



Appendix E.1

Sediment Baseline Analytical Results as
Completed for the Updated 2021 Beaver Dam Mine EIS

Table 1: Metals

Sampling Location	Units	CCME ISQG	CCME PEL	21-Jul-16								
				SED1	SED2	SED3	SED4	SED5	SED6	SED7	SED8	SED9
Total Aluminum (Al)	mg/kg			15000	8800	18000	20000	22000	18000	18000	2600	12000
Total Antimony (Sb)	mg/kg			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Arsenic (As)	mg/kg	5.9	17	78	110	73	58	41	400	300	<2.0	5.1
Total Barium (Ba)	mg/kg			69.0	24.0	32.0	28.0	61.0	29.0	32.0	7.5	36.0
Total Beryllium (Be)	mg/kg			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Bismuth (Bi)	mg/kg			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Boron (B)	mg/kg			<50	<50	<50	<50	<50	<50	<50	<50	<50
Total Cadmium (Cd)	mg/kg	0.6	3.5	<0.30	<0.30	<0.30	<0.30	1.8	<0.30	<0.30	<0.30	<0.30
Total Chromium (Cr)	mg/kg	37.3	90	23	12	26	25	23	23	25	4.7	16
Total Cobalt (Co)	mg/kg			7	3.1	8	18	6.2	17	15	<1.0	2.9
Total Copper (Cu)	mg/kg	35.7	197	12	4.5	6.6	15	56	9.2	14	2.2	8.7
Total Iron (Fe)	mg/kg			28000	11000	34000	35000	12000	36000	28000	2400	6300
Total Lead (Pb)	mg/kg	35	91.3	7.8	7.2	13	23	12	26	9.6	13.00	24
Lithium	mg/kg			40	18	28	37	34	23	40	<2.0	12
Total Manganese (Mn)	mg/kg			420	200	420	1000	200	670	690	40	160
Total Mercury (Hg)	mg/kg	0.17	0.486	0.014	0.027	0.31	0.1	0.077	0.04	0.015	0.088	0.13
Total Molybdenum (Mo)	mg/kg			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Nickel (Ni)	mg/kg			16	8.8	15	16	30.0	12	19	2.5	6.5
Rubidium	mg/kg			12	6.0	16.0	8.1	6.3	11	15	3	9
Total Selenium (Se)	mg/kg			<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	<1.0	1.7
Total Silver (Ag)	mg/kg			<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Total Strontium (Sr)	mg/kg			5.9	8.2	<5.0	6.5	21.0	<5.0	6.7	<5.0	7.7
Total Thallium (Tl)	mg/kg			<0.10	<0.10	0.14	0.21	0.14	0.18	0.12	<0.10	0.18
Total Tin (Sn)	mg/kg			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Uranium (U)	mg/kg			0.77	0.43	0.44	0.66	3.4	0.61	0.69	0.32	1.2
Total Vanadium (V)	mg/kg			24	12	35	31	22	42	27	3.5	17
Total Zinc (Zn)	mg/kg	123	315	49.0	29.0	55.0	63.0	89	54.0	53.0	<5.0	21

Notes

CCME ISQG - Canadian Council of Ministers of the Environment, Interim Sediment Quality Guidelines

CCME PEL - Canadian Council of Ministers of the Environment, Probable Effects Level