APPENDIX D

KEMPER COUNTY IGCC PROJECT MINE STUDY AREA AND LAKE OKATIBBEE SURFACE WATER QUALITY MEASUREMENTS

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Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water									
		SW-1				SW-2			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Flow	cfs	14	14.70	67.04	0.00	16	5.27	35.55	0.17
Field Conductivity	umhos/cm	14	44.73	88.91	18.40	16	28.84	41.32	15.11
Field pH	s.u.	14	6.10	6.71	5.67	16	6.31	7.19	5.45
Field Temperature	°F	14	63.45	75.51	48.37	16	63.64	72.72	47.15
Field Dissolved Oxygen	mg/L	13	10.36	17.55	8.21	16	10.85	15.49	8.17
Field Turbidity	NTU	14	69.0	170.6	25.9	16	42.2	238.2	10.6
Cl	mg/L	13	0.09	0.42	0.01	15	0.08	0.31	0.00
Acidity (as CaCO3)	mg/L	13	14	35	6	15	8	17	2
Alkalinity (as CaCO3)	mg/L	13	14	34	3	15	5	14	2
Ammonia Nitrogen	mg/L	8	<0.14	0.38	<0.10	10	<0.10	0.17	<0.10
Bicarbonate (as CaCO3)	mg/L	8	12	32	3	10	7	15	2
BOD (5 day)	mg/L	8	<6	<6	<5	10	<5	<6	<5
Carbonate	mg/L	8	<2	<2	<2	10	<2	<2	<2
Chloride	mg/L	8	1.48	2.03	<1.0	10	2.26	3.11	1.27
COD	mg/L	8	35	68	16	10	<25	60	<15
Color	mg/L	8	222	300	190	10	110	232	57
Conductivity	umhos/cm	13	49	88	28	15	33	41	26
Dissolved Al	mg/L	8	1.26	3.20	0.220	10	0.71	2.73	0.128
Dissolved As	mg/L	8	<0.002	0.0413	<0.001	10	<0.001	<0.001	<0.001
Dissolved Barium	mg/L	8	0.074	0.121	0.041	10	0.040	0.0586	0.0259
Dissolved Beryllium	mg/L	8	<0.001	<0.001	<0.001	10	<0.001	<0.001	<0.001
Dissolved Cadmium	mg/L	8	<0.001	<0.001	<0.001	10	<0.001	<0.001	<0.001
Dissolved Chromium	mg/L	8	<0.002	0.007	<0.001	10	<0.002	0.006	<0.001
Dissolved Chromium Hexavalent	mg/L	8	<0.01	<0.01	<0.01	10	<0.01	<0.01	<0.01
Chromium Hexavalent	mg/L	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01
Dissolved Cobalt	mg/L	8	<0.002	0.00295	<0.001	10	<0.001	0.00236	<0.001
Dissolved Cu	mg/L	8	<0.003	0.005	<0.001	10	<0.003	0.007	<0.001
Dissolved Fe	mg/L	13	2.70	5.88	0.241	15	0.95	2.05	0.165
Dissolved Pb	mg/L	8	<0.002	<0.005	<0.001	10	<0.002	<0.005	<0.001
Dissolved Mn	mg/L	13	0.329	1.54	0.012	15	0.113	0.214	0.035
Dissolved Hg	mg/L	8	<0.0002	<0.0002	<0.0002	10	<0.0002	<0.0002	<0.0002
Dissolved Molybdenum	mg/L	8	<0.001	<0.001	<0.001	10	<0.001	0.001	<0.001
Dissolved Nickel	mg/L	8	0.002	0.00324	0.001	10	<0.001	0.00237	<0.001
Dissolved Oxygen	mg/L	13	9.65	10.7	7.08	15	10.33	11.50	9.56
Dissolved Selenium	mg/L	8	<0.001	<0.001	<0.001	10	<0.001	<0.001	<0.001
Dissolved Silver	mg/L	8	<0.001	<0.001	<0.001	10	<0.001	<0.001	<0.001
Dissolved Strontium	mg/L	8	0.047	0.103	0.018	10	0.022	0.033	0.0138
Dissolved Zinc	mg/L	8	<0.014	0.034	<0.005	10	<0.011	0.029	<0.005
Fecal Coliform	cfu/100mL	8	562	1900	19	10	290	1500	10
Fluoride (w/o distillation)	mg/L	8	<0.1	<0.1	<0.1	10	<0.1	<0.1	<0.1
Hardness as CaCO3(SM-2340B)	mg/L	8	12.3	19.7	7.8	10	9.2	20.1	0.899
Nitrate (NO3-N)	mg/L	8	<0.133	0.222	<0.1	10	<0.194	0.283	<0.1
Nitrite (NO2-N)	mg/L	8	<0.1	<0.1	<0.1	10	<0.1	<0.1	<0.1
Odor	DTU	8	<1	2	0	10	<1	<1	0
Oil and Grease	mg/L	8	<1.8	<2	<1.6	10	<1.9	2.4	<1.6

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water									
		SW-1				SW-2			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Organic N	mg/L	8	2.35	4.37	1.08	10	<1.58	3.66	<0.5
Ortho Phosphate	mg/L	8	<0.027	0.038	<0.025	10	<0.025	<0.025	<0.025
pH	s.u.	13	6.1	7.1	5.2	15	5.9	7.3	5.0
Phenols (Total)	mg/L	8	<0.05	<0.05	<0.05	10	<0.05	<0.05	<0.05
Resistivity	ohm/cm	13	23546	35700	11400	15	30647	38500	24400
Silicon as SiO2	mg/L	8	14.0	24.7	5.36	10	14.2	17.3	12.7
TOC (Total Organic Carbon)	mg/L	13	8.5	15.2	4.84	15	5.4	14.6	1.63
Total Boron	mg/L	8	0.011	0.0167	0.007	10	0.010	0.020	0.005
Total Calcium	mg/L	8	2.68	4.37	1.41	10	1.81	2.31	1.22
Total Coliform	cfu/100mL	8	12688	41000	400	10	6945	31200	300
Total Cyanide	mg/L	8	<0.01	<0.01	<0.01	10	<0.01	<0.01	<0.01
Total Dissolved Solids	mg/L	13	81	138	49	15	46	85	25
Total Iron	mg/L	13	5.37	7.79	2.77	15	2.01	4.54	0.89
Total Kjeldahl Nitrogen	mg/L	8	2.41	4.51	1.42	10	<1.60	3.66	<0.5
Total Magnesium	mg/L	8	1.36	2.37	0.944	10	1.07	1.53	0.725
Total Manganese	mg/L	13	0.320	0.773	0.102	15	0.138	0.261	0.037
Total Phosphorus	mg/L	8	0.102	0.161	0.048	10	0.058	0.126	0.027
Total Potassium	mg/L	8	2.14	2.74	1.42	10	1.23	1.89	0.822
Total Settleable Solids	mL/L	8	<0.2	<0.2	<0.1	10	<0.2	0.4	<0.1
Total Sodium	mg/L	8	2.24	4.11	0.838	10	2.28	2.94	1.51
Total Sulfate (SO4)	mg/L	8	2.10	5.33	1.24	10	3.08	4.05	1.49
Total Suspended Solids	mg/L	13	33	108	9	15	<37	144	<2
Total Thallium	mg/L	8	<0.001	<0.001	<0.001	10	<0.001	<0.001	<0.001
Tri-Valent Chromium	mg/L	8	<0.0039	0.0118	<0.001	10	<0.00340	0.00797	<0.001
Tri-Valent Chromium Dissolved	mg/L	5	<0.00293	0.00713	<0.00100	5	<0.00239	0.00555	<0.001
Turbidity	NTU	8	46	75	30	10	31	58	10
PCBs	mg/L	6	* <	* <	* <	6	* <	* <	* <
VOCs	mg/L	6	* <	* <	* <	6	* <	* <	* <
Semi-VOCs	mg/L	6	* <	* <	* <	6	* <	* <	* <
Pesticides	mg/L	6	* <	* <	* <	6	* <	* <	* <
Dioxin	mg/L	6	* <	* <	* <	6	* <	* <	* <
Total Arsenic	mg/L	5	<0.001	0.00306	<0.001	5	<0.001	0.001	<0.001
Total Chromium	mg/L	5	<0.005	0.012	<0.001	5	<0.005	0.008	<0.001
Total Mercury	mg/L	5	<0.0012	0.0053	<0.0002	5	<0.0002	<0.0002	<0.0002

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

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Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water

		SW-3				SW-4			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Flow	cfs	13	60.06	355.23	1.68	13	2.03	7.65	0.00
Field Conductivity	umhos/cm	14	36.91	67.07	22.91	11	29.57	40.92	21.35
Field pH	s.u.	14	6.28	7.09	5.61	11	6.19	6.91	5.15
Field Temperature	°F	14	62.66	75.49	46.78	11	60.91	72.44	47.20
Field Dissolved Oxygen	mg/L	14	10.81	15.63	3.98	11	10.83	13.50	8.46
Field Turbidity	NTU	14	85.3	418.2	10.3	11	50.8	213.1	14.3
Cl	mg/L	13	0.10	0.45	0.00	11	0.06	0.10	0.00
Acidity (as CaCO3)	mg/L	13	15	90	4	10	11	15	5
Alkalinity (as CaCO3)	mg/L	13	<7	16	<1	10	<6	14	<1
Ammonia Nitrogen	mg/L	8	<0.10	0.11	<0.10	7	<0.10	<0.10	<0.10
Bicarbonate (as CaCO3)	mg/L	8	<9	27	<1	7	<8	15	<1
BOD (5 day)	mg/L	8	<5	<6	<5	7	<5	<6	<5
Carbonate	mg/L	8	<2	<2	<1	7	<2	<2	<1
Chloride	mg/L	8	2.70	6.70	1.52	7	2.06	2.89	1.04
COD	mg/L	8	<33	68	<15	7	<29	67	<15
Color	mg/L	8	154	272	0	7	121	200	73
Conductivity	umhos/cm	13	42	60	27	10	33	43	29
Dissolved Al	mg/L	8	<0.93	2.31	<0.100	7	<0.066	2.03	<0.100
Dissolved As	mg/L	8	<0.001	0.0011	<0.001	7	<0.001	<0.001	<0.001
Dissolved Barium	mg/L	8	0.075	0.300	0.0311	7	0.043	0.0566	0.034
Dissolved Beryllium	mg/L	8	<0.001	<0.001	<0.001	7	<0.001	<0.001	<0.001
Dissolved Cadmium	mg/L	8	<0.001	<0.001	<0.001	7	<0.001	<0.001	<0.001
Dissolved Chromium	mg/L	8	<0.003	0.008	<0.001	7	<0.002	0.005	<0.001
Dissolved Chromium Hexavalent	mg/L	8	<0.01	<0.01	<0.01	7	<0.01	<0.01	<0.01
Chromium Hexavalent	mg/L	5	<0.01	<0.01	<0.01	4	<0.01	<0.01	<0.01
Dissolved Cobalt	mg/L	8	<0.001	0.002	<0.001	7	<0.001	0.0026	<0.001
Dissolved Cu	mg/L	8	<0.003	0.007	<0.001	7	<0.002	0.00231	<0.001
Dissolved Fe	mg/L	13	1.32	2.75	0.21	10	1.14	2.27	0.265
Dissolved Pb	mg/L	8	<0.002	<0.005	<0.001	7	<0.002	<0.005	<0.001
Dissolved Mn	mg/L	13	0.135	0.276	0.046	10	0.072	0.154	0.026
Dissolved Hg	mg/L	8	<0.0002	<0.0002	<0.0002	7	<0.0002	<0.0002	<0.0002
Dissolved Molybdenum	mg/L	8	<0.001	<0.001	<0.001	7	<0.001	<0.001	<0.001
Dissolved Nickel	mg/L	8	<0.002	0.003	<0.001	7	0.002	0.004	0.001
Dissolved Oxygen	mg/L	13	10.6	11.5	9.37	10	10.8	12.3	9.22
Dissolved Selenium	mg/L	8	<0.001	<0.001	<0.001	7	<0.001	<0.001	<0.001
Dissolved Silver	mg/L	8	<0.001	<0.001	<0.001	7	<0.001	<0.001	<0.001
Dissolved Strontium	mg/L	8	0.027	0.0372	0.015	7	0.029	0.038	0.019
Dissolved Zinc	mg/L	8	<0.014	0.025	<0.005	7	<0.029	0.123	<0.005
Fecal Coliform	cfu/100mL	8	513	2000	40	7	363	1300	90
Fluoride (w/o distillation)	mg/L	8	<0.102	0.116	<0.1	7	<0.1	<0.1	<0.1
Hardness as CaCO3(SM-2340B)	mg/L	8	11.0	14.8	9.17	7	9.0	11.6	6.9
Nitrate (NO3-N)	mg/L	8	<0.125	0.194	<0.1	7	<0.145	0.237	<0.1
Nitrite (NO2-N)	mg/L	8	<0.1	<0.1	<0.1	7	<0.1	<0.1	<0.1
Odor	DTU	8	<1	<1	0	7	<1	<1	0
Oil and Grease	mg/L	8	<1.6	<2.1	<0.2	7	<1.8	<2	<1.6

