

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

Parameter	Unit	Benchmark	Q1 2017 02/02/17 ^T	Q2 2017 05/10/17 ^T	Q3 2017 08/16/17 ^T
Field					
D.O. ¹	ppm	--	0.3	0.3	0.3
ORP	mV	--	-209	-232	-274
pH	SU	7.8-8.8	7.1	6.9	7.4
Specific Conductance	µS/cm @ 25°C	--	133	121	114
Temperature	°C	--	5.3	8.3	7.6
Turbidity	NTU	--	<1	<1	1
Water Elevation	ft MSL	--	1413.93	1415.02	1414.33
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.5	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	159	51 s	66	50.7 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	0.611
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	67	63 a	59	63.2 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	1.0	<1.0 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	3.9	3.6	4.0
Major Cations					
Calcium	mg/L	16	--	13	--
Magnesium	mg/L	3.7	--	3.3	--
Potassium	mg/L	2.0	--	0.70 e	--
Sodium	mg/L	11	9.9	9.4 e	8.2 e
General					
Hardness	mg/L	55	--	46	--

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 2017 01/31/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/15/17 ^T
Field					
D.O. ¹	ppm	--	10	11	11
ORP	mV	--	41	17	135
pH	SU	6.1-7.1	6.3	6.5	6.3
Specific Conductance	µS/cm @ 25°C	--	407	325	210
Temperature	°C	--	8.0	8.4	8.3
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1416.76	1417.07	1417.63
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	86	--	36	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
Cadmium	ug/L	2.0	--	<0.50	--
Chromium	ug/L	20	--	21	--
Cobalt	ug/L	40	--	<10	--
Copper	ug/L	20	<5.0	<5.0 e	<5.0
Iron	ug/L	105	<20	120	27.2 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	24	45 a	42	42.6 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	80	68 e	34.1
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	1.3 e	1.1 e	0.65 e
Sulfate	mg/L	8.0	5.8	6.3	5.1
Major Cations					
Calcium	mg/L	48	--	20	--
Magnesium	mg/L	8.1	--	3.3	--
Potassium	mg/L	3.7	--	2.3 e	--
Sodium	mg/L	2.0	46	37 e	22.3 e
General					
Hardness	mg/L	153	--	64	--

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 2017 02/01/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	11	11	11
ORP	mV	--	151	240	72
pH	SU	6.4-7.4	6.9	6.6	6.9
Specific Conductance	µS/cm @ 25°C	--	67	58	55
Temperature	°C	--	7.6	7.5	7.8
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1415.71	1415.78	1416.81
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	126	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	25	29 a	27	27 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	1.1	1.2 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	1.1	0.62 e	0.48 e	0.26 e
Sulfate	mg/L	8.0	2.0	<2.0	2.2
Major Cations					
Calcium	mg/L	8.5	--	7.7	--
Magnesium	mg/L	2.0	--	1.7	--
Potassium	mg/L	2.0	--	0.92 e	--
Sodium	mg/L	2.0	1.0	1.0 e,s	0.87 e
General					
Hardness	mg/L	28	--	26	--

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 2017 02/01/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	11	11	11
ORP	mV	--	99	204	5
pH	SU	8.5-9.5	9.0	8.4	8.9
Specific Conductance	µS/cm @ 25°C	--	65	63	62
Temperature	°C	--	6.6	7.1	7.9
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1415.57	1415.69	1416.69
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	56	22 s	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	1.1
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	36	26 a	31	32.4 a
Alkalinity, Carbonate	mg/L	12	5.9	35	<2.0
Chloride	mg/L	4.0	<1.0	1.0 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	0.11 e	0.10 e	0.11 e
Sulfate	mg/L	8.0	<2.0	<2.0	2.2
Major Cations					
Calcium	mg/L	10	--	8.5	--
Magnesium	mg/L	2.0	--	1.7	--
Potassium	mg/L	2.0	--	<0.50 e	--
Sodium	mg/L	4.5	1.8	1.3 e	1.7 e
General					
Hardness	mg/L	33	--	28	--

