

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

Parameter	Unit	Benchmark	Q2 2019 05/08/19 <sup>T</sup>	Q1 2020 01/28/20 <sup>T</sup>	Q2 2020 05/26/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	<0.1	<b>0.2</b>	<b>0.3</b>
ORP	mV	--	<b>-127</b>	<b>-70</b>	<b>-18</b>
pH	SU	7.8-8.8	<b>7.4</b>	<b>8.6</b>	<b>7.2</b>
Specific Conductance	µS/cm @ 25°C	--	<b>119</b>	<b>125</b>	<b>125</b>
Temperature	°C	--	<b>6.5</b>	<b>6.9</b>	<b>7.5</b>
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	<b>1414.55</b>	<b>1414.07</b>	<b>1414.35</b>
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.5	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	159	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	67	<b>60.3</b>	<b>59.5</b>	<b>54.7</b>
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<b>3.8 e</b>	<b>4.8</b>	<b>5.1</b>
Major Cations					
Calcium	mg/L	16	<b>14.7 e</b>	--	<b>14.4</b>
Magnesium	mg/L	3.7	<b>3.5</b>	--	<b>3.5</b>
Potassium	mg/L	2.0	<0.50	--	<0.50
Sodium	mg/L	11	<b>6.8 e</b>	<b>5.6</b>	<b>5.3</b>
General					
Hardness	mg/L	55	<b>51</b>	--	<b>50</b>

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	Q2 2019 05/07/19 <sup>T</sup>	Q1 2020 01/28/20 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	10	11	11
ORP	mV	--	251	110	162
pH	SU	6.1-7.1	6.3	6.6	6.1
Specific Conductance	µS/cm @ 25°C	--	481	190	131
Temperature	°C	--	10.0	6.2	8.0
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1418.68	1418.06	1418.14
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	86	73.4	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	18.7	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	105	230	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	1.67	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	108	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	24	37.9	45.8	28.5
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	116 e	21.6	15.8 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	3.7 e	0.57 e	0.38 e
Sulfate	mg/L	8.0	7.0 e	7.0	3.9
Major Cations					
Calcium	mg/L	48	35 e	--	8.7
Magnesium	mg/L	8.1	5.6	--	1.4
Potassium	mg/L	3.7	2.8	--	1.1
Sodium	mg/L	2.0	50.6 e	17.6	13.7
General					
Hardness	mg/L	153	110	--	27

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	Q2 2019 05/06/19 <sup>T</sup>	Q1 2020 01/27/20 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	11	12	12
ORP	mV	--	297	147	161
pH	SU	6.4-7.4	6.6	6.7	6.1
Specific Conductance	µS/cm @ 25°C	--	42	71	70
Temperature	°C	--	7.8	7.5	7.5
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1417.14	1417.23	1416.67
<b>Metals</b>					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	126	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	0.53
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	25	16.9	32.9	30.1
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	1.1	0.37 e	0.23 e	0.28 e
Sulfate	mg/L	8.0	<2.0 e	2.0	2.1
<b>Major Cations</b>					
Calcium	mg/L	8.5	5.7 e	--	9.7
Magnesium	mg/L	2.0	1.1	--	2.0
Potassium	mg/L	2.0	0.76	--	0.90
Sodium	mg/L	2.0	<1.0 e	1.0	1.1
<b>General</b>					
Hardness	mg/L	28	19	--	32

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	Q2 2019 05/06/19 <sup>T</sup>	Q1 2020 01/27/20 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	11	11	11
ORP	mV	--	267	126	153
pH	SU	8.5-9.5	8.9	9.1	7.8
Specific Conductance	µS/cm @ 25°C	--	65	66	65
Temperature	°C	--	7.2	7.5	7.1
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1417.03	1417.11	1416.60
<b>Metals</b>					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	56	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	1.1	1.1	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	36	26.7	27.2	28.4
Alkalinity, Carbonate	mg/L	12	5.0 e	4.8 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	0.20 e	0.14 e	0.20 e
Sulfate	mg/L	8.0	<2.0 e	<2.0	<2.0
<b>Major Cations</b>					
Calcium	mg/L	10	9.4 e	--	9.3
Magnesium	mg/L	2.0	1.7	--	1.7
Potassium	mg/L	2.0	<0.50	--	<0.50
Sodium	mg/L	4.5	1.6 e	1.4	1.4
<b>General</b>					
Hardness	mg/L	33	30	--	30

