

Table G-1. Enrichment Ratios for Contaminated Subsurface Sediments

Unit	Sample ID	Depth Below Mudline (ft)		Cumulative ER (x SQS)	Moisture (%)	Total Solids (%)	Total Fines (%)	TOC (%)	Mercury (SQS = 0.41)			4-Methylphenol (SQS = 670)			Cadmium (SQS = 5.1)			Zinc (SQS = 410)			Benzo(a)anthracene (SQS = 110)			Benzofluoranthenes (SQS = 230)			Chrysene (SQS = 110)								
		Top	Bottom						Conc. (mg/kg)	SQS	Interval ER	Conc. (ug/kg)	SQS	ER	(mg/kg)	SQS	ER	Conc. (mg/kg)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	(ppm TOC)	SQS	ER						
ASB Sludges					119.7	82.6	17.4	62.4	33.2	5.7		13.9	54.373	670	81.2	12.6	5.1	2.5	1.840	410	4.5	1.0	110	0.0	6.5	230	0.0	1.9	110	0.0					
ASB Sludges	GPA-01-A	0	6	101.0	92.9	7.1	44.3	33.0	1.1	0.41	2.7	59,000	670	88.1	18.0	5.1	3.5	616	410	1.5	0.42	110	0.00	1.76	230	0.00	0.91	M	110	0.00					
ASB Sludges	GPA-01-B1	6.5	11.5	87.9	88.3	11.7	82.8	34.0	7.0	0.41	17.1	42,000	670	62.7	18.0	5.1	3.5	667	410	1.6	0.07	U	110	0.00	1.94	230	0.00	0.09	U	110	0.00				
ASB Sludges	GPA-02-A	0	2.1	269.8	84.6	15.4	50.9	31.0	2.6	0.41	6.3	170,000	670	253.7	13.0	5.1	2.5	438	410	1.1	0.08	U	110	0.00	0.30	U	230	0.00	0.10	U	110	0.00			
ASB Sludges	GPA-02-B1	2.1	4	123.4	75.3	24.7	79.4	28.0	6.0	0.41	14.6	56,000	670	83.6	8.5	5.1	1.7	474	410	1.2	9.29	110	0.00	32.50	230	0.00	16.79	110	0.00						
ASB Sludges	GPA-02-B2	4	8.5	62.3	66.9	33.1	39.1	32.0	20.2	0.41	49.3	34	U	670	0.0	14.5	5.1	2.8	3,500	410	8.5	0.08	U	110	0.00	0.31	U	230	0.00	0.10	U	110	0.00		
ASB Sludges	GPA-03-A	0	2.6	160.3	89.6	10.4	61.3	29.0	1.9	0.41	4.6	98,000	670	146.3	21.0	5.1	4.1	544	410	1.3	0.09	U	110	0.00	0.33	U	230	0.00	0.10	U	110	0.00			
ASB Sludges	GPA-03-B1	2.7	5	90.2	84.9	15.1	64.0	31.0	5.3	0.41	12.9	48,000	670	71.6	9.0	5.1	1.8	422	410	1.0	0.08	U	110	0.00	1.48	M	230	0.00	0.10	U	110	0.00			
ASB Sludges	GPA-04-A	0	4	63.5	89.4	10.6	86.9	44.0	7.7	0.41	18.8	26,000	670	38.8	9.0	5.1	1.8	501	410	1.2	0.06	U	110	0.00	1.98	M	230	0.00	0.07	U	110	0.00			
ASB Sludges	GPA-04-B1	4.5	7	150.1	83.1	16.9	96.3	42.0	5.1	0.41	12.4	7,700	670	11.5	11.0	5.1	2.2	659	410	1.6	0.20	U	110	0.00	24.52	M	230	0.00	0.23	U	110	0.00			
ASB Sludges	GPA-05-A	0	6.5	59.9	71.0	29.0	18.6	28.0	0.40	0.41	0.0	37,000	670	55.2	3.5	5.1	0.0	179	410	0.0	0.09	U	110	0.00	0.33	U	230	0.00	0.10	U	110	0.00			
ASB - Sludge Native Contact					2.8	31.5	68.5	32.5	2.3	0.6	0.41	1.4	913	670	1.4	1.4	5.1	0.0	89.7	410	0.0	1.1	110	0.0	4.9	230	0.0	1.9	110	0.0					
ASB - Contact	GPA-01-B2	13	19	1.5	37.2	62.8	48.8	2.2	0.6	0.41	1.5	540	670	0.0	1.3	5.1	0.0	78	410	0.0	0.23	U	110	0.00	4.27	M	230	0.00	0.28	U	110	0.00			
ASB - Contact	GPA-03-B2	5.5	9	2.8	28.1	71.9	19.9	2.7	0.5	0.41	1.2	1,100	670	1.6	0.9	5.1	0.0	109	410	0.0	2.00	M	110	0.00	7.56	M	230	0.00	3.67	M	110	0.00			
ASB - Contact	GPA-05-B1	7.5	13	3.3	29.2	70.8	28.8	2.0	0.68	0.41	1.7	1,100	670	1.6	2.1	5.1	0.0	82	410	0.0	1.20	M	110	0.00	2.80	U	230	0.00	1.70	M	110	0.00			
ASB - Native Sediments					< 1	17.1	82.9	17.5	0.51	0.09	0.41	0.0	177	670	0.0	0.4	5.1	0.0	29.7	410	0.0	1.4	110	0.0	3.4	U	230	0.0	1.8	U	110	0.0			
ASB Native	GPA-01-C	26	32	1.3	8.9	91.1	33.3	0.40	0.02	U	0.41	0.0	7	U	670	0.0	0.4	5.1	0.0	29	410	0.0	1.25	U	110	0.00	9.75	U	230	0.00	1.48	U	110	0.00	
ASB Native	GPA-02-C	9	14	0.0	10.0	90.0	10.3	0.60	0.1	0.41	0.0	140	670	0.0	0.3	5.1	0.0	23	410	0.0	0.83	U	110	0.00	1.30	U	230	0.00	0.98	U	110	0.00			
ASB Native	GPA-03-C	8	17.5	0.0	17.1	82.9	9.9	0.30	0.02	U	0.41	0.0	70	670	0.0	0.1	U	5.1	0.0	32	410	0.0	1.70	U	110	0.00	2.67	U	230	0.00	2.03	U	110	0.00	
ASB Native	GPA-04-B2	12.5	13.5	0.0	22.7	77.3	17.6	1.00	0.33	0.41	0.0	160	670	0.0	0.7	5.1	0.0	37	410	0.0	2.00	M	110	0.00	4.00	M	230	0.00	3.60	M	110	0.00			
ASB Native	GPA-04-C	18.5	23.5	0.0	20.5	79.5	18.2	0.30	0.04	0.41	0.0	44	670	0.0	0.3	5.1	0.0	28	410	0.0	1.67	U	110	0.00	2.63	U	230	0.00	2.00	U	110	0.00			
ASB Native	GPA-05-B2	14	17.5	1.3	20.5	79.5	21.4	0.40	0.05	0.41	0.0	150	670	0.0	0.5	5.1	0.0	28	410	0.0	1.28	U	110	0.00	2.00	U	230	0.00	1.50	U	110	0.00			
ASB Native	GPA-05-C	19	23	0.0	20.2	79.8	11.6	0.60	0.02	U	0.41	0.0	670	670	0.0	0.3	5.1	0.0	31	410	0.0	0.85	U	110	0.00	1.33	U	230	0.00	1.02	U	110	0.00		
ASB - Berm Sands					< 1	4.0	96.0	3.9	0.15	0.05	U	0.41	0.0	19	U	670	0.0	0.2	U	5.1	0.0	33.2	410	0.0	15.1	U	230	0.0	15.1	U	110	0.0			
ASB Berm	BERM-01-10-16	10	16	0.0	3.6	96.4	4.2	0.17	0.05	U	0.41	0.0	19	U	670	0.0	0.2	U	5.1	0.0	32.9	410	0.0	11.1	U	110	0.00	22.2	U	230	0.00	11.1	U	110	0.00
ASB Berm	BERM-02-10-16	10	16	0.0	4.1	95.9	3.0	0.09	0.0	U	0.41	0.0	20	U	670	0.0	0.2	U	5.1	0.0	34.8	410	0.0	22.7	U	110	0.00	45.5	U	230	0.00	22.7	U	110	0.00
ASB Berm	BERM-03-10-16	10	16	0.0	4.1	95.9	3.5	0.09	0.04	U	0.41	0.0	19	U	670	0.0	0.2	U	5.1	0.0	32.6	410	0.0	20.9	U	110	0.00	41.8	U	230	0.00	20.9	U	110	0.00
ASB Berm	BERM-04-8-14	8	14	0.0	3.6	96.4	2.5	0.13	0.05	U	0.41	0.0	19	U	670	0.0	0.2	U	5.1	0.0	30.0	410	0.0	15.0	U	110	0.00	29.9	U	230	0.00	15.0	U	110	0.00
ASB Berm	BERM-05-8-14	8	14	0.0	2.8	97.2	2.2	0.13	0.04	U	0.41	0.0	19	U	670	0.0	0.5	U	5.1	0.0	37.0	410	0.0	14.3	U	110	0.00	28.6	U	230	0.00	14.3	U	110	0.00
ASB Berm	BERM-06-10-16	10	16	0.0	4.1	95.9	1.9	0.12	0.05	U	0.41	0.0	19	U	670	0.0	0.2	U	5.1	0.0	29.0	410	0.0	15.8	U	110	0.00	31.7	U	230	0.00	15.8	U	110	0.00
ASB Berm	BERM-07-7-11	7	11	0.0	5.6	94.4	3.6	0.13	0.05	U	0.41	0.0	19	U	670	0.0	0.2	U	5.1	0.0	30.9	410	0.0	14.8	U	110	0.00	29.7	U	230	0.00	14.8	U	110	0.00
ASB Berm	BERM-08-10-14	10	14	2.3	3.9	96.1	10.6	0.32	0.05	U	0.41	0.0	19	U	670	0.0	0.2	U	5.1	0.0	38.6	410	0.0	5.9	U	110	0.00	11.9	U	230	0.00	5.9	U	110	0.00
Whatcom Waterway Sediments Average (Excluding Log Pond & I&J Waterway)					12.2	51.4	46.3		4.7	3.46	0.41	8.4	2.526	670	3.8	1.92	5.1	0.0	172	410	0.0	24.9	110	0.0	32.4	230	0.0	36.2	110	0.0					
Unit 1A/B					2.4	51.0	49.0	79.6	2.0	0.99	0.41	2.4	58.5	670	0.0	0.8	5.1	0.0	91	410	0.0	1.8	110	0.0	4.1	230	0.0	2.3	110	0.0					
Unit 1A/B	AN PC CMP1	0	4	2.5	55.2	44.8	88.8	2.5	1.01	0.41	2.5	50	670	0	0.6	5.1	0	97	410	0	1.00	110	0	2.16	230	0	1.36	110	0						
Unit 1A/B	AN PC CMP2	0	4	2.2	52.3	47.7	72.0	2.3	0.9	0.41	2.2	31	670	0	0.7	5.1	0	87	410	0	0.96	110	0	2.87	230	0	1.30	110	0						
Unit 1A/B	AN PC CMP3	0	4	2.7	52.5	47.5	89.4	2.0																											

