CORPORATION FALCONBRIDGE COPPER



826623

DATE:

October 20, 1983

TO:

D. H. Watkins

COPIES À COPIES TO:

M. J. Knuckey

DE FROM:

A. J. Davidson

SUJET SUBJECT:

RABBITT PROPERTY - BRICAN RESOURCES NTS 92H/10W

SUMMARY AND CONCLUSIONS

The Rabbitt property (67 units and 10 crown grants) is located 25 km northwest of Princeton B. C. The property is road accessible and ranges in elevation from 1000-1500 metres on heavily forested slopes. The property is divided into a north half and a south half by Lockie Creek.

The claims are underlain by Triassic Nicola volcanics and locally the predominant rock types are dacitic-andesitic fragmentals. In the southern half of the property a series of coarsely banded quartz-pyrite (chalcopyrite) showings outcrop intermittently over 1400 m. These showings may all be on the same horizon or structure. Grades range up to 2.4% Cu and 0.8 oz/ton Ag with no silver or gold values. Fine bedded pyrite (exhalite?) is found on the dump at one of the showings. In the northern half of the property a series of sphalerite-galeaa veins (0.18% Pb, 1.5% Zn, 0.8 bz/ton Ag and up to 0.14 oz/ton Au) outcrop over a 1500 m strike length. A previously drilled copper showing in the same area returned values similar to those in the southern half. A felsic domal feature dominates the geology in the north half and the vein structures are probably related to it.

Any deal with Brican would require that CFC earns its way in for a 75% interest. Brican would have the right to "back in" at a Production Notice. Other terms would be negotiable but not unreasonable.

Although the property has an abundance of sulphide showings some of which may even be exhalative in nature, the extreme grass roots stage of the property (mostly unmapped), the heavily forested mountains and the definite vein-type sulphides in the north half all tend to suggest that the property be put on hold.

The property has merit but it cannot compete with Mt. Sicker and Britannia. No action is recommended at this time though the situation should be monitored closely.

LOCATION AND ACCESS

The Rabbitt property, northwest of Tulameen, B. C. is a large block of claims, totalling sixty-seven units, and ten crown grants that occupies the upland area immediately west of Otter Lake.

The claims extend north from the Lawless Creek logging road, to Elliot Creek, a total distance of 7 km. Lockie Creek, an easterly flowing tributary of Otter Creek, bisects the claim block. The RABBITT-1 to RABBITT-4 claims are located south of Lockie Creek and the BOULDER-1 and BOULDER-2 claims and the ten reverted crown-granted claims are located north of the creek (Figure 1).

Elevations vary from a minimum of 970 metres above sea level in Elliot and Lockie Creeks, to slightly greater than 1500 metres on Rabbitt and Boulder Mountains.

A foot trail across Lockie Creek connects the two parts of the property. Access to the various showings is provided by steep four wheel drive roads at the north and south ends of the property.

The nearest supply centre, the town of Princeton, which is on the Southern Trans Provincial Highway, is 27 km by paved highway southeast of Tulameen. Tulameen is on the Kettle River Branch of the Canadian Pacific Railway. The property is within 5 km of this railway.

PROPERTY

The Rabbitt property consists of 6 located claims, comprising of a total of 67 units, and 11 reverted Crown-granted claims. All claims except the Cousin Jack are owned by Harold J. Adams of P. R. Box 1329, Princeton, B. C. Kenam Resources Ltd. acquired an option to purchase the claims from Mr. Adams in September, 1979 and assigned the option to Brican Resources Ltd. in February, 1980. Brican obtained an option to purchase the Cousin Jack from Keith R. George of Box 376, Keremeos, B. C. on April 28, 1982.

The pertinent record information for all claims is as follows:

Name of Claim	No. of Units	Record	Date of	Expiry Date
	UIILS	Number	Record	
RABBITT 1	12	944	Nov. 29, 1979	Nov. 29, 1984
RABBITT 2	4	945	Nov. 29, 1979	Nov. 29, 1983
RABBITT 3	9	946	Nov. 29, 1979	Nov. 29, 1983
RABBITT 4	8	947	Nov. 29, 1979	Nov. 29, 1983
BOULDER 1	16	948	Nov. 29, 1979	Nov. 29, 1984
BOULDER 2	18	949	Nov. 29, 1979	Nov. 29, 1984
ANACONDA	1	260	Aug. 26, 1977	Aug. 26, 1984
(L 373)				
BERLIN FR	1	258	Aug. 26, 1977	Aug. 26, 1984
(L 269)				
BLACK BIRD	1	257	Aug. 26, 1977	Aug. 26, 1984
(L 268)				
CONSTITUTION	1	298	Feb. 20, 1978	Feb. 20, 1984
(L 282)				
COUSIN JACK	1	1045	June 2, 1980	June 2, 1985
(L 263)				
FREDDIE BURN	1	259	Aug. 26, 1977	Aug. 26, 1984
(L 270)				
INTERNATIONAL	1	297	Feb. 20, 1978	Feb. 20, 1984
(L 283)				
MORNING	1	264	Aug. 26, 1977	Aug. 26, 1984
(L 265)				
OSHKOSH	1	263	Aug. 26, 1977	Aug. 26, 1984
(L 266)				
WIN NIB A G O	1	261	Aug. 26, 1977	Aug. 26, 1984
(L 267)				
YMIR (L 264)	1	262	Aug. 26, 1977	Aug. 26, 1984

