

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL023B (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/15/18 ^T	Q2 2018 05/14/18 ^T	Q3 2018 08/09/18 ^D	Q4 2018 11/08/18 ^T
Field						
D.O. ¹	ppm	--	0.1	0.1	0.3	0.1
ORP	mV	--	-398	-218	-166	-211
pH	SU	7.8-8.8	8.2	7.7	8.3	8.6
Specific Conductance	µS/cm @ 25°C	--	117	123	126	121
Temperature	°C	--	6.5	7.7	9.2	6.0
Turbidity	NTU	--	<1	<1	5	<1
Water Elevation	ft MSL	--	1415.47	1414.48	1414.71	1413.66
Metals						
Aluminum	ug/L	200	--	<50.0	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.5	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20.0	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10.0	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	159	50.5 e	41.6	43.4	50.9
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	0.580	<0.500
Molybdenum	ug/L	40	--	<10.0	--	--
Nickel	ug/L	100	<25.0	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	1.4
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50.0	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	67	63.3	63	61.4	61.2
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0	1.4	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 a,e	<0.050	<0.050	<0.050 e
Sulfate	mg/L	8.0	3.7	2.6	3.8	3.8 e
Major Cations						
Calcium	mg/L	16	--	13.6	--	--
Magnesium	mg/L	3.7	--	3.3	--	--
Potassium	mg/L	2.0	--	<0.50	--	--
Sodium	mg/L	11	7.7 e	6.9	4.8	5.3
General						
Hardness	mg/L	55	--	48	--	--

Explanations of abbreviations are included on the final page of this table.

QAL023B (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL024A (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/14/18 ^T	Q2 2018 05/09/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	11	12	11	11
ORP	mV	--	58	102	120	102
pH	SU	6.1-7.1	6.5	6.5	6.6	6.3
Specific Conductance	µS/cm @ 25°C	--	232	251	276	211
Temperature	°C	--	8.3	8.3	9.9	8.6
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1418.02	1417.69	1418.02	1418.12
Metals						
Aluminum	ug/L	200	--	<50.0	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	86	--	31	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10.0	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	105	21.5 e	26.5	<20.0	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	0.500	<0.500
Molybdenum	ug/L	40	--	<10.0	--	--
Nickel	ug/L	100	<25.0	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	56.7	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	24	58.6	44.0	51.2	38.1
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	44.1	48.6	46.6	35.3
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	0.80 a,e	0.92	0.81	0.81 e
Sulfate	mg/L	8.0	6.1	5.5	5.7	5.0 e
Major Cations						
Calcium	mg/L	48	--	19.3	--	--
Magnesium	mg/L	8.1	--	3.4	--	--
Potassium	mg/L	3.7	--	1.9	--	--
Sodium	mg/L	2.0	19.6 e	23	28.7	23.6
General						
Hardness	mg/L	153	--	62	--	--

Explanations of abbreviations are included on the final page of this table.

QAL024A (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL025A (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/13/18 ^T	Q2 2018 05/09/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/06/18 ^T
Field						
D.O. ¹	ppm	--	11	11	12	12
ORP	mV	--	79	112	91	159
pH	SU	6.4-7.4	7.1	6.7	6.6	6.6
Specific Conductance	µS/cm @ 25°C	--	50	49	50	52
Temperature	°C	--	6.9	8.2	8.1	7.4
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1417.37	1417.27	1417.44	1416.97
Metals						
Aluminum	ug/L	200	--	<50.0	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20.0	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10.0	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	126	<20.0 e	<20.0	<20.0	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.50 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10.0	--	--
Nickel	ug/L	100	<25.0	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50.0	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	25	22.8	22.2	22.4	22.7
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0	1.2	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	1.1	0.38 a,e	0.35	0.23	0.25 e
Sulfate	mg/L	8.0	2.0	<2.0	<2.0	2.2 e
Major Cations						
Calcium	mg/L	8.5	--	6.3	--	--
Magnesium	mg/L	2.0	--	1.3	--	--
Potassium	mg/L	2.0	--	0.72	--	--
Sodium	mg/L	2.0	0.84 e	0.83	0.93	0.83
General						
Hardness	mg/L	28	--	21	--	--

Explanations of abbreviations are included on the final page of this table.

