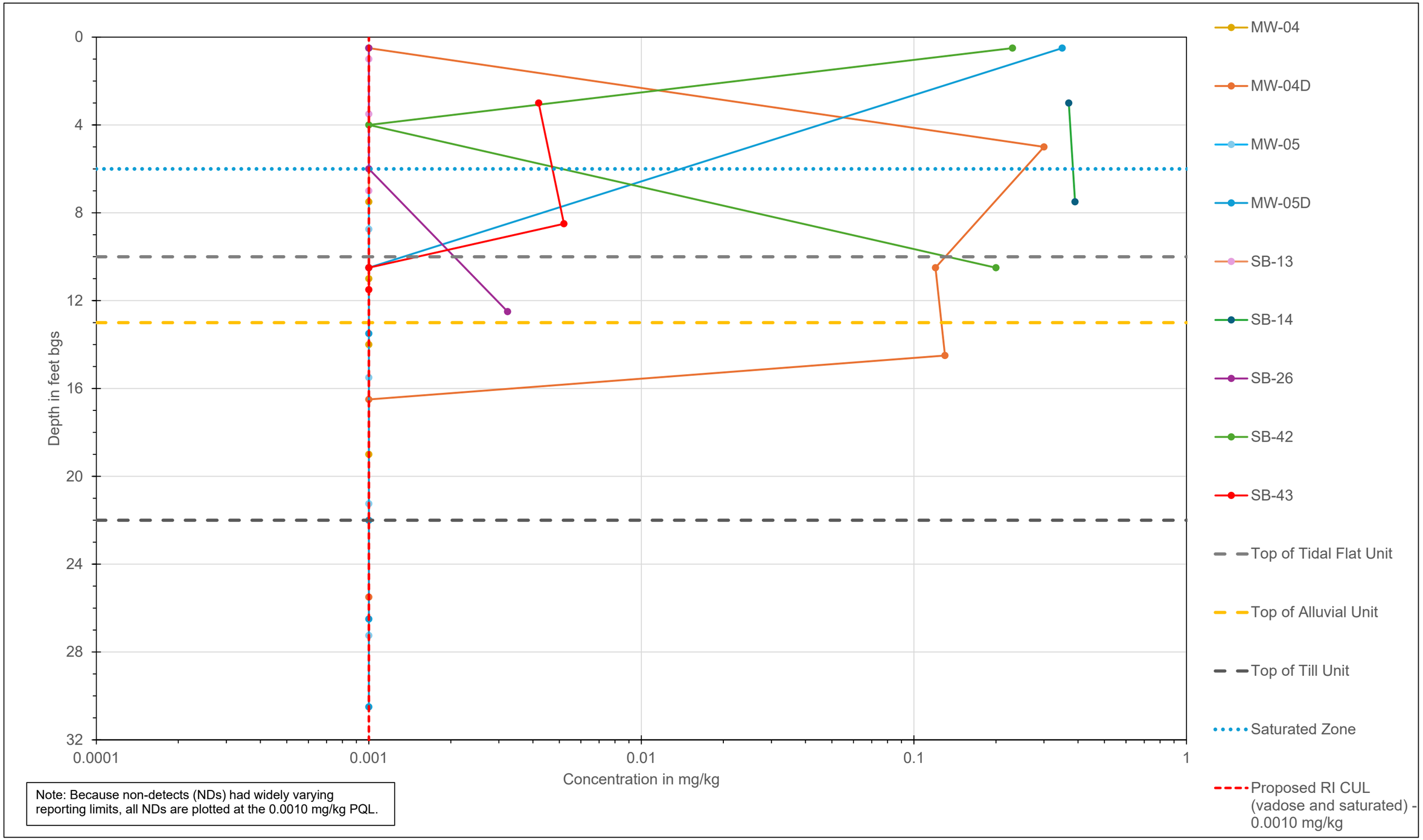
S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.7.H

Remedial Investigation Report

Figure 7.7.I. Vertical Distribution of 4,4'-DDE in the Pond Area

South Park Marina Site, Seattle, Washington



Note: Because non-detects (NDs) had widely varying reporting limits, all NDs are plotted at the 0.0010 mg/kg PQL.

Aspect Consulting

4/5/2025

S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Section 7 - Analytical Figures\Figs 7.x Concentration vs Z Plots for Pond Area

Figure 7.7.I

Remedial Investigation Report

Location	Non-Key COPC	Depth	Geologic Unit	EF
HA-07	4,4'-DDT	0 – 1 ft	Fill	4.5

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-02	4,4'-DDT	9 – 11 ft	Tidal Flat	1.8

Location	Non-Key COPC	Depth	Geologic Unit	EF
21F-SS-02	4,4'-DDT	0 – 0.07 ft	Fill	9.1

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-12	4,4'-DDT	1.5 – 2 ft	Fill	600

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-05	Heptachlor	8 – 9 ft	Fill	1.1

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-10	4,4'-DDT	14 – 15 ft	Tidal Flat	3.6

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-18D	Alpha-BHC	24 – 24.5 ft	Till	1.5

Location	Non-Key COPC	Depth	Geologic Unit	EF
21F-SS-01	4,4'-DDT	0 – 0.07 ft	Fill	14

INSET MAP

Pond Area (part of the South Area)

Former A&B Barrel Pond (filled by 1961)

Central Area

Northwest Area

South Area

Former Auto Repair and Gasoline Station (removed by 1972)

Former Radiator Repair Shop (removed by 1972)

Former Dry Cleaner (removed prior to 2012)

Former Boat Manufacturing (circa 1951)

Former A&B Barrel Co. Building (1940s - 1960)

Former Storage Shed (from between 1969 and 1974 to 2021)

Former Woodworking Shop (circa 1982/1985 - 2021)

Former Lumber Storage Building (circa 1969/1974 - 2021)

S THISTLE ST

LAS AVE S

- Both Key and Non-Key Site Pesticide COPCs Exceed Proposed RI CULs
- Only Key Site Pesticide COPCs Exceed Proposed RI CULs
- Only Non-Key Site Pesticide COPCs Exceed Proposed RI CULs
- No Site Pesticide COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 — Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*
- *SPU = Seattle Public Utilities*

Key Pesticide COPCs
4,4'-DDE
Aldrin
Dieldrin

Non-Key Pesticide COPCs - Proposed RI CULs in Soil - mg/kg

	Vadose	Saturated
4,4'-DDT	0.0010	
Alpha-BHC	0.00050	
Heptachlor	0.00050	

N

Project North

True North

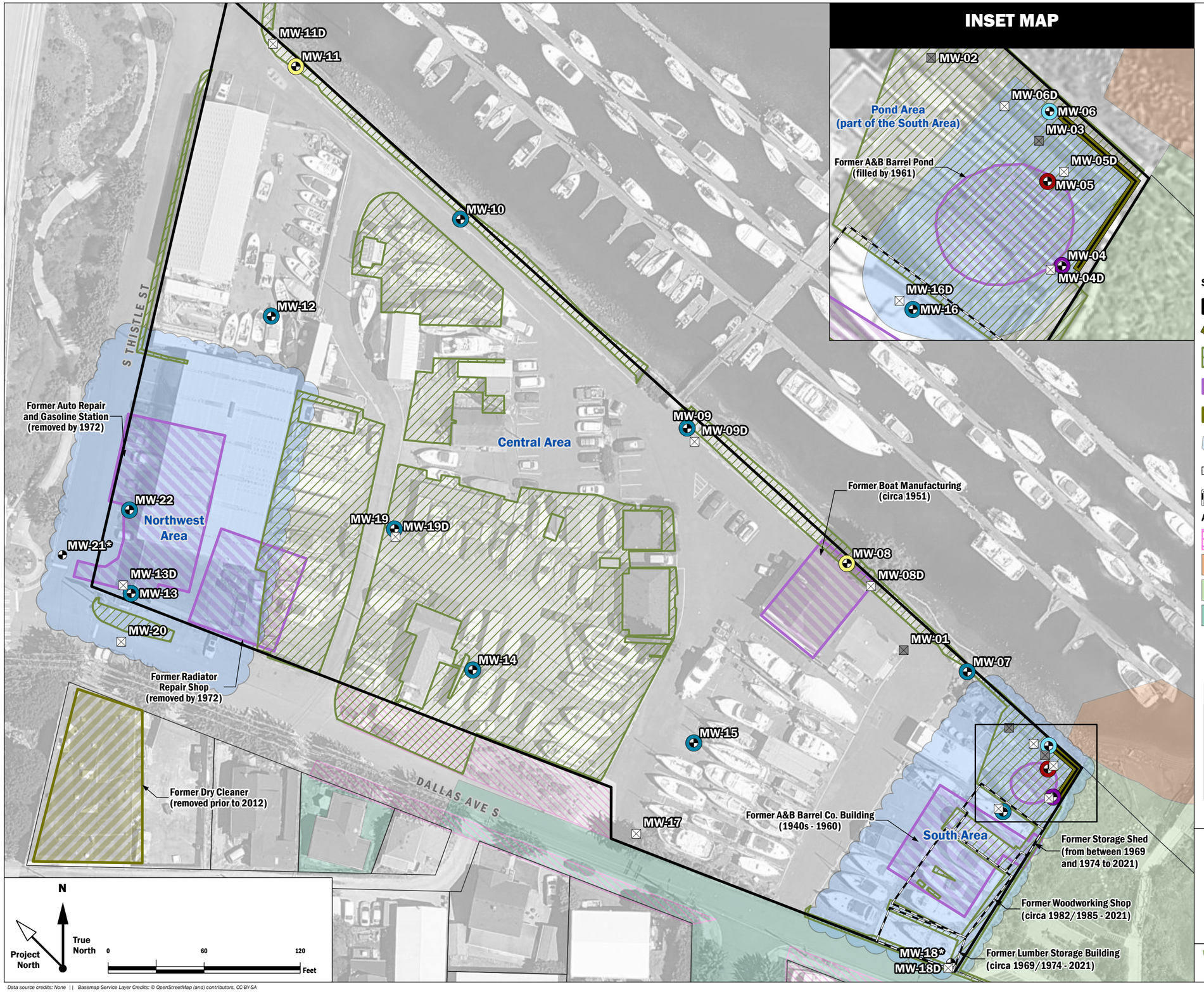
0 60 120 Feet

Non-Key Pesticide COPCs in Vadose and Saturated Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting | DEC-2025 | PROJECT NO. 190293 | BY: JJP / AJY / NLK | REVISED BY: HMD | FIGURE NO. 7.7.J

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Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- Aldrin was detected at a concentration equal to or greater than 0.63 ug/L
- Aldrin was detected at a concentration equal to or greater than 0.063 ug/L and less than 0.63 ug/L
- Aldrin was detected at a concentration equal to or greater than 0.0063 ug/L and less than 0.063 ug/L
- Aldrin was detected at a concentration equal to or greater than 0.00063 ug/L and less than 0.0063 ug/L
- Aldrin not detected and non-detect value greater than 0.00063 ug/L
- Aldrin not detected or detected at a concentration less than 0.00063 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

Aldrin	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.00063
10x Proposed RI CUL (GW-2, PQL Adj.)	0.0063
100x Proposed RI CUL (GW-2, PQL Adj.)	0.063
1000x Proposed RI CUL (GW-2, PQL Adj.)	0.63