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	Q2 2019 05/15/19 <sup>T</sup>	Q1 2020 01/27/20 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	4.1	5.3	6.1
ORP	mV	--	246	121	157
pH	SU	8.2-9.2	8.7	8.8	7.7
Specific Conductance	µS/cm @ 25°C	--	96	101	96
Temperature	°C	--	7.4	6.9	7.1
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1413.26	1413.40	1412.73
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.5	2.9	2.9	3.3
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	137	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	4.0	4.0	4.0
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	52	45.8	42.4	39.5
Alkalinity, Carbonate	mg/L	14	<2.0 e	2.6 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0 e	1.1 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	0.089 e	0.11 e	0.11 e
Sulfate	mg/L	8.0	5.4 e	4.9	4.5
Major Cations					
Calcium	mg/L	12	12.9 e	--	12.2
Magnesium	mg/L	2.7	2.9	--	2.8
Potassium	mg/L	2.0	0.80	--	0.63
Sodium	mg/L	12	3.8 e	3.4	3.3
General					
Hardness	mg/L	42	44	--	42

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	Q2 2019 05/15/19 <sup>T</sup>	Q1 2020 01/27/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	10	11	12
ORP	mV	--	301	350	304
pH	SU	6.2-7.2	6.4	6.0	6.4
Specific Conductance	µS/cm @ 25°C	--	83	76	108
Temperature	°C	--	7.4	6.5	6.4
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	<<1415.4 BP	1417.38	1416.21
Metals					
Aluminum	ug/L	236	144	--	92.5
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	34.9
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	368	126	81.5	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	0.610	<0.50	0.800
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	86.5
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	114	38.4	39.7	69.5
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.73	0.63 e	0.44 e	0.35 e
Sulfate	mg/L	8.0	<2.0 e	2.0	2.2
Major Cations					
Calcium	mg/L	40.0	13.2 e	--	57.2
Magnesium	mg/L	5.9	2.1	--	12.4
Potassium	mg/L	2.0	1.3	--	2.4
Sodium	mg/L	2.4	1.4 e	1.3	33.6
General					
Hardness	mg/L	124	42	--	194

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	Q2 2019 05/15/19 <sup>T</sup>	Q1 2020 02/04/20 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	11	11	11
ORP	mV	--	249	288	164
pH	SU	8.4-9.4	9.0	8.7	8.2
Specific Conductance	µS/cm @ 25°C	--	63	61	69
Temperature	°C	--	7.2	6.9	7.5
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1410.01	1410.46	1409.49
<b>Metals</b>					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	31	31.8	30.6	31.0
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	0.12 e	0.12 e	0.085 e
Sulfate	mg/L	8.0	<2.0 e	<2.0	<2.0
<b>Major Cations</b>					
Calcium	mg/L	13	10.6 e	--	11
Magnesium	mg/L	2.4	1.5	--	1.6
Potassium	mg/L	2.0	0.57	--	<0.50
Sodium	mg/L	2.0	<1.0 e	<1.0	<1.0
<b>General</b>					
Hardness	mg/L	43	33	--	34

