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]	Q4 2017 11/7/17[T]
Field						
D.O.[1]	ppm	--	**0.3**	**0.3**	**0.3**	**1.8**
ORP	mV	--	**-209**	**-232**	**-274**	**6**
pH	SU	7.8-8.8	**7.1**	**6.9**	**7.4**	**7.2**
Specific Conductance	µS/cm @ 25°C	--	**133**	**121**	**114**	**124**
Temperature	°C	--	**5.3**	**8.3**	**7.6**	**7.3**
Turbidity	NTU	--	<1	<1	**1**	<1
Water Elevation	ft MSL	--	**1413.93**	**1415.02**	**1414.33**	**1415.64**
Metals						
Aluminum	ug/L	200	--	<50	--	--
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	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	159	**51** s	**66**	**50.7** e	**48.9** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	**0.611**	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	67	**63** a	**59**	**63.2** a	**65.3**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	**1.0**	<1.0 e	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	**3.9**	**3.6**	**4.0**	**4.6** e
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	**6.8**
General						
Hardness	mg/L	55	--	**46**	--	--

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**10**	**11**	**11**	**10**
ORP	mV	--	**41**	**17**	**135**	**30**
pH	SU	6.1-7.1	**6.3**	**6.5**	**6.3**	**6.3**
Specific Conductance	µS/cm @ 25°C	--	**407**	**325**	**210**	**225**
Temperature	°C	--	**8.0**	**8.4**	**8.3**	**8.0**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1416.76**	**1417.07**	**1417.63**	**1417.73**
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	86	**--**	**36**	**--**	**--**
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	105	<20	**120**	**27.2** e	**42.1** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	24	**45** a	**42**	**42.6** a	**42.2**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	**80**	**68** e	**34.1**	**37.8**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	**1.3** e	**1.1** e	**0.65** e	**0.74** e
Sulfate	mg/L	8.0	**5.8**	**6.3**	**5.1**	**4.7** e
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	**23.9**
General						
Hardness	mg/L	153	--	**64**	--	--

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**11**	**11**	**11**	**11**
ORP	mV	--	**151**	**240**	**72**	**21**
pH	SU	6.4-7.4	**6.9**	**6.6**	**6.9**	**6.7**
Specific Conductance	µS/cm @ 25°C	--	**67**	**58**	**55**	**55**
Temperature	°C	--	**7.6**	**7.5**	**7.8**	**7.5**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1415.71**	**1415.78**	**1416.81**	**1416.50**
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 e	<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	<5.0
Iron	ug/L	126	<20	<20	<20 e	**20** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	25	**29** a	**27**	**27** a	**25.1**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	**1.1**	**1.2** e	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	1.1	**0.62** e	**0.48** e	**0.26** e	**0.34** e
Sulfate	mg/L	8.0	**2.0**	<2.0	**2.2**	**2.1** e
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	**0.92**
General						
Hardness	mg/L	28	**--**	**26**	**--**	**--**

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**11**	**11**	**11**	**11**
ORP	mV	--	**99**	**204**	**5**	**-20**
pH	SU	8.5-9.5	**9.0**	**8.4**	**8.9**	**8.7**
Specific Conductance	µS/cm @ 25°C	--	**65**	**63**	**62**	**67**
Temperature	°C	--	**6.6**	**7.1**	**7.9**	**7.2**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1415.57**	**1415.69**	**1416.69**	**1416.37**
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 e	<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	<5.0
Iron	ug/L	56	**22** s	<20	<20 e	**26** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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**	**1.1**	**1.2**
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	36	**26** a	**31**	**32.4** a	**25.1**
Alkalinity, Carbonate	mg/L	12	**5.9**	**35**	<2.0	**5.0**
Chloride	mg/L	4.0	<1.0	**1.0** e	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.11** e	**0.10** e	**0.11** e	**0.11** e
Sulfate	mg/L	8.0	<2.0	<2.0	**2.2**	**2.0** e
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	**1.7**
General						
Hardness	mg/L	33	--	**28**	--	--