Table G-1. Enrichment Ratios for Contaminated Subsurface Sediments

Unit	Sample ID	Depth Below Mudline (ft)		Cumulative ER (x SQS)	Moisture (%)	Total Solids (%)	Total Fines (%)	TOC (%)	Mercury (SQS = 0.41)			4-Methylphenol (SQS = 670)			Cadmium (SQS = 5.1)			Zinc (SQS = 410)			Benzo(a)anthracene (SQS = 110)			Benzofluoranthenes (SQS = 230)			Chrysene (SQS = 110)			
		Top	Bottom						Conc. (mg/kg)	SQS	Interval ER	Conc. (ug/kg)	SQS	ER	(mg/kg)	SQS	ER	Conc. (mg/kg)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	(ppm TOC)	SQS	ER	
Unit 2A/2B				4.2	43.3	56.8		6.5	0.83	0.41	2.0	765	670	1.1	1.6	5.1	0.0	180	410	0.0	30.5	110	0.0	43.4	230	0.0	38.1	110	0.0	
Unit 2A/B	HC-DC-91-S1	0	1.6	2.3	46.0	54.0	--	6.1	0.93	0.41	2.3	300	670	0	1.4	5.1	0	140	410	0	32.8	110	0	47.54	230	0	36.07	110	0	
Unit 2A/B	HC-DC-91-S2	1.6	3	6.6	62.0	38.0	--	11.0	1.60	0.41	3.9	1000	670	1.49	2.5	5.1	0	170	410	0	4.82	110	0	6.91	230	0	5.27	110	0	
Unit 2A/B	HC-DC-92-S1	0	1.4	5.7	30.0	70.0	--	3.0	0.31	0.41	0.00	560	670	0.00	1.30	5.1	0.00	270	410	0	73.3	110	0	100.00	230	0	96.67	110	0	
Unit 2A/B	HC-DC-92-S2	1.4	2.8	3.0	35.0	65.0	--	5.7	0.50	0.41	1.2	1200	670	1.79	1.2	5.1	0	140	410	0	10.9	110	0	19.30	230	0	14.39	110	0	
Unit 2C				17.3	55.6	44.4		6.0	4.4	0.41	10.7	4,417	670	6.6	3.1	5.1	0.0	230.1	410	0.0	5.8	110	0.0	8.1	230	0.0	8.1	110	0.0	
Unit 2C	HC-VC-73-S1	0	1.9	4.9	62.0	38.0	--	3.7	2.00	0.41	4.9	480	670	0	1.5	5.1	0	110	410	0	10.00	110	0	16.22	230	0	13.78	110	0	
Unit 2C	HC-VC-73-S2	1.9	4.6	11.7	53.0	47.0	--	4.7	3.90	0.41	9.5	1500	670	2.24	2.3	5.1	0	140	410	0	3.83	110	0	4.04	230	0	4.68	110	0	
Unit 2C	HC-VC-73-S3	5.1	7.4	1.4	47.0	53.0	--	--	0.56	0.41	1.4	--	--	0	--	--	0	--	--	0	--	--	0	--	--	0	--	--	0	
Unit 2C	HC-VC-77-S1	0	2.1	28.3	62.0	38.0	--	4.8	11.00	0.41	26.8	1000	670	1.49	2	5.1	0	140	410	0	25.00	110	0	31.25	230	0	35.42	110	0	
Unit 2C	HC-VC-77-S2	2.1	3.9	18.9	51.0	49.0	--	49 **	7.00	0.41	17.1	1200	670	1.79	1.9	5.1	0	120	410	0	0.76	110	0	1.10	230	0	1.10	110	0	
Unit 2C	HC-VC-78-S1	0	2.4	5.1	59.0	41.0	--	5.6	2.10	0.41	5.1	610	670	0	1.8	5.1	0	130	410	0	3.57	110	0	6.43	230	0	5.18	110	0	
Unit 2C	HC-VC-78-S2	2.7	4	2.2	33.0	67.0	--	2.0	0.42	0.41	1.0	810	670	1.21	0.81	5.1	0	61	410	0	3.65	110	0	3.55	230	0	4.05	110	0	
Unit 2C	HC-VC-79-S1	0	2	25.7	55.0	45.0	--	5.7	8.10	0.41	19.8	3200	670	4.78	4.6	5.1	0	460	410	1.12	3.51	110	0	4.56	230	0	4.91	110	0	
Unit 2C	HC-VC-79-S2	2	3.8	11.8	46.0	54.0	--	4.5	2.20	0.41	5.4	3400	670	5.07	4.7	5.1	0	570	410	1.39	5.33	110	0	6.89	230	0	7.11	110	0	
Unit 2C	HC-VC-80-S1	0	1.7	8.3	58.0	42.0	--	4.5	1.00	0.41	2.4	3200	670	4.78	2	5.1	0	150	410	0	9.11	110	0	15.33	230	0	12.22	110	0	
Unit 2C	HC-VC-80-S2	1.9	5.3	65.9	71.0	29.0	--	14.0	12.00	0.41	29.3	21000	670	31.34	5.6	5.1	1.1	280	410	0	1.07	110	0	3.29	230	0	4.43	110	0	
HC-VC-96	HC-VC-96-C1	0	3.62	14.5	59.0	41.0	--	5.8	2.70	0.41	6.6	4600	670	6.87	3.4	5.1	0.0	280	410	0	2.60	110	0.00	3.38	230	0	3.28	110	0.00	
HC-VC-96	HC-VC-96-C2	3.62	10.03	31.2	67.0	33.0	--	11.0	4.30	0.41	10.5	12000	670	17.91	6.1	5.1	1.2	320	410	0	1.10	110	0.00	1.10 E	230	0	1.50	110	0.00	
Unit 3A				13.5	54.3	45.8		6.8	1.2	0.41	3.0	7,053	670	10.5	2.1	5.1	0.0	300	410	0.0	6.2	110	0.0	10.9	230	0.0	9.1	110	0.0	
Unit 3C	HC-DC-93-S1	0	2	1.1	31.0	69.0	--	2.6	0.14	U	0.41	0	58	670	0.00	0.77	U	5.1	0	440	6.54	U	110	--	13.46	230	0	10.00	110	0
Unit 3C	HC-VC-82-S1	0	2.3	8.0	59.0	41.0	--	6.7	1.40	0.41	3.4	3100	670	4.63	2.3	5.1	0	210	410	0	7.46	110	0	12.69	230	0	10.60	110	0	
Unit 3C	HC-VC-82-S2	2.3	5.2	34.8	65.0	35.0	--	11.0	2.00	0.41	4.9	18000	670	26.87	3.1	5.1	0	250	410	0	4.73	110	0	6.45	230	0	6.82	110	0	
Unit 3C	HC-VC-82-S3	5.3	6.8	3.2	62.0	38.0	--	--	1.30	0.41	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Unit 3B				10.7	56.8	43.3		5.7	1.6	0.41	3.9	4,550	670	6.8	2.1	5.1	0.0	195.0	410	0.0	10.4	110	0.0	16.4	230	0.0	15.0	110	0.0	
Unit 3B	HC-VC-97-C1	0	4.15	10.2	57.0	43.0	--	5.7	1.80	0.41	4.4	3900	670	5.82	1.7	5.1	0	190	410	0	4.60	110	0.00	6.84	230	0	6.32	110	0.00	
Unit 3B	HC-VC-97-C2	4.15	8.025		56.0	44.0	--	7.6	2.50	0.41	6.1	7600	670	11.34	2.7	5.1	0	220	410	0	4.10	110	0.00	4.50	230	0	5.00	110	0.00	
Unit 3B	HC-VC-81-S1	0	1.6	3.9	56.0	44.0	--	4.0	0.93	0.41	2.3	1100	670	1.64	1.6	5.1	0	160	410	0	17.75	110	0	32.50	230	0	25.00	110	0	
Unit 3B	HC-VC-81-S2	1.6	3.2	12.3	58.0	42.0	--	5.5	1.20	0.41	2.9	5600	670	8.36	2.3	5.1	0	210	410	0	15.27	110	0	21.82	230	0	23.64	110	0	
Log Pond				36.2	63.6	36.4		10.4	14.0	0.41	34.3	1304	670	1.9	2.0	5.1	0.0	180	410	0.0	7.7	110	0.0	10.3	230	0.0	9.5	110	0.0	
Log Pond	HC-DC-90-S1	0	1.6	13.8	62.0	38.0	--	8.0	3.80	0.41	9.3	1200	670	1.79	2.5	5.1	0	210	410	0	10.75	110	0	15.00	230	0	12.13	110	0	
Log Pond	HC-DC-90-S2	1.6	3.8	36.3	65.0	35.0	--	12.0	12.00	0.41	29.3	2900	670	4.33	2.7	5.1	0	310	410	0	8.33	110	0	8.08	230	0	10.00	110	0	
Log Pond	HC-VC-74-S1	0	2.4	25.6	67.0	33.0	--	15.0	10.50	0.41	25.6	360	670	0	1.6	U	5.1	0	130	410	0	10.67	110	0	20.67	230	0	12.67	110	0
Log Pond	HC-VC-74-S2	2.4	4.1	168.3	64.0	36.0	--	--	69.00	0.41	168.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Log Pond	HC-VC-74-S3	4.5	6.9	24.6	60.0	40.0	--	6.6	8.40	0.41	20.5	1900	670	2.84	2.6	5.1	0	240	410	0	10.00	110	0	10.45	230	0	12.12	110	0	
Log Pond	HC-VC-75-S1	0	3.3	16.8	63.0	37.0	--	12.0	6.40	0.41	15.6	830	670	1.24	1.6	5.1	0	130	410	0	5.35	110	0	6.67	230	0	7.98	110	0	
Log Pond	HC-VC-76-S1	0	3.5	3.2	69.0	31.0	--	10.0	1.30	0.41	3.2	440	670	0.00	1.8	5.1	0	140	410	0	4.50	110	0	6.30	230	0	6.30	110	0	
Log Pond	HC-VC-76-S2	3.5	7.9	4.6	59.0	41.0	--	9.5	0.96	0.41	2.3	1500	670	2.24	1.3	5.1	0	100	410	0	4.21	110	0	4.74	230	0	5.58	110	0	
I&J Waterway				5.4	47.4	52.6		4.2	1.36	0.41	3.3	235	670	0.0	1.28	5.1	0.0	94.8	410	0.0	2.25	110	0.0	3.34	230	0.0	2.79	110	0.0	
HC-VC-83	HC-VC-83-S1	0	2.6	3.5	54.0	46.0	--	3.8	1.40	0.41	3.4	160	670	0.00	1.4	5.1	0	110	410	0	2.17	110	0.00	3.95	230	0	2.89	110	0.03	
HC-VC-83	HC-VC-83-S3	2.6	5.3	7.8	52.0	48.0	--	--	3.20	0.41	7.8	-- nt	670	0.00	-- nt	5.1	0	-- nt	410	0	-- nt	110								

