APPENDIX B

Great Salt Lake Open Waters and South Shore Deltas, 1997-2000

Table B-1. Concentrations of Trace Elements (parts per million, dry weight) in Sediments, Gilbert Bay (Great Salt Lake Open Waters) 1996-1999. ***(Page 1 of 2)***

Sample ID	Weight (grams)	Collection Date	%M	Al	As	B	Ba	Be	Cd	Cr	Cu
Gilbert Bay- USGS Sites, 1996											
GSLS1	272	9/23/1996	34.3	4228	11.9	128.	393	0.363	< 0.2	6.36	37.8
GSLS2	362	9/23/1996	43.1	8962	20.4	95.8	223	1.01	< 0.2	17.1	123.
GSLS4	357	9/23/1996	40.6	6023	13.	127.	327	0.458	< 0.2	7.42	16.2
2433S1	594	10/23/1996	46.2	978	26.7	208.	154	< 0.2	< 0.2	1.85	6.39
2565S1	674	10/23/1996	47.1	5558	6.	130.	303	0.356	< 0.2	7.14	41.5
2820S1	648	10/23/1996	44.3	3563	14.9	146.	571	< 0.2	< 0.2	5.19	20.3
2935S1	588	10/23/1996	58.0	5576	9.07	145.	268	0.329	< 0.2	8.38	51.2
2583S1	456	10/24/1996	34.9	6057	29.6	155.	459	0.377	< 0.2	8.12	26.9
2267S1	589	10/28/1996	50.5	7529	26.	125.	269	0.585	< 0.2	10.2	29.8
3510S1	588	2/10/1997	63.4	8646	18.9	124.	219	0.711	0.27	12.3	233.
Gilbert Bay; 1999											
99SASE01	317	9/23/1999	56.6	5982	28.3	129.	229	0.49	0.884	7.98	140.
99SASE02	310	9/28/1999	55.9	7015	21.6	116.	244	0.55	0.689	8.78	146.
99SASE03	286	10/1/1999	63.4	9921	25.6	106.	175	0.89	0.51	24.	620.
99SASE04	318	9/23/1999	45.0	4743	17.8	101.	256	0.37	0.23	4.72	20.
99SASE05	324	9/23/1999	56.1	7490	19.	111.	210	0.6	0.91	8.93	169.
99SASE06	304	9/28/1999	57.6	7528	21.4	115.	183	0.59	1.71	10.1	240.
99SASE07	305	10/1/1999	52.0	8502	20.2	112.	211	0.74	0.544	12.4	242.
99SASE08	445	10/1/1999	20.4	1413	14.9	82.3	302	< 0.2	< 0.2	2.67	15.4
99SASE09	335	9/23/1999	47.6	6643	19.	112.	266	0.57	0.353	7.42	53.1
99SASE10	334	9/28/1999	54.3	8102	15.6	111.	234	0.66	0.556	8.85	112.
99SASE11	336	10/4/1999	54.1	9236	16.5	117.	224	0.74	0.446	9.84	130.
99SASE12	316	10/4/1999	55.4	7640	19.7	110.	195	0.62	0.476	10.9	216.
99SASE13	343	9/29/1999	37.8	4645	16.9	101.	263	0.35	< 0.2	4.87	22.9
99SASE14	338	9/29/1999	53.2	9385	15.9	117.	238	0.76	0.505	10.3	137.
99SASE15	302	9/28/1999	56.0	8831	18.7	108.	181	0.67	0.34	12.	235.
99SASE16	363	9/29/1999	41.6	5453	21.4	111.	523	0.42	< 0.2	5.95	19.8
99SASE17	332	9/29/1999	54.3	9825	17.9	123.	245	0.77	0.236	10.6	75.
99SASE18	307	9/30/1999	59.5	10445	23.6	134.	205	0.78	0.32	12.5	140.
99SASE19	331	9/30/1999	55.2	11330	26.5	139.	220	0.81	0.583	15.5	231.
99SASE20	349	9/30/1999	44.3	4318	29.	138.	781	0.36	< 0.2	5.3	23.9
99SASE21	310	10/4/1999	57.2	9108	21.5	120.	188	0.74	0.331	15.8	267.
99SASE22	336	10/4/1999	55.7	9651	19.9	127.	237	0.75	0.26	11.5	151.
99SASE23	324	10/5/1999	55.7	5955	26.8	94.1	189	0.54	< 0.2	11.	91.
99SASE24	376	10/5/1999	38.8	13643	45.6	41.6	187	1.47	< 0.2	58.9	1083.
99SASE25	311	10/5/1999	57.0	8083	23.2	113.	192	0.73	0.343	17.4	316.
99SASE26	337	10/5/1999	53.7	6379	28.5	116.	280	0.53	0.321	8.58	132.
99SASE27	290	10/12/1999	57.9	8587	20.5	130.	234	0.69	0.267	11.	95.2
99SASE28	305	10/12/1999	56.2	11233	18.7	131.	227	0.85	0.251	12.4	207.

Sample ID	Fe	Hg	Mg	Mn	Mo	Ni	Pb	Se	Sr	V	Zn
Gilbert Bay- USGS Sites, 1996											
GSLS1	3703	< 0.2	25971	134.	8.97	5.75	41.6	1.64	3108	16.	47.1
GSLS2	10955	< 0.2	27729	359.	< 5.	12.	83.9	2.02	1020	22.	145.
GSLS4	5546	< 0.2	31248	179.	11.5	6.61	19.5	2.52	2372	17.2	44.2
2433S1	809	< 0.2	20364	42.3	< 5.	< 5.	21.4	1.95	3183	9.51	19.8
2565S1	5082	< 0.2	27790	136.	< 5.	9.85	53.7	1.72	2413	16.4	51.5
2820S1	3446	< 0.2	31955	122.	9.76	5.21	29.8	1.49	2998	16.3	42.9
2935S1	4909	< 0.2	33343	164.	7.05	8.5	45.5	1.5	1688	18.3	49.6
2583S1	5558	0.373	32520	332.	15.2	7.78	42.3	1.56	2768	19.2	74.4
2267S1	7144	< 0.2	30465	334.	10.3	8.99	46.8	1.48	2127	18.1	69.1
3510S1	8078	0.372	25131	179.	13.7	11.1	129.	1.19	1228	20.4	132.
Gilbert Bay; 1999											
99SASE01	6177	0.243	28204	171.	13.6	9.38	70.1	2.22	1648	17.2	83.4
99SASE02	7182	0.226	29678	187.	13.3	9.61	62.9	2.08	1618	14.3	72.9
99SASE03	12469	0.249	27836	310.	32.5	18.	76.7	2.2	460	27.5	130.
99SASE04	4613	< 0.2	25846	136.	9.54	7.01	27.8	2.49	2506	12.6	36.3
99SASE05	7723	0.36	25672	166.	10.6	10.6	110.	2.1	1312	16.2	92.8
99SASE06	7939	0.374	25997	168.	18.4	10.1	109.	2.53	1077	14.9	98.2
99SASE07	9462	0.266	29610	230.	14.2	11.	54.	2.58	1036	19.4	75.5
99SASE08	2305	< 0.2	16575	123.	< 5.	< 5.	14.3	2.2	2855	6.67	18.6
99SASE09	6526	< 0.2	27646	175.	7.56	8.1	33.9	3.34	1862	15.3	54.7
99SASE10	8915	0.306	30618	200.	7.82	11.	88.9	1.85	1192	16.	86.5
99SASE11	9429	0.285	31382	209.	7.01	11.	77.6	2.11	1095	15.1	76.
99SASE12	8937	0.32	27930	216.	15.6	10.9	86.4	1.97	1135	17.5	96.9
99SASE13	4615	< 0.2	24104	140.	5.51	6.35	37.	3.08	2548	11.9	36.
99SASE14	9324	0.407	27712	207.	6.23	12.1	115.	2.45	1271	18.4	101.
99SASE15	8742	0.376	22654	186.	8.67	11.6	142.	1.14	839	19.8	119.
99SASE16	4936	< 0.2	27858	146.	14.	9.39	20.	2.29	2411	18.3	42.5
99SASE17	9458	0.356	31769	215.	6.55	12.7	96.9	1.76	1210	18.5	97.
99SASE18	9692	0.252	32144	276.	11.1	13.3	62.9	1.66	987	19.7	101.
99SASE19	10463	0.414	29595	226.	22.1	14.1	145.	1.75	1006	22.4	152.
99SASE20	4392	0.294	34850	412.	5.46	6.69	28.4	2.4	2417	13.9	43.8
99SASE21	9134	0.323	29371	227.	20.8	12.5	91.8	1.66	810	21.6	105.
99SASE22	8575	0.318	30841	213.	7.87	13.4	95.9	1.69	1107	19.3	92.4
99SASE23	6640	< 0.2	25957	258.	10.6	10.7	43.7	1.56	1310	13.3	76.7
99SASE24	17826	< 0.2	20385	137.	54.1	31.6	73.9	1.97	932	51.3	101.
99SASE25	9155	0.22	27153	232.	24.6	13.5	83.5	1.83	973	21.1	105.
99SASE26	5443	< 0.2	27321	151.	22.9	9.48	62.1	2.27	2211	18.2	68.8
99SASE27	8217	0.297	28064	195.	13.5	11.8	80.2	1.69	1272	20.4	87.6
99SASE28	10867	0.385	29462	240.	9.47	14.7	123.	1.41	1032	20.5	154.

Table B-2. Concentrations of Trace Elements (parts per million, dry weight) in Sediments, Great Salt Lake South Shore Deltas, 2000. ***(page 1 of 2)***

Sample ID	Weight (grams)	Collection Date	%M	Al	As	B	Ba	Be	Cd	Cr	Cu
C7 Ditch Delta; 2000											
00C7SE01	358	4/25/2000	46.5	18427	33.7	64.8	176	1.19	0.252	78.4	1308.
00C7SE02	469	4/25/2000	20.5	1097	7.44	74.	179	< 0.2	< 0.2	2.36	22.
00C7SE03	466	5/4/2000	18.4	1376	10.7	69.2	216	< 0.2	< 0.2	6.1	47.8
00C7SE04	464	5/4/2000	17.7	1074	7.4	71.2	199	< 0.2	< 0.2	2.55	16.8
00C7SE05	481	4/25/2000	19.4	1491	8.15	71.	215	< 0.2	< 0.2	3.82	58.3
00C7SE06	472	4/25/2000	20.8	955	10.5	64.7	186	< 0.2	< 0.2	2.42	152.
00C7SE07	469	5/4/2000	17.2	1377	10.5	81.7	203	< 0.2	< 0.2	3.02	30.2
00C7SE08	495	4/25/2000	17.1	942	12.	63.7	214	< 0.2	< 0.2	2.46	160.
00C7SE09	442	5/4/2000	22.3	4886	22.5	66.	201	0.41	0.203	12.6	278.
Goggin Drain Delta; 2000											
00GDSE01	376	5/3/2000	40.4	5662	14.5	58.1	144	0.43	< 0.2	8.93	51.3
00GDSE02	345	5/3/2000	46.3	9888	22.4	54.8	142	0.75	0.851	21.9	228.
00GDSE03	371	5/3/2000	41.6	10954	15.3	57.1	159	0.89	0.355	21.7	110.
00GDSE04	377	5/3/2000	42.6	7833	15.3	42.4	95.5	0.53	< 0.2	13.2	62.8
Lee's Creek Delta; 2000											
00LCSE01	489	5/4/2000	16.9	1128	9.12	75.4	180	< 0.2	< 0.2	2.37	15.6
00LCSE02	462	5/4/2000	20.7	1276	8.51	79.2	162	< 0.2	< 0.2	2.32	26.4
00LCSE03	437	5/3/2000	22.8	1454	8.35	74.6	157	< 0.2	< 0.2	2.67	31.9
00LCSE04	456	5/4/2000	19.6	1795	10.5	85.2	175	< 0.2	< 0.2	3.14	146.
00LCSE05	404	5/3/2000	34.8	3505	9.93	67.2	136	0.27	< 0.2	6.06	63.7

Table B-2. (continued) ***(page 2 of 2)***

Sample ID	Fe	Hg	Mg	Mn	Mo	Ni	Pb	Se	Sr	Sr	V	Zn
00C7SE01	19955	< 0.2	23430	216.	57.	33.6	54.4	2.01	240	449	51.2	112.
00C7SE02	1364	< 0.2	10220	45.4	< 5.	< 5.	10.8	1.09	2476	3115	9.56	18.9
00C7SE03	2066	< 0.2	11426	54.2	< 5.	< 5.	14.7	< 1	2424	2970	9.9	35.4
00C7SE04	1508	< 0.2	10877	48.5	< 5.	< 5.	15.2	1.52	2489	3024	8.52	27.1
00C7SE05	2063	< 0.2	12109	56.1	< 5.	5.09	9.3	< 1	2313	2870	10.3	22.7
00C7SE06	1547	< 0.2	10003	63.9	< 5.	5.03	22.1	< 1	2368	2991	8.03	75.4
00C7SE07	1884	< 0.2	13606	82.	< 5.	< 5.	14.8	< 1	2396	2894	9.78	40.9
00C7SE08	1493	< 0.2	8594	75.6	< 5.	5.85	24.8	< 1	2604	3141	8.79	67.
00C7SE09	4328	< 0.2	13564	117.	11.3	12.3	30.6	< 1	1837	2364	17.	124.
00GDSE01	7708	< 0.2	15601	205.	< 5.	6.88	53.6	< 1	773	1298	14.3	91.4
00GDSE02	14364	< 0.2	20753	286.	9.28	15.	170.	1.04	203	378	23.9	242.
00GDSE03	15178	< 0.2	20152	289.	< 5.	17.6	129.	< 1	368	630	25.1	179.
00GDSE04	10414	< 0.2	14210	224.	< 5.	10.2	71.	< 1	159	277	17.1	163.
00LCSE01	1339	< 0.2	11921	58.2	< 5.	< 5.	15.2	1.2	2531	3046	8.9	19.6
00LCSE02	1510	< 0.2	12445	59.	< 5.	< 5.	24.7	< 1	2407	3036	8.34	22.5
00LCSE03	1844	< 0.2	13300	82.9	< 5.	< 5.	26.6	< 1	2167	2807	8.81	24.1
00LCSE04	2298	< 0.2	16062	123.	< 5.	< 5.	28.9	< 1	2289	2847	10.	30.4
00LCSE05	3772	< 0.2	13435	141.	< 5.	5.85	22.	< 1	1441	2210	11.3	51.8

Table B-3. Concentrations of elements (parts per million, dry weight) in brine shrimp and brine shrimp cysts from Great Salt Lake, 1996-2000. (*Page 1 of 4*)

