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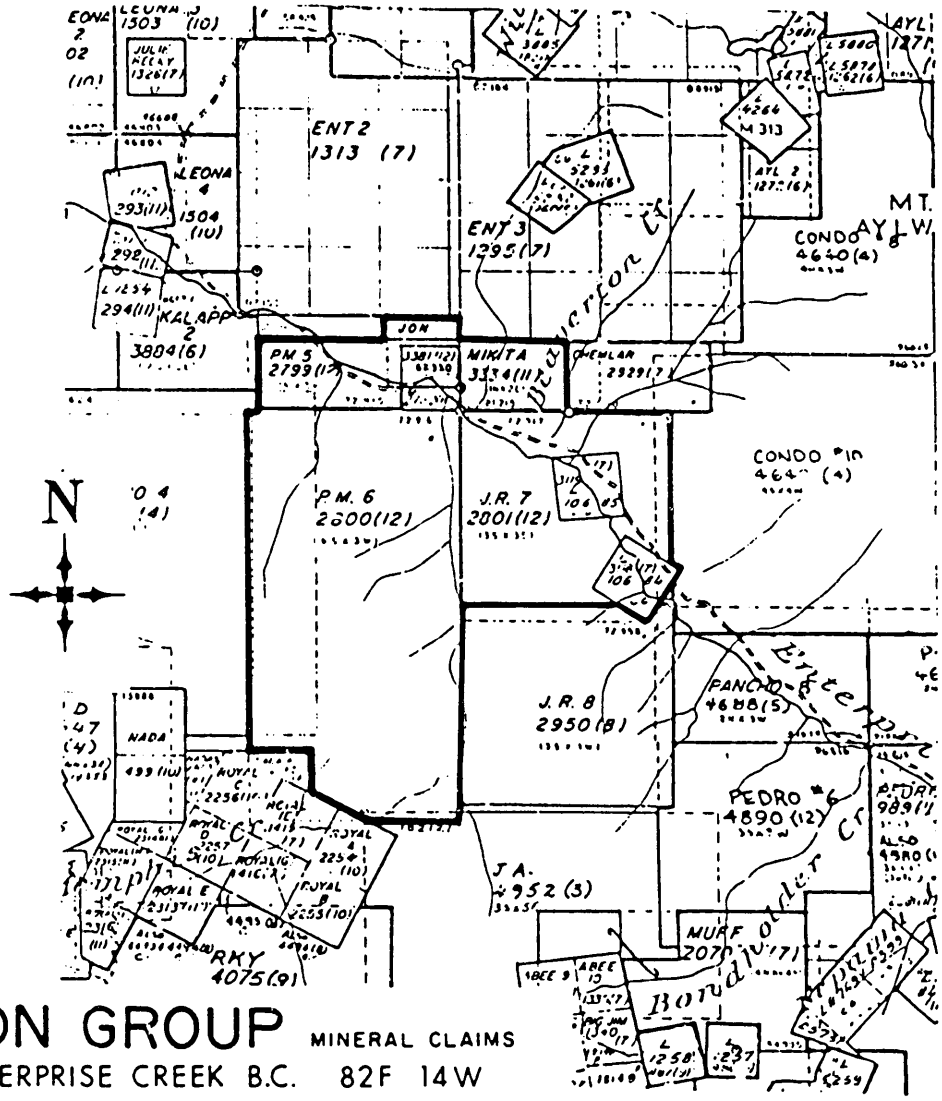
CLAIM MAP



JON GROUP MINERAL CLAIMS

ENTERPRISE CREEK B.C. 82F 14W

SLOCAN MINING DIVISION

0 500 1000 1500

METRES

FOR

PETE LEONTOWICZ & ROBERT MURPHY

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

TO ACCOMPANY JUNE 1986 REPORT BY

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GEOLOGIC SETTING

The Jon et al. claims are located near the wetern margin of the late Jurassic Nelson batholith. Lying within or upon the batholith are large pendants or inliers of older metasedimentary and/or metavolcanic rocks which belong to the Slocan Group of Triassic or lower Jurassic age (Little, 1960), or as some recent investigators believe, the Jurassic Rossland Group (Warner, 1986). Approximately 2 km to the west of the claims, the major north/south trending, eastward dipping Slocan Lake dctachment fault separates metamorphic rocks of the Valhala Gneiss Dome from the Nelson batholith (Parrish, 1985).

LOCAL GEOLOGY

A geology plan map is included in the pocket of this report. The Enterprise Creek Road and numerous exploration roads and dozer cuts in the drill area were mapped by chain and compass.

The oldest rocks of the map area are metavolcanic and/or metasedimentary rocks which probably are correlative to early Jurassic Rossland Group. In the southwestern part of the map area these rocks are clearly bedded, with individual layers from 0.1 to 0.5 m thick. They are generally dark, fine-grained, and weakly calcareous. Trend of bedding is northeast with gentle to moderate dips to the northwest. Elsewhere on the property bedding is less apparent and the rock is more massive or exhibits flow breccia fragmentation. Clasts are rounded and the matrix is of similar appearance, possibly of pyroclastic origin.

