ATTACHMENT C

WATER QUALITY, FISH TISSUE AND SEDIMENT ANALYTICAL RESULTS FOR SELECTED BORROW PITS

COLLECTION AND ANALYSIS BY USEPA, ENVIRONMENTAL SERVICES DIVISION

ANALYTICAL RESULTS - US EPA REGION IV
SEDIMENT, METAL ANALYSIS
BORROW PITS - 5/17-19/95

ANALYTICAL PARAMETER (MG/KG)	PIT #1	PIT #3	PIT #5	PIT #11
MERCURY	<0.05	<0.05	<0.05	<0.05
SILVER	<25	<25	<25	<25
ARSENIC	<75	<75	<75	<75
BORON	NA	NA	NA	NA
BARIUM	<25	27	<25	<25
BERYLLIUM	<12	<12	<12	<12
CADMIUM	<12	<12	<12	<12
COBALT	<25	<25	<25	<25
CHROMIUM	<25	<25	<25	<25
COPPER	<25	<25	<25	<25
MOLYBDENUM	<25	<25	<25	<25
NICKEL	<50	<50	<50	<50
LEAD	2.0	2.5	2.9	1.9
ANTIMONY	<100	<75	<75	<75
SELENIUM	<100	<100	<100	<100
TIN	<62	<62	<62	<62
STRONTIUM	980	750	730	800
TELLURIUM	<120	<120	<120	<120
TITANIUM	<25	28	<25	<25
THALLIUM	<250	<250	<250	<250
VANADIUM	<25	<25	<25	33
YTTRIUM	<25	<25	<25	<25
ZINC	<25	<25	<25	<25
ZIRCONIUM	NA	NA	NA	NA
ALUMINUM	8,000	9,500	7,500	6,300
MANGANESE	57	70	88	49
CALCIUM	340,000	350,000	360,000	360,000
MAGNESIUM	6,400	4,000	3,600	3,600
IRON	2,900	4,000	3,700	2,200
SODIUM	<2,500	<2,500	<2,500	<2,500
POTASSIUM	<5,000	<5,000	<5,000	<5,000
PERCENT MOISTURE	32%	36%	35%	31%

363

DOC#6 1 4

ANALYTICAL RESULTS - US EPA REGION IV
SEDIMENT, PESTICIDES AND PCB ANALYSIS
BORROW PITS - 5/17-19/95

ANALYTICAL PARAMETER (UG/KG)	PIT #1	PIT #3	PIT #5	PIT #11
ALDRIN	<50	<50	<50	<50
HEPTACHLOR	<50	<50	<50	<50
HEPTACHLOR EPOXIDE	<50	<50	<50	<50
ALPHA-BHC	<50	<50	<50	<50
BETA-BHC	<50	<50	<50	<50
GAMMA-BHC (LINDANE)	<50	<50	<50	<50
DELTA-BHC	<50	<50	<50	<50
ENDOSULFAN I (ALPHA)	<50	<50	<50	<50
DIELDRIN	<50	<50	<50	<50
4,4'-DDT (P,P'-DDT)	<50	<50	<50	<50
4,4'-DDE (P,P'-DDE)	<50	<50	<50	<50
4,4'-DDD (P,P'-DDD)	<50	<50	<50	<50
ENDRIN	<50	<50	<50	<50
ENDOSULFAN II (BETA)	<50	<50	<50	<50
ENDOSULFAN SULFATE	<50	<50	<50	<50
CHLORODANE (TECH. MIXTURE)	<200	<200	<200	<200
PCB-1242 (AROCHLOR 1242)	<500	<500	<500	<500
PCB-1254 (AROCHLOR 1254)	<500	<500	<500	<500
PCB-1221 (AROCHLOR 1221)	<500	<500	<500	<500
PCB-1232 (AROCHLOR 1232)	<500	<500	<500	<500
PCB-1248 (AROCHLOR 1248)	<500	<500	<500	<500
PCB-1260 (AROCHLOR 1260)	<500	<500	<500	<500
PCB-1016 (AROCHLOR 1016)	<500	<500	<500	<500
TOXAPHENE	<3000	<3000	<3000	<3000
METHOXYCHLOR	<200	<200	<200	<200
ENDRIN KETONE	<50	<50	<50	<50
PERCENT MOISTURE	33%	36%	35%	31%

