Appendix A1
SURFACE SEDIMENT DATA

October 1998

Station	1N	1S	2N	2S	3N	3S	4C
Sampling Date	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct
TOXICITY (% Survival)		NR		NR	NR		NR
TOTAL ORGANIC CARBON (%)	2.3	2.0	2.3	2.3	2.6	2.7	2.4
GRAIN SIZE (%)							
Gravel	0.0	0.0	0.0	1.8	2.2	3.0	0.0
Sand	3.0	2.5	6.7	22.8	16.1	5.8	8.5
Silt	87.0	59.7	50.6	39.8	51.6	47.2	45.2
Clay	10.0	37.8	42.6	35.6	30.1	44.0	46.3
Fines (Silt + Clay)	97.0	97.5	93.3	75.4	81.7	91.2	91.5
METALS ($\mu g \cdot g^{-1}$ dry weight) (ppm)							
Aluminum	45050	50725	44260	36340	40282	34083	30320
Arsenic	9.7	9.2	9.4	8.3	9.1	11.4	9.1
Cadmium	1.4	0.5	0.9	1.2	0.9	0.6	0.6
Chromium	143	142	132	126	129	122	107
Copper	108	109	100	79	112	113	97
Iron	44136	47306	41416	36226	40756	41655	37683
Lead	168	132	139	155	144	156	129
Mercury	0.7	0.5	0.6	0.6	0.7	0.9	0.7
Nickel	93.0	98	96	78	87	93	87
Selenium	1.0	0.4	0.4	0.4	0.4	0.3	0.3
Silver	0.6	0.5	0.5	0.5	<0.5	0.6	0.4
Zinc	289	227	228	217	253	242	220
PAHs ($ng \cdot g^{-1}$ dry weight) (ppb)							
Naphthalene	48	39	47	54	80	120	74
C1-Naphthalenes	52	28	56	65	74	110	71
C2-Naphthalenes	73	51	72	75	100	120	91
C3-Naphthalenes	50	38	49	56	77	100	80
C4-Naphthalenes	43	55	48	42	72	91	63
Acenaphthylene	28	26	36	36	78	120	120
Acenaphthene	11	7	12	12	29	31	26
Dibenzofuran	12	9	11	11	18	24	18
Fluorene	19	15	21	21	40	51	45
C1-Fluorenes	21	17	19	20	30	44	33
C2-Fluorenes	47	25	28	25	37	39	33
C3-Fluorenes	65	53	49	58	82	42	79
Anthracene	66	45	79	99	180	200	160
Phenanthrene	140	95	167	150	400	450	460
C1-Phenanthrenes/anthracenes	100	82	110	120	260	300	260
C2-Phenanthrenes/anthracenes	110	90	100	100	230	230	170
C3-Phenanthrenes/anthracenes	100	70	82	110	170	150	100
C4-Phenanthrenes/anthracenes	150	110	197	220	380	330	250
Dibenzothiophene	14	11	15	16	30	34	31
C1-Dibenzothiophenes	13	11	16	17	30	34	27
C2-Dibenzothiophenes	31	28	35	38	78	78	54
C3-Dibenzothiophenes	39	32	35	41	55	66	41
Fluoranthene	300	270	367	310	840	890	790
Pyrene	440	360	483	490	1000	1200	1000

NR = Not Reported

Appendix A1
SURFACE SEDIMENT DATA

October 1998

Station	1N	1S	2N	2S	3N	3S	4C
Sampling Date	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct
PAHs (ng·g^{-1} dry weight) (ppb)							
C1-Fluoranthenes/pyrenes	200	140	200	200	540	590	440
C2-Fluoranthenes/pyrenes	180	100	153	180	320	360	260
C3-Fluoranthenes/pyrenes	130	75	92	120	190	180	130
Benzo(a)anthracene	170	130	190	170	540	630	500
Chrysene	200	160	243	210	690	920	670
C1-Chrysenes	130	88	140	150	320	370	270
C2-Chrysenes	120	73	127	150	260	250	180
C3-Chrysenes	110	69	100	140	200	210	150
C4-Chrysenes	94	60	85	110	150	170	130
Benzo(b)fluoranthene	480	380	453	440	950	1300	980
Benzo(k)fluoranthene	130	120	143	130	280	420	330
Benzo(e)pyrene	290	230	290	270	580	780	600
Benzo(a)pyrene	340	280	357	320	780	1000	810
Perylene	140	120	137	120	230	310	240
Indeno(1,2,3-c,d)pyrene	260	220	307	270	500	660	530
Dibenz(a,h)anthracene	37	28	43	40	82	100	81
Benzo(g,h,i)perylene	290	250	350	310	540	720	570
Total PAH (13 compounds)	1771	1429	2008	1876	4661	5592	4616
Total PAH (41 compounds)	5273	4090	5543	5516	11522	13824	10947
LABs (ng·g^{-1} dry weight) (ppb)							
C10B-Phenyl decanes	31	18	13	<1	<1	32	16
C11B-Phenyl undecanes	42	25	30	16	<1	29	28
C12B-Phenyl dodecanes	30	32	6	<1	<1	<1	<1
C13B-Phenyl tridecanes	110	34	76	86	61	73	69
C14B-Phenyl tetradecanes	<1	25	69	120	75	44	38

Appendix A1
SURFACE SEDIMENT DATA
October 1998

Station	1N	1S	2N	2S	3N	3S	4C
Sampling Date	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct
TPHs (µg g^{-1} dry weight) (ppm)							
n-Nonane	<0.8	<0.7	<0.2	<0.6	<0.7	<0.7	<0.7
n-Decane	<0.0	<0.0	0.0	0.1	0.0	0.1	<0.0
n-Undecane	<0	<0	<0	<0	<0	<0	<0
n-Dodecane	<0	<0	<0	<0	<0	<0	<0
n-Tridecane	<0	<0	<0	<0	<0	<0	<0
Isoprenoid RRT 1380	<0	<0	<0	<0	<0	<0	<0
n-Tetradecane	<0	<0	<0	<0	<0	<0	<0
Isoprenoid RRT 1470	0	0	0	0	0	0	0
n-Pentadecane	<0.1	<0.1	<0.0	<0.1	<0.1	<0.1	<0.1
n-Hexadecane	0.0	<0.0	0.0	0.0	0.1	0.1	0.0
Isoprenoid RRT 1650	<0.1	<0.1	<0.0	<0.1	<0.1	<0.1	<0.1
n-Heptadecane	7.2	1.4	2.1	1.6	1.2	0.6	0.5
Pristane	<0.1	<0.1	<0.0	<0.1	<0.1	<0.1	<0.1
n-Octadecane	<0.1	<0.1	<0.0	<0.1	<0.1	<0.1	<0.1
Phytane	0.1	0.1	0.1	0.1	0.1	0.1	0.1
n-Nonadecane	0.1	0.1	0.0	0.1	0.1	0.1	0.1
n-Eicosane	<0.0	0.0	<0.0	0.1	0.2	0.1	0.1
n-Heneicosane	<0.1	0.1	<0.0	0.1	<0.1	<0.1	<0.1
n-Docosane	0.3	0.2	0.3	0.1	0.1	0.1	0.1
n-Tricosane	0.3	0.2	0.2	0.2	0.2	0.2	0.2
n-Tetracosane	<0.0	<0.0	<0.0	<0.0	<0.0	<0.0	<0.0
n-Pentacosane	<0.1	0.2	0.2	<0.1	0.2	0.2	0.2
n-Hexacosane	<0.1	<0.1	<0.0	<0.0	0.1	0.3	0.1
n-Heptacosane	0.5	0.4	0.3	<0.0	0.5	0.5	0.4
n-Octacosane	<0.1	<0.1	<0.0	0.6	1.0	<0.1	0.9
n-Nonacosane	0.9	0.8	0.8	1.3	1.7	1.3	1.2
n-Triacontane	<0.1	<0.1	<0.0	<0.1	<0.1	<0.1	0.3
n-Hentriacontane	1.3	1.2	1.1	2.1	2.1	1.8	1.4
n-Dotriacontane	0.4	0.3	0.3	<0.0	<0.0	0.6	<0.0
n-Tritriacontane	1.1	0.9	1.0	0.2	0.6	0.5	0.3
n-Tetratriacontane	0.6	0.3	0.4	<0.0	<0.0	<0.1	<0.0
n-Pentatriacontane	<0.1	0.1	0.1	0.3	<0.0	<0.0	0.2
n-Hexatriacontane	0.2	<0.1	<0.0	0.3	0.3	0.3	0.2
n-Heptatriacontane	0.2	0.2	0.2	<0.0	0.2	0.2	<0.1
n-Octatriacontane	0.4	0.4	0.3	<0.0	<0.1	<0.1	<0.1
n-Nonatriacontane	0.1	0.1	0.1	<0.0	0.2	<0.1	0.1
n-Tetracontane	0.1	0.1	0.0	0.1	0.2	0.1	0.1
Total Resolved Hydrocarbons	96.0	59.0	68.0	82.0	80.0	73.0	54.0
Total Petroleum Hydrocarbons	1400.0	790.0	926.7	1000.0	900.0	780.0	580.0
TPH >C8-C10	3.0	2.8	3.1	2.5	2.8	3.2	2.3
TPH >C10-C12	3.1	2.3	2.6	5.5	3.1	2.4	1.7
TPH >C12-C16	20.0	10.0	13.0	19.0	14.0	12.0	8.9
TPH >C16-C21	140.0	68.0	85.3	120.0	81.0	66.0	51.0
TPH >C21-C25	250.0	130.0	156.7	180.0	150.0	120.0	91.0
TPH >C25-C30	420.0	230.0	270.0	300.0	260.0	230.0	170.0
TPH >C30-C35	330.0	190.0	213.3	230.0	220.0	190.0	140.0
TPH >C35 +	260.0	160.0	183.3	170.0	170.0	160.0	120.0

Appendix A1
SURFACE SEDIMENT DATA

October 1998

Station	1N	1S	2N	2S	3N	3S	4C
Sampling Date	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct
PESTICIDES (ng·g^{-1} dry weight) (ppb)							
Aldrin	<0.3	<0.2	0.1	<0.2	<0.2	<0.2	<0.2
alpha-Chlordane	25.0	5.3	9.0	12.0	15.0	10.0	7.5
gamma-Chlordane	39.0	9.2	19.0	27.0	27.0	17.0	12.0
cis-Nonachlor	4.2	2.1	3.2	5.6	3.1	3.2	2.7
trans-Nonachlor	10.0	3.4	6.0	8.4	7.1	6.8	4.4
Heptachlor	0.6	<0.2	0.2	1.1	<0.2	<0.2	0.3
Heptachlor Epoxide	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2
Total Chlordane (4 compounds)	78.2	20.0	37.2	53.0	52.2	37.0	26.6
2,4'-DDT	<0.4	<0.4	<0.1	<0.3	<0.3	<0.4	<0.3
4,4'-DDT	1.1	<0.5	1.7	<0.4	3.6	7.1	4.5
2,4'-DDE	<0.4	<0.4	<0.1	26.0	<0.3	<0.4	<0.3
4,4'-DDE	60.0	23.0	43.3	80.0	32.0	24.0	19.0
2,4'-DDD	<0.2	3.0	4.6	4.1	5.9	3.7	2.8
4,4'-DDD	28.0	17.0	24.3	32.0	29.0	25.0	26.0
Total DDT (6 compounds)	89.1	43.0	74.0	142.1	70.5	59.8	52.3
Dieldrin	58.0	28.0	46.0	110.0	42.0	32.0	35.0
Endrin	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2
Lindane	<0.2	<0.2	<0.1	<0.1	<0.2	<0.2	<0.2
Mirex	<0.1	<0.1	<0.0	<0.1	<0.1	<0.1	<0.1
PCBs and Aroclors (ng·g^{-1} dry weight) (ppb)							
8 - 2,4'-Dichlorobiphenyl (Cl2)	1.5	<0.2	<0.1	<0.1	<0.1	1.7	<0.1
18 - 2,2',5-Trichlorobiphenyl (Cl3)	1.5	1.3	1.5	3.0	1.6	2.5	2.5
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	5.0	3.8	5.0	7.0	3.3	6.0	6.3
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	8.0	3.5	6.5	19.0	3.2	4.8	6.2
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	16.0	5.9	12.7	36.0	6.5	8.4	11.0
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.1	16.0	23.7	52.0	23.0	19.0	24.0
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	50.0	27.0	46.0	83.0	37.0	30.0	33.0
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	28.0	12.0	20.3	38.0	16.0	11.0	13.0
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	51.0	26.0	44.0	95.0	31.0	27.0	33.0
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.3	<0.3	<0.1	<0.2	<0.3	<0.3	<0.3
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	19.0	9.9	15.0	25.0	12.0	10.0	9.7
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	120.0	65.0	110.0	150.0	110.0	85.0	78.0
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	82.0	50.0	73.0	100.0	70.0	59.0	53.0
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	52.0	32.0	47.3	55.0	50.0	41.0	32.0
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	69.0	42.0	64.3	76.0	67.0	56.0	49.0
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	42.0	27.0	38.7	48.0	39.0	32.0	28.0
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	9.9	6.3	9.4	9.3	9.4	6.7	5.6
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7)	5.1	3.5	4.9	5.3	9.5	4.3	4.0
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (Cl10)	3.6	2.5	3.0	2.3	4.1	1.7	1.8
Total PCB (18 compounds)	563.6	333.7	525.3	803.9	492.6	406.1	390.1
Total PCB (20 compounds)	563.6	333.7	525.3	803.9	492.6	406.1	390.1
Total Aroclor 1016	<16	<15	<5	<12	<14	<14	<14
Total Aroclor 1221	<16	<15	<5	<12	<14	<14	<14
Total Aroclor 1232	<16	<15	<5	<12	<14	<14	<14
Total Aroclor 1242	<16	<15	<5	<12	<14	<14	<14
Total Aroclor 1248	<16	<15	<5	<12	<14	<14	<14
Total Aroclor 1254	900	290	543	670	550	440	480
Total Aroclor 1260	670	420	613	350	690	540	440

