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**Table A-1. Summary of chemistry results for EWW recontamination monitoring
2006 surface sediment samples**

ANALYTE	UNIT	DETECTION FREQUENCY	DETECTED CONCENTRATION			REPORTING LIMIT ^a	
			MINIMUM	MAXIMUM	MEAN ^b	MINIMUM	MAXIMUM
PCBs							
Aroclor-1016	µg/kg dw	0 / 21	nd	nd	nd	19	510
Aroclor-1221	µg/kg dw	0 / 21	nd	nd	nd	19	340
Aroclor-1232	µg/kg dw	0 / 21	nd	nd	nd	19	780
Aroclor-1242	µg/kg dw	0 / 21	nd	nd	nd	19	540
Aroclor-1248	µg/kg dw	0 / 21	nd	nd	nd	19	680
Aroclor-1254	µg/kg dw	15 / 21	10 J	1,200	160	19	1,500
Aroclor-1260	µg/kg dw	19 / 21	10 J	2,600	330	19	20
Total PCBs (calc'd)	µg/kg dw	19 / 21	20 J	2,600	450	nc	nc
Metals							
Antimony	mg/kg dw	0 / 21	nd	nd	nd	5	8
Arsenic	mg/kg dw	11 / 21	6	11	8	5	7
Cadmium	mg/kg dw	12 / 21	0.3	2.4	0.6	0.2	0.3
Chromium	mg/kg dw	21 / 21	15.7	43.9	22.4	na	na
Copper	mg/kg dw	21 / 21	14.9	78.4	32.5	na	na
Lead	mg/kg dw	21 / 21	3	131	24	na	na
Mercury	mg/kg dw	16 / 21	0.06	0.78	0.25	0.04	0.05
Nickel	mg/kg dw	21 / 21	14	26	20	na	na
Silver	mg/kg dw	2 / 21	0.5	2.2	1	0.3	0.4
Zinc	mg/kg dw	21 / 21	29.9	249	66	na	na
PAHs							
2-Chloronaphthalene	µg/kg dw	0 / 21	nd	nd	nd	19	39
2-Methylnaphthalene	µg/kg dw	8 / 21	18 J	300	57	19	20
Acenaphthene	µg/kg dw	13 / 21	11 J	96	26	20	20
Acenaphthylene	µg/kg dw	13 / 21	14 J	44	21	20	20
Anthracene	µg/kg dw	16 / 21	25	230	81	20	20
Benzo(a)anthracene	µg/kg dw	19 / 21	13 J	360	110	20	20
Benzo(a)pyrene	µg/kg dw	19 / 21	15 J	330	120	20	20
Benzo(b)fluoranthene	µg/kg dw	20 / 21	12 J	420	170	20	20
Benzo(g,h,i)perylene	µg/kg dw	16 / 21	16 J	110	43	20	20
Benzo(k)fluoranthene	µg/kg dw	20 / 21	10 J	410	130	20	20
Total benzofluoranthenes (calc'd)	µg/kg dw	20 / 21	22 J	830	300	nc	nc
Chrysene	µg/kg dw	20 / 21	11 J	520	160	20	20
Dibenzo(a,h)anthracene	µg/kg dw	13 / 21	11 J	30 J	16	20	20
Dibenzofuran	µg/kg dw	8 / 21	17 J	81	29	19	20
Fluoranthene	µg/kg dw	20 / 21	27	920	260	20	20



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ANALYTE	UNIT	DETECTION FREQUENCY	DETECTED CONCENTRATION			REPORTING LIMIT ^a	
			MINIMUM	MAXIMUM	MEAN ^b	MINIMUM	MAXIMUM
Fluorene	µg/kg dw	14 / 21	16 J	180	38	20	20
Indeno(1,2,3-cd)pyrene	µg/kg dw	16 / 21	17 J	86	41	20	20
Naphthalene	µg/kg dw	14 / 21	15 J	120	34	20	20
Phenanthrene	µg/kg dw	20 / 21	12 J	380	100	20	20
Pyrene	µg/kg dw	20 / 21	24	1,200	260	20	20
Total HPAH (calc'd)	µg/kg dw	20 / 21	84 J	4,400 J	1,300	nc	nc
Total LPAH (calc'd)	µg/kg dw	20 / 21	12 J	1,050	250	nc	nc
Total PAH (calc'd)	µg/kg dw	20 / 21	103 J	5,400 J	1,500	nc	nc
Phthalates							
Bis(2-ethylhexyl)phthalate	µg/kg dw	20 / 21	23	2,800	310	20	20
Butyl benzyl phthalate	µg/kg dw	4 / 21	14 J	25	20	19	39
Diethyl phthalate	µg/kg dw	0 / 21	nd	nd	nd	19	39
Dimethyl phthalate	µg/kg dw	0 / 21	nd	nd	nd	19	39
Di-n-butyl phthalate	µg/kg dw	4 / 21	13 J	120	46	19	20
Di-n-octyl phthalate	µg/kg dw	0 / 21	nd	nd	nd	19	39
Other SVOCs							
1,2,4-Trichlorobenzene	µg/kg dw	0 / 21	nd	nd	nd	19	39
1,2-Dichlorobenzene	µg/kg dw	0 / 21	nd	nd	nd	19	39
1,3-Dichlorobenzene	µg/kg dw	2 / 21	20 J	28	24	19	20
1,4-Dichlorobenzene	µg/kg dw	15 / 21	13 J	170	38	20	20
2,4,5-Trichlorophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
2,4,6-Trichlorophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
2,4-Dichlorophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
2,4-Dimethylphenol	µg/kg dw	0 / 21	nd	nd	nd	19	39
2,4-Dinitrophenol	µg/kg dw	0 / 21	nd	nd	nd	190	390
2,4-Dinitrotoluene	µg/kg dw	0 / 21	nd	nd	nd	97	200
2,6-Dinitrotoluene	µg/kg dw	0 / 21	nd	nd	nd	97	200
2-Chlorophenol	µg/kg dw	0 / 21	nd	nd	nd	19	39
2-Methylphenol	µg/kg dw	0 / 21	nd	nd	nd	19	39
2-Nitroaniline	µg/kg dw	0 / 21	nd	nd	nd	97	200
2-Nitrophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
3,3'-Dichlorobenzidine	µg/kg dw	0 / 21	nd	nd	nd	97	200
3-Nitroaniline	µg/kg dw	0 / 21	nd	nd	nd	97	200
4,6-Dinitro-o-cresol	µg/kg dw	0 / 21	nd	nd	nd	190	390
4-Bromophenyl phenyl ether	µg/kg dw	0 / 21	nd	nd	nd	19	39
4-Chloro-3-methylphenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
4-Chloroaniline	µg/kg dw	0 / 21	nd	nd	nd	97	200
4-Chlorophenyl phenyl ether	µg/kg dw	0 / 21	nd	nd	nd	19	39
4-Methylphenol	µg/kg dw	17 / 21	16 J	200	81	20	20
4-Nitroaniline	µg/kg dw	0 / 21	nd	nd	nd	97	200