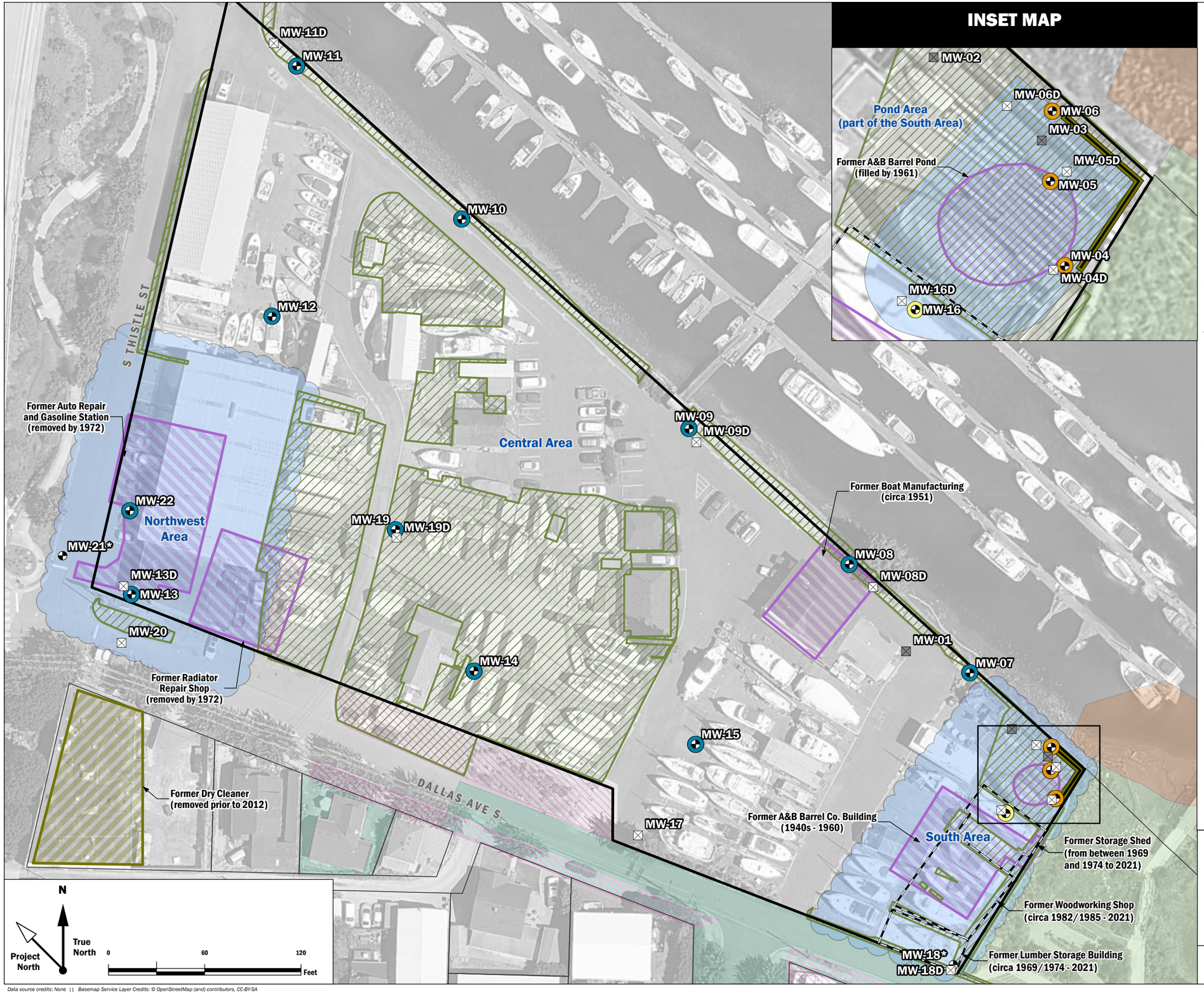
Aldrin Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect CONSULTING

JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.7.K
PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthPark\Admin_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx | 7.7.K Aldrin Results in Fill Groundwater | | User: haley.duran | | Print Date: 1/8/2026



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- Dieldrin was detected at a concentration equal to or greater than 1.3 ug/L
- Dieldrin was detected at a concentration equal to or greater than 0.13 ug/L and less than 1.3 ug/L
- Dieldrin was detected at a concentration equal to or greater than 0.013 ug/L and less than 0.13 ug/L
- Dieldrin was detected at a concentration equal to or greater than 0.0013 ug/L and less than 0.013 ug/L
- Dieldrin not detected and non-detect value greater than 0.0013 ug/L
- Dieldrin not detected or detected at a concentration less than 0.0013 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

Dieldrin	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.0013
10x Proposed RI CUL (GW-2, PQL Adj.)	0.013
100x Proposed RI CUL (GW-2, PQL Adj.)	0.13
1,000x Proposed RI CUL (GW-2, PQL Adj.)	1.3

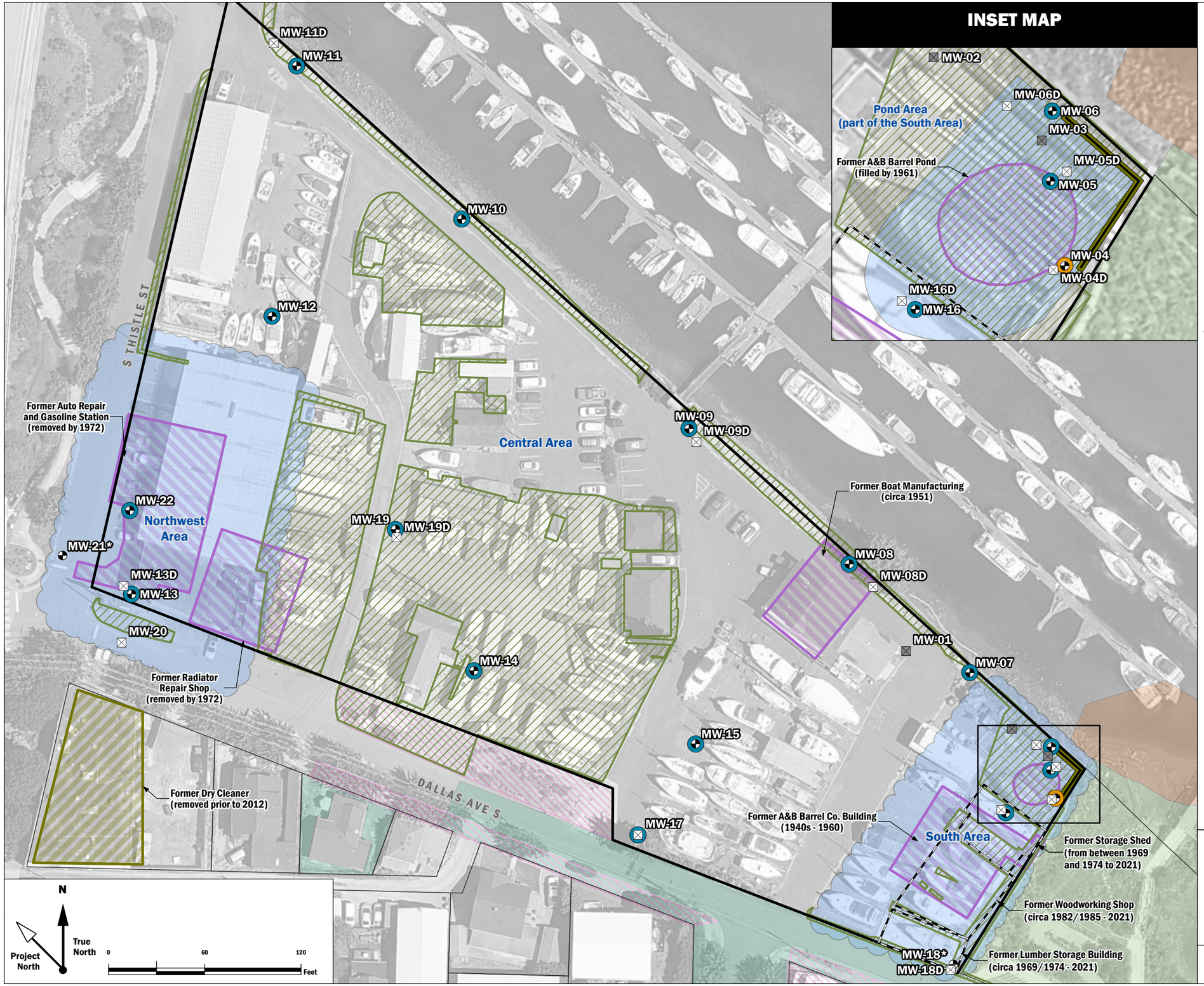
Dieldrin Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting

JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.7.L
PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx: 7.7.L Dieldrin Results in Fill Groundwater || User: hdeyarmin || Print Date: 1/8/2026



Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- 4,4'-DDE was detected at a concentration equal to or greater than 1.3 ug/L
- 4,4'-DDE was detected at a concentration equal to or greater than 0.13 ug/L and less than 1.3 ug/L
- 4,4'-DDE was detected at a concentration equal to or greater than 0.013 ug/L and less than 0.13 ug/L
- 4,4'-DDE was detected at a concentration equal to or greater than 0.0013 ug/L and less than 0.013 ug/L
- 4,4'-DDE not detected and non-detect at a concentration greater than 0.0013 ug/L
- 4,4'-DDE not detected or detected at a concentration less than 0.0013 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

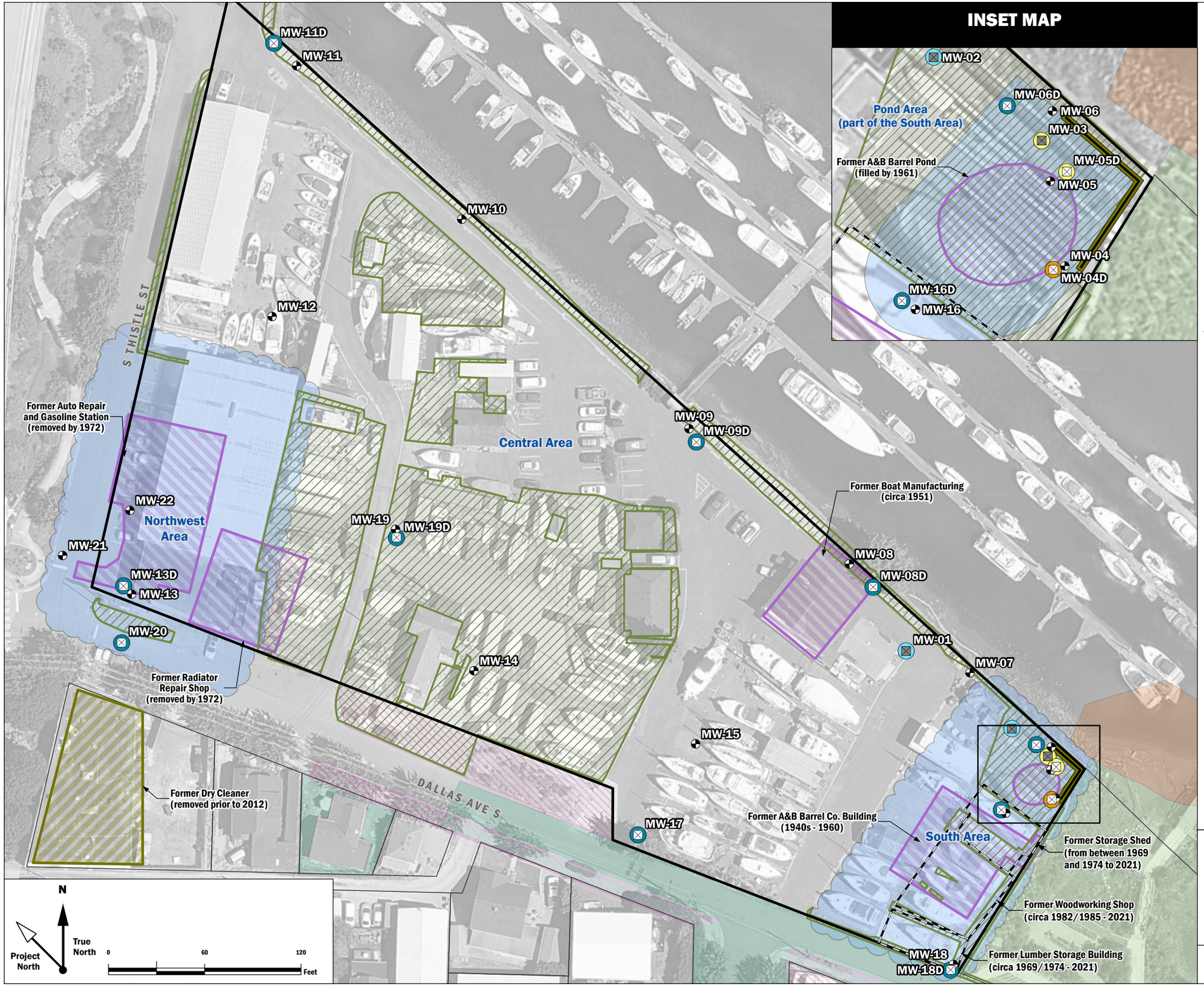
4,4'-DDE	
Basis	**ScreeningLevel**
Proposed RI CUL (GW-2, PQL Adj.)	0.0013
10x Proposed RI CUL (GW-2, PQL Adj.)	0.013
100x Proposed RI CUL (GW-2, PQL Adj.)	0.13
1,000x Proposed RI CUL (GW-2, PQL Adj.)	1.3