Table G-1. Enrichment Ratios for Contaminated Subsurface Sediments

Unit	Sample ID	Depth Below Mudline (ft)		Dibenz(a,h)anthracene (SQS = 12)			Fluoranthene (SQS = 160)			Pyrene (SQS = 1000)			Acenaphthene (SQS = 16)			Fluorene (SQS = 23)			Naphthalene (SQS = 99)			Phenanthrene (SQS = 100)			Dibenzofuran (SQS = 15)			Hexachlorobenzene (SQS = 0.38)													
		Top	Bottom	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	(ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER											
ASB Sludges						0.7	12	0.0	16.7	160	0.0	16.8	1000	0.0	1.4	16	0.0	1.0	23	0.00	28.2	99	0.0	17.6	100	0.0	0.0	15	0.0	0.003	0.38	0.0									
ASB Sludges	GPA-01-A	0	6	0.09	U	12	0.00	7.88	160	0.00	5.8	1000	0.00	0.7	16	0.00	0.8	23	0.00	23.6	99	0.00	10.3	100	0.00	0.0	nt	15	0.00	0.003	U	0.38	0.00								
ASB Sludges	GPA-01-B1	6.5	11.5	0.08	U	12	0.00	6.18	160	0.00	5.3	M	1000	0.00	0.7	16	0.00	0.8	23	0.00	16.5	99	0.00	8.2	100	0.00	0.0	nt	15	0.00	0.003	U	0.38	0.00							
ASB Sludges	GPA-02-A	0	2.1	0.09	U	12	0.00	2.97	160	0.00	2.3	1000	0.00	1.1	16	0.00	0.4	23	0.00	48.4	99	0.00	4.8	100	0.00	0.0	nt	15	0.00	0.003	U	0.38	0.00								
ASB Sludges	GPA-02-B1	2.1	4	5.71	U	12	0.00	114.29	160	0.00	114.3	1000	0.00	7.9	16	0.00	4.3	23	0.00	121.4	99	1.23	107.1	100	1.07	0.0	nt	15	0.00	0.004	U	0.38	0.00								
ASB Sludges	GPA-02-B2	4	8.5	0.09	U	12	0.00	0.66	160	0.00	0.7	1000	0.00	0.1	U	16	0.00	0.1	U	23	0.00	0.1	U	99	0.00	0.6	100	0.00	0.0	nt	15	0.00	0.003	U	0.38	0.00					
ASB Sludges	GPA-03-A	0	2.6	0.10	U	12	0.00	3.31	160	0.00	2.4	1000	0.00	0.8	16	0.00	0.7	23	0.00	19.7	99	0.00	5.2	100	0.00	0.0	nt	15	0.00	0.003	U	0.38	0.00								
ASB Sludges	GPA-03-B1	2.7	5	0.09	U	12	0.00	6.13	160	0.00	5.5	1000	0.00	1.5	16	0.00	1.0	23	0.00	21.3	99	0.00	9.0	100	0.00	0.0	nt	15	0.00	0.006	P	0.38	0.00								
ASB Sludges	GPA-04-A	0	4	0.06	U	12	0.00	4.77	160	0.00	5.0	1000	0.00	0.4	16	0.00	0.3	23	0.00	10.9	99	0.00	5.9	100	0.00	0.0	nt	15	0.00	0.002	U	0.38	0.00								
ASB Sludges	GPA-04-B1	4.5	7	0.22	U	12	0.00	20.95	160	0.00	26.2	1000	0.00	1.1	16	0.00	1.5	23	0.00	15.2	99	0.00	23.8	100	0.00	0.0	nt	15	0.00	0.002	U	0.38	0.00								
ASB Sludges	GPA-05-A	0	6.5	0.10	U	12	0.00	0.36	160	0.00	0.4	1000	0.00	0.1	U	16	0.00	0.1	U	23	0.00	5.4	99	0.00	0.5	100	0.00	0.0	nt	15	0.00	0.004	U	0.38	0.00						
ASB - Sludge Native Contact						0.2	12	0.0	14.8	160	0.0	12.2	1000	0.0	1.4	16	0.0	1.1	23	0.0	15.6	99	0.0	14.7	100	0.0	0.0	15	0.0	0.04	0.38	0.0									
ASB - Contact	GPA-01-B2	13	19	0.26	U	12	0.00	12.73	160	0.00	10.9	1000	0.00	0.9	16	0.00	0.3	U	23	0.00	11.8	99	0.00	13.2	100	0.00	0.0	nt	15	0.00	0.044	U	0.38	0.00							
ASB - Contact	GPA-03-B2	5.5	9	0.21	U	12	0.00	22.59	160	0.00	18.1	1000	0.00	1.7	16	0.00	1.5	23	0.00	22.6	99	0.00	21.5	100	0.00	0.0	nt	15	0.00	0.034	U	0.38	0.00								
ASB - Contact	GPA-05-B1	7.5	13	0.28	U	12	0.00	9.00	160	0.00	7.5	M	1000	0.00	1.6	16	0.00	1.6	U	23	0.00	12.5	99	0.00	9.5	100	0.00	0.0	nt	15	0.00	0.047	U	0.38	0.00						
ASB - Native Sediments						1.3	U	12	0.0	11.8	U	160	0.0	10.3	1000	0.0	1.2	U	16	0.0	1.5	U	23	0.0	13.2	99	0.0	11.6	100	0.0	0.0	15	0.0	0.21	U	0.38	0.0				
ASB Native	GPA-01-C	26	32	1.40	U	12	0.00	1.45	U	160	0.00	2.5	1000	0.00	1.3	U	16	0.00	1.6	U	23	0.00	1.3	U	99	0.00	1.1	U	100	0.00	0.0	nt	15	0.00	0.24	U	0.38	0.00			
ASB Native	GPA-02-C	9	14	0.92	U	12	0.00	15.67	U	160	0.00	14.3	1000	0.00	0.8	U	16	0.00	1.1	U	23	0.00	16.7	99	0.00	15.5	100	0.00	0.0	nt	15	0.00	0.16	U	0.38	0.00					
ASB Native	GPA-03-C	12	17.5	1.90	U	12	0.00	23.00	U	160	0.00	18.0	1000	0.00	1.7	U	16	0.00	2.2	U	23	0.00	15.0	99	0.00	20.0	100	0.00	0.0	nt	15	0.00	0.31	U	0.38	0.00					
ASB Native	GPA-04-B2	8.5	13.5	0.56	U	12	0.00	18.00	U	160	0.00	16.0	1000	0.00	0.5	U	16	0.00	0.7	U	23	0.00	12.0	99	0.00	17.0	100	0.00	0.0	nt	15	0.00	0.09	U	0.38	0.00					
ASB Native	GPA-04-C	18.5	23.5	1.87	U	12	0.00	8.67	U	160	0.00	7.7	1000	0.00	1.7	U	16	0.00	2.2	U	23	0.00	8.7	99	0.00	9.3	100	0.00	0.0	nt	15	0.00	0.30	U	0.38	0.00					
ASB Native	GPA-05-B2	14	17.5	1.40	U	12	0.00	11.00	U	160	0.00	9.8	1000	0.00	1.3	U	16	0.00	1.7	U	23	0.00	19.0	99	0.00	11.5	100	0.00	0.0	nt	15	0.00	0.23	U	0.38	0.00					
ASB Native	GPA-05-C	19	23	0.95	U	12	0.00	4.67	U	160	0.00	4.0	1000	0.00	0.9	U	16	0.00	1.1	U	23	0.00	20.0	99	0.00	6.7	100	0.00	0.0	nt	15	0.00	0.16	U	0.38	0.00					
ASB - Berm Sands						15.1	U	12	0.0	15.1	U	160	0.0	15.1	U	1000	0.0	15.1	U	16	0.0	15.1	U	23	0.0	15.1	U	99	0.0	15.1	U	100	0.0	15.1	U	15	0.0	15.1	U	0.38	0.0
ASB Berm	BERM-01-10-16	10	16	11.11	U	12	0.0	11.11	U	160	0.0	11.1	U	1000	0.0	11.1	U	16	0.0	11.1	U	23	0.0	11.1	U	99	0.0	11.1	U	100	0.0	11.1	U	15	0.0	11.1	U	0.38	0.0		
ASB Berm	BERM-02-10-16	10	16	22.73	U	12	0.0	22.73	U	160	0.0	22.7	U	1000	0.0	22.7	U	16	0.0	22.7	U	23	0.0	22.7	U	99	0.0	22.7	U	100	0.0	22.7	U	15	0.0	22.7	U	0.38	0.0		
ASB Berm	BERM-03-10-16	10	16	20.88	U	12	0.0	20.88	U	160	0.0	20.9	U	1000	0.0	20.9	U	16	0.0	20.9	U	23	0.0	20.9	U	99	0.0	20.9	U	100	0.0	20.9	U	15	0.0	20.9	U	0.38	0.0		
ASB Berm	BERM-04-8-14	8	14	14.96	U	12	0.0	14.96	U	160	0.0	15.0	U	1000	0.0	15.0	U	16	0.0	15.0	U	23	0.0	15.0	U	99	0.0	15.0	U	100	0.0	15.0	U	15	0.0	15.0	U	0.38	0.0		
ASB Berm	BERM-05-8-14	8	14	14.29	U	12	0.0	14.29	U	160	0.0	14.3	U	1000	0.0	14.3	U	16	0.0	14.3	U	23	0.0	14.3	U	99	0.0	14.3	U	100	0.0	14.3	U	15	0.0	14.3	U	0.38	0.0		
ASB Berm	BERM-06-10-16	10	16	15.83	U	12	0.0	15.83	U	160	0.0	15.8	U	1000	0.0	15.8	U	16	0.0	15.8	U	23	0.0	15.8	U	99	0.0	15.8	U	100	0.0	15.8	U	15	0.0	15.8	U	0.38	0.0		
ASB Berm	BERM-07-7-11	7	11	14.84	U	12	0.0	14.84	U	160	0.0	14.8	U	1000	0.0	14.8	U	16	0.0	14.8	U	23	0.0	14.8	U	99	0.0	14.8	U	100	0.0	14.8	U	15	0.0	14.8	U	0.38	0.0		
ASB Berm	BERM-08-10-14	10	14	5.94	U	12	0.0	5.94	U	160	0.0	5.9	U	1000	0.0	5.9	U	16	0.0	5.9	U	23	0.0	5.9	U	99	0.0	5.9	U	100	0.0	5.9	U	15	0.0	5.9	U	0.38	0.0		
Whatcom Waterway Sediments Average (Excluding Log Pond & I&J Waterway)						3.7	12	0.0	75.3	160	0.0	76.5	1000	0.0	6.6	16	0.0	8.1	23	0.0	11.6	99	0.0	35.6	100	0.0	6.0	15	0.0	0.21	0.38	0.0									
Unit 1A/B						2.0	12	0.0	3.9	160	0.0	4.4	1000	0.0	1.3	16	0.0	1.2	23	0.0	2.4	99	0.0	3.1	100	0.0	1.2	15	0.0	0.14	0.38	0.0									
Unit 1																																									