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

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Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water									
		SW-3				SW-4			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Organic N	mg/L	8	1.87	3.40	0.731	7	<2.0	6.53	<0.5
Ortho Phosphate	mg/L	8	<0.035	0.063	<0.025	7	<0.026	0.029	<0.025
pH	s.u.	13	6.0	7.3	4.1	7	6.0	7.0	5.2
Phenols (Total)	mg/L	8	<0.05	<0.05	<0.05	7	<0.05	<0.05	<0.05
Resistivity	ohm/cm	13	24800	37000	16700	10	30350	34500	23300
Silicon as SiO2	mg/L	8	12.7	16.2	4.65	7	15.9	18.2	14.5
TOC (Total Organic Carbon)	mg/L	13	7.3	12.8	3.56	10	6.73	15.0	3.39
Total Boron	mg/L	8	0.011	0.014	0.009	7	0.011	0.0197	0.006
Total Calcium	mg/L	8	2.19	3.10	1.57	7	1.69	1.99	1.08
Total Coliform	cfu/100mL	8	8128	21000	320	7	8643	25000	600
Total Cyanide	mg/L	8	<0.01	<0.01	<0.01	7	<0.01	<0.01	<0.01
Total Dissolved Solids	mg/L	13	63	99	29	10	51	67	32
Total Iron	mg/L	13	3.8	10.1	2.05	10	2.74	5.12	1.39
Total Kjeldahl Nitrogen	mg/L	8	1.90	3.40	0.731	7	<2.22	6.53	<0.500
Total Magnesium	mg/L	8	1.33	1.85	0.976	7	1.16	1.62	0.980
Total Manganese	mg/L	13	0.231	0.615	0.084	10	0.102	0.195	0.0448
Total Phosphorus	mg/L	8	0.166	0.557	0.032	7	<0.105	0.420	<0.025
Total Potassium	mg/L	8	1.85	2.52	1.37	7	1.48	2.06	0.986
Total Settleable Solids	mL/L	8	<0.3	1.0	<0.1	7	<0.2	0.6	<0.1
Total Sodium	mg/L	8	2.19	2.88	1.51	7	2.08	2.55	1.25
Total Sulfate (SO4)	mg/L	8	<3.05	4.92	<1.0	7	3.48	4.13	2.68
Total Suspended Solids	mg/L	13	86	494	5	10	47	188	6
Total Thallium	mg/L	8	<0.001	<0.001	<0.001	7	<0.001	<0.001	<0.001
Tri-Valent Chromium	mg/L	8	<0.0052	0.0129	<0.001	7	<0.00329	0.00802	<0.001
Tri-Valent Chromium Dissolved	mg/L	5	<0.00328	0.00756	<0.001	4	<0.00193	0.00470	<0.001
Turbidity	NTU	9	76	250	20	7	33	60	10
PCBs	mg/L	6	* <	* <	* <	5	* <	* <	* <
VOCs	mg/L	6	* <	* <	* <	5	* <	* <	* <
Semi-VOCs	mg/L	6	* <	* <	* <	5	* <	* <	* <
Pesticides	mg/L	6	* <	* <	* <	5	* <	* <	* <
Dioxin	mg/L	6	* <	* <	* <	5	* <	* <	* <
Total Arsenic	mg/L	5	<0.001	0.002	<0.001	4	<0.001	0.001	<0.001
Total Chromium	mg/L	5	<0.007	0.012	<0.001	4	<0.004	0.008	<0.001
Total Mercury	mg/L	5	<0.0002	<0.0002	<0.0002	4	<0.0002	<0.0002	<0.0002

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

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Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water

		SW-5				SW-6			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Flow	cfs	13	3.92	16.50	0.00	13	0.47	2.38	0.00
Field Conductivity	umhos/cm	10	31.38	44.97	19.84	9	53.94	80.09	32.01
Field pH	s.u.	10	6.16	6.88	5.37	9	6.03	6.29	5.79
Field Temperature	°F	10	60.04	72.04	50.59	9	61.80	74.23	47.25
Field Dissolved Oxygen	mg/L	10	10.86	13.40	7.39	9	11.08	15.38	8.02
Field Turbidity	NTU	10	73.0	218.5	15.8	9	77.1	175.2	20.3
Cl	mg/L	10	0.11	0.34	0.03	7	0.11	0.36	0.00
Acidity (as CaCO3)	mg/L	10	12	27	5	9	11	25	6
Alkalinity (as CaCO3)	mg/L	10	<6	11	<1	9	10	15	5
Ammonia Nitrogen	mg/L	7	<0.1	<0.1	<0.1	6	<0.16	0.35	<0.1
Bicarbonate (as CaCO3)	mg/L	7	<6	11	<1	6	10	17	5
BOD (5 day)	mg/L	7	<6	<6	<5	6	<6	<6	<5
Carbonate	mg/L	7	<2	<2	<1	6	<2	<2	<2
Chloride	mg/L	7	<3.09	9.74	<1.0	6	3.23	4.37	1.84
COD	mg/L	7	<27	51.0	<15	6	46	76	26
Color	mg/L	7	161	212	72	6	197	300	100
Conductivity	umhos/cm	10	39	75	26	9	61	90	42
Dissolved Al	mg/L	7	<1.12	3.24	<0.100	6	0.627	1.07	0.193
Dissolved As	mg/L	7	<0.001	0.001	<0.001	6	<0.001	0.00236	<0.001
Dissolved Barium	mg/L	7	0.035	0.041	0.027	6	0.024	0.0348	0.017
Dissolved Beryllium	mg/L	7	<0.001	<0.001	<0.001	6	<0.001	<0.001	<0.001
Dissolved Cadmium	mg/L	7	<0.001	<0.001	<0.001	6	<0.001	<0.001	<0.001
Dissolved Chromium	mg/L	7	<0.003	0.005	<0.001	6	<0.003	0.008	<0.001
Dissolved Chromium Hexavalent	mg/L	7	<0.01	<0.01	<0.01	6	<0.01	<0.01	<0.01
Chromium Hexavalent	mg/L	5	<0.01	<0.01	<0.01	4	<0.01	<0.01	<0.01
Dissolved Cobalt	mg/L	7	<0.002	0.002	<0.001	6	<0.001	0.00284	<0.001
Dissolved Cu	mg/L	7	<0.005	0.018	<0.001	6	0.006	0.022	0.002
Dissolved Fe	mg/L	10	1.41	3.86	0.126	9	1.20	4.61	0.262
Dissolved Pb	mg/L	7	<0.002	<0.005	<0.001	6	<0.002	<0.005	<0.001
Dissolved Mn	mg/L	10	0.063	0.121	0.028	9	0.272	1.130	0.004
Dissolved Hg	mg/L	7	<0.0002	<0.0002	<0.0002	6	<0.0002	<0.0002	<0.0002
Dissolved Molybdenum	mg/L	7	<0.00104	0.00131	<0.001	6	<0.00106	0.00137	<0.001
Dissolved Nickel	mg/L	7	0.003	0.00371	0.002	6	0.001	0.002	0.001
Dissolved Oxygen	mg/L	10	10.8	11.7	9.85	9	10.0	11.8	5.68
Dissolved Selenium	mg/L	7	<0.001	<0.001	<0.001	6	<0.001	<0.001	<0.001
Dissolved Silver	mg/L	7	<0.001	<0.001	<0.001	6	<0.001	<0.001	<0.001
Dissolved Strontium	mg/L	7	0.023	0.032	0.017	6	0.016	0.020	0.012
Dissolved Zinc	mg/L	7	<0.016	0.031	<0.005	6	<0.023	0.051	<0.005
Fecal Coliform	cfu/100mL	7	366	1300	40	6	2042	5900	520
Fluoride (w/o distillation)	mg/L	7	<0.112	0.185	<0.100	6	<0.106	0.136	<0.100
Hardness as CaCO3(SM-2340B)	mg/L	7	10.7	14.6	8.2	6	15.3	17.9	12.3
Nitrate (NO3-N)	mg/L	7	<0.111	0.175	<0.1	6	<0.131	0.287	<0.1
Nitrite (NO2-N)	mg/L	7	<0.1	<0.1	<0.1	6	<0.1	<0.1	<0.1
Odor	DTU	3	<1	<1	0	6	<1	2	0
Oil and Grease	mg/L	3	<2.1	4.1	<1.6	6	<1.7	<1.9	<1.6

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water									
		SW-5				SW-6			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Organic N	mg/L	7	2.40	4.11	1.10	6	3.63	8.60	1.90
Ortho Phosphate	mg/L	7	<0.025	<0.025	<0.025	6	<0.185	0.512	<0.025
pH	s.u.	10	5.7	6.7	3.5	9	6.1	7.2	5.3
Phenols (Total)	mg/L	7	<0.05	<0.05	<0.05	6	<0.05	<0.05	<0.05
Resistivity	ohm/cm	10	27510	38500	13300	9	17589	23800	11100
Silicon as SiO2	mg/L	7	16.1	19.9	8.36	6	7.36	10.6	3.52
TOC (Total Organic Carbon)	mg/L	10	5.90	11.2	2.73	9	11.7	22.1	5.61
Total Boron	mg/L	7	0.012	0.0179	0.006	6	0.014	0.0184	0.010
Total Calcium	mg/L	7	1.82	2.38	1.18	6	3.71	4.41	2.95
Total Coliform	cfu/100mL	7	4814	17600	500	6	17067	32000	3400
Total Cyanide	mg/L	7	<0.01	<0.01	<0.01	6	<0.01	<0.01	<0.01
Total Dissolved Solids	mg/L	10	55	72	45	9	77	108	55
Total Iron	mg/L	10	4.01	7.84	1.46	9	3.05	6.02	1.16
Total Kjeldahl Nitrogen	mg/L	7	2.40	4.11	1.10	6	3.72	8.95	1.90
Total Magnesium	mg/L	7	1.51	2.10	1.20	6	1.46	1.75	1.19
Total Manganese	mg/L	10	0.093	0.178	0.033	9	0.384	1.58	0.0279
Total Phosphorus	mg/L	7	0.064	0.118	0.041	6	0.551	1.99	0.148
Total Potassium	mg/L	7	1.44	1.87	0.862	6	3.96	4.62	3.09
Total Settleable Solids	mL/L	7	<0.2	<0.2	<0.1	6	<0.2	0.2	<0.1
Total Sodium	mg/L	7	2.01	2.89	1.20	6	2.08	2.93	1.17
Total Sulfate (SO4)	mg/L	7	4.50	11.10	2.45	6	4.06	6.87	2.17
Total Suspended Solids	mg/L	10	74	258	6	9	53	100	12
Total Thallium	mg/L	7	<0.001	<0.001	<0.001	6	<0.001	<0.001	<0.001
Tri-Valent Chromium	mg/L	7	<0.00523	0.00969	<0.001	6	<0.0045	0.0105	<0.001
Tri-Valent Chromium Dissolved	mg/L	5	<0.00271	0.00547	<0.001	4	<0.00324	0.00802	<0.001
Turbidity	NTU	7	53	119	20	6	45	100	10
PCBs	mg/L	6	* <	* <	* <	5	* <	* <	* <
VOCs	mg/L	6	* <	* <	* <	5	* <	* <	* <
Semi-VOCs	mg/L	6	* <	* <	* <	5	* <	* <	* <
Pesticides	mg/L	6	* <	* <	* <	5	* <	* <	* <
Dioxin	mg/L	6	* <	* <	* <	5	* <	* <	* <
Total Arsenic	mg/L	5	<0.001	0.00137	<0.0001	4	0.001	0.002	0.000
Total Chromium	mg/L	5	<0.006	0.010	<0.001	4	0.006	0.011	0.002
Total Mercury	mg/L	5	<0.0002	<0.0002	<0.0002	4	<0.002	<0.002	<0.002

