

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		ST-02	ST-03		ST-08	ST-11	ST-14		ST-20		ST-21	ST-24	Proposed Sediment Cleanup Level ²	
Sample Identification		13116000038	13116000004	13116000006	13116000029	13116000010	13116000021	13116000023	13116000014	13116000015	13116000027	13116000100		
Sample Date		05/14/07	05/07/07	05/07/07	05/11/07	05/07/07	05/08/07	05/08/07	05/07/07	05/07/07	05/11/07	05/15/07		
Sample Interval (dbm)		5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	7.3 - 10.5 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm		
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Field Screening														
Visual Wood Content ³	%	90	85	80	100	85	90	90	90	90	70	<1	15	
Conventionals														
Total Organic Carbon (TOC)	Percent	6.11	46.9	9.21	24.1	18.9	44.0	14.4	30.8	25.1	17.1	1.45	NE	
Total Volatile Solids (TVS)	Percent	--	--	--	--	--	--	--	--	--	--	--	NE	
Total Solids (TS)	Percent	29.1	25.3	42.3	25.9	28.6	17.8	23.2	20.0	22.0	43.2	64.0	NE	
Total Ammonia	mg-N/kg	--	--	--	--	--	--	--	--	--	--	--	NE	
Porewater Ammonia	mg-N/L	--	--	--	--	--	--	--	--	--	--	--	NE	
Total Sulfide	mg/kg	--	--	--	--	--	--	--	--	--	--	--	NE	
Porewater Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	NE	
Porewater pH	pH	--	--	--	--	--	--	--	--	--	--	--	NE	
Grain Size														
Gravel	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Very Coarse Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Coarse Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Medium Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Fine Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Very Fine Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Coarse Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Medium Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Fine Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Very Fine Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Clay	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Total Fines	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Metals														
Arsenic	mg/kg	--	--	--	--	--	--	--	--	--	--	7 U	57	
Cadmium	mg/kg	--	--	--	--	--	--	--	--	--	--	0.3 U	5.1	
Chromium	mg/kg	--	--	--	--	--	--	--	--	--	--	32.7	260	
Copper	mg/kg	--	--	--	--	--	--	--	--	--	--	23.1	390	
Lead	mg/kg	--	--	--	--	--	--	--	--	--	--	9	450	
Mercury	mg/kg	--	--	--	--	--	--	--	--	--	--	0.06 J	0.41	
Silver	mg/kg	--	--	--	--	--	--	--	--	--	--	0.4 U	6.1	
Zinc	mg/kg	--	--	--	--	--	--	--	--	--	--	56	410	
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)														
Sum of LPAHs ⁴	mg/kg OC	210.9 J	5.0	413.5	22.3 J	795.2	7.9	24.3	6.3	10.9 J	17.2	13.3	370	
2-Methylnaphthalene	mg/kg OC	18	0.3	32.6	1.3 J	68.8	0.5	2.3	0.4	0.8	1.2	1.4 U	38	
Acenaphthene	mg/kg OC	39.3 J	0.3	58.6	1.2	116.4	0.3	2.4	0.5	1.04 J	2	1.4	16	

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Sample Date	05/14/07	05/07/07	05/07/07	05/11/07	05/07/07	05/08/07	05/08/07	05/07/07	05/07/07	05/11/07	05/15/07		
Sample Interval (dbm)	5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	7.3 - 10.5 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm		
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Acenaphthylene	mg/kg OC	1.4	0.4	0.9	0.8	1.5	0.1	0.3	0.2	0.2	0.4	1.4 U	66
Anthracene	mg/kg OC	16.4	0.1	27.1	0.7	58.2	0.1	0.5	0.3	0.4	1.6	2.3	220
Fluorene	mg/kg OC	24.5	0.3	65.1	1.1	89.9	0.3	1.3	0.4	1.0	2.1	1.4 U	23
Naphthalene	mg/kg OC	57.3	3.0	44.5	14.1	227.5	6.1	15.3	3.6	5.6	5	2.0	99
Phenanthrene	mg/kg OC	54	0.7	184.6	3.2	232.8	0.6	2.2	1.0	1.8	5	7.6	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	12,888 J	2,349	38,079	5,380 J	150,290	3,496	3,494	1,955	2,736 J	2,947	193	5,200
2-Methylnaphthalene	µg/kg	1,100	150	3,000	320 J	13,000	200	330	130	210	210	20 U	670
Acenaphthene	µg/kg	2,400 J	130	5,400	280	22,000	150	350	150	260 J	340	20	500
Acenaphthylene	µg/kg	88	170	79	190	290	48	43	52	56	67	20 U	1,300
Anthracene	µg/kg	1,000	49	2,500	170	11,000	38	71	83	110	270	34	960
Fluorene	µg/kg	1,500	120	6,000	260	17,000	110	190	130	240	360	20 U	540
Naphthalene	µg/kg	3,500	1,400	4,100	3,400	43,000	2,700	2,200	1,100	1,400	850	29	2,100
Phenanthrene	µg/kg	3,300	330	17,000	760 J	44,000	250	310	310	460	850	110	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	143.9 J	1.4	158.3	5.9 J	477.2	1.4	4.6	2.8	4.7 J	26.2	67.4 J	960
Benzo(a)anthracene	mg/kg OC	14.2	0.05 U	8.4	0.2 J	45.5	0.03	0.4	0.3	0.5 J	2	5.3	110
Benzo(a)pyrene	mg/kg OC	9.2	0.05 U	2.8	0.1 U	20.6	0.03	0.3	0.2	0.5 J	2.2	4.5	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	19.1	0.05 U	7.1	0.1 U	46.6	0.1	0.6	0.4	1	3.8	9.7	230
Benzo(g,h,i)perylene	mg/kg OC	2.5 J	0.05 U	1.5	0.1 U	7.4	0.02 U	0.1	0.1	0.2	1.3	1.9	31
Chrysene	mg/kg OC	18	0.05 U	8.7	0.2 J	45.5	0.1	0.5	0.4	0.8 J	3.3	8.3	110
Dibenzo(a,h)anthracene	mg/kg OC	1	0.05 U	0.5	0.1 U	2.1	0.02 U	0.04 U	0.03	0.1 J	0.2	1.4 U	12
Fluoranthene	mg/kg OC	49.1	1.2	82.5	3.9	190.5	0.8	1.5	0.7	0.9	7	22.8 J	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	2.9	0.05 U	1.3	0.1 U	7.9	0.02 U	0.2	0.1	0.2	1.2	1.9	34
Pyrene	mg/kg OC	27.8	0.1	45.6	1.8	111.1	0.4	1	0.6	0.6 J	5.1	13.1	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	8,792 J	648	14,583	1,445 J	90,190	599	665	870.8	1,191 J	4,481	977 J	12,000
Benzo(a)anthracene	µg/kg	870	24 U	770	37 J	8,600	14	51	77	120 J	350	77	1,300
Benzo(a)pyrene	µg/kg	560	24 U	260	28 U	3,900	11	38	64	120 J	370	65	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	1,170	24 U	650	28 U	8,800	40	89	130	250	650	141	3,200
Benzo(g,h,i)perylene	µg/kg	150 J	24 U	140	28 U	1,400	9.6 U	21	33	59	230	27	670
Chrysene	µg/kg	1,100	24 U	800	48 J	8,600	34	74	120	190 J	560	120	1,400
Dibenzo(a,h)anthracene	µg/kg	62	24 U	43	28 U	390	9.6 U	6.2 U	9.8	15 J	41	20 U	230
Fluoranthene	µg/kg	3,000	580	7,600	930	36,000	330	220	210	230	1,200	330 J	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	180	24 U	120	28 U	1,500	9.6 U	22	37	57	200	27	600
Pyrene	µg/kg	1,700	68	4,200	430	21,000	170	150	190	150 J	880	190	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	0.1 U	0.05 U	0.07 U	0.12 U	0.04 J	0.02 U	0.04 U	0.02 U	0.03 U	0.04 U	1.4 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.1 U	0.05 U	0.07 U	0.12 U	0.03 U	0.02 U	0.04 U	0.02 U	0.03 U	0.04 U	1.4 U	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.1 U	0.05 U	0.07 U	0.12 U	0.03 U	0.02 U	0.04 U	0.02 U	0.03 U	0.04 U	1.4 U	3.1
Hexachlorobenzene	mg/kg OC	0.1 U	0.05 U	0.07 U	0.12 U	0.07 J	0.02 U	0.04 U	0.02 U	0.03 U	0.04 U	1.4 U	0.38

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Sample Date	05/14/07	05/07/07	05/07/07	05/11/07	05/07/07	05/08/07	05/08/07	05/07/07	05/07/07	05/11/07	05/15/07		
Sample Interval (dbm)	5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	7.3 - 10.5 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm		
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	6.1 U	24 U	6.2 U	28 U	7.4 J	9.6 U	6.2 U	6.1 U	6.2 U	6.2 U	20 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	6.1 U	24 U	6.2 U	28 U	6.1 U	9.6 U	6.2 U	6.1 U	6.2 U	6.2 U	20 U	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	6.1 U	24 U	6.2 U	28 U	6.1 U	9.6 U	6.2 U	6.1 U	6.2 U	6.2 U	20 U	110
Hexachlorobenzene	µg/kg	6.1 U	24 U	6.2 U	28 U	14 J	9.6 U	6.2 U	6.1 U	6.2 U	6.2 U	20 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	0.2 U	0.08 J	0.1 U	0.2 J	0.2 J	0.05 U	0.1 U	0.08 U	0.05 U	0.2 U	3.03 J	47
Butyl Benzyl Phthalate	mg/kg OC	0.1 U	0.8	0.07 U	2.7	0.03	0.1 J	0.04 U	0.6	0.04 J	0.8	1.4 U	4.9
Dibutyl Phthalate	mg/kg OC	0.1 U	0.2	5.7 J	1.1 J	0.6 J	0.1 U	0.06 U	0.02 U	0.2 U	0.4 J	1.4 U	220
Diethyl Phthalate	mg/kg OC	0.1 U	0.05 U	0.07 U	0.1 U	0.06 U	0.02 U	0.06 U	0.06 U	0.03 U	0.04 U	1.4 U	61
Dimethyl Phthalate	mg/kg OC	0.1 U	0.05 U	0.07 U	0.1 U	0.06 U	0.02 U	0.04 U	0.02 U	0.03 U	0.04 U	1.4 U	53
Di-N-Octyl Phthalate	mg/kg OC	0.1097	0.05 U	0.07 U	0.1 U	0.06 U	0.02 U	0.04 U	0.02 U	0.03 U	0.04	1.4 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	10 U	36 J	9.9 U	37 J	37 J	22 U	18 U	26 U	12 U	30 U	44 J	1,300
Butyl Benzyl Phthalate	µg/kg	6.1 U	390	6.2 U	650	6.1	58 J	6.2 U	180	9.9 J	140	20 U	63
Dibutyl Phthalate	µg/kg	6.1 U	90 J	520 J	270 J	110 J	45 U	8.6 U	7.3 U	48 U	63 J	20 U	1,400
Diethyl Phthalate	µg/kg	6.7 U	24 U	6.2 U	28 U	12 U	9.6 U	8.6 U	17 U	7.4 U	6.2 U	20 U	200
Dimethyl Phthalate	µg/kg	6.1 U	24 U	6.2 U	28 U	6.1 U	9.6 U	6.2 U	6.1 U	6.2 U	6.2 U	20 U	71
Di-N-Octyl Phthalate	µg/kg	6.7	24 U	6.2 U	28 U	6.1 U	9.6 U	6.2 U	6.1 U	6.2 U	7.4	20 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	170 J	34	42 J	110	800	250	240	95	87	48	20 U	29
2-Methylphenol (o-Cresol)	µg/kg	180	44	23	62	120	290	240	200	170	11	20 U	63
4-Methylphenol (p-Cresol)	µg/kg	470	2,600	300	3,700	480	2,600	830	1,100	1,200	550	24	670
Pentachlorophenol	µg/kg	30 U	120 U	31 U	140 U	31 U	48 U	31 U	330	31 U	31 U	100 U	360
Phenol	µg/kg	15 U	150 J	31 U	85 J	260 J	62 J	37 J	90 J	33 J	45 J	20 U	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	18	0.4	52.1	0.99	68.8	0.93	1.7	0.97	0.99	1.4	1.4 U	15
Hexachlorobutadiene	mg/kg OC	0.1 U	0.05 U	0.07 U	0.1 U	0.05 J	0.02 U	0.04 U	0.02 U	0.03 U	0.04 U	1.4 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	--	0.05 U	0.8 U	0.1 U	--	0.02 U	0.04 U	0.02 U	0.03 U	0.04 U	1.4 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	1,100	170	4,800	240	13,000	410	240	300	250	240	20 U	540
Hexachlorobutadiene	µg/kg	6.1 U	24 U	6.2 U	28 U	8.6 J	9.6 U	6.2 U	6.1 U	6.2 U	6.2 U	20 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	--	24 U	71 U	28 U	--	9.6 U	6.2 U	6.1 U	6.2 U	6.2 U	20 U	28
Benzoic Acid	µg/kg	61 U	600 J	62 U	530 J	680 J	110 J	69 J	61 U	62 U	64 J	200 U	650
Benzyl Alcohol	µg/kg	30 U	120 U	510 J	140 U	170 J	82 J	31 U	170 J	88 J	48 J	20 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	--	--	--	--	--	--	--	--	--	--	1.10 U	12

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Sample Date	05/14/07	05/07/07	05/07/07	05/11/07	05/07/07	05/08/07	05/08/07	05/07/07	05/07/07	05/11/07	05/15/07	
Sample Interval (dbm)	5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	7.3 - 10.5 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyls (PCBs) (Dry Weight)												
Total PCBs (Aroclors or Congeners)	µg/kg	--	--	--	--	--	--	--	--	--	16 U	130
Chlorinated Phenols and Guaiacols												
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids												
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Pesticides												
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Herbicides												
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		ST-02	ST-03		ST-08	ST-11	ST-14		ST-20		ST-21	ST-24	Proposed Sediment Cleanup Level ²
Sample Identification		13116000038	13116000004	13116000006	13116000029	13116000010	13116000021	13116000023	13116000014	13116000015	13116000027	13116000100	
Sample Date		05/14/07	05/07/07	05/07/07	05/11/07	05/07/07	05/08/07	05/08/07	05/07/07	05/07/07	05/11/07	05/15/07	
Sample Interval (dbm)		5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	7.3 - 10.5 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		ST-24	ST-29	ST-30	ST-32	ST-34		ST-37	ST-39		ST-42	ST-43	Proposed Sediment Cleanup Level ²	
Sample Identification		13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106	13116000107	13116000033	13116000108	13116000031		
Sample Date		05/15/07	05/15/07	05/15/07	05/15/07	05/15/07	05/09/07	05/15/07	05/15/07	05/14/07	05/15/07	05/11/07		
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm	0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft		
Sample Type		Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	Subsurface	Surface	Subsurface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Field Screening														
Visual Wood Content ³	%	<1	35	95	35	15	15	15	10	5	<1	100	15	
Conventionals														
Total Organic Carbon (TOC)	Percent	1.14	1.26	2.14	1.74	2.05	3.93	3.27	1.69	5.47	0.800	15.9	NE	
Total Volatile Solids (TVS)	Percent	--	--	--	--	--	--	--	--	--	--	--	NE	
Total Solids (TS)	Percent	62.6	53.2	44.6	45.6	47.1	43.5	49.8	53.1	41.5	71.6	25.9	NE	
Total Ammonia	mg-N/kg	--	--	--	--	--	--	--	--	--	--	--	NE	
Porewater Ammonia	mg-N/L	--	--	--	--	--	--	--	--	--	--	--	NE	
Total Sulfide	mg/kg	--	--	--	--	--	--	--	--	--	--	--	NE	
Porewater Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	NE	
Porewater pH	pH	--	--	--	--	--	--	--	--	--	--	--	NE	
Grain Size														
Gravel	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Very Coarse Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Coarse Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Medium Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Fine Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Very Fine Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Coarse Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Medium Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Fine Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Very Fine Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Clay	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Total Fines	%	--	--	--	--	--	--	--	--	--	--	--	NE	
Metals														
Arsenic	mg/kg	7 U	9 U	10	10	10	40 J	10 U	9 U	10	6 U	--	57	
Cadmium	mg/kg	0.3 U	0.7	0.7	0.8	0.8	1.5	0.6	0.6	2.1	0.2 U	--	5.1	
Chromium	mg/kg	33.3	42.2	51	44	39	49	29	34.2	60	22.8	--	260	
Copper	mg/kg	22.1	44.3	47.3	46.8	41.3	104	30.3	28.2	84.3	12.4	--	390	
Lead	mg/kg	9	21	16	17	19	55	13	13	55	3	--	450	
Mercury	mg/kg	0.05 U	0.09 J	0.1 J	0.15 J	0.14 J	--	0.08 J	0.11 J	--	0.05 U	--	0.41	
Silver	mg/kg	0.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.8 U	0.4 U	--	6.1	
Zinc	mg/kg	50	163	94	98	106	341 J	76	67	127	34	--	410	
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)														
Sum of LPAHs ⁴	mg/kg OC	9.1	56.9	11.2	28.3	35.5	102.1 J	20.1	24.9	35	8.4	3710.1	370	
2-Methylnaphthalene	mg/kg OC	1.8 U	2.8	0.9 U	1.3	2.1	7.4	1.1	1.4	2.9	2.5 U	54.7	38	
Acenaphthene	mg/kg OC	1.8 U	5.8	1.2	3.3	4.9	14.5 J	2.3	2.6	3.3	2.5 U	94.3	16	

Sample Location ¹		ST-24	ST-29	ST-30	ST-32	ST-34		ST-37	ST-39		ST-42	ST-43	Proposed Sediment Cleanup Level ²
Sample Identification		13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106	13116000107	13116000033	13116000108	13116000031	
Sample Date		05/15/07	05/15/07	05/15/07	05/15/07	05/15/07	05/09/07	05/15/07	05/15/07	05/14/07	05/15/07	05/11/07	
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm	0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	
Sample Type		Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	Subsurface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Acenaphthylene	mg/kg OC	1.8 U	2.2	0.9 U	1.1	1	0.9	0.8	1.2 U	0.8	2.5 U	1.3	66
Anthracene	mg/kg OC	2.5	9.5	2	4.5	4.1	7.4	3.1	4.4	3.8	2.5 U	2578.6	220
Fluorene	mg/kg OC	1.8 U	5.8	1.1	2.8	4.0	12.7	1.9	2.6	4.4	2.5 U	327	23
Naphthalene	mg/kg OC	1.8 U	6.2	1.7	3.3	4.9	16	3.1	5	10.4	3.4	88.1	99
Phenanthrene	mg/kg OC	6.7	24.6	5.1	12.1	14.6	43.3	8	8.9	9.3	5	566	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	104	717	240	493	728	4,014 J	657	420	1,914	67	589,910	5,200
2-Methylnaphthalene	µg/kg	20 U	35	20 U	22	43	290	36	23	160	20 U	8,700	670
Acenaphthene	µg/kg	20 U	73	26	57	100	570 J	74	44	180	20 U	15,000	500
Acenaphthylene	µg/kg	20 U	28	20 U	20	20	34	26	20 U	44	20 U	210	1,300
Anthracene	µg/kg	28	120	43	78	84	290	100	75	210	20 U	410,000	960
Fluorene	µg/kg	20 U	73	24	48	81	500	61	44	240	20 U	52,000	540
Naphthalene	µg/kg	20 U	78	37	58	100	630	100	84	570	27	14,000	2,100
Phenanthrene	µg/kg	76	310	110	210	300	1,700	260	150	510	40	90,000	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	50.7 J	217.4 J	53.9 J	108.8 J	118.3 J	163.5 J	69.5 J	91.8 J	44.5	38.3 J	928.4	960
Benzo(a)anthracene	mg/kg OC	4.1 J	17.5 J	4.4	9.8 J	9.3 J	12.5	5.5 J	8.3 J	3.3	3.8 J	69.2	110
Benzo(a)pyrene	mg/kg OC	3.8	13.5 J	3.6	8	7.8	11.2	4.9	7.1	2.7	2.8	11.9	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	8.8	32.5	9.3	20.1	19.0	24.7	12.5	16.6	7.9	7.8	29.6	230
Benzo(g,h,i)perylene	mg/kg OC	1.8 U	7.2	1.1	4.8	4.4	3.3 J	2.8	4.2	0.6	2.5 U	2.3	31
Chrysene	mg/kg OC	7.7	28.6 J	7.5 J	16.1 J	16.1 J	18.8	10.4 J	14.2 J	5.9	5.4 J	106.9	110
Dibenzo(a,h)anthracene	mg/kg OC	1.8 U	1.6 U	0.9 U	1.1 U	1 U	0.7	0.6 U	1.2 U	0.3 U	2.5 U	1.1	12
Fluoranthene	mg/kg OC	14.9 J	66.7	15	29.3	39.5	61.1	21.1	26	15.4	13.8	478	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	1.8 U	6.2	1.4	4.5	3.6	3.3	2.5	1.8	0.6	2.5 U	3.0	34
Pyrene	mg/kg OC	11.4	45.2	11.7 J	16.1 J	18.5 J	28 J	9.8 J	13.6	8.2	8.8	226.4	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	578 J	2,739 J	1,154 J	1,893	2,425 J	6,427 J	2,272	1,551 J	2,432	306 J	147,610	12,000
Benzo(a)anthracene	µg/kg	47 J	220 J	95	170 J	190 J	490	180 J	140 J	180	30 J	11,000	1,300
Benzo(a)pyrene	µg/kg	43	170 J	77	140	160	440	160	120	150	22	1,900	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	100	410	198	350	390	970	410	280	430	62	4,700	3,200
Benzo(g,h,i)perylene	µg/kg	20 U	91	23	84	91	130 J	91	71	31	20 U	360	670
Chrysene	µg/kg	88	360 J	160 J	280 J	330 J	740	340 J	240 J	320	43 J	17,000	1,400
Dibenzo(a,h)anthracene	µg/kg	20 U	20 U	20 U	20 U	20 U	27	20 U	20 U	20 U	20 U	170	230
Fluoranthene	µg/kg	170 J	840	320	510	810	2,400	690	440	840	110	76,000	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	20 U	78	31	79	74	130	81	30	31	20 U	480	600
Pyrene	µg/kg	130	570	250 J	280 J	380 J	1,100 J	320 J	230	450	70	36,000	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	1 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	0.04 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	1 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	0.6	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	1 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	0.1	3.1
Hexachlorobenzene	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	1 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	0.04 U	0.38

Sample Location ¹		ST-24	ST-29	ST-30	ST-32	ST-34		ST-37	ST-39		ST-42	ST-43	Proposed Sediment Cleanup Level ²	
Sample Identification		13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106	13116000107	13116000033	13116000108	13116000031		
Sample Date		05/15/07	05/15/07	05/15/07	05/15/07	05/15/07	05/09/07	05/15/07	05/15/07	05/14/07	05/15/07	05/11/07		
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm	0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft		
Sample Type		Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	Subsurface	Surface	Subsurface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)														
1,2,4-Trichlorobenzene	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	6.2 U	31	
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	96	35	
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20	110	
Hexachlorobenzene	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	6.2 U	22	
Phthalates (OC Normalized)														
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	1.8 U	3.8 J	1.4 J	2.1 J	1.9 J	3.3	1 J	2 J	1.6	2.5 U	0.7 J	47	
Butyl Benzyl Phthalate	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	1 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	1.8	4.9	
Dibutyl Phthalate	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	1 U	1.7 NJ	0.6 U	1.2 U	0.9 NJ	2.5 U	1.3 J	220	
Diethyl Phthalate	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	1 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	0.06 U	61	
Dimethyl Phthalate	mg/kg OC	5.7 J	1.6 U	0.9 U	1.2 U	1 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	0.04 U	53	
Di-N-Octyl Phthalate	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	1 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	0.04 U	58	
Phthalates (Dry Weight)														
Bis(2-Ethylhexyl) Phthalate	µg/kg	20 U	48 J	30 J	36 J	38 J	130	33 J	34 J	88	20 U	110 J	1,300	
Butyl Benzyl Phthalate	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	290	63	
Dibutyl Phthalate	µg/kg	20 U	20 U	20 U	20 U	20 U	68 NJ	20 U	20 U	47 NJ	20 U	210 J	1,400	
Diethyl Phthalate	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	9.9 U	200	
Dimethyl Phthalate	µg/kg	65 J	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	6.2 U	71	
Di-N-Octyl Phthalate	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	6.2 U	6,200	
Phenols (Dry Weight)														
2,4-Dimethylphenol	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20	20 U	410	29	
2-Methylphenol (o-Cresol)	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	120	63	
4-Methylphenol (p-Cresol)	µg/kg	20 U	41	20 U	26	42	540	91	46	530	20 U	920	670	
Pentachlorophenol	µg/kg	100 U	100 U	100 U	100 U	100 U	99 U	99 U	100 U	100 U	99 U	31 U	360	
Phenol	µg/kg	20 U	22	20 U	20 U	23	20 U	25	20 U	25	20 U	37 J	420	
Miscellaneous Extractables (OC Normalized)														
Dibenzofuran	mg/kg OC	1.8 U	4.9	1.2	2.7	3.95	11.7	1.9	2.2	3.3	2.5 U	106.9	15	
Hexachlorobutadiene	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	0.98 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	0.4 U	3.9	
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	1.8 U	1.6 U	0.9 U	1.2 U	0.98 U	0.5 U	0.6 U	1.2 U	0.4 U	2.5 U	6.3 U	11	
Miscellaneous Extractables (Dry Weight)														
Dibenzofuran	µg/kg	20 U	62	25	47	81	460	62	37	180	20 U	17,000	540	
Hexachlorobutadiene	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	6.2 U	11	
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1,000 U	28	
Benzoic Acid	µg/kg	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	86 J	650	
Benzyl Alcohol	µg/kg	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	35 J	57	
Polychlorinated Biphenyls (PCBs) (OC Normalized)														
Total PCBs (Aroclors or Congeners)	mg/kg OC	1.05	4.52	1.54 U	0.98 U	3.27	132.3	1.90	0.95 U	2.4	2 U	-	12	

Sample Location ¹		ST-24	ST-29	ST-30	ST-32	ST-34		ST-37	ST-39		ST-42	ST-43	Proposed Sediment Cleanup Level ²
Sample Identification		13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106	13116000107	13116000033	13116000108	13116000031	
Sample Date		05/15/07	05/15/07	05/15/07	05/15/07	05/15/07	05/09/07	05/15/07	05/15/07	05/14/07	05/15/07	05/11/07	
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm	0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	
Sample Type		Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	Subsurface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	12	57	33 U	17 U	67	5,200	62	16 U	131	16 U	--	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		ST-24	ST-29	ST-30	ST-32	ST-34		ST-37	ST-39		ST-42	ST-43	Proposed Sediment Cleanup Level ²
Sample Identification		13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106	13116000107	13116000033	13116000108	13116000031	
Sample Date		05/15/07	05/15/07	05/15/07	05/15/07	05/15/07	05/09/07	05/15/07	05/15/07	05/14/07	05/15/07	05/11/07	
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm	0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	
Sample Type		Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	Subsurface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	SP-151		A1-15			A1-18			A1-23	A1-24		Proposed Sediment Cleanup Level ²	
Sample Identification	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3		
Sample Date	06/12/2007	06/12/2007	08/01/08	08/13/08	08/13/08	09/04/08	08/14/08	08/14/08	08/04/08	09/04/08	09/04/08		
Sample Interval (dbm)	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft		
Sample Type	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Surface	Surface	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Field Screening													
Visual Wood Content ³	%	<1	<1	Trace	<1	<1	50	<1	<1	25	35	30	15
Conventionals													
Total Organic Carbon (TOC)	Percent	1.38	3.31	1.51	0.320	0.170	1.82	1.12	0.830	1.42	1.28	2.47	NE
Total Volatile Solids (TVS)	Percent	--	--	3.8	1.8	1.8	5.2	3.8	2.8	6.4	13.1	18.2	NE
Total Solids (TS)	Percent	--	--	69.5	76.2	73.1	64.8	66.9	73.2	57.4	48.2	43.2	NE
Total Ammonia	mg-N/kg	--	--	4.35	--	--	--	--	--	--	--	--	NE
Porewater Ammonia	mg-N/L	--	--	--	--	--	--	--	--	--	--	--	NE
Total Sulfide	mg/kg	--	--	13.3 J	23.5 J	12.8 J	11.7 J	98.8 J	187 J	73 J	377 J	799 J	NE
Porewater Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	NE
Porewater pH	pH	--	--	--	--	--	--	--	--	--	--	--	NE
Grain Size													
Gravel	%	21.4	23.7	13.4	2.5	0.2	3.1	0.1	2.9	2.7	3.4	10	NE
Very Coarse Sand	%	8	9	6.7	2.2	0.3	2.6	0.5	4.1	2.7	2.1	4	NE
Coarse Sand	%	16.1	16.2	12	5	1	8.5	2.2	10.6	5.5	3.8	5.5	NE
Medium Sand	%	21.5	21.4	14.9	6.5	2.1	20.9	9.3	16.5	7.4	6.4	7.9	NE
Fine Sand	%	5.8	5.7	5.4	3.7	3.3	10.4	5.3	6.6	8	13.3	5.7	NE
Very Fine Sand	%	9.2	9.3	12.7	30.8	20.9	21.7	21.4	14.1	22.6	23.6	10.1	NE
Coarse Silt	%	14.5	11.5	12.9	33	38	11.6	18.8	18.6	19.8	15.4	10.9	NE
Medium Silt	%			7.2	7.4	11.3	5.9	15.5	10.4	8.3	7.8	11.4	NE
Fine Silt	%			4.2	2.7	5.1	3.9	8.2	5.1	5.6	5.4	9.4	NE
Very Fine Silt	%			2.7	1.4	1.5	3.3	5.4	3.2	4.6	5.9	6.4	NE
Clay	%	3.6	3.2	7.8	5.1	6.2	8.3	13.4	8	12.7	12.9	18.6	NE
Total Fines	%	18.1	14.7	34.9	49.5	62.1	32.9	61.2	45.3	51.1	47.4	56.8	NE
Metals													
Arsenic	mg/kg	5.95	6.02	7 U	6 U	7 U	8 U	11	9	9 U	50	10	57
Cadmium	mg/kg	0.34	0.3	0.4	0.2 U	0.3 U	0.6	0.5	0.3	0.8	1.5	2	5.1
Chromium	mg/kg	26.8	28.3	33.6	26.6	50.8	31	41.7	36.7	43	46	53	260
Copper	mg/kg	26.6	19.6	28.8	15.6	17.9	28.9	47	36.1	38.2	137	81.3	390
Lead	mg/kg	9.99	8.95	10	2 U	3 U	11	11	8	15	47	55	450
Mercury	mg/kg	0.05	0.079	0.1	0.06 U	0.06 U	0.09	0.12	0.09	0.08	0.1	0.3	0.41
Silver	mg/kg	0.1 U	0.1 U	0.4 U	0.4 U	0.4 U	0.5 U	0.4 U	0.4 U	0.5 U	0.7 U	0.7 U	6.1
Zinc	mg/kg	62.6	52.5	53 J	35	40	56 J	67	57	76 J	415 J	122	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	108	32.9 J	21.3 J	5.9 U	11.8 U	15.4 J	36.3 J	15.7 J	20.8 J	68.3	44.1	370
2-Methylnaphthalene	mg/kg OC	8.6	2	1.3 J	5.9 U	11.8 U	0.98 J	4.8	1.2	1.3 J	4.8	4.5	38
Acenaphthene	mg/kg OC	6	2.2	1.5	5.9 U	11.8 U	0.98 J	1.5 J	2.3 U	1.6	9.4	4.9	16

Sample Location ¹		SP-151		A1-15			A1-18			A1-23	A1-24		Proposed Sediment Cleanup Level ²
Sample Identification		7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	
Sample Date		06/12/2007	06/12/2007	08/01/08	08/13/08	08/13/08	09/04/08	08/14/08	08/14/08	08/04/08	09/04/08	09/04/08	
Sample Interval (dbm)		0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Surface	Surface	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Acenaphthylene	mg/kg OC	5.7	2	1.4	5.9 U	11.8 U	0.9 J	2	1.9 J	1.0 J	2.2	0.8	66
Anthracene	mg/kg OC	8.6	3.1	2.8	5.9 U	11.8 U	1.7	2	1.9 J	2.5	8.6	4.9	220
Fluorene	mg/kg OC	6.6	2.6	1.9	5.9 U	11.8 U	1.3	1.8	2.3 U	1.9	7.3	6.1	23
Naphthalene	mg/kg OC	62	14.2 J	5.3	5.9 U	11.8 U	4.8	17.9	4.6	5.9	10.9	10.9	99
Phenanthrene	mg/kg OC	19.3	8.9	7.3	5.9 U	11.8 U	4.7	6.3	6	6.6	25	12.1	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	1,491	1,090 J	322 J	19 U	20 U	281 J	406 J	129.9 J	295 J	874	1,090	5,200
2-Methylnaphthalene	µg/kg	118	66	19 J	19 U	20 U	18 J	54	9.9 J	18 J	62	110	670
Acenaphthene	µg/kg	80	73	22	19 U	20 U	18 J	17 J	19 U	23	120	120	500
Acenaphthylene	µg/kg	79	67	21	19 U	20 U	17 J	22	16 J	14 J	28	20	1,300
Anthracene	µg/kg	119	103	42	19 U	20 U	31	22	16 J	35	110	120	960
Fluorene	µg/kg	91	85	28	19 U	20 U	24	20	19 U	27	94	150	540
Naphthalene	µg/kg	855	469 J	80	19 U	20 U	88	200	38	84	140	270	2,100
Phenanthrene	µg/kg	267	293	110	19 U	20 U	85	71	50	94	320	300	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	85	44.3	46	12.8 J	11.8 U	27.5 J	36.6	39.0 J	49.6 J	172	39.6 J	960
Benzo(a)anthracene	mg/kg OC	5.6	2.6	3.5	5.9 U	11.8 U	2.1	3.1	3.1	4.9	16.4	3.1	110
Benzo(a)pyrene	mg/kg OC	4.9	3	3.5	5.9 U	11.8 U	1.5	3.7	4	4.2	14.1	3.6	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	6.1	3.2	7.7	5.9 U	11.8 U	4	6.6	6.4	9.4	31.3	8.5	230
Benzo(g,h,i)perylene	mg/kg OC	3.2	2.4	1.8	5.9 U	11.8 U	1.5	3.4 U	3.1 U	2.7	7.4	1.3 U	31
Chrysene	mg/kg OC	8.2	6.7	4.8	5.9 U	11.8 U	2.9	3.8	4.5	7.7	24.2	6.5	110
Dibenzo(a,h)anthracene	mg/kg OC	0.7	0.5	1.3 U	5.9 U	11.8 U	0.7 J	1.8 U	2.3 U	0.9 J	3.4	0.4 J	12
Fluoranthene	mg/kg OC	25.1	11.1	11.3	3.4 J	11.8 U	7.1	7.5	8.7	9.2	35.2	10.9	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	3.2	2.5	1.5	5.9 U	11.8 U	1.2	3	2.3 J	2.3	7.2	1.3	34
Pyrene	mg/kg OC	25.6	11	11.9	9.4	11.8 U	6.6	8.9	10.1	8.5	32.8	5.3	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	1,173	1,467	695	41 J	20 U	500 J	410	324 J	704 J	2,201	977 J	12,000
Benzo(a)anthracene	µg/kg	77	85	53	19 U	20 U	39	35	26	69	210	77	1,300
Benzo(a)pyrene	µg/kg	67	99	53	19 U	20 U	27	41	33	59	180	88	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	84	106	117	19 U	20 U	72	74	53	133	400	210	3,200
Benzo(g,h,i)perylene	µg/kg	44	78	27	19 U	20 U	27	38 U	26 U	38	95	32 U	670
Chrysene	µg/kg	113	223	72	19 U	20 U	52	42	37	110	310	160	1,400
Dibenzo(a,h)anthracene	µg/kg	9.6	16	20 U	19 U	20 U	12 J	20 U	19 U	12 J	44	10 J	230
Fluoranthene	µg/kg	347	368	170	11 J	20 U	130	84	72	130	450	270	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	44	82	23	19 U	20 U	21	34	19 J	33	92	32	600
Pyrene	µg/kg	353	365	180	30	20 U	120	100	84	120	420	130	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	0.6 U	0.3 U	1.3 U	5.9 U	11.8 U	1.04 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.6 U	0.3 U	1.3 U	5.9 U	11.8 U	1.04 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.6 U	0.3 U	1.3 U	5.9 U	11.8 U	1.04 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	3.1
Hexachlorobenzene	mg/kg OC	0.035 U	0.015 U	1.3 U	5.9 U	11.8 U	1.04 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	0.38

Sample Location ¹	SP-151		A1-15			A1-18			A1-23	A1-24		Proposed Sediment Cleanup Level ²	
Sample Identification	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3		
Sample Date	06/12/2007	06/12/2007	08/01/08	08/13/08	08/13/08	09/04/08	08/14/08	08/14/08	08/04/08	09/04/08	09/04/08		
Sample Interval (dbm)	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft		
Sample Type	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Surface	Surface	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	8.5 U	8.6 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	8.5 U	8.6 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	8.5 U	8.6 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	110
Hexachlorobenzene	µg/kg	0.48 U	0.5 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	1.3 U	0.69 U	0.7 J	5.9 U	11.8 U	0.8 J	0.98 J	2.3 U	2.2	15.6 J	0.89	47
Butyl Benzyl Phthalate	mg/kg OC	1.3 U	0.51 U	1.3 U	5.9 U	11.8 U	1 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	4.9
Dibutyl Phthalate	mg/kg OC	2.6 U	1.0 U	1.3 U	5.9 U	11.8 U	1 U	1.8 U	2.3 U	1.4 U	1.6 U	1.7	220
Diethyl Phthalate	mg/kg OC	1.3 U	1.0 U	1.3 U	5.9 U	11.8 U	1 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	61
Dimethyl Phthalate	mg/kg OC	1.3 U	0.51 U	1.3 U	5.9 U	11.8 U	1 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	53
Di-N-Octyl Phthalate	mg/kg OC	1.3 U	0.51 U	1.3 U	5.9 U	11.8 U	1 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	17 U	23 U	11 J	19 U	20 U	14 J	11 J	19 U	31	200 J	22	1,300
Butyl Benzyl Phthalate	µg/kg	17 U	17 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	63
Dibutyl Phthalate	µg/kg	34 U	34 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	41	1,400
Diethyl Phthalate	µg/kg	17 U	34 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	200
Dimethyl Phthalate	µg/kg	17 U	17 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	71
Di-N-Octyl Phthalate	µg/kg	17 U	17 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	34 J	17 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	23	29
2-Methylphenol (o-Cresol)	µg/kg	8.5 U	8.6 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	20	63
4-Methylphenol (p-Cresol)	µg/kg	133	115	68	19 U	20 U	50	31	19 U	45	87	870	670
Pentachlorophenol	µg/kg	34 U	34 U	98 U	97 U	98 U	96 U	99 U	97 U	98 U	97 U	97 U	360
Phenol	µg/kg	76 U	65 U	40	19 U	20 U	57	15 J	19 U	19 J	48	21	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	10.3	4.02	1.6	5.9 U	11.8 U	1.1	1.2 J	2.3 U	1.8	7.5	4.5	15
Hexachlorobutadiene	mg/kg OC	0.65 U	0.26 U	1.3 U	5.9 U	11.8 U	1 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	1.3 U	0.51 U	1.3 U	5.9 U	11.8 U	1 U	1.8 U	2.3 U	1.4 U	1.6 U	0.8 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	142 J	133 J	24	19 U	20 U	20	13 J	19 U	26	96	110	540
Hexachlorobutadiene	µg/kg	8.5 U	8.6 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	17 U	17 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	28
Benzoic Acid	µg/kg	262 U	671 J	200 U	190 U	200 U	190 U	200 U	190 U	200 U	200 U	190 U	650
Benzyl Alcohol	µg/kg	85 U	86 U	20 U	19 U	20 U	19 U	20 U	19 U	20 U	20 U	19 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	0.74 U	0.29 U	1.32 U	6.25 U	11.8 U	1.48	1.8 U	2.41 U	1.41 U	5.94	1.34	12

Sample Location ¹	SP-151		A1-15			A1-18			A1-23	A1-24		Proposed Sediment Cleanup Level ²	
Sample Identification	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3		
Sample Date	06/12/2007	06/12/2007	08/01/08	08/13/08	08/13/08	09/04/08	08/14/08	08/14/08	08/04/08	09/04/08	09/04/08		
Sample Interval (dbm)	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft		
Sample Type	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Surface	Surface	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	9.6 U	9.6 U	20 U	20 U	20 U	27	20 U	20 U	20 U	76	33	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		SP-151		A1-15			A1-18			A1-23	A1-24		Proposed Sediment Cleanup Level ²
Sample Identification		7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	
Sample Date		06/12/2007	06/12/2007	08/01/08	08/13/08	08/13/08	09/04/08	08/14/08	08/14/08	08/04/08	09/04/08	09/04/08	
Sample Interval (dbm)		0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Surface	Surface	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		A1-24	A1-31	A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	PT-5	PT-6	PT-8	Proposed Sediment Cleanup Level ²	
Sample Identification		A1-24-C3-5	A1-31-S	A1-31B-S	EPAX019F24	NAVHP85EDS404XX	BNWS008DBPS28	RB14-PG-62-S	PT-3-43.0-44.0	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0		
Sample Date		08/14/08	08/04/08	09/04/08	06/19/2012	06/19/2012	06/19/2012	04/22/2014	01/13/15	01/13/15	01/13/15	01/12/15		
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft		
Sample Type		Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit		
Tidal Zone		Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Field Screening														
Visual Wood Content ³	%	30	<1	<1	-	-	-	-	<1	<1	<1	<1	15	
Conventionals														
Total Organic Carbon (TOC)	Percent	7.10	0.270	0.420	1.27	3.56	1.51	1.30 J	0.237	0.193	0.109	0.114	NE	
Total Volatile Solids (TVS)	Percent	15.4	1.0	1.1	3.5	7.9	4.1	2.6	1.2	1.1	1.0	1.1	NE	
Total Solids (TS)	Percent	52.5	78.9	76.6	71.6	54.2	66.6	-	75.7	79.9	82.6	82.7	NE	
Total Ammonia	mg-N/kg	-	-	-	3.14	4.92	1.74	-	2.46	11.6	6.99	0.630	NE	
Porewater Ammonia	mg-N/L	-	-	-	-	-	-	-	-	-	-	-	NE	
Total Sulfide	mg/kg	300 J	1.84	1.25 U	3.67 J	44.6 J	1.76 J	-	5.47	1.74	4.15	1.71	NE	
Porewater Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	NE	
Porewater pH	pH	-	-	-	-	-	-	-	-	-	-	-	NE	
Grain Size														
Gravel	%	2.5	-	2.3	5.2	1.5	9.4	-	0.1 U	0.2	0.2	0.1	NE	
Very Coarse Sand	%	3.3	-	8.0	6.9	0.80	6.4	-	0.3	0.7	0.1	0.1	NE	
Coarse Sand	%	4.7	-	17.8	18	1.6	10.9	-	3.7	5.5	0.3	0.5	NE	
Medium Sand	%	8.4	-	44.1	23.3	4.0	19.2	-	10.3	16.3	23.5	34.5	NE	
Fine Sand	%	11.8	-	22.2	7.0	8.1	11.9	-	59.9	41.3	51	43.4	NE	
Very Fine Sand	%	12.1	-	3	12.7	28.4	16.1	-	15.6	27.2	16	15.1	NE	
Coarse Silt	%	12.7	-	2.6 U	21.9	45.6	21.1	-	2.4	3.6	2.9	1.7	NE	
Medium Silt	%	11.6	-	2.6 U				-	1.7	1.2	1.4	0.9	NE	
Fine Silt	%	8.5	-	2.6 U				-	1.3	0.9	1.1	0.7	NE	
Very Fine Silt	%	7	-	2.6 U				-	0.9	0.7	0.9	0.7	NE	
Clay	%	17.5	-	2.6 U	5.1	10.1	5.0	-	3.8	2.5	2.7	2.3	NE	
Total Fines	%	57.3	-	2.6	27	55.7	26.1	-	10.2	8.8	8.9	6.3	NE	
Metals														
Arsenic	mg/kg	22	-	6 U	5.77	7.92	5.89	3.7	4.39 J	4.64 J	5.16 J	6	57	
Cadmium	mg/kg	1.8	-	0.3 U	0.281	0.681	0.281	0.20	0.3	0.3	0.3	0.220 J	5.1	
Chromium	mg/kg	47.4	-	28.1	27.5	41.5	30.4	-	26.3	23.5	30.1	29	260	
Copper	mg/kg	82	-	12	1,040	32.8	26	-	8.7	7.9	10.5	10.2	390	
Lead	mg/kg	50	-	4.0	27	14.4	10.9	-	2.15 J	1.55 J	2.20 J	2.04 J	450	
Mercury	mg/kg	0.28	-	0.05 U	0.0723	0.123	0.0875	0.040	0.0116 J	0.0107 J	0.0101 J	0.0079 J	0.41	
Silver	mg/kg	0.5 U	-	0.4 U	0.1	0.174	0.089	-	0.4 U	0.3 U	0.3 U	0.3 U	6.1	
Zinc	mg/kg	159	-	39	41	65.6	76.6	-	30	27	32	31	410	
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)														
Sum of LPAHs ⁴	mg/kg OC	31.9	-	4.5 U	33.2 J	38.0	33.7	-	1 J	2.5 U	4.3 U	4.1 U	370	
2-Methylnaphthalene	mg/kg OC	3.4	-	4.5 U	4.7	2.7	2.5	-	2 U	2.5 U	4.3 U	4.1 U	38	
Acenaphthene	mg/kg OC	3.5	-	4.5 U	2.8	2.5	2.4	-	2 U	2.5 U	4.3 U	4.1 U	16	

Sample Location ¹	A1-24	A1-31	A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	PT-5	PT-6	PT-8	Proposed Sediment Cleanup Level ²	
Sample Identification	A1-24-C3-5	A1-31-S	A1-31B-S	EPAX019F24	NAVHP85EDS404XX	BNWS008DBPS28	RB14-PG-62-S	PT-3-43.0-44.0	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0		
Sample Date	08/14/08	08/04/08	09/04/08	06/19/2012	06/19/2012	06/19/2012	04/22/2014	01/13/15	01/13/15	01/13/15	01/12/15		
Sample Interval (dbm)	3 - 5 ft	0-10 cm	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft		
Sample Type	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit		
Tidal Zone	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Acenaphthylene	mg/kg OC	0.5	--	4.5 U	2.1 J	1.9	1.8	--	2 U	2.5 U	4.3 U	4.1 U	66
Anthracene	mg/kg OC	3.5	--	4.5 U	3.5	4.2	3.2	--	2 U	2.5 U	4.3 U	4.1 U	220
Fluorene	mg/kg OC	5.1	--	4.5 U	2.9	3.1	2.5	--	2 U	2.5 U	4.3 U	4.1 U	23
Naphthalene	mg/kg OC	7.2	--	4.5 U	11.8	15.7	15.2	--	2 U	2.5 U	4.3 U	4.1 U	99
Phenanthrene	mg/kg OC	8.7	--	4.5 U	10.2	10.7	8.6	--	1 J	2.5 U	4.3 U	4.1 U	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	2,266	--	19 U	422	1,355	509	--	2.4 J	4.9 U	4.7 U	4.7 U	5,200
2-Methylnaphthalene	µg/kg	240	--	19 U	59	95	38	--	4.8 U	4.9 U	4.7 U	4.7 U	670
Acenaphthene	µg/kg	250	--	19 U	35	89	36	--	4.8 U	4.9 U	4.7 U	4.7 U	500
Acenaphthylene	µg/kg	36	--	19 U	26	66	27	--	4.8 U	4.9 U	4.7 U	4.7 U	1,300
Anthracene	µg/kg	250	--	19 U	44	150	49	--	4.8 U	4.9 U	4.7 U	4.7 U	960
Fluorene	µg/kg	360	--	19 U	37	110	37	--	4.8 U	4.9 U	4.7 U	4.7 U	540
Naphthalene	µg/kg	510	--	19 U	150	560	230	--	4.8 U	4.9 U	4.7 U	4.7 U	2,100
Phenanthrene	µg/kg	620	--	19 U	130	380	130	--	2.4 J	4.9 U	4.7 U	4.7 U	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	16.6	--	4.5 U	45.8 J	44.8 J	39.5 J	--	2 U	2.5 U	4.3 U	4.1 U	960
Benzo(a)anthracene	mg/kg OC	1.2	--	4.5 U	3.4	3.4	2.8	1.41	2 U	2.5 U	4.3 U	4.1 U	110
Benzo(a)pyrene	mg/kg OC	1.4	--	4.5 U	3.1	2.7	2.3	1.20	2 U	2.5 U	4.3 U	4.1 U	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	3.1	--	4.5 U	5.8	5.5	4.8	1.29	2 U	2.5 U	4.3 U	4.1 U	230
Benzo(g,h,i)perylene	mg/kg OC	0.6 U	--	4.5 U	1.34 J	1.01 J	1.06 J	--	2 U	2.5 U	4.3 U	4.1 U	31
Chrysene	mg/kg OC	2.3	--	4.5 U	5.1	4.5	3.8	1.88	2 U	2.5 U	4.3 U	4.1 U	110
Dibenzo(a,h)anthracene	mg/kg OC	0.3 U	--	4.5 U	0.9 UJ	0.28 J	0.9 UJ	0.166	2 U	2.5 U	4.3 U	4.1 U	12
Fluoranthene	mg/kg OC	5.5	--	4.5 U	11	12.4	10.6	--	2 U	2.5 U	4.3 U	4.1 U	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	0.5	--	4.5 U	2	1.4	1.7	0.729	2 U	2.5 U	4.3 U	4.1 U	34
Pyrene	mg/kg OC	2.8	--	4.5 U	14.2	13.8	12.6	--	2 U	2.5 U	4.3 U	4.1 U	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	1,182	--	19 U	582 J	1,551 J	597 J	--	4.8 U	4.9 U	4.7 U	4.7 U	12,000
Benzo(a)anthracene	µg/kg	82	--	19 U	43	120	42	18.1	4.8 U	4.9 U	4.7 U	4.7 U	1,300
Benzo(a)pyrene	µg/kg	97	--	19 U	39	96	34	15.3	4.8 U	4.9 U	4.7 U	4.7 U	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	220	--	19 U	73	195	72	16.5	4.8 U	4.9 U	4.7 U	4.7 U	3,200
Benzo(g,h,i)perylene	µg/kg	41 U	--	19 U	17 J	36 J	16 J	--	4.8 U	4.9 U	4.7 U	4.7 U	670
Chrysene	µg/kg	160	--	19 U	65	160	57	24.1	4.8 U	4.9 U	4.7 U	4.7 U	1,400
Dibenzo(a,h)anthracene	µg/kg	19 U	--	19 U	34 UJ	9.8 J	36 UJ	2.13	4.8 U	4.9 U	4.7 U	4.7 U	230
Fluoranthene	µg/kg	390	--	19 U	140	440	160	--	4.8 U	4.9 U	4.7 U	4.7 U	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	33	--	19 U	25	50	26	9.33	4.8 U	4.9 U	4.7 U	4.7 U	600
Pyrene	µg/kg	200	--	19 U	180	490	190	--	4.8 U	4.9 U	4.7 U	4.7 U	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	0.3 U	--	4.5 U	3 U	2 U	1 U	--	2 U	2.5 U	4.3 U	4.1 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.3 U	--	4.5 U	5 U	5 U	3 U	--	2 U	2.5 U	4.3 U	4.1 U	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.3 U	--	4.5 U	5 U	5 U	3 U	--	2 U	2.5 U	4.3 U	4.1 U	3.1
Hexachlorobenzene	mg/kg OC	0.3 U	--	4.5 U	1 U	1 U	0.6 U	--	0.41 U	0.51 U	0.87 U	0.84 U	0.38

Sample Location ¹	A1-24	A1-31	A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	PT-5	PT-6	PT-8	Proposed Sediment Cleanup Level ²	
Sample Identification	A1-24-C3-5	A1-31-S	A1-31B-S	EPAX019F24	NAVHP85EDS404XX	BNWS008DBPS28	RB14-PG-62-S	PT-3-43.0-44.0	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0		
Sample Date	08/14/08	08/04/08	09/04/08	06/19/2012	06/19/2012	06/19/2012	04/22/2014	01/13/15	01/13/15	01/13/15	01/12/15		
Sample Interval (dbm)	3 - 5 ft	0-10 cm	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft		
Sample Type	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit		
Tidal Zone	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	19 U	--	19 U	34 U	46 U	36 U	--	4.8 U	4.9 U	4.7 U	4.7 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	19 U	--	19 U	67 U	91 U	73 U	--	4.8 U	4.9 U	4.7 U	4.7 U	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	19 U	--	19 U	67 U	91 U	73 U	--	4.8 U	4.9 U	4.7 U	4.7 U	110
Hexachlorobenzene	µg/kg	19 U	--	19 U	17 U	23 U	18 U	--	0.98 U	0.99 U	0.95 U	0.96 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	0.3 U	--	5.7	3 U	1 U	2 U	--	20 U	25 U	43 U	41 U	47
Butyl Benzyl Phthalate	mg/kg OC	0.3 U	--	4.5 U	3 U	1 U	1 J	--	2 U	2.5 U	4.3 U	4.1 U	4.9
Dibutyl Phthalate	mg/kg OC	0.7	--	4.5 U	3 UJ	0.6 U	1 U	--	8 U	10 U	17 U	17 U	220
Diethyl Phthalate	mg/kg OC	0.3 U	--	4.5 U	1 U	0.6 U	1 U	--	8 U	10 U	17 U	17 U	61
Dimethyl Phthalate	mg/kg OC	0.3 U	--	4.5 U	1 U	0.6 U	1 U	--	8 U	10 U	17 U	17 U	53
Di-N-Octyl Phthalate	mg/kg OC	0.3 U	--	4.5 U	3 UJ	1 UJ	2 U	--	8 U	10 U	17 U	17 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	19 U	--	24	34 U	46 U	36 U	--	48 U	49 U	47 U	47 U	1,300
Butyl Benzyl Phthalate	µg/kg	19 U	--	19 U	34 U	46 U	16 J	--	4.8 U	4.9 U	4.7 U	4.7 U	63
Dibutyl Phthalate	µg/kg	47	--	19 U	32 UJ	23 U	43 UJ	--	19 U	20 U	19 U	19 U	1,400
Diethyl Phthalate	µg/kg	19 U	--	19 U	17 U	23 U	18 U	--	19 U	20 U	19 U	19 U	200
Dimethyl Phthalate	µg/kg	19 U	--	19 U	17 U	23 U	18 U	--	19 U	20 U	19 U	19 U	71
Di-N-Octyl Phthalate	µg/kg	19 U	--	19 U	32 UJ	46 UJ	36 UJ	--	19 U	20 U	19 U	19 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	30	--	19 U	170 U	230 U	180 U	--	24 U	24 U	24 U	24 U	29
2-Methylphenol (o-Cresol)	µg/kg	34	--	19 U	170 U	230 U	180 U	--	19 U	20 U	19 U	19 U	63
4-Methylphenol (p-Cresol)	µg/kg	890	--	19 U	63 J	240	81 J	--	19 U	20 U	19 U	19 U	670
Pentachlorophenol	µg/kg	97 U	--	97 U	170 UJ	230 UJ	180 UJ	--	96 U	98 U	94 U	95 U	360
Phenol	µg/kg	24	--	19 U	67 U	43 J	73 NJ	--	19 U	20 U	19 U	19 U	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	3.1	--	4.5 U	2.52 J	3	2.0	--	2 U	2.5 U	4.3 U	4.1 U	15
Hexachlorobutadiene	mg/kg OC	0.3 U	--	4.5 U	5 U	3 U	5 U	--	0.41 U	0.51 U	0.87 U	0.84 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	0.3 U	--	4.5 U	3 U	1 U	2 U	--	2 U	2.5 U	4.3 U	4.1 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	220	--	19 U	32 J	120	37	--	4.8 U	4.9 U	4.7 U	4.7 U	540
Hexachlorobutadiene	µg/kg	19 U	--	19 U	67 U	91 U	73 U	--	0.98 U	0.99 U	0.95 U	0.96 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	19 U	--	19 U	34 U	46 U	36 U	--	4.8 U	4.9 U	4.7 U	4.7 U	28
Benzoic Acid	µg/kg	190 U	--	190 U	--	--	--	--	190 U	200 U	190 U	190 U	650
Benzyl Alcohol	µg/kg	19 U	--	19 U	170 U	230 U	180 U	--	19 U	20 U	19 U	19 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	0.3	--	4.5 U	0.37	0.53	0.99	--	0.00068 J	0.0020 J	0.0051 J	0.0073 J	12

Sample Location ¹	A1-24	A1-31	A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	PT-5	PT-6	PT-8	Proposed Sediment Cleanup Level ²	
Sample Identification	A1-24-C3-5	A1-31-S	A1-31B-S	EPAX019F24	NAVHP85EDS404XX	BNWS008DBPS28	RB14-PG-62-S	PT-3-43.0-44.0	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0		
Sample Date	08/14/08	08/04/08	09/04/08	06/19/2012	06/19/2012	06/19/2012	04/22/2014	01/13/15	01/13/15	01/13/15	01/12/15		
Sample Interval (dbm)	3 - 5 ft	0-10 cm	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft		
Sample Type	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit		
Tidal Zone	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	21	--	19 U	4.7	19	15	--	0.0016 J	0.0038 J	0.0055 J	0.0048 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabiatic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabiatic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabiatic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabiatic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		A1-24	A1-31	A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	PT-5	PT-6	PT-8	Proposed Sediment Cleanup Level ²
Sample Identification		A1-24-C3-5	A1-31-S	A1-31B-S	EPAX019F24	NAVHP85EDS404XX	BNWS008DBPS28	RB14-PG-62-S	PT-3-43.0-44.0	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	
Sample Date		08/14/08	08/04/08	09/04/08	06/19/2012	06/19/2012	06/19/2012	04/22/2014	01/13/15	01/13/15	01/13/15	01/12/15	
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	
Sample Type		Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	
Tidal Zone		Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102				Proposed Sediment Cleanup Level ²
Sample Identification		PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	
Sample Date		01/14/15	01/15/15	01/15/15	01/15/15	01/15/15	10/24/18	10/23/18	10/24/18	10/23/18	10/23/18	10/23/18	
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm	6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	
Sample Type		Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Field Screening													
Visual Wood Content ³	%	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	15
Conventionals													
Total Organic Carbon (TOC)	Percent	2.70	0.228	7.76	0.214	0.092	0.480	0.270	0.230	2.24	1.45	0.500	NE
Total Volatile Solids (TVS)	Percent	5.1	1.0	10.3	0.9	0.7	2.75	1.19	1.52	4.35	3.41	2.51	NE
Total Solids (TS)	Percent	71.6	81.6	61.2	82.1	83.5	69.6	83.0	78.6	67.6	74.0	81.3	NE
Total Ammonia	mg-N/kg	13.2	26.6	42.2	1.93	0.650	6.16	4.14	3.24	62.10	53.6	42.1	NE
Porewater Ammonia	mg-N/L	--	--	--	--	--	--	--	--	--	--	--	NE
Total Sulfide	mg/kg	16.0	1.32	4.80	4.05	2.25	198	1.07 U	39.4	111	28.4	1.16 UJ	NE
Porewater Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	NE
Porewater pH	pH	--	--	--	--	--	--	--	--	--	--	--	NE
Grain Size													
Gravel	%	1.1	0.1	0.8	0.1 U	0.2	0.2	16.3	0.0	0.2	0.6	6.9	NE
Very Coarse Sand	%	0.8	0.4	1.6	0.1	0.2	0.6	8.4	0.2	0.4	0.9	2.2	NE
Coarse Sand	%	2.2	2.8	2.3	0.6	0.9	6.4	16.3	5.6	1.3	1.6	3.0	NE
Medium Sand	%	20.4	10.9	5.2	19.9	29.8	30.8	30.5	36.3	3.2	4.3	8.7	NE
Fine Sand	%	51.2	46.3	14.7	55.1	51.3	36.0	11.8	41.7	10.2	16.3	32.2	NE
Very Fine Sand	%	6	29.2	23.4	13	10.8	15.2	6.3	9.3	25.2	25.7	22.1	NE
Coarse Silt	%	4	4.1	13.6	3.7	3.7	5.8	3.4	2.1	21.2	17.4	10.7	NE
Medium Silt	%	3.3	1.6	11.3	2	0.7	2.6	2.0	1.6	14.8	14.9	6.0	NE
Fine Silt	%	2.7	1.1	7.9	1.6	0.6	0.4	1.2	0.8	7.0	6.6	2.8	NE
Very Fine Silt	%	2	0.8	5.3	1.2	0.4	0.1	0.8	0.3	5.1	4.0	1.7	NE
Clay	%	6.2	2.7	13.6	2.8	1.5	2.0	2.9	2.0	11.4	7.7	3.6	NE
Total Fines	%	18.3	10.3	51.8	11.3	6.9	10.8	10.4	6.8	59.5	50.6	24.8	NE
Metals													
Arsenic	mg/kg	6.08 J	3.92 J	9	7	3.95 J	3.22	4.14	2.63	5.33	5.44	4.86	57
Cadmium	mg/kg	0.4	0.211 J	1.1	0.2	0.165 J	0.16	0.12	0.05 J	0.42	0.31	0.13	5.1
Chromium	mg/kg	28.2	24.2	47.9	22.2	18.2	25.7	25.5	25	49.2	45.3	38.5	260
Copper	mg/kg	12.8	7.6	44.2	6.6	5.9	15	10.6	13.6	56	47.9	35	390
Lead	mg/kg	10	1.48 J	26	1.25 J	1.12 J	5.98	1.79	6.06	29.7	10.8	5.83	450
Mercury	mg/kg	0.08	0.0071 J	0.11	0.0072 J	0.0104 J	0.0195 J	0.0137 J	0.0158 J	0.102	0.0706 J	0.0443	0.41
Silver	mg/kg	0.4 U	0.3 U	0.5 U	0.3 U	0.131 J	0.04 J	0.04 J	0.03 J	0.11 J	0.10 J	0.07 J	6.1
Zinc	mg/kg	34	28	70	25	22	43.4	30.8	43.1	71.1	61.9	51.1	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	41.1	1.4 J	33.8	2	2.7 J	24.8 J	1.82 U	8.35 J	52.2 J	179 J	111	370
2-Methylnaphthalene	mg/kg OC	2.8	2.1 U	2.3	2.3 U	5.4 U	2.19	1.82 U	2.07 U	2.73	11.4	5.8	38
Acenaphthene	mg/kg OC	2.7	2.1 U	2.7	2.3 U	5.4 U	2.15 J	1.82 UJ	2.07 UJ	2.98 J	11.1 J	6.72	16

Sample Location ¹		PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102				Proposed Sediment Cleanup Level ²
Sample Identification		PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	
Sample Date		01/14/15	01/15/15	01/15/15	01/15/15	01/15/15	10/24/18	10/23/18	10/24/18	10/23/18	10/23/18	10/23/18	
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm	6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	
Sample Type		Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Acenaphthylene	mg/kg OC	2	2.1 U	1	2.3 U	5.4 U	1.04 J	1.82 UJ	2.07 UJ	3.13 J	12.5 J	6.38	66
Anthracene	mg/kg OC	4	2.1 U	2.1	2.3 U	5.4 U	4.67	1.82 U	1.57 J	2.82	7.5	6.6	220
Fluorene	mg/kg OC	3.3	2.1 U	3.1	2.3 U	5.4 U	2.69	1.82 U	2.07 U	3.59	12.2	7.78	23
Naphthalene	mg/kg OC	17	1.4 J	14	2.3	2.7 J	4.06 J	1.82 UJ	1.38 J	23.8 J	88.4 J	47.8	99
Phenanthrene	mg/kg OC	9.6	2.1 U	8.4	2.3 U	5.4 U	10.1	1.82 U	5.39	16	47.1	35.8	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	1,110	3.3 J	2,620	5	2.5 J	119 J	4.92 U	19.2 J	1,170 J	2,610 J	555	5,200
2-Methylnaphthalene	µg/kg	75	4.7 U	180	4.9 U	5.0 U	10.5	4.92 U	4.75 U	61.1	166	29	670
Acenaphthene	µg/kg	73	4.7 U	210	4.9 U	5.0 U	10.3 J	4.92 UJ	4.75 UJ	66.8 J	162 J	33.6	500
Acenaphthylene	µg/kg	53	4.7 U	80	4.9 U	5.0 U	5.01 J	4.92 UJ	4.75 UJ	70.1 J	182 J	31.9	1,300
Anthracene	µg/kg	100	4.7 U	160	4.9 U	5.0 U	22.4	4.92 U	3.62 J	63.2	110	33	960
Fluorene	µg/kg	89	4.7 U	240	4.9 U	5.0 U	12.9	4.92 U	4.75 U	80.5	178	38.9	540
Naphthalene	µg/kg	460	3.3 J	1,100	5	2.5 J	19.5 J	4.92 UJ	3.18 J	534 J	1,290 J	239	2,100
Phenanthrene	µg/kg	260	4.7 U	650	4.9 U	5.0 U	48.4	4.92 U	12.4	360	687	179	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	30.4	2.1 U	16.43	2.3 U	5.4 U	101 J	1.82 U	72.6 J	33 J	71.9 J	73.4	960
Benzo(a)anthracene	mg/kg OC	2.2	2.1 U	0.91	2.3 U	5.4 U	7.94	1.82 U	5.87	1.79	2.66	3.94	110
Benzo(a)pyrene	mg/kg OC	1.9	2.1 U	0.63	2.3 U	5.4 U	8.75 J	1.82 U	6.52 J	1.27 J	1.49 J	2.34	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	3.1	2.1 U	1.3	2.3 U	5.4 U	20.3	3.64 U	12.8	2.73	4.12	8.38	230
Benzo(g,h,i)perylene	mg/kg OC	1.4	2.1 U	0.57	2.3 U	5.4 U	4.5	1.82 U	5.26	1.1	1.31	2.5	31
Chrysene	mg/kg OC	2.3	2.1 U	1.3	2.3 U	5.4 U	9.33	1.82 U	9.39	2.5	4.38	5.62	110
Dibenzo(a,h)anthracene	mg/kg OC	0.89 U	2.1 U	0.31 U	2.3 U	5.4 U	2.54 J	1.82 U	3.5 J	0.408 J	0.512 J	0.32	12
Fluoranthene	mg/kg OC	9.6	2.1 U	5.9	2.3 U	5.4 U	21.7	1.82 U	13.4	12.7	31.9	26.6	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	1	2.1 U	0.32	2.3 U	5.4 U	4.81	1.82 U	4.29	0.866	0.681	1.55	34
Pyrene	mg/kg OC	8.9	2.1 U	5.5	2.3 U	5.4 U	20.8	1.82 U	11.7	9.64	25	22.2	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	821	4.7 U	1,275	4.9 U	5 U	483 J	9.84 U	167 J	739 J	1,050 J	367	12,000
Benzo(a)anthracene	µg/kg	59	4.7 U	71	4.9 U	5.0 U	38.1	4.92 U	13.5	40.1	38.8	19.7	1,300
Benzo(a)pyrene	µg/kg	51	4.7 U	49	4.9 U	5.0 U	42.0 J	4.92 UJ	15.0 J	28.5 J	21.7 J	11.7	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	84	4.7 U	98	4.9 U	5.0 U	97.4	9.84 U	29.5	61.2	60.1	41.9	3,200
Benzo(g,h,i)perylene	µg/kg	38	4.7 U	44	4.9 U	5.0 U	21.6	4.92 U	12.1	24.6	19.1	12.5	670
Chrysene	µg/kg	62	4.7 U	98	4.9 U	5.0 U	44.8	4.92 U	21.6	55.9	64	28.1	1,400
Dibenzo(a,h)anthracene	µg/kg	24 U	4.7 U	24 U	4.9 U	5.0 U	12.2 J	4.92 UJ	8.06 J	9.13 J	7.48 J	1.60 J	230
Fluoranthene	µg/kg	260	4.7 U	460	4.9 U	5.0 U	104	4.92 U	30.9	284	466	133	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	27	4.7 U	25	4.9 U	5.0 U	23.1	4.92 U	9.86	19.4	9.94	7.77	600
Pyrene	µg/kg	240	4.7 U	430	4.9 U	5.0 U	99.6	4.92 U	26.9	216	360	111	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	0.18 U	2.1 U	0.062 U	2.3 U	5.4 U	4.10 U	7.30 U	8.26 U	0.857 U	1.32 U	3.88 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.18 U	2.1 U	0.062 U	2.3 U	5.4 U	4.10 U	7.30 U	8.26 U	0.857 U	1.32 U	3.88 U	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.18 U	2.1 U	0.062 U	2.3 U	5.4 U	4.10 U	7.30 U	8.26 U	0.857 U	1.32 U	3.88 U	3.1
Hexachlorobenzene	mg/kg OC	0.036 U	0.42 U	0.012 U	0.46 U	1.1 U	0.100 U	0.190 U	0.210 U	0.0220 U	0.269 U	0.960 U	0.38

Sample Location ¹	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102				Proposed Sediment Cleanup Level ²	
Sample Identification	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3		
Sample Date	01/14/15	01/15/15	01/15/15	01/15/15	01/15/15	10/24/18	10/23/18	10/24/18	10/23/18	10/23/18	10/23/18		
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm	6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft		
Sample Type	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	4.9 U	4.7 U	4.8 U	4.9 U	5.0 U	19.7 U	19.7 U	19.0 U	19.2 U	19.2 U	19.4 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	4.9 U	4.7 U	4.8 U	4.9 U	5.0 U	19.7 U	19.7 U	19.0 U	19.2 U	19.2 U	19.4 U	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	4.9 U	4.7 U	4.8 U	4.9 U	5.0 U	19.7 U	19.7 U	19.0 U	19.2 U	19.2 U	19.4 U	110
Hexachlorobenzene	µg/kg	0.97 U	0.95 U	0.96 U	0.98 U	1.0 U	0.48 U	0.50 U	0.48 U	0.50 U	3.93 U	4.8 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	1.8 U	21 U	0.62 U	23 U	50 U	10.3 U	18.3 U	20.7 U	1.26	3.28 U	9.68 U	47
Butyl Benzyl Phthalate	mg/kg OC	0.18 U	3.2	0.11	2.3 U	5.4 U	4.10 U	7.30 U	8.26 U	0.857 U	1.32 U	3.88 U	4.9
Dibutyl Phthalate	mg/kg OC	0.7 U	8.3 U	0.24 U	9 U	20 U	4.10 U	7.30 U	8.26 U	0.857 U	16.8	13.5 U	220
Diethyl Phthalate	mg/kg OC	0.7 U	8.3 U	0.44	9 U	20 U	4.10 U	8.04	8.26 U	0.835	7.12	3.88 U	61
Dimethyl Phthalate	mg/kg OC	0.7 U	8.3 U	0.24 U	9 U	20 U	4.10 U	7.30 U	8.26 U	0.857 U	1.32 U	3.88 U	53
Di-N-Octyl Phthalate	mg/kg OC	0.7 U	8.3 U	0.24 U	9 U	20 U	4.10 U	7.30 U	8.26 U	0.857 U	1.32 U	3.88 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	49 U	47 U	48 U	49 U	50 U	49.3 U	49.3 U	47.6 U	28.2 J	47.9 U	48.4 U	1,300
Butyl Benzyl Phthalate	µg/kg	4.9 U	7.4	8.8	4.9 U	5.0 U	19.7 U	19.7 U	19.0 U	19.2 U	19.2 U	19.4 U	63
Dibutyl Phthalate	µg/kg	20 U	19 U	19 U	20 U	20 U	19.7 U	19.7 U	19.0 U	19.2 U	246 J	67.6 U	1,400
Diethyl Phthalate	µg/kg	20 U	19 U	34	20 U	20 U	19.7 U	21.7 U	19.0 U	18.7 U	104	19.4 U	200
Dimethyl Phthalate	µg/kg	20 U	19 U	19 U	20 U	20 U	19.7 U	19.7 U	19.0 U	19.2 U	19.2 U	19.4 U	71
Di-N-Octyl Phthalate	µg/kg	20 U	19 U	19 U	20 U	20 U	19.7 U	19.7 U	19.0 U	19.2 U	19.2 U	19.4 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	24 U	23 U	24 J	25 U	25 U	24.7 U	24.7 U	23.8 U	6.7 J	10.6 J	5.1 J	29
2-Methylphenol (o-Cresol)	µg/kg	20 U	19 U	36	20 U	20 U	19.7 U	19.7 U	19.0 U	19.2 U	19.2 U	10.6 J	63
4-Methylphenol (p-Cresol)	µg/kg	20 U	92	180	20 U	20 U	19.7 U	19.7 U	19.0 U	275	81.7	58.8	670
Pentachlorophenol	µg/kg	98 U	94 U	96 U	99 U	99 U	2.8 J	19.7 U	19.0 U	5.5 J	4.2 J	19.4 U	360
Phenol	µg/kg	20 U	38	59	20 U	20 U	23.2	21.2	14.5 J	20.9	19.2 U	14.6 J	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	3.2	2.1 U	3	2.3 U	5.4 U	4.79	7.30 U	8.26 U	3.88	9.18	14.3	15
Hexachlorobutadiene	mg/kg OC	0.036 U	0.42 U	0.012 U	0.46 U	1.1 U	4.10 U	7.30 U	8.26 U	0.857 U	1.32 U	3.88 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	0.18 U	2.1 U	0.062 U	2.3 U	5.4 U	4.10 U	7.30 U	8.26 U	0.857 U	1.32 U	3.88 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	86	4.7 U	200	4.9 U	5.0 U	23	19.7 U	19.0 U	86.8	134	71.7	540
Hexachlorobutadiene	µg/kg	0.97 U	0.95 U	0.96 U	0.98 U	1.0 U	19.7 U	19.7 U	19.0 U	19.2 U	19.2 U	19.4 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	4.9 U	4.7 U	4.8 U	4.9 U	5.0 U	19.7 U	19.7 U	19.0 U	19.2	19.2	19.4 U	28
Benzoic Acid	µg/kg	200 U	82 J	150 J	200 U	200 U	71.8 U	64.0 U	31.8 U	77.8 J	83.5 J	51.3 J	650
Benzyl Alcohol	µg/kg	20 U	19 U	19 U	20 U	20 U	19.7 U	19.7 U	19.0 J	19.2 J	19.2 U	19.4 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	0.0019 J	0.0018 J	0.0046 J	0.0017 J	0.0015 J	0.38 J	0.008 U	0.33 J	0.8 J	0.31 J	0.13 J	12

Sample Location ¹	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102				Proposed Sediment Cleanup Level ²	
Sample Identification	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3		
Sample Date	01/14/15	01/15/15	01/15/15	01/15/15	01/15/15	10/24/18	10/23/18	10/24/18	10/23/18	10/23/18	10/23/18		
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm	6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft		
Sample Type	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	0.043 J	0.0041 J	0.24 J	0.0037 J	0.0014 J	1.81 J	0.022 U	0.75 J	18 J	4.59 J	0.64 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	0.97 U	1.00 U	0.96 U	0.99 U	0.98 U	1.97 UJ	NE
4,4'-DDE	µg/kg	--	--	--	--	--	0.97 U	1.00 U	0.96 U	0.99 U	0.98 U	1.97 UJ	NE
4,4'-DDT	µg/kg	--	--	--	--	--	0.97 U	1.00 U	0.96 U	0.99 U	0.98 U	7.86 UJ	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	0.970 U	1.00 U	0.960 U	0.990 U	0.980 U	7.86 U	NE
Aldrin	µg/kg	--	--	--	--	--	0.48 U	0.50 U	0.48 U	0.50 U	0.49 U	0.98 UJ	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	0.48 U	0.50 U	0.48 U	0.50 U	0.49 U	19.7 UJ	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	0.48 U	0.50 U	0.48 U	0.50 U	0.49 U	19.7 UJ	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	0.970 U	1.00 U	0.960 U	0.990 U	0.980 U	19.7 U	NE
Dieldrin	µg/kg	--	--	--	--	--	0.97 U	1.00 U	0.96 U	0.99 U	0.98 U	1.97 UJ	NE
Heptachlor	µg/kg	--	--	--	--	--	0.48 U	0.50 U	0.48 U	0.50 U	0.49 U	0.98 UJ	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102				Proposed Sediment Cleanup Level ²
Sample Identification		PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	
Sample Date		01/14/15	01/15/15	01/15/15	01/15/15	01/15/15	10/24/18	10/23/18	10/24/18	10/23/18	10/23/18	10/23/18	
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm	6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	
Sample Type		Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Subsurface ⁸	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichloroprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		ST-103	ST-104			ST-105		ST-106				Proposed Sediment Cleanup Level ²	
Sample Identification		ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10	ST-106C_3.1-4.1	ST-106C_4.1-5.1		ST-106C_6.1-7.1
Sample Date		10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18	10/26/18	10/26/18		10/26/18
Sample Interval (dbm)		0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm	3.1-4.1 ft	4.1-5.1 ft		6.1-7.1 ft
Sample Type		Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface	Subsurface	Subsurface		Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		Subtidal
Field Screening													
Visual Wood Content ³	%	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	15
Conventionals													
Total Organic Carbon (TOC)	Percent	0.360	0.730	0.400	0.950	2.90	2.20	0.170	1.30	1.64	1.38	2.33	NE
Total Volatile Solids (TVS)	Percent	1.83	2.51	2.49	4.00	5.36	5.43	1.47	3.14	2.84	5.41	6.65	NE
Total Solids (TS)	Percent	73.5	70.2	76.0	75.5	72.7	59.8	84.0	67.3	71.6	69.9	68.5	NE
Total Ammonia	mg-N/kg	2.73	4.71	15.4 J	18.70	25.3	10.50	6.73	7.06	9.36	13.20	22.2	NE
Porewater Ammonia	mg-N/L	--	--	--	--	--	--	--	--	--	--	--	NE
Total Sulfide	mg/kg	89.3	22.3	9.73	29.5 J	17.1 J	1,170	1.16 U	320	500	643 J	318 J	NE
Porewater Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	NE
Porewater pH	pH	--	--	--	--	--	--	--	--	--	--	--	NE
Grain Size													
Gravel	%	0.0	0.5	0.3	3.9	0.9	2.1	22.6	0.8	0.3	2.5	2.3	NE
Very Coarse Sand	%	0.5	0.1	1.0	1.7	1.9	1.1	13.5	0.7	0.8	0.9	1.6	NE
Coarse Sand	%	6.2	4.2	8.5	6.7	4.9	2.6	20.7	2.7	4.8	3.4	5.8	NE
Medium Sand	%	31.1	19.6	40.8	23.4	14.9	7.1	30.4	13.2	23.3	16.7	22.0	NE
Fine Sand	%	40.2	39.1	36.4	33.8	34.6	29.7	7.3	36.2	40.9	37.8	29.5	NE
Very Fine Sand	%	13.9	21.0	6.6	13.3	20.7	36.4	1.9	29.8	20.4	23.1	18.4	NE
Coarse Silt	%	2.7	6.9	1.7	6.2	8.3	10.5	3.6 U	9.9	3.8	6.5	8.0	NE
Medium Silt	%	2.4	4.8	1.4	3.5	5.0	6.8	3.6 U	4.1	1.2	2.5	3.0	NE
Fine Silt	%	0.7	0.9	0.5	1.9	2.5	0.5	3.6 U	0.3	1.0	1.5	2.0	NE
Very Fine Silt	%	0.3	0.4	0.4	1.5	1.9	0.3	3.6 U	0.1	0.7	1.2	1.8	NE
Clay	%	2.0	2.5	2.3	4.1	4.3	2.9	3.6 U	2.3	2.8	3.9	5.8	NE
Total Fines	%	8.1	15.4	6.4	17.2	22.1	21.0	3.6	16.7	9.5	15.6	20.5	NE
Metals													
Arsenic	mg/kg	3.08	3.15	2.56	2.99	3.98	3.81	3.57	3.51	3.1	3.19	3.62	57
Cadmium	mg/kg	0.08 J	0.05 J	0.10 J	0.2	0.21	0.19	0.05 J	0.11 J	0.16	0.18	0.24	5.1
Chromium	mg/kg	26.6	27.2	27	39.1	35.3	34.1	26.3	31.5	31.5	31	32.9	260
Copper	mg/kg	16.1	18.5	27.2	38.4	36.2	27.9	11.3	21.4	23.9	22.3	25.2	390
Lead	mg/kg	7.28	8.84	21.3	64.8 J	52.8	9.65	1.87	9.05	14	17.9 J	14.7	450
Mercury	mg/kg	0.0250 J	0.0189 J	0.0725	0.0843 J	0.142	0.0559	0.0126 J	0.0205 J	0.0331	0.0450 J	0.0563	0.41
Silver	mg/kg	0.04 J	0.05 J	0.04 J	0.03 J	0.07 J	0.07 J	0.03 J	0.06 J	0.06 J	0.03 J	0.08 J	6.1
Zinc	mg/kg	45.9	50.5	35.9	59.1	51.3	56.6	32.4	51.4	55.5	57	58.5	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	13.4 J	12.2 J	28 J	90.2 J	55	14.6 J	2.82 U	14.3 J	6.89 J	32.1 J	28.2	370
2-Methylnaphthalene	mg/kg OC	1.69	0.388 J	1.76	6.88	4.5	0.759	2.82 U	0.566	0.374	3.19	2.49	38
Acenaphthene	mg/kg OC	1.52 J	0.727 J	1.53 J	6.08 J	4.59	1.19 J	2.82 U	1.62 J	0.385 J	2.7 J	3.1	16

Sample Location ¹		ST-103				ST-104				ST-105				ST-106				Proposed Sediment Cleanup Level ²
Sample Identification		ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10	ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1						
Sample Date		10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18	10/26/18	10/26/18	10/26/18						
Sample Interval (dbm)		0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm	3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft						
Sample Type		Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface						
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit						
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal						
Acenaphthylene	mg/kg OC	1.35 UJ	1.37 J	0.808 J	2.94 J	1.91	0.559 J	2.82 U	0.403 J	0.238 J	1.16 J	0.747	66					
Anthracene	mg/kg OC	1.81	2.45	4.9	9.13	3.3	2.5	2.82 U	1.92	1.5	4.44	4.11	220					
Fluorene	mg/kg OC	1.26 J	0.93	2.12	8.07	4.69	1.44	2.82 U	1.37	0.574	3.09	3.44	23					
Naphthalene	mg/kg OC	1.7 J	0.659 J	8.23 J	28.7 J	26	1.45 J	2.82 U	0.962 J	0.582 J	9.13 J	7.08	99					
Phenanthrene	mg/kg OC	7.11	6.07	9.93	35.3	14.9	7.45	2.82 U	8	3.6	12	9.66	100					
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)																		
Sum of LPAHs ⁴	µg/kg	48.2 J	89.1 J	110 J	857 J	1,600	321 J	4.80 U	186 J	113 J	443 J	656	5,200					
2-Methylnaphthalene	µg/kg	6.07	2.83 J	7.05	65.4	130	16.7	4.80 U	7.36	6.14	44	58.1	670					
Acenaphthene	µg/kg	5.47 J	5.31 J	6.10 J	57.8 J	133	26.1 J	4.80 UJ	21.0 J	6.32 J	37.2 J	72.2	500					
Acenaphthylene	µg/kg	4.85 UJ	10.0 J	3.23 J	27.9 J	55.3	12.3 J	4.80 UJ	5.24 J	3.90 J	16.0 J	17.4	1,300					
Anthracene	µg/kg	6.51	17.9	19.6	86.7	95.8	55	4.80 U	25	24.6	61.3	95.8	960					
Fluorene	µg/kg	4.52 J	6.79	8.46	76.7	136	31.6	4.80 U	17.8	9.41	42.7	80.1	540					
Naphthalene	µg/kg	6.11 J	4.81 J	32.9 J	273 J	750	32.0 J	4.80 UJ	12.5 J	9.55 J	126 J	165	2,100					
Phenanthrene	µg/kg	25.6	44.3	39.7	335	432	164	4.80 U	104	59	160	225	1,500					
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)																		
Sum of HPAHs ⁵	mg/kg OC	65 J	144 J	29.3 J	160 J	29	45.9 J	5.64 U	61.1 J	52.4	61.3	61.8	960					
Benzo(a)anthracene	mg/kg OC	5.72	8.63	1.84	15.5	1.34	4.39	2.82 U	5.45	5.41	6.09	4.24	110					
Benzo(a)pyrene	mg/kg OC	5.92 J	4.75 J	1.5 J	12.9 J	0.897	3.47 J	2.82 U	5.98 J	5.9 J	4.09 J	2.88	99					
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	10.8	16	3.83	20.6	2.72	6.45	5.64 U	10.4	10.2	9.2	8.97	230					
Benzo(g,h,i)perylene	mg/kg OC	4.33	2.29	1.24	7.2	0.893	2.15	2.82 U	4.42	3.5	2.42	1.79	31					
Chrysene	mg/kg OC	5.97	15.6	2.21	17.4	2.16	5.5	2.82 U	6.21	6.22	8.77	7.85	110					
Dibenzo(a,h)anthracene	mg/kg OC	2.81 J	1.47 J	1.78 J	2.75 J	0.455	0.777 J	2.82 U	1.48 J	1.18 J	1.1 J	0.717	12					
Fluoranthene	mg/kg OC	14.1	57.9	8.8	39.1	11	11	2.82 U	12.2	7.99	11.2	13	160					
Indeno(1,2,3-c,d)pyrene	mg/kg OC	4.11	2.47	1.1 J	7.66	0.49	2.13	2.82 U	4.14	3.59	2.34	1.67	34					
Pyrene	mg/kg OC	11.2	34.8	7	34.8	9	10.2	2.82 U	11	8.35	16.1	21	1,000					
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)																		
Sum of HPAHs ⁵	µg/kg	234 J	1,050 J	117 J	1,500 J	850	1,010 J	9.59 U	794 J	859	846	1440	12,000					
Benzo(a)anthracene	µg/kg	20.6	63	7.37	147	38.9	96.5	4.80 U	70.9	88.8	84	98.9	1,300					
Benzo(a)pyrene	µg/kg	21.3 J	34.7 J	5.98 J	123 J	26	76.3 J	4.80 UJ	77.7 J	96.7 J	56.4 J	67.2	1,600					
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	38.8	120	15.3	196	79	142	9.59 U	135	168	127	209	3,200					
Benzo(g,h,i)perylene	µg/kg	15.6	16.7	4.95	68.4	25.9	47.4	4.80 U	57.5	57.4	33.4	41.8	670					
Chrysene	µg/kg	21.5	114	8.82	165	62.7	121	4.80 U	80.7	102	121	183	1,400					
Dibenzo(a,h)anthracene	µg/kg	10.1 J	10.7 J	7.10 J	26.1 J	13.2	17.1 J	4.80 UJ	19.2 J	19.3 J	15.2 J	16.7	230					
Fluoranthene	µg/kg	50.6	423	35.2	371	330	242	4.80 U	159	131	155	302	1,700					
Indeno(1,2,3-c,d)pyrene	µg/kg	14.8	18	4.40 J	72.8	14.2	46.8	4.80 U	53.8	58.9	32.3	38.9	600					
Pyrene	µg/kg	40.3	254	28	331	260	224	4.80 U	140	137	222	480	2,600					
Chlorinated Hydrocarbons (OC Normalized)																		
1,2,4-Trichlorobenzene	mg/kg OC	5.39 U	2.73 U	4.80 U	1.98 U	0.683 U	0.905 U	11.4 U	1.49 U	1.22 U	1.38 U	0.841 U	0.81					
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	5.39 U	2.73 U	4.80 U	1.98 U	0.683 U	0.905 U	11.4 U	1.49 U	1.22 U	1.38 U	0.841 U	2.3					
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	5.39 U	2.73 U	4.80 U	1.98 U	0.683 U	0.905 U	11.4 U	1.49 U	1.22 U	1.38 U	0.841 U	3.1					
Hexachlorobenzene	mg/kg OC	0.140 U	0.0660 U	0.120 U	0.0520 U	0.170 U	0.0230 U	0.280 U	0.0380 U	0.0290 U	0.0360 U	0.210 U	0.38					

Sample Location ¹	ST-103	ST-104				ST-105		ST-106				Proposed Sediment Cleanup Level ²	
Sample Identification	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10	ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1		
Sample Date	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18	10/26/18	10/26/18	10/26/18		
Sample Interval (dbm)	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm	3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft		
Sample Type	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	19.4 U	19.9 U	19.2 U	18.8 U	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	19.6 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	19.4 U	19.9 U	19.2 U	18.8 U	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	19.6 U	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	19.4 U	19.9 U	19.2 U	18.8 U	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	19.6 U	110
Hexachlorobenzene	µg/kg	0.49 U	0.48 U	0.49 U	0.49 U	5.0 U	0.50 U	0.48 U	0.50 U	0.48 U	0.49 U	4.9 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	13.5 U	7.47	12.0 U	4.95 U	1.71 U	2.54	18.9	35.6	3.04 U	10.0	51.1	47
Butyl Benzyl Phthalate	mg/kg OC	5.39 U	2.73 U	4.80 U	1.46 J	0.683 U	0.905 U	11.4 U	1.49 U	1.22 U	1.38 U	4.85	4.9
Dibutyl Phthalate	mg/kg OC	5.39 U	2.73 U	4.80 U	19.4 J	2.30 U	0.905 U	32.3	1.49 U	1.22 U	16.4 J	2.28 U	220
Diethyl Phthalate	mg/kg OC	5.92	2.73 U	4.80 U	1.98 U	0.752	0.905 U	11.4 U	1.49 U	1.9	1.38 U	0.841 U	61
Dimethyl Phthalate	mg/kg OC	5.39 U	2.73 U	4.80 U	1.98 U	0.683 U	0.905 U	11.4 U	1.49 U	1.22 U	1.38 U	0.841 U	53
Di-N-Octyl Phthalate	mg/kg OC	5.39 U	2.73 U	4.80 U	1.98 U	0.683 U	0.905 U	11.4 U	1.49 U	1.22 U	1.38 U	0.841 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	48.5 U	54.5	48.0 U	47.0 U	49.6 U	55.9	32.1 J	463	49.9 U	200	1190	1,300
Butyl Benzyl Phthalate	µg/kg	19.4 U	19.9 U	19.2 U	13.9 J	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	113	63
Dibutyl Phthalate	µg/kg	19.4 U	19.9 U	19.2 U	184 J	66.7 U	19.9 U	54.9	19.4 U	20.0 U	226 J	53.1 U	1,400
Diethyl Phthalate	µg/kg	21.3	19.9 U	19.2 U	18.8 U	21.8	19.9 U	19.3 U	19.4 U	30.3	19.0 U	19.6 U	200
Dimethyl Phthalate	µg/kg	19.4 U	19.9 U	19.2 U	18.8 U	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	19.6 U	71
Di-N-Octyl Phthalate	µg/kg	19.4 U	19.9 U	19.2 U	18.8 U	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	19.6 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	24.2 U	24.9 U	24.0 U	9.9 J	21.1	24.9 U	24.1 U	24.2 U	25.0 U	3.4 J	5.4 J	29
2-Methylphenol (o-Cresol)	µg/kg	19.4 U	19.9 U	19.2 U	18.8 U	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	19.6 U	63
4-Methylphenol (p-Cresol)	µg/kg	19.4 U	19.9 U	46.4	393	1,820	27.5	19.3 U	19.4 U	20.0 U	210	229	670
Pentachlorophenol	µg/kg	19.4 U	19.9 U	19.2 U	11.4 J	25.4	19.9 U	19.3 U	19.4 U	20.0 U	4.1 J	8.9 J	360
Phenol	µg/kg	13.8 J	11.1 J	19.2 U	52.2	62.8	29.1	19.3 U	13.4 J	10.3 J	71.2	57.3	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	5.39 U	1.48 J	4.80 U	7.87	5.5	1.64	11.4 U	0.90	0.57 J	4.3	5.45	15
Hexachlorobutadiene	mg/kg OC	5.39 U	2.73 U	4.80 U	1.98 U	0.683 U	0.905 U	11.4 U	1.49 U	1.22 U	1.38 U	0.841 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	5.39 U	2.73 U	4.80 U	1.98 U	0.683 U	0.905 U	11.4 U	1.49 U	1.22 U	1.38 U	0.841 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	19.4 U	10.8 J	19.2 U	74.8	160	36.1	19.3 U	11.7 J	9.4 J	59	127	540
Hexachlorobutadiene	µg/kg	19.4 U	19.9 U	19.2 U	18.8 U	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	19.6 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	19.4 U	19.9 U	19.2 U	18.8 U	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	19.0 U	19.6 U	28
Benzoic Acid	µg/kg	50.4 U	53.8 U	96.0 U	186	388	58.5 U	96.4 U	44.1 U	32.3 J	288	197	650
Benzyl Alcohol	µg/kg	19.4 J	19.9 U	19.2 U	17.6 J	19.8 U	19.9 U	19.3 U	19.4 U	20.0 U	32.1	19.6 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	0.39 J	0.26 J	1.8 J	4.13 J	0.96 J	0.14 J	0.023 J	0.14 J	0.3 J	0.57 J	0.31 J	12

Sample Location ¹	ST-103	ST-104				ST-105		ST-106				Proposed Sediment Cleanup Level ²	
Sample Identification	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10	ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1		
Sample Date	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18	10/26/18	10/26/18	10/26/18		
Sample Interval (dbm)	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm	3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft		
Sample Type	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	1.38 J	1.88 J	7.07 J	39.2 J	27.8 J	3.04 J	0.039 J	1.78 J	4.99 J	7.85 J	7.14 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	0.98 U	0.96 U	0.98 U	0.97 U	1.96 U	0.99 U	0.96 U	0.99 U	0.97 U	0.99 U	1.93 U	NE
4,4'-DDE	µg/kg	0.98 U	0.96 U	0.98 U	0.97 U	1.96 U	0.99 U	0.96 U	0.99 U	0.97 U	0.99 U	1.93 U	NE
4,4'-DDT	µg/kg	0.98 U	0.96 U	0.98 U	1.46 U	1.96 U	0.99 U	0.96 U	0.99 U	0.97 U	0.99 U	1.93 U	NE
Total DDT (4,4 isomers)	µg/kg	0.980 U	0.960 U	0.980 U	1.46 U	1.96 U	0.990 U	0.960 U	0.990 U	0.970 U	0.990 U	1.93 U	NE
Aldrin	µg/kg	0.49 U	0.48 U	0.49 U	0.49 U	0.98 U	0.50 U	0.48 U	0.50 U	0.48 U	0.49 U	0.96 U	NE
Alpha-Chlordane (cis)	µg/kg	0.49 U	0.48 U	0.49 U	0.49 U	0.98 U	0.50 U	0.48 U	0.50 U	0.48 U	0.49 U	0.96 U	NE
Beta or Gamma-Chlordane (trans)	µg/kg	0.49 U	0.48 U	0.49 U	0.49 U	0.98 U	9.91 U	0.48 U	0.50 U	0.48 U	0.49 U	0.96 U	NE
Chlordane (Total)	µg/kg	0.980 U	0.960 U	0.980 U	0.970 U	98.0 U	9.91 U	0.960 U	0.990 U	0.970 U	0.990 U	1.93 U	NE
Dieldrin	µg/kg	0.98 U	0.96 U	0.98 U	0.97 U	1.96 U	0.99 U	0.96 U	0.99 U	0.97 U	0.99 U	1.93 U	NE
Heptachlor	µg/kg	0.49 U	0.48 U	0.49 U	0.49 U	5.88 U	0.50 U	0.48 U	0.50 U	0.48 U	0.49 U	0.96 U	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		ST-103		ST-104			ST-105		ST-106				Proposed Sediment Cleanup Level ²
Sample Identification		ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10	ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	
Sample Date		10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18	10/26/18	10/26/18	10/26/18	
Sample Interval (dbm)		0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm	3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	
Sample Type		Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-107			ST-108			ST-109			South DMMU Area		Proposed Sediment Cleanup Level ²	
Sample Identification	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp		
Sample Date	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/23/18	10/23/18		
Sample Interval (dbm)	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft		
Sample Type	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Field Screening													
Visual Wood Content ³	%	<1	<1	<1	<1	<1	<1	5	30	<1	<1	<1	15
Conventionals													
Total Organic Carbon (TOC)	Percent	1.14	0.540	0.230	1.33	5.20	0.150	3.80	3.60	0.090	1.27	1.02	NE
Total Volatile Solids (TVS)	Percent	6.24	1.16	1.00	8.34	15.54	0.86	12.85	7.79	0.86	3.21 J	3.83 J	NE
Total Solids (TS)	Percent	56.6	82.8	84.2	53.2	58.1	80.4	49.9	58.3	79.6	72.2	72.0	NE
Total Ammonia	mg-N/kg	12.80	4.48	3.50	13.10	73.90	13.30	10.50	50.60	8.22	5.47	11.90	NE
Porewater Ammonia	mg-N/L	--	--	--	--	--	--	--	--	--	--	--	NE
Total Sulfide	mg/kg	1,260	2.44	1.79	1,980	940	1.21 U	774	114 J	1.35 J	124	13.4	NE
Porewater Sulfide	mg/L	--	--	--	--	--	--	--	--	--	--	--	NE
Porewater pH	pH	--	--	--	--	--	--	--	--	--	--	--	NE
Grain Size													
Gravel	%	3.4	6.3	0.7	19.5	7.5	0.7	15.8	8.0	0.2	2.1	1.2	NE
Very Coarse Sand	%	3.3	4.3	3.2	12.8	6.0	0.6	16.7	3.3	0.4	1.5	2.9	NE
Coarse Sand	%	4.5	17.0	21.1	10.5	5.9	2.2	13.5	2.7	1.8	8.2	10.6	NE
Medium Sand	%	8.9	35.6	50.8	10.0	10.8	20.2	11.3	9.0	17.1	28.5	25.5	NE
Fine Sand	%	33.4	14.8	14.0	16.3	29.9	65.0	15.4	27.9	67.5	33.4	24.9	NE
Very Fine Sand	%	31.3	7.8	3.2	15.5	8.7	6.4	14.0	7.1	6.8	13.4	15.7	NE
Coarse Silt	%	7.1	4.9	1.8	5.7	3.1	1.8	2.2	4.1	2.8	4.0	5.3	NE
Medium Silt	%	4.7	2.9	1.1	6.2	6.6	0.8	5.7	12.4	1.1	2.0	4.0	NE
Fine Silt	%	0.3	1.5	0.8	0.4	5.5	0.6	0.7	7.0	0.6	2.2	2.8	NE
Very Fine Silt	%	0.1	1.2	0.7	0.1	4.2	0.5	0.6	5.1	0.5	1.0	1.8	NE
Clay	%	3.1	3.8	2.5	3.2	11.7	1.3	4.0	13.3	1.3	3.7	5.4	NE
Total Fines	%	15.2	14.3	7.0	15.4	31.1	5.0	13.2	41.9	6.3	12.8	19.2	NE
Metals													
Arsenic	mg/kg	5.15	3.59	3.20	15	8.26	2.8	15.2	8.1	2.38	3.02	3.62	57
Cadmium	mg/kg	0.43	0.16	0.10 J	0.74	1.74	0.05 J	1.14	0.57	0.05 J	0.18	0.32	5.1
Chromium	mg/kg	31.6	23.7	23.70	31.3	32.8	19.4	14.9	37.7	17.4	29.3	35.6	260
Copper	mg/kg	27	12.4	10.5	30.6	49.9	6.39	28.9	59.5	5.05	19.3	28.9	390
Lead	mg/kg	9.75	4.38	1.99	21.9	94.7	3.84 J	22	67.3	2.20 J	10.6	25.7	450
Mercury	mg/kg	0.0326 J	0.0261 J	0.0172 J	0.0293 J	0.176	0.0117 J	0.0399 J	0.295	0.00746 J	0.0393	0.0548	0.41
Silver	mg/kg	0.07 J	0.04 J	0.03 J	0.08 J	0.20 J	0.23 U	0.08 J	0.16 J	0.24 U	0.06 J	0.08 J	6.1
Zinc	mg/kg	62.4	31.2	30.4	131	904	26.9	150	99.1	22.1	47	52.5	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	54.3 J	11.9 J	2.16 U	190 J	70 J	103 J	99.2 J	221 J	201 J	27.1 J	67.8 J	370
2-Methylnaphthalene	mg/kg OC	4.25	1.04	2.16 U	12.2	4.83	7.6	9.45	9.36	102	2.96	6.06	38
Acenaphthene	mg/kg OC	7.12 J	1.1 J	2.16 U	24.2 J	8.73 J	11.7 J	15.4 J	35 J	77.9 J	2.91 J	5.76 J	16

Sample Location ¹		ST-107			ST-108			ST-109			South DMMU Area		Proposed Sediment Cleanup Level ²
Sample Identification		ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	
Sample Date		10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/23/18	10/23/18	
Sample Interval (dbm)		0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	
Sample Type		Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Acenaphthylene	mg/kg OC	2 J	0.915 UJ	2.16 U	2.37 J	0.337 J	1.69 J	3.18 J	1.99 J	2.68 J	0.929 J	2.08 J	66
Anthracene	mg/kg OC	8.36	1.34	2.16 U	24	6.31	15.3	10.9	31.9	2.29 J	3.28	6.14	220
Fluorene	mg/kg OC	6.47	1.45	2.16 U	23	10.3	13.5	12.1	35	2.99 J	2.87	5.78	23
Naphthalene	mg/kg OC	10.4 J	2.81 J	2.16 U	39 J	9.29 J	16.1 J	35 J	39 J	109 J	7.23 J	28.5 J	99
Phenanthrene	mg/kg OC	20	5.17	2.16 U	80	35	44.3	22.7	78.1	6.8	9.84	19.5	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	619 J	64.1 J	4.96 U	2,500 J	3,640 J	154 J	3,770 J	7,950 J	181 J	344 J	692 J	5,200
2-Methylnaphthalene	µg/kg	48.5	5.63	4.96 U	162	251	11.4	359	337	91.7	37.6	61.8	670
Acenaphthene	µg/kg	81.2 J	5.95 J	4.96 UJ	322 J	454 J	17.6 J	587 J	1,260 J	70.1 J	37.0 J	58.8 J	500
Acenaphthylene	µg/kg	22.8 J	4.94 UJ	4.96 UJ	31.5 J	17.5 J	2.54 J	121 J	71.6 J	2.41 J	11.8 J	21.2 J	1,300
Anthracene	µg/kg	95.3	7.26	4.96 U	320	328	23	415	1,150	2.06 J	41.6	62.6	960
Fluorene	µg/kg	73.8	7.81	4.96 U	310	533	20.2	458	1,260	2.69 J	36.4	59	540
Naphthalene	µg/kg	118 J	15.2 J	4.96 UJ	520 J	483 J	24.1 J	1,330 J	1,400 J	97.8 J	91.8 J	291 J	2,100
Phenanthrene	µg/kg	228	27.9	4.96 U	1000	1820	66.4	861	2,810	6.12	125	199	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	200	9.76	-	570 J	64.2 J	117 J	274 J	235 J	17 J	62.4 J	90 J	960
Benzo(a)anthracene	mg/kg OC	15.4	0.607 J	2.16 U	39.8	4.3	8.4	26	19.7	1.28 J	4.51	7.55	110
Benzo(a)pyrene	mg/kg OC	11.1 J	0.469 J	2.16 U	23.6 J	1.75 J	3.54 J	16.9 J	5.44 J	1.11 J	2.78 J	4.55 J	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	25	1.2 J	4.32 U	61.0	4.0	8.4	43.7	12.3	10.7 U	7.23	9.52	230
Benzo(g,h,i)perylene	mg/kg OC	5.63	0.915 U	2.16 U	10.2	0.9	1.67 J	6.0	2.86	1.26 J	1.56	2.75	31
Chrysene	mg/kg OC	23.8	1.05	2.16 U	184	5.4	8.7	44.5	24.8	1.68 J	6.16	7.62	110
Dibenzo(a,h)anthracene	mg/kg OC	2.02 J	0.915 UJ	2.16 U	4.65 J	0.383 J	4.35 J	2.36 J	1.03 J	5.33 UJ	0.827 J	1.23 J	12
Fluoranthene	mg/kg OC	40	3.31	2.16 U	130	26.7	44.5	72.6	101	6.06	18	25.4	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	5.86	0.915 U	2.16 U	11.7	0.9	1.65 J	7.2	2.71	5.33 U	1.46	2.39	34
Pyrene	mg/kg OC	46.1	3.13	2.16 U	105	19.8	35.1	54.2	65.6	5.58	19.9	29	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	2000	52.7	9.93 U	7,580 J	3,340 J	175 J	10,400 J	8,470 J	15.3 J	792 J	918 J	12,000
Benzo(a)anthracene	µg/kg	176	3.28 J	4.96 U	529	222	12.6	989	708	1.15 J	57.3	77	1,300
Benzo(a)pyrene	µg/kg	127 J	2.53 J	4.96 UJ	314 J	90.8 J	5.31 J	642 J	196 J	1.00 J	35.3 J	46.4 J	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	290	6.48 J	9.93 U	810	207	12.6	1,660	442	9.60 U	91.8	97.1	3,200
Benzo(g,h,i)perylene	µg/kg	64.2	4.94 U	4.96 U	136	48.4	2.50 J	229	103	1.13 J	19.8	28	670
Chrysene	µg/kg	271	5.65	4.96 U	2,450	282	13.1	1,690	892	1.51 J	78.2	77.7	1,400
Dibenzo(a,h)anthracene	µg/kg	23.0 J	4.94 UJ	4.96 UJ	61.8 J	19.9 J	6.52 J	89.6 J	37.0 J	4.80 UJ	10.5 J	12.5 J	230
Fluoranthene	µg/kg	460	17.9	4.96 U	1,730	1,390	66.8	2,760	3,630	5.45	228	259	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	66.8	4.94 U	4.96 U	155	47	2.47 J	272	97.5	4.80 U	18.6	24.4	600
Pyrene	µg/kg	526	16.9	4.96 U	1,390	1,030	52.7	2,060	2,360	5.02	253	296	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	1.75 U	3.65 U	8.65 U	1.50 U	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	1.75 U	3.65 U	8.65 U	1.50 U	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	1.75 U	3.65 U	8.65 U	1.50 U	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	3.1
Hexachlorobenzene	mg/kg OC	0.0440 U	0.0930 U	0.150 U	0.0360 U	0.0100 U	0.310 U	0.0130 U	0.0230 U	0.530 U	0.0390 U	0.0470 U	0.38

Sample Location ¹		ST-107			ST-108			ST-109			South DMMU Area		Proposed Sediment Cleanup Level ²
Sample Identification		ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	
Sample Date		10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/23/18	10/23/18	
Sample Interval (dbm)		0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	
Sample Type		Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	110
Hexachlorobenzene	µg/kg	0.50 U	0.50 U	0.35 U	0.48 U	0.52 U	0.47 U	0.49 U	0.81 U	0.48 U	0.49 U	0.48 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	4.38 U	9.15 U	21.7 U	19.5	9.52 U	19.8	6.1	1.39 U	53.0 U	3.78 U	4.85 U	47
Butyl Benzyl Phthalate	mg/kg OC	1.75 U	3.65 U	8.65 U	1.50 U	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	4.9
Dibutyl Phthalate	mg/kg OC	1.75 U	3.65 U	8.65 U	1.50 U	3.81 U	32.0	0.526 U	0.556 U	64.7	1.51 U	1.94 U	220
Diethyl Phthalate	mg/kg OC	1.7	3.65 U	8.65 U	1.6	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	61
Dimethyl Phthalate	mg/kg OC	1.75 U	3.65 U	8.65 U	1.50 U	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	53
Di-N-Octyl Phthalate	mg/kg OC	5.0	3.65 U	8.65 U	1.50 U	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	49.9 U	49.4 U	49.8 U	259	495 U	29.7 J	231	50.0 U	47.7 U	48.0 U	49.5 U	1,300
Butyl Benzyl Phthalate	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	63
Dibutyl Phthalate	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	48 J	20.0 U	20.0 U	58.2 J	19.2 U	19.8 U	1,400
Diethyl Phthalate	µg/kg	19.5	19.7 U	19.9 U	21.2	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	200
Dimethyl Phthalate	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	71
Di-N-Octyl Phthalate	µg/kg	57.3	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	24.9 U	24.7 U	24.9 U	15.1 J	69.5 J	24.9 U	24.9 U	119	12.1 J	2.5 J	6.9 J	29
2-Methylphenol (o-Cresol)	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	63
4-Methylphenol (p-Cresol)	µg/kg	74.3	19.7 U	19.9 U	629	14,900	113	786	215	19.1 U	94.9	681	670
Pentachlorophenol	µg/kg	20.0 U	19.7 U	19.9 U	4.8 J	198 U	19.9 U	5.6 J	20.0 U	19.1 U	13.7 J	9.8 J	360
Phenol	µg/kg	78.7	19.7 U	19.9 U	170	200	19.9 U	141	45.7	19.1 U	54	65.2	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	6.8	3.65 U	8.65 U	96.2	31.3	20.5	34.5	30.8	21.2 U	3.65	6.44	15
Hexachlorobutadiene	mg/kg OC	1.75 U	3.65 U	8.65 U	1.50 U	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	1.75 U	3.65 U	8.65 U	1.50 U	3.81 U	13.3 U	0.526 U	0.556 U	21.2 U	1.51 U	1.94 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	77	19.7 U	19.9 U	1,280	1,630	30.7	1,310	1,110	19.1 U	46.3	65.7	540
Hexachlorobutadiene	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	19.1 U	19.2 U	19.8 U	28
Benzoic Acid	µg/kg	61.2 J	98.7 U	99.6 U	77.8 J	989 U	18.8 J	126	99.9 U	95.4 U	203 U	233 U	650
Benzyl Alcohol	µg/kg	20.0 U	19.7 U	19.9 U	20.0 U	198 U	19.9 U	20.0 U	20.0 U	14.6 J	19.2 U	19.8 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	0.64 J	0.3 J	0.016 J	0.44 J	0.93 J	0.88 J	2 J	0.0087 J	0.012 J	0.04 J	2.6 J	12