4,4'-DDE Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.7.M
	PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Proj\SPM_Phase2_RI_GW.aprx | Layout: 7.7.M 4,4'-DDE Results in Fill Unit Groundwater | User: haley.doran | Print Date: 1/8/2026



Aldrin was detected at a concentration equal to or greater than 0.63 ug/L

Aldrin was detected at a concentration equal to or greater than 0.063 ug/L and less than 0.63 ug/L

Aldrin was detected at a concentration equal to or greater than 0.0063 ug/L and less than 0.063 ug/L

Aldrin was detected at a concentration equal to or greater than 0.00063 ug/L and less than 0.0063 ug/L

Aldrin not detected and non-detect value greater than 0.00063 ug/L

Aldrin not detected or detected at a concentration less than 0.00063 ug/L

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Aldrin	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.00063
10x Proposed RI CUL (GW-2, PQL Adj.)	0.0063
100x Proposed RI CUL (GW-2, PQL Adj.)	0.063
1000x Proposed RI CUL (GW-2, PQL Adj.)	0.63

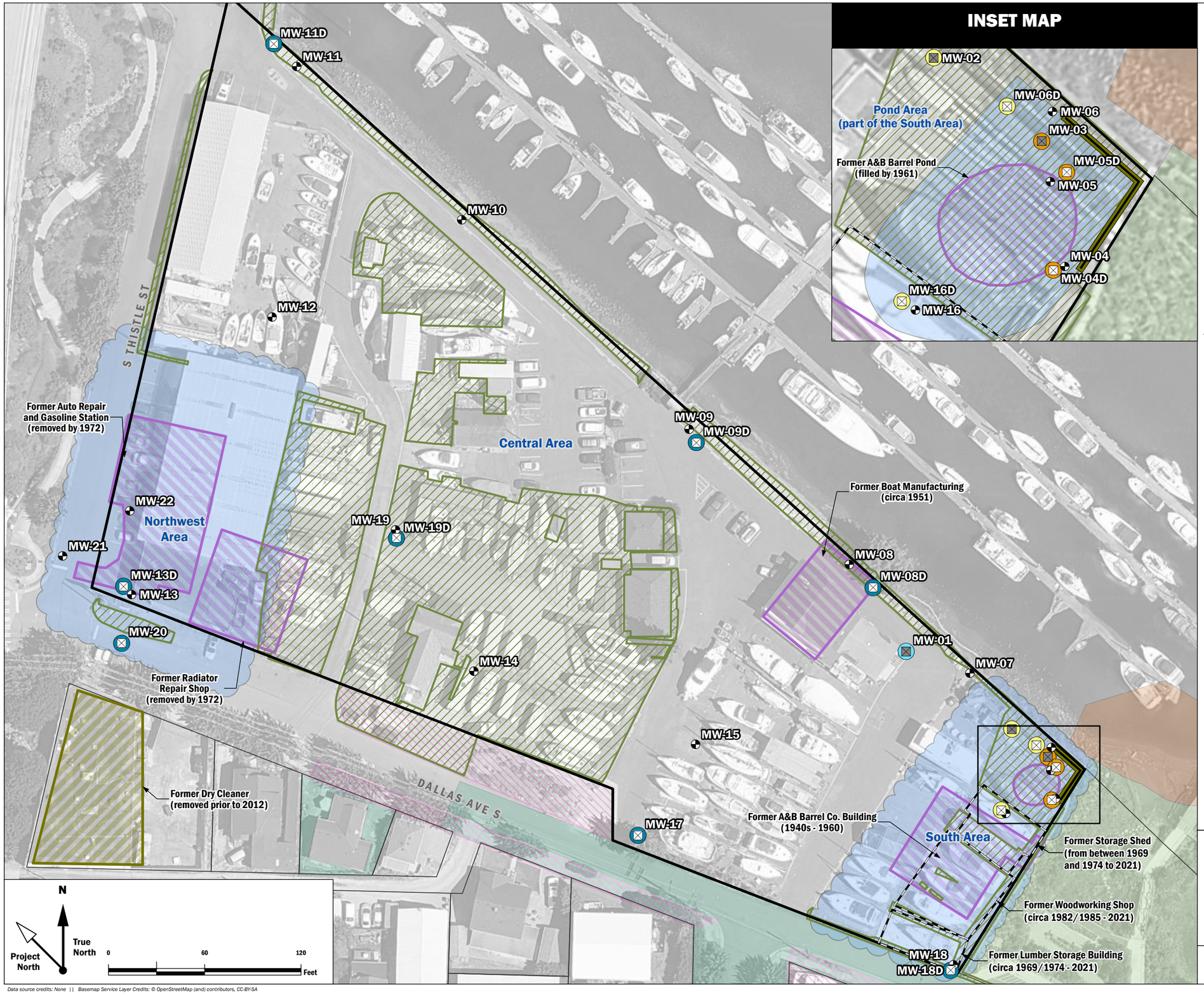
Aldrin Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.7.N
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx | T:7.N Aldrin Results in Alluvial Groundwater | | User: hkelly.durion | | Print Date: 1/8/2026



Dieldrin was detected at a concentration equal to or greater than 1.3 ug/L

Dieldrin was detected at a concentration equal to or greater than 0.13 ug/L and less than 1.3 ug/L

Dieldrin was detected at a concentration equal to or greater than 0.013 ug/L and less than 0.13 ug/L

Dieldrin was detected at a concentration equal to or greater than 0.0013 ug/L and less than 0.013 ug/L

Dieldrin not detected and non-detect value greater than 0.0013 ug/L

Dieldrin not detected or detected at a concentration less than 0.0013 ug/L

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12
Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Dieldrin	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2, PQL Adj.)	0.0013
10x Proposed RI CUL (GW-2, PQL Adj.)	0.013
100x Proposed RI CUL (GW-2, PQL Adj.)	0.13
1,000x Proposed RI CUL (GW-2, PQL Adj.)	1.3

Dieldrin Results in Alluvial Unit Groundwater

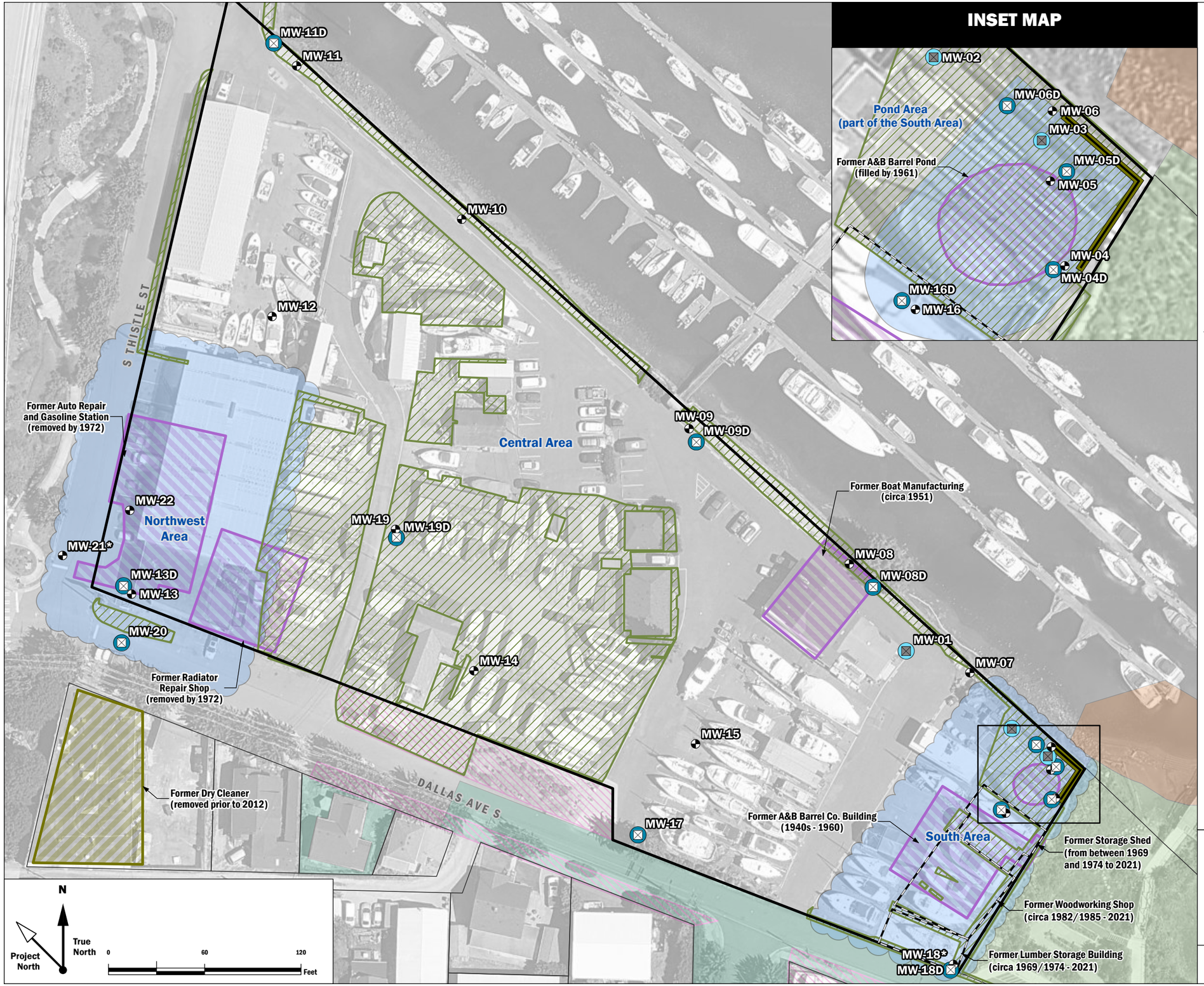
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect CONSULTING

JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.7.0
PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx: 7.7.0 Dieldrin Results in Alluvial Groundwater || User: haleyjustin || Print Date: 1/8/2026



4,4'-DDE was detected at a concentration equal to or greater than 1.3 ug/L

4,4'-DDE was detected at a concentration equal to or greater than 0.13 ug/L and less than 1.3 ug/L

4,4'-DDE was detected at a concentration equal to or greater than 0.013 ug/L and less than 0.13 ug/L

4,4'-DDE was detected at a concentration equal to or greater than 0.0013 ug/L and less than 0.013 ug/L

4,4'-DDE not detected and non-detect at a concentration greater than 0.0013 ug/L

4,4'-DDE not detected or detected at a concentration less than 0.0013 ug/L

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

MW-12 — Sample ID

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

4,4'-DDE	
Basis	**ScreeningLevel**
Proposed RI CUL (GW-2, PQL Adj.)	0.0013
10x Proposed RI CUL (GW-2, PQL Adj.)	0.013
100x Proposed RI CUL (GW-2, PQL Adj.)	0.13
1,000x Proposed RI CUL (GW-2, PQL Adj.)	1.3

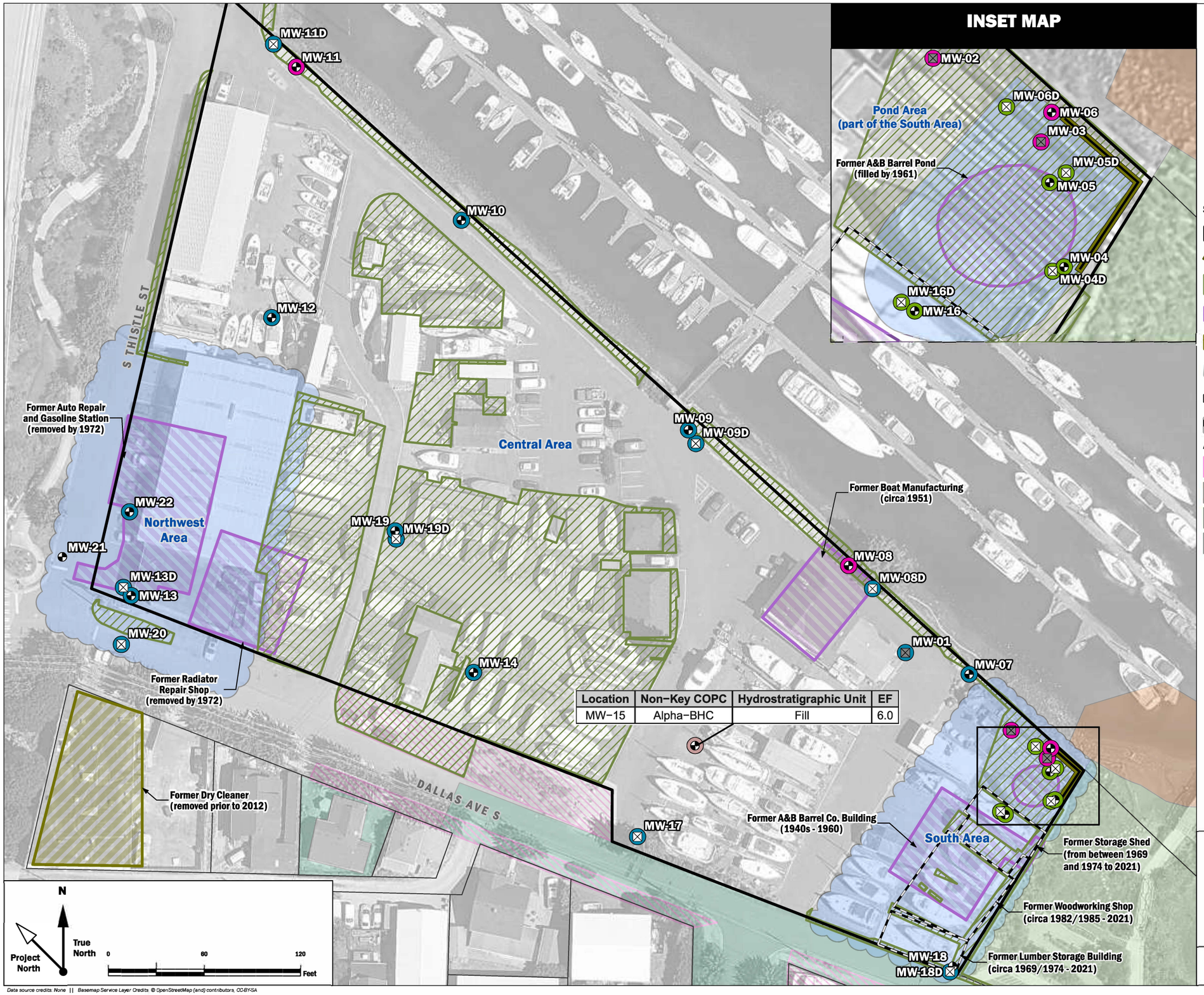
4,4'-DDE Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JAN-2026	BY: JJP / AJY / NLK	FIGURE NO. 7.7.P
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx; 7.7 P 4,4' DDE Results in Alluvial Unit Groundwater || User: hakyuburn || Print Date: 1/8/2026



Location	Non-Key COPC	Hydrostratigraphic Unit	EF
MW-15	Alpha-BHC	Fill	6.0

INSET MAP

- Both Key and Non-Key Site Pesticide COPCs Exceed Proposed RI CULs
- Only Key Site Pesticide COPCs Exceed Proposed RI CULs
- Only Non-Key Site Pesticide COPCs Exceed Proposed RI CULs
- No Site Pesticide COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 — Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*
- *SPU = Seattle Public Utilities*

Key Pesticide COPCs
4,4'-DDE
Aldrin
Dieldrin
Non-Key Pesticide COPCs - Proposed RI CULs in Groundwater - ug/L

Alpha-BHC	0.00063

Non-Key Pesticide COPCs in Fill and Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

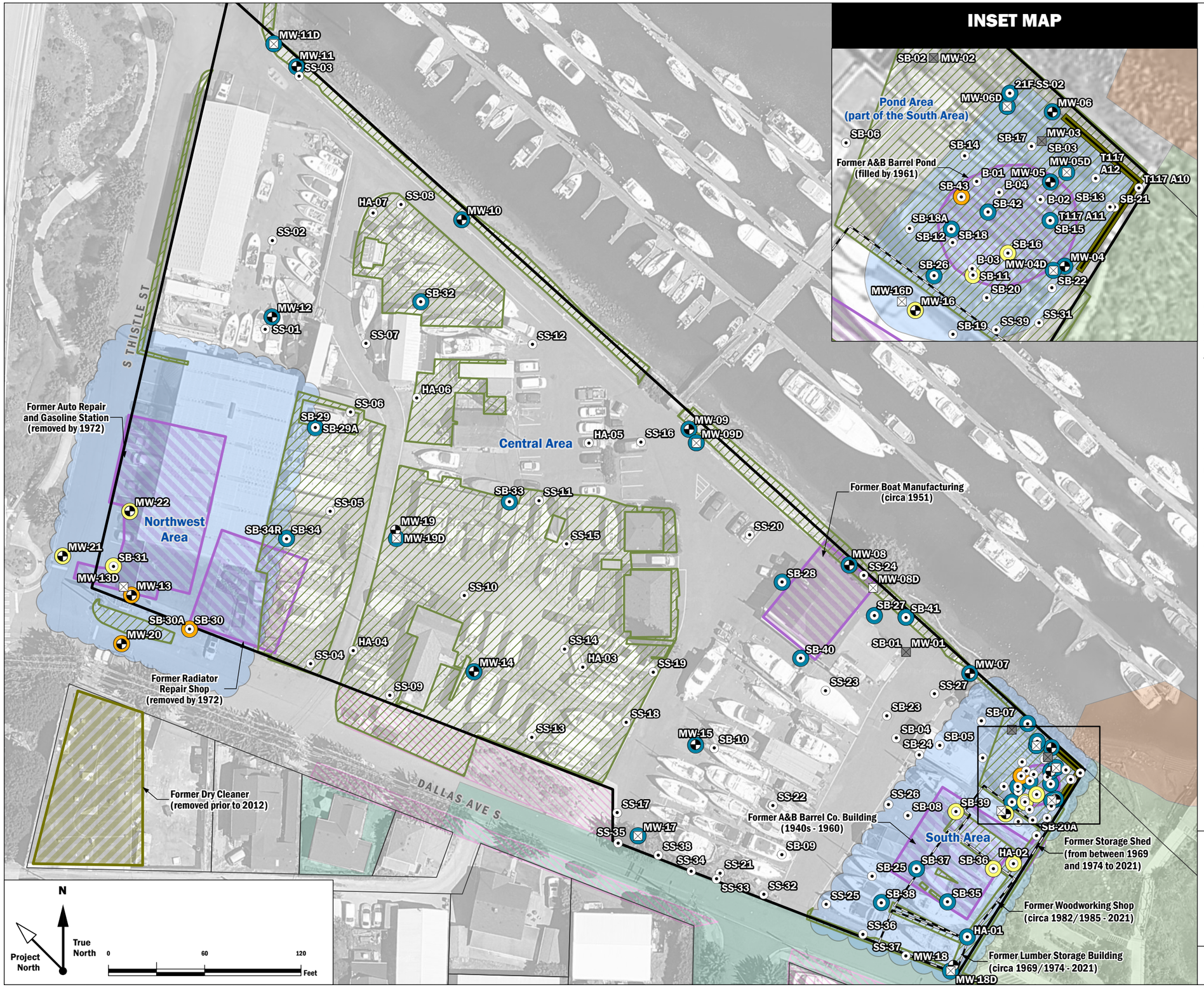
Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.7.Q
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Proj\SPM_Phase2_RI_GIS\.aprx: 7.7.Q Non-Key Pesticide COPCs in Fill and Alluvial Groundwater || User: hatty.duran || Print Date: 6/11/2025

FIGURES 7.8.A - 7.8.G

Key VOC COPC
Analytical Data Figures



PCE was detected at a concentration equal to or greater than 29 mg/kg

PCE was detected at a concentration equal to or greater than 2.9 mg/kg and less than 29 mg/kg

PCE was detected at a concentration equal to or greater than 0.18 mg/kg and less than 2.9 mg/kg

PCE was detected at a concentration equal to or greater than 0.029 mg/kg and less than 0.18 mg/kg

PCE not detected and non-detect value greater than 0.029 mg/kg

PCE not detected or detected at a concentration less than 0.029 mg/kg

Soil Boring / Surface Soil / Hand Auger Boring

Fill Unit Monitoring Well

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

MW-12 — Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*

Tetrachloroethene (PCE)	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-3)	0.029
Terrestrial Ecological (SL-9)	0.18
100x Proposed RI CUL (SL-3)	2.9
1,000x Proposed RI CUL (SL-3)	29