Table G-1. Enrichment Ratios for Contaminated Subsurface Sediments

Unit	Sample ID	Depth Below Mudline (ft)		Dibenz(a,h)anthracene (SQS = 12)			Fluoranthene (SQS = 160)			Pyrene (SQS = 1000)			Acenaphthene (SQS = 16)			Fluorene (SQS = 23)			Naphthalene (SQS = 99)			Phenanthrene (SQS = 100)			Dibenzofuran (SQS = 15)			Hexachlorobenzene (SQS = 0.38)		
		Top	Bottom	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	(ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER
Unit 2A/2B				3.67	12	0.0	75	160	0.0	99	1000	0.0	9.06	16	0.0	9.8	23	0.0	27.3	99	0.0	33.6	100	0.0	11.4	15	0.0	0.40	0.38	1.04
Unit 2A/B	HC-DC-91-S1	0	1.6	4.43	12	0	44.3	160	0	118	1000	0	6.89	16	0	7.87	23	0	8.36	99	0	21.3	100	0	7.87	15	0	0.25	0.38	0
Unit 2A/B	HC-DC-91-S2	1.6	3	0.25	12	0	15.5	160	0	19.1	1000	0	1.91	16	0	2.73	23	0	3.27	99	0	6.2	100	0	2.18	15	0	0.47	0.38	1.24
Unit 2A/B	HC-DC-92-S1	0	1.4	9.33	12	0	203	160	1.27	203	1000	0	22.33	16	1.40	22.3	23	0	46.7	99	0	70.0	100	0	24.3	15	1.62	0.53	0.38	1.39
Unit 2A/B	HC-DC-92-S2	1.4	2.8	0.65	12	0	35.1	160	0	54.4	1000	0	5.09	16	0	6.32	23	0	50.9	99	0	36.8	100	0	11.4	15	0	0.33	0.38	0
Unit 2C				1.6	12	0.0	12.9	160	0.0	13.6	1000	0.0	2.6	16	0.0	3.8	23	0.0	7.9	99	0.0	13.4	100	0.0	2.4	15	0.0	0.23	0.38	0.0
Unit 2C	HC-VC-73-S1	0	1.9	2.68	12	0	17.3	160	0	27.0	1000	0	2.97	16	0	3.51	23	0	7.03	99	0	11.1	100	0	3.78	15	0	0.13	0.38	0
Unit 2C	HC-VC-73-S2	1.9	4.6	0.91	12	0	13.6	160	0	11.1	1000	0	2.77	16	0	4.26	23	0	7.23	99	0	14.9	100	0	2.55	15	0	0.07	0.38	0
Unit 2C	HC-VC-73-S3	5.1	7.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unit 2C	HC-VC-77-S1	0	2.1	4.38	12	0	31.3	160	0	35.4	1000	0	3.96	16	0	7.08	23	0	6.67	99	0	17.9	100	0	4.17	15	0	0.25	0.38	0
Unit 2C	HC-VC-77-S2	2.1	3.9	0.20	12	0	1.78	160	0	2.0	1000	0	0.27	16	0	0.39	23	0	1.18	99	0	1.27	100	0	0.31	15	0	0.02	0.38	0
Unit 2C	HC-VC-78-S1	0	2.4	1.13	12	0	8.21	160	0	10.0	1000	0	0.91	16	0	1.54	23	0	4.46	99	0	5.71	100	0	1.50 E	15	0	0.18	0.38	0
Unit 2C	HC-VC-78-S2	2.7	4	2.30	12	0	14.5	160	0	11.0	1000	0	2.7	16	0	4.00	23	0	5	99	0	17	100	0	2.45 E	15	0	0.13	0.38	0
Unit 2C	HC-VC-79-S1	0	2	0.91	12	0	10.4	160	0	8.1	1000	0	2.98	16	0	3.86	23	0	9.47	99	0	14.4	100	0	2.11	15	0	0.21	0.38	0
Unit 2C	HC-VC-79-S2	2	3.8	1.27	12	0	16.2	160	0	14.4	1000	0	4.67	16	0	6.22	23	0	17.8	99	0	24.4	100	0	3.56	15	0	0.07 U	0.38	0
Unit 2C	HC-VC-80-S1	0	1.7	2.67	12	0	21.6	160	0	26.7	1000	0	4	16	0	5.56	23	0	24.4	99	0	19.8	100	0	6.00	15	0	0.24	0.38	0
Unit 2C	HC-VC-80-S2	1.9	5.3	0.64	12	0	8.6	160	0	6.1	1000	0	3.07	16	0	5.2	23	0	6.71	99	0	22.1	100	0	0.43 U	15	0	0.79	0.38	2.08
HC-VC-96	HC-VC-96-C1	0	3.62	1.29 U	12	0.00	8.4	160	0.00	7.6	1000	0	2.24	16	0.00	2.41	23	0.00	3.4	99	0	8.10	100	0	1.64	15	0	0.40	0.38	1.04
HC-VC-96	HC-VC-96-C2	3.62	10.03	0.84 U	12	0.00	3.1	160	0.00	3.3	1000	0	0.71	16	0.00	1.10	23	0.00	1.6	99	0	4.00	100	0	0.47 U	15	0	0.25	0.38	0.00
Unit 3A				1.7	12	0.0	16.0	160	0.0	15.6	1000	0.0	3.3	16	0.0	6.5	23	0.0	14.0	99	0.0	7.8	100	0.0	4.0	15	0.0	0.2	0.38	0.0
Unit 3C	HC-DC-93-S1	0	2	1.73 U	12	—	13.1	160	0	18.1	1000	—	1.19	16	0	8.08	23	0	8.08	99	—	11.54	100	0	3.50	15	0	0.09 U	0.38	0
Unit 3C	HC-VC-82-S1	0	2.3	2.39	12	0	19.4	160	0	20.9	1000	0	3.88	16	0	5.22	23	0	13.9	99	0	11.8	100	0	4.78	15	0	0.22	0.38	0
Unit 3C	HC-VC-82-S2	2.3	5.2	1.09	12	0	15.5	160	0	7.9	1000	0	4.91	16	0	6.27	23	0	20.0	99	0	0.160	100	0	3.64	15	0	0.18	0.38	0
Unit 3C	HC-VC-82-S3	5.3	6.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unit 3B				1.9	12	0.0	24.5	160	0.0	30.0	1000	0.0	5.8	16	0.0	6.6	23	0.0	16.5	99	0.0	20.9	100	0.0	5.87	15	0.0	0.17	0.38	0.0
Unit 3B	HC-VC-97-C1	0	4.15	1.26 U	12	0.00	11.8	160	0.00	9.6	1000	0	1.93	16	0.00	2.46	23	0.00	4.9	99	0	8.07	100	0	1.75	15	0	0.23	0.38	0
Unit 3B	HC-VC-97-C2	4.15	8.025	0.92 U	12	0.00	13.0	160	0.00	10.0	1000	0	4.50	16	0.00	4.90	23	0.00	9.5	99	0	16.00	100	0	2.90 E	15	0	0.06	0.38	0
Unit 3B	HC-VC-81-S1	0	1.6	1.75 U	12	0	35.0	160	0	55.0	1000	0	5.5	16	0	6.75	23	0	20.8	99	0	25.0	100	0	7.00	15	0	0.24	0.38	0
Unit 3B	HC-VC-81-S2	1.6	3.2	3.82	12	0	38.2	160	0	45.5	1000	0	11.45	16	0	12.4	23	0	30.9	99	0	34.6	100	0	11.8	15	0	0.16	0.38	0
Log Pond				1.4	12	0.0	22.1	160	0.0	19.7	1000	0.0	7.6	16	0.0	9.3	23	0.0	7.6	99	0.0	16.3	100	0.0	5.3	15	0.0	0.31	0.38	0.0
Log Pond	HC-DC-90-S1	0	1.6	1.25	12	0	25.0	160	0	28.8	1000	0	2.25	16	0	3.25	23	0	5.75	99	0	8.38	100	0	3.25	15	0	1.04	0.38	2.74
Log Pond	HC-DC-90-S2	1.6	3.8	0.76	12	0	31.7	160	0	15.8	1000	0	22.5	16	1.41	16.7	23	0	15.0	99	0	50.0	100	0	10.8	15	0	0.48	0.38	1.26
Log Pond	HC-VC-74-S1	0	2.4	3.33	12	0	19.3	160	0	20.0	1000	0	3.2	16	0	2.4	23	0	2.73	99	0	8.00	100	0	1.73	15	0	0.3	0.38	0
Log Pond	HC-VC-74-S2	2.4	4.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Log Pond	HC-VC-74-S3	4.5	6.9	1.67	12	0	25.8	160	0	30.3	1000	0	11.21	16	0	13.9	23	0	21.2	99	0	24.2	100	0	10.2	15	0	0.08	0.38	0
Log Pond	HC-VC-75-S1	0	3.3	1.00	12	0	20.2	160	0	15.2	1000	0	2.39	16	0	4.44	23	0	3.13	99	0	12.1	100	0	2.63	15	0	0.14	0.38	0
Log Pond	HC-VC-76-S1	0	3.5	1.00	12	0	14.0	160	0	13.0	1000	0	0.8	16	0	3.5	23	0	1.90	99	0	1.10	100	0	1.4	15	0	0.06	0.38	0
Log Pond	HC-VC-76-S2	3.5	7.9	0.61	12	0	19.0	160	0	14.7	1000	0	10.53	16	0	21.1	23	0	3.37	99	0	10.0	100	0	6.95	15	0	0.04	0.38	0
I&J Waterway				1.32	12	0.0	4.87	160	0.0	2.35	1000	0.0	0.96	16	0.0	1.29	23	0.0	1.45	99	0.0	3.60	100	0.0	1.78	15	0.0	0.15	0.38	0.0
HC-VC-83	HC-VC-83-S1	0	2.6	0.71 J	12	0.06	6.1	160	0.00	—	1000	0	0.79 J	16	0.00	1.50	23	0.00	—	99	0	5.26	100	0	1.87	15	0	0.18	0.38	0.00
HC-VC-83	HC-VC-83-S3	2.6	5.3	-- nt	12	--	-- nt	160	--	-- nt	1000	0	-- nt	16	0.00	-- nt	23	0.00	-- nt	99	0	-- nt	100	0	-- nt					

