APPENDIX L

NEW YORK SEDIMENT STANDARD COMPARISONS

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL METALS (mg/kg)

BANK SAMPLES

Sample Number 4MA0-	345OHW	345SF	327OHW	327SF	327M1	327M2	327OH2	327M3	327M4
USACE River Mile	(45.0)	(45.0)	(27.0)	(27.0)	(27.0)	(27.0)	(27.0)	(27.0)	(27.0)
Silver (Ag)	0.30	0.12	2.8 b	8.2 b	1.9 L	6.1 b	0.35	3.0 b	6.1 b
Arsenic (Ar)	17.6 L	11.0 L	43.5 b	56.6 b	21 b	43.5 b	13.3 L	25.1 L	47.7 b
Cadmium (Cd)	0.9 L	0.98 L	5.6 L	7.0 L	2.3 L	5.0 L	1.7 L	2.7 L	5.4 L
Chromium (Cr)	24.7	68.2 L	234 b	809 b	144 b	596 b	61.3 L	216 b	556 b
Copper (Cu)	36.8 L	44.2 L	436 b	537 b	133 b	455 b	91.3 L	167 b	550 b
Iron (Fe)	27800 L	23800 L	210000 b	254000 b	81300 b	255000 b	50500 b	102000 b	259000 b
Manganese (Mn)	2250 b	395	1970 b	1960 b	1830 b	1800 b	391	1770 b	1730 b
Nickel (Ni)	30.3 L	110 b	144 b	356 b	103 b	343 b	28.4 L	140 b	273 b
Lead (Pb)	117 b	46.5 L	278 b	536 b	132 b	425 b	76.3 L	194 b	335 b
Antimony (Sb)	0.38	0.93	6.9 L	6.4 L	1.1	5.3 L	1.3	1.0	8.5 L
Zinc (Zn)	227 L	131 L	1160 b	3150 b	751 b	2530 b	258 L	1040 b	2120 b
Mercury (Hg)	0.12	0.069	0.76 L	0.72 L	0.35 L	0.77 L	0.15 L	0.39 L	0.38 L

VERTICAL PROFILING SAMPLES

Sample Number EN98MR-	UC-1-VU	LE-3-VU	NW-3-VU	SW-3-VU	NI-10-VU	GI-4-VU	NY-2-VU	SY-3-VU	SC-2-VU	LO-3-VU
USACE River Mile	(~~NA~~) 461	(~~NA~~) 429	(40.0)	(36.8)	(27.0)	(23.2)	(21.1)	(18.2)	(16.3)	(13.0)
Silver (Ag)	0.053	ND(<1.2)	1.0 L	7.2 b	1.6 L	1.0 L	0.30	0.18	1.7 L	4.1 b
Arsenic (As)	17.0 L	22.2 L	23.0 L	23.3 L	14.5 L	73.7 b	30.8 L	14.3 L	18.5 L	27.4 L
Cadmium (Cd)	0.11	0.11	0.53	1.4 L	ND(<0.78)	ND(<12.0)	ND(<3.1)	1.0 L	2.2 L	5.0 L
Chromium (Cr)	16.3	16.2	236 b	461 b	96.1 L	56.8 L	31.3 L	42.1 L	116 b	276 b
Copper (Cu)	19.7 L	16.4 L	111 b	716 b	72.1 L	114 b	30.8 L	61.2 L	128 b	216 b
Iron (Fe)	28800 L	20600 L	65400 b	131000 b	65900 b	359000 b	149000 b	153000 b	88500 b	148000 b
Manganese (Mn)	274	345	1330 b	1250 b	635 L	4260 b	2220 b	1530 b	1590 b	1590 b
Nickel (Ni)	37.1 L	34.3 L	224 b	524 b	65.7 b	39.0 L	28.9 L	43.8 L	69.1 b	91.9 b
Lead (Pb)	22.1	21.6	78.2 L	272 b	99.3 L	415 b	46.7 L	62.9 L	6920 b	700 b
Antimony (Sb)	0.14	0.24	1.6	4.7 L	0.69	6.7 L	1.1	3.8 L	2.8 L	2.9 L
Zinc (Zn)	58.9	57.0	187 L	972 b	597 b	777 b	188 L	236 L	877 b	3710 b
Mercury (Hg)	0.0085	0.016	0.051	0.51 L	0.19 L	0.3 L	0.058	0.098	0.15 L	0.39 L

New York Department of Environmental Conservation, Division of Fish and Wildlife, Division of Marine Resources, "Technical Guidance for Screening Contaminated Sediment, November 22, 1993.