364

DOC#614

ANALYTICAL RESULTS - US EPA REGION IV
SEDIMENT, PURGEABLE ORGANIC ANALYSIS
BORROW PITS - 5/17-19/95

ANALYTICAL PARAMETER (UG/KG)	PIT #1	PIT #3	PIT #5	PIT #11
CHLOROMETHANE	<57	<65	<65	<60
VINYL CHLORIDE	<57	<65	<65	<60
CHLOROETHANE	<57	<65	<65	<60
TRICHLOROFLUOROMETHANE	<57	<65	<65	<60
1,1-DICHLOROETHENE	<57	<65	<65	<60
ACETONE	<570	<650	<650	<600
CARBON DISULFIDE	<140	<160	<160	<150
METHYLENE CHLORIDE	<57	<65	<65	<60
TRANS-1,2-DICHLOROETHENE	<57	<65	<65	<60
1,1-DICHLOROETHANE	<57	<65	<65	<60
CIS-1,2-DICHLOROETHENE	<57	<65	<65	<60
2,2-DICHLOROPROPANE	<57	<65	<65	<60
METHYL ETHYL KETONE	<570	<650	<650	<600
BROMOCHLOROMETHANE	<57	<65	<65	<60
CHLOROFORM	<57	<65	<65	<60
1,1,1-TRICHLOROETHANE	<57	<65	<65	<60
1,1-DICHLOROPROPENE	<57	<65	<65	<60
CARBON TETRACHLORIDE	<57	<65	<65	<60
1,2-DICHLOROETHANE	<57	<65	<65	<60
BENZENE	<57	<65	<65	<60
TRICHLOROETHENE	<57	<65	<65	<60
1,2-DICHLOROPROPANE	<57	<65	<65	<60
DIBROMOMETHANE	<57	<65	<65	<60
BROMODICHLOROMETHANE	<57	<65	<65	<60
CIS-1,3-DICHLOROPROPENE	<57	<65	<65	<60
METHYL ISOBUTYL KETONE	<140	<160	<160	<150
TOLUENE	<57	<65	<65	<60
TRANS-1,3-DICHLOROPROPENE	<57	<65	<65	<60
1,1,2-TRICHLOROETHANE	<57	<65	<65	<60
TETRACHLOROETHENE (TETRACHLOROETHYLENE	<57	<65	<65	<60

365

DOC#6 1 4

ANALYTICAL RESULTS - US EPA REGION IV
SEDIMENT, PURGEABLE ORGANIC ANALYSIS
BORROW PITS - 5/17-19/95

CONT. 2/2

ANALYTICAL PARAMETER (UG/KG)	PIT #1	PIT #3	PIT #5	PIT #11
1,3-DICHLOROPROPANE	<57	<65	<65	<60
METHYL BUTYL KETONE	<140	<160	<160	<150
DIBROMOCHLOROMETHANE	<57	<65	<65	<60
CHLOROBENZENE	<57	<65	<65	<60
1,1,1,2-TETRACHLOROETHANE	<57	<65	<65	<60
ETHYL BENZENE	<57	<65	<65	<60
(M-AND/OR P-)XYLENE	<57	<65	<65	<60
O-XYLENE	<57	<65	<65	<60
STYRENE	<57	<65	<65	<60
BROMOFORM	<57	<65	<65	<60
BROMOBENZENE	<57	<65	<65	<60
1,1,2,2-TETRACHLOROETANE	<57	<65	<65	<60
1,2,3-TRICHLOROPROPANE	<57	<65	<65	<60
O-CHLOROTOLUENE	<57	<65	<65	<60
P-CHLOROTOLUENE	<57	<65	<65	<60
1,3-DICHLOROBENZENE	<57	<65	<65	<60
1,4-DICHLOROBENZENE	<57	<65	<65	<60
1,2-DICHLOROBENZENE	<57	<65	<65	<60
PERCENT MOISTURE	32.8%	36.3%	35.4%	30.6%

366

DOC#6614

ANALYTICAL RESULTS - US EPA REGION IV
SEDIMENT, SPECIFIED ANALYSIS
BORROW PITS - 5/17-19/95

ANALYTICAL PARAMETER (MG/KG)	PIT #1	PIT #3	PIT #5	PIT #11
CHLORIDE	46	43	48	30
FLUORIDE	1400	800	480	1000
SULFIDES	<58	<62	<60	<57
NITRATE-NITRITE N	<18	<20	<19	<18
TOTAL KJELDAHL N	250	570	540	260
TOTAL PHOSPHORUS	480	290	130	780
TOTAL ORGANIC CARBON	3400	6700	6800	3400