Table G-1. Enrichment Ratios for Contaminated Subsurface Sediments

Unit	Sample ID	Depth Below Mudline (ft)		Bis(2-ethylhexyl)phthalate (SQS = 47)			Butyl Benzyl Phthalate (SQS = 4.9)			2,4-Dimethylphenol (SQS = 29)			Phenol (SQS = 420)				
		Top	Bottom	Conc. (ppm TOC)	SQS	ER	Conc. (ppm TOC)	SQS	ER	Conc. (ug/kg)	SQS	ER	Conc. (ug/kg)	SQS	ER		
ASB Sludges				83.3	47	1.8	50.8	4.9	10.4	102.4	29	3.5	865.7	420	2.1		
ASB Sludges	GPA-01-A	0	6	69.7	47	1.48	0.1 U	4.9	0.00	47 U	29	1.62	910	420	2.2		
ASB Sludges	GPA-01-B1	6.5	11.5	10.6	47	0.00	0.1 U	4.9	0.00	47 U	29	1.62	560	420	1.3		
ASB Sludges	GPA-02-A	0	2.1	3.2	47	0.00	0.1 U	4.9	0.00	46 U	29	1.59	1,900	420	4.5		
ASB Sludges	GPA-02-B1	2.1	4	6.4	47	0.00	0.9 U	4.9	0.00	500 U	29	17.24	1,200	420	2.9		
ASB Sludges	GPA-02-B2	4	8.5	0.3 U	47	0.00	0.1 U	4.9	0.00	48 U	29	1.66	210	420	0.0		
ASB Sludges	GPA-03-A	0	2.6	4.8	47	0.00	0.1 U	4.9	0.00	47 U	29	1.62	1,000	420	2.4		
ASB Sludges	GPA-03-B1	2.7	5	11.6	47	0.00	0.1 U	4.9	0.00	47 U	29	1.62	520	420	1.2		
ASB Sludges	GPA-04-A	0	4	10.5	47	0.00	6.4 U	4.9	1.30	47 U	29	1.62	350	420	0.0		
ASB Sludges	GPA-04-B1	4.5	7	714.3	47	15.20	500.0 U	4.9	102.04	150 U	29	5.17	100 U	420	0.0		
ASB Sludges	GPA-05-A	0	6.5	2.1	47	0.00	0.1 U	4.9	0.00	45 U	29	1.55	1,300	420	3.1		
ASB - Sludge Native Contact				6.8	47	0.0	0.21	4.9	0.0	9.2	29	0.0	38.5	420	0.0		
ASB - Contact	GPA-01-B2	13	19	5.9	47	0.00	0.2 U	4.9	0.00	9.2 U	29	0.00	6.5 U	420	0.0		
ASB - Contact	GPA-03-B2	5.5	9	5.9 M	47	0.00	0.2 U	4.9	0.00	9.2 U	29	0.00	36	420	0.0		
ASB - Contact	GPA-05-B1	7.5	13	8.5	47	0.00	0.2 U	4.9	0.00	9.3 U	29	0.00	73	420	0.0		
ASB - Native Sediments				36.1	47	0.0	10.3	U	4.9	0.0	9.3	U	29	0.0	8.9	420	0.0
ASB Native	GPA-01-C	26	32	60.0	47	1.28	40.0 U	4.9	0.00	9.2 U	29	0.00	6.3 U	420	0.0		
ASB Native	GPA-02-C	9	14	40.0	47	0.00	3.5 U	4.9	0.00	9.2 U	29	0.00	6.3 U	420	0.0		
ASB Native	GPA-03-C	12	17.5	24.7	47	0.00	1.6 U	4.9	0.00	9.4 U	29	0.00	6.5 U	420	0		
ASB Native	GPA-04-B2	8.5	13.5	16.0	47	0.00	0.5 U	4.9	0.00	9.3 U	29	0.00	6.4 U	420	0		
ASB Native	GPA-04-C	18.5	23.5	31.3	47	0.00	1.6 U	4.9	0.00	9.3 U	29	0.00	6.4 U	420	0		
ASB Native	GPA-05-B2	14	17.5	62.5	47	1.33	23.8 U	4.9	0.00	9.3 U	29	0.00	6.4 U	420	0		
ASB Native	GPA-05-C	19	23	18.3	47	0.00	0.8 U	4.9	0.00	9.4 U	29	0.00	24	420	0		
ASB - Berm Sands				27.6	47	0.0	19.1	U	4.9	0.0	19.1	U	29	0.0	19.1	420	0.0
ASB Berm	BERM-01-10-16	10	16	11.1 U	47	0.0	19 U	4.9	0.0	19 U	29	0.0	19 U	420	0.0		
ASB Berm	BERM-02-10-16	10	16	22.7 U	47	0.0	20 U	4.9	0.0	20 U	29	0.0	20 U	420	0.0		
ASB Berm	BERM-03-10-16	10	16	20.9 U	47	0.0	19 U	4.9	0.0	19 U	29	0.0	19 U	420	0.0		
ASB Berm	BERM-04-8-14	8	14	15.0 U	47	0.0	19 U	4.9	0.0	19 U	29	0.0	19 U	420	0.0		
ASB Berm	BERM-05-8-14	8	14	14.3 U	47	0.0	19 U	4.9	0.0	19 U	29	0.0	19 U	420	0.0		
ASB Berm	BERM-06-10-16	10	16	15.8 U	47	0.0	19 U	4.9	0.0	19 U	29	0.0	19 U	420	0.0		
ASB Berm	BERM-07-7-11	7	11	14.8 U	47	0.0	19 U	4.9	0.0	19 U	29	0.0	19 U	420	0.0		
ASB Berm	BERM-08-10-14	10	14	106.3	47	2.3	19 U	4.9	0.0	19 U	29	0.0	19	420	0.0		
Whatcom Waterway Sediments Average (Excluding Log Pond & I&J Waterway)				8.0	47	0.0	1.8	4.9	0.0	15.4	29	0.0	107.5	420	0		
Unit 1A/B				2.5	47	0.0	1.5	4.9	0.0	18.5	29	0.0	24.3	420	0.0		
Unit 1A/B	AN PC CMP1	0	4	1.76	47	0	0.80 U	4.9	0	20 U	29	0	20 U	420	0		
Unit 1A/B	AN PC CMP2	0	4	1.39	47	0	0.87 U	4.9	0	20 U	29	0	20 U	420	0		
Unit 1A/B	AN PC CMP3	0	4	2.80	47	0	0.95 U	4.9	0	19 U	29	0	19 U	420	0		
Unit 1A/B	AN PC CMP4	0	4	1.95	47	0	0.95 U	4.9	0	20 U	29	0	24	420	0		
Unit 1A/B	HC-VC-70-S1	0	1.5	3.70	47	0	0.55	4.9	0	3.0 E	29	0	34 U	420	0		
Unit 1A/B	HC-VC-70-S2	3.7	5.8	3.58	47	0	4.83 U	4.9	0	29.0 U	29	0	29 U	420	0		
Unit 1A/B	HC-VC-70-S3	1.5	3.7	nt	47	0	nt	4.9	0	nt	29	0	nt	420	0		
Unit 1C				Average ER	5.2	47	0.0	2.2	4.9	0.0	15.7	29	0.0	43	420	0	
Unit 1C	HC-DC-86-S1	0	1.9	3.78	47	0	3.35 U	4.9	0	38 U	29	0	47	420	0		
Unit 1C	HC-DC-86-S2	1.9	3.8	3.04	47	0	0.61 E	4.9	0	34 U	29	0	26	420	0		
Unit 1C	HC-DC-87-S1*	0	2.3	3.53	47	0	2.00 U	4.9	0	8.6	29	0	42	420	0		
Unit 1C	HC-DC-87-S2	2.3	3.8	5.00	47	0	1.48 U	4.9	0	10	29	0	55	420	0		
Unit 1C	HC-DC-88-S1	0	1.6	5.14	47	0	1.46 U	4.9	0	3.6	29	0	47	420	0		
Unit 1C	HC-DC-88-S2	1.6	3.8	2.18	47	0	1.09 U	4.9	0	13	29	0	59	420	0		
Unit 1C	HC-DC-89-S1	0	1.6	21.5	47	0	6.76	4.9	1.38	4.9	29	0	42	420	0		
Unit 1C	HC-DC-89-S2	1.6	3.8	2.87	47	0	0.74 U	4.9	0	35	29	1.21	82	420	0		
Unit 1C	HC-VC-71-S1	0	1.6	1.59	47	0	2.63 U	4.9	0	5.5	29	0	26	420	0		
Unit 1C	HC-VC-71-S2	1.6	4.8	2.27	47	0	2.15 U	4.9	0	16 E	29	0	28 U	420	0		
Unit 1C	HC-VC-72-S1	0	3.2	6.45	47	0	2.16	4.9	0	4.1	29	0	15	420	0		

