

**SUMMARY OF SAMPLE ANALYSIS, NOVEMBER 2008**  
**CITY OF ITHACA DREDGING STUDY**  
**ERM PROJECT NO. 0080140**

Boring Location Sample ID Sample Depth (ft)	Standards		1		2			3		4		5		6			7
	TOGS 5.1.9: Class A	Part 375 Unrestricted Soil Standards	Ich-1 1-6	Ich-1 6-12	Ich-2 1-6	Ich-2 6-10	Ich-2 10-14	Ich-3 1-6	Ich-3 6-12	Ich-4 1-6	Ich-4 6-12	Ich-5 4-10	Ich-5 10-14	Ich-6 1-6	Ich-6 6-10	Ich-6 10-14	Ich-7 1-14
<i>BTEX Compounds (µg/Kg)</i>																	
Toluene	BTEX <960	700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<i>PAHs (µg/Kg)</i>																	
2-Methylnaphthalene	See Total PAHs	NS	--	--	--	180 J	--	--	--	--	--	--	--	--	--	--	90 J
Acenaphthene	See Total PAHs	20,000	--	--	--	750	--	--	--	--	--	--	--	--	--	--	120 J
Acenaphthylene	See Total PAHs	100,000	--	--	--	92 J	--	--	--	--	--	--	--	--	--	--	--
Anthracene	See Total PAHs	100,000	--	--	--	300 J	--	--	--	--	--	--	--	--	--	--	230 J
Benzo[a]anthracene	See Total PAHs	1,000	170 J	140 J	150 J	610	--	240 J	--	83 J	--	--	--	88 J	--	--	390 J
Benzo[a]pyrene	See Total PAHs	1,000	170 J	140 J	170 J	510	--	280 J	--	91 J	--	--	--	98 J	--	--	350 J
Benzo[b]fluoranthene	See Total PAHs	1,000	230 J	240 J	300 J	650	--	550 J	--	140 J	--	--	--	160 J	--	--	590
Benzo[g,h,i]perylene	See Total PAHs	100,000	86 J	--	110 J	150 J	--	170 J	--	58 J	--	--	--	64 J	--	--	130 J
Benzo[k]fluoranthene	See Total PAHs	800	110 J	90 J	140 J	270 J	--	190 J	--	60 J	--	--	--	71 J	--	--	210 J
Chrysene	See Total PAHs	1,000	190 J	170 J	210 J	630	--	350 J	--	99 J	--	--	--	120 J	--	--	460 J
Fluoranthene	See Total PAHs	100,000	370 J	350 J	410 J	1100	--	700	--	210 J	--	--	--	220 J	65 J	--	1200
Fluorene	See Total PAHs	30,000	--	--	--	380	--	--	--	--	--	--	--	--	--	--	160 J
Indeno[1,2,3-cd]pyrene	See Total PAHs	500	63 J	--	71 J	65 J	--	100 J	--	--	--	--	--	--	--	--	70 J
Naphthalene	See Total PAHs	12,000	--	--	--	240 J	--	--	--	--	--	--	--	--	--	--	130 J
Phenanthrene	See Total PAHs	100,000	170 J	230 J	180 J	1200	--	280 J	--	91 J	--	--	--	92 J	71 J	--	1500
Pyrene	See Total PAHs	100,000	290 J	330 J	330 J	1400	--	630 J	--	160 J	--	--	--	180 J	54 J	--	1100
Total PAHs	<4000		1849	1690	2071	<b>8527</b>	--	3490	--	992	--	--	--	1093	190	--	6730
<i>Metals (mg/Kg)</i>																	
Arsenic	<8.2	13	3.5	6.5	5.6	2.8	3.3	5.4	2.1	4.3	2.2	4	1.3 J	4.5	2.3	2.5	4.8
Cadmium	<1.2	2.5	--	0.29 J	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	no standard	30	12	19	19	13	12	18	7.6	12	10	13	6.8	14	8.2	8.7	13
Copper	<33	50	18	31	27	16	15	29	7.3	18	12	16	4.7	21	11	11	19
Lead	<47	63	13	32	21	11	7.4	25		12	8.4	10	3.5	20	7.1	5.4	27
Mercury	<0.17	0.18	0.055 J	0.3	0.076 J	0.18	0.047	0.076 J	0.033 J	0.043 J	0.043 J	0.15	0.087 J	0.047 J	0.03 J	0.031 J	0.13 J
Nickel	no standard	30	17	26	26	19	18	24	10	17	14	19	9.1	20	12	13	18
Zinc	no standard	109	68	98	97	61	58	100	31	60	46	57	30	70	42	37	70
<i>PCB's (mg/Kg)</i>																	
Aroclor 1254	Total PCB <0.1	0.10	--	0.0657	--	0.0294	0.0152	--	--	--	0.0423	0.00546 J	--	--	--	--	0.0427
<i>Total Organic Carbon (mg/Kg)</i>																	
TOC			23,700	17,600	17,500	22,900	20,400	25,200	10,500	15,100	10,400	26,700	3,970	17,200	34,900	30,500	14,400