QAL025A (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL025B (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/13/18 ^T	Q2 2018 05/09/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/06/18 ^T
Field						
D.O. ¹	ppm	--	11	11	12	11
ORP	mV	--	31	67	204	105
pH	SU	8.5-9.5	9.1	8.7	8.9	9.0
Specific Conductance	µS/cm @ 25°C	--	63	65	74	73
Temperature	°C	--	6.9	7.4	7.6	7.2
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1417.26	1417.00	1417.47	1416.87
Metals						
Aluminum	ug/L	200	--	<50.0	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20.0	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10.0	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	56	41.2 e	<20.0	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10.0	--	--
Nickel	ug/L	100	<25.0	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50.0	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	1.2	1.2	<1.4	1.2
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	36	24.2	<2.0	16.4 a	25.8
Alkalinity, Carbonate	mg/L	12	4.8	<2.0	10	4.0
Chloride	mg/L	4.0	<1.0	<1.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	0.13 a,e	0.13	0.14 e	0.15 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0 e
Major Cations						
Calcium	mg/L	10	--	8.9	--	--
Magnesium	mg/L	2.0	--	1.6	--	--
Potassium	mg/L	2.0	--	<0.50	--	--
Sodium	mg/L	4.5	1.6 e	1.4	1.6	1.4
General						
Hardness	mg/L	33	--	29	--	--

Explanations of abbreviations are included on the final page of this table.

QAL025B (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL025D (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/06/18 ^T	Q2 2018 05/03/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/05/18 ^T
Field						
D.O. ¹	ppm	--	5.6	5.6	4.8	5.1
ORP	mV	--	24	99	193	127
pH	SU	8.2-9.2	8.7	8.5	8.3	8.7
Specific Conductance	µS/cm @ 25°C	--	98	90	106	108
Temperature	°C	--	7.3	7.2	7.5	7.1
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1412.76	1413.09	1413.38	1412.99
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.5	2.7	2.9	3.0	2.7
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10.0	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	137	<20.0 e	26	26.6 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10.0	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	3.6	4.1	4.2	4.1
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	52	37.7	44.9	44.4 a	45.1
Alkalinity, Carbonate	mg/L	14	4.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	1.1	<1.0	1.3	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	0.13 a,e	0.16	0.13 e	0.10 e
Sulfate	mg/L	8.0	7.0	4.6	5.1	5.3 e
Major Cations						
Calcium	mg/L	12	--	11.9	--	--
Magnesium	mg/L	2.7	--	2.7	--	--
Potassium	mg/L	2.0	--	0.63	--	--
Sodium	mg/L	12	3.3 e	3.4	3.2	3.5
General						
Hardness	mg/L	42	--	41	--	--

Explanations of abbreviations are included on the final page of this table.

QAL025D (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL026A (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/06/18 ^T	Q2 2018 05/03/18 ^T	Q3 2018 08/01/18 ^T	Q4 2018 11/05/18 ^T
Field						
D.O. ¹	ppm	--	11	11	9.7	11
ORP	mV	--	167	107	119	167
pH	SU	6.2-7.2	4.8	6.8	6.6	6.6
Specific Conductance	µS/cm @ 25°C	--	118	147	101	159
Temperature	°C	--	5.3	7.1	--	7.8
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1417.00	1416.76	1417.11	1416.66
Metals						
Aluminum	ug/L	236	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	368	232 e	74.4	49.2 e	94.8
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	1.03	<0.500 e	0.54	0.70
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	114	58.1	112	52.7 a	73.7
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	1.1	<1.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.73	0.99 a,e	0.96	0.72 e	0.67 e
Sulfate	mg/L	8.0	2.3	3.7	2.1	3.2 e
Major Cations						
Calcium	mg/L	40.0	--	17.1	--	--
Magnesium	mg/L	5.9	--	2.6	--	--
Potassium	mg/L	2.0	--	1.1	--	--
Sodium	mg/L	2.4	0.99 e	1.1	1.2	1.5
General						
Hardness	mg/L	124	--	53	--	--

Explanations of abbreviations are included on the final page of this table.

QAL026A (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL026D (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/06/18 ^T	Q2 2018 05/03/18 ^T	Q3 2018 08/01/18 ^T	Q4 2018 11/05/18 ^T
Field						
D.O. ¹	ppm	--	11	12	11	12
ORP	mV	--	46	122	74	125
pH	SU	8.4-9.4	8.7	8.8	7.8	8.8
Specific Conductance	µS/cm @ 25°C	--	65	61	56	74
Temperature	°C	--	7.0	7.3	7.5	7.2
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1409.60	1409.87	1410.15	1409.86
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0 e	<20	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	31	26.3	130	64.7 a	28.8
Alkalinity, Carbonate	mg/L	8.0	4.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	1.1	<1.0	1.3	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	0.12 a,e	0.14	0.11 e	0.13 e
Sulfate	mg/L	8.0	2.1	<2.0	<2.0	<2.0 e
Major Cations						
Calcium	mg/L	13	--	9.9	--	--
Magnesium	mg/L	2.4	--	1.5	--	--
Potassium	mg/L	2.0	--	<0.50	--	--
Sodium	mg/L	2.0	0.59 e	0.66	0.69	0.68
General						
Hardness	mg/L	43	--	31	--	--

Explanations of abbreviations are included on the final page of this table.