Sample ID	Weight (grams)	Collection Date	% M	Al	As	B	Ba	Be	Cd	Cr	Cu
Gilbert Bay- USGS Sites; 1996											
GSLBS1B	84.	09/23/96	87.1	473.	10.6	49.9	6.44	< 0.1	0.17	1.64	11.4
GSLBS2	105.	09/23/96	86.0	741.	8.64	56.5	7.65	0.108	0.13	2.81	13.4
GSLBS3A	62.	09/23/96	87.2	718.	8.19	66.7	7.28	0.106	0.13	2.44	11.2
GSLBS3B	76.	09/23/96	87.5	757.	8.69	54.7	7.61	< 0.1	0.13	3.13	13.2
GSLBS4A	86.	09/23/96	86.7	409.	11.5	58.2	5.91	< 0.1	0.14	1.23	10.9
2433BS1	101.	10/23/96	86.5	126.	13.	63.6	4.83	< 0.1	< 0.1	1.71	8.67
2565BS1	96.	10/23/96	88.9	107.	8.51	33.8	2.02	< 0.1	0.23	0.693	9.04
2820BS2	77.	10/23/96	90.3	195.	8.56	33.	3.28	< 0.1	0.18	1.2	10.1
2935BS3	113.	10/23/96	88.1	95.3	8.41	28.9	1.88	< 0.1	0.19	1.35	8.85
2583BS2	29.	10/24/96	91.3	228.	8.87	35.8	3.02	< 0.1	0.24	3.1	17.8
2200BS3	51.	10/28/96	91.2	236.	7.92	27.9	3.73	< 0.1	0.28	1.72	12.
2267BS1	54.	10/28/96	87.6	402.	9.47	54.8	4.84	< 0.1	0.2	1.56	10.2
Gilbert Bay- USGS Sites; 1996; Brine Shrimp Cysts											
2200BSE3	112.	10/28/96	66.7	42.5	10.6	30.6	< 1	< 0.1	< 0.1	0.58	7.11
2820BSE1	117.	10/23/96	67.3	45.9	10.4	19.3	< 1	< 0.1	< 0.1	0.716	5.18
2935BSE1	106.	10/23/96	77.8	17.8	8.63	56.3	< 1	< 0.1	< 0.1	< 0.5	2.94
BSE35102	78.	02/10/97	61.9	28.7	9.98	69.1	< 1	< 0.1	< 0.1	0.519	8.94
Gilbert Bay; 1999											
99SABS01	45.	09/23/99	91.3	47.	16.	35.4	1.19	< 0.1	0.226	< 0.5	7.85
99SABS04	47.	09/23/99	90.8	20.5	18.3	39.1	< 1	< 0.1	0.225	< 0.5	8.15
99SABS05	31.	09/23/99	91.2	15.7	16.4	40.5	< 1	< 0.1	0.207	< 0.5	6.71
99SABS09	49.	09/23/99	91.1	22.2	17.1	38.6	< 1	< 0.1	0.248	< 0.5	6.79
99SABS02	22.6	09/28/99	90.3	116.	16.3	69.5	2.46	< 0.1	0.216	< 0.5	9.18
99SABS06	14.3	09/28/99	90.6	122.	17.1	38.6	16.6	< 0.1	0.28	1.06	9.62
99SABS10	31.8	09/28/99	90.8	46.9	17.	39.8	1.29	< 0.1	0.27	1.04	8.64
99SABS15	62.	09/28/99	91.0	120.	18.2	39.6	1.74	< 0.1	0.276	< 0.5	10.3
99SABS13	20.4	09/29/99	90.9	145.	18.7	50.	4.3	< 0.1	0.278	1.36	9.38
99SABS14	20.5	09/29/99	91.3	28.8	16.8	49.2	1.6	< 0.1	0.266	1.09	8.02
99SABS16	34.3	09/29/99	91.2	38.5	16.3	37.7	1.13	< 0.1	0.275	< 0.5	8.09
99SABS17	58.2	09/29/99	91.2	49.1	18.5	41.4	1.22	< 0.1	0.315	0.53	9.58
99SABS18	29.2	09/30/99	91.4	72.8	13.7	42.4	1.5	< 0.1	0.31	< 0.5	7.12
99SABS19	25.	09/30/99	91.3	81.7	14.6	42.9	3.84	< 0.1	0.294	< 0.5	7.76
99SABS20	31.8	09/30/99	91.4	89.3	13.8	44.6	1.58	< 0.1	0.295	0.51	7.27
99SABS03	25.2	10/01/99	90.9	79.8	15.3	40.	1.58	< 0.1	0.237	< 0.5	9.12
99SABS07	19.7	10/01/99	90.4	199.	15.6	50.1	3.64	< 0.1	0.247	< 0.5	13.9
99SABS08	18.9	10/01/99	90.7	156.	15.2	49.4	2.2	< 0.1	0.259	1.45	9.47
99SABS11	63.	10/04/99	90.2	41.2	18.6	39.8	1.11	< 0.1	0.361	< 0.5	8.19
99SABS12	16.7	10/04/99	90.8	82.7	14.2	40.9	1.4	< 0.1	0.327	0.6	8.01
99SABS21	33.	10/04/99	90.5	35.1	15.7	38.4	1.07	< 0.1	0.341	< 0.5	8.12

Sample ID	Fe	Hg	Mg	Mn	Mo	Ni	Pb	Se	Sr	V	Zn
Gilbert Bay- USGS Sites; 1996											
GSLBS1B	455	0.419	12639	28.2	< 2.	1.36	1.2	2.47	34.8	< 0.5	63.1
GSLBS2	757	0.332	14253	52.7	< 2.	1.54	2.75	1.72	34.6	< 0.5	62.1
GSLBS3A	669	0.253	14978	29.	< 2.	1.33	2.22	1.25	32.1	< 0.5	78.3
GSLBS3B	684	0.298	13837	29.8	< 2.	0.52	1.99	1.63	31.2	< 0.5	62.8
GSLBS4A	443	0.486	14024	18.	< 2.	1.38	< 0.5	2.2	28.2	1.79	62.8
2433BS1	192	0.395	13779	10.2	< 2.	1.31	1.	2.54	58.7	< 0.5	62.6
2565BS1	248	0.478	5111	7.48	< 2.	< 0.5	1.02	2.96	14.	< 0.5	88.5
2820BS2	284	0.541	6301	30.4	< 2.	1.47	< 0.5	2.84	19.	0.979	106.
2935BS3	284	0.362	4559	8.9	< 2.	0.669	< 0.5	2.98	11.7	< 0.5	83.4
2583BS2	324	0.601	6609	24.3	< 2.	1.14	0.74	2.79	24.	< 0.5	98.3
2200BS3	337	0.576	5033	14.9	< 2.	1.25	2.51	3.81	18.8	1.27	93.5
2267BS1	363	< 0.2	12701	19.4	< 2.	0.916	1.41	3.11	26.3	< 0.5	67.
Gilbert Bay- USGS Sites; 1996; Brine Shrimp Cysts											
2200BSE3	495	< 0.2	2557	9.19	< 2.	< 0.5	1.5	2.15	2.51	< 0.5	76.
2820BSE1	381	< 0.2	2039	8.35	< 2.	0.743	< 0.5	1.91	1.92	< 0.5	64.8
2935BSE1	255	< 0.2	10892	5.73	< 2.	< 0.5	< 0.5	1.12	9.89	< 0.5	38.5
BSE35102	522	< 0.2	6541	5.99	< 2.	< 0.5	1.43	1.98	6.41	< 0.5	56.7
Gilbert Bay; 1999											
99SABS01	144	0.346	9887	11.8	< 2.	1.04	< 0.5	2.39	8.48	< 0.5	55.3
99SABS04	127	0.366	9983	16.3	< 2.	0.95	< 0.5	3.	8.67	< 0.5	50.7
99SABS05	121	0.351	10373	9.22	< 2.	0.92	< 0.5	2.55	9.16	< 0.5	50.1
99SABS09	123	0.305	9632	11.5	< 2.	< 0.5	< 0.5	2.9	9.19	< 0.5	47.9
99SABS02	184	0.293	12883	123.	< 2.	1.43	1.52	2.46	13.8	1.52	45.9
99SABS06	176	0.369	9672	17.4	< 2.	0.75	0.587	2.63	10.7	< 0.5	52.3
99SABS10	145	0.382	9970	14.4	< 2.	< 0.5	< 0.5	2.63	10.2	< 0.5	55.
99SABS15	196	0.363	10257	19.8	< 2.	< 0.5	0.501	3.	10.5	2.1	60.1
99SABS13	201	0.284	12140	60.	< 2.	< 0.5	0.966	2.73	13.3	< 0.5	48.5
99SABS14	124	0.335	12095	13.	< 2.	< 0.5	< 0.5	3.04	11.2	< 0.5	47.4
99SABS16	129	0.312	10498	15.3	< 2.	0.98	< 0.5	3.19	8.88	1.33	48.8
99SABS17	138	0.338	10311	15.5	< 2.	1.18	0.54	3.29	9.17	0.59	62.
99SABS18	147	0.292	11085	34.2	< 2.	0.65	0.597	2.78	11.1	< 0.5	49.7
99SABS19	166	0.36	10464	31.5	< 2.	< 0.5	0.653	2.84	12.	< 0.5	55.
99SABS20	155	0.289	10047	30.	< 2.	0.5	0.651	2.84	12.4	< 0.5	49.8
99SABS03	165	0.354	10239	25.6	< 2.	< 0.5	< 0.5	2.58	11.	< 0.5	53.
99SABS07	292	0.295	10978	40.7	< 2.	1.33	1.66	2.41	27.6	< 0.5	53.
99SABS08	220	0.317	11555	33.	< 2.	< 0.5	0.718	2.52	13.	< 0.5	52.
99SABS11	128	0.282	9430	14.1	< 2.	0.87	< 0.5	3.59	8.76	< 0.5	62.3
99SABS12	156	0.268	10424	20.2	< 2.	0.92	< 0.5	2.66	10.1	< 0.5	59.4
99SABS21	126	0.293	9559	13.	< 2.	0.61	< 0.5	3.26	8.62	0.54	57.3

Table B-3. Concentrations of elements (parts per million, dry weight) in brine shrimp and brine shrimp cysts from Great Salt Lake, 1996-2000. (*Page 3 of 4*)

Sample ID	Weight (grams)	Collection Date	% M	Al	As	B	Ba	Be	Cd	Cr	Cu
Gilbert Bay 199 (cont.)											
99SABS22	64.	10/04/99	90.6	44.3	16.6	36.6	1.03	< 0.1	0.364	< 0.5	7.53
99SABS23	26.3	10/05/99	90.0	46.4	16.3	38.6	1.28	< 0.1	0.353	< 0.5	8.25
99SABS24	34.	10/05/99	90.9	82.5	13.3	45.6	1.49	< 0.1	0.323	< 0.5	9.06
99SABS25	36.	10/05/99	91.2	38.6	14.9	41.4	1.26	< 0.1	0.336	0.61	9.81
99SABS26	30.1	10/05/99	90.6	45.4	15.5	37.3	1.38	< 0.1	0.348	< 0.5	8.78
99SABS27	59.	10/12/99	91.4	42.4	16.2	45.4	1.1	< 0.1	0.401	< 0.5	9.25
99SABS28	64.	10/12/99	91.4	62.9	14.8	44.2	1.22	< 0.1	0.369	< 0.5	8.83
Gilbert Bay- USGS Sites; 1999; Brine Shrimp Cysts											
9SABSC04	16.	09/23/99	85.6	95.7	12.7	65.2	2.64	< 0.1	< 0.1	0.92	10.5
9SABSC17	8.9	09/29/99	82.2	146.	11.6	65.1	2.97	< 0.1	< 0.1	0.98	8.63
9SABSC11	29.	10/04/99	82.9	196.	9.07	87.2	4.42	< 0.1	< 0.1	< 0.5	10.8
9SABSC12	22.3	10/04/99	85.2	182.	8.3	86.4	3.19	< 0.1	< 0.1	0.92	7.22
Gilbert Bay; 2000											
00SABS06	15.	05/09/00	88.8	49.8	11.3	36.6	1.52	< 0.1	0.186	0.5	13.7
00SABS04	32.	05/18/00	88.8	26.7	9.49	27.7	< 1	< 0.1	0.203	< 0.5	12.1
00SABS09	23.	05/18/00	89.9	17.3	10.6	36.6	1	< 0.1	0.286	< 0.5	11.2
00SABS10	64.	05/18/00	90.5	31.7	11.	24.8	1.04	< 0.1	0.203	< 0.5	11.5
00SABS13	62.	05/18/00	90.0	26.8	10.1	32.1	1.09	< 0.1	0.199	< 0.5	11.2
00SABS14	63.	05/18/00	90.0	18.	9.45	27.6	< 1	< 0.1	0.18	< 0.5	11.5
00SABS16	62.	05/18/00	90.2	34.2	9.33	31.8	1.19	< 0.1	0.186	< 0.5	12.9
00SABS02	64.	05/19/00	89.7	49.8	9.46	28.3	1.06	< 0.1	0.193	0.87	12.
00SABS05	64.	05/19/00	89.9	30.2	8.96	27.4	3.69	< 0.1	0.202	< 0.5	11.9
00SABS07	61.	05/19/00	89.2	36.3	8.66	27.	1.13	< 0.1	0.21	< 0.5	12.2
00SABS11	63.	05/19/00	89.5	75.4	9.49	30.9	1.38	< 0.1	0.174	< 0.5	11.3
00SABS12	61.	05/19/00	89.3	120.	9.12	22.5	1.9	< 0.1	0.205	< 0.5	13.5
00SABS15	64.	05/19/00	89.8	60.7	9.57	30.9	1.43	< 0.1	0.203	< 0.5	12.
00SABS21	62.	05/19/00	89.2	83.	10.7	26.3	1.5	< 0.1	0.184	1.96	13.5
00SABS01	64.	05/22/00	89.8	13.1	8.55	26.9	1.01	< 0.1	0.192	< 0.5	12.2
00SABS03	48.	05/22/00	89.8	78.6	10.3	27.1	1.63	< 0.1	0.188	< 0.5	13.3
00SABS08	44.	05/22/00	89.1	110.	9.35	28.	1.75	< 0.1	0.191	< 0.5	15.2
00SABS22	60.	05/22/00	90.0	39.8	10.7	28.8	1.16	< 0.1	0.188	2.38	14.2
00SABS23	63.	05/22/00	89.3	59.4	11.	23.6	1.17	< 0.1	0.174	2.31	12.2
00SABS24	64.	05/22/00	89.2	77.1	10.4	22.4	1.42	< 0.1	0.181	0.83	13.7
00SABS25	64.	05/22/00	89.7	49.2	11.3	26.8	1.23	< 0.1	0.177	2.08	13.4
00SABS26	63.	05/22/00	89.9	45.5	14.8	23.7	1.02	< 0.1	0.185	2.36	13.5
00SABS17	63.	05/24/00	91.1	12.1	11.2	39.1	1.09	0.38	0.25	< 0.5	14.4
00SABS18	65.	05/24/00	91.4	12.1	11.9	41.5	1	< 0.1	0.231	< 0.5	13.1
00SABS19	65.	05/24/00	91.0	28.9	10.5	32.5	1.16	< 0.1	0.231	< 0.5	12.8
00SABS20	68.	05/24/00	90.7	58.	11.3	34.6	1.42	0.24	0.193	< 0.5	11.7
00SABS27	63.	05/24/00	90.8	29.1	15.3	33.3	1.02	< 0.1	0.224	2.75	14.2
00SABS28	65.	05/24/00	90.8	34.4	14.5	34.2	1.12	< 0.1	0.201	3.77	12.8

Sample ID	Fe	Hg	Mg	Mn	Mo	Ni	Pb	Se	Sr	V	Zn
Gilbert Bay 1999 (cont.)											
99SABS22	137	0.315	8722	13.6	< 2.	1.28	< 0.5	3.26	8.14	< 0.5	63.8
99SABS23	139	0.276	8826	20.8	< 2.	1.29	< 0.5	3.41	9.46	< 0.5	66.1
99SABS24	172	0.319	10401	19.7	< 2.	0.87	< 0.5	2.82	10.7	1.01	69.2
99SABS25	143	0.268	10049	18.8	< 2.	1.01	< 0.5	2.75	10.	< 0.5	65.5
99SABS26	138	0.283	9198	21.3	< 2.	1.2	< 0.5	3.08	9.37	< 0.5	64.5
99SABS27	142	0.354	10472	18.2	< 2.	< 0.5	< 0.5	2.92	10.	< 0.5	65.4
99SABS28	152	0.324	10423	21.6	< 2.	1.07	< 0.5	2.84	9.85	1.12	64.1
Gilbert Bay- USGS Sites; 1999; Brine Shrimp Cysts											
9SABSC04	515	< 0.2	8959	70.	< 2.	1.56	2.03	1.63	9.53	1.62	46.7
9SABSC17	517	< 0.2	10656	67.6	2.58	1.26	2.12	1.46	10.	2.32	44.5
9SABSC11	891	< 0.2	10869	31.5	2.32	0.59	1.77	1.47	10.9	1.04	27.4
9SABSC12	810	< 0.2	12751	35.4	< 2.	0.69	1.47	1.15	15.6	< 0.5	29.6
Gilbert Bay; 2000											
00SABS06	162	< 0.2	9173	22.	< 2.	1.74	< 0.5	2.65	11.3	0.86	117.
00SABS04	151	< 0.2	7971	9.54	< 2.	2.13	< 0.5	3.01	8.08	0.53	112.
00SABS09	130	< 0.2	9780	7.87	< 2.	1.84	< 0.5	2.97	9.47	0.89	105.
00SABS10	169	< 0.2	7145	10.1	< 2.	1.7	< 0.5	2.55	7.33	1.44	125.
00SABS13	153	< 0.2	8686	11.	< 2.	1.45	< 0.5	2.95	9.04	1.54	103.
00SABS14	159	< 0.2	7649	8.4	< 2.	1.93	< 0.5	3.05	7.78	1.4	124.
00SABS16	162	< 0.2	8428	10.9	< 2.	1.98	< 0.5	2.53	8.88	1.19	113.
00SABS02	191	< 0.2	7813	14.5	< 2.	2.57	< 0.5	2.64	8.32	< 0.5	109.
00SABS05	156	< 0.2	7564	10.8	< 2.	2.17	< 0.5	2.78	7.87	0.69	106.
00SABS07	179	< 0.2	7616	14.3	< 2.	2.04	< 0.5	2.63	8.38	0.79	118.
00SABS11	191	< 0.2	8309	16.2	< 2.	1.74	< 0.5	2.2	9.67	1.81	113.
00SABS12	272	< 0.2	6510	19.4	< 2.	2.68	< 0.5	2.63	9.88	1.66	140.
00SABS15	208	< 0.2	8521	17.	< 2.	2.02	< 0.5	2.48	9.57	1.53	131.
00SABS21	214	< 0.2	7478	17.2	< 2.	1.13	< 0.5	2.44	8.88	< 0.5	114.
00SABS01	158	< 0.2	7936	8.61	< 2.	1.53	< 0.5	2.55	7.9	0.59	115.
00SABS03	232	< 0.2	7954	12.	< 2.	1.33	< 0.5	2.87	10.5	0.55	118.
00SABS08	247	< 0.2	7803	18.6	< 2.	< 0.5	< 0.5	2.8	10.8	0.53	124.
00SABS22	182	< 0.2	7879	10.8	< 2.	1.1	< 0.5	2.86	8.41	0.79	111.
00SABS23	238	< 0.2	7076	14.4	< 2.	1.08	< 0.5	2.63	8.75	< 0.5	124.
00SABS24	251	< 0.2	6822	15.5	< 2.	0.72	< 0.5	2.48	8.2	< 0.5	132.
00SABS25	186	< 0.2	8068	11.3	< 2.	1.28	< 0.5	2.37	8.3	< 0.5	108.
00SABS26	223	< 0.2	7030	10.4	< 2.	0.82	< 0.5	2.24	7.4	< 0.5	125.
00SABS17	152	< 0.2	9690	9.97	< 2.	3.03	< 0.5	2.67	9.56	3.65	104.
00SABS18	153	< 0.2	9976	6.64	< 2.	2.48	< 0.5	2.61	9.78	1.66	106.
00SABS19	180	< 0.2	8357	12.2	< 2.	2.74	< 0.5	2.51	8.76	1.95	116.
00SABS20	208	< 0.2	9392	27.7	< 2.	3.01	< 0.5	2.75	10.2	0.82	95.8
00SABS27	193	< 0.2	8654	9.27	< 2.	2.28	< 0.5	2.68	8.22	< 0.5	113.
00SABS28	182	< 0.2	9666	12.2	< 2.	1.38	< 0.5	2.33	9.01	0.66	105.