Sample Location ¹	ST-107			ST-108			ST-109			South DMMU Area		Proposed Sediment Cleanup Level ²	
Sample Identification	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp		
Sample Date	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/23/18	10/23/18		
Sample Interval (dbm)	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft		
Sample Type	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	7.28 J	1.63 J	0.037 J	5.8 J	48.4 J	1.32 J	74.2 J	0.31 J	0.011 J	0.51 J	26.1 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	0.99 U	1.00 U	0.71 U	0.97 U	18.8	0.95 U	0.98 U	1.62 U	0.96 U	0.98 U	0.96 U	NE
4,4'-DDE	µg/kg	0.99 U	1.00 U	0.71 U	0.97 U	1.03 U	0.95 U	0.98 U	1.62 U	0.96 U	0.98 U	0.96 U	NE
4,4'-DDT	µg/kg	0.99 U	1.00 U	0.71 U	0.97 U	61.9 U	0.95 U	3.09	1.62 U	0.96 U	0.98 U	0.96 U	NE
Total DDT (4,4 isomers)	µg/kg	0.990 U	1.00 U	0.710 U	0.970 U	18.8	0.950 U	3.09	1.62 U	0.960 U	0.980 U	0.960 U	NE
Aldrin	µg/kg	0.50 U	0.50 U	0.35 U	0.48 U	0.52 U	0.47 U	0.49 U	0.81 U	0.48 U	0.49 U	0.48 U	NE
Alpha-Chlordane (cis)	µg/kg	0.50 U	0.50 U	0.35 U	0.48 U	7.74 U	0.47 U	0.49 U	0.81 U	0.48 U	0.49 U	0.48 U	NE
Beta or Gamma-Chlordane (trans)	µg/kg	0.50 U	0.50 U	0.35 U	0.48 U	7.23 U	1.95	0.49 U	0.81 U	0.48 U	0.49 U	0.48 U	NE
Chlordane (Total)	µg/kg	0.990 U	1.00 U	0.710 U	0.970 U	9.29 U	1.95	0.980 U	1.62 U	0.960 U	0.980 U	0.960 U	NE
Dieldrin	µg/kg	0.99 U	1.00 U	0.71 U	0.97 U	1.03 U	0.95 U	0.98 U	1.62 U	0.96 U	0.98 U	0.96 U	NE
Heptachlor	µg/kg	0.50 U	0.50 U	0.35 U	0.48 U	11.4 U	0.47 U	0.49 U	0.81 U	0.48 U	0.49 U	0.48 U	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		ST-107			ST-108			ST-109			South DMMU Area		Proposed Sediment Cleanup Level ²
Sample Identification		ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	
Sample Date		10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/23/18	10/23/18	
Sample Interval (dbm)		0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	
Sample Type		Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		South DMMU Area					North DMMU Area	MAF-01					Proposed Sediment Cleanup Level ²
Sample Identification		DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_2-4	
Sample Date		10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/15	10/20/15	11/11/15	11/11/15	11/11/15	
Sample Interval (dbm)		5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Field Screening													
Visual Wood Content ³	%	<1	<1	<1	<1	<1	<1	<5	<5	100	100	100	15
Conventionals													
Total Organic Carbon (TOC)	Percent	1.47	2.86	3.34	1.53	0.810	5.68	1.22	1.11	14.1 J	4.32 J	--	NE
Total Volatile Solids (TVS)	Percent	4.36 J	4.98 J	7.12	4.55	2.61	15.66	6.2	5.5	16.3	15.1	--	NE
Total Solids (TS)	Percent	69.9	70.9	67.2	72.7	82.2	47.4	61.3	64.3	49.6	50.3	--	NE
Total Ammonia	mg-N/kg	28.60	32.70	78.60	85	11.3	102	--	--	5.04	4.21	--	NE
Porewater Ammonia	mg-N/L	--	--	--	--	--	--	11.70	14.0	--	--	--	NE
Total Sulfide	mg/kg	1.12 U	1.15 U	66.9 J	116 J	2.02 J	40.48	--	--	874	1110	--	NE
Porewater Sulfide	mg/L	--	--	--	--	--	--	4.36 J	13.0 J	--	--	--	NE
Porewater pH	pH	--	--	--	--	--	--	7.65	7.68	--	--	--	NE
Grain Size													
Gravel	%	4.2	1.9	0.4	0.1	7.5	15.3	0.7	0.6	9	8.8	--	NE
Very Coarse Sand	%	3.9	3.3	0.6	0.4	7.0	5.5	1.5	1.4	6.5	6.9	--	NE
Coarse Sand	%	12.1	10.2	1.4	0.6	17.3	4.8	4	4.2	12.7	12.4	--	NE
Medium Sand	%	23.8	25.2	3.3	1.3	33.7	5	16.3	16.9	21.1	22.3	--	NE
Fine Sand	%	19.4	21.7	15.3	13.1	17.3	7.7	31.6	30.6	24.4	26.6	--	NE
Very Fine Sand	%	14.1	14.3	29.8	31.5	6.5	6.8	25.7	24.7	11.7	13.6	--	NE
Coarse Silt	%	6.5	10.0	20.6	15.4	3.5	7.8	10.7	11.6	7	0.9	--	NE
Medium Silt	%	4.7	1.6	9.9	14.9	2.1	15.6	4.1	3.6	2.8	3.5	--	NE
Fine Silt	%	2.5	2.7	5.1	7.6	1.4	5.1	1.5	1.8	1.3	1.3	--	NE
Very Fine Silt	%	2.3	2.4	3.9	4.7	1.4	7	0.6	0.8	0.6	0.4	--	NE
Clay	%	6.4	6.6	9.9	10.4	2.2	19.3	3.4	3.9	3	3.3	--	NE
Total Fines	%	22.5	23.4	49.3	53.1	10.6	54.9	20.2	21.7	14.7	9.4	--	NE
Metals													
Arsenic	mg/kg	3.32	3.67	4.76	4.46	3.43	9.68	23	19	20 J	33 J	--	57
Cadmium	mg/kg	0.26	0.23	0.42	0.34	0.15	1.44	0.9	0.9	0.7 J	1.3 J	--	5.1
Chromium	mg/kg	35.8	36	52.4	47.3	29.7	48.3	31.3	33.5	15 J	26.4 J	--	260
Copper	mg/kg	28.9	35.7	59.3	54.5	16.1	77.2	34.1	30.4	51.2 J	154 J	--	390
Lead	mg/kg	23	39.6	70.7 J	46.4	9.62 J	149	65	103	130	176	--	450
Mercury	mg/kg	0.0749	0.0906	0.209 J	0.129	0.0250 J	0.515	0.09	0.11	0.21	0.23	--	0.41
Silver	mg/kg	0.07 J	0.08 J	0.12 J	0.10 J	0.05 J	0.26 J	0.07 J	0.5 U	0.1 J	0.31 J	--	6.1
Zinc	mg/kg	52.6	58.3	74.2	67.4	39.5	404	84	81	80	114	--	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	52.2 J	31 J	62 J	87.6	24.9 J	521 J	327 J	296 J	32.8 J	186 J	--	370
2-Methylnaphthalene	mg/kg OC	4.48	2.36	4.46	4.8	2.2	47.4	30	30	2.7 J	17 J	--	38
Acenaphthene	mg/kg OC	4.46 J	2.79 J	4.37 J	4.24	2.52 J	86.6 J	51	46	5.2 J	32 J	--	16

Sample Location ¹		South DMMU Area					North DMMU Area	MAF-01					Proposed Sediment Cleanup Level ²
Sample Identification		DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_2-4	
Sample Date		10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/15	10/20/15	11/11/15	11/11/15	11/11/15	
Sample Interval (dbm)		5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Acenaphthylene	mg/kg OC	2.01 J	0.846 J	3.08 J	5.78	0.651 J	4.79 J	6.7 J	5 J	0.6 J	3.2 J	--	66
Anthracene	mg/kg OC	5.67	3.28	2.88	4.61	2.1	35.9	20	21	3	9	--	220
Fluorene	mg/kg OC	5.41	3.3	4.8	5.1	2.5	76.0	39	40	4	23	--	23
Naphthalene	mg/kg OC	17.8 J	10.1 J	31.4 J	39.5	9.72 J	160 J	130	120	11 J	72 J	--	99
Phenanthrene	mg/kg OC	16.9	10.6	15.5	28.2	7.4	159.0	80	71	8.5	50	--	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	768 J	886 J	2,070 J	1,340	202 J	29,600 J	3,992 J	3,285 J	4,627 J	8,030 J	--	5,200
2-Methylnaphthalene	µg/kg	65.9	67.4	149	73.4	17.6	2,690	360	330	380 J	720 J	--	670
Acenaphthene	µg/kg	65.6 J	79.9 J	146 J	64.9	20.4 J	4,920 J	620	510	740 J	1,400 J	--	500
Acenaphthylene	µg/kg	29.5 J	24.2 J	103 J	88.5	5.27 J	272 J	82 J	55 J	87 J	140 J	--	1,300
Anthracene	µg/kg	83.4	93.9	96.2	70.6	17.3	2,040	250	230	400	400	--	960
Fluorene	µg/kg	79.6	94.5	160	78.1	20.6	4,300	470	400	600	990	--	540
Naphthalene	µg/kg	261 J	289 J	1,050 J	605	78.7 J	9,070 J	1,600	1,300	1,600 J	3,100 J	--	2,100
Phenanthrene	µg/kg	249	304	518	431	59.6	9,020	970	790	1,200	2,000	--	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	60 J	31.4 J	27.5 J	51.7	19.1 J	239 J	190.8 J	146 J	28.6	95.8 J	--	960
Benzo(a)anthracene	mg/kg OC	4.2	1.98	1.54	2.16	1.2	13.3	13 J	9	2.3	5.8	--	110
Benzo(a)pyrene	mg/kg OC	3.11 J	1.24 J	1.11 J	1.42	0.6	3.38 J	9.8 J	5.3 J	1.3	3.7	--	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	6.28	3.01	2.48	4.63	1.6	9.2	21 J	13 J	2.3	8.1	--	230
Benzo(g,h,i)perylene	mg/kg OC	2.63	1	1.12	1.35	0.574 J	1.5	5.9 J	3.1 J	0.54	2	--	31
Chrysene	mg/kg OC	5.43	2.99	2.1	3.76	1.3	20.0	20	13	2.3	7.9	--	110
Dibenzo(a,h)anthracene	mg/kg OC	0.891 J	0.43 J	0.308 J	0.454	0.9	0.377 J	4 U	1.3 U	0.19	1.3 U	--	12
Fluoranthene	mg/kg OC	20.3	11.2	10.4	20.6	7.3	118.0	67	59	8.5	32	--	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	2.14	0.906	0.749	0.837	0.436 J	1.4	4.6 J	2.4 J	0.5	1.2 J	--	34
Pyrene	mg/kg OC	16.3	8.57	7.66	16.5	5.4	76.9	52	41	11	35	--	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	900 J	897 J	919 J	791	155 J	13,600 J	2,328 J	1,620 J	4,033	4,139 J	--	12,000
Benzo(a)anthracene	µg/kg	61.7	56.7	51.3	33.1	9.93	753	160	100	330	250	--	1,300
Benzo(a)pyrene	µg/kg	45.7 J	35.5 J	37.0 J	21.8	4.48 J	192 J	120 J	59 J	190	160	--	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	92.3	86	82.7	70.8	13.2	525	260 J	140 J	320	350	--	3,200
Benzo(g,h,i)perylene	µg/kg	38.7	28.7	37.5	20.7	4.65 J	87.6	72 J	34 J	76	86	--	670
Chrysene	µg/kg	79.8	85.5	70	57.5	10.1	900	200	140	320	340	--	1,400
Dibenzo(a,h)anthracene	µg/kg	13.1 J	12.3 J	10.3 J	6.94	6.9	21.4 J	49 U	14 U	27	54 U	--	230
Fluoranthene	µg/kg	298	321	349	315	58.9	6,690	820	660	1,200	1,400	--	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	31.4	25.9	25	12.8	3.53 J	76.5	56 J	27 J	70	53 J	--	600
Pyrene	µg/kg	239	245	256	252	43.5	4,370	640	460	1,500	1,500	--	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	1.35 U	0.692 U	0.587 U	0.320 U	2.40 U	1.70 U	0.4 U	0.43 U	0.11 J	0.56	--	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	1.35 U	0.692 U	0.587 U	0.320 U	2.40 U	1.70 U	0.4 U	0.13 J	0.16 U	0.25 U	--	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	1.35 U	0.692 U	0.587 U	0.16	2.40 U	1.70 U	0.2 J	0.24 J	0.11 J	0.23 J	--	3.1
Hexachlorobenzene	mg/kg OC	0.0330 U	0.0170 U	0.0140 U	0.320 U	0.0600 U	0.0856 U	0.4 U	0.43 U	0.16 U	0.44	--	0.38

Sample Location ¹		South DMMU Area					North DMMU Area	MAF-01					Proposed Sediment Cleanup Level ²
Sample Identification		DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_2-4	
Sample Date		10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/15	10/20/15	11/11/15	11/11/15	11/11/15	
Sample Interval (dbm)		5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	19.8 U	19.8 U	19.6 U	4.9 U	19.4 U	96.3 U	4.9 U	4.8 U	16 J	24	--	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	19.8 U	19.8 U	19.6 U	4.9 U	19.4 U	96.3 U	4.9 U	1.4 J	22 U	11 U	--	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	19.8 U	19.8 U	19.6 U	2.4 J	19.4 U	96.3 U	2.4 J	2.7 J	15 J	9.8 J	--	110
Hexachlorobenzene	µg/kg	0.49 U	0.48 U	0.48 U	4.9 U	0.49 U	4.86 U	4.9 U	4.8 U	22 U	19	--	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	2.37 J	1.73 U	1.46 U	6.33	3.83 J	4.24 U	2.3 J	3.4 J	3.3 J	7.4 J	--	47
Butyl Benzyl Phthalate	mg/kg OC	1.35 U	0.692 U	1.78	0.320 U	2.40 U	1.70 U	0.25 J	0.43 U	0.16 U	0.25 U	--	4.9
Dibutyl Phthalate	mg/kg OC	1.35 U	0.692 U	8.20	2.20 U	30.5 J	1.70 U	0.72 J	1.7 U	0.62 U	1 U	--	220
Diethyl Phthalate	mg/kg OC	1.35 U	0.692 U	0.587 U	1.54	2.40 U	1.70 U	2 U	1.7 U	0.6 J	1.2	--	61
Dimethyl Phthalate	mg/kg OC	1.35 U	0.692 U	0.587 U	0.320 U	2.40 U	1.70 U	2 U	1.7 U	0.62 U	1.5	--	53
Di-N-Octyl Phthalate	mg/kg OC	1.35 U	0.692 U	0.587 U	1.29 U	2.40 U	1.70 U	2 U	1.7 U	0.62 U	1 U	--	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	34.8 J	49.6 U	48.9 U	96.9	31.0 J	241 U	28 J	38 J	470 J	320 J	--	1,300
Butyl Benzyl Phthalate	µg/kg	19.8 U	19.8 U	59.3	4.9 U	19.4 U	96.3 U	3.1 J	4.8 U	22 U	11 U	--	63
Dibutyl Phthalate	µg/kg	19.8 U	19.8 U	274	33.6 U	247 J	96.3 U	8.8 J	19 U	88 U	44 U	--	1,400
Diethyl Phthalate	µg/kg	19.8 U	19.8 U	19.6 U	23.6	19.4 U	96.3 U	20 UJ	19 UJ	80 J	52	--	200
Dimethyl Phthalate	µg/kg	19.8 U	19.8 U	19.6 U	4.9 U	19.4 U	96.3 U	20 U	19 U	88 U	66	--	71
Di-N-Octyl Phthalate	µg/kg	19.8 U	19.8 U	19.6 U	19.7 U	19.4 U	96.3 U	20 U	19 U	88 U	44 U	--	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	10.8 J	8.2 J	24.6 J	17.0 J	3.5 J	438	10 J	15 J	56 J	110	--	29
2-Methylphenol (o-Cresol)	µg/kg	19.8 U	19.8 U	19.6 U	4.9 U	19.4 U	96.3 U	8.8 J	11 J	88 U	46	--	63
4-Methylphenol (p-Cresol)	µg/kg	765	730	1,920	1,590	109	5,130	330	390	3,200	2,500	--	670
Pentachlorophenol	µg/kg	8.1 J	4.4 J	19.1 J	12.1 J	8.2 J	10.3 J	98 U	96 U	440 U	220 U	--	360
Phenol	µg/kg	86.1	51.5	59	54.8	13.2 J	403	73	69	170 J	120 J	--	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	6.69	2.9	5.81	11.6	2.3 J	53	42	39	4.4 J	28 J	--	15
Hexachlorobutadiene	mg/kg OC	1.35 U	0.692 U	6.41	0.320 U	0.6 U	0.4 U	0.4 U	0.43 U	0.09 J	1.4 J	--	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	1.35 U	0.692 U	0.587 U	0.320 U	1.1 U	0.8 U	0.4 U	0.43 U	0.16 U	0.25 U	--	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	98.4	83	194	177	18.8 J	3,010	510	430	620 J	1,200 J	--	540
Hexachlorobutadiene	µg/kg	19.8 U	19.8 U	214	4.9 U	4.9 U	24.1 U	4.9 U	4.8 U	12 J	62 J	--	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	19.8 U	19.8 U	19.6 U	4.9 U	9.3 U	46.1 U	4.9 U	4.8 U	22 U	11 U	--	28
Benzoic Acid	µg/kg	221 U	141 U	409	216	68.3 J	540 U	80 J	120 J	340 J	380 J	--	650
Benzyl Alcohol	µg/kg	19.8 U	19.8 U	27.2	19.7 U	16.1 J	71.7 U	20 U	16 J	88 U	44 U	--	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	1.3 J	1.1 J	1.01 J	0.86 J	0.56 J	0.26	30.2	--	11.6	--	--	12

Sample Location ¹	South DMMU Area					North DMMU Area	MAF-01					Proposed Sediment Cleanup Level ²	
	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_2-4		
Sample Identification													
Sample Date	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/15	10/20/15	11/11/15	11/11/15	11/11/15		
Sample Interval (dbm)	5.7 -7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft		
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	19.7 J	32.8 J	33.6 J	13.1 J	4.52 J	14.5	368	--	1,630	--	--	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	20 U	19 U	--	--	94 U	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	98 U	96 U	--	--	470 U	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	98 U	96 U	--	--	470 U	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	98 U	96 U	--	--	470 U	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	20 U	19 U	--	--	94 U	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	39 U	38 U	--	--	190 U	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	20 U	19 U	--	--	94 U	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	20 U	19 U	--	--	94 U	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	20 U	19 U	--	--	94 U	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	100 U	98 U	--	--	420 U	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	100 U	98 U	--	--	420 U	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	100 U	98 U	--	--	420 U	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	100 U	98 U	--	--	260 J	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	1,400	1,200	--	--	7,700	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	100 U	98 U	--	--	420 UJ	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	740 J	410 J	--	--	3,200 J	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	100 UJ	98 UJ	--	--	420 UJ	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	100 U	98 U	--	--	420 U	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	95	100	--	--	1,400	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	50 U	49 U	--	--	440	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	100 U	98 U	--	--	420 U	NE
Pesticides													
4,4'-DDD	µg/kg	0.98 U	0.97 U	0.96 U	1.99 U	0.98 U	9.73 U	--	--	--	--	--	NE
4,4'-DDE	µg/kg	9.80 U	0.97 U	0.96 U	1.99 U	0.98 U	9.73 U	--	--	--	--	--	NE
4,4'-DDT	µg/kg	0.98 U	0.97 U	0.96 U	1.99 U	0.98 U	9.73 U	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	9.80 U	0.970 U	0.960 U	1.99 U	0.980 U	9.73 U	--	--	--	--	--	NE
Aldrin	µg/kg	0.49 U	0.48 U	0.48 U	1.00 U	0.49 U	4.86 U	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	0.49 U	0.48 U	0.48 U	1.00 U	0.49 U	4.86 U	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	0.49 U	0.48 U	0.48 U	1.00 U	0.49 U	4.86 U	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	21.6 U	0.970 U	1.93 U	1.99 U	0.980 U	185 U	--	--	--	--	--	NE
Dieldrin	µg/kg	0.98 U	0.97 U	0.96 U	1.99 U	0.98 U	9.73 U	--	--	--	--	--	NE
Heptachlor	µg/kg	0.49 U	0.48 U	0.48 U	1.00 U	0.49 U	4.86 U	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		South DMMU Area					North DMMU Area	MAF-01					Proposed Sediment Cleanup Level ²
Sample Identification		DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_2-4	
Sample Date		10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/15	10/20/15	11/11/15	11/11/15	11/11/15	
Sample Interval (dbm)		5.7 -7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-01			MAF-02						MAF-03		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_2-4	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10	MAF-SC-03_0-2	
Sample Date		11/11/15	11/11/15	11/11/15	10/20/15	11/10/15	11/10/15	11/10/15	11/10/15	11/10/15	10/20/15	11/11/15	
Sample Interval (dbm)		4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	2 - 4 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Field Screening													
Visual Wood Content ³	%	100	<1	<1	10	100	100	100	<1	<1	50	100	15
Conventionals													
Total Organic Carbon (TOC)	Percent	12.4 J	0.210 J	0.27 J	2.85	28.8	--	13.8	0.350 J	0.35 J	9.68	13.4 J	NE
Total Volatile Solids (TVS)	Percent	26.2	1.0	1.0	7.4	43.4	--	66.7	1.4	1.3	17.8	57.6	NE
Total Solids (TS)	Percent	38.8	78.0	76.7	61.5	30.4	--	30.4	78.7	78.7	41.5	22.3	NE
Total Ammonia	mg-N/kg	--	--	--	--	8.75	--	--	--	--	--	27.20	NE
Porewater Ammonia	mg-N/L	--	--	--	12.40	--	--	--	--	--	5.54	--	NE
Total Sulfide	mg/kg	--	--	--	--	182	--	--	--	--	--	6,350	NE
Porewater Sulfide	mg/L	--	--	--	0.05	--	--	--	--	--	0.30	--	NE
Porewater pH	pH	--	--	--	7.47	--	--	--	--	--	7.67	--	NE
Grain Size													
Gravel	%	11.9	0.1 U	0.1 U	2	11	--	4.3	5.7	6.8	17	24.9	NE
Very Coarse Sand	%	9.2	0.1	0.1	3.6	13.9	--	8.5	2.5	2.7	14.3	11.5	NE
Coarse Sand	%	16.4	0.4	0.4	7.4	19.2	--	14.3	1.7	1.3	14	13.8	NE
Medium Sand	%	20.3	5	4.8	20.9	15	--	16	7.3	7.1	17.8	10.5	NE
Fine Sand	%	17.5	62.3	61.5	36.9	12.5	--	12.3	60.7	60	17.3	8.6	NE
Very Fine Sand	%	9.1	19.7	19.8	20.2	7.6	--	7.5	11.9	10	8	4.2	NE
Coarse Silt	%	4.3	3.9	4.1	3.6	5.5	--	6.3	3.4	5	2.5	9.4	NE
Medium Silt	%	3.2	2.1	2.1	2	4.3	--	17.6	1.6	1.6	2.2	3.4	NE
Fine Silt	%	1.9	1.6	1.8	1	2	--	3.7	1.6	1.5	1.2	1.7	NE
Very Fine Silt	%	1	1.3	1.3	0.2	1	--	1.4	1	1.2	0.8	1.3	NE
Clay	%	5.2	3.8	4.1	2.2	8.1	--	7.9	2.5	2.8	4.8	10.7	NE
Total Fines	%	15.6	12.6	13.3	8.9	20.8	--	37	10.3	12.1	11.6	26.5	NE
Metals													
Arsenic	mg/kg	22.9 J	7	8	18	20	--	14.5 J	10	20	60	11.8 J	57
Cadmium	mg/kg	1	0.05 J	0.092 J	0.9	0.7	--	0.535 J	0.6 U	0.7 U	1.8	0.791 J	5.1
Chromium	mg/kg	18	26.9	27.9	21.4	35 J	--	40 J	19 J	27 J	19	30	260
Copper	mg/kg	64	8.1	8.3	31.1	90.8	--	123	7.1 J	9 J	42.9	63.3	390
Lead	mg/kg	80	4	4	27	45	--	37	3.17 J	4.45 J	115	122	450
Mercury	mg/kg	0.23	0.0074 J	0.008 J	0.2	0.0396 J	--	0.22	0.0101 J	0.0055 J	0.22	0.3	0.41
Silver	mg/kg	2 U	0.4 U	0.4 U	0.5 U	0.9 U	--	1 U	0.9 U	1 U	0.39 J	1 U	6.1
Zinc	mg/kg	102	27	30	97	833 J	--	1,010 J	25 J	32 J	98	464 J	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	68.7	13.7 J	3.5 J	154	30.7	--	114	89.6 J	270 J	132	346 J	370
2-Methylnaphthalene	mg/kg OC	6	1.6 J	0.9 J	12	2.2	--	8.7	6.6 J	11 J	9.4	47.0 J	38
Acenaphthene	mg/kg OC	9.7	1.8 J	1.8 U	30	3	--	9.4	17 J	31 J	28	40	16

Sample Location ¹		MAF-01			MAF-02						MAF-03		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_2-4	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10	MAF-SC-03_0-2	
Sample Date		11/11/15	11/11/15	11/11/15	10/20/15	11/10/15	11/10/15	11/10/15	11/10/15	11/10/15	10/20/15	11/11/15	
Sample Interval (dbm)		4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	2 - 4 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Acenaphthylene	mg/kg OC	2.9	2.3 U	1.8 U	3.1	1.1	--	2.7	1.1 J	2.1	1.2	7	66
Anthracene	mg/kg OC	2	2.3 U	1.8 U	11	0.3	--	0.2	9 J	19 J	18	7	220
Fluorene	mg/kg OC	6.1	1.5 J	1.8 U	19	1.5	--	3.7	9.5 J	18 J	17	57 J	23
Naphthalene	mg/kg OC	39	6.7 J	2.4 J	56	22	--	94	40 J	180 J	44	160	99
Phenanthrene	mg/kg OC	9.7	3.7	1.0 J	40	3	--	3.3	13 J	24 J	25	72	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	8,520	28.5 J	9.3 J	4,390	8,840	--	15,700	312.8 J	960 J	12,820	46,400 J	5,200
2-Methylnaphthalene	µg/kg	700	3.4 J	2.4 J	350	620	--	1,200	23 J	39 J	910	6,300 J	670
Acenaphthene	µg/kg	1,200	3.8 J	4.8 U	850	850	--	1,300	59 J	110 J	2,700	6,000	500
Acenaphthylene	µg/kg	360	4.8 U	4.8 U	89	310	--	370	3.8 J	7.4	120	1,000	1,300
Anthracene	µg/kg	200	4.8 U	4.8 U	320	100	--	26	30 J	66 J	1,700	1,000	960
Fluorene	µg/kg	760	3.1 J	4.8 U	530	420	--	510	33 J	62 J	1,600	7,700 J	540
Naphthalene	µg/kg	4,800	14 J	6.5 J	1,600	6,300	--	13,000	140 J	630 J	4,300	21,000	2,100
Phenanthrene	µg/kg	1,200	7.6	2.8 J	1,000	860	--	450	47 J	85 J	2,400	9,700	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	13.1 J	5.0 J	1.8 U	67.0 J	2.4 J	--	1.3	101 J	145.4 J	165.9	30.9 J	960
Benzo(a)anthracene	mg/kg OC	0.44 J	2.3 U	1.8 U	4.0	0.1	--	0.1 U	9	10	12	1 J	110
Benzo(a)pyrene	mg/kg OC	0.69 U	2.3 U	1.8 U	3.0	0.1	--	0.1 U	5.2	5.1	4.3	2.1 U	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	0.48 J	2.3 U	1.8 U	7.0	0.2	--	0.1 U	9.7	9.3	9.4	2.1 U	230
Benzo(g,h,i)perylene	mg/kg OC	0.69 U	2.3 U	1.8 U	1.8	0.05	--	0.1 U	3	3	2	2.1 U	31
Chrysene	mg/kg OC	0.6 J	2.3 U	1.8 U	4.9	0.2	--	0.1 U	12	13	11	1 J	110
Dibenzo(a,h)anthracene	mg/kg OC	0.69 U	2.3 U	1.8 U	0.4 J	0.01 J	--	0.1 U	1.3 U	0.9 J	0.7	2.1 U	12
Fluoranthene	mg/kg OC	6.5	2.8	1.8 U	25.0	1.2	--	0.7	34.0 J	59 J	74	17	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	0.69 U	2.3 U	1.8 U	1.4	0.0	--	0.1 U	1.9	2.2	1.8	2.1 U	34
Pyrene	mg/kg OC	5	2.2 J	1.8 U	20.0	0.7	--	0.6	26	42	50	11	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	1,624 J	10.4 J	4.8 U	1,910 J	704.1 J	--	176	352.6 J	514.8 J	16,060	4,140 J	12,000
Benzo(a)anthracene	µg/kg	55 J	4.8 U	4.8 U	100	28	--	16 U	30	37	1,200	140 J	1,300
Benzo(a)pyrene	µg/kg	86 U	4.8 U	4.8 U	85	18	--	16 U	18	18	420	280 U	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	59 J	4.8 U	4.8 U	200	45	--	16 U	34	33	910	280 U	3,200
Benzo(g,h,i)perylene	µg/kg	86 U	4.8 U	4.8 U	52	13	--	16 U	10	10	190	280 U	670
Chrysene	µg/kg	80 J	4.8 U	4.8 U	140	48	--	16 U	43	46	1,100	200 J	1,400
Dibenzo(a,h)anthracene	µg/kg	86 U	4.8 U	4.8 U	12 J	3.8 J	--	16 U	4.7 U	3.1 J	65	280 U	230
Fluoranthene	µg/kg	810	5.8	4.8 U	720	340	--	100	120 J	210 J	7,200	2,300	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	86 U	4.8 U	4.8 U	41	8.3	--	16 U	6.6	7.7	170	280 U	600
Pyrene	µg/kg	620	4.6 J	4.8 U	560	200	--	76	91	150	4,800	1,500	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	0.14 U	2.3 U	1.8 U	0.16 U	0.017 U	--	0.12 U	1.3 U	1.4 U	0.065	1.2 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.14 U	2.3 U	1.8 U	0.16 U	0.011 J	--	0.12 U	1.3 U	1.4 U	0.024 J	1.2 U	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.1 J	2.3 U	1.8 U	0.11 J	0.026	--	0.28	1.3 U	1.4 U	0.11	1.2 U	3.1
Hexachlorobenzene	mg/kg OC	0.14 U	2.3 U	1.8 U	0.16 U	0.017 U	--	0.43	1.3 U	1.4 U	0.05 U	1.2 U	0.38

Sample Location ¹		MAF-01			MAF-02						MAF-03		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_2-4	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10	MAF-SC-03_0-2	
Sample Date		11/11/15	11/11/15	11/11/15	10/20/15	11/10/15	11/10/15	11/10/15	11/10/15	11/10/15	10/20/15	11/11/15	
Sample Interval (dbm)		4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	2 - 4 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	17 U	4.8 U	4.8 U	4.7 U	4.9 U	--	16 U	4.7 U	4.9 U	6.3	160 UJ	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	17 U	4.8 U	4.8 U	4.7 U	3.2 J	--	16 U	4.7 U	4.9 U	2.3 J	160 UJ	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	13 J	4.8 U	4.8 U	3.0 J	7.5	--	39	4.7 U	4.9 U	11	160 U	110
Hexachlorobenzene	µg/kg	17 U	4.8 U	4.8 U	4.7 U	4.9 U	--	59	4.7 U	4.9 U	4.8 U	160 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	2.8 U	15	18 U	1 J	2.9	--	5.5	13 J	14 U	0.5 U	16 J	47
Butyl Benzyl Phthalate	mg/kg OC	0.14 U	2.3 U	1.8 U	0.16 U	0.017 U	--	0.28	1.3 U	1.4 U	0.05 U	1.2 U	4.9
Dibutyl Phthalate	mg/kg OC	1.1 U	9.1 U	7.1 U	0.67 U	0.07 U	--	1.4 U	3.4 J	2.7 J	0.2 U	4.9 U	220
Diethyl Phthalate	mg/kg OC	1.1 U	10	7.1 U	0.67 U	0.07	--	1.4 U	6	5.4 U	0.2 U	5.8 J	61
Dimethyl Phthalate	mg/kg OC	1.1 U	9.1 U	7.1 U	0.67 U	0.07 U	--	1.4 U	5.4 U	5.4 U	0.2 U	4.9 U	53
Di-N-Octyl Phthalate	mg/kg OC	1.1 U	9.1 U	7.1 U	0.67 U	0.19	--	1.4 U	5.4 U	5.4 U	0.2 U	4.9 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	350 U	31 J	48 U	30 J	840	--	760	44 J	49 U	48 U	2,200 J	1,300
Butyl Benzyl Phthalate	µg/kg	17 U	4.8 U	4.8 U	4.7 U	4.9 U	--	39	4.7 U	4.9 U	4.8 U	160 U	63
Dibutyl Phthalate	µg/kg	140 U	19 U	19 U	19 U	20 U	--	190 U	12 J	9.7 J	19 U	650 U	1,400
Diethyl Phthalate	µg/kg	140 U	20	19 U	19 UJ	20	--	190 U	20	19 U	19 UJ	780 J	200
Dimethyl Phthalate	µg/kg	140 U	19 U	19 U	19 U	20 U	--	190 U	19 U	19 U	19 U	650 U	71
Di-N-Octyl Phthalate	µg/kg	140 U	19 U	19 U	19 U	56	--	190 U	19 U	19 U	19 U	650 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	380	24 U	24 U	11 J	130	--	1,000	13 J	15 J	320	1,800 J	29
2-Methylphenol (o-Cresol)	µg/kg	83 J	19 U	19 U	10 J	290	--	930	19 U	19 U	63	620 J	63
4-Methylphenol (p-Cresol)	µg/kg	8,500	19	19 U	150	1,800	--	16,000	22	15 J	2,400	51,000 J	670
Pentachlorophenol	µg/kg	690 U	96 U	95 U	95 U	97 U	--	970 U	94 U	97 U	97 U	3,300 U	360
Phenol	µg/kg	130 J	19 U	19 U	71	430	--	420	19 U	19 U	120	2,300 J	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	6.9	2.2 J	1.8 U	24	1.6	--	3.3	9.7	15	32	46 J	15
Hexachlorobutadiene	mg/kg OC	0.14 U	2.3 U	1.8 U	0.16 U	0.017 U	--	1.2	1.3 U	1.4 U	0.02 J	1.2 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	0.14 U	2.3 U	1.8 U	0.16 U	0.017 U	--	0.12 U	1.3 U	1.4 U	0.05 U	1.2 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	860	4.6 J	4.8 U	680	470	--	450	34	52	3,100	6,200 J	540
Hexachlorobutadiene	µg/kg	17 U	4.8 U	4.8 U	4.7 U	4.9 U	--	170	4.7 U	4.9 U	1.6 J	160 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	17 U	4.8 U	4.8 U	4.7 U	4.9 U	--	16 U	4.7 U	4.9 U	4.8 U	160 U	28
Benzoic Acid	µg/kg	890 J	190 U	190 U	64 J	200	--	1,900 U	190 UJ	190 U	190 U	7,100 J	650
Benzyl Alcohol	µg/kg	140 U	19 U	19 U	19 U	73	--	190 U	19 U	19 UJ	19 U	650 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	--	--	--	--	--	--	--	--	--	2.87 J	22.2 J	12

Sample Location ¹		MAF-01			MAF-02						MAF-03		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_2-4	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10	MAF-SC-03_0-2	
Sample Date		11/11/15	11/11/15	11/11/15	10/20/15	11/10/15	11/10/15	11/10/15	11/10/15	11/10/15	10/20/15	11/11/15	
Sample Interval (dbm)		4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	2 - 4 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	--	--	--	--	--	--	--	--	--	278 J	2,980 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	19 U	--	38 U	--	--	--	16 J	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	95 U	--	190 U	--	--	--	97 U	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	95 U	--	190 U	--	--	--	97 U	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	95 U	--	190 U	--	--	--	97 U	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	19 U	--	720	--	--	--	82	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	38 U	--	76 U	--	--	--	39 U	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	19 U	--	38 U	--	--	--	19 U	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	19 U	--	38 U	--	--	--	19 U	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	19 U	--	38 U	--	--	--	19 U	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	99 UJ	--	190 U	--	--	--	2,900 U	--	NE
Pimaric Acid	µg/kg	--	--	--	99 U	--	190 U	--	--	--	2,900 U	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	99 U	--	190 U	--	--	--	2,900 U	--	NE
Isopimaric Acid	µg/kg	--	--	--	99 UJ	--	210	--	--	--	2,900 U	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	830	--	17,000	--	--	--	3,900	--	NE
Palustric Acid	µg/kg	--	--	--	99 UJ	--	190 UJ	--	--	--	2,900 U	--	NE
Abietic Acid	µg/kg	--	--	--	140 J	--	900 J	--	--	--	5,100 J	--	NE
Neoabietic Acid	µg/kg	--	--	--	99 UJ	--	190 UJ	--	--	--	2,900 UJ	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	99 U	--	190 U	--	--	--	2,900 U	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	49 U	--	96 U	--	--	--	1,500 U	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	49 U	--	97	--	--	--	1,500 U	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	99 U	--	190 U	--	--	--	2,900 U	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		MAF-01			MAF-02						MAF-03		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_2-4	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10	MAF-SC-03_0-2	
Sample Date		11/11/15	11/11/15	11/11/15	10/20/15	11/10/15	11/10/15	11/10/15	11/10/15	11/10/15	10/20/15	11/11/15	
Sample Interval (dbm)		4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	2 - 4 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	
Stratigraphic Unit		Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-03					MAF-04						Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-DUP-03	MAF-SC-03_2-4	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁹	MAF-SC-DUP-05	MAF-SC-04_2-4 ¹⁰	MAF-SC-04_4-6	MAF-SC-04_8-10	
Sample Date		11/11/15	11/11/15	11/11/15	11/11/15	11/11/2015	10/20/15	10/26/15	10/26/15	10/26/15	10/26/15	10/26/15	
Sample Interval (dbm)		0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Field Screening													
Visual Wood Content ³	%	100	100	100	100	<1	75	75	75	75	85	25	15
Conventionals													
Total Organic Carbon (TOC)	Percent	28.2 J	--	34.1	41.5	0.270	20.2	41.0 J	37.6 J	47.8 J	52.5	5.00 J	NE
Total Volatile Solids (TVS)	Percent	53.3	--	70.2	62.4	1.0	30.4	50.5	52.0	56.9	46.2	35.1	NE
Total Solids (TS)	Percent	21.2	--	25.0	28.3	78.1	36.0	21.0	20.8	21.2	21.9	26.7	NE
Total Ammonia	mg-N/kg	28.70	--	--	--	--	--	21.40	22.00	--	--	--	NE
Porewater Ammonia	mg-N/L	--	--	--	--	--	21.1	--	--	--	--	--	NE
Total Sulfide	mg/kg	2840	--	--	--	--	--	825	1,050	--	--	--	NE
Porewater Sulfide	mg/L	--	--	--	--	--	0.091	--	--	--	--	--	NE
Porewater pH	pH	--	--	--	--	--	7.46	--	--	--	--	--	NE
Grain Size													
Gravel	%	36.4	--	37.1	35.9	--	3.7	2.2	1.9	1.8	2.4	3.1	NE
Very Coarse Sand	%	12.5	--	13.6	12.1	--	6.7	8.9	8.9	8.3	8.4	7.2	NE
Coarse Sand	%	12.1	--	15.2	12.7	--	13.5	16.6	15.9	16.4	15.6	11.3	NE
Medium Sand	%	8.8	--	9.6	8.2	--	18	15.7	15.4	15.1	14.9	12	NE
Fine Sand	%	8.6	--	6.9	10.9	--	23.4	8	8.3	8.2	8.9	7.1	NE
Very Fine Sand	%	4.5	--	3.4	4	--	17	5.6	5.8	5.7	6.2	6.4	NE
Coarse Silt	%	4.2	--	2	4.9	--	4.8	3.2	5.1	5.5	5.8	8.1	NE
Medium Silt	%	3	--	2.7	2.1	--	4.5	10.9	12.7	12.9	13.3	8.7	NE
Fine Silt	%	1.3	--	1.4	1.6	--	2.5	8.2	7.1	7.8	7.7	10.4	NE
Very Fine Silt	%	1.1	--	1	0.9	--	1.1	4.9	4.1	4.2	3.9	7.2	NE
Clay	%	7.3	--	7	6.6	--	4.9	15.8	14.8	13.9	12.8	18.5	NE
Total Fines	%	17	--	14.1	16.1	--	17.7	43.1	43.8	44.4	43.6	52.9	NE
Metals													
Arsenic	mg/kg	9 J	--	10.8 J	8.8 J	2.9	20	20 U	20 U	20 U	20 U	20	57
Cadmium	mg/kg	1	--	0.725 J	0.449 J	0.1	1.1	1	1 U	1 U	0.9 U	1	5.1
Chromium	mg/kg	24	--	28	23	18.5	26	26	25	14	24	33	260
Copper	mg/kg	56.3	--	56.6	44.5	5.17	39.7	68.3	69	45	67.7	71.4	390
Lead	mg/kg	169	--	112	62	2.1	31	60 J	50 J	30 J	42 J	54 J	450
Mercury	mg/kg	0.4	--	0.25	0.15	0.0264	0.09	0.28 J	0.37 J	0.16 J	0.24 J	0.20 J	0.41
Silver	mg/kg	1 U	--	1 U	1 U	0.35 U	0.8 U	1 U	1 U	1 U	1 U	1 U	6.1
Zinc	mg/kg	146 J	--	742	995	20.5	113	67	51	41	228	104	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	124 J	--	79.8	64.8	210 J	57.4	64.6	49.5	54.1	63.1	887	370
2-Methylnaphthalene	mg/kg OC	9.6 J	--	5.3	5.1	11.2	4.2	6.3	5.1	5.2	6.3	100	38
Acenaphthene	mg/kg OC	10	--	8.5	5.5	9.2	12	8.8	6.9	7.3	8.4	160	16

Sample Location ¹		MAF-03					MAF-04						Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SC-DUP-03	MAF-SC-03_2-4	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁹	MAF-SC-DUP-05	MAF-SC-04_2-4 ¹⁰	MAF-SC-04_4-6	MAF-SC-04_8-10		
Sample Date	11/11/15	11/11/15	11/11/15	11/11/15	11/11/2015	10/20/15	10/26/15	10/26/15	10/26/15	10/26/15	10/26/15		
Sample Interval (dbm)	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft		
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Acenaphthylene	mg/kg OC	4.3	--	3	1.8	1.1 J	0.9	2	1.5	1.7	1.7	20	66
Anthracene	mg/kg OC	2.7	--	2	0.9	9.7	2.4	0.2	0.2	0.3	0.6	20	220
Fluorene	mg/kg OC	12 J	--	7	4.1	11.8	6.4	4.6	3.7	3.8	5	110	23
Naphthalene	mg/kg OC	64	--	44	46	137	26	46	35	38	42	420	99
Phenanthrene	mg/kg OC	27	--	15	6.7	39.3	9.4	2.7	3	3.3	5.5	160	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	34,850 J	--	27,200	26,910	560 J	11,600	26,504	18,600	25,860	33,110	44,600	5,200
2-Methylnaphthalene	µg/kg	2,700 J	--	1,800	2,100	30.2	850	2,600	1,900	2,500	3,300	5,200	670
Acenaphthene	µg/kg	4,000	--	2,900	2,300	24.9	2,400	3,600	2,600	3,500	4,400	7,800	500
Acenaphthylene	µg/kg	1,200	--	900	740	2.88 J	190	840	570	830	910	1,000	1,300
Anthracene	µg/kg	750	--	800	370	26.2	480	64	68	130	300	1,000	960
Fluorene	µg/kg	3,400 J	--	2,400	1,700	31.8	1,300	1,900	1,400	1,800	2,600	5,600	540
Naphthalene	µg/kg	18,000	--	15,000	19,000	369	5,300	19,000	13,000	18,000	22,000	21,000	2,100
Phenanthrene	µg/kg	7,500	--	5,200	2,800	106	1,900	1,100	1,000	1,600	2,900	8,200	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	17.1 J	--	8.6 J	3.4 J	--	16.4	0.9 J	1.1 J	1.4 J	2.9 J	93.9 J	960
Benzo(a)anthracene	mg/kg OC	1.2 U	--	0.2	0.05 J	--	1	0.05 U	0.051 U	0.04 U	0.04	3	110
Benzo(a)pyrene	mg/kg OC	1.2 U	--	0.1 J	0.089 U	--	0.9	0.05 U	0.051 U	0.04 U	0.036 U	0.9	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	1.2 U	--	0.3	0.089 U	--	2.1	0.05 U	0.051 U	0.04 U	0.04	2.2	230
Benzo(g,h,i)perylene	mg/kg OC	1.2 U	--	0.15 U	0.089 U	--	0.4	0.03 J	0.051 U	0.04 U	0.036 U	0.5	31
Chrysene	mg/kg OC	0.78 J	--	0.3	0.08 J	--	1	0.03 J	0.03 J	0.04	0.08	4.2	110
Dibenzo(a,h)anthracene	mg/kg OC	1.2 U	--	0.15 U	0.089 U	--	0.24 U	0.01 J	0.008 J	0.03 J	0.02 J	1.3 J	12
Fluoranthene	mg/kg OC	9.6	--	5.0	2	--	5.9	0.5	0.6	0.8	1.7	50	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	1.2 U	--	0.15 U	0.089 U	--	0.4	0.05 U	0.051 U	0.04 U	0.036 U	0.4	34
Pyrene	mg/kg OC	6.7	--	2.7	1.3	--	4.2	0.3	0.4	0.5	1	32	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	4,820 J	--	2,934 J	1,423 J	--	3,316	377 J	395.1 J	653 J	1,528 J	4,726 J	12,000
Benzo(a)anthracene	µg/kg	340 U	--	70	22 J	--	200	20 U	19 U	19 U	23	150	1,300
Benzo(a)pyrene	µg/kg	340 U	--	34 J	37 U	--	180	20 U	19 U	19 U	19 U	43	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	340 U	--	110	37 U	--	430	20 U	19 U	19 U	20	110	3,200
Benzo(g,h,i)perylene	µg/kg	340 U	--	52 U	37 U	--	89	11 J	19 U	19 U	19 U	27	670
Chrysene	µg/kg	220 J	--	100	31 J	--	300	11 J	12 J	21	43	210	1,400
Dibenzo(a,h)anthracene	µg/kg	340 U	--	52 U	37 U	--	49 U	5.0 J	3.1 J	12 J	12 J	67 J	230
Fluoranthene	µg/kg	2,700	--	1,700	850	--	1,200	220	240	400	880	2,500	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	340 U	--	52 U	37 U	--	77	20 U	19 U	19 U	19 U	19	600
Pyrene	µg/kg	1,900	--	920	520	--	840	130	140	220	550	1,600	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	1.9 J	--	0.15 U	0.094	1.80 U	0.024 U	0.0059 J	0.011 J	0.0044 J	0.0042 J	0.04 J	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.078 J	--	0.15 U	0.089 U	1.80 U	0.0084 J	0.011 J	0.017 J	0.0077 J	0.008 J	0.074 J	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.24 U	--	0.15 U	0.089 U	1.80 U	0.018 J	0.0063 J	0.01 J	0.0052 J	0.0046 J	0.044 J	3.1
Hexachlorobenzene	mg/kg OC	0.24 U	--	0.15 U	0.089 U	1.80 U	0.024 U	0.012 U	0.013 U	0.01 U	0.0093 U	0.097 U	0.38

Sample Location ¹		MAF-03					MAF-04						Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SC-DUP-03	MAF-SC-03_2-4	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁹	MAF-SC-DUP-05	MAF-SC-04_2-4 ¹⁰	MAF-SC-04_4-6	MAF-SC-04_8-10		
Sample Date	11/11/15	11/11/15	11/11/15	11/11/15	11/11/2015	10/20/15	10/26/15	10/26/15	10/26/15	10/26/15	10/26/15		
Sample Interval (dbm)	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft		
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	530 J	--	52 U	39	4.8 U	4.9 U	2.4 J	4.2 J	2.1 J	2.2 J	2.0 J	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	22 J	--	52 U	37 U	4.8 U	1.7 J	4.5 J	6.4	3.7 J	4.2 J	3.7 J	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	68 U	--	52 U	37 U	4.8 U	3.6 J	2.6 J	3.8 J	2.5 J	2.4 J	2.2 J	110
Hexachlorobenzene	µg/kg	68 U	--	52 U	37 U	4.8 U	4.9 U	5.0 U	5.0 U	5.0 U	4.9 U	4.9 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	1 J	--	2.8 J	0.89 U	17.8 U	0.24 U	0.1 U	0.1 U	0.1 U	0.093 U	0.97 U	47
Butyl Benzyl Phthalate	mg/kg OC	0.24 U	--	0.15 U	0.089 U	1.80 U	0.024 U	0.012 U	0.013 U	0.01 U	0.0093 U	0.097 U	4.9
Dibutyl Phthalate	mg/kg OC	0.96 U	--	1.2 U	0.36 U	7.11 U	0.1 U	0.05 U	0.05 U	0.04 U	0.04 U	0.4 U	220
Diethyl Phthalate	mg/kg OC	0.96 U	--	1.2 U	0.43	7.11 U	0.1 U	0.05 U	0.05 U	0.04 U	0.07 J	1.1 J	61
Dimethyl Phthalate	mg/kg OC	0.96 U	--	1.2 U	0.36 U	7.11 U	0.1 U	0.05 U	0.05 U	0.04 U	0.04 U	0.4 U	53
Di-N-Octyl Phthalate	mg/kg OC	0.96 U	--	1.2 U	0.36 U	7.11 U	0.1 U	0.05 U	0.05 U	0.04 U	0.04 U	0.4 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	400 J	--	940 J	370 U	48.1 U	49 U	50 U	50 U	50 U	49 U	49 U	1,300
Butyl Benzyl Phthalate	µg/kg	68 U	--	52 U	37 U	4.8 U	4.9 U	5.0 U	5.0 U	5.0 U	4.9 U	4.9 U	63
Dibutyl Phthalate	µg/kg	270 U	--	420 U	150 U	19.2 U	20 U	20 U	20 U	20 U	20 U	20 U	1,400
Diethyl Phthalate	µg/kg	270 U	--	420 U	180	19.2 U	20 U	20 U	20 U	20 U	37 J	55 J	200
Dimethyl Phthalate	µg/kg	270 U	--	420 U	150 U	19.2 U	20 U	20 U	20 U	20 U	20 U	20 U	71
Di-N-Octyl Phthalate	µg/kg	270 U	--	420 U	150 U	19.2 U	20 U	20 U	20 U	20 U	20 U	20 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	540 J	--	640	1,600	16.0 J	170	820	900	660	820	1,500 J	29
2-Methylphenol (o-Cresol)	µg/kg	300 J	--	330 J	660	19.2 U	140	1,500	1,600	1,300	1,400	1,600	63
4-Methylphenol (p-Cresol)	µg/kg	22,000 J	--	23,000	31,000	47.5	1,000	22,000	25,000	17,000	19,000	8,600	670
Pentachlorophenol	µg/kg	1,400 U	--	2,100 U	750 U	96.2 U	97 U	100 U	99 U	100 U	98 U	98 U	360
Phenol	µg/kg	380 J	--	330 J	390	19.2 U	340	450	480	370	420	290	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	10 J	--	6 J	4.1	11.3	7.4	3.4	3.0	3.3	4.0	72	15
Hexachlorobutadiene	mg/kg OC	0.24 U	--	0.15 U	0.089 U	1.80 U	0.024 U	0.012 U	0.013 U	0.01 U	0.0093 U	0.097 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	0.24 U	--	0.15 U	0.089 U	7.11 U	0.024 U	0.012 U	0.013 U	0.01 U	0.0093 U	0.097 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	3,000 J	--	2,000	1,700	30.4	1,500	1,400	1,000	1,600	2,000	3,600	540
Hexachlorobutadiene	µg/kg	68 U	--	52 U	37 U	4.8 U	4.9 U	5.0 U	5.0 U	5.0 U	4.9 U	4.9 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	68 U	--	52 U	37 U	19.2 U	4.9 U	5.0 U	5.0 U	5.0 U	4.9 U	4.9 U	28
Benzoic Acid	µg/kg	2,200 J	--	1,600 J	2,000	192 U	88 J	200 U	200 U	200 U	200 U	200 U	650
Benzyl Alcohol	µg/kg	270 U	--	420 U	150 U	19.2 U	69	110 J	87 J	61	80	63	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	9.4 J	--	--	--	2.62 J	0.55 J	0.014 J	--	0.013 J	--	--	12

Sample Location ¹	MAF-03					MAF-04						Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SC-DUP-03	MAF-SC-03_2-4	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁹	MAF-SC-DUP-05	MAF-SC-04_2-4 ¹⁰	MAF-SC-04_4-6	MAF-SC-04_8-10		
Sample Date	11/11/15	11/11/15	11/11/15	11/11/15	11/11/2015	10/20/15	10/26/15	10/26/15	10/26/15	10/26/15	10/26/15		
Sample Interval (dbm)	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft		
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	2,650 J	--	--	--	7.07 J	111 J	34 J	--	6.32 J	--	--	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	230 U	--	--	--	20 U	--	--	9.8 J	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	1,200 U	--	--	--	97 U	--	--	98 U	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	1,200 U	--	--	--	25 J	--	--	79 J	--	--	NE
2,4-Dichlorophenol	µg/kg	--	1,200 U	--	--	--	97 U	--	--	50 J	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	1,100	--	--	--	170	--	--	1,700 J	--	--	NE
Tetrachloroguaiacol	µg/kg	--	460 U	--	--	--	39 U	--	--	39 U	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	230 UJ	--	--	--	20 U	--	--	20 U	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	230 U	--	--	--	20 U	--	--	20 U	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	230 U	--	--	--	20 U	--	--	20 U	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	900 U	--	--	--	100 U	--	99 U	99 U	--	--	NE
Pimaric Acid	µg/kg	--	900 U	--	--	--	100 U	--	99 U	99 U	--	--	NE
Sandaracopimaric Acid	µg/kg	--	900 U	--	--	--	270	--	150	120	--	--	NE
Isopimaric Acid	µg/kg	--	1,000	--	--	--	180	--	230	170	--	--	NE
Dehydroabiatic Acid	µg/kg	--	94,000	--	--	--	7,700 J	--	16,000	12,000	--	--	NE
Palustric Acid	µg/kg	--	900 UJ	--	--	--	100 U	--	99 UJ	99 UJ	--	--	NE
Abietic Acid	µg/kg	--	6,200 J	--	--	--	6,200 J	--	7,700 J	1,700 J	--	--	NE
Neoabietic Acid	µg/kg	--	900 UJ	--	--	--	100 UJ	--	99 UJ	99 UJ	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	900 U	--	--	--	100 U	--	99 U	99 U	--	--	NE
12-Chlorodehydroabiatic Acid	µg/kg	--	3,000	--	--	--	130	--	50 U	50 U	--	--	NE
14-Chlorodehydroabiatic Acid	µg/kg	--	1,200	--	--	--	50 U	--	50 U	50 U	--	--	NE
Dichlorodehydroabiatic Acid	µg/kg	--	900 U	--	--	--	100 U	--	99 U	99 U	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		MAF-03					MAF-04						Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-DUP-03	MAF-SC-03_2-4	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁹	MAF-SC-DUP-05	MAF-SC-04_2-4 ¹⁰	MAF-SC-04_4-6	MAF-SC-04_8-10	
Sample Date		11/11/15	11/11/15	11/11/15	11/11/15	11/11/2015	10/20/15	10/26/15	10/26/15	10/26/15	10/26/15	10/26/15	
Sample Interval (dbm)		0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-04	MAF-05				MAF-07	MAF-08		MAF-09	MAF-10		Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2		
Sample Date	11/10/2015	10/20/15	11/11/15	11/11/15	11/11/2015	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/29/15		
Sample Interval (dbm)	16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft		
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface		
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Field Screening													
Visual Wood Content ³	%	<1	<1	100	100	<1	5	<1	<1	25	<5	<5	15
Conventionals													
Total Organic Carbon (TOC)	Percent	0.170	7.38	13.9 J	19.2 J	0.280	1.35	0.0800 J	0.077 J	2.15	4.17	5.26	NE
Total Volatile Solids (TVS)	Percent	1.09	13.4	29.3	45.3	2.05	4.01	0.8	0.9	11.3	13.4	17.0	NE
Total Solids (TS)	Percent	78.7	52.1	35.6	31.2	76.1	68.4	82.0	81.7	55.0	51.3	45.0	NE
Total Ammonia	mg-N/kg	--	--	11.80	--	--	--	--	--	--	--	77.20	NE
Porewater Ammonia	mg-N/L	--	17.10	--	--	--	9.62	1.35	1.54	11.80	9.12	--	NE
Total Sulfide	mg/kg	--	--	829	--	--	--	--	--	--	--	371	NE
Porewater Sulfide	mg/L	--	0.13	--	--	--	0.73	3.73	--	0.15	1.31	--	NE
Porewater pH	pH	--	7.66	--	--	--	7.92	7.72	--	7.69	7.66	--	NE
Grain Size													
Gravel	%	--	2.4	28.3	31.5	--	0.3	0.6	0.4	5.4	1	7	NE
Very Coarse Sand	%	--	6.1	4.4	7	--	1	2.7	2.9	2.9	1.8	3.4	NE
Coarse Sand	%	--	17.6	6.2	9.2	--	6.5	28	26.5	5.9	2.7	3.3	NE
Medium Sand	%	--	28.2	8.4	11.4	--	27.4	54.9	55.4	19.4	6.9	4.6	NE
Fine Sand	%	--	22.1	14.2	16.3	--	38	10.9	12.9	27.4	18.3	14.6	NE
Very Fine Sand	%	--	11.4	12	10.2	--	17.6	1.3	1.7	19.4	24.1	9.4	NE
Coarse Silt	%	--	3.3	4.7	2.3	--	3.1	1.5 U	0.2 U	5.6	18	13.7	NE
Medium Silt	%	--	3.6	7.2	4.2	--	1.7	1.5 U	0.2 U	3.4	7.5	9.7	NE
Fine Silt	%	--	1.3	4.2	1.9	--	1.3	1.5 U	0.2 U	2.7	4.1	9.8	NE
Very Fine Silt	%	--	0.4	2	1.2	--	0.6	1.5 U	0.2 U	1.7	4	6.4	NE
Clay	%	--	3.6	8.3	4.9	--	2.5	1.5 U	0.2 U	6.2	11.6	18.1	NE
Total Fines	%	--	12.2	26.5	14.5	--	9.2	1.5	0.2	19.5	45.1	57.7	NE
Metals													
Arsenic	mg/kg	--	16	20	14.4 J	--	10	8	8	11	20	20	57
Cadmium	mg/kg	--	0.6	1.2	0.9	--	0.256 J	0.044 U	0.047 U	0.114 U	0.9	1.4 J	5.1
Chromium	mg/kg	--	23.3	43	25	--	23.4	21.2	22.3	29.3	43	53	260
Copper	mg/kg	--	24.7	70.7	31.5	--	12.1	6.3 J	11.0 J	8.9	43.1	52.9	390
Lead	mg/kg	--	28	34	21	--	5	2 J	6 J	6	19	68	450
Mercury	mg/kg	--	0.06	0.12	0.0752 J	--	0.05	0.03 U	0.03 U	0.05	0.11	0.16	0.41
Silver	mg/kg	--	0.09 J	0.8 U	1 U	--	0.4 U	0.4 U	0.4 U	0.5 U	0.6 U	0.20 J	6.1
Zinc	mg/kg	--	59	120	72	--	34	24 J	35 J	34	102	101	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	320 J	131	43.8	42.9	69.6 J	83	7.7 J	4.5 J	90.1	143	132	370
2-Methylnaphthalene	mg/kg OC	2.1 J	10	3	3.7	4.6	7	3.5 J	6.2 U	9.8	15	11	38
Acenaphthene	mg/kg OC	3.2	19	7	7.3	9.8	9.6	5.8 U	6.2 U	10	20	21	16

Sample Location ¹		MAF-04	MAF-05				MAF-07	MAF-08			MAF-09	MAF-10		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2		
Sample Date		11/10/2015	10/20/15	11/11/15	11/11/15	11/11/2015	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/29/15		
Sample Interval (dbm)		16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft		
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface		
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Acenaphthylene	mg/kg OC	2.7 U	3.3	0.7	0.8	1.7 J	2	5.8 U	6.2 U	3.6	4.3	2.3	66	
Anthracene	mg/kg OC	2.7 U	6.4	3	2.2	7.4	7.2	5.8 U	6.2 U	7.9	9.4	14	220	
Fluorene	mg/kg OC	1.6 J	12	5.5	5.1	9.3	10	5.8 U	6.2 U	11	18	21	23	
Naphthalene	mg/kg OC	23.1	64	18	19	22.3	31	7.7	4.5 J	36	55	40	99	
Phenanthrene	mg/kg OC	4.4	30	9.4	8.9	19.1	20	5.7 U	5.7 U	21	36	34	100	
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)														
Sum of LPAHs ⁴	µg/kg	55 J	9,670	6,090	8,240	195 J	1,120	6.2 J	3.5 J	1,937	5,970	6,940	5,200	
2-Methylnaphthalene	µg/kg	3.64 J	900	400	710	12.9	94	2.8 J	4.8 U	210	630	580	670	
Acenaphthene	µg/kg	5.47	1,400	1,000	1,400	27.3	130	4.7 U	4.8 U	220	850	1,100	500	
Acenaphthylene	µg/kg	4.6 U	240	100	150	4.85 J	30	4.7 U	4.8 U	77	180	120	1,300	
Anthracene	µg/kg	4.6 U	470	420	420	20.6	97	4.7 U	4.8 U	170	390	720	960	
Fluorene	µg/kg	2.73 J	860	770	970	26	140	4.7 U	4.8 U	230	750	1,100	540	
Naphthalene	µg/kg	39.3	4,700	2,500	3,600	62.5	420	6.2	3.5 J	780	2,300	2,100	2,100	
Phenanthrene	µg/kg	7.47	2,000	1,300	1,700	53.5	300	4.6 U	4.4 U	460	1,500	1,800	1,500	
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)														
Sum of HPAHs ⁵	mg/kg OC	2.6 J	54.4	27.9	18.19	--	55.8 J	13.5	15.3	59.3	71.3	84 J	960	
Benzo(a)anthracene	mg/kg OC	2.7 U	2.8	1.8	0.78	--	3.5	5.8 U	6.2 U	3.5	5	6	110	
Benzo(a)pyrene	mg/kg OC	2.7 U	1.8	1.7	0.39	--	2.1	5.8 U	6.2 U	3	3.6	4.2 J	99	
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	5.5 U	5	3	1.2	--	4.9	5.8 U	6.2 U	6.5	8.6	8.9	230	
Benzo(g,h,i)perylene	mg/kg OC	2.7 U	1.1	0.9	0.29	--	1.1	5.8 U	6.2 U	1.5	2	2.3 J	31	
Chrysene	mg/kg OC	2.7 U	4.3	3.1	1.1	--	4.5	5.8 U	6.2 U	4.6	6.2	9.1	110	
Dibenzo(a,h)anthracene	mg/kg OC	2.7 U	0.7 U	0.2	0.1	--	0.3 J	5.8 U	6.2 U	0.4	0.5	0.6 J	12	
Fluoranthene	mg/kg OC	2.6 J	22	8.6	8.9	--	21	5.9	7.4	20	20	30	160	
Indeno(1,2,3-c,d)pyrene	mg/kg OC	2.7 U	0.9	0.7	0.28	--	0.89	5.8 U	6.2 U	1	2	1.8 J	34	
Pyrene	mg/kg OC	2.7 U	16	7.9	5	--	18	7.5	7.9	19	20	21	1,000	
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)														
Sum of HPAHs ⁵	µg/kg	4.4 J	4,012	3,874	3,493	--	752.6 J	10.9	11.8	1,275	2,974	4,418 J	12,000	
Benzo(a)anthracene	µg/kg	4.6 U	210	250	150	--	47	4.7 U	4.8 U	75	210	300	1,300	
Benzo(a)pyrene	µg/kg	4.6 U	130	230	75	--	28	4.7 U	4.8 U	60	150	220 J	1,600	
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	9.3 U	400	420	230	--	66	4.7 U	4.8 U	140	360	470	3,200	
Benzo(g,h,i)perylene	µg/kg	4.6 U	84	120	55	--	15	4.7 U	4.8 U	32	82	120 J	670	
Chrysene	µg/kg	4.6 U	320	430	210	--	61	4.7 U	4.8 U	98	260	480	1,400	
Dibenzo(a,h)anthracene	µg/kg	4.6 U	48 U	30	20	--	3.6 J	4.7 U	4.8 U	9.5	22	31 J	230	
Fluoranthene	µg/kg	4.4 J	1,600	1,200	1,700	--	280	4.8	5.7	420	1,000	1,600	1,700	
Indeno(1,2,3-c,d)pyrene	µg/kg	4.6 U	68	94	53	--	12	4.7 U	4.8 U	30	70	97 J	600	
Pyrene	µg/kg	4.6 U	1,200	1,100	1,000	--	240	6.1	6.1	410	820	1,100	2,600	
Chlorinated Hydrocarbons (OC Normalized)														
1,2,4-Trichlorobenzene	mg/kg OC	--	0.031 J	0.035 U	0.026 U	--	0.35 U	6 U	6.2 U	0.079 J	0.055 J	0.093 U	0.81	
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	--	0.051 J	0.035 U	0.02 J	--	0.16 J	6 U	6.2 U	0.56	0.12	0.18	2.3	
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	--	0.1	0.035 U	0.041	--	0.35 U	6 U	6.2 U	0.28	0.15	0.15	3.1	
Hexachlorobenzene	mg/kg OC	--	0.065 U	0.035 U	0.026 U	--	0.35 U	6 U	6.2 U	0.12 J	0.12 U	0.093 UJ	0.38	

Sample Location ¹	MAF-04	MAF-05				MAF-07	MAF-08			MAF-09	MAF-10		Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2		
Sample Date	11/10/2015	10/20/15	11/11/15	11/11/15	11/11/2015	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/29/15		
Sample Interval (dbm)	16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft		
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface		
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	--	2.3 J	4.9 U	4.9 U	--	4.7 U	4.9 U	4.8 U	1.7 J	2.3 J	4.9 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	--	3.8 J	4.9 U	4 J	--	2.1 J	4.9 U	4.8 U	12	4.9	9.5	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	--	7.4	4.9 U	7.8	--	4.7 U	4.9 U	4.8 U	6	6.1	7.8	110
Hexachlorobenzene	µg/kg	--	4.8 U	4.9 U	4.9 U	--	4.7 U	4.9 U	4.8 U	2.6 J	4.8 U	4.9 UJ	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	--	0.38 J	1.1	1.3	--	3.5 U	60 U	62 U	2.2 U	1.2 J	2.3 J	47
Butyl Benzyl Phthalate	mg/kg OC	--	0.092	0.25	0.026 U	--	0.81	6 U	6.2 U	0.22 U	0.12 U	0.093 U	4.9
Dibutyl Phthalate	mg/kg OC	--	0.26 U	0.1 U	0.1 U	--	1.4 U	20 U	25 U	0.88 U	0.46 U	0.4 U	220
Diethyl Phthalate	mg/kg OC	--	0.43 J	0.53	0.63	--	1.3 J	20 U	31 J	1.2 J	0.46 U	0.7	61
Dimethyl Phthalate	mg/kg OC	--	0.26 U	0.1 U	0.1 U	--	1.4 U	20 U	25 U	0.88 U	0.46 U	0.4 U	53
Di-N-Octyl Phthalate	mg/kg OC	--	0.26 U	0.1 U	0.1 U	--	1.4 U	20 U	25 U	0.88 U	0.21 J	0.4 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	--	28 J	150	250	--	47 U	49 U	48 U	48 U	52 J	120 J	1,300
Butyl Benzyl Phthalate	µg/kg	--	6.8	35	4.9 U	--	11	4.9 U	4.8 U	4.8 U	4.8 U	4.9 U	63
Dibutyl Phthalate	µg/kg	--	19 U	20 U	20 U	--	19 U	20 U	19 U	19 U	19 U	20 UJ	1,400
Diethyl Phthalate	µg/kg	--	32 J	74	120	--	17 J	20 UJ	24 J	26 J	19 UJ	37	200
Dimethyl Phthalate	µg/kg	--	19 U	20 U	20 U	--	19 U	20 U	19 U	19 U	19 U	20 U	71
Di-N-Octyl Phthalate	µg/kg	--	19 U	20 U	20 U	--	19 U	20 U	19 U	19 U	8.6 J	20 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	14.4 J	37	56	86	24.4 U	24 U	25 U	24 U	18 J	43	39 J	29
2-Methylphenol (o-Cresol)	µg/kg	18.7 U	33	31	64	19.5 U	19 U	20 U	19 U	12 J	37	20 U	63
4-Methylphenol (p-Cresol)	µg/kg	18.7 U	620	710	1,100	19.5 U	160	20 U	19 U	350	980 J	1,900	670
Pentachlorophenol	µg/kg	93.6 U	96 U	98 U	98 U	97.5 U	94 U	98 U	97 U	96 U	40 J	98 UJ	360
Phenol	µg/kg	18.7 U	250	150	390	19.5 U	53	17 J	19 U	460	270 J	210 J	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	11.0 U	18	6.0	5.7	5.04 J	10	3.1 J	3.5 J	11	20	17	15
Hexachlorobutadiene	mg/kg OC	2.80 U	0.065 U	0.035 U	0.026 U	1.8 U	0.35 U	6 U	6.2 U	0.22 U	0.12 U	0.093 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	11.0 U	0.065 U	0.035 U	0.026 U	6.96 U	0.35 U	6 U	6.2 U	0.22 U	0.12 U	0.093 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	18.7 U	1,300	840	1,100	14.1 J	140	2.5 J	2.7 J	230	800	920	540
Hexachlorobutadiene	µg/kg	4.7 U	4.8 U	4.9 U	4.9 U	4.9 U	4.7 U	4.9 U	4.8 U	4.8 U	4.8 U	4.9 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	18.7 U	4.8 U	4.9 U	4.9 U	19.5 U	4.7 U	4.9 U	4.8 U	4.8 U	4.8 U	4.9 U	28
Benzoic Acid	µg/kg	187 U	230	220	510	195 U	100 J	200 U	190 U	410	550	260 J	650
Benzyl Alcohol	µg/kg	18.7 U	56	20 U	20 U	19.5 U	19 U	20 U	19 U	34	51	43	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	0.001 J	1.46 J	0.084 J	--	0.01 J	0.39 J	--	--	0.24 J	0.40 J	0.2 J	12

Sample Location ¹	MAF-04	MAF-05				MAF-07	MAF-08			MAF-09	MAF-10		Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2		
Sample Date	11/10/2015	10/20/15	11/11/15	11/11/15	11/11/2015	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/29/15		
Sample Interval (dbm)	16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft		
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface		
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	0.0017 U	108 J	11.6 J	--	0.0281 J	5.3 J	--	--	5.1 J	16.6 J	10.5 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		MAF-04	MAF-05				MAF-07	MAF-08		MAF-09	MAF-10		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2	
Sample Date		11/10/2015	10/20/15	11/11/15	11/11/15	11/11/2015	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/29/15	
Sample Interval (dbm)		16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	Pass	Pass	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	Pass	Pass	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	Pass	Fail	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10		
Sample Date	10/29/15	10/29/2015	10/20/15	10/28/15	10/28/15	10/28/2015	10/20/15	10/28/15	10/28/15	10/20/15	10/21/15		
Sample Interval (dbm)	0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm		
Sample Type	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal		
Field Screening													
Visual Wood Content ³	%	<5	<1	75	25	50	<1	15	10	<5	<1	<1	15
Conventionals													
Total Organic Carbon (TOC)	Percent	4.66	2.82	7.32	4.11	6.51	3.69	0.99	3.95	2.10	0.380	0.455	NE
Total Volatile Solids (TVS)	Percent	15.0	6.0	23.9	18.3	17.2	8.2	11.6	12.0	5.0	2.3	2.5	NE
Total Solids (TS)	Percent	43.3	68.3	39.5	43.3	45.4	62.2	46.5	49.9	67.6	73.4	67.7	NE
Total Ammonia	mg-N/kg	94.40	--	--	42.10	--	--	--	--	--	--	--	NE
Porewater Ammonia	mg-N/L	--	--	11.50	--	--	--	8.27	--	--	13.20	24.50	NE
Total Sulfide	mg/kg	459	--	--	1240	--	--	--	--	--	--	--	NE
Porewater Sulfide	mg/L	--	--	0.69	--	--	--	17.3 J	--	--	0.09	0.24	NE
Porewater pH	pH	--	--	7.80	--	--	--	7.49	--	--	7.71	7.53	NE
Grain Size													
Gravel	%	1.8	--	10.8	9.1	1.9	--	10	1.8	0.2	1.3	0.1	NE
Very Coarse Sand	%	3	--	4.2	3.4	2.9	--	2.1	1.3	0.9	2.9	0.3	NE
Coarse Sand	%	3.7	--	4.4	4.6	4	--	2.7	2.1	3	12.2	0.8	NE
Medium Sand	%	5	--	5.4	5	4.5	--	4.3	7	13.9	27.3	4.7	NE
Fine Sand	%	9.4	--	8.9	6.8	6.9	--	9.6	11.7	17.9	26.9	25.2	NE
Very Fine Sand	%	15.2	--	20	13.7	11	--	18.9	16.2	17.7	20.2	45.9	NE
Coarse Silt	%	14.1	--	11.6	13.3	13.7	--	14	16.2	16.6	4.4	14.8	NE
Medium Silt	%	12.9	--	12.7	12.3	15.3	--	11.4	13.3	12.9	1.2	3.7	NE
Fine Silt	%	9.3	--	7.2	8	10.7	--	7.7	7.4	7.1	0.7	1	NE
Very Fine Silt	%	6.3	--	2.5	6.5	7.1	--	4.9	6	3.8	0.5	0.6	NE
Clay	%	19.4	--	12.2	17.2	21.9	--	14.5	17	6.1	2.3	2.9	NE
Total Fines	%	61.9	--	46.3	57.3	68.8	--	52.5	59.9	46.4	9.2	23	NE
Metals													
Arsenic	mg/kg	20	--	30	70	40	9.1	20	19	14	11	10	57
Cadmium	mg/kg	2.0 J	--	0.9	1.2	1.6	0.73	0.9	1	0.4	0.179 J	0.131 U	5.1
Chromium	mg/kg	56	--	44	53	59	39.6	50	47.3	37.7	39.4	34	260
Copper	mg/kg	70.4	--	45.3	236	118	132	44.1	62.7	37.2	18.6	20	390
Lead	mg/kg	45	--	21	93	65	32.7	21	50 J	15 J	8	10	450
Mercury	mg/kg	0.18	--	0.1	0.14	0.22	0.3	0.12	0.14	0.09	0.0202 J	0.0182 J	0.41
Silver	mg/kg	0.24 J	--	0.7 U	0.30 J	0.17 J	0.45 U	0.6 U	0.6 U	0.4 U	0.4 U	0.4 U	6.1
Zinc	mg/kg	123	--	98	559	269	65.6	119	128 J	55 J	51	47	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	177	91.1	42.8	131	127	91.6	120	75.4	111	123	24.6 J	370
2-Methylnaphthalene	mg/kg OC	15	6.0	4	7.8	12	7.7	21	5	7.6	8.9	1.3	38
Acenaphthene	mg/kg OC	28	6.8	6.4	22	22	10	14	7.1	10	16	1.6	16

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10	
Sample Date		10/29/15	10/29/2015	10/20/15	10/28/15	10/28/15	10/28/2015	10/20/15	10/28/15	10/28/15	10/20/15	10/21/15	
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm	
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	
Acenaphthylene	mg/kg OC	2.6	5.1	1	2.3	2.2	3.6	5.1	3.3	7.1	3.7	0.7 J	66
Anthracene	mg/kg OC	17	4.6	3.3	10	6	1.7	13	6.3	4.5	13	3.7	220
Fluorene	mg/kg OC	30	6.3	4.5	19	20	7.5	13	8.9	10	15	2	23
Naphthalene	mg/kg OC	56	47.9	18	27	43	56.6	44	28	52	32	3.5	99
Phenanthrene	mg/kg OC	40	20.4	9.7	51	34	12.1	30	22	27	45	13	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	8,230	2,570	3,130	5,390	8,240	3,380	1,191	2,980	2,340	467	112 J	5,200
2-Methylnaphthalene	µg/kg	690	168	290	320	790	284	210	200	160	34	5.7	670
Acenaphthene	µg/kg	1,300	193	470	910	1,400	370	140	280	210	59	7.3	500
Acenaphthylene	µg/kg	120	145	80	94	140	131	51	130	150	14	3.2 J	1,300
Anthracene	µg/kg	810	129	240	420	400	61.5	130	250	94	48	17	960
Fluorene	µg/kg	1,400	177	330	770	1,300	277	130	350	220	56	10	540
Naphthalene	µg/kg	2,600	1350	1,300	1,100	2,800	2,090	440	1,100	1,100	120	16	2,100
Phenanthrene	µg/kg	2,000	576	710	2,100	2,200	447	300	870	570	170	58	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	88.1 J	38.3	44.8	195.2	55.67	12 J	110	85.44	31.43	157 J	65.4 J	960
Benzo(a)anthracene	mg/kg OC	5.6	2.0	3.6	18	2.9	0.4	8.8	6.3	1.2	8.4	5.7	110
Benzo(a)pyrene	mg/kg OC	2.8 J	1.6	3	10	2	0.2	6.1	3	0.67	7.1	5.1	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	7.3	3.2	6.4	20	4.5	0.5	14	6.8	1.6	18	9.9	230
Benzo(g,h,i)perylene	mg/kg OC	1.3 J	1.4	1	7	1	0.2	3.3	2	0.62	4.2	3.3	31
Chrysene	mg/kg OC	7.5	2.8	5.9	20	3.7	0.6	10	6.1	1.8	12	6.2	110
Dibenzo(a,h)anthracene	mg/kg OC	0.3 J	0.2	0.4	2	0.28	0.135 U	0.92	0.33	0.22 U	1.1 J	0.8 J	12
Fluoranthene	mg/kg OC	39	15.5	11	54	23	6.3	30	33	10	50	18	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	1.1 J	0.9	1.3	6.6	1	0.09 J	3	1.1	0.29	3.7	3.1	34
Pyrene	mg/kg OC	24	11	12	50	17	4	33	28	11	50	13	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	4,106 J	1,080	3,282	8,022	3,624	450 J	1,090	3,375	660.1	598 J	297.7 J	12,000
Benzo(a)anthracene	µg/kg	260	55.1	260	730	190	13	87	250	26	32	26	1,300
Benzo(a)pyrene	µg/kg	130 J	44.3	200	600	130	7.5	61	100	14	27	23	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	340	91.5	470	1,000	290	17.4	140	270	33	68	45	3,200
Benzo(g,h,i)perylene	µg/kg	61 J	38.7	100	300	90	7.7	33	60	13	16	15	670
Chrysene	µg/kg	350	78.2	430	840	240	20.9	100	240	38	47	28	1,400
Dibenzo(a,h)anthracene	µg/kg	16 J	5.73	29	82	18	5 U	9.1	13	4.7 U	4.0 J	3.7 J	230
Fluoranthene	µg/kg	1,800	436	840	2,200	1,500	234	300	1,300	300	200	82	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	49 J	24.2	93	270	66	3.5 J	30	42	6.1	14	14	600
Pyrene	µg/kg	1,100	309	860	2,000	1,100	146	330	1,100	230	190	61	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	0.11 U	--	0.067 U	0.12 U	0.077 U	--	0.5 U	0.12 U	0.22 U	1.3 U	1.1 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.28	--	0.027 J	0.088 J	0.23	--	0.5 U	0.063 J	0.062 J	1.3 U	1.1 U	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.24	--	0.082	0.14	0.15	--	0.26 J	0.096 J	0.22 U	0.74 J	1.1 U	3.1
Hexachlorobenzene	mg/kg OC	0.11 UJ	--	0.067 U	0.12 UJ	0.077 UJ	--	0.5 U	0.12 UJ	0.22 UJ	1.3 U	1.1 U	0.38

Sample Location ¹	MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10		
Sample Date	10/29/15	10/29/2015	10/20/15	10/28/15	10/28/15	10/28/2015	10/20/15	10/28/15	10/28/15	10/20/15	10/21/15		
Sample Interval (dbm)	0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm		
Sample Type	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	4.9 U	--	4.9 U	4.9 U	5.0 U	--	5.0 U	4.9 U	4.7 U	4.9 U	4.8 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	13	--	2.0 J	3.6 J	15	--	5.0 U	2.5 J	1.3 J	4.9 U	4.8 U	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	11	--	6.0	5.7	9.9	--	2.6 J	3.8 J	4.7 U	2.8 J	4.8 U	110
Hexachlorobenzene	µg/kg	4.9 UJ	--	4.9 U	4.9 UJ	5.0 UJ	--	5.0 U	4.9 UJ	4.7 UJ	4.9 U	4.8 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	1.5 J	--	0.89	10	2 J	--	14	1.2 U	2.2 U	13 U	11 U	47
Butyl Benzyl Phthalate	mg/kg OC	0.11 UJ	--	0.082	0.12 U	0.077 U	--	0.5 U	0.12 U	0.22 U	1.3 U	1.1 U	4.9
Dibutyl Phthalate	mg/kg OC	1.4 J	--	0.3 U	0.5 U	0.91 U	--	2 U	0.91	1.1	6.3	4.2 U	220
Diethyl Phthalate	mg/kg OC	1	--	0.3 UJ	0.8	0.91 U	--	2 UJ	0.46 J	1.6	5 UJ	4.2 U	61
Dimethyl Phthalate	mg/kg OC	0.84 U	--	0.3 U	0.5 U	0.91 U	--	2 U	0.5 U	0.9 U	5 U	4.2 U	53
Di-N-Octyl Phthalate	mg/kg OC	0.84 U	--	0.3 U	0.5 U	0.91 U	--	2 U	0.5 U	0.9 U	5 U	4.2 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	69 J	--	65	500	130 J	--	140	49 U	47 U	49 U	48 U	1,300
Butyl Benzyl Phthalate	µg/kg	4.9 UJ	--	6.0	4.9 U	5.0 U	--	5.0 U	4.9 U	4.7 U	4.9 U	4.8 U	63
Dibutyl Phthalate	µg/kg	63 J	--	20 U	20 U	59 U	--	20 U	36	24	24	19 U	1,400
Diethyl Phthalate	µg/kg	47	--	20 UJ	33	59 U	--	20 UJ	18 J	34	20 UJ	19 U	200
Dimethyl Phthalate	µg/kg	39 U	--	20 U	20 U	59 U	--	20 U	20 U	19 U	20 U	19 U	71
Di-N-Octyl Phthalate	µg/kg	39 U	--	20 U	20 U	59 U	--	20 U	20 U	19 U	20 U	19 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	68 J	21.9 J	21 J	24 J	81	80	25 U	16 J	21 J	24 U	24 U	29
2-Methylphenol (o-Cresol)	µg/kg	39 U	27	20	20 U	59 U	20.0 U	20 U	20 U	49	20 U	19 U	63
4-Methylphenol (p-Cresol)	µg/kg	3,000	249	720	1,300	4,300	1,260	150	680 J	560	40	19 U	670
Pentachlorophenol	µg/kg	200 UJ	96.3 U	97 U	98 UJ	300 UJ	99.8 U	99 U	98 UJ	94 UJ	97 U	96 UJ	360
Phenol	µg/kg	650 J	42.7	440	240 J	140	54.2	200	140 J	66 J	24	19 U	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	24	6.1	4.9	18	20	7.0	16	8.1	10	15	2.2	15
Hexachlorobutadiene	mg/kg OC	0.11 U	0.17 U	0.067 U	0.12 U	0.054 J	0.14 U	0.5 U	0.12 U	0.22 U	1.3 U	1.1 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	0.11 U	0.684 U	0.067 U	0.12 U	0.077 U	0.3	0.5 U	0.12 U	0.22 U	1.3 U	1.1 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	1,100	171	360	740	1,000	259	160	320	220	58	9.9	540
Hexachlorobutadiene	µg/kg	4.9 U	4.8 U	4.9 U	4.9 U	3.5 J	5.0 U	5.0 U	4.9 U	4.7 U	4.9 U	4.8 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	4.9 U	19.3 U	4.9 U	4.9 U	5.0 U	10.4 J	5.0 U	4.9 U	4.7 U	4.9 U	4.8 U	28
Benzoic Acid	µg/kg	650 J	145 J	200	340	280 J	137 J	100 J	140 J	130 J	200 U	190 U	650
Benzyl Alcohol	µg/kg	59 J	19.3 U	52	37 J	59 UJ	20.0 U	33	20 U	25 J	20 U	19 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	1.42 J	--	0.029 J	0.68 J	10.1 J	0.12 J	19.6 J	--	0.15 J	0.63 J	0.22 J	12

Sample Location ¹	MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10		
Sample Date	10/29/15	10/29/2015	10/20/15	10/28/15	10/28/15	10/28/2015	10/20/15	10/28/15	10/28/15	10/20/15	10/21/15		
Sample Interval (dbm)	0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm		
Sample Type	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	66.4 J	--	2.14 J	27.8 J	657 J	4.58 J	195 J	--	3.11 J	2.39 J	0.988 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10	
Sample Date		10/29/15	10/29/2015	10/20/15	10/28/15	10/28/15	10/28/2015	10/20/15	10/28/15	10/28/15	10/20/15	10/21/15	
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm	
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	Pass	--	--	--	Pass	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	Pass	--	--	--	Pass	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	Pass	--	--	--	Fail	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20_0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04	
Sample Date		10/21/15	10/28/15	10/28/15	10/21/15	10/21/15	10/21/15	10/20/15	10/20/15	10/29/2015	10/21/15	10/21/15	
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm	
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Field Screening													
Visual Wood Content ³	%	<1	<5	<5	<1	<1	<1	10	<5	<1	10	10	15
Conventionals													
Total Organic Carbon (TOC)	Percent	0.124	0.415	0.499	0.291	0.257	0.766	3.70	3.83	0.940	5.30 J	1.8	NE
Total Volatile Solids (TVS)	Percent	1.4	2.8	2.3	1.5	1.5	2.6	7.3	12.0	4.0	15.6	13.2	NE
Total Solids (TS)	Percent	80.0	72.9	74.9	74.0	74.4	72.5	60.5	51.6	70.5	48.5	53.5	NE
Total Ammonia	mg-N/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Porewater Ammonia	mg-N/L	1.45	--	--	1.44	3.90	9.00	7.29	8.99	--	6.51	5.70	NE
Total Sulfide	mg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Porewater Sulfide	mg/L	0.24	--	--	0.050 U	0.05	0.09	0.70	0.60	--	0.239 J	0.438 J	NE
Porewater pH	pH	7.77	--	--	7.59	7.58	7.66	7.57	7.54	--	7.49	7.51	NE
Grain Size													
Gravel	%	20.3	5.2	1.6	2.1	0.4	0.9	1.4	3.9	--	1.5	1.9	NE
Very Coarse Sand	%	5.4	1.3	1.4	0.7	2.2	2.5	1.2	1.5	--	2	2.3	NE
Coarse Sand	%	36.4	5.5	5.7	4.4	16.4	14.8	1.9	1.9	--	2.6	2.4	NE
Medium Sand	%	31.4	17.1	19.2	34.4	44.4	33.1	6.6	4.2	--	6.1	5.4	NE
Fine Sand	%	4.4	23.9	28.5	34.3	27.2	21.9	13.5	8.7	--	12.6	11.8	NE
Very Fine Sand	%	1.9	23.3	23	19.1	5	15.1	29	22	--	20.2	22.1	NE
Coarse Silt	%	0.2 U	11.5	10.7	2.7	0.8	5.3	19.7	17.7	--	15.3	15.5	NE
Medium Silt	%	0.2 U	6.1	4.9	0.5	0.8	1.6	7.8	10.9	--	9.6	9.5	NE
Fine Silt	%	0.2 U	2.1	1.8	0.2	0.6	1.4	4.5	7.1	--	7.9	7	NE
Very Fine Silt	%	0.2 U	1.3	0.9	0.2	0.3	0.6	3	5.2	--	5.4	5.3	NE
Clay	%	0.2 U	2.8	2.3	1.4	1.9	2.8	11.3	16.8	--	16.8	17	NE
Total Fines	%	0.2	23.7	20.7	4.9	4.5	11.7	46.3	57.7	--	55	54.2	NE
Metals													
Arsenic	mg/kg	11	13	12	9	9	11	19	23	--	20	20	57
Cadmium	mg/kg	0.2 U	0.135 J	0.096 J	0.068 U	0.3	0.250 J	0.7	1.4	--	1	1.1	5.1
Chromium	mg/kg	27.7	39	34.1	30.8	18.1	32.3	45.3	52.4	--	48	46	260
Copper	mg/kg	13.7	32.3	25.4	13.2	12.7	15.1	162	58	--	50.2	46.9	390
Lead	mg/kg	11	11	11	8	8	7	19	30	--	25	26	450
Mercury	mg/kg	0.0127 J	0.04	0.05	0.0094 J	0.0138 J	0.05	0.11	0.15	--	0.13	0.15	0.41
Silver	mg/kg	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.5 U	0.15 J	--	0.10 J	0.16 J	6.1
Zinc	mg/kg	42	51	47	39	30	41	100	118	--	85	82	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	9 J	67.2 J	39.9 J	0.9 J	3.6 J	33	48.9	66.6	83.1	64.2	147	370
2-Methylnaphthalene	mg/kg OC	2.6 J	2.7	2.2	1.6 U	1.8 U	2.3	3.2	5	5.8	5	10	38
Acenaphthene	mg/kg OC	4 U	3.9	2.6	1.6 U	1.8 U	4.4	4.3	6.8	4.5	6.7	14	16

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20_0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04	
Sample Date		10/21/15	10/28/15	10/28/15	10/21/15	10/21/15	10/21/15	10/20/15	10/20/15	10/29/2015	10/21/15	10/21/15	
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm	
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Acenaphthylene	mg/kg OC	4 U	5.3 J	2.8 J	1.6 U	1.8 U	1	2	3	6.3	2.4	5	66
Anthracene	mg/kg OC	4 U	8.7	4.8	1.6 U	1.8 U	5.1	4.3	5.5	6.8	5.9	14	220
Fluorene	mg/kg OC	4 U	6.3 J	3.6 J	1.6 U	1.8 U	3.8	4.9	7.3	5.5	7.2	20	23
Naphthalene	mg/kg OC	3 J	17	11	1.6 U	1.1 J	8.1	21	30	38.1	24	60	99
Phenanthrene	mg/kg OC	6	27	15	0.9 J	2.5	9.9	12	20	21.9	18	40	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	11.1 J	279 J	199 J	2.5 J	9.3 J	250	1,810	2,550	781	3,460	2,710	5,200
2-Methylnaphthalene	µg/kg	3.2 J	11	11	4.6 U	4.7 U	18	120	190	54.8	270	200	670
Acenaphthene	µg/kg	4.9 U	16	13	4.6 U	4.7 U	34	160	260	42.7	360	250	500
Acenaphthylene	µg/kg	4.9 U	22 J	14 J	4.6 U	4.7 U	10	90	100	59	130	100	1,300
Anthracene	µg/kg	4.9 U	36	24	4.6 U	4.7 U	39	160	210	64.2	320	260	960
Fluorene	µg/kg	4.9 U	26 J	18 J	4.6 U	4.7 U	29	180	280	51.3	390	300	540
Naphthalene	µg/kg	3.7 J	69	55	4.6 U	2.9 J	62	770	1,000	358	1,300	1,100	2,100
Phenanthrene	µg/kg	7.4	110	75	2.5 J	6.4	76	450	700	206	960	700	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	26.8 J	156.1 J	80.4 J	8.5 J	37.2 J	50.6 J	36	42.8	61 J	45.7 J	111.3 J	960
Benzo(a)anthracene	mg/kg OC	2.3 J	13 J	5.4 J	1.6 U	3	4.2	2.6	3	4.2	2.8	7.6	110
Benzo(a)pyrene	mg/kg OC	2.7 J	14 J	6 J	1.6 U	5.1	3	1.8	2.1	4	1.7	5	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	5.6	27 J	10 J	1.9	5.8	6.1	4.3	4.7	7.1	4.3	12	230
Benzo(g,h,i)perylene	mg/kg OC	4 U	8.7 J	4.6 J	1.6 U	1.7 J	1.7	1	1.4	3.8	1	3	31
Chrysene	mg/kg OC	3.7 J	18 J	7.4 J	1.5 J	4	5	3.2	3.1	5.4	3.3	9.8	110
Dibenzo(a,h)anthracene	mg/kg OC	4 U	2.3	1.1	1.6 U	1.8 U	0.3 J	0.2	0.3	0.4 J	0.2 J	0.6 J	12
Fluoranthene	mg/kg OC	6.8	39	22	2.9	6.6	14	11	15	19.8	16	37	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	4 U	7 J	3.6 J	1.6 U	1.4 J	1	0.9	1.1	2.4	0.85	2	34
Pyrene	mg/kg OC	5.6	29	18	2.3	9.7	14	11	13	13.5	15	35	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	33.2 J	647.7 J	401.3 J	24.8 J	95.5 J	387.6 J	1,333	1,639	570 J	2,461 J	2,047 J	12,000
Benzo(a)anthracene	µg/kg	2.9 J	52 J	27 J	4.6 U	7.6	32	97	100	39.7	150	140	1,300
Benzo(a)pyrene	µg/kg	3.3 J	57 J	30 J	4.6 U	13	23	66	82	37.9	94	90	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	7	110 J	60 J	5.5	15	47	160	180	66.5	230	220	3,200
Benzo(g,h,i)perylene	µg/kg	4.9 U	36 J	23 J	4.6 U	4.4 J	13	40	54	35.5	60	50	670
Chrysene	µg/kg	4.6 J	73 J	37 J	4.3 J	10	40	120	120	50.9	180	180	1,400
Dibenzo(a,h)anthracene	µg/kg	4.9 U	9.7	5.3	4.6 U	4.7 U	2.6 J	8.4	12	4.03 J	11 J	11 J	230
Fluoranthene	µg/kg	8.4	160	110	8.4	17	110	420	570	186	880	680	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	4.9 U	30 J	18 J	4.6 U	3.5 J	10	32	41	22.5	46	36	600
Pyrene	µg/kg	7	120	91	6.6	25	110	390	480	127	810	640	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	4 U	1.1 U	0.94 U	1.6 U	1.8 U	0.64 U	0.13 U	0.13 U	--	0.046 J	0.27 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	4 U	1.1 U	0.94 U	1.6 U	1.8 U	0.64 U	0.11 J	0.11 J	--	0.063 J	0.17 J	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	4 U	1.1 U	0.94 U	1.6 U	1.8 U	0.64 U	0.21	0.31	--	0.11	0.34	3.1
Hexachlorobenzene	mg/kg OC	4 U	1.1 UJ	0.94 UJ	1.6 U	1.8 U	0.64 U	0.13 U	0.13 U	--	0.093 U	0.27 U	0.38

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20_0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04	
Sample Date		10/21/15	10/28/15	10/28/15	10/21/15	10/21/15	10/21/15	10/20/15	10/20/15	10/29/2015	10/21/15	10/21/15	
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm	
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	4.9 U	4.7 U	4.7 U	4.6 U	4.7 U	4.9 U	4.7 U	4.8 U	--	2.5 J	4.9 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	4.9 U	4.7 U	4.7 U	4.6 U	4.7 U	4.9 U	4.0 J	4.4 J	--	3.4 J	3.2 J	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	4.9 U	4.7 U	4.7 U	4.6 U	4.7 U	4.9 U	7.9	12	--	6.1	6.3	110
Hexachlorobenzene	µg/kg	4.9 U	4.7 UJ	4.7 UJ	4.6 U	4.7 U	4.9 U	4.7 U	4.8 U	--	5.0 U	4.9 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	40 U	11 U	9.4 U	16 U	18 U	6.4 U	1.4	1.3 U	--	0.91 J	1.8 J	47
Butyl Benzyl Phthalate	mg/kg OC	12	1.1 U	0.94 U	1.6 U	1.8 U	0.64 U	0.13 U	0.13 U	--	0.093 U	0.27 U	4.9
Dibutyl Phthalate	mg/kg OC	20 U	5.3	4.4	6.2 U	7.4 U	3 U	0.51 U	0.5 U	--	0.4 U	1 U	220
Diethyl Phthalate	mg/kg OC	20 U	4.6 U	3.8 U	6.2 U	7.4 U	3 U	0.51 UJ	0.5 UJ	--	0.4 U	1 U	61
Dimethyl Phthalate	mg/kg OC	20 U	4.6 U	3.8 U	6.2 U	7.4 U	3 U	0.51 U	0.5 U	--	0.4 U	1 U	53
Di-N-Octyl Phthalate	mg/kg OC	20 U	4.6 U	3.8 U	6.2 U	7.4 U	3 U	0.51 U	0.5 U	--	0.4 U	1 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	49 U	47 U	47 U	46 U	47 U	49 U	51	48 U	--	49 J	34 J	1,300
Butyl Benzyl Phthalate	µg/kg	15	4.7 U	4.7 U	4.6 U	4.7 U	4.9 U	4.7 U	4.8 U	--	5.0 U	4.9 U	63
Dibutyl Phthalate	µg/kg	20 U	22	22	18 U	19 U	20 U	19 U	19 U	--	20 U	20 U	1,400
Diethyl Phthalate	µg/kg	20 U	19 U	19 U	18 U	19 U	20 U	19 UJ	19 UJ	--	20 U	20 U	200
Dimethyl Phthalate	µg/kg	20 U	19 U	19 U	18 U	19 U	20 U	19 U	19 U	--	20 U	20 U	71
Di-N-Octyl Phthalate	µg/kg	20 U	19 U	19 U	18 U	19 U	20 U	19 U	19 U	--	20 U	20 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	25 U	24 U	23 U	23 U	24 U	24 U	24 U	22 J	24.3 U	22 J	17 J	29
2-Methylphenol (o-Cresol)	µg/kg	20 U	19 U	19 U	18 U	19 U	20 U	7.5 J	17 J	19.4 U	20 U	20 U	63
4-Methylphenol (p-Cresol)	µg/kg	20 U	42 J	95 J	18 U	19 U	20	250	740	75.5	1,400	1,200	670
Pentachlorophenol	µg/kg	98 UJ	94 UJ	93 UJ	93 UJ	94 UJ	97 UJ	94 U	96 U	97.1 U	34 J	98 UJ	360
Phenol	µg/kg	20 U	18 J	25 J	18 U	15 U	22 U	110	370	16.8 J	820 J	300 J	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	2.3 J	5.5 J	3.4 J	1.6 U	1.8 U	4.4	5.0	7.3	5.9	8.2	17	15
Hexachlorobutadiene	mg/kg OC	4 U	1.1 U	0.94 U	1.6 U	1.8 U	0.64 U	0.13 U	0.13 U	0.52 U	0.093 U	0.27 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	4 U	1.1 U	0.94 U	1.6 U	1.8 U	0.64 U	0.13	0.13 U	2.06 U	0.093 U	0.27 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	2.8 J	23 J	17 J	4.6 U	4.7 U	34	200	280	55.7	440	310	540
Hexachlorobutadiene	µg/kg	4.9 U	4.7 U	4.7 U	4.6 U	4.7 U	4.9 U	4.7 U	4.8 U	4.9 U	5.0 U	4.9 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	4.9 U	4.7 U	4.7 U	4.6 U	4.7 U	4.9 U	4.7	4.8 U	19.4 U	5.0 U	4.9 U	28
Benzoic Acid	µg/kg	200 U	190 U	190 U	180 U	190 U	200 U	160 J	250	194 U	450	530	650
Benzyl Alcohol	µg/kg	20 UJ	19 U	19 U	18 U	19 U	20 U	17 J	42	19.4 U	20 U	20 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	2.56 J	--	--	0.13 J	--	--	0.043 J	0.19 J	0.15 J	1.29 J	0.40 J	12

Sample Location ¹	MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21		Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20_0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04		
Sample Date	10/21/15	10/28/15	10/28/15	10/21/15	10/21/15	10/21/15	10/20/15	10/20/15	10/29/2015	10/21/15	10/21/15		
Sample Interval (dbm)	0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm		
Sample Type	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	3.17 J	--	--	0.38 J	--	--	1.6 J	7.11 J	1.44 J	69.3 J	7.27 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	0.99 U	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	0.99 U	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	0.99 U	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	0.99 U	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	0.49 U	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	0.49 U	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	0.49 U	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	0.49 U	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	0.99 U	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	0.49 U	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20_0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04	
Sample Date		10/21/15	10/28/15	10/28/15	10/21/15	10/21/15	10/21/15	10/20/15	10/20/15	10/29/2015	10/21/15	10/21/15	
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm	
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	Pass	--	Pass	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	Pass	--	Pass	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	Pass	--	Pass	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-28		Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-28_0-10	MAF-SS-DUP-05		
Sample Date	10/29/15	10/29/15	10/29/2015	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15		
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal		
Field Screening													
Visual Wood Content ³	%	10	10	<1	<1	<1	<1	<1	<1	<1	<1	15	
Conventionals													
Total Organic Carbon (TOC)	Percent	5.30	4.34	1.14	6.30 J	0.161	0.084	0.139	0.138	0.579	0.178	0.142	NE
Total Volatile Solids (TVS)	Percent	12.7	12.6	3.4	11.4	1.3	1.1	1.3	1.3	1.5	1.3	1.4	NE
Total Solids (TS)	Percent	47.9	44.6	72.7	56.5	75.3	77.3	72.9	77.4	73.3	80.3	83.2	NE
Total Ammonia	mg-N/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Porewater Ammonia	mg-N/L	--	--	--	7.44	4.37	2.59	5.73	69.10	12.10	7.98 J	13.0 J	NE
Total Sulfide	mg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Porewater Sulfide	mg/L	--	--	--	0.17	0.10	0.050 U	0.050 U	0.30	0.06	0.050 U	0.06	NE
Porewater pH	pH	--	--	--	7.63	7.55	7.63	7.59	7.63	7.66	7.66	7.63	NE
Grain Size													
Gravel	%	2.4	7.3	--	2.9	1	2.1	0.4	23.5	0.5	12.9	10.9	NE
Very Coarse Sand	%	3.5	3.7	--	2.5	5.3	3.5	1.1	4.8	2.3	9.5	10.5	NE
Coarse Sand	%	3.4	3.5	--	3.9	15	13.3	6	10.9	9.5	19.6	19.9	NE
Medium Sand	%	5.3	4.9	--	8.6	41.3	42.2	22.4	29.4	40.1	29.9	30.7	NE
Fine Sand	%	6.7	6.8	--	18.5	31.1	32.3	57.8	21.4	29.6	16.7	16.9	NE
Very Fine Sand	%	13.9	12.4	--	33.2	3.1	5.2	9	4.6	11.3	7.4	7.5	NE
Coarse Silt	%	12.8	12	--	13	3.2 U	1.3 U	3.2 U	2.6	3.7	3.9 U	3.7 U	NE
Medium Silt	%	12.2	11.9	--	4.9	3.2 U	1.3 U	3.2 U	0.7	0.6	3.9 U	3.7 U	NE
Fine Silt	%	10.1	9.2	--	2.9	3.2 U	1.3 U	3.2 U	0.4	0.6	3.9 U	3.7 U	NE
Very Fine Silt	%	7.4	8	--	1.6	3.2 U	1.3 U	3.2 U	0.3	0.3	3.9 U	3.7 U	NE
Clay	%	22.2	20.5	--	7.9	3.2 U	1.3 U	3.2 U	1.2	1.5	3.9 U	3.7 U	NE
Total Fines	%	64.7	61.4	--	30.5	3.2	1.3	3.2	5.3	6.6	3.9	3.7	NE
Metals													
Arsenic	mg/kg	20	20	--	--	--	9	9	8	9	--	--	57
Cadmium	mg/kg	2	1.9	--	--	--	0.033 U	0.054 U	0.053 U	0.074 U	--	--	5.1
Chromium	mg/kg	59	57	--	--	--	27.5	26.1	25.3	31.4	--	--	260
Copper	mg/kg	79.6	86.8	--	--	--	11.4	11.7	11.8	13.9	--	--	390
Lead	mg/kg	44	46	--	--	--	5	7	4	8	--	--	450
Mercury	mg/kg	0.24	0.26	--	--	--	0.0123 J	0.0084 J	0.0110 J	0.0154 J	--	--	0.41
Silver	mg/kg	0.17 J	0.16 J	--	--	--	0.4 U	0.4 U	0.4 U	0.4 U	--	--	6.1
Zinc	mg/kg	109	109	--	--	--	35	38	35	41	--	--	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	55.5 J	101 J	68	27.4	--	5.6 U	4.0 U	9.3	2.7 J	--	--	370
2-Methylnaphthalene	mg/kg OC	4.2 J	9.0 J	4.4	2.7	--	5.6 U	4.0 U	3.6 U	0.81 U	--	--	38
Acenaphthene	mg/kg OC	5.1	8.3	4.5	3.3	--	5.6 U	4.0 U	3.6 U	0.81 U	--	--	16

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-28		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-28_0-10	MAF-SS-DUP-05	
Sample Date		10/29/15	10/29/15	10/29/2015	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	
Acenaphthylene	mg/kg OC	2.3	3.5	5.2	1.1	--	5.6 U	4.0 U	3.6 U	0.81 U	--	--	66
Anthracene	mg/kg OC	4	7	6.5	2.1	--	5.6 U	4.0 U	2.5 J	0.5 J	--	--	220
Fluorene	mg/kg OC	6.2 J	13.0 J	5.4	3	--	5.6 U	4.0 U	3.6 U	0.81 U	--	--	23
Naphthalene	mg/kg OC	23	41	26.7	14.1	--	5.6 U	4.0 U	3.6 U	0.6 J	--	--	99
Phenanthrene	mg/kg OC	15	28	19	6.6	--	5.6 U	4.0 U	6.8	1.7	--	--	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	2,940	4,390 J	770	1,740	--	4.7 U	5.6 U	12.8 J	15.8 J	--	--	5,200
2-Methylnaphthalene	µg/kg	220 J	400 J	50.4	171	--	4.7 U	5.6 U	5.0 U	4.7 U	--	--	670
Acenaphthene	µg/kg	270	360	50.9	210	--	4.7 U	5.6 U	5.0 U	4.7 U	--	--	500
Acenaphthylene	µg/kg	120	150	58.7	67	--	4.7 U	5.6 U	5.0 U	4.7 U	--	--	1,300
Anthracene	µg/kg	200	300	74	127	--	4.7 U	5.6 U	3.4 J	2.6 J	--	--	960
Fluorene	µg/kg	330 J	580 J	61.9	184	--	4.7 U	5.6 U	5.0 U	4.7 U	--	--	540
Naphthalene	µg/kg	1,200	1,800	304	787	--	4.7 U	5.6 U	5.0 U	3.5 J	--	--	2,100
Phenanthrene	µg/kg	820	1,200	220	368	--	4.7 U	5.6 U	9.4	9.7	--	--	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	38.3	64	--	17	--	5.6 U	4 U	39.4 J	9.8 J	--	--	960
Benzo(a)anthracene	mg/kg OC	2.1	3.7	--	1	--	5.6 U	4 U	3.8	0.8 J	--	--	110
Benzo(a)pyrene	mg/kg OC	1.2	2.2	--	0.7	--	5.6 U	4 U	3.9	1.1	--	--	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	3	5.5	--	1.7	--	5.6 U	4 U	6.2	2	--	--	230
Benzo(g,h,i)perylene	mg/kg OC	0.9	2	--	0.5	--	5.6 U	4 U	2.7 J	0.9	--	--	31
Chrysene	mg/kg OC	2.3	4.4	--	1.4	--	5.6 U	4 U	4.4	1	--	--	110
Dibenzo(a,h)anthracene	mg/kg OC	0.1	0.3	--	0.1	--	5.6 U	4 U	3.6 U	0.8 U	--	--	12
Fluoranthene	mg/kg OC	16	25	--	6.5	--	5.6 U	4 U	7	1.9	--	--	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	0.6	1	--	0.4	--	5.6 U	4 U	2.5 J	0.7 J	--	--	34
Pyrene	mg/kg OC	12	20	--	4.9	--	5.6 U	4 U	8.7	1.6	--	--	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	2,029	2,779	--	1,080	--	4.7 U	5.6 U	54.4 J	56.6 J	--	--	12,000
Benzo(a)anthracene	µg/kg	110	160	--	62.2	--	4.7 U	5.6 U	5.2	4.6 J	--	--	1,300
Benzo(a)pyrene	µg/kg	64	96	--	43	--	4.7 U	5.6 U	5.4	6.3	--	--	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	160	240	--	108	--	4.7 U	5.6 U	8.5	10	--	--	3,200
Benzo(g,h,i)perylene	µg/kg	48	70	--	29.5	--	4.7 U	5.6 U	3.7 J	5.2	--	--	670
Chrysene	µg/kg	120	190	--	86.2	--	4.7 U	5.6 U	6.1	5.9	--	--	1,400
Dibenzo(a,h)anthracene	µg/kg	7.2	11	--	6.42	--	4.7 U	5.6 U	5.0 U	4.7 U	--	--	230
Fluoranthene	µg/kg	850	1,100	--	364	--	4.7 U	5.6 U	10	11	--	--	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	30	42	--	22.6	--	4.7 U	5.6 U	3.5 J	4.2 J	--	--	600
Pyrene	µg/kg	640	870	--	283	--	4.7 U	5.6 U	12	9.4	--	--	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	0.092 U	0.11 U	--	--	--	5.6 U	3.4 U	3.6 U	0.81 U	--	--	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.085 J	0.069 J	--	--	--	5.6 U	3.4 U	3.6 U	0.81 U	--	--	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.13	0.15	--	--	--	5.6 U	3.4 U	3.6 U	0.81 U	--	--	3.1
Hexachlorobenzene	mg/kg OC	0.092 UJ	0.11 UJ	--	--	--	5.6 U	3.4 U	3.6 U	0.81 U	--	--	0.38

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-28		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-28_0-10	MAF-SS-DUP-05	
Sample Date		10/29/15	10/29/15	10/29/2015	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	4.9 U	4.8 U	--	--	--	4.7 U	4.7 U	5.0 U	4.7 U	--	--	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	4.5 J	3.0 J	--	--	--	4.7 U	4.7 U	5.0 U	4.7 U	--	--	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	7.0	6.5	--	--	--	4.7 U	4.7 U	5.0 U	4.7 U	--	--	110
Hexachlorobenzene	µg/kg	4.9 UJ	4.8 UJ	--	--	--	4.7 U	4.7 U	5.0 U	4.7 U	--	--	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	1.8 J	2.2 U	--	--	--	60 U	34 U	33 U	8.1 U	--	--	47
Butyl Benzyl Phthalate	mg/kg OC	0.092 U	0.11 U	--	--	--	5.6 U	3.4 U	3.6 U	0.81 U	--	--	4.9
Dibutyl Phthalate	mg/kg OC	0.66 J	0.9 U	--	--	--	20 U	14 U	13 U	3.3 U	--	--	220
Diethyl Phthalate	mg/kg OC	0.74 U	0.9 U	--	--	--	20 U	14 U	13 U	3.3 U	--	--	61
Dimethyl Phthalate	mg/kg OC	0.74 U	0.9 U	--	--	--	20 U	14 U	13 U	3.3 U	--	--	53
Di-N-Octyl Phthalate	mg/kg OC	0.74 U	0.9 U	--	--	--	20 U	14 U	13 U	3.3 U	--	--	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	94 J	97 U	--	--	--	50 U	47 U	46 U	47 U	--	--	1,300
Butyl Benzyl Phthalate	µg/kg	4.9 U	4.8 U	--	--	--	4.7 U	4.7 U	5.0 U	4.7 U	--	--	63
Dibutyl Phthalate	µg/kg	35 J	39 U	--	--	--	20 U	19 U	18 U	19 U	--	--	1,400
Diethyl Phthalate	µg/kg	39 U	39 U	--	--	--	20 U	19 U	18 U	19 U	--	--	200
Dimethyl Phthalate	µg/kg	39 U	39 U	--	--	--	20 U	19 U	18 U	19 U	--	--	71
Di-N-Octyl Phthalate	µg/kg	39 U	39 U	--	--	--	20 U	19 U	18 U	19 U	--	--	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	25	20 J	24.2 U	12.1 J	--	23 U	24 U	25 U	24 U	--	--	29
2-Methylphenol (o-Cresol)	µg/kg	39 U	39 U	19.3 U	19.9 U	--	20 U	19 U	18 U	19 U	--	--	63
4-Methylphenol (p-Cresol)	µg/kg	3,100	2,200	31	825	--	20 U	19 U	18 U	19 U	--	--	670
Pentachlorophenol	µg/kg	200 UJ	190 UJ	96.6 U	99.4 U	--	100 UJ	95 UJ	92 UJ	94 UJ	--	--	360
Phenol	µg/kg	160	130	16.1 J	242	--	20 U	12 U	18 U	11 U	--	--	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	6.0	10	--	3.3	11.7 U	5.6 U	4 U	3.6 U	0.81 U	--	--	15
Hexachlorobutadiene	mg/kg OC	0.092 U	0.11 U	--	0.079 U	2.9 U	5.6 U	3.4 U	3.6 U	0.81 U	--	--	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	0.092 U	0.11 U	--	0.079 U	2.9 U	5.6 U	3.4 U	3.6 U	0.81 U	--	--	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	300	440	--	206	18.9 U	4.7 U	5.6 U	5.0 U	4.7 U	--	--	540
Hexachlorobutadiene	µg/kg	4.9 U	4.8 U	--	5.0 U	4.7 U	4.7 U	4.7 U	5.0 U	4.7 U	--	--	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	4.9 U	4.8 U	--	5.0 U	4.7 U	4.7 U	4.7 U	5.0 U	4.7 U	--	--	28
Benzoic Acid	µg/kg	450	240 J	--	583	189 U	200 U	190 U	180 U	190 U	--	--	650
Benzyl Alcohol	µg/kg	39 UJ	39 UJ	--	38.9	18.9 U	20 U	19 U	18 U	19 U	--	--	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	--	--	0.003 J	0.034 J	--	--	0.16 J	--	0.076 J	--	--	12

Sample Location ¹	MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-28		Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-28_0-10	MAF-SS-DUP-05	
Sample Date	10/29/15	10/29/15	10/29/2015	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	
Polychlorinated Biphenyls (PCBs) (Dry Weight)												
Total PCBs (Aroclors or Congeners)	µg/kg	--	--	0.035 J	2.14 J	--	--	0.23 J	--	0.44 J	--	130
Chlorinated Phenols and Guaiacols												
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids												
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Pesticides												
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Herbicides												
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-28		Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-28_0-10	MAF-SS-DUP-05		
Sample Date	10/29/15	10/29/15	10/29/2015	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15		
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal		
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	NE	
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	NE	
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE	
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	Pass	--	--	--	--	--	--	NE	
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	Pass	--	--	--	--	--	--	NE	
Larval Development Test (acute toxicity)	n/a	--	--	--	Fail	--	--	--	--	--	--	NE	