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]	Q4 2017 11/14/17[T]
Field						
D.O.[1]	ppm	--	**5.5**	**5.4**	**5.9**	**5.0**
ORP	mV	--	**90**	**212**	**112**	**-23**
pH	SU	8.2-9.2	**8.7**	**8.3**	**8.3**	**8.4**
Specific Conductance	µS/cm @ 25°C	--	**94**	**94**	**86**	**98**
Temperature	°C	--	**7.1**	**7.1**	**7.4**	**7.1**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1411.56**	**1411.54**	**1412.43**	**1412.57**
Metals						
Aluminum	ug/L	200	--	**77**	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.5	**3.0**	**2.9**	**3.0**	**2.9**
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	137	**41** s	**35**	**56.6** e	**27.3** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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**	**4.0**	**4.0**	**4.1**
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	52	**42** a	**42**	**39.7** a	**44.2**
Alkalinity, Carbonate	mg/L	14	**4.0**	**4.1**	**4.0**	<2.0
Chloride	mg/L	4.0	**1.1**	**1.2** e	**1.1**	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.15** e	**0.16** e	**0.15** e	**0.14** e
Sulfate	mg/L	8.0	**5.2**	**5.0**	**5.0**	**5.6** e
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	**3.6**
General						
Hardness	mg/L	42	**--**	**39**	**--**	**--**

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]	Q4 2017 11/14/17[T]
Field						
D.O.[1]	ppm	--	**13**	i	**10**	**12**
ORP	mV	--	**225**	i	**163**	**113**
pH	SU	6.2-7.2	**6.3**	i	**6.9**	**6.9**
Specific Conductance	µS/cm @ 25°C	--	**166**	i	**127**	**163**
Temperature	°C	--	**6.4**	i	**10**	**7.2**
Turbidity	NTU	--	<1	i	<1	<1
Water Elevation	ft MSL	--	**1415.66**	<1415.4 BP	**1416.32**	**1416.43**
Metals						
Aluminum	ug/L	236	--	i	--	--
Antimony	ug/L	5.5	--	i	--	--
Arsenic	ug/L	6.0	<2.0	i	<2.0	<2.0
Barium	ug/L	80	--	i	--	--
Beryllium	ug/L	2.5	--	i	--	--
Boron	ug/L	400	<100 e	i	<100 e	<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	<5.0
Iron	ug/L	368	**23** s	i	**151** e	**66**
Lead	ug/L	4.0	--	i	--	--
Lithium	ug/L	32	--	i	--	--
Manganese	ug/L	80	<20	i	<20	<20 e
Mercury	ng/L	2.00	<0.500	i	**0.726**	**0.843**
Molybdenum	ug/L	40	--	i	--	--
Nickel	ug/L	100	<25	i	<25	<25
Selenium	ug/L	4.0	<1.0 e	i	<1.0	<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	<1.0
Zinc	ug/L	40	<10 e	i	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	114	**52** a	i	**71.7** a	**72.4**
Alkalinity, Carbonate	mg/L	8.0	**4.0**	i	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	i	**1.2**	<1.0
Fluoride	mg/L	0.40	--	i	--	--
Nitrogen, Nitrate	mg/L	0.73	**0.41** e	i	**1.1** e	**0.89** e
Sulfate	mg/L	8.0	<2.0	i	<2.0	**2.1** e
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	**1.4**
General						
Hardness	mg/L	124	--	i	--	--

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]	Q4 2017 11/14/17[T]
Field						
D.O.[1]	ppm	--	**11**	**11**	**12**	**13**
ORP	mV	--	**162**	**242**	**139**	**80**
pH	SU	8.4-9.4	**9.0**	**8.3**	**8.1**	**8.2**
Specific Conductance	µS/cm @ 25°C	--	**65**	**63**	**59**	**68**
Temperature	°C	--	**6.8**	**7.0**	**7.5**	**7.3**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1408.60**	**1408.54**	**1409.17**	**1409.38**
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 e	<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	<5.0
Iron	ug/L	80	<20	<20	**101** e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	**1.8**	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	31	**31** a	**31**	**25.8** a	**29.5**
Alkalinity, Carbonate	mg/L	8.0	**4.0**	**2.0**	**5.0**	**4.0**
Chloride	mg/L	4.0	<1.0	**1.0** e	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.10** e	**0.091** e	**0.086** e	**0.095** e
Sulfate	mg/L	8.0	<2.0	**2.1**	<2.0	<2.0 e
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	**0.71**
General						
Hardness	mg/L	43	**--**	**31**	**--**	**--**