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 2017 02/07/17 ^T	Q2 2017 05/01/17 ^T	Q3 2017 08/07/17 ^T
Field					
D.O. ¹	ppm	--	5.5	5.4	5.9
ORP	mV	--	90	212	112
pH	SU	8.2-9.2	8.7	8.3	8.3
Specific Conductance	µS/cm @ 25°C	--	94	94	86
Temperature	°C	--	7.1	7.1	7.4
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1411.56	1411.54	1412.43
Metals					
Aluminum	ug/L	200	--	77	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.5	3.0	2.9	3.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	137	41 s	35	56.6 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	4.0	4.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	52	42 a	42	39.7 a
Alkalinity, Carbonate	mg/L	14	4.0	4.1	4.0
Chloride	mg/L	4.0	1.1	1.2 e	1.1
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	0.15 e	0.16 e	0.15 e
Sulfate	mg/L	8.0	5.2	5.0	5.0
Major Cations					
Calcium	mg/L	12	--	11	--
Magnesium	mg/L	2.7	--	2.8	--
Potassium	mg/L	2.0	--	0.67 e	--
Sodium	mg/L	12	3.8	3.5 e	3.7 e
General					
Hardness	mg/L	42	--	39	--

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 2017 02/07/17 ^T	Q2 2017 05/01/17 ^T	Q3 2017 08/07/17 ^T
Field					
D.O. ¹	ppm	--	13	i	10
ORP	mV	--	225	i	163
pH	SU	6.2-7.2	6.3	i	6.9
Specific Conductance	µS/cm @ 25°C	--	166	i	127
Temperature	°C	--	6.4	i	10
Turbidity	NTU	--	<1	i	<1
Water Elevation	ft MSL	--	1415.66	<1415.4 BP	1416.32
Metals					
Aluminum	ug/L	236	--	i	--
Antimony	ug/L	5.5	--	i	--
Arsenic	ug/L	6.0	<2.0	i	<2.0
Barium	ug/L	80	--	i	--
Beryllium	ug/L	2.5	--	i	--
Boron	ug/L	400	<100 e	i	<100 e
Cadmium	ug/L	2.0	--	i	--
Chromium	ug/L	20	--	i	--
Cobalt	ug/L	40	--	i	--
Copper	ug/L	20	<5.0	i	<5.0
Iron	ug/L	368	23 s	i	151 e
Lead	ug/L	4.0	--	i	--
Lithium	ug/L	32	--	i	--
Manganese	ug/L	80	<20	i	<20
Mercury	ng/L	2.00	<0.500	i	0.726
Molybdenum	ug/L	40	--	i	--
Nickel	ug/L	100	<25	i	<25
Selenium	ug/L	4.0	<1.0 e	i	<1.0
Silver	ug/L	0.80	--	i	--
Strontium	ug/L	200	--	i	--
Thallium	ug/L	2.0	--	i	--
Vanadium	ug/L	4.0	<1.0	i	<1.0
Zinc	ug/L	40	<10 e	i	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	114	52 a	i	71.7 a
Alkalinity, Carbonate	mg/L	8.0	4.0	i	<2.0
Chloride	mg/L	4.0	<1.0	i	1.2
Fluoride	mg/L	0.40	--	i	--
Nitrogen, Nitrate	mg/L	0.73	0.41 e	i	1.1 e
Sulfate	mg/L	8.0	<2.0	i	<2.0
Major Cations					
Calcium	mg/L	40.0	--	i	--
Magnesium	mg/L	5.9	--	i	--
Potassium	mg/L	2.0	--	i	--
Sodium	mg/L	2.4	1.2	i	1.2 e
General					
Hardness	mg/L	124	--	i	--

