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REPORT FILED UNDER: Hudson Bay Exploration and Development Company Limited

DATE PERFORMED: 1977
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LOCATION: LAT.: 60°35'N
LONG.: 130°40'W
AREA: Gravel Creek

CLAIM NAME & NO.: BINGY claims

WORK DONE BY: R. Stroshein

WORK DONE FOR: Hudson Bay Exploration and Development Company Limited

DATE TO GOOD STANDING | REMARKS: #59 BINGY

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A REPORT ON THE
BINGY CLAIMS

HUDSON BAY EXPLORATION AND DEVELOPMENT CO. LTD.

WHITEHORSE, YUKON TERRITORY

R. STROSHEIN 

APRIL 19, 1977.
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INTRODUCTION

The Bingy claims are located in the Watson Lake Mining District, Yukon Territory. N. T. S. 105-B-10 Gravel Creek sheet of the Wolf Lake Map area. The group is situated near the headwaters of Cabin Creek at approximately latitude 60°35'N and longitude 130°40'W.

Access to the area is by helicopter or pack horse. The nearest lake suitable for use by float equipped fixed wing aircraft is Marker Lake, approximately 11 miles west of the claims.

The area probably has undergone alpine glaciation as exhibited by knife-edge ridges and hanging valleys; although there are very few erratics.

Elevations range from 6500 feet at the mountain peaks to 4000 feet in the creek bottoms. Station 0+00 on the 00 baseline is at approximately 5500 feet.

The tree line approximately follows the 4700 foot contour line. There is no significant timber in the area. Vegetation below the tree line is predominantly small spruce and balsam trees and low scrub brush. Above tree line the vegetation is primarily moss.

The grid is located above the treeline and is on a broad east west ridge that slopes gently to the west and south. A steep cliff approximately coincides with the 4+00N section line. It is greater than 300 feet at the 00 BL but diminishes to a gentle slope by line 40 W.
The area of the grid contained within the 5500 foot contour is relatively flat and forms a near plateau.

There is no outcrop below the treeline and overburden appears to thicken towards the valley floor. There are numerous wide spread outcrops above the treeline. Where overburden occurs it is generally minimal and is weathered bedrock material.

In localities where mineralization has been found the bedrock has undergone more severe weathering. The weathered zone is usually highly fractured and extends below depths penetrated by hand trenching (6 feet). This may suggest fault veins although attitudes of mineralization in outcrop are consistent with the attitudes of the other formations. Any faulting would appear to be parallel to bedding.

A good deal of the area is covered with rubble that appears to have originated from the bedrock. This was used reasonably as a basis for much of the geological mapping.
REVIEW OF ACTIVITY

The Bingy Claims (18) were staked in August and September 1974. Man Y-31

The claims were staked as a result of a reconnaissance prospecting and stream sampling program initiated in the 1972 summer season. This program began near mile 700 along the Alaska Highway and extended in successive seasons from there along the Meister River to its headwaters across to the Irvine Creek system and northward to the Scruvy Creek area.

The sampling and prospecting carried out in the Cabin creek area was conducted in the 1974 season. A base camp established on Irvine Lake supplied fly camps in the area by pack horse. Later due to the distances and terrain involved helicopter support was utilized to carry out the follow up program in the area.

Anomalous Pb, Zn geochemical values obtained from streams in the area led to the establishment of a fly camp on Bummer Lake. (The lake is actually an elongate stream fed pond; 1000' x 400') Detailed sampling of the streams in the area combined with detailed prospecting led to the establishment of an extensive grid for soil sampling. (14000' x 5500'). The 00 baseline and section 0+00 were picketed. All other lines were chained and flagged. This is GRid No. 17 in conjunction with the Rancheria prospecting program.

Geological mapping was carried out on a detailed basis over the south portion of the grid. Hand trenching was conducted in areas where mineralized float had been located.
This met with limited success before the season was ended due to weather conditions.

At that time several diamond drill holes were proposed as a drill was located on the nearby Angie Claims. A drill program had begun on the Angie claims in 1974 and was continued in the 1975 season.

The following season (1975) reconnaissance prospecting and sampling was carried out in areas to the east and south of the claim group.

Due to delays in the program being carried out on the Angie claims further work on the Bingy claims was not commenced until late in the 1975 season.

The work included; extending the soil sampling grid adjoining anomalous areas, detail prospecting, hand trenching, a magnetometer survey and an EM-17 survey.

Further work was curtailed due to adverse weather conditions.

The program has since been abandoned and the claims allowed to lapse.
GEOLOGY

For a report on local geology see appendix 1. Geology of the Bummer Lake area (Bingy claims) September 1974, by S. McKenna, see maps Y43 and Y44.

The area is located near the margin of the Juro-Cretaceous Cassair batholith. The intrusive in this area is predominantly biotite-muscovite granodiorite.