Appendix A1
SURFACE SEDIMENT DATA

October 1998

Station	4N	4S	5A	5C	5N	5S	Paradise
Sampling Date	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct
TOXICITY (% Survival)					NR		NR
TOTAL ORGANIC CARBON (%)	1.6	1.9	1.7	1.7	1.6	1.5	1.2
GRAIN SIZE (%)							
Gravel	0.0	2.5	2.9	0.0	1.4	0.0	0.0
Sand	7.9	7.5	15.9	7.6	15.9	4.9	9.7
Silt	55.4	46.2	34.5	47.1	37.2	45.7	39.4
Clay	36.7	43.8	46.7	45.4	45.5	49.4	50.9
Fines (Silt + Clay)	92.1	90.0	81.2	92.4	82.7	95.1	90.3
METALS ($\mu g \cdot g^{-1}$ dry weight) (ppm)							
Aluminum	39869	44826	34720	32818	34812	37279	43953
Arsenic	8.2	9.0	9.2	9.9	9.0	8.9	10.1
Cadmium	0.6	0.6	0.6	0.8	0.5	0.4	0.3
Chromium	120	126	114	114	111	114	103
Copper	99	103	91	103	82	141	48
Iron	38151	41183	39800	37608	35765	42971	37331
Lead	119	144	109	119	101	92	26
Mercury	0.6	0.6	0.6	0.6	0.7	0.5	0.4
Nickel	85.0	90.0	85.0	83.3	79.0	95.0	82.0
Selenium	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Silver	0.5	<0.5	0.4	0.3	<0.5	<0.5	<0.5
Zinc	214	235	200	210	186	197	120
PAHs ($ng \cdot g^{-1}$ dry weight) (ppb)							
Naphthalene	77	81	63	62	51	40	21
C1-Naphthalenes	72	71	47	100	50	30	11
C2-Naphthalenes	92	96	67	122	66	45	20
C3-Naphthalenes	72	74	65	73	53	47	19
C4-Naphthalenes	67	64	50	61	42	32	15
Acenaphthylene	78	97	49	62	52	42	19
Acenaphthene	23	20	18	17	14	10	7
Dibenzofuran	15	14	15	12	10	9	4
Fluorene	34	34	28	25	22	18	10
C1-Fluorenes	32	32	27	25	21	21	10
C2-Fluorenes	36	33	28	28	24	23	13
C3-Fluorenes	67	63	58	54	48	40	16
Anthracene	140	140	110	91	91	60	37
Phenanthrene	320	320	240	187	210	130	83
C1-Phenanthrenes/anthracenes	230	220	170	147	140	100	51
C2-Phenanthrenes/anthracenes	170	160	140	120	110	89	36
C3-Phenanthrenes/anthracenes	110	100	100	90	73	60	22
C4-Phenanthrenes/anthracenes	250	240	130	140	160	91	60
Dibenzothiophene	24	25	19	16	16	12	6
C1-Dibenzothiophenes	26	27	20	18	17	13	5
C2-Dibenzothiophenes	58	53	39	40	40	23	10
C3-Dibenzothiophenes	42	46	55	37	32	26	8
Fluoranthene	710	670	420	363	460	290	200
Pyrene	940	910	540	517	610	400	260

NR = Not Reported

Appendix A1
SURFACE SEDIMENT DATA

October 1998

Station	4N	4S	5A	5C	5N	5S	Paradise
Sampling Date	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct
PAHs (ng·g^{-1} dry weight) (ppb)							
C1-Fluoranthenes/pyrenes	420	390	280	250	260	190	91
C2-Fluoranthenes/pyrenes	250	240	150	180	180	120	51
C3-Fluoranthenes/pyrenes	130	110	110	123	90	82	30
Benzo(a)anthracene	470	470	280	233	290	170	96
Chrysene	580	580	330	293	360	200	110
C1-Chrysenes	270	260	170	150	170	97	42
C2-Chrysenes	190	180	130	133	120	80	32
C3-Chrysenes	160	140	130	123	100	74	28
C4-Chrysenes	120	120	100	113	85	70	21
Benzo(b)fluoranthene	890	950	560	587	640	380	210
Benzo(k)fluoranthene	280	340	150	153	170	97	56
Benzo(e)pyrene	540	580	320	360	380	220	120
Benzo(a)pyrene	730	780	430	467	500	300	200
Perylene	220	240	150	153	160	120	78
Indeno(1,2,3-c,d)pyrene	480	520	320	357	320	260	170
Dibenz(a,h)anthracene	74	81	41	48	47	28	18
Benzo(g,h,i)perylene	520	550	280	380	340	250	190
Total PAH (13 compounds)	4098	4086	2500	2303	2655	1646	1042
Total PAH (41 compounds)	10009	10121	6429	6511	6624	4388	2487
LABs (ng·g^{-1} dry weight) (ppb)							
C10B-Phenyl decanes	<1	<1	<1	6	<1	<1	26
C11B-Phenyl undecanes	<1	<1	17	23	<1	24	20
C12B-Phenyl dodecanes	<1	<1	<1	<0	<1	<1	37
C13B-Phenyl tridecanes	84	64	47	67	55	43	18
C14B-Phenyl tetradecanes	52	48	<1	35	39	<1	<0

Appendix A1
SURFACE SEDIMENT DATA
October 1998

Station	4N	4S	5A	5C	5N	5S	Paradise
Sampling Date	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct
TPHs (µg g^{-1} dry weight) (ppm)							
n-Nonane	<0.7	<0.6	<0.3	<0.2	<0.6	<0.3	<0.2
n-Decane	0.0	0.0	0.0	0.0	<0.0	<0.0	<0.0
n-Undecane	<0.1	<0.1	<0.0	<0.0	<0.1	<0.0	<0.0
n-Dodecane	<0	<0	<0	<0	<0	<0	<0
n-Tridecane	<0	<0	<0	<0	<0	<0	<0
Isoprenoid RRT 1380	<0	<0	<0	<0	<0	<0	<0
n-Tetradecane	<0	<0	<0	<0	<0	<0	<0
Isoprenoid RRT 1470	0	0	0	0	0	0	0
n-Pentadecane	<0.1	<0.1	0.0	<0.0	<0.1	<0.0	<0.0
n-Hexadecane	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Isoprenoid RRT 1650	<0.1	<0.1	<0.0	<0.0	<0.1	<0.0	<0.0
n-Heptadecane	0.8	0.4	0.5	0.3	0.5	0.2	0.0
Pristane	<0.1	<0.1	0.1	<0.0	<0.1	<0.1	0.0
n-Octadecane	<0.1	<0.1	0.1	<0.0	<0.1	<0.1	<0.0
Phytane	0.1	0.1	0.1	0.1	0.1	0.0	0.0
n-Nonadecane	0.1	0.1	0.0	0.0	0.1	<0.0	0.0
n-Eicosane	0.1	0.1	<0.0	0.1	0.1	<0.0	0.0
n-Heneicosane	0.8	<0.1	<0.0	<0.0	<0.1	<0.0	0.0
n-Docosane	0.1	0.1	0.4	0.1	0.1	0.1	0.1
n-Tricosane	0.2	0.2	0.1	0.2	0.1	0.1	0.1
n-Tetracosane	<0.0	<0.0	0.1	<0.0	<0.0	0.1	0.1
n-Pentacosane	0.2	0.3	0.1	0.1	0.2	0.1	0.1
n-Hexacosane	0.1	0.2	<0.0	0.1	0.1	0.0	0.0
n-Heptacosane	0.5	0.5	0.2	0.3	0.3	0.2	0.2
n-Octacosane	0.9	1.0	<0.0	0.4	0.6	<0.0	<0.0
n-Nonacosane	1.1	1.4	0.4	0.8	1.0	0.4	0.4
n-Triacontane	0.3	0.3	<0.1	0.1	0.3	<0.1	0.1
n-Hentriacontane	1.6	1.8	0.5	1.2	1.3	0.5	0.4
n-Dotriacontane	<0.0	<0.0	0.1	0.1	0.5	0.1	0.1
n-Tritriacontane	0.4	0.5	0.5	0.4	0.3	0.4	0.2
n-Tetratriacontane	<0.1	<0.0	0.2	0.1	<0.0	0.1	0.1
n-Pentatriacontane	<0.0	<0.0	0.1	0.3	0.2	0.4	<0.0
n-Hexatriacontane	0.2	0.2	0.1	0.2	0.2	0.1	0.0
n-Heptatriacontane	0.2	0.2	0.1	0.2	0.1	0.1	0.0
n-Octatriacontane	0.1	0.1	0.2	0.1	<0.0	0.2	0.1
n-Nonatriacontane	<0.0	0.2	<0.0	0.1	<0.0	0.1	<0.0
n-Tetracontane	0.1	0.1	<0.0	0.1	0.1	0.0	0.0
Total Resolved Hydrocarbons	60.0	58.0	44.0	52.3	46.0	31.0	15.0
Total Petroleum Hydrocarbons	670.0	590.0	560.0	663.3	520.0	350.0	120.0
TPH >C8-C10	1.8	1.8	2.6	2.7	2.1	2.4	1.4
TPH >C10-C12	1.7	1.8	1.9	1.7	1.5	1.0	0.7
TPH >C12-C16	9.8	8.9	8.1	10.5	7.6	4.4	2.6
TPH >C16-C21	60.0	50.0	46.0	61.3	48.0	30.0	16.0
TPH >C21-C25	110.0	92.0	87.0	110.0	86.0	54.0	21.0
TPH >C25-C30	200.0	170.0	160.0	196.7	150.0	100.0	34.0
TPH >C30-C35	160.0	150.0	140.0	156.7	130.0	88.0	28.0
TPH >C35 +	130.0	120.0	120.0	126.7	100.0	71.0	21.0

Appendix A1
SURFACE SEDIMENT DATA

October 1998

Station	4N	4S	5A	5C	5N	5S	Paradise
Sampling Date	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct	20-Oct
PESTICIDES (ng·g^{-1} dry weight) (ppb)							
Aldrin	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2
alpha-Chlordane	7.8	6.0	5.0	5.9	6.4	2.7	<0.2
gamma-Chlordane	14.0	11.0	10.0	14.3	12.0	4.7	<0.2
cis-Nonachlor	2.9	<0.2	1.9	3.4	2.3	1.4	0.3
trans-Nonachlor	5.0	4.1	4.0	4.1	5.1	1.5	<0.2
Heptachlor	0.2	<0.2	<0.2	0.4	0.3	<0.2	<0.2
Heptachlor Epoxide	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2
Total Chlordane (4 compounds)	29.7	21.1	20.9	27.7	25.8	10.3	0.3
2,4'-DDT	<0.4	<0.3	<0.3	<0.1	<0.3	<0.4	<0.3
4,4'-DDT	36.0	2.9	2.3	2.9	23.0	1.1	<0.5
2,4'-DDE	<0.4	<0.3	<0.3	<0.1	<0.3	<0.4	<0.3
4,4'-DDE	23.0	18.0	20.0	19.0	22.0	6.2	2.2
2,4'-DDD	3.8	3.0	2.6	2.5	3.2	1.5	0.9
4,4'-DDD	33.0	19.0	14.0	22.0	22.0	9.2	4.2
Total DDT (6 compounds)	95.8	42.9	38.9	46.3	70.2	18.0	7.3
Dieldrin	30.0	26.0	29.0	30.7	29.0	12.0	1.7
Endrin	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2
Lindane	<0.2	<0.1	<0.1	0.1	<0.1	<0.2	<0.2
Mirex	<0.1	<0.1	<0.1	<0.0	<0.1	<0.1	<0.1
PCBs and Aroclors (ng·g^{-1} dry weight) (ppb)							
8 - 2,4'-Dichlorobiphenyl (Cl2)	<0.2	<0.1	<0.1	<0.0	<0.1	<0.2	0.2
18 - 2,2',5-Trichlorobiphenyl (Cl3)	2.4	2.2	5.2	4.5	1.8	11.0	<0.3
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	5.8	5.4	8.8	9.5	4.8	17.0	0.4
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	5.1	4.1	8.2	7.0	5.0	8.0	0.4
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	9.1	7.7	13.0	11.4	9.6	10.0	0.8
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	18.0	15.0	18.0	22.0	16.0	13.0	1.5
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	30.0	24.0	27.0	33.7	27.0	16.0	1.7
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	12.0	9.8	11.0	13.0	10.0	5.5	0.7
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	27.0	21.0	24.0	26.7	22.0	12.0	1.9
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.3	<0.2	<0.2	<0.1	<0.2	<0.3	<0.3
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	10.0	8.4	8.4	10.4	8.6	4.9	<0.1
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	70.0	71.0	69.0	93.7	69.0	42.0	2.8
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	58.0	48.0	47.0	63.7	58.0	30.0	2.6
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	38.0	32.0	29.0	47.3	38.0	20.0	0.8
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	56.0	46.0	42.0	67.7	55.0	29.0	1.6
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	32.0	27.0	26.0	37.7	32.0	18.0	1.3
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	6.5	5.8	4.7	7.8	7.4	3.4	0.2
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7)	4.0	3.7	3.3	4.8	3.8	2.6	0.3
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (Cl10)	1.7	1.8	1.5	3.3	1.7	1.3	0.3
Total PCB (18 compounds)	385.6	332.9	346.1	464.1	369.7	243.7	17.5
Total PCB (20 compounds)	385.6	332.9	346.1	464.1	369.7	243.7	17.5
Total Aroclor 1016	<14	<13	<13	<5	<13	<14	<13
Total Aroclor 1221	<14	<13	<13	<5	<13	<14	<13
Total Aroclor 1232	<14	<13	<13	<5	<13	<14	<13
Total Aroclor 1242	<14	<13	<13	<5	<13	<14	<13
Total Aroclor 1248	<14	<13	<13	<5	<13	<14	<13
Total Aroclor 1254	420	340	350	413	360	170	23
Total Aroclor 1260	510	420	320	557	480	220	23