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**0.1**	**0.2**	**0.2**	**0.1**
ORP	mV	--	**-69**	**-35**	**-242**	**-178**
pH	SU	8.1-9.1	**8.5**	**8.4**	**8.4**	**8.6**
Specific Conductance	µS/cm @ 25°C	--	**120**	**119**	**116**	**123**
Temperature	°C	--	**6.9**	**7.2**	**7.4**	**7.1**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1408.33**	**1408.04**	**1409.16**	**1409.07**
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	7.8	**8.1**	**7.3**	**7.7**	**6.7**
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	80	<20	<20	<20 e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	91	**56** a	**58**	**37.4** a	**54.3**
Alkalinity, Carbonate	mg/L	8.0	<2.0	**60**	<2.0	**4.0**
Chloride	mg/L	4.0	**1.2**	**1.0** e	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.6	**7.3**	**7.2**	**7.7**	**7.8** e
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	**2.0**
General						
Hardness	mg/L	60	**--**	**55**	**--**	**--**

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**1.0**	**0.2**	**0.5**	**1.8**
ORP	mV	--	**-155**	**-311**	**-51**	**-53**
pH	SU	8.3-9.3	**9.7**	**9.6**	**9.2**	**9.9**
Specific Conductance	µS/cm @ 25°C	--	**82**	**82**	**87**	**86**
Temperature	°C	--	**6.8**	**8.0**	**8.2**	**7.7**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1413.68**	**1413.94**	**1414.31**	**1414.79**
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	**2.3**	<2.0	<2.0	**2.1**
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	80	<20	<20	<20 e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	64	**25** a	**17**	**22** a	**5.5**
Alkalinity, Carbonate	mg/L	8.0	**18**	**38**	**12.4**	**20.1**
Chloride	mg/L	4.0	**1.1**	**1.2** e	**1.3**	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	24	**7.0**	**7.0**	**7.3**	**8.7** e
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	**2.2**
General						
Hardness	mg/L	58	**--**	**30**	**--**	**--**

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]	Q4 2017 11/7/17[T]
Field						
D.O.[1]	ppm	--	**11**	**11**	**11**	**12**
ORP	mV	--	**-14**	**-28**	**-3**	**30**
pH	SU	8.1-9.1	**8.9**	**8.8**	**8.7**	**8.9**
Specific Conductance	µS/cm @ 25°C	--	**81**	**75**	**74**	**81**
Temperature	°C	--	**7.2**	**8.0**	**8.1**	**7.7**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1403.91**	**1403.89**	**1404.64**	**1404.67**
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	7.2	**5.1**	**5.3**	**4.0**	**4.4**
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	80	<20	<20	<20 e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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**	**1.1**	**1.1**
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	62	**35** a	**36**	**37.1** a	**39.5**
Alkalinity, Carbonate	mg/L	8.0	**3.9**	**4.1**	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.20** e	**0.18** e	**0.20** e	**0.23** e
Sulfate	mg/L	8.0	<2.0	<2.0	**2.0**	**3.4** e
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	**0.80**
General						
Hardness	mg/L	61	**--**	**35**	**--**	**--**

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]	Q4 2017 11/7/17[T]
Field						
D.O.[1]	ppm	--	**11**	**11**	**11**	**10**
ORP	mV	--	**-19**	**-24**	**-1**	**-54**
pH	SU	8.1-9.1	**8.9**	**8.8**	**8.6**	**8.4**
Specific Conductance	µS/cm @ 25°C	--	**95**	**94**	**102**	**114**
Temperature	°C	--	**7.7**	**7.4**	**7.8**	**7.3**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1405.21**	**1405.19**	**1406.03**	**1406.07**
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 e	<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	<5.0
Iron	ug/L	80	<20	<20	<20 e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	40	**41** a	**48**	**52.5** a	**58.3**
Alkalinity, Carbonate	mg/L	8.0	**3.9**	**2.0**	<2.0	<2.0
Chloride	mg/L	4.0	**1.1**	**1.4** e	<1.0	**1.0**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.27	**0.30** e	**0.30** e	**0.28** e	**0.32** e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0 e
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	**0.85**
General						
Hardness	mg/L	37	--	**49**	--	--

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

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]	Q4 2017 11/7/17[T]
Field						
D.O.[1]	ppm	--	**9.4**	**9.2**	**9.0**	**8.7**
ORP	mV	--	**-21**	**-19**	**-6**	**-45**
pH	SU	8.3-9.3	**8.0**	**7.9**	**7.8**	**7.6**
Specific Conductance	µS/cm @ 25°C	--	**408**	**397**	**401**	**478**
Temperature	°C	--	**7.5**	**7.5**	**7.9**	**7.5**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1406.81**	**1406.50**	**1407.38**	**1407.37**
Metals						
Aluminum	ug/L	200	--	**57**	**--**	**--**
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.0	<2.0	<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	<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	<5.0
Iron	ug/L	80	<20	<20	<20 e	**22.3** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	48	**120** a	**140**	**148** a	**158**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	**48**	**46** e	**45.5**	**55.6**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.41	**0.52** e	**0.57** e	**0.63** e	**0.72** e
Sulfate	mg/L	8.0	**2.2**	**2.1**	**2.3**	**2.3** e
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	**18.6**
General						
Hardness	mg/L	40	--	**162**	--	--