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	Q2 2019 05/06/19 <sup>T</sup>	Q1 2020 01/27/20 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	0.2	<0.1	0.3
ORP	mV	--	-32	145	125
pH	SU	8.1-9.1	8.4	8.4	7.7
Specific Conductance	µS/cm @ 25°C	--	118	115	123
Temperature	°C	--	7.2	7.1	7.2
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1409.38	1410.27	1409.50
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	7.8	7.3	7.8	7.8
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	61.2	--	62.9
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	91	53.4	56.5	52.6
Alkalinity, Carbonate	mg/L	8.0	2.2 e	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.6	7.6 e	7.6	7.7
Major Cations					
Calcium	mg/L	17	16.3 e	--	16.7
Magnesium	mg/L	4.3	4.1	--	4.3
Potassium	mg/L	2.0	1.8	--	1.7
Sodium	mg/L	2.0	1.7 e	1.8	1.7
General					
Hardness	mg/L	60	58	--	59

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	Q2 2019 05/07/19 <sup>T</sup>	Q1 2020 01/28/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	3.5	0.2	0.8
ORP	mV	--	-46	-9	-33
pH	SU	8.3-9.3	9.1	9.2	9.0
Specific Conductance	µS/cm @ 25°C	--	102	73	57
Temperature	°C	--	7.7	7.2	7.3
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1414.78	1414.85	1414.77
<b>Metals</b>					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	79.3	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	64	42.1	28.2	25.0
Alkalinity, Carbonate	mg/L	8.0	4.8 e	3.8 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	24	6.7 e	6.8	6.2
<b>Major Cations</b>					
Calcium	mg/L	17	16.8 e	--	8.9
Magnesium	mg/L	4.0	1.4	--	<1.0
Potassium	mg/L	2.0	1.7	--	1.1
Sodium	mg/L	2.6	2.7 e	3.1	2.9
<b>General</b>					
Hardness	mg/L	58	48	--	<3

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	Q2 2019 05/07/19 <sup>T</sup>	Q1 2020 01/27/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	11	11	11
ORP	mV	--	67	118	141
pH	SU	8.1-9.1	8.3	8.9	8.0
Specific Conductance	µS/cm @ 25°C	--	87	101	95
Temperature	°C	--	8.0	7.9	7.5
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1404.71	1405.67	1404.98
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	7.2	4.1	3.3	3.5
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	1.1	<1.0	1.2
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	62	46.3	45.9	42.1
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	2.4 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	0.33 e	0.33 e	0.29 e
Sulfate	mg/L	8.0	2.0 e	<2.0	<2.0
Major Cations					
Calcium	mg/L	17	13.4 e	--	13.7
Magnesium	mg/L	4.2	2.8	--	3.1
Potassium	mg/L	2.0	0.83	--	0.84
Sodium	mg/L	2.1	<1.0 e	<1.0	<1.0
General					
Hardness	mg/L	61	45	--	47

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	Q2 2019 05/07/19 <sup>T</sup>	Q1 2020 01/27/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	11	11	11
ORP	mV	--	73	117	56
pH	SU	8.1-9.1	8.4	8.8	8.5
Specific Conductance	µS/cm @ 25°C	--	123	106	112
Temperature	°C	--	7.8	7.7	7.7
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1406.14	1417.17	1406.36
<b>Metals</b>					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	40	62.2	47.4	50.8
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	3.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.27	0.36 e	0.36 e	0.37 e
Sulfate	mg/L	8.0	<2.0 e	<2.0	<2.0
<b>Major Cations</b>					
Calcium	mg/L	15	20.4 e	--	16.7
Magnesium	mg/L	2.2	3.5	--	3.1
Potassium	mg/L	2.0	0.75	--	0.70
Sodium	mg/L	2.0	<1.0 e	<1.0	<1.0
<b>General</b>					
Hardness	mg/L	37	65	--	54

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	Q2 2019 05/07/19 <sup>T</sup>	Q1 2020 01/29/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	8.0	9.0	9.2
ORP	mV	--	66	100	51
pH	SU	8.3-9.3	7.4	7.8	7.5
Specific Conductance	µS/cm @ 25°C	--	608	536	544
Temperature	°C	--	7.6	7.9	8.0
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1407.50	1408.37	1407.71
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	47.4	--	35.0
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	118	--	86
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	48	210	164	164
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	74.4 e	66.1	65.2 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.41	1.4 e	0.71 e	0.92 e
Sulfate	mg/L	8.0	3.2 e	2.9	2.8
Major Cations					
Calcium	mg/L	12	77 e	--	56.8
Magnesium	mg/L	2.2	15.9	--	12.3
Potassium	mg/L	2.0	2.8	--	2.4
Sodium	mg/L	2.0	26.7 e	36.6	33.3
General					
Hardness	mg/L	40	258	--	192