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 2017 02/07/17 ^T	Q2 2017 05/01/17 ^T	Q3 2017 08/07/17 ^T
Field					
D.O. ¹	ppm	--	11	11	12
ORP	mV	--	162	242	139
pH	SU	8.4-9.4	9.0	8.3	8.1
Specific Conductance	µS/cm @ 25°C	--	65	63	59
Temperature	°C	--	6.8	7.0	7.5
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1408.60	1408.54	1409.17
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	101 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	1.8
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	31	31 a	31	25.8 a
Alkalinity, Carbonate	mg/L	8.0	4.0	2.0	5.0
Chloride	mg/L	4.0	<1.0	1.0 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	0.10 e	0.091 e	0.086 e
Sulfate	mg/L	8.0	<2.0	2.1	<2.0
Major Cations					
Calcium	mg/L	13	--	10	--
Magnesium	mg/L	2.4	--	1.5	--
Potassium	mg/L	2.0	--	<0.50 e	--
Sodium	mg/L	2.0	0.72	0.70 e,s	2.6 e
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 2017 01/31/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	0.1	0.2	0.2
ORP	mV	--	-69	-35	-242
pH	SU	8.1-9.1	8.5	8.4	8.4
Specific Conductance	µS/cm @ 25°C	--	120	119	116
Temperature	°C	--	6.9	7.2	7.4
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1408.33	1408.04	1409.16
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	7.8	8.1	7.3	7.7
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	200	--	58	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	91	56 a	58	37.4 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	60	<2.0
Chloride	mg/L	4.0	1.2	1.0 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.6	7.3	7.2	7.7
Major Cations					
Calcium	mg/L	17	--	15	--
Magnesium	mg/L	4.3	--	4.2	--
Potassium	mg/L	2.0	--	1.9 e	--
Sodium	mg/L	2.0	1.7	1.7 e	1.7 e
General					
Hardness	mg/L	60	--	55	--

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 2017 02/02/17 ^T	Q2 2017 05/09/17 ^T	Q3 2017 08/15/17 ^T
Field					
D.O. ¹	ppm	--	1.0	0.2	0.5
ORP	mV	--	-155	-311	-51
pH	SU	8.3-9.3	9.7	9.6	9.2
Specific Conductance	µS/cm @ 25°C	--	82	82	87
Temperature	°C	--	6.8	8.0	8.2
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1413.68	1413.94	1414.31
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	2.3	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	200	--	99	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	64	25 a	17	22 a
Alkalinity, Carbonate	mg/L	8.0	18	38	12.4
Chloride	mg/L	4.0	1.1	1.2 e	1.3
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	24	7.0	7.0	7.3
Major Cations					
Calcium	mg/L	17	--	10	--
Magnesium	mg/L	4.0	--	1.2	--
Potassium	mg/L	2.0	--	1.2 e	--
Sodium	mg/L	2.6	2.3	2.2 e	2.1 e
General					
Hardness	mg/L	58	--	30	--

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 2017 02/01/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/15/17 ^T
Field					
D.O. ¹	ppm	--	11	11	11
ORP	mV	--	-14	-28	-3
pH	SU	8.1-9.1	8.9	8.8	8.7
Specific Conductance	µS/cm @ 25°C	--	81	75	74
Temperature	°C	--	7.2	8.0	8.1
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1403.91	1403.89	1404.64
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	7.2	5.1	5.3	4.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	1.1
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	62	35 a	36	37.1 a
Alkalinity, Carbonate	mg/L	8.0	3.9	4.1	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	0.20 e	0.18 e	0.20 e
Sulfate	mg/L	8.0	<2.0	<2.0	2.0
Major Cations					
Calcium	mg/L	17	--	10	--
Magnesium	mg/L	4.2	--	2.4	--
Potassium	mg/L	2.0	--	0.85 e	--
Sodium	mg/L	2.1	0.79	0.77 e,s	0.67 e
General					
Hardness	mg/L	61	--	35	--

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 2017 02/01/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/15/17 ^T
Field					
D.O. ¹	ppm	--	11	11	11
ORP	mV	--	-19	-24	-1
pH	SU	8.1-9.1	8.9	8.8	8.6
Specific Conductance	µS/cm @ 25°C	--	95	94	102
Temperature	°C	--	7.7	7.4	7.8
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1405.21	1405.19	1406.03
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	40	41 a	48	52.5 a
Alkalinity, Carbonate	mg/L	8.0	3.9	2.0	<2.0
Chloride	mg/L	4.0	1.1	1.4 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.27	0.30 e	0.30 e	0.28 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0
Major Cations					
Calcium	mg/L	15	--	15	--
Magnesium	mg/L	2.2	--	2.8	--
Potassium	mg/L	2.0	--	0.77 e	--
Sodium	mg/L	2.0	0.76	0.92 e,s	0.73 e
General					
Hardness	mg/L	37	--	49	--