**Notes**

-- : Analyte not detected. J : Below the Practical Quantitation Limits (PQL).  
µg/Kg: is equal to Parts Per Billion (ppb).  
mg/Kg: is equal to Parts Per Million (ppm).  
1-6 : sample composite interval in feet below sediment/water interface.

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Boring Location Sample ID Sample Depth (ft)	Standards		8	9	10	11	12	13		14	16	
	TOGS 5.1.9: Class A	Part 375 Unrestricted Soil Standards	Ich-8 2-10	Ich-8 10-14	Ich-9 1-14	Ich-10 1-14	Ich-11 1-14	Ich-12 1-14	Ich-13 1-10	Ich-13 10-14	Ich-14 1-14	Ich-16 1-14
<i>BTEX Compounds (µg/Kg)</i>												
Toluene	BTEX <960	700	--	--	--	--	--	--	--	--	0.94 J	--
<i>PAHs (µg/Kg)</i>												
2-Methylnaphthalene	See Total PAHs	NS	--	69 J	--	--	--	--	--	--	--	--
Acenaphthene	See Total PAHs	20,000	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	See Total PAHs	100,000	--	--	--	--	--	--	--	--	--	--
Anthracene	See Total PAHs	100,000	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	See Total PAHs	1,000	190 J	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	See Total PAHs	1,000	190 J	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	See Total PAHs	1,000	370 J	--	--	--	--	--	48 J	--	--	--
Benzo[g,h,i]perylene	See Total PAHs	100,000	80 J	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	See Total PAHs	800	190 J	--	--	--	--	--	--	--	--	--
Chrysene	See Total PAHs	1,000	240 J	--	--	--	--	--	--	--	--	--
Fluoranthene	See Total PAHs	100,000	440 J	--	--	--	--	--	63 J	--	--	--
Fluorene	See Total PAHs	30,000	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	See Total PAHs	500	--	--	--	--	--	--	--	--	--	--
Naphthalene	See Total PAHs	12,000	--	--	--	--	--	--	--	--	--	--
Phenanthrene	See Total PAHs	100,000	230 J	68 J	--	--	--	--	--	--	--	--
Pyrene	See Total PAHs	100,000	400 J	--	--	--	--	--	59 J	--	--	--
Total PAHs	<4000		2330	137	--	--	--	--	170	--	--	--
<i>Metals (mg/Kg)</i>												
Arsenic	<8.2	13	4.2	2.1	3.2	3	2.5	1.9	3.6	3.9	3.6	2.5
Cadmium	<1.2	2.5	--	--	--	--	--	--	--	--	--	--
Chromium	no standard	30	14	8.5	11	9.9	10	11	12	13	13	10
Copper	<33	50	25	9.2	16	14	15	8.5	12	13	12	8
Lead	<47	63	32	5	9.3	8.2	7.5	8.4	7.7	6.2	6.8	5.5
Mercury	<0.17	0.18	0.2	--	0.072 J	0.037 J	0.027 J	0.024 J	0.082 J	0.037 J	0.029 J	0.058 J
Nickel	no standard	30	19	12	16	14	15	16	17	17	20	15
Zinc	no standard	109	80	39	48	42	42	47	52	55	47	43
<i>PCB's (mg/Kg)</i>												
Aroclor 1254	Total PCB <0.1	0.10	0.0361	0.093 J	--	--	--	--	--	--	--	--
<i>Total Organic Carbon (mg/Kg)</i>												
TOC			18,900	23,900	26,600	33,600	27,700	21,100	11,300	15,200	14,000	7,760

**Notes**

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