Persaud D., J. Jaagumagi, and A. Hayton, "Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario," Ontario Ministry of the Environment, Toronto, 24pp., 1994.

APPENDIX L
PAGE 1 OF 22

Note:
b - Concentration exceeds both the Lowest Effect and Severe Effect Levels.
L - Concentration exceeds only the Lowest Effect Level.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL PESTICIDES

SAMPLE NUMBER (EN98MR-)	PESTICIDE	PESTICIDE VALUES ug/kg	TOC VALUES (g/kg)	PESTICIDE EXPRESSED AS ug/g Organic Carbon
NY-2-VU	gamma-Chlordane	2.6	14.8	**0.18 a,b,c**
SY-3-VU	Endrin Ketone	120	70.1	**1.71 b,c**
SW-3-VU	4,4'-DDD	7.8	23.5	**0.33 c**
4MA0345SF	4,4'-DDD	4.0	34.3	**0.12 c**
4MA0345SF	Endosulfan sulfate	3.2	34.3	**0.09 a**
4MA0345OHW	Endosulfan sulfate	2.2	22.8	**0.10 a**
4MA0327OHW	Endosulfan sulfate	12.0	70.5	**0.17 a**
4MA0327M1	alpha-Chlordane	35	67.3	**0.52 a,b,c**
4MA0327M1	Gamma-Chlordane	32	67.3	**0.48 a,b,c**
4MA0327M1	4,4'-DDD	110	67.3	**1.63 a,b,c**
4MA0327M1	4,4'-DDE	47	67.3	**0.70 c**
4MA0327M1	4,4'-DDT	65	67.3	**0.97 c**
4MA0327M3	alpha-Chlordane	4.7	59.0	**0.08 a,b,c**
4MA0327M3	Gamma-Chlordane	3.5	60.0	**0.06 a,b,c**
4MA0327M3	4,4'-DDD	3.3	60.0	**0.06 c**
4MA0327M3	Dieldrin	3.0	60.0	0.05
4MA0327M4	4,4'-DDE	14	72.7	**0.19 c**

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Bank Samples

APPENDIX L
PAGE 2 OF 23

Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL VOCs

SAMPLE NUMBER (EN98MR-)	Volatile Organic Compound (VOC)	VOC VALUES ug/kg	TOC VALUES (g/kg)	VOC EXPRESSED AS ug/g Organic Carbon
SW-3-LF	Methylene chloride	210	23.5	8.94
	Acetone	1000	24.5	40.82
NI-10-LF	Benzene	0.14	40.4	0.0035

APPENDIX L
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NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL 2,3,7,8 - TCDD

SAMPLE NUMBER (EN98MR-)	DIOXIN	DIOXIN VALUES ug/kg	TOC VALUES (g/kg)	DIOXIN EXPRESSED AS ug/g Organic Carbon
NI-10-VU	2,3,7,8 - TCDD	0.0014	40.4	**0.000035 c**
4MA0345SF	2,3,7,8 - TCDD	0.0004	34.3	**0.000012 c**
4MA0327SF	2,3,7,8 - TCDD	0.013	97.4	**0.000133 c**

APPENDIX 1
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
UC-1-VU 46.2	bis (2-Ethylhexyl) phthalate	660	4.92	134.15
	Di-n-butyl phthalate	810	4.92	164.63
LE-3-VU 42.9	Benzo (a) anthracene	31	5.43	**5.71 c**
	Benzo (b) fluoranthene	30	5.43	**5.52 c**
	bis (2-Ethylhexyl) phthalate	700	5.43	128.91
	Chrysene	39	5.43	**7.18 c**
	Di-n-butyl phthalate	160	5.43	29.47
	Fluoranthene	60	5.43	11.05
	2-Methylnaphthalene	63	5.43	11.60
	Phenanthrene	68	5.43	12.52
	Pyrene	70	5.43	12.89
NW-3-VU 40.0	Anthracene	82	18.5	4.43
	Benzo (a) anthracene	170	18.5	**9.19 c**
	Benzo (b) fluoranthene	130	18.5	**7.03 c**
	Benzo (k) fluoranthene	130	18.5	**7.03 c**
	Benzo (ghi) perylene	77	18.5	4.16