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**9.3**	**9.3**	**9.5**	**8.9**
ORP	mV	--	**-6**	**-26**	**123**	**-35**
pH	SU	8.1-9.1	**7.9**	**7.9**	**7.7**	**7.7**
Specific Conductance	µS/cm @ 25°C	--	**363**	**353**	**388**	**427**
Temperature	°C	--	**7.8**	**8.2**	**8.6**	**8.0**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1400.96**	**1400.59**	**1401.28**	**1401.50**
Metals						
Aluminum	ug/L	200	--	**52**	**--**	**--**
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 e	<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	<5.0
Iron	ug/L	80	<20	<20	<20 e	**20.4** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	42	**130** a	**140**	**146** a	**167**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	**30**	**31** e	**35.7**	**38.3**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.29	**0.60** e	**0.56** e	**0.55** e	**0.59** e
Sulfate	mg/L	8.0	**2.1**	**2.1**	**2.4**	**2.5** e
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	**8.2**
General						
Hardness	mg/L	40	--	**179**	--	--

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**0.2**	**0.2**	**0.2**	**0.1**
ORP	mV	--	**-282**	**-327**	**-300**	**-427**
pH	SU	8.0-9.0	**8.6**	**8.5**	**8.4**	**9.2**
Specific Conductance	µS/cm @ 25°C	--	**157**	**145**	**139**	**149**
Temperature	°C	--	**6.9**	**6.9**	**7.2**	**6.9**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1415.26**	**1415.60**	**1415.73**	**1416.36**
Metals						
Aluminum	ug/L	200	--	**51**	**--**	**--**
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 e	<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	<5.0
Iron	ug/L	80	**38** s	**35**	**36.1** e	**39** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	82	**73** a	**78**	**73.6** a	**77.4**
Alkalinity, Carbonate	mg/L	8.0	<2.0	**60**	**2.1**	<2.0
Chloride	mg/L	4.2	**2.1**	**2.6** e	**2.3**	**2.4**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<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**	--	--
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	**4.1**
General						
Hardness	mg/L	51	--	**64**	--	--

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]	Q4 2017 11/7/17[T]
Field						
D.O.[1]	ppm	--	**0.2**	**0.2**	**0.2**	**0.1**
ORP	mV	--	**-241**	**-274**	**-262**	**-160**
pH	SU	7.9-8.9	**8.6**	**8.6**	**8.2**	**8.5**
Specific Conductance	µS/cm @ 25°C	--	**154**	**146**	**144**	**152**
Temperature	°C	--	**6.6**	**7.3**	**7.7**	**6.9**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1415.57**	**1416.37**	**1415.82**	**1416.53**
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	6.6	**3.0**	**3.5**	**2.7**	**3.2**
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	80	**55**	**53**	**53.6** e	**70.6**
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	86	**77** a	**76**	**81.6** a	**85.9**
Alkalinity, Carbonate	mg/L	8.7	<2.0	**80**	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0	<1.0
Fluoride	mg/L	0.40	**--**	**0.13**	**--**	**--**
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<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**	--	--
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	**9.5**
General						
Hardness	mg/L	53	--	**47**	--	--

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]	Q4 2017 11/6/17[D]
Field						
D.O.[1]	ppm	--	**3.8**	**2.8**	**2.2**	**6.6**
ORP	mV	--	**35**	**116**	**60**	**23**
pH	SU	8.7-9.7	**8.5**	**8.8**	**8.7**	**9.0**
Specific Conductance	µS/cm @ 25°C	--	**138**	**137**	**136**	**141**
Temperature	°C	--	**6.4**	**8.6**	**9.6**	**6.3**
Turbidity	NTU	--	**302**	**110**	**73**	**119**
Water Elevation	ft MSL	--	**1414.60**	**1415.10**	**1415.21**	**1415.65**
Metals						
Aluminum	ug/L	557	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	8.9	**9.1**	**8.2**	**7.4**	**9.4**
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	288	**320**	<20	**171** e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	**2.36**	<0.500	**0.767**	**0.601**
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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**	**1.4**
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	61	**54** a	**66**	**58.7** a	**60.3**
Alkalinity, Carbonate	mg/L	52	**9.8**	**68**	**4.1**	**6.0**
Chloride	mg/L	4.0	**1.2**	**1.3** e	**1.1**	**1.3**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.051** e	**0.057** e	<0.050 e	<0.050 e
Sulfate	mg/L	11	**13**	**11**	**9.3**	**14.3** e
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	**14.8**
General						
Hardness	mg/L	146	--	**41**	--	--