Tetrachloroethene (PCE) Results in Vadose Zone Soil

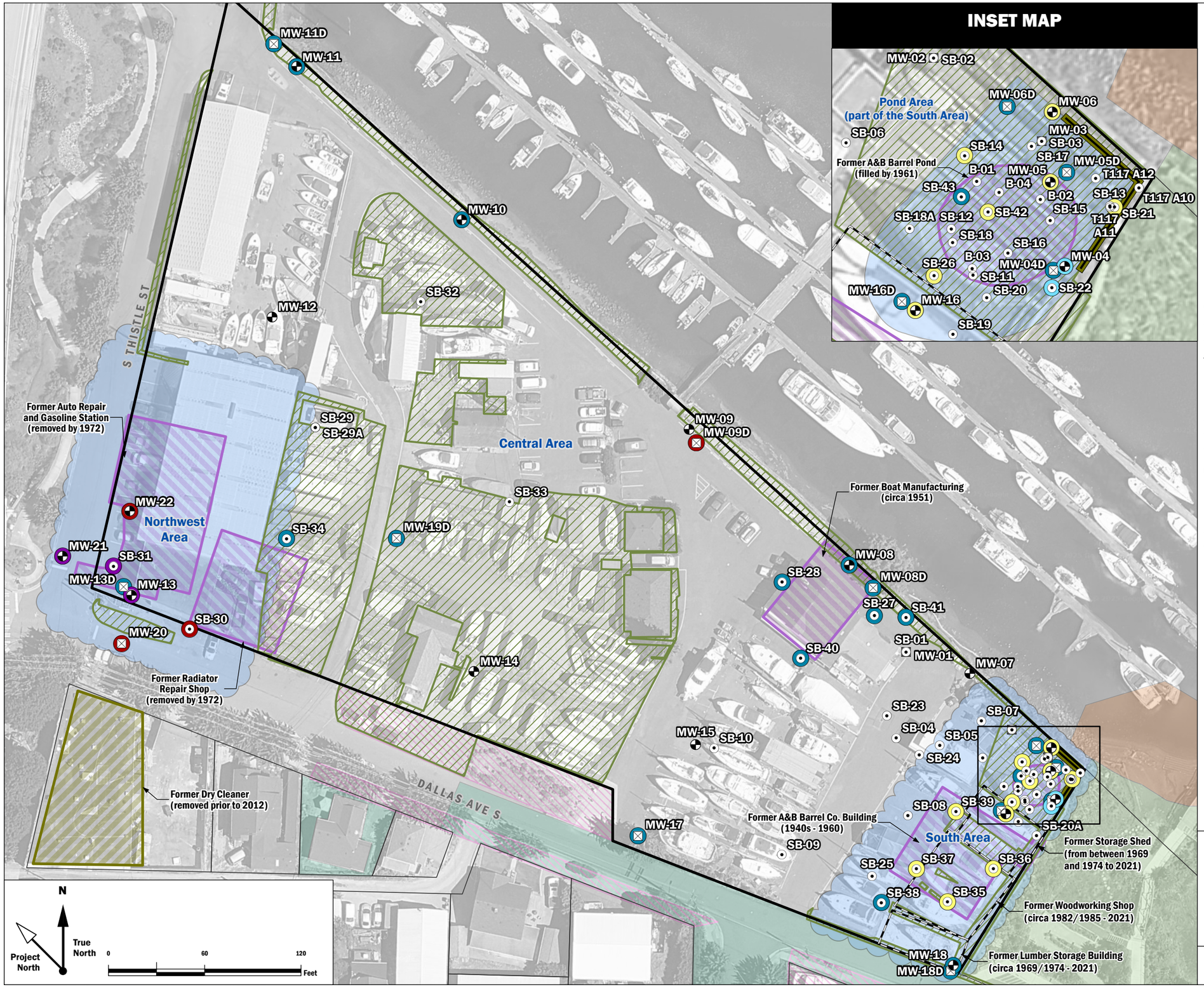
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting

DEC-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.8.A
PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Pro\SPM_Phase2_RI_Soil.aprx::7.8.A PCE Results in Vadose Soil || User: hailey.doran || Print Date: 12/3/2025



INSET MAP

- PCE was detected at a concentration equal to or greater than 1.6 mg/kg
- PCE was detected at a concentration equal to or greater than 0.18 mg/kg and less than 1.6 mg/kg
- PCE was detected at a concentration equal to or greater than 0.016 mg/kg and less than 0.18 mg/kg
- PCE was detected at a concentration equal to or greater than 0.0016 mg/kg and less than 0.016 mg/kg
- PCE not detected and non-detect value greater than 0.0016 mg/kg
- PCE not detected or detected at a concentration less than 0.0016 mg/kg
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 — *Sample ID*

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*

Tetrachloroethene (PCE)	
Basis	**Concentration (mg/kg)**
Proposed RI CUL (SL-6)	0.0016
10x Proposed RI CUL (SL-6)	0.016
Terrestrial Ecological (SL-9)	0.18
1,000 Proposed RI CUL (SL-6)	1.6

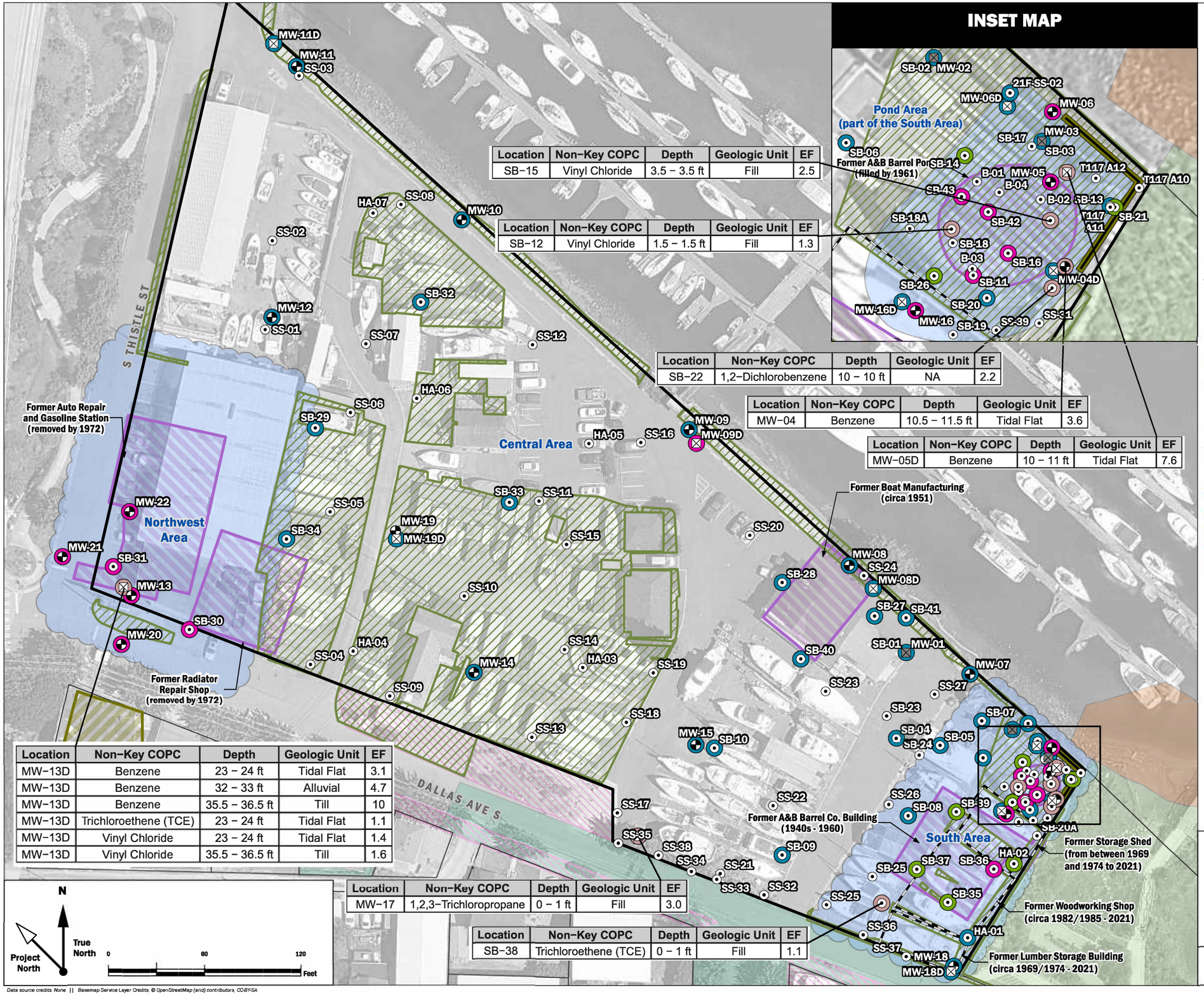
Tetrachloroethene (PCE) Results in Saturated Zone Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	DEC-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.8.B
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase2 RI Proj\SPM_Phase2_RI_Soil.aprx-7.8.B PCE Results in Saturated Soil || User: hmeyerjuran || Print Date: 12/3/2025



Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-15	Vinyl Chloride	3.5 – 3.5 ft	Fill	2.5

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-12	Vinyl Chloride	1.5 – 1.5 ft	Fill	1.3

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-22	1,2-Dichlorobenzene	10 – 10 ft	NA	2.2

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-04	Benzene	10.5 – 11.5 ft	Tidal Flat	3.6

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-05D	Benzene	10 – 11 ft	Tidal Flat	7.6

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-13D	Benzene	23 – 24 ft	Tidal Flat	3.1
MW-13D	Benzene	32 – 33 ft	Alluvial	4.7
MW-13D	Benzene	35.5 – 36.5 ft	Till	10
MW-13D	Trichloroethene (TCE)	23 – 24 ft	Tidal Flat	1.1
MW-13D	Vinyl Chloride	23 – 24 ft	Tidal Flat	1.4
MW-13D	Vinyl Chloride	35.5 – 36.5 ft	Till	1.6

Location	Non-Key COPC	Depth	Geologic Unit	EF
MW-17	1,2,3-Trichloropropane	0 – 1 ft	Fill	3.0

Location	Non-Key COPC	Depth	Geologic Unit	EF
SB-38	Trichloroethene (TCE)	0 – 1 ft	Fill	1.1

- Both Key and Non-Key Site VOC COPCs Exceed Proposed RI CULs
- Only Key Site VOC COPCs Exceed Proposed RI CULs
- Only Non-Key Site VOC COPCs Exceed Proposed RI CULs
- No Site VOC COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Soil Boring / Surface Soil / Hand Auger Boring
- Fill Unit Monitoring Well
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned

MW-12 — Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- *Maximum detected (or non-detected) concentration for each location shown*
- *mg/kg = milligrams per kilogram*
- *Site features are approximate*
- *Central Area includes the rest of the SPM Property that is not shaded.*
- *COPC = chemical of potential concern*
- *Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.*
- *EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.*
- *SPU = Seattle Public Utilities*

Key VOC COPCs
Tetrachloroethene (PCE)

Non-Key VOC COPCs - Proposed RI CULs in Soil - mg/kg

	Vadose	Saturated
1,2,3-Trichloropropane	0.050	
1,2-Dichlorobenzene	0.050	
Benzene	0.0088	0.0010
Trichloroethene (TCE)	0.0044	0.0010
Vinyl Chloride	0.0011	0.0010