Table B-4. Concentrations of elements (parts per million, dry weight) in Eared Grebe livers from Great Salt Lake, 1997-2000. (*Page 1 of 2*)

Sample ID	Weight (grams)	Collection Date	% M	Al	As	B	Ba	Be	Cd	Cr	Cu
1997 Samples (Composites)											
97SAEG1	56.	11/13/97	68.9	< 5	5.96	2.21	< 1	< 0.1	2.09	0.561	15.
97SAEG2	72.	11/18/97	68.9	< 5	5.06	2.43	< 1	< 0.1	1.78	0.512	14.
97SAEG3	100.	11/18/97	70.5	< 5	6.83	2.83	< 1	< 0.1	1.61	< 0.5	16.3
1998 Samples (Individually analyzed)											
98SAEG1	23.32	09/23/98	68.9	< 5	0.79	< 2	< 1	< 0.1	2.03	0.5	9.6
98SAEG10	30.01	09/24/98	76.4	< 5	1.63	< 2	< 1	< 0.1	1.57	< 0.5	9.86
98SAEG11	25.66	09/24/98	70.7	< 5	1.46	< 2	< 1	< 0.1	1.43	< 0.5	11.3
98SAEG12	19.62	09/24/98	67.0	< 5	1.17	< 2	< 1	< 0.1	3.17	< 0.5	10.6
98SAEG13	19.97	12/07/98	69.0	< 5	3.19	< 2	< 1	< 0.1	3.06	0.5	10.9
98SAEG14	13.92	12/07/98	67.1	< 5	2.34	< 2	< 1	< 0.1	1.31	< 0.5	8.42
98SAEG15	20.7	12/07/98	74.4	< 5	3.3	2.2	< 1	< 0.1	0.34	0.57	10.5
98SAEG16	13.01	12/07/98	60.5	< 5	1.03	< 2	< 1	< 0.1	1.06	< 0.5	11.7
98SAEG2	23.27	09/23/98	69.9	< 5	1.37	< 2	< 1	< 0.1	1.77	< 0.5	10.4
98SAEG3	24.19	09/23/98	68.8	< 5	2.2	< 2	< 1	< 0.1	0.781	< 0.5	10.3
98SAEG4	23.97	09/23/98	68.6	< 5	1.71	< 2	< 1	< 0.1	2.43	< 0.5	10.1
98SAEG5	18.38	09/23/98	71.4	< 5	1.43	< 2	< 1	< 0.1	0.814	0.72	11.9
98SAEG6	21.42	09/23/98	69.1	< 5	1.58	< 2	< 1	< 0.1	0.26	0.61	11.3
98SAEG7	13.02	09/24/98	69.9	< 5	1.42	< 2	< 1	< 0.1	6.54	< 0.5	11.6
98SAEG8	17.38	09/24/98	66.8	< 5	0.88	< 2	< 1	< 0.1	0.938	< 0.5	12.2
98SAEG9	27.95	09/24/98	70.8	< 5	0.77	< 2	< 1	< 0.1	1.11	< 0.5	7.94
2000 Samples (Individually analyzed)											
0SAEGL01	25.	04/25/00	76.9	< 5	2.12	< 2	< 1	< 0.1	2.89	0.7	11.3
0SAEGL02	19.	04/25/00	69.4	< 5	2.79	< 2	< 1	< 0.1	1.26	< 0.5	10.2
0SAEGL03	8.	04/25/00	68.1	< 5	1.01	< 2	< 1	< 0.1	12.7	< 0.5	19.2
0SAEGL04	17.	05/18/00	72.0	< 5	1.96	< 2	< 1	< 0.1	4.	< 0.5	11.
0SAEGL05	12.	05/18/00	69.4	< 5	0.918	< 2	< 1	< 0.1	4.18	0.55	20.
0SAEGL06	19.	05/18/00	73.3	< 5	1.88	< 2	< 1	< 0.1	3.24	0.74	12.7
0SAEGL07	14.	05/18/00	71.7	< 5	1.76	< 2	< 1	< 0.1	3.49	0.95	15.9
0SAEGL08	11.	05/19/00	68.6	< 5	1.69	< 2	< 1	< 0.1	10.8	0.63	13.9
0SAEGL09	24.	05/19/00	66.5	< 5	2.32	< 2	< 1	< 0.1	3.06	< 0.5	7.77
0SAEGL10	16.	05/19/00	74.6	< 5	1.39	< 2	< 1	< 0.1	1.75	1.2	10.6
0SAEGL11	19.	05/19/00	72.6	< 5	2.23	< 2	< 1	< 0.1	1.67	< 0.5	10.5
0SAEGL12	13.	05/19/00	67.9	< 5	2.33	< 2	< 1	< 0.1	4.72	< 0.5	10.4
0SAEGL13	16.	05/19/00	70.1	< 5	1.67	< 2	< 1	< 0.1	7.88	0.52	12.7
0SAEGL14	18.	05/22/00	72.3	< 5	2.29	< 2	< 1	< 0.1	6.47	< 0.5	12.8
0SAEGL15	28.	05/22/00	75.4	< 5	1.39	< 2	< 1	< 0.1	2.27	< 0.5	9.51
0SAEGL16	23.	05/22/00	72.5	< 5	1.98	< 2	< 1	< 0.1	2.03	< 0.5	11.6
0SAEGL17	8.	05/22/00	68.1	< 5	< 0.5	< 2	< 1	< 0.1	13.1	0.96	30.2
0SAEGL18	10.	05/22/00	67.4	< 5	0.764	< 2	< 1	< 0.1	4.4	0.68	24.5
0SAEGL19	20.	05/24/00	72.6	< 5	2.9	< 2	< 1	< 0.1	4.65	0.75	10.6
0SAEGL20	17.	05/24/00	72.9	< 5	1.97	< 2	< 1	< 0.1	2.56	< 0.5	10.2
0SAEGL21	19.	05/24/00	70.0	< 5	2.26	< 2	< 1	< 0.1	2.63	< 0.5	12.6
0SAEGL22	15.	05/24/00	71.3	< 5	1.68	< 2	< 1	< 0.1	2.71	0.72	11.7
0SAEGL23	19.	05/24/00	72.0	< 5	2.61	< 2	< 1	< 0.1	3.52	< 0.5	13.
0SAEGL24	14.	05/24/00	72.9	< 5	1.33	< 2	< 1	< 0.1	17.9	0.53	11.8

Sample ID	Fe	Hg	Mg	Mn	Mo	Ni	Pb	Se	Sr	V	Zn
1997 Samples (Composites)											
97SAEG1	1697	11.7	649	13.5	< 2	0.67	< 0.5	9.69	< 0.5	2.43	119.
97SAEG2	1126	10.5	634	13.	2.03	< 0.5	< 0.5	9.35	< 0.5	0.65	111.
97SAEG3	1118	12.6	733	14.3	< 2	1.15	< 0.5	11.3	< 0.5	1.53	122.
1998 Samples (Individually analyzed)											
98SAEG1	362	5.88	541	7.63	< 2	< 0.5	< 0.5	5.36	< 0.5	< 0.5	73.1
98SAEG10	832	7.13	703	8.91	< 2	0.92	< 0.5	5.	< 0.5	< 0.5	71.4
98SAEG11	594	4.31	588	9.97	2.03	< 0.5	< 0.5	4.33	< 0.5	< 0.5	81.1
98SAEG12	766	5.49	506	11.3	< 2	< 0.5	< 0.5	5.55	< 0.5	< 0.5	72.6
98SAEG13	926	19.1	535	9.6	< 2	< 0.5	< 0.5	13.7	< 0.5	< 0.5	99.1
98SAEG14	1687	19.3	562	8.27	< 2	< 0.5	< 0.5	14.	< 0.5	< 0.5	83.9
98SAEG15	1311	15.5	642	9.25	2.48	< 0.5	< 0.5	15.5	< 0.5	< 0.5	82.1
98SAEG16	1275	5.83	417	9.18	< 2	< 0.5	< 0.5	4.04	< 0.5	< 0.5	66.
98SAEG2	584	8.17	517	8.57	< 2	< 0.5	< 0.5	6.57	< 0.5	< 0.5	65.8
98SAEG3	601	9.51	521	9.48	< 2	< 0.5	< 0.5	7.24	< 0.5	0.65	74.5
98SAEG4	546	9.15	548	10.1	< 2	< 0.5	< 0.5	5.76	< 0.5	0.94	81.3
98SAEG5	629	8.73	661	13.3	< 2	< 0.5	< 0.5	5.08	< 0.5	0.87	78.4
98SAEG6	568	6.	560	9.51	< 2	< 0.5	< 0.5	7.87	< 0.5	0.69	72.8
98SAEG7	744	6.86	691	9.85	< 2	< 0.5	< 0.5	8.16	1.02	< 0.5	116.
98SAEG8	809	5.48	563	10.3	2.23	< 0.5	< 0.5	7.59	< 0.5	< 0.5	69.
98SAEG9	944	5.75	490	6.83	< 2	< 0.5	< 0.5	7.83	< 0.5	0.52	57.9
2000 Samples (Individually analyzed)											
0SAEGL01	1697	2.3	661	9.82	< 2	< 0.5	< 0.5	6.47	< 0.5	< 0.5	105.
0SAEGL02	2558	4.23	628	11.2	< 2	< 0.5	< 0.5	18.9	< 0.5	< 0.5	118.
0SAEGL03	2741	8.72	606	13.1	< 2	< 0.5	< 0.5	9.34	< 0.5	< 0.5	169.
0SAEGL04	1347	0.462	537	8.6	< 2	< 0.5	< 0.5	5.12	< 0.5	< 0.5	93.5
0SAEGL05	2984	2.42	563	10.7	< 2	0.6	< 0.5	6.17	< 0.5	0.57	176.
0SAEGL06	1969	0.838	561	11.2	< 2	< 0.5	< 0.5	6.54	< 0.5	< 0.5	114.
0SAEGL07	1787	1.29	621	11.2	< 2	< 0.5	< 0.5	4.94	< 0.5	< 0.5	181.
0SAEGL08	3299	0.969	630	13.4	< 2	< 0.5	< 0.5	4.89	< 0.5	0.63	166.
0SAEGL09	1137	0.425	467	8.92	< 2	< 0.5	< 0.5	6.82	< 0.5	0.97	61.8
0SAEGL10	2350	2.61	671	10.3	< 2	< 0.5	< 0.5	6.94	< 0.5	< 0.5	82.7
0SAEGL11	2576	8.93	573	9.49	< 2	1.55	< 0.5	7.16	< 0.5	0.69	67.2
0SAEGL12	3098	20.5	562	13.4	< 2	1.01	< 0.5	14.7	< 0.5	< 0.5	126.
0SAEGL13	2090	3.74	573	11.5	< 2	0.61	< 0.5	6.98	< 0.5	< 0.5	111.
0SAEGL14	1340	3.98	628	11.6	< 2	< 0.5	< 0.5	7.03	< 0.5	< 0.5	111.
0SAEGL15	1231	1.17	521	8.43	< 2	< 0.5	< 0.5	7.19	< 0.5	0.7	69.6
0SAEGL16	1084	0.793	550	9.57	< 2	< 0.5	< 0.5	6.54	< 0.5	< 0.5	73.7
0SAEGL17	4637	6.5	615	14.4	< 2	0.53	< 0.5	7.69	< 0.5	< 0.5	190.
0SAEGL18	3183	3.55	497	10.8	< 2	0.62	< 0.5	17.	< 0.5	< 0.5	114.
0SAEGL19	3087	3.86	634	10.1	< 2	1.11	< 0.5	7.04	< 0.5	0.84	87.
0SAEGL20	1919	0.814	569	10.3	< 2	< 0.5	< 0.5	8.81	< 0.5	< 0.5	126.
0SAEGL21	1453	0.778	543	10.3	< 2	< 0.5	< 0.5	7.	< 0.5	< 0.5	98.9
0SAEGL22	2019	6.79	584	14.9	< 2	< 0.5	< 0.5	11.	< 0.5	< 0.5	155.
0SAEGL23	974	0.978	627	9.92	< 2	< 0.5	< 0.5	4.79	< 0.5	< 0.5	91.8
0SAEGL24	3772	1.06	640	9.45	< 2	< 0.5	< 0.5	3.78	< 0.5	< 0.5	140.

Table B-5. Chlorinated Organic Compounds (Organochlorine pesticides and herbicides including DDT isomers, and total PCBs) and Dioxins & Furans, in Eared Grebe Livers (Composite Samples) Gilbert Bay (Open Water) Great Salt Lake, 1997. (*Page 1 of 2*)

Chlorinated Organics- Herbicides, Pesticides, PCBs

Sample IDr	Collection Date	% Lipid	% Moisture	Aldrin	dieldrin	endrin	alpha BHC
97SAEG1	11/13/1997	7.89	68.4	< 0.00859	< 0.00859	< 0.00859	< 0.00859
97SAEG2	11/18/1997	6.83	69.1	< 0.00921	< 0.00921	< 0.00921	< 0.00921
97SAEG3	11/18/1997	15.8	70.5	< 0.00812	< 0.00812	< 0.00812	< 0.00812

Sample IDr	heptachlor epoxide	cis-nonachlor	trans-nonachlor	endosulfan II	HCB	mirex	toxaphene
97SAEG1	< 0.00859	< 0.00859	< 0.00859	< 0.00859	< 0.00859	< 0.00859	< 0.043
97SAEG2	< 0.00921	< 0.00921	< 0.00921	< 0.00921	< 0.00921	< 0.00921	< 0.046
97SAEG3	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.0406

Sample IDr	beta BHC	delta BHC	gamma BHC	alpha chlordane	gamma chlordane	oxy-chlordane	Heptachlor
97SAEG1	< 0.00859	< 0.00859	< 0.00859	< 0.00859	< 0.00859	< 0.00859	< 0.00859
97SAEG2	< 0.00921	< 0.00921	< 0.00921	< 0.00921	< 0.00921	< 0.00921	< 0.00921
97SAEG3	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.00812

Sample IDr	o,p'-DDT	p,p'-DDD	p,p'-DDE	p,p'-DDT	o,p'-DDD	o,p'-DDE	Total PCBs
97SAEG1	< 0.00859	< 0.00859	**0.0387**	< 0.00859	< 0.00859	< 0.00859	**0.0787**
97SAEG2	< 0.00921	< 0.00921	**0.00953**	< 0.00921	< 0.00921	< 0.00921	**0.116**
97SAEG3	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.00812	< 0.0406

NOTES:

all results reported in milligrams per kilogram (mg/kg) wet weight basis

detected residues shown in **Bold type**

Dioxins and Furans

Sample IDr	2,3,7,8-TCDD	2,3,7,8-TCDF	OCDD	OCDF	1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF
97SAEG1	< 3.7E-06	< 3.7E-06	< 3.7E-05	< 3.7E-05	< 1.9E-05	< 1.9E-05	< 1.85E-05
97SAEG2	< 4.2E-06	< 4.2E-06	< 4.2E-05	< 4.2E-05	< 2.1E-05	< 2.1E-05	< 2.12E-05
97SAEG3	< 4.1E-06	< 4.1E-06	< 4.1E-05	< 4.1E-05	< 2.1E-05	< 2.1E-05	< 2.06E-05

Sample IDr	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	1,2,3,7,8,9-HxCDF	1,2,3,7,8-PeCDD
97SAEG1	< 1.9E-05	< 1.9E-05	< 1.9E-05	< 1.9E-05	< 1.9E-05	< 1.9E-05	< 1.85E-05
97SAEG2	< 2.1E-05	< 2.1E-05	< 2.1E-05	< 2.1E-05	< 2.1E-05	< 2.1E-05	< 2.12E-05
97SAEG3	< 2.1E-05	< 2.1E-05	< 2.1E-05	< 2.1E-05	< 2.1E-05	< 2.1E-05	< 2.06E-05

Sample IDr	1,2,3,7,8-PeCDF	2,3,4,6,7,8-HxCDF	2,3,4,7,8-PeCDF
97SAEG1	< 1.9E-05	< 1.9E-05	< 1.9E-05
97SAEG2	< 2.1E-05	< 2.1E-05	< 2.1E-05
97SAEG3	< 2.1E-05	< 2.1E-05	< 2.1E-05

NOTES:

all results reported in milligrams per kilogram (mg/kg) wet weight basis

detected residues shown in **Bold type**

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APPENDIX C

Mercury in Terns at Farmington Bay Waterfowl Management Area, 2000

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Table C-1. Total mercury and methyl mercury (mg/kg) in eggs and chick carcasses of Forster's terns (FOTE) and great blue herons (GBHE) from the Crystal Unit, Farmington Bay Waterfowl Management Area, Great Salt Lake, Utah, 2000.