Appendix A1
SURFACE SEDIMENT DATA

October 1999

	Yosemite Creek Stations							
Station	1N	1S	2N	2S	3N	3S	4C	5N
Sampling Date	14-Oct	14-Oct	14-Oct	14-Oct	13-Oct	13-Oct	13-Oct	13-Oct
TOXICITY (% Survival)	78	74	89	91	73	60	66	81
TOTAL ORGANIC CARBON (%)	1.8	1.6	1.6	1.4	0.8	1.1	1.7	1.4
GRAIN SIZE (%)								
Gravel								
Sand	2.1	20.7	14	13	25.8	0.6	3.8	17.5
Silt								
Clay								
Fines (Silt + Clay)	97.9	79.3	86	87	74.2	99.4	96.2	82.5
METALS (µg·g^{-1} dry weight) (ppm)								
Aluminum	47072	48736	38657	42587	31601	47958	45297	32952
Arsenic	10.56	9.33	8.02	7.57	5.16	10.68	8.41	7.49
Cadmium	1.37	0.73	0.6	0.64	0.65	0.75	0.53	1.25
Chromium	145.5	131.5	121.3	135.7	103.2	135.6	123.2	135.1
Copper	106.1	107.1	76.7	78.1	95.7	103.7	91.9	93
Iron	46212	44210	42200	39063	31245	40942	40111	33954
Lead	174.3	138.4	138	119.6	104.7	134.8	103	154.1
Mercury	0.364	0.436	0.415	0.372	0.35	0.539	0.491	0.459
Nickel	95.8	88.8	92.4	111.5	66.4	96.2	89.9	75
Selenium	0.8	0.47	0.51	0.32	0.22	0.37	0.37	0.37
Silver	1.06	0.86	0.71	0.73	0.72	0.87	0.86	0.76
Zinc	286.8	227.1	192	197.5	200.1	229.1	195.1	210.9
PAHs (ng·g^{-1} dry weight) (ppb)								
Naphthalene	33	28	43	30	31	100	48	44
C1-Naphthalenes	36	27	33	34	32	100	34	45
C2-Naphthalenes	49	36	43	48	46	91	52	68
C3-Naphthalenes	36	31	28	38	39	66	42	56
C4-Naphthalenes	22	21	21	27	29	40	29	38
Acenaphthylene	15	13	17	13	19	36	29	23
Acenaphthene	7.2	6.8	7.2	8	17	46	11	14
Dibenzofuran								
Fluorene	14	11	12	14	21	61	19	18
C1-Fluorenes	16	13	13	14	17	25	16	19
C2-Fluorenes	26	23	22	25	32	42	27	28
C3-Fluorenes	43	37	29	34	56	84	44	56
Anthracene	38	27	31	35	71	90	58	52
Phenanthrene	110	80	98	110	230	370	180	200
C1-Phenanthrenes/anthracenes	80	66	66	81	150	190	120	120
C2-Phenanthrenes/anthracenes	72	65	61	74	140	140	95	100
C3-Phenanthrenes/anthracenes	72	59	48	62	92	95	70	85
C4-Phenanthrenes/anthracenes	87	75	48	58	110	110	84	98
Dibenzothiophene	10	8.8	9	10	15	27	13	13
C1-Dibenzothiophenes	12	11	9.8	14	18	26	18	18
C2-Dibenzothiophenes	25	22	19	24	30	42	28	30
C3-Dibenzothiophenes	31	34	22	29	32	42	34	44
Fluoranthene	280	250	240	250	710	660	470	420
Pyrene	410	350	350	360	800	900	680	580

Appendix A1
SURFACE SEDIMENT DATA

October 1999

	Yosemite Creek Stations							
Station	1N	1S	2N	2S	3N	3S	4C	5N
Sampling Date	14-Oct	14-Oct	14-Oct	14-Oct	13-Oct	13-Oct	13-Oct	13-Oct
PAHs (ng·g^{-1} dry weight) (ppb)								
C1-Fluoranthenes/pyrenes	200	160	160	150	420	400	280	260
C2-Fluoranthenes/pyrenes	140	120	95	100	220	230	160	200
C3-Fluoranthenes/pyrenes	100	96	60	76	120	160	100	140
Benzo(a)anthracene	140	110	140	140	380	350	260	220
Chrysene	170	150	180	160	360	400	290	260
C1-Chrysenes	100	83	88	95	160	200	120	150
C2-Chrysenes	100	90	65	99	110	160	100	150
C3-Chrysenes	97	93	61	87	96	150	94	140
C4-Chrysenes	69	60	44	56	64	93	59	95
Benzo(b)fluoranthene	400	330	320	310	620	700	560	480
Benzo(k)fluoranthene	110	79	120	80	180	220	140	130
Benzo(e)pyrene	240	190	200	200	340	430	330	280
Benzo(a)pyrene	270	230	260	230	470	570	450	380
Perylene	110	94	120	84	140	180	150	110
Indeno(1,2,3-c,d)pyrene	260	230	220	230	330	480	370	300
Dibenz(a,h)anthracene	35	29	37	35	60	77	55	48
Benzo(g,h,i)perylene	280	240	240	260	340	520	400	320
Total PAH (13 compounds)	1507.2	1271.8	1398.2	1372	3150	3624	2521	2236
Total PAH (41 compounds)	4345.2	3678.6	3680	3784	7147	8703	6119	5832
PESTICIDES (ng·g^{-1} dry weight) (ppb)								
Aldrin	<0.8	<0.78	<0.72	<0.68	<0.55	<0.7	<0.68	<0.58
alpha-Chlordane	22	7.7	5.9	10	6	8.7	4.6	8.5
gamma-Chlordane	42	14	13	29	12	18	8.5	19
cis-Nonachlor	6.7	4.2	3.4	10	3.3	4.6	2.6	5.3
trans-Nonachlor	11	5.8	3.4	5.4	3.4	4.6	2.6	4.6
Heptachlor	1.4	0.44	0.54	0.23	0.23	1.7	0.44	0.36
Heptachlor Epoxide	<0.75	<0.73	<0.67	<0.64	<0.51	<0.65	<0.64	<0.55
Total Chlordane (4 compounds)	81.7	31.7	25.7	54.4	24.7	35.9	18.3	37.4
2,4'-DDT	<1.2	4.6	1.8	<1.1	<0.85	<1.1	<1.1	<0.91
4,4'-DDT	1.1	16	16	4.6	3.7	6.8	2	1.6
2,4'-DDE	<1.2	<1.2	<1.1	<1.1	<0.85	<1.1	<1.1	<0.91
4,4'-DDE	62	27	26	53	22	28	14	37
2,4'-DDD	<0.75	<0.73	7.5	<0.64	<0.51	<0.65	<0.64	17
4,4'-DDD	18	17	24	29	6.3	18	10	23
Total DDT (6 compounds)	81.1	64.6	75.3	86.6	32	52.8	26	78.6
Dieldrin	16	10	6.2	22	20	12	6.3	19
Endrin	<0.75	<0.73	<0.67	<0.64	<0.51	<0.65	<0.64	<0.55
alpha-hexachlorocyclohexan	0.03	0.04	<0.58	0.02	0.28	0.03	0.01	0.03
beta-hexachlorocyclohexan	<0.32	<0.32	<0.29	<0.28	<0.22	<0.28	<0.28	<0.24
delta-hexachlorocyclohexan	<0.52	<0.51	<0.47	<0.44	<0.36	<0.46	<0.45	<0.38
Lindane	0.61	0.09	0.14	0.29	<0.38	0.22	0.13	0.24
Mirex	<0.37	<0.36	<0.34	<0.32	<0.26	<0.33	<0.32	<0.27

Appendix A1
SURFACE SEDIMENT DATA

October 1999

	Yosemite Creek Stations							
Station	1N	1S	2N	2S	3N	3S	4C	5N
Sampling Date	14-Oct	14-Oct	14-Oct	14-Oct	13-Oct	13-Oct	13-Oct	13-Oct
PCBs (ng·g^{-1} dry weight) (ppb)								
8 - 2,4'-Dichlorobiphenyl (Cl2)	2.8	2	1.6	2.1	2.1	2.7	2	2.6
18 - 2,2',5-Trichlorobiphenyl (Cl3)	1.3	1.2	0.68	4.8	1	1.8	1.2	1.5
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	3.5	3.1	2	11	2.2	3.6	2.6	3.2
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	13	7.3	6.4	50	7.4	11	6.1	12
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	17	10	8	66	9.2	12	8.2	17
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	39	25	20	150	20	28	20	33
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	27	18	14	33	14	19	15	22
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	62	36	30	150	28	35	25	50
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	23	13	12	58	8	11	7.8	13
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	60	33	28	150	23	28	20	33
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.92	<0.9	<0.83	<0.78	<0.63	<0.8	<0.79	<0.67
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	23	14	11	37	11	17	13	15
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	130	65	55	170	50	70	48	85
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	170	80	70	210	82	110	61	140
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	41	25	21	44	21	30	21	38
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	69	44	36	73	39	56	38	69
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	46	31	25	44	27	35	25	52
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	7.2	4.6	3.7	7.4	4.1	5.3	3.6	7.5
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7	4.9	3.4	2.3	5.6	2.7	4.2	2.7	4.8
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (C	3.2	2.4	2.5	2.8	1.3	1.9	1.4	1.9
Total PCB (18 compounds)	715.9	400	335.18	1235.7	339	462.5	306.6	578.5
Total PCB (20 compounds)	742.9	418	349.18	1268.7	353	481.5	321.6	600.5

Appendix A1
SURFACE SEDIMENT DATA

October 1999

	Reference Stations					
Station	Island #1	Marconi	North Site	Paradise	South Site	Tubbs Isl.
Sampling Date	18-Oct	15-Oct	19-Oct	18-Oct	18-Oct	19-Oct
TOXICITY (% Survival)	59	83	83	94	99	70
TOTAL ORGANIC CARBON (%)	1.0	1.8	0.4	1.0	0.5	1.0
GRAIN SIZE (%)						
Gravel						
Sand	0.8	0.3	69.3	4.5	36	3.5
Silt						
Clay						
Fines (Silt + Clay)	99.2	99.7	30.7	95.5	64	96.5
METALS (µg·g^{-1} dry weight) (ppm)						
Aluminum	52418	46020	23753	37480	30128	40110
Arsenic	8.8	9.66	2.49	8.27	3.56	0.93
Cadmium	0.37	0.29	0.17	0.27	0.23	0.27
Chromium	106.7	149.1	83.2	94.1	82.2	94.2
Copper	50.9	41.6	13.7	42.6	20.3	50.8
Iron	40682	46162	23642	35596	25826	38562
Lead	18.7	13.3	13.3	22.3	13.1	22.6
Mercury	0.234	0.175	0.086	0.225	0.159	0.24
Nickel	88.4	159.3	72	75.9	67.3	86
Selenium	0.13	0.33	<0.09	0.17	<0.09	0.22
Silver	0.64	0.49	<0.45	0.67	0.47	0.55
Zinc	120	103.2	73.1	109.5	74.4	116.3
PAHs (ng·g^{-1} dry weight) (ppb)						
Naphthalene	10	11	4.7	16	7.3	13
C1-Naphthalenes	8.2	29	3.6	11	5.6	8.9
C2-Naphthalenes	14	48	6.8	16	11	18
C3-Naphthalenes	14	36	<2	14	9	16
C4-Naphthalenes	<2.7	18	<2	14	<2.2	<2.9
Acenaphthylene	6.1	1	2.2	8.9	7.6	8.3
Acenaphthene	3.7	1.2	2.5	6.4	3.9	5.6
Dibenzofuran						
Fluorene	5.8	7.3	3.6	8.1	8.5	7.7
C1-Fluorenes	5.4	12	2.8	7.1	5.1	6.8
C2-Fluorenes	9.9	26	<0.83	9.5	<0.89	12
C3-Fluorenes	<1.1	18	<0.83	13	<0.89	<1.2
Anthracene	13	4.6	5.1	21	13	17
Phenanthrene	40	43	21	75	68	63
C1-Phenanthrenes/anthracenes	29	51	13	40	36	45
C2-Phenanthrenes/anthracenes	22	39	7.7	29	18	36
C3-Phenanthrenes/anthracenes	17	18	4.3	19	8.5	25
C4-Phenanthrenes/anthracenes	29	11	5.6	21	17	37
Dibenzothiophene	3.8	2.5	1.6	5.6	4.7	5.4
C1-Dibenzothiophenes	4.6	3.3	1.8	5.5	4.5	7.5
C2-Dibenzothiophenes	7.2	4.2	<0.45	8.8	5.4	11
C3-Dibenzothiophenes	7.9	3.3	<0.45	9	4.6	12
Fluoranthene	110	20	41	210	120	170
Pyrene	150	22	53	270	160	240

