

Table G1
 Waste rock COPC loading rates to deep groundwater flowpaths, 10% shallow flow.

Tailings Area	Sulphate kg/a	Arsenic kg/a	Cadmium kg/a	Lead kg/a	Uranium kg/a	Radium-226 MBq/a
Gunnar Main Tailings (Langley Bay)	4,346	2.71	0.062	4.95	208	648
Gunnar Main Tailings (Catchment 3)	1,890	1.18	0.027	2.15	90.5	282
Gunnar Main Tailings (St. Mary's Channel)	283	0.18	0.004	0.32	13.6	42.3
Gunnar Central Tailings (Langley Bay)	1,024	0.64	0.015	1.17	77.3	153
Beaver Pond (Langley Bay)	931	0.58	0.013	1.06	18.3	139

Table G2
 Waste rock COPC loading rates to shallow groundwater flowpaths, 10 % shallow flow.

Tailings Area	Sulphate kg/a	Arsenic kg/a	Cadmium kg/a	Lead kg/a	Uranium kg/a	Radium-226 MBq/a
Gunnar Main Tailings (Langley Bay)	483	0.30	0.007	0.55	23.1	72.0
Gunnar Main Tailings (Catchment 3)	210	0.13	0.003	0.24	10.1	31.3
Gunnar Main Tailings (St. Mary's Channel)	31.5	0.02	0.001	0.04	1.51	4.70
Gunnar Central Tailings (Langley Bay)	114	0.07	0.002	0.13	8.59	17.0
Beaver Pond (Langley Bay)	103	0.06	0.001	0.12	2.04	15.4

Table G3

Waste rock COPC loading rates to deep groundwater flowpaths, 25 % shallow flow.

Tailings Area	Sulphate kg/a	Arsenic kg/a	Cadmium kg/a	Lead kg/a	Uranium kg/a	Radium-226 MBq/a
Gunnar Main Tailings (Langley Bay)	3,622	2.26	0.052	4.13	173	540
Gunnar Main Tailings (Catchment 3)	1,575	0.98	0.023	1.80	75.4	235
Gunnar Main Tailings (St. Mary's Channel)	236	0.15	0.003	0.27	11.3	35.2
Gunnar Central Tailings (Langley Bay)	854	0.53	0.012	0.97	64.4	127
Beaver Pond (Langley Bay)	776	0.48	0.011	0.88	15.3	116

Table G4

Waste rock COPC loading rates to shallow groundwater flowpaths, 25 % shallow flow.

Tailings Area	Sulphate kg/a	Arsenic kg/a	Cadmium kg/a	Lead kg/a	Uranium kg/a	Radium-226 MBq/a
Gunnar Main Tailings (Langley Bay)	1,207	0.75	0.017	1.38	57.8	180
Gunnar Main Tailings (Catchment 3)	525	0.33	0.008	0.60	25.1	78.3
Gunnar Main Tailings (St. Mary's Channel)	78.7	0.05	0.001	0.09	3.77	11.7
Gunnar Central Tailings (Langley Bay)	285	0.18	0.004	0.32	21.5	42.4
Beaver Pond (Langley Bay)	259	0.16	0.004	0.29	5.09	38.6

The total COPC loading rates reporting to Langley Bay from the shallow groundwater flow paths for each sensitivity analyses are summarized in Table G5 and Table G6.

Table G5

Total COPC loading rates reporting to Langley Bay associated with shallow groundwater, assuming 10 % shallow flow.

Loadings Source	Sulphate kg/a	Arsenic kg/a	Cadmium kg/a	Lead kg/a	Uranium kg/a	Radium-226 MBq/a
Waste Rock Leaching	700	0.64	0.14	0.69	33.8	104
Tailings Leaching	19,047	0.44	0.01	0.80	2.82	273
Submerged Langley Bay Tailings	-	-	-	-	3.94	10,151
Total	19,747	1.08	0.15	1.48	40.5	10,528

Table G6

Total COPC loading rates reporting to Langley Bay associated with shallow groundwater, assuming 25 % shallow flow.

Loadings Source	Sulphate kg/a	Arsenic kg/a	Cadmium kg/a	Lead kg/a	Uranium kg/a	Radium-226 MBq/a
Waste Rock Leaching	1,751	1.61	0.34	1.72	84.4	261
Tailings Leaching	47,617	1.09	0.03	2.00	7.05	683
Submerged Langley Bay Tailings	-	-	-	-	3.94	10,151
Total	49,368	2.70	0.37	3.72	95.4	11,095