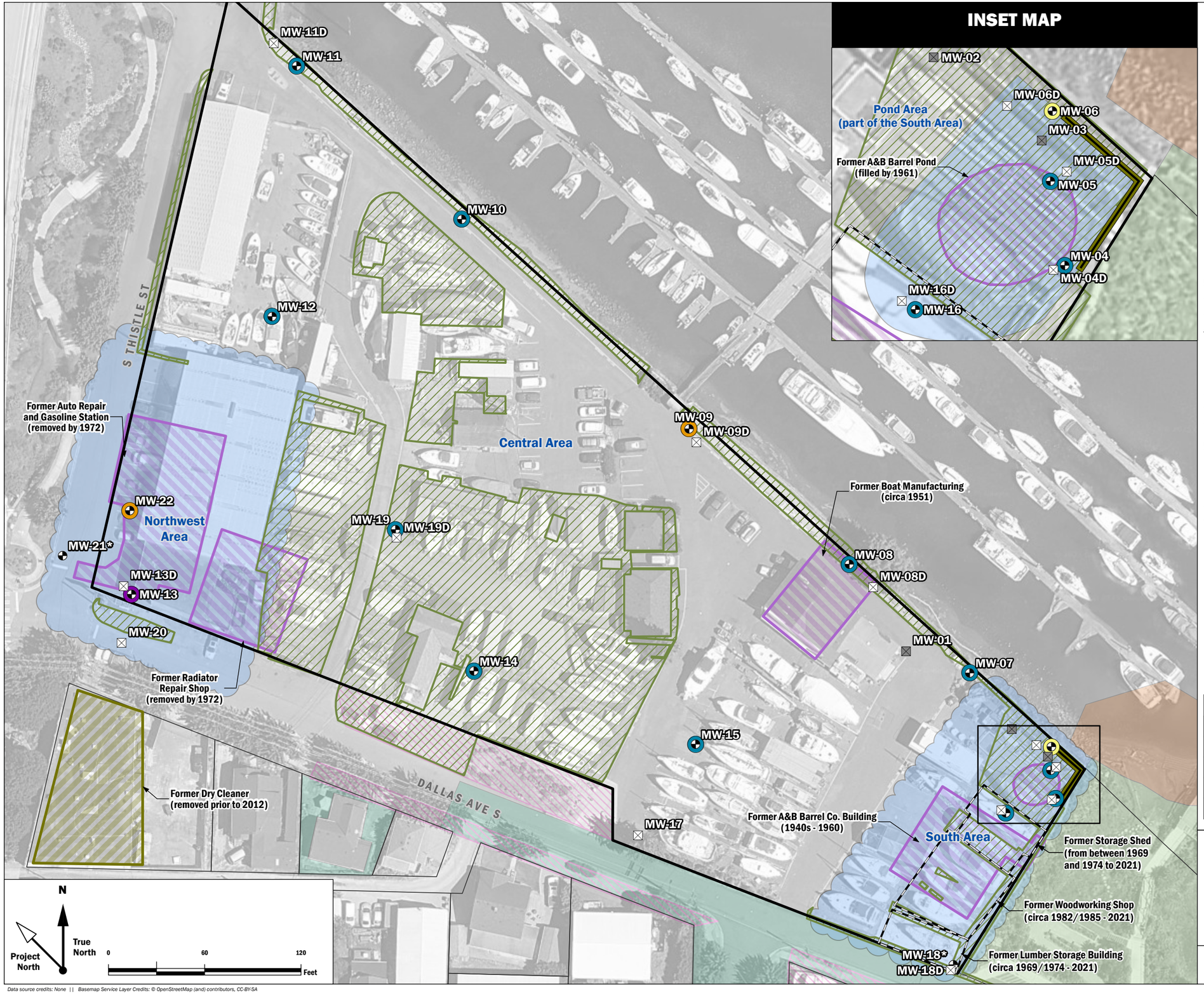
Non-Key VOC COPCs in Vadose and Saturated Soil

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.8.C
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase2 RI Proj\SPM_Phase2_RI_Soil.aprx: 7.8.C\NonKey VOCCOPCs in Soil | User: haley.duran || Print Date: 6/11/2025



Data source credits: None | | Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

- PCE was detected at a concentration equal to or greater than 2,900 ug/L
- PCE was detected at a concentration equal to or greater than 290 ug/L and less than 2,900 ug/L
- PCE was detected at a concentration equal to or greater than 25 ug/L and less than 290 ug/L
- PCE was detected at a concentration equal to or greater than 2.9 ug/L and less than 25 ug/L
- PCE not detected and non-detect value greater than 2.9 ug/L
- PCE not detected or detected at a concentration less than 2.9 ug/L
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

MW-12 — *Sample ID*

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
** These monitoring wells remained dry throughout the Remedial Investigation, and no groundwater samples were collected for analysis.*

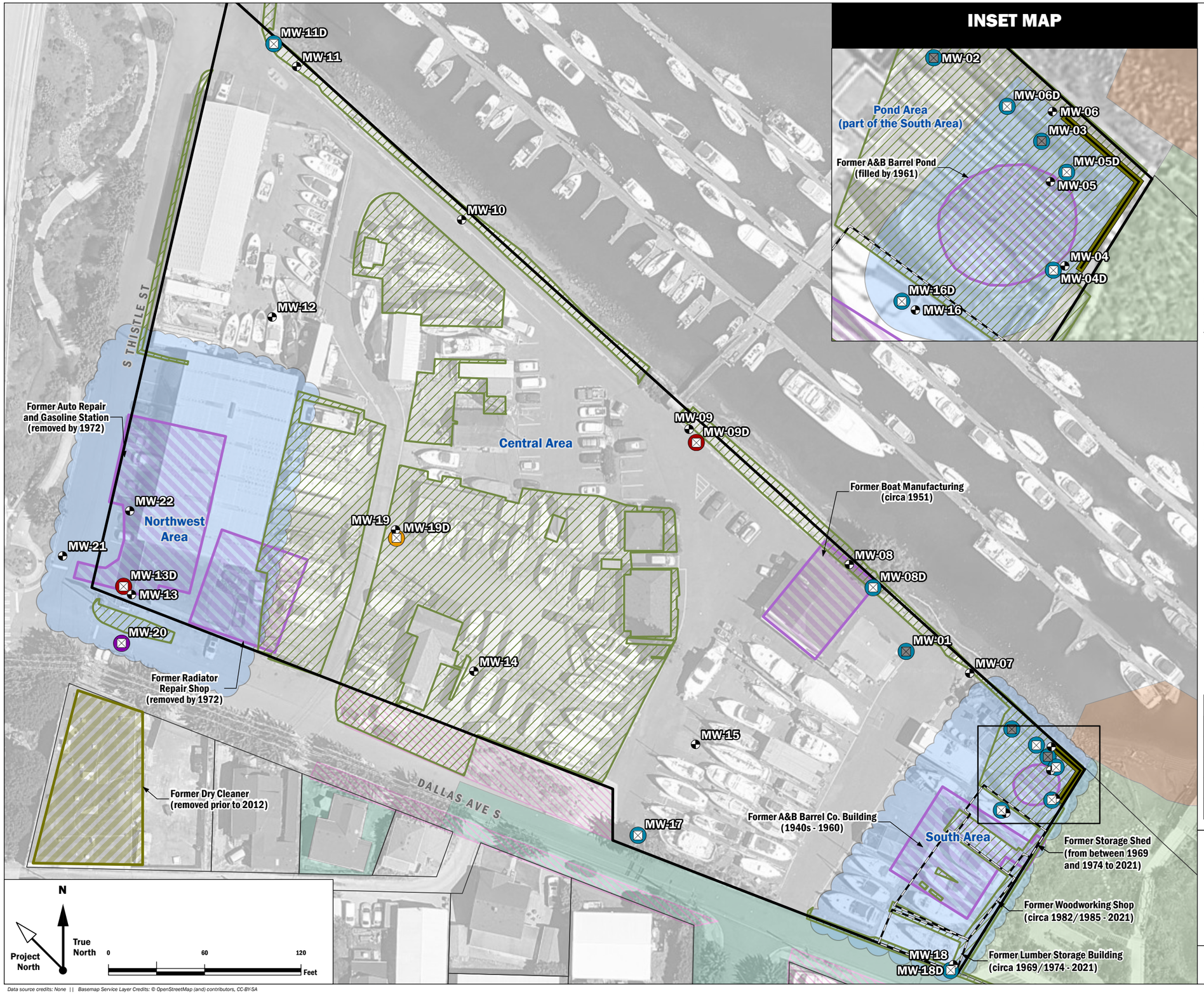
Tetrachloroethene (PCE)	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	2.9
Protective of Vapor Intrusion (GW-4)	25
100x Proposed RI CUL (GW-2)	290
1000x Proposed RI CUL (GW-2)	2,900

Tetrachloroethene (PCE) Results in Fill Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.8.D
	PROJECT NO. 190293	REVISED BY: HMD	

GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Pro\SPM_Phase2_RI_GW.aprx 7.8.D - PCE Results in Fill Unit Groundwater | | User: hellis@aspectconsulting.com | Print Date: 6/11/2025



PCE was detected at a concentration equal to or greater than 2,900 ug/L

PCE was detected at a concentration equal to or greater than 290 ug/L and less than 2,900 ug/L

PCE was detected at a concentration equal to or greater than 25 ug/L and less than 290 ug/L

PCE was detected at a concentration equal to or greater than 2.9 ug/L and less than 25 ug/L

PCE not detected and non-detect value greater than 2.9 ug/L

PCE not detected or detected at a concentration less than 2.9 ug/L

Alluvial Unit Monitoring Well

Alluvial Monitoring Well – Decommissioned

Fill Unit Monitoring Well

Site Features

SPM Property Boundary

Sheet Pile Wall

Pervious Surface

Historical Site Feature

Historical Off-Property Feature

RI Site Area

King County Tax Parcel

Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

Independent SPU Cleanup Action

T117 EAA Sediment Removal Area

T117 EAA Upland Removal Area

T117 EAA Streets and Yards Removal Area

MW-12

Sample ID

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- ug/L = micrograms per liter
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.