Appendix A1
SURFACE SEDIMENT DATA

October 1999

	Reference Stations					
Station	Island #1	Marconi	North Site	Paradise	South Site	Tubbs Isl.
Sampling Date	18-Oct	15-Oct	19-Oct	18-Oct	18-Oct	19-Oct
PAHs (ng·g^{-1} dry weight) (ppb)						
C1-Fluoranthenes/pyrenes	54	23	18	87	54	87
C2-Fluoranthenes/pyrenes	32	23	8.5	39	22	46
C3-Fluoranthenes/pyrenes	21	14	3.1	26	10	27
Benzo(a)anthracene	48	9.8	18	95	54	70
Chrysene	56	19	19	110	57	80
C1-Chrysenes	24	12	6.1	32	19	35
C2-Chrysenes	18	10	2.9	24	9	26
C3-Chrysenes	12	7.1	<0.64	19	6.7	18
C4-Chrysenes	9.5	4.8	<0.64	15	4.6	14
Benzo(b)fluoranthene	95	20	33	180	84	140
Benzo(k)fluoranthene	28	5.6	8.5	62	20	37
Benzo(e)pyrene	62	14	20	110	49	93
Benzo(a)pyrene	85	8.6	29	170	73	130
Perylene	50	8.7	10	70	25	66
Indeno(1,2,3-c,d)pyrene	78	9	22	140	53	120
Dibenz(a,h)anthracene	8.4	2	2.5	14	6.5	14
Benzo(g,h,i)perylene	85	11	26	140	60	130
Total PAH (13 compounds)	529.9	148.5	199.4	995.5	571.2	810.3
Total PAH (41 compounds)	1276.5	631	406.9	2170.9	1124.5	1898.2
PESTICIDES (ng·g^{-1} dry weight) (ppb)						
Aldrin	<0.4	<0.78	<0.29	<0.71	<0.32	<0.42
alpha-Chlordane	0.12	<0.73	0.03	0.22	0.1	0.18
gamma-Chlordane	<0.37	<0.73	<0.28	<0.66	<0.3	<0.39
cis-Nonachlor	0.12	0.14	0.03	0.25	0.08	0.16
trans-Nonachlor	0.07	<0.54	0.01	0.09	0.06	0.1
Heptachlor	<0.37	<0.73	<0.28	0.07	0.01	<0.39
Heptachlor Epoxide	<0.37	<0.73	<0.28	<0.66	<0.3	<0.39
Total Chlordane (4 compounds)	0.31	0.14	0.07	0.56	0.24	0.44
2,4'-DDT	<0.62	<1.2	<0.46	<1.1	<0.5	<0.66
4,4'-DDT	0.27	0.21	<0.64	0.54	0.12	0.17
2,4'-DDE	<0.62	<1.2	<0.46	<1.1	<0.5	<0.66
4,4'-DDE	2	0.56	0.28	2	0.68	2.3
2,4'-DDD	0.6	<0.73	<0.28	0.95	0.27	0.81
4,4'-DDD	2.3	0.25	<0.64	3.2	0.76	2.4
Total DDT (6 compounds)	5.17	1.02	0.28	6.69	1.83	5.68
Dieldrin	<0.37	<0.73	<0.28	2.4	<0.3	<0.39
Endrin	<0.37	<0.73	<0.28	<0.66	<0.3	<0.39
alpha-hexachlorocyclohexan	<0.32	0.04	<0.24	<0.58	<0.26	<0.34
beta-hexachlorocyclohexan	<0.16	<0.32	<0.12	<0.29	<0.13	<0.17
delta-hexachlorocyclohexan	<0.26	<0.51	<0.19	<0.47	<0.21	<0.28
Lindane	<0.27	<0.54	<0.2	0.36	<0.22	<0.29
Mirex	<0.19	<0.36	<0.14	<0.33	<0.15	<0.2

Appendix A1
SURFACE SEDIMENT DATA

October 1999

	Reference Stations					
Station	Island #1	Marconi	North Site	Paradise	South Site	Tubbs Isl.
Sampling Date	18-Oct	15-Oct	19-Oct	18-Oct	18-Oct	19-Oct
PCBs (ng·g^{-1} dry weight) (ppb)						
8 - 2,4'-Dichlorobiphenyl (Cl2)	<0.26	0.7	<0.19	<0.47	0.16	<0.28
18 - 2,2',5-Trichlorobiphenyl (Cl3)	0.14	<1.1	0.04	0.24	0.07	0.21
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	0.22	<0.73	0.2	0.48	0.22	0.33
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	0.67	1	0.35	1.3	0.53	0.88
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	0.26	0.38	0.07	0.89	0.13	0.31
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	0.86	1.5	0.36	2.6	0.52	1.1
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	0.71	0.48	0.22	1.7	0.35	1
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	0.48	0.42	0.19	1.4	0.27	0.69
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	0.13	0.14	0.06	0.39	0.09	0.2
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	0.5	0.48	0.2	1.2	0.42	0.75
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.46	<0.9	<0.34	<0.82	<0.37	<0.49
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	0.12	0.16	0.04	<0.36	0.07	0.12
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	0.8	0.51	0.26	2	0.45	1.3
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	1.1	0.6	0.39	3	0.7	1.7
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	0.21	<1.5	0.09	0.68	0.27	0.28
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	0.43	0.14	0.12	1.4	0.25	0.75
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	0.37	0.25	0.11	1.2	0.28	0.58
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	0.17	0.35	0.03	0.34	0.06	0.18
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7)	0.09	0.02	0.02	0.26	0.06	0.13
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (Cl10)	0.16	0.17	0.04	0.27	0.08	0.28
Total PCB (18 compounds)	6.71	6.82	2.57	17.65	4.63	9.79
Total PCB (20 compounds)	7.42	7.3	2.79	19.35	4.98	10.79

Appendix A1
SURFACE SEDIMENT DATA

April 2000

	Yosemite Creek Stations							
Station	1N	1S	2N	2S	3N	3S	4C	5N
Sampling Date	20-Apr	20-Apr	20-Apr	20-Apr	20-Apr	20-Apr	19-Apr	19-Apr
TOXICITY (% Survival)	81	43	61	42	86	64	48	68
TOTAL ORGANIC CARBON (%)	1.4	1.9	1.6	1.5	0.7	1.9	1.1	1.4
GRAIN SIZE (%)								
Gravel								
Sand	5.4	2	21	3.8	94.9	6.2	5.9	25.6
Silt								
Clay								
Fines (Silt + Clay)	94.6	98	79	96.2	5.1	93.8	94.1	74.4
METALS ($\mu g \cdot g^{-1}$ dry weight) (ppm)								
Aluminum	49405	48714	46196	38897	19588	43075	41900	28625
Arsenic	12	12	7.58	8.33	5.52	12	9.1	5.71
Cadmium	1.69	0.68	0.67	0.72	0.66	0.63	0.63	0.77
Chromium	164	143	144	155	93	130	122	109
Copper	112.6	109.6	112.2	85.2	96.7	98.1	90	81.1
Iron	52433	52413	51148	44360	26173	46217	44006	37568
Lead	197.1	135.9	159.8	130.4	124.1	118.9	107.1	122.2
Mercury	0.76	0.55	0.64	0.67	0.38	0.72	0.56	1.21
Nickel	105.1	105	105.1	152.2	55.7	92.7	89.2	79.2
Selenium	0.61	0.5	0.49	0.24	0.16	0.42	0.32	0.25
Silver	<0.5	0.59	0.62	0.52	0.48	0.55	0.6	0.78
Zinc	316	253	252	219	201	225	209	195
PAHs ($ng \cdot g^{-1}$ dry weight) (ppb)								
Naphthalene	43	36	36	57	30	50	59	81
C1-Naphthalenes	36	23	31	37	33	34	41	74
C2-Naphthalenes	53	34	45	53	51	50	58	90
C3-Naphthalenes	38	28	32	38	37	42	48	65
C4-Naphthalenes	26	23	23	29	23	28	33	50
Acenaphthylene	20	20	20	26	17	30	37	37
Acenaphthene	8.1	7.6	10	10	8	15	19	180
Dibenzofuran								
Fluorene	17	15	17	19	14	22	28	150
C1-Fluorenes	17	13	16	17	12	18	22	63
C2-Fluorenes	29	23	25	29	21	25	28	95
C3-Fluorenes	51	41	39	53	43	48	52	120
Anthracene	47	40	50	62	51	72	94	320
Phenanthrene	130	100	150	160	140	210	290	1000
C1-Phenanthrenes/anthracenes	100	81	100	120	130	150	190	410
C2-Phenanthrenes/anthracenes	100	84	85	110	130	130	140	310
C3-Phenanthrenes/anthracenes	100	72	69	98	120	110	100	220
C4-Phenanthrenes/anthracenes	140	100	88	140	140	150	140	280
Dibenzothiophene	13	11	12	14	11	16	22	62
C1-Dibenzothiophenes	18	15	14	19	17	22	26	55
C2-Dibenzothiophenes	32	26	26	34	30	37	43	71
C3-Dibenzothiophenes	50	33	28	45	36	44	47	60
Fluoranthene	300	280	300	390	260	480	600	2300
Pyrene	440	400	410	540	370	660	820	2100

Appendix A1
SURFACE SEDIMENT DATA

April 2000

	Yosemite Creek Stations							
Station	1N	1S	2N	2S	3N	3S	4C	5N
Sampling Date	20-Apr	20-Apr	20-Apr	20-Apr	20-Apr	20-Apr	19-Apr	19-Apr
PAHs (ng·g^{-1} dry weight) (ppb)								
C1-Fluoranthenes/pyrenes	240	180	200	270	220	330	380	950
C2-Fluoranthenes/pyrenes	210	140	150	210	190	240	250	440
C3-Fluoranthenes/pyrenes	160	90	100	150	130	160	150	210
Benzo(a)anthracene	160	130	150	200	160	250	340	700
Chrysene	190	180	190	260	210	350	390	730
C1-Chrysenes	140	92	110	150	150	170	200	310
C2-Chrysenes	160	89	100	150	140	160	160	200
C3-Chrysenes	130	76	92	130	120	140	160	160
C4-Chrysenes	100	52	61	93	81	110	100	100
Benzo(b)fluoranthene	470	380	380	490	350	610	720	910
Benzo(k)fluoranthene	100	98	110	150	90	150	220	330
Benzo(e)pyrene	290	240	240	320	220	380	460	540
Benzo(a)pyrene	350	310	300	400	290	500	620	790
Perylene	130	120	110	150	86	170	210	240
Indeno(1,2,3-c,d)pyrene	350	300	300	380	230	440	540	600
Dibenz(a,h)anthracene	50	38	43	51	41	61	78	110
Benzo(g,h,i)perylene	410	340	340	440	260	490	590	640
Total PAH (13 compounds)	1735.1	1536.6	1656	2149	1574	2670	3338	8461
Total PAH (41 compounds)	5448.1	4360.6	4602	6094	4692	7154	8505	16153
PESTICIDES (ng·g^{-1} dry weight) (ppb)								
Aldrin	<0.52	<0.5	<0.43	<0.49	0.47	<0.48	<0.45	<0.39
alpha-Chlordane	22	3.3	7	15	6.2	5.7	5.2	6.4
gamma-Chlordane	48	7.7	15	32	16	13	15	17
cis-Nonachlor	8.3	2.7	<0.38	5.8	3.2	4	3.4	9.4
trans-Nonachlor	9.8	<0.34	3.6	6.3	3.1	2.9	2.4	<0.27
Heptachlor	<0.49	<0.47	<0.4	<0.46	<0.3	<0.45	<0.42	<0.36
Heptachlor Epoxide	<0.49	<0.47	<0.4	<0.46	<0.3	<0.45	<0.42	<0.36
Total Chlordane (4 compounds)	88.1	13.7	25.6	59.1	28.5	25.6	26	32.8
2,4'-DDT	<0.81	<0.78	<0.68	<0.77	<0.51	<0.75	<0.7	<0.61
4,4'-DDT	<1.1	<1.1	<0.94	1.9	2.9	3.5	3	2.1
2,4'-DDE	<0.81	<0.78	<0.68	<0.77	<0.51	<0.75	<0.7	<0.61
4,4'-DDE	73	17	30	50	22	18	24	31
2,4'-DDD	<0.49	<0.47	4.1	5.6	6.8	4.6	6.3	56
4,4'-DDD	19	8.4	14	18	14	12	12	22
Total DDT (6 compounds)	92	25.4	48.1	75.5	45.7	38.1	45.3	111.1
Dieldrin	14	3.5	5.2	12	10	5.5	8.5	13
Endrin	<0.49	<0.47	<0.4	<0.46	<0.3	<0.45	<0.42	<0.36
alpha-hexachlorocyclohexan	<0.42	<0.41	<0.35	<0.4	<0.26	<0.39	<0.36	<0.32
beta-hexachlorocyclohexan	<0.21	<0.2	<0.18	<0.2	<0.13	<0.2	<0.18	<0.16
delta-hexachlorocyclohexan	<0.34	<0.33	<0.28	<0.32	<0.21	<0.32	<0.29	<0.26
Lindane	<0.36	<0.34	<0.3	<0.34	<0.22	<0.33	<0.31	<0.27
Mirex	<0.24	<0.23	<0.2	<0.23	<0.15	<0.22	<0.21	<0.18