Table G-1. Enrichment Ratios for Contaminated Subsurface Sediments

Unit	Sample ID	Depth Below Mudline (ft)		Bis(2-ethylhexyl)phthalate (SQS = 47)			Butyl Benzyl Phthalate (SQS = 4.9)			2,4-Dimethylphenol (SQS = 29)			Phenol (SQS = 420)		
		Top	Bottom	Conc.	SQS	ER	Conc.	SQS	ER	Conc.	SQS	ER	Conc.	SQS	ER
				(ppm TOC)			(ppm TOC)			(ug/kg)			(ug/kg)		
Unit 2A/2B				16	47	0.0	1.79	4.9	0.0	4.5	29	0.0	99	420	0.0
Unit 2A/B	HC-DC-91-S1	0	1.6	39.3	47	0	3.93	4.9	0	4.0	29	0	78	420	0
Unit 2A/B	HC-DC-91-S2	1.6	3	5.67	47	0	0.86	4.9	0	4.0	29	0	64	420	0
Unit 2A/B	HC-DC-92-S1	0	1.4	10.7	47	0	1.47 U	4.9	0	4.3	29	0	83	420	0.00
Unit 2A/B	HC-DC-92-S2	1.4	2.8	10.0	47	0	0.89	4.9	0	5.6	29	0	170	420	0
Unit 2C				6.09	47	0.0	1.6	4.9	0.0	17.3	29	0.0	141.8	420	0.0
Unit 2C	HC-VC-73-S1	0	1.9	6.76	47	0	0.95	4.9	0	6.4	29	0	41	420	0
Unit 2C	HC-VC-73-S2	1.9	4.6	4.04	47	0	1.38	4.9	0	19	29	0	33	420	0
Unit 2C	HC-VC-73-S3	5.1	7.4	—	—	—	—	—	—	—	—	—	—	—	—
Unit 2C	HC-VC-77-S1	0	2.1	5.42	47	0	1.73	4.9	0	10	29	0	41	420	0
Unit 2C	HC-VC-77-S2	2.1	3.9	0.43	47	0	0.13 U	4.9	0	17	29	0	31	420	0
Unit 2C	HC-VC-78-S1	0	2.4	5.54	47	0	0.93	4.9	0	4.5	29	0	310	420	0
Unit 2C	HC-VC-78-S2	2.7	4	5.50	47	0	2.3	4.9	0	3.9	29	0	54	420	0
Unit 2C	HC-VC-79-S1	0	2	6.14	47	0	1.19	4.9	0	27	29	0	130	420	0
Unit 2C	HC-VC-79-S2	2	3.8	3.56	47	0	1.27	4.9	0	27	29	0	62	420	0
Unit 2C	HC-VC-80-S1	0	1.7	18.7	47	0	5.1	4.9	1.0	8.1	29	0	120	420	0
Unit 2C	HC-VC-80-S2	1.9	5.3	6.5	47	0	1.5	4.9	0	31 E	29	1.07	440	420	1.0
HC-VC-96	HC-VC-96-C1	0	3.62	7.93 B	47	0	1.29 U	4.9	0	8 J	29	0.00	210 B	420	0
HC-VC-96	HC-VC-96-C2	3.62	10.03	2.60 B	47	0	0.84 U	4.9	0	46 E	29	1.59	230 B	420	0
Unit 3A				12.9	47	0.0	1.6	4.9	0.0	22.3	29	0.0	286.3	420	0.0
Unit 3C	HC-DC-93-S1	0	2	13.1	47	—	0.92 E	4.9	0	12 E	29	0	49	420	—
Unit 3C	HC-VC-82-S1	0	2.3	19.4	47	0	2.99	4.9	0	12 E	29	0	130	420	0
Unit 3C	HC-VC-82-S2	2.3	5.2	6.27	47	0	0.86	4.9	0	43	29	1.48	680	420	1.6
Unit 3C	HC-VC-82-S3	5.3	6.8	—	—	—	—	—	—	—	—	—	—	—	—
Unit 3B				19.4	47	0.0	2.73	4.9	0.0	14.1	29	0.0	209	420	0.0
Unit 3B	HC-VC-97-C1	0	4.15	9.82 B	47	0	0.67 U	4.9	0	8.8 J	29	0	190 B	420	0
Unit 3B	HC-VC-97-C2	4.15	8.025	1.70 EB	47	0	0.92 U	4.9	0	19 E	29	0	280 B	420	0
Unit 3B	HC-VC-81-S1	0	1.6	42.5	47	0	4.25	4.9	0	7.4	29	0	35	420	0
Unit 3B	HC-VC-81-S2	1.6	3.2	23.6	47	0	5.09	4.9	1.0	21	29	0	330	420	0
Log Pond				4.3	47	0.0	0.6	4.9	0.0	13.6	29	0.0	97.9	420	0.0
Log Pond	HC-DC-90-S1	0	1.6	3.63	47	0	0.59	4.9	0	14	29	0	41	420	0
Log Pond	HC-DC-90-S2	1.6	3.8	4.25	47	0	0.73 U	4.9	0	21	29	0	99	420	0
Log Pond	HC-VC-74-S1	0	2.4	3.27	47	0	0.40	4.9	0	7.7	29	0	47 U	420	0
Log Pond	HC-VC-74-S2	2.4	4.1	—	—	—	—	—	—	—	—	—	—	—	—
Log Pond	HC-VC-74-S3	4.5	6.9	11.8	47	0	1.17	4.9	0	36 E	29	1.24	100	420	0
Log Pond	HC-VC-75-S1	0	3.3	2.63	47	0	0.33	4.9	0	5.5	29	0	310	420	0
Log Pond	HC-VC-76-S1	0	3.5	2.40	47	0	0.41	4.9	0	5.6	29	0	50	420	0
Log Pond	HC-VC-76-S2	3.5	7.9	2.42	47	0	0.79	4.9	0	5.5	29	0	38	420	0
I&J Waterway				9.43	47	0.0	1.39	4.9	0.0	60.8	29	2.1	131	420	0.0
HC-VC-83	HC-VC-83-S1	0	2.6	5.00 B	47	0	1.76 U	4.9	0	26 J	29	0	300 B	420	0
HC-VC-83	HC-VC-83-S3	2.6	5.3	-- nt	47	0	-- nt	4.9	0	-- nt	29	0	-- nt	420	0
HC-VC-84	HC-VC-84-S1	0	1.4	5.17 JB	47	0	0.69 J	4.9	0	16 J	29	0	100 JB	420	0
HC-VC-84	HC-VC-84-S2	2	4.9	4.71 JB	47	0	0.34 J	4.9	0	74 J	29	0	86 JB	420	0
HC-VC-85	HC-VC-85-S1	0	4.5	50.00 JB	47	0	1.71 J	4.9	0	38 J	29	0.00	280 JB	420	0
HC-VC-94	HC-VC-94-C1	0	3.56	1.65 EB	47	0	2.61 U	4.9	0	14 E	29	0	34 B	420	0
HC-VC-94	HC-VC-94-C2	3.56	6.77	1.60 EB	47	0	2.20 U	4.9	0	8.4 E	29	0	23 B	420	0
HC-VC-95	HC-VC-95-C1	0	2.55	6.79 B	47	0	0.96 U	4.9	0	190	29	0.00	160 B	420	0
HC-VC-95	HC-VC-95-C2	2.55	4.87	0.48 JB	47	0	0.83 U	4.9	1.3796	120	29	0.00	63 B	420	0

Notes:
 U = Compound not detected at the indicated reporting limit.
 -- Not tested in this sample.
 *: Multiple PAH compounds exceeded the SQS in this sample, but all PAH compounds were below the SQS in a matching duplicate sample, indicating that the PAH contamination is extremely localized in this area.
 **: Value is an outlier. Not included in average calculation.
 Pre 1996 Data excluded from analysis.
 Averages for subsurface sediment based on estimated 0.4 to 4.0 ft interval, using adjusted depth intervals as indicated.
 For compounds with a measured concentration below the SQS, the ER for that compound was assigned a value of zero.
 Enrichment calculated only for compounds detected above SQS in at least 2 or more samples, or in samples at ER values of greater than 2X. ER values not calculated for pentachlorophenol, benzoic acid and di-n-octylphthalate based on t
 Dioxins not included in enrichment ratio calculations, because SQS values are not available for these compounds. Dioxins were elevated within the ASB sludges.

Table G-2. Average Contaminant Concentrations and Enrichment Ratios for Shallow Subsurface Sediments (0.4-4.0 ft)

Unit	Sample ID	Depth Below Mudline (ft)		Shallow Subsurface Data (0.4-4 ft) (Yes/No)	Adjusted Depths and Weightings for Subsurface Sediment Averaging Calculations					Measured Concentrations for Sample Interval (Shallow Subsurface Sediment)			Contribution of Interval to Total 0.4 to 4.0 ft Sample Average Concentration			Average Concentration in Shallow Subsurface Sediments (0.4-4.0 ft)		
		Top	Bottom		Top	Bottom	Interval Length	% of Sample	Adjustment Notes	Hg Conc. (mg/kg)	4-mp Conc. (ug/kg)	Cum. ER (X)	Hg Conc. (mg/kg)	4-mp Conc. (ug/kg)	Cum. ER (X)	Hg Conc.	4-mp Conc.	Cum. ER
ASB Sludges																		
ASB Sludges	GPA-01-A	0	6	Yes	0.4	4	3.6	100.0%	--	1.1	59,000	101.0	1.10	59,000	101.0	1.10	59,000	101.0
ASB Sludges	GPA-01-B1	6.5	11.5	No	--	--	--	--	--	7.0	42,000	87.9	--	--	--	--	--	--
ASB Sludges	GPA-02-A	0	2.1	Yes	0.4	2.1	1.7	47.2%	--	2.6	170,000	269.8	1.23	80,278	127.4	4.39	109,833	192.6
ASB Sludges	GPA-02-B1	2.1	4	Yes	2.1	4	1.9	52.8%	--	6.0	56,000	123.4	3.17	29,556	65.1	--	--	--
ASB Sludges	GPA-02-B2	4	8.5	No	4	--	--	--	--	20.2	34	62.3	--	--	--	--	--	--
ASB Sludges	GPA-03-A	0	2.6	Yes	0.4	2.7	2.3	63.9%	Extended to 4 ft	1.9	98,000	160.3	1.21	62,611	102.4	3.13	79,944	135.0
ASB Sludges	GPA-03-B1	2.7	5	Yes	2.7	4	1.3	36.1%	--	5.3	48,000	90.2	1.91	17,333	32.6	--	--	--
ASB Sludges	GPA-04-A	0	4	Yes	0.4	4	3.6	100.0%	--	7.7	26,000	63.5	7.70	26,000	63.5	7.70	26,000	63.5
ASB Sludges	GPA-04-B1	4.5	7	No	4.5	--	--	--	--	5.1	7,700	150.1	--	--	--	--	--	--
ASB Sludges	GPA-05-A	0	6.5	Yes	0.4	4	3.6	100.0%	--	0.40	37,000	59.9	0.40	37,000	59.9	0.40	37,000	59.9
ASB - Sludge Native Contact																		
ASB - Contact	GPA-01-B2	13	19	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB - Contact	GPA-03-B2	5.5	9	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB - Contact	GPA-05-B1	7.5	13	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB - Native Sediments																		
ASB Native	GPA-01-C	26	32	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Native	GPA-02-C	9	14	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Native	GPA-03-C	12	17.5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Native	GPA-04-B2	8.5	13.5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Native	GPA-04-C	18.5	23.5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Native	GPA-05-B2	14	17.5	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Native	GPA-05-C	19	23	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB - Berm Sands																		
ASB Berm	BERM-01-10-16	10	16	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Berm	BERM-02-10-16	10	16	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Berm	BERM-03-10-16	10	16	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Berm	BERM-04-8-14	8	14	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Berm	BERM-05-8-14	8	14	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Berm	BERM-06-10-16	10	16	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Berm	BERM-07-7-11	7	11	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ASB Berm	BERM-08-10-14	10	14	No	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table G-2. Average Contaminant Concentrations and Enrichment Ratios for Shallow Subsurface Sediments (0.4-4.0 ft)