QAL026D (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL026E (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/13/18 ^T	Q2 2018 05/08/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/06/18 ^T
Field						
D.O. ¹	ppm	--	<0.1	0.2	0.3	0.6
ORP	mV	--	-138	-89	-74	-154
pH	SU	8.1-9.1	8.9	8.3	8.5	8.6
Specific Conductance	µS/cm @ 25°C	--	116	115	130	130
Temperature	°C	--	6.8	7.2	7.4	7.2
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1409.54	1409.88	1410.05	1409.88
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	7.8	7.2	7.3	7.8	7.5
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10.0	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0 e	<20.0	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10.0	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	61.9	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	91	54.8	58.1	57.7 a	53.5
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	2.0
Chloride	mg/L	4.0	<1.0	1.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 a,e	<0.050	<0.050 e	<0.050 e
Sulfate	mg/L	8.6	7.6	7.2	7.8	7.7 e
Major Cations						
Calcium	mg/L	17	--	14.1	--	--
Magnesium	mg/L	4.3	--	4.0	--	--
Potassium	mg/L	2.0	--	2.0	--	--
Sodium	mg/L	2.0	1.8 e	1.8	1.7	1.6
General						
Hardness	mg/L	60	--	52	--	--

Explanations of abbreviations are included on the final page of this table.

QAL026E (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL044B (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/14/18 ^T	Q2 2018 05/14/18 ^T	Q3 2018 08/08/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	0.1	0.8	0.6	1.4
ORP	mV	--	-563	-240	-263	-263
pH	SU	8.3-9.3	10.9	9.6	9.5	9.5
Specific Conductance	µS/cm @ 25°C	--	79	84	78	88
Temperature	°C	--	7.8	8.0	8.3	7.6
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1414.94	1414.98	1414.64	1414.56
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	2.2	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	47.2 e	<20	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	0.875 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	64	5.6 s	12.1	3.0 a	16.6
Alkalinity, Carbonate	mg/L	8.0	22.2	15.8	17.9	10.2
Chloride	mg/L	4.0	1.2	<1.0	1.2	1.4
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 a,e	<0.050	<0.050 e	<0.050 e
Sulfate	mg/L	24	7.6	6.2	6.8	6.0 e
Major Cations						
Calcium	mg/L	17	--	11.8	--	--
Magnesium	mg/L	4.0	--	0.79	--	--
Potassium	mg/L	2.0	--	1.2	--	--
Sodium	mg/L	2.6	2.3 e	2.4	2.4	2.6
General						
Hardness	mg/L	58	--	33	--	--

Explanations of abbreviations are included on the final page of this table.

QAL044B (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL060A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/12/18 ^T	Q2 2018 05/07/18 ^T	Q3 2018 08/06/18 ^T	Q4 2018 11/06/18 ^T
Field						
D.O. ¹	ppm	--	11	11	11	11
ORP	mV	--	31	70	84	41
pH	SU	8.1-9.1	8.8	8.5	8.3	8.7
Specific Conductance	µS/cm @ 25°C	--	80	86	90	89
Temperature	°C	--	7.6	8.6	9.8	8.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1404.83	1405.41	1405.52	1405.42
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	7.2	4.4	4.0	4.2	4.2
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0 e	<20	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.50 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	1.2	1.2	<1.4	1.4
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	62	29.6	42.9	43.1 a	41.8
Alkalinity, Carbonate	mg/L	8.0	8.1	<2.0	<2.0	2.7
Chloride	mg/L	4.0	<1.0	<1.0	1.2	1.5
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	0.26 a,e	0.30	0.32 e	0.32 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0 e
Major Cations						
Calcium	mg/L	17	--	11.8	--	--
Magnesium	mg/L	4.2	--	2.6	--	--
Potassium	mg/L	2.0	--	0.73	--	--
Sodium	mg/L	2.1	0.74 e	0.65	0.81	0.68
General						
Hardness	mg/L	61	--	40	--	--

Explanations of abbreviations are included on the final page of this table.