						Total Mercury (T-Hg)		Methyl Mercury (Me-Hg)		
Sample ID	Collection Date	Sample Matrix	Species Code [(a)]	Weight (grams)	% Moisture	wet weight (ww)	dry weight (dw)	wet weight (ww)	dry weight (dw)	% Me-Hg[(b)] (dry weight)
Whole Eggs										
00CUFT02	06/26/00	Egg	FOTE	18	78.4	0.325	1.51	0.358	1.66	109.9%
00CUFT03	06/26/00	Egg	FOTE	18	78.2	0.177	0.812	0.176	0.81	99.8%
00CUFT04	06/26/00	Egg	FOTE	19	76.5	0.183	0.777	0.172	0.73	94.0%
00CUFT05	06/26/00	Egg	FOTE	19	78.2	0.214	0.98	0.157	0.72	73.5%
00CUFT06	06/26/00	Egg	FOTE	16	71.8	0.058	0.204	0.085	0.3	147.1%
00CUFT07	06/26/00	Egg	FOTE	19	76.4	0.235	0.999	0.158	0.67	67.1%
00CUFT08	06/26/00	Egg	FOTE	18	78.0	0.299	1.36	0.176	0.8	58.8%
00CUFT09	06/26/00	Egg	FOTE	19	77.6	0.236	1.05	0.24	1.07	101.9%
00CUFT10	06/26/00	Egg	FOTE	20	78.0	0.253	1.15	0.207	0.94	81.7%
00CUFT11	06/26/00	Egg	FOTE	20	78.5	0.368	1.71	0.278	1.29	75.4%
00CUFT12	06/26/00	Egg	FOTE	16	76.3	0.126	0.531	0.057	0.24	45.2%
00CUFT20	06/26/00	Egg	FOTE	14	77.8	0.277	1.25	0.2	0.9	72.0%
00CUFT21	06/26/00	Egg	FOTE	17	78.1	0.429	1.96	0.421	1.92	98.0%
00CUGB01	05/25/00	Egg	GBHE	58	79.5	0.169	0.824	0.096	0.47	57.0%
Whole Body Chick Carcasses										
00CUFT14	06/26/00	Carcass	FOTE	10	74.5	0.81	3.18	0.359	1.41	44.3%
0CUGBC01	06/06/00	Carcass	GBHE	797	77.7	0.069	0.31	0.092	0.41	132.3%

NOTES

(a) Species Codes: FOTE: Forsters' Tern (*Sterna forsteri*)

GBHE: Great Blue Heron (*Ardea herodias*)

(B) % Methyl mercury calculated as $[(\text{Me-Hg}_{\text{Reported}})/(\text{T-Hg}_{\text{Reported}})] \times 100$

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APPENDIX D

Contaminants in Sediments, Northwest Oil Drain Delta, 2000

Table D-1. Concentrations of trace elements (parts per million, dry weight) in sediments from the Northwest Oil Drain, 2000. (*Page 1 of 2*)

Sample ID	Transect No. [(a)]	Weight (grams)	Collection Date	% M	Al	As	B	Ba	Be	Cd	Cr
00ODSE01	T-6	487	4/12/00	57.5	13432	32.8	110.	239.	0.79	1.38	30.
00ODSE02	T-6	598	4/17/00	64.9	16266	29.5	72.5	274.	1.96	10.9	136.
00ODSE03	T-6	621	4/19/00	63.6	12914	29.2	104.	168.	0.82	3.17	45.
00ODSE04	T-5	630	4/17/00	52.4	14625	36.4	110.	219.	0.86	2.08	42.1
00ODSE05	T-5	610	4/12/00	49.7	11122	40.8	107.	276.	0.8	5.03	32.2
00ODSE06	T-5	861	4/19/00	31.2	3347	20.1	101.	248.	0.22	0.859	7.43
00ODSE07	T-5	899	4/19/00	26.5	3797	20.7	123.	305.	0.25	0.301	5.6
00ODSE08	T-4	640	4/17/00	50.2	13367	43.	137.	259.	0.92	2.74	73.8
00ODSE09	T-4	611	4/12/00	55.4	12214	35.8	112.	265.	0.8	1.44	67.
00ODSE10	T-4	659	4/20/00	57.5	10337	23.4	52.2	256.	0.9	7.08	310.
00ODSE11	T-4	744	4/19/00	38.8	8825	36.5	123.	224.	0.48	1.82	20.3
00ODSE12	T-3	840	4/12/00	26.3	6121	22.	132.	289.	0.36	0.29	11.4
00ODSE13	T-3	803	4/12/00	30.4	6376	18.5	109.	198.	0.42	0.297	10.1
00ODSE14	T-3	628	4/20/00	58.2	16702	26.	95.4	226.	1.11	2.81	120.
00ODSE15	T-3	629	4/20/00	62.1	13790	26.3	129.	163.	0.82	1.07	39.
00ODSE16	T-2	608	4/20/00	65.7	16989	20.4	112.	181.	0.97	0.949	56.5
00ODSE17	T-2	602	4/20/00	62.1	14665	23.3	141.	166.	0.9	0.973	41.1
00ODSE19	T-1	612	4/27/00	61.5	14677	22.3	67.2	164.	0.8	3.31	28.7
00ODSE20	T-1	641	4/27/00	59.9	11790	21.	54.2	170.	0.76	3.72	26.
00ODSE21	T-1	521	4/27/00	80.5	16132	11.7	83.2	197.	1.06	0.368	52.3

NOTES:

(a) Transect 6: Furthest Off-shore (approx 2.2 km from Turpin Dike); Transect 1furthest on-shore (within Turpin Unit of Farmington Bay Waterfowl Management Area). See Section 7, Figure 7-1

Table D-1. (continued) ***(page 2 of 2)***

Sample ID	Cu	Fe	Hg	Mg	Mn	Mo	Ni	Pb	Se	Sr	V	Zn
00ODSE01	113.	12121	1.01	31640	438	17.4	16.4	122.	< 1	992.	34.3	209.
00ODSE02	282.	18703	6.17	19007	238	11.6	36.5	409.	1.34	358.	112.	660.
00ODSE03	145.	12095	1.05	32049	443	5.06	18.9	181.	< 1	664.	49.3	272.
00ODSE04	204.	14940	2.25	33153	393	10	18.7	239.	1.18	642.	45.9	385.
00ODSE05	268.	13464	4.69	30381	329	9.8	19.	453.	1.96	646.	30.1	611.
00ODSE06	55.7	5010	0.765	26603	334	< 5	9.57	149.	< 1	2523.	16.5	135.
00ODSE07	43.3	4367	0.202	28179	186	< 5	8.33	70.3	1.04	2710.	14.5	71.3
00ODSE08	244.	15268	3.52	38311	390	8.94	23.9	308.	2.13	462.	38.2	512.
00ODSE09	236.	14967	5.15	32828	344	9.32	22.6	407.	1.57	623.	33.1	522.
00ODSE10	286.	15556	1.98	18207	249	< 5	26.3	374.	1.65	287.	28.5	932.
00ODSE11	123.	9496	0.846	35554	305	< 5	12.8	195.	< 1	1434.	27.6	231.
00ODSE12	35.4	6964	0.216	38284	334	< 5	8.65	61.1	< 1	1914.	18.	82.7
00ODSE13	19.	7126	< 0.2	30894	246	< 5	8.58	53.4	< 1	1957.	17.7	57.9
00ODSE14	277.	17906	0.987	26118	302	< 5	27.3	222.	2.48	347.	31.	359.
00ODSE15	146.	13317	0.427	36768	413	< 5	19.3	138.	1.84	726.	31.	237.
00ODSE16	189.	16117	0.58	29291	364	< 5	20.4	173.	2.3	489.	32.8	314.
00ODSE17	153.	14411	0.458	35393	394	< 5	17.	143.	2.08	629.	30.	248.
00ODSE19	183.	15191	1.05	25870	352	< 5	16.3	408.	2.19	595.	34.2	389.
00ODSE20	193.	13797	1.75	23360	315	< 5	14.4	433.	2	594.	30.2	420.
00ODSE21	165.	16988	0.345	20726	233	6.11	20.7	132.	1.91	342.	28.	250.

Table D-2. Total PCBs, DDT isomers, and Organochlorine (OC) Pesticide Residues in Sediments from the Oil Drain Delta in Farmington Bay, Great Salt Lake, Utah , 2000. ***(Page 1 of 4)***

Sample ID	Collection Date	Total PCBs	o,p'-DDD	o,p'-DDE	o,p'-DDT	p,p'-DDD	p,p'-DDE
Transect 6[(a)]							
00ODSE01	4/12/2000	**0.445**	**0.0071**	< 0.00116	**0.00132**	**0.0109**	**0.0107**
00ODSE02	4/17/2000	**5.55**	**0.0519**	**0.0124**	**0.0159**	**0.116**	**0.0787**
00ODSE03	4/19/2000	**0.807**	**0.0052**	**0.00223**	**0.004**	**0.0111**	**0.0233**
Transect 5							
00ODSE04	4/17/2000	**0.879**	**0.0189**	**0.00179**	**0.00271**	**0.0462**	**0.0179**
00ODSE05	4/12/2000	**0.429**	**0.0295**	**0.00564**	**0.157**	**0.0479**	< 0.00096
00ODSE06	4/19/2000	**0.179**	< 0.000727	< 0.000727	**0.024**	**0.0098**	**0.0047**
00ODSE07	4/19/2000	**0.0895**	< 0.000667	< 0.000667	< 0.000667	< 0.000667	< 0.000667
Transect 4							
00ODSE08	4/17/2000	**0.527**	**0.0376**	**0.0109**	**0.197**	**0.0778**	**0.00696**
00ODSE09	4/12/2000	**0.85**	**0.101**	**0.059**	< 0.00108	< 0.00108	< 0.00108
00ODSE10	4/20/2000	**1.08**	**0.00248**	< 0.00116	**0.00183**	**0.00277**	**0.0345**
00ODSE11	4/19/2000	**0.173**	**0.0242**	< 0.000807	< 0.000807	**0.0497**	**0.00913**
Transect 3							
00ODSE12	4/12/2000	**0.145**	**0.00496**	< 0.00066	< 0.00066	**0.0086**	**0.00191**
00ODSE13	4/12/2000	**0.0427**	**0.000978**	< 0.000717	< 0.000717	**0.00147**	< 0.000717
00ODSE14	4/20/2000	**0.562**	**0.00697**	< 0.00117	**0.00591**	**0.012**	**0.0142**
00ODSE15	4/20/2000	**0.0668**	**0.00153**	< 0.00131	< 0.00131	**0.00206**	**0.00142**
Transect 2							
00ODSE16	4/20/2000	**0.1**	**0.002**	< 0.00143	**0.00283**	**0.00203**	**0.00192**
00ODSE17	4/20/2000	**0.158**	**0.00295**	< 0.0013	**0.00347**	**0.004**	**0.00306**
Transect 1							
00ODSE19	4/27/2000	**0.0997**	**0.00564**	< 0.00129	< 0.00129	**0.00597**	**0.00272**
00ODSE20	4/27/2000	**0.15**	**0.00855**	< 0.00124	< 0.00124	**0.0128**	**0.00306**
00ODSE21	4/27/2000	**0.395**	**0.00363**	**0.00367**	**0.00678**	**0.0043**	**0.00626**

NOTES

BOLD: Detected concentrations

a Transect 6: Furthest Off-shore (approx 2.2 km from Turpin Dike); Transect 1furthest on-shore (within Turpin Unit of Farmington Bay Waterfowl Management Area). See Section 7, Figure 7-1

Sample ID		p,p'-DDT	total DDT[(b)]		Aldrin		dieldrin		endrin		alpha BHC		beta BHC
00ODSE01		**0.0029**	0.03289	<	0.00116		**0.0137**	<	0.00116	<	0.00116	<	0.00116
00ODSE02	<	0.00139	**0.2749**	<	0.00139		**0.251**		0.00229		**0.0017**	<	0.00139
00ODSE03	<	0.00137	0.04583	<	0.00137		**0.0135**	<	0.00137	<	0.00137	<	0.00137
00ODSE04	<	0.00104	0.0875	<	0.00104		**0.012**	<	0.00104	<	0.00104	<	0.00104
00ODSE05		**0.0123**	**0.2523**		**0.01**	<	0.00096	<	0.00096	<	0.00096	<	0.00096
00ODSE06		**0.0044**	0.04292	<	0.000727		**0.0052**		**0.0008**	<	0.000727	<	0.000727
00ODSE07	<	0.000667	ND	<	0.000667	<	0.000667	<	0.000667	<	0.000667	<	0.000667
00ODSE08		**0.0299**	**0.3602**		**0.0058**	<	0.00097	<	0.00097	<	0.00097	<	0.00097
00ODSE09		**0.101**	0.261	<	0.00108	<	0.00108	<	0.00108		**0.0013**	<	0.00108
00ODSE10	<	0.00116	0.04158	<	0.00116		**0.0186**	<	0.00116	<	0.00116	<	0.00116
00ODSE11	<	0.000807	0.08303	<	0.000807		**0.0013**	<	0.000807	<	0.000807	<	0.000807
00ODSE12	<	0.00066	0.01547	<	0.00066	<	0.00066	<	0.00066	<	0.00066	<	0.00066
00ODSE13	<	0.000717	0.002448	<	0.000717	<	0.000717	<	0.000717	<	0.000717	<	0.000717
00ODSE14	<	0.00117	0.03908	<	0.00117		**0.017**	<	0.00117	<	0.00117	<	0.00117
00ODSE15	<	0.00131	0.00501	<	0.00131	<	0.00131	<	0.00131	<	0.00131	<	0.00131
00ODSE16	<	0.00143	0.00878	<	0.00143	<	0.00143	<	0.00143	<	0.00143	<	0.00143
00ODSE17	<	0.0013	0.01348	<	0.0013	<	0.0013	<	0.0013	<	0.0013	<	0.0013
00ODSE19	<	0.00129	0.01433	<	0.00129	<	0.00129	<	0.00129	<	0.00129	<	0.00129
00ODSE20	<	0.00124	0.02441	<	0.00124	<	0.00124	<	0.00124	<	0.00124	<	0.00124
00ODSE21	<	0.00252	0.02464	<	0.00252	<	0.00252	<	0.00252	<	0.00252	<	0.00252

b) Calculated value. Summed concentration of ortho- and para- isomers of DDD, DDE and DDT. Concentration of non-detected samples treated as 0.5 * DL for purposes of calculation

Table D-2. Total PCBs, DDT isomers, and Organochlorine (OC) Pesticide Residues in Sediments from the Oil Drain Delta in Farmington Bay, Great Salt Lake, Utah , 2000. ***(Page 3 of 4)***