Unit	Sample ID	Depth Below Mudline (ft)		Shallow Subsurface Data (0.4-4 ft) (Yes/No)	Adjusted Depths and Weightings for Subsurface Sediment Averaging Calculations					Measured Concentrations for Sample Interval (Shallow Subsurface Sediment)			Contribution of Interval to Total 0.4 to 4.0 ft Sample Average Concentration			Average Concentration in Shallow Subsurface Sediments (0.4-4.0 ft)		
		Top	Bottom		Top	Bottom	Interval Length	% of Sample	Adjustment Notes	Hg Conc. (mg/kg)	4-mp Conc. (ug/kg)	Cum. ER (X)	Hg Conc. (mg/kg)	4-mp Conc. (ug/kg)	Cum. ER (X)	Hg Conc.	4-mp Conc.	Cum. ER
Whatcom Waterway Sediments Average (Excluding Log Pond & I&J Waterway)																		
Unit 1A/B																		
Unit 1A/B	AN PC CMP1	0	4	Yes	0.4	4	3.6	100.0%		1.0	50	2.5	1.01	50	2.5	1.01	50	2.5
Unit 1A/B	AN PC CMP2	0	4	Yes	0.4	4	3.6	100.0%		0.9	31	2.2	0.90	31	2.2	0.90	31	2.2
Unit 1A/B	AN PC CMP3	0	4	Yes	0.4	4	3.6	100.0%		1.1	43	2.7	1.10	43	2.7	1.10	43	2.7
Unit 1A/B	AN PC CMP4	0	4	Yes	0.4	4	3.6	100.0%		1.3	52	3.0	1.25	52	3.0	1.25	52	3.0
Unit 1A/B	HC-VC-70-S1	0	1.5	Yes	0.4	1.5	1.1	30.6%		2.3	170	5.6	0.70	52	1.7	0.82	52	2.00
Unit 1A/B	HC-VC-70-S2	3.7	5.8	Yes	3.7	4	0.3	8.3%		0.18	5	0.4	0.02	0	0.0			
Unit 1A/B	HC-VC-70-S3	1.5	3.7	Yes	1.5	3.7	2.2	61.1%		0.17	--	0.4	0.10	--	0.3			
Unit 1C																		
<u>Average ER</u>																		
Unit 1C	HC-DC-86-S1	0	1.9	Yes	0.4	1.9	1.5	41.7%	--	0.2	150	2.2	0.10	63	0.9	0.40	133	2.3
Unit 1C	HC-DC-86-S2	1.9	3.8	Yes	1.9	4	2.1	58.3%	Extended to 4 ft	0.5	120	2.3	0.30	70	1.3			
Unit 1C	HC-DC-87-S1*	0	2.3	Yes	0.4	2.3	1.9	52.8%	--	1.4	6	34.9	0.71	3	18.4	4.25	419	27.7
Unit 1C	HC-DC-87-S2	2.3	3.8	Yes	2.3	4	1.7	47.2%	Extended to 4 ft	7.5	880	19.6	3.54	416	9.3			
Unit 1C	HC-DC-88-S1	0	1.6	Yes	0.4	1.6	1.2	33.3%	--	0.7	140	3.9	0.22	47	1.3	1.69	507	5.6
Unit 1C	HC-DC-88-S2	1.6	3.8	Yes	1.6	4	2.4	66.7%	Extended to 4 ft	2.2	690	6.4	1.47	460	4.3			
Unit 1C	HC-DC-89-S1	0	1.6	Yes	0.4	1.6	1.2	33.3%	--	6.4	590	19.3	2.13	197	6.4	30.80	3,263	86.3
Unit 1C	HC-DC-89-S2	1.6	3.8	Yes	1.6	4	2.4	66.7%	Extended to 4 ft	43.0	4,600	119.8	28.67	3,067	79.8			
Unit 1C	HC-VC-71-S1	0	1.6	Yes	0.4	1.6	1.2	33.3%	--	4.3	270	10.5	1.43	90	3.5	4.43	277	12.0
Unit 1C	HC-VC-71-S2	1.6	4.8	Yes	1.6	4	2.4	66.7%	--	4.5	280	12.7	3.00	187	8.5			
Unit 1C	HC-VC-72-S1	0	3.2	Yes	0.4	4	3.6	100.0%	Extended to 4 ft	2.6	73	6.3	2.60	73	6.3	2.60	73	6.3
Unit 2A/2B																		
Unit 2A/B	HC-DC-91-S1	0	1.6	Yes	0.4	1.6	1.2	33.3%	--	0.9	300	2.3	0.31	100	0.8	1.38	767	5.2
Unit 2A/B	HC-DC-91-S2	1.6	3	Yes	1.6	4	2.4	66.7%	Extended to 4 ft	1.6	1,000	6.6	1.07	667	4.4			
Unit 2A/B	HC-DC-92-S1	0	1.4	Yes	0.4	1.4	1	27.8%	--	0.3	560	5.7	0.09	156	1.6	0.45	1,022	3.8
Unit 2A/B	HC-DC-92-S2	1.4	2.8	Yes	1.4	4	2.6	72.2%	Extended to 4 ft	0.5	1,200	3.0	0.36	867	2.2			
Unit 2C																		
Unit 2C	HC-VC-73-S1	0	1.9	Yes	0.4	1.9	1.5	41.7%	--	2.0	480	4.9	0.83	200	2.0	3.11	1,075	8.9
Unit 2C	HC-VC-73-S2	1.9	4.6	Yes	1.9	4	2.1	58.3%	--	3.9	1,500	11.7	2.27	875	6.9			
Unit 2C	HC-VC-73-S3	5.1	7.4	No	5.1	--	--	--	--	--	--	--	--	--	--			
Unit 2C	HC-VC-77-S1	0	2.1	Yes	0.4	2.1	1.7	47.2%	--	11.0	1,000	28.3	5.19	472	13.4	8.89	1,106	23.3
Unit 2C	HC-VC-77-S2	2.1	3.9	Yes	2.1	4	1.9	52.8%	Extended to 4 ft	7.0	1,200	18.9	3.69	633	10.0			
Unit 2C	HC-VC-78-S1	0	2.4	Yes	0.4	2.7	2.3	63.9%	Extended to 2.7 ft	2.1	610	5.1	1.34	390	3.3	1.49	682	4.1
Unit 2C	HC-VC-78-S2	2.7	4	Yes	2.7	4	1.3	36.1%	--	0.4	810	2.2	0.15	293	0.8			
Unit 2C	HC-VC-79-S1	0	2	Yes	0.4	2	1.6	44.4%		8.1	3,200	25.7	3.60	1,422	11.4	4.82	3,311	18.0
Unit 2C	HC-VC-79-S2	2	3.8	Yes	2	4	2	55.6%	Extended to 4 ft	2.2	3,400	11.8	1.22	1,889	6.6			
Unit 2C	HC-VC-80-S1	0	1.7	Yes	0.4	1.9	1.5	41.7%	Extended to 1.9 ft	1.0	3,200	8.3	0.42	1,333	3.4	7.42	13,583	41.9
Unit 2C	HC-VC-80-S2	1.9	5.3	Yes	1.9	4	2.1	58.3%	--	12.0	21,000	65.9	7.00	12,250	38.4			
HC-VC-96	HC-VC-96-C1	0	3.62	Yes	0.4	3.62	3.22	89.4%	Average Depth	2.7	4,600	14.5	2.42	4,114	13.0	2.87	5,381	16.3
HC-VC-96	HC-VC-96-C2	3.62	10.03	Yes	3.62	4	0.38	10.6%		4.3	12,000	31.2	0.45	1,267	3.3			

Table G-2. Average Contaminant Concentrations and Enrichment Ratios for Shallow Subsurface Sediments (0.4-4.0 ft)

Unit	Sample ID	Depth Below Mudline (ft)		Shallow Subsurface Data (0.4-4 ft) (Yes/No)	Adjusted Depths and Weightings for Subsurface Sediment Averaging Calculations					Measured Concentrations for Sample Interval (Shallow Subsurface Sediment)			Contribution of Interval to Total 0.4 to 4.0 ft Sample Average Concentration			Average Concentration in Shallow Subsurface Sediments (0.4-4.0 ft)		
		Top	Bottom		Top	Bottom	Interval Length	% of Sample	Adjustment Notes	Hg Conc. (mg/kg)	4-mp Conc. (ug/kg)	Cum. ER (X)	Hg Conc. (mg/kg)	4-mp Conc. (ug/kg)	Cum. ER (X)	Hg Conc.	4-mp Conc.	Cum. ER
Unit 3A																		
Unit 3C	HC-DC-93-S1	0	2	Yes	0.4	4	3.6	100.0%	Extended to 4 ft	0.1	58	1.1	0.14	58	1.1	0.14	58	1.1
Unit 3C	HC-VC-82-S1	0	2.3	Yes	0.4	2.3	1.9	52.8%	--	1.4	3,100	8.0	0.74	1,636	4.2	1.68	10,136	20.7
Unit 3C	HC-VC-82-S2	2.3	5.2	Yes	2.3	4	1.7	47.2%	--	2.0	18,000	34.8	0.94	8,500	16.5			
Unit 3C	HC-VC-82-S3	5.3	6.8	No	--	--	--	--	--	--	--	--	--	--	--			
Unit 3B																		
Unit 3B	HC-VC-97-C1	0	4.15	Yes	0.4	4	3.6	100.0%	Average Depths	1.8	3,900	10.2	1.80	3,900	10.2	1.80	3,900	10.2
Unit 3B	HC-VC-97-C2	4.15	8.025	No	--	--	--	--		--	--	--	--	--	--			
Unit 3B	HC-VC-81-S1	0	1.6	Yes	0.4	1.6	1.2	33.3%		0.9	1,100	3.9	0.31	367	1.3	1.11	4,100	9.5
Unit 3B	HC-VC-81-S2	1.6	3.2	Yes	1.6	4	2.4	66.7%	Extended to 4 ft	1.2	5,600	12.3	0.80	3,733	8.2			
Log Pond																		
Log Pond	HC-DC-90-S1	0	1.6	Yes	0.4	1.6	1.2	33.3%		3.8	1,200	13.8	1.27	400	4.6	9.27	2,333	28.8
Log Pond	HC-DC-90-S2	1.6	3.8	Yes	1.6	4	2.4	66.7%	Extended to 4 ft	12.0	2,900	36.3	8.00	1,933	24.2			
Log Pond	HC-VC-74-S1	0	2.4	Yes	0.4	2.4	2	55.6%		10.5	360	25.6	5.83	200	14.2	38.42	200	93.7
Log Pond	HC-VC-74-S2	2.4	4.1	Yes	2.4	4.1	1.7	47.2%		69.0	—	168.3	32.6	--	79.5			
Log Pond	HC-VC-74-S3	4.5	6.9	No	--	--	--	--		--	--	--	--	--	--			
Log Pond	HC-VC-75-S1	0	3.3	Yes	0.4	4	3.6	100.0%	Extended to 4 ft	6.4	830	16.8	6.40	830	16.8	6.40	830	16.8
Log Pond	HC-VC-76-S1	0	3.5	Yes	0.4	3.5	3.1	86.1%		1.3	440	3.2	1.12	379	2.7	1.25	587	3.4
Log Pond	HC-VC-76-S2	3.5	7.9	Yes	3.5	4	0.5	13.9%		1.0	1,500	4.6	0.13	208	0.6			
I&J Waterway																		
HC-VC-83	HC-VC-83-S1	0	2.6	Yes	0.4	2.6	2.2	61.1%		1.4	160	3.5	0.86	98	2.1	2.10	98	5.2
HC-VC-83	HC-VC-83-S3	2.6	5.3	Yes	2.6	4	1.4	38.9%		3.2	--	7.8	1.24	--	3.0			
HC-VC-84	HC-VC-84-S1	0	1.4	Yes	0.4	2	1.6	44.4%	Extended to 2 ft	0.7	100	2.0	0.29	44	0.9	1.51	317	3.9
HC-VC-84	HC-VC-84-S2	2	4.9	Yes	2	4	2	55.6%		2.2	490	5.4	1.22	272	3.0			
HC-VC-85	HC-VC-85-S1	0	4.5	Yes	0.4	4	3.6	100.0%		0.9	200	2.3	0.88	200	2.3	0.88	200	2.3
HC-VC-94	HC-VC-94-C1	0	3.56	Yes	0.4	3.56	3.16	87.8%	Average Depths	1.3	130	3.2	1.14	114	2.8	1.36	124	3.3
HC-VC-94	HC-VC-94-C2	3.56	6.77	Yes	3.56	4	0.44	12.2%		1.8	78	4.4	0.22	10	0.5			
HC-VC-95	HC-VC-95-C1	0	2.55	Yes	0.4	2.55	2.15	59.7%	Average Depths	0.7	460	1.7	0.41	275	1.0	0.47	379	1.7
HC-VC-95	HC-VC-95-C2	2.55	4.87	Yes	2.55	4	1.45	40.3%		0.2	260	1.9	0.06	105	0.7			

Notes:

U = Compound not detected at the indicated reporting limit.

— Not tested in this sample.

*: Multiple PAH compounds exceeded the SQS in this sample, but all PAH compounds were below the SQS in a matching duplicate sample, indicating that the PAH contamination is extremely localized in this area.