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]	Q4 2017 11/7/17[T]
Field						
D.O.[1]	ppm	--	**8.7**	**8.8**	**8.7**	**8.6**
ORP	mV	--	**5**	**9**	**36**	**9**
pH	SU	5.6-6.6	**6.0**	**6.2**	**6.1**	**6.2**
Specific Conductance	µS/cm @ 25°C	--	**1568**	**1275**	**1032**	**945**
Temperature	°C	--	**7.9**	**8.2**	**8.8**	**8.0**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1413.81**	**1413.57**	**1414.40**	**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	<2.0
Barium	ug/L	80	**--**	**76**	**--**	**--**
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	80	<20	<20	<20 e	**2290**
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	**2.22**	**1.59**	**1.79**	**1.79**
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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**	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	51	**54** a	**50**	**51.5** a	**57.3**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	**410**	**350** e	**285**	**240**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.25	**2.3** e	**2.1** e	**1.8** e	**2.0** e
Sulfate	mg/L	8.4	**19**	**20**	**18.6**	**17.7** e
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	**157**
General						
Hardness	mg/L	26	--	**57**	--	--

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**11**	**11**	**12**	**13**
ORP	mV	--	**248**	**208**	**67**	**128**
pH	SU	6.2-7.2	**6.0**	**6.5**	**6.7**	**6.9**
Specific Conductance	µS/cm @ 25°C	--	**38**	**37**	**29**	**33**
Temperature	°C	--	**7.5**	**7.8**	**7.7**	**7.4**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1421.43**	**1420.76**	**1422.20**	**1422.02**
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 e	<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	<5.0
Iron	ug/L	80	<20	<20	<20 e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	35	**19** a	**20**	**14.3**	**15.6**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 e	<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	**--**	**4.9**	**--**	**--**
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	**0.69**
General						
Hardness	mg/L	21	**--**	**16**	**--**	**--**

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**11**	**11**	**11**	**12**
ORP	mV	--	**210**	**148**	**5**	**56**
pH	SU	8.4-9.4	**8.5**	**8.7**	**8.9**	**9.1**
Specific Conductance	µS/cm @ 25°C	--	**62**	**61**	**59**	**63**
Temperature	°C	--	**7.3**	**7.6**	**8.1**	**7.1**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1412.61**	**1412.20**	**1413.48**	**1413.44**
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 e	<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	<5.0
Iron	ug/L	184	<20	<20	<20 e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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**	**1.0**	**1.0**
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	30	**25** a	**25**	**26** a	**30.9**
Alkalinity, Carbonate	mg/L	9.9	**6.0**	**31**	**3.1**	<2.0
Chloride	mg/L	4.0	**1.1**	**1.1** e	<1.0	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.057** e	**0.052** e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	**2.3**	**2.2**	**2.4**	**2.3** e
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	**0.91**
General						
Hardness	mg/L	31	--	**29**	--	--

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**3.5**	**1.0**	**3.5**	**2.3**
ORP	mV	--	**68**	**52**	**73**	**24**
pH	SU	8.0-9.0	**8.1**	**8.5**	**8.2**	**8.2**
Specific Conductance	µS/cm @ 25°C	--	**118**	**116**	**120**	**123**
Temperature	°C	--	**6.1**	**8.6**	**11.3**	**7.4**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1412.56**	**1412.43**	**1413.51**	**1413.49**
Metals						
Aluminum	ug/L	200	--	<50	--	--
Antimony	ug/L	5.5	--	<5.0	--	--
Arsenic	ug/L	7.2	**5.2**	**4.4**	**5.4**	**4.8**
Barium	ug/L	80	--	<20	--	--
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	119	**22** s	**32**	<20 e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.12	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	**2.6**	**2.5**	**2.4**	**2.0**
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	67	**60** a	**59**	**58.1** a	**68.3**
Alkalinity, Carbonate	mg/L	8.0	<2.0	**60**	<2.0	<2.0
Chloride	mg/L	4.0	**1.2**	**1.1** e	**1.0**	<1.0
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.21	<0.050 e	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	10	**5.1**	**4.9**	**5.6**	**5.5** e
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	**4.7**
General						
Hardness	mg/L	52	--	**52**	--	--