QAL060A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL061A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/12/18 ^T	Q2 2018 05/07/18 ^T	Q3 2018 08/06/18 ^T	Q4 2018 11/06/18 ^T
Field						
D.O. ¹	ppm	--	11	11	11	11
ORP	mV	--	45	63	73	41
pH	SU	8.1-9.1	8.9	8.3	8.5	8.6
Specific Conductance	µS/cm @ 25°C	--	108	116	116	113
Temperature	°C	--	7.6	8.3	8.8	7.7
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1406.26	1406.75	1406.94	1406.77
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0 e	<20	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.50 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	40	54.5	119	58.7 a	48.5
Alkalinity, Carbonate	mg/L	8.0	2.0	<2.0	<2.0	4.0
Chloride	mg/L	4.0	1.2	1.2	1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.27	0.33 a,e	0.36	0.36 e	0.37 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0 e
Major Cations						
Calcium	mg/L	15	--	18	--	--
Magnesium	mg/L	2.2	--	3.2	--	--
Potassium	mg/L	2.0	--	0.66	--	--
Sodium	mg/L	2.0	0.82 e	0.75	0.88	0.77
General						
Hardness	mg/L	37	--	58	--	--

Explanations of abbreviations are included on the final page of this table.

QAL061A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL062A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/12/18 ^T	Q2 2018 05/07/18 ^T	Q3 2018 08/06/18 ^T	Q4 2018 11/06/18 ^T
Field						
D.O. ¹	ppm	--	8.6	8.6	8.4	8.6
ORP	mV	--	39	53	79	40
pH	SU	8.3-9.3	8.0	7.6	7.5	7.5
Specific Conductance	µS/cm @ 25°C	--	477	562	615	580
Temperature	°C	--	7.9	8.4	8.3	7.8
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1407.59	1408.09	1408.31	1408.09
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	29.2	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0 e	<20	40.9 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	78.8	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	48	170	186	199 a	190
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	59.1	68.3	74.2	69.6
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.41	0.83 a,e	0.89	1.0 e	1.1 e
Sulfate	mg/L	8.0	2.3	2.2	2.4	2.5 e
Major Cations						
Calcium	mg/L	12	--	68.8	--	--
Magnesium	mg/L	2.2	--	13.8	--	--
Potassium	mg/L	2.0	--	2.3	--	--
Sodium	mg/L	2.0	21.8 e	22.6	26.1	20.5
General						
Hardness	mg/L	40	--	229	--	--

Explanations of abbreviations are included on the final page of this table.

QAL062A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL063A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/12/18 ^T	Q2 2018 05/08/18 ^T	Q3 2018 08/06/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	8.1	10	8.8	9.4
ORP	mV	--	77	83	87	87
pH	SU	8.1-9.1	7.8	7.6	7.5	7.7
Specific Conductance	µS/cm @ 25°C	--	486	443	522	579
Temperature	°C	--	7.8	8.6	9.0	8.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1401.26	1401.91	1402.00	1401.58
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	28.8	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0 e	<20	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	84.5	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	42	165	167	168 a	184
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	43.0	50.2	61.4	69.7
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.29	0.70 a,e	0.78	0.86 e	0.88 e
Sulfate	mg/L	8.0	2.3	2.2	2.1	2.4 e
Major Cations						
Calcium	mg/L	12	--	60.1	--	--
Magnesium	mg/L	2.0	--	12	--	--
Potassium	mg/L	2.0	--	1.9	--	--
Sodium	mg/L	2.0	9.5 e	11.3	13.0	14.5
General						
Hardness	mg/L	40	--	200	--	--

Explanations of abbreviations are included on the final page of this table.

QAL063A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL064D (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/14/18 ^T	Q2 2018 05/09/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	0.1	0.1	0.2	0.2
ORP	mV	--	-520	-307	-302	-474
pH	SU	8.0-9.0	9.5	8.8	8.5	9.0
Specific Conductance	µS/cm @ 25°C	--	141	146	153	149
Temperature	°C	--	6.9	7.3	7.6	7.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1415.94	1415.53	1415.89	1416.20
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10.0	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	25.7 e	26.3	26.3 e	26.2
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	102	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	82	77.8	74.4	75.6 a	76.5
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.2	2.2	1.6	3.1	3.1
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 a,e	<0.050	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0 e
Major Cations						
Calcium	mg/L	22	--	19.2	--	--
Magnesium	mg/L	3.3	--	4.0	--	--
Potassium	mg/L	2.0	--	1.2	--	--
Sodium	mg/L	6.9	3.8 e	3.7	4.1	3.7
General						
Hardness	mg/L	51	--	64	--	--

Explanations of abbreviations are included on the final page of this table.