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water

		SW-7				SW-8			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Flow	cfs	4	1.96	2.56	1.41	13	1.46	5.31	0.00
Field Conductivity	umhos/cm	5	54.78	72.86	41.80	11	61.01	160.40	24.06
Field pH	s.u.	5	6.60	6.99	6.05	11	6.26	6.86	5.68
Field Temperature	°F	5	74.29	80.80	61.69	11	66.43	88.96	48.90
Field Dissolved Oxygen	mg/L	5	8.21	10.95	6.98	11	10.05	14.65	5.86
Field Turbidity	NTU	5	55.7	136.7	24.1	11	134.7	386	35.7
Cl	mg/L	5	0.02	0.06	0.00	10	0.11	0.30	0.00
Acidity (as CaCO3)	mg/L	5	8	15	4	12	13	21	7
Alkalinity (as CaCO3)	mg/L	5	12	16	5	12	17	54	3
Ammonia Nitrogen	mg/L	4	<0.125	0.180	<0.1	8	<0.17	0.56	<0.10
Bicarbonate (as CaCO3)	mg/L	4	16	22	10	8	22	99	3
BOD (5 day)	mg/L	4	<6	<6	<5	8	<5	<6	<5
Carbonate	mg/L	4	<2	<2	<2	8	<3	6	<2
Chloride	mg/L	4	2.99	3.34	2.74	8	2.03	2.48	1.40
COD	mg/L	4	<25	55	<15	8	29	58	17
Color	mg/L	4	125	200	100	8	177	300	100
Conductivity	umhos/cm	5	52	68	39	12	79	493	13
Dissolved Al	mg/L	4	0.835	2.30	0.258	8	<0.97	3.19	<0.100
Dissolved As	mg/L	4	<0.001	0.00151	<0.001	8	<0.002	0.00382	<0.001
Dissolved Barium	mg/L	4	0.048	0.0522	0.0444	8	0.051	0.115	0.021
Dissolved Beryllium	mg/L	4	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Cadmium	mg/L	4	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Chromium	mg/L	4	<0.00155	0.00235	<0.001	8	<0.002	0.005	<0.001
Dissolved Chromium Hexavalent	mg/L	4	<0.01	<0.01	<0.01	8	<0.01	<0.01	<0.01
Chromium Hexavalent	mg/L	1	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01
Dissolved Cobalt	mg/L	4	<0.00138	0.00201	<0.001	8	<0.002	0.00674	<0.001
Dissolved Cu	mg/L	4	<0.002	<0.004	<0.001	8	<0.003	0.00537	<0.001
Dissolved Fe	mg/L	5	<2.28	3.40	<0.25	12	2.78	9.56	0.208
Dissolved Pb	mg/L	4	<0.00379	0.00121	<0.001	8	<0.002	<0.005	<0.001
Dissolved Mn	mg/L	4	0.702	2.36	0.188	12	0.625	1.97	0.111
Dissolved Hg	mg/L	4	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	<0.0002
Dissolved Molybdenum	mg/L	4	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Nickel	mg/L	4	<0.0023	0.0045	<0.001	8	0.002	0.00392	0.001
Dissolved Oxygen	mg/L	5	9.8	11.1	8.85	12	10.1	12.5	8.78
Dissolved Selenium	mg/L	4	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Silver	mg/L	4	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Strontium	mg/L	4	0.0485	0.0633	0.0297	8	0.040	0.102	0.014
Dissolved Zinc	mg/L	4	<0.0090	0.0164	<0.005	8	<0.014	0.0487	<0.005
Fecal Coliform	cfu/100mL	4	425	1200	40	8	85	220	10
Fluoride (w/o distillation)	mg/L	4	<0.1	<0.1	<0.1	8	<0.1	<0.1	<0.1
Hardness as CaCO3(SM-2340B)	mg/L	4	15.1	19.5	11.3	8	15.3	30.4	7.33
Nitrate (NO3-N)	mg/L	4	<0.166	0.361	<0.1	8	<0.1	<0.1	<0.1
Nitrite (NO2-N)	mg/L	4	<0.1	<0.1	<0.1	8	<0.1	<0.1	<0.1
Odor	DTU	4	<1	<1	0	8	<1	2	0
Oil and Grease	mg/L	3	<1.8	<1.9	<1.6	8	<1.8	<1.9	<1.6

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water									
		SW-7				SW-8			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Organic N	mg/L	4	3.07	5.18	1.06	8	<2.00	4.29	<0.5
Ortho Phosphate	mg/L	4	<0.030	0.044	<0.025	8	<0.067	0.361	<0.025
pH	s.u.	5	6.3	7.0	5.5	12	5.7	6.2	5.2
Phenols (Total)	mg/L	4	<0.05	<0.05	<0.05	8	<0.05	<0.05	<0.05
Resistivity	ohm/cm	5	16316	25600	1980	12	21802	35700	2030
Silicon as SiO2	mg/L	4	12.87	14.7	9.58	7	13.8	15.9	9.77
TOC (Total Organic Carbon)	mg/L	5	6.60	12.3	2.76	12	6.97	9.97	4.21
Total Boron	mg/L	4	0.0161	0.0257	0.0109	8	0.011	0.0179	0.007
Total Calcium	mg/L	4	3.42	4.77	2.69	8	3.00	6.68	1.22
Total Coliform	cfu/100mL	4	28825	96000	900	8	7313	18400	600
Total Cyanide	mg/L	4	<0.01	<0.01	<0.01	8	<0.01	<0.01	<0.01
Total Dissolved Solids	mg/L	5	119	325	44	12	63	119	39
Total Iron	mg/L	5	3.55	4.62	2.08	12	7.18	18.8	2.91
Total Kjeldahl Nitrogen	mg/L	4	3.15	5.18	1.18	8	<2.11	4.29	<0.5
Total Magnesium	mg/L	4	1.60	2.01	1.11	8	1.91	3.33	1.04
Total Manganese	mg/L	5	0.861	3.09	0.194	12	0.833	2.62	0.139
Total Phosphorus	mg/L	4	0.112	0.138	0.071	8	<0.045	0.073	<0.025
Total Potassium	mg/L	4	2.07	2.47	1.73	8	1.71	2.61	1.06
Total Settleable Solids	mL/L	4	<0.3	0.6	<0.1	8	<0.3	0.8	<0.1
Total Sodium	mg/L	4	2.97	3.27	2.27	8	2.28	3.35	1.72
Total Sulfate (SO4)	mg/L	4	2.67	3.91	1.96	8	2.41	4.06	1.33
Total Suspended Solids	mg/L	5	43	134	5	12	85	249	10
Total Thallium	mg/L	4	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Tri-Valent Chromium	mg/L	4	<0.00172	0.00235	<0.001	8	<0.0041	0.0100	<0.001
Tri-Valent Chromium Dissolved	mg/L	1	<0.00102	<0.00102	<0.00102	5	<0.00270	0.00511	<0.001
Turbidity	NTU	4	33	40	20	9	67	200	29
PCBs	mg/L	2	* <	* <	* <	6	* <	* <	* <
VOCs	mg/L	2	* <	* <	* <	6	* <	* <	* <
Semi-VOCs	mg/L	2	* <	* <	* <	6	* <	* <	* <
Pesticides	mg/L	2	* <	* <	* <	6	* <	* <	* <
Dioxin	mg/L	2	* <	* <	* <	6	* <	* <	* <
Total Arsenic	mg/L	1	0.00115	0.00115	0.00115	5	<0.002	0.00261	<0.001
Total Chromium	mg/L	1	0.002	0.002	0.002	5	<0.005	0.010	<0.001
Total Mercury	mg/L	1	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water

		SW-9				SW-10			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Flow	cfs	13	30.45	120.18	0.00	16	162.65	640.81	0.81
Field Conductivity	umhos/cm	11	47.08	93.91	26.00	14	50.26	90.10	20.59
Field pH	s.u.	12	6.39	7.01	5.62	14	6.43	7.23	4.65
Field Temperature	°F	12	64.06	83.41	47.45	14	65.14	82.78	46.61
Field Dissolved Oxygen	mg/L	12	10.22	16.02	6.50	14	9.71	16.08	6.48
Field Turbidity	NTU	12	63.3	252.9	5.0	14	53.3	254.0	4.0
Cl	mg/L	12	0.08	0.33	0.00	11	0.10	0.33	0.01
Acidity (as CaCO3)	mg/L	12	10	16	2	13	10	22	4
Alkalinity (as CaCO3)	mg/L	12	13	36	1	13	12	29	2
Ammonia Nitrogen	mg/L	8	<0.11	0.18	<0.10	8	<0.14	0.43	<0.10
Bicarbonate (as CaCO3)	mg/L	8	11	32	1	8	8	18	2
BOD (5 day)	mg/L	8	<5	<6	<5	8	<5	<6	<5
Carbonate	mg/L	8	<2	<2	<2	8	<2	<2	<2
Chloride	mg/L	8	2.09	3.06	1.13	9	2.95	5.13	1.56
COD	mg/L	8	<28	53	<15	8	<36	60	<15
Color	mg/L	8	168	256	94	9	149	260	20
Conductivity	umhos/cm	12	50	97	28	13	53	95	32
Dissolved Al	mg/L	8	0.886	2.25	0.149	8	0.883	2.17	0.105
Dissolved As	mg/L	8	<0.002	0.00504	<0.001	8	<0.001	0.0011	<0.001
Dissolved Barium	mg/L	8	0.040	0.0595	0.025	8	0.042	0.048	0.032
Dissolved Beryllium	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Cadmium	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Chromium	mg/L	8	<0.002	0.006	<0.001	8	<0.002	0.007	<0.001
Dissolved Chromium Hexavalent	mg/L	8	<0.01	<0.01	<0.01	8	<0.01	<0.01	<0.01
Chromium Hexavalent	mg/L	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01
Dissolved Cobalt	mg/L	8	<0.001	0.00266	<0.001	8	<0.00107	0.00155	<0.001
Dissolved Cu	mg/L	8	<0.003	0.008	<0.001	8	<0.002	0.004	<0.001
Dissolved Fe	mg/L	12	1.73	4.89	0.249	14	1.42	2.91	0.457
Dissolved Pb	mg/L	8	<0.001	0.002	<0.001	8	<0.001	0.002	<0.001
Dissolved Mn	mg/L	12	0.136	0.600	0.019	14	0.133	0.283	0.014
Dissolved Hg	mg/L	8	<0.0002	<0.0002	<0.0002	8	<0.0002	0.0002	<0.0002
Dissolved Molybdenum	mg/L	8	<0.0010	0.0013	<0.001	8	<0.001	<0.001	<0.001
Dissolved Nickel	mg/L	8	0.002	0.003	0.001	8	0.002	0.00305	0.001
Dissolved Oxygen	mg/L	11	10.5	11.4	9.37	14	10.3	12.7	6.5
Dissolved Selenium	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Silver	mg/L	8	<0.002	0.006	<0.001	8	<0.001	<0.001	<0.001
Dissolved Strontium	mg/L	8	0.034	0.0625	0.016	8	0.044	0.106	0.021
Dissolved Zinc	mg/L	8	<0.015	0.037	<0.005	8	<0.017	0.0240	<0.005
Fecal Coliform	cfu/100mL	8	644	3000	10	8	689	1700	30
Fluoride (w/o distillation)	mg/L	8	<0.1	<0.1	<0.1	8	<0.102	0.110	<0.1
Hardness as CaCO3(SM-2340B)	mg/L	8	13.6	23.3	9.03	9	14.1	21.0	9.0
Nitrate (NO3-N)	mg/L	8	<0.111	0.176	<0.1	8	<0.102	0.112	<0.1
Nitrite (NO2-N)	mg/L	8	<0.1	<0.1	<0.1	8	<0.1	<0.1	<0.1
Odor	DTU	8	<1	2	0	8	<1	2	0
Oil and Grease	mg/L	8	<1.7	<2	<1.6	8	<1.8	<1.9	<1.6

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water									
		SW-9				SW-10			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Organic N	mg/L	8	1.98	5.73	0.784	8	2.38	6.28	0.578
Ortho Phosphate	mg/L	8	<0.063	0.329	<0.025	8	<0.030	0.054	<0.025
pH	s.u.	12	6.2	7.2	5.3	13	6.0	7.1	5.1
Phenols (Total)	mg/L	8	<0.05	<0.05	<0.05	8	<0.05	<0.05	<0.05
Resistivity	ohm/cm	12	22433	35700	10300	13	20615	31300	10500
Silicon as SiO2	mg/L	8	15.1	19.6	7.21	8	16.0	22.5	11.1
TOC (Total Organic Carbon)	mg/L	12	7.34	12.9	4.54	14	7.5	13.9	3.8
Total Boron	mg/L	8	0.012	0.0171	0.007	8	0.012	0.0192	0.009
Total Calcium	mg/L	8	2.75	5.61	1.68	9	2.88	4.30	1.68
Total Coliform	cfu/100mL	8	14644	50000	250	8	10110	19900	200
Total Cyanide	mg/L	8	<0.01	<0.01	<0.01	8	<0.01	<0.01	<0.01
Total Dissolved Solids	mg/L	12	63	97	23	14	74	108	50
Total Iron	mg/L	12	4.36	7.29	2.57	13	3.09	5.52	1.72
Total Kjeldahl Nitrogen	mg/L	8	2.00	5.73	0.784	8	2.44	6.28	0.578
Total Magnesium	mg/L	8	1.65	2.55	1.17	9	1.67	2.70	1.04
Total Manganese	mg/L	12	0.37	2.27	0.12	13	0.199	0.423	0.062
Total Phosphorus	mg/L	8	0.091	0.158	0.053	8	0.106	0.153	0.059
Total Potassium	mg/L	8	2.11	3.33	1.38	9	2.22	2.74	1.41
Total Settleable Solids	mL/L	8	<0.2	<0.2	<0.1	8	<0.2	<0.2	<0.1
Total Sodium	mg/L	8	2.09	3.17	1.30	9	2.93	5.17	1.44
Total Sulfate (SO4)	mg/L	8	4.05	8.29	2.08	9	3.97	11.4	2.34
Total Suspended Solids	mg/L	12	48	138	3	14	42	174	3
Total Thallium	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Tri-Valent Chromium	mg/L	8	<0.0042	0.0104	<0.001	8	<0.004	0.012	<0.001
Tri-Valent Chromium Dissolved	mg/L	5	<0.00273	0.00575	<0.001	5	<0.00319	0.00677	<0.001
Turbidity	NTU	9	46	108	20	9	47	110	10
PCBs	mg/L	6	* <	* <	* <	6	* <	* <	* <
VOCs	mg/L	6	* <	* <	* <	6	* <	* <	* <
Semi-VOCs	mg/L	6	* <	* <	* <	6	* <	* <	* <
Pesticides	mg/L	6	* <	* <	* <	6	* <	* <	* <
Dioxin	mg/L	6	* <	* <	* <	6	* <	* <	* <
Total Arsenic	mg/L	5	<0.001	0.00119	<0.001	5	<0.001	0.001	<0.001
Total Chromium	mg/L	5	<0.006	0.010	<0.001	5	0.006	0.012	0.001
Total Mercury	mg/L	5	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water