Sample ID	gamma BHC	delta BHC	alpha chlordane	gamma chlordane	oxy-chlordane	Heptachlor	heptachlor epoxide
Transect 6[(a)]							
00ODSE01	< 0.00116	< 0.00116	**0.00382**	**0.00688**	< 0.00116	< 0.00116	< 0.00116
00ODSE02	< 0.00139	< 0.00139	**0.067**	**0.128**	< 0.00139	**0.0264**	**0.00219**
00ODSE03	< 0.00137	< 0.00137	**0.00477**	**0.0113**	< 0.00137	< 0.00137	< 0.00137
Transect 5							
00ODSE04	< 0.00104	< 0.00104	**0.0117**	**0.0197**	< 0.00104	**0.00257**	< 0.00104
00ODSE05	**0.00175**	< 0.00096	**0.0149**	< 0.00096	< 0.00096	**0.00271**	< 0.00096
00ODSE06	< 0.000727	< 0.000727	**0.00589**	**0.00304**	< 0.000727	< 0.000727	< 0.000727
00ODSE07	< 0.000667	< 0.000667	**0.00279**	< 0.000667	< 0.000667	< 0.000667	< 0.000667
Transect 4							
00ODSE08	< 0.00097	< 0.00097	**0.021**	< 0.00097	< 0.00097	**0.00961**	< 0.00097
00ODSE09	**0.00499**	< 0.00108	< 0.00108	< 0.00108	< 0.00108	**0.00457**	**0.0147**
00ODSE10	< 0.00116	< 0.00116	**0.00256**	**0.00236**	< 0.00116	**0.00835**	**0.00689**
00ODSE11	< 0.000807	< 0.000807	**0.00578**	**0.00752**	< 0.000807	< 0.000807	< 0.000807
Transect 3							
00ODSE12	< 0.00066	< 0.00066	**0.00329**	**0.00218**	< 0.00066	< 0.00066	< 0.00066
00ODSE13	< 0.000717	< 0.000717	< 0.000717	< 0.000717	< 0.000717	< 0.000717	< 0.000717
00ODSE14	**0.00125**	< 0.00117	**0.0154**	**0.0185**	< 0.00117	< 0.00117	< 0.00117
00ODSE15	< 0.00131	< 0.00131	< 0.00131	< 0.00131	< 0.00131	< 0.00131	< 0.00131
Transect 2							
00ODSE16	< 0.00143	< 0.00143	< 0.00143	**0.00166**	< 0.00143	< 0.00143	< 0.00143
00ODSE17	< 0.0013	< 0.0013	**0.00168**	0.00225	< 0.0013	< 0.0013	< 0.0013
Transect 1							
00ODSE19	< 0.00129	< 0.00129	< 0.00129	< 0.00129	< 0.00129	< 0.00129	< 0.00129
00ODSE20	< 0.00124	< 0.00124	**0.0016**	< 0.00124	< 0.00124	< 0.00124	< 0.00124
00ODSE21	< 0.00252	< 0.00252	**0.00349**	**0.00377**	< 0.00252	< 0.00252	< 0.00252

NOTES

BOLD: Detected concentrations

(a) Transect 6: Furthest Off-shore (approx 2.2 km from Turpin Dike); Transect 1furthest on-shore (within Turpin Unit of Farmington Bay Waterfowl Management Area). See Section 7, Figure 7-1

Samle ID		cis-nonachlor		trans-nonachlor		endosulfan II		HCB		mirex		pentachloro-anisole
00ODSE01		**0.00185**		**0.00177**		**0.00405**	<	0.00116	<	0.00116	<	0.00116
00ODSE02		**0.0261**		**0.0307**		**0.0158**	<	0.00139		**0.00565**		**0.00143**
00ODSE03		**0.00366**		**0.00318**		**0.00226**	<	0.00137	<	0.00137	<	0.00137
00ODSE04		**0.00508**		**0.00511**		**0.00315**	<	0.00104	<	0.00104	<	0.00104
00ODSE05		**0.00298**	<	0.00096	<	0.00096	<	0.00096	<	0.00096	<	0.00096
00ODSE06	<	0.000727	<	0.000727		**0.0025**	<	0.000727	<	0.000727	<	0.000727
00ODSE07		**0.00232**	<	0.000667		**0.000702**	<	0.000667	<	0.000667	<	0.000667
00ODSE08		**0.00101**		**0.00639**	<	0.00097	<	0.00097		**0.00526**	<	0.00097
00ODSE09	<	0.00108	<	0.00108	<	0.00108		**0.0012**	<	0.00108	<	0.00108
00ODSE10		**0.00944**		**0.0128**		**0.00363**		**0.00607**	<	0.00116	<	0.00116
00ODSE11		**0.00337**		**0.00262**		**0.00165**	<	0.000807	<	0.000807	<	0.000807
00ODSE12		**0.00124**		**0.00111**		**0.00319**	<	0.00066	<	0.00066	<	0.00066
00ODSE13	<	0.000717	<	0.000717	<	0.000717	<	0.000717	<	0.000717	<	0.000717
00ODSE14		**0.00698**		**0.0122**		**0.00356**	<	0.00117		**0.00227**	<	0.00117
00ODSE15	<	0.00131	<	0.00131	<	0.00131	<	0.00131	<	0.00131	<	0.00131
00ODSE16	<	0.00143	<	0.00143	<	0.00143	<	0.00143	<	0.00143	<	0.00143
00ODSE17		**0.00135**		**0.00172**	<	0.0013	<	0.0013	<	0.0013	<	0.0013
00ODSE19	<	0.00129	<	0.00129		**0.00398**	<	0.00129	<	0.00129	<	0.00129
00ODSE20	<	0.00124	<	0.00124	<	0.00124	<	0.00124	<	0.00124	<	0.00124
00ODSE21	<	0.00252	<	0.00252		**0.00295**	<	0.00252	<	0.00252	<	0.00252

Table D-3. Non-alkylated Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments from the Oil Drain Delta in Farmington Bay, Great Salt Lake, Utah , 2000. ***(Page 1 of 4)***

Sample ID	Collection Date	% M		acenaphthalene		acenaphthene	anthracene	Benzo (*a*) anthracene		Dibenz (*a,h*) anthracene
Transect 6[(a)]										
00ODSE01	4/12/2000	57.5		0.009		0.0097	0.0465	0.0632		0.0236
00ODSE02	4/17/2000	64.9		0.109		0.165	0.898	0.368		0.0821
00ODSE03	4/19/2000	63.6		0.0095	<	*0.0031*	0.045	0.14	<	*0.0031*
Transect 5										
00ODSE04	4/17/2000	52.4		0.0137	<	*0.0025*	0.0643	0.0553		0.0416
00ODSE05	4/12/2000	49.7		0.0928		0.0172	0.619	0.445		0.826
00ODSE06	4/19/2000	31.2		0.0136	<	*0.002*	0.224	0.0412		0.253
00ODSE07	4/19/2000	26.5		0.0036		0.0042	0.051	0.0131		0.042
Transect 4										
00ODSE08	4/17/2000	50.2		0.0282	<	*0.0025*	0.152	0.105		0.135
00ODSE09	4/12/2000	55.4		0.0466		0.0076	0.292	0.151		0.155
00ODSE10	4/20/2000	57.5		0.0366		0.0514	0.157	0.118		0.0302
00ODSE11	4/19/2000	38.8		0.006	<	*0.002*	0.051	0.0195		0.0465
Transect 3										
00ODSE12	4/12/2000	26.3	<	*0.0015*		0.005	0.0141	0.008		0.012
00ODSE13	4/12/2000	30.4	<	*0.002*	<	*0.002*	0.0076	0.0057		0.0047
00ODSE14	4/20/2000	58.2		0.0198	<	*0.003*	0.0477	0.0418		0.0309
00ODSE15	4/20/2000	62.1	<	*0.0035*	<	*0.0035*	0.0189	0.0146		0.0133
Transect 2										
00ODSE16	4/20/2000	65.7		0.012		0.0132	0.025	0.0258		0.0145
00ODSE17	4/20/2000	62.1		0.0093		0.016	0.0391	0.0281		0.0179
Transect 1										
00ODSE19	4/27/2000	61.5		0.0515	<	*0.003*	0.242	0.114		0.229
00ODSE20	4/27/2000	59.9		0.0999	<	*0.003*	0.285	0.099		0.328
00ODSE21	4/27/2000	80.5		0.0176		0.0287	0.0452	0.0505		0.0285

NOTES

Italics: Non-Detected concentrations (shown as < Detection Limit)

(a) Transect 6: Furthest Off-shore (approx 2.2 km from Turpin Dike); Transect 1furthest on-shore (within Turpin Unit of Farmington Bay Waterfowl Management Area). See Section 7, Figure 7-1

Sample ID	benzo (*b*) fluoranthene	benzo (*e*) pyrene	benzo (*g,h,i*) perylene	benzo (*k*) fluoranthene	biphenyl	chrysene	dibenzo thiophene
00ODSE01	0.0457	0.0702	0.0438	0.0125	*< 0.0029*	0.102	0.008
00ODSE02	0.228	0.397	0.247	0.0731	0.0356	0.631	0.46
00ODSE03	0.0526	0.0305	0.0653	0.01	*< 0.0031*	0.129	0.00962
00ODSE04	0.0767	0.167	0.11	0.0145	*< 0.0025*	0.232	0.00992
00ODSE05	1.08	2.31	1.64	0.178	0.0282	1.61	0.0462
00ODSE06	0.114	0.64	0.629	0.0143	0.0037	0.158	*< 0.002*
00ODSE07	0.061	0.202	0.103	0.0072	*< 0.0015*	0.152	*< 0.0015*
00ODSE08	0.215	0.428	0.363	0.05	0.0068	0.855	0.0199
00ODSE09	0.28	0.72	0.433	0.0643	0.0083	1.07	0.0333
00ODSE10	0.105	0.122	0.094	0.0284	0.0232	0.224	0.0539
00ODSE11	0.0883	0.294	0.156	0.0203	*< 0.002*	0.201	0.00531
00ODSE12	0.0249	0.0456	0.0279	0.0045	*< 0.0015*	0.0733	0.0143
00ODSE13	0.0108	0.0167	0.0116	*< 0.002*	*< 0.002*	0.0168	*< 0.0036*
00ODSE14	0.0852	0.107	0.0902	0.0242	*< 0.003*	0.136	0.00785
00ODSE15	0.0267	0.0375	0.0382	0.0079	*< 0.0035*	0.0393	*< 0.0066*
00ODSE16	0.0471	0.0536	0.0514	0.011	*< 0.0035*	0.0728	*< 0.0035*
00ODSE17	0.0455	0.0626	0.0639	0.0154	*< 0.003*	0.0777	0.00728
00ODSE19	0.0096	0.205	0.524	*< 0.003*	0.0206	0.188	0.0153
00ODSE20	0.193	0.529	0.722	0.0539	0.0147	0.165	0.0091
00ODSE21	0.0774	0.0989	0.101	0.0159	*< 0.0065*	0.131	0.016

NOTES

Italics: Non-Detected concentrations (shown as < Detection Limit)

Table D-3. Non-alkylated Polycyclic Aromatic Hydrocarbons (PAHs) in Sediments from the Oil Drain Delta in Farmington Bay, Great Salt Lake, Utah , 2000. ***(Page 3 of 4)***

Sample ID	Collection Date	% M	fluor-anthene	fluorene	naphthal-ene	1-methyl naphthalene	2-methyl naphthalene	1,6,7-Trimethyl-naphthalene
Transect 6[(a)]								
00ODSE01	4/12/2000	57.5	0.0675	0.0084	0.0089	0.0116	0.0183	0.312
00ODSE02	4/17/2000	64.9	0.348	0.186	0.0664	0.716	0.141	2.97
00ODSE03	4/19/2000	63.6	0.0494	0.0081	0.0119	0.0113	0.0205	0.0535
Transect 5								
00ODSE04	4/17/2000	52.4	0.0474	0.0138	0.0129	0.0118	0.0279	0.0439
00ODSE05	4/12/2000	49.7	0.419	0.0623	0.0622	0.0796	0.208	0.282
00ODSE06	4/19/2000	31.2	0.0098	0.0069	0.0146	0.0169	0.0429	0.0197
00ODSE07	4/19/2000	26.5	0.0109	0.004	0.0077	0.0073	0.0145	0.0124
Transect 4								
00ODSE08	4/17/2000	50.2	0.173	0.0178	0.0183	0.0172	0.0439	0.0495
00ODSE09	4/12/2000	55.4	0.123	0.0224	0.0197	0.0225	0.0543	0.0575
00ODSE10	4/20/2000	57.5	0.172	0.147	0.0558	0.103	0.207	0.759
00ODSE11	4/19/2000	38.8	0.015	*< 0.002*	0.0089	0.0062	0.0139	0.0119
Transect 3								
00ODSE12	4/12/2000	26.3	0.0144	*< 0.0015*	0.0052	0.0049	0.008	0.0308
00ODSE13	4/12/2000	30.4	0.0052	*< 0.002*	0.0057	0.0056	0.0063	0.0076
00ODSE14	4/20/2000	58.2	0.0388	0.0096	0.0112	0.0092	0.0237	0.0179
00ODSE15	4/20/2000	62.1	0.0272	0.0074	0.0116	*< 0.0035*	0.0147	0.0127
Transect 2								
00ODSE16	4/20/2000	65.7	0.0431	0.0165	0.0126	0.0102	0.0192	0.0308
00ODSE17	4/20/2000	62.1	0.0607	0.0111	0.0162	0.014	0.0246	0.0258
Transect 1								
00ODSE19	4/27/2000	61.5	0.0937	0.0265	0.0563	0.0722	0.198	0.0633
00ODSE20	4/27/2000	59.9	0.072	0.024	0.0434	0.0376	0.097	0.0614
00ODSE21	4/27/2000	80.5	0.0961	0.0227	0.0136	0.0158	0.0203	0.0672

NOTES

Italics: Non-Detected concentrations (shown as < Detection Limit)

(a) Transect 6: Furthest Off-shore (approx 2.2 km from Turpin Dike); Transect 1furthest on-shore (within Turpin Unit of Farmington Bay Waterfowl Management Area). See Section 7, Figure 7-1

Sample ID	2,6-dimethyl naphthalene	perylene	phenanthrene	1-methyl phenanthrene	pyrene	indeno(1,2,3-cd)pyrene	Total PAH (summed)[(b)]
00ODSE01	0.058	0.0272	0.0875	0.123	0.25	0.0268	1.48
00ODSE02	1.47	0.136	3.19	2.04	1.29	0.11	16.75
00ODSE03	0.0344	0.153	0.0563	0.0635	0.14	0.0357	1.18
00ODSE04	0.035	0.0174	0.0584	0.088	0.314	0.0563	1.56
00ODSE05	0.158	0.125	0.382	0.46	2.87	0.89	16.01
00ODSE06	0.0172	0.0184	0.0276	0.0855	0.0874	0.251	2.75
00ODSE07	0.0106	*0.0015*	0.0167	0.0212	0.0658	0.0531	0.89
00ODSE08	0.0445	0.0117	0.105	0.269	1.27	0.178	4.61
00ODSE09	0.0406	0.0639	0.108	0.115	1.06	0.216	5.29
00ODSE10	0.481	0.0369	0.512	0.445	0.426	0.0602	4.56
00ODSE11	0.0119	0.0046	0.022	0.0102	0.0734	0.0673	1.18
00ODSE12	0.0214	*< 0.0015*	0.0257	0.0586	0.0499	0.014	0.48
00ODSE13	0.0078	*< 0.002*	0.007	0.0067	0.0104	0.0082	0.17
00ODSE14	0.0194	0.028	0.0312	0.0183	0.175	0.0592	1.16
00ODSE15	0.0136	0.0083	0.0248	0.0135	0.0458	0.0203	0.44
00ODSE16	0.0308	0.0097	0.037	0.0257	0.0883	0.0298	0.73
00ODSE17	0.0263	0.0098	0.0493	0.03	0.104	0.037	0.83
00ODSE19	0.11	0.0273	0.146	0.0303	0.196	0.0776	2.91
00ODSE20	0.0593	0.0504	0.0891	0.0264	0.149	0.386	3.85
00ODSE21	0.0777	0.0145	0.083	0.0605	0.232	0.0535	1.45

NOTES

Italics: Non-Detected concentrations (shown as < Detection Limit)

(b) Sum of detected PAH's

Table D-4. Alkylated Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments from the Oil Drain Delta in Farmington Bay, Great Salt Lake, Utah , 2000. *(Page 1 of 3)*