367
DOC#6 1 4

ANALYTICAL RESULTS - US EPA REGION IV
WATER, CHLOROPHYLL-A ANALYSIS
BORROW PITS - 5/17-19/95

LOCATION	CHLOROPHYLL-A (UG/L)
PIT #1	0.36
PIT #3	1.88
PIT #5	3.51
PIT #11	0.58

ANALYTICAL RESULTS - US EPA REGION IV
WATER, METAL ANALYSIS
BORROW PITS - 5/17-19/95

ANALYTICAL PARAMETER		PIT #1 SURFACE	PIT #1 BOTTOM	PIT #3 SURFACE	PIT #3 BOTTOM	PIT #5 SURFACE	PIT #5 BOTTOM	PIT #11 SURFACE	PIT #11 BOTTOM
METHYL HG	(NG/L)	0.034	<0.033	0.082	<0.034	0.109	0.083	0.046	0.090
MERCURY		0.734	0.599	1.21	1.10	1.37	0.709	1.64	1.73
SILVER	(UG/L)	<10	<10	<10	<10	<10	<10	<10	<10
ARSENIC		<30	<30	<30	<30	<30	<30	<30	<30
BORON		NA	NA	NA	NA	NA	NA	NA	NA
BARIUM		17	17	18	20	12	24	22	18
BERYLLIUM		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
CADMIUM		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
COBALT		<10	<10	<10	<10	<10	<10	<10	<10
CHROMIUM		<10	<10	<10	<10	<10	<10	<10	<10
COPPER		<10	<10	<10	<10	<10	<10	<10	<10
MOLYBDENUM		<10	<10	<10	<10	<10	<10	<10	<10
NICKEL		<20	<20	<20	<20	<20	<20	<20	<20
LEAD		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
ANTIMONY		<30	<30	<30	<30	<30	<30	<30	<30
SELENIUM		<40	<40	<40	<40	<40	<40	<40	<40
TIN		<25	<25	<25	<25	<25	<25	<25	<25
STRONTIUM		520	540	610	620	540	540	670	650
TELLURIUM		<50	<50	<50	<50	<50	<50	<50	<50
TITANIUM		<10	<10	<10	<10	<10	<10	<10	<10
THALLIUM		<100	<100	<100	<100	<100	<100	<100	<100
VANADIUM		<10	<10	<10	<10	<10	<10	<10	<10
YTTRIUM		<10	<10	<10	<10	<10	<10	<10	<10
ZINC		12	<10	<10	<10	<10	<10	<10	<10
ZIRCONIUM		NA	NA	NA	NA	NA	NA	NA	NA
ALUMINUM		<100	120	<100	310	<100	<100	<100	<100
MANGANESE		<10	<10	<10	<10	<10	10	<10	<10
CALCIUM	(MG/L)	53	57	55	60	68	71	80	79
MAGNESIUM		5.9	6.1	8.2	8.2	6.6	6.6	5.4	5.4
IRON		<0.05	<0.05	<0.05	0.12	<0.05	0.17	<0.05	<0.05
SODIUM		47	50	46	45	42	42	32	31
POTASSIUM		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

369

DOC#614

ANALYTICAL RESULTS - US EPA REGION IV
WATER, SPECIFIED ANALYSIS
BORROW PITS - 5/17-19/95.

ANALYTICAL PARAMETER (MG/L)	PIT #1 SURFACE	PIT #1 BOTTOM	PIT #3 SURFACE	PIT #3 BOTTOM	PIT #5 SURFACE	PIT #5 BOTTOM	PIT #11 SURFACE	PIT #11 BOTTOM
CHLORIDE	77	77	77	74	69	68	57	55
FLUORIDE	0.45	0.47	NA	0.42	0.32	0.30	0.34	0.32
SULFATE	13	13	8.3	5.6	<2.0	<2.0	<2.0	3.5
AMMONIA	0.07	<0.05	0.19	0.14	<0.05	0.39	0.08	<0.05
NITRATE-NITRITE N	1.1	1.2	<0.05	0.14	0.11	0.13	0.33	0.43
TOTAL KJELDAHL N	0.31	0.29	0.19	0.42	1.2	0.66	1.2	1.0
TOTAL PHOSPHORUS	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
TOTAL ORGANIC CARBON	9.2	9.2	14	13	17	17	<1.0	19.0

370
DOC#6614

ANALYTICAL RESULTS - US EPA REGION IV
FISH (WHOLE BODY), MERCURY ANALYSIS
BORROW PITS - 5/17-19/95

LOCATION	REPLICATE	TOTAL MERCURY (PPB)
PIT #5	A	318.64
	B	105.05
	C	116.04
	D	103.07
	E	ND
PIT #11	A	258.98
	B	222.47
	C	136.51
	D	142.83
	E	143.33