		SW-11				SW-12			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Flow	cfs	11	93.10	431.52	0.46	14	238.19	936.70	5.03
Field Conductivity	umhos/cm	10	38.67	54.42	21.91	13	42.63	64.31	20.28
Field pH	s.u.	10	6.54	7.21	5.56	13	6.42	7.21	5.56
Field Temperature	°F	10	62.82	77.83	46.64	13	62.95	76.90	46.23
Field Dissolved Oxygen	mg/L	10	11.44	16.07	7.60	13	10.99	15.87	6.79
Field Turbidity	NTU	10	54.4	173.3	9.0	13	56.6	179.9	14.0
Cl	mg/L	7	0.05	0.19	0.01	10	0.09	0.38	0.00
Acidity (as CaCO3)	mg/L	9	7	17	3	13	9	16	4
Alkalinity (as CaCO3)	mg/L	9	8	14	1	13	8	18	2
Ammonia Nitrogen	mg/L	6	<0.1	<0.1	<0.1	8	<0.11	0.17	<0.1
Bicarbonate (as CaCO3)	mg/L	6	9	15	1	8	10	27	2
BOD (5 day)	mg/L	6	<6	<6	<5	8	<5	<6	<5
Carbonate	mg/L	6	<2	<2	<2	8	<2	<2	<2
Chloride	mg/L	7	2.51	3.81	1.71	8	2.24	2.95	1.50
COD	mg/L	6	<23	38	<15	8	<32	47	<15
Color	mg/L	7	<85	140	<1	8	144	244	90
Conductivity	umhos/cm	9	44	54	35	13	45	71	31
Dissolved Al	mg/L	6	1.26	2.88	0.116	8	0.892	2.29	0.118
Dissolved As	mg/L	6	<0.00103	0.00119	<0.001	8	<0.00103	0.00125	<0.001
Dissolved Barium	mg/L	6	0.043	0.055	0.0316	8	0.038	0.048	0.024
Dissolved Beryllium	mg/L	6	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Cadmium	mg/L	6	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Chromium	mg/L	6	<0.003	0.008	<0.001	8	<0.002	0.005	<0.001
Dissolved Chromium Hexavalent	mg/L	6	<0.01	<0.01	<0.01	8	<0.01	<0.01	<0.01
Chromium Hexavalent	mg/L	3	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01
Dissolved Cobalt	mg/L	6	<0.001	0.002	<0.001	8	<0.001	0.0024	<0.001
Dissolved Cu	mg/L	6	<0.002	0.003	<0.001	8	<0.003	0.013	<0.001
Dissolved Fe	mg/L	10	1.55	2.49	0.339	13	1.47	2.68	0.356
Dissolved Pb	mg/L	6	<0.001	0.002	<0.001	8	<0.001	0.002	<0.001
Dissolved Mn	mg/L	10	0.118	0.278	0.027	13	0.108	0.331	0.021
Dissolved Hg	mg/L	6	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	<0.0002
Dissolved Molybdenum	mg/L	6	<0.001	0.002	<0.001	8	<0.001	<0.001	<0.001
Dissolved Nickel	mg/L	6	<0.002	0.004	<0.001	8	0.002	0.004	0.001
Dissolved Oxygen	mg/L	9	10.3	12.4	9.25	13	10.5	12.6	8.93
Dissolved Selenium	mg/L	6	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Silver	mg/L	6	<0.002	0.006	<0.001	8	<0.001	<0.001	<0.001
Dissolved Strontium	mg/L	6	0.027	0.037	0.018	8	0.027	0.0469	0.014
Dissolved Zinc	mg/L	6	<0.011	0.024	<0.005	8	<0.014	0.023	<0.005
Fecal Coliform	cfu/100mL	6	325	630	90	8	544	1900	90
Fluoride (w/o distillation)	mg/L	6	<0.1	<0.1	<0.1	8	<0.100	0.102	<0.1
Hardness as CaCO3(SM-2340B)	mg/L	7	11.7	14.6	9.17	8	11.5	16.1	8.4
Nitrate (NO3-N)	mg/L	6	<0.167	0.291	<0.1	8	<0.124	0.200	<0.1
Nitrite (NO2-N)	mg/L	6	<0.1	<0.1	<0.1	8	<0.1	<0.1	<0.1
Odor	DTU	6	<1	2	0	8	<1	2	0
Oil and Grease	mg/L	6	<1.9	2.6	<1.6	8	<1.8	2.4	<1.6

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water									
		SW-11				SW-12			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Organic N	mg/L	6	<1.41	2.59	<0.5	8	3.85	14.0	0.78
Ortho Phosphate	mg/L	6	<0.028	0.044	<0.025	8	<0.028	0.049	<0.025
pH	s.u.	9	6.3	7.1	5.9	13	6.1	7.2	5.4
Phenols (Total)	mg/L	6	<0.05	<0.05	<0.05	8	<0.05	<0.05	<0.05
Resistivity	ohm/cm	9	23211	28600	18500	13	23646	32300	14100
Silicon as SiO2	mg/L	6	15.7	17.9	12.7	8	16.1	19.2	13.8
TOC (Total Organic Carbon)	mg/L	10	5.67	8.85	3.7	13	7.02	11.2	3.82
Total Boron	mg/L	6	0.010	0.0141	0.0087	8	0.010	0.0147	0.008
Total Calcium	mg/L	7	2.33	2.99	1.71	8	2.27	3.12	1.36
Total Coliform	cfu/100mL	6	7500	15000	300	8	8675	26000	200
Total Cyanide	mg/L	6	<0.01	<0.01	<0.01	8	<0.01	<0.01	<0.01
Total Dissolved Solids	mg/L	10	57	95	16	13	66	106	41
Total Iron	mg/L	9	3.34	5.20	1.79	13	3.57	7.05	2.03
Total Kjeldahl Nitrogen	mg/L	6	<1.41	2.59	<0.5	8	3.89	14.0	0.781
Total Magnesium	mg/L	7	1.44	1.85	1.12	8	1.43	2.06	1.07
Total Manganese	mg/L	9	0.177	0.370	0.065	13	0.182	0.438	0.052
Total Phosphorus	mg/L	6	0.086	0.105	0.052	8	<0.086	0.146	<0.025
Total Potassium	mg/L	7	1.87	2.44	1.3	8	2.06	2.89	1.39
Total Settleable Solids	mL/L	6	<0.2	0.5	<0.1	8	<0.3	0.8	<0.1
Total Sodium	mg/L	7	2.04	2.58	1.51	8	2.15	2.82	1.43
Total Sulfate (SO4)	mg/L	7	3.16	4.68	1.7	8	3.49	4.74	2.47
Total Suspended Solids	mg/L	10	<39	128	<2	13	54	270	5
Total Thallium	mg/L	6	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Tri-Valent Chromium	mg/L	6	<0.00343	0.00906	<0.001	8	<0.003	0.00843	<0.001
Tri-Valent Chromium Dissolved	mg/L	3	<0.00386	0.00787	<0.00102	5	<0.00250	0.00472	<0.001
Turbidity	NTU	7	37	70	10	9	51	154	10
PCBs	mg/L	4	* <	* <	* <	6	* <	* <	* <
VOCs	mg/L	4	* <	* <	* <	6	* <	* <	* <
Semi-VOCs	mg/L	4	* <	* <	* <	6	* <	* <	* <
Pesticides	mg/L	4	* <	* <	* <	6	* <	* <	* <
Dioxin	mg/L	4	* <	* <	* <	6	* <	* <	* <
Total Arsenic	mg/L	3	<0.001	0.001	<0.001	5	<0.001	0.002	<0.001
Total Chromium	mg/L	3	<0.006	0.009	<0.001	5	<0.005	0.008	<0.001
Total Mercury	mg/L	3	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water

		SW-13				SW-14			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Flow	cfs	12	35.23	169.78	0.00	13	33.33	215.85	0.00
Field Conductivity	umhos/cm	13	50.15	75.59	23.63	14	44.40	71.15	24.24
Field pH	s.u.	13	6.29	7.07	5.63	14	6.30	6.96	5.59
Field Temperature	°F	13	63.27	76.13	45.97	14	63.17	79.17	46.97
Field Dissolved Oxygen	mg/L	13	11.12	16.52	7.97	14	11.15	16.14	7.37
Field Turbidity	NTU	13	70.7	183.4	21.6	14	43.2	95.0	17.6
Cl	mg/L	12	0.05	0.11	0.01	13	0.17	0.39	0.02
Acidity (as CaCO3)	mg/L	13	10	15	3	13	11	19	5
Alkalinity (as CaCO3)	mg/L	13	13	30	1	13	12	24	1
Ammonia Nitrogen	mg/L	8	<0.12	0.22	<0.10	8	<0.11	0.15	<0.10
Bicarbonate (as CaCO3)	mg/L	8	11	27	1	8	12	32	1
BOD (5 day)	mg/L	8	<6	<6	<5	8	<6	<6	<5
Carbonate	mg/L	8	<2	<2	<2	8	<2	<2	<2
Chloride	mg/L	8	2.79	4.63	1.65	8	2.38	3.47	1.13
COD	mg/L	8	<40	56	<15	8	<29	49	<15
Color	mg/L	8	206	248	180	8	179	220	100
Conductivity	umhos/cm	13	54	103	28	13	49	73	30
Dissolved Al	mg/L	8	1.02	2.42	0.185	8	0.788	2.32	0.136
Dissolved As	mg/L	8	<0.002	0.00507	<0.001	8	<0.001	0.00209	<0.001
Dissolved Barium	mg/L	8	0.036	0.052	0.0221	8	0.040	0.054	0.026
Dissolved Beryllium	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Cadmium	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Chromium	mg/L	8	<0.002	0.006	<0.001	8	<0.003	0.006	<0.001
Dissolved Chromium Hexavalent	mg/L	8	<0.01	<0.01	<0.01	8	<0.01	<0.01	<0.01
Chromium Hexavalent	mg/L	5	<0.01	<0.01	<0.01	5	<0.01	<0.01	<0.01
Dissolved Cobalt	mg/L	8	<0.001	0.00321	<0.001	8	<0.001	0.00141	<0.001
Dissolved Cu	mg/L	8	<0.006	0.030	<0.001	8	<0.004	0.014	<0.001
Dissolved Fe	mg/L	13	1.47	3.60	0.293	13	1.93	4.51	0.302
Dissolved Pb	mg/L	8	<0.002	0.00131	<0.001	8	<0.002	0.00115	<0.001
Dissolved Mn	mg/L	13	0.231	0.802	0.020	13	0.193	0.751	0.010
Dissolved Hg	mg/L	8	<0.0002	<0.0002	<0.0002	8	<0.0002	<0.0002	<0.0002
Dissolved Molybdenum	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Nickel	mg/L	8	0.002	0.0024	0.001	8	<0.002	0.00275	<0.001
Dissolved Oxygen	mg/L	13	10.1	12.0	8.02	13	10.0	11.9	8.53
Dissolved Selenium	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Silver	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Dissolved Strontium	mg/L	8	0.020	0.038	0.012	8	0.028	0.048	0.014
Dissolved Zinc	mg/L	8	<0.012	0.020	<0.005	8	<0.012	0.026	<0.005
Fecal Coliform	cfu/100mL	8	4424	30000	40	8	358	640	70
Fluoride (w/o distillation)	mg/L	8	<0.108	0.165	<0.1	8	<0.1	<0.1	<0.1
Hardness as CaCO3(SM-2340B)	mg/L	8	13.4	23.3	8.42	8	12.2	18.6	8.54
Nitrate (NO3-N)	mg/L	8	<0.119	0.229	<0.1	8	<0.138	0.393	<0.1
Nitrite (NO2-N)	mg/L	8	<0.1	<0.1	<0.1	8	<0.1	<0.1	<0.1
Odor	DTU	8	<1	2	0	8	<0.1	<0.1	0
Oil and Grease	mg/L	8	<1.7	<1.9	<1.5	8	<1.7	2.0	<1.6