QAL064D (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL065D (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/15/18 ^T	Q2 2018 05/14/18 ^T	Q3 2018 08/09/18 ^T	Q4 2018 11/08/18 ^T
Field						
D.O. ¹	ppm	--	<0.1	0.3	0.2	0.1
ORP	mV	--	-353	-170	-152	-183
pH	SU	7.9-8.9	9.0	8.6	8.5	8.6
Specific Conductance	µS/cm @ 25°C	--	145	146	150	150
Temperature	°C	--	6.0	7.4	9.0	6.8
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1416.19	1416.02	1415.52	1415.83
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.6	3.2	3.9	3.4	3.3
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	48.4 e	40	40 e	65.5
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	198	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	86	82.4	77.8	77.2 a	79.6
Alkalinity, Carbonate	mg/L	8.7	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	1.1	<1.0	1.3	<1.0
Fluoride	mg/L	0.40	--	0.13	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 a,e	<0.050	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0 e
Major Cations						
Calcium	mg/L	14	--	12.4	--	--
Magnesium	mg/L	4.8	--	4.1	--	--
Potassium	mg/L	3.0	--	2.5	--	--
Sodium	mg/L	12	10.7 e	10.6	11.5	9.1
General						
Hardness	mg/L	53	--	48	--	--

Explanations of abbreviations are included on the final page of this table.

QAL065D (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL066D (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/14/18 ^D	Q2 2018 05/14/18 ^T	Q3 2018 08/08/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	2.6	2.2	2.4	2.4
ORP	mV	--	22	10	125	-66
pH	SU	8.7-9.7	8.7	8.6	8.7	8.8
Specific Conductance	µS/cm @ 25°C	--	156	123	152	166
Temperature	°C	--	6.1	NM	9.9	7.4
Turbidity	NTU	--	47	<1	<1	<1
Water Elevation	ft MSL	--	1415.90	1415.81	1415.15	1415.25
Metals						
Aluminum	ug/L	557	--	1320	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	8.9	7.9	7.8	8.8	9.7
Barium	ug/L	80	--	20.4	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	288	<20.0 e	583	479 e	470
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	0.343	1.55 e	1.59	1.15
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	1.1	<1.0	1.2
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	367	--	80	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	1.2	1.1	<1.4	2.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	61	56.1	59.6	45.8 a	67.3
Alkalinity, Carbonate	mg/L	52	8.1	3.9	13.9	6.1
Chloride	mg/L	4.0	1.2	<1.0	1.1	1.1
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 a,e	<0.050	<0.050 e	<0.050 e
Sulfate	mg/L	11	9.8	8.9	10.0	8.9 e
Major Cations						
Calcium	mg/L	58	--	14.6	--	--
Magnesium	mg/L	2.9	--	3.0	--	--
Potassium	mg/L	2.6	--	1.2	--	--
Sodium	mg/L	8.0	14.3 e	9.6	15.8	18.1
General						
Hardness	mg/L	146	--	49	--	--

Explanations of abbreviations are included on the final page of this table.

QAL066D (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL067A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/12/18 ^T	Q2 2018 05/07/18 ^T	Q3 2018 08/06/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	8.6	9.3	8.8	8.8
ORP	mV	--	81	101	97	99
pH	SU	5.6-6.6	6.3	6.1	6.2	6.3
Specific Conductance	µS/cm @ 25°C	--	770	692	598	468
Temperature	°C	--	7.6	8.8	9.0	7.9
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1414.99	1416.45	1415.80	1415.01
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	53.2	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0 e	<20	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	1.23	1.27 e	1.28	1.49
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	1.6	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	95.1	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	51	60.6	66.3	67.7 a	61.2
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	199	154	122	96.6
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.25	2.1 a,e	1.6	1.5 e	0.54 e
Sulfate	mg/L	8.4	15.2	9.8	7.9	6.4 e
Major Cations						
Calcium	mg/L	8.2	--	16.2	--	--
Magnesium	mg/L	2.0	--	7.2	--	--
Potassium	mg/L	2.0	--	2.2	--	--
Sodium	mg/L	2.0	132 e	102	89.4	68.2
General						
Hardness	mg/L	26	--	70	--	--

Explanations of abbreviations are included on the final page of this table.

QAL067A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL068A (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/13/18 ^T	Q2 2018 05/09/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	11	13	12	13
ORP	mV	--	151	166	172	153
pH	SU	6.2-7.2	7.1	5.8	6.4	6.5
Specific Conductance	µS/cm @ 25°C	--	36	34	44	46
Temperature	°C	--	7.4	7.8	7.7	7.4
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1422.85	1419.38	1422.99	1422.38
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0 e	62.8	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.50 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	1.1
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	35	14.6	17.2	17.4 a	21.9
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 a,e	<0.050	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0 e
Major Cations						
Calcium	mg/L	6.7	--	4.5	--	--
Magnesium	mg/L	2.0	--	0.80	--	--
Potassium	mg/L	2.0	--	0.81	--	--
Sodium	mg/L	2.0	0.71 e	0.64	0.73	0.70
General						
Hardness	mg/L	21	--	15	--	--

Explanations of abbreviations are included on the final page of this table.