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 2017 01/31/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/15/17 ^T
Field					
D.O. ¹	ppm	--	9.4	9.2	9.0
ORP	mV	--	-21	-19	-6
pH	SU	8.3-9.3	8.0	7.9	7.8
Specific Conductance	µS/cm @ 25°C	--	408	397	401
Temperature	°C	--	7.5	7.5	7.9
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1406.81	1406.50	1407.38
Metals					
Aluminum	ug/L	200	--	57	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	22	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	200	--	64	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	48	120 a	140	148 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	48	46 e	46
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.41	0.52 e	0.57 e	0.63 e
Sulfate	mg/L	8.0	2.2	2.1	2.3
Major Cations					
Calcium	mg/L	12	--	49	--
Magnesium	mg/L	2.2	--	9.7	--
Potassium	mg/L	2.0	--	2.1 e	--
Sodium	mg/L	2.0	14	17 e	15.6 e
General					
Hardness	mg/L	40	--	162	--

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 2017 01/31/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/15/17 ^T
Field					
D.O. ¹	ppm	--	9.3	9.3	9.5
ORP	mV	--	-6	-26	123
pH	SU	8.1-9.1	7.9	7.9	7.7
Specific Conductance	µS/cm @ 25°C	--	363	353	388
Temperature	°C	--	7.8	8.2	8.6
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1400.96	1400.59	1401.28
Metals					
Aluminum	ug/L	200	--	52	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	200	--	67	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	42	130 a	140	146 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	30	31 e	35.7
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.29	0.60 e	0.56 e	0.55 e
Sulfate	mg/L	8.0	2.1	2.1	2.4
Major Cations					
Calcium	mg/L	12	--	55	--
Magnesium	mg/L	2.0	--	10	--
Potassium	mg/L	2.0	--	1.6 e	--
Sodium	mg/L	2.0	1.9	2.6 e	5.4 e
General					
Hardness	mg/L	40	--	179	--

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 2017 02/02/17 ^T	Q2 2017 05/09/17 ^T	Q3 2017 08/15/17 ^T
Field					
D.O. ¹	ppm	--	0.2	0.2	0.2
ORP	mV	--	-282	-327	-300
pH	SU	8.0-9.0	8.6	8.5	8.4
Specific Conductance	µS/cm @ 25°C	--	157	145	139
Temperature	°C	--	6.9	6.9	7.2
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1415.26	1415.60	1415.73
Metals					
Aluminum	ug/L	200	--	51	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	38 s	35	36.1 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	200	--	97	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	1.1	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	82	73 a	78	73.6 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	60	2.1
Chloride	mg/L	4.2	2.1	2.6 e	2.3
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0
Major Cations					
Calcium	mg/L	22	--	19	--
Magnesium	mg/L	3.3	--	4.1	--
Potassium	mg/L	2.0	--	1.2 e	--
Sodium	mg/L	6.9	3.9	3.9 e	3.7 e
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 2017 02/02/17 ^T	Q2 2017 05/10/17 ^T	Q3 2017 08/16/17 ^T
Field					
D.O. ¹	ppm	--	0.2	0.2	0.2
ORP	mV	--	-241	-274	-262
pH	SU	7.9-8.9	8.6	8.6	8.2
Specific Conductance	µS/cm @ 25°C	--	154	146	144
Temperature	°C	--	6.6	7.3	7.7
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1415.57	1416.37	1415.82
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.6	3.0	3.5	2.7
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	55	53	53.6 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	200	--	190	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	86	77 a	76	81.6 a
Alkalinity, Carbonate	mg/L	8.7	<2.0	80	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0
Fluoride	mg/L	0.40	--	0.13	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0
Major Cations					
Calcium	mg/L	14	--	12	--
Magnesium	mg/L	4.8	--	4.2	--
Potassium	mg/L	3.0	--	2.8 e	--
Sodium	mg/L	12	11	11 e	8.9 e
General					
Hardness	mg/L	53	--	47	--