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 1. Summary of Mine Study Area Surface Water Quality: Surface Water									
		SW-13				SW-14			
Parameter	Units	#	Avg	Max	Min	#	Avg	Max	Min
Organic N	mg/L	8	2.56	6.91	0.632	8	1.68	3.25	0.816
Ortho Phosphate	mg/L	8	<0.074	0.406	<0.025	8	<0.025	<0.025	<0.025
pH	s.u.	13	6.0	7.1	5.1	13	6.1	7.7	5.2
Phenols (Total)	mg/L	8	<0.05	<0.05	<0.05	8	<0.05	<0.05	<0.05
Resistivity	ohm/cm	13	21362	35700	9710	12	22261	33300	13700
Silicon as SiO2	mg/L	8	13.0	14.6	11.1	8	13.3	15.5	10.5
TOC (Total Organic Carbon)	mg/L	13	8.85	16.3	4.48	13	7.51	11.5	4.70
Total Boron	mg/L	8	0.012	0.0196	0.009	8	0.011	0.0145	0.009
Total Calcium	mg/L	8	2.98	6.48	1.53	8	2.59	3.80	1.61
Total Coliform	cfu/100mL	8	12075	40000	2400	8	11500	30000	1600
Total Cyanide	mg/L	8	<0.01	<0.01	<0.01	8	<0.01	<0.01	<0.01
Total Dissolved Solids	mg/L	13	83	143	47	13	70	125	37
Total Iron	mg/L	13	3.14	4.25	1.96	13	4.05	6.08	2.59
Total Kjeldahl Nitrogen	mg/L	8	2.60	6.91	0.632	8	1.71	3.4	0.821
Total Magnesium	mg/L	8	1.45	2.53	0.789	8	1.39	2.21	0.863
Total Manganese	mg/L	13	0.369	0.940	0.0782	13	0.378	1.06	0.145
Total Phosphorus	mg/L	8	0.192	0.574	0.051	8	0.139	0.609	0.043
Total Potassium	mg/L	8	2.64	5.08	1.78	8	2.05	2.89	1.77
Total Settleable Solids	mL/L	8	<0.2	0.2	<0.1	8	<0.2	<0.2	<0.1
Total Sodium	mg/L	8	2.05	3.22	0.982	8	2.23	3.07	1.10
Total Sulfate (SO4)	mg/L	8	2.62	3.92	1.20	8	2.48	3.64	1.07
Total Suspended Solids	mg/L	13	34	89	6	13	44	267	8
Total Thallium	mg/L	8	<0.001	<0.001	<0.001	8	<0.001	<0.001	<0.001
Tri-Valent Chromium	mg/L	8	<0.0036	0.0105	<0.001	8	<0.0043	0.0103	<0.001
Tri-Valent Chromium Dissolved	mg/L	5	<0.00245	0.00553	<0.00100	6	<0.00286	0.00619	<0.00100
Turbidity	NTU	9	58	164	20	8	41	80	20
PCBs	mg/L	6	* <	* <	* <	6	* <	* <EXCEPT	* <
VOCs	mg/L	6	* <	* <	* <	6	* <	* <	* <
Semi-VOCs	mg/L	6	* <	* <	* <	6	* <	* <	* <
Pesticides	mg/L	6	* <	* <	* <	6	* <	* <	* <
Dioxin	mg/L	6	* <	* <	* <	6	* <	* <	* <
Total Arsenic	mg/L	5	<0.001	0.00303	<0.001	5	0.001	0.00237	0.001
Total Chromium	mg/L	5	<0.004	0.011	<0.001	5	<0.005	0.010	<0.001
Total Mercury	mg/L	5	<0.0002	<0.0002	<0.0002	5	<0.0002	<0.0002	<0.0002

* <EXCEPT - chloroform of 0.00114 on Oct.20, 2008

(* <) The analyte was found to have a nondetectable limit. For additional information see (Table 2) Surogate Summary.

Information on this page revised for final EIS.

Table 2. Summary of Mine Study Area Surface Water Quality: Surface Water

Surogates Summary

Surogate	Dilution Factor	Detection Limit	Units	Method
1,1,1,2-Tetrachloroethane	1	1.00	µg/L	624
1,1,1-Trichloroethane	1	1.00	µg/L	624
1,1,2,2-Tetrachloroethane	1	1.00	µg/L	624
1,1,2-Trichloroethane	1	1.00	µg/L	624
1,1-Dichloroethane	1	1.00	µg/L	624
1,1-Dichloroethene	1	1.00	µg/L	624
1,2-Dichlorobenzene	1	1.00	µg/L	624
1,2-Dichloroethane	1	1.00	µg/L	624
1,2-Dichloropropane	1	1.00	µg/L	624
1,3-Dichlorobenzene	1	1.00	µg/L	624
1,4-Dichlorobenzene	1	1.00	µg/L	624
2-Chloroethyl vinyl ether	1	5.00	µg/L	624
Acrolein	1	20.0	µg/L	624
Acrylonitrile	1	20.0	µg/L	624
Benzene	1	1.00	µg/L	624
Bromodichloromethane	1	1.00	µg/L	624
Bromoform	1	1.00	µg/L	624
Bromomethane	1	1.00	µg/L	624
Carbon tetrachloride	1	1.00	µg/L	624
Chlorobenzene	1	1.00	µg/L	624
Chlorodibromomethane	1	1.00	µg/L	624
Chloroethane	1	1.00	µg/L	624
Chloroform	1	1.00	µg/L	624
Chloromethane	1	1.00	µg/L	624
cis-1,3-Dichloropropene	1	1.00	µg/L	624
Ethylbenzene	1	1.00	µg/L	624
Methylene chloride	1	10.0	µg/L	624
Styrene	1	1.00	µg/L	624
Tetrachloroethene	1	1.00	µg/L	624
Toluene	1	5.00	µg/L	624
trans-1,2-Dichloroethene	1	1.00	µg/L	624
trans-1,3-Dichloropropene	1	1.00	µg/L	624
Trichloroethene	1	1.00	µg/L	624
Trichlorofluoromethane	1	1.00	µg/L	624
Vinyl chloride	1	1.00	µg/L	624
Aroclor 1016	1	0.526	µg/L	608
Aroclor 1221	1	0.526	µg/L	608
Aroclor 1232	1	0.526	µg/L	608
Aroclor 1242	1	0.526	µg/L	608
Aroclor 1248	1	0.526	µg/L	608
Aroclor 1254	1	0.526	µg/L	608

Table 2. Summary of Mine Study Area Surface Water Quality: Surface Water

Surogate	Dilution Factor	Detection Limit	Units	Method
Aroclor 1260	1	0.526	µg/L	608
4,4´-DDD	10	0.0421	µg/L	608
4,4´-DDE	10	0.0421	µg/L	608
4,4´-DDT	10	0.0421	µg/L	608
Aldrin	10	0.0421	µg/L	608
alpha-BHC	10	0.0421	µg/L	608
beta-BHC	10	0.0421	µg/L	608
Chlordane	10	0.211	µg/L	608
delta-BHC	10	0.0421	µg/L	608
Dieldrin	10	0.0421	µg/L	608
Endosulfan I	10	0.0421	µg/L	608
Endosulfan II	10	0.0421	µg/L	608
Endosulfan sulfate	10	0.0421	µg/L	608
Endrin	10	0.0421	µg/L	608
Endrin aldehyde	10	0.0421	µg/L	608
Endrin Ketone	10	0.0421	µg/L	608
gamma-BHC	10	0.0421	µg/L	608
Heptachlor	10	0.0421	µg/L	608
Heptachlor epoxide	10	0.0421	µg/L	608
Toxaphene	10	0.316	µg/L	608
Dioxin (2,3,7,8-TCDD) - Screen	1	1.00	µg/L	625
1,2,4-Trichlorobenzene	1	5.52	µg/L	625
1,2-Dichlorobenzene	1	5.52	µg/L	625
1,2-Diphenylhydrazine/Azobenzen	1	5.52	µg/L	625
1,3-Dichlorobenzene	1	5.52	µg/L	625
1,4-Dichlorobenzene	1	5.52	µg/L	625
2,4,6-Trichlorophenol	1	5.52	µg/L	625
2,4-Dichlorophenol	1	5.52	µg/L	625
2,4-Dimethylphenol	1	5.52	µg/L	625
2,4-Dinitrophenol	1	5.52	µg/L	625
2,4-Dinitrotoluene	1	5.52	µg/L	625
2,6-Dinitrotoluene	1	5.52	µg/L	625
2-Chloronaphthalene	1	5.52	µg/L	625
2-Chlorophenol	1	5.52	µg/L	625
2-Nitrophenol	1	5.52	µg/L	625
3,3´-Dichlorobenzidine	1	5.52	µg/L	625
4,6-Dinitro-2-methylphenol	1	11.0	µg/L	625
4-Bromophenyl phenyl ether	1	5.52	µg/L	625
4-Chloro-3-methylphenol	1	5.52	µg/L	625
4-Chlorophenyl phenyl ether	1	5.52	µg/L	625
4-Nitrophenol	1	22.1	µg/L	625
Acenaphthene	1	2.21	µg/L	625
Acenaphthylene	1	2.21	µg/L	625
Anthracene	1	2.21	µg/L	625
Benzidine	1	22.1	µg/L	625
Benzo(a)anthracene	1	2.21	µg/L	625
Benzo(a)pyrene	1	2.21	µg/L	625
Benzo(b)fluoranthene	1	2.21	µg/L	625
Benzo(g,h,i)perylene	1	2.21	µg/L	625
Benzo(k)fluoranthene	1	2.21	µg/L	625

Information on this page revised for final EIS.

Table 2. Summary of Mine Study Area Surface Water Quality: Surface Water

Surogate	Dilution Factor	Detection Limit	Units	Method
Bis(2-chloroethoxy)methane	1	5.52	µg/L	625
Bis(2-chloroethyl)ether	1	5.52	µg/L	625
Bis(2-chloroisopropyl)ether	1	5.52	µg/L	625
Bis(2-ethylhexyl)phthalate	1	11.0	µg/L	625
Butyl benzyl phthalate	1	5.52	µg/L	625
Chrysene	1	2.21	µg/L	625
Di-n-butyl phthalate	1	5.52	µg/L	625
Di-n-octyl phthalate	1	5.52	µg/L	625
Dibenz(a,h)anthracene	1	2.21	µg/L	625
Diethyl phthalate	1	5.52	µg/L	625
Dimethyl phthalate	1	5.52	µg/L	625
Fluoranthene	1	2.21	µg/L	625
Fluorene	1	2.21	µg/L	625
Hexachlorobenzene	1	5.52	µg/L	625
Hexachlorobutadiene	1	5.52	µg/L	625
Hexachlorocyclopentadiene	1	5.52	µg/L	625
Hexachloroethane	1	5.52	µg/L	625
Indeno(1,2,3-cd)pyrene	1	2.21	µg/L	625
Isophorone	1	5.52	µg/L	625
N-Nitrosodi-n-propylamine	1	5.52	µg/L	625
N-Nitrosodimethylamine	1	5.52	µg/L	625
N-Nitrosodiphenylamine	1	11.0	µg/L	625
Naphthalene	1	2.21	µg/L	625
Nitrobenzene	1	5.52	µg/L	625
Pentachlorophenol	1	5.52	µg/L	625
Phenanthrene	1	2.21	µg/L	625
Phenol	1	5.52	µg/L	625
Pyrene	1	2.21	µg/L	625

Information on this page revised for final EIS.

Table 3. Summary of Surface Impoundment Water Quality:				
Parameter	# Samples	Average	Maximum	Minimal
pH Field (s.u.)	266	7.30	10.26	5.48
Temp. Field (°F)	266	85.71	102.06	63.07
Conductivity Field (umhos/cm)	266	55.70	239.6	19.00
D.O. (mg/L)	259	60.10	11.48	3.64
Turbidity (NTU)	256	29.40	278.4	1.3
Color (PCU)	237	75	>100	5
Acidity (mg/L)	265	7	35	<1
Alk. (as $CaCO_3$) (mg/L)	261	11	82	<1
Bicarbonate (as $CaCO_3$) (mg/L)	261	14	74	<1
Carbonate (as CO_3) (mg/L)	267	2	13	0
Chloride (mg/L)	263	3.28	19.5	<1.00
Total Calcium (mg/L)	266	2.77	15.0	0.331
TDS (mg/L)	266	65	308	13
Total Fe (mg/L)	264	3.36	23.1	0.202
Total Mg (mg/L)	266	1.31	6.07	0.352
Total Mn (mg/L)	266	0.176	4.75	<0.01
Total K (mg/L)	265	3.48	26.8	0.407
Total Na (mg/L)	266	2.36	15.0	<0.5
Total SO_4 (mg/L)	265	1.91	11.2	<1.00

Table 4. State of Mississippi Water Quality Criteria for Intrastate, Interstate, and Coastal Waters Minimum Standards Applicable to All Waters, Fish and Wildlife (Source: MDEQ, 2007) NA = Not Applicable

Parameter	**Minimum**	**Maximum**	**Monthly Average/Mean**
Dissolved Oxygen Daily Average Instantaneous	 5.0 mg/L 4.0 mg/L	 NA	 NA
pH change	6.0 s.u. 1.0 s.u.	9.0 s.u. 1.0 s.u.	NA
Temperature Rise	NA	90°F 5°F	NA
Fecal Coliform May - Oct. Nov. - Apr.	NA	 400/100ml more than 10% of 30-day period 4,000/100ml more than 10% of 30-day period	 200/100 mL 2,000/100 mL
Specific Conductivity	NA	1,000 µmhos/cm	NA
Total Dissolved Solids	NA	1,500 mg/L	750 mg/L

Table 5. State of Mississippi Water Quality Criteria for Intrastate, Interstate, and Coastal Waters Numeric Criteria Applicable to All Waters Upstream of Public Water Supply Intake (Source: MDEQ, 2007) NA = Not Applicable