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-29	MAF-30		MAF-31	MAF-32	MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-29_0-10	MAF-SS-30_0-10	MAF-SS-DUP-03	MAF-SS-31_0-10	MAF-SS-32_0-10	MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10		
Sample Date	10/21/15	10/21/15	10/21/15	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/19/15	10/19/15	09/13/2016		
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Field Screening													
Visual Wood Content ³	%	<1	<1	<1	10	40	<1	<1	<1	10	<1	<1	15
Conventionals													
Total Organic Carbon (TOC)	Percent	0.108	0.125	0.131	4.76	1.25	1.47	1.88	1.66	5.45	2.12	1.59	NE
Total Volatile Solids (TVS)	Percent	1.1	1.2	1.8	13.6	3.7	5.1	5.0	4.7	10.9	4.0	7.0	NE
Total Solids (TS)	Percent	78.4	75.6	76.4	49.2	67.2	63.7	63.5	67.4	50.5	58.4	55.8	NE
Total Ammonia	mg-N/kg	--	--	--	5.46	9.68	--	--	--	--	--	--	NE
Porewater Ammonia	mg-N/L	7.46	7.79	6.49	8.03	23.90	24.20	23.70	22.0	9.82	35.40	5.55	NE
Total Sulfide	mg/kg	--	--	--	157	700	--	--	338	--	--	--	NE
Porewater Sulfide	mg/L	1.20	0.341 J	0.056 J	30.50	0.27	10.9 J	0.458 J	0.13	8.32	0.12	0.050 U	NE
Porewater pH	pH	7.77	7.68	7.67	7.54	7.91	7.72	7.70	7.51	7.68	7.69	7.51	NE
Grain Size													
Gravel	%	6.4	3.3	2.2	3.4	24.9	1.1	0.8	26.8	4.4	45.7	--	NE
Very Coarse Sand	%	10.1	6.1	5.5	3.4	5.9	1.5	1.4	16.8	3.9	14.7	--	NE
Coarse Sand	%	21.6	16	16	7.2	17.1	7	6.9	16.9	4.8	9	--	NE
Medium Sand	%	42.5	40.5	41	17.7	21.6	28.1	28.5	11.3	10.2	10.3	--	NE
Fine Sand	%	15.6	26.1	26.4	20.6	12.5	29.2	28.4	8.5	10.1	5.7	--	NE
Very Fine Sand	%	1.2	5.2	5.3	14	6.7	16.8	16.9	9.5	17.6	4.6	--	NE
Coarse Silt	%	2.6 U	2.8 U	3.6 U	9.3	1.7	4.2	5.4	3	10.8	0.7	--	NE
Medium Silt	%	2.6 U	2.8 U	3.6 U	6.1	2.6	4.4	2.6	3.1	9.5	4.7	--	NE
Fine Silt	%	2.6 U	2.8 U	3.6 U	4.5	2	2	2.1	1.1	7.2	1.2	--	NE
Very Fine Silt	%	2.6 U	2.8 U	3.6 U	3.2	1	1.3	1.6	0.6	5	0.5	--	NE
Clay	%	2.6 U	2.8 U	3.6 U	10.4	4	4.5	5.2	2.4	16.7	2.9	--	NE
Total Fines	%	2.6	2.8	3.6	33.6	11.3	16.3	16.9	10.1	49.1	10	--	NE
Metals													
Arsenic	mg/kg	--	--	--	10	13	14	13	20	--	40 U	--	57
Cadmium	mg/kg	--	--	--	1.1	0.291 J	0.3	0.4	0.356 J	--	0.50 J	--	5.1
Chromium	mg/kg	--	--	--	36	23.4	27.6	30.6	25	--	9	--	260
Copper	mg/kg	--	--	--	35.7	16.3	19.3	18.9	24.5	--	13	--	390
Lead	mg/kg	--	--	--	22	6	9	7	11	--	20 U	--	450
Mercury	mg/kg	--	--	--	0.11	0.04 U	0.03 U	0.04 U	0.07	--	0.03	--	0.41
Silver	mg/kg	--	--	--	0.6 U	0.4 U	0.5 U	0.5 U	1 U	--	2 U	--	6.1
Zinc	mg/kg	--	--	--	79	37	45	45	66	--	32	--	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	--	--	--	78	98.2	139	97.6	155	57.2	85.8	--	370
2-Methylnaphthalene	mg/kg OC	--	--	--	7.8	8.8	12	8.5	15	7.2	6.6	--	38
Acenaphthene	mg/kg OC	--	--	--	7.8	14	17	12	23	6.2	11	--	16

Sample Location ¹	MAF-29	MAF-30		MAF-31	MAF-32	MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-29_0-10	MAF-SS-30_0-10	MAF-SS-DUP-03	MAF-SS-31_0-10	MAF-SS-32_0-10	MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10		
Sample Date	10/21/15	10/21/15	10/21/15	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/19/15	10/19/15	09/13/2016		
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Acenaphthylene	mg/kg OC	--	--	--	3.2	3	3.9	2.9	3.5	2.6	2	--	66
Anthracene	mg/kg OC	--	--	--	5	20	10	9.6	13	4.8	13	--	220
Fluorene	mg/kg OC	--	--	--	8.6	12	17	12	19	7.7	12	--	23
Naphthalene	mg/kg OC	--	--	--	36	34	54	40	56	22	15	--	99
Phenanthrene	mg/kg OC	--	--	--	17	20	33	20	41	14	33	--	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	--	--	--	3,700	1,228	2,040	1,834	2,568	3,120	1,820	--	5,200
2-Methylnaphthalene	µg/kg	--	--	--	370	110	180	160	250	390	140	--	670
Acenaphthene	µg/kg	--	--	--	370	170	250	230	380	340	240	--	500
Acenaphthylene	µg/kg	--	--	--	150	38	58	54	58	140	40	--	1,300
Anthracene	µg/kg	--	--	--	240	200	200	180	210	260	280	--	960
Fluorene	µg/kg	--	--	--	410	150	250	220	310	420	250	--	540
Naphthalene	µg/kg	--	--	--	1,700	420	790	750	930	1,200	320	--	2,100
Phenanthrene	µg/kg	--	--	--	830	250	490	400	680	760	690	--	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	--	--	--	33.8	133.7	105.5 J	71.4 J	101.1	41.1	111.3 J	--	960
Benzo(a)anthracene	mg/kg OC	--	--	--	2.3	13	9.5	5.9	8.4	2.6	9	--	110
Benzo(a)pyrene	mg/kg OC	--	--	--	1.5	6.2	4.8	3.1	5.1	2	4.6	--	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	--	--	--	3.8	14	12	7.4	10	4.8	11	--	230
Benzo(g,h,i)perylene	mg/kg OC	--	--	--	0.8	2.2	2.2 J	1.2 J	2	0.9	1.7	--	31
Chrysene	mg/kg OC	--	--	--	4	14	16 J	7.4 J	10	3.3	14	--	110
Dibenzo(a,h)anthracene	mg/kg OC	--	--	--	0.23	0.7	0.56	0.36	0.6	0.22	0.5 J	--	12
Fluoranthene	mg/kg OC	--	--	--	11	44	31	24	33	12	35	--	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	--	--	--	0.71	2.2	1.9 J	1.2 J	1.9	0.72	1.7	--	34
Pyrene	mg/kg OC	--	--	--	8.8	37	28	20	26	10	34	--	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	--	--	--	1,607	1,671	1550 J	1,342	1,679	2,240	2,359 J	--	12,000
Benzo(a)anthracene	µg/kg	--	--	--	110	160	140	110	140	140	200	--	1,300
Benzo(a)pyrene	µg/kg	--	--	--	72	78	71	59	84	110	98	--	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	--	--	--	180	180	170	140	200	260	230	--	3,200
Benzo(g,h,i)perylene	µg/kg	--	--	--	40	27	33 J	23 J	34	49	35	--	670
Chrysene	µg/kg	--	--	--	200	180	240 J	140 J	200	180	290	--	1,400
Dibenzo(a,h)anthracene	µg/kg	--	--	--	11	9.1	8.2	6.7	10	12	11 J	--	230
Fluoranthene	µg/kg	--	--	--	540	550	450	460	550	650	740	--	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	--	--	--	34	27	28 J	23 J	31	39	35	--	600
Pyrene	µg/kg	--	--	--	420	460	410	380	430	800	720	--	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	--	--	--	0.055 J	0.38 U	0.33 U	0.26 U	0.28 U	--	0.22 U	--	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	--	--	--	0.34	0.14 J	0.27 J	0.11 J	0.28 U	--	0.22 U	--	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	--	--	--	0.18	0.18 J	0.21 J	0.14 J	0.19 J	--	0.22 U	--	3.1
Hexachlorobenzene	mg/kg OC	--	--	--	0.1 U	0.38 U	0.33 U	0.26 U	0.28 U	--	0.22 U	--	0.38

Sample Location ¹	MAF-29	MAF-30		MAF-31	MAF-32	MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-29_0-10	MAF-SS-30_0-10	MAF-SS-DUP-03	MAF-SS-31_0-10	MAF-SS-32_0-10	MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10		
Sample Date	10/21/15	10/21/15	10/21/15	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/19/15	10/19/15	09/13/2016		
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	--	--	--	2.6 J	4.8 U	4.9 U	4.9 U	4.7 U	--	4.7 U	--	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	--	--	--	16	1.7 J	3.9 J	2.1 J	4.7 U	--	4.7 U	--	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	--	--	--	8.7	2.2 J	3.1 J	2.6 J	3.2 J	--	4.7 U	--	110
Hexachlorobenzene	µg/kg	--	--	--	4.8 U	4.8 U	4.9 U	4.9 U	4.7 U	--	4.7 U	--	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	--	--	--	1 U	2.7	3.3 U	1.9 J	2 J	--	2.2 U	--	47
Butyl Benzyl Phthalate	mg/kg OC	--	--	--	0.1 U	0.38 U	0.33 U	0.43	0.34	--	0.22 U	--	4.9
Dibutyl Phthalate	mg/kg OC	--	--	--	0.4 U	1.5 U	0.6 J	1.2	3.3	--	0.9 U	--	220
Diethyl Phthalate	mg/kg OC	--	--	--	0.4 UJ	1.5 UJ	1 UJ	1 UJ	1.6 J	--	0.9 UJ	--	61
Dimethyl Phthalate	mg/kg OC	--	--	--	0.4 U	1.5 U	1 U	1 U	1.1 U	--	0.9 U	--	53
Di-N-Octyl Phthalate	mg/kg OC	--	--	--	0.4 U	1.5 U	1 U	1 U	1.1 U	--	0.9 U	--	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	--	--	--	48 U	34 J	49 U	36 J	33 J	--	47 U	--	1,300
Butyl Benzyl Phthalate	µg/kg	--	--	--	4.8 U	4.8 U	4.9 U	8	5.6	--	4.7 U	--	63
Dibutyl Phthalate	µg/kg	--	--	--	19 U	19 U	8.8 J	22	55	--	19 U	--	1,400
Diethyl Phthalate	µg/kg	--	--	--	19 UJ	19 UJ	20 UJ	20 UJ	26 J	--	19 UJ	--	200
Dimethyl Phthalate	µg/kg	--	--	--	19 U	19 U	20 U	20 U	19 U	--	19 U	--	71
Di-N-Octyl Phthalate	µg/kg	--	--	--	19 U	19 U	20 U	20 U	19 U	--	19 U	--	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	--	--	--	61	9.9 J	24 U	24 U	24 U	--	20 J	26.3 U	29
2-Methylphenol (o-Cresol)	µg/kg	--	--	--	36	19 U	8.8 J	20 U	19 U	--	19 U	19.9 U	63
4-Methylphenol (p-Cresol)	µg/kg	--	--	--	1,300	250	230	240	120	--	130	241	670
Pentachlorophenol	µg/kg	--	--	--	92 J	95 U	97 U	97 U	94 U	--	94 U	99.3 U	360
Phenol	µg/kg	--	--	--	290	93	130 J	68 J	81	--	90	104	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	--	--	--	7.8	13	17	12	23	6.8	10	--	15
Hexachlorobutadiene	mg/kg OC	--	--	--	0.1 U	0.38 U	0.33 U	0.26 U	0.28 U	0.09 U	0.22 U	--	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	--	--	--	0.1 U	0.38 U	0.33 U	0.26 U	3.4	0.09 U	0.22 U	--	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	--	--	--	370	160	250	220	380	384	220	--	540
Hexachlorobutadiene	µg/kg	--	--	--	4.8 U	4.8 U	4.9 U	4.9 U	4.7 U	4.9 U	4.7 U	--	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	--	--	--	4.8 U	4.8 U	4.9 U	4.9 U	56	4.9 U	4.7 U	--	28
Benzoic Acid	µg/kg	--	--	--	730	120 J	210	150 J	190 U	502	75 J	--	650
Benzyl Alcohol	µg/kg	--	--	--	31	17 J	18 J	15 J	19 U	53.4	14 J	--	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	--	--	--	--	0.29 J	--	0.35 J	13 J	2.26 J	0.32 J	--	12

Sample Location ¹	MAF-29	MAF-30		MAF-31	MAF-32	MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-29_0-10	MAF-SS-30_0-10	MAF-SS-DUP-03	MAF-SS-31_0-10	MAF-SS-32_0-10	MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10		
Sample Date	10/21/15	10/21/15	10/21/15	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/19/15	10/19/15	09/13/2016		
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	--	--	--	--	3.65 J	--	6.64 J	216 J	123 J	6.68 J	--	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	19 U	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	95 U	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	95 U	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	95 U	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	19 U	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	38 U	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	19 U	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	19 U	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	19 U	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	100 U	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	100 U	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	100 U	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	100 U	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	330	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	100 U	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	120 J	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	100 UJ	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	100 U	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	50 U	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	50 U	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	100 U	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	1.0 U	--	--	0.98 U	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	1.0 U	--	--	3.5 U	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	1.0 U	--	--	22 U	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	1 U	--	--	22 U	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	5.3 U	--	--	3.9 U	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	0.50 U	--	--	0.49 U	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	1.5 U	--	--	0.49 U	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	1.5 U	--	--	0.49 U	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	1.0 U	--	--	3.1 U	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	0.50 U	--	--	0.52 U	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	65 U	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	65 U	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	65 U	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	65 U	--	--	--	--	--	--	NE

Sample Location ¹	MAF-29	MAF-30		MAF-31	MAF-32	MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SS-29_0-10	MAF-SS-30_0-10	MAF-SS-DUP-03	MAF-SS-31_0-10	MAF-SS-32_0-10	MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	
Sample Date	10/21/15	10/21/15	10/21/15	10/19/15	10/19/15	10/19/15	10/19/15	10/20/15	10/19/15	10/19/15	09/13/2016	
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Dicamba	µg/kg	--	--	--	--	65 U	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	65 U	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	65 U	--	--	--	--	--	NE
Bioassay Tests⁷												
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	Pass	--	--	--	--	Pass	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	Pass	--	--	--	--	Pass	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	Pass	--	--	--	--	Pass	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-38		MAF-56			MAF-57			MAF-58		Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SS-38_0-10	MAF-DUP-07	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10		MAF-SC-58_2-4
Sample Date		09/13/2016	09/13/2016	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18		11/13/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm		2-4 ft
Sample Type		Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface		Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit		Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		Subtidal
Field Screening													
Visual Wood Content ³	%	<1	<1	<1	<5	<5	<1	<1	15	<1	5	<1	15
Conventionals													
Total Organic Carbon (TOC)	Percent	2.68	1.60	0.570	0.560	0.490 J	0.0700	1.78	1.75	0.300	4.94	0.900	NE
Total Volatile Solids (TVS)	Percent	10.3	56.9	1.99	1.53	1.58 J	0.94	6.42	2.34	1.07	10.69	2.14 J	NE
Total Solids (TS)	Percent	49.4	6.8	72.66	78.03	77.36	82.48	54.90	75.12	81.39	52.47	77.45	NE
Total Ammonia	mg-N/kg	--	--	--	1.47	1.71 J	1.31	--	2.53	1.39	--	19 J	NE
Porewater Ammonia	mg-N/L	3.63	5.24	6.08	--	--	--	7.01	--	--	5.51	--	NE
Total Sulfide	mg/kg	--	--	3.38 J	35.4	27.3 J	4.35	--	193	39.9	--	70 J	NE
Porewater Sulfide	mg/L	0.050 U	0.050 U	--	--	--	--	0.196	--	--	0.05 U	--	NE
Porewater pH	pH	7.48	7.46 J	--	--	--	--	--	--	--	--	--	NE
Grain Size													
Gravel	%	--	--	--	--	--	--	--	--	--	--	--	NE
Very Coarse Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE
Coarse Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE
Medium Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE
Fine Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE
Very Fine Sand	%	--	--	--	--	--	--	--	--	--	--	--	NE
Coarse Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE
Medium Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE
Fine Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE
Very Fine Silt	%	--	--	--	--	--	--	--	--	--	--	--	NE
Clay	%	--	--	--	--	--	--	--	--	--	--	--	NE
Total Fines	%	--	--	--	--	--	--	--	--	--	--	--	NE
Metals													
Arsenic	mg/kg	--	--	3.52	4.63	4.72	4.4	5.77	5.18	3.89	9.6	5.67	57
Cadmium	mg/kg	--	--	0.08 J	0.10 J	0.11 J	0.12 U	0.47	0.22	0.15	0.85	0.21	5.1
Chromium	mg/kg	--	--	21.8	22.4	24.1	19.1	34.8	27.8	19	41.2	26.2	260
Copper	mg/kg	--	--	10.1	10.1	10.5 J	6.62	32	17.4	9.74	42.5	17.8 J	390
Lead	mg/kg	--	--	4.57	5.07	4.85 J	2.99	10.3	9.18	3.89	20.3	8.44 J	450
Mercury	mg/kg	--	--	0.0261 J	0.0321	0.0745	0.00636 J	0.0551	0.0270 J	0.0107 J	0.105	0.0676	0.41
Silver	mg/kg	--	--	0.03 J	0.03 J	0.04 J	0.24 U	0.11 J	0.07 J	0.03 J	0.22 J	0.07 J	6.1
Zinc	mg/kg	--	--	30.2	30	32.6	26	58.4	45	28.6	85.2	36.7	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	--	--	55.6	48	54.1 J	4.13 J	56.7 J	37.1	18.4 J	43.1	50.6 J	370
2-Methylnaphthalene	mg/kg OC	--	--	5.25	3.46	3.29	7.14 U	6.12	3.43	1.42 J	4.13	3.62	38
Acenaphthene	mg/kg OC	--	--	6.05	3.73	3.43	7.14 U	9.1	4.8	2.16	5.95	3.87	16

Sample Location ¹		MAF-38		MAF-56			MAF-57			MAF-58		Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SS-38_0-10	MAF-DUP-07	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10		MAF-SC-58_2-4
Sample Date		09/13/2016	09/13/2016	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18		11/13/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm		2-4 ft
Sample Type		Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface		Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit		Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		Subtidal
Acenaphthylene	mg/kg OC	--	--	2.32	2.36	3.06	7.14 U	2.37 J	1.16	0.717 J	1.16	2.84	66
Anthracene	mg/kg OC	--	--	5.68	3.61	4.37	7.14 U	7.75	3.53	2.06	4.31	4.09	220
Fluorene	mg/kg OC	--	--	5.61	4.09	4.39	7.14 U	7.81	4.55	2.19	6.01	4.12	23
Naphthalene	mg/kg OC	--	--	18.9	20	22.2	4.13 J	12.2	13.5	5.47	10.6	20.1	99
Phenanthrene	mg/kg OC	--	--	16.9	14.8	16.6 J	3.79 U	17.5	9.49	5.83	15	16 J	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	--	--	317.0	270	265 J	2.89 J	1,010 J	649	55.3 J	2,130	455 J	5,200
2-Methylnaphthalene	µg/kg	--	--	29.9	19.4	16.1	5.00 U	109	60.1	4.27 J	204	32.6	670
Acenaphthene	µg/kg	--	--	34.5	20.9	16.8	5.00 U	162	84	6.49	294	34.8	500
Acenaphthylene	µg/kg	--	--	13.2	13.2	15	5.00 U	42.2 J	20.3	2.15 J	57.2	25.6	1,300
Anthracene	µg/kg	--	--	32.4	20.2	21.4	5.00 U	138	61.8	6.17	213	36.8	960
Fluorene	µg/kg	--	--	32	22.9	21.5	5.00 U	139	79.7	6.57	297	37.1	540
Naphthalene	µg/kg	--	--	108	110	109	2.89 J	218	237	16.4	523	181	2,100
Phenanthrene	µg/kg	--	--	96.5	82.7	81.3 J	2.65 U	311	166	17.5	742	140 J	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	--	--	59.1	43.9	44.5 J	3.38 J	111 J	33.7	21.2 J	50.8	50.1	960
Benzo(a)anthracene	mg/kg OC	2.58	9.50	3.75	2.8	2.73	1.79 J	8.54	2.3	1.51 J	3.79	3.11	110
Benzo(a)pyrene	mg/kg OC	2.21	7.44	2.54	2.16	2.27	1.83 U	5.15	2.31	1.05 U	2.87	2.88	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	4.70	17.0	5.63	4.5	5	14.3 U	13.1	5.39	3.3 J	6.8	5.83	230
Benzo(g,h,i)perylene	mg/kg OC	--	--	1.74	1.7	1.89	7.14 U	2.45 J	1.31	0.907 U	1.78	2.48	31
Chrysene	mg/kg OC	3.73	14.19	3.98	3.23	3.02	7.14 U	10.8	2.86	1.79	5.04	3.93	110
Dibenzo(a,h)anthracene	mg/kg OC	0.29	1.15	1.47 U	1.44 U	1.51 U	9.44 U	4.33	1.42 U	2.23 U	1.08	2.46	12
Fluoranthene	mg/kg OC	--	--	21.4	14.4	15 J	4.93 U	25.2	7.66	6.03	14	14	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	1.13	3.41	1.44	1.39	1.21	1.59 J	2.81	1.12	0.743 J	1.63	2.01	34
Pyrene	mg/kg OC	--	--	18.6	13.7	13.4 J	4.84 U	38.5	10.7	7.8	13.9	13.4	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	--	--	337	255	218 J	2.36 J	1,974 J	590	63.5 J	2,510	451 J	12,000
Benzo(a)anthracene	µg/kg	69.1	152	21.4	15.7	13.4	1.25 J	152	40.2	4.53 J	187	28	1,300
Benzo(a)pyrene	µg/kg	59.3	119	14.5	12.1	11.1	1.28 U	91.7	40.5	3.16 U	142	25.9	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	126	272	32.1	25.2	24.5	10.0 U	234	94.4	9.89 J	336	52.5	3,200
Benzo(g,h,i)perylene	µg/kg	--	--	9.93	9.54	9.26	5.00 U	43.6 J	23	2.72 U	87.7	22.3	670
Chrysene	µg/kg	100	227	22.7	18.1	14.8	5.00 U	192	50	5.36	249	35.4	1,400
Dibenzo(a,h)anthracene	µg/kg	7.64	18.4	8.38 U	8.06 U	7.38 U	6.61 U	77	24.8 U	6.70 U	53.2	22.1	230
Fluoranthene	µg/kg	--	--	122	80.9	73.3 J	3.45 U	448	134	18.1	690	126 J	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	30.2	54.5	8.23	7.81	5.93	1.11 J	50.1	19.6	2.23 J	80.7	18.1	600
Pyrene	µg/kg	--	--	106	76.5	65.7 J	3.39 U	686	188	23.4	688	121 J	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	3.1
Hexachlorobenzene	mg/kg OC	--	--	0.860 U	0.890 U	1.00 U	7.10 U	0.280 U	0.270 U	1.70 U	0.0970 U	0.530 U	0.38

Sample Location ¹		MAF-38		MAF-56			MAF-57			MAF-58		Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SS-38_0-10	MAF-DUP-07	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10		MAF-SC-58_2-4
Sample Date		09/13/2016	09/13/2016	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18		11/13/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm		2-4 ft
Sample Type		Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface		Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit		Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		Subtidal
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	--	--	19.7 UJ	19.9 U	19.7 UJ	19.9 U	19.4 U	19.3 U	19.8 U	19.3 U	19.3 U	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	--	--	19.7 UJ	19.9 U	19.7 UJ	19.9 U	19.4 UJ	19.3 U	19.8 U	19.3 U	19.3 U	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	--	--	19.7 UJ	19.9 U	19.7 UJ	19.9 U	19.4 UJ	19.3 U	19.8 U	19.3 U	19.3 U	110
Hexachlorobenzene	µg/kg	--	--	4.9 U	5.0 U	4.9 U	5.0 U	4.9 U	4.8 U	5.0 U	4.8 U	4.8 U	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	--	--	5.00	8.91 U	10.1 U	71.3 U	2.73 U	2.75 U	16.5 U	1.08	5.37 U	47
Butyl Benzyl Phthalate	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	4.9
Dibutyl Phthalate	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	220
Diethyl Phthalate	mg/kg OC	--	--	3.46 U	5.39	4.02 U	26.4	1.09 U	2.74	6.60 U	0.391 U	2.14 U	61
Dimethyl Phthalate	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	53
Di-N-Octyl Phthalate	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	--	--	28.5 J	49.9 U	49.3 U	49.9 U	48.6 U	48.2 U	49.6 U	53.4	48.3 U	1,300
Butyl Benzyl Phthalate	µg/kg	--	--	19.7 U	19.9 U	19.7 U	19.9 U	19.4 U	19.3 U	19.8 U	19.3 U	19.3 U	63
Dibutyl Phthalate	µg/kg	--	--	19.7 U	19.9 U	19.7 U	19.9 U	19.4 U	19.3 U	19.8 U	19.3 U	19.3 U	1,400
Diethyl Phthalate	µg/kg	--	--	19.7 U	30.2	19.7 U	18.5 J	19.4 U	48	19.8 U	19.3 U	19.3 U	200
Dimethyl Phthalate	µg/kg	--	--	19.7 U	19.9 U	19.7 U	19.9 U	19.4 U	19.3 U	19.8 U	19.3 U	19.3 U	71
Di-N-Octyl Phthalate	µg/kg	--	--	19.7 U	19.9 U	19.7 U	19.9 U	19.4 U	19.3 U	19.8 U	19.3 U	19.3 U	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	13.8 J	25.7 U	24.6 U	24.9 U	24.7 U	24.9 U	24.3 U	24.1 U	24.8 U	7.6 J	2.8 J	29
2-Methylphenol (o-Cresol)	µg/kg	19.5 U	19.6 U	19.7 UJ	19.9 U	19.7 UJ	19.9 U	19.4 UJ	19.3 U	19.8 U	19.3 U	19.3 U	63
4-Methylphenol (p-Cresol)	µg/kg	351	172	19.7 UJ	18.3 J	19.7 UJ	19.9 U	130 J	98	19.8 U	132	43	670
Pentachlorophenol	µg/kg	97.3 U	97.9 U	4.6 J	19.9 U	2.7 J	19.9 U	11.0 J	19.3 U	19.8 U	5.8 J	19.3 U	360
Phenol	µg/kg	127	38.8	19.8 J	16.3 J	11.2 UJ	12.8 J	58.6 J	21.1	19.8 U	146 J	12.5 J	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	--	--	6.2	4.3	4.71	28.4 U	8.3	3.4	3.3	2.29	4.7	15
Hexachlorobutadiene	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	--	--	3.46 U	3.55 U	4.02 U	28.4 U	1.09 U	1.10 U	6.60 U	0.391 U	2.14 U	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	--	--	35.4	23.9	23.1	19.9 U	148	59.9	9.9 J	113	42.2	540
Hexachlorobutadiene	µg/kg	--	--	19.7 UJ	19.9 U	19.7 UJ	19.9 U	19.4 U	19.3 U	19.8 U	19.3 U	19.3 U	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	--	--	19.7 U	19.9 U	19.7 U	19.9 U	19.4 U	19.3 U	19.8 U	19.3 U	19.3 U	28
Benzoic Acid	µg/kg	--	--	32.3 J	23.3 J	19.3 J	14.3 J	76.8 J	19.7 J	99.2 U	64.3 J	22.5 J	650
Benzyl Alcohol	µg/kg	--	--	19.7 UJ	19.9 U	19.7 UJ	19.9 U	19.4 UJ	19.3 U	19.8 U	19.3 U	19.3 U	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	--	--	0.29 J	0.30 J	1.35 J	19.4 J	0.029 J	0.030 J	1.06 J	0.0037 J	0.063 J	12

Sample Location ¹	MAF-38		MAF-56				MAF-57			MAF-58		Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-38_0-10	MAF-DUP-07	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10	MAF-SC-58_2-4		
Sample Date	09/13/2016	09/13/2016	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18	11/13/18		
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm	2-4 ft		
Sample Type	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Polychlorinated Biphenyls (PCBs) (Dry Weight)													
Total PCBs (Aroclors or Congeners)	µg/kg	--	--	8.12 J	1.63 J	6.64 J	0.25 J	3.18 J	9.34 J	1.03 J	14.2 J	0.57 J	130
Chlorinated Phenols and Guaiacols													
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids													
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Pesticides													
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Herbicides													
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		MAF-38		MAF-56			MAF-57			MAF-58		Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SS-38_0-10	MAF-DUP-07	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10		MAF-SC-58_2-4
Sample Date		09/13/2016	09/13/2016	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18		11/13/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm		2-4 ft
Sample Type		Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface		Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit		Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		Subtidal
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-59				MAF-60			EDP62		EDP63		Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	EDP62_0.0-1.0	EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0		
Sample Date	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	04/27/21	04/27/21	04/27/21	04/27/21		
Sample Interval (dbm)	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft		
Sample Type	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal		
Field Screening													
Visual Wood Content ³	%	20	<5	<1	<1	<1	10	<1	<1	<1	<1	15	
Conventionals													
Total Organic Carbon (TOC)	Percent	2.83	3.71	1.33	--	1.48	1.33	0.210	--	--	--	NE	
Total Volatile Solids (TVS)	Percent	11.00	8.03	3.39	--	7.02	2.30	0.91	--	--	--	NE	
Total Solids (TS)	Percent	49.20	64.33	72.97	--	55.64	77.90	81.15	--	--	--	NE	
Total Ammonia	mg-N/kg	--	51.1	32.8	--	--	20.8	2.64	--	--	--	NE	
Porewater Ammonia	mg-N/L	3.97	--	--	--	10.70	--	--	--	--	--	NE	
Total Sulfide	mg/kg	--	97.2	34.1	--	--	251	1.69	--	--	--	NE	
Porewater Sulfide	mg/L	0.05 U	--	--	--	0.052	--	--	--	--	--	NE	
Porewater pH	pH	--	--	--	--	--	--	--	--	--	--	NE	
Grain Size													
Gravel	%	--	--	--	--	--	--	--	--	--	--	NE	
Very Coarse Sand	%	--	--	--	--	--	--	--	--	--	--	NE	
Coarse Sand	%	--	--	--	--	--	--	--	--	--	--	NE	
Medium Sand	%	--	--	--	--	--	--	--	--	--	--	NE	
Fine Sand	%	--	--	--	--	--	--	--	--	--	--	NE	
Very Fine Sand	%	--	--	--	--	--	--	--	--	--	--	NE	
Coarse Silt	%	--	--	--	--	--	--	--	--	--	--	NE	
Medium Silt	%	--	--	--	--	--	--	--	--	--	--	NE	
Fine Silt	%	--	--	--	--	--	--	--	--	--	--	NE	
Very Fine Silt	%	--	--	--	--	--	--	--	--	--	--	NE	
Clay	%	--	--	--	--	--	--	--	--	--	--	NE	
Total Fines	%	--	--	--	--	--	--	--	--	--	--	NE	
Metals													
Arsenic	mg/kg	9.15	7.06	4.9	2.92	5.89	3.5	3.24	1.51 J	2.53 J	2.95 J	3.50 J	57
Cadmium	mg/kg	0.54	0.65	0.28	0.07 J	0.61	0.22	0.12 U	0.236 U	0.239 U	0.269 U	0.246 U	5.1
Chromium	mg/kg	39.5	35.6	28.5	20.2	32.1	21.4	17.4	23.6 J	23.6	27.8	27.9	260
Copper	mg/kg	41.1	39.2	24.7	7.33	30.5	20	5.62	11.8	11	11.8	12.6	390
Lead	mg/kg	14.4	35.9	23.2	2.21	10.4	7.47	2.39	3.31	8.8	3.75	4.45	450
Mercury	mg/kg	0.119	0.223	38.5	0.00839 J	0.0808	0.0485	0.0156 J	0.00586 J	0.00782 J	0.0403	0.0337	0.41
Silver	mg/kg	0.15 J	0.15 J	0.08 J	0.03 J	0.11 J	0.08 J	0.03 J	0.354 U	0.358 U	0.404 U	0.118 J	6.1
Zinc	mg/kg	80.1	65.4	50.5	25.2	62.4	59.9	20.3	34.9	41.5	37.6	39.1	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)													
Sum of LPAHs ⁴	mg/kg OC	59	79.8	127.8 J	--	170	177	20.9 J	--	--	--	--	370
2-Methylnaphthalene	mg/kg OC	5.62	8.81	10 J	--	18.6	16.7	2.48	--	--	--	--	38
Acenaphthene	mg/kg OC	6.75	8.38	11.1 J	--	26.2	28	3.27	--	--	--	--	16

Sample Location ¹		MAF-59				MAF-60			EDP62		EDP63		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	EDP62_0.0-1.0	EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	
Sample Date		11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	04/27/21	04/27/21	04/27/21	04/27/21	
Sample Interval (dbm)		0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	
Sample Type		Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	
Acenaphthylene	mg/kg OC	2.2	2.35	7.01 J	--	6.06	4.41	2.24 U	--	--	--	--	66
Anthracene	mg/kg OC	6.18	5.7	7.5 J	--	23.9	24.6	1.58 J	--	--	--	--	220
Fluorene	mg/kg OC	6.22	9.68	12.3 J	--	23.1	22.3	2.88	--	--	--	--	23
Naphthalene	mg/kg OC	21.2	32.6	55.3 J	--	44.8	38.7	7.67	--	--	--	--	99
Phenanthrene	mg/kg OC	16.3	21.1	34.5 J	--	46.6	58.7	5.48	--	--	--	--	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)													
Sum of LPAHs ⁴	µg/kg	1,670	2,960	1,700.2 J	--	2,520	2,350	43.8 J	--	--	--	--	5,200
2-Methylnaphthalene	µg/kg	159	327	133 J	--	275	222	5.21	--	--	--	--	670
Acenaphthene	µg/kg	191	311	148 J	--	388	373	6.87	--	--	--	--	500
Acenaphthylene	µg/kg	62.3	87.3	93.2 J	--	89.7	58.6	4.70 U	--	--	--	--	1,300
Anthracene	µg/kg	175	210	100 J	--	353	327	3.32 J	--	--	--	--	960
Fluorene	µg/kg	176	359	164 J	--	342	296	6.04	--	--	--	--	540
Naphthalene	µg/kg	601	1,210	736 J	--	663	515	16.1	--	--	--	--	2,100
Phenanthrene	µg/kg	461	781	459 J	--	689	781	11.5	--	--	--	--	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)													
Sum of HPAHs ⁵	mg/kg OC	75.6	89	67.7 J	--	259	281	15.8 J	--	--	--	--	960
Benzo(a)anthracene	mg/kg OC	5.69	7.74	3.7	--	20.7	22	1.18 J	--	--	--	--	110
Benzo(a)pyrene	mg/kg OC	4.1	6.55	2.5	--	11	14.7	0.795 U	--	--	--	--	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	10.8	11.7	5.4	--	29.6	39.2	1.94 J	--	--	--	--	230
Benzo(g,h,i)perylene	mg/kg OC	2.56	5.23	2.4	--	5.11	5.48	2.24 U	--	--	--	--	31
Chrysene	mg/kg OC	9.68	7.76	4.7	--	27.8	33.5	1.61 J	--	--	--	--	110
Dibenzo(a,h)anthracene	mg/kg OC	1.88	2.36	1.6 J	--	4.04	2.77	2.24 U	--	--	--	--	12
Fluoranthene	mg/kg OC	20	22	24.5	--	68.2	93.2	4.95	--	--	--	--	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	2.3	3.8	1.4	--	4.69	5.59	0.505 J	--	--	--	--	34
Pyrene	mg/kg OC	18.7	21.4	21.7	--	88	65	5.62	--	--	--	--	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)													
Sum of HPAHs ⁵	µg/kg	2,140	3,300	900.7 J	--	3,840	3,740	33.2 J	--	--	--	--	12,000
Benzo(a)anthracene	µg/kg	161	287	49.5	--	306	292	2.48 J	--	--	--	--	1,300
Benzo(a)pyrene	µg/kg	116	243	32.9	--	170	195	1.67 U	--	--	--	--	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	307	435	71.2	--	438	522	4.08 J	--	--	--	--	3,200
Benzo(g,h,i)perylene	µg/kg	72.5	194	31.8	--	75.7	72.9	4.70 U	--	--	--	--	670
Chrysene	µg/kg	274	288	61.9	--	412	445	3.39 J	--	--	--	--	1,400
Dibenzo(a,h)anthracene	µg/kg	53.2	87.6	21.2 J	--	59.8	36.9	4.70 U	--	--	--	--	230
Fluoranthene	µg/kg	566	830	326	--	1,010	1,240	10.4	--	--	--	--	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	65.1	141	18.2	--	69.4	74.3	1.06 J	--	--	--	--	600
Pyrene	µg/kg	529	794	288	--	1,300	860	11.8	--	--	--	--	2,600
Chlorinated Hydrocarbons (OC Normalized)													
1,2,4-Trichlorobenzene	mg/kg OC	0.686 U	0.523 U	0.40 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	0.686 U	0.523 U	0.30 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	0.686 U	0.523 U	0.30 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	3.1
Hexachlorobenzene	mg/kg OC	0.170 U	0.130 U	0.10 U	--	0.320 U	0.370 U	2.20 U	--	--	--	--	0.38

Sample Location ¹		MAF-59				MAF-60			EDP62		EDP63		Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	EDP62_0.0-1.0	EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0		
Sample Date	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	04/27/21	04/27/21	04/27/21	04/27/21		
Sample Interval (dbm)	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft		
Sample Type	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal		
Chlorinated Hydrocarbons (Dry Weight)													
1,2,4-Trichlorobenzene	µg/kg	19.4 U	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	19.4 U	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	19.4 U	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	110
Hexachlorobenzene	µg/kg	4.9 U	4.9 U	4.9 U	--	4.8 U	4.9 U	4.7 U	--	--	--	--	22
Phthalates (OC Normalized)													
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	3.82	0.803	2.10 U	--	10.0	5.29	22.6 U	--	--	--	--	47
Butyl Benzyl Phthalate	mg/kg OC	0.686 U	0.523 U	0.60 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	4.9
Dibutyl Phthalate	mg/kg OC	0.686 U	0.523 U	2.30 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	220
Diethyl Phthalate	mg/kg OC	0.686 U	0.523 U	2.40	--	1.30 U	1.48 U	9.05 U	--	--	--	--	61
Dimethyl Phthalate	mg/kg OC	0.777	0.523 U	0.50 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	53
Di-N-Octyl Phthalate	mg/kg OC	0.686 U	0.523 U	0.60 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	58
Phthalates (Dry Weight)													
Bis(2-Ethylhexyl) Phthalate	µg/kg	108	29.8 J	27.6 U	--	200	70.4	47.4 U	--	--	--	--	1,300
Butyl Benzyl Phthalate	µg/kg	19.4 U	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	63
Dibutyl Phthalate	µg/kg	19.4 U	19.4 U	30 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	1,400
Diethyl Phthalate	µg/kg	19.4 U	19.4 U	31.9	--	19.3 U	19.7 U	19.0 U	--	--	--	--	200
Dimethyl Phthalate	µg/kg	22	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	71
Di-N-Octyl Phthalate	µg/kg	19.4 U	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	6,200
Phenols (Dry Weight)													
2,4-Dimethylphenol	µg/kg	10.0 J	44	11.9 J	--	5.4 J	7.2 J	23.7 U	--	--	--	--	29
2-Methylphenol (o-Cresol)	µg/kg	19.4 U	56.3	12 J	--	19.3 U	19.7 U	19.0 U	--	--	--	--	63
4-Methylphenol (p-Cresol)	µg/kg	141	1,170	270	--	146	55.3	19.0 U	--	--	--	--	670
Pentachlorophenol	µg/kg	6.2 J	5.7 J	2.1 J	--	2.9 J	3.0 J	19.0 U	--	--	--	--	360
Phenol	µg/kg	82.4 J	60.1	27.9	--	46.6 J	33.1	19.0 U	--	--	--	--	420
Miscellaneous Extractables (OC Normalized)													
Dibenzofuran	mg/kg OC	8.6	10.9	11.6	--	18.5	21	4.76	--	--	--	--	15
Hexachlorobutadiene	mg/kg OC	0.2 U	0.1 U	0.4 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	0.3 U	0.3 U	0.7 U	--	1.30 U	1.48 U	9.05 U	--	--	--	--	11
Miscellaneous Extractables (Dry Weight)													
Dibenzofuran	µg/kg	244	406	154	--	274	279	10.0 J	--	--	--	--	540
Hexachlorobutadiene	µg/kg	19.4 U	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	19.4 U	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	28
Benzoic Acid	µg/kg	70.4 J	121 J	59 J	--	65.5 J	55.0 J	94.8 U	--	--	--	--	650
Benzyl Alcohol	µg/kg	19.4 U	19.4 U	19.4 U	--	19.3 U	19.7 U	19.0 U	--	--	--	--	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)													
Total PCBs (Aroclors or Congeners)	mg/kg OC	0.36 J	0.56 J	0.052 J	--	0.47 J	1.05 J	0.069 J	--	--	--	--	12

Sample Location ¹	MAF-59				MAF-60			EDP62		EDP63		Proposed Sediment Cleanup Level ²
Sample Identification	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	EDP62_0.0-1.0	EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	
Sample Date	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	04/27/21	04/27/21	04/27/21	04/27/21	
Sample Interval (dbm)	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	
Sample Type	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	
Polychlorinated Biphenyls (PCBs) (Dry Weight)												
Total PCBs (Aroclors or Congeners)	µg/kg	10.3 J	20.9 J	12.8 J	--	7.02 J	13.9 J	0.14 J	--	--	--	130
Chlorinated Phenols and Guaiacols												
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Resin Acids												
Linolenic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Pesticides												
4,4'-DDD	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Herbicides												
2,4,5-T	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	--	--	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	--	--	--	--	--	--	NE

Sample Location ¹		MAF-59				MAF-60			EDP62		EDP63		Proposed Sediment Cleanup Level ²
Sample Identification		MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	EDP62_0.0-1.0	EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	
Sample Date		11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	04/27/21	04/27/21	04/27/21	04/27/21	
Sample Interval (dbm)		0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	
Sample Type		Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	
Dicamba	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	NE
Bioassay Tests⁷													
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	--	--	--	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-1
Summary of Sediment Analytical Results for the Protection of Benthic Organisms
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		EDP64		EDP65		Proposed Sediment Cleanup Level ²
Sample Identification		EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0	
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	
Sample Interval (dbm)		0-1 ft	2-3 ft	0-1 ft	2-3 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	
Field Screening						
Visual Wood Content ³	%	<1	<1	<1	<1	15
Conventionals						
Total Organic Carbon (TOC)	Percent	--	--	--	--	NE
Total Volatile Solids (TVS)	Percent	--	--	--	--	NE
Total Solids (TS)	Percent	--	--	--	--	NE
Total Ammonia	mg-N/kg	--	--	--	--	NE
Porewater Ammonia	mg-N/L	--	--	--	--	NE
Total Sulfide	mg/kg	--	--	--	--	NE
Porewater Sulfide	mg/L	--	--	--	--	NE
Porewater pH	pH	--	--	--	--	NE
Grain Size						
Gravel	%	--	--	--	--	NE
Very Coarse Sand	%	--	--	--	--	NE
Coarse Sand	%	--	--	--	--	NE
Medium Sand	%	--	--	--	--	NE
Fine Sand	%	--	--	--	--	NE
Very Fine Sand	%	--	--	--	--	NE
Coarse Silt	%	--	--	--	--	NE
Medium Silt	%	--	--	--	--	NE
Fine Silt	%	--	--	--	--	NE
Very Fine Silt	%	--	--	--	--	NE
Clay	%	--	--	--	--	NE
Total Fines	%	--	--	--	--	NE
Metals						
Arsenic	mg/kg	4.44 J	5.28 J	3.43 J	5.43 J	57
Cadmium	mg/kg	0.257 U	0.248 U	0.245 U	0.238 U	5.1
Chromium	mg/kg	29.6	35.9	30.9	27.6	260
Copper	mg/kg	13.4	14.7	11.9	11.1	390
Lead	mg/kg	7.27	7.36	5.52	3.58	450
Mercury	mg/kg	0.00621 J	0.0164 J	0.00838 J	0.0105 J	0.41
Silver	mg/kg	0.386 U	0.372 U	0.368 U	0.357 U	6.1
Zinc	mg/kg	43.2	43.5	39.1	29.5	410
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (OC Normalized)						
Sum of LPAHs ⁴	mg/kg OC	--	--	--	--	370
2-Methylnaphthalene	mg/kg OC	--	--	--	--	38
Acenaphthene	mg/kg OC	--	--	--	--	16

Sample Location ¹		EDP64		EDP65		Proposed Sediment Cleanup Level ²
Sample Identification		EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0	
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	
Sample Interval (dbm)		0-1 ft	2-3 ft	0-1 ft	2-3 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	
Acenaphthylene	mg/kg OC	--	--	--	--	66
Anthracene	mg/kg OC	--	--	--	--	220
Fluorene	mg/kg OC	--	--	--	--	23
Naphthalene	mg/kg OC	--	--	--	--	99
Phenanthrene	mg/kg OC	--	--	--	--	100
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs) (Dry Weight)						
Sum of LPAHs ⁴	µg/kg	--	--	--	--	5,200
2-Methylnaphthalene	µg/kg	--	--	--	--	670
Acenaphthene	µg/kg	--	--	--	--	500
Acenaphthylene	µg/kg	--	--	--	--	1,300
Anthracene	µg/kg	--	--	--	--	960
Fluorene	µg/kg	--	--	--	--	540
Naphthalene	µg/kg	--	--	--	--	2,100
Phenanthrene	µg/kg	--	--	--	--	1,500
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (OC Normalized)						
Sum of HPAHs ⁵	mg/kg OC	--	--	--	--	960
Benzo(a)anthracene	mg/kg OC	--	--	--	--	110
Benzo(a)pyrene	mg/kg OC	--	--	--	--	99
Benzo(a)fluoranthene ⁶ (Total)	mg/kg OC	--	--	--	--	230
Benzo(g,h,i)perylene	mg/kg OC	--	--	--	--	31
Chrysene	mg/kg OC	--	--	--	--	110
Dibenzo(a,h)anthracene	mg/kg OC	--	--	--	--	12
Fluoranthene	mg/kg OC	--	--	--	--	160
Indeno(1,2,3-c,d)pyrene	mg/kg OC	--	--	--	--	34
Pyrene	mg/kg OC	--	--	--	--	1,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs) (Dry Weight)						
Sum of HPAHs ⁵	µg/kg	--	--	--	--	12,000
Benzo(a)anthracene	µg/kg	--	--	--	--	1,300
Benzo(a)pyrene	µg/kg	--	--	--	--	1,600
Benzo(a)fluoranthene ⁶ (Total)	µg/kg	--	--	--	--	3,200
Benzo(g,h,i)perylene	µg/kg	--	--	--	--	670
Chrysene	µg/kg	--	--	--	--	1,400
Dibenzo(a,h)anthracene	µg/kg	--	--	--	--	230
Fluoranthene	µg/kg	--	--	--	--	1,700
Indeno(1,2,3-c,d)pyrene	µg/kg	--	--	--	--	600
Pyrene	µg/kg	--	--	--	--	2,600
Chlorinated Hydrocarbons (OC Normalized)						
1,2,4-Trichlorobenzene	mg/kg OC	--	--	--	--	0.81
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg OC	--	--	--	--	2.3
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg OC	--	--	--	--	3.1
Hexachlorobenzene	mg/kg OC	--	--	--	--	0.38

Sample Location ¹		EDP64		EDP65		Proposed Sediment Cleanup Level ²
Sample Identification		EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0	
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	
Sample Interval (dbm)		0-1 ft	2-3 ft	0-1 ft	2-3 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	
Chlorinated Hydrocarbons (Dry Weight)						
1,2,4-Trichlorobenzene	µg/kg	--	--	--	--	31
1,2-Dichlorobenzene (o-Dichlorobenzene)	µg/kg	--	--	--	--	35
1,4-Dichlorobenzene (p-Dichlorobenzene)	µg/kg	--	--	--	--	110
Hexachlorobenzene	µg/kg	--	--	--	--	22
Phthalates (OC Normalized)						
Bis(2-Ethylhexyl) Phthalate	mg/kg OC	--	--	--	--	47
Butyl Benzyl Phthalate	mg/kg OC	--	--	--	--	4.9
Dibutyl Phthalate	mg/kg OC	--	--	--	--	220
Diethyl Phthalate	mg/kg OC	--	--	--	--	61
Dimethyl Phthalate	mg/kg OC	--	--	--	--	53
Di-N-Octyl Phthalate	mg/kg OC	--	--	--	--	58
Phthalates (Dry Weight)						
Bis(2-Ethylhexyl) Phthalate	µg/kg	--	--	--	--	1,300
Butyl Benzyl Phthalate	µg/kg	--	--	--	--	63
Dibutyl Phthalate	µg/kg	--	--	--	--	1,400
Diethyl Phthalate	µg/kg	--	--	--	--	200
Dimethyl Phthalate	µg/kg	--	--	--	--	71
Di-N-Octyl Phthalate	µg/kg	--	--	--	--	6,200
Phenols (Dry Weight)						
2,4-Dimethylphenol	µg/kg	--	--	--	--	29
2-Methylphenol (o-Cresol)	µg/kg	--	--	--	--	63
4-Methylphenol (p-Cresol)	µg/kg	--	--	--	--	670
Pentachlorophenol	µg/kg	--	--	--	--	360
Phenol	µg/kg	--	--	--	--	420
Miscellaneous Extractables (OC Normalized)						
Dibenzofuran	mg/kg OC	--	--	--	--	15
Hexachlorobutadiene	mg/kg OC	--	--	--	--	3.9
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg OC	--	--	--	--	11
Miscellaneous Extractables (Dry Weight)						
Dibenzofuran	µg/kg	--	--	--	--	540
Hexachlorobutadiene	µg/kg	--	--	--	--	11
N-Nitrosodiphenylamine (as Diphenylamine)	µg/kg	--	--	--	--	28
Benzoic Acid	µg/kg	--	--	--	--	650
Benzyl Alcohol	µg/kg	--	--	--	--	57
Polychlorinated Biphenyls (PCBs) (OC Normalized)						
Total PCBs (Aroclors or Congeners)	mg/kg OC	--	--	--	--	12

Sample Location ¹		EDP64		EDP65		Proposed Sediment Cleanup Level ²
Sample Identification		EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0	
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	
Sample Interval (dbm)		0-1 ft	2-3 ft	0-1 ft	2-3 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	
Polychlorinated Biphenyls (PCBs) (Dry Weight)						
Total PCBs (Aroclors or Congeners)	µg/kg	--	--	--	--	130
Chlorinated Phenols and Guaiacols						
2,3,4,6-Tetrachlorophenol	µg/kg	--	--	--	--	NE
2,4,5-Trichlorophenol	µg/kg	--	--	--	--	NE
2,4,6-Trichlorophenol	µg/kg	--	--	--	--	NE
2,4-Dichlorophenol	µg/kg	--	--	--	--	NE
Guaiacol (2-Methoxyphenol)	µg/kg	--	--	--	--	NE
Tetrachloroguaiacol	µg/kg	--	--	--	--	NE
3,4,5-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	NE
3,4,6-Trichloroguaiacol (Ac)	µg/kg	--	--	--	--	NE
4,5,6 Trichloroguaiacol	µg/kg	--	--	--	--	NE
Resin Acids						
Linolenic Acid	µg/kg	--	--	--	--	NE
Pimaric Acid	µg/kg	--	--	--	--	NE
Sandaracopimaric Acid	µg/kg	--	--	--	--	NE
Isopimaric Acid	µg/kg	--	--	--	--	NE
Dehydroabietic Acid	µg/kg	--	--	--	--	NE
Palustric Acid	µg/kg	--	--	--	--	NE
Abietic Acid	µg/kg	--	--	--	--	NE
Neoabietic Acid	µg/kg	--	--	--	--	NE
9,10-Dichlorostearic acid	µg/kg	--	--	--	--	NE
12-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	NE
14-Chlorodehydroabietic Acid	µg/kg	--	--	--	--	NE
Dichlorodehydroabietic Acid	µg/kg	--	--	--	--	NE
Pesticides						
4,4'-DDD	µg/kg	--	--	--	--	NE
4,4'-DDE	µg/kg	--	--	--	--	NE
4,4'-DDT	µg/kg	--	--	--	--	NE
Total DDT (4,4 isomers)	µg/kg	--	--	--	--	NE
Aldrin	µg/kg	--	--	--	--	NE
Alpha-Chlordane (cis)	µg/kg	--	--	--	--	NE
Beta or Gamma-Chlordane (trans)	µg/kg	--	--	--	--	NE
Chlordane (Total)	µg/kg	--	--	--	--	NE
Dieldrin	µg/kg	--	--	--	--	NE
Heptachlor	µg/kg	--	--	--	--	NE
Herbicides						
2,4,5-T	µg/kg	--	--	--	--	NE
2,4-D	µg/kg	--	--	--	--	NE
2,4-DB	µg/kg	--	--	--	--	NE
Dalapon (DPA)	µg/kg	--	--	--	--	NE

Sample Location ¹		EDP64		EDP65		Proposed Sediment Cleanup Level ²
Sample Identification		EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0	
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	
Sample Interval (dbm)		0-1 ft	2-3 ft	0-1 ft	2-3 ft	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	
Dicamba	µg/kg	--	--	--	--	NE
Dichlorprop	µg/kg	--	--	--	--	NE
Silvex (Fenoprop or 2,4,5-TP)	µg/kg	--	--	--	--	NE
Bioassay Tests⁷						
10-Day Amphipod Mortality Test (acute toxicity)	n/a	--	--	--	--	NE
20-Day Juvenile Infaunal Growth Test (chronic toxicity)	n/a	--	--	--	--	NE
Larval Development Test (acute toxicity)	n/a	--	--	--	--	NE

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) area presented in Table 4. The organic carbon normalized screening levels are applicable to sediment with a total organic carbon (TOC) concentration ranging from 0.5 to 3.5 percent. Results for sediment samples with TOC concentrations outside of the 0.5 to 3.5 percent range are screened against the dry weight screening levels (EPA, 1988).

³ Visual wood content values of <1 indicate that wood debris was not identified in the sample.

⁴ Total LPAH represents the sum of the detected concentrations of the following LPAH compounds: acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported. The result for 2-Methylnaphthalene is not included in the LPAH sum.

⁵ Total HPAH represents the sum of the detected concentrations of the following HPAH compounds: benz[a]anthracene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-c,d]pyrene, pyrene, and total benzofluoranthenes. When all compounds are undetected, only the single highest individual chemical quantitation limit is reported.

⁶ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁷ See Table H-3 through H-5 for a summary of bioassay test results.

⁸ Sediment sample collected from the Z-Layer during the 2015 Pacific Terminal Dredged Material Characterization (GeoEngineers, 2016) and is representative of current surface sediment conditions following completion of the 2016/2017 Interim Action.

⁹ The polychlorinated phenols (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

¹⁰ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

µg/L = microgram per liter

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/L = milligram per liter

mg-N/kg = milligrams of nitrogen per kilogram

mg-N/L = milligrams of nitrogen per liter

n/a = not applicable

NE = not established

U = The analyte was not detected at a concentration greater than the value identified.

mg/kg = milligram per kilogram

mg/kg OC = milligram per kilogram normalized to organic carbon

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) or the organic carbon normalized value calculated from the PQL exceeds the preliminary cleanup level.

Grey text indicates that the shaded value is not compared to the preliminary cleanup level because the preliminary cleanup level is not appropriate based on the TOC concentration in the sample (see Note 2).

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C	Proposed Sediment Cleanup Level ²		
Sample Identification	13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037	Intertidal Sediment (above -3 ft MLLW)		Subtidal Sediment (below -3 ft MLLW)
Sample Date	5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007			
Sample Interval (dbm)	5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft			
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	--	--	--	--	--	--	--	--	--	--	12	12	
Cadmium	mg/kg	--	--	--	--	--	--	--	--	--	--	0.80	0.80	
Chromium (as Chromium III)	mg/kg	--	--	--	--	--	--	--	--	--	--	25,000	400,000	
Copper	mg/kg	--	--	--	--	--	--	--	--	--	--	8,000	90,000	
Lead	mg/kg	--	--	--	--	--	--	--	--	--	--	21	21	
Mercury	mg/kg	--	--	--	--	--	--	--	--	--	--	0.20	0.20	
Silver	mg/kg	--	--	--	--	--	--	--	--	--	--	200	4,000	
Zinc	mg/kg	--	--	--	--	--	--	--	--	--	--	60,000	700,000	
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	73	73	
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	0.15	0.15	
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	1.1	0.15	3.0	--	0.32 J	--	13	0.2	0.33	--	--	320	4,500
Acenaphthene	mg/kg	2.4 J	0.13	5.4	--	0.28	--	22	0.15	0.35	--	--	4,800	67,000
Acenaphthylene	mg/kg	0.088	0.17	0.079	--	0.19	--	0.29	0.048	0.043	--	--	4,800	67,300
Anthracene	mg/kg	1.0	0.049	2.5	--	0.17	--	11	0.038	0.071	--	--	24,000	340,000
Fluorene	mg/kg	1.5	0.12	6.0	--	0.26	--	17	0.11	0.19	--	--	3,200	40,000
Naphthalene	mg/kg	3.5	1.4	4.1	--	3.4	--	43	2.7	2.2	--	--	1,600	22,000
Phenanthrene	mg/kg	3.3	0.33	17	--	0.76 J	--	44	0.25	0.31	--	--	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.87	0.024 U	0.77	--	0.037 J	--	8.6	0.014	0.051	--	--	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.56	0.024 U	0.26	--	0.028 U	--	3.9	0.011	0.038	--	--	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	1.17	0.024 U	0.65	--	0.028 U	--	8.8	0.04	0.089	--	--	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.15 J	0.024 U	0.14	--	0.028 U	--	1.4	0.0096 U	0.021	--	--	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	1.1	0.024 U	0.8	--	0.048 J	--	8.6	0.034	0.074	--	--	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.062	0.024 U	0.043	--	0.028 U	--	0.39	0.0096 U	0.0062 U	--	--	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	3.0	0.58	7.6	--	0.93	--	36	0.33	0.22	--	--	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.18	0.024 U	0.12	--	0.028 U	--	1.5	0.0096 U	0.022	--	--	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	1.7	0.068	4.2	--	0.43	--	21	0.17	0.15	--	--	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.799	0 U	0.426	--	0.0042	--	5.915	0.0167	0.0549	--	--	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.799	0.018 U	0.426	--	0.0238	--	5.915	0.0177	0.0553	--	--	0.056	0.056

Sample Location ¹	ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C	Proposed Sediment Cleanup Level ²		
Sample Identification	13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007			
Sample Interval (dbm)	5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft			
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0061 U	0.024 U	0.0062 U	--	0.028 U	--	0.0074 J	0.0096 U	0.0062 U	--	--	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0061 U	0.024 U	0.0062 U	--	0.028 U	--	0.0061 U	0.0096 U	0.0062 U	--	--	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0061 U	0.024 U	0.0062 U	--	0.028 U	--	0.0061 U	0.0096 U	0.0062 U	--	--	200	474
Hexachlorobenzene	mg/kg	0.0061 U	0.024 U	0.0062 U	--	0.028 U	--	0.014 J	0.0096 U	0.0062 U	--	--	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.01 U	0.036 J	0.0099 U	--	0.037 J	--	0.037 J	0.022 U	0.018 U	--	--	24	60
Butyl Benzyl Phthalate	mg/kg	0.0061 U	0.39	0.0062 U	--	0.65	--	0.0061	0.058 J	0.0062 U	--	--	180	460
Dibutyl Phthalate	mg/kg	0.0061 U	0.09 J	0.52 J	--	0.27 J	--	0.11 J	0.045 U	0.0086 U	--	--	6,000	90,000
Diethyl Phthalate	mg/kg	0.0067 U	0.024 U	0.0062 U	--	0.028 U	--	0.012 U	0.0096 U	0.0086 U	--	--	49,000	700,000
Dimethyl Phthalate	mg/kg	0.0061 U	0.024 U	0.0062 U	--	0.028 U	--	0.0061 U	0.0096 U	0.0062 U	--	--	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.0067	0.024 U	0.0062 U	--	0.028 U	--	0.0061 U	0.0096 U	0.0062 U	--	--	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.17 J	0.034	0.042 J	--	0.11	--	0.8	0.25	0.24	--	--	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.18	0.044	0.023	--	0.062	--	0.12	0.29	0.24	--	--	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.47	2.6	0.3	--	3.7	--	0.48	2.6	0.83	--	--	6,000	90,000
Pentachlorophenol	mg/kg	0.03 U	0.12 U	0.031 U	--	0.14 U	--	0.031 U	0.048 U	0.031 U	--	--	0.55	1.4
Phenol	mg/kg	0.015 U	0.15 J	0.031 U	--	0.085 J	--	0.26 J	0.062 J	0.037 J	--	--	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	1.1	0.17	4.8	--	0.24	--	13	0.41	0.24	--	--	170	2,000
Hexachlorobutadiene	mg/kg	0.0061 U	0.024 U	0.0062 U	--	0.028 U	--	0.0086 J	0.0096 U	0.0062 U	--	--	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	--	0.024 U	0.071 U	--	0.028 U	--	--	0.0096 U	0.0062 U	--	--	70	180
Benzoic Acid	mg/kg	0.061 U	0.6 J	0.062 U	--	0.53 J	--	0.68 J	0.11 J	0.069 J	--	--	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.03 U	0.12 U	0.51 J	--	0.14 U	--	0.17 J	0.082 J	0.031 U	--	--	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	--	--	--	--	--	--	--	--	--	--	--	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	--	0.967	--	5.85	--	--	--	2.72	18.6	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	105	--	25.2	--	--	--	50.2	87.4	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	1.57 J	--	11.9	--	--	--	5.22	46.4	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	3.01	--	10.6	--	--	--	7.31	37	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	3.51	--	12.9	--	--	--	8.76	33.3	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	2.57	--	20.8	--	--	--	13.6	64.8	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	4.29	--	6.89	--	--	--	10.2	23.6	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	5.85	--	23.6	--	--	--	33.1	79	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	2.49	--	7.59	--	--	--	5.34	22.8	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	3.21	--	19.5	--	--	--	17.8	63.8	NE	NE

Sample Location ¹		ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C	Proposed Sediment Cleanup Level ²	
Sample Identification		13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037	Proposed Sediment Cleanup Level ²	
Sample Date		5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007	Proposed Sediment Cleanup Level ²	
Sample Interval (dbm)		5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft	Proposed Sediment Cleanup Level ²	
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Proposed Sediment Cleanup Level ²	
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Proposed Sediment Cleanup Level ²	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Proposed Sediment Cleanup Level ²	
		Intertidal Sediment (above -3 ft MLLW)		Subtidal Sediment (below -3 ft MLLW)										
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	0.781 J	--	2.58	--	--	--	3.57	7.36	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	2.75	--	8.78	--	--	--	6.2	25.9	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	91.8	--	153	--	--	--	799	500	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	43.8	--	16.7	--	--	--	58.5	74	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	1.74 J	--	2.48 J	--	--	--	3.42	8.95	NE	NE
OCDD	ng/Kg	--	--	--	552	--	138	--	--	--	8,930	592	NE	NE
OCDF	ng/Kg	--	--	--	68.3	--	5.59	--	--	--	103	61.3	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	17.9 J	--	35.2 J	--	--	--	36.1	120	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	17.9 J	--	35.2 J	--	--	--	36.1	120	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37	Proposed Sediment Cleanup Level ²		
Sample Identification	13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007			
Sample Interval (dbm)	9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm			
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	--	--	--	7 U	7 U	9 U	10	10	10	40 J	10 U	12	12
Cadmium	mg/kg	--	--	--	0.3 U	0.3 U	0.7	0.7	0.8	0.8	1.5	0.6	0.80	0.80
Chromium (as Chromium III)	mg/kg	--	--	--	32.7	33.3	42.2	51	44	39	49	29	25,000	400,000
Copper	mg/kg	--	--	--	23.1	22.1	44.3	47.3	46.8	41.3	104	30.3	8,000	90,000
Lead	mg/kg	--	--	--	9.0	9.0	21	16	17	19	55	13	21	21
Mercury	mg/kg	--	--	--	0.06 J	0.05 U	0.09 J	0.1 J	0.15 J	0.14 J	--	0.08 J	0.20	0.20
Silver	mg/kg	--	--	--	0.4 U	0.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	200	4,000
Zinc	mg/kg	--	--	--	56	50	163	94	98	106	341 J	76	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.13	0.21	0.21	0.02 U	0.02 U	0.035	0.02 U	0.022	0.043	0.29	0.036	320	4,500
Acenaphthene	mg/kg	0.15	0.26 J	0.34	0.02	0.02 U	0.073	0.026	0.057	0.1	0.57 J	0.074	4,800	67,000
Acenaphthylene	mg/kg	0.052	0.056	0.067	0.02 U	0.02 U	0.028	0.02 U	0.02	0.02	0.034	0.026	4,800	67,300
Anthracene	mg/kg	0.083	0.11	0.27	0.034	0.028	0.12	0.043	0.078	0.084	0.29	0.1	24,000	340,000
Fluorene	mg/kg	0.13	0.24	0.36	0.02 U	0.02 U	0.073	0.024	0.048	0.081	0.5	0.061	3,200	40,000
Naphthalene	mg/kg	1.1	1.4	0.85	0.029	0.02 U	0.078	0.037	0.058	0.1	0.63	0.1	1,600	22,000
Phenanthrene	mg/kg	0.31	0.46	0.85	0.11	0.076	0.31	0.11	0.21	0.3	1.7	0.26	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.077	0.12 J	0.35	0.077	0.047 J	0.22 J	0.095	0.17 J	0.19 J	0.49	0.18 J	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.064	0.12 J	0.37	0.065	0.043	0.17 J	0.077	0.14	0.16	0.44	0.16	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.13	0.25	0.65	0.1	0.141	0.41	0.198	0.35	0.39	0.97	0.41	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.033	0.059	0.23	0.027	0.02 U	0.091	0.023	0.084	0.091	0.13 J	0.091	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.12	0.19 J	0.56	0.12	0.088	0.36 J	0.16 J	0.28 J	0.33 J	0.74	0.34 J	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.0098	0.015 J	0.041	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.027	0.02 U	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.21	0.23	1.2	0.33 J	0.17 J	0.84	0.32	0.51	0.81	2.4	0.69	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.037	0.057	0.2	0.027	0.02 U	0.078	0.031	0.079	0.074	0.13	0.081	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.19	0.15 J	0.88	0.19	0.13	0.57	0.25 J	0.28 J	0.38 J	1.1 J	0.32 J	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.091	0.166	0.500	0.091	0.059	0.244	0.111	0.203	0.229	0.609	0.231	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.091	0.166	0.500	0.092	0.061	0.245	0.112	0.204	0.230	0.609	0.232	0.056	0.056

Sample Location ¹	ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37	Proposed Sediment Cleanup Level ²		
Sample Identification	13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007			
Sample Interval (dbm)	9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm			
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0061 U	0.0062 U	0.0062 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0061 U	0.0062 U	0.0062 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0061 U	0.0062 U	0.0062 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	200	474
Hexachlorobenzene	mg/kg	0.0061 U	0.0062 U	0.0062 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.026 U	0.012 U	0.03 U	0.044 J	0.02 U	0.048 J	0.03 J	0.036 J	0.038 J	0.13	0.033 J	24	60
Butyl Benzyl Phthalate	mg/kg	0.18	0.0099 J	0.14	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	180	460
Dibutyl Phthalate	mg/kg	0.0073 U	0.048 U	0.063 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.068 NJ	0.02 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.017 U	0.0074 U	0.0062 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.0061 U	0.0062 U	0.0062 U	0.02 U	0.065 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.0061 U	0.0062 U	0.0074	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.095	0.087	0.048	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.2	0.17	0.011	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	1.1	1.2	0.55	0.024	0.02 U	0.041	0.02 U	0.026	0.042	0.54	0.091	6,000	90,000
Pentachlorophenol	mg/kg	0.33	0.031 U	0.031 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.099 U	0.099 U	0.55	1.4
Phenol	mg/kg	0.09 J	0.033 J	0.045 J	0.02 U	0.02 U	0.022	0.02 U	0.02 U	0.023	0.02 U	0.025	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.3	0.25	0.24	0.02 U	0.02 U	0.062	0.025	0.047	0.081	0.46	0.062	170	2,000
Hexachlorobutadiene	mg/kg	0.0061 U	0.0062 U	0.0062 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0061 U	0.0062 U	0.0062 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	70	180
Benzoic Acid	mg/kg	0.061 U	0.062 U	0.064 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.17 J	0.088 J	0.048 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	--	--	--	0.016 U	0.012	0.057	0.033 U	0.017 U	0.067	5.2	0.062	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE

Sample Location ¹		ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37	Proposed Sediment Cleanup Level ²	
Sample Identification		13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007		
Sample Interval (dbm)		9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm		
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
OCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
OCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-39		ST-42	ST-43	SP-151		A1-15			A1-18		Proposed Sediment Cleanup Level ²		
Sample Identification	13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008			
Sample Interval (dbm)	0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft			
Sample Type	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	9 U	10	6 U	--	5.95	6.02	7 U	6 U	7 U	8 U	11	12	12
Cadmium	mg/kg	0.6	2.1	0.2 U	--	0.34	0.3	0.4	0.2 U	0.3 U	0.6	0.5	0.80	0.80
Chromium (as Chromium III)	mg/kg	34.2	60	22.8	--	26.8	28.3	33.6	26.6	50.8	31	41.7	25,000	400,000
Copper	mg/kg	28.2	84.3	12.4	--	26.6	19.6	28.8	15.6	17.9	28.9	47	8,000	90,000
Lead	mg/kg	13	55	3.0	--	9.99	8.95	10	2 U	3 U	11	11	21	21
Mercury	mg/kg	0.11 J	--	0.05 U	--	0.05	0.079	0.1	0.06 U	0.06 U	0.09	0.12	0.20	0.20
Silver	mg/kg	0.6 U	0.8 U	0.4 U	--	0.1 U	0.1 U	0.4 U	0.4 U	0.4 U	0.5 U	0.4 U	200	4,000
Zinc	mg/kg	67	127	34	--	62.6	52.5	53 J	35	40	56 J	67	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	3.8 U	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.023	0.16	0.02 U	8.7	0.118	0.066	0.019 J	0.019 U	0.02 U	0.018 J	0.054	320	4,500
Acenaphthene	mg/kg	0.044	0.18	0.02 U	15	0.08	0.073	0.022	0.019 U	0.02 U	0.018 J	0.017 J	4,800	67,000
Acenaphthylene	mg/kg	0.02 U	0.044	0.02 U	0.21	0.079	0.067	0.021	0.019 U	0.02 U	0.017 J	0.022	4,800	67,300
Anthracene	mg/kg	0.075	0.21	0.02 U	410	0.119	0.103	0.042	0.019 U	0.02 U	0.031	0.022	24,000	340,000
Fluorene	mg/kg	0.044	0.24	0.02 U	52	0.091	0.085	0.028	0.019 U	0.02 U	0.024	0.02	3,200	40,000
Naphthalene	mg/kg	0.084	0.57	0.027	14	0.855	0.469 J	0.08	0.019 U	0.02 U	0.088	0.2	1,600	22,000
Phenanthrene	mg/kg	0.15	0.51	0.04	90	0.267	0.293	0.11	0.019 U	0.02 U	0.085	0.071	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.14 J	0.18	0.03 J	11	0.077	0.085	0.053	0.019 U	0.02 U	0.039	0.035	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.12	0.15	0.022	1.9	0.067	0.099	0.053	0.019 U	0.02 U	0.027	0.041	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.28	0.43	0.062	4.7	0.084	0.106	0.02 U	0.117	0.019 U	0.053	0.072	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.071	0.031	0.02 U	0.36	0.044	0.078	0.027	0.019 U	0.02 U	0.027	0.038 U	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.24 J	0.32	0.043 J	17	0.113	0.223	0.072	0.019 U	0.02 U	0.052	0.042	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.02 U	0.02 U	0.02 U	0.17	0.0096	0.016	0.02 U	0.019 U	0.02 U	0.012 J	0.02 U	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.44	0.84	0.11	76	0.347	0.368	0.17	0.011 J	0.02 U	0.13	0.084	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	0.031	0.02 U	0.48	0.044	0.082	0.023	0.019 U	0.02 U	0.021	0.034	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.23	0.45	0.07	36	0.353	0.365	0.18	0.03	0.02 U	0.12	0.1	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.167	0.217	0.029	3.705	0.093	0.135	0.073	0 U	0 U	0.042	0.056	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.168	0.218	0.032	3.705	0.093	0.135	0.074	0.014 U	0.015 U	0.042	0.057	0.056	0.056

Sample Location ¹	ST-39		ST-42	ST-43	SP-151		A1-15			A1-18		Proposed Sediment Cleanup Level ²		
Sample Identification	13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008			
Sample Interval (dbm)	0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft			
Sample Type	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.02 U	0.02 U	0.02 U	0.0062 U	0.0085 U	0.0086 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.02 U	0.02 U	0.02 U	0.096	0.0085 U	0.0086 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.02 U	0.02 U	0.02 U	0.02	0.0085 U	0.0086 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	200	474
Hexachlorobenzene	mg/kg	0.02 U	0.02 U	0.02 U	0.0062 U	0.00048 U	0.0005 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.034 J	0.088	0.02 U	0.11 J	0.017 U	0.023 U	0.011 J	0.019 U	0.02 U	0.014 J	0.011 J	24	60
Butyl Benzyl Phthalate	mg/kg	0.02 U	0.02 U	0.02 U	0.29	0.017 U	0.017 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	180	460
Dibutyl Phthalate	mg/kg	0.02 U	0.047 NJ	0.02 U	0.21 J	0.034 U	0.034 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.02 U	0.02 U	0.02 U	0.0099 U	0.017 U	0.034 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.02 U	0.02 U	0.02 U	0.0062 U	0.017 U	0.017 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.02 U	0.02 U	0.02 U	0.0062 U	0.017 U	0.017 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.02 U	0.02	0.02 U	0.41	0.034 J	0.017 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.02 U	0.02 U	0.02 U	0.12	0.0085 U	0.0086 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.046	0.53	0.02 U	0.92	0.133	0.115	0.068	0.019 U	0.02 U	0.05	0.031	6,000	90,000
Pentachlorophenol	mg/kg	0.1 U	0.1 U	0.099 U	0.031 U	0.034 U	0.034 U	0.098 U	0.097 U	0.098 U	0.096 U	0.099 U	0.55	1.4
Phenol	mg/kg	0.02 U	0.025	0.02 U	0.037 J	0.076 U	0.065 U	0.04	0.019 U	0.02 U	0.057	0.015 J	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.037	0.18	0.02 U	17	0.142 J	0.133 J	0.024	0.019 U	0.02 U	0.02	0.013 J	170	2,000
Hexachlorobutadiene	mg/kg	0.02 U	0.02 U	0.02 U	0.0062 U	0.0085 U	0.0086 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.02 U	0.02 U	0.02 U	1 U	0.017 U	0.017 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	70	180
Benzoic Acid	mg/kg	0.2 U	0.2 U	0.2 U	0.086 J	0.262 U	0.671 J	0.2 U	0.19 U	0.2 U	0.19 U	0.2 U	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.02 U	0.02 U	0.02 U	0.035 J	0.085 U	0.086 U	0.02 U	0.019 U	0.02 U	0.019 U	0.02 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.016 U	0.131	0.016 U	--	0.0096 U	0.0099 U	0.02 U	0.02 U	0.02 U	0.027	0.02 U	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	--	--	--	--	--	--	--	0.35 J	--	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	--	--	--	--	--	--	9.04	--	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	--	--	--	--	--	--	0.9 J	--	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	--	--	0.61 J	--	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	--	--	1.11 J	--	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	1.09 J	--	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	1.19 J	--	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	4.41	--	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	0.64 J	--	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	3.07 J	--	NE	NE

Sample Location ¹		ST-39		ST-42	ST-43	SP-151		A1-15			A1-18		Proposed Sediment Cleanup Level ²	
Sample Identification		13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008		
Sample Interval (dbm)		0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft		
Sample Type		Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	0.08 J	--	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	0.69 J	--	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	--	--	--	--	--	--	56.2	--	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	--	--	--	--	--	--	12.7	--	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	--	--	--	--	--	--	0.73 J	--	NE	NE
OCDD	ng/Kg	--	--	--	--	--	--	--	--	--	422	--	NE	NE
OCDF	ng/Kg	--	--	--	--	--	--	--	--	--	25.3	--	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	--	--	--	--	--	--	4.45 J	--	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	--	--	--	4.45 J	--	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		A1-18	A1-23	A1-24		A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	Proposed Sediment Cleanup Level ²		
Sample Identification		A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0		
Sample Date		8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015		
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft		
Sample Type		Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ⁷		
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Metals														
Arsenic	mg/kg	9.0	9 U	50	10	22	6 U	5.77	7.92	5.89	3.7	4.39 J	12	12
Cadmium	mg/kg	0.3	0.8	1.5	2.0	1.8	0.3 U	0.281	0.681	0.281	0.20	0.3	0.80	0.80
Chromium (as Chromium III)	mg/kg	36.7	43	46	53	47.4	28.1	27.5	41.5	30.4	--	26.3	25,000	400,000
Copper	mg/kg	36.1	38.2	137	81.3	82	12	1,040	32.8	26	--	8.7	8,000	90,000
Lead	mg/kg	8.0	15	47	55	50	4.0	27	14.4	10.9	--	2.15 J	21	21
Mercury	mg/kg	0.09	0.08	0.1	0.3	0.28	0.05 U	0.0723	0.123	0.0875	0.040	0.0116 J	0.20	0.20
Silver	mg/kg	0.4 U	0.5 U	0.7 U	0.7 U	0.5 U	0.4 U	0.1	0.174	0.089	--	0.4 U	200	4,000
Zinc	mg/kg	57	76 J	415 J	122	159	39	41	65.6	76.6	--	30	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	3.5 U	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.0099 J	0.018 J	0.062	0.11	0.24	0.019 U	0.059	0.038	0.095	--	0.0048 U	320	4,500
Acenaphthene	mg/kg	0.019 U	0.023	0.12	0.12	0.25	0.019 U	0.035	0.036	0.089	--	0.0048 U	4,800	67,000
Acenaphthylene	mg/kg	0.016 J	0.014 J	0.028	0.02	0.036	0.019 U	0.026	0.027	0.066	--	0.0048 U	4,800	67,300
Anthracene	mg/kg	0.016 J	0.035	0.11	0.12	0.25	0.019 U	0.044	0.049	0.15	--	0.0048 U	24,000	340,000
Fluorene	mg/kg	0.019 U	0.027	0.094	0.15	0.36	0.019 U	0.037	0.037	0.11	--	0.0048 U	3,200	40,000
Naphthalene	mg/kg	0.038	0.084	0.14	0.27	0.51	0.019 U	0.15	0.23	0.56	--	0.0048 U	1,600	22,000
Phenanthrene	mg/kg	0.05	0.094	0.32	0.3	0.62	0.019 U	0.13	0.13	0.38	--	0.0024 J	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.026	0.069	0.21	0.077	0.082	0.019 U	0.043	0.042	0.12	0.0181	0.0048 U	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.033	0.059	0.18	0.088	0.097	0.019 U	0.039	0.034	0.096	0.0153	0.0048 U	See cPAH TEQ	See cPAH TEQ
Benzo(a)fluoranthene ³ (Total)	mg/kg	0.074	0.133	0.22	0.4	0.21	0.019 U	0.051	0.051	0.14	0.0165	0.0048 U	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.026 U	0.038	0.095	0.032 U	0.041 U	0.019 U	0.017 J	0.016 J	0.036 J	--	0.0048 U	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.037	0.11	0.31	0.16	0.16	0.019 U	0.065	0.057	0.16	0.0241	0.0048 U	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.019 U	0.012 J	0.044	0.01 J	0.019 U	0.019 U	0.034 UJ	0.036 UJ	0.0098 J	0.00213	0.0048 U	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.072	0.13	0.45	0.27	0.39	0.019 U	0.14	0.16	0.44	--	0.0048 U	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.019 J	0.033	0.092	0.032	0.033	0.019 U	0.025	0.026	0.05	0.00933	0.0048 U	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.084	0.12	0.42	0.13	0.2	0.019 U	0.18	0.19	0.49	--	0.0048 U	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.043	0.085	0.258	0.123	0.132	0 U	0.054	0.049	0.135	0.0208	0 U	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.044	0.085	0.258	0.123	0.133	0.014 U	0.055	0.050	0.135	0.0208	0.003 U	0.056	0.056

Sample Location ¹	A1-18	A1-23	A1-24			A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	Proposed Sediment Cleanup Level ²		
Sample Identification	A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015			
Sample Interval (dbm)	3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft			
Sample Type	Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ⁷			
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.034 U	0.036 U	0.046 U	--	0.0048 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.067 U	0.073 U	0.091 U	--	0.0048 U	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.067 U	0.073 U	0.091 U	--	0.0048 U	200	474
Hexachlorobenzene	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.017 U	0.018 U	0.023 U	--	0.00098 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.019 U	0.031	0.2 J	0.022	0.019 U	0.024	0.034 U	0.036 U	0.046 U	--	0.048 U	24	60
Butyl Benzyl Phthalate	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.034 U	0.016 J	0.046 U	--	0.0048 U	180	460
Dibutyl Phthalate	mg/kg	0.019 U	0.02 U	0.02 U	0.041	0.047	0.019 U	0.032 UJ	0.043 UJ	0.023 U	--	0.019 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.017 U	0.018 U	0.023 U	--	0.019 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.017 U	0.018 U	0.023 U	--	0.019 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.034 UJ	0.036 UJ	0.046 UJ	--	0.019 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.019 U	0.02 U	0.02 U	0.023	0.03	0.019 U	0.17 U	0.18 U	0.23 U	--	0.024 U	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.019 U	0.02 U	0.02 U	0.02	0.034	0.019 U	0.17 U	0.18 U	0.23 U	--	0.019 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.019 U	0.045	0.087	0.87	0.89	0.019 U	0.063 J	0.081 J	0.24	--	0.019 U	6,000	90,000
Pentachlorophenol	mg/kg	0.097 U	0.098 U	0.097 U	0.097 U	0.097 U	0.097 U	0.17 UJ	0.18 UJ	0.23 UJ	--	0.096 U	0.55	1.4
Phenol	mg/kg	0.019 U	0.019 J	0.048	0.021	0.024	0.019 U	0.067 U	0.073 J	0.043 J	--	0.019 U	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.019 U	0.026	0.096	0.11	0.22	0.019 U	0.032 J	0.037	0.12	--	0.0048 U	170	2,000
Hexachlorobutadiene	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.067 U	0.073 U	0.091 U	--	0.00098 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.034 U	0.036 U	0.046 U	--	0.0048 U	70	180
Benzoic Acid	mg/kg	0.19 U	0.2 U	0.2 U	0.19 U	0.19 U	0.19 U	0.17 UJ	--	--	--	0.19 U	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.17 U	0.18 U	0.23 U	--	0.019 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.02 U	0.02 U	0.076	0.033	0.021	0.019 U	0.0047	0.015	0.019	--	0.0000158 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	0 U	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	0.07 U	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	1.4	1.34	--	0.04 U	0.14 UJ	0.111 UJ	0.159 UJ	0.198 U	0.991 U	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	27.1	332	--	0.06 U	1.51	1.07	4.81	2.35	0.991 U	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	3.83 J	3.09 J	--	0.11 U	0.258 J	0.174 J	0.316 J	0.41 J	0.991 U	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	3.52 J	6.44	--	0.08 U	0.221 J	0.139 J	0.235 UJ	0.275 U	0.0416 U	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	4.83	8.04	--	0.08 U	0.348 J	0.188 J	0.4 J	0.466 J	0.991 U	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	4.1 J	3.89 J	--	0.16 U	0.25 J	0.14 UJ	0.477 J	0.422 U	0.0894 J	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	5.27	16.5	--	0.08 U	0.245 J	0.137 NJ	0.274 J	0.407 J	0.0614 U	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	12.5	16.6	--	0.15 U	0.753 J	0.403 J	0.893 J	1.32 U	0.123 U	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	2.97 J	5.69	--	0.1 U	0.207 J	0.11 J	0.257 J	0.332 J	0.0396 U	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	10	10	--	0.14 U	0.487 J	0.225 J	0.686 J	1.27	0.165 U	NE	NE

Sample Location ¹		A1-18	A1-23	A1-24		A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	Proposed Sediment Cleanup Level ²		
Sample Identification		A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015		
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft		
Sample Type		Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ⁷		
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	0.64 J	0.83 J	--	0.08 U	0.117 J	0.0785 UJ	0.192 UJ	0.0665 U	0.991 U	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	2.71 J	5.02	--	0.1 U	0.239 J	0.162 NJ	0.29 J	0.333 J	0.0496 U	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	239	267	--	3.3 J	12.4	6.51	12.2	16.1	2.02 U	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	25.8	94.4	--	0.41 J	2.79	2.44 J	3.18	3.48	0.268 U	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	3.41 J	9.86	--	0.07 U	0.233 J	0.114 J	0.197 UJ	0.253 U	0.200 U	NE	NE
OCDD	ng/Kg	--	--	1,960	2,170	--	23.6	78.3	39.6	84.3	129	20.6 U	NE	NE
OCDF	ng/Kg	--	--	54.9	193	--	1.06 J	5.45	4.38 J	5.03	6.52	1.50 J	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	16.6 J	50.5 J	--	0.044 J	0.929 J	0.549 J	1.39 J	1.26 J	0.009 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	16.6 J	50.5 J	--	0.18 J	1.43 J	1.28 J	2.06 J	1.52 J	0.093 J	5.0	5.0

- Notes:
- Sample locations shown in Figures 10 through 12.
 - Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.
 - Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.
 - Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).
 - Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).
 - Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).
 - Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.
 - The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.
 - The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.
- = not analyzed
cm = centimeter
dbm = depth below mudline
ft = feet
J = The analyte was detected and the detected concentration is considered an estimate.
mg/kg = milligram per kilogram
ng/kg = nanogram per kilogram
RL = Reporting limit
U = The analyte was not detected at a concentration greater than the value identified.
Bold font type indicates the analyte was detected at the reported concentration.
Yellow shading indicates exceedance of the PCUL.
Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102	Proposed Sediment Cleanup Level ²		
Sample Identification	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18			
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm			
Sample Type	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Surface	Subsurface	Surface			
Stratigraphic Unit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	4.64 J	5.16 J	6.0	6.08 J	3.92 J	9.0	7.0	3.95 J	3.22	4.14	2.63	12	12
Cadmium	mg/kg	0.3	0.3	0.220 J	0.4	0.211 J	1.1	0.2	0.165 J	0.16	0.12	0.05 J	0.80	0.80
Chromium (as Chromium III)	mg/kg	23.5	30.1	29	28.2	24.2	47.9	22.2	18.2	25.7	25.5	25	25,000	400,000
Copper	mg/kg	7.9	10.5	10.2	12.8	7.6	44.2	6.6	5.9	15	10.6	13.6	8,000	90,000
Lead	mg/kg	1.55 J	2.20 J	2.04 J	10	1.48 J	26	1.25 J	1.12 J	5.98	1.79	6.06	21	21
Mercury	mg/kg	0.0107 J	0.0101 J	0.0079 J	0.08	0.0071 J	0.11	0.0072 J	0.0104 J	0.0195 J	0.0137 J	0.0158 J	0.20	0.20
Silver	mg/kg	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	0.5 U	0.3 U	0.131 J	0.04 J	0.04 J	0.03 J	200	4,000
Zinc	mg/kg	27	32	31	34	28	70	25	22	43.4	30.8	43.1	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	3.5 U	3.4 U	3.4 U	3.6 U	3.4 U	3.7 U	3.8 U	3.8 U	0.728 J	3.84 U	3.43 U	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.075	0.0047 U	0.18	0.0049 U	0.005 U	0.0105	0.00492 U	0.00475 U	320	4,500
Acenaphthene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.073	0.0047 U	0.21	0.0049 U	0.005 U	0.0103 J	0.00492 UJ	0.00475 U	4,800	67,000
Acenaphthylene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.053	0.0047 U	0.08	0.0049 U	0.005 U	0.00501 J	0.00492 UJ	0.00475 U	4,800	67,300
Anthracene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.1	0.0047 U	0.16	0.0049 U	0.005 U	0.0224	0.00492 U	0.00362 J	24,000	340,000
Fluorene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.089	0.0047 U	0.24	0.0049 U	0.005 U	0.0129	0.00492 U	0.00475 U	3,200	40,000
Naphthalene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.46	0.0033 J	1.1	0.005	0.0025 J	0.0195 J	0.00492 UJ	0.00318 J	1,600	22,000
Phenanthrene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.26	0.0047 U	0.65	0.0049 U	0.005 U	0.0484	0.00492 U	0.0124	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.059	0.0047 U	0.071	0.0049 U	0.005 U	0.0381	0.00492 U	0.0135	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.051	0.0047 U	0.049	0.0049 U	0.005 U	0.0420 J	0.00492 UJ	0.015	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.84	0.0047 U	0.098	0.0049 U	0.005 U	0.0974	0.00984 U	0.0295	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.038	0.0047 U	0.044	0.0049 U	0.005 U	0.0216	0.00492 U	0.0121	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.062	0.0047 U	0.098	0.0049 U	0.005 U	0.0448	0.00492 U	0.0216	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.024 U	0.0047 U	0.024 U	0.0049 U	0.005 U	0.0122 J	0.00492 UJ	0.00806	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.26	0.0047 U	0.46	0.0049 U	0.005 U	0.104	0.00492 U	0.0309	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.027	0.0047 U	0.025	0.0049 U	0.005 U	0.0231	0.00492 U	0.00986	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.24	0.0047 U	0.43	0.0049 U	0.005 U	0.0996	0.00492 U	0.0269	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0 U	0 U	0 U	0.069	0 U	0.069	0 U	0 U	0.0595	0 U	0.0213	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.003 U	0.003 U	0.003 U	0.070	0.003 U	0.071	0.003 U	0.004 U	0.0595	0.00371 U	0.0213	0.056	0.056

Sample Location ¹	PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102	Proposed Sediment Cleanup Level ²		
Sample Identification	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18			
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm			
Sample Type	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Surface	Subsurface	Surface			
Stratigraphic Unit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0049 U	0.0047 U	0.0048 U	0.0049 U	0.005 U	0.0197 U	0.0197 U	0.0190 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0049 U	0.0047 U	0.0048 U	0.0049 U	0.005 U	0.0197 U	0.0197 U	0.0190 U	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0049 U	0.0047 U	0.0048 U	0.0049 U	0.005 U	0.0197 U	0.0197 U	0.0190 U	200	474
Hexachlorobenzene	mg/kg	0.00099 U	0.00095 U	0.00096 U	0.00097 U	0.00095 U	0.00096 U	0.00098 U	0.0001 U	0.00048 U	0.00050 U	0.00048 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.049 U	0.047 U	0.047 U	0.049 U	0.047 U	0.048 U	0.049 U	0.05 U	0.0493 U	0.0493 U	0.0476 U	24	60
Butyl Benzyl Phthalate	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0049 U	0.0074	0.0088	0.0049 U	0.005 U	0.0197 U	0.0197 U	0.0190 U	180	460
Dibutyl Phthalate	mg/kg	0.02 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.0197 U	0.0197 U	0.0190 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.02 U	0.019 U	0.019 U	0.02 U	0.019 U	0.034	0.02 U	0.02 U	0.0197 U	0.0217 U	0.0190 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.02 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.0197 U	0.0197 U	0.0190 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.02 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.0197 U	0.0197 U	0.0190 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.024 U	0.024 U	0.024 U	0.024 U	0.023 U	0.024 J	0.025 U	0.025 U	0.0247 U	0.0247 U	0.0238 U	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.02 U	0.019 U	0.019 U	0.02 U	0.019 U	0.036	0.02 U	0.02 U	0.0197 U	0.0197 U	0.0190 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.02 U	0.019 U	0.019 U	0.02 U	0.092	0.18	0.02 U	0.02 U	0.0197 U	0.0197 U	0.0190 U	6,000	90,000
Pentachlorophenol	mg/kg	0.098 U	0.094 U	0.095 U	0.098 U	0.094 U	0.096 U	0.099 U	0.099 U	0.0028 J	0.0197 U	0.0190 U	0.55	1.4
Phenol	mg/kg	0.02 U	0.019 U	0.019 U	0.02 U	0.038	0.059	0.02 U	0.02 U	0.0232	0.0212	0.0145 J	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.086	0.0047 U	0.2	0.0049 U	0.005 U	0.023	0.0197 U	0.0190 U	170	2,000
Hexachlorobutadiene	mg/kg	0.00099 U	0.00095 U	0.00096 U	0.00097 U	0.00095 U	0.00096 U	0.00098 U	0.001 U	0.0197 U	0.0197 U	0.0190 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0049 U	0.0047 U	0.0048 U	0.0049 U	0.005 U	0.0197 U	0.0197 U	0.0190 U	70	180
Benzoic Acid	mg/kg	0.2 U	0.19 U	0.19 U	0.2 U	0.082 J	0.15 J	0.2 U	0.2 U	0.0718 U	0.0640 U	0.0318 J	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.02 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.0197 U	0.0197 U	0.0190 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.00000377 J	0.00000554 J	0.00000479 J	0.0000427 J	0.00000411 J	0.00024 J	0.00000371 J	0.00000136 J	0.00181 J	0.0000215 J	0.000753 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	0 U	0 U	0 U	0 U	0 U	0.00045 J	0 U	0 U	0.0035 J	0 U	0.0013 J	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	0.07 U	0.08 U	0.08 U	0.06 U	0.06 U	0.048 J	0.06 U	0.06 U	0.040 J	0.066 U	0.035 J	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	0.981 U	0.993 U	0.148 U	0.244 U	0.984 U	0.672 U	0.979 U	0.151 U	0.468 J	0.132 U	0.177 U	NE	NE
2,3,7,8-TCDF	ng/Kg	0.981 U	0.993 U	0.0592 U	1.09	0.984 U	3.44	0.979 U	0.995 U	4.88	0.150 U	1.19	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	0.108 U	0.993 U	0.284 U	0.317 U	0.0571 U	2.87	0.0627 U	0.995 U	0.959 J	0.182 U	0.252 U	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	0.0883 U	0.993 U	0.234 J	0.410 U	0.0559 J	1.83 J	0.0337 J	0.0577 U	2.30 J	0.181 U	0.295 U	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	0.0393 U	0.993 U	0.147 J	0.352 U	0.984 U	2.53	0.979 U	0.995 U	3.71 J	0.181 U	0.294 U	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	0.173 U	0.0338 U	0.353 U	0.248 J	0.0453 U	3.78	0.104 J	0.0412 J	0.629 J	0.297 U	0.390 U	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	0.0569 U	0.993 U	0.410 U	0.323 J	0.984 U	1.92 J	0.0392 U	0.995 U	2.47 J	0.221 U	0.236 U	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	0.179 U	0.993 U	0.432 J	0.281 U	0.0719 J	5.38	0.0725 U	0.0517 U	1.25 J	0.300 U	0.382 U	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	0.165 U	0.993 U	0.424 U	0.271 U	0.984 U	2.12	0.0541 J	0.995 U	2.06 J	0.222 U	0.245 U	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	0.457 U	0.0775 U	0.758 J	0.371 J	0.0943 J	4.57	0.165 U	0.995 U	0.741 J	0.288 U	0.373 U	NE	NE

Sample Location ¹		PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102	Proposed Sediment Cleanup Level ²	
Sample Identification		PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18		
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm		
Sample Type		Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Subsurface ⁷	Surface	Subsurface	Surface		
Stratigraphic Unit		Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	0.192 J	0.0397 U	0.465 U	0.269 U	0.0906 U	0.866 J	0.0995 J	0.0756 U	0.385 J	0.277 U	0.306 U	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	0.132 U	0.993 U	0.316 U	0.259 J	0.0374 U	2.58 J	0.979 U	0.995 U	1.78 J	0.242 U	0.267 U	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	2.45 U	1.21 U	2.38 U	2.10 U	0.747 U	57.3	1.08 U	0.836 U	28.6	0.513 J	6.73	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	0.475 U	0.0497 U	0.807 U	0.427 U	0.0768 U	6.01	0.180 U	0.0577 U	5.5	0.199 U	1.25 J	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	0.194 U	0.0377 U	0.465 U	0.246 U	0.984 U	1.37	0.979 U	0.995 U	0.319 U	0.241 U	0.271 U	NE	NE
OCDD	ng/Kg	23.5 U	16.2 U	20.4 U	15.6 U	7.57 U	65.8 U	10.7 U	4.89 U	230	3.91 J	42.5	NE	NE
OCDF	ng/Kg	2.01 U	0.213 U	2.56	0.547 U	0.167 U	3.83	0.749 J	1.99 U	8.19 J	0.373 U	2.60 J	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	0.019 J	0 U	0.17 J	0.23 J	0.018 J	6.8	0.027 J	0.004 J	4.44 J	0.0063 J	0.21 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	0.176 J	0.1 U	0.51 J	0.63 J	0.085 J	7.14 J	0.102 J	0.124 J	4.44 J	0.295 J	0.59 J	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-102			ST-103	ST-104				ST-105		ST-106	Proposed Sediment Cleanup Level ²		
	Sample Identification	ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12			ST-106S_0-10
Sample Date	10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18	10/24/18		
Sample Interval (dbm)	6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm			
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Metals														
Arsenic	mg/kg	5.33	5.44	4.86	3.08	3.15	2.56	2.99	3.98	3.81	3.57	3.51	12	12
Cadmium	mg/kg	0.42	0.31	0.13	0.08 J	0.05 J	0.10 J	0.2	0.21	0.19	0.05 J	0.11 J	0.80	0.80
Chromium (as Chromium III)	mg/kg	49.2	45.3	38.5	26.6	27.2	27	39.1	35.3	34.1	26.3	31.5	25,000	400,000
Copper	mg/kg	56	47.9	35	16.1	18.5	27.2	38.4	36.2	27.9	11.3	21.4	8,000	90,000
Lead	mg/kg	29.7	10.8	5.83	7.28	8.84	21.3	64.8 J	52.8	9.65	1.87	9.05	21	21
Mercury	mg/kg	0.102	0.0706	0.0443	0.0250 J	0.0189 J	0.0725	0.0843 J	0.142	0.0559	0.0126 J	0.0205 J	0.20	0.20
Silver	mg/kg	0.11 J	0.10 J	0.07 J	0.04 J	0.05 J	0.04 J	0.03 J	0.07 J	0.07 J	0.03 J	0.06 J	200	4,000
Zinc	mg/kg	71.1	61.9	51.1	45.9	50.5	35.9	59.1	51.3	56.6	32.4	51.4	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	3.44 U	3.66 U	3.84 U	3.43 U	3.58 U	3.45 U	3.63 U	3.86 U	0.820 J	3.69 U	3.72 U	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.0611	0.166	0.029	0.00607	0.00283 J	0.00705	0.0654	0.13	0.0167	0.00480 U	0.00736	320	4,500
Acenaphthene	mg/kg	0.0668	0.162	0.0336	0.00547	0.00531 J	0.00610 J	0.0578 J	0.133	0.0261 J	0.00480 UJ	0.0210 J	4,800	67,000
Acenaphthylene	mg/kg	0.0701	0.182	0.0319	0.00485 U	0.0100 J	0.00323 J	0.0279 J	0.0553	0.0123 J	0.00480 UJ	0.00524 J	4,800	67,300
Anthracene	mg/kg	0.0632	0.11	0.033	0.00651	0.0179	0.0196	0.0867	0.0958	0.055	0.00480 U	0.025	24,000	340,000
Fluorene	mg/kg	0.0805	0.178	0.0389	0.00452 J	0.00679	0.00846	0.0767	0.136	0.0316	0.00480 U	0.0178	3,200	40,000
Naphthalene	mg/kg	0.534	1.29	0.239	0.00611	0.00481 J	0.0329 J	0.273 J	0.75	0.0320 J	0.00480 UJ	0.0125 J	1,600	22,000
Phenanthrene	mg/kg	0.36	0.687	0.179	0.0256	0.0443	0.0397	0.335	0.432	0.164	0.00480 U	0.104	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.0401	0.0388	0.0197	0.0206	0.063	0.00737	0.147	0.0389	0.0965	0.00480 U	0.0709	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.0285	0.0217	0.0117	0.0213	0.0347 J	0.00598 J	0.123 J	0.026	0.0763 J	0.00480 UJ	0.0777 J	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.0612	0.0601	0.0419	0.0388	0.12	0.0153	0.196	0.079	0.142	0.00959 U	0.135	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.0246	0.0191	0.0125	0.0156	0.0167	0.00495	0.0684	0.0259	0.0474	0.00480 U	0.0575	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.0559	0.064	0.0281	0.0215	0.114	0.00882	0.165	0.0627	0.121	0.00480 U	0.0807	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.00913	0.00748	0.00160 J	0.0101	0.0107 J	0.00710 J	0.0261 J	0.0132	0.0171 J	0.00480 UJ	0.0192 J	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.284	0.466	0.133	0.0506	0.423	0.0352	0.371	0.33	0.242	0.00480 U	0.159	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.0194	0.00994	0.00777	0.0148	0.018	0.00440 J	0.0728	0.0142	0.0468	0.00480 U	0.0538	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.216	0.36	0.111	0.0403	0.254	0.028	0.331	0.26	0.224	0.00480 U	0.14	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.0420	0.0340	0.0191	0.0299	0.0570 J	0.00949 J	0.169 J	0.0416	0.108 J	0 U	0.106	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.0420	0.0340	0.0191	0.0299	0.0570 J	0.00949 J	0.169 J	0.0416	0.108 J	0.00362 U	0.106	0.056	0.056

Sample Location ¹	ST-102			ST-103	ST-104				ST-105		ST-106	Proposed Sediment Cleanup Level ²		
Sample Identification	ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18			
Sample Interval (dbm)	6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm			
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0188 U	0.0198 U	0.0199 U	0.0193 U	0.0194 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0188 U	0.0198 U	0.0199 U	0.0193 U	0.0194 U	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0188 U	0.0198 U	0.0199 U	0.0193 U	0.0194 U	200	474
Hexachlorobenzene	mg/kg	0.00050 U	0.00393 U	0.0048 U	0.00049 U	0.00048 U	0.00049 U	0.00049 U	0.0050 U	0.0050 U	0.00048 U	0.0050 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.0282 J	0.0479 U	0.0484 U	0.0485 U	0.0545	0.0480 U	0.0470 U	0.0496 U	0.0559	0.0321 J	0.463	24	60
Butyl Benzyl Phthalate	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0139 J	0.0198 U	0.0199 U	0.0193 U	0.0194 U	180	460
Dibutyl Phthalate	mg/kg	0.0192 U	0.246	0.0676 U	0.0194 U	0.0199 U	0.0192 U	0.184 J	0.0667 U	0.0199 U	0.0549	0.0194 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.0187	0.104	0.0194 U	0.0213	0.0199 U	0.0192 U	0.0188 U	0.0218	0.0199 U	0.0193 U	0.0194 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0188 U	0.0198 U	0.0199 U	0.0193 U	0.0194 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0188 U	0.0198 U	0.0199 U	0.0193 U	0.0194 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.0067 J	0.0106 J	0.0051 J	0.0242 U	0.0249 U	0.0240 U	0.0099 J	0.0211	0.0249 U	0.0241 U	0.0242 U	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.0192 U	0.0192 U	0.0106 J	0.0194 U	0.0199 U	0.0192 U	0.0188 U	0.0198 U	0.0199 U	0.0193 U	0.0194 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.275	0.0817	0.0588	0.0194 U	0.0199 U	0.0464	0.393	1.82	0.0275	0.0193 U	0.0194 U	6,000	90,000
Pentachlorophenol	mg/kg	0.0055 J	0.0042 J	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0114 J	0.0254	0.0199 U	0.0193 U	0.0194 U	0.55	1.4
Phenol	mg/kg	0.0209	0.0192 U	0.0146 J	0.0138 J	0.0111 J	0.0192 U	0.0522	0.0628	0.0291	0.0193 U	0.0134 J	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.0868	0.134	0.0717	0.0194 U	0.0108 J	0.0192 U	0.0748	0.160	0.0361	0.0193 U	0.0117 J	170	2,000
Hexachlorobutadiene	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0188 U	0.0198 U	0.0199 U	0.0193 U	0.0194 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0188 U	0.0198 U	0.0199 U	0.0193 U	0.0194 U	70	180
Benzoic Acid	mg/kg	0.0778 J	0.0835 J	0.0513 J	0.0504 J	0.0538 U	0.0960 U	0.186	0.388	0.0585 U	0.0964 U	0.0441 U	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.0192 U	0.0192 U	0.0194 U	0.0194 U	0.0199 U	0.0192 U	0.0176 J	0.0198 U	0.0199 U	0.0193 U	0.0194 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.0175 J	0.00459 J	0.000644 J	0.0014 J	0.00188	0.00707	0.0392 J	0.0278 J	0.00304 J	0.0000387 J	0.00178 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	0.29 J	0.158 J	0.00142	0.07 J	0.0037 J	0.124 J	0.879	0.563	0.17 J	0.0001	0.0036 J	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	0.31 J	0.169 J	0.0759	0.074 J	0.05 J	0.137 J	0.907	0.584	0.18 J	0.063	0.034 J	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	1.18	1.17	0.170 U	0.123 U	0.141 U	0.122 U	2.1	0.506 J	0.196 U	0.123 U	0.406 J	NE	NE
2,3,7,8-TCDF	ng/Kg	16.6	5.83	1.83	1.55	1.69	2.56	29.6	12.9	7.2	0.0972 U	4.17	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	3.07 J	3.64 J	1.47 J	0.249 U	0.340 J	0.609 J	6.35	1.11 J	0.576 J	0.243 U	0.293 U	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	3.65 J	2.62 J	0.864 J	0.256 U	0.240 U	0.704 J	19.3	2.03 J	0.506 J	0.153 U	1.00 J	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	7.11	4.15 J	1.18 J	0.244 U	0.486 J	1.09 J	30.5	3.64 J	0.850 J	0.160 U	1.21 J	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	3.50 J	5.05	2.43 J	0.362 U	0.411 J	0.809 J	6.84	1.21 J	0.763 J	0.302 U	0.390 U	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	2.88 J	2.21 J	0.463 J	0.272 U	0.292 U	0.779 J	25.7	2.26 J	0.463 J	0.215 U	0.441 J	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	6.05	6.09	2.94 J	0.541 J	1.08 J	1.08 J	9.71	2.73 J	1.76 J	0.317 U	1.06 J	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	2.93 J	2.36 UJ	0.581 J	0.269 U	0.309 U	0.744 J	23.4	1.89 J	0.430 J	0.220 U	0.408 J	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	4.09 J	5.34	2.61 J	0.354 U	0.600 J	0.793 J	7.94	1.66 J	1.14 J	0.298 U	0.614 J	NE	NE

Sample Location ¹		ST-102			ST-103	ST-104				ST-105		ST-106	Proposed Sediment Cleanup Level ²	
Sample Identification		ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18		
Sample Interval (dbm)		6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm		
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	0.873 J	0.681 J	0.232 U	0.343 U	0.378 U	0.493 J	6.22	0.566 J	0.277 U	0.273 U	0.307 U	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	3.54 J	2.11 J	0.652 J	0.292 U	0.319 U	0.806 J	21.7	2.33 J	0.575 J	0.239 U	0.467 J	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	57.4	50.8	17.3	8.81	18.6	13.6	68.5	31.2	39	0.434 J	16.5	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	20.9	17.2	1.24 J	1.39 J	2.50 J	4.09 J	60.8	15.3	5.08	0.234 U	2.63 J	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	1.15 J	1.13 J	0.285 U	0.210 U	0.331 U	0.414 J	6.13	0.781 J	0.384 U	0.293 U	0.248 U	NE	NE
OCDD	ng/Kg	249	132	19	64.1	139	77.2	201	212	297	2.42 J	113	NE	NE
OCDF	ng/Kg	29.4	19.7	0.876 J	3.52 J	6.95 J	4.05 J	26	13.8	12.3	0.319 U	6.92 J	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	11.39 J	9.84 J	3.19 J	1.75 J	1.12 J	1.97 J	32.7	5.86 J	2.61 J	0.0051 J	1.74 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	11.39 J	9.84 J	3.29 J	2.06 J	1.26 J	2.03 J	32.7	5.86 J	2.73 J	0.32 J	1.92 J	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-106			ST-107			ST-108			ST-109			Proposed Sediment Cleanup Level ²	
	Sample Identification	ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3		
Sample Date	10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	12	12
Sample Interval (dbm)	3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	3.1	3.19	3.62	5.15	3.59	3.20	15	8.26	2.8	15.2	8.10	12	12
Cadmium	mg/kg	0.16	0.18	0.24	0.43	0.16	0.10 J	0.74	1.74	0.05 J	1.14	0.570	0.80	0.80
Chromium (as Chromium III)	mg/kg	31.5	31	32.9	31.6	23.7	23.70	31.3	32.8	19.4	14.9	37.7	25,000	400,000
Copper	mg/kg	23.9	22.3	25.2	27	12.4	10.5	30.6	49.9	6.39	28.9	59.5	8,000	90,000
Lead	mg/kg	14	17.9 J	14.7	9.75	4.38	1.99	21.9	94.7	3.84 J	22	67.3	21	21
Mercury	mg/kg	0.0331	0.0450 J	0.0563	0.0326 J	0.0261 J	0.0172 J	0.0293 J	0.176	0.0117 J	0.0399 J	0.295	0.20	0.20
Silver	mg/kg	0.06 J	0.03 J	0.08 J	0.07 J	0.04 J	0.03 J	0.08 J	0.20 J	0.23 U	0.08 J	0.16 J	200	4,000
Zinc	mg/kg	55.5	57	58.5	62.4	31.2	30.4	131	904	26.9	150	99.1	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	3.62 U	2.74 J	9.19	3.49 J	3.75 U	3.81 U	5.67	33.6 U	3.80 U	6.22	3.84 U	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.00614	0.044	0.0581	0.0485	0.00563	0.00496 U	0.162	0.251	0.0114	0.359	0.337	320	4,500
Acenaphthene	mg/kg	0.00632 J	0.0372 J	0.0722	0.0812 J	0.00595 J	0.00496 UJ	0.322 J	0.454 J	0.0176 J	0.587 J	1.260 J	4,800	67,000
Acenaphthylene	mg/kg	0.00390 J	0.0160 J	0.0174	0.0228 J	0.00494 UJ	0.00496 UJ	0.0315 J	0.0175 J	0.00254 J	0.121 J	0.0716 J	4,800	67,300
Anthracene	mg/kg	0.0246	0.0613	0.0958	0.0953	0.00726	0.00496 U	0.32	0.328	0.023	0.415	1.15	24,000	340,000
Fluorene	mg/kg	0.00941	0.0427	0.0801	0.0738	0.00781	0.00496 U	0.31	0.533	0.0202	0.458	1.26	3,200	40,000
Naphthalene	mg/kg	0.00955 J	0.126 J	0.165	0.118 J	0.0152 J	0.00496 UJ	0.520 J	0.483 J	0.0241 J	1.33 J	1.40 J	1,600	22,000
Phenanthrene	mg/kg	0.059	0.16	0.225	0.228	0.0279	0.00496 U	1.00	1.82	0.0664	0.861	2.81	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.0888	0.084	0.0989	0.176	0.00328 J	0.00496 U	0.529	0.222	0.0126	0.989	0.708	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.0967 J	0.0564 J	0.0672	0.127 J	0.00253 J	0.00496 UJ	0.314 J	0.0908 J	0.00531 J	0.642 J	0.196 J	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.168	0.127	0.209	0.29	0.00648 J	0.00993 U	0.810	0.207	0.0126	1.66	0.442	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.0574	0.0334	0.0418	0.0642	0.00494 U	0.00496 U	0.136	0.0484	0.00250 J	0.229	0.103	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.102	0.121	0.183	0.271	0.00565	0.00496 U	2.45	0.282	0.0131	1.69	0.892	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.0193 J	0.0152 J	0.0167	0.0230 J	0.00494 UJ	0.00496 UJ	0.0618 J	0.0199 J	0.00652 J	0.0896 J	0.0370 J	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.131	0.155	0.302	0.46	0.0179	0.00496 U	1.73	1.39	0.0668	2.76	3.63	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.0589	0.0323	0.0389	0.0668	0.00494 U	0.00496 U	0.155	0.047	0.00247 J	0.272	0.0975	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.137	0.222	0.480	0.526	0.0169	0.00496 U	1.39	1.03	0.0527	2.06	2.36	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.131 J	0.0835 J	0.105	0.185 J	0.00356 J	0 U	0.494 J	0.143 J	0.00886 J	0.971 J	0.333 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.131 J	0.0835 J	0.105	0.185 J	0.00406 J	0.00375 UJ	0.494 J	0.143 J	0.00886 J	0.971 J	0.333 J	0.056	0.056