APPENDIX L
PAGE 5 OF 22

Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

(b2) [illegible]

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
NW-3-VU	Benzo (a) pyrene	160	18.5	**8.65 c**
	bis (2-Ethylhexyl) phthalate	570	18.5	30.81
	Chrysene	180	18.5	**9.73 c**
	Di-n-butyl phthalate	210	18.5	11.35
	Fluoranthene	400	18.5	21.62
	Ideno (1,2,3-cd) pyrene	83	18.5	**4.49 c**
	Pentachlorophenol	270	18.5	**14.59 a**
	Phenol	310	18.5	**16.76 a**
SW-3-VU 36.8	Acenaphthene	1000	23.5	42.55
	(b2) Benzo (a) anthracene	1300	23.5	**55.32 c**
	(b2) Benzo (b) fluoranthene	1200	23.5	**51.06 c**
	bis (2-Ethylhexyl) phthalate	5600	23.5	**238.3 a**
	(b2) Chrysene	2200	23.5	**93.62 c**
	Fluoranthene	2700	23.5	114.89
	Fluorene	990	23.5	42.13
	Phenanthrene	3700	23.5	**157.45 a**
	Pyrene	2200	23.5	93.62

APPENDIX L
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
NI-10-VU 27.0	Benzo (a) anthracene	59	40.4	**1.46 c**
	Benzo (b) fluoranthene	62	40.4	**1.53 c**
	Benzo (a) pyrene	61	40.4	**1.51 c**
	bis (2-Ethylhexyl) phthalate	180	40.4	4.46
	Chrysene	83	40.4	**2.05 c**
	Di-n-butyl phthalate	120	40.4	2.97
	Diethyl phthalate	34	40.4	0.84
	Fluoranthene	140	40.4	3.47
	Phenanthrene	86	40.4	2.13
	Phenol	84	40.4	**2.08 a**
	Pyrene	100	40.4	2.48
	3-Methylphenol & 4-Methylphenol	290	40.4	**7.18 a**
GI-4-VU 23.1	Anthracene	140	48.2	2.90
	Benzo (a) anthracene	130	48.2	**2.70 c**
	bis (2-Ethylhexyl) phthalate	160	48.2	3.32
	Chrysene	190	48.2	**3.94 c**

APPENDIX L
PAGE 2 OF 22

Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

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NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
GI-4-VU	Dibenzofuran	69	48.2	1.43
	Di-n-butyl phthalate	3200	48.2	66.39
	2,4-Dimethylphenol	130	48.2	**2.70 a**
	Fluoranthene	270	48.2	5.60
	Fluorene	150	48.2	3.11
	Naphthalene	830	48.2	17.22
	Phenanthrene	540	48.2	11.20
	Phenol	2300	48.2	**47.72 a**
	Pyrene	200	48.2	4.15
	3-Methylphenol & 4-Methylphenol	720	48.2	**14.94 a**
SY-3-VU 18.2	Acenaphthene	47000	70.1	**670.47 a**
	Acenaphthylene	57000	70.1	813.12
	Anthracene	110000	70.1	1569.19
	Benzo (a) anthracene	110000	70.1	**1569.19 c**
	Benzo (b) fluoranthene	75000	70.1	**1069.9 c**
	Benzo (k) fluoranthene	79000	70.1	**1126.96 c**
	Benzo (ghi) perylene	49000	70.1	699.00