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	Q2 2019 05/06/19 <sup>T</sup>	Q1 2020 01/27/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	11	8.2	8.8
ORP	mV	--	158	193	136
pH	SU	8.1-9.1	7.6	7.5	6.9
Specific Conductance	µS/cm @ 25°C	--	645	647	659
Temperature	°C	--	8.1	7.7	7.3
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1401.27	1402.10	1401.54
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	45.5	--	44.2
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	116	--	105
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	42	214	194	176
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	84.3 e	105	104 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.29	1.2 e	0.97 e	0.91 e
Sulfate	mg/L	8.0	2.6 e	2.8	2.7
Major Cations					
Calcium	mg/L	12	85.2 e	--	73.9
Magnesium	mg/L	2.0	17	--	15
Potassium	mg/L	2.0	3.0	--	2.5
Sodium	mg/L	2.0	23.7 e	32.6	36.8
General					
Hardness	mg/L	40	281	--	246

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	Q2 2019 05/16/19 <sup>T</sup>	Q1 2020 02/04/20 <sup>T</sup>	Q2 2020 05/26/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	<0.1	<b>0.2</b>	<b>0.3</b>
ORP	mV	--	<b>-196</b>	<b>-77</b>	<b>-4</b>
pH	SU	8.0-9.0	<b>8.3</b>	<b>8.7</b>	<b>7.9</b>
Specific Conductance	µS/cm @ 25°C	--	<b>144</b>	<b>146</b>	<b>150</b>
Temperature	°C	--	<b>7.0</b>	<b>6.5</b>	<b>7.1</b>
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	<b>1416.49</b>	<b>1415.73</b>	<b>1416.35</b>
<b>Metals</b>					
Aluminum	ug/L	200	<50	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<b>2.0</b>
Barium	ug/L	80	<20	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<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	<5.0
Iron	ug/L	80	<50	<50	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<b>114</b>	--	<b>106</b>
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	82	<b>75.2</b>	<b>68.3</b>	<b>67.9</b>
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.2	<b>1.9</b> e	<b>2.3</b>	<b>2.3</b> e
Fluoride	mg/L	0.40	<b>0.12</b> e	--	<b>0.11</b>
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0 e	<2.0	<2.0
<b>Major Cations</b>					
Calcium	mg/L	22	<b>19.9</b> e	--	<b>19.4</b>
Magnesium	mg/L	3.3	<b>4.2</b>	--	<b>4.0</b>
Potassium	mg/L	2.0	<b>1.3</b>	--	<b>1.2</b>
Sodium	mg/L	6.9	<b>4.1</b> e	<b>4.2</b>	<b>4.1</b>
<b>General</b>					
Hardness	mg/L	51	<b>67</b>	--	<b>65</b>

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	Q2 2019 05/08/19 <sup>T</sup>	Q1 2020 02/04/20 <sup>T</sup>	Q2 2020 05/26/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	0.2	0.3	0.2
ORP	mV	--	-98	-89	-44
pH	SU	7.9-8.9	8.2	8.8	8.1
Specific Conductance	µS/cm @ 25°C	--	144	151	151
Temperature	°C	--	6.7	6.7	7.2
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1416.41	1415.64	1416.12
Metals					
Aluminum	ug/L	200	<50	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.6	3.6	4.2	4.3
Barium	ug/L	80	<20	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<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	<5.0
Iron	ug/L	80	75.2	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20	<20	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	191	--	184
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	86	81	72.4	69.4
Alkalinity, Carbonate	mg/L	8.7	<2.0 e	4.4 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	0.13 e	--	0.16
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0 e	<2.0	<2.0
Major Cations					
Calcium	mg/L	14	14.7 e	--	13.5
Magnesium	mg/L	4.8	4.6	--	4.5
Potassium	mg/L	3.0	2.8	--	2.7
Sodium	mg/L	12	10.1 e	10.6	10.2
General					
Hardness	mg/L	53	56	--	52

