

1.0 ESTIMATED GROUNDWATER INFLOW INTO THE MINE EXCAVATION

The permeability values obtained from the 1987-1988 field investigations, and permeability data obtained in 1973 by STS Consultants, Ltd., were used to estimate groundwater flow into the pit that could be expected in the final excavation based on the mine phasing plan contained in the report titled *Mining Feasibility Study of the Flambeau Deposit* prepared by Pincock, Allen & Holt, Inc. Methodology and results are discussed below.

1.1 Methodology

The following steps were taken to calculate groundwater inflow into the mine excavation.

1.1.1 Development of Panoramic Cross Section

A panoramic geologic cross-section (Figure No. 4.3-A1) was constructed using information provided by available soil boring logs (i.e., Foth & Van Dyke and STS). The geologic cross-section provides an approximation of the stratigraphy along the outside of the mine excavation. Actual boring locations are shown on Drawing No. 1.

1.1.2 Development of Flow Sectors

The water table elevations shown on Figure No. 4.3-A1 are typical for a section located 200 feet outside of the mine excavation. The pit area beneath the estimated water table was divided into flow sectors. The extent of each flow sector was dependent on mine geometry and hydrogeologic characteristics. These flow sectors are indicated on Figure No. 4.3-A1 and numbered 1 through 17.

Excerpt from: Foth & Van Dyke, 1989. Environmental Impact Report for the Kennecott Flambeau Project, Volume 6, Appendix 4.3-A, p. 4.3-A-1 at: <http://digital.library.wisc.edu/1711.dl/EcoNatRes.EnvrImpRepV6>