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]	Q4 2017 11/6/17[T]
Field						
D.O.[1]	ppm	--	**5.5**	**5.8**	**4.6**	**5.6**
ORP	mV	--	**83**	**136**	**126**	**-20**
pH	SU	7.8-8.8	**6.8**	**7.0**	**6.4**	**6.8**
Specific Conductance	µS/cm @ 25°C	--	**408**	**411**	**863**	**1181**
Temperature	°C	--	**7.8**	**10**	**11**	**8.2**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1382.12**	**1381.89**	**1382.61**	**1383.07**
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 e	<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	<5.0
Iron	ug/L	80	**82**	**30**	<20 e	**42.2** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	**4.53**	**14.2**	**4.91**	**7.65**
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	138	**160** a	**190**	**180** a	**147**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	**32**	**22** e	**164**	**277**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.57	**0.90** e	**1.0** e	**0.74** e	**0.76** e
Sulfate	mg/L	8.0	**7.5**	**8.7**	**7.6**	**10.8** e
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	**99.3**
General						
Hardness	mg/L	162	**--**	**168**	**--**	**--**

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

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]	Q4 2017 11/7/17[T]
Field						
D.O.[1]	ppm	--	**11**	**11**	**11**	**11**
ORP	mV	--	**144**	**-15**	**88**	**41**
pH	SU	8.1-9.1	**7.4**	**7.8**	**7.7**	**8.0**
Specific Conductance	µS/cm @ 25°C	--	**557**	**622**	**531**	**583**
Temperature	°C	--	**7.7**	**8.1**	**8.7**	**8.0**
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	**1405.22**	**1405.33**	**1405.89**	**1406.30**
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	**--**	**39**	**--**	**--**
Beryllium	ug/L	2.5	--	<1.0	--	--
Boron	ug/L	400	<100 e	<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	<5.0
Iron	ug/L	178	<20	<20	<20 e	<20
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	<0.500	<0.500	<0.500
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<1.0	<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	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	44	**130** a	**130**	**153** a	**147**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0	<2.0
Chloride	mg/L	4.0	**24**	**27** e	**22.4**	**23.2**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.31	**27** e	**38** e	<0.050 e	**31.3** e
Sulfate	mg/L	8.0	**6.2**	**5.7**	**7.4**	**8.6** e
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	**17.3**
General						
Hardness	mg/L	38	--	**272**	--	--

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]	Q4 2017 11/7/17[T]
Field						
D.O.[1]	ppm	--	**12**	**10**	**10**	**13**
ORP	mV	--	**-29**	**146**	**105**	**35**
pH	SU	8.4-9.4	**8.5**	**8.5**	**8.4**	**8.6**
Specific Conductance	µS/cm @ 25°C	--	**307**	**263**	**269**	**272**
Temperature	°C	--	**0.6**	**9.0**	**13**	**4.4**
Turbidity	NTU	--	**2**	<1	<1	<1
Water Elevation	ft MSL	--	**1404.10**	**1404.52**	**1405.17**	**1405.41**
Metals						
Aluminum	ug/L	200	--	**60**	**--**	**--**
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 e	<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	<5.0
Iron	ug/L	212	**80**	**72**	**20.4** e	**57.1** s
Lead	ug/L	4.0	--	<1.0	--	--
Lithium	ug/L	32	--	<8.0	--	--
Manganese	ug/L	80	<20	<20	<20	<20 e
Mercury	ng/L	2.00	<0.500	**0.888**	**0.770**	**1.14**
Molybdenum	ug/L	40	--	<10	--	--
Nickel	ug/L	100	<25	<25	<25	<25
Selenium	ug/L	4.0	<1.0 e	<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	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10 e	<10	<10
Major Anions						
Alkalinity, Bicarbonate	mg/L	39	**53** a	**57**	**65.3** a	**69.3**
Alkalinity, Carbonate	mg/L	8.0	<2.0	**60**	<2.0	<2.0
Chloride	mg/L	4.0	**48**	**51** e	**49.5**	**43.3**
Fluoride	mg/L	0.40	--	<0.10	--	--
Nitrogen, Nitrate	mg/L	0.43	**1.1** e	**1.1** e	**0.94** e	**0.96** e
Sulfate	mg/L	8.0	**6.9**	**6.8**	**7.8**	**7.8** e
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	**13.5**
General						
Hardness	mg/L	103	**--**	**104**	**--**	**--**

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

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