Dark, fine-grained, massive basalt is exposed in outcrops along the main road cut 60 m west of DDH-1 and -2. It is weakly calcareous, moderately magnetic, and does not contain appreciable sulphides. It is tentatively assigned to the Rossland Group but its lack of sulphides and skarn mineralization, and its restricted areal extent may indicate a younger age. Also of questionable assignment is a mafic augite dyke (?) in the south-central limit of the map area. North of the Jon claim group in the Rockland Mine area of BP/Northair the Rossland Group is typified by the presence of augite porphyry. Perhaps the exposure in the south near Enterprise Creek is related to Rossland Group volcanics.

Medium- to coarse-grained granodiorite and granodiorite porphyry of the late Jurassic Nelson batholith are common in the map area. The rock is generally unaltered; weak chloritic alteration of the mafic minerals may have occurred locally. Commonly, large feldspar phenocrysts are present. Pegmatitic zones and fine-grained dioritic phases were also seen.

Contacts of the granodiorite with the Rossland Group are generally sharp, although often large blocks or inclusions of the latter can be found within the granodiorite, especially near the margins. Continuity of the intrusive contact is difficult to establish between outcrop areas. For example, the bottom of DDH-1 encountered granodiorite similar to outcrops 25 m west of the collar. A near vertical northeast-trending contact is implied, but outcrops on the steep hillside are sporadic.

Dykes of white or light tan, quartz-feldspar or aplite are present in the map area. They generally have a northeast trend with variable dips to the northwest. They have less than 1% disseminated pyrite and less than 10% chlorite (possibly as alteration of mafic minerals).

Dark, fine-grained dykes (lamprophyre) are also present on the property. They are generally unaltered except where they have been cut by faulting such as in the southeast corner of the map area where abundant chlorite and clay are present. Elsewhere, such as along the Enterprise Creek Road on the east edge of the map area, unaltered biotite phenocrysts are present in a dark, fine-grained matrix.

Only a small part of the Enterprise Creek valley has been mapped as part of this report. Therefore the areal extent and continuity of the Rossland Group can only be speculated. Besides the outcrops in the drill area, metasediments and/or metavolcanics were also seen in the Beaverton Creek area and at the Florence-Ida (?) adit on the south side of Enterprise Creek, all of which are in the eastern part of the claim group. Attitude of black, fine-grained metasediments in the next drainage to the east of Beaverton Creek appeared to be N35°W 60°W. Crosscutting quartz-dolomite veins contained 2-3% disseminated pyrite.

Evidence of a major fault zone was seen in a dozer cut 10 m northwest of DDH-3. Abundant clay gouge, lesser chlorite and several calcite or dolomite veins were present in very soft, wet and broken ground. A trend of N45°W 72°S was obtained from some of

the clay-smeared surfaces. Core from DDH-3 also shows numerous zones of intense shattering with abundant clay gouge. Near Enterprise Creek, 40 m south of DDH-3 a 1.5 m wide fault zone contains abundant chlorite. The northerly trend of this zone may have been encountered in DDH-3.

If outcrop pattern of metavolcanics containing skarn minerals or high pyrite/pyrrhotite content are considered, a crude northwest trend is apparent. Barren granodiorite porphyry in the southeast (near the creek), DDH-3, and barren granodiorite north of DDH-1 and -2 may form the eastern margin of the sulphide-bearing skarn zone.

ALTERATION AND MINERALIZATION

The metavolcanics and metasedimentary rocks of the Rossland Group appear to be hornfelse. The rock is generally very fine-grained and composed of pink to light brown biotite and feldspar (?). Calcite as crystals and veinlets is common. The rock contains approximately 5% pervasive disseminated pyrite and lesser pyrrhotite and magnetite. Skarn minerals have developed in some areas but their continuity and distribution can only be speculated. Garnet, epidote, chlorite, calcite and pyrite are concentrated in the skarn areas.

Locally, pyrite and pyrrhotite concentrations increase to 15-20%. This is particularly evident along the south exploration road near the creek, in the vicinity of DDH 86 1 and 86-2, and 85 m west of the collars of holes -1 and -2. Calc-silicate mineralization also increases in these areas.

