

Table 1: ECOLOGICAL CONTAMINANT OF CONCERN SUPPLEMENTAL SCREENING- FISH AND FISH HABITAT						
Contaminant of Concern (COC)	Concentration (µg/g)				MOECC Table 2 Component Value (µg/g)	
	Waste Rock	Tailings	Baseline Soil	Maximum Concentration	Soil Leaching S-GW3	S3
Aluminum	38,665	5,000	18,552	38,665	NC	NV
Antimony	-	11	-	11	NC	63
Arsenic	92.25	46	2.9	92.25	NC	47
Cadmium	22.60	5.3	1.4	22.60	NC	7.9
Chromium (total)	116.30	9.6	48	116.30	NC	240,000
Cobalt	338	11	9.9	338	NC	2,500
Copper	190.85	81	20	191	NC	5,600
Iron	45,270	19,000	23,674	45,270	NC	NV
Lead*	2362.85	870	8.1	2,363	NC	1,000
Mercury	0.62	0.62	0.11	0.62	1.1 x 10 ¹⁴	670
Nickel	69.68	14	27	69.7	NC	510
Zinc	9,414.9	2,000	56	9,415	NC	47,000

NOTES:

- COC Contaminants of Concern (COC) selected based on exceedance of CCME or "OMOE" criteria as shown in Tables 1 and 2 of Appendix W. Note, "OMOE" is more correctly referred to as MOECC.
 - MOECC Table 2 Component Values Soil Components for Table 2- Full Depth, Potable Water Scenario, coarse textured soil and residential land use
 - NC Not calculated- The MOECC does not provide calculations for inorganics leaching from soil to surface water as this pathway is considered too site-specific. The unmodified S3 value may be used as an upper bound for screening (MOECC 2016).
 - NV No Value- insufficient toxicity and/or contaminant transport data to support pathway evaluation. Qualitative discussion only
 - No value modelled
 - * New lead components are in the process of derivation as a new interpretation of lead toxicity has been accepted by the scientific community suggested that lead now be interpreted as a non-threshold substance as per Wilson and Richardson 2016. In the interim 120 µg/g is suggested.
 - S-GW3 Soil leaching to groundwater and surface water. A partitioning model and vertical migration model is coupled with the MOECC GW3 model to produce soil values that are protective surface water quality and of aquatic life. This is done using the Aquatic Protection Values provided by the MOECC as discussed in Section 3 of the Rationale for the Development of Soil and Groundwater Standards for Use at Contaminated sites in Ontario document (MOECC 2011)
 - S3 In the case of metals, the Rationale Document does not provide component criteria specific for the protection of soil leaching to surface water. The unmodified S3 value provides an upper bound. If the S3 pathway is to be modified, assurance is needed that the groundwater will be protected from contamination by these inorganic contaminant(s) of concern.
- BOLD** Exceeds MOECC Component Criteria (without risk management). Follow-Up monitoring is recommended.