Sample ID	Collection Date	% M	C1-Fluor-anthenes & Pyrenes	C1-Phen-anthrenes & Anthracenes	C1-chrysenes	C1-dibenzo thiophenes	C1-fluorenes	C1-naphth-alenes
Transect 6[(a)]								
00ODSE01	4/12/2000	57.5	0.705	0.431	0.239	0.235	0.32	0.0299
00ODSE02	4/17/2000	64.9	3.32	8.35	2.77	3.79	2.72	0.857
00ODSE03	4/19/2000	63.6	0.137	0.086	0.0278	0.065	0.0841	0.0319
Transect 5								
00ODSE04	4/17/2000	52.4	0.985	0.301	0.725	0.111	0.0591	0.0397
00ODSE05	4/12/2000	49.7	8.39	1.83	3.12	0.373	0.344	0.288
00ODSE06	4/19/2000	31.2	0.532	0.214	0.388	0.016	0.0281	0.0598
00ODSE07	4/19/2000	26.5	0.3	0.0707	0.28	0.0206	0.014	0.0218
Transect 4								
00ODSE08	4/17/2000	50.2	2.63	0.742	1.64	0.257	0.113	0.0611
00ODSE09	4/12/2000	55.4	3.41	0.574	2.58	0.18	0.147	0.0767
00ODSE10	4/20/2000	57.5	0.896	1.52	0.652	0.946	0.86	0.31
00ODSE11	4/19/2000	38.8	0.257	0.0694	0.411	0.0171	0.0099	0.0202
Transect 3								
00ODSE12	4/12/2000	26.3	0.106	0.137	0.133	0.115	0.0233	0.0129
00ODSE13	4/12/2000	30.4	0.0242	0.0216	0.0273	0.012	0.0068	0.0119
00ODSE14	4/20/2000	58.2	0.395	0.0874	0.368	0.0284	0.0365	0.0329
00ODSE15	4/20/2000	62.1	0.0779	0.0607	0.0645	0.023	0.0186	0.0212
Transect 2								
00ODSE16	4/20/2000	65.7	0.172	0.122	0.157	0.0401	0.0571	0.0293
00ODSE17	4/20/2000	62.1	0.192	0.121	0.168	0.0444	0.0359	0.0386
Transect 1								
00ODSE19	4/27/2000	61.5	0.437	0.283	0.429	0.0339	0.0451	0.27
00ODSE20	4/27/2000	59.9	0.357	0.237	0.502	0.0202	0.0444	0.135
00ODSE21	4/27/2000	80.5	0.331	0.282	0.318	0.0811	0.128	0.0361

NOTES

Italics: Non-Detected concentrations (shown as < Detection Limit

(a) Transect 6: Furthest Off-shore (approx 2.2 km from Turpin Dike); Transect 1furthest on-shore (within Turpin Unit of Farmington Bay Waterfowl Management Area). See Section 7, Figure 7-1

Sample ID	C2-Phen-anthrenes & Anthracenes	C2-chrysenes	C2-dibenzo thiophenes	C2-fluorenes	C2-naphtha-lenes	C3-Phenanth-renes & Anthracenes	C3-chrysenes	C3-dibenzo thiophenes
00ODSE01	0.924	0.285	0.573	1.04	0.248	0.934	0.0177	0.459
00ODSE02	10.7	2.91	5.8	5	8.45	6.98	0.236	4.11
00ODSE03	0.42	0.0818	0.258	0.253	0.108	0.48	0.0068	0.336
00ODSE04	1.25	0.711	0.759	0.406	0.0846	1.81	0.0515	1.18
00ODSE05	3.8	4.68	1.41	1.7	0.455	4	0.389	1.86
00ODSE06	0.19	0.573	0.048	0.138	0.0575	0.162	0.0934	0.0771
00ODSE07	0.127	0.24	0.0867	0.0505	0.0368	0.148	0.0265	0.15
00ODSE08	3.03	1.35	1.56	1.1	0.0987	3.06	0.0949	2.11
00ODSE09	2.46	2.27	1.57	0.516	0.115	4.27	0.154	3.13
00ODSE10	2.84	0.622	1.63	2.15	1.35	2.21	0.0549	1.28
00ODSE11	0.118	0.419	0.0702	0.0227	0.0307	0.141	0.0309	0.124
00ODSE12	0.327	0.115	0.282	0.106	0.0563	0.208	0.0089	0.225
00ODSE13	0.0469	0.0387	0.0382	0.0246	0.0324	0.0452	*0.0036*	0.0393
00ODSE14	0.27	0.461	0.137	0.122	0.0589	0.537	0.0386	0.334
00ODSE15	0.114	0.0734	0.064	0.071	0.0425	0.133	0.0084	0.0723
00ODSE16	0.27	0.147	0.155	0.218	0.065	0.279	0.0139	0.173
00ODSE17	0.292	0.185	0.15	0.122	0.0773	0.337	0.0156	0.218
00ODSE19	0.298	0.522	0.0588	0.126	0.316	0.177	0.0623	0.0723
00ODSE20	0.206	0.651	0.0399	0.0875	0.133	0.158	0.103	0.0432
00ODSE21	0.505	0.348	0.233	0.276	0.144	0.667	0.0526	0.318

Table D-4. Alkylated Polycyclic Aromatic Hydrocarbons (PAHs) in Sediments from the Oil Drain Delta in Farmington Bay, Great Salt Lake, Utah , 2000. ***(Page 1 of 3)***

Sample ID	Collection Date	C3-fluorenes	C3-naphthalenes	C4-Phen-anthrenes & Anthracenes	C4-chrysenes	C4-naphthalenes
Transect 6[(a)]						
00ODSE01	4/12/2000	0.97	1.29	0.39	0.0166	0.898
00ODSE02	4/17/2000	4.15	17.8	3.4	0.12	13.1
00ODSE03	4/19/2000	0.344	0.273	0.316	*< 0.0068*	0.328
Transect 5						
00ODSE04	4/17/2000	0.863	0.207	1.29	0.0629	0.416
00ODSE05	4/12/2000	2.94	1.28	3.2	0.977	1.9
00ODSE06	4/19/2000	0.233	0.0932	0.132	0.058	0.132
00ODSE07	4/19/2000	0.17	0.0607	0.138	0.0877	0.0585
Transect 4						
00ODSE08	4/17/2000	1.63	0.176	1.43	0.162	0.341
00ODSE09	4/12/2000	1.12	0.235	2.95	0.227	0.574
00ODSE10	4/20/2000	1.79	3.28	0.849	0.0332	3.41
00ODSE11	4/19/2000	0.102	0.044	0.244	0.1	0.0321
Transect 3						
00ODSE12	4/12/2000	0.522	0.12	0.112	0.0188	0.105
00ODSE13	4/12/2000	0.0568	0.0481	0.0381	0.0068	0.0343
00ODSE14	4/20/2000	0.292	0.062	0.383	0.0381	0.123
00ODSE15	4/20/2000	0.0905	0.0675	0.0448	0.0147	0.0822
Transect 2						
00ODSE16	4/20/2000	0.364	0.124	0.178	0.0154	0.264
00ODSE17	4/20/2000	0.248	0.0948	0.262	0.0288	0.131
Transect 1						
00ODSE19	4/27/2000	0.19	0.234	0.306	0.184	0.152
00ODSE20	4/27/2000	0.116	0.123	0.128	0.301	0.0693
00ODSE21	4/27/2000	0.424	0.301	0.396	0.0414	0.444

NOTES

Italics: Non-Detected concentrations (shown as < Detection Limit

(a) Transect 6: Furthest Off-shore (approx 2.2 km from Turpin Dike); Transect 1furthest on-shore (within Turpin Unit of Farmington Bay Waterfowl Management Area). See Section 7, Figure 7-1

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APPENDIX E

Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments, Macroinvertebrates, Barn Swallow (*Hirundo* rustica) Eggs and Chicks, Ogden Bay Waterfowl Management Area compared to Bear River Migratory Bird Refuge (Reference Area), 1999

Table E-1. Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 1 of 10)*

Loc'n Code	Sample Number	Sample Weight	Collection Date	Common Name	%M	1,6,7-Trimethyl-naphthalene	1-methyl-naphthalene
Sediments (Composite)							
ON	9OBSE03	1069	7/20/1999		40.9	**0.012**	**0.006**
ON	9OBSE01	343	6/25/1999		38.2	**0.016**	**0.006**
ON	9OBSE02	1172	7/20/1999		25	**0.007**	**0.002**
BR	9BRSE01	221	6/23/1999		37.6	**0.002**	**0.001**
BR	9BRSE02	395	7/22/1999		28.6	**0.032**	**0.007**
BR	9BRSE03	377	7/22/1999		35.1	**0.001**	**0.001**
Benthic Macroinvertebrates (Composite)							
ON	9OBCH01	4.51	7/18/1999	Chironomids	86.7	< 0.070	< 0.070
ON	99OBFI02	2.85	9/2/1999	Mixed Invert's	58.7	< 0.023	< 0.023
BR	9BRCH01	4.22	7/23/1999	Chironomids	91.3	< 0.218	< 0.218
BR	9BRMI01	9	7/22/1999	Mixed Invert's	65.7	< 0.013	< 0.013
BR	9BRMI02	30	7/22/1999	Mixed Invert's	69.6	< 0.015	< 0.015
BR	9BRMI04	10	7/23/1999	Mixed Invert's	70.9	< 0.016	< 0.016
Avian Eggs (Barn Swallow; Individual)							
ON	9OBBS07E	2.98	6/9/1999	Barn Swallow	82.1	< 0.153	< 0.153
ON	9OBBS11E	3.18	6/9/1999	Barn Swallow	81.9	< 0.153	< 0.153
ON	9OBBS01E	2.77	6/6/1999	Barn Swallow	78.3	< 0.136	< 0.136
ON	9OBBS05E	3.65	6/9/1999	Barn Swallow	82	< 0.106	< 0.106
ON	9OBBS06E	2.85	6/9/1999	Barn Swallow	79.9	< 0.083	< 0.083
ON	9OBBS15E	3.37	6/9/1999	Barn Swallow	81.6	< 0.093	< 0.093
ON	9OBBS24E	2.81	6/18/1999	Barn Swallow	81.5	< 0.096	< 0.096
ON	9OBBS28E	2.86	6/18/1999	Barn Swallow	76.7	< 0.071	< 0.071
ON	9OBBS41E	3.32	6/25/1999	Barn Swallow	81.3	< 0.094	**0.171**
ON	9OBBS43E	3.23	6/25/1999	Barn Swallow	82	< 0.089	< 0.089
ON	9OBBS49E	3.03	6/30/1999	Barn Swallow	80.8	< 0.095	< 0.095
ON	9OBBS52E	3.03	7/1/1999	Barn Swallow	81	< 0.104	< 0.104
ON	9OBBS55E	2.67	6/30/1999	Barn Swallow	78.8	< 0.094	< 0.094
ON	9OBBS56E	3.02	6/30/1999	Barn Swallow	78.2	< 0.084	< 0.084
ON	9OBBS67E	3.31	7/9/1999	Barn Swallow	77.5	< 0.088	< 0.088
BR	9BRBS03E	2.94	7/9/1999	Barn Swallow	80.3	< 0.145	< 0.145
BR	9BRBS20E	2.81	6/9/1999	Barn Swallow	83.1	< 0.168	< 0.168
BR	9BRBS22E	2.5	6/14/1999	Barn Swallow	79.5	< 0.137	< 0.137
BR	9BRBS26E	2.62	6/9/1999	Barn Swallow	69.2	< 0.083	< 0.083
BR	9BRBS29E	3.66	7/14/1999	Barn Swallow	83.6	< 0.158	< 0.158
BR	9BRBS36E	2.67	6/9/1999	Barn Swallow	80.7	< 0.141	< 0.141
BR	9BRBS37E	3.08	7/12/1999	Barn Swallow	80.5	< 0.127	< 0.127
BR	9BRBS38E	2.32	6/16/1999	Barn Swallow	80.1	< 0.137	< 0.137
BR	9BRBS39E	2.29	7/9/1999	Barn Swallow	75.9	< 0.138	< 0.138
BR	9BRBS79E	3.18	7/9/1999	Barn Swallow	78.9	< 0.137	< 0.137
BR	9BRBS81E	2.78	7/12/1999	Barn Swallow	82.2	< 0.134	< 0.134
BR	9BRBS83E	3.46	7/9/1999	Barn Swallow	81	< 0.149	< 0.149
BR	9BRBS90E	2.78	7/12/1999	Barn Swallow	81.2	< 0.144	< 0.144
BR	9BRBS91E	2.62	7/7/1999	Barn Swallow	79.4	< 0.143	< 0.143
BR	9BRBS92E	3.04	7/9/1999	Barn Swallow	79.6	< 0.140	< 0.140

Sample Number	1-methyl-phenanthrene	2,6-dimethyl-naphthalene	2-methyl-naphthalene	Benzo (a) anthracene	Dibenz (a,h) anthracene	ace-naphthalene
9OBSE03	**0.008**	**0.012**	**0.013**	**0.030**	**0.004**	**0.003**
9OBSE01	**0.011**	**0.010**	**0.011**	**0.049**	**0.008**	**0.004**
9OBSE02	**0.006**	**0.003**	**0.004**	**0.025**	**0.003**	**0.001**
9BRSE01	< 0.001	**0.002**	**0.002**	**0.001**	< 0.001	< 0.001
9BRSE02	**0.002**	**0.005**	**0.008**	< 0.001	< 0.001	< 0.001
9BRSE03	**0.001**	**0.001**	**0.002**	**0.003**	< 0.001	< 0.001
9OBCH01	**0.151**	< 0.070	**0.070**	**1.880**	**0.089**	**0.224**
99OBFI02	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
9BRCH01	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218
9BRMI01	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
9BRMI02	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRMI04	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS07E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
9OBBS11E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
9OBBS01E	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136
9OBBS05E	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106
9OBBS06E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
9OBBS15E	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093
9OBBS24E	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096
9OBBS28E	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071
9OBBS41E	< 0.094	< 0.094	**0.190**	< 0.094	< 0.094	< 0.094
9OBBS43E	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089
9OBBS49E	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
9OBBS52E	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104
9OBBS55E	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
9OBBS56E	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084
9OBBS67E	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
9BRBS03E	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145
9BRBS20E	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168
9BRBS22E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS26E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
9BRBS29E	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158
9BRBS36E	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141
9BRBS37E	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127
9BRBS38E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS39E	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138
9BRBS79E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS81E	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134
9BRBS83E	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149
9BRBS90E	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144
9BRBS91E	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143
9BRBS92E	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140

Table E-1. Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 3 of 10)*

Loc'n Code	Sample Number	ace-naphthene	anthracene	benzo(a) pyrene	benzo(b) fluoranthene	benzo(e) pyrene	benzo(g,h,i) perylene
Sediments (Composite)							
ON	9OBSE03	**0.003**	**0.009**	**0.026**	**0.039**	**0.024**	**0.015**
ON	9OBSE01	**0.005**	**0.016**	**0.046**	**0.062**	**0.037**	**0.027**
ON	9OBSE02	**0.004**	**0.007**	**0.022**	**0.024**	**0.014**	**0.009**
BR	9BRSE01	< 0.001	< 0.001	**0.004**	**0.003**	**0.002**	**0.002**
BR	9BRSE02	< 0.001	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
BR	9BRSE03	**0.001**	**0.001**	**0.004**	**0.005**	**0.003**	**0.002**
Benthic Macroinvertebrates (Composite)							
ON	9OBCH01	< 0.070	**0.337**	**1.030**	**1.100**	**0.583**	**0.432**
ON	99OBFI02	**0.064**	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
BR	9BRCH01	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218
BR	9BRMI01	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
BR	9BRMI02	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRMI04	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
Avian Eggs (Barn Swallow; Individual)							
ON	9OBBS07E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
ON	9OBBS11E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
ON	9OBBS01E	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136
ON	9OBBS05E	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106
ON	9OBBS06E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
ON	9OBBS15E	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093
ON	9OBBS24E	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096
ON	9OBBS28E	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071
ON	9OBBS41E	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
ON	9OBBS43E	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089
ON	9OBBS49E	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
ON	9OBBS52E	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104
ON	9OBBS55E	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
ON	9OBBS56E	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084
ON	9OBBS67E	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
BR	9BRBS03E	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145
BR	9BRBS20E	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168
BR	9BRBS22E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
BR	9BRBS26E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
BR	9BRBS29E	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158
BR	9BRBS36E	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141
BR	9BRBS37E	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127
BR	9BRBS38E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
BR	9BRBS39E	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138
BR	9BRBS79E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
BR	9BRBS81E	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134
BR	9BRBS83E	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149
BR	9BRBS90E	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144
BR	9BRBS91E	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143
BR	9BRBS92E	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140

Sample Number	benzo(k) fluoranthene	biphenyl	chrysene	dibenzo-thiophene	fluoranthene	fluorene	indeno (1,2,3-cd) pyrene
9OBSE03	**0.018**	**0.002**	**0.037**	**0.004**	**0.065**	**0.006**	**0.025**
9OBSE01	**0.027**	**0.003**	**0.054**	**0.005**	**0.097**	**0.008**	**0.048**
9OBSE02	**0.012**	**0.001**	**0.028**	**0.002**	**0.056**	**0.004**	**0.014**
9BRSE01	**0.001**	**0.001**	**0.003**	< 0.001	**0.004**	**0.001**	**0.003**
9BRSE02	< 0.001	**0.001**	**0.001**	< 0.001	**0.002**	< 0.001	**0.001**
9BRSE03	**0.002**	**0.001**	**0.004**	< 0.001	**0.009**	**0.001**	**0.003**
9OBCH01	**0.808**	< 0.070	**1.330**	< 0.070	**3.200**	**0.106**	**0.504**
99OBFI02	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
9BRCH01	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218
9BRMI01	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
9BRMI02	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRMI04	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS07E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
9OBBS11E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
9OBBS01E	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136
9OBBS05E	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106
9OBBS06E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
9OBBS15E	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093
9OBBS24E	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096
9OBBS28E	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071
9OBBS41E	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
9OBBS43E	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089
9OBBS49E	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
9OBBS52E	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104
9OBBS55E	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
9OBBS56E	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084
9OBBS67E	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
9BRBS03E	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145
9BRBS20E	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168
9BRBS22E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS26E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
9BRBS29E	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158
9BRBS36E	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141
9BRBS37E	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127
9BRBS38E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS39E	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138
9BRBS79E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS81E	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134
9BRBS83E	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149
9BRBS90E	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144
9BRBS91E	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143
9BRBS92E	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140