Tetrachloroethene (PCE)	
Basis	**Concentration (ug/L)**
Proposed RI CUL (GW-2)	2.9
Protective of Vapor Intrusion (GW-4)	25
100x Proposed RI CUL (GW-2)	290
1000x Proposed RI CUL (GW-2)	2,900

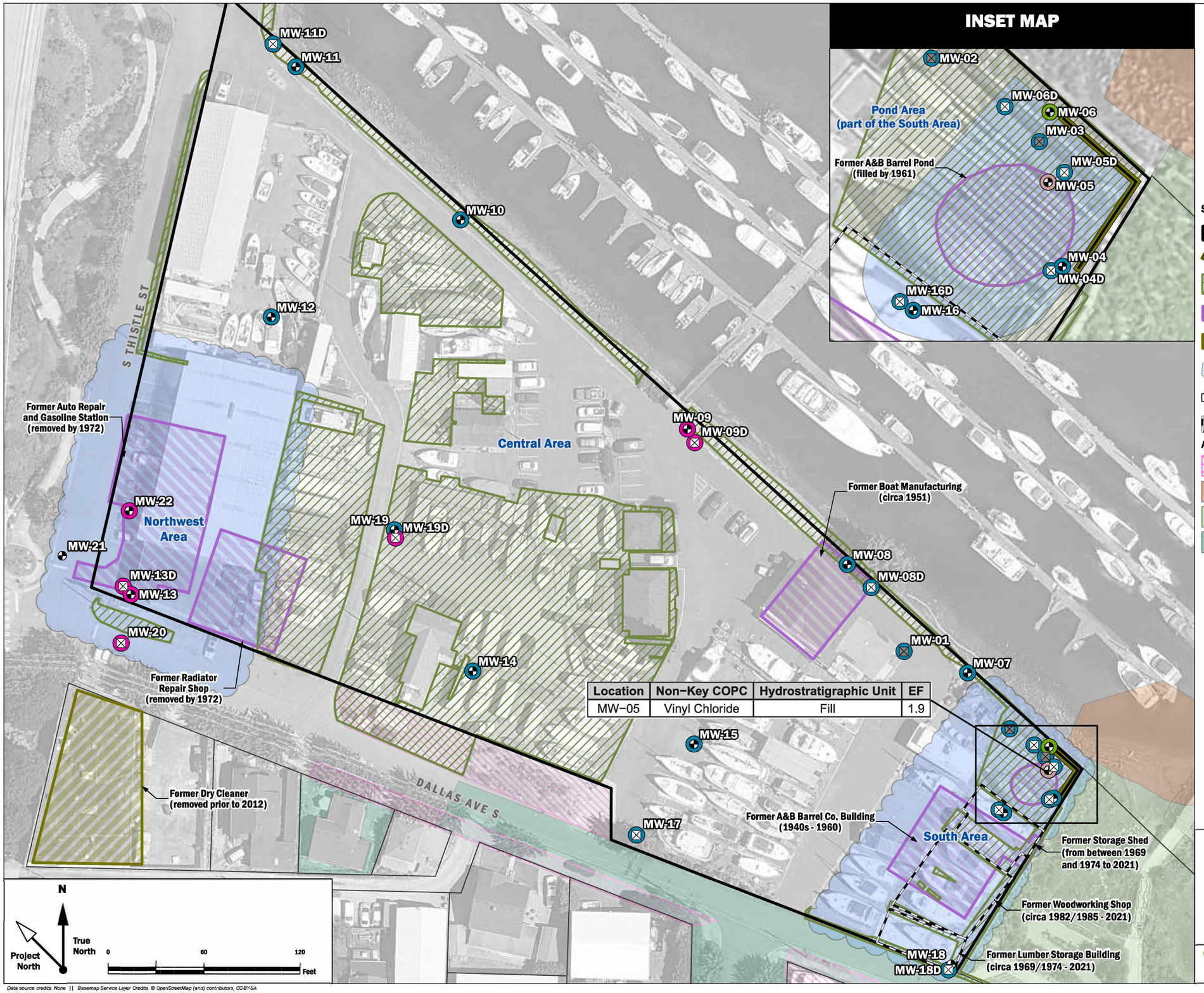
Tetrachloroethene (PCE) Results in Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.8.E
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 PH Pro\SPM_Phase2_RI_GW.aprx-7.8.E PCE Results in Alluvial Groundwater || User: haleyjuran || Print Date: 6/11/2025



Location	Non-Key COPC	Hydrostratigraphic Unit	EF
MW-05	Vinyl Chloride	Fill	1.9

- Both Key and Non-Key Site VOC COPCs Exceed Proposed RI CULs
- Only Key Site VOC COPCs Exceed Proposed RI CULs
- Only Non-Key Site VOC COPCs Exceed Proposed RI CULs
- No Site VOC COPCs (Key or Non-Key) Exceed Proposed RI CULs
- Alluvial Unit Monitoring Well
- Alluvial Monitoring Well – Decommissioned
- Fill Unit Monitoring Well

MW-12 — Sample ID

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Pervious Surface
- Historical Site Feature
- Historical Off-Property Feature
- RI Site Area
- King County Tax Parcel
- Historical Structures Destroyed in 2021 Fire

Adjacent Cleanups

- Independent SPU Cleanup Action
- T117 EAA Sediment Removal Area
- T117 EAA Upland Removal Area
- T117 EAA Streets and Yards Removal Area

Notes:
- Maximum detected (or non-detected) concentration for each location shown
- mg/kg = milligrams per kilogram
- Site features are approximate
- Central Area includes the rest of the SPM Property that is not shaded.
- COPC = chemical of potential concern
- Proposed RI CUL = Proposed Remedial Investigation Cleanup Level; refer to Section 6.2.
- EF = Exceedance Factor – The concentration divided by the Proposed RI CUL.
- SPU = Seattle Public Utilities

Key VOC COPCs
Tetrachloroethene (PCE)
Non-Key VOC COPCs - Proposed RI CULs in Groundwater - ug/L
Vinyl Chloride: 0.18

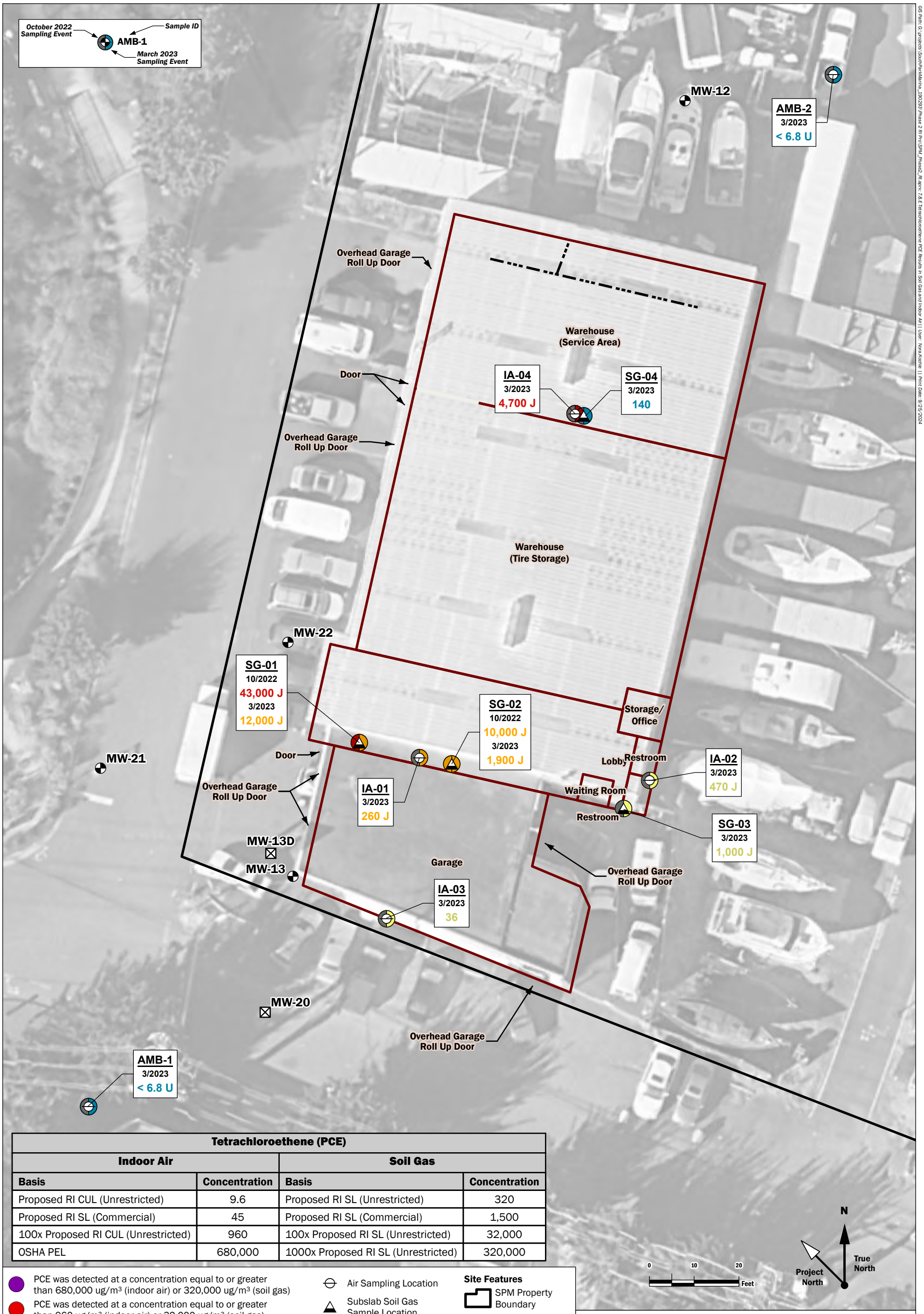
Non-Key VOC COPCs in Fill and Alluvial Unit Groundwater

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 7.8.F
	PROJECT NO. 190293	REVISED BY: HMD	

Data source credits: None || Basemap Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

GIS Path: G:\projects\SouthParkMarina_180293\Phase 2 RI Proj\SPM_Phase2_RI_GW.aprx: 7.8.F Non-Key VOC COPCs in Fill and Alluvial Groundwater | | User: haileyduran | | Print Date: 6/11/2025



Tetrachloroethene (PCE)			
Indoor Air		**Soil Gas**	
Basis	**Concentration**	**Basis**	**Concentration**
Proposed RI CUL (Unrestricted)	9.6	Proposed RI SL (Unrestricted)	320
Proposed RI SL (Commercial)	45	Proposed RI SL (Commercial)	1,500
100x Proposed RI CUL (Unrestricted)	960	100x Proposed RI SL (Unrestricted)	32,000
OSHA PEL	680,000	1000x Proposed RI SL (Unrestricted)	320,000

- PCE was detected at a concentration equal to or greater than 680,000 ug/m³ (indoor air) or 320,000 ug/m³ (soil gas)
- PCE was detected at a concentration equal to or greater than 960 ug/m³ (indoor air) or 32,000 ug/m³ (soil gas)
- PCE was detected at a concentration equal to or greater than 45 ug/m³ (indoor air) or 1,500 ug/m³ (soil gas)
- PCE was detected at a concentration equal to or greater than 9.6 ug/m³ (indoor air) or 320 ug/m³ (soil gas)
- PCE not detected and non-detect value greater than 9.6 ug/m³ (indoor air) or 320 ug/m³ (soil gas)
- PCE not detected or detected at a concentration less than 9.6 ug/m³ (indoor air) or 320 ug/m³ (soil gas)
- Not sampled

- Air Sampling Location
- Subslab Soil Gas Sample Location
- Alluvial Unit Well
- Fill Unit Well

Site Features

- SPM Property Boundary
- Building Layout
- Crack (<0.25") Observed in Slab

Notes:
- J = Result value estimated
- RI = Remedial Investigation
- CUL = cleanup level
- SL = screening level
- OSHA PEL = Occupational Health and Safety Administration Permissible Exposure Limit
- All units in micrograms per cubic meter (ug/m³)
- Indoor air not sampled during October 2022 as part of Phase 2 of the Remedial Investigation

