

SIA sampling results for two sites sampled October 26 2016

Parameter	Units	Weir	SW-1	Water Quality Guidelines (approved and working) for the Protection of Aquatic Life WEIR HARDNESS		Water Quality Guidelines (approved and working) for the Protection of Aquatic Life BACKGROUND HARDNESS	
				Chronic	Acute	Chronic	Acute
EMS Site Number							
Sample Date		26-Oct-16	26-Oct-16	Chronic	Acute	Chronic	Acute
Depth / Duplicate							
Conductivity	µS/cm	1120	926				
Turbidity	NTU	46.4	1.44				Change of 5
Total Suspended Solids	mg/L	27	<2	25**		Change of 5	Change of 25
Hardness - Total	mg/L	356	332				
Anions							
Chloride -Dissolved	mg/L	187	118	150	600	150	600
Sulphate	mg/L	202	184	218		218	
Total Metals							
Aluminum	µg/L	2080	72				
Antimony	µg/L	0.5	0.4		20		20
Arsenic	µg/L	0.6	<0.5		5		5
Barium	µg/L	42	35	1000	5000	1000	5000
Beryllium	µg/L	<0.1	<0.1	5.3		5.3	
Bismuth	µg/L	<0.1	<0.1				
Boron	µg/L	48	46		1200		1200
Cadmium	µg/L	0.03	0.02				
Calcium	mg/L	108	109				
Chromium	µg/L	1	<1		1		1
Cobalt	µg/L	1.18	0.36	4	110	4	110
Copper*	µg/L	5.4	2.2	14	35	2	7
Iron	µg/L	2270	80		1000		1000
Lead*	µg/L	1.1	<0.1	19	411	4.6	33.5
Magnesium	mg/L	25.3	19.3				
Manganese*	µg/L	204	42	2171	4463	800	1100
Molybdenum	µg/L	1.5	1.9	1000	2000	1000	2000

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Nickel*	µg/L	4.4	1.5		150		25
Phosphorus	µg/L	60	20				
Potassium	mg/L	3.04	2.65		373		373
Selenium	µg/L	<0.5	0.6	2		2	
Silicon	µg/L	7200	5000				
Silver*	µg/L	<0.05	<0.05	3	1.5	0.05	0.1
Sodium	mg/L	92.7	58.9				
Strontium	µg/L	469	417				
Sulfur	mg/L	72	60				
Thallium	µg/L	<0.02	<0.02		0.3		0.3
Tin	µg/L	<0.2	<0.2				
Titanium	µg/L	108	<5		2000		2000
Uranium	µg/L	0.95	1.3		300		300
Vanadium	µg/L	6	1		6		6
Zinc*	µg/L	0.9	<0.1	207	233	7.5	33
Dissolved Metals							
Aluminum	µg/L	8	<5	50	100	50	100
Antimony	µg/L	0.2	0.1				
Arsenic	µg/L	<0.5	<0.5				
Barium	µg/L	33	35				
Beryllium	µg/L	<0.1	<0.1				
Bismuth	µg/L	<0.1	<0.1				
Boron	µg/L	45	42				
Cadmium*	µg/L	0.03	0.02	0.54	2.18	0.06	0.09
Calcium	mg/L	103	103				
Chromium	µg/L	0.8	0.8				
Cobalt	µg/L	0.2	0.13				
Copper	µg/L	1	1.6				
Iron	µg/L	<10	<10		350		350

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Lead	µg/L	<0.1	<0.1				
Magnesium	mg/L	23.9	18.4				
Manganese	µg/L	180	8.3				
Molybdenum	µg/L	1.6	1.9				
Nickel	µg/L	1.2	1				
Phosphorus	µg/L	<20	<20				
Potassium	mg/L	3	2.76				
Selenium	µg/L	<0.5	0.6				
Silicon	µg/L	3400	5100				
Silver	µg/L	<0.05	<0.05				
Sodium	mg/L	91500	56800				
Strontium	µg/L	455	406				
Sulfur	mg/L	77	67				
Thallium	µg/L	<0.02	<0.02				
Tin	µg/L	<0.2	<0.2				
Titanium	µg/L	<5	<5				
Uranium	µg/L	0.9	1.28				
Vanadium	µg/L	<1	1				
Zinc	µg/L	<4	<4				

*Hardness dependent WQG

Detection Limits are above WQGs

Requires background hardness

Permit exceedance

** this is a permit limit requirement