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ANALYTE	UNIT	DETECTION FREQUENCY	DETECTED CONCENTRATION			REPORTING LIMIT ^a	
			MINIMUM	MAXIMUM	MEAN ^b	MINIMUM	MAXIMUM
4-Nitrophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
Benzoic acid	µg/kg dw	0 / 21	nd	nd	nd	190	390
Benzyl alcohol	µg/kg dw	0 / 21	nd	nd	nd	19	39
bis(2-chloroethoxy)methane	µg/kg dw	0 / 21	nd	nd	nd	19	39
bis(2-chloroethyl)ether	µg/kg dw	0 / 21	nd	nd	nd	19	39
bis(2-chloroisopropyl)ether	µg/kg dw	0 / 21	nd	nd	nd	19	39
Carbazole	µg/kg dw	12 / 21	16 J	28	22	20	39
Hexachlorobenzene	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Hexachlorobutadiene	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Hexachlorocyclopentadiene	µg/kg dw	0 / 21	nd	nd	nd	97	200
Hexachloroethane	µg/kg dw	0 / 21	nd	nd	nd	19	39
Isophorone	µg/kg dw	0 / 21	nd	nd	nd	19	39
Nitrobenzene	µg/kg dw	0 / 21	nd	nd	nd	19	39
N-Nitroso-di-n-propylamine	µg/kg dw	0 / 21	nd	nd	nd	97	200
N-Nitrosodiphenylamine	µg/kg dw	0 / 21	nd	nd	nd	19	39
Pentachlorophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
Phenol	µg/kg dw	17 / 21	36	630	380	20	20
Pesticides							
2,4'-DDD	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
2,4'-DDE	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
2,4'-DDT	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
4,4'-DDD	µg/kg dw	0 / 21	nd	nd	nd	1.9	61
4,4'-DDE	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
4,4'-DDT	µg/kg dw	0 / 21	nd	nd	nd	1.9	270
Total DDTs (calc'd)	µg/kg dw	0 / 21	nd	nd	nd	nc	nc
Aldrin	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Dieldrin	µg/kg dw	0 / 21	nd	nd	nd	1.9	110
Total aldrin/dieldrin (calc'd)	µg/kg dw	0 / 21	nd	nd	nd	nc	nc
alpha-BHC	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
beta-BHC	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
delta-BHC	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
gamma-BHC	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
alpha-Chlordane	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
gamma-Chlordane	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Total Chlordane (calc'd)	µg/kg dw	0 / 21	nd	nd	nd	nc	nc
alpha-Endosulfan	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
beta-Endosulfan	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Endosulfan sulfate	µg/kg dw	0 / 21	nd	nd	nd	1.9	62
Endrin	µg/kg dw	0 / 21	nd	nd	nd	1.9	94
Endrin aldehyde	µg/kg dw	0 / 21	nd	nd	nd	1.9	34

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ANALYTE	UNIT	DETECTION FREQUENCY	DETECTED CONCENTRATION			REPORTING LIMIT ^a	
			MINIMUM	MAXIMUM	MEAN ^b	MINIMUM	MAXIMUM
Endrin ketone	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Heptachlor	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Heptachlor epoxide	µg/kg dw	0 / 21	nd	nd	nd	0.95	66
Methoxychlor	µg/kg dw	0 / 21	nd	nd	nd	9.5	170
Mirex	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Cis-Nonachlor	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Oxychlordane	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Toxaphene	µg/kg dw	0 / 21	nd	nd	nd	95	1,700
Trans-Nonachlor	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Grain size							
Total Gravel	% dw	21 / 21	0.1	52.5	20	na	na
Total sand (calc'd)	% dw	21 / 21	29.1	78.1	63	na	na
Total silt (calc'd)	% dw	20 / 21	1.5	44.8	15	na	na
Total clay (calc'd)	% dw	20 / 21	1.5	16.9	6.4	na	na
Fines (percent silt + clay)	% dw	20 / 21	3.0	61.7	21	na	na
Conventional parameters							
Total organic carbon (TOC)	% dw	21 / 21	0.351	2.30	1.22	na	na
Total solids	% ww	21 / 21	57.6	93.6	73.4	na	na

^a RL range for non-detect samples

^b Reported mean concentrations are the average of the detected concentrations only; RLs were not included in the mean concentration calculation

dw – dry weight

na – not applicable

nc – not calculated

nd – not detected

J – estimated value



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Table A-2a. Concentrations of analytes in recontamination monitoring sediment samples: EW-RM06-1 through EW-RM06-15

ANALYTE	UNIT	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
Metals and trace elements											
Antimony	mg/kg dw	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	7 UJ	7 UJ	6 UJ	7 UJ	8 UJ
Arsenic	mg/kg dw	7 U	6 U	6 U	7 U	7 U	7 U	7 U	6 U	8	11
Cadmium	mg/kg dw	0.5	0.2 U	0.2 U	0.4	0.3 U	0.4	0.3	0.2 U	0.3	2.4
Chromium	mg/kg dw	22.0	22.8	24.1	19.9	20.7	18.6	21.1	17.7	22.7	43.9
Copper	mg/kg dw	38.7	26.5	17.1	34.8	33.2	33.4	33.8	17.3	42.4	78.4
Lead	mg/kg dw	27	10	5	23	17	19	22	6	23	131
Mercury	mg/kg dw	0.17	0.06	0.05 U	0.15	0.13	0.13	0.12	0.05 U	0.67	0.78
Nickel	mg/kg dw	14	25	19	16	18	18	16	19	21	26
Silver	mg/kg dw	0.4 U	0.3 U	0.3 U	0.4 U	2.2					
Zinc	mg/kg dw	68.7	48.7	36.6	62.3	52.7	58.1	60	36.3	66.4	249
PAHs											
2-Chloronaphthalene	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
2-Methylnaphthalene	µg/kg dw	20	20 U	20 U	19 J	20 U	18 J	20 U	20 U	19 J	300
Acenaphthene	µg/kg dw	16 J	20 U	20 U	12 J	11 J	25	19 J	20 U	18 J	96
Acenaphthylene	µg/kg dw	18 J	20 U	20 U	20	18 J	18 J	14 J	20 U	20	44
Anthracene	µg/kg dw	70	25	20 U	69	64	83	86	20 U	86	230
Benzo(a)anthracene	µg/kg dw	120	39	15 J	120	110	120	110	17 J	150	360
Benzo(a)pyrene	µg/kg dw	140	45	15 J	140	120	130	130	16 J	180	330
Benzo(b)fluoranthene	µg/kg dw	190	62	24	260	180	220	200	27	290	420
Benzo(g,h,i)perylene	µg/kg dw	50	19 J	20 U	42	34	44	34	20 U	48	110
Benzo(k)fluoranthene	µg/kg dw	140	46	21	160	160	160	150	19 J	190	410
Total Benzofluoranthenes (calc'd)	µg/kg dw	330	108	45	420	340	380	350	46 J	480	830
Chrysene	µg/kg dw	180	64	21	170	170	180	160	24	230	520
Dibenzo(a,h)anthracene	µg/kg dw	20	20 U	20 U	15 J	12 J	16 J	14 J	20 U	19 J	30 J
Dibenzofuran	µg/kg dw	20 U	24	17 J	20 U	17 J	81				
Fluoranthene	µg/kg dw	300	88	34	280	230	320	270	33	310	920
Fluorene	µg/kg dw	20	20 U	20 U	18 J	17 J	35	27	20 U	25	180



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ANALYTE	UNIT	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
Indeno(1,2,3-cd)pyrene	µg/kg dw	50	18 J	20 U	44	35	41	34	20 U	49	86
Naphthalene	µg/kg dw	24	20 U	20 U	22	19 J	47	21	20 U	30	120
Phenanthrene	µg/kg dw	110	32	15 J	98	77	120	100	15 J	120	380
Pyrene	µg/kg dw	220	60	36	340	250	310	240	34	310	1,200
Total HPAH (calc'd)	µg/kg dw	1,410	441 J	166 J	1,570 J	1,300 J	1,540 J	1,340 J	170 J	1,780 J	4,400 J
Total LPAH (calc'd)	µg/kg dw	260 J	57	15 J	239 J	206 J	330 J	270 J	15 J	300 J	1,050
Carcinogenic PAHs	µg/kg dw	200	62 J	31 J	210 J	180 J	190 J	190 J	23 J	260 J	470 J
Total PAH (calc'd)	µg/kg dw	1,670 J	498 J	181 J	1,810 J	1,510 J	1,870 J	1,610 J	185 J	2,080 J	5,400 J
Phthalates											
Bis(2-ethylhexyl)phthalate	µg/kg dw	220	76	31	250	200	260	240	74	260	2,800
Butyl benzyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	14 J	18 J	22	20 U	25	39 U
Diethyl phthalate	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
Dimethyl phthalate	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
Di-n-butyl phthalate	µg/kg dw	20 U	20 U	20 U	13 J	20 U	38	20 U	20 U	20 U	120
Di-n-octyl phthalate	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
Other SVOCs											
1,2,4-Trichlorobenzene	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
1,2-Dichlorobenzene	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
1,3-Dichlorobenzene	µg/kg dw	20 U	19 U	20 U	20 U	28	20 J				
1,4-Dichlorobenzene	µg/kg dw	18 J	68	39	14 J	22	82	22	20 U	28	170
2,4,5-Trichlorophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2,4,6-Trichlorophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2,4-Dichlorophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2,4-Dimethylphenol	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
2,4-Dinitrophenol	µg/kg dw	200 UJ	190 UJ	200 UJ	200 UJ	200 UJ	390 UJ				
2,4-Dinitrotoluene	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2,6-Dinitrotoluene	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2-Chlorophenol	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
2-Methylphenol	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
2-Nitroaniline	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2-Nitrophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
3,3'-Dichlorobenzidine	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U