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 2017 02/02/17 ^D	Q2 2017 05/10/17 ^D	Q3 2017 08/15/17 ^D
Field					
D.O. ¹	ppm	--	3.8	2.8	2.2
ORP	mV	--	35	116	60
pH	SU	8.7-9.7	8.5	8.8	8.7
Specific Conductance	µS/cm @ 25°C	--	138	137	136
Temperature	°C	--	6.4	8.6	9.6
Turbidity	NTU	--	302	110	73
Water Elevation	ft MSL	--	1414.60	1415.10	1415.21
Metals					
Aluminum	ug/L	557	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	8.9	9.1	8.2	7.4
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	288	320	<20	171 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	2.36	<0.500	0.767
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	367	--	51	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	1.4	1.3	1.1
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	61	54 a	66	58.7 a
Alkalinity, Carbonate	mg/L	52	9.8	68	4.1
Chloride	mg/L	4.0	1.2	1.3 e	1.1
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	0.051 e	0.057 e	<0.050 e
Sulfate	mg/L	11	13	11	9.3
Major Cations					
Calcium	mg/L	58	--	13	--
Magnesium	mg/L	2.9	--	2.1	--
Potassium	mg/L	2.6	--	1.3 e	--
Sodium	mg/L	8.0	17	15 e	12.2 e
General					
Hardness	mg/L	146	--	41	--

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 2017 01/31/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/15/17 ^T
Field					
D.O. ¹	ppm	--	8.7	8.8	8.7
ORP	mV	--	5	9	36
pH	SU	5.6-6.6	6.0	6.2	6.1
Specific Conductance	µS/cm @ 25°C	--	1568	1275	1032
Temperature	°C	--	7.9	8.2	8.8
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1413.81	1413.57	1414.40
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	76	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	2.22	1.59	1.79
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	200	--	76	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	1.1
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	51	54 a	50	51.5 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	410	350 e	285
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.25	2.3 e	2.1 e	1.8 e
Sulfate	mg/L	8.4	19	20	18.6
Major Cations					
Calcium	mg/L	8.2	--	12	--
Magnesium	mg/L	2.0	--	6.5	--
Potassium	mg/L	2.0	--	3.2 e	--
Sodium	mg/L	2.0	270	230 e	171 e
General					
Hardness	mg/L	26	--	57	--

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 2017 01/31/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	11	11	12
ORP	mV	--	248	208	67
pH	SU	6.2-7.2	6.0	6.5	6.7
Specific Conductance	µS/cm @ 25°C	--	38	37	29
Temperature	°C	--	7.5	7.8	7.7
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1421.43	1420.76	1422.20
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	35	19 a	20	14.3
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0
Major Cations					
Calcium	mg/L	6.7	--	4.9	--
Magnesium	mg/L	2.0	--	1.0	--
Potassium	mg/L	2.0	--	0.96 e	--
Sodium	mg/L	2.0	0.72	0.69 e,s	0.63 e
General					
Hardness	mg/L	21	--	16	--

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 2017 01/31/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	11	11	11
ORP	mV	--	210	148	5
pH	SU	8.4-9.4	8.5	8.7	8.9
Specific Conductance	µS/cm @ 25°C	--	62	61	59
Temperature	°C	--	7.3	7.6	8.1
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1412.61	1412.20	1413.48
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	184	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	30	25 a	25	26 a
Alkalinity, Carbonate	mg/L	9.9	6.0	31	3.1
Chloride	mg/L	4.0	1.1	1.1 e	<1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.20	0.057 e	0.052 e	<0.050 e
Sulfate	mg/L	8.0	2.3	2.2	2.4
Major Cations					
Calcium	mg/L	9.4	--	8.4	--
Magnesium	mg/L	2.0	--	1.9	--
Potassium	mg/L	2.0	--	0.63 e	--
Sodium	mg/L	2.0	0.95	0.91 e,s	0.90 e
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 2017 01/31/17 ^T	Q2 2017 05/08/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	3.5	1.0	3.5
ORP	mV	--	68	52	73
pH	SU	8.0-9.0	8.1	8.5	8.2
Specific Conductance	µS/cm @ 25°C	--	118	116	120
Temperature	°C	--	6.1	8.6	11.3
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1412.56	1412.43	1413.51
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	7.2	5.2	4.4	5.4
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	119	22 s	32	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.12	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	2.6	2.5	2.4
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	67	60 a	59	58.1 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	60	<2.0
Chloride	mg/L	4.0	1.2	1.1 e	1.0
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.21	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	10	5.1	4.9	5.6
Major Cations					
Calcium	mg/L	16	--	14	--
Magnesium	mg/L	3.9	--	4.1	--
Potassium	mg/L	2.0	--	1.3 e	--
Sodium	mg/L	6.1	4.1	4.2 e	4.6 e
General					
Hardness	mg/L	52	--	52	--