QAL068A (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL068B (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/13/18 ^T	Q2 2018 05/09/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	11	13	12	12
ORP	mV	--	103	95	134	63
pH	SU	8.4-9.4	8.5	8.8	8.9	9.1
Specific Conductance	µS/cm @ 25°C	--	67	59	70	70
Temperature	°C	--	7.1	7.6	7.9	7.3
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1412.64	1414.36	1414.34	1414.02
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	184	<20.0 e	<20	<20.0 e	30.3
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	1.1	1.1	<1.4	1.8
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	30	28.6	30.5	23.4 a	24.5
Alkalinity, Carbonate	mg/L	9.9	<2.0	<2.0	4.0	4.1
Chloride	mg/L	4.0	<1.0	<1.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	0.052 a,e	0.054	0.057 e	0.057 e
Sulfate	mg/L	8.0	2.5	2.2	<2.0	2.2 e
Major Cations						
Calcium	mg/L	9.4	--	8.8	--	--
Magnesium	mg/L	2.0	--	1.7	--	--
Potassium	mg/L	2.0	--	0.54	--	--
Sodium	mg/L	2.0	0.81 e	0.81	0.82	0.84
General						
Hardness	mg/L	31	--	29	--	--

Explanations of abbreviations are included on the final page of this table.

QAL068B (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL068D (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/13/18 ^T	Q2 2018 05/09/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	1.9	2.6	0.9	4.5
ORP	mV	--	40	-18	61	40
pH	SU	8.0-9.0	8.8	8.4	8.5	8.5
Specific Conductance	µS/cm @ 25°C	--	131	112	127	128
Temperature	°C	--	5.3	7.3	8.4	7.1
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1413.90	1414.19	1414.33	1414.07
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	7.2	5.0	4.7	5.7	5.8
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	119	<20.0 e	<20	61.6 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.12	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	2.4	3.7	3.4 J	3.8
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	67	56.3	58.1	56.7 a	60.2
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0	<1.0	1.2
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.21	<0.050 a,e	<0.050	<0.050 e	<0.050 e
Sulfate	mg/L	10	5.5	5.2	5.2	5.2 e
Major Cations						
Calcium	mg/L	16	--	14.2	--	--
Magnesium	mg/L	3.9	--	3.8	--	--
Potassium	mg/L	2.0	--	1.3	--	--
Sodium	mg/L	6.1	4.2 e	3.8	4.2	4.3
General						
Hardness	mg/L	52	--	51	--	--

Explanations of abbreviations are included on the final page of this table.

QAL068D (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL069A (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/14/18 ^T	Q2 2018 05/07/18 ^T	Q3 2018 08/06/18 ^T	Q4 2018 11/08/18 ^T
Field						
D.O. ¹	ppm	--	5.0	6.8	7.1	7.2
ORP	mV	--	105	103	59	68
pH	SU	7.8-8.8	6.7	6.8	6.8	6.9
Specific Conductance	µS/cm @ 25°C	--	728	589	471	612
Temperature	°C	--	8.1	9.2	9.0	6.9
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1383.26	1383.36	1383.69	1383.73
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	20.5	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	6.7	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	37.0 e	<20	28.3 e	295
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	40.8
Mercury	ng/L	2.00	2.25	1.79 e	1.03	10.8
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	138	156	166	190 a	171
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	111	92.3	31.9	88.9
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.57	0.87 a,e	1.0	1.0 e	0.86 e
Sulfate	mg/L	8.0	9.8	10.2	10.1	9.2 e
Major Cations						
Calcium	mg/L	35	--	40.9	--	--
Magnesium	mg/L	18	--	14.1	--	--
Potassium	mg/L	2.0	--	2.1	--	--
Sodium	mg/L	2.0	70.2 e	67.1	40.0	46.6
General						
Hardness	mg/L	162	--	160	--	--

Explanations of abbreviations are included on the final page of this table.

