

Table 3. Compositions of five extremely acid mine water samples from the Richmond Mine

Element	Concentration of element in sample, mg/liter				
	90WA103 34.8°C pH 0.48	90WA109 38° C pH -0.7	90WA110A 42°C pH -2.5	90WA110C 46° C pH -3.6	91WA111 28°C —
Aluminum	2,210	6,680	1,420	—	6,470
Antimony	4.0	16	29	—	15
Arsenic(III)	8.14	38	32	—	74
Arsenic (total)	56.4	154	340	—	850
Barium	0.068	0.1	0.2	—	<0.1
Beryllium	0.026	0.1	0.2	—	<0.1
Boron	1.5	2.5	17	—	—
Cadmium	15.9	48.3	211	—	370
Calcium	183	330	279	—	443
Chromium	0.12	0.75	0.6	—	2.6
Cobalt	1.3	15.5	5.3	—	3.6
Copper	290	2,340	4,760	—	9,800
Iron(II)	18,100	79,700	34,500	9,790	—
Iron (total)	20,300	86,200	111,000	16,300	68,100
Lead	3.6	3.8	11.9	—	8.3
Magnesium	821	1,450	437	—	2,560
Manganese	17.1	42	23	—	119
Molybdenum	0.59	1.0	4.2	—	2.3
Nickel	0.66	2.9	3.7	—	6.3
Potassium	261	1,170	194	—	11.1
Selenium	0.42	2.1	4.2	—	<2.8
Silicon (as SiO ₂)	170	34	35	—	—
Silver	0.16	0.65	2.4	—	0.70

Sodium	251	939	416	—	44
Strontium	0.25	0.49	0.90	—	—
Sulfur (as SO ₄)	118,000	360,000	760,000	—	—
Thallium	0.44	0.15	0.39	—	1.6
Tin	1.6	15	41	—	—
Titanium	5.9	125	1.0	—	—
Vanadium	2.9	11	15	—	28
Zinc	2,010	7,650	23,500		49,300
Associated mineral(s)		Melanterite	Rhomboclase, römerite	Rhomboclase	

A dash indicates no determination was made.