Parameter	Fresh Water		Human Health
	Acute (µg/L)	Chronic (µg/L)	Water & Organisms (µg/L)
Aldrin	3	NA	0.00013
Ammonia	NA [g]	NA [g]	NA
Arsenic (III), Total Dissolved	340 [f]	150 [f]	NA
Arsenic, Total Dissolved	NA	NA	0.078 [i]
Cadmium, Total Dissolved	1.03 [b,f]	0.15 [b,f]	5
Chlordane	2.4	0.0043	0.0021
Chlorine	19	11	NA
Chromium (Hex), Total Dissolved	16 [f]	11 [f]	98
Chromium (III), Total Dissolved	323 [b,f]	42 [b,f]	100
Copper, Total Dissolved	7.0 [b,f]	5.0 [b,f]	1000
Cyanide	22.0	5.2	200
4,4 DDT	1.1	0.001	0.00059
Dieldrin	0.24	0.056	0.000135
2,3,7,8 TCDD (Dioxin)	NA	NA	1.0 ppq [d]
alpha-Endolsulfan	0.22 [j]	0.056 [j]	110 [k]
beta-Endosulfan	0.22 [j]	0.056 [j]	110 [k]
Endosulfan Sulfate	0.22 [j]	0.056 [j]	110 [k]
Endrin	0.086	0.036	0.76
Heptachlor	0.52	0.0038	0.000208
gamma-BHC (Lindane)	0.95	0.08	0.0186
Lead, Total Dissolved	30 [b,f]	1.18 [b,f]	15
Mercury (II), Total Dissolved	2.1 [f]	0.012	NA
Mercury	NA	NA	0.151
Nickel, Total Dissolved	260 [b,f]	29 [b,f]	607
Phenol	300	102	300
Pentachlorophenol	8.7	6.7	0.28
PCB 1242	0.2	0.014	NA
PCB 1254	0.2	0.014	NA
PCB 1221	0.2	0.014	NA
PCB 1232	0.2	0.014	NA
PCB 1248	0.2	0.014	NA
PCB 1260	0.2	0.014	NA

Table 5. State of Mississippi Water Quality Criteria for Intrastate, Interstate, and Coastal Waters Numeric Criteria Applicable to All Waters Upstream of Public Water Supply Intake (Source: MDEQ, 2007) NA = Not Applicable

Parameter	Fresh Water		Human Health
	Acute (µg/L)	Chronic (µg/L)	Water & Organisms (µg/L)
PCB 1016	0.2	0.014	NA
Total PCB	NA	NA	0.00035
Selenium, Total Dissolved	11.8 a,[f]	4.6 [f]	50
Silver, Total Dissolved	0.98 [b,f]	NA	100
Toxaphene	0.73	0.0002	0.00073
Zinc, Total Dissolved	65 [b,f]	65 [b,f]	5000

[b] Hardness dependent parameter. Criteria are indicated at hardness of 50 mg/l as CaCO3. Equations for criteria calculation of hardness dependent parameters can be found in *Quality Criteria for Water.* The equation is applicable for instream hardness ranges from 25 mg/l to 400 mg/l. If instream hardness is less than 25 mg/l, then a hardness value of 25 mg/l should be used to calculate the criteria. If instream hardness is greater than 400 mg/l, then a hardness of 400 mg/l should be used to calculate the criteria.

[d] Criteria for 2,3,7,8 TCDD based on a risk factor of one in one hundred thousand (10-5).

[f] Parameter subject to water effects ratio equations where:
CMC = WER * Acute
CCC = WER * Chronic

[g] Ammonia criteria are dependent on pH, temperature, and/or salinity

[i] Refers to the inorganic form only.

[j] Applies to the sum of α and β isomers.

[k] Applies to individual isomers of Endosulfan including α, β, and Endosulfan Sulfate.

Table 6. Okatibbee Lake Water Quality—Near Dam

Station ID: 540OKR01
Location: Near Dam
Latitude: 32 deg 28 min 40.9 sec
Longitude: 88 deg 47 min 53.4 sec

Information on this page revised for final EIS.

		Physical Properties													
Date	Time	Temperature, Water (°C)		Transparency, Secchi (m)		Specific Conductance, Field (umhos/cm @25°C)		TDS, Cond. Meter (mg/l)		TSS (mg/l)		Turbidity, Field (NTU)		Turbidity, Lab (NTU)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:05:00	11.3	9.8			38	39	25	25	1	9			12	15
3/11/1999	10:05:00	15.1	13.9			33	33	21	22	5	8			40	46
7/12/1999	11:55:00	29.1	26.5			43	60	28	39	10	44			17	38
10/11/1999	10:00:00	22.6	22.1			38	38	24	25	6	4			8	10
1/13/2000	10:25:00	12.3	11.5			37.3	37.9			6	7			16	18
5/8/2000	8:40:00	22.9	19.8			40	43	26	28	9	4			35	44
7/24/2000	9:15:00	29.4	27.1			49	82	32	52	4	10			9	15
10/16/2000	9:50:00	18.5	17			63	71	41	46	4	14			9	30
1/9/2001	11:10:00	4.8	4.8			34	34	22	22	4	6			16	17
4/2/2001	11:30:00	13.74	13.2			28.3	28.2	18.1	18	7	12			36	40
6/27/2001	10:30:00	27.6	24.5			41	67	27	43	4	20			7	36
6/27/2001	11:00:00	29.1	26.5			40	46	26	30						
10/11/2001	11:00:00	20.7	20.21			66	126	42	82	7	27			14	29
11/6/2002	14:40:00	16.83	16.72	0.6	0.6	43	44	28	28	7	9	10	12		
4/2/2003	13:45:00	17	15.8	0.24	0.24	32	33			6	5	40	35		
6/23/2003	16:45:00	34.28	25.71	0.8	0.8	34	37	21.76	23.68	4	4	8	22		
7/18/2003	9:40:00	30.76	26.53	0.84	0.84	25	25			5	8	7.12	7.33		
7/24/2003	9:15:00	29.19	27.62	0.64	0.64	24	27			5	7	7.45	8.85		
7/31/2003	8:56:00	28.99	27.38	0.63	0.63	25	28			4	7	6.68	8.59		
8/7/2003	9:05:00	28.47	27.5	0.8	0.8	24	29			4	4	5.1	5.68		
8/14/2003	9:15:00	28.22	27.75	0.81	0.81	25	26			4	3	6.13	6.47		
9/17/2003	11:20:00	28.02	26.56	0.58	0.58	38	38			7	5	10	11		
11/19/2003	15:30:00	17.38	17.37	0.75	0.75	36	36			10	6	24	14		
3/30/2004	15:40:00	20.37	19.76	0.2	0.2	31	31			12	12	34	35		
6/22/2004	15:15:00	29.87	25.73	0.85	0.85	40	51			4	9	12	16		
7/27/2004	10:00:00	30.36	26.52	1.7	1.7	38	66			4	5	9	12		
8/23/2004	12:00:00	26.17	25.58	0.49	0.49	40	45			4	13	23	20		
9/7/2004	12:20:00	28.51	28.48	0.35	0.35	40	40			4	5	21	20		
4/29/1997	11:50:00	17.7	17			34	29			3	3			40	39
7/16/1997	10:00:00	30.1	26			36	56	23	36	9	5			29	10
9/23/1997	10:40:00	28	26.7			42	47	28	30	7	11			8	14
1/15/1998	10:00:00	12.8	11.9	0.7		25	29	16	19	11	11			30	29.4
4/6/1998	9:20:00	19.3	17.1	0.35		49	255	31	165	8	15			45	53
8/18/1998	9:45:00	29.5	28.5			43	46	28	0	1	8			10	8
10/15/1998	9:45:00	23.2	22.8			44	45	28	30	8	19			8	20
9/16/1993	11:30:00	26.3	26.1												

Table 6. Okatibbee Lake Water Quality—Near Dam

Station ID: 540OKR01
Location: Near Dam
Latitude: 32 deg 28 min 40.9 sec
Longitude: 88 deg 47 min 53.4 sec

Information on this page revised for final EIS.

		Water Chemistry													
Date	Time	Diss Oxygen, Probe (mg/l)		Diss Oxygen (%Sat)		COD, (mg/l)		pH, Field (SU)		Alkalinity, Total (mg/l,)		Hardness, Total (mg/l)		Chloride, Total (mg/l)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:05:00	12.1	11.1	110.4	97.6	13	13	7.1	6.6	10.5	10	8.5	10.3	2.6	3.1
3/11/1999	10:05:00	10.1	9.3	100.8	90.1	17	20	7.1	6.4	10	10	9.8	9.5	5	5
7/12/1999	11:55:00	6.3	0.3	82.2	3.9	26	11	6.9	6.6	10.8	15.6	13.2	18.6	3.2	3.5
10/11/1999	10:00:00	8.9	8.1	102.9	92.2	10	10	7.4	6.8	10.7	10.8	13.6	13.7	3	2.8
1/13/2000	10:25:00	9.8	8.9	91.4	80.7	10	10	6.7	6.7	10	10	12.5	13.5	3.2	3.2
5/8/2000	8:40:00	7.6	3.9	88.6	43.4	25	28	7.2	7.5	10	10	11.9	14.2	4.1	4.2
7/24/2000	9:15:00	6.6	1.1	85.9	14.2	17	21	7.2	7	11.8	17.7	15.3	19.8	3.4	3.5
10/16/2000	9:50:00	10	6.9	107	71	10	10	7.5	7.3	11.6	10.9	11.4	11.4	4	4.2
1/9/2001	11:10:00	12.3	12	95.7	93.7	25	25	7.1	7.4	10	10	11.2	10	4.1	3.9
4/2/2001	11:30:00	8.4	8.24	81.3	78.2	21	25	6.04	5.71	10	10	13.7	13.3	3.2	3
6/27/2001	10:30:00	6.4	0.5	81.2	5.1	26	23	6.8	6.7	16.9	16	15.1	22.1	2.8	3
6/27/2001	11:00:00	7.5	2.7	97.8	33.4			7	6.8						
10/11/2001	11:00:00	8.26	5.98	92.4	67.5	0	20	6.86	6.86	13.9	11	13.1	15	3	3
11/6/2002	14:40:00	9.54	9.31	98.6	95.8	19	15	7.3	7.09	10.2	10.4	14.4	14.3	3.4	3.4
4/2/2003	13:45:00	9.75	8.87	100.8	88.7	28	23	6.94	6.35	5	5	10.4	10.4	2.1	2.3
6/23/2003	16:45:00	8.08	0.51	114.9	5.9	13	12	7.45	6.09	10	11.6	11.4	3	1.7	2.3
7/18/2003	9:40:00	8.59	1.62	114.9	21.5	20	25	7.84	6.29	10.1	11.3	12.4	12.6	1.8	1.8
7/24/2003	9:15:00	8.05	2.45	104.2	30	23	22	7.07	6.46	14	10.9	12.4	11.9	1.8	1.8
7/31/2003	8:56:00	7.22	1.86	93.1	24.2	21	19	6.32	5.94	10.6	14.8	12.2	13.2	1.8	1.6
8/7/2003	9:05:00	5.33	0.85	68.6	10.8	21	10	7.48	6.86	11.6	12.3	13.4	14	1.8	1.8
8/14/2003	9:15:00	5.61	4.5	72.9	57.7	13	15	6.85	6.71	14.6	11.7	14	10.9	1.7	1.7
9/17/2003	11:20:00	8.38	5.46	107	67.5	31	22	7.98	6.51	13.4	13.2	14.9	13.7	1.5	1.4
11/19/2003	15:30:00	9.12	8.84	95.1	92	10	10	6.42	6.36	11	10	14.4	10.5	2	1
3/30/2004	15:40:00	9.23	8.98	103	98.4	19	19	7.28	7.08	10	10	10.3	9.6	2.4	2.4
6/22/2004	15:15:00	6.27	0.27	82.8	3.1	10	15	7.16	6.53	10.9	12.3	12.6	14.9	2.2	2.5
7/27/2004	10:00:00	6.37	0.29	84.7	3.6	19	21	7.63	6.78	10.8	22.4	15.2	20.5	1.5	2
8/23/2004	12:00:00	5.31	1.13	65.9	13.4	17	18	7.75	6.64	12.4	12.9	14.4	18.1	2	2.2
9/7/2004	12:20:00	6.82	7.35	88.4	94.5	14	19	7.52	7.42	11.3	10.4	14.4	15.1	3.5	3.4
4/29/1997	11:50:00	8.4	6.6			21	10	7.1	6.5	10	10	11	12	3	3
7/16/1997	10:00:00	7.8	0.2	102.4	1.5	27	10	7.7	6.6	17	11	15	12	2	3
9/23/1997	10:40:00	8	2.6	101.8	31	10	47	7.4	6.7	13	13	14	14	9	3
1/15/1998	10:00:00	8.8	8.6	83.1	79.9	10	12	6.5	6.2	10	10	7.7	7.3	2	2
4/6/1998	9:20:00	9.5	8.7	102.7	90.1	32	33	6.5	6.1			9	9	3.2	3
8/18/1998	9:45:00	7	3.1	92.1	40.5	10	10	6.9	6.7	15	12	12	16	2	1
10/15/1998	9:45:00	8.1	6.4	94.2	74.4	10	10	7.2	6.7	15	13	16	15	2	2
9/16/1993	11:30:00	6.2	4.8												

Table 6. Okatibbee Lake Water Quality—Near Dam

Station ID: 540OKR01
Location: Near Dam
Latitude: 32 deg 28 min 40.9 sec
Longitude: 88 deg 47 min 53.4 sec

Information on this page revised for final EIS.