Appendix A1
SURFACE SEDIMENT DATA

April 2000

	Yosemite Creek Stations							
Station	1N	1S	2N	2S	3N	3S	4C	5N
Sampling Date	20-Apr	20-Apr	20-Apr	20-Apr	20-Apr	20-Apr	19-Apr	19-Apr
PCBs (ng·g^{-1} dry weight) (ppb)								
8 - 2,4'-Dichlorobiphenyl (Cl2)	1.8	1.7	1.2	1.9	1.6	1.8	1.6	3
18 - 2,2',5-Trichlorobiphenyl (Cl3)	1.1	1.1	<0.82	1.8	1.1	1.5	1.2	2.3
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	3	2.3	1.9	3.3	1.8	2.8	2.7	3.3
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	15	4.5	5.1	8	4.3	5	4.6	8.9
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	19	6.7	9.1	16	10	9.7	9.2	21
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	39	16	22	<0.49	<0.32	<0.48	20	<0.39
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.81	<0.78	<0.68	<0.77	<0.51	<0.75	<0.7	<0.61
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	67	23	35	53	30	34	31	150
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	14	<0.61	<0.53	8.2	<0.4	<0.59	<0.55	<0.48
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	71	21	35	48	25	25	23	48
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.64	<0.61	<0.53	<0.6	<0.4	<0.59	<0.55	<0.48
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	21	7.2	11	15	7.7	8.7	8.7	13
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	150	48	85	110	51	65	62	170
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	120	42	60	94	47	59	60	490
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	50	20	29	41	20	29	27	50
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	86	33	49	67	37	54	50	120
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	54	23	33	42	27	35	35	210
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	8.9	3.4	5.1	6.5	3.7	5.1	5.6	15
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7	5.4	2.2	3.3	4.6	2.4	3	4.5	11
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (C	3.3	1.6	3	3.3	1.4	1.9	6.2	1.8
Total PCB (18 compounds)	729.5	256.7	387.7	523.6	271	340.5	352.3	1317.3
Total PCB (20 compounds)	729.5	256.7	387.7	523.6	271	340.5	352.3	1317.3

Appendix A1
SURFACE SEDIMENT DATA

April 2000

	Reference Stations				
Station	Island #1	North Site	Paradise	South Site	Tubbs Isl.
Sampling Date	20-Apr	21-Apr	20-Apr	21-Apr	20-Apr
TOXICITY (% Survival)	68	89	65	80	59
TOTAL ORGANIC CARBON (%)	0.9	0.5	1.2	0.7	1.2
GRAIN SIZE (%)					
Gravel					
Sand					
Silt	2.1	73.7	3.5	41.5	5.2
Clay					
Fines (Silt + Clay)	97.9	26.3	96.5	58.5	94.8
METALS (µg·g^{-1} dry weight) (ppm)					
Aluminum	41994	28947	39697	19737	43335
Arsenic	6.31	6.06	12	5.6	10
Cadmium	0.35	0.35	0.34	0.55	0.37
Chromium	94	81	99	70	100
Copper	45.1	28.2	47.6	16.3	52.1
Iron	40694	33263	42708	26814	44022
Lead	17.9	15.4	21.3	11.8	20.1
Mercury	0.3	0.27	0.27	0.11	0.31
Nickel	84	73.9	85.9	75	90.3
Selenium	0.27	0.35	0.42	0.39	0.3
Silver	<0.5	<0.5	<0.5	<0.5	<0.5
Zinc	112	91	118	76	125
PAHs (ng·g^{-1} dry weight) (ppb)					
Naphthalene	12	5.2	18	13	13
C1-Naphthalenes	6.1	3.3	9.2	6.3	6.9
C2-Naphthalenes	11	5.4	15	12	12
C3-Naphthalenes	12	4.3	14	12	11
C4-Naphthalenes	9.7	2.7	11	9.2	8.4
Acenaphthylene	8.1	2.9	10	11	9
Acenaphthene	3.7	1.5	5.8	7.5	4.5
Dibenzofuran					
Fluorene	6.7	3.2	9.6	10	7.9
C1-Fluorenes	5.7	3.6	7.6	10	6.5
C2-Fluorenes	8.7	6.4	11	12	8.9
C3-Fluorenes	15	6.8	15	17	12
Anthracene	18	6.4	25	31	20
Phenanthrene	56	24	73	100	71
C1-Phenanthrenes/anthracenes	35	16	42	59	42
C2-Phenanthrenes/anthracenes	27	12	32	38	30
C3-Phenanthrenes/anthracenes	19	6.6	22	24	16
C4-Phenanthrenes/anthracenes	32	9	38	43	29
Dibenzothiophene	4.3	1.8	6	6.8	5.3
C1-Dibenzothiophenes	4.7	2	6.1	7.2	5.7
C2-Dibenzothiophenes	7.1	3	8.6	9.9	8.2
C3-Dibenzothiophenes	7.2	2.9	11	14	8.7
Fluoranthene	150	50	190	210	160
Pyrene	200	67	250	270	210

Appendix A1
SURFACE SEDIMENT DATA

April 2000

	Reference Stations				
Station	Island #1	North Site	Paradise	South Site	Tubbs Isl.
Sampling Date	20-Apr	21-Apr	20-Apr	21-Apr	20-Apr
PAHs (ng·g^{-1} dry weight) (ppb)					
C1-Fluoranthenes/pyrenes	71	23	83	110	73
C2-Fluoranthenes/pyrenes	37	13	44	54	35
C3-Fluoranthenes/pyrenes	22	6.8	28	26	18
Benzo(a)anthracene	64	21	76	94	65
Chrysene	79	24	88	130	75
C1-Chrysenes	27	9.2	33	45	28
C2-Chrysenes	20	6.2	23	31	18
C3-Chrysenes	17	4.6	19	21	14
C4-Chrysenes	11	2.7	12	13	8.5
Benzo(b)fluoranthene	120	43	170	170	120
Benzo(k)fluoranthene	36	13	44	40	34
Benzo(e)pyrene	82	27	100	100	81
Benzo(a)pyrene	120	38	160	150	120
Perylene	72	16	76	53	61
Indeno(1,2,3-c,d)pyrene	100	33	130	120	93
Dibenz(a,h)anthracene	10	3.3	14	14	9.9
Benzo(g,h,i)perylene	120	37	150	130	110
Total PAH (13 compounds)	719.4	243.6	909.4	1029.5	756.3
Total PAH (41 compounds)	1667	566.8	2079.9	2233.9	1669.4
PESTICIDES (ng·g^{-1} dry weight) (ppb)					
Aldrin	<0.39	<0.32	<0.46	<0.36	<0.44
alpha-Chlordane	<0.37	<0.3	<0.43	<0.34	<0.41
gamma-Chlordane	<0.37	<0.3	<0.43	<0.34	<0.41
cis-Nonachlor	<0.34	<0.28	<0.4	<0.32	<0.38
trans-Nonachlor	<0.27	<0.22	<0.31	<0.25	<0.3
Heptachlor	<0.37	<0.3	<0.43	<0.34	<0.41
Heptachlor Epoxide	<0.37	<0.3	<0.43	<0.34	<0.41
Total Chlordane (4 compounds)	<0.37	<0.3	<0.43	<0.34	<0.41
2,4'-DDT	<0.61	<0.5	<0.71	<0.57	<0.68
4,4'-DDT	4.8	<0.7	<1	<0.8	<0.95
2,4'-DDE	<0.61	<0.5	<0.71	<0.57	<0.68
4,4'-DDE	2.5	0.52	2.1	1.4	1.9
2,4'-DDD	0.7	<0.3	0.77	0.52	0.65
4,4'-DDD	2.3	<0.7	2.3	1	1.8
Total DDT (6 compounds)	10.3	0.52	5.17	2.92	4.35
Dieldrin	<0.37	<0.3	<0.43	<0.34	<0.41
Endrin	<0.37	<0.3	<0.43	<0.34	<0.41
alpha-hexachlorocyclohexan	<0.32	<0.26	<0.37	<0.3	<0.35
beta-hexachlorocyclohexan	<0.16	<0.13	<0.18	<0.15	<0.18
delta-hexachlorocyclohexan	<0.26	<0.21	<0.3	<0.24	<0.28
Lindane	<0.27	<0.22	<0.31	<0.25	<0.3
Mirex	<0.18	<0.15	<0.21	<0.17	<0.2

Appendix A1
SURFACE SEDIMENT DATA

April 2000

	Reference Stations				
Station	Island #1	North Site	Paradise	South Site	Tubbs Isl.
Sampling Date	20-Apr	21-Apr	20-Apr	21-Apr	20-Apr
PCBs (ng·g^{-1} dry weight) (ppb)					
8 - 2,4'-Dichlorobiphenyl (Cl2)	<0.34	<0.27	<0.39	<0.31	<0.37
18 - 2,2',5-Trichlorobiphenyl (Cl3)	<0.75	<0.6	<0.87	<0.69	<0.83
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	<0.46	<0.37	<0.53	<0.42	<0.51
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	<0.47	<0.38	<0.55	<0.44	<0.52
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	<0.48	<0.39	<0.56	0.56	<0.53
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.39	<0.32	1	1.1	0.49
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.61	<0.5	<0.71	<0.57	<0.68
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	0.62	<0.37	1	1.3	<0.51
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	<0.48	<0.39	<0.56	<0.44	<0.53
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	0.55	<0.38	0.88	1.3	<0.52
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.48	<0.39	<0.56	<0.44	<0.53
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	<0.34	<0.27	<0.39	0.33	<0.37
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	1	<0.48	<0.69	1.7	0.82
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	0.81	<0.22	1.5	1.5	0.53
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	<0.48	<0.39	0.84	<0.44	<0.53
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	0.54	<0.31	2.4	0.62	<0.42
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	0.41	<0.28	1.3	0.66	<0.38
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	<0.43	<0.35	<0.5	<0.4	<0.47
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7)	<0.5	<0.4	<0.58	<0.46	<0.55
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (Cl10)	<0.46	<0.37	<0.53	<0.42	<0.51
Total PCB (18 compounds)	3.93	0.22	8.92	9.07	1.84
Total PCB (20 compounds)	3.93	0.22	8.92	9.07	1.84

Appendix A1
SURFACE SEDIMENT DATA

Hunters Point Validation Study - May 2001

Station	SB-01	SB-02	SB-03
Sampling Date	22-May	22-May	22-May
TOTAL ORGANIC CARBON (%)	1.4	1.5	1.9
METALS ($\mu g \cdot g^{-1}$ dry weight) (ppm)			
Aluminum	61900	69800	73200
Arsenic	8.15	9.23	9.33
Cadmium	0.845	0.63	0.371
Chromium	202	189	171
Copper	69.8	85.1	74.4
Iron	36200	43100	45800
Lead	121	94.3	69.3
Mercury	0.553	0.559	0.466
Nickel	76.6	92.9	104
Selenium	0.227	0.387	0.41
Silver	0.523	0.491	0.425
Zinc	188	189	164
PAHs ($ng \cdot g^{-1}$ dry weight) (ppb)			
Naphthalene	28.15	46.44	14.85
Acenaphthylene	11.41	11.84	7.9
Acenaphthene	6.4	11.61	4.03
Fluorene	10.07	18.97	5.76
Anthracene	37.13	51.29	23.86
Phenanthrene	120.79	208.75	74.25
Fluoranthene	268	374.52	188.94
Pyrene	365.89	445.15	244.35
Benzo(a)anthracene	133.89	189.01	81.68
Chrysene	189.91	247.26	112.75
Benzo(b)fluoranthene	176.63	248.33	99.03
Benzo(k)fluoranthene	192.18	252.87	113
Benzo(a)pyrene	267.61	344.69	158.65
Indeno(1,2,3-c,d)pyrene	227.78	288.79	120.04
Dibenz(a,h)anthracene	31.68	47.68	12.94
Benzo(g,h,i)perylene	282.9	343.26	156.69
Total PAH (13 compounds)	1486.37	2034.41	930.38

