

WEST COAST MINING & EXPLORATION

93 N/6
Nation Copper

812783

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205 - 122 EAST 14th STREET
NORTH VANCOUVER, B. C.

COLLIN CAMPBELL PROPERTY REPORT

INTRODUCTION

The property, owned by Collin Campbell, consists of 11 claims staked in 1967. When Collin contacted us, he probably had given up hope to make a deal with anybody else. Amax, N. B. C., and probably several others had examined his property in 1968. Amax carried out a soil and E. M. survey. His claims are surrounded by others staked by local people and N. B. C. The latter, have a large group of claims immediately to the south and east, on which molybdenum is reported together with chalcopryite.

LOCATION

About 4 miles east of the northwest end of Tchentlo Lake, on the south slope of Nation Mountain. A foot trail leads from the old cabin remains at the head of Tchentlo Lake to a small lake about 1 1/4 miles in N. E. direction. This trail picks up again on the north side of the small lake and leads to the showings. A helicopter pad has been cut out near the showings.

GEOLOGY

Similar to the Nation Copper Property. The claims are underlain by a coarse grained dioritic intrusive which is rich in magnetite. The contact between this intrusive and the Takla volcanic series occurs directly to the south of the Campbell Property, or less than 1/2 mile from the copper showings. The diorite is fresh looking, and shows little alteration. A small Syenite plug of a few hundred feet in diameter outcrops in the southwesterly part of the property.

Rhyolitic material in place is also reported to have been found.

Evidence of faulting and shearing can be seen in several places.

MINERALIZATION

The mineral of economic interest is chalcopryite.

Pyrite and magnetite are found in relative abundance.

Galena and sphalerite are found in a small showing near the centre of the property.

The pyrite and chalcopryite occur together and in close association. The relationship between the magnetite and the sulphides is somewhat uncertain, but the magnetite appears to be earlier than the sulphides and is probably a differentiation phase of the diorite. A magnetometer will not outline mineralized structures, according to Mr. Campbell.

ORE STRUCTURES

The sulphides are found in shear, or fault structures in the diorite. The main showing near the helicopter pad has from 12 to 20 inches of clay or fault gouge parallel to and underlying the ore structure, indicating the fault controlled origin.

Other trenches exhibiting copper mineralization show evidence of shearing and fracturing.

The best showing is the one near the helicopter pad where several trenches cut across the ore structure, showing a length of 200 - 300 feet.

The best trench shows from 8 to 12 feet of copper mineralization, with an estimated grade of about 2 % Cu. The central part of the mineralized structure shows from 6 inches to 1 foot of fairly massive sulphides.

Along the strike in both directions away from this "best" trench the mineralization falls off rapidly.

The strike of this structure is N. 30° W. to N. 60° W., with a dip from 30° to 75° to the N. E.

Other trenches to the N. W. of the helicopter pad and about 1500 feet from the "best" showing exhibit similar copper mineralization over widths from 2 feet to 6 feet, and with a comparable grade.

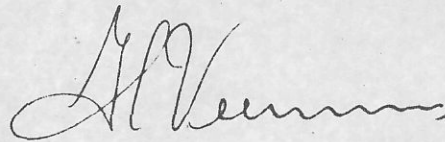
CONCLUSIONS

Copper mineralization in shear zones only and too narrow to offer possibilities of substantial tonnage. Little alteration.

The property consists of 11 claims only, and is therefore too small for a general program.

RECOMMENDATIONS

None.



H. Veerman, P. Eng.

September 1969.

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JOHN KING PROPERTY

REPORT

INTRODUCTION

John King, helicopter pilot working out of Fort St. James, spotted gossan-like outcrops from the air, found some copper mineralization and staked a number of claims. Friends of King from Fort St. James staked some additional claims, so that the property now consists of a total of 40 claims.

The Property was examined on August 8, 1969.

LOCATION

About 3 1/2 miles East of the S. E. end of Ahdatay Lake, and about 6 miles North of the place where Ahdatay Creek enters Tchentlo Lake.

The property is at the Northerly end of a generally flat area, and directly South of a slight hill.

The outcrops are in a coulee or dry river channel, which was cut into the rock and overburden to a depth of 50 - 100 feet. Several other coulees in the immediate area indicate a quickly changing drainage pattern in the past.

GEOLOGY

Volcanics and fine grained tuffs or sediments. A large outcrop near the helicopter landing is identified as Rhyolite. This may be a plug or sill, but could also be an interbedded flow. A dyke of fine grained intrusive material, subsequently brecciated and recemented, may have been of the same composition originally.

This dyke cuts through the mineralized showings.

MINERALIZATION

Pyrite, magnetite and chalcopyrite are the main minerals. Pyrite and magnetite occur in what is probably close to equal quantities. The chalcopyrite is less common.

Pyrite is massive in places, and occurs otherwise in shear and disseminated form. Digging in some of the heavy gossans shows pieces of massive pyrite. Leaching of the sulphides has been heavy for this area, and digging several feet into the gossans fails to show bedrock in many places.

Magnetite occurs in masses and veins, some of it pure, some of it with pyrite or chalcopyrite. Some of the magnetite will contain up to 2 % copper as chalcopyrite.

Chalcopyrite occurs in minor amounts mixed in with pyrite, some of it disseminated in volcanics, and disseminated in magnetite, or as coarser pieces in all three. Some massive chalcopyrite was found 100 feet South of the main mineralized zone, in pieces of up to 10 inches.

SHOWINGS

The best copper mineralization occurs in the North slope of the most northerly coulee, and outcrops over a length of over 350 feet along the top of the slope. The strike of the line of showings is about N 60° E, and the zone probably dips to the North at between 45 and 70 degrees. The controlling feature could be either a flow (or bed) or a fault (or shear), but is probably the latter.

Because of the heavy oxidization, proper sampling of the zone is difficult. To obtain fresh material, several feet of oxidized and leached rock would have to be blasted out.

Some disseminated chalcopyrite was found in volcanics to the North of the showings, and some minor copper mineralization was found in other directions several hundred feet away from the showings. Pyrite, however, is by far the most abundant sulphide.

AEROMAGNETICS

The property was covered in the government airborne magnetometer survey of 1961, Klawli Lake Sheet.

The area of the property is featureless on this map, and occupies a position midway between a magnetic low about a mile to the South and a small high about 3/4 mile to the North.

In view of the fact that the mineralization is associated with magnetite, this does not seem very promising.

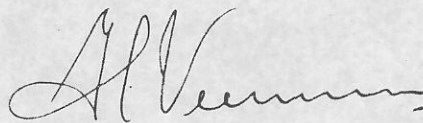
CONCLUSIONS

Copper in minor quantities occurs on the John King Property. The rock is strongly leached and oxidized, and should be blasted before proper sampling can be done.

The extent of the mineralization appears limited, but more and better mineralization may be present elsewhere on the property under the extensive overburden.

RECOMMENDATIONS

In view of the fact that the structural and mineralogical characteristics are similar to the Nation Copper Property, but on a smaller scale, the property is not recommended.

A handwritten signature in cursive script, appearing to read 'H. Veerman', with a horizontal line underneath.

H. Veerman, P. Eng.

August 1969

Air photos B. C. 5052 - 33 & 34