		Nutrients													
Date	Time	Nitrogen, Ammonia (mg/l as N)		Nitrogen, TKN (mg/l as N)		Nitrogen, NO2+NO3 (mg/l as N)		Phosphorus, Total (mg/l as P)		TOC (mg/l)		ChlA,Flour., Corr (ug/l)		ChlA,Fluor.Phyto (mg/m3)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:05:00	0.13	0.16	0.78	0.76	0.02	0.04	0.03	0.02	5	5				
3/11/1999	10:05:00	0.53	0.46	0.73	0.75	0.1	0.08	0.09	0.09						
7/12/1999	11:55:00	0.25	0.41	0.56	0.96	0.02	0.03	0.01	0.01						
10/11/1999	10:00:00	0.48	0.44	0.54	0.53	0.02	0.02	0.04	0.52	4	4				
1/13/2000	10:25:00	0.17	0.25	0.43	0.39	0.02	0.02	0.03	0.03	7	6				
5/8/2000	8:40:00	0.14	0.26	0.82	1.04	0.1	0.11	0.07	0.11	5	5				
7/24/2000	9:15:00	0.15	0.31	0.26	0.82	0.07	0.02	0.07	0.04	4	5				
10/16/2000	9:50:00	0.13	0.27	0.5	0.55	0.02	0.02	0.04	0.05	5	4				
1/9/2001	11:10:00	0.18	0.18	0.64	0.72	0.02	0.02	0.03	0.01	4	4				
4/2/2001	11:30:00	0.26	0.2	0.89	1.19	0.08	0.07	0.05	0.14	7	7				
6/27/2001	10:30:00	0.1	0.21	0.91	0.94	0.03	0.05	0.67	0.08	7	7				
6/27/2001	11:00:00														
10/11/2001	11:00:00	0.1	0.1	0.74	0.7	0.02	0.02	0.08	0.07	8	8			19.6	
11/6/2002	14:40:00	0.1	0.1	0.64	0.65	0.02	0.02	0.03	0.03	6	6	9.05			
4/2/2003	13:45:00	0.05	0.05	0.9	0.75	0.07	0.07	0.04	0.05	6	6	2.78			
6/23/2003	16:45:00	0.1	0.25	0.84	1.06	0.02	0.03	0.04	0.07	6	7	4.86			
7/18/2003	9:40:00	0.1	0.1	0.47	0.68	0.02	0.02	0.04	0.04	7	7	9.13			
7/24/2003	9:15:00	0.1	0.1	0.83	0.56	0.02	0.02	0.04	0.04	6	6	9.31			
7/31/2003	8:56:00	0.1	0.1	0.84	0.82	0.02	0.06	0.04	0.04	7	7	7.3			
8/7/2003	9:05:00	0.1	0.1	0.46	0.79	0.02	0.02	0.04	0.03	6	6	7.54			
8/14/2003	9:15:00	0.1	0.1	0.69	0.68	0.02	0.02	0.04	0.05	6	6	6.04			
9/17/2003	11:20:00	0.1	0.1	0.76	0.86	0.02	0.02	0.06	0.08	6	6	16			
11/19/2003	15:30:00	0.1	0.1	0.32	0.31	0.02	0.04	0.04	0.02	4	4	7.21			
3/30/2004	15:40:00	0.1	0.1	0.63	0.56	0.07	0.09	0.05	0.04	6	6	4.72			
6/22/2004	15:15:00	0.1	0.11	0.69	0.52	0.02	0.02	0.05	0.04	4	4	10.82			
7/27/2004	10:00:00	0.1	0.45	0.76	1.15	0.02	0.03	0.04	0.05	5	6	9.06			
8/23/2004	12:00:00	0.1	0.12	0.83	0.76	0.02	0.02	0.03	0.06	5	5	18.38			
9/7/2004	12:20:00	0.1	0.1	1.06	0.87	0.02	0.02	0.09	0.11	6	5	7.69			
4/29/1997	11:50:00	0.14	0.14	0.32	0.36	0.12	0.12	0.13	0.17	5	3				
7/16/1997	10:00:00	0.18	0.11	0.3	0.25	0.04	0.02	0.06	0.01	6	5				
9/23/1997	10:40:00	0.12	0.19	0.46	0.45	0.02	0.02	0.04	0.04	8	7				
1/15/1998	10:00:00	0.22	0.26	1.12	0.73	0.03	0.04	0.01	0.01	8	7				
4/6/1998	9:20:00	0.1	0.11	0.96	0.79	0.7	0.08	0.07	0.07	7	6				
8/18/1998	9:45:00	0.11	0.18	0.65	0.61	0.02	0.02	0.03	0.06						
10/15/1998	9:45:00	0.11	0.17	0.4	0.17	0.02	0.02	0.03	0.07	7	7				
9/16/1993	11:30:00														

Table 6. Okatibbee Lake Water Quality—Near Dam

Station ID: 540OKR01
Location: Near Dam
Latitude: 32 deg 28 min 40.9 sec
Longitude: 88 deg 47 min 53.4 sec

Information on this page revised for final EIS.

		Metals													
Date	Time	Arsenic, Total (ug/l as AS)		Cadmium, Total (ug/l as CD)		Chromium, Total (ug/l as CR)		Copper, Total (ug/l as CU)		Lead, Total (ug/l as PB)		Mercury, Total (ug/l as HG)		Nickel, Total (ug/l as NI)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:05:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
3/11/1999	10:05:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
7/12/1999	11:55:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
10/11/1999	10:00:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
1/13/2000	10:25:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
5/8/2000	8:40:00	5	5	1	1	1	1	5	5	5	0	0.5	0.5	5	5
7/24/2000	9:15:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
10/16/2000	9:50:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
1/9/2001	11:10:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
4/2/2001	11:30:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
6/27/2001	10:30:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
6/27/2001	11:00:00														
10/11/2001	11:00:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
11/6/2002	14:40:00														
4/2/2003	13:45:00														
6/23/2003	16:45:00														
7/18/2003	9:40:00														
7/24/2003	9:15:00														
7/31/2003	8:56:00														
8/7/2003	9:05:00														
8/14/2003	9:15:00														
9/17/2003	11:20:00														
11/19/2003	15:30:00														
3/30/2004	15:40:00														
6/22/2004	15:15:00														
7/27/2004	10:00:00														
8/23/2004	12:00:00														
9/7/2004	12:20:00														
4/29/1997	11:50:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
7/16/1997	10:00:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
9/23/1997	10:40:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
1/15/1998	10:00:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
4/6/1998	9:20:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
8/18/1998	9:45:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
10/15/1998	9:45:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
9/16/1993	11:30:00														

Table 6. Okatibbee Lake Water Quality—Near Dam

Station ID: 540OKR01
Location: Near Dam
Latitude: 32 deg 28 min 40.9 sec
Longitude: 88 deg 47 min 53.4 sec

Information on this page revised for final EIS.

		Metals (cont.)								Other			
Date	Time	Selenium, Total (ug/l as SE)		Zinc, Total (ug/l as ZN)		Aluminum, Total (ug/l as AL)		Manganese, Total (ug/l as MN)		FecalColi, MFBroth(100ml)		Phenols, Total (mg/l)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:05:00	5	5	10	10	185	220	57.1	72	260		0.05	
3/11/1999	10:05:00	5	5	10	10	416	655	138	147	10		0.05	
7/12/1999	11:55:00	5	5	10	10	310	386	135	1500	10		0.05	
10/11/1999	10:00:00	5	5	10	10	66.2	81.4	73.1	79	15		0.05	
1/13/2000	10:25:00	5	5	10	10	160	183	78	97	19		0.05	
5/8/2000	8:40:00	5	5	10	10	526	583	77	167	4		0.05	
7/24/2000	9:15:00	5	5	10	10	114	176	287	1300	4			
10/16/2000	9:50:00	5	5	10	10	117	352	72	222	4		0.05	
1/9/2001	11:10:00	5	5	10	10	163	172	60	64	8		0.05	
4/2/2001	11:30:00	5	5	10	10	443	450	165	188	4		0.05	
6/27/2001	10:30:00	5	5	10	10	110	282	67.3	1840	4		0.05	
6/27/2001	11:00:00												
10/11/2001	11:00:00	5	5	10	10	177	278	111	192			0.05	
11/6/2002	14:40:00												
4/2/2003	13:45:00												
6/23/2003	16:45:00												
7/18/2003	9:40:00												
7/24/2003	9:15:00												
7/31/2003	8:56:00												
8/7/2003	9:05:00												
8/14/2003	9:15:00												
9/17/2003	11:20:00												
11/19/2003	15:30:00												
3/30/2004	15:40:00												
6/22/2004	15:15:00												
7/27/2004	10:00:00												
8/23/2004	12:00:00												
9/7/2004	12:20:00												
4/29/1997	11:50:00	5	5	10	10	281	228	82	87	100		0.05	
7/16/1997	10:00:00	5	5	10	10	163	198	1344	65	180	50	0.05	
9/23/1997	10:40:00	5	5	10	10	78	99	170	523	10			
1/15/1998	10:00:00	5	5	10	10	241	322	114	102	40		0.05	
4/6/1998	9:20:00	7.2	5	10	10	511	879	91	138	10		0.05	
8/18/1998	9:45:00	5	5	10	10	44	86	128	399	10		0.05	
10/15/1998	9:45:00	5	5	10	10	96	173	97.4	275	10		0.05	
9/16/1993	11:30:00												

Table 7. Okatibbee Lake Water Quality—Below Bridge

Station ID: 540OKR02
Location: Below Center Hill- Martin Road Bridge
Latitude: 32 deg 31 min 0.5 sec
Longitude: 88 deg 48 min 10.2 sec

Information on this page revised for final EIS.

		Physical Properties													
Date	Time	Temperature, Water (°C)		Transparency, Secchi (m)		Specific Conductance, Field (umhos/cm @25°C)		TDS, Cond. Meter (mg/l)		TSS (mg/l)		Turbidity, Field (NTU)		Turbidity, Lab (NTU)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:35:00	13.9	13.1			40	40	26	26	18	15			29	31
3/11/1999	10:45:00	13.9	13.6			33	33	21	21	4	9			45	45
7/12/1999	12:15:00	29.1	28.9			42	42	27	28	17	21			31	33
10/11/1999	10:35:00	22.9	21.8			35	38	23	25	7	31			15	37
1/13/2000	10:55:00	13.5	13.3			37.5	38	24	25	12	9			26	26
5/8/2000	9:00:00	24.6	23.1			40	46	26	30	12	15			41	49
7/24/2000	9:35:00	28.6	28.5			48	48	31	31	5	13			18	18
10/16/2000	10:15:00	19.7	16.5			46	45	30	29	4	54			11	61
1/2/2001	12:25:00										316				174
1/9/2001	12:10:00	6.1	6.1			38	37	24	24	14	14			25	29
4/2/2001	12:15:00	13.86	13.49			27.5	80.6	17.7	51.6	8	316			35	174
6/27/2001	11:00:00									6	10			18	24
10/11/2001	10:31:00	20.72	20.74			63	126	40	81	13	103			20	48
11/6/2002	13:25:00	15.61	15.63	0.19	0.19	40	41	26	26	30		0			
4/2/2003	12:30:00	17.37	16.46	0.21	0.21	35	37			16		48			
6/23/2003	16:10:00	33.37	25.97	0.61	0.61	34	39	21.76	24.96	4		16			
7/18/2003	8:30:00	28.87	27.39	0.5	0.5	25	24			9		11.8			
7/24/2003	7:30:00	27.9	27.88	0.39	0.39	24	23								
7/31/2003	8:05:00	29.24	29.22	0.54	0.54	24	25			6		12.6			
8/7/2003	8:25:00	27.94	27.8	0.52	0.52	23	23			6		13.3			
8/14/2003	8:25:00	27.86	27.43	0.47	0.47	24	24			8		13.3			
9/17/2003	12:00:00	26.73	24.7	0.5	0.5	37	38			11		18			
11/19/2003	14:45:00	17.54	17.56	0.31	0.31	36	36			22		30			
3/30/2004	14:30:00	21.24	19.97	0.18	0.18	38	39			22		36			
6/22/2004	14:40:00	29.76	29.31	0.44	0.44	39	39			14					
7/27/2004	11:00:00	29.47	29.01	0.37	0.37	42	41			18		32			
8/23/2004	13:45:00	26.4	26.38	0.24	0.24	38	38			26		25			
9/7/2004	13:20:00	28.09	26.95	0.29	0.29	40	40			10		31			
4/29/1997	10:30:00	17.2	16.3			33	23			6	20			43	57
7/16/1997	9:35:00	30.1	27.5			36	46	24	30	5	17			14	47
9/23/1997	9:37:00	27.2	26.3			43	47	28	31	14	19			14	20
1/15/1998	10:30:00	13.1	12.1			22	23	14	15	9	11			33.9	41.7
4/6/1998	10:00:00	18.2	17.3			44	264	28	169	9	25			47	60
8/18/1998	10:04:00	29.8	28.1			43	49	28	32	4	16			8	22
10/15/1998	10:20:00	23	21			43	45	28	30	7	20			14	29

Table 7. Okatibbee Lake Water Quality—Below Bridge

Station ID: 540OKR02
Location: Below Center Hill- Martin Road Bridge
Latitude: 32 deg 31 min 0.5 sec
Longitude: 88 deg 48 min 10.2 sec

Information on this page revised for final EIS.