Tetrachloroethene (PCE) Results in Soil Gas and Indoor Air

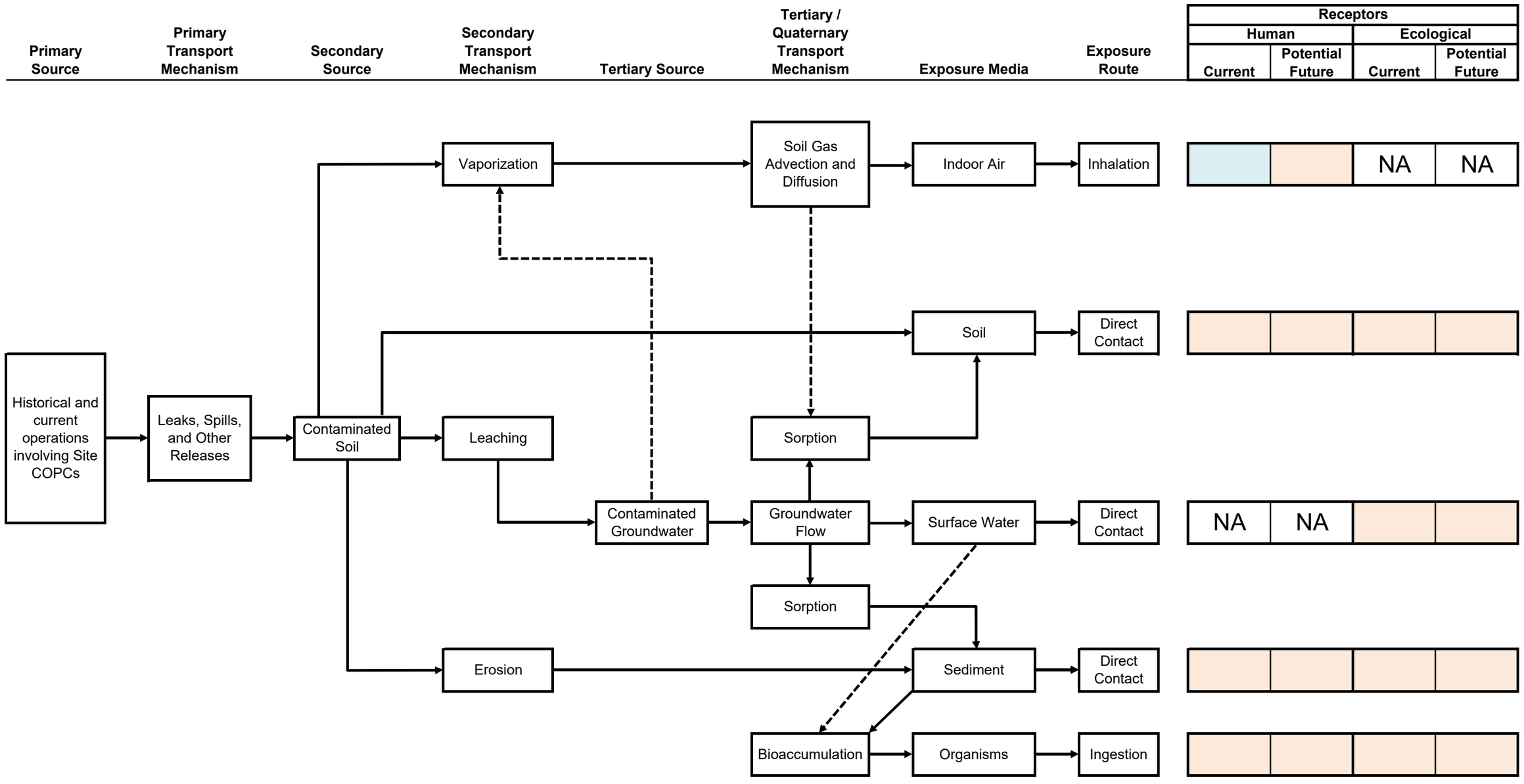
Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, WA

Aspect Consulting	SEP-2024	BY: AJY / NLK	FIGURE NO. 7.8.G
	PROJECT NO. 190293	REVISED BY: ---/---	

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GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI\Pro\SPM_Phase2_RI.aprx; 7.8 ETetrachloroethene PCE Results in Soil Gas and Indoor Air || User: Nora Kroehle || Print Date: 9/25/2024

SECTION 8 FIGURES



Notes:	Legend:	
- Dashed lines are for display purposes only and do not represent a difference from solid lines.	NA	Receptor Not Applicable
- Direct contact includes both dermal sorption and incidental ingestion.		Potentially complete exposure pathway not of concern
		Potentially complete exposure pathway of concern

Aspect Consulting
4/9/2025
S:\Seattle City Light\South Park Marina RI\Report Drafts\Remedial Investigation Report\Figures\Figure 8.1 - Conceptual Site Model - Exposure Pathways Flowchart

Figure 8.1
Conceptual Site Model Exposure Pathways Flowchart
Remedial Investigation Report
South Park Marina Site, Seattle, Washington

West

East

Potential Future Residents

Potential Future Resident Direct Soil **or** **Groundwater** Contact

Potential Current or Future Wildlife/Soil Biota/ Plant Uptake

Current or Potential Future Commercial Workers

Potential Current or Future Worker Direct Soil **or** **Groundwater** Contact

Potential Future Vapor Intrusion to Workers or Residents

Soil Erosion and Discharge via Stormwater System

Soil Erosion and Overland Flow to Sediment *

Ecology Block Wall

Lower Duwamish Waterway

BASE COURSE

FILL UNIT

Soil Leaching to Groundwater

POND FILL

Catch Basin

Potential Current or Future Direct Contact with Sediment

Potential Current or Future Ingestion of Fish/Shellfish

Potential Current or Future Aquatic Organism Exposure

TIDAL FLAT UNIT

Potential Current or Future Benthic Organism Exposure

LDW SEDIMENT

ALLUVIAL UNIT

Sheet Pile Wall in Southeast Corner

Groundwater Discharge to Sediment and Surface Water

Tidally Averaged Groundwater Flow

Stormwater Pipe and Outfall

Fill Unit, Tidally Averaged Groundwater Table

* Overland flow to sediment could occur in the future if the ecology block wall is removed.

Soil Leaching to Groundwater

Vapor Intrusion

Notes:
Blue text indicates contaminant transport pathways.
Green text indicates contaminant exposure pathways.
All exposure pathways are hypothetical, based on MTCA exposure assumptions implicit in the Proposed RI Cleanup Levels, and assume continued non-industrial site use (i.e., not meeting MTCA definition of an industrial property).

Not to Scale

Conceptual Site Model Representation of Potential Migration and Exposure Pathways for South Area

Remedial Investigation Report
South Park Marina
Seattle, Washington

Aspect CONSULTING	SEPT-2024	BY: AY / TDR	FIGURE NO. 8.2
	PROJECT NO. 190293	REV BY: AY / BDO	

T:\projects_8\Seattle\Ch\Light\SouthParkMarina_190293\Delivered\RIWP\8.1 Preliminary Conceptual Site Model for Migration and Exposure Pathways_BDO.ai

West

East

Current or Potential
Future Commercial Workers

Current or Potential
Future Residents

Potential Current or Future Worker Direct Soil **or** **Groundwater** Contact

Potential Current or Future Vapor Intrusion to Workers

Potential Future Vapor Intrusion to Residents

Potential Current or Future Resident Direct Soil **or** **Groundwater** Contact

Potential Current or Future Wildlife/Soil Biota/ Plant Uptake

Soil Erosion and Discharge via Stormwater System

Soil Erosion and Overland Flow to Sediment *

Ecology Block Wall

Lower Duwamish Waterway

Catch Basin

Potential Current or Future Direct Contact with Sediment

Potential Current or Future Ingestion of Fish/Shellfish

Potential Current or Future Aquatic Organism Exposure

Potential Current or Potential Future Benthic Organism Exposure

LDW SEDIMENT

Groundwater Discharge Sediment and Surface Water

BASE COURSE

FILL UNIT

Soil Leaching to Groundwater

TIDAL FLAT UNIT

ALLUVIAL UNIT

Tidally Averaged Groundwater Flow

Stormwater Pipe and Outfall

Fill Unit, Tidally Averaged Groundwater Table

* Overland flow to sediment could occur in the future if the ecology block wall is removed.

Soil Leaching to Groundwater

Vapor Intrusion

Notes:
Blue text indicates contaminant transport pathways.
Green text indicates contaminant exposure pathways.
All exposure pathways are hypothetical, based on MTCA exposure assumptions implicit in the Proposed RI Cleanup Levels, and assume continued non-industrial site use (i.e., not meeting MTCA definition of an industrial property).

Not to Scale

Conceptual Site Model Representation of Potential Migration and Exposure Pathways for Central and Northwest Areas

Remedial Investigation Report
South Park Marina
Seattle, Washington

Aspect Consulting	AUG-2024	BY: AY / TDR	FIGURE NO. 8.3
	PROJECT NO. 190293	REV BY: AY / BDO	

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SECTION 9 FIGURE

Generalized Area of Lower-Level, Shallow Soil and Groundwater Contamination

Generalized Area of Alluvial PCE Groundwater Plume

Generalized Area of Potential PCE Vapor Intrusion

Former Dry Cleaner (Removed Prior To 2012)

West Shallow Soil Hotspot Area

South Shallow Soil Hotspot Area

Pond Shallow and Deep Soil and Fill Groundwater Hotspot Area

16TH AVE S

S THISTLE ST

14TH AVE S

DALLAS AVE S

Duwamish Waterway

- Exceedance factors > 100 for PCBs, dioxins/furans, TPH, SVOCs, and cVOCs and/or cPAHs > Urban Background at depths up to 18 feet bgs
- Exceedance factors > 100 for PCBs, dioxins/furans, and SVOCs and/or cPAHs > Direct Contact Screening Level but < Urban Background at depths up to 6 feet bgs
- Exceedance factors > 100 for PCBs; cPAHs > Urban Background at depths up to 1.5 feet bgs
- Exceedance factor > 40 for PCE in Alluvial Groundwater
- Exceedance of PCE groundwater screening level for vapor intrusion in shallow groundwater and/or PCE subslab soil gas screening level (for commercial workers)
- Exceedance Factors for Analyte Classes (Excluding PAHs) < 100 and cPAHs < Area Background, except in hot spots noted by other colors

Adjacent Cleanups

- Independent SPU Cleanup Action
- T-117 Sediment Removal Area
- T-117 Upland Removal Area
- T-117 Adjacent Streets and Yards Removal Area

Site Features

- SPM Property Boundary
- Sheet Pile Wall
- Historical Off-Property Feature
- King County Tax Parcel

Notes:

- Generalized areas are for illustrative purposes where numerous samples exceeded the Proposed RI CULs; individual samples with exceedance factors above or below those listed in the descriptions above exist within these areas.
- Exceedance factors are the ratio of the maximum detected concentration to the Proposed RI CUL.
- Dashed lines indicate inferred boundaries.
- Exceedance Factors for the PAH analyte class not included in illustration, as any detection is generally orders of magnitude larger than the Proposed RI CUL for this chemical class.
- Proposed RI CUL = Proposed Remedial Investigation Cleanup Level
- PAHs = polycyclic aromatic hydrocarbons
- cVOCs = chlorinated volatile organic compounds: tetrachloroethene, trichloroethene, and vinyl chloride
- PCBs = polychlorinated biphenyls
- TPH = total petroleum hydrocarbons
- bgs = below ground surface

0 60 120 Feet

N

Project North

True North

Upland Areas and Media of Concern

Remedial Investigation Report
South Park Marina
8604 Dallas Avenue South
Seattle, Washington

Aspect Consulting	JUN-2025	BY: JJP / AJY / NLK	FIGURE NO. 9.1
	PROJECT NO. 190293	REVISED BY: ---/---	

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GIS Path: G:\projects\SouthParkMarina_190293\Phase 2 RI Prp\SPM_Phase2_RI_Rpt\c 9.1 Areas and Media of Concern.mxd || User: NelsonLaban || Print Date: 6/11/2025