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	Q2 2019 05/08/19 <sup>T</sup>	Q1 2020 01/28/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	3.4	1.9	2.2
ORP	mV	--	130	208	215
pH	SU	8.7-9.7	8.5	8.5	8.6
Specific Conductance	µS/cm @ 25°C	--	156	151	130
Temperature	°C	--	6.7	6.6	6.7
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1415.50	1415.28	1415.52
Metals					
Aluminum	ug/L	557	794	--	937
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	8.9	8.3	8.9	8.7
Barium	ug/L	80	<20	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<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	<5.0
Iron	ug/L	288	527	572	550
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20	<20
Mercury	ng/L	2.00	1.01	1.32	1.76
Molybdenum	ug/L	40	<10	--	<10
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	367	61.5	--	54.4
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	1.2	1.2
Zinc	ug/L	40	<10	<10	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	61	72.1	68.3	68.3
Alkalinity, Carbonate	mg/L	52	5.4 e	6.8 e	2.4
Chloride	mg/L	4.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	11	8.0 e	8.3	8.2
Major Cations					
Calcium	mg/L	58	15 e	--	12.4
Magnesium	mg/L	2.9	2.4	--	2.2
Potassium	mg/L	2.6	1.2	--	1.1
Sodium	mg/L	8.0	19.1 e	22.0	21.0
General					
Hardness	mg/L	146	47	--	40

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	Q2 2019 05/07/19 <sup>T</sup>	Q1 2020 01/29/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	7.7	8.3	9.6
ORP	mV	--	90	110	84
pH	SU	5.6-6.6	6.3	6.7	6.4
Specific Conductance	µS/cm @ 25°C	--	272	670	641
Temperature	°C	--	8.5	8.7	9.2
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1414.74	1415.48	1414.76
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	62.8
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	1.24	1.29	1.2
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	154
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	51	56	65.6	72.4
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	51 e	149	158 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.25	0.32 e	0.97 e	1.4 e
Sulfate	mg/L	8.4	2.7 e	9.8	10.4
Major Cations					
Calcium	mg/L	8.2	6.5 e	--	28
Magnesium	mg/L	2.0	3.0	--	12.4
Potassium	mg/L	2.0	1.5	--	2.7
Sodium	mg/L	2.0	45.7 e	78.5	76.8
General					
Hardness	mg/L	26	29	--	121

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	Q2 2019 05/16/19 <sup>T</sup>	Q1 2020 01/30/20 <sup>T</sup>	Q2 2020 05/26/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	11	12	13
ORP	mV	--	301	131	320
pH	SU	6.2-7.2	6.6	6.9	6.6
Specific Conductance	µS/cm @ 25°C	--	41	51	33
Temperature	°C	--	7.6	7.0	7.5
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1421.95	1423.06	1421.83
<b>Metals</b>					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	35	18.2	23.8	16.4
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0 e	2.0	<2.0
<b>Major Cations</b>					
Calcium	mg/L	6.7	5.7 e	--	5.5
Magnesium	mg/L	2.0	<1.0	--	<1.0
Potassium	mg/L	2.0	1.0	--	0.84
Sodium	mg/L	2.0	<1.0 e	<1.0	<1.0
<b>General</b>					
Hardness	mg/L	21	<3	--	<3