Sample Location ¹	ST-106			ST-107			ST-108			ST-109			Proposed Sediment Cleanup Level ²	
Sample Identification	ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18			
Sample Interval (dbm)	3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft			
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0200 U	0.0190 U	0.0196 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0200 U	0.0190 U	0.0196 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0200 U	0.0190 U	0.0196 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	200	474
Hexachlorobenzene	mg/kg	0.00048 U	0.00049 U	0.0049 U	0.0050 U	0.0050 U	0.00035 U	0.00048 U	0.00052 U	0.00047 U	0.00049 U	0.00081 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.0499 U	0.200	1.19	0.0499 U	0.0494 U	0.0498 U	0.259	0.495 U	0.0297 J	0.231	0.0500 U	24	60
Butyl Benzyl Phthalate	mg/kg	0.0200 U	0.0190 U	0.113	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	180	460
Dibutyl Phthalate	mg/kg	0.0200 U	0.226 J	0.0531 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0480 J	0.0200 U	0.0200 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.0303	0.0190 U	0.0196 U	0.0195	0.0197 U	0.0199 U	0.0212	0.198 U	0.0199 U	0.0200 U	0.0200 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.0200 U	0.0190 U	0.0196 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.0200 U	0.0190 U	0.0196 U	0.0573	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.0250 U	0.0034 J	0.0054 J	0.0249 U	0.0247 U	0.0249 U	0.0151 J	0.0695 J	0.0249 U	0.0249 U	0.119	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.0200 U	0.0190 U	0.0196 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.0200 U	0.210	0.229	0.0743	0.0197 U	0.0199 U	0.629	14.9	0.113	0.786	0.215	6,000	90,000
Pentachlorophenol	mg/kg	0.0200 U	0.0041 J	0.0089 J	0.0200 U	0.0197 U	0.0199 U	0.0048 J	0.198 U	0.0199 U	0.00560 J	0.0200 U	0.55	1.4
Phenol	mg/kg	0.0103 J	0.0712	0.0573	0.0787	0.0197 U	0.0199 U	0.170	0.200	0.0199 U	0.141	0.0457	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.0094 J	0.059	0.127	0.0773	0.0197 U	0.0199 U	1.28	1.63	0.0307	1.31	1.11	170	2,000
Hexachlorobutadiene	mg/kg	0.0200 U	0.0190 U	0.0196 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0200 U	0.0190 U	0.0196 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	70	180
Benzoic Acid	mg/kg	0.0323 J	0.288	0.197	0.0612 J	0.0987 U	0.0996 U	0.0778 J	0.989 U	0.0188 J	0.126	0.0999 U	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.0200 U	0.0321	0.0196 U	0.0200 U	0.0197 U	0.0199 U	0.0200 U	0.198 U	0.0199 U	0.0200 U	0.0200 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.005 J	0.00785 J	0.00714 J	0.00728 J	0.00163 J	0.0000374 J	0.0058 J	0.0484 J	0.00132 J	0.0742 J	0.000312 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	0.19 J	0.267 J	0.321 J	0.34 J	0.0041 J	0.0001 J	0.12 J	1.07	0.0038 J	0.95	0.0004 J	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	0.2 J	0.293 J	0.344 J	0.35 J	0.058 J	0.0345 J	0.13 J	1.09	0.0474 J	0.95	0.067 J	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	0.176 U	0.783 J	1.12	0.340 J	0.123 U	0.183 U	0.648 J	7.71	0.134 U	0.942 J	0.739 J	NE	NE
2,3,7,8-TCDF	ng/Kg	2.69	6.34	6.94	6.41	4.35	0.155 U	31.4	332	10	48	4.7	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	0.525 J	1.43 J	2.54 J	0.732 J	0.177 U	0.222 U	1.37 J	40	0.214 U	9.15	1.91 J	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	0.425 J	1.70 J	1.58 J	0.628 J	0.218 U	0.222 U	2.80 J	33.4	0.401 J	3.04 J	1.98 J	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	0.755 J	2.63 J	2.66 J	1.10 J	0.228 U	0.234 U	4.01 J	70.6	0.471 J	4.42 J	2.16 J	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	0.578 J	1.68 J	2.37 J	1.06 J	0.275 U	0.294 U	2.08 J	85.7	0.407 U	26	2.00 J	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	0.484 J	1.46 J	1.21 J	0.579 J	0.242 U	0.165 U	3.69 J	87.1	0.718 J	3.46 J	0.897 J	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	1.27 J	3.88 J	6.13	2.15 J	0.391 J	0.281 U	6.13	120	0.423 U	19.6	3.20 J	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	0.338 J	1.31 J	1.34 J	0.527 J	0.257 U	0.167 U	2.91 J	91.2	0.451 J	2.30 UJ	0.965 J	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	0.959 J	2.45 J	4.99	1.49 J	0.273 U	0.277 U	2.96 J	97.2	0.399 U	12.7	2.60 J	NE	NE

Sample Location ¹		ST-106			ST-107			ST-108			ST-109		Proposed Sediment Cleanup Level ²	
Sample Identification		ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18		
Sample Interval (dbm)		3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft		
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	0.243 J	0.484 J	0.547 J	0.404 J	0.312 U	0.220 U	1.18 J	26	0.294 U	1.41 J	0.358 U	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	0.506 J	1.54 J	1.54 J	0.699 J	0.267 U	0.179 U	2.92 J	133	0.257 U	2.30 J	1.05 J	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	25.6	62	63.7	56.4	7.51	0.775 J	161	1320	6.16	209	21	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	2.95 J	6.47	6.18	4.70 J	0.991 J	0.165 U	18.9	567	3.67 J	15.9	2.37 J	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	0.263 J	0.711 J	0.624 J	0.413 J	0.171 U	0.195 U	2.08 J	51.3	0.682 J	2.50 J	0.299 U	NE	NE
OCDD	ng/Kg	169	437	380	474	50.2	4.60 J	958	2630	43	918	47.2	NE	NE
OCDF	ng/Kg	7.64 J	10.7	10.4	15.7	1.91 J	0.473 U	26.5	233	3.71 J	40.6	1.29 J	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	1.81 J	5.79 J	7.83 J	3.51 J	0.58 J	0.0091 J	10.7 J	187 J	1.39	25.4 J	5.15 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	1.9 J	5.79 J	7.83 J	3.51 J	0.84 J	0.339 J	10.7 J	187 J	1.65	25.5 J	5.17 J	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		ST-109	South DMMU Area							North DMMU Area	MAF-01		Proposed Sediment Cleanup Level ²	
Sample Identification		ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015		
Sample Interval (dbm)		11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm		
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface		
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Metals														
Arsenic	mg/kg	2.38	3.02	3.62	3.32	3.67	4.76	4.46	3.43	9.68	23	19	12	12
Cadmium	mg/kg	0.05 J	0.180	0.32	0.26	0.23	0.42	0.34	0.150	1.44	0.9	0.9	0.80	0.80
Chromium (as Chromium III)	mg/kg	17.4	29.3	35.6	35.8	36	52.4	47.3	29.7	48.3	31.3	33.5	25,000	400,000
Copper	mg/kg	5.05	19.3	28.9	28.9	35.7	59.3	54.5	16.1	77.2	34.1	30.4	8,000	90,000
Lead	mg/kg	2.20 J	10.6	25.7	23	39.6	70.7 J	46.4	9.62 J	149	65	103	21	21
Mercury	mg/kg	0.00746 J	0.0393	0.0548	0.0749	0.0906	0.209 J	0.129	0.025 J	0.515	0.09	0.11	0.20	0.20
Silver	mg/kg	0.24 U	0.06 J	0.08 J	0.07 J	0.08 J	0.12 J	0.10 J	0.05 J	0.26 J	0.07 J	0.5 U	200	4,000
Zinc	mg/kg	22.1	47.0	52.5	52.6	58.3	74.2	67.4	39.5	404	84	81	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	3.65 U	3.46 J	1.43 J	2.86 J	2.30 J	3.53 U	3.86 U	3.80 U	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.0917	0.0376	0.0618	0.0659	0.0674	0.149	0.0734	0.0176	2.69	0.36	0.33	320	4,500
Acenaphthene	mg/kg	0.0701 J	0.0370 J	0.0588 J	0.0656 J	0.0799 J	0.146 J	0.0649	0.0204 J	4.92 J	0.62	0.51	4,800	67,000
Acenaphthylene	mg/kg	0.00241 J	0.0118 J	0.0212 J	0.0295 J	0.0242 J	0.103 J	0.0885	0.00527 J	0.272	0.082 J	0.055 J	4,800	67,300
Anthracene	mg/kg	0.00206 J	0.0416	0.0626	0.0834	0.0939	0.0962	0.0706	0.0173	2.04	0.25	0.23	24,000	340,000
Fluorene	mg/kg	0.00269 J	0.0364	0.059	0.0796	0.0945	0.16	0.0781	0.0206	4.30	0.47	0.4	3,200	40,000
Naphthalene	mg/kg	0.0978 J	0.0918 J	0.291 J	0.261 J	0.289 J	1.05 J	0.605	0.0787 J	9.07 J	1.6	1.3	1,600	22,000
Phenanthrene	mg/kg	0.00612	0.125	0.199	0.249	0.304	0.518	0.431	0.0596	9.02	0.97	0.79	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.00115 J	0.0573	0.077	0.0617	0.0567	0.0513	0.0331	0.00993	0.753	0.16	0.1	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.00100 J	0.0353 J	0.0464 J	0.0457 J	0.0355 J	0.0370 J	0.0218	0.00448 J	0.192 J	0.12 J	0.059 J	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.00960 U	0.0918	0.0971	0.0923	0.086	0.0827	0.0708	0.0132	0.525	0.26 J	0.14 J	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.00113 J	0.0198	0.028	0.0387	0.0287	0.0375	0.0207	0.00465 J	0.0876	0.072 J	0.034 J	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.00151 J	0.0782	0.0777	0.0798	0.0855	0.0700	0.0575	0.0101	0.900	0.2	0.14	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.00480 UJ	0.0105 J	0.0125 J	0.0131 J	0.0123 J	0.0103 J	0.00694	0.0069	0.0214 J	0.049 U	0.014 U	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.00545	0.228	0.259	0.298	0.321	0.349	0.315	0.0589	6.69	0.82	0.66	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.00480 U	0.0186	0.0244	0.0314	0.0259	0.025	0.0128	0.00353 J	0.0765	0.056 J	0.027 J	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.00502	0.253	0.296	0.239	0.245	0.256	0.252	0.0435	4.37	0.64	0.46	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.00113 J	0.0539 J	0.0683 J	0.0664 J	0.0545 J	0.0582 J	0.0339	0.00794 J	0.339 J	0.17 J	0.087 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.00137 J	0.0539 J	0.0683 J	0.0664 J	0.0545 J	0.0582 J	0.0339	0.00794 J	0.339 J	0.172 J	0.088 J	0.056	0.056

Sample Location ¹	ST-109	South DMMU Area							North DMMU Area	MAF-01		Proposed Sediment Cleanup Level ²		
Sample Identification	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015			
Sample Interval (dbm)	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm			
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface			
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0196 U	0.0049 U	0.0194 U	0.0963 U	0.0049 U	0.0048 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0196 U	0.0049 U	0.0194 U	0.0963 U	0.0049 U	0.0014 J	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0196 U	0.0024 J	0.0194 U	0.0963 U	0.0024 J	0.0027 J	200	474
Hexachlorobenzene	mg/kg	0.00048 U	0.00049 U	0.00048 U	0.00049 U	0.00048 U	0.00048 U	0.0049 U	0.00049 U	0.00486 U	0.0049 U	0.0048 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.0477 U	0.0480 U	0.0495 U	0.0348 J	0.0496 U	0.0489 U	0.0969	0.0310 J	0.241 U	0.028 J	0.038 J	24	60
Butyl Benzyl Phthalate	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0593	0.0049 U	0.0194 U	0.0963 U	0.0031 J	0.0048 U	180	460
Dibutyl Phthalate	mg/kg	0.0582 J	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.274 J	0.0336 U	0.247	0.0963 U	0.0088 J	0.019 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0196 U	0.0236	0.0194 U	0.0963 U	0.02 UJ	0.019 UJ	49,000	700,000
Dimethyl Phthalate	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0196 U	0.0049 U	0.0194 U	0.0963 U	0.02 U	0.019 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0196 U	0.0197 U	0.0194 U	0.0963 U	0.02 U	0.019 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.0121 J	0.0025 J	0.0069 J	0.0108 J	0.0082 J	0.0246 J	0.0170 J	0.0035 J	0.438	0.01 J	0.015 J	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0196 U	0.0049 U	0.0194 U	0.0963 U	0.0088 J	0.011 J	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.0191 U	0.0949	0.681	0.765	0.730	1.92	1.59	0.109	5.13	0.33	0.39	6,000	90,000
Pentachlorophenol	mg/kg	0.0191 U	0.0137 J	0.0098 J	0.0081 J	0.0044 J	0.0191 J	0.0121 J	0.0082 J	0.0103 J	0.098 U	0.096 U	0.55	1.4
Phenol	mg/kg	0.0191 U	0.0540	0.0652	0.0861	0.0515	0.0590	0.0548	0.0132 J	0.403	0.073	0.069	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.0191 U	0.0463	0.0657	0.0984	0.0830	0.194	0.177	0.0188 J	3.01	0.51	0.43	170	2,000
Hexachlorobutadiene	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.214	0.0049 U	0.0049 U	0.0241 U	0.0049 U	0.0048 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0191 U	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0196 U	0.0049 U	0.0093 U	0.0461 U	0.0049 U	0.0048 U	70	180
Benzoic Acid	mg/kg	0.0954 U	0.203 U	0.233 U	0.221 U	0.141 U	0.409	0.216	0.0683 J	0.540 U	0.08 J	0.12 J	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.0146 J	0.0192 U	0.0198 U	0.0198 U	0.0198 U	0.0272	0.0197 U	0.0161 J	0.0717 U	0.02 U	0.016 J	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.000011 J	0.00509 J	0.0261 J	0.0197 J	0.0328 J	0.0336 J	0.0131 J	0.00452 J	0.0145	0.368	--	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	0.000 U	0.2 J	0.83	0.36 J	0.71	0.323 J	0.0187	0.0112 J	0.036	7.13	--	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	0.0611 U	0.21 J	0.84	0.37 J	0.72	0.343 J	0.143	0.0753 J	0.16	7.15	--	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	0.121 U	0.282 J	0.866 J	0.892 J	0.999 J	1.37	0.878 J	0.155 U	2.49	--	--	NE	NE
2,3,7,8-TCDF	ng/Kg	0.134 U	11.2	40	45.7	43.8	96.9	10.1	4.77	104	--	--	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	0.158 U	0.772 J	1.90 J	1.59 J	2.07 J	3.50 J	1.94 J	0.848 J	6.53	--	--	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	0.165 U	1.37 J	2.30 J	2.68 J	3.83 J	5.8	2.52 J	0.520 J	7.27	--	--	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	0.163 U	1.42 J	3.98 J	4.64 J	6.88	9.94	4.73 J	0.998 J	10.2	--	--	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	0.282 U	0.948 J	2.13 J	1.75 J	2.42 J	5.34	2.35 J	9.66	8.18	--	--	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	0.130 U	1.33 J	1.91 J	2.87 J	4.81 J	6.73	1.95 J	0.765 J	5.58	--	--	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	0.299 U	2.16 J	5.05	4.11 J	6.02	7.82	4.17 J	35.2	15	--	--	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	0.139 U	0.864 J	1.80 J	2.46 J	4.09 J	5.38	2.00 J	0.717 J	4.56 J	--	--	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	0.280 U	1.37 J	3.60 J	2.39 J	4.36 J	4.90 J	2.88 J	25.6	10.2	--	--	NE	NE

Sample Location ¹		ST-109	South DMMU Area							North DMMU Area	MAF-01		Proposed Sediment Cleanup Level ²	
Sample Identification	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015			
Sample Interval (dbm)	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm			
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface			
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
1,2,3,7,8,9-HxCDF	ng/Kg	0.164 U	0.465 J	0.831 J	0.915 J	1.33 J	1.79 J	0.647 J	0.351 U	1.31 J	--	NE	NE	
2,3,4,6,7,8-HxCDF	ng/Kg	0.147 U	0.832 J	2.12 J	3.22 J	4.60 J	6.15	2.30 J	0.738 J	4.73 J	--	NE	NE	
1,2,3,4,6,7,8-HpCDD	ng/Kg	0.560 J	34.4	86.5	64.4	68.3	96.8	40.3	2090	121	--	NE	NE	
1,2,3,4,6,7,8-HpCDF	ng/Kg	0.142 U	5.55	11.3	19.3	26.7	44	16.2	16	38.6	--	NE	NE	
1,2,3,4,7,8,9-HpCDF	ng/Kg	0.172 U	0.709 J	0.894 J	1.28 J	2.04 J	3.64 J	0.895 J	1.11 J	2.40 J	--	NE	NE	
OCDD	ng/Kg	4.13 J	213	398	389	354	491	228	20,900	437	--	NE	NE	
OCDF	ng/Kg	0.348 U	12.8	19.1	30.3	37.8	68.1	24.7	54.6	36.4	--	NE	NE	
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	0.0068 J	3.91 J	10.9 J	11.3 J	13.5 J	23.1 J	7.6 J	36.3 J	29.4 J	--	5.0	5.0	
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	0.254 J	3.91 J	19.9 J	11.3 J	13.5 J	23.1 J	7.6 J	36.4 J	29.4 J	--	5.0	5.0	

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-01					MAF-02					MAF-03	Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10		
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015		
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Metals														
Arsenic	mg/kg	20 J	33 J	22.9 J	7.0	8.0	18	20	14.5 J	10	20	60	12	12
Cadmium	mg/kg	0.7 J	1.3 J	1.0	0.05 J	0.092 J	0.9	0.7	0.535 J	0.6 U	0.7 U	1.8	0.80	0.80
Chromium (as Chromium III)	mg/kg	15 J	26.4 J	18	26.9	27.9	21.4	35 J	40 J	19 J	27 J	19	25,000	400,000
Copper	mg/kg	51.2 J	154 J	64	8.1	8.3	31.1	90.8	123	7.1 J	9 J	42.9	8,000	90,000
Lead	mg/kg	130	176	80	4.0	4.0	27	45	37	3.17 J	4.45 J	115	21	21
Mercury	mg/kg	0.21	0.23	0.23	0.0074 J	0.008 J	0.2	0.0396 J	0.22	0.0101 J	0.0055 J	0.22	0.20	0.20
Silver	mg/kg	0.1 J	0.31 J	2 U	0.4 U	0.4 U	0.5 U	0.9 U	1 U	0.9 U	1 U	0.39 J	200	4,000
Zinc	mg/kg	80	114	102	27	30	97	833 J	1,010 J	25 J	32 J	98	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.38 J	0.72 J	0.7	0.0034 J	0.0024 J	0.35	0.62	1.2	0.023 J	0.039 J	0.91	320	4,500
Acenaphthene	mg/kg	0.74 J	1.4 J	1.2	0.0038 J	0.0048 U	0.85	0.85	1.3	0.059 J	0.11 J	2.7	4,800	67,000
Acenaphthylene	mg/kg	0.087 J	0.14 J	0.36	0.0048 U	0.0048 U	0.089	0.31	0.37	0.0038 J	0.0074	0.12	4,800	67,300
Anthracene	mg/kg	0.4	0.4	0.2	0.0048 U	0.0048 U	0.32	0.1	0.026	0.03 J	0.066 J	1.7	24,000	340,000
Fluorene	mg/kg	0.6	0.99	0.76	0.0031 J	0.0048 U	0.53	0.42	0.51	0.033 J	0.062 J	1.6	3,200	40,000
Naphthalene	mg/kg	1.6 J	3.1 J	4.8	0.014 J	0.0065 J	1.6	6.3	13	0.14 J	0.63 J	4.3	1,600	22,000
Phenanthrene	mg/kg	1.2	2.0	1.2	0.0076	0.0028 J	1.0	0.86	0.45	0.047 J	0.085 J	2.4	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.33	0.25	0.055 J	0.0048 U	0.0048 U	0.1	0.028	0.016 U	0.03	0.037	1.2	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.19	0.16	0.086 U	0.0048 U	0.0048 U	0.085	0.018	0.016 U	0.018	0.018	0.42	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.32	0.35	0.059 J	0.0048 U	0.0048 U	0.2	0.045	0.016 U	0.034	0.033	0.91	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.076	0.086	0.086 U	0.0048 U	0.0048 U	0.052	0.013	0.016 U	0.01	0.01	0.19	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.32	0.34	0.08 J	0.0048 U	0.0048 U	0.14	0.048	0.016 U	0.043	0.046	1.1	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.027	0.054 U	0.086 U	0.0048 U	0.0048 U	0.012 J	0.0038 J	0.016 U	0.0047 U	0.0031 J	0.065	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	1.2	1.4	0.81	0.0058	0.0048 U	0.72	0.34	0.1	0.12 J	0.21 J	7.2	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.07	0.053 J	0.086 U	0.0048 U	0.0048 U	0.041	0.0083	0.016 U	0.0066	0.0077	0.17	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	1.5	1.5	0.62	0.0046 J	0.0048 U	0.56	0.2	0.076	0.091	0.15	4.8	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.268 J	0.229 J	0.012 J	0 U	0 U	0.122 J	0.027 J	0 U	0.026 J	0.027 J	0.666 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.268 J	0.231 J	0.064 J	0.003 U	0.003 U	0.122 J	0.027 J	0.011 U	0.026 J	0.027 J	0.666 J	0.056	0.056

Sample Location ¹		MAF-01					MAF-02					MAF-03	Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015		
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm		
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.016 J	0.024	0.017 U	0.0048 U	0.0048 U	0.0047 U	0.0049 U	0.016 U	0.0047 U	0.0049 U	0.0063	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.022 U	0.011 U	0.017 U	0.0048 U	0.0048 U	0.0047 U	0.0032 J	0.016 U	0.0047 U	0.0049 U	0.0023 J	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.015 J	0.0098 J	0.013 J	0.0048 U	0.0048 U	0.0030 J	0.0075	0.039	0.0047 U	0.0049 U	0.011	200	474
Hexachlorobenzene	mg/kg	0.022 U	0.019	0.017 U	0.0048 U	0.0048 U	0.0047 U	0.0049 U	0.059	0.0047 U	0.0049 U	0.0048 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.47 J	0.32 J	0.35 U	0.031 J	0.048 U	0.03 J	0.84	0.76	0.044 J	0.049 U	0.048 U	24	60
Butyl Benzyl Phthalate	mg/kg	0.022 U	0.011 U	0.017 U	0.0048 U	0.0048 U	0.0047 U	0.0049 U	0.039	0.0047 U	0.0049 U	0.0048 U	180	460
Dibutyl Phthalate	mg/kg	0.088 U	0.044 U	0.14 U	0.019 U	0.019 U	0.019 U	0.02 U	0.19 U	0.012 J	0.0097 J	0.019 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.08 J	0.052	0.14 U	0.02	0.019 U	0.019 U	0.02	0.19 U	0.02	0.019 U	0.019 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.088 U	0.066	0.14 U	0.019 U	0.019 U	0.019 U	0.02 U	0.19 U	0.019 U	0.019 U	0.019 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.088 U	0.044 U	0.14 U	0.019 U	0.019 U	0.019 U	0.056	0.19 U	0.019 U	0.019 U	0.019 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.056 J	0.11	0.38	0.024 U	0.024 U	0.011 J	0.13	1	0.013 J	0.015 J	0.32	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.088 U	0.046	0.083 J	0.019 U	0.019 U	0.01 J	0.29	0.93	0.019 U	0.019 U	0.063	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	3.2	2.5	8.5	0.019	0.019 U	0.15	1.8	16	0.022	0.015 J	2.4	6,000	90,000
Pentachlorophenol	mg/kg	0.44 U	0.22 U	0.69 U	0.096 U	0.095 U	0.095 U	0.097 U	0.97 U	0.094 U	0.097 U	0.097 U	0.55	1.4
Phenol	mg/kg	0.17 J	0.12 J	0.13 J	0.019 U	0.019 U	0.071	0.43	0.42	0.019 U	0.019 U	0.12	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.62 J	1.2 J	0.86	0.0046 J	0.0048 U	0.68	0.47	0.45	0.034	0.052	3.1	170	2,000
Hexachlorobutadiene	mg/kg	0.012 J	0.062 J	0.017 U	0.0048 U	0.0048 U	0.0047 U	0.0049 U	0.17	0.0047 U	0.0049 U	0.0016 J	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.022 U	0.011 U	0.017 U	0.0048 U	0.0048 U	0.0047 U	0.0049 U	0.016 U	0.0047 U	0.0049 U	0.0048 U	70	180
Benzoic Acid	mg/kg	0.34 J	0.38 J	0.89 J	0.19 U	0.19 U	0.064 J	0.2	1.9 U	0.19 U	0.19 U	0.19 U	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.088 U	0.044 U	0.14 U	0.019 U	0.019 U	0.019 U	0.073	0.19 U	0.019 U	0.019 U	0.019 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	1.63	--	--	--	--	--	--	--	--	--	0.278 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	21.31	--	--	--	--	--	--	--	--	--	7.40	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	21.33	--	--	--	--	--	--	--	--	--	7.41	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	--	--	--	1.09	--	--	--	--	--	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	--	--	18.6	--	--	--	--	--	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	--	--	1.28 J	--	--	--	--	--	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	--	--	6.7	--	--	--	--	--	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	--	--	6.75	--	--	--	--	--	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	--	--	1.04 J	--	--	--	--	--	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	--	--	32.3	--	--	--	--	--	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	--	--	3.24 J	--	--	--	--	--	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	13.7	--	--	--	--	--	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	--	--	1.36 J	--	--	--	--	--	NE	NE

Sample Location ¹		MAF-01					MAF-02					MAF-03	Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10		
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015		
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm		
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	--	--	5.66	--	--	--	--	--	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	18.2	--	--	--	--	--	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	--	--	52.3	--	--	--	--	--	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	--	--	124	--	--	--	--	--	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	--	--	17.2	--	--	--	--	--	NE	NE
OCDD	ng/Kg	--	--	--	--	--	338	--	--	--	--	--	NE	NE
OCDF	ng/Kg	--	--	--	--	--	61.9	--	--	--	--	--	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	--	--	16.1 J	--	--	--	--	--	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	--	--	16.1 J	--	--	--	--	--	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-03					MAF-04						Proposed Sediment Cleanup Level ²		
	MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁸	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁹	MAF-SC-04_4-6	MAF-SC-04_8-10			
Sample Identification	MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁸	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁹	MAF-SC-04_4-6	MAF-SC-04_8-10			
Sample Date	11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015			
Sample Interval (dbm)	0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft			
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	11.8 J	9 J	10.8 J	8.8 J	2.9	20	20 U	20 U	20 U	20 U	20	12	12
Cadmium	mg/kg	0.791 J	1.0	0.725 J	0.449 J	0.1	1.1	1.0	1 U	1 U	0.9 U	1.0	0.80	0.80
Chromium (as Chromium III)	mg/kg	30	24	28	23	18.5	26	26	25	14	24	33	25,000	400,000
Copper	mg/kg	63.3	56.3	56.6	44.5	5.17	39.7	68.3	69	45	67.7	71.4	8,000	90,000
Lead	mg/kg	122	169	112	62	2.1	31	60 J	50 J	30 J	42 J	54 J	21	21
Mercury	mg/kg	0.3	0.4	0.25	0.15	0.0264	0.09	0.28 J	0.37 J	0.16 J	0.24 J	0.20 J	0.20	0.20
Silver	mg/kg	1 U	1 U	1 U	1 U	0.35 U	0.8 U	1 U	1 U	1 U	1 U	1 U	200	4,000
Zinc	mg/kg	464 J	146 J	742	995	20.5	113	67	51	41	228	104	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	6.3 J	2.7 J	1.8	2.1	0.0302	0.85	2.6	1.9	2.5	3.3	5.2	320	4,500
Acenaphthene	mg/kg	6.0	4.0	2.9	2.3	0.0249	2.4	3.6	2.6	3.5	4.4	7.8	4,800	67,000
Acenaphthylene	mg/kg	1.0	1.2	0.9	0.74	0.00288 J	0.19	0.84	0.57	0.83	0.91	1.0	4,800	67,300
Anthracene	mg/kg	1.0	0.75	0.8	0.37	0.0262	0.48	0.064	0.068	0.13	0.3	1.0	24,000	340,000
Fluorene	mg/kg	7.7 J	3.4 J	2.4	1.7	0.0318	1.3	1.9	1.4	1.8	2.6	5.6	3,200	40,000
Naphthalene	mg/kg	21	18	15	19	0.369	5.3	19	13	18	22	21	1,600	22,000
Phenanthrene	mg/kg	9.7	7.5	5.2	2.8	0.106	1.9	1.1	1.0	1.6	2.9	8.2	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.14 J	0.34 U	0.07	0.022 J	--	0.2	0.02 U	0.019 U	0.019	0.023	0.15	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.28 U	0.34 U	0.034 J	0.037 U	--	0.18	0.02 U	0.019 U	0.019	0.019 U	0.043	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.28 U	0.34 U	0.11	0.037 U	--	0.43	0.02 U	0.019 U	0.019	0.02	0.11	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.28 U	0.34 U	0.052 U	0.037 U	--	0.089	0.011 J	0.019 U	0.019	0.019 U	0.027	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.2 J	0.22 J	0.1	0.031 J	--	0.3	0.011 J	0.012 J	0.021	0.043	0.21	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.28 U	0.34 U	0.052 U	0.037 U	--	0.049 U	0.0050 J	0.0031 J	0.012	0.012 J	0.067 J	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	2.3	2.7	1.7	0.85	--	1.2	0.22	0.24	0.4	0.88	2.5	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.28 U	0.34 U	0.052 U	0.037 U	--	0.077	0.02 U	0.019 U	0.019	0.019 U	0.019	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	1.5	1.9	0.92	0.52	--	0.84	0.13	0.14	0.22	0.55	1.6	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.016 J	0.002 J	0.053 J	0.003 J	--	0.254 J	0.001 J	0.0004 J	0.001 J	0.006 J	0.08 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.198 J	0.24 J	0.058 J	0.027 J	--	0.256 J	0.014 J	0.013 J	0.014 J	0.016 J	0.08 J	0.056	0.056

Sample Location ¹		MAF-03					MAF-04						Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁸	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁹	MAF-SC-04_4-6	MAF-SC-04_8-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015		
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft		
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.16 UJ	0.53 J	0.052 U	0.039	0.0048 U	0.0049 U	0.0024 J	0.0042 J	0.0021 J	0.0022 J	0.0020 J	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.16 UJ	0.022 J	0.052 U	0.037 U	0.0048 U	0.0017 J	0.0045 J	0.0064	0.0037 J	0.0042 J	0.0037 J	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.16 U	0.068 U	0.052 U	0.037 U	0.0048 U	0.0036 J	0.0026 J	0.0038 J	0.0025 J	0.0024 J	0.0022 J	200	474
Hexachlorobenzene	mg/kg	0.16 U	0.068 U	0.052 U	0.037 U	0.0048 U	0.0049 U	0.0050 U	0.0050 U	0.0050 U	0.0049 U	0.0049 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	2.2 J	0.4 J	0.94 J	0.37 U	0.0481 U	0.049 U	0.05 U	0.05 U	0.05 U	0.049 U	0.049 U	24	60
Butyl Benzyl Phthalate	mg/kg	0.16 U	0.068 U	0.052 U	0.037 U	0.0048 U	0.0049 U	0.0050 U	0.0050 U	0.0050 U	0.0049 U	0.0049 U	180	460
Dibutyl Phthalate	mg/kg	0.65 U	0.27 U	0.42 U	0.15 U	0.0192 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.78 J	0.27 UJ	0.42 U	0.18	0.0192 U	0.02 UJ	0.02 UJ	0.02 UJ	0.02 UJ	0.037 J	0.055 J	49,000	700,000
Dimethyl Phthalate	mg/kg	0.65 U	0.27 U	0.42 U	0.15 U	0.0192 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.65 U	0.27 U	0.42 U	0.15 U	0.0192 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	1.8 J	0.54 J	0.64	1.6	0.0160 J	0.17	0.82	0.9	0.66	0.82	1.5 J	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.62 J	0.3 J	0.33 J	0.66	0.0192 U	0.14	1.5	1.6	1.3	1.4	1.6	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	51 J	22 J	23	31	0.0475	1	22	25	17	19	8.6	6,000	90,000
Pentachlorophenol	mg/kg	3.3 U	1.4 U	2.1 U	0.75 U	0.0962 U	0.097 U	0.1 U	0.099 U	0.1 U	0.098 U	0.098 U	0.55	1.4
Phenol	mg/kg	2.3 J	0.38 J	0.33 J	0.39	0.0192 U	0.34	0.45	0.48	0.37	0.42	0.29	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	6.2 J	3 J	2.0	1.7	0.0304	1.5	1.4	1.0	1.6	2.0	3.6	170	2,000
Hexachlorobutadiene	mg/kg	0.16 U	0.068 U	0.052 U	0.037 U	0.0048 U	0.0049 U	0.0050 U	0.0050 U	0.0050 U	0.0049 U	0.0049 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.16 U	0.068 U	0.052 U	0.037 U	0.0192 U	0.0049 U	0.0050 U	0.0050 U	0.0050 U	0.0049 U	0.0049 U	70	180
Benzoic Acid	mg/kg	7.1 J	2.2 J	1.6 J	2.0	0.192 U	0.088 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.65 U	0.27 U	0.42 U	0.15 U	0.0192 U	0.069	0.11 J	0.087 J	0.061	0.08	0.063	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	2.98 J	2.65 J	--	--	0.00707 J	0.111 J	0.0339 J	--	0.00632 J	--	--	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	31.46 J	21.32 J	--	--	0.01 J	1.19	1.09	--	0.018 J	--	--	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	31.61 J	21.38 J	--	--	0.068 J	1.20	1.10	--	0.101 J	--	--	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE

Sample Location ¹		MAF-03					MAF-04						Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ⁸	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁹	MAF-SC-04_4-6	MAF-SC-04_8-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015		
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft		
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
OCDD	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
OCDF	ng/Kg	--	--	--	--	--	--	--	--	--	--	--	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	--	--	--	--	--	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-04	MAF-05				MAF-07	MAF-08		MAF-09	MAF-10			Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2			
Sample Date	11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015			
Sample Interval (dbm)	16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface			
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	--	16	20	14.4 J	--	10	8.0	8.0	11	20	20	12	12
Cadmium	mg/kg	--	0.6	1.2	0.9	--	0.256 J	0.044 U	0.047 U	0.114 U	0.9	1.4 J	0.80	0.80
Chromium (as Chromium III)	mg/kg	--	23.3	43	25	--	23.4	21.2	22.3	29.3	43	53	25,000	400,000
Copper	mg/kg	--	24.7	70.7	31.5	--	12.1	6.3 J	11.0 J	8.9	43.1	52.9	8,000	90,000
Lead	mg/kg	--	28	34	21	--	5.0	2 J	6 J	6.0	19	68	21	21
Mercury	mg/kg	--	0.06	0.12	0.0752 J	--	0.05	0.03 U	0.03 U	0.05	0.11	0.16	0.20	0.20
Silver	mg/kg	--	0.09 J	0.8 U	1 U	--	0.4 U	0.4 U	0.4 U	0.5 U	0.6 U	0.20 J	200	4,000
Zinc	mg/kg	--	59	120	72	--	34	24 J	35 J	34	102	101	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.00364 J	0.9	0.4	0.71	0.0129	0.094	0.0028 J	0.0048 U	0.21	0.63	0.58	320	4,500
Acenaphthene	mg/kg	0.00547	1.4	1.0	1.4	0.0273	0.13	0.0047 U	0.0048 U	0.22	0.85	1.1	4,800	67,000
Acenaphthylene	mg/kg	0.00464 U	0.24	0.1	0.15	0.00485 J	0.03	0.0047 U	0.0048 U	0.077	0.18	0.12	4,800	67,300
Anthracene	mg/kg	0.00464 U	0.47	0.42	0.42	0.0206	0.097	0.0047 U	0.0048 U	0.17	0.39	0.72	24,000	340,000
Fluorene	mg/kg	0.00273 J	0.86	0.77	0.97	0.026	0.14	0.0047 U	0.0048 U	0.23	0.75	1.1	3,200	40,000
Naphthalene	mg/kg	0.0393	4.7	2.5	3.6	0.0625	0.42	0.0062	0.0035 J	0.78	2.3	2.1	1,600	22,000
Phenanthrene	mg/kg	0.00747	2.0	1.3	1.7	0.0535	0.3	0.0046 U	0.0044 U	0.46	1.5	1.8	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.00464 U	0.21	0.25	0.15	--	0.047	0.0047 U	0.0048 U	0.075	0.21	0.3	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.00464 U	0.13	0.23	0.075	--	0.028	0.0047 U	0.0048 U	0.06	0.15	0.22 J	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.00929 U	0.4	0.42	0.23	--	0.066	0.0047 U	0.0048 U	0.14	0.36	0.47	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.00464 U	0.084	0.12	0.055	--	0.015	0.0047 U	0.0048 U	0.032	0.082	0.12 J	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.00464 U	0.32	0.43	0.21	--	0.061	0.0047 U	0.0048 U	0.098	0.26	0.48	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.00464 U	0.048 U	0.03	0.02	--	0.0036 J	0.0047 U	0.0048 U	0.0095	0.022	0.031 J	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.00438 J	1.6	1.2	1.7	--	0.28	0.0048 U	0.0057 U	0.42	1.0	1.6	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.00464 U	0.068	0.094	0.053	--	0.012	0.0047 U	0.0048 U	0.03	0.07	0.097 J	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.00464 U	1.2	1.1	1	--	0.24	0.0061 U	0.0061 U	0.41	0.82	1.1	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0 U	0.201 J	0.314 J	0.122 J	--	0.042 J	0 U	0 U	0.086 J	0.219 J	0.315 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.0035 U	0.203 J	0.314 J	0.122 J	--	0.042 J	0.003 U	0.003 U	0.086 J	0.219 J	0.315 J	0.056	0.056

Sample Location ¹	MAF-04	MAF-05				MAF-07	MAF-08		MAF-09	MAF-10			Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015			
Sample Interval (dbm)	16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft			
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface			
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	--	0.0023 J	0.0049 U	0.0049 U	--	0.0047 U	0.0049 U	0.0048 U	0.0017 J	0.0023 J	0.0049 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	--	0.0038 J	0.0049 U	0.004 J	--	0.0021 J	0.0049 U	0.0048 U	0.012	0.0049	0.0095	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	--	0.0074	0.0049 U	0.0078	--	0.0047 U	0.0049 U	0.0048 U	0.006	0.0061	0.0078	200	474
Hexachlorobenzene	mg/kg	--	0.0048 U	0.0049 U	0.0049 U	--	0.0047 U	0.0049 U	0.0048 U	0.0026 J	0.0048 U	0.0049 UJ	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	--	0.028 J	0.15	0.25	--	0.047 U	0.049 U	0.048 U	0.048 U	0.052 J	0.12 J	24	60
Butyl Benzyl Phthalate	mg/kg	--	0.0068	0.035	0.0049 U	--	0.011	0.0049 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U	180	460
Dibutyl Phthalate	mg/kg	--	0.019 U	0.02 U	0.02 U	--	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.02 UJ	6,000	90,000
Diethyl Phthalate	mg/kg	--	0.032 J	0.074	0.12	--	0.017 J	0.02 UJ	0.024 J	0.026 J	0.019 UJ	0.037	49,000	700,000
Dimethyl Phthalate	mg/kg	--	0.019 U	0.02 U	0.02 U	--	0.019 U	0.02 U	0.019 U	0.019 U	0.019 U	0.02 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	--	0.019 U	0.02 U	0.02 U	--	0.019 U	0.02 U	0.019 U	0.019 U	0.0086 J	0.02 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.0144 J	0.037	0.056	0.086	0.0244 U	0.024 U	0.025 U	0.024 U	0.018 J	0.043	0.039 J	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.0187 U	0.033	0.031	0.064	0.0195 U	0.019 U	0.02 U	0.019 U	0.012 J	0.037	0.02 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.0187 U	0.62	0.71	1.1	0.0195 U	0.16	0.02 U	0.019 U	0.35	0.98 J	1.9	6,000	90,000
Pentachlorophenol	mg/kg	0.0936 U	0.096 U	0.098 U	0.098 U	0.0975 U	0.094 U	0.098 U	0.097 U	0.096 U	0.04 J	0.098 UJ	0.55	1.4
Phenol	mg/kg	0.0187 U	0.25	0.15	0.39	0.0195 U	0.053	0.017 J	0.019 U	0.46	0.27 J	0.21 J	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.0187 U	1.3	0.84	1.1	0.0141 J	0.14	0.0025 J	0.0027 J	0.23	0.8	0.92	170	2,000
Hexachlorobutadiene	mg/kg	0.0047 U	0.0048 U	0.0049 U	0.0049 U	0.0049 U	0.0047 U	0.0049 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0187 U	0.0048 U	0.0049 U	0.0049 U	0.0195 U	0.0047 U	0.0049 U	0.0048 U	0.0048 U	0.0048 U	0.0049 U	70	180
Benzoic Acid	mg/kg	0.187 U	0.23	0.22	0.51	0.195 U	0.1 J	0.2 U	0.19 U	0.41	0.55	0.26 J	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.0187 U	0.056	0.02 U	0.02 U	0.0195 U	0.019 U	0.02 U	0.019 U	0.034	0.051	0.043	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.0000017 U	0.108 J	0.0116 J	--	0.0000281 J	0.0053 J	--	--	0.0051 J	0.0166	0.0105 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	0 U	1.77	0.31 J	--	0 U	0.015 J	--	--	0.007 J	0.50	0.343 J	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	0.081 U	1.783	0.32 J	--	0.081 U	0.079 J	--	--	0.095 J	0.50	0.36 J	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	--	--	--	--	--	--	--	1.38	--	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	--	--	--	--	--	--	55.6	--	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	--	--	--	--	--	--	3.67 J	--	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	--	--	3.21 J	--	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	--	--	5.3	--	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	4.41 J	--	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	3.58 J	--	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	11.4	--	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	3.15 J	--	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	--	--	--	--	--	--	6.4	--	NE	NE

Sample Location ¹		MAF-04	MAF-05				MAF-07	MAF-08		MAF-09	MAF-10		Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015		
Sample Interval (dbm)		16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft		
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface		
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	1.36 J	--	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	--	--	3.81 J	--	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	--	--	--	--	--	--	167	--	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	--	--	--	--	--	--	25.9	--	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	--	--	--	--	--	--	1.74 J	--	NE	NE
OCDD	ng/Kg	--	--	--	--	--	--	--	--	--	1220	--	NE	NE
OCDF	ng/Kg	--	--	--	--	--	--	--	--	--	40.1	--	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	--	--	--	--	--	--	18.0 J	--	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	--	--	--	18.0 J	--	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015		
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm		
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal		
Metals														
Arsenic	mg/kg	20	--	30	70	40	9.1	20	19	14	11	10	12	12
Cadmium	mg/kg	2.0 J	--	0.9	1.2	1.6	0.73	0.9	1.0	0.4	0.179 J	0.131 U	0.80	0.80
Chromium (as Chromium III)	mg/kg	56	--	44	53	59	39.6	50	47.3	37.7	39.4	34	25,000	400,000
Copper	mg/kg	70.4	--	45.3	236	118	132	44.1	62.7	37.2	18.6	20	8,000	90,000
Lead	mg/kg	45	--	21	93	65	32.7	21	50 J	15 J	8.0	10	21	21
Mercury	mg/kg	0.18	--	0.1	0.14	0.22	0.2649	0.12	0.14	0.09	0.0202 J	0.0182 J	0.20	0.20
Silver	mg/kg	0.24 J	--	0.7 U	0.30 J	0.17 J	0.45 U	0.6 U	0.6 U	0.4 U	0.4 U	0.4 U	200	4,000
Zinc	mg/kg	123	--	98	559	269	65.6	119	128 J	55 J	51	47	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.69	0.168	0.29	0.32	0.79	0.284	0.21	0.2	0.16	0.034	0.0057	320	4,500
Acenaphthene	mg/kg	1.3	0.193	0.47	0.91	1.4	0.37	0.14	0.28	0.21	0.059	0.0073	4,800	67,000
Acenaphthylene	mg/kg	0.12	0.145	0.08	0.094	0.14	0.131	0.051	0.13	0.15	0.014	0.0032 J	4,800	67,300
Anthracene	mg/kg	0.81	0.129	0.24	0.42	0.4	0.0615	0.13	0.25	0.094	0.048	0.017	24,000	340,000
Fluorene	mg/kg	1.4	0.177	0.33	0.77	1.3	0.277	0.13	0.35	0.22	0.056	0.01	3,200	40,000
Naphthalene	mg/kg	2.6	1.35	1.3	1.1	2.8	2.09	0.44	1.1	1.1	0.12	0.016	1,600	22,000
Phenanthrene	mg/kg	2.0	0.576	0.71	2.1	2.2	0.447	0.3	0.87	0.57	0.17	0.058	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.26	0.0551	0.26	0.73	0.19	0.013	0.087	0.25	0.026	0.032	0.026	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.13 J	0.0443	0.2	0.6	0.13	0.0075	0.061	0.1	0.014	0.027	0.023	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.34	0.0915	0.47	1.0	0.29	0.0174	0.14	0.27	0.033	0.068	0.045	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.061 J	0.0387	0.1	0.3	0.09	0.00771	0.033	0.06	0.013	0.016	0.015	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.35	0.0782	0.43	0.84	0.24	0.0209	0.1	0.24	0.038	0.047	0.028	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.016 J	0.00573	0.029	0.082	0.018	0.00497 U	0.0091	0.013	0.0047 U	0.0040 J	0.0037 J	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	1.8	0.436	0.84	2.2	1.5	0.234	0.3	1.3	0.3	0.2	0.082	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.049 J	0.0242	0.093	0.27	0.066	0.00345 J	0.03	0.042	0.0061	0.014	0.014	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	1.1	0.309	0.86	2.0	1.1	0.146	0.33	1.1	0.23	0.19	0.061	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.2 J	0.063	0.29 J	0.817 J	0.189 J	0.011	0.089 J	0.16 J	0.0209 J	0.039 J	0.032 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.2 J	0.063	0.29 J	0.817 J	0.189 J	0.011	0.089 J	0.16 J	0.0211 J	0.039 J	0.032 J	0.056	0.056

Sample Location ¹	MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015			
Sample Interval (dbm)	0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm			
Sample Type	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0049 U	--	0.0049 U	0.0049 U	0.0050 U	--	0.0050 U	0.0049 U	0.0047 U	0.0049 U	0.0048 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.013	--	0.0020 J	0.0036 J	0.015	--	0.0050 U	0.0025 J	0.0013 J	0.0049 U	0.0048 U	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.011	--	0.006	0.0057	0.0099	--	0.0026 J	0.0038 J	0.0047 U	0.0028 J	0.0048 U	200	474
Hexachlorobenzene	mg/kg	0.0049 UJ	--	0.0049 U	0.0049 UJ	0.0050 UJ	--	0.0050 U	0.0049 UJ	0.0047 UJ	0.0049 U	0.0048 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.069 J	--	0.065	0.5	0.13 J	--	0.14	0.049 U	0.047 U	0.049 U	0.048 U	24	60
Butyl Benzyl Phthalate	mg/kg	0.0049 UJ	--	0.006	0.0049 U	0.0050 U	--	0.0050 U	0.0049 U	0.0047 U	0.0049 U	0.0048 U	180	460
Dibutyl Phthalate	mg/kg	0.063 J	--	0.02 U	0.02 U	0.059 U	--	0.02 U	0.036	0.024	0.024	0.019 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.047	--	0.02 UJ	0.033	0.059 U	--	0.02 UJ	0.018 J	0.034	0.02 UJ	0.019 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.039 U	--	0.02 U	0.02 U	0.059 U	--	0.02 U	0.02 U	0.019 U	0.02 U	0.019 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.039 U	--	0.02 U	0.02 U	0.059 U	--	0.02 U	0.02 U	0.019 U	0.02 U	0.019 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.068 J	0.0219 J	0.021 J	0.024 J	0.081	0.08	0.025 U	0.016 J	0.021 J	0.024 U	0.024 U	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.039 U	0.027	0.02	0.02 U	0.059 U	0.0200 U	0.02 U	0.02 U	0.049	0.02 U	0.019 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	3.0	0.249	0.72	1.3	4.3	1.26	0.15	0.68 J	0.56	0.04	0.019 U	6,000	90,000
Pentachlorophenol	mg/kg	0.2 UJ	0.0963 U	0.097 U	0.098 UJ	0.3 UJ	0.0998 U	0.099 U	0.098 UJ	0.094 UJ	0.097 U	0.096 UJ	0.55	1.4
Phenol	mg/kg	0.65 J	0.0427	0.44	0.24 J	0.14	0.0542	0.2	0.14 J	0.066 J	0.024	0.019 U	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	1.1	0.171	0.36	0.74	1.0	0.259	0.16	0.32	0.22	0.058	0.0099	170	2,000
Hexachlorobutadiene	mg/kg	0.0049 U	0.0048 U	0.0049 U	0.0049 U	0.0035 J	0.0050 U	0.0050 U	0.0049 U	0.0047 U	0.0049 U	0.0048 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0049 U	0.0193 U	0.0049 U	0.0049 U	0.0050 U	0.0104 J	0.0050 U	0.0049 U	0.0047 U	0.0049 U	0.0048 U	70	180
Benzoic Acid	mg/kg	0.65 J	0.145 J	0.2	0.34	0.28 J	0.137 J	0.1 J	0.14 J	0.13 J	0.2 U	0.19 U	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.059 J	0.0193 U	0.052	0.037 J	0.059 UJ	0.0200 U	0.033	0.02 U	0.025 J	0.02 U	0.019 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.0664 J	--	0.00214 J	--	0.657 J	0.00458 J	0.195 J	--	0.00311 J	0.00239 J	0.000988 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	1.82 J	--	0.005 J	--	0.93	0.013 J	1.72	--	0.021 J	0.006 J	0.0014 J	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	1.87 J	--	0.077 J	--	0.94	0.068 J	1.72	--	0.021 J	0.078 J	0.035 J	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	--	--	--	--	2.74	--	--	0.293 J	0.115 U	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	--	--	--	28.7	--	--	4.72	0.712 J	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	--	--	--	6.99	--	--	0.340 J	0.253 U	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	7.19	--	--	0.378 J	0.211 U	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	8.44	--	--	0.500 J	0.224 U	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	6.39	--	--	0.482 J	0.394 J	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	5.25	--	--	0.308 J	0.234 U	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	12.2	--	--	1.13 J	0.972 J	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	5.28	--	--	0.284 J	0.239 U	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	--	--	--	8.00	--	--	0.635 J	0.933 J	NE	NE

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015		
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm		
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	--	--	--	2.25 J	--	--	0.182 U	0.284 U	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	6.37	--	--	0.359 J	0.258 U	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	--	--	--	127	--	--	12.6	37.7	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	--	--	--	21.6	--	--	1.90 J	2.66 J	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	--	--	--	2.62 J	--	--	0.272 U	0.181 U	NE	NE
OCDD	ng/Kg	--	--	--	--	--	--	873	--	--	76.1	799	NE	NE
OCDF	ng/Kg	--	--	--	--	--	--	39.3	--	--	5.86 J	5.47 J	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	--	--	--	21.7 J	--	--	1.76 J	0.95 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	21.7 J	--	--	1.77 J	1.22 J	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21		Proposed Sediment Cleanup Level ²		
	Sample Identification	MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10			MAF-SS-DUP-04
Sample Date	10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015			
Sample Interval (dbm)	0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm			
Sample Type	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Metals														
Arsenic	mg/kg	11	13	12	9.0	9.0	11	19	23	--	20	20	12	12
Cadmium	mg/kg	0.2 U	0.135 J	0.096 J	0.068 U	0.3	0.250 J	0.7	1.4	--	1.0	1.1	0.80	0.80
Chromium (as Chromium III)	mg/kg	27.7	39	34.1	30.8	18.1	32.3	45.3	52.4	--	48	46	25,000	400,000
Copper	mg/kg	13.7	32.3	25.4	13.2	12.7	15.1	162	58	--	50.2	46.9	8,000	90,000
Lead	mg/kg	11	11	11	8.0	8.0	7.0	19	30	--	25	26	21	21
Mercury	mg/kg	0.0127 J	0.04	0.05	0.0094 J	0.0138 J	0.05	0.11	0.15	--	0.13	0.15	0.20	0.20
Silver	mg/kg	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.5 U	0.15 J	--	0.10 J	0.16 J	200	4,000
Zinc	mg/kg	42	51	47	39	30	41	100	118	--	85	82	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.0032 J	0.011	0.011	0.0046 U	0.0047 U	0.018	0.12	0.19	0.0548	0.27	0.2	320	4,500
Acenaphthene	mg/kg	0.0049 U	0.016	0.013	0.0046 U	0.0047 U	0.034	0.16	0.26	0.0427	0.36	0.25	4,800	67,000
Acenaphthylene	mg/kg	0.0049 U	0.022 J	0.014 J	0.0046 U	0.0047 U	0.01	0.09	0.1	0.059	0.13	0.1	4,800	67,300
Anthracene	mg/kg	0.0049 U	0.036	0.024	0.0046 U	0.0047 U	0.039	0.16	0.21	0.0642	0.32	0.26	24,000	340,000
Fluorene	mg/kg	0.0049 U	0.026 J	0.018 J	0.0046 U	0.0047 U	0.029	0.18	0.28	0.0513	0.39	0.3	3,200	40,000
Naphthalene	mg/kg	0.0037 J	0.069	0.055	0.0046 U	0.0029 J	0.062	0.77	1.0	0.358	1.3	1.1	1,600	22,000
Phenanthrene	mg/kg	0.0074	0.11	0.075	0.0025 J	0.0064	0.076	0.45	0.7	0.206	0.96	0.7	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.0029 J	0.052 J	0.027 J	0.0046 U	0.0076	0.032	0.097	0.1	0.0397	0.15	0.14	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.0033 J	0.057 J	0.03 J	0.0046 U	0.013	0.023	0.066	0.082	0.0379	0.094	0.09	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.007	0.11 J	0.06 J	0.0055	0.015	0.047	0.16	0.18	0.0665	0.23	0.22	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.0049 U	0.036 J	0.023 J	0.0046 U	0.0044 J	0.013	0.04	0.054	0.0355	0.06	0.05	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.0046 J	0.073 J	0.037 J	0.0043 J	0.01	0.04	0.12	0.12	0.0509	0.18	0.18	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.0049 U	0.0097	0.0053	0.0046 U	0.0047 U	0.0026 J	0.0084	0.012	0.00403 J	0.011 J	0.011 J	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.0084	0.16	0.11	0.0084	0.017	0.11	0.42	0.57	0.186	0.88	0.68	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.0049 U	0.03 J	0.018 J	0.0046 U	0.0035 J	0.01	0.032	0.041	0.0225	0.046	0.036	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.007	0.12	0.091	0.0066	0.025	0.11	0.39	0.48	0.127	0.81	0.64	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.0043 J	0.078 J	0.041 J	0.0006 J	0.016 J	0.0326 J	0.097 J	0.117 J	0.052	0.14 J	0.13 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.0048 J	0.078 J	0.041 J	0.0036 J	0.016 J	0.0326 J	0.097 J	0.117 J	0.052	0.14 J	0.13 J	0.056	0.056

Sample Location ¹	MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20			MAF-21		Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04			
Sample Date	10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015			
Sample Interval (dbm)	0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Type	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0046 U	0.0047 U	0.0049 U	0.0047 U	0.0048 U	--	0.0025 J	0.0049 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0046 U	0.0047 U	0.0049 U	0.0040 J	0.0044 J	--	0.0034 J	0.0032 J	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0046 U	0.0047 U	0.0049 U	0.0079	0.012	--	0.0061	0.0063	200	474
Hexachlorobenzene	mg/kg	0.0049 U	0.0047 UJ	0.0047 UJ	0.0046 U	0.0047 U	0.0049 U	0.0047 U	0.0048 U	--	0.0050 U	0.0049 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.049 U	0.047 U	0.047 U	0.046 U	0.047 U	0.049 U	0.051	0.048 U	--	0.049 J	0.034 J	24	60
Butyl Benzyl Phthalate	mg/kg	0.015	0.0047 U	0.0047 U	0.0046 U	0.0047 U	0.0049 U	0.0047 U	0.0048 U	--	0.0050 U	0.0049 U	180	460
Dibutyl Phthalate	mg/kg	0.02 U	0.022	0.022	0.018 U	0.019 U	0.02 U	0.019 U	0.019 U	--	0.02 U	0.02 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.02 U	0.019 U	0.019 U	0.018 U	0.019 U	0.02 U	0.019 UJ	0.019 UJ	--	0.02 U	0.02 U	49,000	700,000
Dimethyl Phthalate	mg/kg	0.02 U	0.019 U	0.019 U	0.018 U	0.019 U	0.02 U	0.019 U	0.019 U	--	0.02 U	0.02 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.02 U	0.019 U	0.019 U	0.018 U	0.019 U	0.02 U	0.019 U	0.019 U	--	0.02 U	0.02 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.025 U	0.024 U	0.023 U	0.023 U	0.024 U	0.024 U	0.024 U	0.022 J	0.0243 U	0.022 J	0.017 J	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.02 U	0.019 U	0.019 U	0.018 U	0.019 U	0.02 U	0.0075 J	0.017 J	0.0194 U	0.02 U	0.02 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.02 U	0.042 J	0.095 J	0.018 U	0.019 U	0.02	0.25	0.74	0.0755	1.4	1.2	6,000	90,000
Pentachlorophenol	mg/kg	0.098 UJ	0.094 UJ	0.093 UJ	0.093 UJ	0.094 UJ	0.097 UJ	0.094 U	0.096 U	0.0971 U	0.034 J	0.098 UJ	0.55	1.4
Phenol	mg/kg	0.02 U	0.018 J	0.025 J	0.018 U	0.015 U	0.022 U	0.11	0.37	0.0168 J	0.82 J	0.3 J	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.0028 J	0.023 J	0.017 J	0.0046 U	0.0047 U	0.034	0.2	0.28	0.0557	0.44	0.31	170	2,000
Hexachlorobutadiene	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0046 U	0.0047 U	0.0049 U	0.0047 U	0.0048 U	0.0049 U	0.0050 U	0.0049 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0049 U	0.0047 U	0.0047 U	0.0046 U	0.0047 U	0.0049 U	0.0047	0.0048 U	0.0194 U	0.0050 U	0.0049 U	70	180
Benzoic Acid	mg/kg	0.2 U	0.19 U	0.19 U	0.18 U	0.19 U	0.2 U	0.16 J	0.25	0.194 U	0.45	0.53	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.02 UJ	0.019 U	0.019 U	0.018 U	0.019 U	0.02 U	0.017 J	0.042	0.0194 U	0.02 U	0.02 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.00317 J	--	--	0.000378 J	--	--	0.0016 J	0.00711 J	0.00144 J	0.0693 J	0.00727 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	0.002	--	--	0.0006 J	--	--	0.005 J	0.27 J	0.0025 J	1.28 J	0.24 J	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	0.035	--	--	0.034 J	--	--	0.059 J	0.29 J	0.086 J	1.29 J	0.24 J	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	0.888 J	--	--	0.113 U	--	--	1.18	1.36	--	1.62	1.55	NE	NE
2,3,7,8-TCDF	ng/Kg	15.2	--	--	0.117 U	--	--	48.8	77.9	--	35.9	44.7	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	3.69 J	--	--	0.302 U	--	--	2.88 J	3.77 J	--	3.97 J	3.75 J	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	19.1	--	--	0.172 U	--	--	2.54 J	3.21 J	--	3.70 J	3.07 J	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	27	--	--	0.181 U	--	--	3.21 J	3.40 J	--	4.24 J	3.95 J	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	3.04 J	--	--	0.400 U	--	--	3.34 J	4.34 J	--	4.47 J	4.40 J	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	19.5	--	--	0.283 U	--	--	1.94 J	3.04 J	--	3.57 J	2.91 J	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	3.39 J	--	--	0.454 U	--	--	7.66	13.9	--	11.8	12.2	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	20.7	--	--	0.282 U	--	--	1.78 J	2.24 J	--	2.78 J	2.17 J	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	2.74 J	--	--	0.397 U	--	--	6.16	7.33	--	6.22	6.15	NE	NE

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21		Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015		
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm		
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	6.63	--	--	0.362 U	--	--	0.725 J	0.971 J	--	1.06 J	0.891 J	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	28.5	--	--	0.314 U	--	--	2.32 J	3.36 J	--	3.58 J	3.04 J	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	17.3	--	--	4.01 J	--	--	98.8	190	--	160	193	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	43.8	--	--	0.670 J	--	--	14.4	32.5	--	37.6	40.7	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	6.51	--	--	0.230 U	--	--	1.06 J	1.59 J	--	2.14 J	2.87 J	NE	NE
OCDD	ng/Kg	45.6	--	--	33.6	--	--	539	1,340	--	1,070	1,220	NE	NE
OCDF	ng/Kg	6.48 J	--	--	2.03 J	--	--	27.6	67.2	--	62.9	75.2	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	23.9 J	--	--	0.058 J	--	--	13.7 J	20.2 J	--	16.2 J	17.0 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	23.9 J	--	--	0.43 J	--	--	13.7 J	20.2 J	--	16.2 J	17.0 J	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015			
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm			
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	20	20	--	--	--	9.0	9.0	8.0	9.0	10	13	12	12
Cadmium	mg/kg	2.0	1.9	--	--	--	0.033 U	0.054 U	0.053 U	0.074 U	1.1	0.291 J	0.80	0.80
Chromium (as Chromium III)	mg/kg	59	57	--	--	--	27.5	26.1	25.3	31.4	36	23.4	25,000	400,000
Copper	mg/kg	79.6	86.8	--	--	--	11.4	11.7	11.8	13.9	35.7	16.3	8,000	90,000
Lead	mg/kg	44	46	--	--	--	5.0	7.0	4.0	8.0	22	6.0	21	21
Mercury	mg/kg	0.24	0.26	--	--	--	0.0123 J	0.0084 J	0.0110 J	0.0154 J	0.11	0.04 U	0.20	0.20
Silver	mg/kg	0.17 J	0.16 J	--	--	--	0.4 U	0.4 U	0.4 U	0.4 U	0.6 U	0.4 U	200	4,000
Zinc	mg/kg	109	109	--	--	--	35	38	35	41	79	37	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	0.005 U	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.22 J	0.4 J	0.0504	0.169	--	0.0047 U	0.0056 U	0.0050 U	0.0047 U	0.37	0.11	320	4,500
Acenaphthene	mg/kg	0.27	0.36	0.0509	0.21	--	0.0047 U	0.0056 U	0.0050 U	0.0047 U	0.37	0.17	4,800	67,000
Acenaphthylene	mg/kg	0.12	0.15	0.0587	0.0665	--	0.0047 U	0.0056 U	0.0050 U	0.0047 U	0.15	0.038	4,800	67,300
Anthracene	mg/kg	0.2	0.3	0.074	0.13	--	0.0047 U	0.0056 U	0.0034 J	0.0026 J	0.24	0.2	24,000	340,000
Fluorene	mg/kg	0.33 J	0.58 J	0.0619	0.189	--	0.0047 U	0.0056 U	0.0050 U	0.0047 U	0.41	0.15	3,200	40,000
Naphthalene	mg/kg	1.2	1.8	0.304	0.895	--	0.0047 U	0.0056 U	0.0050 U	0.0035 J	1.7	0.42	1,600	22,000
Phenanthrene	mg/kg	0.82	1.2	0.22	0.415	--	0.0047 U	0.0056 U	0.0094	0.0097	0.83	0.25	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.11	0.16	--	0.0621	--	0.0047 U	0.0056 U	0.0052	0.0046 J	0.11	0.16	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.064	0.096	--	0.0463	--	0.0047 U	0.0056 U	0.0054	0.0063	0.072	0.078	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.16	0.24	--	0.108	--	0.0047 U	0.0056 U	0.0085	0.01	0.18	0.18	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.048	0.07	--	0.031	--	0.0047 U	0.0056 U	0.0037 J	0.0052	0.04	0.027	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.12	0.19	--	0.0881	--	0.0047 U	0.0056 U	0.0061	0.0059	0.2	0.18	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.0072	0.011	--	0.00793 J	--	0.0047 U	0.0056 U	0.0050 U	0.0047 U	0.011	0.0091	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.85	1.1	--	0.413	--	0.0047 U	0.0056 U	0.01	0.011	0.54	0.55	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	0.042	--	0.0257	--	0.0047 U	0.0056 U	0.0035 J	0.0042 J	0.034	0.027	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.64	0.87	--	0.313	--	0.0047 U	0.0056 U	0.012	0.0094	0.42	0.46	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.096 J	0.14 J	--	0.068	--	0 U	0 U	0.007 J	0.008 J	0.108 J	0.117 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.096 J	0.14 J	--	0.068	--	0.003 U	0.004 U	0.007 J	0.008 J	0.108 J	0.117 J	0.056	0.056

Sample Location ¹	MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015			
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm			
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0049 U	0.0048 U	--	0.0121 J	--	0.0047 U	0.0047 U	0.0050 U	0.0047 U	0.0026 J	0.0048 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0045 J	0.0030 J	--	0.0199 U	--	0.0047 U	0.0047 U	0.0050 U	0.0047 U	0.016	0.0017 J	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.007	0.0065	--	0.0994 U	--	0.0047 U	0.0047 U	0.0050 U	0.0047 U	0.0087	0.0022 J	200	474
Hexachlorobenzene	mg/kg	0.0049 UJ	0.0048 UJ	--	0.242	--	0.0047 U	0.0047 U	0.0050 U	0.0047 U	0.0048 U	0.0048 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.094 J	0.097 U	--	--	--	0.05 U	0.047 U	0.046 U	0.047 U	0.048 U	0.034 J	24	60
Butyl Benzyl Phthalate	mg/kg	0.0049 U	0.0048 U	--	--	--	0.0047 U	0.0047 U	0.0050 U	0.0047 U	0.0048 U	0.0048 U	180	460
Dibutyl Phthalate	mg/kg	0.035 J	0.039 U	--	--	--	0.02 U	0.019 U	0.018 U	0.019 U	0.019 U	0.019 U	6,000	90,000
Diethyl Phthalate	mg/kg	0.039 U	0.039 U	--	--	--	0.02 U	0.019 U	0.018 U	0.019 U	0.019 UJ	0.019 UJ	49,000	700,000
Dimethyl Phthalate	mg/kg	0.039 U	0.039 U	--	--	--	0.02 U	0.019 U	0.018 U	0.019 U	0.019 U	0.019 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.039 U	0.039 U	--	--	--	0.02 U	0.019 U	0.018 U	0.019 U	0.019 U	0.019 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	0.025	0.02 J	0.0242 U	0.0121 J	--	0.023 U	0.024 U	0.025 U	0.024 U	0.061	0.0099 J	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.039 U	0.039 U	0.0193 U	0.0199 U	--	0.02 U	0.019 U	0.018 U	0.019 U	0.036	0.019 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	3.1	2.2	0.031	--	--	0.02 U	0.019 U	0.018 U	0.019 U	1.3	0.25	6,000	90,000
Pentachlorophenol	mg/kg	0.2 UJ	0.19 UJ	0.0966 U	0.0994 U	--	0.1 UJ	0.095 UJ	0.092 UJ	0.094 UJ	0.092 J	0.095 U	0.55	1.4
Phenol	mg/kg	0.16	0.13	0.0161 J	0.242	--	0.02 U	0.012 U	0.018 U	0.011 U	0.29	0.093	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.3	0.44	--	0.206	0.0189 U	0.0047 U	0.0056 U	0.0050 U	0.0047 U	0.37	0.16	170	2,000
Hexachlorobutadiene	mg/kg	0.0049 U	0.0048 U	--	0.0050 U	0.0047 U	0.0047 U	0.0047 U	0.0050 U	0.0047 U	0.0048 U	0.0048 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0049 U	0.0048 U	--	0.0050 U	0.0047 U	0.0047 U	0.0047 U	0.0050 U	0.0047 U	0.0048 U	0.0048 U	70	180
Benzoic Acid	mg/kg	0.45	0.24 J	--	0.583	0.189 U	0.2 U	0.19 U	0.18 U	0.19 U	0.73	0.12 J	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.039 UJ	0.039 UJ	--	0.0389	0.0189 U	0.02 U	0.019 U	0.018 U	0.019 U	0.031	0.017 J	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	--	--	0.000035 J	0.00214 J	--	--	0.000226 J	--	0.000442 J	--	0.00365 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	--	0 U	0.006 J	--	--	0.00028 J	--	0.00058 J	0.19 J	0.0099 J	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	--	0.057 U	0.07 J	--	--	0.033 J	--	0.034 J	0.20 J	0.043 J	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	--	0.672 J	--	--	0.317 U	--	0.105 U	1.22	0.207 U	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	20.9	--	--	0.215 U	--	0.106 U	72.5	5.21	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	1.30 J	--	--	0.369 U	--	0.264 U	2.66 J	0.392 U	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	1.47 J	--	--	0.220 U	--	0.159 U	2.99 J	0.522 J	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	1.63 J	--	--	0.243 U	--	0.178 U	3.53 J	0.605 J	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	1.56 J	--	--	0.452 U	--	0.545 U	2.81 J	0.402 U	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	1.23 J	--	--	0.284 U	--	0.165 U	2.56 J	0.418 J	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	4.18 J	--	--	0.496 U	--	0.588 U	8.13	1.39 J	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	1.06 J	--	--	0.295 U	--	0.159 U	1.83 J	0.323 J	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	2.34 J	--	--	0.441 U	--	0.528 U	4.45 J	0.727 J	NE	NE

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32	Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015		
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	0.402 J	--	--	0.366 U	--	0.211 U	0.596 J	0.191 U	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	1.40 J	--	--	0.319 U	--	0.175 U	2.44 J	0.525 J	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	79.1	--	--	2.49 J	--	3.83 J	120	29	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	18.6	--	--	0.559 J	--	0.770 J	26.2	4.23 J	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	0.843 J	--	--	0.162 U	--	0.175 U	1.22 J	0.385 U	NE	NE
OCDD	ng/Kg	--	--	--	616	--	--	17.1	--	25.7	780	216	NE	NE
OCDF	ng/Kg	--	--	--	38.5	--	--	1.72 J	--	1.74 J	44.1	8.81 J	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	6.99 J	--	--	0.036 J	--	0.054 J	16.3 J	1.46 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	6.99 J	--	--	0.56 J	--	0.39 J	16.3 J	1.79 J	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016			
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm			
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	14	13	20	--	40 U	--	--	--	--	--	12	12	
Cadmium	mg/kg	0.3	0.4	0.356 J	--	0.50 J	--	--	--	--	--	0.80	0.80	
Chromium (as Chromium III)	mg/kg	27.6	30.6	25	--	9.0	--	--	--	--	--	25,000	400,000	
Copper	mg/kg	19.3	18.9	24.5	--	13	--	--	--	--	--	8,000	90,000	
Lead	mg/kg	9.0	7.0	11	--	20 U	--	--	--	--	--	21	21	
Mercury	mg/kg	0.03 U	0.04 U	0.07	--	0.03	--	--	--	--	--	0.20	0.20	
Silver	mg/kg	0.5 U	0.5 U	1 U	--	2 U	--	--	--	--	--	200	4,000	
Zinc	mg/kg	45	45	66	--	32	--	--	--	--	--	60,000	700,000	
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	73	73	
Tributyltin Ion (Interstitial Water)	µg/L	0.005 U	0.005 U	0.005 UJ	--	--	--	--	--	--	--	0.15	0.15	
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.18	0.16	0.25	0.39	0.14	--	--	--	--	--	320	4,500	
Acenaphthene	mg/kg	0.25	0.23	0.38	0.34	0.24	--	--	--	--	--	4,800	67,000	
Acenaphthylene	mg/kg	0.058	0.054	0.058	0.14	0.04	--	--	--	--	--	4,800	67,300	
Anthracene	mg/kg	0.2	0.18	0.21	0.26	0.28	--	--	--	--	--	24,000	340,000	
Fluorene	mg/kg	0.25	0.22	0.31	0.42	0.25	--	--	--	--	--	3,200	40,000	
Naphthalene	mg/kg	0.79	0.75	0.93	1.2	0.32	--	--	--	--	--	1,600	22,000	
Phenanthrene	mg/kg	0.49	0.4	0.68	0.76	0.69	--	--	--	--	--	24,000	336,000	
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.14	0.11	0.14	0.14	0.2	0.085	0.152	0.0374	0.167	0.0385	0.0747	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.071	0.059	0.084	0.11	0.098	0.0746	0.119	0.0311	0.111	0.0316	0.0522	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.17	0.14	0.2	0.26	0.23	0.153	0.272	0.0655	0.247	0.0669	0.115	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.033 J	0.023 J	0.034	0.049	0.035	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.24 J	0.14 J	0.2	0.18	0.29	0.119	0.227	0.0577	0.233	0.0415	0.123	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.0082	0.0067	0.01	0.012	0.011 J	0.0124	0.0184	0.00412	0.015	0.00486	0.00705	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.45	0.46	0.55	0.65	0.74	--	--	--	--	--	--	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.028 J	0.023 J	0.031	0.039	0.035	0.042	0.0545	0.0161	0.0459	0.0158	0.0235	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.41	0.38	0.43	0.8	0.72	--	--	--	--	--	--	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.108 J	0.088 J	0.124 J	0.157 J	0.149 J	0.105	0.171	0.044	0.16082	0.045	0.075	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.108 J	0.088 J	0.124 J	0.157 J	0.149 J	0.105	0.171	0.044	0.16082	0.045	0.075	0.056	0.056

Sample Location ¹	MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date	10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016		
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons													
1,2,4-Trichlorobenzene	mg/kg	0.0049 U	0.0049 U	0.0047 U	--	0.0047 U	--	--	--	--	--	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0039 J	0.0021 J	0.0047 U	--	0.0047 U	--	--	--	--	--	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0031 J	0.0026 J	0.0032 J	--	0.0047 U	--	--	--	--	--	200	474
Hexachlorobenzene	mg/kg	0.0049 U	0.0049 U	0.0047 U	--	0.0047 U	--	--	--	--	--	0.69	1.6
Phthalates													
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.049 U	0.036 J	0.033 J	--	0.047 U	--	--	--	--	--	24	60
Butyl Benzyl Phthalate	mg/kg	0.0049 U	0.008	0.0056	--	0.0047 U	--	--	--	--	--	180	460
Dibutyl Phthalate	mg/kg	0.0088 J	0.022	0.055	--	0.019 U	--	--	--	--	--	6,000	90,000
Diethyl Phthalate	mg/kg	0.02 UJ	0.02 UJ	0.026 J	--	0.019 UJ	--	--	--	--	--	49,000	700,000
Dimethyl Phthalate	mg/kg	0.02 U	0.02 U	0.019 U	--	0.019 U	--	--	--	--	--	NE	NE
Di-N-Octyl Phthalate	mg/kg	0.02 U	0.02 U	0.019 U	--	0.019 U	--	--	--	--	--	600	9,000
Phenols													
2,4-Dimethylphenol	mg/kg	0.024 U	0.024 U	0.024 U	--	0.02 J	0.0263 U	0.0138 J	--	--	--	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	0.0088 J	0.02 U	0.019 U	--	0.019 U	0.0199 U	0.0195 U	--	--	--	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	0.23	0.24	0.12	--	0.13	0.241	0.351	--	--	--	6,000	90,000
Pentachlorophenol	mg/kg	0.097 U	0.097 U	0.094 U	--	0.094 U	0.0993 U	0.0973 U	--	--	--	0.55	1.4
Phenol	mg/kg	0.13 J	0.068 J	0.081	--	0.09	0.104	0.127	--	--	--	18,000	260,000
Miscellaneous Extractables													
Dibenzofuran	mg/kg	0.25	0.22	0.38	0.384	0.22	--	--	--	--	--	170	2,000
Hexachlorobutadiene	mg/kg	0.0049 U	0.0049 U	0.0047 U	0.0049 U	0.0047 U	--	--	--	--	--	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0049 U	0.0049 U	0.056	0.0049 U	0.0047 U	--	--	--	--	--	70	180
Benzoic Acid	mg/kg	0.21	0.15 J	0.19 U	0.502	0.075 J	--	--	--	--	--	240,000	3,500,000
Benzyl Alcohol	mg/kg	0.018 J	0.015 J	0.019 U	0.0534	0.014 J	--	--	--	--	--	6,000	90,000
Polychlorinated Biphenyls (PCBs)													
Total PCBs (Aroclors or Congeners)	mg/kg	--	0.00664 J	0.216 J	0.123 J	0.00668 J	--	--	--	--	--	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	0.014 J	6.25	2.75	0.53 J	0.002 J	0.12 J	--	--	--	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	0.047 J	6.25	2.77	0.54 J	0.047 J	0.13 J	--	--	--	0.38	0.38
Dioxins and Furans													
2,3,7,8-TCDD	ng/Kg	--	0.587 J	0.317 U	1.37	0.213 U	0.872 J	0.934 J	--	--	0.349 J	NE	NE
2,3,7,8-TCDF	ng/Kg	--	11.1	62.7	146	4.63	34.3	22.7	--	--	7.48	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	0.904 J	0.479 U	3.35 J	0.688 J	2.86 J	2.37 J	--	--	0.879 J	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	0.681 J	1.41 J	3.29 J	0.994 J	2.36 J	2.21 J	--	--	0.708 J	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	0.871 J	2.02 J	4.86 J	1.27 J	2.33 J	2.29 J	--	--	0.981 J	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	1.23 J	0.787 J	3.81 J	1.09 J	4.02 J	3.00 J	--	--	1.04 J	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	0.737 J	0.703 U	3.18 J	2.79 J	2.12 J	1.98 J	--	--	0.807 J	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	2.72 J	2.01 J	14.1	6.34	7.6	7.66	--	--	1.96 J	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	0.550 J	0.645 U	2.26 J	0.999 J	1.68 J	1.59 J	--	--	0.566 J	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	1.49 J	1.02 J	6.67	1.93 J	5.27	4.52 J	--	--	1.19 J	NE	NE

Sample Location ¹		MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41	Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10		
Sample Date		10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016		
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
1,2,3,7,8,9-HxCDF	ng/Kg	--	0.217 U	0.874 U	1.06 J	1.06 J	0.699 J	0.747 J	--	--	0.453 U	--	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	0.666 J	0.762 U	3.34 J	1.31 J	2.48 J	2.19 J	--	--	0.836 J	--	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	53.9	28.6	251	308	92.6	127	--	--	29.7	--	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	7.14	3.86 J	42.2	19.1	22.5	17.4	--	--	6.47	--	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	0.453 J	0.473 U	2.02 J	1.55 J	1.51 J	1.42 J	--	--	0.511 J	--	NE	NE
OCDD	ng/Kg	--	357	327	1,900	3,580	670	1,030	--	--	192	--	NE	NE
OCDF	ng/Kg	--	10.9	15.7	81.7	50.3	41.3	45.7	--	--	15.2	--	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	4.35 J	7.73 J	27.9 J	7.49 J	11.7 J	10.3 J	--	--	3.36 J	--	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	4.36 J	8.28 J	27.9 J	7.60 J	11.7 J	10.3 J	--	--	3.38 J	--	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016			
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm			
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	--	--	--	--	--	--	--	--	--	--	12	12	
Cadmium	mg/kg	--	--	--	--	--	--	--	--	--	--	0.80	0.80	
Chromium (as Chromium III)	mg/kg	--	--	--	--	--	--	--	--	--	--	25,000	400,000	
Copper	mg/kg	--	--	--	--	--	--	--	--	--	--	8,000	90,000	
Lead	mg/kg	--	--	--	--	--	--	--	--	--	--	21	21	
Mercury	mg/kg	--	--	--	--	--	--	--	--	--	--	0.20	0.20	
Silver	mg/kg	--	--	--	--	--	--	--	--	--	--	200	4,000	
Zinc	mg/kg	--	--	--	--	--	--	--	--	--	--	60,000	700,000	
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	73	73	
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	0.15	0.15	
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	--	--	--	--	--	--	--	--	--	--	320	4,500	
Acenaphthene	mg/kg	--	--	--	--	--	--	--	--	--	--	4,800	67,000	
Acenaphthylene	mg/kg	--	--	--	--	--	--	--	--	--	--	4,800	67,300	
Anthracene	mg/kg	--	--	--	--	--	--	--	--	--	--	24,000	340,000	
Fluorene	mg/kg	--	--	--	--	--	--	--	--	--	--	3,200	40,000	
Naphthalene	mg/kg	--	--	--	--	--	--	--	--	--	--	1,600	22,000	
Phenanthrene	mg/kg	--	--	--	--	--	--	--	--	--	--	24,000	336,000	
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.0715	0.0498	0.0875	0.233	0.111	0.0353	0.0217	0.0387	0.131	0.0708	0.212	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.0503	0.0376	0.112	0.271	0.129	0.0296	0.025	0.0351	0.092	0.0646	0.227	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.11	0.0957	0.223	0.464	0.316	0.0653	0.05	0.0669	0.225	0.149	0.551	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.102	0.0676	0.176	0.255	0.164	0.0437	0.0332	0.0484	0.18	0.107	0.354	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.00865	0.00513	0.017	0.0283	0.021	0.00419	0.00476	0.00638	0.0129	0.00918	0.0401	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.0271	0.0188	0.0517	0.131	0.0609	0.0131	0.0147	0.0182	0.0395	0.0323	0.127	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.073	0.055	0.152	0.359	0.182	0.042	0.034	0.049	0.135	0.092	0.324	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.073	0.055	0.152	0.359	0.182	0.042	0.034	0.049	0.135	0.092	0.324	0.056	0.056

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016		
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
Chlorinated Hydrocarbons													
1,2,4-Trichlorobenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	--	--	--	--	--	--	--	--	--	--	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	--	--	--	--	--	--	--	--	--	--	200	474
Hexachlorobenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	0.69	1.6
Phthalates													
Bis(2-Ethylhexyl) Phthalate	mg/kg	--	--	--	--	--	--	--	--	--	--	24	60
Butyl Benzyl Phthalate	mg/kg	--	--	--	--	--	--	--	--	--	--	180	460
Dibutyl Phthalate	mg/kg	--	--	--	--	--	--	--	--	--	--	6,000	90,000
Diethyl Phthalate	mg/kg	--	--	--	--	--	--	--	--	--	--	49,000	700,000
Dimethyl Phthalate	mg/kg	--	--	--	--	--	--	--	--	--	--	NE	NE
Di-N-Octyl Phthalate	mg/kg	--	--	--	--	--	--	--	--	--	--	600	9,000
Phenols													
2,4-Dimethylphenol	mg/kg	--	--	--	--	--	--	--	--	--	--	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	--	--	--	--	--	--	--	--	--	--	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	--	--	--	--	--	--	--	--	--	--	6,000	90,000
Pentachlorophenol	mg/kg	--	--	--	--	--	--	--	--	--	--	0.55	1.4
Phenol	mg/kg	--	--	--	--	--	--	--	--	--	--	18,000	260,000
Miscellaneous Extractables													
Dibenzofuran	mg/kg	--	--	--	--	--	--	--	--	--	--	170	2,000
Hexachlorobutadiene	mg/kg	--	--	--	--	--	--	--	--	--	--	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	--	--	--	--	--	--	--	--	--	--	70	180
Benzoic Acid	mg/kg	--	--	--	--	--	--	--	--	--	--	240,000	3,500,000
Benzyl Alcohol	mg/kg	--	--	--	--	--	--	--	--	--	--	6,000	90,000
Polychlorinated Biphenyls (PCBs)													
Total PCBs (Aroclors or Congeners)	mg/kg	--	--	--	--	--	--	--	--	--	--	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	--	--	--	0.14 J	--	--	0.12 J	--	--	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	--	--	--	0.15 J	--	--	0.12 J	--	--	0.38	0.38
Dioxins and Furans													
2,3,7,8-TCDD	ng/Kg	--	--	--	--	--	--	--	0.239 J	--	--	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	--	--	--	--	--	3.23	--	--	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	--	--	--	--	--	0.519 J	--	--	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	0.620 J	--	--	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	--	--	--	--	--	0.743 J	--	--	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	0.835 J	--	--	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	0.548 J	--	--	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	--	--	--	--	--	1.53 J	--	--	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	--	0.463 J	--	--	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	--	--	--	--	--	0.804 J	--	--	NE	NE

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52	Proposed Sediment Cleanup Level ²	
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016		
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm		
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface		
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	--	--	--	--	0.370 U	--	--	--	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	--	--	--	--	0.551 J	--	--	--	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	--	--	--	--	22.6	--	--	--	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	--	--	--	--	3.71 J	--	--	--	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	--	--	--	--	0.426 U	--	--	--	NE	NE
OCDD	ng/Kg	--	--	--	--	--	--	128	--	--	--	NE	NE
OCDF	ng/Kg	--	--	--	--	--	--	9.31 J	--	--	--	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	--	--	--	--	2.10 J	--	--	--	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	2.12 J	--	--	--	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-53	MAF-54	MAF-55	MAF-56				MAF-57			MAF-58	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18			
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm			
Sample Type	Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Metals														
Arsenic	mg/kg	--	--	--	3.52	4.63	4.72	4.4	5.77	5.18	3.89	9.6	12	12
Cadmium	mg/kg	--	--	--	0.08 J	0.10 J	0.11 J	0.12 U	0.47	0.22	0.15	0.85	0.80	0.80
Chromium (as Chromium III)	mg/kg	--	--	--	21.8	22.4	24.1	19.1	34.8	27.8	19	41.2	25,000	400,000
Copper	mg/kg	--	--	--	10.1	10.1	10.5 J	6.62	32	17.4	9.74	42.5	8,000	90,000
Lead	mg/kg	--	--	--	4.57	5.07	4.85 J	2.99	10.3	9.18	3.89	20.3	21	21
Mercury	mg/kg	--	--	--	0.0261 J	0.0321	0.0745	0.00636 J	0.0551	0.0270 J	0.0107 J	0.105	0.20	0.20
Silver	mg/kg	--	--	--	0.03 J	0.03 J	0.04 J	0.24 U	0.11 J	0.07 J	0.03 J	0.22 J	200	4,000
Zinc	mg/kg	--	--	--	30.2	30	32.6	26	58.4	45	28.6	85.2	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	--	--	--	0.0299	0.0194	0.0161	0.00500 U	0.109	0.0601	0.00427 J	0.204	320	4,500
Acenaphthene	mg/kg	--	--	--	0.0345	0.0209	0.0168	0.00500 U	0.162	0.084	0.00649	0.294	4,800	67,000
Acenaphthylene	mg/kg	--	--	--	0.0132	0.0132	0.015	0.00500 U	0.0422 J	0.0203	0.00215 J	0.0572	4,800	67,300
Anthracene	mg/kg	--	--	--	0.0324	0.0202	0.0214	0.00500 U	0.138	0.0618	0.00617	0.213	24,000	340,000
Fluorene	mg/kg	--	--	--	0.032	0.0229	0.0215	0.00500 U	0.139	0.0797	0.00657	0.297	3,200	40,000
Naphthalene	mg/kg	--	--	--	0.108	0.11	0.109	0.00289 J	0.218	0.237	0.0164	0.523	1,600	22,000
Phenanthrene	mg/kg	--	--	--	0.0965	0.0827	0.0813 J	0.00265 U	0.311	0.166	0.0175	0.742	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.118	0.546	0.0206	0.0214	0.0157	0.0134	0.00125 J	0.152	0.0402	0.00453 J	0.187	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.1	0.352	0.0166	0.0145	0.0121	0.0111	0.00128 U	0.0917	0.0405	0.00316 U	0.142	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.261	0.851	0.0234	0.0321	0.0252	0.0245	0.0100 U	0.234	0.0944	0.00989 J	0.336	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	--	--	--	0.00993	0.00954	0.00926	0.00500 U	0.0436 J	0.023	0.00272 U	0.0877	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.203	0.751	0.0215	0.0227	0.0181	0.0148	0.00500 U	0.192	0.05	0.00536	0.249	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.017	0.0451	0.00924 U	0.00838 U	0.00806 U	0.00738 U	0.00661 U	0.077	0.0248 U	0.00670 U	0.0532	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	--	--	--	0.122	0.0809	0.073.3 J	0.00345 U	0.448	0.134	0.0181	0.690	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.0499	0.151	0.00888	0.00823	0.00781	0.00593	0.00111 J	0.0501	0.0196	0.00223 J	0.0807	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	--	--	--	0.106	0.0765	0.0657 J	0.00339 U	0.686	0.188	0.0234	0.688	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.147	0.519	0.0221 J	0.0209 J	0.0180 J	0.0164 J	0.000236 J	0.145 J	0.0564 J	0.00488 J	0.210 J	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.147	0.519	0.0226 J	0.0213 J	0.0180 J	0.0164 J	0.00359 J	0.145 J	0.0577 J	0.00521 J	0.210 J	0.056	0.056

Sample Location ¹	MAF-53	MAF-54	MAF-55	MAF-56				MAF-57			MAF-58	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18			
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm			
Sample Type	Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	--	--	--	0.0197 UJ	0.0199 U	0.0197 UJ	0.0199 U	0.0194 U	0.0193 U	0.0198 U	0.0193 U	38	88
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	--	--	--	0.0197 UJ	0.0199 U	0.0197 UJ	0.0199 U	0.0194 UJ	0.0193 U	0.0198 U	0.0193 U	21,000	230,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	--	--	--	0.0197 UJ	0.0199 U	0.0197 UJ	0.0199 U	0.0194 UJ	0.0193 U	0.0198 U	0.0193 U	200	474
Hexachlorobenzene	mg/kg	--	--	--	0.0049 U	0.0050 U	0.0049 U	0.0050 U	0.0049 U	0.0048 U	0.0050 U	0.0048 U	0.69	1.6
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	--	--	--	0.0285 J	0.0499 U	0.0493 U	0.0499 U	0.0486 U	0.0482 U	0.0496 U	0.0534	24	60
Butyl Benzyl Phthalate	mg/kg	--	--	--	0.0197 U	0.0199 U	0.0197 U	0.0199 U	0.0194 U	0.0193 U	0.0198 U	0.0193 U	180	460
Dibutyl Phthalate	mg/kg	--	--	--	0.0197 U	0.0199 U	0.0197 U	0.0199 U	0.0194 U	0.0193 U	0.0198 U	0.0193 U	6,000	90,000
Diethyl Phthalate	mg/kg	--	--	--	0.0197 U	0.0302	0.0197 U	0.0185 J	0.0194 U	0.0480	0.0198 U	0.0193 U	49,000	700,000
Dimethyl Phthalate	mg/kg	--	--	--	0.0197 U	0.0199 U	0.0197 U	0.0199 U	0.0194 U	0.0193 U	0.0198 U	0.0193 U	NE	NE
Di-N-Octyl Phthalate	mg/kg	--	--	--	0.0197 U	0.0199 U	0.0197 U	0.0199 U	0.0194 U	0.0193 U	0.0198 U	0.0193 U	600	9,000
Phenols														
2,4-Dimethylphenol	mg/kg	--	--	--	0.0246 U	0.0249 U	0.0247 U	0.0249 U	0.0243 U	0.0241 U	0.0248 U	0.0076 J	1,200	18,000
2-Methylphenol (o-Cresol)	mg/kg	--	--	--	0.0197 UJ	0.0199 U	0.0197 UJ	0.0199 U	0.0194 UJ	0.0193 U	0.0198 U	0.0193 U	3,000	44,000
4-Methylphenol (p-Cresol)	mg/kg	--	--	--	0.0197 UJ	0.0183 J	0.0197 UJ	0.0199 U	0.130 J	0.098	0.0198 U	0.132	6,000	90,000
Pentachlorophenol	mg/kg	--	--	--	0.0046 J	0.0199 U	0.0027 J	0.0199 U	0.0110 J	0.0193 U	0.0198 U	0.0058 J	0.55	1.4
Phenol	mg/kg	--	--	--	0.0198 J	0.0163 J	0.0112 UJ	0.0128 J	0.0586 J	0.0211	0.0198 U	0.146 J	18,000	260,000
Miscellaneous Extractables														
Dibenzofuran	mg/kg	--	--	--	0.0354	0.0239	0.0231	0.0199 U	0.148	0.0599	0.0099 J	0.113	170	2,000
Hexachlorobutadiene	mg/kg	--	--	--	0.0197 UJ	0.0199 U	0.0197 UJ	0.0199 U	0.0194 U	0.0193 U	0.0198 U	0.0193 U	14	33
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	--	--	--	0.0197 U	0.0199 U	0.0197 U	0.0199 U	0.0194 U	0.0193 U	0.0198 U	0.0193 U	70	180
Benzoic Acid	mg/kg	--	--	--	0.0323 J	0.0233 J	0.0193 J	0.0143 J	0.0768 J	0.0197 J	0.0992 U	0.0643 J	240,000	3,500,000
Benzyl Alcohol	mg/kg	--	--	--	0.0197 UJ	0.0199 U	0.0197 UJ	0.0199 U	0.0194 UJ	0.0193 U	0.0198 U	0.0193 U	6,000	90,000
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	--	--	--	0.00812 J	0.00163 J	0.0664 J	0.000245 J	0.00318 J	0.00934 J	0.00103 J	0.0142 J	0.19	0.49
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	--	--	0.20 J	0.0037 J	0.0021 J	0.0005 J	0.14 J	0.26 J	0.0026 J	0.37 J	0.38	0.38
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	--	--	0.21 J	0.040 J	0.064 J	0.050 J	0.15 J	0.27 J	0.029 J	0.38 J	0.38	0.38
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	--	--	0.155 U	0.170 U	0.277 J	0.171 U	0.196 J	0.464 J	0.539 J	0.154 U	1.06	NE	NE
2,3,7,8-TCDF	ng/Kg	--	--	2.02	17.2	4.73	3.62	0.128 U	10.7	19.8	3.49	50.2	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	--	--	0.239 U	0.392 J	0.702 J	0.533 J	0.239 U	1.06 J	0.941 J	0.269 J	2.82 J	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	--	--	0.225 U	0.578 J	0.624 J	0.410 J	0.171 U	0.830 J	1.18 J	0.307 J	3.06 J	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	--	--	0.245 U	1.28 J	0.931 J	0.644 J	0.168 U	1.68 J	1.90 J	0.355 J	5.22	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	--	--	0.324 U	0.386 J	0.709 J	0.486 J	0.216 U	1.13 J	1.16 J	0.354 J	3.55 J	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	--	--	0.194 U	0.456 J	0.454 J	0.224 U	0.132 U	0.978 J	1.00 J	0.244 J	2.60 J	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	--	--	0.483 J	1.41 J	1.24 J	0.849 J	0.237 U	3.45 J	2.87 J	0.860 J	9.18	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	--	--	0.200 U	0.315 J	0.386 J	0.239 U	0.141 U	0.699 J	0.828 J	0.225 J	2.21 J	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	--	--	0.320 U	0.709 J	0.983 J	0.608 J	0.219 U	1.70 J	1.93 J	0.595 J	5.92	NE	NE

Sample Location ¹		MAF-53	MAF-54	MAF-55	MAF-56			MAF-57			MAF-58	Proposed Sediment Cleanup Level ²		
Sample Identification		MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18		
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm		
Sample Type		Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal		
1,2,3,7,8,9-HxCDF	ng/Kg	--	--	0.238 U	0.237 U	0.231 J	0.283 U	0.168 U	0.346 J	0.439 J	0.202 U	0.957 J	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	--	--	0.207 U	0.363 J	0.374 J	0.321 J	0.148 U	1.05 J	0.931 J	0.256 J	2.75 J	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	--	--	6.18	23.4	10.5	7.13	0.562 J	97.3	38.2	13.7	131	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	--	--	1.48 J	3.27 J	1.88 J	1.27 J	0.142 U	11.2	7.25	1.75 J	18.1	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	--	--	0.196 U	0.230 U	0.260 J	0.128 U	0.175 U	0.728 J	0.665 J	0.199 U	1.52 J	NE	NE
OCDD	ng/Kg	--	--	38.6	150	42.9	31.6	4.06 J	881	198	102	705	NE	NE
OCDF	ng/Kg	--	--	2.20 J	4.56 J	2.27 J	1.85 J	0.263 U	49.9	12	3.07 J	32.9	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	--	--	0.34 J	3.36 J	2.33 J	1.42 J	0.20 J	5.45 J	5.51 J	1.17 J	15.0 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	--	--	0.65 J	3.37 J	2.33 J	1.54 J	0.42 J	5.45 J	5.51 J	1.26 J	15.0 J	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2
Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-58	MAF-59				MAF-60			MAF-61		EDP62	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21			
Sample Interval (dbm)	2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft			
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface			
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal			
Metals														
Arsenic	mg/kg	5.67	9.15	7.06	4.9	2.92	5.89	3.5	3.24	--	--	1.51 J	12	12
Cadmium	mg/kg	0.21	0.54	0.65	0.28	0.07 J	0.61	0.22	0.12 U	--	--	0.236 U	0.80	0.80
Chromium (as Chromium III)	mg/kg	26.2	39.5	35.6	28.5	20.2	32.1	21.4	17.4	--	--	23.6 J	25,000	400,000
Copper	mg/kg	17.8 J	41.1	39.2	24.7	7.33	30.5	20	5.62	--	--	11.8	8,000	90,000
Lead	mg/kg	8.44 J	14.4	35.9	23.2	2.21	10.4	7.47	2.39	--	--	3.31	21	21
Mercury	mg/kg	0.0676	0.119	0.223	38.5	0.00839 J	0.0808	0.0485	0.0156 J	--	--	0.00586 J	0.20	0.20
Silver	mg/kg	0.07 J	0.15 J	0.15 J	0.08 J	0.03 J	0.11 J	0.08 J	0.03 J	--	--	0.354 U	200	4,000
Zinc	mg/kg	36.7	80.1	65.4	50.5	25.2	62.4	59.9	20.3	--	--	34.9	60,000	700,000
Organometallic Compounds														
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)														
2-Methylnaphthalene	mg/kg	0.0326	0.159	0.327	0.133 J	--	0.275	0.222	0.00521	--	--	--	320	4,500
Acenaphthene	mg/kg	0.0348	0.191	0.311	0.148 J	--	0.388	0.373	0.00687	--	--	--	4,800	67,000
Acenaphthylene	mg/kg	0.0256	0.0623	0.0873	0.0932 J	--	0.0897	0.0586	0.00470 U	--	--	--	4,800	67,300
Anthracene	mg/kg	0.0368	0.175	0.21	0.100 J	--	0.353	0.327	0.00332 J	--	--	--	24,000	340,000
Fluorene	mg/kg	0.0371	0.176	0.359	0.164 J	--	0.342	0.296	0.00604	--	--	--	3,200	40,000
Naphthalene	mg/kg	0.181	0.601	1.21	0.736 J	--	0.663	0.515	0.0161	--	--	--	1,600	22,000
Phenanthrene	mg/kg	0.140 J	0.461	0.781	0.459 J	--	0.689	0.781	0.0115	--	--	--	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)														
Benzo(a)anthracene	mg/kg	0.028	0.161	0.287	0.0495	--	0.306	0.292	0.00248 J	0.0566 J	0.0338 J	--	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	0.0259	0.116	0.243	0.0329	--	0.17	0.195	0.00167 U	0.0521 J	0.0264 J	--	See cPAH TEQ	See cPAH TEQ
Benzofluoranthenes ³ (Total)	mg/kg	0.0525	0.307	0.435	0.0712	--	0.438	0.522	0.00408 J	0.0760 J	0.0413 J	--	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	0.0223	0.0725	0.194	0.0318	--	0.0757	0.0729	0.00470 U	--	--	--	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	0.0354	0.274	0.288	0.0619	--	0.412	0.445	0.00339 J	0.0669 J	0.0400 J	--	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	0.0221	0.0532	0.0876	0.0212 J	--	0.0598	0.0369	0.00470 U	0.0245 U	0.0221 U	--	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	0.126 J	0.566	0.83	0.326	--	1.01	1.24	0.0104	--	--	--	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	0.0181	0.0651	0.141	0.0182	--	0.0694	0.0743	0.00106 J	0.0249 J	0.0134 J	--	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	0.121 J	0.529	0.794	0.288	--	1.30	0.86	0.0118	--	--	--	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)														
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	0.0361 J	0.177	0.341	0.0495 J	--	0.261	0.292	0.00247 J	0.0685 J	0.0379 J	--	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	0.0372 J	0.177	0.341	0.0495 J	--	0.261	0.292	0.00251 J	0.0697 J	0.0379 J	--	0.056	0.056

Sample Location ¹	MAF-58	MAF-59				MAF-60			MAF-61		EDP62	Proposed Sediment Cleanup Level ²		
Sample Identification	MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21			
Sample Interval (dbm)	2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft			
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface			
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal			
Chlorinated Hydrocarbons														
1,2,4-Trichlorobenzene	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0194 U	--	0.0193 U	0.0197 U	0.0190 U	--	--	38	88	
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0194 U	--	0.0193 U	0.0197 U	0.0190 U	--	--	21,000	230,000	
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0194 U	--	0.0193 U	0.0197 U	0.0190 U	--	--	200	474	
Hexachlorobenzene	mg/kg	0.0048 U	0.0049 U	0.0049 U	0.0049 U	--	0.0048 U	0.0049 U	0.0047 U	--	--	0.69	1.6	
Phthalates														
Bis(2-Ethylhexyl) Phthalate	mg/kg	0.0483 U	0.108	0.0298 J	0.0276 U	--	0.200	0.0704	0.0474 U	--	--	24	60	
Butyl Benzyl Phthalate	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0194 U	--	0.0193 U	0.0197 U	0.0190 U	--	--	180	460	
Dibutyl Phthalate	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.030 U	--	0.0193 U	0.0197 U	0.0190 U	--	--	6,000	90,000	
Diethyl Phthalate	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0319	--	0.0193 U	0.0197 U	0.0190 U	--	--	49,000	700,000	
Dimethyl Phthalate	mg/kg	0.0193 U	0.022	0.0194 U	0.0194 U	--	0.0193 U	0.0197 U	0.0190 U	--	--	NE	NE	
Di-N-Octyl Phthalate	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0194 U	--	0.0193 U	0.0197 U	0.0190 U	--	--	600	9,000	
Phenols														
2,4-Dimethylphenol	mg/kg	0.0028 J	0.0100 J	0.044	0.0119 J	--	0.0054 J	0.0072 J	0.0237 U	--	--	1,200	18,000	
2-Methylphenol (o-Cresol)	mg/kg	0.0193 U	0.0194 U	0.0563	0.012 J	--	0.0193 U	0.0197 U	0.0190 U	--	--	3,000	44,000	
4-Methylphenol (p-Cresol)	mg/kg	0.043	0.141	1.17	0.270	--	0.146	0.0553	0.0190 U	--	--	6,000	90,000	
Pentachlorophenol	mg/kg	0.0193 U	0.0062 J	0.0057 J	0.0021 J	--	0.0029 J	0.0030 J	0.0190 U	--	--	0.55	1.4	
Phenol	mg/kg	0.0125 J	0.0824 J	0.0601	0.0279	--	0.0466 J	0.0331	0.0190 U	--	--	18,000	260,000	
Miscellaneous Extractables														
Dibenzofuran	mg/kg	0.0422	0.244	0.406	0.154	--	0.274	0.279	0.0100	--	--	170	2,000	
Hexachlorobutadiene	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0194 U	--	0.0048 U	0.0049 U	0.0048 U	--	--	14	33	
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0194 U	--	0.0092 U	0.0094 U	0.0091 U	--	--	70	180	
Benzoic Acid	mg/kg	0.0225 J	0.0704 J	0.121 J	0.059 J	--	0.0655 J	0.055 J	0.0127 U	--	--	240,000	3,500,000	
Benzyl Alcohol	mg/kg	0.0193 U	0.0194 U	0.0194 U	0.0194 U	--	0.0144 U	0.0147 U	0.0141 U	--	--	6,000	90,000	
Polychlorinated Biphenyls (PCBs)														
Total PCBs (Aroclors or Congeners)	mg/kg	0.000565 J	0.0103 J	0.0209 J	0.0128 J	--	0.00702 J	0.0139 J	0.000144 J	--	--	0.19	0.49	
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	0.001 J	0.27 J	0.424 J	0.015 J	--	0.16 J	0.47	0.0002 J	--	--	0.38	0.38	
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	0.029 J	0.28 J	0.434 J	0.084 J	--	0.17 J	0.48	0.041 J	--	--	0.38	0.38	
Dioxins and Furans														
2,3,7,8-TCDD	ng/Kg	0.347 J	0.997	1.81	1.09	0.103 U	0.677 J	0.410 J	0.189 U	0.353 J	0.252 J	4.75 U	NE	NE
2,3,7,8-TCDF	ng/Kg	5.09	22.5	130	15.5	0.141 J	14	13.1	1.28	9.68	9.56	1.88 U	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	0.785 J	3.22 J	4.65 J	2.49 J	0.214 U	1.24 J	1.40 J	0.227 U	0.725 J	0.606 J	0.328 J	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	0.790 J	2.49 J	7.3	2.72 J	0.136 U	1.14 J	1.07 J	0.197 U	0.801 J	0.595 J	0.257 UJ	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	1.25 J	3.93 J	12.2	4.15 J	0.140 U	2.10 J	1.71 J	0.214 U	1.64 J	1.05 J	0.157 U	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	0.847 J	4.65 J	5.67	3.20 J	0.244 U	1.59 J	2.79 J	0.277 U	0.826 J	0.753 J	0.246 J	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	0.430 J	2.21 J	6.49	1.42 J	0.116 U	1.16 J	0.819 J	0.180 U	0.879 J	0.477 J	0.168 U	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	1.61 J	10.1	10.9	4.78 J	0.246 U	3.97 J	8.51	0.274 U	2.03 J	2.41 J	0.259 U	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	0.356 J	1.72 J	6.1	1.49 J	0.111 U	0.873 J	0.713 J	0.181 U	0.674 J	0.373 J	0.199 U	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	1.24 J	6.93	7.11	3.56 J	0.236 U	2.26 J	9.54	0.266 U	1.27 J	1.86 J	0.279 U	NE	NE

Sample Location ¹		MAF-58	MAF-59				MAF-60			MAF-61		EDP62	Proposed Sediment Cleanup Level ²	
Sample Identification		MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21		
Sample Interval (dbm)		2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft		
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface		
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal		
1,2,3,7,8,9-HxCDF	ng/Kg	0.279 J	0.857 J	2.53 J	0.502 J	0.145 U	0.565 J	0.408 J	0.222 U	0.362 J	0.250 U	0.198 U	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	0.485 J	2.38 J	7.1	1.74 J	0.119 U	1.11 J	0.928 J	0.192 U	0.929 J	0.531 J	0.163 U	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	13.1	174	112	34.3	0.750 J	99.9	309	1.02 J	28.5	34.2	0.178 U	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	2.51 J	16.4	44.7	10.3	0.193 U	10.2	7.72	0.219 U	3.97 J	3.25 J	0.187 U	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	0.249 U	1.44 J	4.23 J	0.686 J	0.252 U	0.851 J	0.749 J	0.275 U	0.400 J	0.320 U	0.26 U	NE	NE
OCDD	ng/Kg	49.8	1210	520	111	6.55 J	764	1,910	7.54 J	175	172	28 J	NE	NE
OCDF	ng/Kg	3.32 J	40	67	14.7	0.388 U	25.1	20.9	0.385 U	6.31 J	6.01 J	4.49 U	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	2.74 J	12.9 J	29.7 J	8.62 J	0.024 J	6.48 J	9.79 J	0.14 J	3.64 J	3.22 J	0.036 J	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	2.74 J	12.9 J	29.7 J	8.62 J	0.27 J	6.48 J	9.79 J	0.47 J	3.64 J	3.23 J	0.406 J	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-2

Summary of Sediment Analytical Results for the Protection of Human Health and Higher Trophic Level Ecological Receptors
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		EDP62	EDP63		EDP64		EDP65		Proposed Sediment Cleanup Level ²	
Sample Identification		EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0		
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21		
Sample Interval (dbm)		2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft		
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal		
Metals										
Arsenic	mg/kg	2.53 J	2.95 J	3.50 J	4.44 J	5.28 J	3.43 J	5.43 J	12	12
Cadmium	mg/kg	0.239 U	0.269 U	0.246 U	0.257 U	0.248 U	0.245 U	0.238 U	0.80	0.80
Chromium (as Chromium III)	mg/kg	23.6	27.8	27.9	29.6	35.9	30.9	27.6	25,000	400,000
Copper	mg/kg	11	11.8	12.6	13.4	14.7	11.9	11.1	8,000	90,000
Lead	mg/kg	8.8	3.75	4.45	7.27	7.36	5.52	3.58	21	21
Mercury	mg/kg	0.00782 J	0.0403	0.0337	0.00621 J	0.0164 J	0.00838 J	0.0105 J	0.20	0.20
Silver	mg/kg	0.358 U	0.404 U	0.118 J	0.386 U	0.372 U	0.368 U	0.357 U	200	4,000
Zinc	mg/kg	41.5	37.6	39.1	43.2	43.5	39.1	29.5	60,000	700,000
Organometallic Compounds										
Tributyltin Ion (Bulk Sediment)	µg/kg	--	--	--	--	--	--	--	73	73
Tributyltin Ion (Interstitial Water)	µg/L	--	--	--	--	--	--	--	0.15	0.15
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (LPAHs)										
2-Methylnaphthalene	mg/kg	--	--	--	--	--	--	--	320	4,500
Acenaphthene	mg/kg	--	--	--	--	--	--	--	4,800	67,000
Acenaphthylene	mg/kg	--	--	--	--	--	--	--	4,800	67,300
Anthracene	mg/kg	--	--	--	--	--	--	--	24,000	340,000
Fluorene	mg/kg	--	--	--	--	--	--	--	3,200	40,000
Naphthalene	mg/kg	--	--	--	--	--	--	--	1,600	22,000
Phenanthrene	mg/kg	--	--	--	--	--	--	--	24,000	336,000
High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs)										
Benzo(a)anthracene	mg/kg	--	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Benzo(a)pyrene	mg/kg	--	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Benzo(a)fluoranthene ³ (Total)	mg/kg	--	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Benzo(g,h,i)perylene	mg/kg	--	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Chrysene	mg/kg	--	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Dibenzo(a,h)anthracene	mg/kg	--	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Fluoranthene	mg/kg	--	--	--	--	--	--	--	3,200	45,000
Indeno(1,2,3-c,d)pyrene	mg/kg	--	--	--	--	--	--	--	See cPAH TEQ	See cPAH TEQ
Pyrene	mg/kg	--	--	--	--	--	--	--	2,400	30,000
Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)										
Total cPAH TEQ ⁴ (ND=0 RL)	mg/kg	--	--	--	--	--	--	--	0.056	0.056
Total cPAH TEQ ⁴ (ND=0.5 RL)	mg/kg	--	--	--	--	--	--	--	0.056	0.056

Sample Location ¹	EDP62	EDP63		EDP64		EDP65		Proposed Sediment Cleanup Level ²		
Sample Identification	EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)	
Sample Date	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21			
Sample Interval (dbm)	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft			
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface			
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit			
Tidal Zone	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal			
Chlorinated Hydrocarbons										
1,2,4-Trichlorobenzene	mg/kg	--	--	--	--	--	--	38	88	
1,2-Dichlorobenzene (o-Dichlorobenzene)	mg/kg	--	--	--	--	--	--	21,000	230,000	
1,4-Dichlorobenzene (p-Dichlorobenzene)	mg/kg	--	--	--	--	--	--	200	474	
Hexachlorobenzene	mg/kg	--	--	--	--	--	--	0.69	1.6	
Phthalates										
Bis(2-Ethylhexyl) Phthalate	mg/kg	--	--	--	--	--	--	24	60	
Butyl Benzyl Phthalate	mg/kg	--	--	--	--	--	--	180	460	
Dibutyl Phthalate	mg/kg	--	--	--	--	--	--	6,000	90,000	
Diethyl Phthalate	mg/kg	--	--	--	--	--	--	49,000	700,000	
Dimethyl Phthalate	mg/kg	--	--	--	--	--	--	NE	NE	
Di-N-Octyl Phthalate	mg/kg	--	--	--	--	--	--	600	9,000	
Phenols										
2,4-Dimethylphenol	mg/kg	--	--	--	--	--	--	1,200	18,000	
2-Methylphenol (o-Cresol)	mg/kg	--	--	--	--	--	--	3,000	44,000	
4-Methylphenol (p-Cresol)	mg/kg	--	--	--	--	--	--	6,000	90,000	
Pentachlorophenol	mg/kg	--	--	--	--	--	--	0.55	1.4	
Phenol	mg/kg	--	--	--	--	--	--	18,000	260,000	
Miscellaneous Extractables										
Dibenzofuran	mg/kg	--	--	--	--	--	--	170	2,000	
Hexachlorobutadiene	mg/kg	--	--	--	--	--	--	14	33	
N-Nitrosodiphenylamine (as Diphenylamine)	mg/kg	--	--	--	--	--	--	70	180	
Benzoic Acid	mg/kg	--	--	--	--	--	--	240,000	3,500,000	
Benzyl Alcohol	mg/kg	--	--	--	--	--	--	6,000	90,000	
Polychlorinated Biphenyls (PCBs)										
Total PCBs (Aroclors or Congeners)	mg/kg	--	--	--	--	--	--	0.19	0.49	
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0 RL)	ng/kg	--	--	--	--	--	--	0.38	0.38	
Total Dioxin-Like PCB Congeners TEQ ⁵ (ND=0.5 RL)	ng/kg	--	--	--	--	--	--	0.38	0.38	
Dioxins and Furans										
2,3,7,8-TCDD	ng/Kg	3.25 U	2.57 U	4.17 U	4.7 UJ	8.24 U	2.49 U	2.48 U	NE	NE
2,3,7,8-TCDF	ng/Kg	1.74 U	0.165 UJ	1.11 U	0.189 UJ	1.52 UJ	0.167 U	0.155 U	NE	NE
1,2,3,7,8-PeCDD	ng/Kg	0.309 U	0.224 U	0.19 U	0.263 U	0.232 U	0.238 U	0.209 U	NE	NE
1,2,3,7,8-PeCDF	ng/Kg	0.277 U	0.216 U	0.218 J	0.249 U	0.182 U	0.266 U	0.244 U	NE	NE
2,3,4,7,8-PeCDF	ng/Kg	0.199 U	0.169 U	0.135 U	0.153 U	0.244 U	0.186 U	0.155 U	NE	NE
1,2,3,4,7,8-HxCDD	ng/Kg	0.286 U	0.213 U	0.205 U	0.242 U	0.187 J	0.264 U	0.24 U	NE	NE
1,2,3,4,7,8-HxCDF	ng/Kg	0.183 U	0.157 U	0.131 U	0.149 U	0.25 U	0.185 U	0.147 U	NE	NE
1,2,3,6,7,8-HxCDD	ng/Kg	0.29 U	0.221 U	0.217 U	0.253 U	0.19 J	0.273 U	0.249 U	NE	NE
1,2,3,6,7,8-HxCDF	ng/Kg	0.229 U	0.205 U	0.165 U	0.191 U	0.273 U	0.209 U	0.19 U	NE	NE
1,2,3,7,8,9-HxCDD	ng/Kg	0.345 U	0.226 U	0.195 U	0.235 U	0.25 J	0.27 U	0.22 U	NE	NE

Sample Location ¹		EDP62	EDP63		EDP64		EDP65		Proposed Sediment Cleanup Level ²	
Sample Identification		EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0	Intertidal Sediment (above -3 ft MLLW)	Subtidal Sediment (below -3 ft MLLW)
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21		
Sample Interval (dbm)		2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft		
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface		
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit		
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal		
1,2,3,7,8,9-HxCDF	ng/Kg	0.203 U	0.143 U	0.137 U	0.189 U	0.178 U	0.162 U	0.138 U	NE	NE
2,3,4,6,7,8-HxCDF	ng/Kg	0.191 U	0.169 U	0.138 U	0.164 U	0.238 U	0.186 U	0.154 U	NE	NE
1,2,3,4,6,7,8-HpCDD	ng/Kg	0.194 U	0.148 U	0.137 U	0.191 U	0.167 U	0.164 U	0.133 U	NE	NE
1,2,3,4,6,7,8-HpCDF	ng/Kg	0.268 U	0.19 U	0.125 U	0.193 U	0.172 U	0.179 U	0.166 U	NE	NE
1,2,3,4,7,8,9-HpCDF	ng/Kg	0.295 U	0.222 U	0.14 U	0.224 U	0.172 J	0.167 U	0.174 U	NE	NE
OCDD	ng/Kg	15.7 U	15.1 U	29 U	50.2 J	73.7 J	18.4 U	14.5 U	NE	NE
OCDF	ng/Kg	2.46 U	1.4 UJ	2.1 UJ	1.83 U	4.91 U	1.61 UJ	0.246 U	NE	NE
Total Dioxin/Furan TEQ ⁶ (ND=0 RL)	ng/kg	0.00 U	0.00 UJ	0.022 J	0.015 J	0.327 J	0.00 UJ	0.00 UJ	5.0	5.0
Total Dioxin/Furan TEQ ⁶ (ND=0.5 RL)	ng/kg	0.465 U	0.328 UJ	0.292 J	0.368 J	0.551 J	0.356 UJ	0.309 UJ	5.0	5.0

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Proposed cleanup levels (PCULs) are presented in Table 5. Screening levels are based on the exposure pathways specific to intertidal sediment (i.e., beach play, clamming and net fishing) and subtidal sediment (i.e., net fishing) and is the risk-based value adjusted for regional background and PQL, whichever is higher.