QAL069A (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL070A (NCWIB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2015 05/13/15 ^T	Q2 2016 05/17/16 ^T	Q2 2017 05/09/17 ^T	Q2 2018 05/08/18 ^T
Field						
D.O. ¹	ppm	--	11	10	10	13
ORP	mV	--	167	55	182	74
pH	SU	8.3-9.3	8.6	8.5	8.2	8.4
Specific Conductance	µS/cm @ 25°C	--	188	440	524	499
Temperature	°C	--	9.0	9.0	8.2	9.5
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1370.25	1369.67	1371.21	1372.25
Metals						
Aluminum	ug/L	200	<50	<50	<50	<50.0
Antimony	ug/L	5.5	<5.0	<5.0	<5.0	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	24	28	26.6
Beryllium	ug/L	2.5	<1.0	<1.0	<1.0	<1.0
Boron	ug/L	400	<100	<100	<100 e	<100
Cadmium	ug/L	2.0	<0.50	<0.50	<0.50	<0.50
Chromium	ug/L	20	<5.0	<5.0	<5.0	<5.0
Cobalt	ug/L	40	<10	<10	<10	<10.0
Copper	ug/L	20	<5.0	<5.0	<5.0 e	<5.0
Iron	ug/L	80	<20	75	<20	<20.0
Lead	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Lithium	ug/L	32	<8.0	<8.0	<8.0	<8.0
Manganese	ug/L	80	<20	<20	<20	<20.0
Mercury	ng/L	2.00	0.680 e,s	0.535	<0.500	<0.50 e
Molybdenum	ug/L	40	<10	<10	<10	<10.0
Nickel	ug/L	100	<25	<25	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	<0.20	<0.20	<0.20	<0.20
Strontium	ug/L	200	59	77	74	74
Thallium	ug/L	2.0	<2.0	<2.0	<2.0	<2.0
Vanadium	ug/L	4.0	<2.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10	<10 e	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	42	40	45	56	63
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	58	120	120 e	110
Fluoride	mg/L	0.40	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrate	mg/L	0.22	0.98 e	1.0	1.2 e	1.3
Sulfate	mg/L	8.0	3.5	4.3	6.7	7.9
Major Cations						
Calcium	mg/L	11	31	51 e	47	37.8
Magnesium	mg/L	3.0	6.4	9.7	9.9	7.1
Potassium	mg/L	2.0	1.2	1.8	2.0 e	1.8
Sodium	mg/L	2.0	5.5	19	40 e	46.8
General						
Hardness	mg/L	40	104	167	158	124

Explanations of abbreviations are included on the final page of this table.

QAL070A (NCWIB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL071A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/12/18 ^T	Q2 2018 05/07/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/07/18 ^T
Field						
D.O. ¹	ppm	--	9.5	11	11	11
ORP	mV	--	102	83	98	90
pH	SU	8.1-9.1	7.8	7.6	7.8	7.5
Specific Conductance	µS/cm @ 25°C	--	550	508	524	572
Temperature	°C	--	8.0	9.8	9.1	8.3
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1405.66	1405.80	1405.78	1405.92
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	30.8	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	<5.0	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	178	<20.0 e	29.7	<20.0 e	<20.0
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.50 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25.0	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	1.2
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	82.7	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	44	140	125	137 a	149
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	17.2	25.1	20.9	21.7
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.31	27.4 a,e	28.6	23.2 e	29.1 e
Sulfate	mg/L	8.0	6.6	7.6	6.8	7.9 e
Major Cations						
Calcium	mg/L	12	--	70.3	--	--
Magnesium	mg/L	2.0	--	11.2	--	--
Potassium	mg/L	2.0	--	1.5	--	--
Sodium	mg/L	2.0	14.0 e	16	13.7	10.4
General						
Hardness	mg/L	38	--	222	--	--

Explanations of abbreviations are included on the final page of this table.

QAL071A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL073A (NCWIB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2015 05/13/15 ^T	Q2 2016 05/17/16 ^T	Q2 2017 05/09/17 ^T	Q2 2018 05/08/18 ^T
Field						
D.O. ¹	ppm	--	11	11	10	12
ORP	mV	--	167	102	210	132
pH	SU	6.1-7.1	6.8	6.7	6.5	6.6
Specific Conductance	µS/cm @ 25°C	--	160	207	217	189
Temperature	°C	--	10	10	8.1	8.6
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1382.45	1381.68	1381.91	1383.41
Metals						
Aluminum	ug/L	200	110	<50	<50	<50
Antimony	ug/L	5.5	<5.0	<5.0	<5.0	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	<20	<20	<20
Beryllium	ug/L	2.5	<1.0	<1.0	<1.0	<1.0
Boron	ug/L	400	<100	<100	<100 e	<100
Cadmium	ug/L	2.0	<0.50	<0.50	<0.50	<0.50
Chromium	ug/L	20	<5.0	<5.0	<5.0	<5.0
Cobalt	ug/L	40	<10	<10	<10	<10
Copper	ug/L	20	<5.0	<5.0	<5.0 e	<5.0
Iron	ug/L	132	130	74	<20	41.2
Lead	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Lithium	ug/L	32	<8.0	<8.0	<8.0	<8.0
Manganese	ug/L	80	<20	<20	<20	<20
Mercury	ng/L	2.00	0.942 e	0.632	<0.500	0.515 e
Molybdenum	ug/L	40	<10	<10	<10	<10
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	<0.20	<0.20	<0.20	<0.20
Strontium	ug/L	200	94	98	90	99.2
Thallium	ug/L	2.0	<2.0	<2.0	<2.0	<2.0
Vanadium	ug/L	4.0	<2.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10	<10 e	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	44	97	100	100	88.2
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0	<2.0	<2.0
Chloride	mg/L	20	8.4	5.6	3.6 e	2.1
Fluoride	mg/L	0.40	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrate	mg/L	0.60	2.0 e	1.6	1.5 e	1.2
Sulfate	mg/L	8.0	7.9	9.4	9.2	9.0
Major Cations						
Calcium	mg/L	9.2	32	34 e	32	26.1
Magnesium	mg/L	2.5	7.0	7.5	7.1	5.6
Potassium	mg/L	2.0	1.3	1.3	1.4 e	1.3
Sodium	mg/L	2.0	1.8	2.8	3.0 e	2.5
General						
Hardness	mg/L	33	109	116	109	88