Appendix A1
SURFACE SEDIMENT DATA

Hunters Point Validation Study - May 2001

Station	SB-01	SB-02	SB-03
Sampling Date	22-May	22-May	22-May
PESTICIDES (ng·g^{-1} dry weight) (ppb)			
alpha-Chlordane	3.56	5.36	0.67
gamma-Chlordane	6.29	10.53	0.54
Heptachlor	<0.09	<0.07	<0.1
2,4'-DDT	<0.13	<0.11	<0.15
4,4'-DDT	1.16	1.33	0.39
2,4'-DDE	<0.14	<0.12	<0.16
4,4'-DDE	9.12	18.4	2.16
2,4'-DDD	<0.11	<0.09	<0.13
4,4'-DDD	6.89	15.64	1.91
Total DDT (6 compounds)	17.17	35.37	4.46
Dieldrin	4.21	10.41	<0.12
Endrin	<0.09	<0.08	<0.11
PCBs and Aroclors (ng·g^{-1} dry weight) (ppb)			
8 - 2,4'-Dichlorobiphenyl (Cl2)	1.29	1.12	0.54
18 - 2,2',5-Trichlorobiphenyl (Cl3)	0.58	0.96	0.19
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	1.35	1.74	0.46
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	4.74	8.3	1
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	6.34	11.21	1.64
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.13	<0.1	<0.14
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.18	<0.15	<0.2
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	23.62	41.13	6.47
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	4.31	7.33	1.44
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	17.15	27.32	4.49
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.15	<0.13	<0.17
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	4.67	6.93	1.56
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	43.2	71.22	14.87
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	72.27	133.13	22.99
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	15.07	18.69	6.76
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	36.76	59.62	12.63
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	23.84	45.21	7.8
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	2.39	2.95	1.15
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7)	1.17	1.29	0.73
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (Cl10)	0.46	0.38	0.32
Total PCB (18 compounds)	259.21	438.53	85.04
Total PCB (20 compounds)	259.21	438.53	85.04
Total Aroclor 1016	<11.87	<9.88	<13.51
Total Aroclor 1221	<11.87	<9.88	<13.51
Total Aroclor 1232	<11.87	<9.88	<13.51
Total Aroclor 1242	<11.87	<9.88	<13.51
Total Aroclor 1248	<11.87	<9.88	<13.51
Total Aroclor 1254	<11.87	<9.88	<13.51
Total Aroclor 1260	472.14	821.17	148.25

Appendix A2
SUBSURFACE SEDIMENT DATA - DECEMBER 1998

Station	1N	1N	1N	1N	2N	2N	3S	3S
Depth	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft	0-1 ft	1-2 ft
Sampling Date	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec
TOTAL ORGANIC CARBON (%)	3.9	1.3			2.0	1.6	2.4	2.6
GRAIN SIZE (%)								
Gravel	0	9.5			11.1	17.2	2.3	4.2
Sand	6.4	70.1			12.4	51.2	15.4	46.9
Silt	79	9.2			61.2	25.9	39.5	35.5
Clay	14.6	11.2			15.3	5.7	42.8	13.4
METALS ($\mu g \cdot g^{-1}$ dry weight) (ppm)								
Aluminum	45294	10622	19633	39178	50244	26639	47459	29910
Arsenic	10.4	7	6.33	4.83	9.5	11.6	11.7	10.7
Cadmium	8.63	0.46	0.27	0.41	0.92	2.97	1.06	8
Chromium	368	51	68.9	101.5	143	154	173	234
Copper	146	445	16.8	31.6	92	57	100	116
Iron	44307	15918	24777	38971	43167	32185	43250	36311
Lead	811	38	5.1	8.8	134	266	159	636
Mercury	1.49	0.12	0.045	0.051	0.01	0.45	0.43	0.98
Nickel	108	29	65.9	80.7	92	65	94	76
Selenium	1.52	0.16	0.27	0.24	0.45	0.55	0.53	1.55
Silver	1.2	<0.1	<0.44	<0.47	<0.3	<0.3	<0.5	0.9
Zinc	830	157	49.3	84	242	288	248	678
PAHs ($ng \cdot g^{-1}$ dry weight) (ppb)								
Naphthalene	560	80	3.4	4.7	38	54	52	220
C1-Naphthalenes	420	27	4.7	7.3	48	50	63	280
C2-Naphthalenes	710	65	12	19	88	75	99	410
C3-Naphthalenes	490	79	13	<3.2	74	48	84	290
C4-Naphthalenes	650	88	<2.2	<3.2	53	48	68	220
Acenaphthylene	350	73	2.2	<1	30	42	43	76
Acenaphthene	110	15	<0.73	1.9	28	11	17	39
Dibenzofuran	64	11			8.9	8.6	12	44
Fluorene	200	72	4.4	5.1	26	18	24	82
C1-Fluorenes	240	59	6.9	6	34	30	25	89
C2-Fluorenes	320	45	9.8	11	32	30	34	150
C3-Fluorenes	1100	69	<0.89	<1.3	50	110	72	460
Anthracene	1000	250	7	1.8	72	140	97	510
Phenanthrene	740	300	22	11	190	100	180	340
C1-Phenanthrenes/anthracenes	1000	400	34	13	180	95	140	390
C2-Phenanthrenes/anthracenes	1500	200	20	12	130	120	150	500
C3-Phenanthrenes/anthracenes	2200	120	11	7.5	89	210	110	760
C4-Phenanthrenes/anthracenes	2900	180	9.6	<1.8	120	190	140	800
Dibenzothiophene	95	49	2.8	1.4	20	12	16	46
C1-Dibenzothiophenes	170	49	5.8	2.8	24	20	20	130
C2-Dibenzothiophenes	650	64	8.3	<0.72	39	53	47	290
C3-Dibenzothiophenes	1100	43	4.6	<0.72	36	120	49	690
Fluoranthene	2600	950	23	5.2	270	190	350	580
Pyrene	7100	1500	35	5.4	420	760	510	1500

Appendix A2
SUBSURFACE SEDIMENT DATA - DECEMBER 1998

Station	1N	1N	1N	1N	2N	2N	3S	3S
Depth	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft	0-1 ft	1-2 ft
Sampling Date	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec
PAHs (ng·g^{-1} dry weight) (ppb)								
C1-Fluoranthenes/pyrenes	4700	550	32	8	220	350	270	990
C2-Fluoranthenes/pyrenes	2700	200	15	8.8	140	230	170	780
C3-Fluoranthenes/pyrenes	1700	89	<0.63	<0.95	94	200	130	720
Benzo(a)anthracene	1800	530	16	<1.2	170	210	250	400
Chrysene	1600	520	20	4.5	180	180	280	420
C1-Chrysenes	1600	260	12	3.2	120	190	170	440
C2-Chrysenes	1200	100	4.6	3.4	110	170	140	520
C3-Chrysenes	860	84	<0.68	<1	95	140	140	470
C4-Chrysenes	780	53	<0.68	<1	80	120	130	410
Benzo(b)fluoranthene	2500	760	12	4.5	410	520	560	680
Benzo(k)fluoranthene	890	250	5.6	0.73	100	120	190	260
Benzo(e)pyrene	2000	420	9	3.7	230	310	320	510
Benzo(a)pyrene	2800	710	13	1.6	310	400	430	670
Perylene	700	180	22	100	100	120	160	200
Indeno(1,2,3-c,d)pyrene	1500	420	5.2	1	240	260	310	400
Dibenz(a,h)anthracene	280	50	1.6	<1.3	28	38	41	69
Benzo(g,h,i)perylene	1700	340	6.6	2	210	220	270	400
Total PAH (13 compounds)	18790	4977	145.4	41.2	1732	2101	2231	4830
Total PAH (41 compounds)	55579	10304	414.1	256.53	4936.9	6312.6	6363	17235
LABs (ng·g^{-1} dry weight) (ppb)								
C10B-Phenyl decanes	<35	<0.35			<0.58	<0.6	36	<8.9
C11B-Phenyl undecanes	<35	<0.35			14	<0.6	39	130
C12B-Phenyl dodecanes	<35	<0.35			<0.58	<0.6	<1.2	<8.9
C13B-Phenyl tridecanes	<35	13			62	170	64	970
C14B-Phenyl tetradecanes	<35	<0.35			30	<0.6	45	<8.9

Appendix A2
SUBSURFACE SEDIMENT DATA - DECEMBER 1998

Station	1N	1N	1N	1N	2N	2N	3S	3S
Depth	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft	0-1 ft	1-2 ft
Sampling Date	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec
TPHs (µg g-1 dry weight) (ppm)								
n-Nonane	<10	<0.2			<0.34	<0.35	<0.68	<5.2
n-Decane	0.49	<0.01			0.02	0.11	0.03	0.74
n-Undecane	<1.2	<0.02			<0.04	<0.04	<0.08	<0.6
n-Dodecane	<1.2	<0.02			<0.04	<0.04	<0.08	<0.6
n-Tridecane	<1.6	<0.03			<0.05	<0.05	<0.1	<0.8
Isoprenoid RRT 1380	<1.9	0.04			<0.06	0.26	<0.13	0.97
n-Tetradecane	<2.5	<0.05			<0.08	<0.09	<0.16	<1.2
Isoprenoid RRT 1470	0.48	0.05			0.06	0.16	0.04	0.5
n-Pentadecane	<1.0	<0.0			0.0	0.0	<0.1	<0.5
n-Hexadecane	<0.5	0.0			0.0	<0.0	0.1	<0.3
Isoprenoid RRT 1650	<1.2	0.1			<0.0	0.3	<0.1	<0.6
n-Heptadecane	9.9	0.4			1.8	1.5	0.8	1.4
Pristane	3.3	0.1			0.1	0.6	<0.1	<0.8
n-Octadecane	<1.4	<0.0			0.1	<0.1	<0.1	<0.7
Phytane	2.7	0.1			0.1	0.6	0.1	0.8
n-Nonadecane	<0.7	<0.0			<0.0	<0.0	0.1	<0.3
n-Eicosane	<0.4	<0.0			<0.0	<0.0	<0.0	<0.2
n-Heneicosane	5.4	<0.0			<0.0	<0.0	1.2	3.0
n-Docosane	<0.6	0.2			0.2	0.5	0.4	<0.3
n-Tricosane	1.5	0.2			0.2	0.4	0.2	<0.2
n-Tetracosane	1.4	0.3			<0.0	<0.0	0.1	<0.2
n-Pentacosane	<1.2	0.1			<0.0	<0.0	<0.1	<0.6
n-Hexacosane	<0.6	0.1			<0.0	<0.0	<0.0	<0.3
n-Heptacosane	<0.7	0.2			0.2	0.5	0.3	0.4
n-Octacosane	<0.8	0.6			<0.0	1.3	<0.1	<0.4
n-Nonacosane	<4.6	0.5			0.4	1.5	0.5	<2.3
n-Triacontane	<1.6	0.1			<0.1	<0.1	<0.1	<0.8
n-Hentriacontane	10.0	0.8			0.7	0.4	0.8	<0.6
n-Dotriacontane	3.4	0.2			<0.0	1.6	0.2	<0.3
n-Tritriacontane	<0.8	0.4			0.6	1.4	0.6	1.8
n-Tetratriacontane	<0.7	0.1			0.3	0.6	0.1	<0.4
n-Pentatriacontane	<0.6	<0.0			<0.0	1.0	0.7	1.7
n-Hexatriacontane	<0.9	0.1			<0.0	<0.0	<0.1	<0.4
n-Heptatriacontane	<0.8	<0.0			<0.0	<0.0	0.1	<0.4
n-Octatriacontane	<0.7	<0.0			0.2	<0.0	0.2	<0.4
n-Nonatriacontane	<0.7	<0.0			<0.0	<0.0	<0.0	<0.3
n-Tetracontane	<0.7	<0.0			<0.0	<0.0	<0.1	<0.4
Total Resolved Hydrocarbons	640.0	36.0			53.0	120.0	52.0	380.0
Total Petroleum Hydrocarbons	7400.0	310.0			800.0	1600.0	810.0	4200.0
TPH >C8-C10	<11.0	0.7			1.8	3.5	3.7	39.0
TPH >C10-C12	94.0	2.1			2.1	12.0	3.2	190.0
TPH >C12-C16	250.0	8.6			10.0	50.0	13.0	230.0
TPH >C16-C21	1200.0	47.0			77.0	260.0	72.0	660.0
TPH >C21-C25	1400.0	60.0			140.0	330.0	130.0	720.0
TPH >C25-C30	1900.0	84.0			240.0	440.0	230.0	960.0
TPH >C30-C35	1400.0	62.0			190.0	320.0	190.0	740.0
TPH >C35 +	1100.0	45.0			140.0	230.0	170.0	640.0