4

HISTORY

Pre 1900 - Placer activities on Tulameen River and on tributaries such as Lockie Creek

- 38,000 oz of gold recovered

1900 - 1905 - Boulder Mining Company developed shafts and tunnels for heavy pyrite-chalcopyrite mineralization on the Cousin Jack, Freddie Burn and International (South Copper)

claims

1908 - 1918 - Showings discovered on Rabbitt Mountain and near Elliot
Creek north of Cousin Jack

1918 - 1928 - Extensive surface and underground exploration resumed on Rabbitt Mountain showings (Spokane-Motherlode, Red Bird and Shamrock). These occurrences described as replacement bodies related to granite porphyry dykes.

- Mineralized zones explored over a 4 mile (sic) strike length.

Exploration concentrated on Rabbitt Mountain showings.

1933 - 1937 - Attention shifted to Boulder Mountain and the Cousin Jack group. Four subparallel veins noted in an area 730 metres wide.

Veins carried values in gold, silver, lead and zinc and 760
metres of strike length had been developed on the Cousin
Jack by open cuts, shallow shafts and tunnels.

- Four main zones defined and mineralization recognized to occur in both concordant and disconcordant quartz veins and stringers in altered greenstones.

1937 - 1960 - No record of exploration.

1960 - 1968

- Copper Mountain Consolidated Ltd. carried out bulldozer trenching and drilled 5 holes (381 m) near the old workings on Rabbitt Mountain and continued to explore the Lode claims by bulldozer, trenching, geochemical and geophysical surveys.
- Nelway Mines acquired and explored the Cousin Jack group with geochemical surveys and diamond drilling.

1971 - 1974

- Gold River Mines explored a large block on Boulder Mountain which included the South Copper, Mid Copper, Cousin Jack, Mug and Josie area. Extensive linecutting, soil sampling magnetometer and VLF-EM surveys were conducted and 33 holes totalling 1768 metres were drilled.

1976

- Harold Adams of Tulameen staked claims covering all known showings on Rabbitt and Boulder Mountains.

1978

- Northern Lights Resources optioned the claims from Adams, did mag survey over the Rabbitt Mountain showings and drilled two drill holes totalling 122 m north of the South Copper showing on Boulder Mountain.

1979

 Kenam Resources Ltd. optioned the property and began mapping in conjunction with Ventures West Minerals Ltd. A recce exploration programme consisting of preliminary geological mapping, soil sampling and ground magnetometer surveys.

1982

- Brican acquired Kenam interest after Ventures West dropped out of the JV. Brican established three flagged grids totalling 21 km collected 538 soil samples and did ground mag. Minor VLF was also done.

REGIONAL GEOLOGY

The property is predominantly underlain by volcanic rocks of the Upper Triassic Nicola Group. Nicola volcanics have undergone low grade regional metamorphism and have been intruded by Mesozoic and Tertiary plutons.

The Nicola has been divided into three north trending, fault bounded, structural belts between Princeton and Merritt. The Eastern Belt is dominated by lahars, basaltic flows and volcano-sedimentary rocks. Subaerial and submarine basalt to andesite flows, breccias characterize the Central Belt. The Western Belt includes andesitic to rhyolitic flows and volcaniclastic rocks. Rocks of all belts are weakly foliated, metamorphosed to very low greenschist facies and are in fault contact with or unconformably overlain by younger rocks.

The Rabbitt property is thought to lie in the Western belt.

GEOLOGY

The Rabbitt property is divided into two parts (north and south) and both were visited with Ken Daughtry by Brican Resources on October 5, 1983.

The southern part (Rabbitt Mtn.) hosts a number of sulphide occurrences (Motherlode-Spokane, Red Bird, Maple Leaf). The showings all seem to be hosted by a coarse intermediate fragmental of more felsic (up to block size) fragments in an intermediate matrix (Figure 2).

