

ATLAS EXPLORATIONS LIMITED

(N.P.L.)

BOX 3050

WHITEHORSE, YUKON TERRITORY

013400

Geology: Old Gold Area.

Rock Types:

The rocks of the Old Gold area are predominantly grey, thin-bedded phyllites which are locally graphitic. The phyllites are interbedded with greywakes, argillites, slates, and rarely with massive argillaceous limestones. These rock types are the product of synkinematic metamorphism of a sedimentary sequence of slates and clays with lesser amounts of argillaceous sandstones and very few calcareous formations. The clays were locally carboniferous.

Structures:

These rocks strike north-west and are predominantly south dipping. Regional folding has produced some north dipping strata. Faulting in the area would seem to be considerably less pronounced than indicated by the air photo interpretation. According to air photo interpretation nearly every stream in the area represents a fault. Evidence for this is lacking and in fact much of the structural control on streams, etc. is due to the strike of the bedding. The streams which are not controlled by bedding would appear to represent an earlier drainage pattern which has been superimposed on this area.

Mineralization:

Because the predominant structural dip is away from the plutonic intrusion to the north, and very little faulting is indicated, the area would appear unfavorable to extensive mineralization. The rock types encountered are not those typically thought of as conducive of mineralization. They are neither porous nor permeable. None of the rocks encountered in the area would appear favourable to replacement. The steeply dipping nearly homoclinal strata offer little in the way of ore traps.

At least some of the E.M. anomalies within the area would appear to be due to graphitic phyllites. Some of the magnetometer anomalies may be due to pyrotite which has been found in some of the strata.

In the area of the third grid (D) which is presently under study an area of several hundred square feet has been intruded by quartz and calcite veins. The quartz appears

ATLAS EXPLORATIONS LIMITED

(N.P.L.)

BOX 3050

WHITEHORSE, YUKON TERRITORY

to be predominantly barren, but does contain scattered mineralization of calcopyrite. On lines 56 W and 60 W an anomaly on the E. M. was obtained to the south. This covers an area of quartz intrusion approximately 500' in width. Within the quartz, blocks of float containing calcopyrite were found which seemed to indicate a vein of two or three feet in width. Through~~out~~ the rest of the quartz, mineralization would appear to be sparse or absent. With the E. M. equipment, resultant dips of -20 and a ratio of $.2$ were obtained for the anomaly covering this area. It would seem that the mineralization indicated here is quite limited and probably similar to that found by Newmont. A second smaller anomaly was located on 56 W to the North. Some sparse mineralization was found here also in several blast holes put in, apparently, about 1956.

This summarizes the exploration in the Old Gold Area to date.

J. Stanford