³ Total benzofluoranthenes represents the sum of concentrations of the b, j, and k isomers.

⁴ Total cPAH Toxicity Equivalency Quotients (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) from Table 6-1 of SCUM (Ecology 2021).

⁵ Total PCB congener TEQs were calculated using the 2005 World Health Organization (WHO) TEF values from Table 6-3 of SCUM (Ecology 2021).

⁶ Total dioxin/furan TEQs were calculated using United States Environmental Protection Agency (USEPA) TEF values from Table 6-2 of SCUM (Ecology 2021).

⁷ Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

⁸ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁹ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

mg/kg = milligram per kilogram

ng/kg = nanogram per kilogram

RL = Reporting limit

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Yellow shading indicates exceedance of the PCUL.

Blue shading indicates that the practical quantitation limit (PQL) exceeds the proposed sediment cleanup level.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners

Weyerhaeuser Mill A Former

Everett, Washington

Sample Location ¹	ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C
Sample Identification	13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037
Sample Date	5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007
Sample Interval (dbm)	5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
Polychlorinated Biphenyl (PCB) Aroclors											
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners											
PCB-001	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-002	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-003	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-004	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-005	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-006	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-007	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-008	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-009	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-010	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-011	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-012	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-013	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-014	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-015	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-016	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-017	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-018	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-019	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-020	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-021	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-022	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-023	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-024	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-025	pg/g	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C
Sample Identification		13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037
Sample Date		5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007
Sample Interval (dbm)		5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-027	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-028	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-029	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-030	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-031	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-032	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-033	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-034	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-035	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-036	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-037	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-038	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-039	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-040	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-041	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-042	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-043	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-044	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-045	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-046	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-047	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-048	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-049	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-050	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-051	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-052	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-053	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-054	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-055	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-056	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-057	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-058	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-059	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-060	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-061	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-062	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-063	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-064	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-065	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-066	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-067	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C
Sample Identification		13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037
Sample Date		5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007
Sample Interval (dbm)		5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-069	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-070	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-071	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-072	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-073	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-074	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-075	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-076	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-077 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-078	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-079	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-080	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-081 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-082	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-083	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-084	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-085	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-086	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-087	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-088	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-089	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-090	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-091	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-092	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-093	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-094	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-095	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-096	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-097	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-098	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-099	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-100	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-101	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-102	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-103	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-104	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-105 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-106	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-107	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-108	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-109	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C
Sample Identification		13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037
Sample Date		5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007
Sample Interval (dbm)		5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-111	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-112	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-113	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-114 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-115	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-116	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-117	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-118 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-119	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-120	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-121	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-122	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-123 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-124	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-125	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-126 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-127	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-128	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-129	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-130	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-131	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-132	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-133	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-134	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-135	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-136	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-137	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-138	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-139	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-140	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-141	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-142	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-143	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-144	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-145	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-146	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-147	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-148	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-149	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-150	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-151	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C
Sample Identification		13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037
Sample Date		5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007
Sample Interval (dbm)		5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-153	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-154	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-155	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-156 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-157 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-158	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-159	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-160	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-161	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-162	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-163	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-164	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-165	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-166	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-167 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-168	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-169	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-170	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-171	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-172	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-173	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-174	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-175	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-176	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-177	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-178	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-179	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-180	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-181	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-182	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-183	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-184	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-185	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-186	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-187	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-188	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-189 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-190	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-191	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-192	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-193	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹	ST-02	ST-03		ST-5C	ST-08	ST-9C	ST-11	ST-14		ST-15C	ST-17C
Sample Identification	13116000038	13116000004	13116000006	13116000007	13116000029	13116000019	13116000010	13116000021	13116000023	13116000013	13116000037
Sample Date	5/14/2007	5/7/2007	5/7/2007	5/7/2007	5/11/2007	5/8/2007	5/7/2007	5/8/2007	5/8/2007	5/7/2007	5/14/2007
Sample Interval (dbm)	5 - 6 ft	3.5 - 6.2 ft	14 - 15.9 ft	0.9 - 2.5 ft	7.3 - 10.5 ft	10.1 - 12.0 ft	0 - 6.2 ft	3.4 - 4.6 ft	9.4 - 10.5 ft	0.8 - 2.2 ft	5.9 - 7.1 ft
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-195	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-196	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-197	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-198	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-199	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-200	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-201	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-202	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-203	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-204	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-205	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-206	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-207	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-208	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-209	pg/g	--	--	--	--	--	--	--	--	--	--
Total PCBs Congeners	pg/g	--	--	--	--	--	--	--	--	--	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37
Sample Identification	13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106
Sample Date	5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007
Sample Interval (dbm)	9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
Polychlorinated Biphenyl (PCB) Aroclors											
PCB-Aroclor 1016	ug/Kg	--	--	--	16 U	9.9 U	16 U	17 U	17 U	16 U	16 U
PCB-Aroclor 1221	ug/Kg	--	--	--	16 U	9.9 U	16 U	17 U	17 U	16 U	16 U
PCB-Aroclor 1232	ug/Kg	--	--	--	16 U	9.9 U	33 U	33 U	17 U	16 U	16 U
PCB-Aroclor 1242	ug/Kg	--	--	--	16 U	9.9 U	16 U	17 U	17 U	16 U	16 U
PCB-Aroclor 1248	ug/Kg	--	--	--	16 U	9.9 U	16 U	17 U	17 U	25	16 U
PCB-Aroclor 1254	ug/Kg	--	--	--	16 U	12	31	17 U	17 U	18	2,500
PCB-Aroclor 1260	ug/Kg	--	--	--	16 U	9.9 U	26	17 U	17 U	24	2,700
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	16 U	12	57	33 U	17 U	67	5,200
Polychlorinated Biphenyl (PCB) Congeners											
PCB-001	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-002	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-003	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-004	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-005	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-006	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-007	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-008	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-009	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-010	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-011	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-012	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-013	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-014	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-015	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-016	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-017	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-018	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-019	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-020	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-021	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-022	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-023	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-024	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-025	pg/g	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37
Sample Identification		13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106
Sample Date		5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007
Sample Interval (dbm)		9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-027	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-028	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-029	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-030	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-031	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-032	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-033	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-034	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-035	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-036	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-037	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-038	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-039	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-040	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-041	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-042	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-043	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-044	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-045	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-046	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-047	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-048	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-049	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-050	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-051	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-052	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-053	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-054	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-055	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-056	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-057	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-058	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-059	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-060	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-061	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-062	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-063	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-064	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-065	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-066	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-067	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37
Sample Identification		13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106
Sample Date		5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007
Sample Interval (dbm)		9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-069	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-070	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-071	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-072	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-073	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-074	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-075	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-076	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-077 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-078	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-079	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-080	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-081 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-082	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-083	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-084	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-085	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-086	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-087	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-088	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-089	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-090	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-091	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-092	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-093	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-094	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-095	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-096	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-097	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-098	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-099	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-100	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-101	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-102	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-103	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-104	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-105 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-106	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-107	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-108	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-109	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37
Sample Identification		13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106
Sample Date		5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007
Sample Interval (dbm)		9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-111	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-112	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-113	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-114 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-115	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-116	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-117	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-118 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-119	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-120	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-121	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-122	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-123 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-124	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-125	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-126 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-127	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-128	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-129	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-130	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-131	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-132	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-133	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-134	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-135	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-136	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-137	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-138	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-139	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-140	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-141	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-142	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-143	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-144	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-145	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-146	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-147	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-148	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-149	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-150	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-151	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37
Sample Identification		13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106
Sample Date		5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007
Sample Interval (dbm)		9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-153	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-154	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-155	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-156 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-157 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-158	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-159	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-160	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-161	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-162	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-163	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-164	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-165	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-166	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-167 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-168	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-169	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-170	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-171	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-172	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-173	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-174	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-175	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-176	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-177	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-178	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-179	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-180	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-181	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-182	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-183	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-184	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-185	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-186	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-187	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-188	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-189 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-190	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-191	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-192	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-193	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-20		ST-21	ST-24		ST-29	ST-30	ST-32	ST-34		ST-37
Sample Identification		13116000014	13116000015	13116000027	13116000100	13116000101	13116000103	13116000102	13116000104	13116000105	13116000025	13116000106
Sample Date		5/7/2007	5/7/2007	5/11/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/9/2007	5/15/2007
Sample Interval (dbm)		9.9 - 11.2 ft	14 - 15.5 ft	9.1 - 11.2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2.8 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-195	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-196	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-197	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-198	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-199	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-200	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-201	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-202	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-203	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-204	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-205	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-206	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-207	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-208	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-209	pg/g	--	--	--	--	--	--	--	--	--	--	--
Total PCBs Congeners	pg/g	--	--	--	--	--	--	--	--	--	--	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-39		ST-42	ST-43	SP-151		A1-15			A1-18		
Sample Identification	13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3	
Sample Date	5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008	
Sample Interval (dbm)	0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft	
Sample Type	Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	16 U	17 U	16 U	--	9.6 U	9.9 U	20 U	20 U	20 U	19 U	20 U
PCB-Aroclor 1221	ug/Kg	16 U	17 U	16 U	--	9.6 U	9.9 U	20 U	20 U	20 U	19 U	20 U
PCB-Aroclor 1232	ug/Kg	16 U	17 U	16 U	--	9.6 U	9.9 U	20 U	20 U	20 U	19 U	20 U
PCB-Aroclor 1242	ug/Kg	16 U	17 U	16 U	--	9.6 U	9.9 U	20 U	20 U	20 U	19 U	20 U
PCB-Aroclor 1248	ug/Kg	16 U	21 U	16 U	--	9.6 U	9.9 U	20 U	20 U	20 U	19 U	20 U
PCB-Aroclor 1254	ug/Kg	16 U	57	16 U	--	9.6 U	9.9 U	20 U	20 U	20 U	27	20 U
PCB-Aroclor 1260	ug/Kg	16 U	74	16 U	--	9.6 U	9.9 U	20 U	20 U	20 U	19 U	20 U
PCB-Aroclor 1262	ug/Kg	--	--	--	--	9.6 U	9.9 U	20 U	20 U	20 U	19 U	20 U
PCB-Aroclor 1268	ug/Kg	--	--	--	--	9.6 U	9.9 U	20 U	20 U	20 U	19 U	20 U
Total PCBs Aroclors	ug/Kg	16 U	131	16 U	--	9.6 U	9.9 U	20 U	20 U	20 U	27	20 U
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-002	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-003	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-004	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-005	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-006	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-007	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-008	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-009	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-010	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-011	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-012	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-013	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-014	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-015	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-016	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-017	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-018	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-019	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-020	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-021	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-022	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-023	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-024	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-025	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-39		ST-42	ST-43	SP-151		A1-15			A1-18	
Sample Identification		13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3
Sample Date		5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008
Sample Interval (dbm)		0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft
Sample Type		Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-027	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-028	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-029	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-030	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-031	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-032	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-033	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-034	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-035	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-036	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-037	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-038	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-039	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-040	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-041	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-042	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-043	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-044	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-045	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-046	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-047	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-048	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-049	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-050	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-051	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-052	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-053	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-054	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-055	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-056	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-057	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-058	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-059	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-060	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-061	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-062	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-063	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-064	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-065	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-066	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-067	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-39		ST-42	ST-43	SP-151		A1-15			A1-18	
Sample Identification		13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3
Sample Date		5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008
Sample Interval (dbm)		0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft
Sample Type		Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-069	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-070	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-071	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-072	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-073	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-074	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-075	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-076	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-077 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-078	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-079	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-080	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-081 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-082	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-083	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-084	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-085	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-086	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-087	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-088	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-089	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-090	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-091	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-092	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-093	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-094	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-095	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-096	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-097	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-098	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-099	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-100	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-101	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-102	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-103	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-104	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-105 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-106	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-107	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-108	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-109	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-39		ST-42	ST-43	SP-151		A1-15			A1-18	
Sample Identification		13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3
Sample Date		5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008
Sample Interval (dbm)		0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft
Sample Type		Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-111	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-112	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-113	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-114 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-115	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-116	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-117	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-118 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-119	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-120	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-121	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-122	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-123 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-124	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-125	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-126 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-127	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-128	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-129	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-130	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-131	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-132	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-133	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-134	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-135	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-136	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-137	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-138	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-139	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-140	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-141	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-142	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-143	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-144	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-145	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-146	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-147	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-148	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-149	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-150	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-151	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-39		ST-42	ST-43	SP-151		A1-15			A1-18	
Sample Identification		13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3
Sample Date		5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008
Sample Interval (dbm)		0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft
Sample Type		Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-153	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-154	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-155	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-156 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-157 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-158	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-159	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-160	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-161	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-162	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-163	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-164	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-165	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-166	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-167 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-168	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-169	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-170	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-171	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-172	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-173	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-174	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-175	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-176	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-177	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-178	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-179	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-180	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-181	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-182	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-183	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-184	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-185	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-186	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-187	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-188	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-189 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-190	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-191	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-192	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-193	pg/g	--	--	--	--	--	--	--	--	--	--	--

Sample Location ¹		ST-39		ST-42	ST-43	SP-151		A1-15			A1-18	
Sample Identification		13116000107	13116000033	13116000108	13116000031	7234276	7234277	A1-15-S	A1-15-C1-3	A1-15-C3-5	A1-18-S	A1-18-C1-3
Sample Date		5/15/2007	5/14/2007	5/15/2007	5/11/2007	06/12/2007	06/12/2007	8/1/2008	8/13/2008	8/13/2008	9/4/2008	8/14/2008
Sample Interval (dbm)		0-10 cm	0 - 4 ft	0-10 cm	5.7 - 7.2 ft	0 - 30 cm	0 - 30 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	1 - 3 ft
Sample Type		Surface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-195	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-196	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-197	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-198	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-199	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-200	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-201	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-202	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-203	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-204	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-205	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-206	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-207	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-208	pg/g	--	--	--	--	--	--	--	--	--	--	--
PCB-209	pg/g	--	--	--	--	--	--	--	--	--	--	--
Total PCBs Congeners	pg/g	--	--	--	--	--	--	--	--	--	--	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	A1-18	A1-23	A1-24			A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3	
Sample Identification	A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0	
Sample Date	8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015	
Sample Interval (dbm)	3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft	
Sample Type	Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ²	
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	20 U	4.4 U	20 U	20 U	20 U	19 U	7 UJ	3.6 U	9.1 UJ	--	--
PCB-Aroclor 1221	ug/Kg	20 U	2.2 U	20 U	20 U	20 U	19 U	1.7 U	1.8 U	2.3 U	--	--
PCB-Aroclor 1232	ug/Kg	20 U	4.4 U	20 U	20 U	20 U	19 U	3.5 U	3.6 U	4.5 U	--	--
PCB-Aroclor 1242	ug/Kg	20 U	4.4 UJ	20 U	20 U	20 U	19 U	7 UJ	3.6 UJ	2.3 U	--	--
PCB-Aroclor 1248	ug/Kg	20 U	8.9 UJ	20 U	20 U	20 U	19 U	3.5 UJ	7.3 UJ	9.1 UJ	--	--
PCB-Aroclor 1254	ug/Kg	20 U	7	36	33	21	19 U	4.7	15	19	--	--
PCB-Aroclor 1260	ug/Kg	20 U	2.2 U	40 J	20 U	20 U	19 U	1.7 U	5.4 UJ	4.5 UJ	--	--
PCB-Aroclor 1262	ug/Kg	20 U	2.2 U	20 U	20 U	20 U	19 U	1.7 U	1.8 U	2.3 U	--	--
PCB-Aroclor 1268	ug/Kg	20 U	2.2 U	20 U	20 U	20 U	19 U	1.7 U	1.8 U	2.3 U	--	--
Total PCBs Aroclors	ug/Kg	20 U	7	76 J	33	21	19 U	4.7	15	19	--	--
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	--	--	--	--	--	--	--	--	--	--	0.431 U
PCB-002	pg/g	--	--	--	--	--	--	--	--	--	--	0.563 U
PCB-003	pg/g	--	--	--	--	--	--	--	--	--	--	0.603 U
PCB-004	pg/g	--	--	--	--	--	--	--	--	--	--	0.860 U
PCB-005	pg/g	--	--	--	--	--	--	--	--	--	--	0.815 U
PCB-006	pg/g	--	--	--	--	--	--	--	--	--	--	0.778 U
PCB-007	pg/g	--	--	--	--	--	--	--	--	--	--	0.794 U
PCB-008	pg/g	--	--	--	--	--	--	--	--	--	--	0.811 U
PCB-009	pg/g	--	--	--	--	--	--	--	--	--	--	0.828 U
PCB-010	pg/g	--	--	--	--	--	--	--	--	--	--	0.849 U
PCB-011	pg/g	--	--	--	--	--	--	--	--	--	--	0.905 U
PCB-012	pg/g	--	--	--	--	--	--	--	--	--	--	0.874 U
PCB-013	pg/g	--	--	--	--	--	--	--	--	--	--	0.941 U
PCB-014	pg/g	--	--	--	--	--	--	--	--	--	--	0.841 U
PCB-015	pg/g	--	--	--	--	--	--	--	--	--	--	0.910 U
PCB-016	pg/g	--	--	--	--	--	--	--	--	--	--	0.617 U
PCB-017	pg/g	--	--	--	--	--	--	--	--	--	--	0.686 U
PCB-018	pg/g	--	--	--	--	--	--	--	--	--	--	0.760 U
PCB-019	pg/g	--	--	--	--	--	--	--	--	--	--	0.738 U
PCB-020	pg/g	--	--	--	--	--	--	--	--	--	--	1.02 U, C
PCB-021	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C020
PCB-022	pg/g	--	--	--	--	--	--	--	--	--	--	0.998 U
PCB-023	pg/g	--	--	--	--	--	--	--	--	--	--	1.05 U
PCB-024	pg/g	--	--	--	--	--	--	--	--	--	--	0.530 U
PCB-025	pg/g	--	--	--	--	--	--	--	--	--	--	0.889 U

Sample Location ¹		A1-18	A1-23	A1-24			A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3
Sample Identification		A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0
Sample Date		8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft
Sample Type		Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ²
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	--	--	--	--	--	--	--	--	--	--	1.04 U
PCB-027	pg/g	--	--	--	--	--	--	--	--	--	--	0.513 U
PCB-028	pg/g	--	--	--	--	--	--	--	--	--	--	0.862 U
PCB-029	pg/g	--	--	--	--	--	--	--	--	--	--	1.04 U
PCB-030	pg/g	--	--	--	--	--	--	--	--	--	--	0.491 U
PCB-031	pg/g	--	--	--	--	--	--	--	--	--	--	1.07 U
PCB-032	pg/g	--	--	--	--	--	--	--	--	--	--	0.575 U
PCB-033	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C020
PCB-034	pg/g	--	--	--	--	--	--	--	--	--	--	1.04 U
PCB-035	pg/g	--	--	--	--	--	--	--	--	--	--	1.09 U
PCB-036	pg/g	--	--	--	--	--	--	--	--	--	--	1.02 U
PCB-037	pg/g	--	--	--	--	--	--	--	--	--	--	0.955 U
PCB-038	pg/g	--	--	--	--	--	--	--	--	--	--	0.975 U
PCB-039	pg/g	--	--	--	--	--	--	--	--	--	--	1.04 U
PCB-040	pg/g	--	--	--	--	--	--	--	--	--	--	0.742 U
PCB-041	pg/g	--	--	--	--	--	--	--	--	--	--	0.440 U, C
PCB-042	pg/g	--	--	--	--	--	--	--	--	--	--	0.486 U, C
PCB-043	pg/g	--	--	--	--	--	--	--	--	--	--	0.558 U, C
PCB-044	pg/g	--	--	--	--	--	--	--	--	--	--	0.644 U
PCB-045	pg/g	--	--	--	--	--	--	--	--	--	--	0.638 U
PCB-046	pg/g	--	--	--	--	--	--	--	--	--	--	0.682 U
PCB-047	pg/g	--	--	--	--	--	--	--	--	--	--	0.494 U
PCB-048	pg/g	--	--	--	--	--	--	--	--	--	--	0.458 U, C
PCB-049	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C043
PCB-050	pg/g	--	--	--	--	--	--	--	--	--	--	0.566 U
PCB-051	pg/g	--	--	--	--	--	--	--	--	--	--	0.601 U
PCB-052	pg/g	--	--	--	--	--	--	--	--	--	--	0.455 U, C
PCB-053	pg/g	--	--	--	--	--	--	--	--	--	--	0.619 U
PCB-054	pg/g	--	--	--	--	--	--	--	--	--	--	0.455 U
PCB-055	pg/g	--	--	--	--	--	--	--	--	--	--	0.421 U
PCB-056	pg/g	--	--	--	--	--	--	--	--	--	--	0.760 U, C
PCB-057	pg/g	--	--	--	--	--	--	--	--	--	--	0.417 U
PCB-058	pg/g	--	--	--	--	--	--	--	--	--	--	0.429 U
PCB-059	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C042
PCB-060	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C056
PCB-061	pg/g	--	--	--	--	--	--	--	--	--	--	0.410 U, C
PCB-062	pg/g	--	--	--	--	--	--	--	--	--	--	0.485 U
PCB-063	pg/g	--	--	--	--	--	--	--	--	--	--	0.412 U
PCB-064	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C041
PCB-065	pg/g	--	--	--	--	--	--	--	--	--	--	0.440 U
PCB-066	pg/g	--	--	--	--	--	--	--	--	--	--	0.404 U, C
PCB-067	pg/g	--	--	--	--	--	--	--	--	--	--	0.425 U

Sample Location ¹		A1-18	A1-23	A1-24			A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3
Sample Identification		A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0
Sample Date		8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft
Sample Type		Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ²
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	--	--	--	--	--	--	--	--	--	--	0.408 U
PCB-069	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C052
PCB-070	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C061
PCB-071	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C041
PCB-072	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C041
PCB-073	pg/g	--	--	--	--	--	--	--	--	--	--	0.471 U
PCB-074	pg/g	--	--	--	--	--	--	--	--	--	--	0.410 U
PCB-075	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C048
PCB-076	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C066
PCB-077 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.897 U
PCB-078	pg/g	--	--	--	--	--	--	--	--	--	--	0.764 U
PCB-079	pg/g	--	--	--	--	--	--	--	--	--	--	0.724 U
PCB-080	pg/g	--	--	--	--	--	--	--	--	--	--	0.361 U
PCB-081 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.597 U
PCB-082	pg/g	--	--	--	--	--	--	--	--	--	--	0.995 U
PCB-083	pg/g	--	--	--	--	--	--	--	--	--	--	0.750 U, C
PCB-084	pg/g	--	--	--	--	--	--	--	--	--	--	0.814 U, C
PCB-085	pg/g	--	--	--	--	--	--	--	--	--	--	0.713 U, C
PCB-086	pg/g	--	--	--	--	--	--	--	--	--	--	0.710 U
PCB-087	pg/g	--	--	--	--	--	--	--	--	--	--	0.681 U, C
PCB-088	pg/g	--	--	--	--	--	--	--	--	--	--	0.581 U, C
PCB-089	pg/g	--	--	--	--	--	--	--	--	--	--	0.852 U
PCB-090	pg/g	--	--	--	--	--	--	--	--	--	--	0.766 U, C
PCB-091	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C088
PCB-092	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C084
PCB-093	pg/g	--	--	--	--	--	--	--	--	--	--	0.603 U
PCB-094	pg/g	--	--	--	--	--	--	--	--	--	--	0.670 U
PCB-095	pg/g	--	--	--	--	--	--	--	--	--	--	0.563 U
PCB-096	pg/g	--	--	--	--	--	--	--	--	--	--	0.447 U
PCB-097	pg/g	--	--	--	--	--	--	--	--	--	--	0.739 U
PCB-098	pg/g	--	--	--	--	--	--	--	--	--	--	0.582 U, C
PCB-099	pg/g	--	--	--	--	--	--	--	--	--	--	0.729 U
PCB-100	pg/g	--	--	--	--	--	--	--	--	--	--	0.560 U
PCB-101	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C090
PCB-102	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C098
PCB-103	pg/g	--	--	--	--	--	--	--	--	--	--	0.533 U
PCB-104	pg/g	--	--	--	--	--	--	--	--	--	--	0.426 U
PCB-105 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.840 U
PCB-106	pg/g	--	--	--	--	--	--	--	--	--	--	0.809 U, C
PCB-107	pg/g	--	--	--	--	--	--	--	--	--	--	0.834 U, C
PCB-108	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C107
PCB-109	pg/g	--	--	--	--	--	--	--	--	--	--	0.635 U

Sample Location ¹		A1-18	A1-23	A1-24			A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3
Sample Identification		A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0
Sample Date		8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft
Sample Type		Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ²
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	--	--	--	--	--	--	--	--	--	--	0.571 U
PCB-111	pg/g	--	--	--	--	--	--	--	--	--	--	0.548 U, C
PCB-112	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C083
PCB-113	pg/g	--	--	--	--	--	--	--	--	--	--	0.621 U
PCB-114 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.842 U
PCB-115	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C111
PCB-116	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C085
PCB-117	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C087
PCB-118 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C106
PCB-119	pg/g	--	--	--	--	--	--	--	--	--	--	0.562 U
PCB-120	pg/g	--	--	--	--	--	--	--	--	--	--	0.539 U
PCB-121	pg/g	--	--	--	--	--	--	--	--	--	--	0.477 U
PCB-122	pg/g	--	--	--	--	--	--	--	--	--	--	0.810 U
PCB-123 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.751 U
PCB-124	pg/g	--	--	--	--	--	--	--	--	--	--	0.842 U
PCB-125	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C087
PCB-126 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	1.21 U
PCB-127	pg/g	--	--	--	--	--	--	--	--	--	--	0.884 U
PCB-128	pg/g	--	--	--	--	--	--	--	--	--	--	0.701 U, C
PCB-129	pg/g	--	--	--	--	--	--	--	--	--	--	0.930 U
PCB-130	pg/g	--	--	--	--	--	--	--	--	--	--	0.879 U
PCB-131	pg/g	--	--	--	--	--	--	--	--	--	--	0.786 U, C
PCB-132	pg/g	--	--	--	--	--	--	--	--	--	--	0.696 U, C
PCB-133	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C131
PCB-134	pg/g	--	--	--	--	--	--	--	--	--	--	0.809 U, C
PCB-135	pg/g	--	--	--	--	--	--	--	--	--	--	0.769 U
PCB-136	pg/g	--	--	--	--	--	--	--	--	--	--	0.368 U
PCB-137	pg/g	--	--	--	--	--	--	--	--	--	--	0.818 U
PCB-138	pg/g	--	--	--	--	--	--	--	--	--	--	0.584 U, C
PCB-139	pg/g	--	--	--	--	--	--	--	--	--	--	0.728 U, C
PCB-140	pg/g	--	--	--	--	--	--	--	--	--	--	0.733 U
PCB-141	pg/g	--	--	--	--	--	--	--	--	--	--	0.763 U
PCB-142	pg/g	--	--	--	--	--	--	--	--	--	--	0.875 U
PCB-143	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C134
PCB-144	pg/g	--	--	--	--	--	--	--	--	--	--	0.744 U
PCB-145	pg/g	--	--	--	--	--	--	--	--	--	--	0.377 U
PCB-146	pg/g	--	--	--	--	--	--	--	--	--	--	0.668 U, C
PCB-147	pg/g	--	--	--	--	--	--	--	--	--	--	0.717 U
PCB-148	pg/g	--	--	--	--	--	--	--	--	--	--	0.469 U
PCB-149	pg/g	--	--	--	--	--	--	--	--	--	--	-- U, C139
PCB-150	pg/g	--	--	--	--	--	--	--	--	--	--	0.372 U
PCB-151	pg/g	--	--	--	--	--	--	--	--	--	--	0.768 U

Sample Location ¹		A1-18	A1-23	A1-24			A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3
Sample Identification		A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0
Sample Date		8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft
Sample Type		Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ²
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	--	--	--	--	--	--	--	--	--	--	0.361 U
PCB-153	pg/g	--	--	--	--	--	--	--	--	--	--	0.648 U
PCB-154	pg/g	--	--	--	--	--	--	--	--	--	--	0.417 U
PCB-155	pg/g	--	--	--	--	--	--	--	--	--	--	0.332 U
PCB-156 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.553 U
PCB-157 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.658 U
PCB-158	pg/g	--	--	--	--	--	--	--	--	--	--	0.574 U, C
PCB-159	pg/g	--	--	--	--	--	--	--	--	--	--	0.548 U
PCB-160	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C158
PCB-161	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C132
PCB-162	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C128
PCB-163	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C138
PCB-164	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C138
PCB-165	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C146
PCB-166	pg/g	--	--	--	--	--	--	--	--	--	--	0.616 U
PCB-167 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.549 U
PCB-168	pg/g	--	--	--	--	--	--	--	--	--	--	0.614 U
PCB-169	pg/g	--	--	--	--	--	--	--	--	--	--	0.710 U
PCB-170	pg/g	--	--	--	--	--	--	--	--	--	--	0.655 U
PCB-171	pg/g	--	--	--	--	--	--	--	--	--	--	0.596 U
PCB-172	pg/g	--	--	--	--	--	--	--	--	--	--	0.614 U
PCB-173	pg/g	--	--	--	--	--	--	--	--	--	--	0.672 U
PCB-174	pg/g	--	--	--	--	--	--	--	--	--	--	0.542 U
PCB-175	pg/g	--	--	--	--	--	--	--	--	--	--	0.568 U
PCB-176	pg/g	--	--	--	--	--	--	--	--	--	--	0.419 U
PCB-177	pg/g	--	--	--	--	--	--	--	--	--	--	0.618 U
PCB-178	pg/g	--	--	--	--	--	--	--	--	--	--	0.610 U
PCB-179	pg/g	--	--	--	--	--	--	--	--	--	--	0.414 U
PCB-180	pg/g	--	--	--	--	--	--	--	--	--	--	0.514 U
PCB-181	pg/g	--	--	--	--	--	--	--	--	--	--	0.640 U
PCB-182	pg/g	--	--	--	--	--	--	--	--	--	--	0.529 U, C
PCB-183	pg/g	--	--	--	--	--	--	--	--	--	--	1.58 J
PCB-184	pg/g	--	--	--	--	--	--	--	--	--	--	0.407 U
PCB-185	pg/g	--	--	--	--	--	--	--	--	--	--	0.603 U
PCB-186	pg/g	--	--	--	--	--	--	--	--	--	--	0.431 U
PCB-187	pg/g	--	--	--	--	--	--	--	--	--	--	- U, C182
PCB-188	pg/g	--	--	--	--	--	--	--	--	--	--	0.422 U
PCB-189 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--	--	--	--	0.464 U
PCB-190	pg/g	--	--	--	--	--	--	--	--	--	--	0.468 U
PCB-191	pg/g	--	--	--	--	--	--	--	--	--	--	0.443 U
PCB-192	pg/g	--	--	--	--	--	--	--	--	--	--	0.494 U
PCB-193	pg/g	--	--	--	--	--	--	--	--	--	--	0.445 U

Sample Location ¹		A1-18	A1-23	A1-24			A1-31B	EW-12-05	EW-12-06	EW-12-07	PG-62	PT-3
Sample Identification		A1-18-C3-5	A1-23-S	A1-24-S	A1-24-C1-3	A1-24-C3-5	A1-31B-S	EPAX019F24	BNWS008DBPS28	NAVHP85EDS404XX	RB14-PG-62-S	PT-3-43.0-44.0
Sample Date		8/14/2008	8/4/2008	9/4/2008	9/4/2008	8/14/2008	9/4/2008	06/19/2012	06/19/2012	06/19/2012	04/22/2014	1/13/2015
Sample Interval (dbm)		3 - 5 ft	0-10 cm	0-10 cm	1 - 3 ft	3 - 5 ft	0-10 cm	0 - 17 cm	0 - 17 cm	0 - 17 cm	0-10 cm	0 - 1 ft
Sample Type		Subsurface	Surface	Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface ²
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	--	--	--	--	--	--	--	--	--	--	0.519 U
PCB-195	pg/g	--	--	--	--	--	--	--	--	--	--	0.574 U
PCB-196	pg/g	--	--	--	--	--	--	--	--	--	--	0.681 U, C
PCB-197	pg/g	--	--	--	--	--	--	--	--	--	--	0.508 U
PCB-198	pg/g	--	--	--	--	--	--	--	--	--	--	0.769 U
PCB-199	pg/g	--	--	--	--	--	--	--	--	--	--	0.734 U
PCB-200	pg/g	--	--	--	--	--	--	--	--	--	--	0.514 U
PCB-201	pg/g	--	--	--	--	--	--	--	--	--	--	0.513 U
PCB-202	pg/g	--	--	--	--	--	--	--	--	--	--	0.526 U
PCB-203	pg/g	--	--	--	--	--	--	--	--	--	--	0.681 U, C
PCB-204	pg/g	--	--	--	--	--	--	--	--	--	--	0.511 U
PCB-205	pg/g	--	--	--	--	--	--	--	--	--	--	0.403 U
PCB-206	pg/g	--	--	--	--	--	--	--	--	--	--	0.506 U
PCB-207	pg/g	--	--	--	--	--	--	--	--	--	--	0.363 U
PCB-208	pg/g	--	--	--	--	--	--	--	--	--	--	0.340 U
PCB-209	pg/g	--	--	--	--	--	--	--	--	--	--	0.282 U
Total PCBs Congeners	pg/g	--	--	--	--	--	--	--	--	--	--	1.58 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102	
Sample Identification	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	
Sample Date	1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18	
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm	
Sample Type	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Surface	Subsurface	Surface	
Stratigraphic Unit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	0.240 U	0.484 U	0.323 U	1.20 J	0.315 U	3.28 J	0.254 U	0.308 U	1.31 U	1.05 U	0.584 U
PCB-002	pg/g	0.295 U	0.591 U	0.432 U	2.47 J	0.381 U	6.95	0.296 U	0.396 U	1.51 U	1.28 U	0.679 U
PCB-003	pg/g	0.300 U	0.596 U	0.471 U	1.82 J	0.381 U	5.2	0.287 U	0.418 U	1.45 U	1.32 U	0.662 U
PCB-004	pg/g	0.666 U	0.865 U	0.977 U	2.22 J	0.810 U	0.626 U	0.817 U	0.850 U	3.91 U	3.50 U	1.61 U
PCB-005	pg/g	0.664 U	0.753 U	0.903 U	0.735 U	0.744 U	0.491 U	0.650 U	0.790 U	3.07 U	3.28 U	1.37 U
PCB-006	pg/g	0.633 U	1.32 J	0.862 U	5.07	0.710 U	2.50 J	0.620 U	0.754 U	3.18 U	3.33 U	1.42 U
PCB-007	pg/g	0.647 U	0.734 U	0.880 U	0.716 U	0.725 U	0.478 U	0.633 U	0.770 U	3.01 U	3.29 U	1.34 U
PCB-008	pg/g	0.661 U	0.750 U	0.899 U	3.72 J	0.741 U	2.29 J	0.647 U	0.786 U	9.13	3.39 U	3.74 J
PCB-009	pg/g	0.674 U	0.765 U	0.917 U	0.746 U	0.756 U	0.499 U	0.660 U	0.802 U	3.16 U	3.33 U	1.41 U
PCB-010	pg/g	0.692 U	0.785 U	0.942 U	0.765 U	0.776 U	0.512 U	0.677 U	0.823 U	3.64 U	3.95 U	1.62 U
PCB-011	pg/g	2.53 J	2.95 J	1.00 U	6.53	2.91 J	4.55	2.28 J	0.877 U	3.25 U	3.62 U	4.31
PCB-012	pg/g	0.712 U	0.808 U	0.968 U	4.24	0.798 U	2.56 J	0.697 U	0.847 U	3.14 U	3.40 U	1.40 U
PCB-013	pg/g	0.766 U	0.869 U	1.04 U	2.36 J	0.859 U	1.94 J	0.750 U	0.912 U	3.24 U	3.46 U	1.45 U
PCB-014	pg/g	0.685 U	0.777 U	0.932 U	0.758 U	0.768 U	0.506 U	0.670 U	0.815 U	3.24 U	3.54 U	1.45 U
PCB-015	pg/g	0.766 U	0.795 U	0.995 U	1.97 J	0.815 U	1.16 J	0.645 U	0.872 U	5.87	3.31 U	3.06 J
PCB-016	pg/g	0.664 U	0.725 U	0.782 U	0.553 U	0.404 U	0.583 U	1.01 U	0.658 U	1.16 U	2.32 U	2.26 U
PCB-017	pg/g	0.738 U	0.806 U	0.869 U	0.614 U	0.449 U	1.79 U	1.12 U	0.731 U	1.24 U	2.63 U	2.42 U
PCB-018	pg/g	0.818 U	0.893 U	0.964 U	0.681 U	0.497 U	1.98 U	1.24 U	0.811 U	13.7	2.82 U	5.63
PCB-019	pg/g	0.792 U	0.865 U	0.936 U	0.660 U	0.482 U	0.696 U	1.20 U	0.787 U	1.31 U	2.81 U	2.56 U
PCB-020	pg/g	0.882 U, C	0.856 U, C	0.854 U, C	0.930 U, C	0.843 U, C	3.99 C	1.45 U, C	0.908 U, C	10.3 C	1.55 U, C	5.25 C
PCB-021	pg/g	- U, C020	- U, C020	- U, C020	- U, C020	- U, C020	- C020	- U, C020	- U, C020	- C020	- U, C020	- C020
PCB-022	pg/g	0.864 U	0.839 U	0.837 U	0.911 U	0.826 U	1.34 U	1.42 U	0.889 U	6.58	1.45 U	3.63 J
PCB-023	pg/g	0.911 U	0.884 U	0.882 U	0.961 U	0.871 U	1.41 U	1.50 U	0.938 U	1.67 U	1.65 U	0.735 U
PCB-024	pg/g	0.570 U	0.623 U	0.672 U	0.475 U	0.347 U	0.501 U	0.866 U	0.566 U	0.936 U	1.93 U	1.83 U
PCB-025	pg/g	0.770 U	0.747 U	0.745 U	0.812 U	0.736 U	1.20 U	1.27 U	0.792 U	1.40 U	1.44 U	0.617 U

Sample Location ¹		PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102
Sample Identification		PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10
Sample Date		1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm
Sample Type		Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Surface	Subsurface	Surface
Stratigraphic Unit		Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	0.899 U	0.873 U	0.871 U	0.949 U	0.860 U	1.40 U	1.48 U	0.926 U	1.76 U	1.70 U	0.776 U
PCB-027	pg/g	0.552 U	0.602 U	0.650 U	0.459 U	0.335 U	0.484 U	0.838 U	0.547 U	0.936 U	1.93 U	1.83 U
PCB-028	pg/g	0.746 U	0.724 U	0.723 U	0.787 U	0.713 U	5.45	1.23 U	0.768 U	16.7	1.40 U	10.4
PCB-029	pg/g	0.904 U	0.878 U	0.876 U	0.954 U	0.864 U	1.40 U	1.49 U	0.931 U	1.67 U	1.70 U	0.737 U
PCB-030	pg/g	0.529 U	0.577 U	0.623 U	0.440 U	0.321 U	0.464 U	0.803 U	0.524 U	0.915 U	2.00 U	1.79 U
PCB-031	pg/g	0.928 U	0.901 U	0.899 U	0.979 U	0.887 U	6.29	1.53 U	0.955 U	16.9	1.70 U	8.07
PCB-032	pg/g	0.619 U	0.676 U	0.730 U	0.516 U	0.376 U	0.544 U	0.940 U	0.614 U	1.07 U	2.19 U	2.10 U
PCB-033	pg/g	- U, C020	- U, C020	- U, C020	- U, C020	- U, C020	- C020	- U, C020	- U, C020	- C020	- U, C020	- C020
PCB-034	pg/g	0.900 U	0.873 U	0.872 U	0.949 U	0.860 U	1.40 U	1.48 U	0.926 U	1.84 U	1.60 U	0.814 U
PCB-035	pg/g	0.941 U	0.914 U	0.912 U	0.993 U	0.900 U	1.46 U	1.55 U	0.969 U	1.81 U	1.71 U	0.800 U
PCB-036	pg/g	0.883 U	0.857 U	0.855 U	0.931 U	0.844 U	1.37 U	1.45 U	0.909 U	1.80 U	1.64 U	0.793 U
PCB-037	pg/g	0.828 U	0.803 U	0.801 U	0.873 U	0.791 U	1.28 U	1.36 U	0.852 U	4.13	1.42 U	3.37 J
PCB-038	pg/g	0.845 U	0.820 U	0.818 U	0.891 U	0.807 U	1.31 U	1.39 U	0.869 U	1.65 U	1.56 U	0.727 U
PCB-039	pg/g	0.905 U	0.878 U	0.876 U	0.954 U	0.865 U	1.41 U	1.49 U	0.931 U	1.67 U	1.62 U	0.737 U
PCB-040	pg/g	0.595 U	0.687 U	0.705 U	0.790 U	0.613 U	0.809 U	0.824 U	0.759 U	2.62 J	1.07 U	1.57 J
PCB-041	pg/g	0.353 U, C	0.407 U, C	0.418 U, C	0.469 U, C	0.363 U, C	4.05 C	0.488 U, C	0.450 U, C	12.9 C	0.603 U, C	5.61 C
PCB-042	pg/g	0.390 U, C	0.450 U, C	0.462 U, C	0.517 U, C	0.401 U, C	1.85 J, C	0.539 U, C	0.497 U, C	6.56 C	0.649 U, C	2.23 J, C
PCB-043	pg/g	0.448 U, C	0.517 U, C	0.531 U, C	0.595 U, C	0.461 U, C	4.57 C	0.620 U, C	0.571 U, C	18.4 C	0.793 U, C	7.96 C
PCB-044	pg/g	0.517 U	0.596 U	0.612 U	0.686 U	0.532 U	4.96	0.715 U	0.659 U	16.4	0.887 U	6.45
PCB-045	pg/g	0.512 U	0.591 U	0.606 U	0.680 U	0.527 U	0.880 U	0.708 U	0.652 U	3.29 J	0.950 U	1.42 J
PCB-046	pg/g	0.547 U	0.631 U	0.648 U	0.726 U	0.563 U	0.940 U	0.757 U	0.697 U	0.706 U	0.955 U	0.271 U
PCB-047	pg/g	0.397 U	0.458 U	0.470 U	0.527 U	0.408 U	2.61 J	0.549 U	0.505 U	6.63	0.646 U	3.06 J
PCB-048	pg/g	0.368 U, C	0.424 U, C	0.435 U, C	0.488 U, C	0.378 U, C	1.57 J, C	0.509 U, C	0.469 U, C	4.13 C	0.650 U, C	1.56 J, C
PCB-049	pg/g	- U, C043	- U, C043	- U, C043	- U, C043	- U, C043	- C043	- U, C043	- U, C043	- C043	- U, C043	- C043
PCB-050	pg/g	0.454 U	0.524 U	0.537 U	0.602 U	0.467 U	0.780 U	0.628 U	0.578 U	0.606 U	0.822 U	0.232 U
PCB-051	pg/g	0.482 U	0.556 U	0.571 U	0.640 U	0.496 U	0.828 U	0.667 U	0.614 U	0.591 U	0.750 U	0.227 U
PCB-052	pg/g	0.365 U, C	0.421 U, C	0.433 U, C	1.20 J, C	0.376 U, C	6.17 C	0.505 U, C	0.465 U, C	24.4 C	0.666 U, C	10.7 C
PCB-053	pg/g	0.497 U	0.573 U	0.588 U	0.659 U	0.511 U	0.854 U	0.687 U	0.633 U	4.1	0.782 U	2.15 J
PCB-054	pg/g	0.365 U	0.421 U	0.432 U	0.484 U	0.375 U	0.627 U	0.504 U	0.465 U	0.437 U	0.565 U	0.168 U
PCB-055	pg/g	0.337 U	0.389 U	0.400 U	0.448 U	0.347 U	0.459 U	0.467 U	0.430 U	0.438 U	0.532 U	0.168 U
PCB-056	pg/g	0.608 U, C	0.643 U, C	0.728 U, C	0.684 U, C	0.603 U, C	5.07 C	0.614 U, C	0.623 U, C	11.4 C	0.834 U, C	5.50 C
PCB-057	pg/g	0.334 U	0.386 U	0.396 U	0.444 U	0.344 U	0.454 U	0.462 U	0.426 U	0.450 U	0.586 U	0.173 U
PCB-058	pg/g	0.344 U	0.397 U	0.408 U	0.457 U	0.354 U	0.468 U	0.476 U	0.439 U	0.451 U	0.621 U	0.173 U
PCB-059	pg/g	- U, C042	- U, C042	- U, C042	- U, C042	- U, C042	- J, C042	- U, C042	- U, C042	- C042	- U, C042	- J, C042
PCB-060	pg/g	- U, C056	- U, C056	- U, C056	- U, C056	- U, C056	- C056	- U, C056	- U, C056	- C056	- U, C056	- C056
PCB-061	pg/g	0.329 U, C	0.380 U, C	0.390 U, C	0.437 U, C	0.339 U, C	7.51 C	0.455 U, C	0.419 U, C	26.2 C	0.537 U, C	12.1 C
PCB-062	pg/g	0.389 U	0.449 U	0.461 U	0.517 U	0.401 U	0.529 U	0.538 U	0.496 U	0.469 U	0.604 U	0.180 U
PCB-063	pg/g	0.331 U	0.382 U	0.392 U	0.439 U	0.340 U	0.450 U	0.457 U	0.421 U	1.35 J	0.589 U	0.600 J
PCB-064	pg/g	- U, C041	- U, C041	- U, C041	- U, C041	- U, C041	- C041	- U, C041	- U, C041	- C041	- U, C041	- C041
PCB-065	pg/g	0.353 U	0.407 U	0.418 U	0.469 U	0.363 U	0.480 U	0.488 U	0.450 U	0.456 U	0.671 U	0.175 U
PCB-066	pg/g	0.324 U, C	0.374 U, C	0.384 U, C	0.431 U, C	0.334 U, C	6.16 C	0.449 U, C	0.413 U, C	20.8 C	0.553 U, C	11.7 C
PCB-067	pg/g	0.341 U	0.393 U	0.404 U	0.453 U	0.351 U	0.463 U	0.472 U	0.434 U	0.447 U	0.551 U	0.171 U

Sample Location ¹		PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102
Sample Identification		PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10
Sample Date		1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm
Sample Type		Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Surface	Subsurface	Surface
Stratigraphic Unit		Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	0.328 U	0.378 U	0.388 U	0.435 U	0.337 U	0.445 U	0.453 U	0.417 U	0.406 U	0.534 U	0.156 U
PCB-069	pg/g	- U, C052	- U, C052	- U, C052	- J, C052	- U, C052	- C052	- U, C052	- U, C052	- C052	- U, C052	- C052
PCB-070	pg/g	- U, C061	- U, C061	- U, C061	- U, C061	- U, C061	- C061	- U, C061	- U, C061	- C061	- U, C061	- C061
PCB-071	pg/g	- U, C041	- U, C041	- U, C041	- U, C041	- U, C041	- C041	- U, C041	- U, C041	- C041	- U, C041	- C041
PCB-072	pg/g	- U, C041	- U, C041	- U, C041	- U, C041	- U, C041	- C041	- U, C041	- U, C041	- C041	- U, C041	- C041
PCB-073	pg/g	0.378 U	0.436 U	0.448 U	0.502 U	0.389 U	0.650 U	0.523 U	0.482 U	0.460 U	0.570 U	0.177 U
PCB-074	pg/g	0.329 U	0.379 U	0.389 U	0.436 U	0.338 U	4.41	0.455 U	0.419 U	10.2	0.538 U	4.28
PCB-075	pg/g	- U, C048	- U, C048	- U, C048	- U, C048	- U, C048	- J, C048	- U, C048	- U, C048	- C048	- U, C048	- J, C048
PCB-076	pg/g	- U, C066	- U, C066	- U, C066	- U, C066	- U, C066	- C066	- U, C066	- U, C066	- C066	- U, C066	- C066
PCB-077 (Dioxin-Like)	pg/g	0.705 U	0.721 U	0.854 U	0.727 U	0.662 U	1.18 J	0.655 U	0.703 U	2.74 J	0.854 U	1.22 U
PCB-078	pg/g	0.612 U	0.647 U	0.732 U	0.688 U	0.607 U	0.632 U	0.618 U	0.627 U	0.796 U	0.830 U	1.25 U
PCB-079	pg/g	0.580 U	0.613 U	0.694 U	0.652 U	0.575 U	0.599 U	0.586 U	0.594 U	0.806 U	0.806 U	1.26 U
PCB-080	pg/g	0.289 U	0.334 U	0.343 U	0.384 U	0.298 U	0.393 U	0.400 U	0.369 U	0.380 U	0.461 U	0.146 U
PCB-081 (Dioxin-Like)	pg/g	0.486 U	0.536 U	0.577 U	0.604 U	0.515 U	0.580 U	0.541 U	0.514 U	0.779 U	0.743 U	1.25 U
PCB-082	pg/g	1.11 U	1.04 U	0.997 U	0.555 U	0.996 U	1.43 J	0.950 U	1.06 U	9.57	2.26 U	3.80 J
PCB-083	pg/g	0.834 U, C	0.784 U, C	0.751 U, C	0.418 U, C	0.751 U, C	0.553 U, C	0.716 U, C	0.796 U, C	3.32 J, C	1.64 U, C	0.949 U, C
PCB-084	pg/g	0.905 U, C	0.850 U, C	0.815 U, C	0.453 U, C	0.815 U, C	2.84 J, C	0.777 U, C	0.863 U, C	25.6 C	1.86 U, C	11.9 C
PCB-085	pg/g	0.793 U, C	0.746 U, C	0.714 U, C	0.398 U, C	0.714 U, C	1.94 J, C	0.681 U, C	0.757 U, C	9.80 C	1.58 U, C	4.84 C
PCB-086	pg/g	0.789 U	0.742 U	0.711 U	0.395 U	0.711 U	0.523 U	0.678 U	0.753 U	0.538 U	1.78 U	0.923 U
PCB-087	pg/g	0.757 U, C	0.712 U, C	0.682 U, C	0.379 U, C	0.682 U, C	3.28 J, C	0.650 U, C	0.722 U, C	22.5 C	1.48 U, C	9.39 C
PCB-088	pg/g	0.512 U, C	0.754 U, C	0.640 U, C	0.372 U, C	0.578 U, C	2.01 J, C	0.831 U, C	0.586 U, C	9.06 C	1.15 U, C	5.18 C
PCB-089	pg/g	0.948 U	0.891 U	0.854 U	0.475 U	0.854 U	0.628 U	0.814 U	0.904 U	0.657 U	1.92 U	1.13 U
PCB-090	pg/g	0.851 U, C	0.800 U, C	0.767 U, C	1.64 J, C	0.767 U, C	8.01 C	0.731 U, C	0.812 U, C	57.4 C	1.64 U, C	27.5 C
PCB-091	pg/g	- U, C088	- U, C088	- U, C088	- U, C088	- U, C088	- J, C088	- U, C088	- U, C088	- C088	- U, C088	- C088
PCB-092	pg/g	- U, C084	- U, C084	- U, C084	- U, C084	- U, C084	- J, C084	- U, C084	- U, C084	- C084	- U, C084	- C084
PCB-093	pg/g	0.531 U	0.783 U	0.665 U	0.386 U	0.601 U	0.879 U	0.863 U	0.609 U	0.671 U	1.26 U	0.471 U
PCB-094	pg/g	0.590 U	0.870 U	0.739 U	0.429 U	0.667 U	0.977 U	0.958 U	0.676 U	0.705 U	1.34 U	0.494 U
PCB-095	pg/g	0.496 U	0.730 U	0.620 U	1.08 J	0.560 U	7.06	0.805 U	0.568 U	50.1	1.20 U	29.1
PCB-096	pg/g	0.394 U	0.580 U	0.493 U	0.286 U	0.445 U	0.651 U	0.639 U	0.451 U	0.504 U	0.974 U	0.353 U
PCB-097	pg/g	0.821 U	0.772 U	0.740 U	0.412 U	0.740 U	2.48 J	0.705 U	0.783 U	16.1	1.50 U	6.54
PCB-098	pg/g	0.513 U, C	0.755 U, C	0.642 U, C	0.373 U, C	0.580 U, C	0.848 U, C	0.832 U, C	0.587 U, C	0.597 U, C	1.13 U, C	0.419 U, C
PCB-099	pg/g	0.811 U	0.762 U	0.730 U	0.406 U	0.730 U	4.16	0.696 U	0.773 U	27	1.42 U	13.9
PCB-100	pg/g	0.493 U	0.727 U	0.618 U	0.359 U	0.558 U	0.817 U	0.801 U	0.565 U	0.587 U	1.12 U	0.412 U
PCB-101	pg/g	- U, C090	- U, C090	- U, C090	- J, C090	- U, C090	- C090	- U, C090	- U, C090	- C090	- U, C090	- C090
PCB-102	pg/g	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098
PCB-103	pg/g	0.469 U	0.691 U	0.587 U	0.341 U	0.531 U	0.777 U	0.762 U	0.538 U	0.598 U	1.16 U	0.419 U
PCB-104	pg/g	0.375 U	0.553 U	0.470 U	0.273 U	0.424 U	0.621 U	0.609 U	0.430 U	0.453 U	0.870 U	0.318 U
PCB-105 (Dioxin-Like)	pg/g	0.785 U	0.861 U	0.962 U	0.772 U	0.672 U	3.45 J	0.691 U	0.756 U	24.8	0.987 U	10.4
PCB-106	pg/g	0.821 U, C	0.880 U, C	0.864 U, C	0.781 U, C	0.719 U, C	7.60 C	0.678 U, C	0.732 U, C	61.6 C	0.965 U, C	25.2 C
PCB-107	pg/g	0.755 U, C	0.877 U, C	0.907 U, C	0.798 U, C	0.662 U, C	0.681 U, C	0.679 U, C	0.722 U, C	5.32 C	0.882 U, C	2.03 J, C
PCB-108	pg/g	- U, C107	- U, C107	- U, C107	- U, C107	- U, C107	- U, C107	- U, C107	- U, C107	- C107	- U, C107	- J, C107
PCB-109	pg/g	0.705 U	0.663 U	0.635 U	0.354 U	0.635 U	0.468 U	0.606 U	0.673 U	0.456 U	1.31 U	0.782 U

Sample Location ¹	PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102	
Sample Identification	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	
Sample Date	1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18	
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm	
Sample Type	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Surface	Subsurface	Surface	
Stratigraphic Unit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-110	pg/g	0.635 U	0.597 U	0.730 U	1.41 J	0.572 U	7.6	0.545 U	0.606 U	64.7	1.19 U	27.3
PCB-111	pg/g	0.609 U, C	0.573 U, C	0.549 U, C	0.305 U, C	0.549 U, C	0.404 U, C	0.523 U, C	0.581 U, C	1.36 J, C	1.08 U, C	0.682 U, C
PCB-112	pg/g	- U, C083	- U, C083	- U, C083	- U, C083	- U, C083	- U, C083	- U, C083	- U, C083	- J, C083	- U, C083	- U, C083
PCB-113	pg/g	0.691 U	0.650 U	0.622 U	0.346 U	0.622 U	0.458 U	0.593 U	0.659 U	0.475 U	1.52 U	0.816 U
PCB-114 (Dioxin-Like)	pg/g	0.741 U	0.898 U	0.938 U	0.838 U	0.644 U	0.647 U	0.709 U	0.722 U	1.90 J	0.851 U	0.586 U
PCB-115	pg/g	- U, C111	- U, C111	- U, C111	- U, C111	- U, C111	- U, C111	- U, C111	- U, C111	- J, C111	- U, C111	- U, C111
PCB-116	pg/g	- U, C085	- U, C085	- U, C085	- U, C085	- U, C085	- J, C085	- U, C085	- U, C085	- C085	- U, C085	- C085
PCB-117	pg/g	- U, C087	- U, C087	- U, C087	- U, C087	- U, C087	- J, C087	- U, C087	- U, C087	- C087	- U, C087	- C087
PCB-118 (Dioxin-Like)	pg/g	- U, C106	- U, C106	- U, C106	- U, C106	- U, C106	- C106	- U, C106	- U, C106	- C106	- U, C106	- C106
PCB-119	pg/g	0.625 U	0.588 U	0.563 U	0.313 U	0.563 U	0.415 U	0.537 U	0.596 U	2.07 J	1.32 U	0.758 U
PCB-120	pg/g	0.599 U	0.563 U	0.540 U	0.300 U	0.540 U	0.397 U	0.515 U	0.572 U	0.414 U	1.22 U	0.711 U
PCB-121	pg/g	0.420 U	0.619 U	0.526 U	0.306 U	0.475 U	0.696 U	0.683 U	0.482 U	0.498 U	0.979 U	0.349 U
PCB-122	pg/g	0.733 U	0.851 U	0.881 U	0.774 U	0.643 U	0.661 U	0.660 U	0.701 U	1.50 J	0.900 U	0.635 U
PCB-123 (Dioxin-Like)	pg/g	0.596 U	0.769 U	0.773 U	0.710 U	0.544 U	0.604 U	0.567 U	0.601 U	1.37 J	0.749 U	0.507 U
PCB-124	pg/g	0.762 U	0.885 U	0.916 U	0.806 U	0.669 U	0.688 U	0.686 U	0.729 U	3.61 J	0.968 U	1.12 J
PCB-125	pg/g	- U, C087	- U, C087	- U, C087	- U, C087	- U, C087	- J, C087	- U, C087	- U, C087	- C087	- U, C087	- C087
PCB-126 (Dioxin-Like)	pg/g	1.20 U	1.32 U	1.32 U	0.987 U	1.05 U	0.765 U	0.979 U	1.10 U	0.567 U	1.06 U	0.622 U
PCB-127	pg/g	0.800 U	0.929 U	0.961 U	0.845 U	0.702 U	0.722 U	0.720 U	0.765 U	0.559 U	0.972 U	0.671 U
PCB-128	pg/g	0.588 U, C	0.578 U, C	0.675 U, C	0.647 U, C	0.611 U, C	1.52 J, C	0.606 U, C	0.621 U, C	17.4 C	0.995 U, C	8.00 C
PCB-129	pg/g	0.781 U	0.767 U	0.896 U	0.859 U	0.811 U	0.872 U	0.804 U	0.825 U	4.28	1.40 U	1.97 J
PCB-130	pg/g	0.738 U	0.725 U	0.846 U	0.812 U	0.766 U	0.824 U	0.759 U	0.779 U	7.13	1.34 U	3.27 J
PCB-131	pg/g	0.660 U, C	0.648 U, C	0.757 U, C	0.726 U, C	0.685 U, C	0.737 U, C	0.679 U, C	0.697 U, C	3.13 J, C	1.20 U, C	1.21 J, C
PCB-132	pg/g	0.585 U, C	0.574 U, C	0.670 U, C	0.643 U, C	0.607 U, C	2.82 J, C	0.602 U, C	0.617 U, C	26.4 C	1.07 U, C	12.0 C
PCB-133	pg/g	- U, C131	- U, C131	- U, C131	- U, C131	- U, C131	- U, C131	- U, C131	- U, C131	- J, C131	- U, C131	- J, C131
PCB-134	pg/g	0.679 U, C	0.667 U, C	0.779 U, C	0.748 U, C	0.705 U, C	0.759 U, C	0.699 U, C	0.717 U, C	6.59 C	1.20 U, C	2.16 J, C
PCB-135	pg/g	0.646 U	0.635 U	0.741 U	0.711 U	0.670 U	0.721 U	0.665 U	0.682 U	13.4	1.25 U	6.78
PCB-136	pg/g	0.351 U	0.363 U	0.410 U	0.387 U	0.334 U	0.669 U	0.401 U	0.367 U	11.7	0.577 U	5.84
PCB-137	pg/g	0.687 U	0.675 U	0.788 U	0.756 U	0.713 U	0.767 U	0.707 U	0.725 U	3.02 J	1.19 U	1.89 J
PCB-138	pg/g	0.490 U, C	0.482 U, C	1.92 J, C	1.63 J, C	0.509 U, C	6.81 C	0.505 U, C	0.518 U, C	101 C	5.37 C	43.5 C
PCB-139	pg/g	0.611 U, C	0.601 U, C	0.701 U, C	1.36 J, C	0.635 U, C	5.89 C	0.629 U, C	0.645 U, C	89.9 C	4.37 C	36.3 C
PCB-140	pg/g	0.615 U	0.605 U	0.706 U	0.677 U	0.639 U	0.687 U	0.634 U	0.650 U	1.72 J	1.07 U	0.184 U
PCB-141	pg/g	0.640 U	0.629 U	0.734 U	0.704 U	0.665 U	1.81 J	0.659 U	0.676 U	22.8	1.15 U	8.78
PCB-142	pg/g	0.735 U	0.722 U	0.843 U	0.808 U	0.763 U	0.821 U	0.756 U	0.776 U	0.899 U	1.31 U	0.226 U
PCB-143	pg/g	- U, C134	- U, C134	- U, C134	- U, C134	- U, C134	- U, C134	- U, C134	- U, C134	- C134	- U, C134	- J, C134
PCB-144	pg/g	0.624 U	0.613 U	0.716 U	0.687 U	0.648 U	0.697 U	0.643 U	0.659 U	5.17	1.14 U	2.80 J
PCB-145	pg/g	0.360 U	0.373 U	0.421 U	0.397 U	0.343 U	0.686 U	0.411 U	0.376 U	0.262 U	0.559 U	0.107 U
PCB-146	pg/g	0.561 U, C	0.551 U, C	0.643 U, C	0.617 U, C	0.582 U, C	0.627 U, C	0.577 U, C	0.592 U, C	15.0 C	0.982 U, C	6.16 C
PCB-147	pg/g	0.602 U	0.592 U	0.691 U	0.663 U	0.625 U	0.673 U	0.620 U	0.636 U	2.59 J	1.02 U	0.182 U
PCB-148	pg/g	0.447 U	0.463 U	0.523 U	0.494 U	0.426 U	0.853 U	0.511 U	0.468 U	0.402 U	0.746 U	0.164 U
PCB-149	pg/g	- U, C139	- U, C139	- U, C139	- J, C139	- U, C139	- C139	- U, C139	- U, C139	- C139	- C139	- C139
PCB-150	pg/g	0.355 U	0.368 U	0.415 U	0.392 U	0.338 U	0.677 U	0.406 U	0.371 U	0.256 U	0.559 U	0.105 U
PCB-151	pg/g	0.645 U	0.633 U	0.739 U	0.709 U	0.669 U	1.79 J	0.664 U	0.681 U	25.8	1.21 U	13

Sample Location ¹		PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102
Sample Identification		PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10
Sample Date		1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm
Sample Type		Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Surface	Subsurface	Surface
Stratigraphic Unit		Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	0.344 U	0.356 U	0.403 U	0.380 U	0.328 U	0.656 U	0.393 U	0.360 U	0.267 U	0.565 U	0.109 U
PCB-153	pg/g	0.544 U	0.534 U	1.45 J	1.32 J	0.564 U	6.7	0.560 U	0.574 U	102	5.75	49.5
PCB-154	pg/g	0.398 U	0.412 U	0.465 U	0.439 U	0.379 U	0.758 U	0.455 U	0.416 U	0.301 U	0.624 U	0.123 U
PCB-155	pg/g	0.317 U	0.328 U	0.370 U	0.349 U	0.302 U	0.604 U	0.362 U	0.331 U	0.243 U	0.506 U	0.0996 U
PCB-156 (Dioxin-Like)	pg/g	0.484 U	0.470 U	0.533 U	0.524 U	0.488 U	0.554 U	0.484 U	0.494 U	9.04	0.834 U	3.37 J
PCB-157 (Dioxin-Like)	pg/g	0.560 U	0.530 U	0.625 U	0.638 U	0.571 U	0.594 U	0.560 U	0.564 U	2.82 J	0.944 U	1.34 J
PCB-158	pg/g	0.482 U, C	0.473 U, C	0.553 U, C	0.530 U, C	0.500 U, C	1.15 J, C	0.496 U, C	0.509 U, C	13.9 C	0.866 U, C	4.71 C
PCB-159	pg/g	0.460 U	0.452 U	0.528 U	0.507 U	0.478 U	0.514 U	0.474 U	0.486 U	2.37 J	0.823 U	0.148 U
PCB-160	pg/g	- U, C158	- U, C158	- U, C158	- U, C158	- U, C158	- J, C158	- U, C158	- U, C158	- C158	- U, C158	- C158
PCB-161	pg/g	- U, C132	- U, C132	- U, C132	- U, C132	- U, C132	- J, C132	- U, C132	- U, C132	- C132	- U, C132	- C132
PCB-162	pg/g	- U, C128	- U, C128	- U, C128	- U, C128	- U, C128	- J, C128	- U, C128	- U, C128	- C128	- U, C128	- C128
PCB-163	pg/g	- U, C138	- U, C138	- J, C138	- J, C138	- U, C138	- C138	- U, C138	- U, C138	- C138	- C138	- C138
PCB-164	pg/g	- U, C138	- U, C138	- J, C138	- J, C138	- U, C138	- C138	- U, C138	- U, C138	- C138	- C138	- C138
PCB-165	pg/g	- U, C146	- U, C146	- U, C146	- U, C146	- U, C146	- U, C146	- U, C146	- U, C146	- C146	- U, C146	- C146
PCB-166	pg/g	0.517 U	0.508 U	0.593 U	0.569 U	0.537 U	0.578 U	0.533 U	0.546 U	0.633 U	0.911 U	0.159 U
PCB-167 (Dioxin-Like)	pg/g	0.477 U	0.477 U	0.519 U	0.584 U	0.503 U	0.547 U	0.516 U	0.515 U	4.64	0.894 U	2.25 J
PCB-168	pg/g	0.516 U	0.507 U	0.592 U	0.568 U	0.535 U	0.576 U	0.531 U	0.545 U	0.596 U	0.856 U	0.150 U
PCB-169	pg/g	0.547 U	0.557 U	0.705 U	0.523 U	0.586 U	0.613 U	0.567 U	0.612 U	0.548 U	0.818 U	0.133 U
PCB-170	pg/g	0.549 U	0.537 U	0.546 U	0.750 U	0.556 U	2.36 J	0.650 U	0.630 U	48.5	1.22 U	15.4
PCB-171	pg/g	0.500 U	0.489 U	0.498 U	0.683 U	0.506 U	0.552 U	0.592 U	0.573 U	14	1.16 U	5.04
PCB-172	pg/g	0.515 U	0.504 U	0.513 U	0.704 U	0.522 U	0.569 U	0.610 U	0.591 U	10.5	1.24 U	2.84 J
PCB-173	pg/g	0.563 U	0.551 U	0.561 U	0.770 U	0.571 U	0.622 U	0.667 U	0.646 U	0.576 U	1.23 U	0.164 U
PCB-174	pg/g	0.455 U	0.445 U	0.453 U	0.622 U	0.461 U	2.32 J	0.538 U	0.521 U	51	1.03 U	10.9
PCB-175	pg/g	0.477 U	0.466 U	0.475 U	0.652 U	0.483 U	0.526 U	0.564 U	0.547 U	3.89	1.13 U	0.151 U
PCB-176	pg/g	0.351 U	0.344 U	0.350 U	0.480 U	0.356 U	0.388 U	0.416 U	0.403 U	7.25	0.881 U	2.70 J
PCB-177	pg/g	0.518 U	0.507 U	0.516 U	0.708 U	0.525 U	0.572 U	0.613 U	0.594 U	33.7	1.20 U	13.7
PCB-178	pg/g	0.511 U	0.500 U	0.509 U	0.699 U	0.518 U	0.565 U	0.605 U	0.586 U	12.4	1.19 U	5.92
PCB-179	pg/g	0.347 U	0.339 U	0.345 U	0.474 U	0.352 U	1.32 J	0.411 U	0.398 U	24.8	0.841 U	8.39
PCB-180	pg/g	0.431 U	0.421 U	0.429 U	0.589 U	0.437 U	4.59	0.510 U	0.494 U	108	6.01	35.2
PCB-181	pg/g	0.537 U	0.525 U	0.535 U	0.734 U	0.544 U	0.593 U	0.635 U	0.616 U	0.568 U	1.18 U	0.161 U
PCB-182	pg/g	0.444 U, C	0.434 U, C	0.442 U, C	0.607 U, C	0.450 U, C	3.55 J, C	0.525 U, C	0.509 U, C	76.6 C	0.997 U, C	26.6 C
PCB-183	pg/g	1.24 J	1.27 J	1.42 J	1.46 J	1.20 J	3.21 J	1.43 J	1.36 J	31.3	1.06 U	11.3
PCB-184	pg/g	0.341 U	0.334 U	0.340 U	0.466 U	0.346 U	0.377 U	0.404 U	0.391 U	0.354 U	0.774 U	0.101 U
PCB-185	pg/g	0.505 U	0.494 U	0.503 U	0.691 U	0.512 U	0.558 U	0.598 U	0.580 U	8.59	1.08 U	2.25 J
PCB-186	pg/g	0.361 U	0.354 U	0.360 U	0.494 U	0.366 U	0.399 U	0.428 U	0.415 U	0.370 U	0.823 U	0.105 U
PCB-187	pg/g	- U, C182	- U, C182	- U, C182	- U, C182	- U, C182	- J, C182	- U, C182	- U, C182	- C182	- U, C182	- C182
PCB-188	pg/g	0.376 U	0.359 U	0.351 U	0.506 U	0.371 U	0.439 U	0.438 U	0.426 U	0.391 U	0.818 U	0.114 U
PCB-189 (Dioxin-Like)	pg/g	0.362 U	0.366 U	0.389 U	0.506 U	0.379 U	0.374 U	0.437 U	0.422 U	1.22 J	0.784 U	0.0894 U
PCB-190	pg/g	0.392 U	0.384 U	0.391 U	0.536 U	0.398 U	0.433 U	0.464 U	0.450 U	11.6	0.905 U	3.66 J
PCB-191	pg/g	0.372 U	0.364 U	0.370 U	0.508 U	0.377 U	0.411 U	0.440 U	0.427 U	0.402 U	0.860 U	0.114 U
PCB-192	pg/g	0.414 U	0.405 U	0.413 U	0.566 U	0.420 U	0.458 U	0.490 U	0.475 U	0.401 U	0.874 U	0.114 U
PCB-193	pg/g	0.373 U	0.365 U	0.371 U	0.510 U	0.378 U	0.412 U	0.441 U	0.428 U	8.14	0.815 U	2.89 J

Sample Location ¹	PT-5	PT-6	PT-8	PT-10	PT-11	PT-12	PT-13	PT-14	ST-101		ST-102	
Sample Identification	PT-5-43.0-44.0	PT-6-43.0-44.0	PT-8-43.0-44.0	PT-10-36.0-37.0	PT-11-36.0-37.0	PT-12-30.0-31.0	PT-13-29.0-30.0	PT-14-29.0-30.0	ST-101S_0-10	ST-101C_13.2-14.2	ST-102S_0-10	
Sample Date	1/13/2015	1/13/2015	1/12/2015	1/14/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	10/24/18	10/23/18	10/24/18	
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0 - 1 ft	0-10 cm	13.2-14.2 ft	0-10 cm	
Sample Type	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Subsurface ²	Surface	Subsurface	Surface	
Stratigraphic Unit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Native Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-194	pg/g	0.484 U	0.532 U	0.510 U	0.420 U	0.502 U	2.15 J	0.517 U	0.488 U	36.6	1.12 U	10.9
PCB-195	pg/g	0.536 U	0.588 U	0.565 U	0.465 U	0.555 U	0.548 U	0.572 U	0.541 U	15.7	1.21 U	3.56 J
PCB-196	pg/g	0.696 U, C	0.647 U, C	0.661 U, C	0.599 U, C	0.597 U, C	4.26 C	0.676 U, C	0.634 U, C	47.0 C	0.813 U, C	12.7 C
PCB-197	pg/g	0.519 U	0.482 U	0.493 U	0.446 U	0.445 U	0.518 U	0.504 U	0.472 U	1.84 J	0.613 U	0.691 J
PCB-198	pg/g	0.786 U	0.730 U	0.747 U	0.677 U	0.674 U	0.785 U	0.763 U	0.716 U	3.62 J	0.995 U	1.11 J
PCB-199	pg/g	0.750 U	0.696 U	0.712 U	0.645 U	0.643 U	4.79	0.728 U	0.683 U	46.4	0.823 U	14.5
PCB-200	pg/g	0.525 U	0.487 U	0.499 U	0.452 U	0.450 U	0.524 U	0.510 U	0.478 U	6.99	0.650 U	1.62 J
PCB-201	pg/g	0.524 U	0.487 U	0.498 U	0.451 U	0.449 U	0.523 U	0.509 U	0.477 U	5.58	0.632 U	1.85 J
PCB-202	pg/g	0.538 U	0.499 U	0.511 U	0.463 U	0.461 U	1.57 J	0.522 U	0.490 U	10.1	0.628 U	3.53 J
PCB-203	pg/g	0.696 U, C	0.647 U, C	0.661 U, C	0.599 U, C	0.597 U, C	4.26 C	0.676 U, C	0.634 U, C	- C196	- U, C196	- C196
PCB-204	pg/g	0.522 U	0.485 U	0.496 U	0.449 U	0.447 U	0.521 U	0.507 U	0.475 U	0.189 U	0.679 U	0.160 U
PCB-205	pg/g	0.376 U	0.412 U	0.396 U	0.326 U	0.389 U	0.384 U	0.401 U	0.379 U	0.618 U	0.816 U	0.665 J
PCB-206	pg/g	0.435 U	0.421 U	0.481 U	0.412 U	0.506 U	12.4	0.491 U	0.451 U	15.8	0.583 U	11.9
PCB-207	pg/g	0.317 U	0.303 U	0.340 U	0.296 U	0.376 U	1.25 J	0.353 U	0.327 U	2.52 J	0.517 U	1.64 J
PCB-208	pg/g	0.301 U	0.286 U	0.316 U	0.278 U	0.364 U	4.57	0.331 U	0.308 U	3.42 J	0.510 U	5.45
PCB-209	pg/g	0.300 U	0.291 U	0.262 U	0.308 U	0.272 U	14.9	0.316 U	0.278 U	6.2	0.531 U	9.16
Total PCBs Congeners	pg/g	3.77 J	5.54 J	4.79 J	42.7 J	4.11 J	240 J	3.71 J	1.36 J	1,810 J	21.5 J	753 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-102			ST-103	ST-104				ST-105		ST-106	
	ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10	
Sample Identification												
Sample Date	10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18	
Sample Interval (dbm)	6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	11	3.58 J	2.08 J	0.341 U	0.600 U	4.82	18.8	15.4	2.38 J	0.512 U	1.10 J
PCB-002	pg/g	22.4	9.06	4.55	0.397 U	0.694 U	4.31	28.2	12.5	1.28 J	0.626 U	0.899 J
PCB-003	pg/g	24.9	7.97	5	0.388 U	1.46 J	7.19	33.7	20.4	2.05 J	0.637 U	1.66 J
PCB-004	pg/g	5.43	1.03 U	2.86 U	1.46 U	2.56 J	7.12	24.1	11.4	5.16	2.86 U	2.92 J
PCB-005	pg/g	1.45 U	0.681 U	1.94 U	1.22 U	1.46 U	1.69 U	1.00 U	1.67 U	2.19 U	2.64 U	1.48 U
PCB-006	pg/g	6.7	0.712 U	1.99 U	1.27 U	1.51 U	8.15	58.3	9.76	2.27 U	2.63 U	1.53 U
PCB-007	pg/g	3.03 J	0.682 U	1.94 U	1.20 U	1.44 U	1.67 U	3.39 J	2.60 J	2.15 U	2.62 U	1.45 U
PCB-008	pg/g	30.7	5.76	2.00 U	3.56 J	5.65	26.4	100	53.8	11.1	2.66 U	7.34
PCB-009	pg/g	2.43 J	0.709 U	1.91 U	1.26 U	1.59 J	1.65 U	6.99	2.41 J	2.25 U	2.57 U	1.52 U
PCB-010	pg/g	1.74 U	0.703 U	2.27 U	1.45 U	1.74 U	1.90 U	3.43 J	1.95 U	2.60 U	2.97 U	1.76 U
PCB-011	pg/g	26.5	6.61	5.55	4.73	6.91	9.4	18.5	17.3	9.66	2.75 U	7.57
PCB-012	pg/g	8.92	6.16	4.31	1.25 U	1.50 U	2.84 J	9.83	4.59	2.24 U	2.57 U	1.52 U
PCB-013	pg/g	8.03	0.767 U	2.04 U	1.29 U	1.55 U	2.86 J	20.4	6.28	2.31 U	2.66 U	1.56 U
PCB-014	pg/g	1.56 U	0.745 U	1.88 U	1.29 U	1.55 U	1.75 U	1.10 U	1.62 U	2.31 U	2.73 U	1.56 U
PCB-015	pg/g	20.2	0.729 U	1.80 U	4.02	6.49	13.1	37.1	23.1	8.22	2.46 U	7.05
PCB-016	pg/g	29.1	6.7	2.47 U	1.76 J	6.64	40.5	180	121	9.88	1.40 U	3.27 J
PCB-017	pg/g	46.6	7.97	2.79 U	2.58 J	5.79	51.5	251	168	9.39	1.55 U	5.57
PCB-018	pg/g	98.1	18.8	6.95	5.6	13.9	142	714	465	23.1	1.66 U	13.6
PCB-019	pg/g	7.06	0.889 U	3.11 U	0.553 U	1.03 U	7.76	44.5	27.1	1.88 U	1.66 U	0.647 U
PCB-020	pg/g	111 C	19.1 C	1.75 U, C	5.80 C	13.2 C	141 C	517 C	249 C	19.3 C	1.59 U, C	11.0 C
PCB-021	pg/g	- C020	- C020	- U, C020	- C020	- C020	- C020	- C020	- C020	- C020	- U, C020	- C020
PCB-022	pg/g	61.5	9.91	1.71 U	4.63	9.93	88.1	291	154	14.9	1.59 U	7.61
PCB-023	pg/g	0.908 U	0.481 U	1.90 U	1.24 U	0.980 U	1.12 U	1.94 U	1.42 U	2.04 U	1.80 U	0.995 U
PCB-024	pg/g	4.19	0.608 U	2.14 U	0.395 U	0.738 U	2.98 J	18.9	7.71	1.35 U	1.16 U	0.462 U
PCB-025	pg/g	11.7	1.45 J	1.81 U	1.04 U	0.823 U	17.3	102	25	1.71 U	1.39 U	0.835 U

Sample Location ¹		ST-102			ST-103	ST-104				ST-105		ST-106
Sample Identification		ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10
Sample Date		10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18
Sample Interval (dbm)		6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	31.5	4.37	1.78 U	2.47 J	6.01	44.9	207	58.4	9.1	1.74 U	5.38
PCB-027	pg/g	2.69 J	0.591 U	2.09 U	0.395 U	0.738 U	4.8	18	12.4	1.34 U	1.11 U	0.462 U
PCB-028	pg/g	205	28	6.54	10.8	23.2	235	832	400	33.7	1.48 U	19.8
PCB-029	pg/g	0.936 U	0.464 U	1.75 U	1.24 U	0.983 U	1.05 U	1.88 U	1.31 U	2.05 U	1.70 U	0.997 U
PCB-030	pg/g	0.616 U	0.587 U	2.02 U	0.386 U	0.721 U	0.707 U	1.35 U	1.30 U	1.31 U	1.17 U	0.451 U
PCB-031	pg/g	233	32.9	5.86	10.1	21.1	287	921	488	38.2	1.69 U	21.2
PCB-032	pg/g	34.6	5.74	2.35 U	2.35 J	3.31 J	44.9	199	115	5.04	1.29 U	6.06
PCB-033	pg/g	- C020	- C020	- U, C020	- C020	- C020	- C020	- C020	- C020	- C020	- U, C020	- C020
PCB-034	pg/g	2.76 J	0.484 U	1.84 U	1.37 U	1.09 U	1.05 U	8.86	4.69	2.26 U	1.70 U	1.10 U
PCB-035	pg/g	3.49 J	0.524 U	1.81 U	1.34 U	1.07 U	1.09 U	9.34	1.35 U	2.22 U	1.76 U	1.08 U
PCB-036	pg/g	0.901 U	0.483 U	1.67 U	1.33 U	1.06 U	1.07 U	1.95 U	1.25 U	2.20 U	1.73 U	1.07 U
PCB-037	pg/g	38.4	7.4	1.66 U	4.14	6.97	38.4	162	82.4	12.7	1.49 U	9.17
PCB-038	pg/g	4.84	0.477 U	1.68 U	1.22 U	0.969 U	1.00 U	9.97	1.26 U	2.02 U	1.62 U	0.983 U
PCB-039	pg/g	0.891 U	0.485 U	1.67 U	1.24 U	0.983 U	1.03 U	1.96 U	1.25 U	2.05 U	1.66 U	0.997 U
PCB-040	pg/g	34.7	9.99	2.62 U	0.279 U	2.41 J	37	7.68	99.1	3.69 J	0.565 U	2.72 J
PCB-041	pg/g	218 C	61.0 C	10.3 C	6.62 C	10.4 C	170 C	934 C	562 C	20.4 C	0.332 U, C	10.5 C
PCB-042	pg/g	74.2 C	17.5 C	1.84 U, C	2.60 J, C	5.03 C	68.5 C	373 C	202 C	8.69 C	0.362 U, C	4.59 C
PCB-043	pg/g	332 C	68.5 C	12.1 C	10.5 C	15.9 C	210 C	1,040 C	664 C	29.8 C	1.92 J, C	14.9 C
PCB-044	pg/g	267	91.5	14.1	11	13.5	216	1,190	780	19.5	0.477 U	12.2
PCB-045	pg/g	34.9	7.48	2.39 U	1.21 J	2.79 J	47.3	248	126	5.25	0.512 U	2.83 J
PCB-046	pg/g	14.3	3.09 J	2.44 U	0.259 U	1.44 J	19.7	104	51	1.18 U	0.519 U	1.52 J
PCB-047	pg/g	131	22.2	5.68	3.42 J	5.52	62.7	407	233	10.8	0.335 U	5.97
PCB-048	pg/g	44.2 C	12.1 C	1.63 U, C	1.46 J, C	2.69 J, C	57.5 C	220 C	157 C	4.00 C	0.374 U, C	2.68 J, C
PCB-049	pg/g	- C043	- C043	- C043	- C043	- C043	- C043	- C043	- C043	- C043	- J, C043	- C043
PCB-050	pg/g	0.876 U	0.775 U	2.01 U	0.222 U	0.400 U	1.52 U	4.76	1.72 U	1.01 U	0.469 U	0.411 U
PCB-051	pg/g	12.6	2.50 J	1.94 U	0.904 J	0.924 J	14.1	72.1	36.1	0.987 U	0.432 U	1.35 J
PCB-052	pg/g	444 C	160 C	22.4 C	22.0 C	20.7 C	258 C	1,610 C	1,010 C	44.8 C	2.16 J, C	20.3 C
PCB-053	pg/g	35.1	8.27	2.04 U	1.94 J	3.34 J	44.8	226	118	6.9	0.447 U	3.40 J
PCB-054	pg/g	0.602 U	0.583 U	1.66 U	0.160 U	0.288 U	1.07 U	4.35	1.42 U	0.729 U	0.331 U	0.296 U
PCB-055	pg/g	9.31	2.43 J	1.50 U	0.161 U	0.290 U	3.88 J	29.3	10.4	0.732 U	0.299 U	0.297 U
PCB-056	pg/g	231 C	45.5 C	7.50 C	6.04 C	9.77 C	170 C	828 C	407 C	18.8 C	0.566 U, C	10.0 C
PCB-057	pg/g	3.24 J	0.588 U	1.55 U	0.165 U	0.297 U	1.05 U	6.77	1.32 U	0.751 U	0.325 U	0.305 U
PCB-058	pg/g	2.51 J	0.613 U	1.52 U	0.166 U	0.298 U	1.03 U	3.13 J	2.88 J	0.753 U	0.317 U	0.306 U
PCB-059	pg/g	- C042	- C042	- U, C042	- J, C042	- C042	- C042	- C042	- C042	- C042	- U, C042	- C042
PCB-060	pg/g	- C056	- C056	- C056	- C056	- C056	- C056	- C056	- C056	- C056	- U, C056	- C056
PCB-061	pg/g	395 C	158 C	22.8 C	22.4 C	27.8 C	276 C	1,830 C	1,050 C	47.3 C	1.92 J, C	23.7 C
PCB-062	pg/g	0.643 U	0.656 U	1.71 U	0.172 U	0.310 U	1.13 U	1.51 U	1.46 U	0.783 U	0.350 U	0.318 U
PCB-063	pg/g	15.6	3.64 J	1.47 U	0.777 J	1.56 J	12.9	56	29	1.80 J	0.323 U	1.05 J
PCB-064	pg/g	- C041	- C041	- C041	- C041	- C041	- C041	- C041	- C041	- C041	- U, C041	- C041
PCB-065	pg/g	0.715 U	0.587 U	1.52 U	0.167 U	0.301 U	1.09 U	1.35 U	1.30 U	0.761 U	0.337 U	0.309 U
PCB-066	pg/g	333 C	85.3 C	12.6 C	14.9 C	25.5 C	248 C	1,320 C	649 C	38.9 C	1.29 J, C	21.7 C
PCB-067	pg/g	9.01	1.83 J	1.51 U	0.164 U	0.295 U	7.36	39.3	16.5	1.53 J	0.317 U	1.05 J

Sample Location ¹		ST-102			ST-103	ST-104				ST-105		ST-106
Sample Identification		ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10
Sample Date		10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18
Sample Interval (dbm)		6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	7.05	0.549 U	1.38 U	0.149 U	0.268 U	0.967 U	1.27 U	1.18 U	0.678 U	0.298 U	0.275 U
PCB-069	pg/g	-- C052	-- C052	-- C052	-- C052	-- C052	-- C052	-- C052	-- C052	-- C052	-- J, C052	-- C052
PCB-070	pg/g	-- C061	-- C061	-- C061	-- C061	-- C061	-- C061	-- C061	-- C061	-- C061	-- J, C061	-- C061
PCB-071	pg/g	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- U, C041	-- C041
PCB-072	pg/g	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- U, C041	-- C041
PCB-073	pg/g	6.68	0.593 U	1.65 U	0.169 U	0.304 U	3.12 J	1.37 U	1.41 U	0.769 U	0.336 U	0.312 U
PCB-074	pg/g	176	48.7	9.11	6.23	10.7	138	740	400	18.9	0.295 U	8.85
PCB-075	pg/g	-- C048	-- C048	-- U, C048	-- J, C048	-- J, C048	-- C048	-- C048	-- C048	-- C048	-- U, C048	-- J, C048
PCB-076	pg/g	-- C066	-- C066	-- C066	-- C066	-- C066	-- C066	-- C066	-- C066	-- C066	-- J, C066	-- C066
PCB-077 (Dioxin-Like)	pg/g	29.9	6.34	1.62 U	1.65 J	2.75 J	19.5	117	39.9	5.17	0.557 U	2.76 J
PCB-078	pg/g	0.872 U	1.04 J	1.52 U	0.331 U	0.548 U	1.04 U	3.92	2.05 U	0.981 U	0.563 U	0.414 U
PCB-079	pg/g	10.1	3.09 J	1.46 U	0.855 J	0.554 U	2.65 J	16.5	12	0.992 U	0.560 U	0.419 U
PCB-080	pg/g	0.491 U	0.519 U	1.30 U	0.140 U	0.251 U	0.879 U	1.20 U	1.11 U	0.635 U	0.271 U	0.258 U
PCB-081 (Dioxin-Like)	pg/g	9.07	4.45	1.41 U	1.14 J	1.07 J	4.14	29.6	15.6	2.12 J	0.534 U	1.33 J
PCB-082	pg/g	77.5	29.8	4.86	7.42	8.03	38.3	212	142	14.8	1.39 U	7.99
PCB-083	pg/g	36.0 C	10.1 C	1.99 U, C	3.77 J, C	2.34 J, C	12.1 C	61.5 C	43.8 C	5.52 C	1.03 U, C	3.45 J, C
PCB-084	pg/g	394 C	85.2 C	13.3 C	30.0 C	28.3 C	122 C	523 C	453 C	53.7 C	1.24 U, C	25.8 C
PCB-085	pg/g	106 C	40.0 C	5.70 C	8.93 C	10.6 C	46.6 C	270 C	178 C	16.8 C	0.970 U, C	11.1 C
PCB-086	pg/g	0.983 U	0.995 U	2.07 U	0.646 U	1.57 U	1.33 U	2.20 U	1.80 U	1.28 U	1.13 U	0.730 U
PCB-087	pg/g	221 C	92.5 C	13.8 C	28.6 C	24.3 C	96.1 C	540 C	419 C	42.0 C	0.908 U, C	21.7 C
PCB-088	pg/g	142 C	35.2 C	4.21 C	11.7 C	16.2 C	46.0 C	275 C	188 C	21.2 C	0.646 U, C	13.0 C
PCB-089	pg/g	9.02	2.47 J	2.43 U	0.789 U	1.92 U	7.5	29.9	14.2	1.57 U	1.24 U	0.892 U
PCB-090	pg/g	990 C	221 C	35.5 C	73.9 C	63.2 C	278 C	1,260 C	1,190 C	131 C	3.49 J, C	63.1 C
PCB-091	pg/g	-- C088	-- C088	-- C088	-- C088	-- C088	-- C088	-- C088	-- C088	-- C088	-- U, C088	-- C088
PCB-092	pg/g	-- C084	-- C084	-- C084	-- C084	-- C084	-- C084	-- C084	-- C084	-- C084	-- U, C084	-- C084
PCB-093	pg/g	0.548 U	1.56 U	2.41 U	0.294 U	0.416 U	0.605 U	2.20 U	2.64 U	1.36 U	0.734 U	0.453 U
PCB-094	pg/g	5.6	1.55 U	2.41 U	0.309 U	0.437 U	0.622 U	12.8	7.91	1.43 U	0.755 U	0.476 U
PCB-095	pg/g	580	208	24.7	78.2	91.2	305	1,580	1,160	133	3.08 J	78.6
PCB-096	pg/g	3.43 J	1.06 U	1.62 U	0.221 U	0.312 U	0.444 U	1.50 U	7.97	1.02 U	0.539 U	0.340 U
PCB-097	pg/g	136	75.9	12.8	18.1	16.2	63.8	463	367	28.9	0.956 U	15.9
PCB-098	pg/g	0.493 U, C	1.42 U, C	2.27 U, C	0.261 U, C	0.370 U, C	0.508 U, C	2.00 U, C	2.49 U, C	1.21 U, C	0.616 U, C	0.403 U, C
PCB-099	pg/g	466	107	18.2	28.1	31.5	105	604	541	58	0.894 U	28.6
PCB-100	pg/g	28.9	1.26 U	1.97 U	0.257 U	0.364 U	1.95 J	5.25	14	1.19 U	0.629 U	0.396 U
PCB-101	pg/g	-- C090	-- C090	-- C090	-- C090	-- C090	-- C090	-- C090	-- C090	-- C090	-- J, C090	-- C090
PCB-102	pg/g	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098
PCB-103	pg/g	42.9	1.27 U	1.99 U	0.262 U	0.371 U	2.70 J	14.5	12.9	1.21 U	0.643 U	0.404 U
PCB-104	pg/g	0.380 U	0.992 U	1.50 U	0.198 U	0.281 U	0.400 U	1.40 U	1.65 U	0.919 U	0.485 U	0.306 U
PCB-105 (Dioxin-Like)	pg/g	202	107	13.7	29.4	22.9	82.1	579	403	37.1	1.11 U	19.5
PCB-106	pg/g	560 C	234 C	29.6 C	72.0 C	56.1 C	184 C	1,350 C	994 C	93.3 C	4.11 C	53.6 C
PCB-107	pg/g	56.4 C	16.6 C	2.52 J, C	4.36 C	4.78 C	12.3 C	84.8 C	65.4 C	8.00 C	0.996 U, C	3.69 J, C
PCB-108	pg/g	-- C107	-- C107	-- J, C107	-- C107	-- C107	-- C107	-- C107	-- C107	-- C107	-- U, C107	-- J, C107
PCB-109	pg/g	0.726 U	0.755 U	1.68 U	0.547 U	1.33 U	0.963 U	1.67 U	1.47 U	1.09 U	0.814 U	0.618 U

Sample Location ¹		ST-102			ST-103	ST-104				ST-105		ST-106
Sample Identification		ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10
Sample Date		10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18
Sample Interval (dbm)		6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	609	226	33.1	72.9	71.9	228	1,350	1,090	126	3.56 J	70.6
PCB-111	pg/g	14.8 C	6.44 C	1.61 U, C	1.35 J, C	1.16 U, C	6.06 C	38.2 C	23.2 C	0.948 U, C	0.691 U, C	0.539 U, C
PCB-112	pg/g	- C083	- C083	- U, C083	- J, C083	- J, C083	- C083	- C083	- C083	- C083	- U, C083	- J, C083
PCB-113	pg/g	0.837 U	0.748 U	1.75 U	0.571 U	1.39 U	1.12 U	1.65 U	1.53 U	1.13 U	0.950 U	0.645 U
PCB-114 (Dioxin-Like)	pg/g	15.3	8.47	1.06 U	1.82 J	1.77 J	5.24	42.8	24.4	2.77 J	1.03 U	1.82 J
PCB-115	pg/g	- C111	- C111	- U, C111	- J, C111	- U, C111	- C111	- C111	- C111	- U, C111	- U, C111	- U, C111
PCB-116	pg/g	- C085	- C085	- C085	- C085	- C085	- C085	- C085	- C085	- C085	- U, C085	- C085
PCB-117	pg/g	- C087	- C087	- C087	- C087	- C087	- C087	- C087	- C087	- C087	- U, C087	- C087
PCB-118 (Dioxin-Like)	pg/g	- C106	- C106	- C106	- C106	- C106	- C106	- C106	- C106	- C106	- C106	- C106
PCB-119	pg/g	53.8	4.17	1.60 U	1.71 J	2.16 J	5.67	25.7	26.2	1.05 U	0.799 U	1.49 J
PCB-120	pg/g	11	0.689 U	1.52 U	0.497 U	1.21 U	0.909 U	3.45 J	4.08	0.989 U	0.769 U	0.562 U
PCB-121	pg/g	0.427 U	1.18 U	1.89 U	0.218 U	0.309 U	0.455 U	1.66 U	2.08 U	1.01 U	0.552 U	0.336 U
PCB-122	pg/g	4.83	3.22 J	1.15 U	0.959 J	1.33 J	2.75 J	19.3	9.77	1.50 J	1.02 U	0.992 J
PCB-123 (Dioxin-Like)	pg/g	6.77	4.81	1.34 U	1.23 J	1.27 J	3.32 J	25.9	16.9	1.54 J	0.894 U	1.22 J
PCB-124	pg/g	26.9	11.2	1.15 U	4.48	3.10 J	7.82	59	43	4.31	1.11 U	3.52 J
PCB-125	pg/g	- C087	- C087	- C087	- C087	- C087	- C087	- C087	- C087	- C087	- U, C087	- C087
PCB-126 (Dioxin-Like)	pg/g	2.61 J	1.44 J	1.20 U	0.651 J	0.697 U	1.12 J	7.91	5.05	1.61 J	1.14 U	0.541 U
PCB-127	pg/g	1.30 U	0.899 U	1.13 U	0.633 U	0.778 U	0.793 U	1.55 U	1.72 U	0.855 U	1.10 U	0.533 U
PCB-128	pg/g	98.3 C	46.0 C	5.74 C	19.8 C	19.5 C	29.7 C	216 C	192 C	30.6 C	0.471 U, C	18.3 C
PCB-129	pg/g	30.5	14.9	1.60 U	8.57	4.9	9.12	66.5	58.6	7.06	0.650 U	5.97
PCB-130	pg/g	65.3	17.8	1.59 U	8.38	8.02	11.7	86.1	73.4	10.9	0.604 U	6.57
PCB-131	pg/g	81.8 C	10.8 C	1.50 U, C	3.08 J, C	3.61 J, C	6.81 C	42.1 C	36.4 C	5.24 C	0.553 U, C	3.20 J, C
PCB-132	pg/g	232 C	74.4 C	9.06 C	33.8 C	35.4 C	71.7 C	418 C	373 C	51.3 C	0.499 U, C	32.8 C
PCB-133	pg/g	- C131	- C131	- U, C131	- J, C131	- J, C131	- C131	- C131	- C131	- C131	- U, C131	- J, C131
PCB-134	pg/g	50.6 C	14.7 C	1.54 U, C	5.85 C	5.88 C	12.7 C	75.9 C	68.5 C	9.20 C	0.554 U, C	5.46 C
PCB-135	pg/g	248	28.3	4.77	13.4	16.7	39.1	196	168	25.2	0.598 U	15.3
PCB-136	pg/g	152	29.1	5.5	12.2	16.9	50.2	248	218	26.6	0.221 U	14.4
PCB-137	pg/g	25.5	17.7	1.33 U	6.26	5.46	8.86	65.6	61.9	8.29	0.567 U	6.41
PCB-138	pg/g	757 C	239 C	26.8 C	103 C	117 C	217 C	1,410 C	1,230 C	189 C	2.12 J, C	108 C
PCB-139	pg/g	910 C	157 C	19.6 C	72.1 C	96.7 C	230 C	1,180 C	1,020 C	162 C	0.498 U, C	99.5 C
PCB-140	pg/g	35.7	2.96 J	1.21 U	0.792 J	0.907 U	2.50 J	2.30 U	7.37	2.06 J	0.506 U	0.332 U
PCB-141	pg/g	150	41.9	4.7	18.7	22	59.7	317	260	39.3	0.539 U	22.2
PCB-142	pg/g	1.05 U	0.994 U	1.51 U	0.472 U	1.12 U	0.952 U	2.82 U	2.12 U	1.15 U	0.633 U	0.409 U
PCB-143	pg/g	- C134	- C134	- U, C134	- C134	- C134	- C134	- C134	- C134	- C134	- U, C134	- C134
PCB-144	pg/g	45.8	10.9	1.36 U	3.76 J	5.45	14.4	80.3	70.3	8.89	0.481 U	5.97
PCB-145	pg/g	0.241 U	1.37 U	1.25 U	0.107 U	0.239 U	0.452 U	1.49 U	1.23 U	0.171 U	0.205 U	0.0985 U
PCB-146	pg/g	357 C	39.1 C	5.66 C	13.6 C	17.8 C	30.8 C	192 C	177 C	24.8 C	0.451 U, C	16.3 C
PCB-147	pg/g	50.1	5.99	1.26 U	2.19 J	2.90 J	3.90 J	21.1	25.6	4.16	0.531 U	2.21 J
PCB-148	pg/g	35.6	1.74 U	1.84 U	0.163 U	0.366 U	0.588 U	1.90 U	1.80 U	0.261 U	0.267 U	0.151 U
PCB-149	pg/g	- C139	- C139	- C139	- C139	- C139	- C139	- C139	- C139	- C139	- U, C139	- C139
PCB-150	pg/g	15.1	1.31 U	1.22 U	0.104 U	0.233 U	0.447 U	1.42 U	4	0.166 U	0.203 U	0.0960 U
PCB-151	pg/g	319	39.9	6.44	18.5	34.6	80.6	376	344	56.2	0.558 U	35.8

Sample Location ¹		ST-102			ST-103	ST-104				ST-105		ST-106
Sample Identification		ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10
Sample Date		10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18
Sample Interval (dbm)		6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	0.244 U	1.34 U	1.25 U	0.108 U	0.243 U	0.469 U	1.46 U	1.22 U	0.173 U	0.213 U	0.100 U
PCB-153	pg/g	969	193	26.2	86.2	119	244	1,360	1,210	196	0.444 U	123
PCB-154	pg/g	113	5.44	1.46 U	1.42 J	2.31 J	3.15 J	14.4	28	1.88 J	0.234 U	2.02 J
PCB-155	pg/g	1.68 J	1.19 U	1.10 U	0.0989 U	0.221 U	0.435 U	1.30 U	1.08 U	0.158 U	0.197 U	0.0913 U
PCB-156 (Dioxin-Like)	pg/g	66.3	29.8	4.04	14.1	10.5	20.3	140	134	19.3	0.418 U	9.42
PCB-157 (Dioxin-Like)	pg/g	14.6	8.11	1.00 U	3.94 J	3.06 J	4.34	27.6	25.5	6.11	0.430 U	3.03 J
PCB-158	pg/g	80.9 C	32.2 C	3.62 J, C	14.0 C	12.0 C	28.3 C	183 C	153 C	21.5 C	0.397 U, C	12.3 C
PCB-159	pg/g	17.3	2.48 J	0.961 U	0.703 J	2.31 J	3.42 J	20.3	13.3	3.93	0.392 U	1.75
PCB-160	pg/g	- C158	- C158	- J, C158	- C158	- C158	- C158	- C158	- C158	- C158	- U, C158	- C158
PCB-161	pg/g	- C132	- C132	- C132	- C132	- C132	- C132	- C132	- C132	- C132	- U, C132	- C132
PCB-162	pg/g	- C128	- C128	- C128	- C128	- C128	- C128	- C128	- C128	- C128	- U, C128	- C128
PCB-163	pg/g	- C138	- C138	- C138	- C138	- C138	- C138	- C138	- C138	- C138	- J, C138	- C138
PCB-164	pg/g	- C138	- C138	- C138	- C138	- C138	- C138	- C138	- C138	- C138	- J, C138	- C138
PCB-165	pg/g	- C146	- C146	- C146	- C146	- C146	- C146	- C146	- C146	- C146	- U, C146	- C146
PCB-166	pg/g	2.90 J	1.46 J	0.994 U	0.600 J	0.787 U	0.607 U	5.18	1.40 U	0.811 U	0.404 U	0.288 U
PCB-167 (Dioxin-Like)	pg/g	24.4	10.7	1.03 U	5.45	6.44	7.83	54.3	47.7	7.67	0.434 U	5.68
PCB-168	pg/g	0.686 U	0.675 U	1.01 U	0.312 U	0.740 U	0.598 U	1.92 U	1.43 U	0.763 U	0.397 U	0.271 U
PCB-169	pg/g	0.735 U	0.736 U	0.938 U	0.287 U	0.750 U	0.810 U	1.90 U	1.34 U	0.699 U	0.392 U	0.252 U
PCB-170	pg/g	189	39.1	6.63	23.5	41.7	73.9	473	369	65.9	0.775 U	36.6
PCB-171	pg/g	64.7	12.3	2.13 U	6.12	12.1	24.1	161	119	19.1	0.720 U	10.5
PCB-172	pg/g	41.7	9.7	2.25 U	4.27	9.6	12.8	95.6	68.7	14.2	0.755 U	7.72
PCB-173	pg/g	5.27	1.56 J	2.35 U	0.225 U	0.522 U	2.54 J	12.8	9.74	1.02 U	0.759 U	0.197 U
PCB-174	pg/g	239	44.6	8.75	14.7	43.4	79	554	417	67.2	0.658 U	40.8
PCB-175	pg/g	15.7	2.94 J	2.06 U	1.47 J	0.482 U	3.16 J	26.1	20.9	4.51	0.710 U	2.23 J
PCB-176	pg/g	47.7	7.3	1.52 U	3.39 J	5.56	12.7	92.7	68.5	10.3	0.519 U	6.35
PCB-177	pg/g	216	28.5	6.16	15.5	31.7	51.8	320	247	48.6	0.767 U	27.8
PCB-178	pg/g	124	12.6	2.17 U	5.89	11.3	16.8	123	89.6	19.9	0.724 U	12
PCB-179	pg/g	169	20.9	4.52	9.77	23.6	40.4	266	198	35.8	0.509 U	24.2
PCB-180	pg/g	417	116	18.6	41.8	84.6	145	1,300	1,020	139	0.553 U	80.9
PCB-181	pg/g	0.817 U	1.15 U	2.11 U	0.221 U	0.514 U	0.562 U	2.41 U	1.86 U	1.00 U	0.682 U	0.194 U
PCB-182	pg/g	520 C	81.4 C	12.3 C	31.0 C	71.2 C	98.9 C	726 C	543 C	106 C	0.613 U, C	69.9 C
PCB-183	pg/g	159	34.4	6.3	15.2	29.7	53.5	397	299	45.1	0.630 U	27.4
PCB-184	pg/g	0.537 U	0.719 U	1.41 U	0.138 U	0.321 U	0.376 U	1.51 U	1.25 U	0.624 U	0.456 U	0.121 U
PCB-185	pg/g	24.4	6.09	2.14 U	2.83 J	7.14	9.67	86.2	59.1	8.42	0.666 U	5.77
PCB-186	pg/g	0.571 U	0.766 U	1.49 U	0.144 U	0.335 U	0.419 U	1.61 U	1.31 U	0.653 U	0.509 U	0.126 U
PCB-187	pg/g	- C182	- C182	- C182	- C182	- C182	- C182	- C182	- C182	- C182	- U, C182	- C182
PCB-188	pg/g	6.12	0.778 U	1.62 U	0.147 U	0.349 U	0.450 U	1.71 U	1.50 U	0.742 U	0.523 U	0.133 U
PCB-189 (Dioxin-Like)	pg/g	8.38	1.95 J	1.46 U	1.21 J	1.54 J	2.95 J	18.2	15.2	3.40 J	0.475 U	1.76 J
PCB-190	pg/g	45.5	8.32	1.67 U	5.96	9.1	15	108	88.7	18.2	0.554 U	7.7
PCB-191	pg/g	10.2	2.39 J	1.60 U	0.941 J	2.09 J	4.08	26.9	19.2	5.94	0.532 U	1.87 J
PCB-192	pg/g	0.606 U	0.866 U	1.67 U	0.156 U	0.363 U	0.444 U	1.82 U	1.47 U	0.707 U	0.538 U	0.137 U
PCB-193	pg/g	32.8	5.16	1.57 U	2.95 J	6.66	8.73	61.8	50.4	11.1	0.510 U	6.18

Sample Location ¹		ST-102			ST-103	ST-104				ST-105		ST-106
Sample Identification		ST-102C_6.3-7.3	ST-102C_7.3-8.3	ST-102C_9.3-10.3	ST-103S_0-10	ST-104S_0-10	ST-104C_7.3-8.3	ST-104C_8.3-9.3	ST-104C_10.3-11.3	ST-105S_0-10	ST-105C_11-12	ST-106S_0-10
Sample Date		10/23/18	10/23/18	10/23/18	10/24/18	10/24/18	10/26/18	10/26/18	10/26/18	10/24/18	10/26/18	10/24/18
Sample Interval (dbm)		6.3-7.3 ft	7.3-8.3 ft	9.3-10.3 ft	0-10 cm	0-10 cm	7.3-8.3 ft	8.3-9.3 ft	10.3-11.3 ft	0-10 cm	11-12 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Surface/Recent	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	140	43.1	7.54	12.6	25.6	38.6	368	222	38	0.447 U	21
PCB-195	pg/g	53.9	13.2	1.88 U	4.62	11.7	15.6	170	92.6	17.9	0.461 U	10.3
PCB-196	pg/g	190 C	58.6 C	9.39 C	16.9 C	38.4 C	57.6 C	423 C	271 C	51.0 C	0.614 U, C	29.4 C
PCB-197	pg/g	8.46	2.01 J	1.51 U	0.236 U	1.08 J	1.53 U	18.5	12	0.437 U	0.414 U	1.42 J
PCB-198	pg/g	14	3.46 J	2.38 U	0.939 J	1.69 J	2.56 U	21.8	16.1	2.91 J	0.693 U	1.78 J
PCB-199	pg/g	182	66.6	11.3	13.7	31.8	42.5	342	245	48.4	0.572 U	27.8
PCB-200	pg/g	22.2	6.73	1.62 U	2.10 J	4.89	7.88	51.5	32.8	5.73	0.476 U	5.12
PCB-201	pg/g	33.5	9.46	1.59 U	2.01 J	4.2	7.18	58	37.8	5.67	0.456 U	4.45
PCB-202	pg/g	59.7	17.4	3.66 J	3.51 J	9.37	10.8	74.5	54.4	10.2	0.447 U	7.68
PCB-203	pg/g	- C196	- C196	- C196	- C196	- C196	- C196	- C196	- C196	- C196	- U, C196	- C196
PCB-204	pg/g	0.233 U	1.30 U	1.53 U	0.265 U	0.199 U	1.74 U	1.48 U	1.27 U	0.489 U	0.471 U	0.140 U
PCB-205	pg/g	6.45	1.79 J	1.26 U	0.820 J	1.68 J	2.03 J	20.7	14.1	2.03 J	0.328 U	1.22 J
PCB-206	pg/g	251	112	20.8	6.18	13.7	26.2	158	171	17.7	0.424 U	10.4
PCB-207	pg/g	26.7	11.3	1.65 U	0.931 J	1.70 J	3.60 J	25.3	23.9	2.70 J	0.337 U	1.93 J
PCB-208	pg/g	92.8	42.1	9.98	2.10 J	4.3	8.05	40	52	4.92	0.300 U	3.27 J
PCB-209	pg/g	334	159	26.4	2.51 J	5.1	20.9	80.6	222	11.6	0.440 U	3.90 J
Total PCBs Congeners	pg/g	17,500 J	4,590 J	644 J	1,400 J	1,880 J	7,070 J	39,200 J	27,800 J	3,040 J	38.7 J	1,780 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	ST-106			ST-107			ST-108			ST-109		
Sample Identification	ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3	
Sample Date	10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	
Sample Interval (dbm)	3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft	
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	2.98 J	7.13	4.86	1.68 J	1.93 J	0.495 U	4.5	86.2	2.28 J	22.7	5.69
PCB-002	pg/g	2.67 J	2.45 J	2.39 J	0.735 J	1.67 J	0.903 J	1.53 J	38.3	1.34 U	3.30 J	12.6
PCB-003	pg/g	3.58 J	5.01	4.82	1.49 J	2.34 J	0.597 U	4.65	159	3.56 J	12.2	12.7
PCB-004	pg/g	8.11	15.9	8.36	2.18 U	6.09	3.13 U	7.62	33.9	3.17 J	44.4	2.94 U
PCB-005	pg/g	2.65 U	1.69 U	2.12 U	1.78 U	2.06 U	2.91 U	0.648 U	3.01 U	0.654 U	2.11 U	2.61 U
PCB-006	pg/g	8.57	8.75	5	1.84 U	2.05 U	2.90 U	5.73	48.1	0.684 U	51.6	2.60 U
PCB-007	pg/g	2.62 U	1.70 U	2.59 J	1.75 U	2.04 U	2.88 U	2.00 J	23.7	0.655 U	12.1	2.58 U
PCB-008	pg/g	16.1	23.3	26.2	10.9	12.2	2.93 U	24.2	148	6.75	258	2.63 U
PCB-009	pg/g	2.58 U	1.76 U	2.08 U	1.83 U	2.01 U	2.83 U	1.26 J	23.6	0.681 U	10.8	2.54 U
PCB-010	pg/g	2.98 U	1.75 U	2.47 U	2.11 U	2.32 U	3.27 U	1.40 J	3.38 U	0.675 U	4.1	2.93 U
PCB-011	pg/g	11.7	14.1	11.8	6.35	11.1	3.03 U	4.35	48.5	54.9	7.73	2.71 U
PCB-012	pg/g	2.58 U	1.85 U	2.14 U	1.83 U	2.01 U	2.83 U	1.31 J	23.8	0.716 U	5.84	2.54 U
PCB-013	pg/g	2.67 U	1.91 U	2.25 J	1.88 U	2.08 U	2.93 U	1.28 J	17.9	0.736 U	5.86	2.63 U
PCB-014	pg/g	2.74 U	1.85 U	2.05 U	1.88 U	2.13 U	3.01 U	0.685 U	3.11 U	0.715 U	2.23 U	2.70 U
PCB-015	pg/g	16.3	18.2	17.4	4.99	7.34	2.73 U	9.41	197	8.52	77.3	2.34 U
PCB-016	pg/g	9.55	14.8	16.5	5.18	5.27	1.19 U	11	63.8	2.23 J	104	0.677 U
PCB-017	pg/g	11.1	15.9	21.1	7.33	8.12	1.31 U	18.4	111	1.34 U	113	0.748 U
PCB-018	pg/g	25.1	34.5	49.3	13.8	19.9	1.41 U	42.4	267	7.78	269	0.802 U
PCB-019	pg/g	1.49 U	5.4	6.95	1.05 U	1.88 U	1.41 U	4.46	25.5	1.46 U	22.1	0.802 U
PCB-020	pg/g	24.3 C	27.5 C	31.2 C	15.7 C	11.9 C	0.633 U, C	35.6 C	280 C	9.88 C	298 C	6.75 C
PCB-021	pg/g	- C020	- C020	- C020	- C020	- C020	- U, C020	- C020	- C020	- C020	- C020	- C020
PCB-022	pg/g	19.5	17.7	21.8	8.66	8	0.635 U	18.1	179	6.22	117	1.71 U
PCB-023	pg/g	2.25 U	1.80 U	2.24 U	0.896 U	1.22 U	0.719 U	0.798 U	3.83 U	0.905 U	1.66 U	1.94 U
PCB-024	pg/g	1.04 U	1.69 U	1.64 U	0.749 U	1.32 U	0.987 U	2.63 J	9.23	0.996 U	12.6	0.562 U
PCB-025	pg/g	4.4	4.97	5.65	0.752 U	1.85 J	0.554 U	0.670 U	31.9	1.69 J	34.2	1.49 U