APPENDIX 4
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
SY-3-VU	Benzo (a) pyrene	94000	70.1	**1340.94 c**
	Chrysene	98000	70.1	**1398 c**
	Dibenzofuran	96000	70.1	1369.47
	Fluoranthene	250000	70.1	**3566.33 a**
	Fluorene	120000	70.1	1711.84
	b2 Ideno (1,2,3-cd) pyrene	56000	70.1	**798.86 c**
	2-Methylnaphthalene	65000	70.1	927.25
	Naphthalene	150000	70.1	2139.80
	Phenanthrene	340000	70.1	**4850.21 a**
	Pyrene	200000	70.1	2853.07
	Dibenz (a,h) anthracene	15000	70.1	213.98
	Carbazole	38000	70.1	542.08
SC-2-VU 16.3	Acenaphthene	420	152.0	2.76
	Acenaphthylene	490	152.0	3.22
	Anthracene	1100	152.0	7.24
	Benzo (a) anthracene	910	152.0	**5.99 c**
	Benzo (b) fluoranthene	1900	152.0	**12.50 c**

APPENDIX 1
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
SC-2-VU	Benzo (ghi) perylene	400	152.0	2.63
	Benzo (a) pyrene	1200	152.0	**7.89 c**
	Chrysene	2200	152.0	**14.47 c**
	Dibenzofuran	720	152.0	4.74
	2,4-Dimethylphenol	890	152.0	**5.86 a**
	Fluoranthene	3600	152.0	23.68
	Fluorene	1100	152.0	7.24
	Ideno (1,2,3-cd) pyrene	430	152.0	**2.83 c**
	2-Methylnaphthalene	830	152.0	5.46
	2-Methylphenol	3100	152.0	**20.39 a**
	Naphthalene	1700	152.0	11.18
	4-Nitrophenol	300	152.0	**1.97 a**
	N-Nitrosodiphenylamine	6700	152.0	44.08
	Phenanthrene	4100	152.0	26.97
	Phenol	4800	152.0	**31.58 a**
	Pyrene	2900	152.0	19.08
	2-Methylphenol & 4-Methylphenol	4600	152.0	**30.26 a**

APPENDIX 1
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
LO-3-VU	Acenaphthene	1100	92.0	11.96
	Acenaphthylene	510	92.0	5.54
	Anthracene	2300	92.0	25.00
	Benzo (a) anthracene	2400	92.0	**26.09 c**
	Benzo (b) fluoranthene	3400	92.0	**36.96 c**
	Benzo (ghi) perylene	490	92.0	5.33
	Benzo (a) pyrene	2500	92.0	**27.17 c**
	bis (2-Ethylhexyl) phthalate	590	92.0	6.41
	Chrysene	2300	92.0	**25.00 c**
	Dibenzofuran	1000	92.0	10.87
13.0	Fluoranthene	5600	92.0	60.87
	Fluorene	1800	92.0	19.57
	Ideno (1,2,3-cd) pyrene	780	92.0	**8.48 c**
	2-Methylnaphthalene	1000	92.0	10.87
	Naphthalene	2800	92.0	30.43
	Phenanthrene	4800	92.0	52.17
	Phenol	190	92.0	**2.07 a**

APPENDIX 1
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
LO-3-VU	Pyrene	2500	92.0	27.17
	3-Methylphenol & 4-Methylphenol	870	92.0	**9.46 a**
	Dibenz (a,h) anthracene	270	92.0	2.93
	Carbazole	300	92.0	3.26
4MA0345OHW	Benzo (a) anthracene	83	22.8	**3.64 c**
	Benzo (b) fluoranthene	68	22.8	**2.98 c**
	Benzo (k) fluoranthene	84	22.8	**3.68 c**
	Benzo (ghi) perylene	72	22.8	3.16
	Benzo (a) pyrene	72	22.8	**3.16 c**
	bis (2-Ethylhexyl) phthalate	140	22.8	6.14
	Chrysene	110	22.8	**4.82 c**
	Di-n-butyl phthalate	210	22.8	9.21
	Fluoranthene	130	22.8	5.70
	Ideno (1,2,3-cd) pyrene	65	22.8	**2.85 c**
	2-Methylnaphthalene	85	22.8	3.73
	Phenanthrene	120	22.8	5.26
	Pyrene	150	22.8	6.58

APPENDIX 1
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* A second analysis for sample 4MA0327M2