Appendix A2
SUBSURFACE SEDIMENT DATA - DECEMBER 1998

Station	1N	1N	1N	1N	2N	2N	3S	3S
Depth	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft	0-1 ft	1-2 ft
Sampling Date	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec
PESTICIDES (ng·g^{-1} dry weight) (ppb)								
Aldrin	<0.34	<0.14	<0.32	<0.47	<0.22	<0.16	<0.23	<0.17
alpha-Chlordane	52	1.3	<0.3	<0.44	8.2	17	11	21
gamma-Chlordane	110	<0.13	<0.3	<0.44	18	38	22	39
cis-Nonachlor	15	1.1	0.13	<0.41	3.2	3.7	3.5	2.6
trans-Nonachlor	31	1.1	<0.22	<0.32	5.2	7	6.6	6.2
Heptachlor	<0.32	<0.13	<0.3	<0.44	<0.21	<0.15	<0.21	1.2
Heptachlor Epoxide	<0.32	<0.13	<0.3	<0.44	<0.21	<0.15	<0.21	<0.16
Total Chlordane (4 compounds)	208	3.5	0.13	<0.44	34.6	65.7	43.1	68.8
2,4'-DDT	<0.53	<0.21	<0.5	<0.74	<0.35	<0.24	<0.35	<0.27
4,4'-DDT	<0.75	<0.3	<0.69	<1	<0.49	<0.34	2.4	<0.38
2,4'-DDE	<0.53	3.2	<0.5	<0.74	<0.35	28	<0.35	<0.27
4,4'-DDE	670	39	0.18	0.16	44	88	34	66
2,4'-DDD	280	1	<0.3	<0.44	4.4	<0.15	4.6	39
4,4'-DDD	480	7.4	0.05	<1	16	<0.34	29	130
Total DDT (6 compounds)	1430	50.6	0.23	0.16	64.4	116	70	235
Dieldrin	370	21	0.09	<0.44	44	81	58	120
Endrin	<0.32	<0.13	<0.3	<0.44	<0.21	<0.15	<0.21	<0.16
Lindane			<0.26	<0.38				
Mirex			<0.13	<0.19				
PCBs and Aroclors (ng·g^{-1} dry weight) (ppb)			<0.21	<0.31				
8 - 2,4'-Dichlorobiphenyl (Cl2)	5.5	<0.09	<0.21	<0.31	<0.15	1.4	2.2	1.5
18 - 2,2',5-Trichlorobiphenyl (Cl3)	7.2	0.52	0.04	<0.65	1.3	2.1	2.2	2.4
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	9.2	1.4	<0.3	0.28	4.4	3.2	4.9	3.7
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	67	3.9	0.38	0.56	5.9	12	6.7	13
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	77	8.9	0.15	0.13	12	24	15	21
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	230	15	0.39	<0.24	24	39	22	24
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.26	<0.1	0.22	0.1	<0.17	<0.12	<0.17	<0.13
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	130	22	0.24	0.13	43	56	38	37
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	140	7.8	0.07	0.05	18	26	14	15
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	80	19	0.23	0.16	40	57	34	8.2
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.39	<0.16	<0.37	<0.55	<0.26	<0.18	<0.26	<0.2
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	89	7.4	0.03	<0.24	15	19	12	11
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	280	56	0.34	0.18	110	140	100	89
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	350	37	0.47	0.32	69	84	66	40
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	280	26	0.06	0.05	46	69	44	22
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	390	41	0.2	0.14	61	98	60	30
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	160	19	0.1	0.09	36	41	35	17
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	36	3.6	0.02	0.02	9.7	9.1	5.1	3.3
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7	18	2.1	<0.11	<0.16	5.8	5	4.3	1.8
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (C	7.6	0.77	<0.13	<0.19	2.5	2.7	2.8	1.6
Total PCB (18 compounds)	2356.5	271.39	2.72	2.11	503.6	688.5	468.2	341.5
Total PCB (20 compounds)	2356.5	271.39	2.94	2.21	503.6	688.5	468.2	341.5
Total Aroclor 1016	<21	<8.5			<14	<9.8	<100	<100
Total Aroclor 1221	<21	<8.5			<14	<9.8	<100	<100
Total Aroclor 1232	<21	<8.5			<14	<9.8	<100	<100
Total Aroclor 1242	<21	<8.5			<14	<9.8	<100	<100
Total Aroclor 1248	<21	<8.5			<14	<9.8	<100	<100
Total Aroclor 1254	14000	290			510	790	570	920
Total Aroclor 1260	10000	270			480	630	470	230

Appendix A2
SUBSURFACE SEDIMENT DATA - DECEMBER 1998

Station	4C	4C	4C	4C	5N	5N	5N
	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft	2-3 ft
Sampling Date	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec
TOTAL ORGANIC CARBON (%)	1.8	1.7			2.2	2.0	
GRAIN SIZE (%)							
Gravel	1	3.4			0.9	3.6	
Sand	16	59.6			32.9	8.3	
Silt	46.9	29.8			37	45	
Clay	36.1	7.2			29.2	43.1	
METALS ($\mu g \cdot g^{-1}$ dry weight) (ppm)							
Aluminum	33878	9499	25293	21097	29874	33376	28741
Arsenic	10.4	8.1	10.09	11.04	8.8	11.7	11.87
Cadmium	0.84	1.75	1.69	0.48	1.83	2.28	0.53
Chromium	125	106	116.9	64.3	165	152	78.6
Copper	87	90	57.4	22.2	108	60	26.1
Iron	37880	20496	29551	33233	30682	34693	38488
Lead	119	225	169.3	8.8	244	167	9.1
Mercury	0.41	0.65	0.63	0.066	0.95	0.57	0.071
Nickel	85	50	60.5	50.1	74	70	61.5
Selenium	0.4	0.31	0.24	0.25	0.29	0.55	0.34
Silver	<0.5	2	0.55	<0.44	0.7	<0.3	<0.45
Zinc	221	313	230.4	62.7	316	233	72.2
PAHs ($ng \cdot g^{-1}$ dry weight) (ppb)							
Naphthalene	49	140	370	5.8	150	160	3.5
C1-Naphthalenes	47	220	410	6.6	230	150	6.9
C2-Naphthalenes	78	310	1300	19	250	190	15
C3-Naphthalenes	50	230	1500	18	230	200	19
C4-Naphthalenes	48	160	860	17	160	260	17
Acenaphthylene	48	57	60	1.2	67	120	<0.81
Acenaphthene	14	38	620	4	22	46	1.9
Dibenzofuran	9.3	21			17	18	
Fluorene	20	50	430	4.4	37	59	3
C1-Fluorenes	24	54	570	6.6	56	97	6
C2-Fluorenes	27	64	570	12	75	150	14
C3-Fluorenes	55	160	540	<0.93	140	270	16
Anthracene	87	160	1000	6.9	150	220	2.4
Phenanthrene	180	240	2400	18	200	230	10
C1-Phenanthrenes/anthracenes	140	240	2300	26	240	340	15
C2-Phenanthrenes/anthracenes	110	270	1500	24	260	490	15
C3-Phenanthrenes/anthracenes	110	290	1100	15	270	520	10
C4-Phenanthrenes/anthracenes	150	350	610	10	300	570	8.1
Dibenzothiophene	16	28	250	2	24	36	1.3
C1-Dibenzothiophenes	20	46	390	4.3	45	63	3.3
C2-Dibenzothiophenes	38	130	520	9	110	200	6.3
C3-Dibenzothiophenes	48	170	420	6.8	130	250	<0.57
Fluoranthene	390	400	1900	25	370	640	8.5
Pyrene	540	950	3200	43	820	1200	13

Appendix A2
SUBSURFACE SEDIMENT DATA - DECEMBER 1998

Station	4C	4C	4C	4C	5N	5N	5N
	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft	2-3 ft
Sampling Date	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec
PAHs (ng·g^{-1} dry weight) (ppb)							
C1-Fluoranthenes/pyrenes	300	580	1800	24	530	910	12
C2-Fluoranthenes/pyrenes	200	490	750	15	430	510	9.3
C3-Fluoranthenes/pyrenes	150	360	410	10	410	340	7.7
Benzo(a)anthracene	240	350	800	13	260	610	<0.97
Chrysene	270	400	830	14	280	620	6.4
C1-Chrysenes	150	360	480	8.6	250	500	4.5
C2-Chrysenes	140	380	270	6.2	310	300	3.9
C3-Chrysenes	140	350	190	<0.72	320	210	<0.8
C4-Chrysenes	120	310	150	<0.72	270	160	<0.8
Benzo(b)fluoranthene	480	820	1000	22	560	1200	7.2
Benzo(k)fluoranthene	170	240	350	7	170	400	2.2
Benzo(e)pyrene	300	540	700	14	420	780	6
Benzo(a)pyrene	410	620	1100	17	520	1100	5
Perylene	140	180	300	24	160	300	23
Indeno(1,2,3-c,d)pyrene	300	380	660	11	320	630	3.2
Dibenz(a,h)anthracene	42	66	100	1.6	51	90	0.8
Benzo(g,h,i)perylene	300	350	730	14	350	560	5.2
Total PAH (13 compounds)	2242	3414	12750	152.7	2860	4975	54.5
Total PAH (41 compounds)	6150.3	11554	33440	486	9964	15699	291.6
LABs (ng·g^{-1} dry weight) (ppb)							
C10B-Phenyl decanes	33	68			120	73	
C11B-Phenyl undecanes	36	<3.4			120	<1	
C12B-Phenyl dodecanes	<1	<3.4			<3.9	<1	
C13B-Phenyl tridecanes	47	48			180	80	
C14B-Phenyl tetradecanes	36	<3.4			200	<1	

Appendix A2
SUBSURFACE SEDIMENT DATA - DECEMBER 1998

Station	4C	4C	4C	4C	5N	5N	5N
	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft	2-3 ft
Sampling Date	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec
TPHs (µg g-1 dry weight) (ppm)							
n-Nonane	<0.3	<1.9			<2.2	<0.6	
n-Decane	0.02	0.2			0.13	0.16	
n-Undecane	<0.04	<0.22			<0.26	0.15	
n-Dodecane	<0.04	<0.22			<0.26	<0.07	
n-Tridecane	<0.05	<0.3			<0.35	<0.09	
Isoprenoid RRT 1380	<0.06	<0.36			<0.42	0.32	
n-Tetradecane	<0.07	<0.47			<0.55	<0.14	
Isoprenoid RRT 1470	0.03	0.1			<0.1	0.34	
n-Pentadecane	<0.0	<0.2			<0.2	<0.1	
n-Hexadecane	0.0	<0.1			<0.1	<0.0	
Isoprenoid RRT 1650	<0.0	<0.2			<0.3	0.4	
n-Heptadecane	0.5	0.9			0.9	0.2	
Pristane	<0.1	<0.3			<0.3	0.9	
n-Octadecane	<0.0	<0.3			<0.3	<0.1	
Phytane	0.1	0.2			0.3	0.7	
n-Nonadecane	<0.0	<0.1			<0.2	<0.0	
n-Eicosane	<0.0	<0.1			0.2	<0.0	
n-Heneicosane	1.0	0.9			1.2	1.0	
n-Docosane	<0.0	<0.1			<0.1	<0.0	
n-Tricosane	<0.0	<0.1			<0.1	0.3	
n-Tetracosane	<0.0	<0.1			<0.1	<0.0	
n-Pentacosane	<0.0	<0.2			<0.3	<0.1	
n-Hexacosane	<0.0	<0.1			<0.1	<0.0	
n-Heptacosane	0.2	<0.1			<0.1	<0.0	
n-Octacosane	0.6	0.7			0.8	1.3	
n-Nonacosane	0.8	1.0			<1.0	1.0	
n-Triacontane	<0.1	<0.3			<0.4	<0.1	
n-Hentriacontane	1.1	2.1			2.3	2.1	
n-Dotriacontane	<0.0	0.7			0.7	<0.0	
n-Tritriacontane	0.3	<0.2			<0.2	0.3	
n-Tetratriacontane	<0.0	<0.1			<0.2	<0.0	
n-Pentatriacontane	<0.0	<0.1			<0.1	<0.0	
n-Hexatriacontane	0.2	0.6			<0.2	<0.1	
n-Heptatriacontane	0.1	0.3			<0.2	<0.1	
n-Octatriacontane	<0.0	0.3			<0.2	<0.0	
n-Nonatriacontane	<0.0	<0.1			<0.2	<0.0	
n-Tetracontane	<0.0	<0.1			<0.2	<0.0	
Total Resolved Hydrocarbons	49.0	100.0			99.0	110.0	
Total Petroleum Hydrocarbons	540.0	1500.0			1400.0	1200.0	
TPH >C8-C10	1.4	3.1			<2.4	2.6	
TPH >C10-C12	1.1	7.5			4.1	13.0	
TPH >C12-C16	8.0	34.0			29.0	45.0	
TPH >C16-C21	49.0	140.0			150.0	190.0	
TPH >C21-C25	91.0	240.0			250.0	240.0	
TPH >C25-C30	160.0	420.0			410.0	330.0	
TPH >C30-C35	130.0	360.0			320.0	240.0	
TPH >C35 +	100.0	320.0			280.0	180.0	