Sample Location ¹		ST-106			ST-107			ST-108			ST-109	
Sample Identification		ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3
Sample Date		10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18
Sample Interval (dbm)		3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	9.45	8.79	11.9	7.02	4.72	0.692 U	10.7	81.2	2.81 J	84.1	1.86 U
PCB-027	pg/g	0.997 U	1.64 U	1.60 U	0.749 U	1.26 U	0.943 U	1.37 J	10.2	0.967 U	10.3	0.537 U
PCB-028	pg/g	50.9	46.2	54.8	26.8	22.9	2.17 J	50.5	525	14.2	233	7.52
PCB-029	pg/g	2.12 U	1.74 U	2.06 U	0.898 U	1.16 U	0.679 U	0.800 U	3.61 U	0.874 U	1.67 U	1.83 U
PCB-030	pg/g	1.05 U	1.63 U	1.55 U	0.732 U	1.32 U	0.992 U	0.591 U	1.57 U	0.962 U	0.848 U	0.565 U
PCB-031	pg/g	44.1	43.1	48.7	25.2	22.2	2.25 J	52.3	529	13.6	654	7.48
PCB-032	pg/g	10.2	10.2	16.8	5.37	6.81	1.09 U	14.6	88.1	2.47 J	68.8	0.623 U
PCB-033	pg/g	- C020	- C020	- C020	- C020	- C020	- U, C020	- C020	- C020	- C020	- C020	- C020
PCB-034	pg/g	2.12 U	1.81 U	2.17 U	0.992 U	1.15 U	0.678 U	0.884 U	3.61 U	0.911 U	1.84 U	1.83 U
PCB-035	pg/g	2.20 U	1.96 U	2.13 U	0.975 U	1.20 U	0.702 U	0.868 U	3.73 U	0.986 U	1.81 U	1.89 U
PCB-036	pg/g	2.16 U	1.81 U	1.97 U	0.967 U	1.18 U	0.692 U	0.861 U	3.68 U	0.909 U	1.79 U	1.86 U
PCB-037	pg/g	14	18.6	24	6.78	6.95	0.594 U	9.93	120	6.61	89.4	1.60 U
PCB-038	pg/g	2.02 U	1.79 U	1.98 U	0.886 U	1.10 U	0.646 U	0.789 U	3.44 U	0.898 U	1.64 U	1.74 U
PCB-039	pg/g	2.08 U	1.82 U	1.96 U	0.898 U	1.13 U	0.663 U	0.800 U	3.53 U	0.914 U	1.67 U	1.79 U
PCB-040	pg/g	5.48	8.46	15.1	6.66	5.73	0.285 U	7.21	5.49	1.04 U	45.8	1.04 U
PCB-041	pg/g	21.0 C	45.3 C	78.4 C	32.2 C	25.0 C	0.167 U, C	32.3 C	372 C	9.58 C	239 C	2.82 J, C
PCB-042	pg/g	9.46 C	21.8 C	30.1 C	10.9 C	8.87 C	0.183 U, C	12.0 C	123 C	3.41 J, C	73.9 C	0.663 U, C
PCB-043	pg/g	33.5 C	67.2 C	105 C	47.3 C	26.1 C	0.983 J, C	41.6 C	486 C	11.1 C	295 C	3.35 J, C
PCB-044	pg/g	27.3	60.3	117	49.7	30.7	0.241 U	41.6	570	15.4	410	4.04
PCB-045	pg/g	6.52	9.2	13.4	4.91	3.82 J	0.258 U	8.6	73.5	1.90 J	42.7	0.938 U
PCB-046	pg/g	3.87 J	7.18	6.84	2.41 J	2.17 J	0.262 U	3.41 J	28.6	0.944 U	16.7	0.951 U
PCB-047	pg/g	13	33.1	38.1	14.7	7.68	1.10 J	12	114	4.88	80.8	0.614 U
PCB-048	pg/g	5.28 C	8.71 C	15.2 C	5.48 C	5.88 C	0.189 U, C	7.28 C	111 C	3.14 J, C	39.0 C	0.684 U, C
PCB-049	pg/g	- C043	- C043	- C043	- C043	- C043	- J, C043	- C043	- C043	- C043	- C043	- J, C043
PCB-050	pg/g	0.705 U	1.81 U	1.81 U	0.448 U	0.605 U	0.237 U	0.353 U	1.80 U	0.789 U	1.24 U	0.858 U
PCB-051	pg/g	2.70 J	5.22	7.93	2.94 J	1.79 J	0.218 U	2.83 J	23.2	0.772 U	9.63	0.791 U
PCB-052	pg/g	48.3 C	107 C	190 C	106 C	41.9 C	1.55 J, C	72.6 C	943 C	29.7 C	653 C	5.34 C
PCB-053	pg/g	7.74	15.4	19	7.2	4.17	0.226 U	10.4	74.2	2.11 J	53.3	0.819 U
PCB-054	pg/g	0.498 U	1.36 U	1.49 U	0.323 U	0.427 U	0.167 U	0.255 U	1.27 U	0.593 U	0.896 U	0.606 U
PCB-055	pg/g	1.90 J	3.96 J	1.35 U	4.41	0.386 U	0.151 U	1.70 J	17.4	0.615 U	11.3	0.547 U
PCB-056	pg/g	26.7 C	38.7 C	47.4 C	38.8 C	21.9 C	0.393 U, C	32.1 C	505 C	11.5 C	253 C	3.64 J, C
PCB-057	pg/g	0.490 U	1.37 U	1.39 U	0.333 U	0.420 U	0.164 U	0.262 U	3.60 J	0.599 U	0.923 U	0.596 U
PCB-058	pg/g	0.477 U	1.43 U	1.37 U	0.334 U	0.409 U	0.160 U	0.263 U	2.59 J	0.623 U	0.925 U	0.580 U
PCB-059	pg/g	- C042	- C042	- C042	- C042	- C042	- U, C042	- C042	- C042	- J, C042	- C042	- U, C042
PCB-060	pg/g	- C056	- C056	- C056	- C056	- C056	- U, C056	- C056	- C056	- C056	- C056	- J, C056
PCB-061	pg/g	52.2 C	105 C	154 C	147 C	37.9 C	1.09 J, C	81.1 C	980 C	36.1 C	808 C	5.13 C
PCB-062	pg/g	0.527 U	1.53 U	1.54 U	0.347 U	0.452 U	0.177 U	0.273 U	1.34 U	0.667 U	0.962 U	0.641 U
PCB-063	pg/g	1.85 J	3.14 J	4.73	2.77 J	1.18 J	0.163 U	2.83 J	30.9	0.603 U	17.1	0.592 U
PCB-064	pg/g	- C041	- C041	- C041	- C041	- C041	- U, C041	- C041	- C041	- C041	- C041	- J, C041
PCB-065	pg/g	0.508 U	1.37 U	1.37 U	0.337 U	0.436 U	0.170 U	0.266 U	1.29 U	0.597 U	0.935 U	0.618 U
PCB-066	pg/g	48.8 C	81.4 C	100 C	105 C	30.9 C	1.04 J, C	59.0 C	701 C	20.2 C	475 C	4.84 C
PCB-067	pg/g	1.93 J	3.14 J	3.48 J	1.64 J	1.03 J	0.160 U	2.21 J	18	0.623 U	8.82	0.580 U

Sample Location ¹		ST-106			ST-107			ST-108			ST-109	
Sample Identification		ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3
Sample Date		10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18
Sample Interval (dbm)		3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	0.449 U	1.28 U	1.24 U	0.300 U	0.385 U	0.151 U	0.237 U	1.14 U	0.559 U	0.833 U	0.547 U
PCB-069	pg/g	-- C052	-- C052	-- C052	-- C052	-- C052	-- J, C052	-- C052	-- C052	-- C052	-- C052	-- C052
PCB-070	pg/g	-- C061	-- C061	-- C061	-- C061	-- C061	-- J, C061	-- C061	-- C061	-- C061	-- C061	-- C061
PCB-071	pg/g	-- C041	-- C041	-- C041	-- C041	-- C041	-- U, C041	-- C041	-- C041	-- C041	-- C041	-- J, C041
PCB-072	pg/g	-- C041	-- C041	-- C041	-- C041	-- C041	-- U, C041	-- C041	-- C041	-- C041	-- C041	-- J, C041
PCB-073	pg/g	0.506 U	1.38 U	1.48 U	0.341 U	0.434 U	0.170 U	0.268 U	1.29 U	0.603 U	0.945 U	0.616 U
PCB-074	pg/g	22.1	33.2	45.7	38.1	15.7	0.149 U	30.1	387	11.3	262	2.44 J
PCB-075	pg/g	-- C048	-- C048	-- C048	-- C048	-- C048	-- U, C048	-- C048	-- C048	-- J, C048	-- C048	-- U, C048
PCB-076	pg/g	-- C066	-- C066	-- C066	-- C066	-- C066	-- J, C066	-- C066	-- C066	-- C066	-- C066	-- C066
PCB-077 (Dioxin-Like)	pg/g	7.71	10.4	13.7	20.9	2.69 J	0.406 U	4.2	52.3	1.62 J	23.7	0.861 U
PCB-078	pg/g	0.792 U	1.35 U	1.87 U	0.751 U	0.393 U	0.391 U	0.434 U	1.40 U	0.643 U	3.82 J	0.899 U
PCB-079	pg/g	2.87 J	3.84 J	4.68	5.6	1.02 J	0.389 U	1.64 J	17.8	0.621 U	11.5	0.895 U
PCB-080	pg/g	0.408 U	1.21 U	1.16 U	0.281 U	0.350 U	0.137 U	0.222 U	1.04 U	0.528 U	0.781 U	0.497 U
PCB-081 (Dioxin-Like)	pg/g	2.18 J	3.16 J	4.48	8.3	1.26 J	0.352 U	2.60 J	32.4	1.09 J	24.9	0.879 U
PCB-082	pg/g	18	22.1	26.2	87.9	10.4	1.11 U	19.8	241	6.99	262	1.78 U
PCB-083	pg/g	8.28 C	9.11 C	11.9 C	33.3 C	3.45 J, C	0.821 U, C	6.80 C	81.0 C	2.27 J, C	82.6 C	1.32 U, C
PCB-084	pg/g	82.9 C	76.9 C	116 C	311 C	32.4 C	0.987 U, C	70.9 C	839 C	17.6 C	888 C	4.58 C
PCB-085	pg/g	23.0 C	30.4 C	35.0 C	92.0 C	12.8 C	0.770 U, C	25.9 C	301 C	68.5 C	296 C	1.24 U, C
PCB-086	pg/g	0.934 U	1.86 U	2.12 U	0.740 U	0.757 U	0.895 U	0.672 U	2.06 U	1.03 U	0.533 U	1.44 U
PCB-087	pg/g	50.9 C	64.2 C	90.2 C	280 C	28.9 C	0.720 U, C	65.5 C	788 C	21.3 C	883 C	3.84 J, C
PCB-088	pg/g	35.0 C	54.4 C	62.6 C	121 C	9.26 C	0.642 U, C	32.9 C	237 C	7.73 C	290 C	0.409 U, C
PCB-089	pg/g	2.15 J	2.66 J	3.36 J	7.22	1.24 J	0.981 U	1.69 J	25	1.11 U	18.8	1.58 U
PCB-090	pg/g	181 C	195 C	264 C	706 C	77.4 C	2.17 J, C	203 C	2580 C	50.7 C	2,570 C	13.9 C
PCB-091	pg/g	-- C088	-- C088	-- C088	-- C088	-- C088	-- U, C088	-- C088	-- C088	-- C088	-- C088	-- U, C088
PCB-092	pg/g	-- C084	-- C084	-- C084	-- C084	-- C084	-- U, C084	-- C084	-- C084	-- C084	-- C084	-- C084
PCB-093	pg/g	1.13 U	1.40 U	2.50 U	0.347 U	0.512 U	0.730 U	0.387 U	2.02 U	1.60 U	0.360 U	0.465 U
PCB-094	pg/g	1.16 U	1.39 U	4.49	3.80 J	0.527 U	0.751 U	0.406 U	10.5	1.58 U	8.44	0.478 U
PCB-095	pg/g	180	252	391	753	61.4	0.680 U	227	2,120	60	2,600	12.5
PCB-096	pg/g	0.828 U	0.954 U	4.07	2.30 J	0.376 U	0.536 U	1.20 J	12.2	1.09 U	6.23	0.341 U
PCB-097	pg/g	37.3	61.6	81.6	175	19.7	0.758 U	40.5	480	15.2	522	3.19 J
PCB-098	pg/g	0.947 U, C	1.27 U, C	2.36 U, C	0.309 U, C	0.430 U, C	0.613 U, C	0.344 U, C	1.70 U, C	1.45 U, C	0.320 U, C	0.391 U, C
PCB-099	pg/g	94.1	102	112	272	26.7	0.709 U	71.2	711	19.2	770	3.61 J
PCB-100	pg/g	0.966 U	5.49	3.49 J	2.52 J	0.439 U	0.625 U	1.44 J	6.5	1.29 U	6.01	0.398 U
PCB-101	pg/g	-- C090	-- C090	-- C090	-- C090	-- C090	-- J, C090	-- C090	-- C090	-- C090	-- C090	-- C090
PCB-102	pg/g	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098
PCB-103	pg/g	7.4	9.55	4.03	4.44	0.449 U	0.640 U	2.15 J	9.88	1.30 U	9.54	0.407 U
PCB-104	pg/g	0.745 U	0.890 U	1.56 U	0.234 U	0.338 U	0.482 U	0.261 U	1.33 U	1.02 U	0.243 U	0.307 U
PCB-105 (Dioxin-Like)	pg/g	51.2	71.4	107	140	28.7	0.521 U	54.2	773	26.9	711	3.57 J
PCB-106	pg/g	137 C	202 C	287 C	418 C	65.2 C	1.67 J, C	137 C	1,860 C	63.6 C	1,800 C	8.65 C
PCB-107	pg/g	12.1 C	15.4 C	22.6 C	28.8 C	4.86 C	0.496 U, C	9.69 C	107 C	4.11 C	114 C	1.03 U, C
PCB-108	pg/g	-- C107	-- C107	-- C107	-- C107	-- C107	-- U, C107	-- C107	-- C107	-- C107	-- C107	-- U, C107
PCB-109	pg/g	0.674 U	1.41 U	1.73 U	0.627 U	0.546 U	0.646 U	0.569 U	1.49 U	0.783 U	0.451 U	1.04 U

Sample Location ¹		ST-106			ST-107			ST-108			ST-109	
Sample Identification		ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3
Sample Date		10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18
Sample Interval (dbm)		3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	165	209	261	708	69.6	1.66 J	165	1,910	57.4	2,130	8.5
PCB-111	pg/g	2.62 J, C	2.94 J, C	4.76 C	14.4 C	1.29 J, C	0.548 U, C	2.67 J, C	42.3 C	1.49 J, C	47.9 C	0.881 U, C
PCB-112	pg/g	- C083	- C083	- C083	- C083	- J, C083	- U, C083	- C083	- C083	- J, C083	- C083	- U, C083
PCB-113	pg/g	0.787 U	1.40 U	1.80 U	0.654 U	0.637 U	0.753 U	0.594 U	1.74 U	0.775 U	0.471 U	1.21 U
PCB-114 (Dioxin-Like)	pg/g	3.40 J	6.11	6.97	8.56	2.67 J	0.511 U	3.78 J	58.8	1.87 J	51.6	1.02 U
PCB-115	pg/g	- J, C111	- J, C111	- C111	- C111	- J, C111	- U, C111	- J, C111	- C111	- J, C111	- C111	- U, C111
PCB-116	pg/g	- C085	- C085	- C085	- C085	- C085	- U, C085	- C085	- C085	- C085	- C085	- U, C085
PCB-117	pg/g	- C087	- C087	- C087	- C087	- C087	- U, C087	- C087	- C087	- C087	- C087	- J, C087
PCB-118 (Dioxin-Like)	pg/g	- C106	- C106	- C106	- C106	- C106	- J, C106	- C106	- C106	- C106	- C106	- C106
PCB-119	pg/g	7.6	5.93	7.68	11.2	1.70 J	0.634 U	3.54 J	31.9	0.737 U	29.3	1.02 U
PCB-120	pg/g	0.637 U	1.29 U	1.56 U	0.570 U	0.516 U	0.610 U	0.517 U	9.15	0.715 U	8.21	0.981 U
PCB-121	pg/g	0.848 U	1.06 U	1.97 U	0.258 U	0.385 U	0.549 U	0.287 U	1.52 U	1.20 U	0.267 U	0.350 U
PCB-122	pg/g	1.58 J	3.58 J	5.39	6	1.21 J	0.507 U	0.634 U	25.6	1.13 J	23.3	1.05 U
PCB-123 (Dioxin-Like)	pg/g	2.89 J	4.86	5.51	6.28	1.26 J	0.472 U	1.87 J	32.2	1.15 J	21.3	0.951 U
PCB-124	pg/g	9.81	10.2	14.1	25.2	3.20 J	0.553 U	8.26	96.1	3.53 J	100	1.14 U
PCB-125	pg/g	- C087	- C087	- C087	- C087	- C087	- U, C087	- C087	- C087	- C087	- C087	- J, C087
PCB-126 (Dioxin-Like)	pg/g	1.82 J	2.55 J	3.04 J	3.18 J	0.970 U	0.598 U	1.13 J	9.56	0.708 U	8.32	1.12 U
PCB-127	pg/g	1.16 U	1.93 U	1.56 U	1.15 U	1.01 U	0.549 U	0.669 U	2.79 U	0.685 U	4.69	1.14 U
PCB-128	pg/g	40.5 C	55.4 C	75.2 C	54.0 C	13.7 C	0.378 U, C	42.8 C	379 C	12.9 C	517 C	0.860 U, C
PCB-129	pg/g	12.6	16.2	20.7	19.1	4.69	0.521 U	12.9	125	4	157	1.19 U
PCB-130	pg/g	16.2	21.6	31.7	27.4	5.03	0.484 U	23	170	4.57	199	1.10 U
PCB-131	pg/g	9.16 C	10.8 C	17.7 C	13.5 C	2.78 J, C	0.444 U, C	8.72 C	71.5 C	2.30 J, C	97.6 C	1.01 U, C
PCB-132	pg/g	71.4 C	91.5 C	140 C	131 C	24.5 C	0.400 U, C	117 C	872 C	21.8 C	1,000 C	5.21 C
PCB-133	pg/g	- C131	- C131	- C131	- C131	- J, C131	- U, C131	- C131	- C131	- J, C131	- C131	- U, C131
PCB-134	pg/g	15.9 C	18.4 C	27.3 C	27.1 C	5.00 C	0.444 U, C	15.9 C	152 C	4.04 C	174 C	1.01 U, C
PCB-135	pg/g	52.1	43.8	56.8	57.9	10.7	0.480 U	50.4	466	9.06	525	1.09 U
PCB-136	pg/g	46.7	53	63.8	62.3	12.7	0.123 U	60.2	478	12.5	602	1.86 J
PCB-137	pg/g	13.8	17.6	22.9	21.4	4.43	0.455 U	10.5	95.5	4.19	146	1.04 U
PCB-138	pg/g	259 C	318 C	452 C	320 C	84.1 C	1.57 J, C	358 C	2,920 C	78.4 C	3,640 C	13.6 C
PCB-139	pg/g	296 C	290 C	373 C	311 C	69.7 C	1.84 J, C	351 C	2,670 C	55.6 C	3,460 C	11.8 C
PCB-140	pg/g	4.39	2.01 U	3.47 J	3.04 J	0.524 U	0.406 U	0.678 U	2.11 U	0.720 U	0.456 U	0.924 U
PCB-141	pg/g	58	58.2	86.1	66.1	19.7	0.432 U	95.5	836	17	1,130	4.27
PCB-142	pg/g	1.07 U	2.47 U	2.67 U	0.608 U	0.656 U	0.508 U	0.835 U	2.64 U	0.885 U	0.561 U	1.16 U
PCB-143	pg/g	- C134	- C134	- C134	- C134	- C134	- U, C134	- C134	- C134	- C134	- C134	- U, C134
PCB-144	pg/g	17.4	12.8	24.1	21.2	5.73	0.386 U	35.7	196	4.43	372	0.879 U
PCB-145	pg/g	0.297 U	1.64 U	1.32 U	0.109 U	0.215 U	0.113 U	0.124 U	0.939 U	0.651 U	1.06 J	0.237 U
PCB-146	pg/g	55.4 C	45.5 C	65.8 C	46.5 C	11.1 C	0.362 U, C	49.9 C	388 C	9.24 C	521 C	0.823 U, C
PCB-147	pg/g	12.2	15.7	12.9	10.6	1.84 J	0.426 U	6.1	39.2	1.50 J	41	0.970 U
PCB-148	pg/g	2.10 J	2.09 U	1.94 U	0.167 U	0.279 U	0.148 U	0.190 U	8.5	0.832 U	0.168 U	0.308 U
PCB-149	pg/g	- C139	- C139	- C139	- C139	- C139	- J, C139	- C139	- C139	- C139	- C139	- C139
PCB-150	pg/g	2.43 J	4.94	1.28 U	0.107 U	0.212 U	0.112 U	1.13 J	0.929 U	0.623 U	3.79 J	0.234 U
PCB-151	pg/g	108	94.6	118	87.7	22.3	0.448 U	116	944	17.8	1,290	4.31

Sample Location ¹		ST-106			ST-107			ST-108			ST-109	
Sample Identification		ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3
Sample Date		10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18
Sample Interval (dbm)		3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	0.308 U	1.60 U	1.32 U	0.111 U	0.223 U	0.118 U	0.126 U	0.976 U	0.637 U	2.36 J	0.246 U
PCB-153	pg/g	337	316	443	292	85.1	2.06 J	399	3,100	68.2	4,670	13.3
PCB-154	pg/g	10.6	12.2	5.42	4.31	0.246 U	0.130 U	2.79 J	13.8	0.742 U	22.6	0.271 U
PCB-155	pg/g	0.286 U	1.43 U	1.16 U	0.101 U	0.207 U	0.109 U	0.115 U	0.905 U	0.567 U	0.102 U	0.228 U
PCB-156 (Dioxin-Like)	pg/g	20.2	26.9	44.6	22.7	9.02	0.353 U	34.9	283	9.67	436	1.99 J
PCB-157 (Dioxin-Like)	pg/g	5.89	8.1	10.9	6.33	2.10 J	0.348 U	5.46	46.8	1.95 J	64.6	0.778 U
PCB-158	pg/g	29.1 C	35.5 C	52.3 C	43.2 C	11.8 C	0.319 U, C	47.3 C	388 C	10.1 C	543 C	2.35 J, C
PCB-159	pg/g	8.16	9.48	6.43	1.66 J	1.56 J	0.315 U	5.85	44.4	1.25 J	97.9	0.716 U
PCB-160	pg/g	- C158	- C158	- C158	- C158	- C158	- U, C158	- C158	- C158	- C158	- C158	- J, C158
PCB-161	pg/g	- C132	- C132	- C132	- C132	- C132	- U, C132	- C132	- C132	- C132	- C132	- C132
PCB-162	pg/g	- C128	- C128	- C128	- C128	- C128	- U, C128	- C128	- C128	- C128	- C128	- U, C128
PCB-163	pg/g	- C138	- C138	- C138	- C138	- C138	- J, C138	- C138	- C138	- C138	- C138	- C138
PCB-164	pg/g	- C138	- C138	- C138	- C138	- C138	- J, C138	- C138	- C138	- C138	- C138	- C138
PCB-165	pg/g	- C146	- C146	- C146	- C146	- C146	- U, C146	- C146	- C146	- C146	- C146	- U, C146
PCB-166	pg/g	0.683 U	1.71 U	1.76 U	1.99 J	0.418 U	0.324 U	0.588 U	7.02	0.613 U	12.4	0.737 U
PCB-167 (Dioxin-Like)	pg/g	11.2	13.6	22	13.6	3.72 J	0.348 U	13.4	112	3.57 J	186	0.820 U
PCB-168	pg/g	0.672 U	1.68 U	1.80 U	1.34 J	0.412 U	0.319 U	0.553 U	1.66 U	0.602 U	0.372 U	0.726 U
PCB-169	pg/g	0.622 U	1.73 U	1.52 U	0.382 U	0.371 U	0.295 U	0.577 U	1.66 U	0.550 U	0.318 U	0.696 U
PCB-170	pg/g	87.9	126	132	49.4	22.8	0.404 U	175	1,060	19.6	2,240	5.07
PCB-171	pg/g	29.1	49.8	39.1	16.7	7.22	0.376 U	62.4	342	4.79	804	1.96 J
PCB-172	pg/g	17.9	24	22.2	9.75	5.11	0.393 U	36.4	190	4.06	473	0.544 U
PCB-173	pg/g	2.30 J	2.22 U	3.30 U	1.63 J	0.551 U	0.396 U	0.353 U	31.3	1.03 U	57.5	0.547 U
PCB-174	pg/g	120	256	141	46.2	27.4	0.343 U	154	1,090	18	2,400	4.97
PCB-175	pg/g	4.45	7.71	7.6	2.74 J	1.46 J	0.370 U	11.6	56.6	1.29 J	178	0.512 U
PCB-176	pg/g	19.1	31.2	19.8	7.47	4.03	0.270 U	31.7	171	3.40 J	479	0.374 U
PCB-177	pg/g	74.4	138	86.1	33.7	15.2	0.400 U	106	699	11.1	1,310	3.44 J
PCB-178	pg/g	39.5	46.9	33	12.9	5.69	0.377 U	39.4	219	4.25	619	0.522 U
PCB-179	pg/g	84.1	101	62.5	26.7	13.2	0.266 U	78.7	497	8.81	1,250	2.95 J
PCB-180	pg/g	231	371	333	94	50.2	0.288 U	336	1,970	43.1	5,460	10.7
PCB-181	pg/g	0.578 U	2.14 U	2.96 U	0.228 U	0.494 U	0.355 U	0.348 U	2.22 U	0.989 U	1.13 U	0.491 U
PCB-182	pg/g	227 C	297 C	179 C	81.1 C	36.5 C	0.320 U, C	214 C	1,240 C	22.6 C	3,750 C	6.91 C
PCB-183	pg/g	81.8	115	86.3	32.2	18.4	1.86 J	130	713	13.8	2,040	4.34
PCB-184	pg/g	0.387 U	1.34 U	1.98 U	0.142 U	0.331 U	0.238 U	0.217 U	1.49 U	0.620 U	0.703 U	0.329 U
PCB-185	pg/g	20.9	27.3	17.7	6.24	3.96 J	0.347 U	24.2	135	2.96 J	486	0.480 U
PCB-186	pg/g	0.432 U	1.43 U	2.08 U	0.149 U	0.369 U	0.265 U	0.227 U	1.66 U	0.661 U	0.736 U	0.367 U
PCB-187	pg/g	- C182	- C182	- C182	- C182	- C182	- U, C182	- C182	- C182	- C182	- C182	- C182
PCB-188	pg/g	1.96 J	1.53 U	2.17 U	0.155 U	0.396 U	0.288 U	0.218 U	1.50 U	0.712 U	0.755 U	0.330 U
PCB-189 (Dioxin-Like)	pg/g	3.02 J	3.72 J	5.42	1.83 J	1.15 J	0.231 U	7.77	39.5	0.628 U	95.2	0.401 U
PCB-190	pg/g	25.1	29.1	29.8	10.9	4.81	0.289 U	41.6	205	4.07	652	0.399 U
PCB-191	pg/g	5.35	7.2	6.12	2.64 J	1.53 J	0.277 U	11	49.1	1.46 J	148	0.384 U
PCB-192	pg/g	0.457 U	1.61 U	2.34 U	0.161 U	0.390 U	0.281 U	0.246 U	1.76 U	0.747 U	0.797 U	0.388 U
PCB-193	pg/g	16.1	18.9	17.2	5.59	2.57 J	0.266 U	24.3	125	2.67 J	334	0.368 U

Sample Location ¹		ST-106			ST-107			ST-108			ST-109	
Sample Identification		ST-106C_3.1-4.1	ST-106C_4.1-5.1	ST-106C_6.1-7.1	ST-107S_0-10	ST-107C_4.2-5.2	ST-107C_9.3-10.3	ST-108S_0-10	ST-108C_6.6-7.6	ST-108C_8.6-9.6	ST-109S_0-10	ST-109C_8.3-9.3
Sample Date		10/26/18	10/26/18	10/26/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18	10/25/18	10/24/18	10/25/18
Sample Interval (dbm)		3.1-4.1 ft	4.1-5.1 ft	6.1-7.1 ft	0-10 cm	4.2-5.2 ft	9.3-10.3 ft	0-10 cm	6.6-7.6 ft	8.6-9.6 ft	0-10 cm	8.3-9.3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	83.9	243	78.5	23.1	14.3	0.558 U	98	476	8.2	2,000	4.08
PCB-195	pg/g	36.4	187	32.2	9.13	5.34	0.575 U	41.1	195	4.12	883	1.20 U
PCB-196	pg/g	125 C	405 C	91.4 C	30.7 C	20.7 C	0.243 U, C	136 C	549 C	8.78 C	2,900 C	5.90 C
PCB-197	pg/g	3.59 J	21.1	4.34	0.945 J	1.06 J	0.164 U	5.61	24.6	0.711 U	117	1.05 U
PCB-198	pg/g	5.64	20.1	7.71	1.28 J	1.74 J	0.274 U	6.47	32.8	1.06 U	168	1.77 U
PCB-199	pg/g	110	494	93.5	29.9	18.4	0.226 U	89	453	10	2,090	7.35
PCB-200	pg/g	17.2	86.5	12.4	4.56	2.74 J	0.188 U	13.9	74	0.764 U	338	1.21 U
PCB-201	pg/g	16.6	67.3	13.2	4.4	3.71 J	0.180 U	16.3	69.5	0.754 U	364	1.16 U
PCB-202	pg/g	27.3	90.2	18.2	6.83	5.07	0.177 U	17.8	95.3	2.69 J	462	1.14 U
PCB-203	pg/g	- C196	- C196	- C196	- C196	- C196	- U, C196	- C196	- C196	- C196	- C196	- C196
PCB-204	pg/g	0.162 U	1.05 U	1.99 U	0.110 U	0.241 U	0.186 U	0.121 U	1.59 U	0.763 U	0.188 U	1.20 U
PCB-205	pg/g	4.69	11.5	4.29	1.48 J	0.571 U	0.410 U	6.38	20.4	0.460 U	126	0.857 U
PCB-206	pg/g	75	334	28.2	11.9	8.53	0.511 U	31.7	201	4.3	924	8.46
PCB-207	pg/g	8.75	70	4.86	1.56 J	1.30 J	0.411 U	6.52	26.8	0.860 J	157	0.697 U
PCB-208	pg/g	23.6	95.3	7.68	3.68 J	2.51 J	0.366 U	6.93	54.7	1.10 J	190	3.70 J
PCB-209	pg/g	89.1	49.1	8.06	5.86	5.8	0.308 U	4.86	251	3.84 J	60	11.2
Total PCBs Congeners	pg/g	5,000 J	7,850 J	7,140 J	7,280 J	1,630 J	37.4 J	5,800 J	48,400 J	1,320 J	74,200 J	312 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		ST-109	South DMMU Area						North DMMU Area	MAF-01		
Sample Identification	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	
Sample Date	10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015	
Sample Interval (dbm)	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Total PCBs Aroclors	mg/kg	--	--	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	0.518 U	4.86	15.8	15.2	15.9	17.1	11.2	6.05	71.2	68.2	--
PCB-002	pg/g	0.594 U	2.97 J	8.39	10.7	17.6	16	13.8	3.21 J	36.5	5.79	--
PCB-003	pg/g	0.612 U	5.35	21.9	18.8	25.6	22.5	19.1	6.19	114	21.4	--
PCB-004	pg/g	1.89 U	11.4	25.4	16.7	17.9	38.6	7.49	10.9	15.9	128	--
PCB-005	pg/g	1.39 U	0.841 U	1.40 U	1.10 U	0.890 U	1.49 U	3.42 J	1.41 U	2.37 U	163	--
PCB-006	pg/g	1.45 U	6.93	20.7	12.5	16.8	19.9	6.47	6.62	15.2	44.5	--
PCB-007	pg/g	1.39 U	0.845 U	5.63	3.82 J	4.69	4.64	2.63 J	1.41 U	15.2	8.23	--
PCB-008	pg/g	1.52 U	32.8	104	68.3	79	131	35.7	30.5	112	162	--
PCB-009	pg/g	1.44 U	0.855 U	5.86	4.01	4.18	5.47	1.59 U	1.47 U	12.9	18.8	--
PCB-010	pg/g	1.43 U	1.01 U	3.89	2.25 J	1.20 J	3.51 J	1.89 U	1.46 U	2.86 U	6.23	--
PCB-011	pg/g	11	9.36	14.4	17.5	22.8	19.7	16	4.84	31.1	5.54	--
PCB-012	pg/g	1.52 U	0.872 U	5.9	4.14	5.16	8.29	4.64	1.54 U	13.7	4.36	--
PCB-013	pg/g	1.56 U	0.889 U	5.51	5.64	11.6	13.6	6.33	1.59 U	9.9	9	--
PCB-014	pg/g	1.52 U	0.909 U	1.51 U	1.19 U	0.962 U	1.64 U	1.57 U	1.54 U	2.53 U	0.507 U	--
PCB-015	pg/g	1.60 U	19.4	60.9	45.9	56.6	77.3	21.3	16	129	96.1	--
PCB-016	pg/g	0.978 U	19.1	48.4	50	66.2	250	28.9	18	29.5	1220	--
PCB-017	pg/g	1.06 U	25.5	70.2	68.7	110	359	52.3	24.3	40.9	1240	--
PCB-018	pg/g	1.14 U	55.5	171	156	231	822	114	60.5	65.7	5150	--
PCB-019	pg/g	1.16 U	6.79	15.8	12.1	16.8	43.2	6.34	5.35	11.1	207	--
PCB-020	pg/g	1.36 U, C	52.4 C	155 C	140 C	209 C	787 C	95.1 C	37.4 C	91.7 C	3,390 C	--
PCB-021	pg/g	-- U, C020	-- C020	-- C020	-- C020	-- C020	-- C020	-- C020	-- C020	-- C020	-- C020	--
PCB-022	pg/g	1.24 U	29.3	89.2	79.5	110	398	55.8	21.2	60.7	2,020	--
PCB-023	pg/g	1.33 U	0.626 U	0.969 U	0.757 U	0.862 U	0.921 U	1.99 U	0.577 U	3.41 U	1.00 U	--
PCB-024	pg/g	0.792 U	3.52 J	7.8	5.83	12.2	27.1	4.38	1.65 J	5.52	68.5	--
PCB-025	pg/g	1.34 U	11.4	33.6	59.2	112	79.9	12.3	5.6	13.1	95.4	--

Sample Location ¹		ST-109	South DMMU Area						North DMMU Area	MAF-01		
Sample Identification	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	
Sample Date	10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015	
Sample Interval (dbm)	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-026	pg/g	1.33 U	26.4	67.1	107	237	220	29.2	11.8	31.2	550	--
PCB-027	pg/g	0.769 U	2.76 J	6.97	8.39	8.66	21.5	4.63	3.42 J	4.59	77	--
PCB-028	pg/g	1.11 U	81	234	255	451	1,450	162	0.482 U	171	5,550	--
PCB-029	pg/g	1.29 U	0.645 U	0.997 U	2.65 J	2.25 J	3.38 J	1.83 U	0.557 U	3.51 U	1.19 U	--
PCB-030	pg/g	0.765 U	0.636 U	0.506 U	0.417 U	0.253 U	1.27 U	2.05 U	1.58 U	0.973 U	0.695 U	--
PCB-031	pg/g	1.32 U	89.5	282	264	446	1,620	159	58.8	206	9,260	--
PCB-032	pg/g	0.860 U	15.5	57.9	48.1	66.3	226	35.4	16.1	37.1	1,160	--
PCB-033	pg/g	-- U, C020	-- C020	-- C020	-- C020	-- C020	-- C020	-- C020	-- C020	-- C020	-- C020	--
PCB-034	pg/g	1.34 U	0.608 U	0.940 U	5.23	7.67	11.5	1.93 U	0.581 U	3.31 U	1.39 U	--
PCB-035	pg/g	1.45 U	0.650 U	1.01 U	0.786 U	0.895 U	15.9	1.89 U	0.628 U	3.54 U	1.40 U	--
PCB-036	pg/g	1.34 U	0.621 U	0.960 U	0.751 U	0.855 U	0.926 U	1.75 U	0.579 U	3.38 U	1.30 U	--
PCB-037	pg/g	1.33 U	21.1	64.3	52.5	69	323	35.2	17.9	23.1	869	--
PCB-038	pg/g	1.32 U	0.591 U	0.914 U	0.714 U	0.813 U	6.84	1.76 U	0.572 U	3.22 U	45.5	--
PCB-039	pg/g	1.35 U	0.614 U	0.949 U	0.742 U	0.845 U	0.930 U	1.75 U	0.582 U	3.34 U	1.22 U	--
PCB-040	pg/g	0.979 U	1.27 U	32.5	40.6	64.8	128	29	15.5	33.3	1270	--
PCB-041	pg/g	0.619 U, C	42.1 C	172 C	236 C	360 C	777 C	168 C	77.6 C	152 C	7,160 C	--
PCB-042	pg/g	0.693 U, C	22.6 C	67.7 C	112 C	196 C	325 C	71.9 C	28.2 C	46.0 C	2,090 C	--
PCB-043	pg/g	0.778 U, C	67.5 C	298 C	455 C	768 C	978 C	334 C	87.4 C	183 C	8,400 C	--
PCB-044	pg/g	0.874 U	67.8	329	346	587	807	216	110	217	10,300	--
PCB-045	pg/g	0.852 U	10.5	34	42.5	78.2	127	29.2	14	27.7	1,740	--
PCB-046	pg/g	0.891 U	5.8	15.7	18.2	29.9	48.8	14.2	6.67	11.3	605	--
PCB-047	pg/g	0.734 U	20.6	88.1	173	269	496	128	27.7	55.4	2,230	--
PCB-048	pg/g	0.609 U, C	13.6 C	46.7 C	53.1 C	93.7 C	128 C	54.2 C	17.9 C	23.2 C	1,790 C	--
PCB-049	pg/g	-- U, C043	-- C043	-- C043	-- C043	-- C043	-- C043	-- C043	-- C043	-- C043	-- C043	--
PCB-050	pg/g	0.744 U	0.974 U	0.786 U	0.865 U	2.74 J	3.64 J	1.99 U	0.863 U	2.55 U	1.70 U	--
PCB-051	pg/g	0.728 U	4.24	11	16.4	25.2	36.4	9.03	4.76	9.29	494	--
PCB-052	pg/g	0.697 U, C	119 C	654 C	555 C	1,080 C	1,100 C	380 C	173 C	338 C	14,500 C	--
PCB-053	pg/g	0.732 U	13.7	37.4	43.9	75.5	116	28.7	13	27.3	1820	--
PCB-054	pg/g	0.559 U	0.669 U	0.540 U	0.595 U	1.04 J	1.70 J	1.64 U	0.649 U	1.75 U	1.29 U	--
PCB-055	pg/g	0.580 U	4.39	12.2	10	15.1	24.7	6.22	0.673 U	7.03	131	--
PCB-056	pg/g	0.299 U, C	50.1 C	185 C	189 C	309 C	958 C	133 C	53.8 C	181 C	10,600 C	--
PCB-057	pg/g	0.565 U	0.695 U	2.78 J	3.51 J	4.3	8.76	1.53 U	0.655 U	1.82 U	1.25 U	--
PCB-058	pg/g	0.588 U	0.735 U	2.42 J	4.68	6.38	6.33	2.38 J	0.682 U	1.93 U	1.27 U	--
PCB-059	pg/g	-- U, C042	-- C042	-- C042	-- C042	-- C042	-- C042	-- C042	-- C042	-- C042	-- C042	--
PCB-060	pg/g	-- U, C056	-- C056	-- C056	-- C056	-- C056	-- C056	-- C056	-- C056	-- C056	-- C056	--
PCB-061	pg/g	0.635 U, C	104 C	516 C	394 C	849 C	1850 C	345 C	161 C	328 C	17,900 C	--
PCB-062	pg/g	0.629 U	0.715 U	0.577 U	0.635 U	0.543 U	1.04 U	1.69 U	0.730 U	1.87 U	1.43 U	--
PCB-063	pg/g	0.569 U	3.80 J	14.2	15.2	28.6	56	13	4.32	10.2	462	--
PCB-064	pg/g	-- U, C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	--
PCB-065	pg/g	0.563 U	0.795 U	0.642 U	0.706 U	0.604 U	0.934 U	1.50 U	0.653 U	2.08 U	1.34 U	--
PCB-066	pg/g	0.569 U, C	78.8 C	371 C	363 C	719 C	1,640 C	253 C	99.6 C	252 C	11,200 C	--
PCB-067	pg/g	0.588 U	3.38 J	8.6	10.5	14.1	41.8	7.15	2.98 J	6.85	173	--

Sample Location ¹		ST-109	South DMMU Area						North DMMU Area	MAF-01		
Sample Identification	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	
Sample Date	10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015	
Sample Interval (dbm)	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-068	pg/g	0.527 U	0.632 U	0.511 U	9.46	14	12.4	5.22	0.611 U	1.66 U	1.19 U	--
PCB-069	pg/g	-- U, C052	-- C052	-- C052	-- C052	-- C052	-- C052	-- C052	-- C052	-- C052	-- C052	--
PCB-070	pg/g	-- U, C061	-- C061	-- C061	-- C061	-- C061	-- C061	-- C061	-- C061	-- C061	-- C061	--
PCB-071	pg/g	-- U, C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	--
PCB-072	pg/g	-- U, C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	-- C041	--
PCB-073	pg/g	0.569 U	0.676 U	0.545 U	6.08	14.7	0.944 U	1.63 U	0.660 U	5.41	1.37 U	--
PCB-074	pg/g	0.557 U	40.6	175	160	307	736	130	54.2	133	7570	--
PCB-075	pg/g	-- U, C048	-- C048	-- C048	-- C048	-- C048	-- C048	-- C048	-- C048	-- C048	-- C048	--
PCB-076	pg/g	-- U, C066	-- C066	-- C066	-- C066	-- C066	-- C066	-- C066	-- C066	-- C066	-- C066	--
PCB-077 (Dioxin-Like)	pg/g	0.322 U	9.56	26.8	28.6	39.2	153	17	8.43	29.8	974	--
PCB-078	pg/g	0.310 U	0.606 U	4.05	0.710 U	0.446 U	2.83 J	1.82 U	0.779 U	1.94 U	1.54 U	--
PCB-079	pg/g	0.300 U	2.52 J	16.3	11.3	26.5	14.1	12.1	2.32 J	6.76	157	--
PCB-080	pg/g	0.498 U	0.546 U	0.441 U	0.485 U	0.415 U	6.58	1.28 U	0.578 U	1.43 U	1.02 U	--
PCB-081 (Dioxin-Like)	pg/g	0.293 U	4.15	23.8	9.15	19	10.7	4.99	3.47 J	11.3	279	--
PCB-082	pg/g	0.798 U	33.2	184	81.7	203	77.3	19.8	25.4	97.8	3350	--
PCB-083	pg/g	0.582 U, C	12.9 C	75.3 C	41.1 C	106 C	39.0 C	15.6 C	7.60 C	31.3 C	900.0 C	--
PCB-084	pg/g	0.622 U, C	104 C	697 C	383 C	928 C	349 C	183 C	73.5 C	318 C	10,500 C	--
PCB-085	pg/g	0.554 U, C	42.4 C	221 C	107 C	277 C	92.0 C	27.3 C	29.6 C	131 C	4,220 C	--
PCB-086	pg/g	0.626 U	1.00 U	1.11 U	1.31 U	0.999 U	0.771 U	1.95 U	1.42 U	3.06 U	199	--
PCB-087	pg/g	0.528 U, C	99.0 C	633 C	245 C	652 C	179 C	71.0 C	74.5 C	327 C	9,010 C	--
PCB-088	pg/g	0.557 U, C	38.3 C	206 C	165 C	331 C	203 C	144 C	28.1 C	69.3 C	3,960 C	--
PCB-089	pg/g	0.677 U	2.08 J	13.8	11.7	16.9	8.07	2.98 J	2.38 J	9.53	354	--
PCB-090	pg/g	0.568 U, C	108 C	1750 C	997 C	2,290 C	1,050 C	551 C	191 C	898 C	23,600 C	--
PCB-091	pg/g	-- U, C088	-- C088	-- C088	-- C088	-- C088	-- C088	-- C088	-- C088	-- C088	-- C088	--
PCB-092	pg/g	-- U, C084	-- C084	-- C084	-- C084	-- C084	-- C084	-- C084	-- C084	-- C084	-- C084	--
PCB-093	pg/g	0.653 U	0.653 U	0.614 U	0.424 U	0.334 U	1.30 U	2.20 U	1.01 U	2.79 U	1.24 U	--
PCB-094	pg/g	0.648 U	0.696 U	5.91	3.48 J	8.5	1.29 U	2.20 U	1.01 U	2.97 U	130	--
PCB-095	pg/g	0.614 U	219	1,290	694	1,600	871	500	195	604	20,400	--
PCB-096	pg/g	0.446 U	0.506 U	5.71	4.42	9.13	5.38	2.52 J	0.691 U	2.16 U	172	--
PCB-097	pg/g	0.690 U	61.2	404	200	546	232	86	60.4	194	6440	--
PCB-098	pg/g	0.594 U, C	0.587 U, C	0.552 U, C	0.381 U, C	0.300 U, C	1.18 U, C	2.07 U, C	0.921 U, C	2.50 U, C	0.942 U, C	--
PCB-099	pg/g	0.565 U	93.5	657	470	1,150	628	357	82.9	295	11,200	--
PCB-100	pg/g	0.529 U	0.581 U	10.2	32.6	31	52.9	53.7	0.821 U	2.48 U	98.9	--
PCB-101	pg/g	-- U, C090	-- C090	-- C090	-- C090	-- C090	-- C090	-- C090	-- C090	-- C090	-- C090	--
PCB-102	pg/g	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098	--
PCB-103	pg/g	0.531 U	0.601 U	18.9	44.5	47	58.4	48.1	0.824 U	2.56 U	179	--
PCB-104	pg/g	0.415 U	0.452 U	0.425 U	0.294 U	0.231 U	0.828 U	1.37 U	0.645 U	1.93 U	0.828 U	--
PCB-105 (Dioxin-Like)	pg/g	0.828 U	77	514	203	575	265	92.8	76	242	10,200	--
PCB-106	pg/g	0.742 U, C	195 C	1,410 C	595 C	1,760 C	809 C	359 C	190 C	599 C	21,900 C	--
PCB-107	pg/g	0.756 U, C	14.4 C	102 C	52.8 C	132 C	87.5 C	44.2 C	12.8 C	40.8 C	1,210 C	--
PCB-108	pg/g	-- U, C107	-- C107	-- C107	-- C107	-- C107	-- C107	-- C107	-- C107	-- C107	-- C107	--
PCB-109	pg/g	0.475 U	0.740 U	0.820 U	0.969 U	0.737 U	0.585 U	1.59 U	1.07 U	2.26 U	9.11	--

Sample Location ¹		ST-109	South DMMU Area							North DMMU Area	MAF-01	
Sample Identification	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	
Sample Date	10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015	
Sample Interval (dbm)	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-110	pg/g	0.464 U	234	1,520	761	2,090	761	284	197	721	22,100	--
PCB-111	pg/g	0.467 U, C	3.57 J, C	32.5 C	73.3 C	41.3 C	13.9 C	5.50 C	4.40 C	13.6 C	471 C	--
PCB-112	pg/g	-- U, C083	-- C083	-- C083	-- C083	-- C083	-- C083	-- C083	-- C083	-- C083	-- C083	--
PCB-113	pg/g	0.471 U	0.854 U	0.946 U	1.12 U	0.851 U	0.579 U	1.66 U	1.06 U	2.61 U	0.986 U	--
PCB-114 (Dioxin-Like)	pg/g	0.815 U	5.5	36.8	12	35.1	21.1	7.49	5.06	16.8	642	--
PCB-115	pg/g	-- U, C111	-- J, C111	-- C111	-- C111	-- C111	-- C111	-- C111	-- C111	-- C111	-- C111	--
PCB-116	pg/g	-- U, C085	-- C085	-- C085	-- C085	-- C085	-- C085	-- C085	-- C085	-- C085	-- C085	--
PCB-117	pg/g	-- U, C087	-- C087	-- C087	-- C087	-- C087	-- C087	-- C087	-- C087	-- C087	-- C087	--
PCB-118 (Dioxin-Like)	pg/g	-- U, C106	-- C106	-- C106	-- C106	-- C106	-- C106	-- C106	-- C106	-- C106	-- C106	--
PCB-119	pg/g	0.447 U	6.95	37.9	50.5	96.4	66.8	41.6	3.81 J	14.3	335	--
PCB-120	pg/g	0.434 U	0.690 U	5.31	0.903 U	0.687 U	10.6	7.6	0.981 U	2.10 U	22.9	--
PCB-121	pg/g	0.493 U	0.509 U	0.478 U	0.330 U	0.260 U	0.982 U	1.73 U	0.765 U	2.17 U	0.838 U	--
PCB-122	pg/g	0.777 U	2.97 J	17.1	7.64	16.3	9.58	5.15	2.75 J	1.83 U	287	--
PCB-123 (Dioxin-Like)	pg/g	0.881 U	3.55 J	21.1	7.65	18.1	17.6	4.49	4.23	8.27	308	--
PCB-124	pg/g	0.838 U	9.89	70.1	23.4	61.5	24.3	13.8	9.37	25.1	761	--
PCB-125	pg/g	-- U, C087	-- C087	-- C087	-- C087	-- C087	-- C087	-- C087	-- C087	-- C087	-- C087	--
PCB-126 (Dioxin-Like)	pg/g	0.982 U	1.86 J	7.47	3.29 J	6.2	2.68 J	1.99 U	0.964 U	1.98 U	58.7	--
PCB-127	pg/g	0.836 U	0.770 U	0.866 U	1.10 U	0.986 U	1.04 U	1.87 U	0.912 U	1.98 U	1.81 U	--
PCB-128	pg/g	1.03 U, C	46.5 C	308 C	121 C	283 C	93.4 C	45.8 C	33.9 C	111 C	2,740 C	--
PCB-129	pg/g	1.38 U	14.8	113	39	94.3	24.4	10.8	11.2	37.2	958	--
PCB-130	pg/g	1.29 U	21.6	125	54	109	51.6	37.7	14.6	40.9	944	--
PCB-131	pg/g	1.30 U, C	9.09 C	64.8 C	41.4 C	62.4 C	71.4 C	63.1 C	8.28 C	24.0 C	388 C	--
PCB-132	pg/g	1.04 U, C	84.8 C	625 C	233 C	406 C	245 C	159 C	66.4 C	245 C	4,530 C	--
PCB-133	pg/g	-- U, C131	-- C131	-- C131	-- C131	-- C131	-- C131	-- C131	-- C131	-- C131	-- C131	--
PCB-134	pg/g	1.30 U, C	15.7 C	106 C	48.4 C	100 C	59.7 C	39.8 C	14.6 C	42.4 C	814 C	--
PCB-135	pg/g	1.19 U	41.1	250	160	228	211	151	28.4	102	1650	--
PCB-136	pg/g	0.372 U	42.1	227	150	218	219	146	39.9	93.3	1630	--
PCB-137	pg/g	1.19 U	14	134	42.7	115	29.5	10.8	11.1	46.8	1100	--
PCB-138	pg/g	0.933 U, C	264 C	1,600 C	808 C	1,440 C	919 C	482 C	227 C	729 C	13,000 C	--
PCB-139	pg/g	1.05 U, C	238 C	1,290 C	898 C	1,350 C	1,200 C	832 C	189 C	680 C	10,700 C	--
PCB-140	pg/g	1.04 U	2.12 J	21.5	15.6	26.4	24.1	24.5	3.26 J	1.95 U	80.5	--
PCB-141	pg/g	1.14 U	55.7	310	179	256	186	71.2	48.5	182	2,360	--
PCB-142	pg/g	1.28 U	1.03 U	1.32 U	1.05 U	0.759 U	1.38 U	2.76 U	1.58 U	2.38 U	5.37	--
PCB-143	pg/g	-- U, C134	-- C134	-- C134	-- C134	-- C134	-- C134	-- C134	-- C134	-- C134	-- C134	--
PCB-144	pg/g	1.09 U	14.8	84.2	49.7	71.2	51.5	19.7	15.4	46.6	636	--
PCB-145	pg/g	0.354 U	0.300 U	0.239 U	0.356 U	0.279 U	0.669 U	1.35 U	0.756 U	0.534 U	7.08	--
PCB-146	pg/g	0.970 U, C	47.0 C	279 C	224 C	294 C	350 C	286 C	30.7 C	103 C	1,410 C	--
PCB-147	pg/g	1.02 U	7.54	47	37.3	55.1	67.3	98.5	4.09	10	365	--
PCB-148	pg/g	0.453 U	0.401 U	0.319 U	10.5	11	11.4	18.5	0.966 U	0.714 U	0.938 U	--
PCB-149	pg/g	-- U, C139	-- C139	-- C139	-- C139	-- C139	-- C139	-- C139	-- C139	-- C139	-- C139	--
PCB-150	pg/g	0.339 U	0.300 U	4.33	12.6	11.1	24.4	29.3	0.724 U	0.535 U	34.4	--
PCB-151	pg/g	1.16 U	76.4	335	271	343	380	296	58.4	198	2,480	--

Sample Location ¹		ST-109	South DMMU Area							North DMMU Area	MAF-01	
Sample Identification	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	
Sample Date	10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015	
Sample Interval (dbm)	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-152	pg/g	0.347 U	0.304 U	2.05 J	0.360 U	1.87 J	0.655 U	1.35 U	0.740 U	0.541 U	17	--
PCB-153	pg/g	0.940 U	269	1,410	1,040	1,580	1,240	881	209	805	11,300	--
PCB-154	pg/g	0.404 U	4.55	35.5	65	70.4	146	182	3.18 J	0.596 U	132	--
PCB-155	pg/g	0.309 U	0.272 U	0.217 U	0.322 U	1.48 J	3.31 J	3.64 J	0.659 U	0.484 U	0.670 U	--
PCB-156 (Dioxin-Like)	pg/g	0.872 U	25	207	81.5	179	67.6	27.9	22.8	72.1	1,830	--
PCB-157 (Dioxin-Like)	pg/g	0.918 U	6.97	46.2	17.4	41.7	10.5	6.9	5.15	17.1	406	--
PCB-158	pg/g	0.854 U, C	34.2 C	227 C	95.4 C	188 C	84.9 C	35.1 C	27.7 C	98.4 C	1,880 C	--
PCB-159	pg/g	0.828 U	4.58	12.9	17.1	12.7	14.7	15.1	3.21 J	9.65	56.6	--
PCB-160	pg/g	-- U, C158	-- C158	-- C158	-- C158	-- C158	-- C158	-- C158	-- C158	-- C158	-- C158	--
PCB-161	pg/g	-- U, C132	-- C132	-- C132	-- C132	-- C132	-- C132	-- C132	-- C132	-- C132	-- C132	--
PCB-162	pg/g	-- U, C128	-- C128	-- C128	-- C128	-- C128	-- C128	-- C128	-- C128	-- C128	-- C128	--
PCB-163	pg/g	-- U, C138	-- C138	-- C138	-- C138	-- C138	-- C138	-- C138	-- C138	-- C138	-- C138	--
PCB-164	pg/g	-- U, C138	-- C138	-- C138	-- C138	-- C138	-- C138	-- C138	-- C138	-- C138	-- C138	--
PCB-165	pg/g	-- U, C146	-- C146	-- C146	-- C146	-- C146	-- C146	-- C146	-- C146	-- C146	-- C146	--
PCB-166	pg/g	0.890 U	0.715 U	10.2	3.13 J	8.91	0.957 U	1.82 U	1.09 U	1.65 U	65.8	--
PCB-167 (Dioxin-Like)	pg/g	0.937 U	11.4	78.2	34.6	65.3	24.2	13.1	8.14	30.5	612	--
PCB-168	pg/g	0.873 U	0.672 U	0.860 U	0.688 U	0.495 U	11.1	4.67	1.07 U	1.55 U	38.8	--
PCB-169	pg/g	0.786 U	0.908 U	0.776 U	0.704 U	0.463 U	1.29 U	1.67 U	1.06 U	1.52 U	0.931 U	--
PCB-170	pg/g	1.24 U	84.2	307	308	267	271	102	64.5	181	2,060	--
PCB-171	pg/g	1.11 U	25.8	95.7	104	92.8	88.2	38.1	19.1	69.4	555	--
PCB-172	pg/g	1.21 U	17.7	53.7	67.3	54.3	52.4	24.8	11	37.9	294	--
PCB-173	pg/g	1.23 U	2.01 J	7.33	6.19	7.64	7.53	2.27 U	1.00 U	10.4	46.4	--
PCB-174	pg/g	1.03 U	100	274	336	300	319	145	67.6	215	1,660	--
PCB-175	pg/g	1.11 U	4.3	15.4	19	19.7	14.1	7.06	3.94 J	12.8	85.5	--
PCB-176	pg/g	0.824 U	16.2	51.6	57	53	59.1	28.6	11.7	35.2	266	--
PCB-177	pg/g	1.19 U	60.8	196	219	192	235	128	40.8	136	980	--
PCB-178	pg/g	1.14 U	25.5	76.9	99.1	86.3	108	75.3	17.3	46.2	318	--
PCB-179	pg/g	0.793 U	52.5	144	186	173	208	150	32.7	98.6	722	--
PCB-180	pg/g	1.12 U	179	531	719	528	686	301	164	408	3,630	--
PCB-181	pg/g	1.19 U	0.400 U	1.01 U	0.858 U	0.863 U	1.07 U	2.04 U	0.965 U	1.52 U	1.72 U	--
PCB-182	pg/g	1.00 U, C	142 C	385 C	567 C	477 C	610 C	521 C	89.8 C	280 C	1,900 C	--
PCB-183	pg/g	1.02 U	63.2	193	259	212	216	91.2	46	158	1,130	--
PCB-184	pg/g	0.746 U	0.263 U	0.666 U	0.563 U	0.567 U	0.671 U	1.37 U	0.605 U	0.996 U	1.15 U	--
PCB-185	pg/g	1.11 U	12.4	28.4	48.6	34.8	36.6	13.7	10.5	28.2	228	--
PCB-186	pg/g	0.795 U	0.279 U	0.708 U	0.599 U	0.602 U	0.715 U	1.43 U	0.644 U	1.06 U	1.18 U	--
PCB-187	pg/g	-- U, C182	-- C182	-- C182	-- C182	-- C182	-- C182	-- C182	-- C182	-- C182	-- C182	--
PCB-188	pg/g	0.916 U	0.290 U	0.740 U	2.96 J	4.33	6.44	12.6	0.718 U	0.985 U	1.21 U	--
PCB-189 (Dioxin-Like)	pg/g	0.683 U	3.54 J	13.1	12.7	12.3	10.6	6.56	0.579 U	10.7	86.8	--
PCB-190	pg/g	0.870 U	19.3	61	79.2	58.1	53.8	27	13.3	41.5	452	--
PCB-191	pg/g	0.861 U	3.84 J	14.8	16.5	12.4	13	6.12	3.68 J	11.9	90.4	--
PCB-192	pg/g	0.899 U	0.297 U	0.752 U	0.636 U	0.640 U	0.808 U	1.61 U	0.729 U	1.13 U	1.33 U	--
PCB-193	pg/g	0.814 U	12.8	34	48.5	36.1	39.8	21.9	8.24	20.5	195	--

Sample Location ¹		ST-109	South DMMU Area						North DMMU Area	MAF-01		
Sample Identification	ST-109C_11.3-12.3	DMMU-1A-Comp	DMMU-1B-Comp	DMMU-1C-Comp	DMMU-1D-Comp	DMMU-1E-Comp	DMMU-1F-Comp	DMMU-1 Keyway	DMMU-2D-Comp	MAF-SS-01_0-10	MAF-SS-DUP-01	
Sample Date	10/25/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/25/18	10/20/2015	10/20/2015	
Sample Interval (dbm)	11.3-12.3 ft	2 - 3.7 ft	3.7 - 5.7 ft	5.7 - 7.7 ft	7.7 - 9.7 ft	9.7 - 11.7 ft	11.7 - 13.7 ft	6.8 - 10.8 ft	6.2 - 9.3 ft	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-194	pg/g	0.331 U	56.3	134	278	161	161	159	41.2	126	1,030	--
PCB-195	pg/g	0.368 U	22.7	55	121	66.9	80.1	64.9	16.8	44.1	360	--
PCB-196	pg/g	0.750 U, C	81.3 C	174 C	370 C	205 C	170 C	135 C	48.2 C	131 C	1,300 C	--
PCB-197	pg/g	0.545 U	2.71 J	7.19	14.1	8.94	7.89	8.17	1.68 J	6.28	46.8	--
PCB-198	pg/g	0.813 U	4.54	11.2	25.8	8.95	6.18	6.4	1.73 J	9.44	59.6	--
PCB-199	pg/g	0.827 U	65.3	165	291	184	190	154	46.1	110	1,040	--
PCB-200	pg/g	0.585 U	9.72	22.5	42.7	27.9	23	16.4	5.58	17.9	136	--
PCB-201	pg/g	0.577 U	10.2	23.9	49.2	31.2	27.6	25.1	6.6	24.3	132	--
PCB-202	pg/g	0.582 U	15.3	40.2	68.1	48.9	47.9	48.1	10.8	38	159	--
PCB-203	pg/g	-- U, C196	-- C196	-- C196	-- C196	-- C196	-- C196	-- C196	-- C196	-- C196	-- C196	--
PCB-204	pg/g	0.584 U	0.263 U	0.281 U	0.351 U	0.339 U	0.623 U	1.69 U	0.799 U	0.903 U	0.843 U	--
PCB-205	pg/g	0.248 U	3.36	6.02	17.6	7.9	8.89	7.55	2.52 J	8.39	64.1	--
PCB-206	pg/g	0.250 U	30.2	102	182	135	170	202	19.4	130	355	--
PCB-207	pg/g	0.203 U	4.44	14.7	26.7	18.7	19.3	20.1	2.97 J	22	53.9	--
PCB-208	pg/g	0.196 U	7.7	36.1	43.6	41.3	59	68.8	5.44	49.5	69.7	--
PCB-209	pg/g	0.216 U	10.4	138	113	136	214	255	11.9	165	42.1	--
Total PCBs Congeners	pg/g	11 J	5,090 J	26,100 J	19,700 J	32,800 J	33,600 J	13,100 J	4,520 J	14,500	368,000	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-01					MAF-02					MAF-03
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	190	--	--	--	--	--	--	--	--	--	121
PCB-002	pg/g	24.4	--	--	--	--	--	--	--	--	--	10.7
PCB-003	pg/g	84.2	--	--	--	--	--	--	--	--	--	52.5
PCB-004	pg/g	513	--	--	--	--	--	--	--	--	--	388
PCB-005	pg/g	655	--	--	--	--	--	--	--	--	--	279
PCB-006	pg/g	285	--	--	--	--	--	--	--	--	--	174
PCB-007	pg/g	50.5	--	--	--	--	--	--	--	--	--	31
PCB-008	pg/g	669	--	--	--	--	--	--	--	--	--	372
PCB-009	pg/g	78.9	--	--	--	--	--	--	--	--	--	46.1
PCB-010	pg/g	45.4	--	--	--	--	--	--	--	--	--	12.2
PCB-011	pg/g	14.6	--	--	--	--	--	--	--	--	--	13.2
PCB-012	pg/g	35.3	--	--	--	--	--	--	--	--	--	10.7
PCB-013	pg/g	33.2	--	--	--	--	--	--	--	--	--	24.4
PCB-014	pg/g	1.86 U	--	--	--	--	--	--	--	--	--	0.711 U
PCB-015	pg/g	384	--	--	--	--	--	--	--	--	--	237
PCB-016	pg/g	1,330	--	--	--	--	--	--	--	--	--	369
PCB-017	pg/g	1,450	--	--	--	--	--	--	--	--	--	461
PCB-018	pg/g	3,520	--	--	--	--	--	--	--	--	--	735
PCB-019	pg/g	302	--	--	--	--	--	--	--	--	--	111
PCB-020	pg/g	4,760 C	--	--	--	--	--	--	--	--	--	1,290 C
PCB-021	pg/g	-- C020	--	--	--	--	--	--	--	--	--	-- C020
PCB-022	pg/g	2,520	--	--	--	--	--	--	--	--	--	614
PCB-023	pg/g	11.9	--	--	--	--	--	--	--	--	--	3.03 J
PCB-024	pg/g	87.1	--	--	--	--	--	--	--	--	--	34.2
PCB-025	pg/g	418	--	--	--	--	--	--	--	--	--	125

Sample Location ¹		MAF-01					MAF-02					MAF-03
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	1,320	--	--	--	--	--	--	--	--	--	321
PCB-027	pg/g	141	--	--	--	--	--	--	--	--	--	45.9
PCB-028	pg/g	6,750	--	--	--	--	--	--	--	--	--	1,980
PCB-029	pg/g	55.6	--	--	--	--	--	--	--	--	--	19.8
PCB-030	pg/g	1.16 U	--	--	--	--	--	--	--	--	--	1.10 U
PCB-031	pg/g	8,960	--	--	--	--	--	--	--	--	--	2,910
PCB-032	pg/g	887	--	--	--	--	--	--	--	--	--	332
PCB-033	pg/g	-- C020	--	--	--	--	--	--	--	--	--	-- C020
PCB-034	pg/g	38.3	--	--	--	--	--	--	--	--	--	16.4
PCB-035	pg/g	3.69 U	--	--	--	--	--	--	--	--	--	2.18 U
PCB-036	pg/g	3.56 U	--	--	--	--	--	--	--	--	--	2.03 U
PCB-037	pg/g	664	--	--	--	--	--	--	--	--	--	346
PCB-038	pg/g	3.30 U	--	--	--	--	--	--	--	--	--	1.75 U
PCB-039	pg/g	3.55 U	--	--	--	--	--	--	--	--	--	1.91 U
PCB-040	pg/g	638	--	--	--	--	--	--	--	--	--	166
PCB-041	pg/g	3,110 C	--	--	--	--	--	--	--	--	--	945 C
PCB-042	pg/g	717 C	--	--	--	--	--	--	--	--	--	223 C
PCB-043	pg/g	4,810 C	--	--	--	--	--	--	--	--	--	1,430 C
PCB-044	pg/g	6,630	--	--	--	--	--	--	--	--	--	2,050
PCB-045	pg/g	646	--	--	--	--	--	--	--	--	--	158
PCB-046	pg/g	212	--	--	--	--	--	--	--	--	--	47
PCB-047	pg/g	1,080	--	--	--	--	--	--	--	--	--	240
PCB-048	pg/g	472 C	--	--	--	--	--	--	--	--	--	142 C
PCB-049	pg/g	-- C043	--	--	--	--	--	--	--	--	--	-- C043
PCB-050	pg/g	10.8	--	--	--	--	--	--	--	--	--	2.81 J
PCB-051	pg/g	175	--	--	--	--	--	--	--	--	--	40.9
PCB-052	pg/g	15,300 C	--	--	--	--	--	--	--	--	--	3,950 C
PCB-053	pg/g	891	--	--	--	--	--	--	--	--	--	214
PCB-054	pg/g	11.8	--	--	--	--	--	--	--	--	--	2.81 J
PCB-055	pg/g	328	--	--	--	--	--	--	--	--	--	7.31
PCB-056	pg/g	4,540 C	--	--	--	--	--	--	--	--	--	2,060 C
PCB-057	pg/g	36.6	--	--	--	--	--	--	--	--	--	0.979 U
PCB-058	pg/g	1.73 U	--	--	--	--	--	--	--	--	--	0.995 U
PCB-059	pg/g	-- C042	--	--	--	--	--	--	--	--	--	-- C042
PCB-060	pg/g	-- C056	--	--	--	--	--	--	--	--	--	-- C056
PCB-061	pg/g	19,100 C	--	--	--	--	--	--	--	--	--	3,350 C
PCB-062	pg/g	1.68 U	--	--	--	--	--	--	--	--	--	1.12 U
PCB-063	pg/g	259	--	--	--	--	--	--	--	--	--	88.9
PCB-064	pg/g	-- C041	--	--	--	--	--	--	--	--	--	-- C041
PCB-065	pg/g	1.60 U	--	--	--	--	--	--	--	--	--	1.05 U
PCB-066	pg/g	10,700 C	--	--	--	--	--	--	--	--	--	3,140 C
PCB-067	pg/g	122	--	--	--	--	--	--	--	--	--	26.6

Sample Location ¹		MAF-01					MAF-02					MAF-03
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	1.60 U	--	--	--	--	--	--	--	--	--	0.937 U
PCB-069	pg/g	-- C052	--	--	--	--	--	--	--	--	--	-- C052
PCB-070	pg/g	-- C061	--	--	--	--	--	--	--	--	--	-- C061
PCB-071	pg/g	-- C041	--	--	--	--	--	--	--	--	--	-- C041
PCB-072	pg/g	-- C041	--	--	--	--	--	--	--	--	--	-- C041
PCB-073	pg/g	1.54 U	--	--	--	--	--	--	--	--	--	1.07 U
PCB-074	pg/g	5,150	--	--	--	--	--	--	--	--	--	2,180
PCB-075	pg/g	-- C048	--	--	--	--	--	--	--	--	--	-- C048
PCB-076	pg/g	-- C066	--	--	--	--	--	--	--	--	--	-- C066
PCB-077 (Dioxin-Like)	pg/g	813	--	--	--	--	--	--	--	--	--	256
PCB-078	pg/g	1.62 U	--	--	--	--	--	--	--	--	--	1.56 U
PCB-079	pg/g	1,080	--	--	--	--	--	--	--	--	--	155
PCB-080	pg/g	1.44 U	--	--	--	--	--	--	--	--	--	0.800 U
PCB-081 (Dioxin-Like)	pg/g	966	--	--	--	--	--	--	--	--	--	227
PCB-082	pg/g	5,900	--	--	--	--	--	--	--	--	--	2,340
PCB-083	pg/g	2,190 C	--	--	--	--	--	--	--	--	--	769 C
PCB-084	pg/g	25,800 C	--	--	--	--	--	--	--	--	--	8,640 C
PCB-085	pg/g	7,890 C	--	--	--	--	--	--	--	--	--	3,120 C
PCB-086	pg/g	167	--	--	--	--	--	--	--	--	--	67.4
PCB-087	pg/g	23,800 C	--	--	--	--	--	--	--	--	--	7,650 C
PCB-088	pg/g	16,900 C	--	--	--	--	--	--	--	--	--	2,270 C
PCB-089	pg/g	251	--	--	--	--	--	--	--	--	--	136
PCB-090	pg/g	93,300 C	--	--	--	--	--	--	--	--	--	21,400 C
PCB-091	pg/g	-- C088	--	--	--	--	--	--	--	--	--	-- C088
PCB-092	pg/g	-- C084	--	--	--	--	--	--	--	--	--	-- C084
PCB-093	pg/g	2.64 U	--	--	--	--	--	--	--	--	--	2.78 U
PCB-094	pg/g	222	--	--	--	--	--	--	--	--	--	92.3
PCB-095	pg/g	119,000	--	--	--	--	--	--	--	--	--	20,700
PCB-096	pg/g	195	--	--	--	--	--	--	--	--	--	75.2
PCB-097	pg/g	16,200	--	--	--	--	--	--	--	--	--	5,190
PCB-098	pg/g	2.04 U, C	--	--	--	--	--	--	--	--	--	2.11 U, C
PCB-099	pg/g	44,800	--	--	--	--	--	--	--	--	--	9,030
PCB-100	pg/g	1,830	--	--	--	--	--	--	--	--	--	52.8
PCB-101	pg/g	-- C090	--	--	--	--	--	--	--	--	--	-- C090
PCB-102	pg/g	-- U, C098	--	--	--	--	--	--	--	--	--	-- U, C098
PCB-103	pg/g	1,660	--	--	--	--	--	--	--	--	--	81.4
PCB-104	pg/g	1.47 U	--	--	--	--	--	--	--	--	--	1.86 U
PCB-105 (Dioxin-Like)	pg/g	19,100	--	--	--	--	--	--	--	--	--	9,050
PCB-106	pg/g	66,100 C	--	--	--	--	--	--	--	--	--	22,400 C
PCB-107	pg/g	3,420 C	--	--	--	--	--	--	--	--	--	1,280 C
PCB-108	pg/g	-- C107	--	--	--	--	--	--	--	--	--	-- C107
PCB-109	pg/g	1.64 U	--	--	--	--	--	--	--	--	--	7.84

Sample Location ¹		MAF-01					MAF-02					MAF-03
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	69,000	--	--	--	--	--	--	--	--	--	19,700
PCB-111	pg/g	1,000 C	--	--	--	--	--	--	--	--	--	350.0 C
PCB-112	pg/g	-- C083	--	--	--	--	--	--	--	--	--	-- C083
PCB-113	pg/g	1.79 U	--	--	--	--	--	--	--	--	--	1.46 U
PCB-114 (Dioxin-Like)	pg/g	1,440	--	--	--	--	--	--	--	--	--	538
PCB-115	pg/g	-- C111	--	--	--	--	--	--	--	--	--	-- C111
PCB-116	pg/g	-- C085	--	--	--	--	--	--	--	--	--	-- C085
PCB-117	pg/g	-- C087	--	--	--	--	--	--	--	--	--	-- C087
PCB-118 (Dioxin-Like)	pg/g	-- C106	--	--	--	--	--	--	--	--	--	-- C106
PCB-119	pg/g	2,580	--	--	--	--	--	--	--	--	--	229
PCB-120	pg/g	210	--	--	--	--	--	--	--	--	--	24.7
PCB-121	pg/g	1.74 U	--	--	--	--	--	--	--	--	--	1.88 U
PCB-122	pg/g	604	--	--	--	--	--	--	--	--	--	278
PCB-123 (Dioxin-Like)	pg/g	1,070	--	--	--	--	--	--	--	--	--	269
PCB-124	pg/g	2,910	--	--	--	--	--	--	--	--	--	830
PCB-125	pg/g	-- C087	--	--	--	--	--	--	--	--	--	-- C087
PCB-126 (Dioxin-Like)	pg/g	178	--	--	--	--	--	--	--	--	--	62
PCB-127	pg/g	1.30 U	--	--	--	--	--	--	--	--	--	1.72 U
PCB-128	pg/g	11,600 C	--	--	--	--	--	--	--	--	--	3,830 C
PCB-129	pg/g	3,620	--	--	--	--	--	--	--	--	--	1,330
PCB-130	pg/g	4,980	--	--	--	--	--	--	--	--	--	1,340
PCB-131	pg/g	2,030 C	--	--	--	--	--	--	--	--	--	527 C
PCB-132	pg/g	21,800 C	--	--	--	--	--	--	--	--	--	6,000 C
PCB-133	pg/g	-- C131	--	--	--	--	--	--	--	--	--	-- C131
PCB-134	pg/g	4,710 C	--	--	--	--	--	--	--	--	--	1,000 C
PCB-135	pg/g	12,600	--	--	--	--	--	--	--	--	--	2,030
PCB-136	pg/g	20,200	--	--	--	--	--	--	--	--	--	1,970
PCB-137	pg/g	3,210	--	--	--	--	--	--	--	--	--	1,480
PCB-138	pg/g	91,900 C	--	--	--	--	--	--	--	--	--	18,700 C
PCB-139	pg/g	101,000 C	--	--	--	--	--	--	--	--	--	13,700 C
PCB-140	pg/g	220	--	--	--	--	--	--	--	--	--	93.2
PCB-141	pg/g	22,400	--	--	--	--	--	--	--	--	--	3,590
PCB-142	pg/g	14.5	--	--	--	--	--	--	--	--	--	5.4
PCB-143	pg/g	-- C134	--	--	--	--	--	--	--	--	--	-- C134
PCB-144	pg/g	6,180	--	--	--	--	--	--	--	--	--	871
PCB-145	pg/g	20.1	--	--	--	--	--	--	--	--	--	5.75
PCB-146	pg/g	13,600 C	--	--	--	--	--	--	--	--	--	2,030 C
PCB-147	pg/g	6,020	--	--	--	--	--	--	--	--	--	409
PCB-148	pg/g	1.69 U	--	--	--	--	--	--	--	--	--	0.994 U
PCB-149	pg/g	-- C139	--	--	--	--	--	--	--	--	--	-- C139
PCB-150	pg/g	1,120	--	--	--	--	--	--	--	--	--	13
PCB-151	pg/g	26,600	--	--	--	--	--	--	--	--	--	2,230

Sample Location ¹		MAF-01					MAF-02					MAF-03
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	59.8	--	--	--	--	--	--	--	--	--	19
PCB-153	pg/g	130,000	--	--	--	--	--	--	--	--	--	15,500
PCB-154	pg/g	3,750	--	--	--	--	--	--	--	--	--	113
PCB-155	pg/g	36.8	--	--	--	--	--	--	--	--	--	0.710 U
PCB-156 (Dioxin-Like)	pg/g	9,520	--	--	--	--	--	--	--	--	--	2,830
PCB-157 (Dioxin-Like)	pg/g	1,480	--	--	--	--	--	--	--	--	--	623
PCB-158	pg/g	12,100 C	--	--	--	--	--	--	--	--	--	2,750 C
PCB-159	pg/g	1,230	--	--	--	--	--	--	--	--	--	84.3
PCB-160	pg/g	-- C158	--	--	--	--	--	--	--	--	--	-- C158
PCB-161	pg/g	-- C132	--	--	--	--	--	--	--	--	--	-- C132
PCB-162	pg/g	-- C128	--	--	--	--	--	--	--	--	--	-- C128
PCB-163	pg/g	-- C138	--	--	--	--	--	--	--	--	--	-- C138
PCB-164	pg/g	-- C138	--	--	--	--	--	--	--	--	--	-- C138
PCB-165	pg/g	-- C146	--	--	--	--	--	--	--	--	--	-- C146
PCB-166	pg/g	334	--	--	--	--	--	--	--	--	--	136
PCB-167 (Dioxin-Like)	pg/g	4,190	--	--	--	--	--	--	--	--	--	974
PCB-168	pg/g	198	--	--	--	--	--	--	--	--	--	28.1
PCB-169	pg/g	1.51 U	--	--	--	--	--	--	--	--	--	1.11 U
PCB-170	pg/g	45,100	--	--	--	--	--	--	--	--	--	2,920
PCB-171	pg/g	12,800	--	--	--	--	--	--	--	--	--	784
PCB-172	pg/g	7,180	--	--	--	--	--	--	--	--	--	418
PCB-173	pg/g	956	--	--	--	--	--	--	--	--	--	79.4
PCB-174	pg/g	41,000	--	--	--	--	--	--	--	--	--	2,380
PCB-175	pg/g	1,710	--	--	--	--	--	--	--	--	--	110
PCB-176	pg/g	6,030	--	--	--	--	--	--	--	--	--	355
PCB-177	pg/g	23,600	--	--	--	--	--	--	--	--	--	1,390
PCB-178	pg/g	8,910	--	--	--	--	--	--	--	--	--	425
PCB-179	pg/g	19,400	--	--	--	--	--	--	--	--	--	988
PCB-180	pg/g	89,800	--	--	--	--	--	--	--	--	--	4,910
PCB-181	pg/g	2.07 U	--	--	--	--	--	--	--	--	--	1.64 U
PCB-182	pg/g	56,700 C	--	--	--	--	--	--	--	--	--	2,610 C
PCB-183	pg/g	31,300	--	--	--	--	--	--	--	--	--	1,520
PCB-184	pg/g	40.7	--	--	--	--	--	--	--	--	--	2.18 J
PCB-185	pg/g	5,490	--	--	--	--	--	--	--	--	--	277
PCB-186	pg/g	1.53 U	--	--	--	--	--	--	--	--	--	1.12 U
PCB-187	pg/g	-- C182	--	--	--	--	--	--	--	--	--	-- C182
PCB-188	pg/g	232	--	--	--	--	--	--	--	--	--	2.30 J
PCB-189 (Dioxin-Like)	pg/g	1,570	--	--	--	--	--	--	--	--	--	117
PCB-190	pg/g	10,600	--	--	--	--	--	--	--	--	--	547
PCB-191	pg/g	2,120	--	--	--	--	--	--	--	--	--	117
PCB-192	pg/g	1.68 U	--	--	--	--	--	--	--	--	--	1.27 U
PCB-193	pg/g	5,220	--	--	--	--	--	--	--	--	--	244

Sample Location ¹		MAF-01					MAF-02					MAF-03
Sample Identification		MAF-SC-01_0-2	MAF-SC-DUP-01	MAF-SC-01_4-6	MAF-SC-01_20-22	MAF-SC-DUP-02	MAF-SS-02_0-10	MAF-SC-02_0-2	MAF-SC-02_4-6	MAF-SC-02_20-22	MAF-SC-DUP-10	MAF-SS-03_0-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	11/10/2015	11/10/2015	11/10/2015	11/10/2015	10/20/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm	0 - 2 ft	4 - 6 ft	20 - 22 ft	20 - 22 ft	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	23,500	--	--	--	--	--	--	--	--	--	927
PCB-195	pg/g	9,720	--	--	--	--	--	--	--	--	--	428
PCB-196	pg/g	28,900 C	--	--	--	--	--	--	--	--	--	1,120 C
PCB-197	pg/g	1,070	--	--	--	--	--	--	--	--	--	40.3
PCB-198	pg/g	1,310	--	--	--	--	--	--	--	--	--	64.4
PCB-199	pg/g	21,700	--	--	--	--	--	--	--	--	--	934
PCB-200	pg/g	2,980	--	--	--	--	--	--	--	--	--	125
PCB-201	pg/g	3,030	--	--	--	--	--	--	--	--	--	129
PCB-202	pg/g	3,480	--	--	--	--	--	--	--	--	--	175
PCB-203	pg/g	- C196	--	--	--	--	--	--	--	--	--	- C196
PCB-204	pg/g	10.2	--	--	--	--	--	--	--	--	--	0.864 U
PCB-205	pg/g	1,280	--	--	--	--	--	--	--	--	--	50.5
PCB-206	pg/g	5,260	--	--	--	--	--	--	--	--	--	274
PCB-207	pg/g	837	--	--	--	--	--	--	--	--	--	39.9
PCB-208	pg/g	880	--	--	--	--	--	--	--	--	--	54.5
PCB-209	pg/g	388	--	--	--	--	--	--	--	--	--	159
Total PCBs Congeners	pg/g	1,630,000	--	--	--	--	--	--	--	--	--	278,000 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-03					MAF-04					
Sample Identification		MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ³	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁴	MAF-SC-04_4-6	MAF-SC-04_8-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	666	584	--	--	1.64 J	21.3	24.8	--	44.3	--	--
PCB-002	pg/g	149	182	--	--	1.06 U	9.81	28	--	59.9	--	--
PCB-003	pg/g	392	360	--	--	1.03 U	11.5	25.6	--	37.9	--	--
PCB-004	pg/g	1,050	760	--	--	4.69	38	16.4	--	43.1	--	--
PCB-005	pg/g	153 J	82.3 J	--	--	5.58	45	2.05 U	--	39.4	--	--
PCB-006	pg/g	602 J	279 J	--	--	1.43 U	13.1	23.5	--	23	--	--
PCB-007	pg/g	173 J	96.6 J	--	--	1.30 U	2.43 J	8.67	--	8.61	--	--
PCB-008	pg/g	5,010 J	1,980 J	--	--	7.26	19.3	84.3	--	45.5	--	--
PCB-009	pg/g	192 J	114 J	--	--	1.49 U	5.78	8.5	--	6.37	--	--
PCB-010	pg/g	56.2	34.5	--	--	1.32 U	1.88 J	2.08 U	--	1.15 U	--	--
PCB-011	pg/g	70.9	65.6	--	--	1.68 U	10.2	44.6	--	9.23	--	--
PCB-012	pg/g	95.3	82.9	--	--	1.71 U	3.25 J	2.01 U	--	13.1	--	--
PCB-013	pg/g	125 J	74.5 J	--	--	1.49 U	3.40 J	1.97 U	--	9.45	--	--
PCB-014	pg/g	5.92 U	11.6 U	--	--	1.40 U	0.426 U	1.95 U	--	2.91 J	--	--
PCB-015	pg/g	293	215	--	--	5.04	19.5	2.86 U	--	13.4	--	--
PCB-016	pg/g	7,930 J	4,740 J	--	--	21.5	144	49.8	--	39.4	--	--
PCB-017	pg/g	10,700	6,720	--	--	29.4	182	41.3	--	55.7	--	--
PCB-018	pg/g	27,600	20,500	--	--	93	398	52.2	--	72.7	--	--
PCB-019	pg/g	1,390	1,100	--	--	6.57	26.9	11.7	--	11.1	--	--
PCB-020	pg/g	33,500 J, C	16,400 J, C	--	--	46.1 C	470.0 C	138 C	--	119 C	--	--
PCB-021	pg/g	-- J, C020	-- J, C020	--	--	-- C020	-- C020	-- C020	--	-- C020	--	--
PCB-022	pg/g	14,900 J	6,990 J	--	--	28.2	239	58.1	--	69.3	--	--
PCB-023	pg/g	29.4 U	49.4 U	--	--	0.476 U	1.32 U	1.74 U	--	1.16 U	--	--
PCB-024	pg/g	389	274	--	--	2.30 J	7.15	1.07 U	--	4.15	--	--
PCB-025	pg/g	1,930 J	823 J	--	--	3.08 J	18.8	10.1	--	11.9	--	--

Sample Location ¹		MAF-03					MAF-04					
Sample Identification		MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ³	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁴	MAF-SC-04_4-6	MAF-SC-04_8-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	7,320 J	3,660 J	--	--	10.4	86.9	24.7	--	26.6	--	--
PCB-027	pg/g	790	579	--	--	1.95 J	16.1	7.83	--	3.16 J	--	--
PCB-028	pg/g	71,500 J	29,400 J	--	--	64.9	704	225	--	202	--	--
PCB-029	pg/g	122 J	47.3 UJ	--	--	0.506 U	1.57 U	1.69 U	--	1.37 U	--	--
PCB-030	pg/g	10.6 U	19.6 U	--	--	0.814 U	0.716 U	1.05 U	--	0.862 U	--	--
PCB-031	pg/g	63,600 J	33,900 J	--	--	84.9	1,250	265	--	222	--	--
PCB-032	pg/g	7,720	5,940	--	--	23	170	38.4	--	37	--	--
PCB-033	pg/g	-- J, C020	-- J, C020	--	--	-- C020	-- C020	-- C020	--	-- C020	--	--
PCB-034	pg/g	197 J	105 J	--	--	0.629 U	1.83 U	1.72 U	--	1.60 U	--	--
PCB-035	pg/g	28.6 U	48.0 U	--	--	0.577 U	1.84 U	1.73 U	--	1.61 U	--	--
PCB-036	pg/g	28.5 U	47.8 U	--	--	0.556 U	1.71 U	1.69 U	--	1.50 U	--	--
PCB-037	pg/g	12,700 J	3,240 J	--	--	12.5	122	50.6	--	16.2	--	--
PCB-038	pg/g	26.5 U	44.5 U	--	--	0.517 U	1.48 U	1.61 U	--	1.29 U	--	--
PCB-039	pg/g	28.6 UJ	946 J	--	--	0.555 U	1.61 U	1.73 U	--	1.41 U	--	--
PCB-040	pg/g	7,990	6,530	--	--	21	179	71.2	--	10.4	--	--
PCB-041	pg/g	42,800 C	28,700 C	--	--	100.0 C	1,140 C	420.0 C	--	47.1 C	--	--
PCB-042	pg/g	15,200 C	9,570 C	--	--	31.2 C	342 C	104 C	--	15.1 C	--	--
PCB-043	pg/g	35,800 J, C	18,100 J, C	--	--	91.4 C	1,240 C	483 C	--	69.7 C	--	--
PCB-044	pg/g	41,200	32,700	--	--	128	1,370	744	--	75.5	--	--
PCB-045	pg/g	8,170	7,470	--	--	18.8	270	42.8	--	17.8	--	--
PCB-046	pg/g	2,900	2,640	--	--	8.18	94.7	18.3	--	6.28	--	--
PCB-047	pg/g	6,670	4,360	--	--	22.6	393	130	--	23.4	--	--
PCB-048	pg/g	3,570 C	2,610 C	--	--	24.5 C	289 C	61.1 C	--	12.4 C	--	--
PCB-049	pg/g	-- J, C043	-- J, C043	--	--	-- C043	-- C043	-- C043	--	-- C043	--	--
PCB-050	pg/g	219	142	--	--	0.762 U	4.45	0.959 U	--	0.555 U	--	--
PCB-051	pg/g	2,300	1,810	--	--	5.67	76.9	8.57	--	6.28	--	--
PCB-052	pg/g	48,800 C	38,200 C	--	--	168 C	1,760 C	1,450 C	--	131 C	--	--
PCB-053	pg/g	7,200	6,600	--	--	20.4	270	64.7	--	19.8	--	--
PCB-054	pg/g	102	99.8	--	--	0.563 U	3.52 J	0.738 U	--	0.420 U	--	--
PCB-055	pg/g	4.00 UJ	206 J	--	--	0.588 U	29.2	15.6	--	3.07 J	--	--
PCB-056	pg/g	44,400 J, C	22,900 J, C	--	--	60.7 C	1,440 C	398 C	--	84.3 C	--	--
PCB-057	pg/g	472 J	199 J	--	--	0.602 U	7.02	0.709 U	--	0.406 U	--	--
PCB-058	pg/g	15.9 U	17.6 U	--	--	0.640 U	2.61 J	4.36	--	0.413 U	--	--
PCB-059	pg/g	-- C042	-- C042	--	--	-- C042	-- C042	-- C042	--	-- C042	--	--
PCB-060	pg/g	-- J, C056	-- J, C056	--	--	-- C056	-- C056	-- C056	--	-- C056	--	--
PCB-061	pg/g	66,900 C	64,100 C	--	--	132 C	2,100 C	362 C	--	135 C	--	--
PCB-062	pg/g	16.0 U	17.8 U	--	--	0.621 U	0.761 U	0.807 U	--	0.467 U	--	--
PCB-063	pg/g	4,140 J	1,710 J	--	--	3.65 J	79.1	18.8	--	4.74	--	--
PCB-064	pg/g	-- C041	-- C041	--	--	-- C041	-- C041	-- C041	--	-- C041	--	--
PCB-065	pg/g	16.3 U	18.2 U	--	--	0.594 U	0.709 U	0.784 U	--	0.435 U	--	--
PCB-066	pg/g	140,000 J, C	25,100 J, C	--	--	89.2 C	1,740 C	327 C	--	94.5 C	--	--
PCB-067	pg/g	3,000 J	1,030 J	--	--	2.30 J	35.2	4.14	--	2.02 J	--	--

Sample Location ¹		MAF-03					MAF-04					
Sample Identification		MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ³	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁴	MAF-SC-04_4-6	MAF-SC-04_8-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	150.0 J	28.2 J	--	--	0.593 U	0.634 U	0.700 U	--	0.389 U	--	--
PCB-069	pg/g	-- C052	-- C052	--	--	-- C052	-- C052	-- C052	--	-- C052	--	--
PCB-070	pg/g	-- C061	-- C061	--	--	-- C061	-- C061	-- C061	--	-- C061	--	--
PCB-071	pg/g	-- C041	-- C041	--	--	-- C041	-- C041	-- C041	--	-- C041	--	--
PCB-072	pg/g	-- C041	-- C041	--	--	-- C041	-- C041	-- C041	--	-- C041	--	--
PCB-073	pg/g	9,260	7890	--	--	0.570 U	0.727 U	0.778 U	--	0.446 U	--	--
PCB-074	pg/g	59,200 J	23,800 J	--	--	48.2	1160	157	--	71.7	--	--
PCB-075	pg/g	-- C048	-- C048	--	--	-- C048	-- C048	-- C048	--	-- C048	--	--
PCB-076	pg/g	-- J, C066	-- J, C066	--	--	-- C066	-- C066	-- C066	--	-- C066	--	--
PCB-077 (Dioxin-Like)	pg/g	9,980 J	2,560 J	--	--	6.37	146	36.3	--	7.47	--	--
PCB-078	pg/g	97.3	63.2	--	--	0.618 U	1.19 U	0.991 U	--	1.29 U	--	--
PCB-079	pg/g	598 J	333 J	--	--	1.83 J	16.7	22.7	--	4	--	--
PCB-080	pg/g	13.0 U	14.5 U	--	--	0.534 U	0.542 U	0.612 U	--	0.332 U	--	--
PCB-081 (Dioxin-Like)	pg/g	972	644	--	--	3.73 J	42.8	47	--	6.22	--	--
PCB-082	pg/g	5210	5,100	--	--	21.6	398	265	--	46.8	--	--
PCB-083	pg/g	2,100 C	1,620 C	--	--	6.91 C	125 C	83.3 C	--	14.4 C	--	--
PCB-084	pg/g	24,000 C	23,400 C	--	--	89.8 C	1,310 C	535 C	--	157 C	--	--
PCB-085	pg/g	7,010 C	6,520 C	--	--	27.1 C	506 C	342 C	--	67.0 C	--	--
PCB-086	pg/g	435	294	--	--	1.73 J	1.20 U	1.64 U	--	1.39 U	--	--
PCB-087	pg/g	20,900 C	21,200 C	--	--	81.4 C	1110 C	1,010 C	--	140.0 C	--	--
PCB-088	pg/g	1,540 J, C	7,420 J, C	--	--	27.9 C	450.0 C	332 C	--	84.2 C	--	--
PCB-089	pg/g	652	733	--	--	3.11 J	54	14.3	--	5.61	--	--
PCB-090	pg/g	126,000 C	117,000 C	--	--	357 C	3340 C	1,670 C	--	396 C	--	--
PCB-091	pg/g	-- J, C088	-- J, C088	--	--	-- C088	-- C088	-- C088	--	-- C088	--	--
PCB-092	pg/g	-- C084	-- C084	--	--	-- C084	-- C084	-- C084	--	-- C084	--	--
PCB-093	pg/g	18.0 U	27.3 U	--	--	1.11 U	1.13 U	1.95 U	--	1.74 U	--	--
PCB-094	pg/g	458	321	--	--	1.08 U	20.7	8.62	--	3.77 J	--	--
PCB-095	pg/g	63,100	63,600	--	--	318	2,780	1,850	--	429	--	--
PCB-096	pg/g	435	311	--	--	2.10 J	24	13	--	3.42 J	--	--
PCB-097	pg/g	15,500	11,800	--	--	45.1	782	613	--	103	--	--
PCB-098	pg/g	13.3 U, C	20.2 U, C	--	--	0.854 U, C	0.860 U, C	1.85 U, C	--	1.32 U, C	--	--
PCB-099	pg/g	39,600	24,500	--	--	70.2	1,290	795	--	186	--	--
PCB-100	pg/g	2,310 J	828 J	--	--	0.871 U	9.96	6.27	--	2.71 J	--	--
PCB-101	pg/g	-- C090	-- C090	--	--	-- C090	-- C090	-- C090	--	-- C090	--	--
PCB-102	pg/g	-- U, C098	-- U, C098	--	--	-- U, C098	-- U, C098	-- U, C098	--	-- U, C098	--	--
PCB-103	pg/g	2,060 J	1,020 J	--	--	0.849 U	19.1	13.3	--	3.16 J	--	--
PCB-104	pg/g	11.0 U	16.7 U	--	--	0.614 U	0.756 U	1.40 U	--	1.16 U	--	--
PCB-105 (Dioxin-Like)	pg/g	16,200	13,200	--	--	58.4	1,030	1,100	--	132	--	--
PCB-106	pg/g	51,700 C	39,700 C	--	--	157 C	2,470 C	2,740 C	--	317 C	--	--
PCB-107	pg/g	2,690 C	1,710 C	--	--	7.47 C	154 C	149 C	--	20.2 C	--	--
PCB-108	pg/g	-- C107	-- C107	--	--	-- C107	-- C107	-- C107	--	-- C107	--	--
PCB-109	pg/g	47.4	43	--	--	1.35 U	0.820 U	1.42 U	--	0.956 U	--	--

Sample Location ¹		MAF-03					MAF-04					
Sample Identification		MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ³	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁴	MAF-SC-04_4-6	MAF-SC-04_8-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	69,600	62,800	--	--	230	2,710	2,300	--	310	--	--
PCB-111	pg/g	1,030 C	899 C	--	--	3.97 C	61.1 C	45.4 C	--	6.40 C	--	--
PCB-112	pg/g	-- C083	-- C083	--	--	-- C083	-- C083	-- C083	--	-- C083	--	--
PCB-113	pg/g	8.52 U	10.8 U	--	--	1.47 U	0.862 U	1.45 U	--	1.00 U	--	--
PCB-114 (Dioxin-Like)	pg/g	1,550	1,240	--	--	4.41	69.7	71.8	--	10.6	--	--
PCB-115	pg/g	-- C111	-- C111	--	--	-- C111	-- C111	-- C111	--	-- C111	--	--
PCB-116	pg/g	-- C085	-- C085	--	--	-- C085	-- C085	-- C085	--	-- C085	--	--
PCB-117	pg/g	-- C087	-- C087	--	--	-- C087	-- C087	-- C087	--	-- C087	--	--
PCB-118 (Dioxin-Like)	pg/g	-- C106	-- C106	--	--	-- C106	-- C106	-- C106	--	-- C106	--	--
PCB-119	pg/g	2,020 J	1,020 J	--	--	2.69 J	45.9	25.3	--	6.04	--	--
PCB-120	pg/g	338	455	--	--	1.75 J	10.2	1.20 U	--	0.824 U	--	--
PCB-121	pg/g	12.4 U	18.8 U	--	--	19.6	0.765 U	1.49 U	--	1.18 U	--	--
PCB-122	pg/g	736	531	--	--	2.02 J	33	27.1	--	3.91 J	--	--
PCB-123 (Dioxin-Like)	pg/g	963	593	--	--	2.16 J	34.2	39.9	--	4.28	--	--
PCB-124	pg/g	2,460	2,270	--	--	7.69	115	126	--	10.9	--	--
PCB-125	pg/g	-- C087	-- C087	--	--	-- C087	-- C087	-- C087	--	-- C087	--	--
PCB-126 (Dioxin-Like)	pg/g	275	186	--	--	0.834 U	10.4	9.43	--	1.37 U	--	--
PCB-127	pg/g	14.7 U	12.9 U	--	--	0.802 U	0.987 U	1.49 U	--	1.10 U	--	--
PCB-128	pg/g	11,600 C	13,700 C	--	--	41.6 C	512 C	394 C	--	57.0 C	--	--
PCB-129	pg/g	3,070	3,640	--	--	14.6	166	103	--	20.5	--	--
PCB-130	pg/g	5,110	5,630	--	--	19.9	189	125	--	18.3	--	--
PCB-131	pg/g	2,910 C	3,240 C	--	--	8.37 C	83.8 C	59.0 C	--	9.11 C	--	--
PCB-132	pg/g	48,500 C	44,000 C	--	--	126 C	1,080 C	603 C	--	107 C	--	--
PCB-133	pg/g	-- C131	-- C131	--	--	-- C131	-- C131	-- C131	--	-- C131	--	--
PCB-134	pg/g	6,940 C	7,590 C	--	--	18.0 C	177 C	109 C	--	19.8 C	--	--
PCB-135	pg/g	24,700	29,000	--	--	56.5	567	221	--	33.5	--	--
PCB-136	pg/g	32,300	36,500	--	--	103	627	234	--	39.5	--	--
PCB-137	pg/g	2,620	2,580	--	--	7.62	164	146	--	24.1	--	--
PCB-138	pg/g	161,000 C	182,000 C	--	--	436 C	3,730 C	1,900 C	--	270.0 C	--	--
PCB-139	pg/g	193,000 C	203,000 C	--	--	454 C	4,650 C	1,300 C	--	228 C	--	--
PCB-140	pg/g	118	161	--	--	1.52 U	18.6	8.03	--	2.10 J	--	--
PCB-141	pg/g	50,600	55,600	--	--	133	1,130	365	--	48.3	--	--
PCB-142	pg/g	15.6 U	11.2 U	--	--	1.79 U	1.13 U	1.04 U	--	1.45 U	--	--
PCB-143	pg/g	-- C134	-- C134	--	--	-- C134	-- C134	-- C134	--	-- C134	--	--
PCB-144	pg/g	12,000	12,600	--	--	34.4	349	95.1	--	15.2	--	--
PCB-145	pg/g	3.46 U	15.7 U	--	--	0.477 U	0.661 U	1.40 U	--	0.628 U	--	--
PCB-146	pg/g	23,000 C	24,100 C	--	--	51.2 C	470.0 C	212 C	--	30.4 C	--	--
PCB-147	pg/g	5,040 J	2,930 J	--	--	4.16	48.3	33.6	--	8.02	--	--
PCB-148	pg/g	4.06 U	18.4 U	--	--	0.581 U	0.912 U	1.79 U	--	0.866 U	--	--
PCB-149	pg/g	-- C139	-- C139	--	--	-- C139	-- C139	-- C139	--	-- C139	--	--
PCB-150	pg/g	1,510 J	764 J	--	--	0.435 U	2.78 J	2.79 J	--	0.656 U	--	--
PCB-151	pg/g	31,000	32,600	--	--	172	2,050	296	--	54.1	--	--

Sample Location ¹		MAF-03					MAF-04					
Sample Identification		MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ³	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁴	MAF-SC-04_4-6	MAF-SC-04_8-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	3.32 U	15.1 U	--	--	0.448 U	2.81 J	3.97	--	0.663 U	--	--
PCB-153	pg/g	216,000	230,000	--	--	505	5,360	1,510	--	224	--	--
PCB-154	pg/g	4,740 J	2,080 J	--	--	2.23 J	15	13.8	--	2.54 J	--	--
PCB-155	pg/g	105 J	50.7 J	--	--	0.383 U	0.652 U	1.22 U	--	0.619 U	--	--
PCB-156 (Dioxin-Like)	pg/g	11,000	12,600	--	--	33.7	367	282	--	31.4	--	--
PCB-157 (Dioxin-Like)	pg/g	425 J	787 J	--	--	3.74 J	69.6	66.5	--	8.14	--	--
PCB-158	pg/g	18,400 C	20,300 C	--	--	50.4 C	449 C	278 C	--	39.2 C	--	--
PCB-159	pg/g	2320	2,300	--	--	5.28	172	15.7	--	0.887 U	--	--
PCB-160	pg/g	-- C158	-- C158	--	--	-- C158	-- C158	-- C158	--	-- C158	--	--
PCB-161	pg/g	-- C132	-- C132	--	--	-- C132	-- C132	-- C132	--	-- C132	--	--
PCB-162	pg/g	-- C128	-- C128	--	--	-- C128	-- C128	-- C128	--	-- C128	--	--
PCB-163	pg/g	-- C138	-- C138	--	--	-- C138	-- C138	-- C138	--	-- C138	--	--
PCB-164	pg/g	-- C138	-- C138	--	--	-- C138	-- C138	-- C138	--	-- C138	--	--
PCB-165	pg/g	-- C146	-- C146	--	--	-- C146	-- C146	-- C146	--	-- C146	--	--
PCB-166	pg/g	58.7 J	634 J	--	--	1.58 J	12.2	8.56	--	0.959 U	--	--
PCB-167 (Dioxin-Like)	pg/g	4,410	4,610	--	--	13.1	127	101	--	12.1	--	--
PCB-168	pg/g	242	180	--	--	1.18 U	0.683 U	2.15 J	--	0.876 U	--	--
PCB-169	pg/g	10.1 U	4.39 U	--	--	1.09 U	0.621 U	0.679 U	--	0.963 U	--	--
PCB-170	pg/g	74,700	79,900	--	--	184	2,280	369	--	40	--	--
PCB-171	pg/g	21,600	24,100	--	--	52.8	646	112	--	13.6	--	--
PCB-172	pg/g	12,400	13,500	--	--	29.1	462	61.2	--	6.67	--	--
PCB-173	pg/g	1,900	2,000	--	--	5.03	36.1	11.7	--	0.856 U	--	--
PCB-174	pg/g	78,900	88,400	--	--	191	3,700	323	--	34.8	--	--
PCB-175	pg/g	3,420	3,730	--	--	8	146	22.8	--	1.94 J	--	--
PCB-176	pg/g	10,600	12,200	--	--	27.2	515	55.6	--	6.12	--	--
PCB-177	pg/g	42,800	47,500	--	--	110	1,840	180	--	21.9	--	--
PCB-178	pg/g	15,400	15,900	--	--	36	797	62.8	--	7.49	--	--
PCB-179	pg/g	34,100	36,500	--	--	79.5	2,000	158	--	16	--	--
PCB-180	pg/g	169,000	180,000	--	--	357	8,490	821	--	65.7	--	--
PCB-181	pg/g	9.94 U	15.3 U	--	--	0.780 U	1.13 U	1.96 U	--	0.763 U	--	--
PCB-182	pg/g	98,800 C	102,000 C	--	--	208 C	5,970 C	488 C	--	42.4 C	--	--
PCB-183	pg/g	50,500	54,400	--	--	112	2,470	266	--	25.1	--	--
PCB-184	pg/g	58.3 J	10.7 UJ	--	--	0.532 U	0.753 U	1.32 U	--	0.510 U	--	--
PCB-185	pg/g	10,500	11,200	--	--	23.2	657	59.4	--	5.07	--	--
PCB-186	pg/g	7.53 U	11.6 U	--	--	0.574 U	0.770 U	1.42 U	--	0.522 U	--	--
PCB-187	pg/g	-- C182	-- C182	--	--	-- C182	-- C182	-- C182	--	-- C182	--	--
PCB-188	pg/g	488 J	226 J	--	--	0.598 U	0.790 U	1.53 U	--	0.538 U	--	--
PCB-189 (Dioxin-Like)	pg/g	2,620	2,870	--	--	5.79	54.8	23	--	1.93 J	--	--
PCB-190	pg/g	17,900	18,800	--	--	35.8	626	86.4	--	8.34	--	--
PCB-191	pg/g	3,720	3,900	--	--	7.69	104	18.8	--	2.08 J	--	--
PCB-192	pg/g	8.27 U	12.7 U	--	--	0.633 U	0.872 U	1.61 U	--	0.591 U	--	--
PCB-193	pg/g	9,120	9,400	--	--	21.1	397	39.4	--	4.27	--	--

Sample Location ¹		MAF-03					MAF-04					
Sample Identification		MAF-SC-03_0-2	MAF-SC-DUP-03	MAF-SC-03_4-6	MAF-SC-03_8-10	MAF-SC-03_21-23	MAF-SS-04_0-10	MAF-SC-04_0-2 ³	MAF-SC-DUP-05	MAF-SC-04_2-4 ⁴	MAF-SC-04_4-6	MAF-SC-04_8-10
Sample Date		11/11/2015	11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/20/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015	10/26/2015
Sample Interval (dbm)		0 - 2 ft	0 - 2 ft	4 - 6 ft	8 - 10 ft	21 - 23 ft	0-10 cm	0 - 2 ft	0 - 2 ft	2 - 4 ft	4 - 6 ft	8 - 10 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	31,600	33,600	--	--	65.2	3,790	290	--	15.4	--	--
PCB-195	pg/g	17,000	16,900	--	--	25	1,240	110	--	6.44	--	--
PCB-196	pg/g	40,000 C	37,800 C	--	--	76.5 C	5,220 C	431 C	--	25.5 C	--	--
PCB-197	pg/g	1,560	1,540	--	--	3.23 J	150	16.8	--	0.700 U	--	--
PCB-198	pg/g	1,810	1,620	--	--	5.36	241	20.7	--	1.14 U	--	--
PCB-199	pg/g	30,300	29,200	--	--	71.8	4,880	359	--	24	--	--
PCB-200	pg/g	3,730	3,890	--	--	9.9	654	46.4	--	3.16 J	--	--
PCB-201	pg/g	3,990	4,230	--	--	9.3	622	55.7	--	4.06	--	--
PCB-202	pg/g	5,160	5,060	--	--	12.1	927	83.7	--	6.2	--	--
PCB-203	pg/g	-- C196	-- C196	--	--	-- C196	-- C196	-- C196	--	-- C196	--	--
PCB-204	pg/g	8.96 U	19.9 U	--	--	0.634 U	0.579 U	0.832 U	--	0.712 U	--	--
PCB-205	pg/g	1,890	1,800	--	--	2.94 J	163	17	--	0.971 U	--	--
PCB-206	pg/g	7,270	6,040	--	--	8.53	1740	224	--	23.5	--	--
PCB-207	pg/g	1,010	899	--	--	1.58 J	254	34.6	--	4.11	--	--
PCB-208	pg/g	1,100	975	--	--	1.47 J	341	63.7	--	9.6	--	--
PCB-209	pg/g	3,500	5,810	--	--	2.36 J	79.4	51.4	--	37.7	--	--
Total PCBs Congeners	pg/g	2,980,000 J	2,650,000 J	--	--	7,070 J	111,000 J	33,900 J	--	6,320 J	--	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-04	MAF-05				MAF-07	MAF-08		MAF-09	MAF-10		
Sample Identification	MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2	
Sample Date	11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015	
Sample Interval (dbm)	16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft	
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	0.642 U	46.8	17.6	--	0.723 U	18.7	--	--	5.04	58.2	8.44 J
PCB-002	pg/g	0.941 U	7.12	4.26	--	0.978 U	4.2	--	--	0.815 U	12.4	1.63 UJ
PCB-003	pg/g	0.933 U	17.9	11.8	--	0.902 U	9.48	--	--	2.81 J	47	7.65 J
PCB-004	pg/g	1.64 U	108	36	--	1.85 U	10.5	--	--	3.40 J	40.5	5.11 J
PCB-005	pg/g	1.15 U	57.3	27.9	--	1.22 U	15.5	--	--	3.56 J	1.07 U	1.67 U
PCB-006	pg/g	1.23 U	37.2	16.4	--	1.30 U	7.3	--	--	2.50 J	29.3	3.66 J
PCB-007	pg/g	1.11 U	8.55	4.71	--	1.18 U	1.55 J	--	--	0.893 U	10.5	2.64 J
PCB-008	pg/g	1.18 U	83.6	22.6	--	1.25 U	15.2	--	--	8.49	118	21.7 J
PCB-009	pg/g	1.27 U	12.9	5.19	--	1.35 U	3.10 J	--	--	1.02 U	11	1.52 UJ
PCB-010	pg/g	1.13 U	2.94 J	2.61 J	--	1.20 U	1.00 U	--	--	0.992 U	1.15 U	1.70 U
PCB-011	pg/g	1.43 U	11.7	7.89	--	1.52 U	10.8	--	--	4.74	24.6	6.17 J
PCB-012	pg/g	1.46 U	3.32 J	5.05	--	1.55 U	2.05 J	--	--	1.09 U	5.92	1.63 U
PCB-013	pg/g	1.27 U	6.4	2.00 J	--	1.35 U	2.19 J	--	--	1.09 U	8.29	3.78 J
PCB-014	pg/g	1.20 U	0.704 U	1.51 U	--	1.27 U	1.06 U	--	--	1.05 U	1.05 U	1.58 U
PCB-015	pg/g	1.25 U	49.9	25.4	--	1.27 U	16.3	--	--	5.41	56.1	23.1 J
PCB-016	pg/g	1.33 U	114	41.5	--	1.60 U	14.6	--	--	7.09	46.4	14.4 J
PCB-017	pg/g	1.39 U	160	55.7	--	1.68 U	23.4	--	--	9.88	74	16.7 J
PCB-018	pg/g	1.55 U	259	133	--	1.86 U	57.1	--	--	26.3	173	42.9 J
PCB-019	pg/g	1.45 U	32.8	13.4	--	1.75 U	4.48	--	--	3.15 J	14.6	4.34 J
PCB-020	pg/g	1.23 U, C	357 C	107 C	--	1.48 U, C	48.7 C	--	--	16.4 C	194 C	28.3 J, C
PCB-021	pg/g	-- U, C020	-- C020	-- C020	--	-- U, C020	-- C020	--	--	-- C020	-- C020	-- J, C020
PCB-022	pg/g	1.28 U	205	45.7	--	1.53 U	33.5	--	--	12.3	120	21.5 J
PCB-023	pg/g	1.19 U	1.05 U	0.832 U	--	1.43 U	1.32 U	--	--	1.06 U	1.71 U	1.31 U
PCB-024	pg/g	1.07 U	8.05	3.32 J	--	1.29 U	1.50 J	--	--	0.942 U	2.57 J	0.860 UJ
PCB-025	pg/g	1.09 U	31.3	16.3	--	1.31 U	7.98	--	--	2.87 J	29.6	4.08 J