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ANALYTE	UNIT	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
3-Nitroaniline	µg/kg dw	98 UJ	99 UJ	97 UJ	100 UJ	98 UJ	97 UJ	97 U	100 U	98 U	200 U
4,6-Dinitro-o-cresol	µg/kg dw	200 U	190 U	200 UJ	200 UJ	200 UJ	390 UJ				
4-Bromophenyl phenyl ether	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
4-Chloro-3-methylphenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
4-Chloroaniline	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
4-Chlorophenyl phenyl ether	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
4-Methylphenol	µg/kg dw	56	51	33	55	33	170	99	20 U	100	100
4-Nitroaniline	µg/kg dw	98 UJ	99 UJ	97 UJ	100 UJ	98 UJ	97 UJ	97 U	100 U	98 U	200 U
4-Nitrophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
Benzoic acid	µg/kg dw	200 U	190 U	200 U	200 U	200 U	390 U				
Benzyl alcohol	µg/kg dw	20 U	19 U	20 UJ	20 UJ	20 UJ	39 UJ				
bis(2-chloroethoxy)methane	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
bis(2-chloroethyl)ether	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
bis(2-chloroisopropyl)ether	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
Carbazole	µg/kg dw	21	20 U	20 U	18 J	16 J	22	27	20 U	24	39 U
Hexachlorobenzene	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
Hexachlorobutadiene	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
Hexachlorocyclopentadiene	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
Hexachloroethane	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
Isophorone	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
Nitrobenzene	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
N-Nitroso-di-n-propylamine	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
N-Nitrosodiphenylamine	µg/kg dw	20 U	19 U	20 U	20 U	20 U	39 U				
Pentachlorophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
Phenol	µg/kg dw	630	330	44	450	220	400	520	20 U	470	340
PCBs											
Aroclor-1016	µg/kg dw	29 U	20 U	19 U	56 U	54 U	270 U	19 U	19 U	28 U	510 U
Aroclor-1221	µg/kg dw	29 U	20 U	19 U	56 U	54 U	270 U	19 U	19 U	28 U	340 U
Aroclor-1232	µg/kg dw	31 U	20 U	19 U	56 U	54 U	270 U	19 U	19 U	28 U	780 U
Aroclor-1242	µg/kg dw	29 U	20 U	19 U	56 U	54 U	270 U	19 U	19 U	28 U	540 U
Aroclor-1248	µg/kg dw	44 U	20 U	19 U	89 U	54 U	270 U	29 U	19 U	28 U	680 U
Aroclor-1254	µg/kg dw	160	20 U	19 U	1,500 U	94	270 U	88	10 J	78	1,200

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Table A-2a, cont.

ANALYTE	UNIT	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
Aroclor-1260	µg/kg dw	280	39	19 U	2,600	120	160 J	120	10 J	120	1,200
Total PCBs (calc'd)	µg/kg dw	440	39	19 U	2,600	210	160 J	210	20 J	200	2,400
Pesticides											
2,4'-DDD	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
2,4'-DDE	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
2,4'-DDT	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
4,4'-DDD	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	61 U
4,4'-DDE	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
4,4'-DDT	µg/kg dw	29 U	2.0 U	1.9 U	24 U	38 U	27 U	17 U	2.0 U	20 U	270 U
Total DDTs (calc'd)	µg/kg dw	29 U	2.0 U	1.9 U	24 U	38 U	27 U	17 U	2.0 U	20 U	270 U
Aldrin	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
Dieldrin	µg/kg dw	7.7 U	2.0 U	1.9 U	5.6 U	9.8 U	27 U	5.6 U	2.0 U	5.5 U	110 U
Total aldrin/dieldrin (calc'd)	µg/kg dw	7.7 U	2.0 U	1.9 U	5.6 U	9.8 U	27 U	5.6 U	2.0 U	5.5 U	110 U
alpha-BHC	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
beta-BHC	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
delta-BHC	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
gamma-BHC	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
alpha-Chlordane	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
gamma-Chlordane	µg/kg dw	6.3 U	0.98 U	0.95 U	5.3 U	2.7 U	13 U	3.9 U	1.0 U	4.4 U	17 U
alpha-Endosulfan	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
beta-Endosulfan	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Endosulfan sulfate	µg/kg dw	9.6 U	2.0 U	1.9 U	8.2 U	11 U	27 U	5.4 U	2.0 U	7.9 U	62 U
Endrin	µg/kg dw	8.7 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	6.6 U	2.0 U	7.7 U	94 U
Endrin aldehyde	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Endrin ketone	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Heptachlor	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
Heptachlor epoxide	µg/kg dw	6.4 U	0.98 U	0.95 U	6.5 U	2.7 U	13 U	4.0 U	1.0 U	4.6 U	66 U
Methoxychlor	µg/kg dw	15 U	9.8 U	9.5 U	28 U	27 U	130 U	9.7 U	10 U	14 U	170 U
Mirex	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Cis-Nonachlor	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Oxychlordane	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Toxaphene	µg/kg dw	150 U	98 U	95 U	280 U	270 U	1,300 U	97 U	100 U	140 U	1,700 U

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Table A-2a, cont.

ANALYTE	UNIT	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
Trans-Nonachlor	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Total Chlordane (calc'd)	µg/kg dw	6.3 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	3.9 U	2.0 U	4.4 U	34 U
Grain size											
Gravel	% dw	0.1	27.4	21.5	0.1	2.5	9.9	1.2	18.8	3.0	45.2
Very coarse sand	% dw	1.6	23.6	31.3	0.6	7.1	13.0	4.2	22.9	5.3	3.7
Coarse sand	% dw	2.6	21.0	27.1	5.9	17.1	19.5	12.1	28.2	13.5	4.7
Medium sand	% dw	11.5	11.8	12.6	25.9	22.9	16.2	23.4	19.5	21.8	6.3
Fine sand	% dw	30.4	5.2	2.6	29.9	20.6	11.3	25.7	4.8	17.8	8.3
Very fine sand	% dw	18.4	3.0	0.8	13.5	10.4	8.3	11.0	1.0	11.5	6.1
Coarse silt	% dw	10.1	1.6	0.1 U	6.0	5.2	4.6	5.0	0.5	6.6	3.1
Medium silt	% dw	8.1	1.5	0.6	3.9	3.9	4.7	4.8	0.7	5.3	8.4
Fine silt	% dw	5.3	1.2	0.5	3.4	2.7	3.6	3.2	0.8	4.1	5.6
Very fine silt	% dw	3.3	0.9	0.6	2.8	2.1	2.2	2.6	0.7	3.2	2.2
Clay (phi 8-9)	% dw	2.5	0.8	0.6	2.1	1.6	2.0	2.2	0.6	2.4	1.8
Clay (phi 9-10)	% dw	1.6	0.5	0.4	1.6	1.3	1.7	1.8	0.4	1.9	1.3
Clay (phi 10+)	% dw	4.3	1.2	1.3	4.4	2.9	3.1	2.9	1.0	3.7	3.2
Total Gravel	% dw	0.1	27.4	21.5	0.1	2.5	9.9	1.2	18.8	3.0	45.2
Total Sand (calc'd)	% dw	64.5	64.6	74.4	75.8	78.1	68.3	76.4	76.4	69.9	29.1
Total Silt (calc'd)	% dw	26.8	5.2	1.7	16.1	13.9	15.1	15.6	2.7	19.2	19.3
Total Clay (calc'd)	% dw	8.4	2.5	2.3	8.1	5.8	6.8	6.9	2.0	8.0	6.3
Fines (percent silt+clay)	% dw	35.2	7.7	4.0	24.2	19.7	21.9	22.5	4.7	27.2	25.6
Conventional parameters											
Total organic carbon (TOC)	% dw	1.36	0.863	0.679	1.54	1.31	1.32	1.30	0.880	0.876	2.30
Total solids	% ww	66.70	83.80	85.30	68.10	69.90	71.00	67.40	83.60	66.10	58.30

dw – dry weight

ww – wet weight

na – not analyzed

Concentration in *italics* indicates that laboratory replicate was run for sample. Value reported was based on averaging rules in Appendix B**Port of Seattle**East Waterway, Harbor Island Superfund Site:
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Table A-2b. Concentrations of analytes in recontamination monitoring sediment samples: EW-RM06-16 through EW-RM06-28

