

BULK SEDIMENT ANALYSIS

PROJECT NAME, SAMPLING DATE AND SAMPLE LOCATIONS	NUTRIENTS AND PHYSICAL PARAMETERS							METALS																
	TKN*	TOTAL P*	pH	O&G*	TOC*	COD*	TS*	ARSENIC	BARIUM	CADMIUM	CHROMIUM	COPPER	IRON	LEAD	MERCURY	SELENIUM	SILVER	ZINC						
	MG/KG	MG/KG	UNITS	MG/KG	MG/KG	MG/KG	%	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG						
INNER HARBOR AVERAGE (1985-2005)	1981	1431	7.6	2632	38721	102124	45	25	84	3.0	328	153	32774	187	0.7	7.8	1.5	357						
INNER HARBOR MAXIMUM (1985-2005)	15000	29000	8.8	70200	260000	579000	98	540	739	69	6300	1500	93100	1700	6.9	130	21	4300						
INNER HARBOR MINIMUM (1985-2005)	41	0.08	4.1	0.1	0.2	18	17	0.3	0.4	0.01	0.01	0.02	2.28	0.05	0.01	0.02	0.01	0.04						
OUTER CHANNEL AVERAGE (1985-1999)	1456	1230	7.6	867	24635	66236	39	7.2	56	1.4	50	33	29365	50	0.19	3.2	1.3	197						
OUTER CHANNEL MAXIMUM (1985-1999)	5000	14917	8.5	5842	90500	390909	85	33	250	5.0	640	240	94000	464	2.1	12	7.7	580						
OUTER CHANNEL MINIMUM (1985-1999)	40	14	6.1	1.0	176	117	18	0.5	4.9	0.1	1.9	0.5	1600.0	1.5	0.01	0.1	0.1	7.6						
Sparrows Point Shipyard (October 2006)																								
SPSY-01	3100	1720	8.0	1250	27300		28	56.9		1.50	328	NE	201.0		180.0	E	0.30	6.2	1.5	670	E			
Organics Detected (dry weight, ug/kg): 4,4'-DDD (9), 4,4'-DDE (8.7), 4,4'-DDT (7.9 PG), Aldrin (7.1), Apha-BHC (5 PG), Alpha-Chlordane (1.4 J PG), Dieldrin (0.78 J PG), Endosulfan II (10), Endrin (3 J PG), Endrin Aldehyde (2.5 J PG), Endrin Ketone (2.3 J PG), Gamma-Chlordane (0.99 J PG), Bis (2- Ethylhexyl) Phthalate (440 J), Isophorone (140 J), Phenol (68 J), Methylene Chloride (11 J B), Acenaphthene (42 J), Acenaphthylene (110 J), Anthracene (200 J), Benzo(A)Anthracene (580 J), Benzo(A)Pyrene (620 J), Benzo(B)Fluoranthene (680 J), Benzo(GHI)Perylene (470 J), Benzo(K)Fluoranthene (260 J), Chrysene (620 J), Dibenz(A,H)Anthracene (110 J), Fluoranthene (940 J), Fluorene (85 J), Indeno(1,2,3-CD)Pyrene (500 J), Naphthalene (560 J), Phenanthrene (390 J), and Pyrene (830 J).																								
SPSY-02	732	255	8.0	270	U	6770	62	4.7		0.48	U	32	NE	13.0		17.8	E	0.04	0.4	B	0.2	B	58	E
Organics Detected (dry weight, ug/kg): 4,4'-DDT (1.4 J), Apha-BHC (0.96 J PG), Endosulfan II (1.1 J), Endrin (0.28 J PG), Endrin Aldehyde (0.68 J PG), Heptachlor (0.22 J PG), Isophorone (75 J), Phenol (55 J), Methylene Chloride (31 B), Benzo(A)Anthracene (40 J), Benzo(B)Fluoranthene (64 J), Benzo(GHI)Perylene (49 J), Benzo(K)Fluoranthene (23 J), Chrysene (35 J), Fluoranthene (65 J), Indeno(1,2,3-CD)Pyrene (53 J), Naphthalene (85 J), Phenanthrene (27 J), and Pyrene (64 J).																								
SPSY-03	1120	693	8.0	291	U	9820	57	5.1		0.48	U	32	NE	16.1		14.9	E	0.04	0.5	U	0.2	B	70	E
Organics Detected (dry weight, ug/kg): Apha-BHC (1.3 J PG), Endrin (0.24 J PG), Endrin Aldehyde (1.1 J PG), Heptachlor (0.19 J PG), Isophorone (68 J), Methylene Chloride (7.1 J B), Benzo(A)Anthracene (39 J), Benzo(A)Pyrene (46 J), Benzo(B)Fluoranthene (51 J), Benzo(GHI)Perylene (38 J), Benzo(K)Fluoranthene (21 J), Chrysene (35 J), Fluoranthene (64 J), Indeno(1,2,3-CD)Pyrene (42 J), Naphthalene (50 J), Phenanthrene (24 J), and Pyrene (56 J).																								
SPSY-04	1350	819	7.4	3330	17800		51	12.5		1.60	128	NE	129.0		203.0	E	0.32	1.2		0.8		380	E	
Organics Detected (dry weight, ug/kg): 4,4'-DDE (6 J), 4,4'-DDT (8.1 J PG), Apha-BHC (1.6 J PG), Endrin (4.5 J PG), Endrin Aldehyde (6.3 J PG), Gamma-Chlordane (2.1 J PG), Bis (2- Ethylhexyl) Phthalate (340 J), Butyl Benzyl Phthalate (91 J), Isophorone (80 J), Phenol (94 J), Methylene Chloride (20 B), Acenaphthene (340 J), Acenaphthylene (220 J), Anthracene (600 J), Benzo(A)Anthracene (1100), Benzo(A)Pyrene (950), Benzo(B)Fluoranthene (960), Benzo(GHI)Perylene (570 J), Benzo(K)Fluoranthene (370 J), Chrysene (1100), Dibenz(A,H)Anthracene (150 J), Fluoranthene (2600), Fluorene (400 J), Indeno(1,2,3-CD)Pyrene (730), Naphthalene (790), Phenanthrene (1600), and Pyrene (1500).																								

* Note the following abbreviations:

- TKN = Total Kjeldahl Nitrogen
- Total P = Total Phosphorus
- O&G = Oil and Grease
- TOC = Total Organic Carbon
- COD = Chemical Oxygen Demand
- TS = Total Solids

L = compound was analyzed but not detected

E= value is estimated because of presence of interference

B= compound was detected, but below reporting limit (estimated)

N=spiked sample recovery is not within control limits

K = Analyte detected in lab reagent blank

J (Inorganic) = Compound was detected in method blank