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 2017 02/01/17 ^T	Q2 2017 05/09/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	5.5	5.8	4.6
ORP	mV	--	83	136	126
pH	SU	7.8-8.8	6.8	7.0	6.4
Specific Conductance	µS/cm @ 25°C	--	408	411	863
Temperature	°C	--	7.8	10	11
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1382.12	1381.89	1382.61
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	80	82	30	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	4.53	14.2	4.91
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	138	160 a	190	180 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	32	22 e	164
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.57	0.90 e	1.0 e	0.74 e
Sulfate	mg/L	8.0	7.5	8.7	7.6
Major Cations					
Calcium	mg/L	35	--	41	--
Magnesium	mg/L	18	--	16	--
Potassium	mg/L	2.0	--	1.6 e	--
Sodium	mg/L	2.0	29	23 e	44.9 e
General					
Hardness	mg/L	162	--	168	--

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

QAL069A (Background)

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

Parameter	Unit	Benchmark	Q1 2017 02/01/17 ^T	Q2 2017 05/09/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	11	11	11
ORP	mV	--	144	-15	88
pH	SU	8.1-9.1	7.4	7.8	7.7
Specific Conductance	µS/cm @ 25°C	--	557	622	531
Temperature	°C	--	7.7	8.1	8.7
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1405.22	1405.33	1405.89
Metals					
Aluminum	ug/L	200	--	<50	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	39	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	178	<20	<20	<20 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<1.0
Silver	ug/L	0.80	--	<0.20	--
Strontium	ug/L	200	--	100	--
Thallium	ug/L	2.0	--	<2.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	44	130 a	130	153 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	24	27 e	22.4
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.31	27 e	38 e	<0.050 e
Sulfate	mg/L	8.0	6.2	5.7	7.4
Major Cations					
Calcium	mg/L	12	--	84	--
Magnesium	mg/L	2.0	--	15	--
Potassium	mg/L	2.0	--	1.7 e	--
Sodium	mg/L	2.0	18	19 e	18.2 e
General					
Hardness	mg/L	38	--	272	--

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

QAL071A (TDRSA-CWB)

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

Parameter	Unit	Benchmark	Q1 2017 02/01/17 ^T	Q2 2017 05/09/17 ^T	Q3 2017 08/14/17 ^T
Field					
D.O. ¹	ppm	--	12	10	10
ORP	mV	--	-29	146	105
pH	SU	8.4-9.4	8.5	8.5	8.4
Specific Conductance	µS/cm @ 25°C	--	307	263	269
Temperature	°C	--	0.6	9.0	13.0
Turbidity	NTU	--	2	<1	<1
Water Elevation	ft MSL	--	1404.10	1404.52	1405.17
Metals					
Aluminum	ug/L	200	--	60	--
Antimony	ug/L	5.5	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	--	<20	--
Beryllium	ug/L	2.5	--	<1.0	--
Boron	ug/L	400	<100 e	<100 e	<100 e
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 e	<5.0
Iron	ug/L	212	80	72	20.4 e
Lead	ug/L	4.0	--	<1.0	--
Lithium	ug/L	32	--	<8.0	--
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.500	0.888	0.770
Molybdenum	ug/L	40	--	<10	--
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	39	53 a	57	65.3 a
Alkalinity, Carbonate	mg/L	8.0	<2.0	60	<2.0
Chloride	mg/L	4.0	48	51 e	49.5
Fluoride	mg/L	0.40	--	<0.10	--
Nitrogen, Nitrate	mg/L	0.43	1.1 e	1.1 e	0.94 e
Sulfate	mg/L	8.0	6.9	6.8	7.8
Major Cations					
Calcium	mg/L	31	--	31	--
Magnesium	mg/L	5.9	--	6.4	--
Potassium	mg/L	2.0	--	1.2 e	--
Sodium	mg/L	3.5	9.7	12 e	15.2 e
General					
Hardness	mg/L	103	--	104	--

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.
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.