DIAMOND DRILL PROGRAMME

Location of the three diamond drill holes cored between June 22 and 26, 1986, are shown on the accompanying geology map in the pocket of this report. All three holes are located along the Enterprise Creek Road. Diamond drilling was carried out using a modified hydro Winkie, and 4.4 cm core diameter (NW) was recovered. All three holes were logged and the metavolcanic sections in DDH-1 and -2 were split in preparation for analysis. Core is stored at the home of Pete Leontowicz in Hills, B.C. DDH 86-1

Often, clast outlines are indistinct and the rock appears homogenous. In some areas such as 95 m the breccia contains abundant garnet, chlorite, calcite, quartz, pyrite and pyrrhotite. The volcanic contains pervasive pyrite to 5%. Some sections of the hole contain more pyrrhotite than pyrite such as at 24.09 metres. Only trace amounts of chalcopyrite were noted in the drill hole.

Three narrow quartz feldspar or felsite dykes were intercepted. The hole was terminated in grey-green metavolcanics.

DDH 86-3: From 1.98 to 2.38 metres the hole intercepted a greenstone (intermediate volcanic?) containing hematite, chlorite, epidote, 3-5% pyrite, and minor quartz veinlets. The same rock appears to grade into intense argillic and then strong silicic alteration at 2.90 metres where it is in contact with a tan to orange, feldspar quartz dyke. From 3.08 metres to the end of the hole at 58.60 metres, granodiorite porphyry is the most abundant rock type. Generally the rock is unaltered and distinct feldspar phenocrysts are present. However, the entire hole is marked with numerous fault and/or crush zones with intense clay, calcite ± quartz ± pyrite ± epidote ± chlorite ± hematite. At least 12 such zones between 10 and 100 cm in width were encountered.

Also of note, between 7.26 and 8.08 metres is dark, fine-grained metavolcanic breccia with 2-3% pyrite. A mafic dyke was intersected at 55.03 to 55.64 metres, with hematite on slickensides at both contacts.

Aplite and fine-grained diorite phases of the granodiorite porphyry intrusive were also seen in the core.

GEOCHEMICAL ANALYSES

Four samples of core (and two surface chip samples) have been analysed for gold by Chemex Labs of North Vancouver, B.C. Two of these samples were also subject to multi-elment analysis. Certificates of assay and analytical procedures are included in the Appendix.

A single sample of core, number 86-2, 24.50-26.50, contains 100 ppb (parts per billion) gold. Compared to other samples and to intermediate volcanics in general, this sample appears to be anomalously high.

Multi-element analyses of two core samples by ICP method indicate slightly elevated copper values up to 139 ppm (parts per million). One of the samples contained 20 ppm molybdenum which is also distinctive.

Two surface chip samples were collected from a dozer cut 5 metres north of DDH-3. The samples are each 1.0 metres in length and adjacent to each other. Sample 86-3 Surface-1 is closest to the drill site; 86-3 Surface-2 is located to the northwest. Both samples contain intensely broken and clay-altered metavolcanic (?) with local quartz and carbonate veinlets. Traces of pyrite were also observed. Geochemical analysis did not detect significant gold.

CONCLUSIONS

Diamond drilling undertaken at the Jon et al. mineral claims intersected abundant pervasive disseminated pyrite and pyrrhotite in dark, fine-grained metavolcanic flow and flow breccia which may be part of the Jurassic Rossland Group. Skarn mineralization including epidote, calcite, chlorite and garnet has also been developed within the volcanics. Intruding the volcanic pile are numerous quartz, feldspar and lampropyhyre dykes which show minor chloritic alteration and pyritization.

The late Jurassic Nelson batholithic rocks intrude the metavolcanics and occupy numerous outcrop areas on the claims. Most of DDH-3 and the bottom of DDH-1 encountered granodiorite porphyry of the Nelson batholith.

One of the core samples (86-2, 24.50-26.50 m) which was sent for laboratory analyses returned 100 ppb gold. Although not enough samples were analysed to statistically treat the data, it appears that this amount of gold in metavolcanics of the Rossland Group is significant. Coupled with trace amounts of chalcopyrite which were observed in this core sample, a slight metal enrichment is indicated. Multi-element analyses of sample 86-2 (31.00-32.50 m) also indicates slightly elevated content of molybdenum.

Continued exploration at the Jon et al. mineral claims is warranted to detail the areas of Rossland volcanics. Favourable aspects of the property include:

1) its close proximity to recently discovered BP/Northair gold deposit with similarities to this deposit, including host lithology (Rossland Group), high pyrite-pyrrhotite content, intrusive rocks including quartz-feldspar, lamprophyre, and augite dykes;

2) core intersection of weak although significant gold concentration (up to 100 ppb) and molybdenum (up to 20 ppm);

3) mineralization including skarnification and traces of chalcopyrite.

RECOMMENDATIONS

Phase 2 exploration should include geological mapping of all areas of potential Rossland Group outcrops on the Jon et al. claims. Soil sampling and a magnetometer survey on a systematic grid would also be helpful in delineating targets for dozer trenching or diamond drilling.

Besides trenching and drilling, Phase 3 would require detailed mapping and rock chip geochemistry. Phase 4 could require a similar budget with emphasis on drilling of selected targets. Phase 5 would require extensive drilling.