Sample Location ¹		MAF-04	MAF-05				MAF-07	MAF-08			MAF-09	MAF-10	
Sample Identification		MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2	
Sample Date		11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015	
Sample Interval (dbm)		16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-026	pg/g	1.37 U	91.4	38.3	--	1.64 U	18.5	--	--	6.59	64.2	9.63 J	
PCB-027	pg/g	1.02 U	16.5	6.9	--	1.23 U	3.34 J	--	--	2.38 J	12.4	3.58 J	
PCB-028	pg/g	1.07 U	536	172	--	1.29 U	91	--	--	26.7	390	58.7 J	
PCB-029	pg/g	1.27 U	1.24 U	0.885 U	--	1.52 U	1.56 U	--	--	1.26 U	1.66 U	1.27 U	
PCB-030	pg/g	1.05 U	0.768 U	2.21 U	--	1.27 U	0.912 U	--	--	0.860 U	1.10 U	0.849 U	
PCB-031	pg/g	1.32 U	865	175	--	1.58 U	102	--	--	34.6	359	56.7 J	
PCB-032	pg/g	1.10 U	119	35.9	--	1.33 U	19	--	--	8.6	58.9	12.5 J	
PCB-033	pg/g	-- U, C020	-- C020	-- C020	--	-- U, C020	-- C020	--	--	-- C020	-- C020	-- J, C020	
PCB-034	pg/g	1.57 U	1.44 U	1.10 U	--	1.89 U	1.82 U	--	--	1.47 U	1.71 U	1.29 U	
PCB-035	pg/g	1.44 U	1.45 U	1.01 U	--	1.73 U	1.83 U	--	--	1.48 U	1.70 U	1.30 U	
PCB-036	pg/g	1.39 U	1.36 U	0.972 U	--	1.67 U	1.71 U	--	--	1.38 U	1.63 U	1.27 U	
PCB-037	pg/g	1.22 U	51.7	33.1	--	1.47 U	20.9	--	--	8.8	75.5	23.1 J	
PCB-038	pg/g	1.29 U	1.17 U	0.903 U	--	1.55 U	1.47 U	--	--	1.19 U	1.58 U	1.21 U	
PCB-039	pg/g	1.39 U	1.28 U	0.971 U	--	1.66 U	1.61 U	--	--	1.30 U	1.66 U	1.30 U	
PCB-040	pg/g	1.70 U	67.9	29.2	--	1.04 U	7.94	--	--	5.64	41.5	19.6 J	
PCB-041	pg/g	1.01 U, C	398 C	150.0 C	--	1.85 J, C	41.7 C	--	--	27.4 C	173 C	90.8 J, C	
PCB-042	pg/g	1.06 U, C	110.0 C	48.9 C	--	0.650 U, C	15.4 C	--	--	10.2 C	54.2 C	30.1 J, C	
PCB-043	pg/g	1.26 U, C	752 C	163 C	--	1.80 J, C	63.8 C	--	--	39.6 C	191 C	98.2 J, C	
PCB-044	pg/g	1.42 U	916	215	--	2.25 J	60.7	--	--	41.9	194	129 J	
PCB-045	pg/g	1.39 U	80.3	29.6	--	0.851 U	10.2	--	--	6.86	27.7	13.0 J	
PCB-046	pg/g	1.49 U	25.7	13	--	0.912 U	4.07	--	--	2.78 J	11.1	5.72 J	
PCB-047	pg/g	0.975 U	142	33.5	--	1.68 J	18.7	--	--	11.6	53.3	32.0 J	
PCB-048	pg/g	1.01 U, C	90.1 C	31.4 C	--	0.621 U, C	10.9 C	--	--	7.91 C	36.2 C	18.2 J, C	
PCB-049	pg/g	-- U, C043	-- C043	-- C043	--	-- J, C043	-- C043	--	--	-- C043	-- C043	-- J, C043	
PCB-050	pg/g	1.24 U	0.926 U	0.648 U	--	0.759 U	0.667 U	--	--	0.678 U	1.57 U	1.36 U	
PCB-051	pg/g	1.22 U	21.7	8.5	--	0.745 U	3.92 J	--	--	2.79 J	8.84	4.25 J	
PCB-052	pg/g	0.988 U, C	2,070 C	314 C	--	2.44 J, C	94.8 C	--	--	63.6 C	337 C	192 J, C	
PCB-053	pg/g	1.26 U	104	33.4	--	0.770 U	11.1	--	--	6.48	32.7	13.3 J	
PCB-054	pg/g	0.917 U	0.700 U	0.479 U	--	0.561 U	0.505 U	--	--	0.513 U	1.27 U	1.05 U	
PCB-055	pg/g	0.957 U	21.4	7.66	--	0.585 U	0.441 U	--	--	0.448 U	9.03	4.23 J	
PCB-056	pg/g	0.632 U, C	591 C	111 C	--	0.738 U, C	68.9 C	--	--	29.6 C	244 C	81.9 J, C	
PCB-057	pg/g	0.981 U	0.677 U	1.36 J	--	0.600 U	0.488 U	--	--	0.496 U	1.19 U	1.00 U	
PCB-058	pg/g	1.04 U	0.689 U	0.544 U	--	0.637 U	0.496 U	--	--	0.504 U	1.22 U	1.03 U	
PCB-059	pg/g	-- U, C042	-- C042	-- C042	--	-- U, C042	-- C042	--	--	-- C042	-- C042	-- J, C042	
PCB-060	pg/g	-- U, C056	-- C056	-- C056	--	-- U, C056	-- C056	--	--	-- C056	-- C056	-- J, C056	
PCB-061	pg/g	0.949 U, C	1,880 C	313 C	--	1.80 J, C	119 C	--	--	50.1 C	511 C	187 J, C	
PCB-062	pg/g	1.01 U	0.778 U	0.528 U	--	0.619 U	0.561 U	--	--	0.570 U	1.30 U	1.14 U	
PCB-063	pg/g	0.985 U	37.8	7.8	--	0.603 U	3.78 J	--	--	2.09 J	15.5	5.77 J	
PCB-064	pg/g	-- U, C041	-- C041	-- C041	--	-- J, C041	-- C041	--	--	-- C041	-- C041	-- J, C041	
PCB-065	pg/g	0.967 U	0.726 U	0.505 U	--	0.592 U	0.523 U	--	--	0.531 U	1.29 U	1.11 U	
PCB-066	pg/g	0.900 U, C	978 C	177 C	--	1.45 J, C	86.0 C	--	--	40.0 C	355 C	127 J, C	
PCB-067	pg/g	0.983 U	9.7	5.91	--	0.601 U	2.81 J	--	--	1.36 J	10.6	3.90 J	

Sample Location ¹		MAF-04	MAF-05				MAF-07	MAF-08			MAF-09	MAF-10	
Sample Identification		MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2	
Sample Date		11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015	
Sample Interval (dbm)		16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-068	pg/g	0.965 U	0.648 U	1.22 J	--	0.590 U	0.467 U	--	--	0.475 U	1.17 U	0.991 UJ	
PCB-069	pg/g	-- U, C052	-- C052	-- C052	--	-- J, C052	-- C052	--	--	-- C052	-- C052	-- J, C052	
PCB-070	pg/g	-- U, C061	-- C061	-- C061	--	-- J, C061	-- C061	--	--	-- C061	-- C061	-- J, C061	
PCB-071	pg/g	-- U, C041	-- C041	-- C041	--	-- J, C041	-- C041	--	--	-- C041	-- C041	-- J, C041	
PCB-072	pg/g	-- U, C041	-- C041	-- C041	--	-- J, C041	-- C041	--	--	-- C041	-- C041	-- J, C041	
PCB-073	pg/g	0.928 U	0.743 U	0.485 U	--	0.568 U	0.536 U	--	--	0.544 U	1.24 U	1.10 U	
PCB-074	pg/g	0.946 U	692	108	--	0.579 U	54.3	--	--	22.9	205	71.8 J	
PCB-075	pg/g	-- U, C048	-- C048	-- C048	--	-- U, C048	-- C048	--	--	-- C048	-- C048	-- J, C048	
PCB-076	pg/g	-- U, C066	-- C066	-- C066	--	-- J, C066	-- C066	--	--	-- C066	-- C066	-- J, C066	
PCB-077 (Dioxin-Like)	pg/g	0.653 U	63.7	19	--	0.763 U	10.4	--	--	4.59	34	13.4 J	
PCB-078	pg/g	0.648 U	1.39 U	1.23 U	--	0.756 U	1.26 U	--	--	1.26 U	1.11 U	0.753 UJ	
PCB-079	pg/g	0.629 U	51.9	6.4	--	0.734 U	2.29 J	--	--	1.26 U	8.75	5.49 J	
PCB-080	pg/g	0.869 U	0.554 U	0.454 U	--	0.532 U	0.399 U	--	--	0.406 U	1.05 U	0.866 U	
PCB-081 (Dioxin-Like)	pg/g	0.584 U	86.1	10.3	--	0.681 U	3.22 J	--	--	2.44 J	13.9	8.75 J	
PCB-082	pg/g	1.45 U	796	80.6	--	1.41 U	27.1	--	--	14.4	77.8	46.4 J	
PCB-083	pg/g	1.01 U, C	309 C	25.9 C	--	0.986 U, C	9.32 C	--	--	6.37 C	25.5 C	17.2 J, C	
PCB-084	pg/g	1.15 U, C	3,480 C	249 C	--	1.12 U, C	91.7 C	--	--	62.6 C	227 C	151 J, C	
PCB-085	pg/g	1.01 U, C	989 C	101 C	--	0.988 U, C	38.1 C	--	--	18.7 C	100.0 C	65.1 J, C	
PCB-086	pg/g	1.24 U	1.92 U	1.86 U	--	1.20 U	1.73 U	--	--	1.77 U	1.80 U	1.16 UJ	
PCB-087	pg/g	0.908 U, C	2,970 C	240.0 C	--	0.884 U, C	85.0 C	--	--	49.6 C	242 C	173 J, C	
PCB-088	pg/g	1.38 U, C	1,220 C	107 C	--	1.81 U, C	30.2 C	--	--	15.2 C	142 C	58.7 J, C	
PCB-089	pg/g	1.21 U	55.9	6.49	--	1.18 U	3.30 J	--	--	1.80 U	5.23	3.37 J	
PCB-090	pg/g	1.05 U, C	9,750 C	646 C	--	3.21 J, C	280.0 C	--	--	184 C	726 C	497 J, C	
PCB-091	pg/g	-- U, C088	-- C088	-- C088	--	-- U, C088	-- C088	--	--	-- C088	-- C088	-- J, C088	
PCB-092	pg/g	-- U, C084	-- C084	-- C084	--	-- U, C084	-- C084	--	--	-- C084	-- C084	-- J, C084	
PCB-093	pg/g	1.47 U	1.23 U	1.14 U	--	1.93 U	0.905 U	--	--	1.16 U	1.85 U	1.57 U	
PCB-094	pg/g	1.44 U	33.4	3.57 J	--	1.88 U	0.889 U	--	--	1.14 U	5.13	1.74 UJ	
PCB-095	pg/g	1.37 U	8,150	629	--	1.80 U	187	--	--	112	1110	367 J	
PCB-096	pg/g	0.918 U	26.1	4.55	--	1.20 U	0.647 U	--	--	0.829 U	5.79	2.45 J	
PCB-097	pg/g	0.968 U	2,000	158	--	0.943 U	61.7	--	--	33.7	166	114 J	
PCB-098	pg/g	1.14 U, C	0.931 U, C	0.877 U, C	--	1.49 U, C	0.687 U, C	--	--	0.880 U, C	1.22 U, C	1.49 U, C	
PCB-099	pg/g	0.934 U	3,320	244	--	0.910 U	126	--	--	65.3	287	166 J	
PCB-100	pg/g	1.16 U	26.4	2.60 J	--	1.52 U	0.759 U	--	--	0.972 U	5.43	1.46 U	
PCB-101	pg/g	-- U, C090	-- C090	-- C090	--	-- J, C090	-- C090	--	--	-- C090	-- C090	-- J, C090	
PCB-102	pg/g	-- U, C098	-- U, C098	-- U, C098	--	-- U, C098	-- U, C098	--	--	-- U, C098	-- U, C098	-- U, C098	
PCB-103	pg/g	1.13 U	44.5	5.02	--	1.48 U	3.31 J	--	--	0.967 U	7.37	2.76 J	
PCB-104	pg/g	0.819 U	0.818 U	0.630 U	--	1.07 U	0.604 U	--	--	0.774 U	1.07 U	1.13 U	
PCB-105 (Dioxin-Like)	pg/g	1.07 U	2,460	238	--	1.13 U	97.4	--	--	36.9	290	173 J	
PCB-106	pg/g	1.16 U, C	6,650 C	552 C	--	1.34 U, C	234 C	--	--	106 C	725 C	441 J, C	
PCB-107	pg/g	1.05 U, C	392 C	35.0 C	--	1.17 U, C	15.9 C	--	--	7.49 C	47.1 C	29.6 J, C	
PCB-108	pg/g	-- U, C107	-- C107	-- C107	--	-- U, C107	-- C107	--	--	-- C107	-- C107	-- J, C107	
PCB-109	pg/g	0.862 U	1.32 U	1.30 U	--	0.840 U	1.19 U	--	--	1.21 U	1.51 U	1.00 U	

Sample Location ¹		MAF-04	MAF-05				MAF-07	MAF-08		MAF-09	MAF-10	
Sample Identification		MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2
Sample Date		11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015
Sample Interval (dbm)		16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	0.793 U	7370	642	--	2.70 J	227	--	--	128	651	406 J
PCB-111	pg/g	0.705 U, C	133 C	11.4 C	--	0.687 U, C	4.23 C	--	--	2.16 J, C	11.7 C	8.88 J, C
PCB-112	pg/g	-- U, C083	-- C083	-- C083	--	-- U, C083	-- C083	--	--	-- C083	-- C083	-- J, C083
PCB-113	pg/g	0.943 U	1.39 U	1.42 U	--	0.919 U	1.25 U	--	--	1.27 U	1.41 U	1.02 U
PCB-114 (Dioxin-Like)	pg/g	1.05 U	154	15.5	--	1.20 U	5.88	--	--	2.69 J	17.4	13.5 J
PCB-115	pg/g	-- U, C111	-- C111	-- C111	--	-- U, C111	-- C111	--	--	-- J, C111	-- C111	-- J, C111
PCB-116	pg/g	-- U, C085	-- C085	-- C085	--	-- U, C085	-- C085	--	--	-- C085	-- C085	-- J, C085
PCB-117	pg/g	-- U, C087	-- C087	-- C087	--	-- U, C087	-- C087	--	--	-- C087	-- C087	-- J, C087
PCB-118 (Dioxin-Like)	pg/g	-- U, C106	-- C106	-- C106	--	-- U, C106	-- C106	--	--	-- C106	-- C106	-- J, C106
PCB-119	pg/g	0.821 U	102	10	--	0.800 U	4	--	--	2.68 J	9.65	5.82 J
PCB-120	pg/g	0.782 U	12.1	1.17 U	--	0.761 U	1.02 U	--	--	1.05 U	1.25 U	0.848 U
PCB-121	pg/g	0.973 U	0.829 U	0.749 U	--	1.27 U	0.612 U	--	--	0.783 U	1.22 U	1.20 U
PCB-122	pg/g	1.05 U	62.6	7.81	--	1.17 U	4.42	--	--	1.15 U	9.49	5.41 J
PCB-123 (Dioxin-Like)	pg/g	0.981 U	79	7.08	--	1.05 U	3.56 J	--	--	0.889 U	11.4	7.13 J
PCB-124	pg/g	1.15 U	268	23.8	--	1.27 U	9.58	--	--	4.88	29.3	23.2 J
PCB-125	pg/g	-- U, C087	-- C087	-- C087	--	-- U, C087	-- C087	--	--	-- C087	-- C087	-- J, C087
PCB-126 (Dioxin-Like)	pg/g	1.42 U	14.1	2.72 J	--	1.43 U	1.04 U	--	--	1.49 U	4.55	3.16 J
PCB-127	pg/g	1.17 U	1.19 U	0.921 U	--	1.29 U	0.901 U	--	--	1.06 U	1.39 U	0.985 U
PCB-128	pg/g	0.740 U, C	1,260 C	107 C	--	0.730 U, C	86.7 C	--	--	27.0 C	129 C	109 J, C
PCB-129	pg/g	1.01 U	490	34.2	--	0.995 U	24.4	--	--	9.2	37.9	32.6 J
PCB-130	pg/g	1.03 U	435	45.8	--	1.02 U	27.7	--	--	14.4	54.7	42.7 J
PCB-131	pg/g	0.808 U, C	218 C	16.6 C	--	0.796 U, C	9.91 C	--	--	8.29 C	20.9 C	19.5 J, C
PCB-132	pg/g	0.713 U, C	2,130 C	185 C	--	0.703 U, C	108 C	--	--	74.4 C	218 C	190.0 J, C
PCB-133	pg/g	-- U, C131	-- C131	-- C131	--	-- U, C131	-- C131	--	--	-- C131	-- C131	-- J, C131
PCB-134	pg/g	0.816 U, C	437 C	31.6 C	--	0.804 U, C	17.1 C	--	--	13.6 C	41.5 C	34.0 J, C
PCB-135	pg/g	0.802 U	876	63.6	--	0.791 U	38.9	--	--	41.1	100	94.5 J
PCB-136	pg/g	0.571 U	841	101	--	0.779 U	31.6	--	--	36.6	117	92.3 J
PCB-137	pg/g	0.806 U	549	31.1	--	0.795 U	27.9	--	--	7.83	33.7	35.1 J
PCB-138	pg/g	0.615 U, C	6,810 C	609 C	--	4.06 C	389 C	--	--	245 C	836 C	699 J, C
PCB-139	pg/g	0.768 U, C	5,590 C	482 C	--	2.51 J, C	238 C	--	--	292 C	761 C	594 J, C
PCB-140	pg/g	0.811 U	30.6	3.61 J	--	0.799 U	3.25 J	--	--	1.27 U	3.81 J	2.47 J
PCB-141	pg/g	0.839 U	1420	126	--	0.827 U	69.2	--	--	78.7	179	157 J
PCB-142	pg/g	0.952 U	1.40 U	1.43 U	--	0.938 U	1.25 U	--	--	1.51 U	1.99 U	1.62 U
PCB-143	pg/g	-- U, C134	-- C134	-- C134	--	-- U, C134	-- C134	--	--	-- C134	-- C134	-- J, C134
PCB-144	pg/g	0.810 U	370	34.6	--	0.798 U	19.7	--	--	32.2	52.6	39.6 J
PCB-145	pg/g	0.547 U	3.02 J	0.492 U	--	0.747 U	0.533 U	--	--	0.467 U	0.829 U	1.12 U
PCB-146	pg/g	0.675 U, C	787 C	72.8 C	--	0.665 U, C	45.0 C	--	--	39.8 C	113 C	91.6 J, C
PCB-147	pg/g	0.811 U	166	11.5	--	0.799 U	8.46	--	--	4.15	14.6	11.0 J
PCB-148	pg/g	0.667 U	0.731 U	0.599 U	--	0.910 U	0.735 U	--	--	0.645 U	1.03 U	1.43 U
PCB-149	pg/g	-- U, C139	-- C139	-- C139	--	-- J, C139	-- C139	--	--	-- C139	-- C139	-- J, C139
PCB-150	pg/g	0.499 U	10.7	1.20 J	--	0.681 U	0.557 U	--	--	0.488 U	0.790 U	1.08 U
PCB-151	pg/g	0.874 U	1,490	128	--	0.861 U	73.2	--	--	114	215	162 J

Sample Location ¹		MAF-04	MAF-05				MAF-07	MAF-08		MAF-09	MAF-10	
Sample Identification		MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2
Sample Date		11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015
Sample Interval (dbm)		16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	0.514 U	7.24	0.462 U	--	0.702 U	0.563 U	--	--	0.493 U	0.802 U	1.05 U
PCB-153	pg/g	0.717 U	6,010	593	--	2.38 J	333	--	--	323	895	688 J
PCB-154	pg/g	0.615 U	48.3	6.33	--	0.839 U	3.42 J	--	--	1.53 J	8.02	5.45 J
PCB-155	pg/g	0.440 U	0.523 U	0.395 U	--	0.600 U	0.526 U	--	--	0.461 U	0.683 U	0.970 U
PCB-156 (Dioxin-Like)	pg/g	0.601 U	983	63.5	--	0.597 U	58.6	--	--	22.8	77.9	72.8 J
PCB-157 (Dioxin-Like)	pg/g	0.705 U	206	14.8	--	0.673 U	14.9	--	--	4.13	16.5	15.6 J
PCB-158	pg/g	0.613 U, C	976 C	77.4 C	--	0.604 U, C	53.7 C	--	--	38.6 C	103 C	93.8 J, C
PCB-159	pg/g	0.590 U	37.9	5.1	--	0.581 U	3.67 J	--	--	7.67	12.8	9.56 J
PCB-160	pg/g	-- U, C158	-- C158	-- C158	--	-- U, C158	-- C158	--	--	-- C158	-- C158	-- J, C158
PCB-161	pg/g	-- U, C132	-- C132	-- C132	--	-- U, C132	-- C132	--	--	-- C132	-- C132	-- J, C132
PCB-162	pg/g	-- U, C128	-- C128	-- C128	--	-- U, C128	-- C128	--	--	-- C128	-- C128	-- J, C128
PCB-163	pg/g	-- U, C138	-- C138	-- C138	--	-- C138	-- C138	--	--	-- C138	-- C138	-- J, C138
PCB-164	pg/g	-- U, C138	-- C138	-- C138	--	-- C138	-- C138	--	--	-- C138	-- C138	-- J, C138
PCB-165	pg/g	-- U, C146	-- C146	-- C146	--	-- U, C146	-- C146	--	--	-- C146	-- C146	-- J, C146
PCB-166	pg/g	0.642 U	36.7	2.70 J	--	0.633 U	0.825 U	--	--	0.999 U	3.05 J	2.32 J
PCB-167 (Dioxin-Like)	pg/g	0.633 U	344	23.5	--	0.646 U	20.6	--	--	10	31.6	30.2 J
PCB-168	pg/g	0.630 U	23.7	0.943 U	--	0.621 U	0.753 U	--	--	0.912 U	1.42 U	1.14 U
PCB-169	pg/g	0.620 U	0.835 U	0.935 U	--	0.605 U	0.806 U	--	--	0.885 U	1.33 U	1.14 U
PCB-170	pg/g	0.836 U	1,430	156	--	1.53 U	83.5	--	--	119	217	239 J
PCB-171	pg/g	0.731 U	374	46.7	--	1.34 U	26.2	--	--	43.5	75	78.3 J
PCB-172	pg/g	0.795 U	210	28	--	1.46 U	14.6	--	--	28.8	42.7	46.1 J
PCB-173	pg/g	0.823 U	41.3	4.6	--	1.51 U	2.25 J	--	--	4.07	6.49	6.93 J
PCB-174	pg/g	0.736 U	1,110	169	--	1.35 U	71.9	--	--	156	259	245 J
PCB-175	pg/g	0.707 U	61.5	7.3	--	1.30 U	3.74 J	--	--	8.55	14.3	14.2 J
PCB-176	pg/g	0.530 U	178	24.4	--	0.973 U	11.1	--	--	31	38.8	38.1 J
PCB-177	pg/g	0.802 U	675	97.2	--	1.47 U	48.6	--	--	84.2	148	144 J
PCB-178	pg/g	0.747 U	223	33.9	--	1.37 U	15.1	--	--	33.1	56.6	51.4 J
PCB-179	pg/g	0.503 U	470	69.7	--	0.923 U	29.4	--	--	85.2	108	100.0 J
PCB-180	pg/g	0.608 U	2,320	314	--	1.12 U	148	--	--	332	525	522 J
PCB-181	pg/g	0.713 U	1.94 U	0.801 U	--	1.31 U	1.04 U	--	--	1.09 U	1.42 U	1.51 U
PCB-182	pg/g	0.658 U, C	1,220 C	203 C	--	1.21 U, C	89.2 C	--	--	203 C	347 C	302 J, C
PCB-183	pg/g	0.660 U	722	102	--	1.21 U	49.8	--	--	120	172	175 J
PCB-184	pg/g	0.486 U	1.30 U	0.546 U	--	0.892 U	0.695 U	--	--	0.727 U	1.04 U	1.02 U
PCB-185	pg/g	0.721 U	139	19.9	--	1.32 U	8.45	--	--	32.6	37.6	37.1 J
PCB-186	pg/g	0.525 U	1.33 U	0.590 U	--	0.963 U	0.711 U	--	--	0.743 U	1.09 U	1.10 U
PCB-187	pg/g	-- U, C182	-- C182	-- C182	--	-- U, C182	-- C182	--	--	-- C182	-- C182	-- J, C182
PCB-188	pg/g	0.507 U	1.36 U	0.594 U	--	0.973 U	0.663 U	--	--	0.720 U	1.06 U	1.18 U
PCB-189 (Dioxin-Like)	pg/g	0.527 U	59.3	5.34	--	0.915 U	4.28	--	--	4.77	8.7	10.7 J
PCB-190	pg/g	0.580 U	292	31.5	--	1.06 U	17.2	--	--	39.3	51.9	56.7 J
PCB-191	pg/g	0.549 U	56.6	7.09	--	1.01 U	3.53 J	--	--	8.67	12.1	13.8 J
PCB-192	pg/g	0.578 U	1.50 U	0.650 U	--	1.06 U	0.806 U	--	--	0.842 U	1.18 U	1.24 U
PCB-193	pg/g	0.543 U	123	17.1	--	0.996 U	10.8	--	--	22.2	30.1	28.6 J

Sample Location ¹		MAF-04	MAF-05				MAF-07	MAF-08			MAF-09	MAF-10	
Sample Identification		MAF-SC-04_16-18	MAF-SS-05_0-10	MAF-SC-05_0-2	MAF-SC-05_4-6	MAF-SC-05_12-14	MAF-SS-07_0-10	MAF-SS-08_0-10	MAF-SS-DUP-02	MAF-SS-09_0-10	MAF-SS-10_0-10	MAF-SC-10_0-2	
Sample Date		11/10/2015	10/20/2015	11/11/2015	11/11/2015	11/11/2015	10/19/2015	10/19/2015	10/19/2015	10/19/2015	10/20/2015	10/29/2015	
Sample Interval (dbm)		16 - 18 ft	0-10 cm	0 - 2 ft	4 - 6 ft	12 - 14 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0 - 2 ft	
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Native Deposit	Native Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
PCB-194	pg/g	0.657 U	455	75.5	--	0.556 U	32.5	--	--	135	152	143 J	
PCB-195	pg/g	0.683 U	185	30.3	--	0.578 U	12.3	--	--	54.9	65.8	61.3 J	
PCB-196	pg/g	0.906 U, C	662 C	96.6 C	--	1.08 U, C	33.0 C	--	--	221 C	197 C	202 J, C	
PCB-197	pg/g	0.696 U	23.6	3.36 J	--	0.834 U	1.98 J	--	--	10.7	8.29	8.57 J	
PCB-198	pg/g	1.05 U	29.9	5.21	--	1.26 U	2.08 J	--	--	11.4	9.82	9.81 J	
PCB-199	pg/g	1.01 U	563	90	--	1.21 U	29.7	--	--	172	156	150.0 J	
PCB-200	pg/g	0.719 U	74.2	12.2	--	0.862 U	3.70 J	--	--	29.2	22.2	21.0 J	
PCB-201	pg/g	0.711 U	73.2	13.2	--	0.852 U	4.56	--	--	28.1	26.1	23.9 J	
PCB-202	pg/g	0.702 U	96.9	20	--	0.841 U	8.04	--	--	35.1	35.8	28.2 J	
PCB-203	pg/g	-- U, C196	-- C196	-- C196	--	-- U, C196	-- C196	--	--	-- C196	-- C196	-- J, C196	
PCB-204	pg/g	0.716 U	0.729 U	0.766 U	--	0.857 U	0.814 U	--	--	0.727 U	1.33 U	1.38 U	
PCB-205	pg/g	0.473 U	27.9	3.90 J	--	0.400 U	2.13 J	--	--	10.2	9.5	9.91 J	
PCB-206	pg/g	0.550 U	192	40.7	--	0.497 U	13.9	--	--	92	81.7	51.0 J	
PCB-207	pg/g	0.451 U	28.6	5.58	--	0.412 U	2.39 J	--	--	15.6	12.2	9.09 J	
PCB-208	pg/g	0.403 U	45.1	12.9	--	0.371 U	4.04	--	--	24.7	21.3	12.5 J	
PCB-209	pg/g	0.348 U	384	35.5	--	0.316 U	8.86	--	--	25.5	34.8	9.51 J	
Total PCBs Congeners	pg/g	1.7 U	108,000 J	11,600 J	--	28.1 J	5,300 J	--	--	5,100 J	16,600	10,500 J	

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-10		MAF-11				MAF-12			MAF-13	MAF-14	
Sample Identification	MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10	
Sample Date	10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015	
Sample Interval (dbm)	0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	96.9 J	--	3.66 J	--	15.5	7.71	293	--	5.68	5.65	0.691 U
PCB-002	pg/g	20.6 J	--	1.42 J	--	7.18	16.6	29.8	--	10.9	2.52 J	0.711 U
PCB-003	pg/g	80.0 J	--	2.52 J	--	19.8	14.1	138	--	10	4.29	0.713 U
PCB-004	pg/g	74.6 J	--	6.11	--	26.2	1.43 U	2,850	--	12.7	8.19	1.44 U
PCB-005	pg/g	6.03 J	--	4.01	--	20.1	1.29 U	277	--	12.5	1.46 U	1.18 U
PCB-006	pg/g	39.5 J	--	3.40 J	--	10.7	1.26 U	2,260	--	8.03	4.2	1.03 U
PCB-007	pg/g	17.3 J	--	0.747 U	--	3.81 J	1.24 U	480	--	2.21 J	1.50 U	1.10 U
PCB-008	pg/g	220.0 J	--	5	--	18.6	11	8,580	--	16.2	18.6	1.09 U
PCB-009	pg/g	15.6 J	--	0.853 U	--	4.61	1.25 U	539	--	2.06 J	1.46 U	1.12 U
PCB-010	pg/g	5.22 J	--	0.830 U	--	1.79 J	1.42 U	203	--	1.54 U	1.63 U	1.22 U
PCB-011	pg/g	36.0 J	--	14.7	--	10.2	6.61	90.2	--	10.7	5.35	4.1
PCB-012	pg/g	8.54 J	--	0.909 U	--	3.66 J	5.18	88.3	--	6.06	1.55 U	1.18 U
PCB-013	pg/g	21.5 J	--	0.910 U	--	4.13	1.28 U	486	--	5.28	1.81 U	1.13 U
PCB-014	pg/g	1.32 U	--	0.875 U	--	1.22 U	1.26 U	1.31 U	--	1.63 U	1.54 U	1.11 U
PCB-015	pg/g	275 J	--	5.11	--	54.5	6.96	2,740	--	10.6	8.35	1.04 U
PCB-016	pg/g	153 J	--	7.27	--	53.2	17	3,250	--	20.1	13.9	1.59 U
PCB-017	pg/g	176 J	--	12.6	--	72.7	23.1	5,550	--	27	16.8	1.68 U
PCB-018	pg/g	401 J	--	27.9	--	175	43.4	13,300	--	65.6	41	1.81 U
PCB-019	pg/g	43.3 J	--	3.69 J	--	14.3	1.71 U	1,140	--	5.89	4.3	1.81 U
PCB-020	pg/g	349 J, C	--	20.5 C	--	165 C	67.9 C	13,700 C	--	42.6 C	21.7 C	3.19 J, C
PCB-021	pg/g	-J, C020	--	-C020	--	-C020	-C020	-C020	--	-C020	-C020	-J, C020
PCB-022	pg/g	262 J	--	11.6	--	112	39.7	6,400	--	24.6	13.8	2.28 J
PCB-023	pg/g	7.45 U	--	0.739 U	--	1.09 U	1.23 U	32.3	--	0.879 U	1.39 U	0.918 U
PCB-024	pg/g	10.1 J	--	0.887 U	--	8.03	1.19 U	146	--	1.49 J	1.79 U	1.17 U
PCB-025	pg/g	54.0 J	--	3.49 J	--	20.1	3.55 J	2,190	--	5.48	3.10 J	0.756 U

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10
Sample Date		10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-026	pg/g	119 J	--	8.23	--	48.6	13.6	4,430	--	12.9	7.36	0.842 U
PCB-027	pg/g	32.2 J	--	2.05 J	--	4.78	1.19 U	896	--	3.46 J	3.54 J	1.34 U
PCB-028	pg/g	716 J	--	28.9	--	300	115	17,200	--	65.3	37	5.66
PCB-029	pg/g	7.15 U	--	0.877 U	--	1.16 U	1.21 U	221	--	0.935 U	1.49 U	0.828 U
PCB-030	pg/g	3.16 U	--	0.810 U	--	1.04 U	1.18 U	1.38 U	--	1.07 U	1.68 U	1.21 U
PCB-031	pg/g	741 J	--	37.8	--	374	114	20,600	--	73.4	35.8	4.59
PCB-032	pg/g	142 J	--	9.57	--	54.7	22.4	3,660	--	16.7	11.7	1.31 U
PCB-033	pg/g	-- J, C020	--	-- C020	--	-- C020	-- C020	-- C020	--	-- C020	-- C020	-- J, C020
PCB-034	pg/g	7.35 U	--	1.02 U	--	1.44 U	1.42 U	121	--	1.16 U	1.80 U	0.788 U
PCB-035	pg/g	7.25 U	--	1.03 U	--	1.32 U	1.30 U	214	--	2.68 J	1.57 U	0.882 U
PCB-036	pg/g	7.22 U	--	0.958 U	--	1.27 U	1.24 U	1.86 U	--	1.03 U	1.50 U	0.842 U
PCB-037	pg/g	231 J	--	7.7	--	75.1	23.3	206	--	13.6	8.31	2.66 J
PCB-038	pg/g	6.72 U	--	0.825 U	--	9.67	1.22 U	51	--	0.954 U	1.43 U	0.800 U
PCB-039	pg/g	7.23 U	--	0.902 U	--	1.27 U	1.24 U	18.8	--	1.03 U	1.46 U	0.867 U
PCB-040	pg/g	165 J	--	3.81 J	--	62.3	16.9	1,320	--	15.2	5.68	1.95 U
PCB-041	pg/g	754 J, C	--	19.4 C	--	363 C	96.0 C	5,430 C	--	72.0 C	27.9 C	6.34 C
PCB-042	pg/g	253 J, C	--	7.00 C	--	103 C	31.2 C	1,940 C	--	25.3 C	10.9 C	2.52 J, C
PCB-043	pg/g	840.0 J, C	--	25.7 C	--	635 C	89.7 C	5,360 C	--	73.7 C	35.3 C	6.93 C
PCB-044	pg/g	1120 J	--	30	--	585	117	4,880	--	84.3	36.9	6.56
PCB-045	pg/g	125 J	--	5.44	--	46.7	17.6	1,700	--	12.8	6.9	1.63 U
PCB-046	pg/g	56.5 J	--	2.24 J	--	16.7	7.52	618	--	5.64	3.49 J	1.75 U
PCB-047	pg/g	270.0 J	--	8.78	--	160	24.3	1,510	--	22.7	12.5	3.49 J
PCB-048	pg/g	110.0 J, C	--	4.44 C	--	65.9 C	23.4 C	1,860 C	--	17.4 C	7.81 C	1.21 U, C
PCB-049	pg/g	-- J, C043	--	-- C043	--	-- C043	-- C043	-- C043	--	-- C043	-- C043	-- C043
PCB-050	pg/g	3.29 U	--	0.677 U	--	1.03 U	1.02 U	41.4	--	0.671 U	1.44 U	1.43 U
PCB-051	pg/g	38.5 J	--	2.47 J	--	14.1	5.32	516	--	4.45	3.09 J	1.46 U
PCB-052	pg/g	1740 J, C	--	45.9 C	--	2,270 C	132 C	5,730 C	--	101 C	52.4 C	8.98 C
PCB-053	pg/g	134 J	--	5.48	--	57.1	17.1	1,630	--	13.3	7.57	1.52 U
PCB-054	pg/g	2.51 U	--	0.512 U	--	0.763 U	0.790 U	35.3	--	0.496 U	1.15 U	1.13 U
PCB-055	pg/g	38.4 J	--	1.35 J	--	50.3	2.45 J	167	--	2.88 J	0.870 U	1.09 U
PCB-056	pg/g	711 J, C	--	22.2 C	--	412 C	85.7 C	5,330 C	--	58.1 C	29.2 C	4.51 C
PCB-057	pg/g	6.81 J	--	0.495 U	--	6.93	0.754 U	50.9	--	0.531 U	0.930 U	1.08 U
PCB-058	pg/g	2.72 U	--	0.503 U	--	0.867 U	0.708 U	20.5	--	0.564 U	0.902 U	1.17 U
PCB-059	pg/g	-- J, C042	--	-- C042	--	-- C042	-- C042	-- C042	--	-- C042	-- C042	-- J, C042
PCB-060	pg/g	-- J, C056	--	-- C056	--	-- C056	-- C056	-- C056	--	-- C056	-- C056	-- C056
PCB-061	pg/g	1950 J, C	--	40.4 C	--	1,170 C	136 C	7,590 C	--	105 C	42.3 C	9.94 C
PCB-062	pg/g	2.74 U	--	0.569 U	--	0.841 U	0.843 U	3.70 J	--	0.547 U	1.09 U	1.29 U
PCB-063	pg/g	59.4 J	--	1.50 J	--	24.9	4.68	351	--	3.79 J	1.96 J	1.09 U
PCB-064	pg/g	-- J, C041	--	-- C041	--	-- C041	-- C041	-- C041	--	-- C041	-- C041	-- C041
PCB-065	pg/g	2.80 U	--	0.530 U	--	0.805 U	0.785 U	3.64 J	--	0.523 U	1.07 U	1.12 U
PCB-066	pg/g	1220 J, C	--	28.5 C	--	1,350 C	103 C	6,690 C	--	78.4 C	33.2 C	8.18 C
PCB-067	pg/g	41.7 J	--	1.16 J	--	16.2	3.25 J	352	--	2.58 J	0.947 U	1.06 U

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10
Sample Date		10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-068	pg/g	9.20 J	--	0.474 U	--	0.803 U	0.713 U	11	--	0.522 U	0.903 U	1.06 U
PCB-069	pg/g	-- J, C052	--	-- C052	--	-- C052	-- C052	-- C052	--	-- C052	-- C052	-- C052
PCB-070	pg/g	-- J, C061	--	-- C061	--	-- C061	-- C061	-- C061	--	-- C061	-- C061	-- C061
PCB-071	pg/g	-- J, C041	--	-- C041	--	-- C041	-- C041	-- C041	--	-- C041	-- C041	-- C041
PCB-072	pg/g	-- J, C041	--	-- C041	--	-- C041	-- C041	-- C041	--	-- C041	-- C041	-- C041
PCB-073	pg/g	2.61 U	--	0.543 U	--	0.772 U	0.875 U	43.5	--	0.502 U	1.03 U	1.30 U
PCB-074	pg/g	716 J	--	17.3	--	363	60.5	3,960	--	47.3	17.7	3.61 J
PCB-075	pg/g	-- J, C048	--	-- C048	--	-- C048	-- C048	-- C048	--	-- C048	-- C048	-- U, C048
PCB-076	pg/g	-- J, C066	--	-- C066	--	-- C066	-- C066	-- C066	--	-- C066	-- C066	-- C066
PCB-077 (Dioxin-Like)	pg/g	118 J	--	3.28 J	--	189	9.65	575	--	6.7	4.93	0.803 U
PCB-078	pg/g	9.76 J	--	0.800 U	--	0.719 U	0.938 U	13	--	1.15 U	1.51 U	0.816 U
PCB-079	pg/g	23.4 J	--	0.799 U	--	59.5	3.19 J	35.4	--	2.16 J	1.48 J	0.812 U
PCB-080	pg/g	2.23 U	--	0.405 U	--	0.723 U	0.661 U	9.3	--	0.470 U	0.728 U	0.934 U
PCB-081 (Dioxin-Like)	pg/g	40.8 J	--	1.43 J	--	201	4.38	68.9	--	2.74 J	2.35 J	0.785 U
PCB-082	pg/g	417 J	--	10.6	--	292	29.8	444	--	17.1	9.64	4.36
PCB-083	pg/g	146 J, C	--	3.95 J, C	--	158 C	9.51 C	135 C	--	4.70 C	3.85 J, C	2.13 J, C
PCB-084	pg/g	1370 J, C	--	43.0 C	--	5,340 C	81.9 C	1,000 C	--	43.0 C	38.1 C	14.8 C
PCB-085	pg/g	506 J, C	--	12.9 C	--	343 C	38.9 C	512 C	--	22.7 C	12.3 C	4.93 C
PCB-086	pg/g	12.1 J	--	1.75 U	--	1.01 U	1.32 U	37.2	--	1.32 U	0.939 U	1.62 U
PCB-087	pg/g	1410 J, C	--	32.1 C	--	4,420 C	87.1 C	878 C	--	43.2 C	30.5 C	12.5 C
PCB-088	pg/g	425 J, C	--	14.7 C	--	1,370 C	31.9 C	960.0 C	--	19.3 C	16.3 C	5.53 C
PCB-089	pg/g	27.0 J	--	1.78 U	--	13.4	2.83 J	86	--	2.14 J	1.13 U	1.79 U
PCB-090	pg/g	3780 J, C	--	119 C	--	30,600 C	214 C	1,930 C	--	117 C	103 C	38.4 C
PCB-091	pg/g	-- J, C088	--	-- C088	--	-- C088	-- C088	-- C088	--	-- C088	-- C088	-- C088
PCB-092	pg/g	-- J, C084	--	-- C084	--	-- C084	-- C084	-- C084	--	-- C084	-- C084	-- C084
PCB-093	pg/g	4.96 U	--	1.34 U	--	1.21 U	1.66 U	1.87 U	--	1.15 U	1.83 U	1.81 U
PCB-094	pg/g	16.7 J	--	1.32 U	--	10.8	1.64 U	65.7	--	1.12 U	1.86 U	1.78 U
PCB-095	pg/g	2960 J	--	100	--	25,900	185	4,440	--	103	103	38.9
PCB-096	pg/g	18.0 J	--	0.958 U	--	12.2	1.14 U	93.8	--	0.714 U	1.41 U	1.21 U
PCB-097	pg/g	953 J	--	23.9	--	1,370	54.6	715	--	30.3	21.1	8.85
PCB-098	pg/g	3.67 U, C	--	1.02 U, C	--	0.934 U, C	1.28 U, C	1.24 U, C	--	0.886 U, C	1.50 U, C	1.36 U, C
PCB-099	pg/g	1400 J	--	42.1	--	2,270	86.9	1160	--	48.9	35.5	17.3
PCB-100	pg/g	4.05 U	--	1.12 U	--	73.7	1.36 U	31.2	--	0.903 U	1.58 U	1.53 U
PCB-101	pg/g	-- J, C090	--	-- C090	--	-- C090	-- C090	-- C090	--	-- C090	-- C090	-- C090
PCB-102	pg/g	-- U, C098	--	-- U, C098	--	-- U, C098	-- U, C098	-- U, C098	--	-- U, C098	-- U, C098	-- U, C098
PCB-103	pg/g	17.0 J	--	1.12 U	--	134	1.34 U	46.8	--	0.881 U	1.58 U	1.41 U
PCB-104	pg/g	3.04 U	--	0.895 U	--	0.671 U	1.07 U	1.08 U	--	0.637 U	1.34 U	1.16 U
PCB-105 (Dioxin-Like)	pg/g	1120 J	--	29.1	--	1,860	94.1	1,120	--	42.9	37.6	11.3
PCB-106	pg/g	2670 J, C	--	78.1 C	--	10,300 C	204 C	2,130 C	--	99.4 C	90.3 C	26.9 C
PCB-107	pg/g	191 J, C	--	4.98 C	--	346 C	12.5 C	178 C	--	6.55 C	6.97 C	2.17 J, C
PCB-108	pg/g	-- J, C107	--	-- C107	--	-- C107	-- C107	-- C107	--	-- C107	-- C107	-- J, C107
PCB-109	pg/g	2.05 U	--	1.20 U	--	0.702 U	0.958 U	6.41	--	0.920 U	0.751 U	1.31 U

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10
Sample Date		10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-110	pg/g	3380 J	--	86.2	--	15,300	205	1,890	--	107	80.4	39.1
PCB-111	pg/g	82.1 J, C	--	2.10 J, C	--	31.7 C	5.11 C	82.3 C	--	2.39 J, C	1.70 J, C	1.15 U, C
PCB-112	pg/g	-- J, C083	--	-- J, C083	--	-- C083	-- C083	-- C083	--	-- C083	-- J, C083	-- J, C083
PCB-113	pg/g	1.96 U	--	1.26 U	--	0.768 U	1.02 U	1.49 U	--	1.01 U	0.783 U	1.29 U
PCB-114 (Dioxin-Like)	pg/g	71.0 J	--	1.17 U	--	52.2	7.75	82.7	--	3.82 J	2.58 J	0.776 U
PCB-115	pg/g	-- J, C111	--	-- J, C111	--	-- C111	-- C111	-- C111	--	-- J, C111	-- J, C111	-- U, C111
PCB-116	pg/g	-- J, C085	--	-- C085	--	-- C085	-- C085	-- C085	--	-- C085	-- C085	-- C085
PCB-117	pg/g	-- J, C087	--	-- C087	--	-- C087	-- C087	-- C087	--	-- C087	-- C087	-- C087
PCB-118 (Dioxin-Like)	pg/g	-- J, C106	--	-- C106	--	-- C106	-- C106	-- C106	--	-- C106	-- C106	-- C106
PCB-119	pg/g	53.4 J	--	2.09 J	--	121	3.27 J	50.3	--	2.12 J	2.10 J	1.16 U
PCB-120	pg/g	8.09 J	--	1.03 U	--	127	0.863 U	3.81 J	--	0.834 U	0.661 U	1.11 U
PCB-121	pg/g	3.41 U	--	0.906 U	--	0.797 U	1.17 U	1.24 U	--	0.757 U	1.23 U	1.27 U
PCB-122	pg/g	36.2 J	--	1.24 U	--	78.6	3.01 J	47.4	--	1.99 J	0.892 U	0.746 U
PCB-123 (Dioxin-Like)	pg/g	40.4 J	--	1.04 U	--	230	3.58 J	53.6	--	2.04 J	1.35 J	0.681 U
PCB-124	pg/g	120.0 J	--	3.43 J	--	344	9.91	85.5	--	4.16	5.28	1.72 J
PCB-125	pg/g	-- J, C087	--	-- C087	--	-- C087	-- C087	-- C087	--	-- C087	-- C087	-- C087
PCB-126 (Dioxin-Like)	pg/g	16.6 J	--	1.21 U	--	74.8	1.17 U	15.3	--	1.55 J	1.10 U	0.784 U
PCB-127	pg/g	4.00 U	--	1.15 U	--	1.31 U	1.14 U	1.73 U	--	0.739 U	0.954 U	0.749 U
PCB-128	pg/g	608 J, C	--	16.6 C	--	6,120 C	39.6 C	186 C	--	17.6 C	22.8 C	12.7 C
PCB-129	pg/g	177 J	--	6.1	--	1,740	14.4	56.5	--	6.86	7.13	3.40 J
PCB-130	pg/g	251 J	--	7.95	--	3,320	12	66.1	--	7.7	11	5.07
PCB-131	pg/g	106 J, C	--	2.94 J, C	--	1,210 C	6.09 C	30.2 C	--	3.32 J, C	4.40 C	2.02 J, C
PCB-132	pg/g	962 J, C	--	33.1 C	--	16,800 C	61.8 C	290.0 C	--	27.4 C	43.3 C	21.1 C
PCB-133	pg/g	-- J, C131	--	-- J, C131	--	-- C131	-- C131	-- C131	--	-- J, C131	-- C131	-- J, C131
PCB-134	pg/g	194 J, C	--	5.86 C	--	2,560 C	11.1 C	56.9 C	--	5.86 C	8.90 C	4.03 C
PCB-135	pg/g	510.0 J	--	16	--	9,430	21.3	115	--	13.4	21.6	10.6
PCB-136	pg/g	512 J	--	19	--	11,500	26.6	130	--	17.2	23	12.6
PCB-137	pg/g	206 J	--	4.94	--	486	16.9	65.7	--	5.87	5.6	3.37 J
PCB-138	pg/g	3680 J, C	--	110.0 C	--	62,000 C	209 C	958 C	--	104 C	138 C	70.3 C
PCB-139	pg/g	3020 J, C	--	111 C	--	58,400 C	152 C	796 C	--	88.5 C	139 C	65.7 C
PCB-140	pg/g	15.1 J	--	1.07 U	--	1.73 U	1.06 U	6.91	--	0.858 U	1.41 U	1.64 U
PCB-141	pg/g	832 J	--	26	--	19,400	41.9	172	--	24	31.3	14.2
PCB-142	pg/g	4.46 U	--	1.27 U	--	2.04 U	1.25 U	2.57 U	--	1.01 U	1.59 U	1.95 U
PCB-143	pg/g	-- J, C134	--	-- C134	--	-- C134	-- C134	-- C134	--	-- C134	-- C134	-- C134
PCB-144	pg/g	194 J	--	8.02	--	3,600	13	52.6	--	6.03	10.6	3.23 J
PCB-145	pg/g	4.10 U	--	1.06 U	--	1.22 J	1.10 U	1.11 U	--	0.571 U	0.924 U	0.909 U
PCB-146	pg/g	519 J, C	--	15.3 C	--	8,570 C	24.3 C	134 C	--	14.4 C	21.0 C	10.6 C
PCB-147	pg/g	57.9 J	--	3.06 J	--	403	4.39	28.1	--	2.15 J	3.47 J	1.70 U
PCB-148	pg/g	4.81 U	--	1.47 U	--	0.719 U	1.48 U	1.37 U	--	0.696 U	1.15 U	1.04 U
PCB-149	pg/g	-- J, C139	--	-- C139	--	-- C139	-- C139	-- C139	--	-- C139	-- C139	-- C139
PCB-150	pg/g	4.04 U	--	1.11 U	--	66.2	1.05 U	3.30 J	--	0.521 U	0.880 U	0.882 U
PCB-151	pg/g	894 J	--	32.8	--	18,700	40.2	196	--	26.2	43.3	20

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10
Sample Date		10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-152	pg/g	3.93 U	--	1.12 U	--	3.44 J	1.08 U	2.29 J	--	0.537 U	0.887 U	0.857 U
PCB-153	pg/g	3600 J	--	120	--	69,300	192	932	--	113	147	71.2
PCB-154	pg/g	28.6 J	--	1.20 U	--	213	1.22 U	12.9	--	1.94 J	1.96 J	0.969 U
PCB-155	pg/g	3.69 U	--	1.05 U	--	2.08 J	0.961 U	0.913 U	--	0.459 U	0.794 U	0.820 U
PCB-156 (Dioxin-Like)	pg/g	367 J	--	10.8	--	5,600	27	103	--	10.5	12.8	5.59
PCB-157 (Dioxin-Like)	pg/g	77.4 J	--	2.89 J	--	411	7.05	27.8	--	2.70 J	3.49 J	1.42 U
PCB-158	pg/g	495 J, C	--	14.5 C	--	6,620 C	30.1 C	124 C	--	14.2 C	17.9 C	8.34 C
PCB-159	pg/g	37.1 J	--	1.77 J	--	566	0.807 U	9.89	--	1.75 J	2.63 J	1.25 U
PCB-160	pg/g	-- J, C158	--	-- C158	--	-- C158	-- C158	-- C158	--	-- C158	-- C158	-- C158
PCB-161	pg/g	-- J, C132	--	-- C132	--	-- C132	-- C132	-- C132	--	-- C132	-- C132	-- C132
PCB-162	pg/g	-- J, C128	--	-- C128	--	-- C128	-- C128	-- C128	--	-- C128	-- C128	-- C128
PCB-163	pg/g	-- J, C138	--	-- C138	--	-- C138	-- C138	-- C138	--	-- C138	-- C138	-- C138
PCB-164	pg/g	-- J, C138	--	-- C138	--	-- C138	-- C138	-- C138	--	-- C138	-- C138	-- C138
PCB-165	pg/g	-- J, C146	--	-- C146	--	-- C146	-- C146	-- C146	--	-- C146	-- C146	-- C146
PCB-166	pg/g	16.2 J	--	0.837 U	--	13.8	1.66 J	4.87	--	0.680 U	1.09 U	1.30 U
PCB-167 (Dioxin-Like)	pg/g	154 J	--	4.79	--	2,560	10.4	43	--	4.42	6.39	3.25 J
PCB-168	pg/g	3.20 U	--	0.765 U	--	1.35 U	0.853 U	2.92 J	--	0.667 U	1.05 U	1.34 U
PCB-169	pg/g	3.12 U	--	0.800 U	--	1.37 U	0.949 U	1.67 U	--	0.722 U	1.16 U	1.21 U
PCB-170	pg/g	1150 J	--	42.4	--	32,100	50.3	181	--	34.2	36.2	24.5
PCB-171	pg/g	374 J	--	13.1	--	7,550	14.9	58.4	--	10.2	12.8	7.08
PCB-172	pg/g	225 J	--	7.12	--	4,960	9.13	31.5	--	7.07	6.96	5.4
PCB-173	pg/g	33.4 J	--	0.974 U	--	610	0.826 U	4.89	--	0.857 U	1.35 U	1.90 U
PCB-174	pg/g	1280 J	--	41.9	--	27,300	48.9	188	--	37.8	39.8	26.8
PCB-175	pg/g	59.3 J	--	2.20 J	--	1,120	3.04 J	9.72	--	2.09 J	2.31 J	1.66 U
PCB-176	pg/g	184 J	--	6.47	--	3,090	7.34	28.5	--	5.82	6.36	3.73 J
PCB-177	pg/g	763 J	--	24.5	--	16,400	29.2	116	--	21.5	27.9	17.3
PCB-178	pg/g	259 J	--	8.25	--	5,110	9.67	44.7	--	7.9	9.47	7.67
PCB-179	pg/g	524 J	--	18.5	--	8,570	19.3	88.6	--	17.2	18.1	12.8
PCB-180	pg/g	2310 J	--	83.7	--	48,700	94.7	387	--	76.9	73.4	59.1
PCB-181	pg/g	4.50 U	--	0.868 U	--	0.940 U	0.710 U	1.66 U	--	0.742 U	1.20 U	1.85 U
PCB-182	pg/g	1510 J, C	--	49.6 C	--	25,000 C	56.2 C	276 C	--	53.6 C	56.6 C	42.2 C
PCB-183	pg/g	786 J	--	27.9	--	13,400	31.1	125	--	25.5	27	16.9
PCB-184	pg/g	3.15 U	--	0.581 U	--	4.94	0.510 U	1.22 U	--	0.506 U	0.847 U	1.19 U
PCB-185	pg/g	150.0 J	--	6.03	--	2,440	7.43	25	--	4.82	5.84	3.79 J
PCB-186	pg/g	3.41 U	--	0.594 U	--	0.691 U	0.548 U	1.28 U	--	0.546 U	0.898 U	1.31 U
PCB-187	pg/g	-- J, C182	--	-- C182	--	-- C182	-- C182	-- C182	--	-- C182	-- C182	-- C182
PCB-188	pg/g	3.51 U	--	0.633 U	--	11.3	0.549 U	1.22 U	--	0.542 U	0.936 U	1.41 U
PCB-189 (Dioxin-Like)	pg/g	45.6 J	--	1.92 J	--	1,070	2.60 J	7.89	--	1.50 J	0.914 U	1.07 U
PCB-190	pg/g	245 J	--	9.64	--	5,140	10.5	38	--	7.63	7.92	5.58
PCB-191	pg/g	53.0 J	--	2.51 J	--	1,230	3.43 J	11.3	--	2.28 J	1.90 J	1.28 U
PCB-192	pg/g	3.74 U	--	0.673 U	--	0.762 U	0.606 U	1.38 U	--	0.602 U	0.981 U	1.39 U
PCB-193	pg/g	112 J	--	5.14	--	2,950	5.88	23.7	--	4.52	5.88	3.44 J

Sample Location ¹		MAF-10		MAF-11				MAF-12			MAF-13	MAF-14
Sample Identification		MAF-SC-DUP-07	MAF-SC-10_6-7.6	MAF-SS-11_0-10	MAF-SC-11_0-2	MAF-SC-11_2-4	MAF-SC-11_6-8	MAF-SS-12_0-10	MAF-SC-12_0-2	MAF-SC-12_2-4	MAF-SS-13_0-10	MAF-SS-14_0-10
Sample Date		10/29/2015	10/29/2015	10/20/2015	10/28/2015	10/28/2015	10/28/2015	10/20/2015	10/28/2015	10/28/2015	10/20/2015	10/21/2015
Sample Interval (dbm)		0 - 2 ft	6 - 7.6 ft	0-10 cm	0 - 2 ft	2 - 4 ft	6 - 8 ft	0-10 cm	0 - 2 ft	2 - 4 ft	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-194	pg/g	488 J	--	18.8	--	7,540	26.1	112	--	24.3	16.7	16.5
PCB-195	pg/g	203 J	--	7.66	--	3,180	10.3	46	--	7.88	7.17	5.93
PCB-196	pg/g	616 J, C	--	28.2 C	--	7,430 C	38.3 C	133 C	--	38.9 C	26.5 C	23.1 C
PCB-197	pg/g	34.5 J	--	1.13 J	--	291	1.99 J	5.33	--	1.25 U	1.28 U	1.03 U
PCB-198	pg/g	35.6 J	--	1.84 J	--	451	1.86 J	8.19	--	2.25 J	2.02 J	1.45 U
PCB-199	pg/g	590.0 J	--	23.8	--	6,460	42.8	116	--	41.1	21.8	21.3
PCB-200	pg/g	70.9 J	--	3.11 J	--	815	4.48	16	--	4.13	3.35 J	3.09 J
PCB-201	pg/g	91.6 J	--	3.34 J	--	847	5.15	17.6	--	5.81	3.52 J	2.97 J
PCB-202	pg/g	127 J	--	4.81	--	848	9.65	29.7	--	9.65	5.79	4.62
PCB-203	pg/g	-- J, C196	--	-- C196	--	-- C196	-- C196	-- C196	--	-- C196	-- C196	-- C196
PCB-204	pg/g	3.71 U	--	0.572 U	--	0.801 U	1.02 U	1.58 U	--	1.28 U	1.31 U	1.03 U
PCB-205	pg/g	29.5 J	--	1.02 J	--	335	1.68 J	6.61	--	1.52 J	0.997 U	0.643 U
PCB-206	pg/g	208 J	--	6.69	--	633	56.2	58.9	--	56.4	8.35	7.83
PCB-207	pg/g	29.0 J	--	0.526 U	--	105	5.42	9.22	--	6.44	1.36 U	1.28 U
PCB-208	pg/g	60.5 J	--	1.76 J	--	100	21.1	17.9	--	22.3	2.70 J	2.12 J
PCB-209	pg/g	109 J	--	2.66 J	--	49.3	73.1	40.7	--	76.6	4.51	4.72
Total PCBs Congeners	pg/g	66,400 J	--	2,140 J	--	657,000 J	4,580 J	195,000 J	--	3,110 J	2,390 J	988 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21	
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04
Sample Date		10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	0.891 U	--	--	1.17 U	--	--	2.47 J	8.02	2.93 J	36.4 J	5.37 J
PCB-002	pg/g	0.931 U	--	--	1.21 U	--	--	1.22 U	2.48 J	5.75	13.9 J	2.54 J
PCB-003	pg/g	0.947 U	--	--	1.23 U	--	--	2.60 J	6.47	5.27	42.9 J	6.47 J
PCB-004	pg/g	1.20 U	--	--	1.09 U	--	--	2.47 J	5.67	1.45 U	34.3 J	5.34 J
PCB-005	pg/g	0.973 U	--	--	0.902 U	--	--	1.01 U	5.24	1.25 U	7.53	1.47 U
PCB-006	pg/g	0.846 U	--	--	0.784 U	--	--	2.96 J	3.99	1.22 U	27.1 J	3.92 J
PCB-007	pg/g	0.906 U	--	--	0.840 U	--	--	1.04 U	1.67 J	1.20 U	10.8 J	1.37 UJ
PCB-008	pg/g	3.54	--	--	0.836 U	--	--	5.95	12.5	5.95	114 J	20.8 J
PCB-009	pg/g	0.927 U	--	--	0.859 U	--	--	1.01 U	1.15 U	1.22 U	9.44 J	1.40 UJ
PCB-010	pg/g	1.01 U	--	--	0.932 U	--	--	1.13 U	1.12 U	1.38 U	3.78 J	1.52 U
PCB-011	pg/g	3.6	--	--	7.39	--	--	5.19	10.6	6.2	32.8 J	9.96 J
PCB-012	pg/g	0.974 U	--	--	0.902 U	--	--	1.08 U	1.23 U	4.42	6.25	1.47 U
PCB-013	pg/g	0.927 U	--	--	0.860 U	--	--	1.25 U	1.92 J	1.25 U	12.9 J	1.40 UJ
PCB-014	pg/g	0.917 U	--	--	0.850 U	--	--	1.07 U	1.18 U	1.23 U	1.30 U	1.38 U
PCB-015	pg/g	3.4	--	--	0.794 U	--	--	3.89 J	14.1	3.54 J	78.2 J	16.3 J
PCB-016	pg/g	1.31 U	--	--	1.56 U	--	--	4.17	12.3	3.43 J	66.3 J	14.0 J
PCB-017	pg/g	1.38 U	--	--	1.65 U	--	--	5.89	16.4	4.5	88.9 J	18.5 J
PCB-018	pg/g	4.97	--	--	1.78 U	--	--	14.9	43.5	11.6	234 J	38.6 J
PCB-019	pg/g	1.49 U	--	--	1.78 U	--	--	1.61 U	3.74 J	1.45 U	18.7 J	4.51 J
PCB-020	pg/g	3.91 C	--	--	1.32 U, C	--	--	9.78 C	28.9 C	8.72 C	2,74 J, C	36.0 J, C
PCB-021	pg/g	-- C020	--	--	-- U, C020	--	--	-- C020	-- C020	-- C020	-- J, C020	-- J, C020
PCB-022	pg/g	2.84 J	--	--	1.34 U	--	--	6.84	22	5.34	171 J	24.7 J
PCB-023	pg/g	1.40 U	--	--	1.48 U	--	--	1.40 U	0.992 U	1.13 U	1.77 U	1.02 U
PCB-024	pg/g	0.959 U	--	--	1.14 U	--	--	1.18 U	1.01 U	1.01 U	2.05 J	1.21 U
PCB-025	pg/g	1.16 U	--	--	1.22 U	--	--	1.21 U	4.19	0.944 U	34.8 J	4.57 J

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21	
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04
Sample Date		10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	1.29 U	--	--	1.36 U	--	--	2.85 J	9.34	1.15 U	78.3 J	10.3 J
PCB-027	pg/g	1.10 U	--	--	1.31 U	--	--	1.11 U	3.34 J	1.01 U	15.7 J	3.77 J
PCB-028	pg/g	6.13	--	--	1.21 U	--	--	17.7	53.1	13.9	444 J	65.8 J
PCB-029	pg/g	1.27 U	--	--	1.33 U	--	--	1.50 U	1.18 U	1.11 U	1.73 U	0.918 U
PCB-030	pg/g	0.992 U	--	--	1.18 U	--	--	1.11 U	0.923 U	0.995 U	1.26 U	1.25 U
PCB-031	pg/g	5.17	--	--	1.27 U	--	--	16	64.3	15.1	537 J	65.2 J
PCB-032	pg/g	1.08 U	--	--	1.29 U	--	--	5.06	14.7	3.22 J	70.4 J	15.9 J
PCB-033	pg/g	-- C020	--	--	-- U, C020	--	--	-- C020	-- C020	-- C020	-- J, C020	-- J, C020
PCB-034	pg/g	1.20 U	--	--	1.27 U	--	--	1.81 U	1.37 U	1.30 U	1.78 U	0.874 U
PCB-035	pg/g	1.35 U	--	--	1.42 U	--	--	1.58 U	2.32 J	1.20 U	12.3 J	0.979 UJ
PCB-036	pg/g	1.29 U	--	--	1.36 U	--	--	1.51 U	1.29 U	1.14 U	1.69 U	0.934 U
PCB-037	pg/g	4.46	--	--	1.25 U	--	--	4.93	19.7	3.83 J	106 J	20.7 J
PCB-038	pg/g	1.22 U	--	--	1.29 U	--	--	1.44 U	1.11 U	1.12 U	1.65 U	0.888 U
PCB-039	pg/g	1.32 U	--	--	1.40 U	--	--	1.47 U	1.21 U	1.14 U	1.72 U	0.962 U
PCB-040	pg/g	1.33 U	--	--	1.52 U	--	--	4.69	13.7	4.7	64.0 J	18.4 J
PCB-041	pg/g	6.42 C	--	--	2.13 J, C	--	--	20.4 C	77.3 C	19.8 C	280.0 J, C	92.7 J, C
PCB-042	pg/g	3.01 J, C	--	--	0.987 U, C	--	--	8.00 C	25.1 C	6.45 C	81.5 J, C	30.8 J, C
PCB-043	pg/g	8.05 C	--	--	2.53 J, C	--	--	25.0 C	93.7 C	19.6 C	318 J, C	97.3 J, C
PCB-044	pg/g	7.7	--	--	2.76 J	--	--	28.7	117	24.1	334 J	120.0 J
PCB-045	pg/g	1.11 U	--	--	1.27 U	--	--	4.28	11	3.63 J	47.7 J	11.9 J
PCB-046	pg/g	1.19 U	--	--	1.37 U	--	--	2.15 J	4.19	1.30 U	20.0 J	5.59 J
PCB-047	pg/g	4.21	--	--	2.31 J	--	--	8.06	25.4	6.99	85.5 J	31.1 J
PCB-048	pg/g	0.824 U, C	--	--	0.944 U, C	--	--	5.47 C	14.4 C	4.75 C	58.4 J, C	18.0 J, C
PCB-049	pg/g	-- C043	--	--	-- J, C043	--	--	-- C043	-- C043	-- C043	-- J, C043	-- J, C043
PCB-050	pg/g	0.972 U	--	--	1.11 U	--	--	1.47 U	0.463 U	1.09 U	1.45 U	0.613 U
PCB-051	pg/g	0.992 U	--	--	1.14 U	--	--	1.95 J	3.43 J	1.07 U	16.0 J	3.90 J
PCB-052	pg/g	9.46 C	--	--	3.64 J, C	--	--	41.4 C	175 C	30.3 C	655 J, C	166 J, C
PCB-053	pg/g	1.04 U	--	--	1.19 U	--	--	4.09	11.4	3.95 J	56.7 J	13.2 J
PCB-054	pg/g	0.767 U	--	--	0.879 U	--	--	1.17 U	0.350 U	0.844 U	1.18 U	0.484 U
PCB-055	pg/g	0.740 U	--	--	0.847 U	--	--	0.888 U	3.85 J	0.789 U	13.8 J	3.07 J
PCB-056	pg/g	5.37 C	--	--	1.85 U, C	--	--	22.2 C	81.4 C	16.5 C	397 J, C	87.9 J, C
PCB-057	pg/g	0.732 U	--	--	0.839 U	--	--	0.949 U	0.339 U	0.806 U	1.10 U	0.462 U
PCB-058	pg/g	0.797 U	--	--	0.913 U	--	--	0.921 U	0.344 U	0.756 U	2.13 J	0.502 U
PCB-059	pg/g	-- J, C042	--	--	-- U, C042	--	--	-- C042	-- C042	-- C042	-- J, C042	-- J, C042
PCB-060	pg/g	-- C056	--	--	-- U, C056	--	--	-- C056	-- C056	-- C056	-- J, C056	-- J, C056
PCB-061	pg/g	10.7 C	--	--	3.70 J, C	--	--	31.7 C	160.0 C	31.8 C	871 J, C	190.0 J, C
PCB-062	pg/g	0.874 U	--	--	1.00 U	--	--	1.11 U	0.389 U	0.901 U	1.20 U	0.551 U
PCB-063	pg/g	0.741 U	--	--	0.849 U	--	--	0.929 U	4.63	0.814 U	23.2 J	5.41 J
PCB-064	pg/g	-- C041	--	--	-- J, C041	--	--	-- C041	-- C041	-- C041	-- J, C041	-- J, C041
PCB-065	pg/g	0.763 U	--	--	0.874 U	--	--	1.10 U	0.363 U	0.838 U	1.19 U	0.481 U
PCB-066	pg/g	9.89 C	--	--	4.01 J, C	--	--	24.3 C	103 C	22.6 C	581 J, C	127 J, C
PCB-067	pg/g	0.721 U	--	--	0.826 U	--	--	0.967 U	2.58 J	0.855 U	15.5 J	4.28 J

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21	
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04
Sample Date		10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	0.720 U	--	--	0.825 U	--	--	0.921 U	0.324 U	0.762 U	1.08 U	0.454 U
PCB-069	pg/g	-- C052	--	--	-- J, C052	--	--	-- C052	-- C052	-- C052	-- J, C052	-- J, C052
PCB-070	pg/g	-- C061	--	--	-- J, C061	--	--	-- C061	-- C061	-- C061	-- J, C061	-- J, C061
PCB-071	pg/g	-- C041	--	--	-- J, C041	--	--	-- C041	-- C041	-- C041	-- J, C041	-- J, C041
PCB-072	pg/g	-- C041	--	--	-- J, C041	--	--	-- C041	-- C041	-- C041	-- J, C041	-- J, C041
PCB-073	pg/g	0.887 U	--	--	1.02 U	--	--	1.06 U	0.372 U	0.935 U	1.15 U	0.559 U
PCB-074	pg/g	4.22	--	--	0.794 U	--	--	13.6	64.5	13.6	316 J	72.4 J
PCB-075	pg/g	-- U, C048	--	--	-- U, C048	--	--	-- C048	-- C048	-- C048	-- J, C048	-- J, C048
PCB-076	pg/g	-- C066	--	--	-- J, C066	--	--	-- C066	-- C066	-- C066	-- J, C066	-- J, C066
PCB-077 (Dioxin-Like)	pg/g	1.02 U	--	--	1.75 U	--	--	3.76 J	12.1	2.49 J	49.8 J	11.6 J
PCB-078	pg/g	1.02 U	--	--	1.71 U	--	--	1.16 U	1.11 U	0.909 U	4.17	0.488 U
PCB-079	pg/g	1.01 U	--	--	1.70 U	--	--	1.51 J	4.45	0.868 U	14.9 J	3.41 J
PCB-080	pg/g	0.635 U	--	--	0.728 U	--	--	0.743 U	0.277 U	0.706 U	0.756 U	0.401 U
PCB-081 (Dioxin-Like)	pg/g	0.958 U	--	--	1.58 U	--	--	2.28 J	7.19	0.842 U	32.5 J	4.73 J
PCB-082	pg/g	3.67	--	--	1.99 U	--	--	7.72	51.1	6.12	141 J	42.4 J
PCB-083	pg/g	2.21 J, C	--	--	1.48 U, C	--	--	3.08 J, C	18.1 C	2.49 J, C	50.6 J, C	14.3 J, C
PCB-084	pg/g	13.5 C	--	--	7.52 C	--	--	29.0 C	181 C	17.8 C	608 J, C	117 J, C
PCB-085	pg/g	4.59 C	--	--	1.39 U, C	--	--	10.0 C	67.5 C	8.43 C	178 J, C	53.7 J, C
PCB-086	pg/g	1.30 U	--	--	1.61 U	--	--	1.05 U	1.67 U	1.00 U	4.15	1.65 U
PCB-087	pg/g	10.8 C	--	--	5.78 C	--	--	26.0 C	162 C	19.4 C	617 J, C	131 J, C
PCB-088	pg/g	3.88 C	--	--	1.61 U, C	--	--	12.4 C	45.6 C	6.02 C	251 J, C	45.7 J, C
PCB-089	pg/g	1.44 U	--	--	1.78 U	--	--	1.26 U	5.18	1.01 U	8.95	2.90 J
PCB-090	pg/g	46.0 C	--	--	13.8 C	--	--	73.8 C	480.0 C	49.0 C	2,360 J, C	343 J, C
PCB-091	pg/g	-- C088	--	--	-- U, C088	--	--	-- C088	-- C088	-- C088	-- J, C088	-- J, C088
PCB-092	pg/g	-- C084	--	--	-- C084	--	--	-- C084	-- C084	-- C084	-- J, C084	-- J, C084
PCB-093	pg/g	1.85 U	--	--	1.84 U	--	--	1.25 U	0.632 U	1.20 U	1.80 U	1.65 U
PCB-094	pg/g	1.81 U	--	--	1.80 U	--	--	1.27 U	1.77 J	1.18 U	9.45	1.62 U
PCB-095	pg/g	36.3	--	--	20.5	--	--	73.2	298	36.1	3360 J	299 J
PCB-096	pg/g	1.24 U	--	--	1.23 U	--	--	0.966 U	2.41 J	0.825 U	9.14	2.15 J
PCB-097	pg/g	7.63	--	--	4.25	--	--	17.6	117	12.9	355 J	92.6 J
PCB-098	pg/g	1.39 U, C	--	--	1.38 U, C	--	--	1.02 U, C	0.480 U, C	0.925 U, C	1.19 U, C	1.24 U, C
PCB-099	pg/g	15.7	--	--	6.16	--	--	28.6	197	19.7	532 J	148 J
PCB-100	pg/g	1.56 U	--	--	1.55 U	--	--	1.08 U	1.38 J	0.980 U	7.48	1.39 U
PCB-101	pg/g	-- C090	--	--	-- C090	--	--	-- C090	-- C090	-- C090	-- J, C090	-- J, C090
PCB-102	pg/g	-- U, C098	--	--	-- U, C098	--	--	-- U, C098	-- U, C098	-- U, C098	-- U, C098	-- U, C098
PCB-103	pg/g	1.44 U	--	--	1.43 U	--	--	1.08 U	2.34 J	0.968 U	12.0 J	2.38 J
PCB-104	pg/g	1.18 U	--	--	1.18 U	--	--	0.913 U	0.422 U	0.774 U	1.04 U	1.06 U
PCB-105 (Dioxin-Like)	pg/g	13	--	--	6.01	--	--	32.7	182	19	660.0 J	144 J
PCB-106	pg/g	34.6 C	--	--	10.2 C	--	--	75.3 C	447 C	42.7 C	1980 J, C	351 J, C
PCB-107	pg/g	1.85 U, C	--	--	0.625 U, C	--	--	5.47 C	29.3 C	3.52 J, C	107 J, C	23.2 J, C
PCB-108	pg/g	-- U, C107	--	--	-- U, C107	--	--	-- C107	-- C107	-- J, C107	-- J, C107	-- J, C107
PCB-109	pg/g	1.05 U	--	--	1.30 U	--	--	0.837 U	1.14 U	0.728 U	1.21 U	1.34 U

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21	
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04
Sample Date		10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	40.8	--	--	14.3	--	--	61.5	411	43.9	1670 J	340.0 J
PCB-111	pg/g	0.921 U, C	--	--	1.14 U, C	--	--	1.54 J, C	9.03 C	1.27 J, C	18.4 J, C	7.68 J, C
PCB-112	pg/g	-- J, C083	--	--	-- U, C083	--	--	-- J, C083	-- C083	-- J, C083	-- J, C083	-- J, C083
PCB-113	pg/g	1.03 U	--	--	1.28 U	--	--	0.873 U	1.20 U	0.773 U	1.13 U	1.32 U
PCB-114 (Dioxin-Like)	pg/g	1.93 U	--	--	0.560 U	--	--	1.73 J	11.5	2.19 J	48.3 J	8.93 J
PCB-115	pg/g	-- U, C111	--	--	-- U, C111	--	--	-- J, C111	-- C111	-- J, C111	-- J, C111	-- J, C111
PCB-116	pg/g	-- C085	--	--	-- U, C085	--	--	-- C085	-- C085	-- C085	-- J, C085	-- J, C085
PCB-117	pg/g	-- C087	--	--	-- C087	--	--	-- C087	-- C087	-- C087	-- J, C087	-- J, C087
PCB-118 (Dioxin-Like)	pg/g	-- C106	--	--	-- C106	--	--	-- C106	-- C106	-- C106	-- J, C106	-- J, C106
PCB-119	pg/g	1.52 J	--	--	1.15 U	--	--	2.00 U	7.18	0.679 U	16.7 J	5.11 J
PCB-120	pg/g	0.892 U	--	--	1.11 U	--	--	0.737 U	0.987 U	0.656 U	7.09	1.14 U
PCB-121	pg/g	1.29 U	--	--	1.28 U	--	--	0.841 U	0.427 U	0.844 U	1.19 U	1.15 U
PCB-122	pg/g	1.80 U	--	--	0.609 U	--	--	1.29 J	6.32	0.839 U	27.2 J	4.13 J
PCB-123 (Dioxin-Like)	pg/g	1.69 U	--	--	0.585 U	--	--	1.50 J	6.39	0.765 U	26.6 J	5.11 J
PCB-124	pg/g	1.82 U	--	--	0.613 U	--	--	3.86 J	19.6	2.47 J	99.7 J	14.7 J
PCB-125	pg/g	-- C087	--	--	-- C087	--	--	-- C087	-- C087	-- C087	-- J, C087	-- J, C087
PCB-126 (Dioxin-Like)	pg/g	1.90 U	--	--	0.593 U	--	--	0.856 U	2.48 J	1.01 U	11.5 J	2.16 J
PCB-127	pg/g	1.81 U	--	--	0.611 U	--	--	0.732 U	0.995 U	0.928 U	1.58 U	0.727 U
PCB-128	pg/g	22.6 C	--	--	4.20 C	--	--	17.5 C	84.5 C	9.10 C	707 J, C	81.2 J, C
PCB-129	pg/g	5.81	--	--	1.91 U	--	--	5.61	32.9	3.46 J	214 J	24.2 J
PCB-130	pg/g	15.2	--	--	1.82 U	--	--	8.21	30.4	2.93 J	337 J	27.3 J
PCB-131	pg/g	6.40 C	--	--	1.65 U, C	--	--	3.12 J, C	13.9 C	1.27 U, C	127 J, C	12.1 J, C
PCB-132	pg/g	88.3 C	--	--	7.76 C	--	--	28.6 C	140.0 C	13.4 C	1420 J, C	124 J, C
PCB-133	pg/g	-- C131	--	--	-- U, C131	--	--	-- J, C131	-- C131	-- U, C131	-- J, C131	-- J, C131
PCB-134	pg/g	11.7 C	--	--	1.66 U, C	--	--	5.95 C	27.6 C	3.01 J, C	255 J, C	20.9 J, C
PCB-135	pg/g	49.9	--	--	7.21	--	--	13.5	61	6.21	694 J	44.6 J
PCB-136	pg/g	55.5	--	--	4.61	--	--	16.1	54.8	6.14	650.0 J	54.0 J
PCB-137	pg/g	1.71 U	--	--	1.67 U	--	--	4.27	34.1	3.66 J	110.0 J	28.0 J
PCB-138	pg/g	292 C	--	--	26.0 C	--	--	95.4 C	441 C	47.0 C	5980 J, C	424 J, C
PCB-139	pg/g	363 C	--	--	29.2 C	--	--	86.6 C	360.0 C	42.8 C	4560 J, C	341 J, C
PCB-140	pg/g	1.58 U	--	--	1.55 U	--	--	1.02 U	3.06 J	1.23 U	8.83	2.00 J
PCB-141	pg/g	81.9	--	--	9.13	--	--	18.8	88.4	10.7	1540 J	81.0 J
PCB-142	pg/g	1.88 U	--	--	1.83 U	--	--	1.16 U	1.21 U	1.45 U	1.94 U	1.09 U
PCB-143	pg/g	-- C134	--	--	-- U, C134	--	--	-- C134	-- C134	-- J, C134	-- J, C134	-- J, C134
PCB-144	pg/g	19	--	--	3.26 J	--	--	5.69	22.9	3.75 J	351 J	21.1 J
PCB-145	pg/g	0.893 U	--	--	1.64 U	--	--	0.776 U	0.459 U	0.666 U	0.990 U	0.553 U
PCB-146	pg/g	46.0 C	--	--	4.55 C	--	--	14.2 C	55.3 C	7.68 C	826 J, C	52.3 J, C
PCB-147	pg/g	1.64 U	--	--	1.60 U	--	--	2.38 J	10.6	1.18 U	42.6 J	8.28 J
PCB-148	pg/g	1.02 U	--	--	1.87 U	--	--	0.970 U	0.634 U	0.895 U	1.23 U	0.631 U
PCB-149	pg/g	-- C139	--	--	-- C139	--	--	-- C139	-- C139	-- C139	-- J, C139	-- J, C139
PCB-150	pg/g	0.868 U	--	--	1.59 U	--	--	0.739 U	0.480 U	0.637 U	3.01 J	0.537 U
PCB-151	pg/g	121	--	--	10.3	--	--	24.4	95.1	13.5	1310 J	75.7 J

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21	
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04
Sample Date		10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	0.843 U	--	--	1.54 U	--	--	0.745 U	1.24 J	0.655 U	0.957 U	0.522 U
PCB-153	pg/g	343	--	--	28.4	--	--	96.7	402	56.4	6020 J	377 J
PCB-154	pg/g	2.86 J	--	--	1.75 U	--	--	0.830 U	3.82 J	0.740 U	16.3 J	3.94 J
PCB-155	pg/g	0.807 U	--	--	1.48 U	--	--	0.667 U	0.453 U	0.583 U	0.815 U	0.499 U
PCB-156 (Dioxin-Like)	pg/g	14.3	--	--	3.77 J	--	--	10.2	61.1	5.91	684 J	52.0 J
PCB-157 (Dioxin-Like)	pg/g	1.35 U	--	--	1.33 U	--	--	2.23 J	13.7	2.16 J	86.9 J	13.3 J
PCB-158	pg/g	27.7 C	--	--	3.78 J, C	--	--	12.0 C	63.1 C	6.22 C	735 J, C	54.7 J, C
PCB-159	pg/g	5.55	--	--	1.18 U	--	--	1.52 J	3.13 J	0.934 U	67.0 J	3.55 J
PCB-160	pg/g	-- C158	--	--	-- J, C158	--	--	-- C158	-- C158	-- C158	-- J, C158	-- J, C158
PCB-161	pg/g	-- C132	--	--	-- C132	--	--	-- C132	-- C132	-- C132	-- J, C132	-- J, C132
PCB-162	pg/g	-- C128	--	--	-- C128	--	--	-- C128	-- C128	-- C128	-- J, C128	-- J, C128
PCB-163	pg/g	-- C138	--	--	-- C138	--	--	-- C138	-- C138	-- C138	-- J, C138	-- J, C138
PCB-164	pg/g	-- C138	--	--	-- C138	--	--	-- C138	-- C138	-- C138	-- J, C138	-- J, C138
PCB-165	pg/g	-- C146	--	--	-- C146	--	--	-- C146	-- C146	-- C146	-- J, C146	-- J, C146
PCB-166	pg/g	1.26 U	--	--	1.23 U	--	--	0.793 U	2.77 J	0.998 U	11.8 J	2.30 J
PCB-167 (Dioxin-Like)	pg/g	5.8	--	--	1.23 U	--	--	4.57	22.4	2.99 J	284 J	19.5 J
PCB-168	pg/g	1.29 U	--	--	1.26 U	--	--	0.765 U	0.728 U	0.987 U	1.38 U	0.751 U
PCB-169	pg/g	1.22 U	--	--	1.07 U	--	--	0.739 U	0.811 U	0.990 U	1.18 U	0.656 U
PCB-170	pg/g	91.1	--	--	8.44	--	--	25.2	84.8	15.1	2740 J	103 J
PCB-171	pg/g	33.9	--	--	1.63 U	--	--	9.54	24.6	5.95	703 J	31.3 J
PCB-172	pg/g	19.8	--	--	1.71 U	--	--	5.23	14.4	4.76	457 J	20.4 J
PCB-173	pg/g	0.993 U	--	--	1.89 U	--	--	1.11 U	2.50 J	1.30 U	64.7 J	2.54 J
PCB-174	pg/g	160	--	--	12.9	--	--	26.5	75.8	26.2	2150 J	96.4 J
PCB-175	pg/g	6.5	--	--	1.65 U	--	--	2.32 J	4.28	1.13 U	108 J	4.82 J
PCB-176	pg/g	24.6	--	--	1.23 U	--	--	3.97 J	11.1	4.4	268 J	14.1 J
PCB-177	pg/g	97.7	--	--	10.8	--	--	16.9	47	12.9	1300 J	60.3 J
PCB-178	pg/g	35.6	--	--	4.88	--	--	6.23	15.3	7.22	410.0 J	22.0 J
PCB-179	pg/g	89.3	--	--	8.47	--	--	10.9	33.9	14.4	678 J	43.7 J
PCB-180	pg/g	207	--	--	18.6	--	--	48.2	150	59.1	4830 J	236 J
PCB-181	pg/g	0.971 U	--	--	1.85 U	--	--	0.987 U	0.725 U	1.12 U	1.68 U	0.999 U
PCB-182	pg/g	190.0 C	--	--	16.9 C	--	--	34.5 C	90.6 C	53.7 C	2170 J, C	146 J, C
PCB-183	pg/g	76.3	--	--	9.33	--	--	17.8	49	20.5	1230 J	68.7 J
PCB-184	pg/g	0.621 U	--	--	1.18 U	--	--	0.696 U	0.485 U	0.802 U	1.24 U	0.639 U
PCB-185	pg/g	20.8	--	--	7.77	--	--	3.61 J	9.48	5.15	230.0 J	12.8 J
PCB-186	pg/g	0.684 U	--	--	1.30 U	--	--	0.738 U	0.496 U	0.863 U	1.29 U	0.703 U
PCB-187	pg/g	-- C182	--	--	-- C182	--	--	-- C182	-- C182	-- C182	-- J, C182	-- J, C182
PCB-188	pg/g	0.698 U	--	--	1.34 U	--	--	0.825 U	0.523 U	0.855 U	1.30 U	0.759 U
PCB-189 (Dioxin-Like)	pg/g	0.599 U	--	--	1.13 U	--	--	0.689 U	3.65 J	0.851 U	144 J	4.84 J
PCB-190	pg/g	22.4	--	--	1.35 U	--	--	5.6	17.7	4.24	527 J	21.8 J
PCB-191	pg/g	5.47	--	--	1.28 U	--	--	0.772 U	3.77 J	0.893 U	127 J	4.95 J
PCB-192	pg/g	1.99 J	--	--	1.39 U	--	--	0.806 U	0.562 U	0.955 U	1.40 U	0.750 U
PCB-193	pg/g	17.4	--	--	1.25 U	--	--	3.19 J	9.19	2.82 J	270.0 J	11.6 J

Sample Location ¹		MAF-15			MAF-16	MAF-17	MAF-18	MAF-19	MAF-20		MAF-21	
Sample Identification		MAF-SS-15_0-10	MAF-SC-15_0-2	MAF-SC-DUP-08	MAF-SS-16_0-10	MAF-SS-17_0-10	MAF-SS-18_0-10	MAF-SS-19_0-10	MAF-SS-20-0-10	MAF-SC-20_1-2	MAF-SS-21_0-10	MAF-SS-DUP-04
Sample Date		10/21/2015	10/28/2015	10/28/2015	10/21/2015	10/21/2015	10/21/2015	10/20/2015	10/20/2015	10/29/2015	10/21/2015	10/21/2015
Sample Interval (dbm)		0-10 cm	0 - 2 ft	0 - 2 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	1 - 2 ft	0-10 cm	0-10 cm
Sample Type		Surface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Subsurface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	19	--	--	4.59	--	--	10.1	34.7	38.3	1020 J	97.1 J
PCB-195	pg/g	10	--	--	2.12 J	--	--	4.14	11.5	8.68	458 J	28.0 J
PCB-196	pg/g	42.4 C	--	--	7.33 C	--	--	16.7 C	44.2 C	59.9 C	872 J, C	154 J, C
PCB-197	pg/g	1.38 U	--	--	1.38 U	--	--	1.03 U	1.80 J	0.875 U	36.6 J	4.25 J
PCB-198	pg/g	1.95 U	--	--	1.94 U	--	--	1.58 U	1.28 J	2.33 J	51.6 J	8.35 J
PCB-199	pg/g	40.1	--	--	6.72	--	--	14.3	42.3	65	653 J	143 J
PCB-200	pg/g	10.2	--	--	1.36 U	--	--	2.26 J	4.99	6.52	88.9 J	14.2 J
PCB-201	pg/g	11.2	--	--	1.36 U	--	--	2.96 J	5.19	8.56	95.8 J	18.6 J
PCB-202	pg/g	9.04	--	--	1.41 U	--	--	4.3	8.74	15.1	114 J	31.3 J
PCB-203	pg/g	- C196	--	--	- C196	--	--	- C196	- C196	- C196	- J, C196	- J, C196
PCB-204	pg/g	1.38 U	--	--	1.37 U	--	--	1.05 U	0.521 U	0.883 U	1.43 U	0.998 U
PCB-205	pg/g	0.438 U	--	--	0.290 U	--	--	1.15 U	1.88 J	1.44 J	60.6 J	3.75 J
PCB-206	pg/g	4.54	--	--	1.40 U	--	--	7.15	17.2	66.1	170	119
PCB-207	pg/g	1.29 U	--	--	1.21 U	--	--	1.15 U	2.37 J	7.49	24.5	15.8
PCB-208	pg/g	1.19 U	--	--	1.20 U	--	--	2.37 J	5.42	21.6	36.6	31.1
PCB-209	pg/g	1.44 U	--	--	0.587 U	--	--	3.71 J	8.4	48.9	51	35.4
Total PCBs Congeners	pg/g	3,170 J	--	--	378 J	--	--	1,600 J	7,110 J	1,440 J	69,300 J	7,270 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners

Weyerhaeuser Mill A Former

Everett, Washington

Sample Location ¹	MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32	
Sample Identification	MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10	
Sample Date	10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015	
Sample Interval (dbm)	0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	
Sample Type	Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	--	--	1.12 U	11.6	--	--	1.80 U	--	0.939 U	--	13.4
PCB-002	pg/g	--	--	1.30 U	1.47 U	--	--	1.78 U	--	0.964 U	--	3.59 J
PCB-003	pg/g	--	--	1.54 U	4.32	--	--	1.74 U	--	0.965 U	--	9
PCB-004	pg/g	--	--	1.83 U	7.86	--	--	1.41 U	--	0.645 U	--	10.7
PCB-005	pg/g	--	--	1.25 U	1.25 U	--	--	1.09 U	--	0.519 U	--	5.22
PCB-006	pg/g	--	--	1.33 U	3.52 J	--	--	1.03 U	--	0.451 U	--	7.4
PCB-007	pg/g	--	--	1.21 U	1.28 U	--	--	1.07 U	--	0.483 U	--	2.55 J
PCB-008	pg/g	--	--	1.28 U	14.3	--	--	1.05 U	--	0.481 U	--	26
PCB-009	pg/g	--	--	1.38 U	1.26 U	--	--	1.06 U	--	0.494 U	--	2.36 J
PCB-010	pg/g	--	--	1.23 U	1.40 U	--	--	1.17 U	--	0.536 U	--	1.27 U
PCB-011	pg/g	--	--	1.56 U	6.53	--	--	5.17	--	3.68 J	--	20.8
PCB-012	pg/g	--	--	1.59 U	1.33 U	--	--	1.11 U	--	0.519 U	--	1.21 U
PCB-013	pg/g	--	--	1.38 U	1.55 U	--	--	1.07 U	--	0.495 U	--	2.81 J
PCB-014	pg/g	--	--	1.30 U	1.32 U	--	--	1.06 U	--	0.489 U	--	1.15 U
PCB-015	pg/g	--	--	1.33 U	6.3	--	--	0.985 U	--	0.446 U	--	16.3
PCB-016	pg/g	--	--	1.03 U	7.18	--	--	1.28 U	--	1.04 U	--	11.4
PCB-017	pg/g	--	--	1.08 U	10.1	--	--	1.43 U	--	1.10 U	--	20
PCB-018	pg/g	--	--	1.20 U	23.4	--	--	1.56 U	--	2.18 J	--	48.8
PCB-019	pg/g	--	--	1.12 U	3.08 J	--	--	1.54 U	--	1.18 U	--	4.45
PCB-020	pg/g	--	--	1.16 U, C	13.5 C	--	--	1.71 U, C	--	1.61 U, C	--	49.7 C
PCB-021	pg/g	--	--	-- U, C020	-- C020	--	--	-- U, C020	--	-- U, C020	--	-- C020
PCB-022	pg/g	--	--	1.20 U	10.8	--	--	1.69 U	--	1.63 U	--	32.9
PCB-023	pg/g	--	--	1.12 U	0.970 U	--	--	1.79 U	--	1.81 U	--	1.30 U
PCB-024	pg/g	--	--	0.827 U	1.43 U	--	--	1.07 U	--	0.762 U	--	1.55 U
PCB-025	pg/g	--	--	1.03 U	2.33 J	--	--	1.53 U	--	1.49 U	--	9.09

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32
Sample Identification		MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10
Sample Date		10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal
PCB-026	pg/g	--	--	1.29 U	4.29	--	--	1.71 U	--	1.66 U	--	18.2
PCB-027	pg/g	--	--	0.794 U	2.12 J	--	--	1.07 U	--	0.874 U	--	4.55
PCB-028	pg/g	--	--	1.01 U	25.8	--	--	1.49 U	--	3.31 J	--	89
PCB-029	pg/g	--	--	1.19 U	1.04 U	--	--	1.75 U	--	1.63 U	--	1.27 U
PCB-030	pg/g	--	--	0.817 U	1.35 U	--	--	1.02 U	--	0.789 U	--	1.47 U
PCB-031	pg/g	--	--	1.24 U	26.4	--	--	1.71 U	--	2.75 J	--	85.3
PCB-032	pg/g	--	--	0.854 U	7.34	--	--	1.19 U	--	0.857 U	--	18.4
PCB-033	pg/g	--	--	-- U, C020	-- C020	--	--	-- U, C020	--	-- U, C020	--	-- C020
PCB-034	pg/g	--	--	1.48 U	1.26 U	--	--	1.80 U	--	1.55 U	--	1.30 U
PCB-035	pg/g	--	--	1.36 U	1.10 U	--	--	1.79 U	--	1.74 U	--	1.29 U
PCB-036	pg/g	--	--	1.31 U	1.05 U	--	--	1.71 U	--	1.66 U	--	1.24 U
PCB-037	pg/g	--	--	1.15 U	6.06	--	--	1.61 U	--	1.53 U	--	28.5
PCB-038	pg/g	--	--	1.21 U	1.00 U	--	--	1.66 U	--	1.58 U	--	1.21 U
PCB-039	pg/g	--	--	1.31 U	1.02 U	--	--	1.74 U	--	1.71 U	--	1.26 U
PCB-040	pg/g	--	--	0.867 U	6.37	--	--	1.77 U	--	1.10 U	--	10.6
PCB-041	pg/g	--	--	1.27 J, C	27.7 C	--	--	1.08 U, C	--	3.30 J, C	--	48.7 C
PCB-042	pg/g	--	--	1.78 J, C	10.5 C	--	--	1.14 U, C	--	2.06 J, C	--	15.6 C
PCB-043	pg/g	--	--	0.644 U, C	35.1 C	--	--	1.38 U, C	--	3.64 J, C	--	59.8 C
PCB-044	pg/g	--	--	1.80 J	39.6	--	--	1.51 U	--	3.99	--	57.7
PCB-045	pg/g	--	--	0.711 U	5.18	--	--	1.48 U	--	0.916 U	--	9.16
PCB-046	pg/g	--	--	0.762 U	2.49 J	--	--	1.60 U	--	0.984 U	--	3.46 J
PCB-047	pg/g	--	--	0.498 U	11	--	--	1.10 U	--	2.14 J	--	17.3
PCB-048	pg/g	--	--	0.518 U, C	7.08 C	--	--	1.15 U, C	--	0.680 U, C	--	11.0 C
PCB-049	pg/g	--	--	-- U, C043	-- C043	--	--	-- U, C043	--	-- J, C043	--	-- C043
PCB-050	pg/g	--	--	0.633 U	1.12 U	--	--	1.33 U	--	0.803 U	--	1.09 U
PCB-051	pg/g	--	--	0.622 U	2.06 J	--	--	1.33 U	--	0.819 U	--	3.45 J
PCB-052	pg/g	--	--	1.58 J, C	56.1 C	--	--	3.33 J, C	--	4.78 C	--	101 C
PCB-053	pg/g	--	--	0.643 U	5.45	--	--	1.42 U	--	0.856 U	--	10.2
PCB-054	pg/g	--	--	0.468 U	0.888 U	--	--	1.08 U	--	0.633 U	--	0.881 U
PCB-055	pg/g	--	--	0.489 U	0.674 U	--	--	1.03 U	--	0.611 U	--	0.838 U
PCB-056	pg/g	--	--	0.657 U, C	30.0 C	--	--	1.13 U, C	--	2.97 J, C	--	55.2 C
PCB-057	pg/g	--	--	0.501 U	0.720 U	--	--	1.01 U	--	0.605 U	--	0.822 U
PCB-058	pg/g	--	--	0.532 U	0.699 U	--	--	1.03 U	--	0.658 U	--	0.842 U
PCB-059	pg/g	--	--	-- J, C042	-- C042	--	--	-- U, C042	--	-- J, C042	--	-- C042
PCB-060	pg/g	--	--	-- U, C056	-- C056	--	--	-- U, C056	--	-- J, C056	--	-- C056
PCB-061	pg/g	--	--	1.73 J, C	43.4 C	--	--	2.88 J, C	--	5.41 C	--	130.0 C
PCB-062	pg/g	--	--	0.517 U	0.845 U	--	--	1.10 U	--	0.722 U	--	0.902 U
PCB-063	pg/g	--	--	0.503 U	1.82 J	--	--	1.00 U	--	0.612 U	--	4.73
PCB-064	pg/g	--	--	-- J, C041	-- C041	--	--	-- U, C041	--	-- J, C041	--	-- C041
PCB-065	pg/g	--	--	0.494 U	0.832 U	--	--	1.09 U	--	0.630 U	--	0.890 U
PCB-066	pg/g	--	--	3.18 J, C	32.9 C	--	--	2.14 J, C	--	4.57 C	--	88.0 C
PCB-067	pg/g	--	--	0.502 U	0.734 U	--	--	1.00 U	--	0.596 U	--	3.47 J

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32
Sample Identification		MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10
Sample Date		10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal
PCB-068	pg/g	--	--	0.493 U	0.701 U	--	--	0.990 U	--	0.594 U	--	0.808 U
PCB-069	pg/g	--	--	- J, C052	- C052	--	--	- J, C052	--	- C052	--	- C052
PCB-070	pg/g	--	--	- J, C061	- C061	--	--	- J, C061	--	- C061	--	- C061
PCB-071	pg/g	--	--	- J, C041	- C041	--	--	- U, C041	--	- J, C041	--	- C041
PCB-072	pg/g	--	--	- J, C041	- C041	--	--	- U, C041	--	- J, C041	--	- C041
PCB-073	pg/g	--	--	0.474 U	0.802 U	--	--	1.05 U	--	0.733 U	--	0.860 U
PCB-074	pg/g	--	--	0.483 U	17.7	--	--	0.968 U	--	1.97 J	--	51
PCB-075	pg/g	--	--	- U, C048	- C048	--	--	- U, C048	--	- U, C048	--	- C048
PCB-076	pg/g	--	--	- J, C066	- C066	--	--	- J, C066	--	- C066	--	- C066
PCB-077 (Dioxin-Like)	pg/g	--	--	0.686 U	3.90 J	--	--	1.16 U	--	0.676 U	26.1	10.2
PCB-078	pg/g	--	--	0.673 U	0.897 U	--	--	1.10 U	--	0.665 U	--	0.829 U
PCB-079	pg/g	--	--	0.653 U	1.65 J	--	--	1.08 U	--	0.662 U	--	2.15 J
PCB-080	pg/g	--	--	0.444 U	0.564 U	--	--	0.887 U	--	0.525 U	--	0.725 U
PCB-081 (Dioxin-Like)	pg/g	--	--	0.599 U	2.59 J	--	--	1.01 U	--	0.621 U	6.25	3.34 J
PCB-082	pg/g	--	--	1.17 U	9.32	--	--	1.78 U	--	2.16 J	--	17
PCB-083	pg/g	--	--	0.818 U, C	3.39 J, C	--	--	1.36 U, C	--	1.20 U, C	--	7.12 C
PCB-084	pg/g	--	--	0.928 U, C	31.3 C	--	--	4.94 C	--	5.69 C	--	55.5 C
PCB-085	pg/g	--	--	0.820 U, C	11.4 C	--	--	1.27 U, C	--	2.53 J, C	--	23.3 C
PCB-086	pg/g	--	--	1.00 U	1.24 U	--	--	1.40 U	--	1.30 U	--	1.75 U
PCB-087	pg/g	--	--	0.734 U, C	29.0 C	--	--	4.60 C	--	5.18 C	--	56.4 C
PCB-088	pg/g	--	--	1.87 U, C	15.4 C	--	--	1.26 U, C	--	2.47 J, C	--	30.5 C
PCB-089	pg/g	--	--	0.979 U	1.49 U	--	--	1.54 U	--	1.44 U	--	1.93 U
PCB-090	pg/g	--	--	2.55 J, C	85.8 C	--	--	11.3 C	--	18.2 C	--	170.0 C
PCB-091	pg/g	--	--	- U, C088	- C088	--	--	- U, C088	--	- J, C088	--	- C088
PCB-092	pg/g	--	--	- U, C084	- C084	--	--	- C084	--	- C084	--	- C084
PCB-093	pg/g	--	--	1.99 U	1.67 U	--	--	1.61 U	--	2.02 U	--	1.99 U
PCB-094	pg/g	--	--	1.94 U	1.70 U	--	--	1.46 U	--	1.98 U	--	1.80 U
PCB-095	pg/g	--	--	1.86 U	89.9	--	--	13.6	--	20.1	--	230
PCB-096	pg/g	--	--	1.24 U	1.29 U	--	--	0.988 U	--	1.35 U	--	1.22 U
PCB-097	pg/g	--	--	0.783 U	20.1	--	--	2.74 J	--	4.04	--	41.1
PCB-098	pg/g	--	--	1.54 U, C	1.37 U, C	--	--	1.06 U, C	--	1.52 U, C	--	1.31 U, C
PCB-099	pg/g	--	--	0.755 U	34.2	--	--	5.58	--	6.3	--	75.9
PCB-100	pg/g	--	--	1.57 U	1.44 U	--	--	1.24 U	--	1.70 U	--	1.53 U
PCB-101	pg/g	--	--	- J, C090	- C090	--	--	- C090	--	- C090	--	- C090
PCB-102	pg/g	--	--	- U, C098	- U, C098	--	--	- U, C098	--	- U, C098	--	- U, C098
PCB-103	pg/g	--	--	1.53 U	1.44 U	--	--	1.17 U	--	1.57 U	--	1.45 U
PCB-104	pg/g	--	--	1.11 U	1.22 U	--	--	0.928 U	--	1.29 U	--	1.15 U
PCB-105 (Dioxin-Like)	pg/g	--	--	0.857 U	39.8	--	--	2.72 J	--	4.96	121	61.8
PCB-106	pg/g	--	--	2.10 J, C	90.4 C	--	--	6.54 C	--	11.8 C	--	163 C
PCB-107	pg/g	--	--	0.809 U, C	6.69 C	--	--	0.917 U, C	--	1.25 U, C	--	10.8 C
PCB-108	pg/g	--	--	- U, C107	- C107	--	--	- U, C107	--	- U, C107	--	- C107
PCB-109	pg/g	--	--	0.697 U	0.993 U	--	--	1.17 U	--	1.06 U	--	1.46 U

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32
Sample Identification		MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10
Sample Date		10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal
PCB-110	pg/g	--	--	2.58 J	70.9	--	--	10.1	--	16.4	--	156
PCB-111	pg/g	--	--	0.570 U, C	1.65 J, C	--	--	1.01 U, C	--	0.924 U, C	--	2.87 J, C
PCB-112	pg/g	--	--	-- U, C083	-- J, C083	--	--	-- U, C083	--	-- U, C083	--	-- C083
PCB-113	pg/g	--	--	0.762 U	1.04 U	--	--	1.10 U	--	1.04 U	--	1.37 U
PCB-114 (Dioxin-Like)	pg/g	--	--	0.839 U	3.38 J	--	--	0.850 U	--	1.13 U	8.96	4.51
PCB-115	pg/g	--	--	-- U, C111	-- J, C111	--	--	-- U, C111	--	-- U, C111	--	-- J, C111
PCB-116	pg/g	--	--	-- U, C085	-- C085	--	--	-- U, C085	--	-- J, C085	--	-- C085
PCB-117	pg/g	--	--	-- U, C087	-- C087	--	--	-- C087	--	-- C087	--	-- C087
PCB-118 (Dioxin-Like)	pg/g	--	--	-- J, C106	-- C106	--	--	-- C106	--	-- C106	284 C	-- C106
PCB-119	pg/g	--	--	0.664 U	0.925 U	--	--	1.02 U	--	0.934 U	--	3.56 J
PCB-120	pg/g	--	--	0.632 U	0.874 U	--	--	0.970 U	--	0.896 U	--	1.21 U
PCB-121	pg/g	--	--	1.32 U	1.13 U	--	--	1.06 U	--	1.41 U	--	1.31 U
PCB-122	pg/g	--	--	0.809 U	1.56 J	--	--	0.950 U	--	1.22 U	--	2.35 J
PCB-123 (Dioxin-Like)	pg/g	--	--	0.726 U	1.47 J	--	--	0.841 U	--	1.10 U	4.78	2.63 J
PCB-124	pg/g	--	--	0.881 U	4.92	--	--	0.838 U	--	1.23 U	--	5.71
PCB-125	pg/g	--	--	-- U, C087	-- C087	--	--	-- C087	--	-- C087	--	-- C087
PCB-126 (Dioxin-Like)	pg/g	--	--	0.979 U	1.07 U	--	--	1.03 U	--	1.23 U	1.69 J	1.33 U
PCB-127	pg/g	--	--	0.898 U	0.883 U	--	--	0.937 U	--	1.23 U	--	1.22 U
PCB-128	pg/g	--	--	0.611 U, C	19.9 C	--	--	2.84 J, C	--	4.98 C	--	28.8 C
PCB-129	pg/g	--	--	0.833 U	5.7	--	--	1.68 U	--	1.73 U	--	8.7
PCB-130	pg/g	--	--	0.851 U	8.88	--	--	1.60 U	--	1.65 U	--	11.3
PCB-131	pg/g	--	--	0.667 U, C	3.57 J, C	--	--	1.43 U, C	--	1.49 U, C	--	4.79 C
PCB-132	pg/g	--	--	0.588 U, C	38.8 C	--	--	4.74 C	--	8.64 C	--	43.4 C
PCB-133	pg/g	--	--	-- U, C131	-- J, C131	--	--	-- U, C131	--	-- U, C131	--	-- C131
PCB-134	pg/g	--	--	0.673 U, C	7.25 C	--	--	1.49 U, C	--	1.90 J, C	--	8.98 C
PCB-135	pg/g	--	--	0.662 U	15.2	--	--	2.68	--	4.66	--	18.5
PCB-136	pg/g	--	--	0.745 U	19.3	--	--	3.50 J	--	5.97	--	21.5
PCB-137	pg/g	--	--	0.665 U	5.41	--	--	1.43 U	--	1.51 U	--	8.43
PCB-138	pg/g	--	--	2.16 J, C	129 C	--	--	17.5 C	--	26.1 C	--	166 C
PCB-139	pg/g	--	--	1.94 J, C	114 C	--	--	17.2 J, C	--	30.5 C	--	136 C
PCB-140	pg/g	--	--	0.669 U	0.861 U	--	--	1.38 U	--	1.40 U	--	1.21 U
PCB-141	pg/g	--	--	0.692 U	28.6	--	--	4.05	--	6.42	--	30.6
PCB-142	pg/g	--	--	0.786 U	0.976 U	--	--	1.60 U	--	1.66 U	--	1.40 U
PCB-143	pg/g	--	--	-- U, C134	-- C134	--	--	-- U, C134	--	-- J, C134	--	-- C134
PCB-144	pg/g	--	--	0.668 U	8.82	--	--	1.41 U	--	2.22 J	--	8.01
PCB-145	pg/g	--	--	0.714 U	0.691 U	--	--	1.33 U	--	0.996 U	--	1.57 U
PCB-146	pg/g	--	--	0.556 U, C	18.2 C	--	--	3.08 J, C	--	5.01 C	--	24.3 C
PCB-147	pg/g	--	--	0.669 U	2.44 J	--	--	1.38 U	--	1.45 U	--	3.15 J
PCB-148	pg/g	--	--	0.870 U	0.863 U	--	--	1.64 U	--	1.14 U	--	1.94 U
PCB-149	pg/g	--	--	-- J, C139	-- C139	--	--	-- C139	--	-- C139	--	-- C139
PCB-150	pg/g	--	--	0.651 U	0.657 U	--	--	1.26 U	--	0.968 U	--	1.49 U
PCB-151	pg/g	--	--	0.721 U	32.5	--	--	6.21	--	10.4	--	36.3

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32
Sample Identification		MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10
Sample Date		10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal
PCB-152	pg/g	--	--	0.671 U	0.663 U	--	--	1.28 U	--	0.940 U	--	1.51 U
PCB-153	pg/g	--	--	2.65 J	135	--	--	18.6	--	30.3	--	176
PCB-154	pg/g	--	--	0.802 U	1.46 J	--	--	1.43 U	--	1.06 U	--	3.13 J
PCB-155	pg/g	--	--	0.574 U	0.593 U	--	--	1.09 U	--	0.900 U	--	1.29 U
PCB-156 (Dioxin-Like)	pg/g	--	--	0.485 U	13.5	--	--	1.06 U	--	2.46 J	36.5	16.8
PCB-157 (Dioxin-Like)	pg/g	--	--	0.539 U	2.65 J	--	--	1.24 U	--	1.21 U	8.09	4.58
PCB-158	pg/g	--	--	0.505 U, C	17.1 C	--	--	2.01 J, C	--	3.73 J, C	--	21.1 C
PCB-159	pg/g	--	--	0.486 U	2.00 J	--	--	1.04 U	--	1.07 U	--	2.80 J
PCB-160	pg/g	--	--	-- U, C158	-- C158	--	--	-- J, C158	--	-- J, C158	--	-- C158
PCB-161	pg/g	--	--	-- U, C132	-- C132	--	--	-- C132	--	-- C132	--	-- C132
PCB-162	pg/g	--	--	-- U, C128	-- C128	--	--	-- J, C128	--	-- C128	--	-- C128
PCB-163	pg/g	--	--	-- J, C138	-- C138	--	--	-- C138	--	-- C138	--	-- C138
PCB-164	pg/g	--	--	-- J, C138	-- C138	--	--	-- C138	--	-- C138	--	-- C138
PCB-165	pg/g	--	--	-- U, C146	-- C146	--	--	-- J, C146	--	-- C146	--	-- C146
PCB-166	pg/g	--	--	0.530 U	0.667 U	--	--	1.10 U	--	1.11 U	--	0.961 U
PCB-167 (Dioxin-Like)	pg/g	--	--	0.542 U	4.92	--	--	1.22 U	--	1.13 U	14.3	7.56
PCB-168	pg/g	--	--	0.520 U	0.644 U	--	--	1.14 U	--	1.14 U	--	0.999 U
PCB-169	pg/g	--	--	0.548 U	0.698 U	--	--	0.967 U	--	0.952 U	0.566 U	0.929 U
PCB-170	pg/g	--	--	1.25 U	37	--	--	5.16	--	11.2	--	39.5
PCB-171	pg/g	--	--	1.09 U	11.3	--	--	2.08 J	--	3.34 J	--	12.6
PCB-172	pg/g	--	--	1.62 J	6.16	--	--	1.04 U	--	3.22 J	--	8.04
PCB-173	pg/g	--	--	1.23 U	0.925 U	--	--	1.12 U	--	1.74 U	--	1.52 U
PCB-174	pg/g	--	--	1.10 U	39.6	--	--	6.9	--	12.4	--	43.3
PCB-175	pg/g	--	--	1.06 U	1.75 J	--	--	0.942 U	--	1.52 U	--	3.05 J
PCB-176	pg/g	--	--	0.791 U	6.04	--	--	0.711 U	--	2.34 J	--	6.58
PCB-177	pg/g	--	--	1.20 U	23.5	--	--	4.7	--	8.31	--	26.1
PCB-178	pg/g	--	--	1.12 U	8.93	--	--	2.28 J	--	3.94 J	--	11.5
PCB-179	pg/g	--	--	0.751 U	18	--	--	4.06	--	6.58	--	18.4
PCB-180	pg/g	--	--	1.84 J	72.8	--	--	11.9	--	24.3	--	87
PCB-181	pg/g	--	--	1.06 U	0.826 U	--	--	0.992 U	--	1.70 U	--	1.35 U
PCB-182	pg/g	--	--	0.982 U, C	48.2 C	--	--	11.1 C	--	18.9 C	--	62.6 C
PCB-183	pg/g	--	--	2.00 J	24.5	--	--	4.91	--	8.69	--	28.7
PCB-184	pg/g	--	--	0.726 U	0.582 U	--	--	0.730 U	--	1.09 U	--	0.996 U
PCB-185	pg/g	--	--	1.08 U	5.45	--	--	1.02 U	--	2.60 J	--	6.2
PCB-186	pg/g	--	--	0.783 U	0.617 U	--	--	0.762 U	--	1.20 U	--	1.04 U
PCB-187	pg/g	--	--	-- U, C182	-- C182	--	--	-- C182	--	-- C182	--	-- C182
PCB-188	pg/g	--	--	0.776 U	0.652 U	--	--	0.771 U	--	1.24 U	--	1.09 U
PCB-189 (Dioxin-Like)	pg/g	--	--	0.764 U	1.48 J	--	--	0.731 U	--	1.04 U	4	0.950 U
PCB-190	pg/g	--	--	0.866 U	7.49	--	--	0.787 U	--	2.92 J	--	9.43
PCB-191	pg/g	--	--	0.820 U	2.09 J	--	--	0.743 U	--	1.18 U	--	2.98 J
PCB-192	pg/g	--	--	0.863 U	0.674 U	--	--	0.825 U	--	1.28 U	--	1.12 U
PCB-193	pg/g	--	--	0.810 U	4.7	--	--	0.737 U	--	2.07 J	--	5.47