Explanations of abbreviations are included on the final page of this table.

QAL073A (NCWIB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL074A (Septic & WWTP)
Eagle Mine

Parameter	Unit	Benchmark	Q1 2018 02/12/18 ^T	Q2 2018 05/07/18 ^T	Q3 2018 08/07/18 ^T	Q4 2018 11/06/18 ^T
Field						
D.O. ¹	ppm	--	8.8	10	11	10
ORP	mV	--	55	100	102	74
pH	SU	8.4-9.4	8.7	8.4	8.3	8.4
Specific Conductance	μS/cm @ 25°C	--	304	314	318	309
Temperature	°C	--	6.4	13.0	9.0	8.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1404.94	1403.51	1404.22	1404.73
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	--	<0.50	--	--
Chromium	ug/L	20	--	14.5	--	--
Cobalt	ug/L	40	--	<10	--	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	212	304 e	88.7	44.8 e	59.9
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20.0 e	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.500 e	<0.50	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	33.9	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--	--
Strontium	ug/L	200	--	<50	--	--
Thallium	ug/L	2.0	--	<2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.4	<1.0
Zinc	ug/L	40	<10.0	<10	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	39	66.7	72.3	72.6 a	75.8
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	45.3	52.7	57.0	47.8
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.43	1.0 a,e	0.98	0.97 e	0.94 e
Sulfate	mg/L	8.0	7.3	7.3	7.8	7.6 e
Major Cations						
Calcium	mg/L	31	--	33.7	--	--
Magnesium	mg/L	5.9	--	6.6	--	--
Potassium	mg/L	2.0	--	1.3	--	--
Sodium	mg/L	3.5	14.8	15.7	19.2	18.2
General						
Hardness	mg/L	103	--	111	--	--

Explanations of abbreviations are included on the final page of this table.

QAL074A (Septic & WWTP)

Table 1
Groundwater Quality Data
Mine Permit Monitoring
Explanation of Abbreviations and Data Qualifiers
Eagle Project

Abbreviation or Data Qualifier	Explanation
1	Many D.O. values are elevated due to well screen configuration and aquifer characteristics and the low-flow sampling method. Super-saturated DO values are rejected (see R data qualifier) as not being representative of true conditions.
a	Estimated value. Duplicate precision for this parameter exceeded quality control limit.
b	Estimated value. Sample received after EPA established hold time expired.
BP	Below pump. Maximum water elevation is shown.
CWB	Contact Water Basin
D	Sample for metal and major cation parameters was filtered and values are dissolved concentrations.
e	Estimated value. The laboratory statement of data qualifications indicates that a quality control limit for this parameter was exceeded.
f	Value should be considered an estimate because field stabilization was not achieved of at least one parameter.
i	Insufficient water for collection of field parameters and/or sample.
J	Estimated value. Reported concentration is between the method detection limit and reporting limit.
NM	Not measured.
p	Pending. Some parameters/locations require additional baseline data to calculate a benchmark.
Q	Quarter.
R	Measured value was rejected based on quality control procedures.
RL	Laboratory reporting limit.
s	Potential false positive value. Compound present in blank sample.
t	Trending. Benchmarks are not proposed for baseline datasets that appear to be trending (using samples collected through Q4 2012) because the data do not represent a random distribution about the baseline mean. Trend analysis is recommended in place of benchmark screening for parameters that appear to be trending.
T	Sample was not filtered and all values are total concentrations.
TDRSA	Temporary Development Rock Storage Area
UMB	Underground Mine Boundary
	Value is equal to or above site-specific benchmark at a compliance monitoring location. An exceedance occurs if there are 2 consecutive sampling events with a value equal to or greater than the benchmark. Color also indicates compliance monitoring location when applied to column headers.
	Value is equal to or above site-specific benchmark at a background monitoring location. Color also indicates background monitoring location when applied to column headers.