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
4MA0345SF PM 45	bis (2-Ethylhexyl) phthalate	110	34.3	3.21
	Di-n-butyl phthalate	130	34.3	3.79
	Fluoranthene	52	34.3	1.52
	Phenanthrene	120	34.3	3.50
	Pyrene	150	34.3	4.37
4MA0327OHW 270	Acenaphthylene	440	70.5	6.24
	Anthracene	460	70.5	6.52
	Benzo (a) anthracene	1500	70.5	**21.28 c**
	Benzo (b) fluoranthene	2300	70.5	**32.62 c**
	Benzo (ghi) perylene	730	70.5	10.35
	Benzo (a) pyrene	1600	70.5	**22.70 c**
	bis (2-Ethylhexyl) phthalate	670	70.5	9.50
	Chrysene	1600	70.5	**22.70 c**
	Dibenzofuran	170	70.5	2.41
	Di-n-butyl phthalate	170	70.5	2.41
	Fluoranthene	2200	70.5	31.21

APPENDIX L
PAGE 12 OF 22

Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
4MA0327OHW	Fluorene	140	70.5	1.99
	Ideno (1,2,3-cd) pyrene	900	70.5	**12.77 c**
	2-Methylnaphthalene	300	70.5	4.26
	Naphthalene	340	70.5	4.82
	Phenanthrene	1500	70.5	21.28
	Pyrene	1800	70.5	25.53
	Dibenz (a,h) anthracene	330	70.5	4.68
	Carbazole	110	70.5	1.56
4MA0327SF 270	bis (2-Ethylhexyl) phthalate	160	97.4	1.64
4MA0327M1 270	Acenaphthene	79	67.3	1.17
	Acenaphthylene	200	67.3	2.97
	Anthracene	300	67.3	4.46
	Benzo (a) anthracene	850	67.3	**12.63 c**
	Benzo (b) fluoranthene	1900	67.3	**28.23 c**
	Benzo (ghi) perylene	480	67.3	7.13
	Benzo (a) pyrene	1200	67.3	**17.83 c**

APPENDIX 1
PAGE 4 OF 22

Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
4MA0327M1	bis (2-Ethylhexyl) phthalate	260	67.3	3.86
	Chrysene	1300	67.3	**19.32 c**
	Dibenzofuran	160	67.3	2.38
	Di-n-butyl phthalate	690	67.3	10.25
	Fluoranthene	1700	67.3	25.26
	Fluorene	140	67.3	2.08
	Ideno (1,2,3-cd) pyrene	640	67.3	**9.51 c**
	2-Methylnaphthalene	310	67.3	4.61
	Naphthalene	440	67.3	6.54
	Phenanthrene	1100	67.3	16.34
	Phenol	68	67.3	**1.01 a**
	Pyrene	1400	67.3	20.80
	Dibenz (a,h) anthracene	260	67.3	3.86
	Carbazole	120	67.3	1.78
4MA0327M2	Acenaphthene	65	83.3	0.78
	Acenaphthylene	70	83.3	0.84
	Benzo (b) fluoranthene	380	83.3	**4.56 c**

Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

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4MA0327M2* bis (2-Ethylhexyl) phthalate 1700
1400
Chrysene 2500
Fluoranthene 850
Phenanthrene 1800
Pyrene

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
4MA0327M2	Benzo (a) pyrene	470	83.3	**5.64 c**
	bis (2-Ethylhexyl) phthalate	370	83.3	4.44
	Chrysene	800	83.3	**9.60 c**
	Fluoranthene	920	83.3	11.04
	Fluorene	52	83.3	0.62
	Ideno (1,2,3-cd) pyrene	86	83.3	1.03
	2-Methylnaphthalene	120	83.3	1.44
	Naphthalene	220	83.3	2.64
	Phenanthrene	440	83.3	5.28
	Phenol	280	83.3	**3.36 a**
	Pyrene	340	83.3	4.08
	3-Methylphenol & 4-Methylphenol	500	83.3	**6.00 a**
4MA0327M2*	Acenaphthene	290	83.3	3.48
	Acenaphthylene	240	83.3	2.88
	Anthracene	340	83.3	
	Benzo (a) anthracene	1000		