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	Q2 2019 05/16/19 <sup>T</sup>	Q1 2020 01/30/20 <sup>T</sup>	Q2 2020 05/26/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	12	12	13
ORP	mV	--	253	105	268
pH	SU	8.4-9.4	9.0	9.2	8.6
Specific Conductance	µS/cm @ 25°C	--	61	65	52
Temperature	°C	--	7.7	7.0	7.5
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1414.17	1414.68	1414.05
<b>Metals</b>					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	184	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	1.0	1.0	1.0
Zinc	ug/L	40	<10.0	<10.0	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	30	29.5	31.9	27.4
Alkalinity, Carbonate	mg/L	9.9	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.20	0.054 e	0.060 e	0.057 e
Sulfate	mg/L	8.0	2.4 e	2.3	2.2
<b>Major Cations</b>					
Calcium	mg/L	9.4	8.9 e	--	8.9
Magnesium	mg/L	2.0	1.8	--	1.7
Potassium	mg/L	2.0	0.71	--	0.52
Sodium	mg/L	2.0	<1.0 e	<1.0	<1.0
<b>General</b>					
Hardness	mg/L	31	30	--	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	Q2 2019 05/16/19 <sup>T</sup>	Q1 2020 01/30/20 <sup>T</sup>	Q2 2020 05/26/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	6.4	1.8	2.4
ORP	mV	--	231	234	256
pH	SU	8.0-9.0	8.5	8.3	8.1
Specific Conductance	µS/cm @ 25°C	--	115	111	97
Temperature	°C	--	7.6	4.7	8.9
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1414.22	1414.76	1414.20
Metals					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	7.2	5.8	6.2	6.8
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	<5.0	--	<5.0
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	119	<50.0	<50.0	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.12	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	<50.0	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	2.9	4.6	3.2
Zinc	ug/L	40	<10.0	<10.0	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	67	57.1	56.4	52.8
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0 e	<1.0	<1.0 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.21	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	10	5.3 e	5.5	5.2
Major Cations					
Calcium	mg/L	16	14.0 e	--	14.4
Magnesium	mg/L	3.9	3.8	--	3.8
Potassium	mg/L	2.0	1.6	--	1.4
Sodium	mg/L	6.1	4.7 e	4.0	4.3
General					
Hardness	mg/L	52	51	--	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	Q2 2019 05/07/19 <sup>T</sup>	Q1 2020 01/29/20 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	7.5	8.5	9.9
ORP	mV	--	79	228	225
pH	SU	7.8-8.8	6.7	6.9	6.9
Specific Conductance	µS/cm @ 25°C	--	423	289	181
Temperature	°C	--	8.3	6.9	9.0
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1383.83	1384.86	1384.56
<b>Metals</b>					
Aluminum	ug/L	200	<50.0	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	12	--	5.8
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	<5.0	<5.0	<5.0
Iron	ug/L	80	228	153	74.5
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20.0	<20
Mercury	ng/L	2.00	2.22	4.44	4.84
Molybdenum	ug/L	40	<10.0	--	<10
Nickel	ug/L	100	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	61.6	--	<50
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	138	158	146	107
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	38.3 e	8.1	1.6 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.57	0.70 e	0.49 e	0.27 e
Sulfate	mg/L	8.0	8.0 e	7.4	4.8
<b>Major Cations</b>					
Calcium	mg/L	35	40.9 e	--	26.6
Magnesium	mg/L	18	11.5	--	8.7
Potassium	mg/L	2.0	2.0	--	1.5
Sodium	mg/L	2.0	28.2 e	19.8	9.2
<b>General</b>					
Hardness	mg/L	162	149	--	102

