COPY

014100

REPORT ON THE IRON MOUNTAIN AREA NEAR McLEESE LAKE IN THE QUESNEL MINING DISTRICT

by

J. K. CROSBY

December 5, 1956.

LOCATION:

The Iron Mountain area is located in the Quesnel Mining District about 50 miles south of the city of Quesnel The area is reached from McLeese Lake on the Quesnel-Williams Lake highway. A dirt road from McLeese Lake to Tyee Lake is followed for six miles to the junction of the Ross sawmill road. The Ross Road is taken north for one mile to a point near the edge of a small lake. This point is the east center of the surveyed area and the best point of access for the property.

DESCRIPTION:

The Iron Mountain group consists of about 130 claims (see claim map). The claims of main interest are the 8 Iron Mountain claims in the north center of the property. The staking was done to the south to cover the down dip portion of the outcropping magnetite on the Iron Mt. claims. A granite body to the north limits the value of staking in that direction.

The Iron Mt. area covers a section of heavily wooded, rolling hills whose highest points are 3500 feet in altitude. All of the district has been taken up by logging operators, but sufficient sizable timber remains to support a mining operation. The district is fairly dry, with little running water but with several small lakes and ponds. However, water enough for a milling program may present some difficulty.

Transportation is excellent. The paved highway from Quesnel to Vancouver passes within a few miles of the claims. The road from the claims to this highway is a well maintained logging road. Little difficulty is encountered with weather conditions. The PGE railway passes within thirteen miles and the new gas pipeline passes through the southwest corner of the claims.

The nearest sizable town is Williams Lake, about 25 miles to the south. This town is served by the Canadian Pacific Airlines.

No commercial electric power is available nearer than Williams Lake which is served by the B. C. Power Commission.

GEOLOGY:

No regional survey has been made in the district. Therefore the age and general structural picture are unknown. The geology of the Iron Mt.area is a series of east-west striking sediments with a low dip to the south. These sediments are primarily varying beds of green schist with bands of epidote and quartz. In the north, a series of white crystaline limestones are interbedded with the schists. The beds of limestone are very irregular and pinch and swell over their strike length. The thickness of the lime beds is greater in the eastern portion of the claims. Folding occurs in the beds and a large fold with a badly crushed axis is shown near 0 and 4300 on the enclosed map. Thickening of the lime

beds is very noticeable to the east of this fold.

The series of sediments is terminated to the north by a large granite body. This seems to be a large plug of some 5 miles in diameter, and shows definite control of mineralization in the Iron Mt. area. The dip of the contact of the granite and sediments is quite shallow and leaves a series of windows islands near the contact zone. The Iron Mt. claims are on the southern edge of the granite contact.

Glaciation is very evident and glacial debris covers the southwest portion of the surveyed area. Volcanic activity has occurred in more recent time to the west of the property and has left boulders of vesicular basalt on the extreme western claims.

The mineralization of the district is primarily copper sulphides, magnetite, and hematite. The magnetite and hematite occur in thin veins along the contacts of the lime and schist beds. The mineralization is consistent along the contact, but only thicknesses of a few inches are found. Some thin veins of magnetite in beds of schist can be found along the south edge of the Iron Mt. claims. The copper sulphides occur as included mineralization in the magnetite and hematite, and as a disseminated deposit in the schist beds near the granite contact. Weathering has produced copper oxides and carbonates in all these zones.

PURPOSE OF SURVEY:

The survey was undertaken to determine the extent of the magnetite bodies. This was done because of the value of the included copper which ranged as high as seven per cent but would average around two per cent. These magnetite beds had outcroppings extending over 3500 feet of strike. In most of the outcrops, the width was in excess of a foot. This made the survey an attempt to determine the continuity of the magnetite, to determine the width and if possible the depth, and to determine if any other zones existed in the area.

A magnetometer survey was undertaken as a first step in the exploration program. This was followed by a trenching program to check the results of the magnetometer and to explore the possibilities of the copper in schists that had been found near the granite contact. A small drilling program was used to obtain fresh samples.

RESULTS:

MAGNETOMETER SURVEY:

The magnetometer survey showed a strong anomaly across the zone of outcropping magnetite. The axis of this anomaly is shown along the 0 base line on the map. The anomaly indicated a

continuous body from about 2400 to 5200 with a high point near 3200. Interpretation of the curves obtained indicated a wide body (30 feet) with a shallow dip (20). The width was much more than was visible at the outcroppings. This was taken as an indication that several paralleling veins made up the structure. The resulting magnetic properties would be much the same as the thick body interpreted.

A second anomaly was noted in the east center portion of the area. This is shown at 600 S and from 5600 to 6000. The interpretation indicated a short, narrow body with shallow dip.

A third anomaly was made up of two zones shown across the south of the property. The reason for the break and offset of the two zones is the topography of the zones. A deep gully passes through the south portion, and the shallow dip of the beds combine to form the magnetic break. The interpretation of this anomaly indicated a stronger zone than the outcropping magnetite to the north. The dip was shallower and the width somewhat narrower.

With this information, it was decided to conduct a trenching and drilling program to prove the mineralization. At the same time, an investigation of the possibilities of copper in the schists near the granite contact was to be undertaken. This mineralization was noted during the magnetic survey, and found to be quite widespread.

TRENCHING:

The trenching was done with a bulldozer along the magnetic axis of the anomalies where possible, and two trenches were completed in the northern schists. The results eliminated the first zone from consideration. The mineralization was shown to be confined to narrow veins along the contacts with only occasional widening or lensing. The overall width of the vein was too great to allow mining them as a unit.

A single trench showed a foot thick vein of magnetite as the cause of the second anomaly near 600 S and 6000. However, this magnetite carried only a trace of copper.

No trenches could be placed across the southern anomaly due to the rugged terrain in that area.

The trenching of the northern schists showed that these schists were almost continuously mineralized from the granite contact to a point some 400 feet south. The copper seemed rather constant at about 1 per cent, but varied inversely with the amount of lime in the schist.

DRILLING:

The drilling was done with a Boyles Brothers X-Ray machine. Five holes were drilled varying in depth from 20 to 80 feet. Holes 1, 2, and 3 were placed in the zone of outcropping magnetite. These holes at 4400 and 4000 were placed to obtain fresh samples of mineral-

ization. That uncovered by the trenching was badly weathered and of little value in evaluating the zone. However, this weathering existed to a good depth and a hole at 4400 showed weathering to continue to at least 80 feet of depth. No usable core was recovered. Holes 2 and 3 were an attempt to recover suitable core. The drilling in this zone was abandoned after hole 3 due to poor recovery of the mineralized zones and the fact that the zone as a whole did not warrant further cost.

The drill was next moved to the southern anomaly at 4400. Drilling here proved the anomaly to be due to a disseminated magnetite in the schist. Only a trace of copper was evident.

At this point, the weather forced a halt in the exploration.

CONCLUSION:

The exploration program has shown that the only hope for the property is the schist along the granite contact. The trenching in this zone and some work near 1600 N and 1200 have shown that the mineralization along this contact is fairly uniform. Samples taken from float and trenches in this zone average near one per cent. If this can be proven over a large area, it makes an open cut type of operation possible. Any further exploration should be concentrated in this area.

Respectfully,

(Signed) J. K. Crosby