Table E-1. Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 5 of 10)*

Loc'n Code	Sample Number	naphthalene	perylene	phenanthrene	pyrene
Sediments (Composite)					
ON	9OBSE03	**0.010**	**0.027**	**0.027**	**0.071**
ON	9OBSE01	**0.012**	**0.033**	**0.047**	**0.107**
ON	9OBSE02	**0.005**	**0.010**	**0.025**	**0.061**
BR	9BRSE01	**0.001**	**0.016**	**0.003**	**0.004**
BR	9BRSE02	**0.007**	**0.004**	**0.004**	**0.002**
BR	9BRSE03	**0.002**	**0.014**	**0.006**	**0.008**
Benthic Macroinvertebrates (Composite)					
ON	9OBCH01	**0.144**	**0.252**	**1.280**	**2.290**
ON	99OBFI02	**0.023**	< 0.023	< 0.023	< 0.023
BR	9BRCH01	**0.372**	< 0.218	< 0.218	< 0.218
BR	9BRMI01	**0.018**	< 0.013	< 0.013	< 0.013
BR	9BRMI02	**0.021**	< 0.015	< 0.015	< 0.015
BR	9BRMI04	**0.020**	< 0.016	< 0.016	< 0.016
Avian Eggs (Barn Swallow; Individual)					
ON	9OBBS07E	< 0.153	< 0.153	< 0.153	< 0.153
ON	9OBBS11E	< 0.153	< 0.153	< 0.153	< 0.153
ON	9OBBS01E	< 0.136	< 0.136	< 0.136	< 0.136
ON	9OBBS05E	< 0.106	< 0.106	< 0.106	< 0.106
ON	9OBBS06E	< 0.083	< 0.083	< 0.083	< 0.083
ON	9OBBS15E	< 0.093	< 0.093	< 0.093	< 0.093
ON	9OBBS24E	< 0.096	< 0.096	< 0.096	< 0.096
ON	9OBBS28E	< 0.071	< 0.071	< 0.071	< 0.071
ON	9OBBS41E	**0.283**	< 0.094	< 0.094	< 0.094
ON	9OBBS43E	< 0.089	< 0.089	< 0.089	< 0.089
ON	9OBBS49E	< 0.095	< 0.095	< 0.095	< 0.095
ON	9OBBS52E	< 0.104	< 0.104	< 0.104	< 0.104
ON	9OBBS55E	< 0.094	< 0.094	< 0.094	< 0.094
ON	9OBBS56E	< 0.084	< 0.084	< 0.084	< 0.084
ON	9OBBS67E	< 0.088	< 0.088	< 0.088	< 0.088
BR	9BRBS03E	< 0.145	< 0.145	< 0.145	< 0.145
BR	9BRBS20E	< 0.168	< 0.168	< 0.168	< 0.168
BR	9BRBS22E	< 0.137	< 0.137	< 0.137	< 0.137
BR	9BRBS26E	< 0.083	< 0.083	< 0.083	< 0.083
BR	9BRBS29E	< 0.158	< 0.158	< 0.158	< 0.158
BR	9BRBS36E	< 0.141	< 0.141	< 0.141	< 0.141
BR	9BRBS37E	< 0.127	< 0.127	< 0.127	< 0.127
BR	9BRBS38E	< 0.137	< 0.137	< 0.137	< 0.137
BR	9BRBS39E	< 0.138	< 0.138	< 0.138	< 0.138
BR	9BRBS79E	**0.275**	< 0.137	< 0.137	< 0.137
BR	9BRBS81E	< 0.134	< 0.134	< 0.134	< 0.134
BR	9BRBS83E	< 0.149	< 0.149	< 0.149	< 0.149
BR	9BRBS90E	< 0.144	< 0.144	< 0.144	< 0.144
BR	9BRBS91E	< 0.143	< 0.143	< 0.143	< 0.143
BR	9BRBS92E	< 0.140	< 0.140	< 0.140	< 0.140

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Table E-1. Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 6 of 10)*

Loc'n Code	Sample Number	Sample Weight	Collection Date	Common Name	%M	1,6,7-Trimethyl-naphthalene	1-methyl-naphthalene
Nestlings (Barn Swallow; Individual)							
ON	9OBBS24N	20.08	7/1/1999	Barn Swallow	71.8	< 0.018	< 0.018
ON	9OBBS05N	20.25	6/28/1999	Barn Swallow	67.2	< 0.015	< 0.015
ON	9OBBS06N	21.09	6/21/1999	Barn Swallow	68.1	< 0.016	< 0.016
ON	9OBBS07N	16.96	6/21/1999	Barn Swallow	74	< 0.019	< 0.019
ON	9OBBS11N	11.89	6/18/1999	Barn Swallow	74.8	< 0.020	< 0.020
ON	9OBBS15N	13.97	6/18/1999	Barn Swallow	75.6	< 0.019	< 0.019
ON	9OBBS28N	17.18	7/1/1999	Barn Swallow	75.2	< 0.019	< 0.019
ON	9OBBS41N	10.99	7/1/1999	Barn Swallow	80.4	< 0.025	< 0.025
ON	9OBBS43N	16.35	7/6/1999	Barn Swallow	73.9	< 0.018	< 0.018
ON	9OBBS49N	21.07	7/12/1999	Barn Swallow	68.7	< 0.014	< 0.014
ON	9OBBS52N	17.16	7/12/1999	Barn Swallow	74.5	< 0.019	< 0.019
ON	9OBBS55N	11.17	7/12/1999	Barn Swallow	77.9	< 0.022	< 0.022
ON	9OBBS56N	19.64	7/16/1999	Barn Swallow	70.4	< 0.016	< 0.016
ON	9OBBS67N	18.42	7/20/1999	Barn Swallow	75	< 0.020	< 0.020
BR	9OBBS01N	15.49	6/21/1999	Barn Swallow	76.2	< 0.019	< 0.019
BR	9BRBS03N	14.94	7/19/1999	Barn Swallow	74.2	< 0.017	< 0.017
BR	9BRBS20N	16.29	6/21/1999	Barn Swallow	66.7	< 0.014	< 0.014
BR	9BRBS22N	20.33	6/25/1999	Barn Swallow	67	< 0.015	< 0.015
BR	9BRBS26N	15.44	6/25/1999	Barn Swallow	73.1	< 0.018	< 0.018
BR	9BRBS29N	15.1	7/21/1999	Barn Swallow	76.7	< 0.017	< 0.017
BR	9BRBS36N	18.2	6/23/1999	Barn Swallow	69.5	< 0.015	< 0.015
BR	9BRBS37N	10.87	7/21/1999	Barn Swallow	74.1	< 0.019	< 0.019
BR	9BRBS38N	21	6/28/1999	Barn Swallow	73.9	< 0.018	< 0.018
BR	9BRBS39N	17.88	7/23/1999	Barn Swallow	72.9	< 0.017	< 0.017
BR	9BRBS79J	13.64	7/23/1999	Barn Swallow	71.7	< 0.017	< 0.017
BR	9BRBS81N	16.54	7/21/1999	Barn Swallow	74.6	**0.025**	**0.059**
BR	9BRBS83N	9.29	7/16/1999	Barn Swallow	81.3	< 0.024	< 0.024
BR	9BRBS90N	10.14	7/19/1999	Barn Swallow	79.5	< 0.023	< 0.023
BR	9BRBS91N	10.15	7/14/1999	Barn Swallow	79.7	< 0.022	< 0.022
BR	9BRBS92C	15.91	7/19/1999	Barn Swallow	76.1	< 0.020	< 0.020
Gastrointestinal Tract Contents (Composite)							
ON	9OBII01	6.62	7/23/1999	Barn Swallow	68.2	< 0.015	< 0.015
BR	9BRII01	4.54	7/23/1999	Barn Swallow	57.5	< 0.011	< 0.011

Sample Number	1-methyl-phenanthrene	2,6-dimethyl-naphthalene	2-methyl-naphthalene	Benzo (a) anthracene	Dibenz (a,h) anthracene	ace-naphthalene
9OBBS24N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9OBBS05N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9OBBS06N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS07N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS11N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBBS15N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS28N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS41N	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
9OBBS43N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9OBBS49N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
9OBBS52N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS55N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
9OBBS56N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS67N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBBS01N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9BRBS03N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS20N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
9BRBS22N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRBS26N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9BRBS29N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS36N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRBS37N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9BRBS38N	**0.034**	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9BRBS39N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS79J	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS81N	< 0.017	**0.023**	**0.084**	< 0.017	< 0.017	< 0.017
9BRBS83N	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024
9BRBS90N	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
9BRBS91N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
9BRBS92C	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBII01	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRII01	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011

Table E-1. Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 8 of 10)*

Loc'n Code	Sample Number	ace-naphthene	anthracene	benzo(a) pyrene	benzo(b) fluoranthene	benzo(e) pyrene	benzo(g,h,i) perylene
Nestlings (Barn Swallow; Individual)							
ON	9OBBS24N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
ON	9OBBS05N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
ON	9OBBS06N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
ON	9OBBS07N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS11N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
ON	9OBBS15N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS28N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS41N	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
ON	9OBBS43N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
ON	9OBBS49N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
ON	9OBBS52N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS55N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
ON	9OBBS56N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
ON	9OBBS67N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
BR	9OBBS01N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
BR	9BRBS03N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS20N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
BR	9BRBS22N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRBS26N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
BR	9BRBS29N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS36N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRBS37N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
BR	9BRBS38N	< 0.018	0.065	< 0.018	< 0.018	< 0.018	< 0.018
BR	9BRBS39N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS79J	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS81N	**0.041**	**0.100**	**0.024**	< 0.017	< 0.017	< 0.017
BR	9BRBS83N	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024
BR	9BRBS90N	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
BR	9BRBS91N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
BR	9BRBS92C	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Gastrointestinal Tract Contents (Composite)							
ON	9OBII01	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRII01	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011

Sample Number	benzo(k) fluoranthene	biphenyl	chrysene	dibenzo-thiophene	fluoranthene	fluorene	indeno (1,2,3-cd) pyrene
9OBBS24N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9OBBS05N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9OBBS06N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS07N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS11N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBBS15N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS28N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS41N	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
9OBBS43N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9OBBS49N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
9OBBS52N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS55N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
9OBBS56N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS67N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBBS01N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9BRBS03N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS20N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
9BRBS22N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRBS26N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9BRBS29N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS36N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRBS37N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9BRBS38N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9BRBS39N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS79J	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS81N	< 0.017	**0.021**	< 0.017	< 0.017	**0.018**	**0.019**	< 0.017
9BRBS83N	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024
9BRBS90N	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
9BRBS91N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
9BRBS92C	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBII01	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRII01	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011

Table E-1. Polynuclear Aromatic Hydrocarbons (PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 10 of 10)*

Loc'n Code	Sample Number	naphthalene	perylene	phenanthrene	pyrene
Nestlings (Barn Swallow; Individual)					
ON	9OBBS24N	< 0.018	< 0.018	< 0.018	< 0.018
ON	9OBBS05N	< 0.015	< 0.015	< 0.015	< 0.015
ON	9OBBS06N	< 0.016	< 0.016	< 0.016	< 0.016
ON	9OBBS07N	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS11N	< 0.020	< 0.020	< 0.020	< 0.020
ON	9OBBS15N	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS28N	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS41N	< 0.025	< 0.025	< 0.025	< 0.025
ON	9OBBS43N	**0.021**	< 0.018	< 0.018	< 0.018
ON	9OBBS49N	**0.016**	< 0.014	< 0.014	< 0.014
ON	9OBBS52N	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS55N	**0.025**	< 0.022	< 0.022	< 0.022
ON	9OBBS56N	< 0.016	< 0.016	< 0.016	< 0.016
ON	9OBBS67N	**0.024**	< 0.020	< 0.020	< 0.020
BR	9OBBS01N	< 0.019	< 0.019	< 0.019	< 0.019
BR	9BRBS03N	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS20N	< 0.014	< 0.014	< 0.014	< 0.014
BR	9BRBS22N	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRBS26N	< 0.018	< 0.018	< 0.018	< 0.018
BR	9BRBS29N	**0.021**	< 0.017	< 0.017	< 0.017
BR	9BRBS36N	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRBS37N	< 0.019	< 0.019	< 0.019	< 0.019
BR	9BRBS38N	< 0.018	< 0.018	**0.026**	< 0.018
BR	9BRBS39N	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS79J	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS81N	**0.093**	**0.030**	**0.075**	< 0.017
BR	9BRBS83N	< 0.024	< 0.024	< 0.024	< 0.024
BR	9BRBS90N	< 0.023	< 0.023	< 0.023	< 0.023
BR	9BRBS91N	< 0.022	< 0.022	< 0.022	< 0.022
BR	9BRBS92C	< 0.020	< 0.020	< 0.020	< 0.020
Gastrointestinal Tract Contents (Composite)					
ON	9OBII01	**0.017**	< 0.015	< 0.015	< 0.015
BR	9BRII01	**0.013**	< 0.011	< 0.011	< 0.011

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Table E-2. Alkylated Polynuclear Aromatic Hydrocarbons (A-PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 1 of 8)*

Loc'n Code	Sample Number	Sample Weight (grams)	Collection Date	Common Name	%M	C1-Fluoranthenes & Pyrenes	C1-Phen-anthrenes & Anthracenes
Sediments (Composite)							
ON	9OBSE03	1069	7/20/1999	Sediment	40.9	**0.044**	**0.030**
ON	9OBSE01	343	6/25/1999	Sediment	38.2	**0.064**	**0.040**
ON	9OBSE02	1172	7/20/1999	Sediment	25	**0.032**	**0.021**
BR	9BRSE01	221	6/23/1999	Sediment	37.6	**0.002**	**0.003**
BR	9BRSE02	395	7/22/1999	Sediment	28.6	**0.002**	**0.005**
BR	9BRSE03	377	7/22/1999	Sediment	35.1	**0.003**	**0.003**
Benthic Macroinvertebrates (Composite)							
ON	9OBCH01	4.51	7/18/1999	Chironomids	86.7	**0.822**	**0.523**
ON	99OBFI02	2.85	9/2/1999	Mixed Invert's	58.7	< 0.023	< 0.023
BR	9BRCH01	4.22	7/23/1999	Chironomids	91.3	< 0.218	< 0.218
BR	9BRMI01	9	7/22/1999	Mixed Invert's	65.7	< 0.013	< 0.013
BR	9BRMI02	30	7/22/1999	Mixed Invert's	69.6	< 0.015	< 0.015
BR	9BRMI04	10	7/23/1999	Mixed Invert's	70.9	< 0.016	< 0.016
Avian Eggs (Barn Swallow; Individual)							
ON	9OBBS07E	2.98	6/9/1999	Barn Swallow	82.1	< 0.153	< 0.153
ON	9OBBS11E	3.18	6/9/1999	Barn Swallow	81.9	< 0.153	< 0.153
ON	9OBBS01E	2.77	6/6/1999	Barn Swallow	78.3	< 0.136	< 0.136
ON	9OBBS05E	3.65	6/9/1999	Barn Swallow	82	< 0.106	< 0.106
ON	9OBBS06E	2.85	6/9/1999	Barn Swallow	79.9	< 0.083	< 0.083
ON	9OBBS15E	3.37	6/9/1999	Barn Swallow	81.6	< 0.093	< 0.093
ON	9OBBS24E	2.81	6/18/1999	Barn Swallow	81.5	< 0.096	< 0.096
ON	9OBBS28E	2.86	6/18/1999	Barn Swallow	76.7	< 0.071	< 0.071
ON	9OBBS41E	3.32	6/25/1999	Barn Swallow	81.3	< 0.094	< 0.094
ON	9OBBS43E	3.23	6/25/1999	Barn Swallow	82	< 0.089	< 0.089
ON	9OBBS49E	3.03	6/30/1999	Barn Swallow	80.8	< 0.095	< 0.095
ON	9OBBS52E	3.03	7/1/1999	Barn Swallow	81	< 0.104	< 0.104
ON	9OBBS55E	2.67	6/30/1999	Barn Swallow	78.8	< 0.094	< 0.094
ON	9OBBS56E	3.02	6/30/1999	Barn Swallow	78.2	< 0.084	< 0.084
ON	9OBBS67E	3.31	7/9/1999	Barn Swallow	77.5	< 0.088	< 0.088
BR	9BRBS03E	2.94	7/9/1999	Barn Swallow	80.3	< 0.145	< 0.145
BR	9BRBS20E	2.81	6/9/1999	Barn Swallow	83.1	< 0.168	< 0.168
BR	9BRBS22E	2.5	6/14/1999	Barn Swallow	79.5	< 0.137	< 0.137
BR	9BRBS26E	2.62	6/9/1999	Barn Swallow	69.2	< 0.083	< 0.083
BR	9BRBS29E	3.66	7/14/1999	Barn Swallow	83.6	< 0.158	< 0.158
BR	9BRBS36E	2.67	6/9/1999	Barn Swallow	80.7	< 0.141	< 0.141
BR	9BRBS37E	3.08	7/12/1999	Barn Swallow	80.5	< 0.127	< 0.127
BR	9BRBS38E	2.32	6/16/1999	Barn Swallow	80.1	< 0.137	< 0.137
BR	9BRBS39E	2.29	7/9/1999	Barn Swallow	75.9	< 0.138	< 0.138
BR	9BRBS79E	3.18	7/9/1999	Barn Swallow	78.9	< 0.137	< 0.137
BR	9BRBS81E	2.78	7/12/1999	Barn Swallow	82.2	< 0.134	< 0.134
BR	9BRBS83E	3.46	7/9/1999	Barn Swallow	81	< 0.149	< 0.149
BR	9BRBS90E	2.78	7/12/1999	Barn Swallow	81.2	< 0.144	< 0.144
BR	9BRBS91E	2.62	7/7/1999	Barn Swallow	79.4	< 0.143	< 0.143
BR	9BRBS92E	3.04	7/9/1999	Barn Swallow	79.6	< 0.140	< 0.140