Sample Location ¹		MAF-21			MAF-22	MAF-23	MAF-24	MAF-25	MAF-26	MAF-27	MAF-31	MAF-32
Sample Identification		MAF-SC-21_0-1	MAF-SC-DUP-09	MAF-SC-21_2-4	MAF-SS-22_0-10	MAF-SS-23_0-10	MAF-SS-24_0-10	MAF-SS-25_0-10	MAF-SS-26_0-10	MAF-SS-27_0-10	MAF-SS-31_0-10	MAF-SS-32_0-10
Sample Date		10/29/2015	10/29/2015	10/29/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/21/2015	10/19/2015	10/19/2015
Sample Interval (dbm)		0 - 1 ft	0 - 1 ft	2 - 4 ft	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Subsurface	Subsurface	Subsurface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Subtidal	Subtidal
PCB-194	pg/g	--	--	0.860 U	14.2	--	--	3.84 J	--	7.68	--	22.3
PCB-195	pg/g	--	--	0.894 U	4.94	--	--	1.24 U	--	2.67 J	--	7.57
PCB-196	pg/g	--	--	1.31 U, C	22.7 C	--	--	6.07 C	--	11.0 C	--	27.4 C
PCB-197	pg/g	--	--	1.01 U	0.750 U	--	--	1.31 U	--	1.36 U	--	1.42 U
PCB-198	pg/g	--	--	1.52 U	1.15 U	--	--	1.78 U	--	1.92 U	--	1.93 U
PCB-199	pg/g	--	--	1.46 U	24	--	--	5.03	--	10.8	--	25.5
PCB-200	pg/g	--	--	1.04 U	2.91 J	--	--	1.27 U	--	1.35 U	--	3.68 J
PCB-201	pg/g	--	--	1.03 U	3.65 J	--	--	1.30 U	--	1.35 U	--	4.08
PCB-202	pg/g	--	--	1.02 U	5.82	--	--	1.38 U	--	3.89 J	--	9.61
PCB-203	pg/g	--	--	-- U, C196	-- C196	--	--	-- C196	--	-- C196	--	-- C196
PCB-204	pg/g	--	--	1.04 U	0.767 U	--	--	1.28 U	--	1.36 U	--	1.39 U
PCB-205	pg/g	--	--	0.619 U	0.962 U	--	--	0.907 U	--	0.800 U	--	1.06 U
PCB-206	pg/g	--	--	2.15 J	9.35	--	--	1.26 U	--	5.11	--	13.3
PCB-207	pg/g	--	--	0.470 U	1.62 J	--	--	0.966 U	--	1.08 U	--	2.77 J
PCB-208	pg/g	--	--	0.402 U	2.85 J	--	--	0.945 U	--	1.07 U	--	4.1
PCB-209	pg/g	--	--	2.06 J	4.48	--	--	1.17 U	--	1.74 U	--	7.81
Total PCBs Congeners	pg/g	--	--	35 J	2,140 J	--	--	226 J	--	442 J	--	3,650 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners

Weyerhaeuser Mill A Former

Everett, Washington

Sample Location ¹	MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41
Sample Identification	MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10
Sample Date	10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
Polychlorinated Biphenyl (PCB) Aroclors											
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners											
PCB-001	pg/g	--	11.9	37.3	94.5	6.33	--	--	--	--	--
PCB-002	pg/g	--	3.82 J	13.9	28.8	2.36 J	--	--	--	--	--
PCB-003	pg/g	--	9.77	23.3	91.5	5.89	--	--	--	--	--
PCB-004	pg/g	--	9.23	101	77.1	9.27	--	--	--	--	--
PCB-005	pg/g	--	1.36 U	12.4	14.1	1.24 U	--	--	--	--	--
PCB-006	pg/g	--	8.34	55.5	57.2	9.61	--	--	--	--	--
PCB-007	pg/g	--	3.50 J	9.32	23	1.22 U	--	--	--	--	--
PCB-008	pg/g	--	33.7	296	255	22.1	--	--	--	--	--
PCB-009	pg/g	--	3.99	21.9	17.4	1.20 U	--	--	--	--	--
PCB-010	pg/g	--	1.41 U	4.86	14.1	1.33 U	--	--	--	--	--
PCB-011	pg/g	--	10.8	18.4	46.6	13.9	--	--	--	--	--
PCB-012	pg/g	--	2.35 J	5.6	15.5	1.27 U	--	--	--	--	--
PCB-013	pg/g	--	3.00 J	9.54	28.5	5.53	--	--	--	--	--
PCB-014	pg/g	--	1.28 U	0.874 U	1.37 U	1.21 U	--	--	--	--	--
PCB-015	pg/g	--	19.4	87.7	271	16	--	--	--	--	--
PCB-016	pg/g	--	14.8	366	212	10.3	--	--	--	--	--
PCB-017	pg/g	--	21.4	557	290	20.1	--	--	--	--	--
PCB-018	pg/g	--	49.3	1670	580	39.9	--	--	--	--	--
PCB-019	pg/g	--	4.94	58.9	50.6	4.3	--	--	--	--	--
PCB-020	pg/g	--	54.3 C	1,760 C	685 C	50.7 C	--	--	--	--	--
PCB-021	pg/g	--	-- C020	-- C020	-- C020	-- C020	--	--	--	--	--
PCB-022	pg/g	--	35.4	888	301	32.9	--	--	--	--	--
PCB-023	pg/g	--	1.24 U	3.15 J	2.65 U	1.64 U	--	--	--	--	--
PCB-024	pg/g	--	1.48 U	4.9	20.4	1.52 U	--	--	--	--	--
PCB-025	pg/g	--	8.12	96.4	85.9	20.3	--	--	--	--	--

Sample Location ¹		MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41
Sample Identification		MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10
Sample Date		10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	--	17.8	362	227	56.5	--	--	--	--	--	--
PCB-027	pg/g	--	3.95 J	75.8	39.7	3.48 J	--	--	--	--	--	--
PCB-028	pg/g	--	97.5	2,550	1,460	85.2	--	--	--	--	--	--
PCB-029	pg/g	--	1.12 U	10.7	9.13	1.60 U	--	--	--	--	--	--
PCB-030	pg/g	--	1.53 U	0.952 U	1.23 U	1.45 U	--	--	--	--	--	--
PCB-031	pg/g	--	91.7	3,330	1,590	97	--	--	--	--	--	--
PCB-032	pg/g	--	16	527	284	17.5	--	--	--	--	--	--
PCB-033	pg/g	--	-- C020	-- C020	-- C020	-- C020	--	--	--	--	--	--
PCB-034	pg/g	--	1.06 U	11.1	9.52	1.64 U	--	--	--	--	--	--
PCB-035	pg/g	--	1.19 U	11.9	31.3	1.63 U	--	--	--	--	--	--
PCB-036	pg/g	--	1.14 U	1.59 U	2.87 U	1.56 U	--	--	--	--	--	--
PCB-037	pg/g	--	27	205	75.4	22.6	--	--	--	--	--	--
PCB-038	pg/g	--	1.08 U	11.3	13.9	1.52 U	--	--	--	--	--	--
PCB-039	pg/g	--	1.17 U	1.62 U	2.81 U	1.59 U	--	--	--	--	--	--
PCB-040	pg/g	--	14.1	372	160	13.4	--	--	--	--	--	--
PCB-041	pg/g	--	59.4 C	1,590 C	914 C	61.2 C	--	--	--	--	--	--
PCB-042	pg/g	--	20.5 C	404 C	321 C	21.9 C	--	--	--	--	--	--
PCB-043	pg/g	--	65.2 C	1,960 C	1,270 C	126 C	--	--	--	--	--	--
PCB-044	pg/g	--	65.2	2530	1,450	81	--	--	--	--	--	--
PCB-045	pg/g	--	8.81	407	171	8.65	--	--	--	--	--	--
PCB-046	pg/g	--	3.78 J	151	70.6	4.4	--	--	--	--	--	--
PCB-047	pg/g	--	21.7	357	389	34.2	--	--	--	--	--	--
PCB-048	pg/g	--	11.7 C	378 C	178 C	13.0 C	--	--	--	--	--	--
PCB-049	pg/g	--	-- C043	-- C043	-- C043	-- C043	--	--	--	--	--	--
PCB-050	pg/g	--	0.937 U	6.64	3.50 J	1.91 U	--	--	--	--	--	--
PCB-051	pg/g	--	3.77 J	113	44.8	4.23	--	--	--	--	--	--
PCB-052	pg/g	--	106 C	5,090 C	2,200 C	180.0 C	--	--	--	--	--	--
PCB-053	pg/g	--	9.72	502	187	12.3	--	--	--	--	--	--
PCB-054	pg/g	--	0.739 U	5.69	2.77 J	1.55 U	--	--	--	--	--	--
PCB-055	pg/g	--	2.89 J	66.3	40.4	5.71	--	--	--	--	--	--
PCB-056	pg/g	--	72.8 C	1,360 C	1,630 C	65.2 C	--	--	--	--	--	--
PCB-057	pg/g	--	0.705 U	7.22	6.51	2.80 J	--	--	--	--	--	--
PCB-058	pg/g	--	0.768 U	2.39 J	0.868 U	1.48 U	--	--	--	--	--	--
PCB-059	pg/g	--	-- C042	-- C042	-- C042	-- C042	--	--	--	--	--	--
PCB-060	pg/g	--	-- C056	-- C056	-- C056	-- C056	--	--	--	--	--	--
PCB-061	pg/g	--	157 C	5,490 C	1,930 C	194 C	--	--	--	--	--	--
PCB-062	pg/g	--	0.842 U	1.07 U	1.05 U	1.58 U	--	--	--	--	--	--
PCB-063	pg/g	--	4.61	92.1	68.7	5.27	--	--	--	--	--	--
PCB-064	pg/g	--	-- C041	-- C041	-- C041	-- C041	--	--	--	--	--	--
PCB-065	pg/g	--	0.735 U	1.05 U	1.03 U	1.56 U	--	--	--	--	--	--
PCB-066	pg/g	--	113 C	2,390 C	1,560 C	135 C	--	--	--	--	--	--
PCB-067	pg/g	--	4.39	32	51.9	6.31	--	--	--	--	--	--

Sample Location ¹		MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41
Sample Identification		MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10
Sample Date		10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	--	0.693 U	0.956 U	5.27	2.10 J	--	--	--	--	--	--
PCB-069	pg/g	--	-- C052	-- C052	-- C052	-- C052	--	--	--	--	--	--
PCB-070	pg/g	--	-- C061	-- C061	-- C061	-- C061	--	--	--	--	--	--
PCB-071	pg/g	--	-- C041	-- C041	-- C041	-- C041	--	--	--	--	--	--
PCB-072	pg/g	--	-- C041	-- C041	-- C041	-- C041	--	--	--	--	--	--
PCB-073	pg/g	--	0.855 U	1.02 U	0.995 U	1.51 U	--	--	--	--	--	--
PCB-074	pg/g	--	61.9	1480	935	61.5	--	--	--	--	--	--
PCB-075	pg/g	--	-- C048	-- C048	-- C048	-- C048	--	--	--	--	--	--
PCB-076	pg/g	--	-- C066	-- C066	-- C066	-- C066	--	--	--	--	--	--
PCB-077 (Dioxin-Like)	pg/g	--	11.3	71.6	215	18.3	1.58 J	6.84	--	--	--	--
PCB-078	pg/g	--	0.541 U	30	1.24 U	1.38 U	--	--	--	--	--	--
PCB-079	pg/g	--	1.82 J	99.6	51.2	5.69	--	--	--	--	--	--
PCB-080	pg/g	--	0.612 U	0.857 U	0.700 U	1.27 U	--	--	--	--	--	--
PCB-081 (Dioxin-Like)	pg/g	--	3.47 J	203	94.6	5.41	1.04 J	3.15 J	--	--	--	--
PCB-082	pg/g	--	24.6	1,300	478	30	--	--	--	--	--	--
PCB-083	pg/g	--	7.78 C	450.0 C	169 C	15.6 C	--	--	--	--	--	--
PCB-084	pg/g	--	69.4 C	4,370 C	1,760 C	136 C	--	--	--	--	--	--
PCB-085	pg/g	--	29.3 C	1,540 C	586 C	40.3 C	--	--	--	--	--	--
PCB-086	pg/g	--	1.13 U	28.7	1.69 U	1.44 U	--	--	--	--	--	--
PCB-087	pg/g	--	76.7 C	4,680 C	1710 C	107 C	--	--	--	--	--	--
PCB-088	pg/g	--	32.6 C	2,300 C	605 C	111 C	--	--	--	--	--	--
PCB-089	pg/g	--	2.31 J	70.7	40	2.60 J	--	--	--	--	--	--
PCB-090	pg/g	--	215 C	11,600 C	4,860 C	353 C	--	--	--	--	--	--
PCB-091	pg/g	--	-- C088	-- C088	-- C088	-- C088	--	--	--	--	--	--
PCB-092	pg/g	--	-- C084	-- C084	-- C084	-- C084	--	--	--	--	--	--
PCB-093	pg/g	--	1.94 U	1.55 U	1.59 U	1.77 U	--	--	--	--	--	--
PCB-094	pg/g	--	1.91 U	77.2	22.1	1.61 U	--	--	--	--	--	--
PCB-095	pg/g	--	236	20,000	4,040	523	--	--	--	--	--	--
PCB-096	pg/g	--	1.30 U	77.3	19.8	1.09 U	--	--	--	--	--	--
PCB-097	pg/g	--	54	3,010	1,080	91.1	--	--	--	--	--	--
PCB-098	pg/g	--	1.46 U, C	1.02 U, C	1.30 U, C	1.17 U, C	--	--	--	--	--	--
PCB-099	pg/g	--	83.6	4,340	1,630	193	--	--	--	--	--	--
PCB-100	pg/g	--	1.64 U	34.9	12.3	4.78	--	--	--	--	--	--
PCB-101	pg/g	--	-- C090	-- C090	-- C090	-- C090	--	--	--	--	--	--
PCB-102	pg/g	--	-- U, C098	-- U, C098	-- U, C098	-- U, C098	--	--	--	--	--	--
PCB-103	pg/g	--	2.54 J	73.5	25.3	7.98	--	--	--	--	--	--
PCB-104	pg/g	--	1.24 U	0.893 U	1.16 U	1.02 U	--	--	--	--	--	--
PCB-105 (Dioxin-Like)	pg/g	--	80.9	5,260	1,950	131	15	62.7	--	--	--	--
PCB-106	pg/g	--	206 C	13,000 C	4,440 C	432 C	--	--	--	--	--	--
PCB-107	pg/g	--	13.6 C	775 C	338 C	28.6 C	--	--	--	--	--	--
PCB-108	pg/g	--	-- C107	-- C107	-- C107	-- C107	--	--	--	--	--	--
PCB-109	pg/g	--	0.915 U	1.60 U	1.35 U	1.20 U	--	--	--	--	--	--

Sample Location ¹		MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41
Sample Identification		MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10
Sample Date		10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	--	203	11,700	3,930	391	--	--	--	--	--	--
PCB-111	pg/g	--	4.06 C	186 C	91.0 C	8.70 C	--	--	--	--	--	--
PCB-112	pg/g	--	-- C083	-- C083	-- C083	-- C083	--	--	--	--	--	--
PCB-113	pg/g	--	0.899 U	1.50 U	1.41 U	1.13 U	--	--	--	--	--	--
PCB-114 (Dioxin-Like)	pg/g	--	5.2	344	131	9.99	0.653 U	3.94 J	--	--	--	--
PCB-115	pg/g	--	-- C111	-- C111	-- C111	-- C111	--	--	--	--	--	--
PCB-116	pg/g	--	-- C085	-- C085	-- C085	-- C085	--	--	--	--	--	--
PCB-117	pg/g	--	-- C087	-- C087	-- C087	-- C087	--	--	--	--	--	--
PCB-118 (Dioxin-Like)	pg/g	--	-- C106	-- C106	-- C106	-- C106	35.1 C	153 C	--	--	--	--
PCB-119	pg/g	--	3.18 J	120	52.7	10.4	--	--	--	--	--	--
PCB-120	pg/g	--	0.776 U	12.9	4.47	0.998 U	--	--	--	--	--	--
PCB-121	pg/g	--	1.36 U	1.02 U	1.07 U	1.17 U	--	--	--	--	--	--
PCB-122	pg/g	--	2.57 J	169	46.9	4.84	--	--	--	--	--	--
PCB-123 (Dioxin-Like)	pg/g	--	3.11 J	178	70.7	7.77	0.627 U	2.43 J	--	--	--	--
PCB-124	pg/g	--	8.85	549	209	16.4	--	--	--	--	--	--
PCB-125	pg/g	--	-- C087	-- C087	-- C087	-- C087	--	--	--	--	--	--
PCB-126 (Dioxin-Like)	pg/g	--	0.903 U	55.1	24.7	5.09	0.777 U	1.13 J	--	--	--	--
PCB-127	pg/g	--	0.852 U	1.40 U	1.34 U	1.62 U	--	--	--	--	--	--
PCB-128	pg/g	--	58.4 C	2,870 C	876 C	64.9 C	--	--	--	--	--	--
PCB-129	pg/g	--	18	955	264	18.2	--	--	--	--	--	--
PCB-130	pg/g	--	25.4	1,080	363	23.9	--	--	--	--	--	--
PCB-131	pg/g	--	10.9 C	371 C	142 C	10.3 C	--	--	--	--	--	--
PCB-132	pg/g	--	100.0 C	4,050 C	1,340 C	80.1 C	--	--	--	--	--	--
PCB-133	pg/g	--	-- C131	-- C131	-- C131	-- C131	--	--	--	--	--	--
PCB-134	pg/g	--	17.9 C	767 C	275 C	20.8 C	--	--	--	--	--	--
PCB-135	pg/g	--	48	1,430	696	40.2	--	--	--	--	--	--
PCB-136	pg/g	--	47	1,530	708	46.2	--	--	--	--	--	--
PCB-137	pg/g	--	16	888	236	18.1	--	--	--	--	--	--
PCB-138	pg/g	--	396 C	14,200 C	5,890 C	340.0 C	--	--	--	--	--	--
PCB-139	pg/g	--	310.0 C	9,550 C	5,150 C	286 C	--	--	--	--	--	--
PCB-140	pg/g	--	1.44 J	52	23.2	1.69 U	--	--	--	--	--	--
PCB-141	pg/g	--	88.9	2,780	1,390	57	--	--	--	--	--	--
PCB-142	pg/g	--	1.11 U	5.14	1.87 U	1.95 U	--	--	--	--	--	--
PCB-143	pg/g	--	-- C134	-- C134	-- C134	-- C134	--	--	--	--	--	--
PCB-144	pg/g	--	17.8	629	402	15.3	--	--	--	--	--	--
PCB-145	pg/g	--	0.693 U	6.56	2.46 J	1.56 U	--	--	--	--	--	--
PCB-146	pg/g	--	53.9 C	1,600 C	782 C	48.7 C	--	--	--	--	--	--
PCB-147	pg/g	--	5.05	267	83.8	11.7	--	--	--	--	--	--
PCB-148	pg/g	--	0.791 U	9.08	1.61 U	1.93 U	--	--	--	--	--	--
PCB-149	pg/g	--	-- C139	-- C139	-- C139	-- C139	--	--	--	--	--	--
PCB-150	pg/g	--	0.673 U	11.8	6.06	1.49 U	--	--	--	--	--	--
PCB-151	pg/g	--	79.7	2160	1,460	62.9	--	--	--	--	--	--

Sample Location ¹		MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41
Sample Identification		MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10
Sample Date		10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	--	0.654 U	14	5.17	1.51 U	--	--	--	--	--	--
PCB-153	pg/g	--	383	12,000	6,290	363	--	--	--	--	--	--
PCB-154	pg/g	--	3.38 J	78	32.3	6.54	--	--	--	--	--	--
PCB-155	pg/g	--	0.626 U	1.62 U	1.11 U	1.29 U	--	--	--	--	--	--
PCB-156 (Dioxin-Like)	pg/g	--	43.2	2,150	650	44	4.79	17	--	--	--	--
PCB-157 (Dioxin-Like)	pg/g	--	8.38	463	119	12.2	1.22 J	3.92 J	--	--	--	--
PCB-158	pg/g	--	49.5 C	2,010 C	710.0 C	50.8 C	--	--	--	--	--	--
PCB-159	pg/g	--	4.17	82.8	112	3.58 J	--	--	--	--	--	--
PCB-160	pg/g	--	-- C158	-- C158	-- C158	-- C158	--	--	--	--	--	--
PCB-161	pg/g	--	-- C132	-- C132	-- C132	-- C132	--	--	--	--	--	--
PCB-162	pg/g	--	-- C128	-- C128	-- C128	-- C128	--	--	--	--	--	--
PCB-163	pg/g	--	-- C138	-- C138	-- C138	-- C138	--	--	--	--	--	--
PCB-164	pg/g	--	-- C138	-- C138	-- C138	-- C138	--	--	--	--	--	--
PCB-165	pg/g	--	-- C146	-- C146	-- C146	-- C146	--	--	--	--	--	--
PCB-166	pg/g	--	0.744 U	74.3	20.4	2.49 J	--	--	--	--	--	--
PCB-167 (Dioxin-Like)	pg/g	--	19	712	232	20.6	2.27 J	6.53	--	--	--	--
PCB-168	pg/g	--	0.764 U	14.2	1.24 U	1.39 U	--	--	--	--	--	--
PCB-169	pg/g	--	0.673 U	1.70 U	1.30 U	1.39 U	0.375 U	0.418 U	--	--	--	--
PCB-170	pg/g	--	234	3,030	3,670	63.6	--	--	--	--	--	--
PCB-171	pg/g	--	57	844	1,060	21.3	--	--	--	--	--	--
PCB-172	pg/g	--	39.2	476	681	11.9	--	--	--	--	--	--
PCB-173	pg/g	--	6.28	69.6	69.9	2.14 U	--	--	--	--	--	--
PCB-174	pg/g	--	170	2,670	3970	65.3	--	--	--	--	--	--
PCB-175	pg/g	--	8.72	128	171	4.73	--	--	--	--	--	--
PCB-176	pg/g	--	22.9	321	545	8.68	--	--	--	--	--	--
PCB-177	pg/g	--	112	1,480	2,240	39.2	--	--	--	--	--	--
PCB-178	pg/g	--	38	447	737	16.6	--	--	--	--	--	--
PCB-179	pg/g	--	64.2	862	1,560	29.1	--	--	--	--	--	--
PCB-180	pg/g	--	412	5,570	8,620	141	--	--	--	--	--	--
PCB-181	pg/g	--	1.12 U	1.60 U	1.32 U	1.90 U	--	--	--	--	--	--
PCB-182	pg/g	--	205 C	2,710 C	4,870 C	92.4 C	--	--	--	--	--	--
PCB-183	pg/g	--	110	1,580	2,570	42.3	--	--	--	--	--	--
PCB-184	pg/g	--	0.718 U	2.11 J	1.90 J	1.40 U	--	--	--	--	--	--
PCB-185	pg/g	--	19.7	330	527	10.2	--	--	--	--	--	--
PCB-186	pg/g	--	0.790 U	1.23 U	0.989 U	1.46 U	--	--	--	--	--	--
PCB-187	pg/g	--	-- C182	-- C182	-- C182	-- C182	--	--	--	--	--	--
PCB-188	pg/g	--	0.855 U	2.31 J	3.40 J	1.40 U	--	--	--	--	--	--
PCB-189 (Dioxin-Like)	pg/g	--	12.3	136	122	3.69 J	0.557 U	2.08 J	--	--	--	--
PCB-190	pg/g	--	48.8	660	816	15.5	--	--	--	--	--	--
PCB-191	pg/g	--	11.4	137	156	3.98	--	--	--	--	--	--
PCB-192	pg/g	--	0.842 U	1.33 U	1.08 U	1.58 U	--	--	--	--	--	--
PCB-193	pg/g	--	23.4	288	412	9.16	--	--	--	--	--	--

Sample Location ¹		MAF-33		MAF-34	MAF-35	MAF-36	MAF-37	MAF-38	MAF-39		MAF-40	MAF-41
Sample Identification		MAF-SS-33_0-10	MAF-SS-DUP-06	MAF-SS-34_0-10	MAF-SS-35_0-10	MAF-SS-36_0-10	MAF-SS-37_0-10	MAF-SS-38_0-10	MAF-SS-39_0-10	MAF-DUP-08	MAF-SS-40_0-10	MAF-SS-41_0-10
Sample Date		10/19/2015	10/19/2015	10/20/2015	10/19/2015	10/19/2015	09/13/2016	09/13/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	--	107	1,580	2,540	34	--	--	--	--	--	--
PCB-195	pg/g	--	43.7	635	1,270	14.1	--	--	--	--	--	--
PCB-196	pg/g	--	121 C	1,540 C	3,240 C	40.6 C	--	--	--	--	--	--
PCB-197	pg/g	--	5.78	57.8	126	1.41 U	--	--	--	--	--	--
PCB-198	pg/g	--	5.53	65.6	170	1.91 U	--	--	--	--	--	--
PCB-199	pg/g	--	102	1,130	2,610	35.5	--	--	--	--	--	--
PCB-200	pg/g	--	12.4	156	377	4.21	--	--	--	--	--	--
PCB-201	pg/g	--	12.4	166	422	5.73	--	--	--	--	--	--
PCB-202	pg/g	--	16.7	207	482	10.8	--	--	--	--	--	--
PCB-203	pg/g	--	- C196	- C196	- C196	- C196	--	--	--	--	--	--
PCB-204	pg/g	--	0.849 U	0.902 U	1.44 U	1.37 U	--	--	--	--	--	--
PCB-205	pg/g	--	5.93	97.4	120	2.07 J	--	--	--	--	--	--
PCB-206	pg/g	--	29.9	461	764	14.5	--	--	--	--	--	--
PCB-207	pg/g	--	4.29	61.3	118	2.48 J	--	--	--	--	--	--
PCB-208	pg/g	--	6.97	81.2	162	4.16	--	--	--	--	--	--
PCB-209	pg/g	--	13.5	32.9	187	8.67	--	--	--	--	--	--
Total PCBs Congeners	pg/g	--	6,640 J	216,000 J	123,000 J	6,680 J	--	--	--	--	--	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
 Weyerhaeuser Mill A Former
 Everett, Washington

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
Polychlorinated Biphenyl (PCB) Aroclors											
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners											
PCB-001	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-002	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-003	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-004	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-005	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-006	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-007	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-008	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-009	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-010	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-011	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-012	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-013	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-014	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-015	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-016	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-017	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-018	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-019	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-020	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-021	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-022	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-023	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-024	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-025	pg/g	--	--	--	--	--	--	--	--	--	--

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-027	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-028	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-029	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-030	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-031	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-032	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-033	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-034	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-035	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-036	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-037	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-038	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-039	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-040	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-041	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-042	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-043	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-044	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-045	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-046	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-047	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-048	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-049	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-050	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-051	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-052	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-053	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-054	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-055	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-056	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-057	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-058	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-059	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-060	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-061	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-062	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-063	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-064	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-065	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-066	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-067	pg/g	--	--	--	--	--	--	--	--	--	--

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-069	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-070	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-071	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-072	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-073	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-074	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-075	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-076	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-077 (Dioxin-Like)	pg/g	--	--	--	--	5.87	--	7.69	--	--	--
PCB-078	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-079	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-080	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-081 (Dioxin-Like)	pg/g	--	--	--	--	4.56	--	3.34 J	--	--	--
PCB-082	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-083	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-084	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-085	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-086	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-087	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-088	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-089	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-090	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-091	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-092	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-093	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-094	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-095	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-096	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-097	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-098	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-099	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-100	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-101	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-102	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-103	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-104	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-105 (Dioxin-Like)	pg/g	--	--	--	--	74.8	--	68	--	--	--
PCB-106	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-107	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-108	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-109	pg/g	--	--	--	--	--	--	--	--	--	--

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-111	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-112	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-113	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-114 (Dioxin-Like)	pg/g	--	--	--	--	5.49	--	3.90 J	--	--	--
PCB-115	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-116	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-117	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-118 (Dioxin-Like)	pg/g	--	--	--	--	193 C	--	167 C	--	--	--
PCB-119	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-120	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-121	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-122	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-123 (Dioxin-Like)	pg/g	--	--	--	--	3.00 J	--	2.63 J	--	--	--
PCB-124	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-125	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-126 (Dioxin-Like)	pg/g	--	--	--	--	1.25 J	--	1.07 J	--	--	--
PCB-127	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-128	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-129	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-130	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-131	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-132	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-133	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-134	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-135	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-136	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-137	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-138	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-139	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-140	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-141	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-142	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-143	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-144	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-145	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-146	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-147	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-148	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-149	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-150	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-151	pg/g	--	--	--	--	--	--	--	--	--	--

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-153	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-154	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-155	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-156 (Dioxin-Like)	pg/g	--	--	--	--	37.2	--	19.4	--	--	--
PCB-157 (Dioxin-Like)	pg/g	--	--	--	--	8.43	--	4.2	--	--	--
PCB-158	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-159	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-160	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-161	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-162	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-163	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-164	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-165	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-166	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-167 (Dioxin-Like)	pg/g	--	--	--	--	14.6	--	7.64	--	--	--
PCB-168	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-169	pg/g	--	--	--	--	0.515 U	--	0.372 U	--	--	--
PCB-170	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-171	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-172	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-173	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-174	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-175	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-176	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-177	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-178	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-179	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-180	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-181	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-182	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-183	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-184	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-185	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-186	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-187	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-188	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-189 (Dioxin-Like)	pg/g	--	--	--	--	2.83 J	--	1.82 J	--	--	--
PCB-190	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-191	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-192	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-193	pg/g	--	--	--	--	--	--	--	--	--	--

Sample Location ¹	MAF-42	MAF-43	MAF-44	MAF-45	MAF-46	MAF-47	MAF-48	MAF-49	MAF-50	MAF-51	MAF-52
Sample Identification	MAF-SS-42_0-10	MAF-SS-43_0-10	MAF-SS-44_0-10	MAF-SS-45_0-10	MAF-SS-46_0-10	MAF-SS-47_0-10	MAF-SS-48_0-10	MAF-SS-49_0-10	MAF-SS-50_0-10	MAF-SS-51_0-10	MAF-SS-52_0-10
Sample Date	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016	09/14/2016
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-10 cm
Sample Type	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-195	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-196	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-197	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-198	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-199	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-200	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-201	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-202	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-203	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-204	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-205	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-206	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-207	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-208	pg/g	--	--	--	--	--	--	--	--	--	--
PCB-209	pg/g	--	--	--	--	--	--	--	--	--	--
Total PCBs Congeners	pg/g	--	--	--	--	--	--	--	--	--	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-53	MAF-54	MAF-55	MAF-56				MAF-57			MAF-58	
Sample Identification	MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10	
Sample Date	09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18	
Sample Interval (dbm)	0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm	
Sample Type	Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	
Polychlorinated Biphenyl (PCB) Aroclors												
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--	
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyl (PCB) Congeners												
PCB-001	pg/g	--	--	--	3.82 J	3.62 J	96.9 J	0.407 U	19.4	17.5	1.98 J	27.9
PCB-002	pg/g	--	--	--	1.31 J	3.38 J	20.6 J	0.497 U	2.57 J	4.67	0.463 U	7.39
PCB-003	pg/g	--	--	--	2.67 J	4.54	80.0 J	0.493 U	7.56	15.8	1.88 J	26.2
PCB-004	pg/g	--	--	--	6.75	2.90 J	74.6 J	1.75 U	10.2	20.5	3.12 J	48.2
PCB-005	pg/g	--	--	--	1.06 U	0.441 U	6.03 J	1.50 U	0.958 U	0.962 U	0.461 U	0.839 U
PCB-006	pg/g	--	--	--	6.61	2.77 J	39.5 J	1.46 U	6.48	13.2	2.13 J	55.1
PCB-007	pg/g	--	--	--	1.02 U	1.24 J	17.3 J	1.45 U	1.97 J	3.11 J	0.444 U	13.1
PCB-008	pg/g	--	--	--	15.1	11.7	220.0 J	1.53 U	16.6	57.3	9.21	226
PCB-009	pg/g	--	--	--	1.04 U	0.861 J	15.6 J	1.54 U	2.50 J	5.44	0.474 U	19
PCB-010	pg/g	--	--	--	1.25 U	0.509 U	5.22 J	1.74 U	1.12 U	1.75 J	0.533 U	4.39
PCB-011	pg/g	--	--	--	5.69	4.58	36.0 J	1.65 U	8.85	11.1	3.39 J	16
PCB-012	pg/g	--	--	--	1.05 U	1.19 J	8.54 J	1.54 U	0.944 U	3.66 J	0.471 U	7.31
PCB-013	pg/g	--	--	--	1.13 U	1.74 J	21.5 J	1.56 U	2.36 J	3.59 J	0.479 U	17.3
PCB-014	pg/g	--	--	--	1.10 U	0.462 U	1.32 U	1.57 U	0.990 U	1.01 U	0.483 U	0.867 U
PCB-015	pg/g	--	--	--	8.35	6.45	275 J	1.42 U	10.2	39.5	5.36	129
PCB-016	pg/g	--	--	--	7.62	6.64	153 J	1.32 U	10.5	29.5	4.58	65.6
PCB-017	pg/g	--	--	--	13.6	9.06	176 J	1.52 U	16.5	44.7	5.73	99.5
PCB-018	pg/g	--	--	--	29.4	23.5	401 J	1.62 U	33.9	103	13.9	219
PCB-019	pg/g	--	--	--	3.27 J	1.85 J	43.3 J	1.56 U	5.62	9.36	1.61 J	17.2
PCB-020	pg/g	--	--	--	20.7 C	14.5 C	349 J, C	1.98 J, C	32.8 C	68.8 C	10.3 C	227 C
PCB-021	pg/g	--	--	--	- C020	- C020	- J, C020	- J, C020	- C020	- C020	- C020	- C020
PCB-022	pg/g	--	--	--	11.9	9.37	262 J	1.02 U	21.6	39.4	6.12	128
PCB-023	pg/g	--	--	--	0.745 U	1.02 U	7.45 U	1.11 U	0.966 U	1.27 U	0.679 U	1.04 U
PCB-024	pg/g	--	--	--	0.834 U	0.730 J	10.1 J	1.14 U	0.949 U	4.53	0.879 U	11.9
PCB-025	pg/g	--	--	--	3.38 J	1.93 J	54.0 J	0.891 U	7.19	8.53	1.57 J	34

Sample Location ¹		MAF-53	MAF-54	MAF-55	MAF-56			MAF-57			MAF-58	
Sample Identification		MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10
Sample Date		09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-026	pg/g	--	--	--	7.2	4.69	119 J	1.12 U	15.3	21.6	2.85 J	73.8
PCB-027	pg/g	--	--	--	0.790 U	1.68 J	32.2 J	1.08 U	2.96 J	4.79	0.830 U	11
PCB-028	pg/g	--	--	--	33.9	26.2	716 J	2.90 J	69.9	109	16.4	363
PCB-029	pg/g	--	--	--	0.722 U	0.976 U	7.15 U	1.06 U	0.937 U	1.22 U	0.650 U	4.5
PCB-030	pg/g	--	--	--	0.794 U	0.478 U	3.16 U	1.11 U	0.903 U	0.874 U	0.858 U	0.785 U
PCB-031	pg/g	--	--	--	32.4	24.5	741 J	2.20 J	61.5	121	16.5	402
PCB-032	pg/g	--	--	--	10.5	7.6	142 J	1.26 U	13.6	35.7	4.6	71.7
PCB-033	pg/g	--	--	--	- C020	- C020	- J, C020	- J, C020	- C020	- C020	- C020	- C020
PCB-034	pg/g	--	--	--	0.728 U	0.994 U	7.35 U	1.08 U	0.944 U	1.24 U	0.662 U	1.01 U
PCB-035	pg/g	--	--	--	0.826 U	1.08 U	7.25 U	1.17 U	1.07 U	3.56 J	0.717 U	6.24
PCB-036	pg/g	--	--	--	0.774 U	1.06 U	7.22 U	1.15 U	1.00 U	1.32 U	0.706 U	1.08 U
PCB-037	pg/g	--	--	--	10.5	9.05	231 J	1.01 U	14.5	32.9	4.5	84.8
PCB-038	pg/g	--	--	--	0.732 U	0.981 U	6.72 U	1.07 U	0.950 U	1.22 U	0.654 U	1.02 U
PCB-039	pg/g	--	--	--	0.747 U	1.02 U	7.23 U	1.11 U	0.969 U	1.27 U	0.677 U	1.04 U
PCB-040	pg/g	--	--	--	10.1	5.79	165 J	0.601 U	7.49	32	4.6	37.2
PCB-041	pg/g	--	--	--	47.6 C	27.8 C	754 J, C	2.52 J, C	32.0 C	145 C	18.7 C	173 C
PCB-042	pg/g	--	--	--	14.6 C	9.72 C	253 J, C	0.373 U, C	12.1 C	51.5 C	6.49 C	65.4 C
PCB-043	pg/g	--	--	--	62.0 C	29.6 C	840.0 J, C	2.88 J, C	45.8 C	155 C	20.7 C	223 C
PCB-044	pg/g	--	--	--	90.9	34.3	1120 J	3.94 J	39.4	177	22.1	229
PCB-045	pg/g	--	--	--	8.52	5.07	125 J	0.517 U	10.4	22.7	2.82 J	38.4
PCB-046	pg/g	--	--	--	4.24	1.79 J	56.5 J	0.548 U	4.42	11.5	1.92 J	16.5
PCB-047	pg/g	--	--	--	15.3	9.26	270.0 J	0.344 U	15.3	44.9	6.08	62.4
PCB-048	pg/g	--	--	--	10.5 C	6.10 C	110.0 J, C	0.379 U, C	8.86 C	33.0 C	4.29 C	50.4 C
PCB-049	pg/g	--	--	--	- C043	- C043	- J, C043	- J, C043	- C043	- C043	- C043	- C043
PCB-050	pg/g	--	--	--	1.30 U	0.527 U	3.29 U	0.448 U	2.01 U	1.13 U	0.600 U	2.12 U
PCB-051	pg/g	--	--	--	2.88 J	1.68 J	38.5 J	0.428 U	3.45 J	7.56	0.573 U	11.5
PCB-052	pg/g	--	--	--	150 C	47.4 C	1740 J, C	6.39 C	62.4 C	247 C	29.8 C	326 C
PCB-053	pg/g	--	--	--	9.17	4.27	134 J	0.438 U	11.2	24.6	2.91 J	41.2
PCB-054	pg/g	--	--	--	0.892 U	0.373 U	2.51 U	0.318 U	1.39 U	0.802 U	0.425 U	1.46 U
PCB-055	pg/g	--	--	--	2.13 J	0.386 U	38.4 J	0.329 U	2.24 J	5.06	0.440 U	8.04
PCB-056	pg/g	--	--	--	29.2 C	21.1 C	711 J, C	1.35 J, C	30.3 C	97.0 C	12.7 C	155 C
PCB-057	pg/g	--	--	--	1.01 U	0.423 U	6.81 J	0.360 U	1.58 U	1.47 J	0.481 U	2.15 J
PCB-058	pg/g	--	--	--	1.01 U	0.386 U	2.72 U	0.329 U	1.57 U	0.830 U	0.440 U	0.919 U
PCB-059	pg/g	--	--	--	- C042	- C042	- J, C042	- U, C042	- C042	- C042	- C042	- C042
PCB-060	pg/g	--	--	--	- C056	- C056	- J, C056	- J, C056	- C056	- C056	- C056	- C056
PCB-061	pg/g	--	--	--	119 C	47.6 C	1950 J, C	5.09 C	70.1 C	232 C	33.2 C	365 C
PCB-062	pg/g	--	--	--	1.11 U	0.405 U	2.74 U	0.345 U	1.72 U	0.871 U	0.461 U	1.01 U
PCB-063	pg/g	--	--	--	3.81 J	1.97 J	59.4 J	0.365 U	3.63 J	8.62	1.26 J	14.1
PCB-064	pg/g	--	--	--	- C041	- C041	- J, C041	- J, C041	- C041	- C041	- C041	- C041
PCB-065	pg/g	--	--	--	0.997 U	0.441 U	2.80 U	0.375 U	1.55 U	0.948 U	0.502 U	0.904 U
PCB-066	pg/g	--	--	--	64.0 C	36.6 C	1220 J, C	2.69 J, C	60.8 C	178 C	26.6 C	287 C
PCB-067	pg/g	--	--	--	0.959 U	1.59 J	41.7 J	0.358 U	3.31 J	5.77	1.06 J	11

Sample Location ¹		MAF-53	MAF-54	MAF-55	MAF-56			MAF-57			MAF-58	
Sample Identification		MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10
Sample Date		09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-068	pg/g	--	--	--	0.938 U	0.379 U	9.20 J	0.322 U	1.46 U	1.51 J	0.431 U	0.850 U
PCB-069	pg/g	--	--	--	- C052	- C052	- J, C052	- C052	- C052	- C052	- C052	- C052
PCB-070	pg/g	--	--	--	- C061	- C061	- J, C061	- C061	- C061	- C061	- C061	- C061
PCB-071	pg/g	--	--	--	- C041	- C041	- J, C041	- J, C041	- C041	- C041	- C041	- C041
PCB-072	pg/g	--	--	--	- C041	- C041	- J, C041	- J, C041	- C041	- C041	- C041	- C041
PCB-073	pg/g	--	--	--	1.06 U	0.383 U	2.61 U	0.326 U	1.65 U	0.822 U	0.435 U	0.964 U
PCB-074	pg/g	--	--	--	35.1	19.9	716 J	1.86 J	31.5	95.9	13.7	153
PCB-075	pg/g	--	--	--	- C048	- C048	- J, C048	- U, C048	- C048	- C048	- C048	- C048
PCB-076	pg/g	--	--	--	- C066	- C066	- J, C066	- J, C066	- C066	- C066	- C066	- C066
PCB-077 (Dioxin-Like)	pg/g	--	--	--	3.85 J	3.64 J	118 J	0.452 U	7.7	17.8	2.65 J	28.3
PCB-078	pg/g	--	--	--	1.12 U	0.518 U	9.76 J	0.456 U	0.538 U	0.830 U	0.495 U	0.980 U
PCB-079	pg/g	--	--	--	3.48 J	0.508 U	23.4 J	0.447 U	2.13 J	4.63	0.486 U	5.84
PCB-080	pg/g	--	--	--	0.853 U	0.354 U	2.23 U	0.301 U	1.32 U	0.760 U	0.402 U	0.773 U
PCB-081 (Dioxin-Like)	pg/g	--	--	--	6.8	1.64 J	40.8 J	0.418 U	2.52 J	7.41	0.938 J	9.09
PCB-082	pg/g	--	--	--	45.7	8.4	417 J	1.26 U	20.9	49.3	6.4	74.1
PCB-083	pg/g	--	--	--	17.2 C	2.98 J, C	146 J, C	0.908 U, C	9.83 C	16.5 C	2.13 J, C	26.1 C
PCB-084	pg/g	--	--	--	160 C	25.3 C	1,370 J, C	5.03 C	73.4 C	155 C	18.4 C	226 C
PCB-085	pg/g	--	--	--	54.9 C	10.6 C	506 J, C	0.859 U, C	24.3 C	58.2 C	7.51 C	90.9 C
PCB-086	pg/g	--	--	--	1.30 U	0.968 U	12.1 J	0.923 U	1.43 U	1.21 U	0.691 U	1.11 U
PCB-087	pg/g	--	--	--	159 C	25.6 C	1,410 J, C	4.70 C	55.5 C	141 C	16.5 C	225 C
PCB-088	pg/g	--	--	--	46.4 C	7.30 C	425 J, C	0.673 U, C	33.0 C	51.7 C	5.87 C	82.5 C
PCB-089	pg/g	--	--	--	4.23	1.11 U	27.0 J	1.06 U	1.89 J	6.23	0.793 U	7.61
PCB-090	pg/g	--	--	--	475 C	73.9 C	3,780 J, C	12.7 C	153 C	390 C	48.4 C	633 C
PCB-091	pg/g	--	--	--	- C088	- C088	- J, C088	- U, C088	- C088	- C088	- C088	- C088
PCB-092	pg/g	--	--	--	- C084	- C084	- J, C084	- C084	- C084	- C084	- C084	- C084
PCB-093	pg/g	--	--	--	1.04 U	0.518 U	4.96 U	0.664 U	1.00 U	0.730 U	0.407 U	0.841 U
PCB-094	pg/g	--	--	--	1.04 U	0.575 U	16.7 J	0.737 U	1.00 U	0.810 U	0.451 U	4.13
PCB-095	pg/g	--	--	--	340	50.5	2,960 J	10.2	188	295	32.8	507
PCB-096	pg/g	--	--	--	2.04 J	0.401 U	18.0 J	0.514 U	0.715 U	2.37 J	0.315 U	3.63 J
PCB-097	pg/g	--	--	--	96.5	17.2	953 J	3.15 J	40.2	94.5	11.4	145
PCB-098	pg/g	--	--	--	0.859 U, C	0.502 U, C	3.67 U, C	0.643 U, C	0.826 U, C	0.707 U, C	0.394 U, C	0.694 U, C
PCB-099	pg/g	--	--	--	158	26.6	1,400 J	4.44	73.1	150	20.5	254
PCB-100	pg/g	--	--	--	0.866 U	0.483 U	4.05 U	0.619 U	2.05 J	0.680 U	0.379 U	2.14 J
PCB-101	pg/g	--	--	--	- C090	- C090	- J, C090	- C090	- C090	- C090	- C090	- C090
PCB-102	pg/g	--	--	--	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098	- U, C098
PCB-103	pg/g	--	--	--	2.64 J	0.487 U	17.0 J	0.624 U	2.59 J	4.13	0.382 U	5.04
PCB-104	pg/g	--	--	--	0.664 U	0.372 U	3.04 U	0.477 U	0.638 U	0.523 U	0.292 U	0.536 U
PCB-105 (Dioxin-Like)	pg/g	--	--	--	118	23.1	1,120 J	3.89 J	41.3	128	16.3	201
PCB-106	pg/g	--	--	--	306 C	54.6 C	2,670 J, C	8.94 C	111 C	307 C	41.2 C	475 C
PCB-107	pg/g	--	--	--	20.5 C	4.19 C	1,91 J, C	0.854 U, C	8.74 C	22.3 C	3.54 J, C	34.8 C
PCB-108	pg/g	--	--	--	- C107	- C107	- J, C107	- U, C107	- C107	- C107	- J, C107	- C107
PCB-109	pg/g	--	--	--	1.09 U	0.765 U	2.05 U	0.730 U	1.19 U	0.957 U	0.546 U	0.927 U

Sample Location ¹		MAF-53	MAF-54	MAF-55	MAF-56			MAF-57			MAF-58	
Sample Identification		MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10
Sample Date		09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-110	pg/g	--	--	--	398	62.3	3380 J	10.4	177	352	44.6	577
PCB-111	pg/g	--	--	--	7.29 C	1.54 J, C	82.1 J, C	0.617 U, C	2.94 J, C	6.95 C	0.884 J, C	12.2 C
PCB-112	pg/g	--	--	--	- C083	- J, C083	- J, C083	- U, C083	- C083	- C083	- J, C083	- C083
PCB-113	pg/g	--	--	--	1.09 U	0.844 U	1.96 U	0.805 U	1.20 U	1.06 U	0.603 U	0.931 U
PCB-114 (Dioxin-Like)	pg/g	--	--	--	8.83	2.12 J	71.0 J	0.864 U	2.77 J	9.6	1.37 J	12.2
PCB-115	pg/g	--	--	--	- C111	- J, C111	- J, C111	- U, C111	- J, C111	- C111	- J, C111	- C111
PCB-116	pg/g	--	--	--	- C085	- C085	- J, C085	- U, C085	- C085	- C085	- C085	- C085
PCB-117	pg/g	--	--	--	- C087	- C087	- J, C087	- C087	- C087	- C087	- C087	- C087
PCB-118 (Dioxin-Like)	pg/g	--	--	--	- C106	- C106	- J, C106	- C106	- C106	- C106	- C106	- C106
PCB-119	pg/g	--	--	--	5.97	1.79 J	53.4 J	0.714 U	5.15	7.44	1.22 J	10.2
PCB-120	pg/g	--	--	--	2.28 J	0.732 U	8.09 J	0.698 U	1.09 U	1.58 J	0.523 U	2.23 J
PCB-121	pg/g	--	--	--	0.727 U	0.415 U	3.41 U	0.532 U	0.699 U	0.584 U	0.326 U	0.587 U
PCB-122	pg/g	--	--	--	4.58	0.548 U	36.2 J	0.845 U	2.22 J	3.29 J	0.790 J	7.38
PCB-123 (Dioxin-Like)	pg/g	--	--	--	4.98	1.07 J	40.4 J	0.746 U	2.73 J	4.64	0.980 J	7.9
PCB-124	pg/g	--	--	--	19.4	2.34 J	120.0 J	0.924 U	5.78	14.6	2.01 J	24.6
PCB-125	pg/g	--	--	--	- C087	- C087	- J, C087	- C087	- C087	- C087	- C087	- C087
PCB-126 (Dioxin-Like)	pg/g	--	--	--	1.82 J	0.571 U	16.6 J	0.870 U	1.32 J	2.40 J	0.435 U	3.39 J
PCB-127	pg/g	--	--	--	1.04 U	0.590 U	4.00 U	0.910 U	0.871 U	0.946 U	0.453 U	0.985 U
PCB-128	pg/g	--	--	--	78.7 C	12.0 C	608 J, C	1.82 J, C	26.5 C	70.2 C	7.02 C	115 C
PCB-129	pg/g	--	--	--	26.5	2.56 J	177 J	1.24 J	7.88	20.8	2.89 J	36.4
PCB-130	pg/g	--	--	--	29.9	6.2	251 J	1.34 J	10.5	32.1	4.31	43.6
PCB-131	pg/g	--	--	--	13.5 C	2.55 J, C	106 J, C	0.559 U, C	5.43 C	13.7 C	1.76 J, C	19.8 C
PCB-132	pg/g	--	--	--	147 C	27.8 C	962 J, C	5.09 C	47.2 C	144 C	14.1 C	200 C
PCB-133	pg/g	--	--	--	- C131	- J, C131	- J, C131	- U, C131	- C131	- C131	- J, C131	- C131
PCB-134	pg/g	--	--	--	29.1 C	4.85 C	194 J, C	1.06 J, C	8.85 C	26.7 C	3.57 J, C	35.6 C
PCB-135	pg/g	--	--	--	84	10.6	510.0 J	2.46 J	24.1	74	7.68	102
PCB-136	pg/g	--	--	--	105	11.1	512 J	2.69 J	22.9	70.6	6.43	104
PCB-137	pg/g	--	--	--	29.2	3.74 J	206 J	0.712 J	9.42	21.5	2.19 J	40.5
PCB-138	pg/g	--	--	--	528 C	78.6 C	3,680 J, C	14.2 C	149 C	462 C	46.8 C	674 C
PCB-139	pg/g	--	--	--	466 C	74.0 C	3,020 J, C	13.0 C	133 C	431 C	43.7 C	547 C
PCB-140	pg/g	--	--	--	1.05 U	0.743 U	15.1 J	0.532 U	0.529 U	4.13	0.557 U	4.5
PCB-141	pg/g	--	--	--	137	19.4	832 J	3.43 J	27.6	111	10.4	152
PCB-142	pg/g	--	--	--	1.34 U	0.877 U	4.46 U	0.628 U	0.676 U	1.27 U	0.657 U	1.09 U
PCB-143	pg/g	--	--	--	- C134	- C134	- J, C134	- J, C134	- C134	- C134	- J, C134	- C134
PCB-144	pg/g	--	--	--	33.1	5.23	194 J	0.558 U	6.84	32.6	3.59 J	35.2
PCB-145	pg/g	--	--	--	0.259 U	0.423 U	4.10 U	0.333 U	0.361 U	0.449 U	0.390 U	0.366 U
PCB-146	pg/g	--	--	--	69.6 C	12.2 C	519 J, C	2.56 J, C	22.5 C	75.9 C	8.20 C	96.8 C
PCB-147	pg/g	--	--	--	8.57	1.76 J	57.9 J	0.508 U	5.32	11.3	1.42 J	14.6
PCB-148	pg/g	--	--	--	0.328 U	0.619 U	4.81 U	0.487 U	0.458 U	0.657 U	0.570 U	0.464 U
PCB-149	pg/g	--	--	--	- C139	- C139	- J, C139	- C139	- C139	- C139	- C139	- C139
PCB-150	pg/g	--	--	--	0.253 U	0.422 U	4.04 U	0.332 U	0.354 U	1.61 J	0.389 U	0.358 U
PCB-151	pg/g	--	--	--	154	20.5	894 J	2.25 J	37.7	90.2	10.3	168

Sample Location ¹		MAF-53	MAF-54	MAF-55	MAF-56			MAF-57			MAF-58	
Sample Identification		MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10
Sample Date		09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-152	pg/g	--	--	--	0.266 U	0.446 U	3.93 U	0.352 U	0.372 U	0.474 U	0.411 U	0.377 U
PCB-153	pg/g	--	--	--	544	84.6	3600 J	14.6	147	517	52.8	669
PCB-154	pg/g	--	--	--	3.30 J	0.501 U	28.6 J	0.395 U	2.57 J	5.35	0.462 U	7.09
PCB-155	pg/g	--	--	--	0.233 U	0.383 U	3.69 U	0.302 U	0.326 U	0.407 U	0.353 U	0.330 U
PCB-156 (Dioxin-Like)	pg/g	--	--	--	61.8	7.49	367 J	1.17 J	13.2	49.2	5.27	77.2
PCB-157 (Dioxin-Like)	pg/g	--	--	--	11.9	1.65 J	77.4 J	0.398 U	3.59 J	10.3	1.28 J	17.5
PCB-158	pg/g	--	--	--	70.2 C	10.7 C	495 J, C	1.77 J, C	18.8 C	65.1 C	6.62 C	91.9 C
PCB-159	pg/g	--	--	--	6.29	1.36 J	37.1 J	0.405 U	2.19 J	7.41	0.424 U	7.79
PCB-160	pg/g	--	--	--	-- C158	-- C158	-- J, C158	-- J, C158	-- C158	-- C158	-- C158	-- C158
PCB-161	pg/g	--	--	--	-- C132	-- C132	-- J, C132	-- C132	-- C132	-- C132	-- C132	-- C132
PCB-162	pg/g	--	--	--	-- C128	-- C128	-- J, C128	-- J, C128	-- C128	-- C128	-- C128	-- C128
PCB-163	pg/g	--	--	--	-- C138	-- C138	-- J, C138	-- C138	-- C138	-- C138	-- C138	-- C138
PCB-164	pg/g	--	--	--	-- C138	-- C138	-- J, C138	-- C138	-- C138	-- C138	-- C138	-- C138
PCB-165	pg/g	--	--	--	-- C146	-- C146	-- J, C146	-- J, C146	-- C146	-- C146	-- C146	-- C146
PCB-166	pg/g	--	--	--	2.39 J	0.598 U	16.2 J	0.428 U	0.445 U	2.02 J	0.449 U	2.97 J
PCB-167 (Dioxin-Like)	pg/g	--	--	--	23.2	3.74 J	154 J	1.07 J	6.95	20.5	2.08 J	29.9
PCB-168	pg/g	--	--	--	0.845 U	0.585 U	3.20 U	0.419 U	0.427 U	0.846 U	0.439 U	0.686 U
PCB-169	pg/g	--	--	--	0.708 U	0.506 U	3.12 U	0.360 U	0.383 U	0.728 U	0.333 U	0.696 U
PCB-170	pg/g	--	--	--	220	22.5	1150 J	4.04	35.4	160	12.1	217
PCB-171	pg/g	--	--	--	61.6	7.09	374 J	1.78 J	11.1	53.3	4.58	66.4
PCB-172	pg/g	--	--	--	36.1	4.68	225 J	0.447 U	7.29	31.1	2.13 J	40.9
PCB-173	pg/g	--	--	--	5.51	0.585 U	33.4 J	0.468 U	0.523 U	3.27 J	0.391 U	4.7
PCB-174	pg/g	--	--	--	198	25.6	1,280 J	5.32	39.7	168	13.7	207
PCB-175	pg/g	--	--	--	9.13	1.65 J	59.3 J	0.447 U	2.27 J	9.75	1.04 J	11.5
PCB-176	pg/g	--	--	--	28.7	4.72	184 J	0.346 U	6.07	29.6	3.01 J	33
PCB-177	pg/g	--	--	--	124	13.7	763 J	3.20 J	24.9	102	7.61	132
PCB-178	pg/g	--	--	--	43.3	6.01	259 J	0.453 U	12.4	42.6	2.95 J	44.7
PCB-179	pg/g	--	--	--	89	12.2	524 J	1.94 J	20.7	77	6.71	91.5
PCB-180	pg/g	--	--	--	382	48.9	2,310 J	9.53	81.4	371	26.3	414
PCB-181	pg/g	--	--	--	0.514 U	0.513 U	4.50 U	0.410 U	0.448 U	0.673 U	0.343 U	0.648 U
PCB-182	pg/g	--	--	--	223 C	35.0 C	1,510 J, C	6.14 C	67.4 C	255 C	20.5 C	276 C
PCB-183	pg/g	--	--	--	120	19.8	786 J	4.3	29.8	137	11.1	143
PCB-184	pg/g	--	--	--	0.353 U	0.372 U	3.15 U	0.297 U	0.307 U	0.488 U	0.249 U	0.445 U
PCB-185	pg/g	--	--	--	24.7	3.77 J	150.0 J	0.419 U	5.47	25.5	2.07 J	28
PCB-186	pg/g	--	--	--	0.379 U	0.401 U	3.41 U	0.321 U	0.330 U	0.527 U	0.268 U	0.477 U
PCB-187	pg/g	--	--	--	-- C182	-- C182	-- J, C182	-- C182	-- C182	-- C182	-- C182	-- C182
PCB-188	pg/g	--	--	--	0.414 U	0.424 U	3.51 U	0.336 U	0.368 U	2.12 J	0.290 U	0.557 U
PCB-189 (Dioxin-Like)	pg/g	--	--	--	7.75	1.24 J	45.6 J	0.292 U	1.30 J	7.03	0.235 U	7.73
PCB-190	pg/g	--	--	--	45.7	5.49	245 J	1.05 J	8.56	41.5	2.51 J	47.7
PCB-191	pg/g	--	--	--	10.3	0.395 U	53.0 J	0.316 U	1.92 J	8.18	0.855 J	11.6
PCB-192	pg/g	--	--	--	0.415 U	0.411 U	3.74 U	0.329 U	0.362 U	0.540 U	0.275 U	0.523 U
PCB-193	pg/g	--	--	--	25.1	3.09 J	112 J	0.318 U	4.81	20.2	1.70 J	26

Sample Location ¹		MAF-53	MAF-54	MAF-55	MAF-56			MAF-57			MAF-58	
Sample Identification		MAF-SS-53_0-10	MAF-SS-54_0-10	MAF-SS-55-0-10	MAF-SS-56_0-10	MAF-SC-56_0-2	MAF-SC-DUP-07	MAF-SC-56_2-4	MAF-SS-57_0-10	MAF-SC-57_0-2	MAF-SC-57_2-4	MAF-SS-58_0-10
Sample Date		09/14/2016	09/14/2016	11/13/18	11/13/18	11/12/18	11/12/18	11/12/18	11/14/18	11/13/18	11/13/18	11/14/18
Sample Interval (dbm)		0-10 cm	0-10 cm	0-10 cm	0-10 cm	0-2 ft	0-2 ft	2-4 ft	0-10 cm	0-2 ft	2-4 ft	0-10 cm
Sample Type		Surface	Surface	Surface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal
PCB-194	pg/g	--	--	--	70	15	488 J	2.56 J	24.5	128	7.6	113
PCB-195	pg/g	--	--	--	38.4	5.6	203 J	1.09 J	9.33	49.3	2.99 J	53.4
PCB-196	pg/g	--	--	--	116 C	22.4 C	616 J, C	3.64 J, C	41.7 C	184 C	11.2 C	168 C
PCB-197	pg/g	--	--	--	4.4	1.38 J	34.5 J	0.331 U	1.47 J	6.42	0.735 J	6.74
PCB-198	pg/g	--	--	--	6.27	1.13 J	35.6 J	0.532 U	1.75 J	13.5	1.11 J	8.15
PCB-199	pg/g	--	--	--	103	19.1	590.0 J	3.37 J	39.2	149	10.5	159
PCB-200	pg/g	--	--	--	14.3	3.06 J	70.9 J	0.352 U	5	21.7	1.18 J	22.3
PCB-201	pg/g	--	--	--	14.7	2.43 J	91.6 J	0.357 U	5.38	22.7	1.29 J	23.4
PCB-202	pg/g	--	--	--	16.8	4.42	127 J	0.350 U	8.9	33.5	2.55 J	30
PCB-203	pg/g	--	--	--	- C196	- C196	- J, C196	- J, C196	- C196	- C196	- C196	- C196
PCB-204	pg/g	--	--	--	0.425 U	0.388 U	3.71 U	0.362 U	0.411 U	0.551 U	0.475 U	0.437 U
PCB-205	pg/g	--	--	--	4.63	1.15 J	29.5 J	0.258 U	1.47 J	8.12	0.324 U	6.37
PCB-206	pg/g	--	--	--	20.8	13.3	208 J	0.833 U	20.7	56.3	3.94 J	52.4
PCB-207	pg/g	--	--	--	3.91 J	2.07 J	29.0 J	0.710 U	2.77 J	10.4	0.704 J	8.41
PCB-208	pg/g	--	--	--	4.88	4.49	60.5 J	0.640 U	6.65	12.6	1.35 J	12.8
PCB-209	pg/g	--	--	--	3.47 J	9.06	109 J	0.673 U	13.1	14.9	3.37 J	19.2
Total PCBs Congeners	pg/g	--	--	--	8,120 J	1,630 J	66,400 J	245 J	3,180 J	9,340 J	1,030 J	14,200 J

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	MAF-58	MAF-59				MAF-60			MAF-61		EDP62
Sample Identification	MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0
Sample Date	11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21
Sample Interval (dbm)	2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft
Sample Type	Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface
Stratigraphic Unit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
Polychlorinated Biphenyl (PCB) Aroclors											
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners											
PCB-001	pg/g	1.23 J	18.4	22.5	6.81	--	14.6	16.1	0.437 U	--	--
PCB-002	pg/g	3.07 J	4.45	15	13.2	--	2.58 J	5.79	0.519 U	--	--
PCB-003	pg/g	2.48 J	11.9	31.8	13.6	--	7.81	18.8	0.503 U	--	--
PCB-004	pg/g	1.81 U	30.8	21.3	3.66 J	--	33.7	12.8	0.986 U	--	--
PCB-005	pg/g	1.57 U	0.751 U	1.36 U	0.883 U	--	0.840 U	1.32 U	0.856 U	--	--
PCB-006	pg/g	1.53 U	28.2	14.6	3.83 J	--	28	13.2	0.835 U	--	--
PCB-007	pg/g	1.51 U	5.29	6.15	1.48 J	--	4.7	4.47	0.824 U	--	--
PCB-008	pg/g	2.64 J	70.7	96.2	17.4	--	61.6	51	0.874 U	--	--
PCB-009	pg/g	1.61 U	7.44	4.92	1.30 J	--	6.78	4.76	0.881 U	--	--
PCB-010	pg/g	1.81 U	4.38	2.11 J	1.02 U	--	3.39 J	3.23 J	0.990 U	--	--
PCB-011	pg/g	4.34	13.5	13.5	8.25	--	9.22	13.7	2.70 J	--	--
PCB-012	pg/g	1.60 U	3.95 J	5.18	4.85	--	2.43 J	3.00 J	0.875 U	--	--
PCB-013	pg/g	1.63 U	5.28	4.6	3.16 J	--	5.78	5.68	0.890 U	--	--
PCB-014	pg/g	1.64 U	0.777 U	1.43 U	1.70 J	--	0.868 U	1.38 U	0.898 U	--	--
PCB-015	pg/g	2.34 J	32.6	65.3	15.6	--	27.7	38.1	0.821 U	--	--
PCB-016	pg/g	1.63 J	44.5	38.9	12.9	--	29.5	29.8	1.10 U	--	--
PCB-017	pg/g	2.60 J	67.4	58.9	17	--	53.7	45.3	1.26 U	--	--
PCB-018	pg/g	5.22	152	135	44.7	--	120	85.4	3.21 J	--	--
PCB-019	pg/g	0.775 U	15.6	10.8	3.80 J	--	11.7	10.4	1.29 U	--	--
PCB-020	pg/g	4.24 C	122 C	110 C	37.0 C	--	93.9 C	102 C	1.85 J, C	--	--
PCB-021	pg/g	-- C020	-- C020	-- C020	-- C020	--	-- C020	-- C020	-- J, C020	--	--
PCB-022	pg/g	2.79 J	62.2	68	21.9	--	46.9	56.9	0.851 U	--	--
PCB-023	pg/g	1.11 U	1.23 U	1.24 U	0.963 U	--	0.946 U	1.20 U	0.926 U	--	--
PCB-024	pg/g	0.567 U	5.69	6.63	1.41 J	--	6.23	5.41	0.945 U	--	--
PCB-025	pg/g	0.894 U	27.7	12.4	4.08	--	21.8	18.7	0.743 U	--	--

Sample Location ¹		MAF-58	MAF-59				MAF-60			MAF-61		EDP62
Sample Identification		MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0
Sample Date		11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21
Sample Interval (dbm)		2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-026	pg/g	1.12 U	53.8	33.1	19.1	--	48.5	47.8	0.930 U	--	--	--
PCB-027	pg/g	0.535 U	10.1	4.26	1.74 J	--	6.15	4.47	0.892 U	--	--	--
PCB-028	pg/g	6.97	215	197	53.6	--	167	180	3.20 J	--	--	--
PCB-029	pg/g	1.07 U	1.19 U	2.51 J	0.921 U	--	0.916 U	1.15 U	0.886 U	--	--	--
PCB-030	pg/g	0.553 U	0.951 U	0.824 U	0.719 U	--	0.971 U	1.00 U	0.922 U	--	--	--
PCB-031	pg/g	6.6	217	196	69.8	--	174	161	2.78 J	--	--	--
PCB-032	pg/g	1.90 J	43.8	51.4	16.2	--	33.2	33.2	1.05 U	--	--	--
PCB-033	pg/g	-- C020	-- C020	-- C020	-- C020	--	-- C020	-- C020	-- J, C020	--	--	--
PCB-034	pg/g	1.09 U	1.20 U	1.21 U	0.938 U	--	0.924 U	1.17 U	0.903 U	--	--	--
PCB-035	pg/g	1.18 U	1.36 U	1.31 U	3.26 J	--	1.05 U	1.27 U	0.977 U	--	--	--
PCB-036	pg/g	1.16 U	1.27 U	1.29 U	1.00 U	--	0.982 U	1.25 U	0.963 U	--	--	--
PCB-037	pg/g	2.71 J	37.1	43.8	17.9	--	28.2	48.8	0.842 U	--	--	--
PCB-038	pg/g	1.07 U	1.21 U	1.19 U	0.926 U	--	0.929 U	1.16 U	0.891 U	--	--	--
PCB-039	pg/g	1.11 U	1.23 U	1.24 U	0.960 U	--	0.948 U	1.20 U	0.924 U	--	--	--
PCB-040	pg/g	2.21 J	22	42.6	18.2	--	13.9	11.2	0.690 U	--	--	--
PCB-041	pg/g	8.24 C	93.8 C	211 C	104 C	--	61.2 C	120 C	2.74 J, C	--	--	--
PCB-042	pg/g	3.23 J, C	38.3 C	65.0 C	40.7 C	--	24.0 C	45.1 C	1.28 J, C	--	--	--
PCB-043	pg/g	8.29 C	131 C	283 C	177 C	--	88.6 C	217 C	3.19 J, C	--	--	--
PCB-044	pg/g	10.6	121	355	129	--	71.2	161	3.09	--	--	--
PCB-045	pg/g	1.28 J	28.4	30	14.5	--	17.9	22.7	0.594 U	--	--	--
PCB-046	pg/g	0.565 U	10.2	12.4	6.07	--	7.45	11.5	0.629 U	--	--	--
PCB-047	pg/g	3.39 J	38	68.8	33	--	28.5	63.9	1.83 J	--	--	--
PCB-048	pg/g	1.63 J, C	28.0 C	36.1 C	20.6 C	--	17.0 C	25.5 C	0.435 U, C	--	--	--
PCB-049	pg/g	-- C043	-- C043	-- C043	-- C043	--	-- C043	-- C043	-- J, C043	--	--	--
PCB-050	pg/g	0.462 U	1.11 U	1.12 U	0.883 U	--	1.13 U	1.13 U	0.515 U	--	--	--
PCB-051	pg/g	0.944 J	9.3	8.8	4.8	--	6.33	8.45	0.492 U	--	--	--
PCB-052	pg/g	14.1 C	176 C	653 C	444 C	--	111 C	298 C	4.72 C	--	--	--
PCB-053	pg/g	1.38 J	29.3	35	14.5	--	19.5	24.9	0.503 U	--	--	--
PCB-054	pg/g	0.327 U	0.763 U	0.790 U	0.626 U	--	0.779 U	0.799 U	0.365 U	--	--	--
PCB-055	pg/g	0.339 U	4.27	8.38	4.93	--	3.43 J	6.98	0.377 U	--	--	--
PCB-056	pg/g	6.68 C	91.2 C	180 C	72.4 C	--	59.4 C	118 C	1.71 J, C	--	--	--
PCB-057	pg/g	0.371 U	1.62 J	0.896 U	2.89 J	--	0.886 U	0.905 U	0.413 U	--	--	--
PCB-058	pg/g	0.339 U	0.867 U	1.61 J	0.648 U	--	0.885 U	3.88 J	0.378 U	--	--	--
PCB-059	pg/g	-- J, C042	-- C042	-- C042	-- C042	--	-- C042	-- C042	-- J, C042	--	--	--
PCB-060	pg/g	-- C056	-- C056	-- C056	-- C056	--	-- C056	-- C056	-- J, C056	--	--	--
PCB-061	pg/g	15.6 C	234 C	631 C	182 C	--	145 C	416 C	4.35 C	--	--	--
PCB-062	pg/g	0.356 U	0.949 U	0.858 U	0.679 U	--	0.969 U	0.868 U	0.396 U	--	--	--
PCB-063	pg/g	0.376 U	9.19	15.8	6.65	--	6.12	17.7	0.419 U	--	--	--
PCB-064	pg/g	-- C041	-- C041	-- C041	-- C041	--	-- C041	-- C041	-- J, C041	--	--	--
PCB-065	pg/g	0.387 U	0.853 U	0.934 U	0.739 U	--	0.871 U	0.944 U	0.431 U	--	--	--
PCB-066	pg/g	12.7 C	175 C	365 C	140 C	--	117 C	377 C	3.02 J, C	--	--	--
PCB-067	pg/g	0.369 U	7.64	9.45	5.68	--	5.59	9.45	0.411 U	--	--	--

Sample Location ¹		MAF-58	MAF-59				MAF-60			MAF-61		EDP62
Sample Identification		MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0
Sample Date		11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21
Sample Interval (dbm)		2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-068	pg/g	0.332 U	0.802 U	1.39 J	1.97 J	--	0.819 U	0.811 U	0.370 U	--	--	--
PCB-069	pg/g	-- C052	-- C052	-- C052	-- C052	--	-- C052	-- C052	-- C052	--	--	--
PCB-070	pg/g	-- C061	-- C061	-- C061	-- C061	--	-- C061	-- C061	-- C061	--	--	--
PCB-071	pg/g	-- C041	-- C041	-- C041	-- C041	--	-- C041	-- C041	-- J, C041	--	--	--
PCB-072	pg/g	-- C041	-- C041	-- C041	-- C041	--	-- C041	-- C041	-- J, C041	--	--	--
PCB-073	pg/g	0.336 U	0.910 U	0.810 U	0.641 U	--	0.929 U	0.819 U	0.374 U	--	--	--
PCB-074	pg/g	6.82	94.3	208	74.3	--	61.1	150	1.94 J	--	--	--
PCB-075	pg/g	-- J, C048	-- C048	-- C048	-- C048	--	-- C048	-- C048	-- U, C048	--	--	--
PCB-076	pg/g	-- C066	-- C066	-- C066	-- C066	--	-- C066	-- C066	-- J, C066	--	--	--
PCB-077 (Dioxin-Like)	pg/g	1.52 J	16.4	23.7	8.76	--	9.12	25.8	0.403 U	--	--	--
PCB-078	pg/g	0.379 U	0.953 U	3.60 J	0.860 U	--	0.901 U	2.53 J	0.396 U	--	--	--
PCB-079	pg/g	0.371 U	3.23 J	9.85	4.29	--	2.74 J	9.24	0.388 U	--	--	--
PCB-080	pg/g	0.310 U	0.729 U	0.749 U	0.593 U	--	0.744 U	0.757 U	0.346 U	--	--	--
PCB-081 (Dioxin-Like)	pg/g	0.358 U	5.04	18.1	6.32	--	3.16 J	8.66	0.354 U	--	--	--
PCB-082	pg/g	2.79 J	43.2	131	36.2	--	22.5	80.6	1.53 U	--	--	--
PCB-083	pg/g	1.10 J, C	13.7 C	44.0 C	16.8 C	--	9.88 C	32.3 C	1.10 U, C	--	--	--
PCB-084	pg/g	6.99 C	134 C	416 C	179 C	--	75.9 C	278 C	2.67 J, C	--	--	--
PCB-085	pg/g	3.61 J, C	51.5 C	161 C	44.2 C	--	28.4 C	106 C	1.04 U, C	--	--	--
PCB-086	pg/g	0.504 U	0.980 U	1.22 U	1.63 U	--	1.16 U	1.18 U	1.12 U	--	--	--
PCB-087	pg/g	7.59 C	123 C	437 C	134 C	--	67.8 C	241 C	2.18 J, C	--	--	--
PCB-088	pg/g	2.55 J, C	58.9 C	124 C	58.4 C	--	34.5 C	96.9 C	0.566 U, C	--	--	--
PCB-089	pg/g	0.579 U	4.3	9.8	4.61	--	2.50 J	7.71	1.29 U	--	--	--
PCB-090	pg/g	21.3 C	374 C	1140 C	392 C	--	229 C	759 C	6.86 C	--	--	--
PCB-091	pg/g	-- J, C088	-- C088	-- C088	-- C088	--	-- C088	-- C088	-- U, C088	--	--	--
PCB-092	pg/g	-- C084	-- C084	-- C084	-- C084	--	-- C084	-- C084	-- J, C084	--	--	--
PCB-093	pg/g	0.674 U	0.829 U	1.01 U	0.568 U	--	0.937 U	1.32 U	0.559 U	--	--	--
PCB-094	pg/g	0.748 U	2.07 J	3.91 J	3.29 J	--	0.941 U	3.36 J	0.621 U	--	--	--
PCB-095	pg/g	14.4	377	849	341	--	213	593	5.06	--	--	--
PCB-096	pg/g	0.522 U	2.34 J	4.88	1.96 J	--	0.670 U	2.62 J	0.433 U	--	--	--
PCB-097	pg/g	6.33	83.1	269	67.5	--	45.8	181	2.06 J	--	--	--
PCB-098	pg/g	0.653 U, C	0.685 U, C	0.974 U, C	0.550 U, C	--	0.774 U, C	1.28 U, C	0.542 U, C	--	--	--
PCB-099	pg/g	8.19	146	402	144	--	91.6	351	2.14 J	--	--	--
PCB-100	pg/g	0.628 U	2.11 J	2.60 J	4.11	--	2.04 J	3.45 J	0.521 U	--	--	--
PCB-101	pg/g	-- C090	-- C090	-- C090	-- C090	--	-- C090	-- C090	-- C090	--	--	--
PCB-102	pg/g	-- U, C098	-- U, C098	-- U, C098	-- U, C098	--	-- U, C098	-- U, C098	-- U, C098	--	--	--
PCB-103	pg/g	0.634 U	4.33	4.82	19.7	--	3.05 J	10.7	0.525 U	--	--	--
PCB-104	pg/g	0.484 U	0.529 U	0.721 U	0.408 U	--	0.597 U	0.951 U	0.401 U	--	--	--
PCB-105 (Dioxin-Like)	pg/g	7.79	108	366	93.3	--	62.6	210	1.98 J	--	--	--
PCB-106	pg/g	18.3 C	264 C	884 C	227 C	--	164 C	726 C	4.28 C	--	--	--
PCB-107	pg/g	1.36 J, C	19.2 C	58.1 C	15.9 C	--	11.2 C	62.0 C	0.649 U, C	--	--	--
PCB-108	pg/g	-- J, C107	-- C107	-- C107	-- C107	--	-- C107	-- C107	-- U, C107	--	--	--
PCB-109	pg/g	0.399 U	0.817 U	0.967 U	1.72	--	0.965 U	0.934 U	0.888 U	--	--	--

Sample Location ¹		MAF-58	MAF-59				MAF-60			MAF-61		EDP62
Sample Identification		MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0
Sample Date		11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21
Sample Interval (dbm)		2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-110	pg/g	19.3	330	1030	280	--	194	700	5.05	--	--	--
PCB-111	pg/g	0.640 J, C	6.37 C	20.8 C	7.33 C	--	3.61 J, C	9.78 C	0.751 U, C	--	--	--
PCB-112	pg/g	-- J, C083	-- C083	-- C083	-- C083	--	-- C083	-- C083	-- U, C083	--	--	--
PCB-113	pg/g	0.440 U	0.821 U	1.07 U	1.42 U	--	0.970 U	1.03 U	0.980 U	--	--	--
PCB-114 (Dioxin-Like)	pg/g	0.418 U	6.2	23.1	6.9	--	3.78 J	12.1	0.610 U	--	--	--
PCB-115	pg/g	-- J, C111	-- C111	-- C111	-- C111	--	-- J, C111	-- C111	-- U, C111	--	--	--
PCB-116	pg/g	-- J, C085	-- C085	-- C085	-- C085	--	-- C085	-- C085	-- U, C085	--	--	--
PCB-117	pg/g	-- C087	-- C087	-- C087	-- C087	--	-- C087	-- C087	-- J, C087	--	--	--
PCB-118 (Dioxin-Like)	pg/g	-- C106	-- C106	-- C106	-- C106	--	-- C106	-- C106	-- C106	--	--	--
PCB-119	pg/g	0.390 U	6.81	16.1	11.7	--	4.51	28.6	0.868 U	--	--	--
PCB-120	pg/g	0.381 U	2.09 J	2.23 J	2.30 J	--	1.57 J	5.11	0.850 U	--	--	--
PCB-121	pg/g	0.540 U	0.579 U	0.804 U	0.455 U	--	0.654 U	1.06 U	0.448 U	--	--	--
PCB-122	pg/g	0.432 U	3.75 J	11.7	3.93 J	--	2.71 J	5.11	0.643 U	--	--	--
PCB-123 (Dioxin-Like)	pg/g	0.357 U	3.48 J	10.4	3.27 J	--	2.65 J	7.92	0.544 U	--	--	--
PCB-124	pg/g	0.899 J	14.5	39.8	12.9	--	8.66	23.8	0.703 U	--	--	--
PCB-125	pg/g	-- C087	-- C087	-- C087	-- C087	--	-- C087	-- C087	-- J, C087	--	--	--
PCB-126 (Dioxin-Like)	pg/g	0.450 U	2.52 J	3.72 J	1.15 U	--	1.44 J	4.27	0.675 U	--	--	--
PCB-127	pg/g	0.465 U	1.07 U	1.28 U	1.18 U	--	0.916 U	0.882 U	0.692 U	--	--	--
PCB-128	pg/g	4.00 C	71.8 C	173 C	49.1 C	--	48.0 C	119 C	0.651 U, C	--	--	--
PCB-129	pg/g	1.80 J	20.2	57.8	13.8	--	12.5	34.2	0.887 U	--	--	--
PCB-130	pg/g	2.42 J	28.9	88.1	33.1	--	21	50	0.863 U	--	--	--
PCB-131	pg/g	1.12 J, C	13.7 C	34.3 C	18.3 C	--	11.0 C	24.3 C	0.760 U, C	--	--	--
PCB-132	pg/g	7.68 C	150 C	301 C	161 C	--	102 C	238 C	2.00 J, C	--	--	--
PCB-133	pg/g	-- J, C131	-- C131	-- C131	-- C131	--	-- C131	-- C131	-- U, C131	--	--	--
PCB-134	pg/g	1.42 J, C	24.1 C	56.8 C	25.6 C	--	16.1 C	39.2 C	0.775 U, C	--	--	--
PCB-135	pg/g	4.11	81.4	147	126	--	54.6	94.1	0.772 U	--	--	--
PCB-136	pg/g	3.57 J	84.9	141	133	--	55.2	88.3	0.843 U	--	--	--
PCB-137	pg/g	1.07 J	19.7	56.9	16	--	12.2	34.6	0.742 U	--	--	--
PCB-138	pg/g	25.8 C	497 C	1030 C	418 C	--	351 C	704 C	5.39 C	--	--	--
PCB-139	pg/g	24.8 C	422 C	851 C	547 C	--	303 C	598 C	5.43 C	--	--	--
PCB-140	pg/g	0.592 U	0.774 U	3.45 J	6.69	--	2.59 J	7.02	0.724 U	--	--	--
PCB-141	pg/g	6.73	122	245	101	--	92	139	1.43 J	--	--	--
PCB-142	pg/g	0.698 U	0.989 U	1.26 U	1.24 U	--	1.20 U	1.42 U	0.854 U	--	--	--
PCB-143	pg/g	-- J, C134	-- C134	-- C134	-- C134	--	-- C134	-- C134	-- U, C134	--	--	--
PCB-144	pg/g	1.32 J	32.4	62.9	32.9	--	23.5	44.2	0.759 U	--	--	--
PCB-145	pg/g	0.344 U	0.279 U	0.523 U	0.485 U	--	0.304 U	0.605 U	0.817 U	--	--	--
PCB-146	pg/g	4.94 C	73.9 C	163 C	76.2 C	--	58.0 C	127 C	2.01 J, C	--	--	--
PCB-147	pg/g	0.565 U	8.75	16	6.3	--	6.06	16.8	0.691 U	--	--	--
PCB-148	pg/g	0.503 U	0.353 U	0.764 U	0.710 U	--	0.385 U	0.885 U	1.19 U	--	--	--
PCB-149	pg/g	-- C139	-- C139	-- C139	-- C139	--	-- C139	-- C139	-- C139	--	--	--
PCB-150	pg/g	0.343 U	1.53 J	0.522 U	4.92	--	0.297 U	2.44 J	0.815 U	--	--	--
PCB-151	pg/g	5.6	134	244	168	--	97.9	191	0.790 U	--	--	--

Sample Location ¹		MAF-58	MAF-59				MAF-60			MAF-61		EDP62
Sample Identification		MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0
Sample Date		11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21
Sample Interval (dbm)		2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-152	pg/g	0.363 U	0.287 U	0.551 U	0.512 U	--	0.312 U	1.37 J	0.862 U	--	--	--
PCB-153	pg/g	29.9	506	1,090	474	--	377	755	6.29	--	--	--
PCB-154	pg/g	0.407 U	5.91	8.13	15.8	--	3.87 J	10.1	0.968 U	--	--	--
PCB-155	pg/g	0.311 U	0.251 U	0.473 U	0.439 U	--	0.274 U	0.548 U	0.740 U	--	--	--
PCB-156 (Dioxin-Like)	pg/g	2.47 J	56.2	122	36.2	--	40.4	81.6	0.566 U	--	--	--
PCB-157 (Dioxin-Like)	pg/g	0.474 U	9.11	24.9	7.05	--	6	15.6	0.582 U	--	--	--
PCB-158	pg/g	3.57 J, C	71.1 C	142 C	54.2 C	--	48.7 C	95.0 C	0.553 U, C	--	--	--
PCB-159	pg/g	0.450 U	9.11	10.5	7.2	--	7.02	7.78	0.551 U	--	--	--
PCB-160	pg/g	-- J, C158	-- C158	-- C158	-- C158	--	-- C158	-- C158	-- U, C158	--	--	--
PCB-161	pg/g	-- C132	-- C132	-- C132	-- C132	--	-- C132	-- C132	-- J, C132	--	--	--
PCB-162	pg/g	-- C128	-- C128	-- C128	-- C128	--	-- C128	-- C128	-- U, C128	--	--	--
PCB-163	pg/g	-- C138	-- C138	-- C138	-- C138	--	-- C138	-- C138	-- C138	--	--	--
PCB-164	pg/g	-- C138	-- C138	-- C138	-- C138	--	-- C138	-- C138	-- C138	--	--	--
PCB-165	pg/g	-- C146	-- C146	-- C146	-- C146	--	-- C146	-- C146	-- J, C146	--	--	--
PCB-166	pg/g	0.476 U	1.60 J	4.96	1.74 J	--	0.792 U	2.26 J	0.583 U	--	--	--
PCB-167 (Dioxin-Like)	pg/g	1.34 J	25.5	45.9	15.1	--	15.7	33.8	0.564 U	--	--	--
PCB-168	pg/g	0.466 U	0.625 U	0.840 U	0.825 U	--	0.760 U	0.949 U	0.570 U	--	--	--
PCB-169	pg/g	0.381 U	0.616 U	0.630 U	0.775 U	--	0.689 U	0.794 U	0.488 U	--	--	--
PCB-170	pg/g	10.3	278	303	147	--	177	189	0.638 U	--	--	--
PCB-171	pg/g	2.76 J	96.2	95.6	49.6	--	67.6	65.2	0.617 U	--	--	--
PCB-172	pg/g	2.05 J	52.5	53.2	23.9	--	32	37.9	0.619 U	--	--	--
PCB-173	pg/g	0.556 U	7.01	8.47	0.805 U	--	5.19	3.34 J	0.648 U	--	--	--
PCB-174	pg/g	9.01	237	274	158	--	182	204	2.00 U	--	--	--
PCB-175	pg/g	0.532 U	15.6	16.3	7.96	--	11.6	13.2	0.620 U	--	--	--
PCB-176	pg/g	2.31 J	45.7	45.6	32.4	--	34.3	35.2	0.479 U	--	--	--
PCB-177	pg/g	6.81	154	177	114	--	117	119	0.651 U	--	--	--
PCB-178	pg/g	2.78 J	53.2	60.2	45.5	--	38.8	44.8	0.628 U	--	--	--
PCB-179	pg/g	4.54	99.3	116	90	--	91.5	93.7	0.430 U	--	--	--
PCB-180	pg/g	19	504	604	315	--	341	433	3.46 J	--	--	--
PCB-181	pg/g	0.487 U	0.589 U	0.803 U	0.705 U	--	0.804 U	0.814 U	0.568 U	--	--	--
PCB-182	pg/g	14.4 C	286 C	374 C	239 C	--	224 C	289 C	2.70 J, C	--	--	--
PCB-183	pg/g	8.57	190	207	123	--	137	164	2.45 J	--	--	--
PCB-184	pg/g	0.353 U	0.404 U	0.582 U	0.512 U	--	0.551 U	0.590 U	0.412 U	--	--	--
PCB-185	pg/g	1.61 J	31.3	36.6	23	--	24.9	27.3	0.580 U	--	--	--
PCB-186	pg/g	0.382 U	0.434 U	0.628 U	0.552 U	--	0.592 U	0.637 U	0.445 U	--	--	--
PCB-187	pg/g	-- C182	-- C182	-- C182	-- C182	--	-- C182	-- C182	-- J, C182	--	--	--
PCB-188	pg/g	0.416 U	0.443 U	0.691 U	1.78 J	--	0.613 U	1.62 J	0.501 U	--	--	--
PCB-189 (Dioxin-Like)	pg/g	0.330 U	12.1	11.6	5.18	--	8.16	10.5	0.372 U	--	--	--
PCB-190	pg/g	2.06 J	67.3	62.2	36	--	44.8	48	0.476 U	--	--	--
PCB-191	pg/g	0.375 U	15.1	12.8	6.7	--	10.4	11.9	0.437 U	--	--	--
PCB-192	pg/g	0.391 U	0.475 U	0.644 U	0.566 U	--	0.648 U	0.653 U	0.455 U	--	--	--
PCB-193	pg/g	1.24 J	35.2	36.1	19.3	--	21.9	27	0.441 U	--	--	--

Sample Location ¹		MAF-58	MAF-59				MAF-60			MAF-61		EDP62
Sample Identification		MAF-SC-58_2-4	MAF-SS-59_0-10	MAF-SC-59_2-4	MAF-SC-59_6-8	MAF-SC-59_10-12	MAF-SS-60_0-10	MAF-SC-60_4-6	MAF-SC-60_8-10	MAF-SS-61_0-10	MAF-SS-DUP-11	EDP62_0.0-1.0
Sample Date		11/13/18	11/14/18	11/12/18	11/12/18	11/12/18	11/14/18	11/12/18	11/12/18	11/14/18	11/14/18	04/27/21
Sample Interval (dbm)		2-4 ft	0-10 cm	2-4 ft	6-8 ft	10-12 ft	0-10 cm	4-6 ft	8-10 ft	0-10 cm	0-10 cm	0-1 ft
Sample Type		Subsurface	Surface	Subsurface	Subsurface	Subsurface	Surface	Subsurface	Subsurface	Surface	Surface	Subsurface
Stratigraphic Unit		Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Native Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Subtidal	Intertidal
PCB-194	pg/g	6.24	146	189	99.9	--	78.5	149	0.997 U	--	--	--
PCB-195	pg/g	2.65 J	65	83.2	38.2	--	38.2	60.3	1.01 U	--	--	--
PCB-196	pg/g	10.1 C	215 C	283 C	205 C	--	129 C	200 C	2.03 J, C	--	--	--
PCB-197	pg/g	0.449 U	9.55	9.35	7.35	--	5.3	8.58	0.542 U	--	--	--
PCB-198	pg/g	0.722 U	11.8	22.7	13.5	--	7.04	13.7	0.872 U	--	--	--
PCB-199	pg/g	7.98	169	258	279	--	98.6	165	0.772 U	--	--	--
PCB-200	pg/g	0.478 U	23.8	29.3	19.6	--	15	23	0.577 U	--	--	--
PCB-201	pg/g	1.71 J	24.1	33.5	30.6	--	15	22.7	0.585 U	--	--	--
PCB-202	pg/g	2.32 J	27.3	54.2	68.5	--	16.7	33.1	0.573 U	--	--	--
PCB-203	pg/g	-- C196	-- C196	-- C196	-- C196	--	-- C196	-- C196	-- J, C196	--	--	--
PCB-204	pg/g	0.492 U	0.388 U	0.711 U	0.759 J	--	0.458 U	0.745 U	0.594 U	--	--	--
PCB-205	pg/g	0.296 U	9.39	10.3	5.92	--	7.2	7.97	0.744 U	--	--	--
PCB-206	pg/g	6.62	52.6	510	1,460	--	29.7	82.9	0.970 U	--	--	--
PCB-207	pg/g	0.991 J	8.91	44.4	105	--	5.49	12.4	0.829 U	--	--	--
PCB-208	pg/g	2.42 J	12	188	574	--	6.72	20	0.747 U	--	--	--
PCB-209	pg/g	9.79	13.8	602	1,820	--	9.83	33.3	0.661 U	--	--	--
Total PCBs Congeners	pg/g	565 J	10,300 J	20,900 J	12,800 J	--	7,020 J	13,900 J	144 J	--	--	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-3

Summary of Sediment Analytical Results for Polychlorinated Biphenyl Aroclors and Congeners
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ¹	EDP62	EDP63		EDP64		EDP65	
Sample Identification	EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0
Sample Date	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21
Sample Interval (dbm)	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft
Sample Type	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal
Polychlorinated Biphenyl (PCB) Aroclors							
PCB-Aroclor 1016	ug/Kg	--	--	--	--	--	--
PCB-Aroclor 1221	ug/Kg	--	--	--	--	--	--
PCB-Aroclor 1232	ug/Kg	--	--	--	--	--	--
PCB-Aroclor 1242	ug/Kg	--	--	--	--	--	--
PCB-Aroclor 1248	ug/Kg	--	--	--	--	--	--
PCB-Aroclor 1254	ug/Kg	--	--	--	--	--	--
PCB-Aroclor 1260	ug/Kg	--	--	--	--	--	--
PCB-Aroclor 1262	ug/Kg	--	--	--	--	--	--
PCB-Aroclor 1268	ug/Kg	--	--	--	--	--	--
Total PCBs Aroclors	ug/Kg	--	--	--	--	--	--
Polychlorinated Biphenyl (PCB) Congeners							
PCB-001	pg/g	--	--	--	--	--	--
PCB-002	pg/g	--	--	--	--	--	--
PCB-003	pg/g	--	--	--	--	--	--
PCB-004	pg/g	--	--	--	--	--	--
PCB-005	pg/g	--	--	--	--	--	--
PCB-006	pg/g	--	--	--	--	--	--
PCB-007	pg/g	--	--	--	--	--	--
PCB-008	pg/g	--	--	--	--	--	--
PCB-009	pg/g	--	--	--	--	--	--
PCB-010	pg/g	--	--	--	--	--	--
PCB-011	pg/g	--	--	--	--	--	--
PCB-012	pg/g	--	--	--	--	--	--
PCB-013	pg/g	--	--	--	--	--	--
PCB-014	pg/g	--	--	--	--	--	--
PCB-015	pg/g	--	--	--	--	--	--
PCB-016	pg/g	--	--	--	--	--	--
PCB-017	pg/g	--	--	--	--	--	--
PCB-018	pg/g	--	--	--	--	--	--
PCB-019	pg/g	--	--	--	--	--	--
PCB-020	pg/g	--	--	--	--	--	--
PCB-021	pg/g	--	--	--	--	--	--
PCB-022	pg/g	--	--	--	--	--	--
PCB-023	pg/g	--	--	--	--	--	--
PCB-024	pg/g	--	--	--	--	--	--
PCB-025	pg/g	--	--	--	--	--	--

Sample Location ¹		EDP62	EDP63		EDP64		EDP65	
Sample Identification		EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21
Sample Interval (dbm)		2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal
PCB-026	pg/g	--	--	--	--	--	--	--
PCB-027	pg/g	--	--	--	--	--	--	--
PCB-028	pg/g	--	--	--	--	--	--	--
PCB-029	pg/g	--	--	--	--	--	--	--
PCB-030	pg/g	--	--	--	--	--	--	--
PCB-031	pg/g	--	--	--	--	--	--	--
PCB-032	pg/g	--	--	--	--	--	--	--
PCB-033	pg/g	--	--	--	--	--	--	--
PCB-034	pg/g	--	--	--	--	--	--	--
PCB-035	pg/g	--	--	--	--	--	--	--
PCB-036	pg/g	--	--	--	--	--	--	--
PCB-037	pg/g	--	--	--	--	--	--	--
PCB-038	pg/g	--	--	--	--	--	--	--
PCB-039	pg/g	--	--	--	--	--	--	--
PCB-040	pg/g	--	--	--	--	--	--	--
PCB-041	pg/g	--	--	--	--	--	--	--
PCB-042	pg/g	--	--	--	--	--	--	--
PCB-043	pg/g	--	--	--	--	--	--	--
PCB-044	pg/g	--	--	--	--	--	--	--
PCB-045	pg/g	--	--	--	--	--	--	--
PCB-046	pg/g	--	--	--	--	--	--	--
PCB-047	pg/g	--	--	--	--	--	--	--
PCB-048	pg/g	--	--	--	--	--	--	--
PCB-049	pg/g	--	--	--	--	--	--	--
PCB-050	pg/g	--	--	--	--	--	--	--
PCB-051	pg/g	--	--	--	--	--	--	--
PCB-052	pg/g	--	--	--	--	--	--	--
PCB-053	pg/g	--	--	--	--	--	--	--
PCB-054	pg/g	--	--	--	--	--	--	--
PCB-055	pg/g	--	--	--	--	--	--	--
PCB-056	pg/g	--	--	--	--	--	--	--
PCB-057	pg/g	--	--	--	--	--	--	--
PCB-058	pg/g	--	--	--	--	--	--	--
PCB-059	pg/g	--	--	--	--	--	--	--
PCB-060	pg/g	--	--	--	--	--	--	--
PCB-061	pg/g	--	--	--	--	--	--	--
PCB-062	pg/g	--	--	--	--	--	--	--
PCB-063	pg/g	--	--	--	--	--	--	--
PCB-064	pg/g	--	--	--	--	--	--	--
PCB-065	pg/g	--	--	--	--	--	--	--
PCB-066	pg/g	--	--	--	--	--	--	--
PCB-067	pg/g	--	--	--	--	--	--	--

Sample Location ¹		EDP62	EDP63		EDP64		EDP65	
Sample Identification		EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21
Sample Interval (dbm)		2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal
PCB-068	pg/g	--	--	--	--	--	--	--
PCB-069	pg/g	--	--	--	--	--	--	--
PCB-070	pg/g	--	--	--	--	--	--	--
PCB-071	pg/g	--	--	--	--	--	--	--
PCB-072	pg/g	--	--	--	--	--	--	--
PCB-073	pg/g	--	--	--	--	--	--	--
PCB-074	pg/g	--	--	--	--	--	--	--
PCB-075	pg/g	--	--	--	--	--	--	--
PCB-076	pg/g	--	--	--	--	--	--	--
PCB-077 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-078	pg/g	--	--	--	--	--	--	--
PCB-079	pg/g	--	--	--	--	--	--	--
PCB-080	pg/g	--	--	--	--	--	--	--
PCB-081 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-082	pg/g	--	--	--	--	--	--	--
PCB-083	pg/g	--	--	--	--	--	--	--
PCB-084	pg/g	--	--	--	--	--	--	--
PCB-085	pg/g	--	--	--	--	--	--	--
PCB-086	pg/g	--	--	--	--	--	--	--
PCB-087	pg/g	--	--	--	--	--	--	--
PCB-088	pg/g	--	--	--	--	--	--	--
PCB-089	pg/g	--	--	--	--	--	--	--
PCB-090	pg/g	--	--	--	--	--	--	--
PCB-091	pg/g	--	--	--	--	--	--	--
PCB-092	pg/g	--	--	--	--	--	--	--
PCB-093	pg/g	--	--	--	--	--	--	--
PCB-094	pg/g	--	--	--	--	--	--	--
PCB-095	pg/g	--	--	--	--	--	--	--
PCB-096	pg/g	--	--	--	--	--	--	--
PCB-097	pg/g	--	--	--	--	--	--	--
PCB-098	pg/g	--	--	--	--	--	--	--
PCB-099	pg/g	--	--	--	--	--	--	--
PCB-100	pg/g	--	--	--	--	--	--	--
PCB-101	pg/g	--	--	--	--	--	--	--
PCB-102	pg/g	--	--	--	--	--	--	--
PCB-103	pg/g	--	--	--	--	--	--	--
PCB-104	pg/g	--	--	--	--	--	--	--
PCB-105 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-106	pg/g	--	--	--	--	--	--	--
PCB-107	pg/g	--	--	--	--	--	--	--
PCB-108	pg/g	--	--	--	--	--	--	--
PCB-109	pg/g	--	--	--	--	--	--	--

Sample Location ¹		EDP62	EDP63		EDP64		EDP65	
Sample Identification		EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21
Sample Interval (dbm)		2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal
PCB-110	pg/g	--	--	--	--	--	--	--
PCB-111	pg/g	--	--	--	--	--	--	--
PCB-112	pg/g	--	--	--	--	--	--	--
PCB-113	pg/g	--	--	--	--	--	--	--
PCB-114 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-115	pg/g	--	--	--	--	--	--	--
PCB-116	pg/g	--	--	--	--	--	--	--
PCB-117	pg/g	--	--	--	--	--	--	--
PCB-118 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-119	pg/g	--	--	--	--	--	--	--
PCB-120	pg/g	--	--	--	--	--	--	--
PCB-121	pg/g	--	--	--	--	--	--	--
PCB-122	pg/g	--	--	--	--	--	--	--
PCB-123 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-124	pg/g	--	--	--	--	--	--	--
PCB-125	pg/g	--	--	--	--	--	--	--
PCB-126 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-127	pg/g	--	--	--	--	--	--	--
PCB-128	pg/g	--	--	--	--	--	--	--
PCB-129	pg/g	--	--	--	--	--	--	--
PCB-130	pg/g	--	--	--	--	--	--	--
PCB-131	pg/g	--	--	--	--	--	--	--
PCB-132	pg/g	--	--	--	--	--	--	--
PCB-133	pg/g	--	--	--	--	--	--	--
PCB-134	pg/g	--	--	--	--	--	--	--
PCB-135	pg/g	--	--	--	--	--	--	--
PCB-136	pg/g	--	--	--	--	--	--	--
PCB-137	pg/g	--	--	--	--	--	--	--
PCB-138	pg/g	--	--	--	--	--	--	--
PCB-139	pg/g	--	--	--	--	--	--	--
PCB-140	pg/g	--	--	--	--	--	--	--
PCB-141	pg/g	--	--	--	--	--	--	--
PCB-142	pg/g	--	--	--	--	--	--	--
PCB-143	pg/g	--	--	--	--	--	--	--
PCB-144	pg/g	--	--	--	--	--	--	--
PCB-145	pg/g	--	--	--	--	--	--	--
PCB-146	pg/g	--	--	--	--	--	--	--
PCB-147	pg/g	--	--	--	--	--	--	--
PCB-148	pg/g	--	--	--	--	--	--	--
PCB-149	pg/g	--	--	--	--	--	--	--
PCB-150	pg/g	--	--	--	--	--	--	--
PCB-151	pg/g	--	--	--	--	--	--	--

Sample Location ¹		EDP62	EDP63		EDP64		EDP65	
Sample Identification		EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21
Sample Interval (dbm)		2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal
PCB-152	pg/g	--	--	--	--	--	--	--
PCB-153	pg/g	--	--	--	--	--	--	--
PCB-154	pg/g	--	--	--	--	--	--	--
PCB-155	pg/g	--	--	--	--	--	--	--
PCB-156 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-157 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-158	pg/g	--	--	--	--	--	--	--
PCB-159	pg/g	--	--	--	--	--	--	--
PCB-160	pg/g	--	--	--	--	--	--	--
PCB-161	pg/g	--	--	--	--	--	--	--
PCB-162	pg/g	--	--	--	--	--	--	--
PCB-163	pg/g	--	--	--	--	--	--	--
PCB-164	pg/g	--	--	--	--	--	--	--
PCB-165	pg/g	--	--	--	--	--	--	--
PCB-166	pg/g	--	--	--	--	--	--	--
PCB-167 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-168	pg/g	--	--	--	--	--	--	--
PCB-169	pg/g	--	--	--	--	--	--	--
PCB-170	pg/g	--	--	--	--	--	--	--
PCB-171	pg/g	--	--	--	--	--	--	--
PCB-172	pg/g	--	--	--	--	--	--	--
PCB-173	pg/g	--	--	--	--	--	--	--
PCB-174	pg/g	--	--	--	--	--	--	--
PCB-175	pg/g	--	--	--	--	--	--	--
PCB-176	pg/g	--	--	--	--	--	--	--
PCB-177	pg/g	--	--	--	--	--	--	--
PCB-178	pg/g	--	--	--	--	--	--	--
PCB-179	pg/g	--	--	--	--	--	--	--
PCB-180	pg/g	--	--	--	--	--	--	--
PCB-181	pg/g	--	--	--	--	--	--	--
PCB-182	pg/g	--	--	--	--	--	--	--
PCB-183	pg/g	--	--	--	--	--	--	--
PCB-184	pg/g	--	--	--	--	--	--	--
PCB-185	pg/g	--	--	--	--	--	--	--
PCB-186	pg/g	--	--	--	--	--	--	--
PCB-187	pg/g	--	--	--	--	--	--	--
PCB-188	pg/g	--	--	--	--	--	--	--
PCB-189 (Dioxin-Like)	pg/g	--	--	--	--	--	--	--
PCB-190	pg/g	--	--	--	--	--	--	--
PCB-191	pg/g	--	--	--	--	--	--	--
PCB-192	pg/g	--	--	--	--	--	--	--
PCB-193	pg/g	--	--	--	--	--	--	--

Sample Location ¹		EDP62	EDP63		EDP64		EDP65	
Sample Identification		EDP62_2.0-3.0	EDP63_0.0-1.0	EDP63_2.0-3.0	EDP64_0.0-1.0	EDP64_2.0-3.0	EDP65_0.0-1.0	EDP65_2.0-3.0
Sample Date		04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21	04/27/21
Sample Interval (dbm)		2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft	0-1 ft	2-3 ft
Sample Type		Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface	Subsurface
Stratigraphic Unit		Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit	Recent Deposit
Tidal Zone		Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal	Intertidal
PCB-194	pg/g	--	--	--	--	--	--	--
PCB-195	pg/g	--	--	--	--	--	--	--
PCB-196	pg/g	--	--	--	--	--	--	--
PCB-197	pg/g	--	--	--	--	--	--	--
PCB-198	pg/g	--	--	--	--	--	--	--
PCB-199	pg/g	--	--	--	--	--	--	--
PCB-200	pg/g	--	--	--	--	--	--	--
PCB-201	pg/g	--	--	--	--	--	--	--
PCB-202	pg/g	--	--	--	--	--	--	--
PCB-203	pg/g	--	--	--	--	--	--	--
PCB-204	pg/g	--	--	--	--	--	--	--
PCB-205	pg/g	--	--	--	--	--	--	--
PCB-206	pg/g	--	--	--	--	--	--	--
PCB-207	pg/g	--	--	--	--	--	--	--
PCB-208	pg/g	--	--	--	--	--	--	--
PCB-209	pg/g	--	--	--	--	--	--	--
Total PCBs Congeners	pg/g	--	--	--	--	--	--	--

Notes:

¹ Sample locations shown in Figures 10 through 12.

² Sediment sample collected from the Z-Layer during the 2016 Interim Action Dredged Material Characterization Study and is representative of surface sediment conditions following completion of the 2016/2017 Interim Action.

³ The polychlorinated biphenyl (PCB) results are from sample MAF-SC-04-0-2(B) which was collected from an additional core advanced at this location to collect an adequate volume of sediment sample.

⁴ The reported results are from sample MAF-SC-DUP-06 which is a duplicate sample for MAF-SC-04_2-4 advanced at this location.

-- = not analyzed

µg/kg = microgram per kilogram

cm = centimeter

dbm = depth below mudline

ft = feet

J = The analyte was detected and the detected concentration is considered an estimate.

pg/g = picogram per gram

U = The analyte was not detected at a concentration greater than the value identified.

Bold font type indicates the analyte was detected at the reported concentration.

Table H-4
Sediment Bioassay Data Summary - 10-Day Amphipod Mortality Test¹
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ID ²	Mean Mortality (%)	Comparison Sample	Statistically More than Reference (p=0.05) (Yes/No)	Mortality Comparison to Reference $M_T - M_R$	Fails SCO ³ (Yes/No)	Fails CSL ⁴ (Yes/No)
Control	1	--	--	--	--	--
CARR-16	6	--	--	--	--	--
CARR-44	0	--	--	--	--	--
MAF-09	2	CARR-16	No	-4	No	No
MAF-10	2	CARR-44	No	2	No	No
MAF-11	5	CARR-44	No	5	No	No
MAF-12	3	CARR-44	No	3	No	No
MAF-20	8	CARR-44	Yes	8	No	No
MAF-21	3	CARR-44	No	3	No	No
MAF-22	5	CARR-44	No	5	No	No
MAF-31	4	CARR-44	No	4	No	No
MAF-35	1	CARR-44	No	1	No	No

Notes:

¹ Sediment Management Standards (SMS) comparison for *Eohaustorius estuarius* .

² Sediment sample locations are shown on Figure 10.

³ Sediment Cleanup Objective (SCO) criteria: statistical significance and $M_T - M_R > 25\%$.

⁴ Sediment Cleanup Level (CSL) criteria: statistical significance and $M_T - M_R > 30\%$.

-- = Not applicable

M_R = Reference Mortality

M_T = Treatment Mortality

Bioassay testing performed by Ramboll Environ of Port Gamble, Washington.

Table H-5
Sediment Bioassay Data Summary - 20-Day Juvenile Infaunal Growth Test¹
Weyerhaeuser Mill A Former
Everett, Washington

	Sample Location ID ²	MIG (mg/ind/day)	Comparison Sample	Statistically Less than Reference (p=0.05) (Yes/No)	MIG Relative to Reference MIG _T /MIG _R	Fails SCO ³ (Yes/No)	Fails CSL ⁴ (Yes/No)
Dry Weight	Control	0.472	--	--	--	--	--
	CARR-16	0.506	--	--	--	--	--
	CARR-44	0.583	--	--	--	--	--
	MAF-09	0.53	CARR-16	No	1.05	No	No
	MAF-10	0.642	CARR-44	No	1.1	No	No
	MAF-11	0.637	CARR-44	No	1.09	No	No
	MAF-12	0.649	CARR-44	No	1.11	No	No
	MAF-20	0.619	CARR-44	No	1.06	No	No
	MAF-21	0.514	CARR-44	No	0.88	No	No
	MAF-22	0.66	CARR-44	No	1.13	No	No
	MAF-31	0.596	CARR-44	No	1.02	No	No
	MAF-35	0.704	CARR-44	No	1.21	No	No
Ash-Free Dry Weight	Control	0.364	--	--	--	--	--
	CARR-16	0.323	--	--	--	--	--
	CARR-44	0.395	--	--	--	--	--
	MAF-09	0.407	CARR-16	No	1.26	No	No
	MAF-10	0.433	CARR-44	No	1.1	No	No
	MAF-11	0.506	CARR-44	No	1.28	No	No
	MAF-12	0.486	CARR-44	No	1.23	No	No
	MAF-20	0.463	CARR-44	No	1.17	No	No
	MAF-21	0.368	CARR-44	No	0.93	No	No
	MAF-22	0.495	CARR-44	No	1.26	No	No
	MAF-31	0.449	CARR-44	No	1.14	No	No
	MAF-35	0.503	CARR-44	No	1.27	No	No

Notes:

¹ Sediment Management Standards (SMS) comparison for *Mytilus galloprovincialis* .

² Sediment sample locations are shown on Figure 10.

³ Sediment Cleanup Objective (SCO) criteria: statistical significance and $MIG_T/MIG_R < 0.70$.

⁴ Sediment Cleanup Level (CSL) criteria: statistical significance and $MIG_T/MIG_R < 0.50$.

-- = Not applicable

MIG_R = Reference Mean Individual Growth

MIG_T = Treatment Mean Individual Growth

Bioassay testing performed by Ramboll Environ of Port Gamble, Washington.

Table H-6
Sediment Bioassay Data Summary - Larval Development Test¹
Weyerhaeuser Mill A Former
Everett, Washington

Sample Location ID ²	Mean Number Normal	N_T/N_R	Comparison Sample	Statistically Less than Reference (p=0.10) (Yes/No)	Fails SCOS ³ (Yes/No)	Fails CSL ⁴ (Yes/No)
Control	239.8	--	--	--	--	--
CARR-16	220	--	--	--	--	--
CARR-44	227.4	--	--	--	--	--
MAF-09	201.5	0.92	CARR-16	No	No	No
MAF-10	181	0.80	CARR-44	Yes	Yes	No
MAF-11	204	0.90	CARR-44	No	No	No
MAF-12	183.8	0.81	CARR-44	Yes	Yes	No
MAF-20	209.8	0.92	CARR-44	No	No	No
MAF-21	194	0.85	CARR-44	No	No	No
MAF-22	177.2	0.78	CARR-44	Yes	Yes	No
MAF-31	202.6	0.89	CARR-44	No	No	No
MAF-35	195	0.86	CARR-44	No	No	No

Notes:

¹ Sediment Management Standards (SMS) comparison for *Mytilus galloprovincialis*.

² Surface (0 - 10 cm) sediment sample locations are shown on Figure 10.

³ Sediment Cleanup Objective (SCO) criteria: statistical significance and $N_T/N_R < 0.85$.

⁴ Sediment Cleanup Level (CSL) criteria: statistical significance and $N_T/N_R < 0.70$.

-- = Not applicable

N_C = Control Mean Number Normal

N_R = Reference Mean Number Normal

N_T = Treatment Mean Number Normal

Bioassay testing performed by Ramboll Environ of Port Gamble, Washington.