Coarsely banded pyrite (+ moly?) and quartz outcrop intermittently for approximately 100 m along strike. The banded pyrite-quartz is up to 2 m wide and dips at about 15-20°. Massive chalcopyrite is present in fractures and "stringers". The host rock are intermediate-felsic tuff breccia with fragments up to 10 cm long. One assay value of 2.88% Cu, 0.01% Zn, 0.42 oz/ton Ag and 0.005 oz/ton Au has been recorded. No recent drilling has been done on the zone. The sulphide zone is very reminiscent of the banded sulphides at Indian River.

The Red Bird Adit consists of massive to banded pyrite-chalcopyrite (sphalerite). The zone is again approximately 2 m thick and may indeed be the same horizon as the Maple Leaf. The hangingwall contact of the sulphides is sharp and a good sericite schist forms part of the footwall. However shear zones mark both the hangingwall and footwall sides of the sulphide zone. The horizon maintains its 20° dip into the hill and no drilling has tested it from above. The adit goes for approximately 300 feet but is in hangingwall the entire distance. Previous assays from the zone are 2.40% Cu, 0.02% Zn, 0.8 oz/ton Ag and 0.02 oz/ton Au.

True exhalative sulphides in the form of fine grained, laminated massive muddy pyrite are found on the Spokane-Motherlode dumps. Also some sphalerite occurs in a coarser pyrite chalcopyrite-quartz rock. This zone was not seen in outcrop. Again this may be the same horizon as the Maple Leaf and Red Bird.

The showings on Rabbitt Mtn thus all could be on the same horizon and outcrop intermittently over a 1400 m north-south strike length. The showings are all less than 2 m wide and dip shallowly west. The only true exhalative looking sulphides were the fine bedded pyrite at dump Spokane-Motherlode dump.

On the northern half of the property (Boulder Mtn) the showings (Constitution, Cousin Jack etc.) seem to be more vein like, usually have associated zinc and have been more recently drilled than those in the south (Figure 3).

The Constitution is supposed to consist of massive chalcopyrite and pyrite in a shallow undulating, west-dipping horizon. However the chalcopyrite appears to be in fractures in chloritized basic volcanics with epidote. The showing was drilled by Northern Lights Resources and Gold River Mines. Best intersection was 1.74% Cu over 5 feet. No gold is associated with the sulphides.

Chalcopyrite and pyrite occur on the ?sides? of a felsic dome-like feature at the Mid-Copper showing. Four holes tested the chalcopyrite-pyrite horizon and intersected 1) "disseminated pyrite in silicified greenstone"; 2) "sulphides in quartz-carbonate veins"; 3) "chalcopyrite and pyrite in silicified

greenstone"; 4) "siliceous zone". These are probably vein and fracture filling sulphides around and on this domal features.

The Cousin Jack showings are lead-zinc veins in sericitized volcanics. The sericite alteration is extremely intense around these showings. Assays from these showings are typically 0.18% Pb, 1.50% Zn, 0.8 oz/ton Ag and 0.14 oz/ton Au but may range up to 26.36% Pb, 6.05% Zn, 3.3 oz/ton Ag and 0.21 oz/ton Au.

DISCUSSION

The property is large (1700 hectares), and the geology is known only over a very small portion. Brican are selling the property as a volcanogenic massive sulphide play but the only true exhalite seen was at the Spokane-Motherlode dump. All the other sulphide occurrences seen in the south were probably veins although the similarity of all the showing in the south over a 1400 m strike length suggest that they form a horizon or are along a single structure. The host rocks are lapilli-block size tuff breccias. No bedding could be observed and no sediments are present. The northern half of the property is interesting only because of the felsic dome and its location with respect to the veins. Although the topography is not severe the property is heavily forested and outcrop could be a problem.

The deal suggested by Brican is essentially an earn-in arrangement by CFC but with a back-in clause for Brican. Option payments, work committments and retained royalty are steep and would have to be negotiated.

CONCLUSIONS AND RECOMMENDATIONS

The property is essentially at the grass roots level except in the area of the showings and no recent work has been done on them. The property would require establishment of a control grid and a lot of mapping and sampling to even begin to understand the setting or to gain an appreciation of the potential of the property. Expenditures of \$100,000 in the first year could be expected.

I do not feel that the property is suitable for us at this time for the above reasons. Also the property pales in comparison with our other ventures i.e. Mt. Sicker and Anaconda-Britannia. No action is recommended at the present time though another visit may be in order should Anaconda-Britannia fall through.

Alex J. Davidson

AJD/ik