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NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
4MA0327M2*	Chrysene	1400	83.3	**16.81 c**
	Fluoranthene	2500	83.3	30.01
	Phenanthrene	850	83.3	10.20
	Pyrene	1800	83.3	21.61
4MA0327OH2	Acenaphthylene	45	13.4	3.36
	Anthracene	53	13.4	3.96
	Benzo (a) anthracene	200	13.4	**14.93 c**
	Benzo (b) fluoranthene	150	13.4	**11.19 c**
	Benzo (k) fluoranthene	200	13.4	**14.93 c**
	Benzo (ghi) perylene	150	13.4	11.19
	Benzo (a) pyrene	180	13.4	**13.43 c**
	bis (2-Ethylhexyl) phthalate	390	13.4	29.10
	Chrysene	190	13.4	**14.18 c**
	Di-n-butyl phthalate	420	13.4	31.34
	Fluoranthene	300	13.4	22.39
	Ideno (1,2,3-cd) pyrene	130	13.4	**9.70 c**
	Phenanthrene	200	13.4	14.93

APPENDIX L
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
4MA0327OH2	Pyrene	280	13.4	20.90
4MA0327M3	Acenaphthylene	190	59.0	3.22
	Anthracene	280	59.0	4.75
	Benzo (a) anthracene	840	59.0	**14.24 c**
	Benzo (b) fluoranthene	830	59.0	**14.07 c**
	Benzo (k) fluoranthene	810	59.0	**13.73 c**
	Benzo (ghi) perylene	700	59.0	11.86
	Benzo (a) pyrene	910	59.0	**15.42 c**
	bis (2-Ethylhexyl) phthalate	380	59.0	6.44
	Chrysene	980	59.0	**16.61 c**
	Dibenzofuran	130	59.0	2.20
	Fluoranthene	1600	59.0	27.12
	Fluorene	93	59.0	1.58
	Ideno (1,2,3-cd) pyrene	790	59.0	**13.39 c**
	2-Methylnaphthalene	270	59.0	4.58
	Naphthalene	380	59.0	6.44
	Phenanthrene	980	59.0	16.61

APPENDIX L
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
4MA0327M3	Pyrene	1400	59.0	23.73
	Dibenz (a,h) anthracene	250	59.0	4.24
	Carbazole	110	59.0	1.86
4MA0327M4	Acenaphthene	71	72.7	0.98
	Anthracene	70	72.7	0.96
	Benzo (a) anthracene	130	72.7	**1.79 c**
	Benzo (b) fluoranthene	82	72.7	1.13
	Benzo (k) fluoranthene	110	72.7	**1.51 c**
	Benzo (ghi) perylene	81	72.7	1.11
	Benzo (a) pyrene	95	72.7	**1.31 c**
	bis (2-Ethylhexyl) phthalate	300	72.7	4.13
	Chrysene	200	72.7	**2.75 c**
	Fluoranthene	330	72.7	4.54
	Fluorene	71	72.7	0.98
	Ideno (1,2,3-cd) pyrene	74	72.7	1.02
	Phenanthrene	230	72.7	3.16
	Phenol	100	72.7	**1.38 a**

APPENDIX 1
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE NUMBER (EN98MR-)	SVOC	SVOC VALUES ug/kg	TOC VALUES (g/kg)	SVOCs EXPRESSED AS ug/g Organic Carbon
4MA0327M4	Pyrene	370	72.7	5.09
	3-Methyphenol & 4-Methylphenol	260	72.7	**3.58 a**

APPENDIX 1
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.
* - A second analysis for sample 4MA0327M2.

NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL POLYCHLORINATED BIPHENYLS (PCBs)

SAMPLE NUMBER (EN98MR-)	PCB	PCB VALUES ug/kg	TOC VALUES (g/kg)	PCB EXPRESSED AS ug/g Organic Carbon
NW-1-LF	Aroclor 1248	600	18.5	**32.43 a,b,c**
NW-2-LF	Aroclor 1248	120	18.5	**6.49 b,c**
	Aroclor 1254	94	18.5	**5.08 b,c**
	Aroclor 1260	130	18.5	**7.03 b,c**
NW-3-LF	Aroclor 1260	77	18.5	**4.16 b,c**
SW-1-LF	Aroclor 1248	56	23.5	**2.38 b,c**
	Aroclor 1254	120	23.5	**5.11 b,c**
	Aroclor 1260	440	23.5	**18.72 b,c**
SW-2-LF	Aroclor 1248	68	23.5	**2.89 b,c**
	Aroclor 1254	220	23.5	**9.36 b,c**
	Aroclor 1260	590	23.5	**25.11 a,b,c**
SW-3-LF	Aroclor 1260	1700	23.5	**72.34 a,b,c**
NI-1-LF	Aroclor 1260	66	40.4	**1.63 b,c**
NI-2-LF	Aroclor 1254	94	40.4	**2.33 b,c**
	Aroclor 1260	130	40.4	**3.22 b,c**
NI-4-LF	Aroclor 1248	8200	40.4	**202.97 a,b,c**
	Aroclor 1254	3500	40.4	**86.63 a,b,c**
	Aroclor 1260	2500	40.4	**61.88 a,b,c**

Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.

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NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL POLYCHLORINATED BIPHENYLS (PCBs)

SAMPLE NUMBER (EN98MR-)	PCB	PCB VALUES ug/kg	TOC VALUES (g/kg)	PCB EXPRESSED AS ug/g Organic Carbon
NI-6-LF	Aroclor 1248	120	40.4	**2.97 b,c**
	Aroclor 1254	150	40.4	**3.71 b,c**
	Aroclor 1260	200	40.4	**4.95 b,c**
NI-7-LF	Aroclor 1248	2500	40.4	**61.88 a,b,c**
	Aroclor 1254	2500	40.4	**61.88 a,b,c**
	Aroclor 1260	1600	40.4	**39.6 a,b,c**
NI-8-LF	Aroclor 1248	1500	40.4	**37.13 a,b,c**
	Aroclor 1254	990	40.4	**24.5 a,b,c**
	Aroclor 1260	920	40.4	**22.77 a,b,c**
NI-9-LF	Aroclor 1248	810	40.4	**20.05 a,b,c**
	Aroclor 1254	580	40.4	**14.36 b,c**
	Aroclor 1260	630	40.4	**15.59 b,c**
GI-2-LF	Aroclor 1254	5300	48.2	**109.96 a,b,c**
GI-3-LF	Aroclor 1248	110	48.2	**2.28 b,c**
	Aroclor 1254	110	48.2	**2.28 b,c**
	Aroclor 1260	100	48.2	**2.07 b,c**
NY-2-LF	Aroclor 1260	130	14.8	**8.78 b,c**
SY-1-LF	Aroclor 1260	130	70.1	**1.85 b,c**

Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.

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NEW YORK STANDARD SEDIMENT CRITERIA
COMPARED TO TOTAL POLYCHLORINATED BIPHENYLS (PCBs)

/Kg

SAMPLE NUMBER (EN98MR-)	PCB	PCB VALUES ug/kg	TOC VALUES (g/kg)	PCB EXPRESSED AS ug/g Organic Carbon
SC-1-LF	Aroclor 1260	270	152	**1.78 b,c**
LO-1-LF	Aroclor 1260	270	92	**2.93 b,c**
LO-3-LF	Aroclor 1248	1300	92	**14.13 b,c**
LO-3-LF	Aroclor 1254	1600	92	**17.39 b,c**
LCONTROL-LF	Aroclor 1260	71	9.2	**7.72 b,c**
4MA0327OHW	Aroclor 1260	350	70.5	**4.96 b,c**
4MA0327OHW	Aroclor 1248	1700	97.4	**17.45 b,c**
	Aroclor 1254	2300	97.4	**23.61 a,b,c**
	Aroclor 1260	2300	97.4	**23.61 a,b,c**
4MA0327M1	Aroclor 1260	680	67.3	**10.10 b,c**
4MA0327M2	Aroclor 1248	2100	83.3	**25.21 a,b,c**
	Aroclor 1254	2800	83.3	**33.61 a,b,c**
	Aroclor 1260	2600	83.3	**31.21 a,b,c**
4MA0327M3	Aroclor 1260	440	59.0	**7.46 b,c**
4MA0327M4	Aroclor 1248	440	72.7	**6.05 b,c**
	Aroclor 1254	530	72.7	**7.29 b,c**
	Aroclor 1260	720	72.7	**9.9 b,c**

APPENDIX 6
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Note:
a - Exceeds the Benthic Aquatic Life Chronic Toxicity level.
b - Exceeds the Wildlife Bioaccumulation level.
c - Exceeds the Human Health Bioaccumulation level.