ANALYTE	UNIT	EW-RM-16		EW-RM-18		EW-RM-19		EW-RM-20		EW-RM-21		EW-RM-23		EW-RM-24		EW-RM-25		EW-RM-26		EW-RM-28	
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-26	EW-RM06-28							
Metals and trace elements																					
Antimony	mg/kg dw	7 UJ	7 UJ	5 UJ	7 UJ	5 UJ	7 UJ	7 UJ	7 UJ	8 UJ	6 UJ	6 UJ									
Arsenic	mg/kg dw	8	7	5 U	7	6	8	8	7	11	6 U	6									
Cadmium	mg/kg dw	0.4	0.4	0.2 U	0.5	0.2 U	0.4	0.3 U	0.6	0.7	0.2 U	0.2 U									
Chromium	mg/kg dw	23.5	22.0	18.1	22.4	15.7	21.1	23.6	20.7	30.1	19.9	20.6									
Copper	mg/kg dw	33.2	39.2	14.9	35.3	17.2	35.0	30.3	30.2	49.1	19.1	22.5									
Lead	mg/kg dw	26	25	3	34	5	22	16	27	39	8	11									
Mercury	mg/kg dw	0.16	0.15	0.04 U	0.38	0.05 U	0.17	0.21	0.28	0.33	0.05 U	0.08									
Nickel	mg/kg dw	21	19	17	20	18	18	25	17	22	22	20									
Silver	mg/kg dw	0.4 U	0.4 U	0.3 U	0.4 U	0.3 U	0.4 U	0.4 U	0.4 U	0.5	0.3 U	0.4 U									
Zinc	mg/kg dw	70.3	74.8	29.9	74.8	33.4	66.6	54.3	70.1	95	38.4	41.9									
PAHs																					
2-Chloronaphthalene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U													
2-Methylnaphthalene	µg/kg dw	20 U	20 U	20 U	19 J	20 U	19 U	20 U	33	29	20 U	20 U									
Acenaphthene	µg/kg dw	32	27	20 U	17 J	20 U	13 J	20 U	27	30	20 U	20 U									
Acenaphthylene	µg/kg dw	23	15 J	20 U	17 J	20 U	17 J	20 U	22	31	20 U	20 U									
Anthracene	µg/kg dw	90	66	20 U	90	20 U	75	36	80	110	20 U	30									
Benzo(a)anthracene	µg/kg dw	140	100	20 U	130	20 U	140	55	130	180	13 J	42									
Benzo(a)pyrene	µg/kg dw	170	120	20 U	140	20 U	160	52	130	190	15 J	49									
Benzo(b)fluoranthene	µg/kg dw	230	190	20 U	240	12 J	230	76	210	320	23	72									
Benzo(g,h,i)perylene	µg/kg dw	45	34	20 U	43	20 U	37	17 J	42	66	20 U	16 J									
Benzo(k)fluoranthene	µg/kg dw	180	120	20 U	150	10 J	170	47	140	220	14 J	53									
Total Benzofluoranthenes (calc'd)	µg/kg dw	410	310	20 U	390	22 J	400	123	350	540	37 J	125									
Chrysene	µg/kg dw	220	160	20 U	190	11 J	210	80	170	260	17 J	67									
Dibeno(a,h)anthracene	µg/kg dw	17 J	13 J	20 U	11 J	20 U	12 J	20 U	13 J	21	20 U	20 U									
Dibenzofuran	µg/kg dw	24	19 J	20 U	20 U	20 U	19 U	20 U	23	25	20 U	20 U									
Fluoranthene	µg/kg dw	370	300	20 U	340	27	290	120	380	510	32	94									
Fluorene	µg/kg dw	30	24	20 U	29	20 U	23	16 J	36	48	20 U	20 U									



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Table A-2b, cont.

ANALYTE	UNIT	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Indeno(1,2,3-cd)pyrene	µg/kg dw	49	35	20 U	42	20 U	39	17 J	40	61	20 U	17 J
Naphthalene	µg/kg dw	34	25	20 U	29	20 U	21	15 J	30	40	20 U	20 U
Phenanthrene	µg/kg dw	130	92	20 U	130	19 J	110	56	150	190	12 J	37
Pyrene	µg/kg dw	220	190	20 U	330	24	250	160	340	530	39	83
Total HPAH (calc'd)	µg/kg dw	1,640 J	1,260 J	20 U	1,620 J	84 J	1,540 J	620 J	1,600 J	2,360	153 J	493 J
Total LPAH (calc'd)	µg/kg dw	340	249 J	20 U	310 J	19 J	260 J	123 J	350	450	12 J	67
Carcinogenic PAHs	µg/kg dw	240 J	170 J	0 U	200 J	2 J	220 J	80 J	190 J	280	30 J	76 J
Total PAH (calc'd)	µg/kg dw	1,980 J	1,510 J	20 U	1,930 J	103 J	1,800 J	750 J	1,940 J	2,810	165 J	560 J
Phthalates												
Bis(2-ethylhexyl)phthalate	µg/kg dw	230	210	20 U	220	23	270	33	380	270	66	76
Butyl benzyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
Diethyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
Dimethyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
Di-n-butyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	14 J	20 U	20 U	20 U
Di-n-octyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
Other SVOCs												
1,2,4-Trichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
1,2-Dichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
1,3-Dichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
1,4-Dichlorobenzene	µg/kg dw	15 J	24	20 U	13 J	20 U	17 J	20 U	15 J	23	20 U	20 U
2,4,5-Trichlorophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2,4,6-Trichlorophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2,4-Dichlorophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2,4-Dimethylphenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
2,4-Dinitrophenol	µg/kg dw	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	190 UJ	200 UJ				
2,4-Dinitrotoluene	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2,6-Dinitrotoluene	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2-Chlorophenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
2-Methylphenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
2-Nitroaniline	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2-Nitrophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
3,3'-Dichlorobenzidine	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U

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Table A-2b, cont.

ANALYTE	UNIT	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
3-Nitroaniline	µg/kg dw	100 UJ	98 UJ	100 U	98 U	98 U	97 U	100 U	99 UJ	99 UJ	98 U	98 U
4,6-Dinitro-o-cresol	µg/kg dw	200 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ	200 UJ	200 U	200 U	200 UJ	200 UJ
4-Bromophenyl phenyl ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
4-Chloro-3-methylphenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
4-Chloroaniline	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
4-Chlorophenyl phenyl ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
4-Methylphenol	µg/kg dw	120	80	20 U	200	20 U	120	16 J	24	57	20 U	61
4-Nitroaniline	µg/kg dw	100 UJ	98 UJ	100 U	98 U	98 U	97 U	100 U	99 UJ	99 UJ	98 U	98 U
4-Nitrophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
Benzoic acid	µg/kg dw	200 U	200 U	200 U	200 U	200 U	190 U	200 U				
Benzyl alcohol	µg/kg dw	20 U	20 U	20 UJ	20 UJ	20 UJ	19 UJ	20 UJ	20 U	20 U	20 UJ	20 UJ
bis(2-chloroethoxy)methane	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
bis(2-chloroethyl)ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
bis(2-chloroisopropyl)ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
Carbazole	µg/kg dw	24	22	20 U	23	20 U	23	20 U	20	28	20 U	20 U
Hexachlorobenzene	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Hexachlorobutadiene	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Hexachlorocyclopentadiene	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
Hexachloroethane	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
Isophorone	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
Nitrobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
N-Nitroso-di-n-propylamine	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
N-Nitrosodiphenylamine	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U				
Pentachlorophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
Phenol	µg/kg dw	560	390	20 U	480	20 U	330	36	310	590	20 U	290
PCBs												
Aroclor-1016	µg/kg dw	28 U	55 U	20 U	19 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1221	µg/kg dw	28 U	55 U	20 U	19 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1232	µg/kg dw	28 U	55 U	20 U	19 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1242	µg/kg dw	28 U	55 U	20 U	19 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1248	µg/kg dw	33 U	55 U	20 U	29 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1254	µg/kg dw	100	100	20 U	130	20 J	83 J	36	290 U	190	56	35

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Table A-2b, cont.