Appendix A2
SUBSURFACE SEDIMENT DATA - DECEMBER 1998

Station	4C	4C	4C	4C	5N	5N	5N
	0-1 ft	1-2 ft	2-3 ft	3-4 ft	0-1 ft	1-2 ft	2-3 ft
Sampling Date	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec	22-Dec
PESTICIDES (ng·g^{-1} dry weight) (ppb)							
Aldrin	<0.2	1.8	<1	<0.33	<0.19	0.54	<0.37
alpha-Chlordane	5.4	7.1	3.2	<0.31	14	5.4	<0.35
gamma-Chlordane	10	15	7.2	0.23	27	15	0.07
cis-Nonachlor	2	2.2	<0.88	<0.29	4.4	3.4	0.12
trans-Nonachlor	4.6	10	<0.69	<0.23	10	6.8	<0.25
Heptachlor	<0.19	<0.15	<0.94	<0.31	<0.18	<0.19	<0.35
Heptachlor Epoxide	<0.19	<0.15	<0.94	<0.31	<0.18	<0.19	<0.35
Total Chlordane (4 compounds)	22	34.3	10.4	0.23	55.4	30.6	0.19
2,4'-DDT	<0.32	<0.25	<1.6	<0.52	<0.29	<0.31	<0.58
4,4'-DDT	1.1	24	68	<0.72	3.6	36	<0.81
2,4'-DDE	<0.32	<0.25	<1.6	<0.52	<0.29	<0.31	<0.58
4,4'-DDE	21	30	250	2.2	40	80	0.91
2,4'-DDD	3	<0.15	<0.94	<0.31	9.5	9.1	<0.35
4,4'-DDD	17	28	38	<0.72	230	51	0.32
Total DDT (6 compounds)	42.1	82	356	2.2	283.1	176.1	1.23
Dieldrin	26	60	20	<0.31	98	110	0.36
Endrin	<0.19	<0.15	<0.94	<0.31	<0.18	<0.19	<0.35
Lindane			<0.82	<0.27			<0.3
Mirex			<0.41	<0.13			<0.15
PCBs and Aroclors (ng·g^{-1} dry weight) (ppb)			<0.66	<0.22			<0.24
8 - 2,4'-Dichlorobiphenyl (Cl2)	1.4	1.5	<0.66	<0.22	1.6	1.7	<0.24
18 - 2,2',5-Trichlorobiphenyl (Cl3)	1.9	2.7	3.3	0.06	3.2	4.1	0.04
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	3.8	4.4	4.1	0.29	5.9	6.3	0.43
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	5.1	7.4	18	0.77	7.7	14	1
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	11	18	48	0.94	18	27	0.95
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	18	27	71	2.1	29	46	1.6
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<0.15	<0.12	79	1.4	<0.14	<0.15	0.66
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	28	38	94	2.6	48	64	2.1
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	11	17	18	0.29	17	27	0.45
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	25	32	62	1.4	35	64	1.7
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<0.24	<0.19	<1.2	<0.38	<0.22	<0.23	<0.43
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	9	11	21	<0.16	13	19	0.36
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	71	97	130	3.2	150	180	2.4
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	51	78	240	5.2	100	120	3.2
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	35	42	62	1.1	84	85	0.61
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	48	61	110	2.2	120	120	1.1
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	28	37	70	1.5	59	56	0.77
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	5.3	7	12	0.2	13	13	0.11
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7)	3.9	3.6	6.2	0.1	8.3	7	0.07
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (Cl10)	1.7	0.78	4.7	0.09	42	2.7	0.06
Total PCB (18 compounds)	358.1	485.38	974.3	22.04	754.7	856.8	16.95
Total PCB (20 compounds)	358.1	485.38	1053.3	23.44	754.7	856.8	17.61
Total Aroclor 1016	<100	<100			<100	<100	
Total Aroclor 1221	<100	<100			<100	<100	
Total Aroclor 1232	<100	<100			<100	<100	
Total Aroclor 1242	<100	<100			<100	<100	
Total Aroclor 1248	<100	<100			<100	<100	
Total Aroclor 1254	350	480			580	890	
Total Aroclor 1260	350	430			880	820	

Appendix A3
CLAM TISSUE BIOACCUMULATION DATA, APRIL 2000

	Yosemite Creek Stations							
Station	1N	1S	2N	2S	3N	3S	4C	5N
Sampling Date	21-Apr	21-Apr	21-Apr	21-Apr	21-Apr	21-Apr	21-Apr	21-Apr
METALS (µg·g^{-1} dry weight) (ppm)								
Mercury	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
PESTICIDES (ng·g^{-1} dry weight) (ppb)								
Aldrin	<0.6	<0.6	<0.7	<0.7	<0.6	<0.7	<0.7	<0.9
alpha-Chlordane	24.0	10.0	8.9	16.0	11.0	11.0	7.7	6.4
gamma-Chlordane	44.0	14.0	14.0	26.0	19.0	15.0	11.0	14.0
cis-Nonachlor	8.8	2.7	3.8	6.2	3.2	2.7	2.8	4.4
trans-Nonachlor	15.0	4.8	6.0	9.5	6.0	4.8	3.4	4.1
Heptachlor	<0.8	<0.7	<0.9	<0.9	<0.8	<0.9	<0.9	<1.2
Heptachlor Epoxide	<0.7	<0.6	<0.8	<0.8	<0.7	<0.8	<0.8	<1.0
Total Chlordane (4 compounds)	91.8	31.5	32.7	57.7	39.2	33.5	24.9	28.9
2,4'-DDT	<1.1	<1.0	<1.3	<1.2	<1.1	<1.2	<1.2	<1.7
4,4'-DDT	<1.3	<1.1	<1.4	<1.4	<1.2	<1.4	<1.4	<1.9
2,4'-DDE	<1.0	<0.9	<1.2	<1.1	<1.0	<1.1	<1.1	<1.5
4,4'-DDE	130.0	46.0	55.0	90.0	48.0	40.0	27.0	38.0
2,4'-DDD	9.6	7.0	6.3	11.0	10.0	5.9	4.5	10.0
4,4'-DDD	32.0	14.0	16.0	28.0	22.0	15.0	12.0	19.0
Total DDT (6 compounds)	171.6	67.0	77.3	129.0	80.0	60.9	43.5	67.0
Dieldrin	30.0	16.0	15.0	31.0	26.0	14.0	12.0	20.0
Endrin	<0.7	<0.6	<0.8	<0.8	<0.7	<0.8	<0.8	<1.0
alpha-hexachlorocyclohexan	<0.6	<0.6	<0.7	<0.7	<0.6	<0.7	<0.7	<0.9
beta-hexachlorocyclohexan	<0.6	<0.6	<0.7	<0.7	<0.6	<0.7	<0.7	<0.9
delta-hexachlorocyclohexan	<0.6	<0.6	<0.7	<0.7	<0.6	<0.7	<0.7	<0.9
Lindane	<0.7	<0.6	<0.8	<0.8	<0.7	<0.8	<0.8	<1.0
Mirex	<0.4	<0.4	<0.5	<0.5	<0.4	<0.4	<0.4	<0.6
PCBs (ng·g^{-1} dry weight) (ppb)								
8 - 2,4'-Dichlorobiphenyl (Cl2)	<1.8	<1.6	<2.1	<2.0	<1.8	<1.9	<2.0	<2.7
18 - 2,2',5-Trichlorobiphenyl (Cl3)	<1.9	1.7	2.8	4.5	1.9	2.2	<2.1	3.6
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	19.0	5.2	4.8	7.9	5.2	5.2	4.7	23.0
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	14.0	2.8	3.3	8.1	5.4	2.9	3.6	<2.1
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	42.0	16.0	18.0	37.0	25.0	19.0	15.0	32.0
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	18.0	6.2	9.8	14.0	11.0	9.9	7.6	9.7
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<2.3	<2.0	<2.6	<2.5	<2.2	<2.4	<2.5	<3.4
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	180.0	72.0	85.0	120.0	75.0	71.0	55.0	89.0
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	36.0	37.0	44.0	34.0	34.0	34.0	27.0	8.2
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	140.0	50.0	72.0	95.0	49.0	44.0	33.0	49.0
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<1.9	<1.7	<2.2	<2.1	<1.8	<2.0	<2.1	<2.8
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	26.0	13.0	17.0	21.0	12.0	12.0	10.0	11.0
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	170.0	95.0	110.0	140.0	81.0	88.0	72.0	90.0
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	250.0	98.0	120.0	140.0	92.0	98.0	84.0	170.0
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	37.0	21.0	23.0	30.0	15.0	19.0	16.0	22.0
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	47.0	28.0	30.0	43.0	23.0	27.0	26.0	32.0
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	43.0	28.0	31.0	41.0	28.0	26.0	23.0	33.0
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	5.9	3.5	4.0	8.9	2.5	3.0	3.3	3.8
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7	3.0	1.4	2.4	12.0	1.5	1.3	1.2	2.8
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (C	<2.1	<1.8	<2.3	4.6	<2.0	<2.2	<2.2	<3.1
Total PCB (18 compounds)	1030.9	478.8	577.1	761.0	461.5	462.5	381.4	579.1
Total PCB (20 compounds)	1030.9	478.8	577.1	761.0	461.5	462.5	381.4	579.1

Appendix A3
CLAM TISSUE BIOACCUMULATION DATA, APRIL 2000

	Reference Stations				
Station	Island #1	North Site	Paradise	South Site	Tubbs Isl.
Sampling Date	20-Apr	20-Apr	20-Apr	20-Apr	21-Apr
METALS (µg·g^{-1} dry weight) (ppm)					
Mercury	0.2	0.2	0.2	0.2	0.2
PESTICIDES (ng·g^{-1} dry weight) (ppb)					
Aldrin	<0.7	<0.7	<0.7	<0.5	<0.7
alpha-Chlordane	<0.9	1.2	<0.9	<0.7	<0.9
gamma-Chlordane	<0.8	<0.8	<0.8	<0.6	<0.8
cis-Nonachlor	<0.9	1.0	1.1	0.7	<0.9
trans-Nonachlor	<0.7	0.8	0.7	<0.5	<0.7
Heptachlor	<0.9	<0.9	<0.9	<0.7	<0.9
Heptachlor Epoxide	<0.8	<0.8	<0.8	<0.6	<0.8
Total Chlordane (4 compounds)	0.9	3.0	1.8	0.7	0.9
2,4'-DDT	<1.2	<1.2	<1.2	<1.0	<1.3
4,4'-DDT	<1.4	<1.4	<1.4	<1.1	<1.4
2,4'-DDE	<1.1	<1.1	<1.1	<0.9	<1.2
4,4'-DDE	7.6	8.5	8.2	<0.9	6.9
2,4'-DDD	<1.0	<1.0	1.2	<0.8	<1.0
4,4'-DDD	4.6	4.0	4.7	2.2	3.6
Total DDT (6 compounds)	12.2	12.5	14.1	2.2	10.5
Dieldrin	1.0	2.4	1.3	0.8	1.2
Endrin	<0.8	<0.8	<0.8	<0.6	<0.8
alpha-hexachlorocyclohexan	<0.7	<0.7	<0.7	<0.5	<0.7
beta-hexachlorocyclohexan	<0.7	<0.7	<0.7	<0.5	<0.7
delta-hexachlorocyclohexan	<0.7	<0.7	<0.7	<0.5	<0.7
Lindane	<0.8	<0.8	<0.8	<0.6	<0.8
Mirex	<0.5	<0.5	<0.5	<0.4	<0.5
PCBs (ng·g^{-1} dry weight) (ppb)					
8 - 2,4'-Dichlorobiphenyl (Cl2)	<2.0	<2.0	<2.0	<1.6	<2.1
18 - 2,2',5-Trichlorobiphenyl (Cl3)	<2.1	<2.1	<2.1	1.7	<2.2
28 - 2,4,4'-Trichlorobiphenyl (Cl3)	12.0	1.6	1.4	4.1	<1.1
44 - 2,2',3,5'-Tetrachlorobiphenyl (Cl4)	<1.5	<1.6	<1.6	<1.2	<1.6
52 - 2,2',5,5'-Tetrachlorobiphenyl (Cl4)	<1.5	<1.5	<1.5	1.2	<1.6
66 - 2,3',4,4'-Tetrachlorobiphenyl (Cl4)	1.4	1.9	<1.2	1.7	1.2
77 - 3,3',4,4'-Tetrachlorobiphenyl (Cl4)	<2.5	<2.5	<2.5	<1.9	<2.6
101 - 2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	1.3	2.1	2.5	2.0	<0.9
105 - 2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	<0.8	1.5	1.2	<0.6	<0.8
118 - 2,3',4,4',5-Pentachlorobiphenyl (Cl5)	1.7	2.6	1.8	1.8	<1.3
126 - 3,3',4,4',5-Pentachlorobiphenyl (Cl5)	<2.1	<2.1	<2.1	<1.6	<2.2
128 - 2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	<1.6	<1.6	<1.6	<1.2	<1.6
138 - 2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	2.6	5.3	4.2	4.0	2.3
153 - 2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	5.0	7.8	6.5	7.0	5.4
170 - 2,2',3,3',4,4',5-Heptachlorobiphenyl (Cl7)	<1.1	<1.1	<1.1	<0.9	<1.2
180 - 2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	0.9	1.9	2.6	1.8	<0.9
187 - 2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	<1.3	3.2	3.2	1.9	<1.3
195 - 2,2',3,3',4,4',5,6-Octachlorobiphenyl (Cl8)	<1.2	2.3	<1.3	<1.0	<1.3
206 - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl7)	<0.7	4.5	10.0	<0.5	1.6
209 - 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (Cl10)	<2.3	<2.3	3.3	<1.8	<2.4
Total PCB (18 compounds)	24.9	34.7	36.7	27.2	10.5
Total PCB (20 compounds)	24.9	34.7	36.7	27.2	10.5