Sample Number	C1-chrysenes	C1-dibenzo-thiophenes	C1-fluorenes	C1-naphthalenes	C2-Phen-anthrenes & Anthracenes	C2-chrysenes
9OBSE03	**0.031**	**0.011**	**0.009**	**0.019**	**0.035**	**0.030**
9OBSE01	**0.056**	**0.013**	**0.014**	**0.017**	**0.048**	**0.043**
9OBSE02	**0.019**	**0.004**	**0.006**	**0.007**	**0.017**	**0.013**
9BRSE01	**0.003**	**0.001**	**0.002**	**0.003**	**0.003**	**0.003**
9BRSE02	**0.002**	**0.002**	**0.002**	**0.015**	**0.005**	**0.002**
9BRSE03	**0.002**	**0.001**	**0.002**	**0.003**	**0.003**	**0.002**
9OBCH01	**0.442**	**0.075**	**0.114**	**0.120**	**0.341**	**0.106**
99OBFI02	< 0.023	< 0.023	< 0.023	**0.027**	< 0.023	< 0.023
9BRCH01	< 0.218	< 0.218	< 0.218	**0.276**	< 0.218	< 0.218
9BRMI01	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
9BRMI02	< 0.015	< 0.015	< 0.015	**0.018**	< 0.015	< 0.015
9BRMI04	< 0.016	< 0.016	< 0.016	**0.021**	< 0.016	< 0.016
9OBBS07E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
9OBBS11E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
9OBBS01E	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136
9OBBS05E	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106
9OBBS06E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
9OBBS15E	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093
9OBBS24E	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096
9OBBS28E	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071
9OBBS41E	< 0.094	< 0.094	< 0.094	**0.361**	< 0.094	< 0.094
9OBBS43E	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089
9OBBS49E	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
9OBBS52E	< 0.104	< 0.104	< 0.104	**0.109**	< 0.104	< 0.104
9OBBS55E	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
9OBBS56E	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084
9OBBS67E	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
9BRBS03E	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145
9BRBS20E	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168	< 0.168
9BRBS22E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS26E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
9BRBS29E	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158
9BRBS36E	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141
9BRBS37E	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127
9BRBS38E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS39E	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138
9BRBS79E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS81E	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134
9BRBS83E	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149
9BRBS90E	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144
9BRBS91E	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143
9BRBS92E	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140

Table E-2. Alkylated Polynuclear Aromatic Hydrocarbons (A-PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 3 of 8)*

Loc'n Code	Sample Number	C2-dibenzo-thiophenes	C2-fluorenes	C2-naphthalenes	C3-Phen-anthrenes & Anthracenes	C3-chrysenes
Sediments (Composite)						
ON	9OBSE03	**0.020**	**0.021**	**0.026**	**0.026**	**0.003**
ON	9OBSE01	**0.024**	**0.019**	**0.021**	**0.035**	**0.004**
ON	9OBSE02	**0.007**	**0.011**	**0.008**	**0.012**	**0.001**
BR	9BRSE01	**0.001**	**0.006**	**0.003**	**0.002**	< 0.001
BR	9BRSE02	**0.002**	**0.003**	**0.016**	**0.003**	< 0.001
BR	9BRSE03	**0.001**	**0.003**	**0.002**	**0.001**	< 0.001
Benthic Macroinvertebrates (Composite)						
ON	9OBCH01	**0.091**	< 0.070	**0.073**	**0.135**	< 0.070
ON	99OBFI02	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
BR	9BRCH01	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218
BR	9BRMI01	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
BR	9BRMI02	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRMI04	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
Avian Eggs (Barn Swallow; Individual)						
ON	9OBBS07E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
ON	9OBBS11E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
ON	9OBBS01E	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136
ON	9OBBS05E	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106
ON	9OBBS06E	< 0.083	< 0.083	**0.085**	< 0.083	< 0.083
ON	9OBBS15E	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093
ON	9OBBS24E	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096
ON	9OBBS28E	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071
ON	9OBBS41E	< 0.094	< 0.094	**0.172**	< 0.094	< 0.094
ON	9OBBS43E	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089
ON	9OBBS49E	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
ON	9OBBS52E	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104
ON	9OBBS55E	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
ON	9OBBS56E	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084
ON	9OBBS67E	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
BR	9BRBS03E	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145
BR	9BRBS20E	< 0.168	< 0.168	**0.231**	< 0.168	< 0.168
BR	9BRBS22E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
BR	9BRBS26E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
BR	9BRBS29E	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158
BR	9BRBS36E	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141
BR	9BRBS37E	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127
BR	9BRBS38E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
BR	9BRBS39E	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138
BR	9BRBS79E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
BR	9BRBS81E	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134
BR	9BRBS83E	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149
BR	9BRBS90E	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144
BR	9BRBS91E	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143
BR	9BRBS92E	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140

Sample Number	C3-dibenzo-thiophenes	C3-fluorenes	C3-naphthalenes	C4-Phen-anthrenes & Anthracenes	C4-chrysenes	C4-naphthalenes
9OBSE03	**0.022**	**0.023**	**0.031**	**0.014**	**0.003**	**0.026**
9OBSE01	**0.029**	**0.038**	**0.031**	**0.019**	**0.004**	**0.027**
9OBSE02	**0.008**	**0.010**	**0.014**	**0.005**	**0.001**	**0.010**
9BRSE01	**0.001**	**0.001**	**0.005**	**0.001**	< 0.001	**0.003**
9BRSE02	**0.002**	**0.003**	**0.005**	**0.001**	< 0.001	**0.015**
9BRSE03	**0.001**	**0.004**	**0.002**	< 0.001	< 0.001	**0.002**
9OBCH01	< 0.070	< 0.070	**0.081**	< 0.070	< 0.070	< 0.070
99OBFI02	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
9BRCH01	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218	< 0.218
9BRMI01	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
9BRMI02	< 0.015	**0.016**	< 0.015	< 0.015	< 0.015	< 0.015
9BRMI04	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS07E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
9OBBS11E	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153	< 0.153
9OBBS01E	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136	< 0.136
9OBBS05E	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106
9OBBS06E	< 0.083	< 0.083	**0.103**	< 0.083	< 0.083	< 0.083
9OBBS15E	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093
9OBBS24E	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096
9OBBS28E	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071
9OBBS41E	< 0.094	< 0.094	**0.152**	< 0.094	< 0.094	< 0.094
9OBBS43E	< 0.089	< 0.089	**0.131**	< 0.089	< 0.089	< 0.089
9OBBS49E	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
9OBBS52E	< 0.104	< 0.104	**0.119**	< 0.104	< 0.104	< 0.104
9OBBS55E	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
9OBBS56E	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084	< 0.084
9OBBS67E	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
9BRBS03E	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145	< 0.145
9BRBS20E	< 0.168	< 0.168	**0.173**	< 0.168	< 0.168	< 0.168
9BRBS22E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS26E	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083	< 0.083
9BRBS29E	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158
9BRBS36E	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141	< 0.141
9BRBS37E	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127	< 0.127
9BRBS38E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS39E	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138	< 0.138
9BRBS79E	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137	< 0.137
9BRBS81E	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134	< 0.134
9BRBS83E	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149	< 0.149
9BRBS90E	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144	< 0.144
9BRBS91E	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143
9BRBS92E	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140	< 0.140

Table E-2. Alkylated Polynuclear Aromatic Hydrocarbons (A-PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 5 of 8)*

Loc'n Code	Sample Number	Sample Weight	Collection Date	Common Name	%M	C1-Fluoranthenes & Pyrenes	C1-Phen-anthrenes & Anthracenes
Nestlings (Barn Swallow; Individual)							
ON	9OBBS24N	20.08	7/1/1999	Barn Swallow	71.8	< 0.018	< 0.018
ON	9OBBS05N	20.25	6/28/1999	Barn Swallow	67.2	< 0.015	< 0.015
ON	9OBBS06N	21.09	6/21/1999	Barn Swallow	68.1	< 0.016	< 0.016
ON	9OBBS07N	16.96	6/21/1999	Barn Swallow	74	< 0.019	< 0.019
ON	9OBBS11N	11.89	6/18/1999	Barn Swallow	74.8	< 0.020	< 0.020
ON	9OBBS15N	13.97	6/18/1999	Barn Swallow	75.6	< 0.019	< 0.019
ON	9OBBS28N	17.18	7/1/1999	Barn Swallow	75.2	< 0.019	< 0.019
ON	9OBBS41N	10.99	7/1/1999	Barn Swallow	80.4	< 0.025	< 0.025
ON	9OBBS43N	16.35	7/6/1999	Barn Swallow	73.9	< 0.018	< 0.018
ON	9OBBS49N	21.07	7/12/1999	Barn Swallow	68.7	< 0.014	< 0.014
ON	9OBBS52N	17.16	7/12/1999	Barn Swallow	74.5	< 0.019	< 0.019
ON	9OBBS55N	11.17	7/12/1999	Barn Swallow	77.9	< 0.022	< 0.022
ON	9OBBS56N	19.64	7/16/1999	Barn Swallow	70.4	< 0.016	< 0.016
ON	9OBBS67N	18.42	7/20/1999	Barn Swallow	75	< 0.020	< 0.020
BR	9OBBS01N	15.49	6/21/1999	Barn Swallow	76.2	< 0.019	< 0.019
BR	9BRBS03N	14.94	7/19/1999	Barn Swallow	74.2	< 0.017	< 0.017
BR	9BRBS20N	16.29	6/21/1999	Barn Swallow	66.7	< 0.014	< 0.014
BR	9BRBS22N	20.33	6/25/1999	Barn Swallow	67	< 0.015	< 0.015
BR	9BRBS26N	15.44	6/25/1999	Barn Swallow	73.1	< 0.018	< 0.018
BR	9BRBS29N	15.1	7/21/1999	Barn Swallow	76.7	< 0.017	< 0.017
BR	9BRBS36N	18.2	6/23/1999	Barn Swallow	69.5	< 0.015	< 0.015
BR	9BRBS37N	10.87	7/21/1999	Barn Swallow	74.1	< 0.019	< 0.019
BR	9BRBS38N	21	6/28/1999	Barn Swallow	73.9	< 0.018	< 0.018
BR	9BRBS39N	17.88	7/23/1999	Barn Swallow	72.9	< 0.017	< 0.017
BR	9BRBS79J	13.64	7/23/1999	Barn Swallow	71.7	< 0.017	< 0.017
BR	9BRBS81N	16.54	7/21/1999	Barn Swallow	74.6	< 0.017	< 0.017
BR	9BRBS83N	9.29	7/16/1999	Barn Swallow	81.3	< 0.024	< 0.024
BR	9BRBS90N	10.14	7/19/1999	Barn Swallow	79.5	< 0.023	< 0.023
BR	9BRBS91N	10.15	7/14/1999	Barn Swallow	79.7	< 0.022	< 0.022
BR	9BRBS92C	15.91	7/19/1999	Barn Swallow	76.1	< 0.020	< 0.020
Gastrointestinal Tract Contents (Composite)							
ON	9OBII01	6.62	7/23/1999	Barn Swallow	68.2	< 0.015	< 0.015
BR	9BRII01	4.54	7/23/1999	Barn Swallow	57.5	< 0.011	< 0.011

Sample Number	C1-chrysenes	C1-dibenzo-thiophenes	C1-fluorenes	C1-naphthalenes	C2-Phen-anthrenes & Anthracenes	C2-chrysenes
9OBBS24N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9OBBS05N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9OBBS06N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS07N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS11N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBBS15N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS28N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS41N	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
9OBBS43N	< 0.018	< 0.018	< 0.018	**0.020**	< 0.018	< 0.018
9OBBS49N	< 0.014	< 0.014	< 0.014	**0.019**	< 0.014	< 0.014
9OBBS52N	< 0.019	< 0.019	< 0.019	**0.024**	< 0.019	< 0.019
9OBBS55N	< 0.022	< 0.022	< 0.022	**0.027**	**0.048**	< 0.022
9OBBS56N	< 0.016	< 0.016	< 0.016	**0.018**	< 0.016	< 0.016
9OBBS67N	< 0.020	< 0.020	< 0.020	**0.023**	< 0.020	< 0.020
9OBBS01N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9BRBS03N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS20N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
9BRBS22N	< 0.015	< 0.015	**0.017**	< 0.015	< 0.015	< 0.015
9BRBS26N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9BRBS29N	< 0.017	< 0.017	**0.017**	< 0.017	< 0.017	< 0.017
9BRBS36N	< 0.015	< 0.015	< 0.015	**0.016**	< 0.015	< 0.015
9BRBS37N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9BRBS38N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9BRBS39N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS79J	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS81N	< 0.017	< 0.017	< 0.017	**0.143**	< 0.017	< 0.017
9BRBS83N	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024
9BRBS90N	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
9BRBS91N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
9BRBS92C	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBII01	< 0.015	< 0.015	< 0.015	**0.022**	< 0.015	< 0.015
9BRII01	< 0.011	< 0.011	< 0.011	**0.017**	< 0.011	< 0.011

Table E-2. Alkylated Polynuclear Aromatic Hydrocarbons (A-PAHs) in Sediments, Macroinvertebrates and Barn Swallow (*Hirundo rustica*) tissues, Ogden Bay Waterfowl Management Area (ON) compared to Bear River Migratory Bird Refuge (BR), 1999. (*Page 7of 8)*

Loc'n Code	Sample Number	C2-dibenzo-thiophenes	C2-fluorenes	C2-naphthalenes	C3-Phen-anthrenes & Anthracenes	C3-chrysenes
Nestlings (Barn Swallow; Individual)						
ON	9OBBS24N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
ON	9OBBS05N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
ON	9OBBS06N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
ON	9OBBS07N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS11N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
ON	9OBBS15N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS28N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS41N	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
ON	9OBBS43N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
ON	9OBBS49N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
ON	9OBBS52N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
ON	9OBBS55N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
ON	9OBBS56N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
ON	9OBBS67N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
BR	9OBBS01N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
BR	9BRBS03N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS20N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
BR	9BRBS22N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRBS26N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
BR	9BRBS29N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS36N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
BR	9BRBS37N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
BR	9BRBS38N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
BR	9BRBS39N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS79J	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
BR	9BRBS81N	< 0.017	< 0.017	**0.064**	< 0.017	< 0.017
BR	9BRBS83N	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024
BR	9BRBS90N	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
BR	9BRBS91N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
BR	9BRBS92C	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Gastrointestinal Tract Contents (Composite)						
ON	9OBII01	< 0.015	**0.032**	< 0.015	< 0.015	< 0.015
BR	9BRII01	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011

Sample Number	C3-dibenzo-thiophenes	C3-fluorenes	C3-naphthalenes	C4-Phen-anthrenes & Anthracenes	C4-chrysenes	C4-naphthalenes
9OBBS24N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9OBBS05N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9OBBS06N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS07N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS11N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBBS15N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS28N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS41N	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
9OBBS43N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9OBBS49N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
9OBBS52N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9OBBS55N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
9OBBS56N	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016
9OBBS67N	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBBS01N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9BRBS03N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS20N	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014
9BRBS22N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRBS26N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9BRBS29N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS36N	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRBS37N	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019	< 0.019
9BRBS38N	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018	< 0.018
9BRBS39N	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS79J	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
9BRBS81N	< 0.017	< 0.017	**0.085**	< 0.017	< 0.017	**0.024**
9BRBS83N	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024
9BRBS90N	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
9BRBS91N	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022
9BRBS92C	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
9OBII01	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015	< 0.015
9BRII01	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011