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	Q2 2019 05/06/19 <sup>T</sup>	Q1 2020 01/29/20 <sup>T</sup>	Q2 2020 05/07/20 <sup>T</sup>
Field					
D.O. <sup>1</sup>	ppm	--	10	11	12
ORP	mV	--	270	107	163
pH	SU	8.1-9.1	7.7	8.0	7.6
Specific Conductance	µS/cm @ 25°C	--	602	438	527
Temperature	°C	--	8.6	9.0	8.5
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1405.87	1405.15	1405.36
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	<2.0
Barium	ug/L	80	38.8	--	38.9
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<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	11.9	16.0	20.1
Iron	ug/L	178	<50	<50	<50
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	<20.0	<20	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20
Strontium	ug/L	200	101	--	105
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10	<10
Major Anions					
Alkalinity, Bicarbonate	mg/L	44	146	112	157
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	22 e	14.7	24 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.31	33.6 e	20.9 e	31.5 e
Sulfate	mg/L	8.0	9.8 e	7.5	10.2
Major Cations					
Calcium	mg/L	12	84.9 e	--	94.9
Magnesium	mg/L	2.0	12.4	--	12.9
Potassium	mg/L	2.0	1.8	--	1.8
Sodium	mg/L	2.0	19.9 e	14.8	15.1
General					
Hardness	mg/L	38	263	--	290

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	Q2 2019 05/06/19 <sup>T</sup>	Q1 2020 01/29/20 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
<b>Field</b>					
D.O. <sup>1</sup>	ppm	--	10.0	11	11
ORP	mV	--	208	94	136
pH	SU	8.4-9.4	8.2	8.2	8.1
Specific Conductance	µS/cm @ 25°C	--	309	337	285
Temperature	°C	--	8.0	6.0	9.0
Turbidity	NTU	--	<1	2.0	<1
Water Elevation	ft MSL	--	1404.85	1403.26	1403.67
<b>Metals</b>					
Aluminum	ug/L	200	376	--	<50
Antimony	ug/L	5.5	<5.0	--	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	27	--	<20
Beryllium	ug/L	2.5	<1.0	--	<1.0
Boron	ug/L	400	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50
Chromium	ug/L	20	384	--	27.6
Cobalt	ug/L	40	<10.0	--	<10
Copper	ug/L	20	11.9	<5.0	<5.0
Iron	ug/L	212	2,080	345	123
Lead	ug/L	4.0	<1.0	--	<1.0
Lithium	ug/L	32	<8.0	--	<8.0
Manganese	ug/L	80	24	<20	<20
Mercury	ng/L	2.00	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	27.2	--	<10
Nickel	ug/L	100	37.3	27.9	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	0.97	--	<0.20
Strontium	ug/L	200	57	--	50.2
Thallium	ug/L	2.0	<1.0	--	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10	<10
<b>Major Anions</b>					
Alkalinity, Bicarbonate	mg/L	39	83.4	93.8	94.6
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0 e	<2.0
Chloride	mg/L	4.0	44.8 e	40.5	46.1 e
Fluoride	mg/L	0.40	<0.10 e	--	<0.10
Nitrogen, Nitrate	mg/L	0.43	0.93 e	0.82 e	0.82 e
Sulfate	mg/L	8.0	7.6 e	8.2	7.5
<b>Major Cations</b>					
Calcium	mg/L	31	38.1 e	--	35
Magnesium	mg/L	5.9	7.3	--	7.2
Potassium	mg/L	2.0	1.7	--	1.4
Sodium	mg/L	3.5	22.3 e	23.3	24.3
<b>General</b>					
Hardness	mg/L	103	125	--	117

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

QAL074A (Septic & WWTP)

