ANVIL DISTRICT STRATIGRAPHY

The stratigraphic sequence of Anvil District ranges in age from latest Precambrian to Permian. The Devonian and younger rocks are not related to the ore deposits in the District and consequently are not discussed further. The three older units either host the ore deposits or bear a possible relationship to the ore.

The Mount Mye formation consists dominantly of noncalcareous metapelites. Carbonaceous metapelites, calcitic marbles, calc-silicates, and greenstones occur in lesser amounts throughout. Lithologic correlation of these units would imply the top of the formation is lower Cambrian or possibly middle Cambrian and extends downward into Hadrynian.

The Vangorda formation consists of thinly interbanded noncalcareous metapelites and calcareous to dolomitic quartzose siltstones. At higher metamorphic grades this unit becomes a discontinuously banded calc-silicate unit. Major interbanded units include greenstone, carbonaceous pelite, and argillaceous marble. Greenstones are thickest and most abundant near the top of the formation; they appear to be derived dominantly from intrusive bodies. The thickest and most extensive of the carbonaceous pelites occurs at the base of the formation. The carbonaceous pelites show thickness variations spatially related to the ore deposits. The Vangorda formation is lithologically correlated with the Cambrian-Ordovician Rabbitkettle Formation.

The Menzie Creek formation is a unit of basaltic metavolcanic rocks consisting of pillowed and massive flows with comparable amounts of massive, monolithic breccias and lesser tuffs. Middle Ordovician or early Silurian ages from fossils in carbonaceous phyllites overlying the volcanics suggest correlation of the Menzie Creek formation with Road River Group. Greenstones in the Vangorda formation may be subvolcanic feeders for the Menzie Creek basalts.

The ore deposits of the Anvil District are stratiform and confined to a 150 metre thick interval straddling the contact of the Mount Mye and Vangorda formations. This stratigraphic position indicates the mineralization is Cambrian in age. The deposits consist of one to five sheets of sulphide mineralization with interbanded metasedimentary rocks.