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REPORT ON THE BLACK HORN MINE

PROPERTY EXAMINATION

The Black Horn mine was examined briefly June 14, 1983 by P. Holbek and A. Chevalier. The mine is located approximately 14 Km south of Bluff Lake which has a helicopter base (White Saddle Air Services) and is connected by road to Williams Lake. At 7400' elevation the mine is on a precipitous south easterly slope of Black Horn Mountain.

The geology of the area consists of a series of volcanics, volcanoclastics and sediments, of probably Triassic age, that have been caught up in and metamorphosed by a group of epizonal Cretaceous intrusions. Numerous phases of intrusives cut through the roof pendant as dykes and sills.

The actual mine consists of a westerly trending adit which intersects a north-south quartz vein dipping steeply to the west. The north end of the vein is cut off by an east-west fault. The vein has been drifted on for approximately 100 m, the greatest thickness is 1.6 m but this shrinks to .20 m at the south end for an average thickness of ≈ 0.80 m. I estimated the maximum tonnage of this structure to be $\leq 28,000$ tonnes.

Mineralization consists of white to orange quartz with pyrite, arsenopyrite, galena, sphalerite, chalcopyrite and gold. Total sulphide content of the vein runs between 5 and 30%. Minor sericite and carbonate alteration occurs adjacent to the vein.

EXPLORATION POTENTIAL

The mine itself is of too limited tonnage to be of much interest, however numerous other veins of similar proportions occur in the vicinity. Most of these are located on cliff faces and grades are unknown. It would appear that the veins formed shallow sigmoids in response to simple shear during intrusion and are limited in all directions, most being less than 15,000 tonnes.

Any mining would have to be conducted via tramline to the valley bottom 500 m below. Drilling would be quite problematical.

If physiographic problems can be overcome then the area would be of considerable potential, although it would require a small program for evaluation. Of fundamental importance is determining the metal source. If it is related to the intrusives then potential for a Bralorne type situation exists. On the other hand if the metals are related to the host meta-volcanics then any mine in the area is destined to be a small operation.

Peter Holbek

June 27, 1983.