ANALYTE	UNIT	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Aroclor-1260	µg/kg dw	130	230	20 U	350	25	120	59	210 J	260	140	44
Total PCBs (calc'd)	µg/kg dw	230	330	20 U	480	45 J	200 J	95	210 J	450	200	79
Pesticides												
2,4'-DDD	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
2,4'-DDE	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
2,4'-DDT	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
4,4'-DDD	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
4,4'-DDE	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
4,4'-DDT	µg/kg dw	21 U	38 U	2.0 U	18 U	1.9 U	15 U	7.0 U	29 U	42 U	2.0 U	11 U
Total DDTs (calc'd)	µg/kg dw	21 U	38 U	2.0 U	18 U	1.9 U	15 U	7.0 U	29 U	42 U	2.0 U	11 U
Aldrin	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Dieldrin	µg/kg dw	6.5 U	11 U	2.0 U	5.2 U	1.9 U	9.1 U	2.0 U	29 U	11 U	2.0 U	2.0 U
Total aldrin/dieldrin (calc'd)	µg/kg dw	6.5 U	11 U	2.0 U	5.2 U	1.9 U	9.1 U	2.0 U	29 U	11 U	2.0 U	2.0 U
alpha-BHC	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
beta-BHC	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
delta-BHC	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
gamma-BHC	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
alpha-Chlordane	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
gamma-Chlordane	µg/kg dw	4.3 U	6.4 U	0.99 U	4.4 U	0.96 U	4.6 U	0.99 U	15 U	8.8 U	0.98 U	1.6 U
alpha-Endosulfan	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
beta-Endosulfan	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Endosulfan sulfate	µg/kg dw	6.7 U	12 U	2.0 U	6.6 U	1.9 U	9.1 U	2.0 U	29 U	12 U	2.0 U	3.8 U
Endrin	µg/kg dw	7.5 U	10 U	2.0 U	5.2 U	1.9 U	9.1 U	2.0 U	29 U	10 U	2.0 U	2.0 U
Endrin aldehyde	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Endrin ketone	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Heptachlor	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Heptachlor epoxide	µg/kg dw	4.6 U	6.7 U	0.99 U	3.6 U	0.96 U	4.6 U	0.99 U	15 U	14 U	0.98 U	0.98 U
Methoxychlor	µg/kg dw	14 U	27 U	9.9 U	9.7 U	9.6 U	46 U	9.9 U	150 U	34 U	9.8 U	9.8 U
Mirex	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Cis-Nonachlor	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Oxychlordane	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Toxaphene	µg/kg dw	140 U	270 U	99 U	97 U	96 U	460 U	99 U	1,500 U	340 U	98 U	98 U

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Table A-2b, cont.

ANALYTE	UNIT	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Trans-Nonachlor	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Total Chlordane (calc'd)	µg/kg dw	4.3 U	6.4 U	2.0 U	4.4 U	1.9 U	9.1 U	2.0 U	29 U	8.8 U	2.0 U	2.0 U
Grain size												
Gravel	% dw	13.9	14.6	35.6	52.5	30.9	19.7	19.6	4.0	0.6	27.4	15.9
Very coarse sand	% dw	14.0	12.4	37.6	7.5	28.5	16.4	17.8	7.5	1.0	31.9	20.4
Coarse sand	% dw	18.6	18.3	22.3	10.4	27.0	16.8	13.3	13.8	2.0	26.8	26.7
Medium sand	% dw	18.5	18.0	4.1	9.6	9.2	12.5	6.2	16.8	5.1	8.6	20.1
Fine sand	% dw	9.8	9.1	0.2	4.5	1.0	7.9	1.2	11.5	11.2	0.9	5.7
Very fine sand	% dw	6.3	6.2	0.1 U	3.0	0.3	6.7	2.1	8.9	18.3	0.4	2.6
Coarse silt	% dw	3.6	6.0	nd	1.0	0.2	4.6	6.5	8.2	14.9	0.4	1.7
Medium silt	% dw	3.9	4.1	nd	2.5	0.5	3.6	8.1	7.6	13.1	0.6	1.6
Fine silt	% dw	3.3	2.9	nd	2.5	0.4	3.6	6.2	6.2	9.9	0.7	1.2
Very fine silt	% dw	2.3	2.5	nd	1.9	0.4	2.3	5.0	4.5	6.9	0.6	1.0
Clay (phi 8-9)	% dw	1.8	1.8	nd	1.5	0.4	1.7	4.4	3.6	5.4	0.6	1.0
Clay (phi 9-10)	% dw	1.2	1.2	nd	1.0	0.2	1.5	2.8	2.5	3.7	0.2	0.6
Clay (phi 10+)	% dw	2.8	2.8	nd	2.2	0.9	2.8	6.9	5.2	7.8	0.8	1.5
Total Gravel	% dw	13.9	14.6	35.6	52.5	30.9	19.7	19.6	4.0	0.6	27.4	15.9
Total Sand (calc'd)	% dw	67.2	64.0	64.2	35.0	66.0	60.3	40.6	58.5	37.6	68.6	75.5
Total Silt (calc'd)	% dw	13.1	15.5	nd	7.9	1.5	14.1	25.8	26.5	44.8	2.3	5.5
Total Clay (calc'd)	% dw	5.8	5.8	nd	4.7	1.5	6.0	14.1	11.3	16.9	1.6	3.1
Fines (percent silt+clay)	% dw	18.9	21.3	nd	12.6	3.0	20.1	39.9	37.8	61.7	3.9	8.6
Conventional parameters												
Total organic carbon (TOC)	% dw	1.44	1.70	0.567	1.60	0.351	1.66	1.33	1.45	1.34	0.500	1.16
Total solids	% ww	71.40	70.90	93.60	65.10	88.20	70.0	73.20	66.15	57.60	84.40	80.20

dw – dry weight

ww – wet weight

nd – not detected

Concentration in *italic*/cs indicates that laboratory replicate was run for sample. Value reported was based on averaging rules in Appendix B.**Port of Seattle**East Waterway, Harbor Island Superfund Site:
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Table A-3a. Concentrations of analytes in Recontamination Monitoring sediment samples compared to SQS/SL and CSL/ML: EW-RM06-1 through EW-RM06-7

ANALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7
						EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7
Metals and trace elements												
Antimony	mg/kg dw			150	200	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	7 UJ	7 UJ
Arsenic	mg/kg dw	57	93			7 U	6 U	6 U	7 U	7 U	7 U	7 U
Cadmium	mg/kg dw	5.1	6.7			0.5	0.2 U	0.2 U	0.4	0.3 U	0.4	0.3
Chromium	mg/kg dw	260	270			22.0	22.8	24.1	19.9	20.7	18.6	21.1
Copper	mg/kg dw	390	390			38.7	26.5	17.1	34.8	33.2	33.4	33.8
Lead	mg/kg dw	450	530			27	10	5	23	17	19	22
Mercury	mg/kg dw	0.41	0.59			0.17	0.06	0.05 U	0.15	0.13	0.13	0.12
Nickel	mg/kg dw			140	370	14	25	19	16	18	18	16
Silver	mg/kg dw	6.1	6.1			0.4 U	0.3 U	0.3 U	0.4 U	0.4 U	0.4 U	0.4 U
Zinc	mg/kg dw	410	960			68.7	48.7	36.6	62.3	52.7	58.1	60
PAHs												
2-Methylnaphthalene	mg/kg OC	38	64			1.5	2.3 U	2.9 U	1.2 J	1.5 U	1.4 J	1.5 U
Acenaphthene	mg/kg OC	16	57			1.2 J	2.3 U	2.9 U	0.78 J	0.84 J	1.9	1.5 J
Acenaphthylene	mg/kg OC	66	66			1.3 J	2.3 U	2.9 U	1.3	1.4 J	1.4 J	1.1 J
Anthracene	mg/kg OC	220	1200			5.1	2.9	2.9 U	4.5	4.9	6.3	6.6
Benzo(a)anthracene	mg/kg OC	110	270			8.8	4.5	2.2 J	7.8	8.4	9.1	8.5
Benzo(a)pyrene	mg/kg OC	99	210			10	5.2	2.2 J	9.1	9.2	9.8	10
Benzo(g,h,i)perylene	mg/kg OC	31	78			3.7	2.2 J	2.9 U	2.7	2.6	3.3	2.6
Total Benzofluoranthenes (calc'd)	mg/kg OC	230	450			24	13	6.6	27	26	29	27
Chrysene	mg/kg OC	110	460			13	7.4	3.1	11	13	14	12
Dibeno(a,h)anthracene	mg/kg OC	12	33			1.5	2.3 U	2.9 U	0.97 J	0.92 J	1.2 J	1.1 J
Dibenzofuran	mg/kg OC	15	58			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.8	1.3 J
Fluoranthene	mg/kg OC	160	1200			22	10	5.0	18	18	24	21
Fluorene	mg/kg OC	23	79			1.5	2.3 U	2.9 U	1.2 J	1.3 J	2.7	2.1
Indeno(1,2,3-cd)pyrene	mg/kg OC	34	88			3.7	2.1 J	2.9 U	2.9	2.7	3.1	2.6



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Table A-3a, cont.

ANALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7
						EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7
Naphthalene	mg/kg OC	99	170			1.8	2.3 U	2.9 U	1.4	1.5 J	3.6	1.6
Phenanthrene	mg/kg OC	100	480			8.1	3.7	2.2 J	6.4	5.9	9.1	7.7
Pyrene	mg/kg OC	1000	1400			16	7.0	5.3	22	19	23	18
Total HPAH (calc'd)	mg/kg OC	960	5300			100	51 J	24 J	100 J	99 J	120 J	100 J
Total LPAH (calc'd)	mg/kg OC	370	780			19 J	6.6	2.2 J	16 J	16 J	25 J	21 J
Phthalates												
Bis(2-ethylhexyl)phthalate	mg/kg OC	47	78			16	8.8	4.6	16	15	20	18
Butyl benzyl phthalate	mg/kg OC	4.9	64			1.5 U	2.3 U	2.9 U	1.3 U	1.1 J	1.4 J	1.7
Diethyl phthalate	mg/kg OC	61	110			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
Dimethyl phthalate	mg/kg OC	53	53			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
Di-n-butyl phthalate	mg/kg OC	220	1700			1.5 U	2.3 U	2.9 U	0.84 J	1.5 U	2.9	1.5 U
Di-n-octyl phthalate	mg/kg OC	58	4500			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
Other SVOCs												
1,2,4-Trichlorobenzene	mg/kg OC	0.81	1.8			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
1,2-Dichlorobenzene	mg/kg OC	2.3	2.3			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
1,3-Dichlorobenzene	µg/kg dw		170	nv		20 U	20 U	20 U	20 U	20 U	19 U	20 U
1,4-Dichlorobenzene	mg/kg OC	3.1	9			1.3 J	7.9	5.7	0.91 J	1.7	6.2	1.7
2,4-Dimethylphenol	µg/kg dw	29	29			20 U	20 U	20 U	20 U	20 U	19 U	20 U
2-Methylphenol	µg/kg dw	63	63			20 U	20 U	20 U	20 U	20 U	19 U	20 U
4-Methylphenol	µg/kg dw	670	670			56	51	33	55	33	170	99
Benzoic acid	µg/kg dw	650	650			200 U	200 U	200 U	200 U	200 U	190 U	200 U
Benzyl alcohol	µg/kg dw	57	73			20 U	20 U	20 U	20 U	20 U	19 U	20 U
Hexachlorobenzene	mg/kg OC	0.38	2.3			0.11 U	0.11 U	0.14 U	0.18 U	0.21 U	0.98 U	0.075 U
Hexachlorobutadiene	mg/kg OC	3.9	6.2			0.11 U	0.11 U	0.14 U	0.18 U	0.21 U	0.98 U	0.075 U
Hexachloroethane	µg/kg dw		1,400	14,000		20 U	20 U	20 U	20 U	20 U	19 U	20 U
N-Nitrosodiphenylamine	mg/kg OC	11	11			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
Pentachlorophenol	µg/kg dw	360	690			98 U	99 U	97 U	100 U	98 U	97 U	97 U
Phenol	µg/kg dw	420	1200			630	330	44	450	220	400	520
PCBs												
Total PCBs (calc'd)	mg/kg OC	12	65			32	4.5	2.8 U	170	16	12 J	16

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Table A-3a, cont.

ANALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7
						EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7
Pesticides												
Total DDTs (calc'd)	µg/kg dw			6.9	69	29 U	2.0 U	1.9 U	24 U	38 U	27 U	17 U
Aldrin	µg/kg dw			10	nv	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U
Dieldrin	µg/kg dw			10	nv	7.7 U	2.0 U	1.9 U	5.6 U	9.8 U	27 U	5.6 U
gamma-BHC	µg/kg dw			10	nv	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U
Heptachlor	µg/kg dw			10	nv	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U
Total Chlordane (calc'd)	µg/kg dw			10	nv	6.3 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	3.9 U

dw - dry weight

nv - no value; there is neither a CSL nor an ML for this chemical

OC - organic carbon

SQS and CSL - sediment quality standard and cleanup screening level (WAC 173-204)

SL and ML - screening level and maximum level (USACE 2000)

Concentration in **bold** indicates SQS/SL exceedance.Concentration in **bold underline** indicates CSL/ML exceedance

Table A-3b. Concentrations of analytes in Recontamination Monitoring sediment samples compared to SQS/SL and CSL/ML: EW-RM06-8 through EW-RM06-19

ANALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-8	EW-RM-10	EW-RM-15	EW-RM-16	EW-RM-101	EW-RM-18	EW-RM-19
						EW-RM06-8	EW-RM06-10	EW-RM06-15	EW-RM06-16		EW-RM06-18	EW-RM06-19
Metals and trace elements												
Antimony	mg/kg dw			150	200	6 UJ	7 UJ	8 UJ	7 UJ	7 UJ	5 UJ	7 UJ
Arsenic	mg/kg dw	57	93			6 U	8	11	8	7	5 U	7
Cadmium	mg/kg dw	5.1	6.7			0.2 U	0.3	2.4	0.4	0.4	0.2 U	0.5
Chromium	mg/kg dw	260	270			17.7	22.7	43.9	23.5	22.0	18.1	22.4
Copper	mg/kg dw	390	390			17.3	42.4	78.4	33.2	39.2	14.9	35.3
Lead	mg/kg dw	450	530			6	23	131	26	25	3	34
Mercury	mg/kg dw	0.41	0.59			0.05 U	0.67	0.78	0.16	0.15	0.04 U	0.38
Nickel	mg/kg dw			140	370	19	21	26	21	19	17	20
Silver	mg/kg dw	6.1	6.1			0.4 U	0.4 U	2.2	0.4 U	0.4 U	0.3 U	0.4 U
Zinc	mg/kg dw	410	960			36.3	66.4	249	70.3	74.8	29.9	74.8
PAHs												
2-Methylnaphthalene	mg/kg OC	38	64			2.3 U	2.2 J	13	1.4 U	1.2 U	3.5 U	1.2 J
Acenaphthene	mg/kg OC	16	57			2.3 U	2.1 J	4.2	2.2	1.6	3.5 U	1.1 J
Acenaphthylene	mg/kg OC	66	66			2.3 U	2.3	1.9	1.6	0.88 J	3.5 U	1.1 J
Anthracene	mg/kg OC	220	1200			2.3 U	9.8	10	6.3	3.9	3.5 U	5.6
Benzo(a)anthracene	mg/kg OC	110	270			1.9 J	17	16	9.7	5.9	3.5 U	8.1
Benzo(a)pyrene	mg/kg OC	99	210			1.8 J	21	14	12	7.1	3.5 U	8.8
Benzo(g,h,i)perylene	mg/kg OC	31	78			2.3 U	5.5	4.8	3.1	2.0	3.5 U	2.7
Total Benzofluoranthenes (calc'd)	mg/kg OC	230	450			5.2 J	55	36	28	18	3.5 U	24
Chrysene	mg/kg OC	110	460			2.7	26	23	15	9.4	3.5 U	12
Dibeno(a,h)anthracene	mg/kg OC	12	33			2.3 U	2.2 J	1.3 J	1.2 J	0.76 J	3.5 U	0.69 J
Dibenzofuran	mg/kg OC	15	58			2.3 U	1.9 J	3.5	1.7	1.1 J	3.5 U	1.3 U
Fluoranthene	mg/kg OC	160	1200			3.8	35	40	26	18	3.5 U	21
Fluorene	mg/kg OC	23	79			2.3 U	2.9	7.8	2.1	1.4	3.5 U	1.8
Indeno(1,2,3-cd)pyrene	mg/kg OC	34	88			2.3 U	5.6	3.7	3.4	2.1	3.5 U	2.6



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Table A-3b, cont.

ANALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-8	EW-RM-10	EW-RM-15	EW-RM-16	EW-RM-18	EW-RM-19
						EW-RM06-8	EW-RM06-10	EW-RM06-15	EW-RM06-16		
Naphthalene	mg/kg OC	99	170			2.3 U	3.4	5.2	2.4	1.5	3.5 U
Phenanthrene	mg/kg OC	100	480			1.7 J	14	17	9.0	5.4	3.5 U
Pyrene	mg/kg OC	1000	1400			3.9	35	52	15	11	3.5 U
Total HPAH (calc'd)	mg/kg OC	960	5300			19 J	200 J	190 J	110 J	74 J	3.5 U
Total LPAH (calc'd)	mg/kg OC	370	780			1.7 J	34 J	46	24	15 J	3.5 U
Phthalates											
Bis(2-ethylhexyl)phthalate	mg/kg OC	47	78			8.4	30	<u>120</u>	16	12	3.5 U
Butyl benzyl phthalate	mg/kg OC	4.9	64			2.3 U	2.9	1.7 U	1.4 U	1.2 U	3.5 U
Diethyl phthalate	mg/kg OC	61	110			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	3.5 U
Dimethyl phthalate	mg/kg OC	53	53			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	3.5 U
Di-n-butyl phthalate	mg/kg OC	220	1700			2.3 U	2.3 U	5.2	1.4 U	1.2 U	3.5 U
Di-n-octyl phthalate	mg/kg OC	58	4500			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	3.5 U
Other SVOCs											
1,2,4-Trichlorobenzene	mg/kg OC	0.81	1.8			<u>2.3 U</u>	<u>2.3 U</u>	<u>1.7 U</u>	<u>1.4 U</u>	<u>1.2 U</u>	<u>3.5 U</u>
1,2-Dichlorobenzene	mg/kg OC	2.3	2.3			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	<u>3.5 U</u>
1,3-Dichlorobenzene	µg/kg dw		170	nv		20 U	28	20 J	20 U	20 U	20 U
1,4-Dichlorobenzene	mg/kg OC	3.1	9			2.3 U	<u>3.2</u>	<u>7.4</u>	1.0 J	1.4	<u>3.5 U</u>
2,4-Dimethylphenol	µg/kg dw	29	29			20 U	20 U	<u>39 U</u>	20 U	20 U	20 U
2-Methylphenol	µg/kg dw	63	63			20 U	20 U	39 U	20 U	20 U	20 U
4-Methylphenol	µg/kg dw	670	670			20 U	100	100	120	80	20 U
Benzoic acid	µg/kg dw	650	650			200 U	200 U	390 U	200 U	200 U	200 U
Benzyl alcohol	µg/kg dw	57	73			20 UJ	20 UJ	39 UJ	20 U	20 U	20 UJ
Hexachlorobenzene	mg/kg OC	0.38	2.3			0.11 U	0.16 U	<u>0.74 U</u>	0.097 U	0.16 U	0.17 U
Hexachlorobutadiene	mg/kg OC	3.9	6.2			0.11 U	0.16 U	0.74 U	0.097 U	0.16 U	0.17 U
Hexachloroethane	µg/kg dw		1,400	14,000		20 U	20 U	39 U	20 U	20 U	20 U
N-Nitrosodiphenylamine	mg/kg OC	11	11			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	3.5 U
Pentachlorophenol	µg/kg dw	360	690			100 U	98 U	200 U	100 U	98 U	100 U
Phenol	µg/kg dw	420	1200			20 U	<u>470</u>	340	<u>560</u>	390	20 U
PCBs											
Total PCBs (calc'd)	mg/kg OC	12	65			2.3 J	<u>23</u>	<u>100</u>	16	19	3.5 U
											30

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Table A-3b, cont.

ANALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-8	EW-RM-10	EW-RM-15	EW-RM-16	EW-RM-18	EW-RM-19
						EW-RM06-8	EW-RM06-10	EW-RM06-15	EW-RM06-16		
Pesticides											
Total DDTs (calc'd)	µg/kg dw			6.9	69	2.0 U	20 U	<u>270 U</u>	21 U	38 U	2.0 U
Aldrin	µg/kg dw			10	nv	1.0 U	1.4 U	17 U	1.4 U	2.7 U	0.99 U
Dieldrin	µg/kg dw			10	nv	2.0 U	5.5 U	110 U	6.5 U	11 U	2.0 U
gamma-BHC	µg/kg dw			10	nv	1.0 U	1.4 U	17 U	1.4 U	2.7 U	0.99 U
Heptachlor	µg/kg dw			10	nv	1.0 U	1.4 U	17 U	1.4 U	2.7 U	0.97 U
Total Chlordane (calc'd)	µg/kg dw			10	nv	2.0 U	4.4 U	34 U	4.3 U	6.4 U	2.0 U
											4.4 U

dw - dry weight

nv - no value; there is neither a CSL nor an ML for this chemical

OC - organic carbon

SQS and CSL - sediment quality standard and cleanup screening level (WAC 173-204)

SL and ML - screening level and maximum level (USACE 2000)

Concentration in **bold** indicates SQS/SL exceedance.Concentration in **bold underline** indicates CSL/ML exceedance

Table A-3c. Concentrations of analytes in Recontamination Monitoring sediment samples compared to SQS/SL and CSL/ML: EW-RM06-21 through EW-RM06-28

A NALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
						EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Metals and trace elements											
Antimony	mg/kg dw			150	200	7 UJ	7 UJ	7 UJ	8 UJ	6 UJ	6 UJ
Arsenic	mg/kg dw	57	93			8	8	7	11	6 U	6
Cadmium	mg/kg dw	5.1	6.7			0.4	0.3 U	0.6	0.7	0.2 U	0.2 U
Chromium	mg/kg dw	260	270			21.1	23.6	20.7	30.1	19.9	20.6
Copper	mg/kg dw	390	390			35.0	30.3	30.2	49.1	19.1	22.5
Lead	mg/kg dw	450	530			22	16	27	39	8	11
Mercury	mg/kg dw	0.41	0.59			0.17	0.21	0.28	0.33	0.05 U	0.08
Nickel	mg/kg dw			140	370	18	25	17	22	22	20
Silver	mg/kg dw	6.1	6.1			0.4 U	0.4 U	0.4 U	0.5	0.3 U	0.4 U
Zinc	mg/kg dw	410	960			66.6	54.3	70.1	95	38.4	41.9
PAHs											
2-Methylnaphthalene	mg/kg OC	38	64			1.1 U	1.5 U	2.3	2.2	4.0 U	1.7 U
Acenaphthene	mg/kg OC	16	57			0.78 J	1.5 U	1.9	2.2	4.0 U	1.7 U
Acenaphthylene	mg/kg OC	66	66			1.0 J	1.5 U	1.5	2.3	4.0 U	1.7 U
Anthracene	mg/kg OC	220	1200			4.5	2.7	5.5	8.2	4.0 U	2.6
Benzo(a)anthracene	mg/kg OC	110	270			8.4	4.1	9.0	13	2.6 J	3.6
Benzo(a)pyrene	mg/kg OC	99	210			9.6	3.9	9.0	14	3.0 J	4.2
Benzo(g,h,i)perylene	mg/kg OC	31	78			2.2	1.3 J	2.9	4.9	4.0 U	1.4 J
Total Benzofluoranthenes (calc'd)	mg/kg OC	230	450			24	9.2	24	40	7.4 J	11
Chrysene	mg/kg OC	110	460			13	6.0	12	19	3.4 J	5.8
Dibenzo(a,h)anthracene	mg/kg OC	12	33			0.72 J	1.5 U	0.90 J	1.6	4.0 U	1.7 U
Dibenzofuran	mg/kg OC	15	58			1.1 U	1.5 U	1.6	1.9	4.0 U	1.7 U
Fluoranthene	mg/kg OC	160	1200			17	9.0	26	38	6.4	8.1
Fluorene	mg/kg OC	23	79			1.4	1.2 J	2.5	3.6	4.0 U	1.7 U
Indeno(1,2,3-cd)pyrene	mg/kg OC	34	88			2.3	1.3 J	2.8	4.6	4.0 U	1.5 J



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Table A-3c, cont.

A NALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
						EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Naphthalene	mg/kg OC	99	170			1.3	1.1 J	2.1	3.0	4.0 U	1.7 U
Phenanthrene	mg/kg OC	100	480			6.6	4.2	10	14	2.4 J	3.2
Pyrene	mg/kg OC	1000	1400			15	12	23	40	7.8	7.2
Total HPAH (calc'd)	mg/kg OC	960	5300			93 J	47 J	110 J	180	31 J	43 J
Total LPAH (calc'd)	mg/kg OC	370	780			16 J	9.2 J	24	34	2.4 J	5.8
Phthalates											
Bis(2-ethylhexyl)phthalate	mg/kg OC	47	78			16	2.5	26	20	13	6.6
Butyl benzyl phthalate	mg/kg OC	4.9	64			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Diethyl phthalate	mg/kg OC	61	110			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Dimethyl phthalate	mg/kg OC	53	53			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Di-n-butyl phthalate	mg/kg OC	220	1700			1.1 U	1.5 U	0.97 J	1.5 U	4.0 U	1.7 U
Di-n-octyl phthalate	mg/kg OC	58	4500			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Other SVOCs											
1,2,4-Trichlorobenzene	mg/kg OC	0.81	1.8			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
1,2-Dichlorobenzene	mg/kg OC	2.3	2.3			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
1,3-Dichlorobenzene	µg/kg dw		170	nv		19 U	20 U				
1,4-Dichlorobenzene	mg/kg OC	3.1	9			1.0 J	1.5 U	1.0 J	1.7	4.0 U	1.7 U
2,4-Dimethylphenol	µg/kg dw	29	29			19 U	20 U				
2-Methylphenol	µg/kg dw	63	63			19 U	20 U				
4-Methylphenol	µg/kg dw	670	670			120	16 J	24	57	20 U	61
Benzoic acid	µg/kg dw	650	650			190 U	200 U				
Benzyl alcohol	µg/kg dw	57	73			19 UJ	20 UJ	20 U	20 U	20 UJ	20 UJ
Hexachlorobenzene	mg/kg OC	0.38	2.3			0.28 U	0.074 U	1.0 U	0.25 U	0.20 U	0.084 U
Hexachlorobutadiene	mg/kg OC	3.9	6.2			0.28 U	0.074 U	1.0 U	0.25 U	0.20 U	0.084 U
Hexachloroethane	µg/kg dw		1,400	14,000		19 U	20 U				
N-Nitrosodiphenylamine	mg/kg OC	11	11			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Pentachlorophenol	µg/kg dw	360	690			97 U	100 U	99 U	99 U	98 U	98 U
Phenol	µg/kg dw	420	1200			330	36	310	590	20 U	290
PCBs											
Total PCBs (calc'd)	mg/kg OC	12	65			12 J	7.1	14 J	34	40	6.8

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Table A-3c, cont.

A NALYTE	UNIT	SQS	CSL	SL	ML	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
						EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Pesticides											
Total DDTs (calc'd)	µg/kg dw			6.9	69	15 U	7.0 U	29 U	42 U	2.0 U	11 U
Aldrin	µg/kg dw			10	nv	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Dieldrin	µg/kg dw			10	nv	9.1 U	2.0 U	29 U	11 U	2.0 U	2.0 U
gamma-BHC	µg/kg dw			10	nv	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Heptachlor	µg/kg dw			10	nv	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Total Chlordane (calc'd)	µg/kg dw			10	nv	9.1 U	2.0 U	29 U	8.8 U	2.0 U	2.0 U

dw - dry weight

nv - no value; there is neither a CSL nor an ML for this chemical

OC - organic carbon

SQS and CSL - sediment quality standard and cleanup screening level (WAC 173-204)

SL and ML - screening level and maximum level (USACE 2000)

Concentration in **bold** indicates SQS/SL exceedance.Concentration in **bold underline** indicates CSL/ML exceedance

Table A-4. AET substitution

ANALYTE	UNIT	AET Substitution			EW-RM-20
		SQS	CSL	SL	
Metals and trace elements					
Antimony	mg/kg dw			150	200
Arsenic	mg/kg dw	57	93		5 UJ
Cadmium	mg/kg dw	5.1	6.7		6
Chromium	mg/kg dw	260	270		0.2 U
Copper	mg/kg dw	390	390		15.7
Lead	mg/kg dw	450	530		17.2
Mercury	mg/kg dw	0.41	0.59		5
Nickel	mg/kg dw			140	0.05 U
Silver	mg/kg dw	6.1	6.1		370
Zinc	mg/kg dw	410	960		0.3 U
					33.4
PAHs					
2-Methylnaphthalene	µg/kg dw	670			20 U
Acenaphthene	µg/kg dw	500			20 U
Acenaphthylene	µg/kg dw	560			20 U
Anthracene	µg/kg dw	960			20 U
Benzo(a)anthracene	µg/kg dw	1300	1600		20 U
Benzo(a)pyrene	µg/kg dw	1600			20 U
Benzo(g,h,i)perylene	µg/kg dw	670	720		20 U
Total Benzofluoranthenes (calc'd)	µg/kg dw	3200	3600		22 J
Chrysene	µg/kg dw	1400	2800		11 J
Dibeno(a,h)anthracene	µg/kg dw	230			20 U
Dibenzofuran	µg/kg dw	540			20 U
Fluoranthene	µg/kg dw	1700	2500		27
Fluorene	µg/kg dw	540			20 U
Indeno(1,2,3-cd)pyrene	µg/kg dw	600	690		20 U
Naphthalene	µg/kg dw	2100			20 U
Phenanthrene	µg/kg dw	1500	2100		20 U
Pyrene	µg/kg dw	2600	3300		19 J
Total HPAH (calc'd)	µg/kg dw	12000	17000		24
Total LPAH (calc'd)	µg/kg dw	5200			84 J
					19 J
Phthalates					
Bis(2-ethylhexyl)phthalate	µg/kg dw	1300	1900		23
Butyl benzyl phthalate	µg/kg dw	63	470		20 U

Table A-4, cont.

ANALYTE	UNIT	AET Substitution			EW-RM-20
		SQS	CSL	SL	
Diethyl phthalate	µg/kg dw	48	73		20 U
Dimethyl phthalate	µg/kg dw	71	160		20 U
Di-n-butyl phthalate	µg/kg dw	1400			20 U
Di-n-octyl phthalate	µg/kg dw	420	2100		20 U
Other SVOCs					
1,2,4-Trichlorobenzene	µg/kg dw	31	51		20 U
1,2-Dichlorobenzene	µg/kg dw	35	50		20 U
1,3-Dichlorobenzene	µg/kg dw		nv	170	nv
1,4-Dichlorobenzene	µg/kg dw	110	nv		20 U
2,4-Dimethylphenol	µg/kg dw	29	29		20 U
2-Methylphenol	µg/kg dw	63	63		20 U
4-Methylphenol	µg/kg dw	670	670		20 U
Benzoic acid	µg/kg dw	650	650		200 U
Benzyl alcohol	µg/kg dw	57	73		20 UJ
Hexachlorobenzene	µg/kg dw	22	70		0.96 U
Hexachlorobutadiene	µg/kg dw	11	120		0.96 U
Hexachloroethane	µg/kg dw			1,400	14,000
N-Nitrosodiphenylamine	µg/kg dw	28	40		20 U
Pentachlorophenol	µg/kg dw	360	690		98 U
Phenol	µg/kg dw	420	1200		20 U
PCBs					
Total PCBs (calc'd)	µg/kg dw	130	1000		45 J
Pesticides					
Total DDTs (calc'd)	µg/kg dw		6.9	69	1.9 U
Aldrin	µg/kg dw		nv	10	nv
Dieldrin	µg/kg dw		nv	10	nv
gamma-BHC	µg/kg dw		nv	10	nv
Heptachlor	µg/kg dw		nv	10	nv
Total Chlordane (calc'd)	µg/kg dw		nv	10	1.9 U

dw - dry weight

nv - no value; there is neither a CSL nor an ML for this chemical

OC - organic carbon

SQS and CSL - sediment quality standard and cleanup screening level (WAC 173-204)

SL and ML - screening level and maximum level (USACE 2000)

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