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

Parameter	Unit	Benchmark	Q2 2017 05/09/17 <sup>T</sup>	Q2 2018 05/08/18 <sup>T</sup>	Q2 2019 05/07/19 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
<b>Field</b>						
D.O. <sup>1</sup>	ppm	--	10	13	11	11
ORP	mV	--	182	74	185	248
pH	SU	8.3-9.3	8.2	8.4	8.3	8.0
Specific Conductance	µS/cm @ 25°C	--	524	499	479	393
Temperature	°C	--	8.2	9.5	9.0	10
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1371.21	1372.25	1371.85	1372.70
<b>Metals</b>						
Aluminum	ug/L	200	<50	<50.0	<50.0	<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	28	26.6	27.3	30.2
Beryllium	ug/L	2.5	<1.0	<1.0	<1.0	<1.0
Boron	ug/L	400	<100 e	<100	<100	<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	<10.0	<10.0	<10
Copper	ug/L	20	<5.0 e	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	<20.0	<50.0	<50
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	<20.0	<20.0	<20
Mercury	ng/L	2.00	<0.500	<0.50 e	0.620	<0.50
Molybdenum	ug/L	40	<10	<10.0	<10.0	<10
Nickel	ug/L	100	<25	<25.0	<25.0	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	<0.20	<0.20	<0.20
Strontium	ug/L	200	74	74	72.9	92.2
Thallium	ug/L	2.0	<2.0	<2.0	<1.0	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10.0	<10.0	<10
<b>Major Anions</b>						
Alkalinity, Bicarbonate	mg/L	42	56	63	75.1	80.7
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	120 e	110	107 e	102 e
Fluoride	mg/L	0.40	<0.10	<0.10	<0.10 e	<0.10
Nitrogen, Nitrate	mg/L	0.22	1.2 e	1.3	1.4 e	1.3 e
Sulfate	mg/L	8.0	6.7	7.9	10.3 e	8.9
<b>Major Cations</b>						
Calcium	mg/L	11	47	37.8	38.6 e	51.9
Magnesium	mg/L	3.0	9.9	7.1	7.0	9.8
Potassium	mg/L	2.0	2.0 e	1.8	1.9	2.2
Sodium	mg/L	2.0	40 e	46.8	48.4 e	28.4
<b>General</b>						
Hardness	mg/L	40	158	124	125	170

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 2017 05/09/17 <sup>T</sup>	Q2 2018 05/08/18 <sup>T</sup>	Q2 2019 05/07/19 <sup>T</sup>	Q2 2020 05/06/20 <sup>T</sup>
<b>Field</b>						
D.O. <sup>1</sup>	ppm	--	10	12	11	11
ORP	mV	--	210	132	220	265
pH	SU	6.1-7.1	6.5	6.6	6.8	6.5
Specific Conductance	µS/cm @ 25°C	--	217	189	178	116
Temperature	°C	--	8.1	8.6	9.0	8.4
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1381.91	1383.41	1383.74	1384.72
<b>Metals</b>						
Aluminum	ug/L	200	<50	<50	<50.0	72.7
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	<20.0	<20
Beryllium	ug/L	2.5	<1.0	<1.0	<1.0	<1.0
Boron	ug/L	400	<100 e	<100	<100	<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	<10.0	<10
Copper	ug/L	20	<5.0 e	<5.0	<5.0	<5.0
Iron	ug/L	132	<20	41.2	95.3	78.7
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	<20.0	<20
Mercury	ng/L	2.00	<0.500	0.515 e	0.820	<0.50
Molybdenum	ug/L	40	<10	<10	<10.0	<10
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	<0.20	<0.20	<0.20
Strontium	ug/L	200	90	99.2	92.7	68.7
Thallium	ug/L	2.0	<2.0	<2.0	<1.0	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10	<10	<10
<b>Major Anions</b>						
Alkalinity, Bicarbonate	mg/L	44	100	88.2	78.6	52.5
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	20	3.6 e	2.1	3.4 e	3.0 e
Fluoride	mg/L	0.40	<0.10	<0.10	<0.10 e	<0.10
Nitrogen, Nitrate	mg/L	0.60	1.5 e	1.2	1.1 e	0.84 e
Sulfate	mg/L	8.0	9.2	9.0	7.5 e	7.0
<b>Major Cations</b>						
Calcium	mg/L	9.2	32	26.1	27.7 e	19.7
Magnesium	mg/L	2.5	7.1	5.6	5.2	4.0
Potassium	mg/L	2.0	1.4 e	1.3	1.3	1.1
Sodium	mg/L	2.0	3.0 e	2.5	2.4 e	2.6
<b>General</b>						
Hardness	mg/L	33	109	88	91	66

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

QAL073A (NCWIB)