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
Field				
D.O. ¹	ppm	--	11	10
ORP	mV	--	167	55
pH	SU	8.3-9.3	8.6	8.5
Specific Conductance	µS/cm @ 25°C	--	188	440
Temperature	°C	--	9.0	9.0
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	1370.25	1369.67
Metals				
Aluminum	ug/L	200	<50	<50
Antimony	ug/L	5.5	<5.0	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	<20	24
Beryllium	ug/L	2.5	<1.0	<1.0
Boron	ug/L	400	<100	<100
Cadmium	ug/L	2.0	<0.50	<0.50
Chromium	ug/L	20	<5.0	<5.0
Cobalt	ug/L	40	<10	<10
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	<20	75
Lead	ug/L	4.0	<1.0	<1.0
Lithium	ug/L	32	<8.0	<8.0
Manganese	ug/L	80	<20	<20
Mercury	ng/L	2.00	0.680 e,s	0.535
Molybdenum	ug/L	40	<10	<10
Nickel	ug/L	100	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0 e
Silver	ug/L	0.80	<0.20	<0.20
Strontium	ug/L	200	59	77
Thallium	ug/L	2.0	<2.0	<2.0
Vanadium	ug/L	4.0	<2.0	<1.0
Zinc	ug/L	40	<10	<10
Major Anions				
Alkalinity, Bicarbonate	mg/L	42	40	45
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0
Chloride	mg/L	4.0	58	120
Fluoride	mg/L	0.40	<0.10	<0.10
Nitrogen, Nitrate	mg/L	0.22	0.98 e	1.0
Sulfate	mg/L	8.0	3.5	4.3
Major Cations				
Calcium	mg/L	11	31	51 e
Magnesium	mg/L	3.0	6.4	9.7
Potassium	mg/L	2.0	1.2	1.8
Sodium	mg/L	2.0	5.5	19
General				
Hardness	mg/L	40	104	167

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

QAL070A (NCWIB)

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
Field				
D.O. ¹	ppm	--	11	11
ORP	mV	--	167	102
pH	SU	6.1-7.1	6.8	6.7
Specific Conductance	µS/cm @ 25°C	--	160	207
Temperature	°C	--	10	10
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	1382.45	1381.68
Metals				
Aluminum	ug/L	200	110	<50
Antimony	ug/L	5.5	<5.0	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	<20	<20
Beryllium	ug/L	2.5	<1.0	<1.0
Boron	ug/L	400	<100	<100
Cadmium	ug/L	2.0	<0.50	<0.50
Chromium	ug/L	20	<5.0	<5.0
Cobalt	ug/L	40	<10	<10
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	132	130	74
Lead	ug/L	4.0	<1.0	<1.0
Lithium	ug/L	32	<8.0	<8.0
Manganese	ug/L	80	<20	<20
Mercury	ng/L	2.00	0.942 e	0.632
Molybdenum	ug/L	40	<10	<10
Nickel	ug/L	100	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0 e
Silver	ug/L	0.80	<0.20	<0.20
Strontium	ug/L	200	94	98
Thallium	ug/L	2.0	<2.0	<2.0
Vanadium	ug/L	4.0	<2.0	<1.0
Zinc	ug/L	40	<10	<10
Major Anions				
Alkalinity, Bicarbonate	mg/L	44	97	100
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0
Chloride	mg/L	20	8.4	5.6
Fluoride	mg/L	0.40	<0.10	<0.10
Nitrogen, Nitrate	mg/L	0.60	2.0 e	1.6
Sulfate	mg/L	8.0	7.9	9.4
Major Cations				
Calcium	mg/L	9.2	32	34 e
Magnesium	mg/L	2.5	7.0	7.5
Potassium	mg/L	2.0	1.3	1.3
Sodium	mg/L	2.0	1.8	2.8
General				
Hardness	mg/L	33	109	116

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

QAL073A (NCWIB)