Date	Time	Water Chemistry													
		Diss Oxygen, Probe (mg/l)		Diss Oxygen (%Sat)		COD, (mg/l)		pH, Field (SU)		Alkalinity, Total (mg/l,)		Hardness, Total (mg/l)		Chloride, Total (mg/l)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:35:00	10.7	10.6	103.8	100.8	19	20	6.7	6.6	10	10	12	11	3.5	3.3
3/11/1999	10:45:00	9.8	9.8	95	93.9	37	44	7.4	6.9	10	10	10.5	9.8	5	5
7/12/1999	12:15:00	6.8	6.3	89	81.7	10	21	7	6.9	10.1	10	13.3	13.6	3.2	3.4
10/11/1999	10:35:00	8.2	5.4	95.3	60.7	10	10	7	6.3	10.8	11.1	13.7	15.5	2.9	3.2
1/13/2000	10:55:00	9.8	9.5	94.1	90.3	15	10	7	7	10	10	14	11.7	3.3	3.2
5/8/2000	9:00:00	7.8	4.5	93.3	51.8	27	33	7	6.9	10	10	12.8	14	4.1	4.2
7/24/2000	9:35:00	6.9	7.3	89.6	94.2	23	20	7.1	7.3	11.1	12.3	14.3	21.6	3.7	3.5
10/16/2000	10:15:00	9.8	6.1	107	62.1	21	32	7.5	7.5	11.1	10	14.4	13.9	4	4.9
1/2/2001	12:25:00						25				10		20.6		2.9
1/9/2001	12:10:00	11.3	11.1	91.4	89.5	25	24	7.2	7.3	10	10	12.4	13	4.2	4.3
4/2/2001	12:15:00	8.75	8.13	84.9	79	23	25	6.15	6.07	10	10	11.8	20.6	2.7	2.9
6/27/2001	11:00:00					21	25			10	10	13.8	16	2.8	2.9
10/11/2001	10:31:00	8.65	0.2	96.5	1.9	21	28	6.94	6.62	17	12.9	17.1	15.4	3.1	3.3
11/6/2002	13:25:00	9.5	9.67	95.5	97.3	30		7.02	6.7	10		14.3		3.7	
4/2/2003	12:30:00	10.12	9.92	105.5	101.1	17		7.26	6.82	5		11.7		2.4	
6/23/2003	16:10:00	8.33	1.8	116.9	22	20		7.43	6	10		11.9		2.2	
7/18/2003	8:30:00	6.2	3.35	79.8	41.5	18		7.78	6.45	11.4		12.7		1.9	
7/24/2003	7:30:00	6.85	5.79	86.3	73.7			6.75	6.57						
7/31/2003	8:05:00	7.6	7.32	99.3	95.4	23		6.29	6.62	11.1		12.4		1.8	
8/7/2003	8:25:00	6.77	6.42	86.4	81.9	21		7.75	7.45	15.3		13.6		1.8	
8/14/2003	8:25:00	7.29	6.87	92.9	86.9	15		7.79	7.31	10.3		10.6		2.2	
9/17/2003	12:00:00	7.83	5.85	98.4	75.9	30		6.32	5.84	13.3		15.7		1.9	
11/19/2003	14:45:00	9.71	9.65	101.6	100.9	12		6.34	6.26	11.3		11.1		2.2	
3/30/2004	14:30:00	8.07	7.23	91.2	79.6	19		8.24	7.43	10		12.9		2.4	
6/22/2004	14:40:00	7.26	6.6	95.7	86.6	10		7.51	7.17	11.1		13.7		2.6	
7/27/2004	11:00:00	6.09	5.47	80.1	71.3	16		7.38	6.88	13.5		14.1		1.9	
8/23/2004	13:45:00	3.98	5.42	49.1	67.5	17		7.83	7.2	11.7		14.1		2.3	
9/7/2004	13:20:00	6.86	5.32	88	66.8	16		7.63	7.15	10.7		14.8		4	
4/29/1997	10:30:00	8.5	7.1			26	26	7.1	6.4	10	10	11	10	2	2
7/16/1997	9:35:00	7.7	1	102.2	13.1	22	24	7.7	6.4	12	15	11	17	3	3
9/23/1997	9:37:00	7.4	3.9	93.2	47.4	14	10	7.5	6.9	13	13	15	15	3	3
1/15/1998	10:30:00	8.6	7.5	82.1	69.6	15	18	6	5.9	10	10	7	6	2	2
4/6/1998	10:00:00	8.8	7.1	93.2	74.1	40	40	6.3	6			10	13	2	3
8/18/1998	10:04:00	7.6	1.9	100.1	24	10	10	7.1	6.5	11	15	14	17	2	3
10/15/1998	10:20:00	7.9	5.3	92.2	59.6	10	10	7.1	6.6	13	14	15	15	2	3

Table 7. Okatibbee Lake Water Quality—Below Bridge

Station ID: 540OKR02
Location: Below Center Hill- Martin Road Bridge
Latitude: 32 deg 31 min 0.5 sec
Longitude: 88 deg 48 min 10.2 sec

Information on this page revised for final EIS.

		Nutrients													
Date	Time	Nitrogen, Ammonia (mg/l as N)		Nitrogen, TKN (mg/l as N)		Nitrogen, NO2+NO3 (mg/l as N)		Phosphorus, Total (mg/l as P)		TOC (mg/l)		ChlA,Flour., Corr (ug/l)		ChlA,Fluor.Phyto (mg/m3)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:35:00	0.19	0.23	0.6	0.58	0.04	0.04	0.05	0.13	5	5				
3/11/1999	10:45:00	0.4	0.36	0.75	0.56	0.1	0.08	0.09	0.07						
7/12/1999	12:15:00	0.23	0.24	1.02	0.65	0.02	0.02	0.26	0.01						
10/11/1999	10:35:00	0.32	0.56	0.56	0.53	0.02	0.02	0.16	0.1	4	4				
1/13/2000	10:55:00	0.1	0.19	0.47	0.45	0.02	0.02	0.04	0.04	7	7				
5/8/2000	9:00:00	0.35	0.17	0.82	0.84	0.09	0.09	0.09	0.09	5	5				
7/24/2000	9:35:00	0.15	0.19	0.53	0.14	0.02	0.02	0.05	0.04	5	4				
10/16/2000	10:15:00	0.16	0.32	0.64	1.03	0.02	0.12	0.07	0.07	5	4				
1/2/2001	12:25:00		0.17		0.83		0.08		0.11		7				
1/9/2001	12:10:00	0.18	0.18	0.53	0.53	0.06	0.07	0.03	0.05	4	4				
4/2/2001	12:15:00	0.15	0.17	1.1	0.83	0.07	0.08	0.09	0.11	7	7				
6/27/2001	11:00:00	0.1	0.1	0.71	0.73	0.02	0.02	0.21	0.06	7	7				
10/11/2001	10:31:00	0.1	0.1	0.78	0.64	0.02	0.02	0.59	0.07	8	8			12.6	0
11/6/2002	13:25:00	0.1		0.58		0.02		0.06		9		1.47			
4/2/2003	12:30:00	0.05		0.85		0.06		0.05		6		3.67			
6/23/2003	16:10:00	0.1		1.06		0.02		0.05		7		5.83			
7/18/2003	8:30:00	0.1		0.71		0.02		0.05		7		6.8			
7/24/2003	7:30:00											6.03			
7/31/2003	8:05:00	0.1		1		0.02		0.04		6		7.94			
8/7/2003	8:25:00	0.1		0.89		0.02		0.04		6		8.21			
8/14/2003	8:25:00	0.1		0.97		0.02		0.06		6		10.65			
9/17/2003	12:00:00	0.1		1.64		0.02		0.03		7		8.25			
11/19/2003	14:45:00	0.1		0.61		0.02		0.03		4		6.76			
3/30/2004	14:30:00	0.1		0.89		0.25		0.06		7		5.48			
6/22/2004	14:40:00	0.1		0.77		0.02		0.07		5		10.13			
7/27/2004	11:00:00	0.1		0.88		0.02		0.05		5		7.59			
8/23/2004	13:45:00	0.1		0.67		0.02		0.04		5		6.42			
9/7/2004	13:20:00	0.1		0.62		0.02		0.08		5		5.3			
4/29/1997	10:30:00	0.14	0.13	0.36	0.31	0.12	0.06	0.11	0.15	5	9				
7/16/1997	9:35:00	0.12	0.19	0.31	0.55	0.02	0.02	0.02	0.08	5	6				
9/23/1997	9:37:00	0.14	0.15	0.51	0.66	0.02	0.02	0.04	0.05	4	8				
1/15/1998	10:30:00	0.31	0.34	0.91	0.88	0.03	0.03	0.01	0.01	8	10				
4/6/1998	10:00:00	0.1	0.18	0.74	1.13	0.07	0.04	0.07	0.1	6	8				
8/18/1998	10:04:00	0.1	0.15	0.86	0.81	0.02	0.02	1.1	0.08						
10/15/1998	10:20:00	0.15	0.23	0.26	0.53	0.02	0.02	0.05	0.07	6	7				

Table 7. Okatibbee Lake Water Quality—Below Bridge

Station ID: 540OKR02
Location: Below Center Hill- Martin Road Bridge
Latitude: 32 deg 31 min 0.5 sec
Longitude: 88 deg 48 min 10.2 sec

Information on this page revised for final EIS.

		Metals													
Date	Time	Arsenic, Total (ug/l as AS)		Cadmium, Total (ug/l as CD)		Chromium, Total (ug/l as CR)		Copper, Total (ug/l as CU)		Lead, Total (ug/l as PB)		Mercury, Total (ug/l as HG)		Nickel, Total (ug/l as NI)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:35:00	5	5	1	1	1	1	5	5	5	5			5	5
3/11/1999	10:45:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
7/12/1999	12:15:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
10/11/1999	10:35:00	5	5	1	1	16.3	18	5	5	5	5	0.5	0.5	5	5
1/13/2000	10:55:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
5/8/2000	9:00:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
7/24/2000	9:35:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
10/16/2000	10:15:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
1/2/2001	12:25:00														
1/9/2001	12:10:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
4/2/2001	12:15:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
6/27/2001	11:00:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
10/11/2001	10:31:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
11/6/2002	13:25:00														
4/2/2003	12:30:00														
6/23/2003	16:10:00														
7/18/2003	8:30:00														
7/24/2003	7:30:00														
7/31/2003	8:05:00														
8/7/2003	8:25:00														
8/14/2003	8:25:00														
9/17/2003	12:00:00														
11/19/2003	14:45:00														
3/30/2004	14:30:00														
6/22/2004	14:40:00														
7/27/2004	11:00:00														
8/23/2004	13:45:00														
9/7/2004	13:20:00														
4/29/1997	10:30:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
7/16/1997	9:35:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
9/23/1997	9:37:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
1/15/1998	10:30:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
4/6/1998	10:00:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
8/18/1998	10:04:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5
10/15/1998	10:20:00	5	5	1	1	1	1	5	5	5	5	0.5	0.5	5	5

Table 7. Okatibbee Lake Water Quality—Below Bridge (Page 5 of 5)

Station ID: 540OKR02
Location: Below Center Hill- Martin Road Bridge
Latitude: 32 deg 31 min 0.5 sec
Longitude: 88 deg 48 min 10.2 sec

Information on this page revised for final EIS.

		Metals (cont.)								Other			
Date	Time	Selenium, Total (ug/l as SE)		Zinc, Total (ug/l as ZN)		Aluminum, Total (ug/l as AL)		Manganese, Total (ug/l as MN)		FecalColi, MFBroth(100ml)		Phenols, Total (mg/l)	
		Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1/21/1999	10:35:00	5	5	10	10	2140	367	321	110	10		0.13	
3/11/1999	10:45:00	5	5	10	10	457	713	131	131	10	0	0.05	0
7/12/1999	12:15:00	5	5	10	10	351	362	170	193	10	0	0.05	0
10/11/1999	10:35:00	5	5	10	10	107	264	106	338	3	0	0.05	0
1/13/2000	10:55:00	5	5	10	10	213	241	89.2	91	4	0	0.05	0
5/8/2000	9:00:00	5	5	10	10	544	589	106	206	4	0	0.05	0
7/24/2000	9:35:00	5	5	10	10	196	233	204	211	4	0		
10/16/2000	10:15:00	5	5	10	10	135	488	70	271	4	0	0.5	0
1/2/2001	12:25:00						870		476				
1/9/2001	12:10:00	5	5	10	10	234	216	123	126	12	0	0.05	0
4/2/2001	12:15:00	5	5	10	10	462	870	172	476	4	0	0.05	0
6/27/2001	11:00:00	5	5	10	10	96	231	83.3	283	4	0	0.05	0
10/11/2001	10:31:00	5	5	10	10	237	330	149	232			0.05	0
11/6/2002	13:25:00												
4/2/2003	12:30:00												
6/23/2003	16:10:00												
7/18/2003	8:30:00												
7/24/2003	7:30:00												
7/31/2003	8:05:00												
8/7/2003	8:25:00												
8/14/2003	8:25:00												
9/17/2003	12:00:00												
11/19/2003	14:45:00												
3/30/2004	14:30:00												
6/22/2004	14:40:00												
7/27/2004	11:00:00												
8/23/2004	13:45:00												
9/7/2004	13:20:00												
4/29/1997	10:30:00	5	5	10	10	258	285	79	101	270	0	0.05	0
7/16/1997	9:35:00	5	5	10	10	141	169	107	709	180	0	0.05	0
9/23/1997	9:37:00	5	5	10	10	90	109	307	523	10	0		
1/15/1998	10:30:00	5	5	10	10	300	341	114	123	40	0	0.05	0.05
4/6/1998	10:00:00	5	5	10	10	1620	612	102	260	10	0	0.05	0
8/18/1998	10:04:00	5	5	10	10	102	157	119	432	10	0	0.05	0
10/15/1998	10:20:00	5	5	10	10	187	341	106	210	10	0	0.05	0

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