

CARIBOO BELL MINES LIMITED

Notes on visit to office of Maston-Highland Bell in Vancouver on June 27, 1966 and to property on June 29 and 30, 1966.

93-A-12  
52-35'N  
121-37'W

|                   |   |              |
|-------------------|---|--------------|
| Jack J. Crowhurst | - | V. President |
| Bill R. Bacon     | - | Explor. Mgr. |
| Roy Lambert       | - | Project Mgr. |
| Jerry Newcomb     | - | Foreman      |
| S. E. Asano       | - | Geologist    |
| Toru Kikuchi      | - | Geologist    |

Location See B. C. road map and Geol. Survey Canada Map 3 - 1961 (Quesnel Lake - West Half).

Between Bootjack Lake and Polley Lake. Mt. Polley 4132';  
Bootjack Lk. 3170'; Polley Lk. 3012'

43 miles by gravel road from Williams Lake (on Highway 97 and P. G. E. Rly.) to Morehead Lake; thence 8 miles of poor road passable only with 4-wheel drive vehicle to property. A contractor with three cats was building a new road to property at time of visit.

History

Once held by Noranda. Attention of Bill Bacon drawn to area by mag. anomaly shown on G. S. C. aeromag. map. Reconnaissance geochem. followed by bulldozer trenching in 1965. Chip samples of ripped trenches - about 0.4% cu. Chalcopyrite and malachite in syenite and monzonite. Recommended by John Sullivan and Charlie Ney of Kennco but turned down by C. H. Burgess in New York ("not interested in 1/2% cu.) (-too low grade"). Cariboo Bell Mines Ltd. formed and \$450,000 raised. About \$125,000 spent so far. 160 claims plus a few others staked recently for possible tailings disposal.

Geology (See G. S. C. Map 3-1961)

Hornblende - biotite syenite and monzonite (17 b - Jurassic and/or Cretaceous) as small bodies intruding Lower Jurassic andesite and andesitic agglomerate and breccia (12). Extensive cover of glacial drift; area is thickly forested and in general has dense underbrush.

Intrusion of andesitic volcanic and pyroclastic rocks by monzonite and syenite produced large irregular masses of hybrid rocks.

These are brecciated in places and replaced by fine-grained epidote and garnet locally to form skarn-like rock.

Pyrite, magnetite, and chlorite may have been deposited at this stage. (Dr. Kikuchi has concluded that these irregular bodies of hybrid rock - altered and brecciated - are favourable host for mineralization).

Hydrothermal stage

Alteration - K feldspar (pink and red), zeolite, calcite, chlorite, clay, biotite, quartz (minor)

Mineralization - Pyrite, magnetite, hematite (specularite), chalcopyrite, molybdenite (sparse).

Late basic intrusives - dikes of gabbro, basalt, and lamprophyre.

Weathering - mainly malachite and limonite (small amounts of azurite, chrysocolla, cuprite, and native copper).

This usually extends only to about 30 - 50' depth but in places it reaches 300 - 400'.

(N.B. Assays are for total cu; not oxide cu and sulphide cu separately).

Although molybdenite may be observed in places; assays of composite samples show only 0.00x %.

#### Exploration Work

Magnetometer survey.

Hunting I.P. survey.

Geochemical soil sampling at 200' intervals on lines 400' apart (analyzed for cu in lab. in Vancouver).

Bulldozer trenching - D 7 and D 8 with rippers (on contract)

Diamond drilling - 2 T.Connors wire line (B X core) drills working 3 shifts each.

Excellent core recovery. > 95%, 10' samples.

Cost - probably about \$7.50/ft.

About 15,000' has been drilled. Percussion drilling - 1 Atlas-Copco (leased) mounted on truck belonging to Cariboo-Bell.

Cost of drill and compressor said to be about \$40,000.

Drilling wet (holes make water). 150 - 180' drilled per shift.

Holes (2" diam.) drilled to 300'.

Power driver splitter saves 10% of sludge; sludge is medium sand size; sample collected for each 10' of drilling.

Comparison with d.d. - percussion hole drilled beside d.d. hole gives close check for entire mineralized column (e.g. 160' of 0.42% cu) but not for individual 10' samples.

Cost - probably about \$2.50 / ft.

### Drilling Results

Some d.d. of I.P. anoms. has shown pyrite with little or no cu.

One area of good geochem. yielded disappointing results in d.d. Glacial cover was thin and trenches show abundant malachite - coated fractures. This is apparently transported cu.

Crowhurst has estimated that d.d. holes 400' apart in area about 1600' by 8-900' have indicated -

|                     |                  |
|---------------------|------------------|
| <u>14,780,000 T</u> | <u>0.476% cu</u> |
| <u>3,050,000 T</u>  | <u>0.423% cu</u> |

Au content, based on assays of composite samples, 0.018 oz/T

(This includes three assays of 0.03, 0.04, and 0.05 cut to 0.025).

N. B. 1. The columns of ore in adjacent holes do not always occur at the same horizon.

2. The Cu grade includes both oxide and sulphide cu.

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A recently-drilled hole (No. 15) gave 0.8% cu/330'. This included, between 180' and 200' depth, 1.00/10', 1.58/10', 1.52/10' and 1.36/10'. The higher grade sections showed considerable chalcopyrite as narrow veinlets. Vertical holes drilled adjacent to this hole were low grade. An inclined hole had been started to test the possibility that the mineralization cut in No. 15 is a steeply-dipping tabular body.

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Three d.d. holes bottomed in cu ore

- a. 100' 0.43% cu
- b. 80' 0.45% cu
- c. 110' 0.43% cu

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Intersections in many d.d. holes (used in estimating ore) are not continuous. One hole, for example, showed

- 50 - 130' 0.39% cu
- 160 - 290' 0.44% cu
- 320 - 390' 0.56% cu

#### Current Work

1. Soil Sampling - 50 miles of additional lines were cut (Jean Alix<sup>x</sup> contract); samples collected at 200' intervals along lines 400' apart. Analyses showed an untested anomalous area about 1600' by 1600' lying about 2000' southeast of the drilled area. Some analyses were several hundred ppm and a few were > 1000 ppm (values > 100 are considered anomalous). This area is downslope from the known copper mineralization and is partly swampy - it may be an area of emergence.

#### 2. Preliminary metallurgical testing

Stan Gray (retired from Cominco) is testing by flotation some composite samples of d.d. core to determine:


- a. Cu recovery and grade of concentrate
- b. Au recovery in Cu concentrate

#### Conclusions

- 1. Cariboo-Bell has ample funds for exploration of the property and probably has no need of partners at this stage of the work.
- 2. Although the grade of Cu mineralization discovered so far is very low, the property is an interesting one. Much of it is drift-covered and remains to be explored.

3. We should keep in contact with the company to determine the outcome of:
- a. Inclined holes near D.D. ~~H&~~ No. 15. Is the mineralization there steeply dipping and tabular?
  - b. Bulldozer trenching and d.d. of the new geochem. anom. Does it overlie more ore or is it simply transported Cu in the soil?
  - c. Metallurgical testing. How much Cu is present as malachite and will not be recovered by flotation? How much Au (gross value about 70¢) will accompany chalcopyrite into the Cu concentrate?)

KDW/pm  
7/27/66

  
K. D. Watson