** Value is an outlier. Not included in average calculation.

Pre 1996 Data excluded from analysis

Averages for subsurface sediment based on estimated 0.4 to 4.0 ft interval, using adjusted depth intervals as indicated.

For compounds with a measured concentration below the SQS, the ER for that compound was assigned a value of zero.

Enrichment calculated only for compounds detected above SQS in at least 2 or more samples, or in samples at ER values of greater than 2X. ER values not calculated for pentachlorophenol, benzoic acid and di-n-octylphthalate based on these criteria.

Dioxins not included in enrichment ratio calculations, because SQS values are not available for these compounds. Dioxins were elevated within the ASB sludges.

Table G-3. Average Subsurface Mercury Concentrations in Natural Recovery Cores

Location ID	Sample ID	Sample Interval (Actual)					Adjusted Intervals for Averaging Calculations				Mercury Concentration Data for Interval and Average Subsurface Sediment	
		Depth Interval (cm)	Start Depth (cm)	End Depth (cm)	Start Depth (ft)	End Depth (ft)	Start Depth (ft)	End Depth (ft)	Length (ft)	% of Sample	Mercury Concentration (mg/kg)	Contribution to Average Result (mg/kg)
HC-NR-100	HC-NR-100-S01	0- 2.5	0	2.5	0.00	0.08	--	--	--	--	1.3 J	--
HC-NR-100	HC-NR-100-S02	2.5- 5	2.5	5	0.08	0.16	--	--	--	--	1 J	--
HC-NR-100	HC-NR-100-S03	5- 7.5	5	7.5	0.16	0.25	--	--	--	--	1.1 J	--
HC-NR-100	HC-NR-100-S04	7.5- 10	7.5	10	0.25	0.33	--	--	--	--	1.1 J	--
HC-NR-100	HC-NR-100-S05	10- 12.5	10	12.5	0.33	0.41	0.40	0.41	0.01	0.28%	1.4 J	0.004
HC-NR-100	HC-NR-100-S06	12.5- 15	12.5	15	0.41	0.49	0.41	0.49	0.08	2.28%	1.3 J	0.030
HC-NR-100	HC-NR-100-S07	15- 17.5	15	17.5	0.49	0.57	0.49	0.57	0.08	2.28%	1.3 J	0.030
HC-NR-100	HC-NR-100-S08	17.5- 20	17.5	20	0.57	0.66	0.57	0.66	0.08	2.28%	1.3 J	0.030
HC-NR-100	HC-NR-100-S09	20- 22.5	20	22.5	0.66	0.74	0.66	0.74	0.08	2.28%	1.4 J	0.032
HC-NR-100	HC-NR-100-S10	22.5- 25	22.5	25	0.74	0.82	0.74	0.98	0.24	6.72%	1.3 J	0.087
HC-NR-100	HC-NR-100-S13	30- 32.5	30	32.5	0.98	1.07	0.98	1.23	0.25	6.83%	2.2 J	0.150
HC-NR-100	HC-NR-100-S16/17	37.5- 42.5	37.5	42.5	1.23	1.39	1.23	1.48	0.25	6.94%	7.2 J	0.500
HC-NR-100	HC-NR-100-S19	45- 47.5	45	47.5	1.48	1.56	1.48	1.72	0.24	6.78%	1.7 J	0.115
HC-NR-100	HC-NR-100-S22	52.5- 55	52.5	55	1.72	1.80	1.72	1.97	0.25	6.89%	1.4 J	0.096
HC-NR-100	HC-NR-100-S25	60- 62.5	60	62.5	1.97	2.05	1.97	2.62	0.65	18.11%	0.53 J	0.096
HC-NR-100	HC-NR-100-S33	80- 82.5	80	82.5	2.62	2.71	2.62	3.20	0.58	16.00%	0.27 J	0.043
HC-NR-100	HC-NR-100-S40	97.5- 100	97.5	100	3.20	3.28	3.20	3.61	0.41	11.44%	0.43 J	0.049
HC-NR-100	HC-NR-100-S45	110- 112.5	110	112.5	3.61	3.69	3.61	4.00	0.39	10.89%	0.21 J	0.023
Average Mercury Concentration (mg/kg)											1.29	
Average ER Value (X SQS)											3.13	
HC-NR-101	HC-NR-101-S01	0- 2.6	0	2.6	0.00	0.09	--	--	--	--	1.7	--
HC-NR-101	HC-NR-101-S02	2.6- 5.2	2.6	5.2	0.09	0.17	--	--	--	--	1.3	--
HC-NR-101	HC-NR-101-S03	5.2- 7.8	5.2	7.8	0.17	0.26	--	--	--	--	1.4	--
HC-NR-101	HC-NR-101-S04	7.8- 10.4	7.8	10.4	0.26	0.34	--	--	--	--	1.6	--
HC-NR-101	HC-NR-101-S05	10.4- 13	10.4	13	0.34	0.43	0.40	0.43	0.03	0.83%	1.7	0.014
HC-NR-101	HC-NR-101-S06	13- 15.6	13	15.6	0.43	0.51	0.43	0.51	0.09	2.37%	1.7	0.040
HC-NR-101	HC-NR-101-S07	15.6- 18.2	15.6	18.2	0.51	0.60	0.51	0.60	0.09	2.37%	1.7	0.040
HC-NR-101	HC-NR-101-S08	18.2- 20.8	18.2	20.8	0.60	0.68	0.60	0.68	0.09	2.37%	1.6	0.038
HC-NR-101	HC-NR-101-S09	20.8- 23.4	20.8	23.4	0.68	0.77	0.68	0.77	0.09	2.37%	2.1	0.050
HC-NR-101	HC-NR-101-S10	23.4- 26	23.4	26	0.77	0.85	0.77	1.02	0.25	7.01%	2	0.140
HC-NR-101	HC-NR-101-S13	31.2- 33.8	31.2	33.8	1.02	1.11	1.02	1.28	0.26	7.13%	1.8	0.128
HC-NR-101	HC-NR-101-S16/17	39- 44	39	44	1.28	1.44	1.28	1.54	0.26	7.24%	3.1	0.225
HC-NR-101	HC-NR-101-S19	46.8- 49.4	46.8	49.4	1.54	1.62	1.54	1.79	0.25	7.08%	5.1	0.361
HC-NR-101	HC-NR-101-S22	54.6- 57.2	54.6	57.2	1.79	1.88	1.79	2.05	0.26	7.20%	3.1	0.223
HC-NR-101	HC-NR-101-S25	62.4- 65	62.4	65	2.05	2.13	2.05	2.47	0.42	11.76%	4.6	0.541
HC-NR-101	HC-NR-101-S30	75.4- 78	75.4	78	2.47	2.56	2.47	2.73	0.26	7.14%	1.7	0.121
HC-NR-101	HC-NR-101-S33	83.2- 85.8	83.2	85.8	2.73	2.81	2.73	3.16	0.43	11.97%	1.7	0.204
HC-NR-101	HC-NR-101-S38	96.2- 98.8	96.2	98.8	3.16	3.24	3.16	3.33	0.17	4.85%	0.59	0.029
HC-NR-101	HC-NR-101-S40	101.4- 104	101.4	104	3.33	3.41	3.33	3.75	0.42	11.78%	0.3	0.035
HC-NR-101	HC-NR-101-S45	114.4- 117	114.4	117	3.75	3.84	3.75	4.00	0.25	6.88%	0.22	0.015
Average Mercury Concentration (mg/kg)											2.20	
Average ER Value (X SQS)											5.38	

Table G-3. Average Subsurface Mercury Concentrations in Natural Recovery Cores

Location ID	Sample ID	Sample Interval (Actual)					Adjusted Intervals for Averaging Calculations				Mercury Concentration Data for Interval and Average Subsurface Sediment	
		Depth Interval (cm)	Start Depth (cm)	End Depth (cm)	Start Depth (ft)	End Depth (ft)	Start Depth (ft)	End Depth (ft)	Length (ft)	% of Sample	Mercury Concentration (mg/kg)	Contribution to Average Result (mg/kg)
HC-NR-102	HC-NR-102-S01	0- 2.4	0	2.4	0.00	0.08	--	--	--	--	0.34	--
HC-NR-102	HC-NR-102-S02	2.4- 4.8	2.4	4.8	0.08	0.16	--	--	--	--	0.42	--
HC-NR-102	HC-NR-102-S03	4.8- 7.2	4.8	7.2	0.16	0.24	--	--	--	--	0.37	--
HC-NR-102	HC-NR-102-S04	7.2- 9.6	7.2	9.6	0.24	0.31	--	--	--	--	0.68	--
HC-NR-102	HC-NR-102-S05	9.6- 12	9.6	12	0.31	0.39	--	--	--	--	0.49	--
HC-NR-102	HC-NR-102-S06	12- 14.4	12	14.4	0.39	0.47	0.40	0.47	0.07	2.01%	0.5	0.010
HC-NR-102	HC-NR-102-S07	14.4- 16.8	14.4	16.8	0.47	0.55	0.47	0.55	0.08	2.19%	0.54	0.012
HC-NR-102	HC-NR-102-S08	16.8- 19.2	16.8	19.2	0.55	0.63	0.55	0.63	0.08	2.19%	0.56	0.012
HC-NR-102	HC-NR-102-S09	19.2- 21.6	19.2	21.6	0.63	0.71	0.63	0.71	0.08	2.19%	0.69	0.015
HC-NR-102	HC-NR-102-S10	21.6- 24	21.6	24	0.71	0.79	0.71	0.94	0.23	6.43%	0.56	0.036
HC-NR-102	HC-NR-102-S13	28.8- 31.2	28.8	31.2	0.94	1.02	0.94	1.18	0.24	6.54%	1.00	0.065
HC-NR-102	HC-NR-102-S16/17	36- 40	36	40	1.18	1.31	1.18	1.42	0.24	6.64%	0.83	0.055
HC-NR-102	HC-NR-102-S19	43.2- 45.6	43.2	45.6	1.42	1.50	1.42	1.65	0.23	6.47%	1.3	0.084
HC-NR-102	HC-NR-102-S22	50.4- 52.8	50.4	52.8	1.65	1.73	1.65	1.89	0.24	6.58%	4.5	0.296
HC-NR-102	HC-NR-102-S25	57.6- 60	57.6	60	1.89	1.97	1.89	2.52	0.63	17.52%	0.79	0.138
HC-NR-102	HC-NR-102-S33	76.8- 79.2	76.8	79.2	2.52	2.60	2.52	3.07	0.55	15.30%	0.19 U	0.029
HC-NR-102	HC-NR-102-S40	93.6- 96	93.6	96	3.07	3.15	3.07	3.46	0.39	10.83%	0.19	0.021
HC-NR-102	HC-NR-102-S45	105.6- 108	105.6	108	3.46	3.54	3.46	4.00	0.54	14.90%	0.28	0.042
Average Mercury Concentration (mg/kg)											0.82	
Average ER Value (X SQS)											1.99	

Notes:
 U = Compound not detected at the indicated reporting limit.
 -- Interval not used in averaging calculations.