The G. S. C. has mapped the surrounding units as Cambrian or earlier metamorphics. These include biotite schists and gneiss, quartzite and pegmatite bodies.

The geological environment is similar to that of the Angie claims although the mineralization is distinctly different.

The Sue claims (staked 1974 never recorded, see Rancheria prospecting 1974 report map 105-B-10-SW) 6 miles NW of the Bingy claims are an identical situation. In this case the mineralization was confined to a single high grade Ag-Pb stringer.
GEOCHEMISTRY

For regional geochemistry see Maps 105E-7-NE, -8-NW, -9-SW, -10-SE.

For detailed geochemistry of grids see dwg Y -34 (A), (B), (C).

From samples obtained in the vicinity of the claims a significant area (3 miles x 9 miles) exhibits anomalous geochemical values (Pb, Zn). Mineralized float has been located in several places within this area. A large portion of the area has not been investigated subsequent to the initial stream sampling and prospecting.

For interpretation of geochemical data on the grid; lead was selected as the diagnostic parameter. This was due to its dispersion characteristics.

In the field lead provides sharp boundaries to the threshold value (approximately 70 ppm).

It is felt that the dispersion is almost all due to mechanical means and in part to hydromorphic means (A. Groome).

The geochemical pattern displayed on the grid is typical of vein or sedimentary horizon type of mineralization (A. Groome). Observations in the field of the mineralization confirm that it is a narrow vein situation.

Because mineralization has been located wherever high geochemical values occur geochemical prospecting has shown to be the best method of locating mineralization. Systematic collection of samples for geochemical evaluation is the most effective method for prospecting in this area.
MINERALIZATION

See Map Y-45.

The mineralization located to date is typical of vein deposits. It consists of massive sulphides (galena, sphalerite and minor chalcopyrite) with high silver content.

Several veins have been located in bedrock. The most consistent and extensive has been located at section 0+00 along the 00 BL. There are two parallel veins composed of massive sulphides primarily galena. Assay values for representative samples are 2.41, 6.62, 32.4 and 108.1, 68.1, 6.72, Ag Pb Zn respectively.

The veins have been uncovered over a distance of 60 feet along strike. The veins are approximately 2 feet and 8 inches wide respectively with an overall width of approximately 4 feet. The veins are near vertical.

The surrounding bedrock, granite is highly weathered and fractured. It is felt that the material is probably in situ.

The veins have been followed to a depth of 5 feet. Hand trenching beyond this depth is impractical due to water problems.

A small veinlet of massive sulphides has been located at 10N/9W along the cliff face. The veinlet is very narrow (<.1 ft) and is intermittent. It is associated with a small fractured (fault?) zone consistent with the attitudes of the rock formations. Schists and gneiss outcrop here. Assay of the sulphides was 1.71, 2.55, 1.70 (Ag Pb Zn).

At 5S/16W massive sulphides have been located by trenching over anomalous geochemical values. Trenching was carried out to a depth of 5 feet and along strike approximately 15 feet. The material again is highly weathered and fractured but appears to be in situ.
The mineralization is not in a consistent massive vein but is contained as pods and small veinlets over a width of 4 feet. The unit exhibits four distinct zones. Sample Nos. 27634-237637 inclusive are chip channel samples across the separate zones. (Data concerning widths of each zone has been misplaced).

The unit has been highly oxidized and the zones are distinct by variations in colour of the oxidation. The unit would appear to be more consistent below the depth of oxidation.

The gangue material and surrounding rock is granodiorite.

Sample No. 27638 is a grab sample from an outcrop at 12S/2W. There is a prominent Pb geochemical anomaly in the area. Massive sulphides have been found in float which appear to be veinlet material.

Except for the local outcrop the major portion of the anomaly is an overburden covered area.

The outcrop, Assay's .56% .06% .07% (Ag. Pb. Zn) is pegmatite consistent with the formational trends. There is no visible mineralization.

At 36S/4W massive sulphides have been located in float. The area is along a creek bottom and overburden appears to be significant. Trenching uncovered no outcrop. Samples 37270 and 27625 are of float located near the surface.

The area along 7N between 21W and 30W is a talus covered slope. The slope is gentle and an extension of the cliff above the lake.
Widespread mineralized float has been located throughout the area. It is massive sulphides (galena primarily) in veinlets within a dark grey green calcareous quartzite.

Hand trenching was unable to locate bedrock.

The mineralization in this area contains significant silver values, 94 to 158 oz/ton. There is a broad Pb geochemical anomaly in the area as well.

Considering the extent of the area and silver values, although the mineralization is confined to narrow stringers any investigation would have to determine the concentration of the veinlets.

The most direct approach to determining the density of the veinlets would necessarily involve diamond drilling.

At 1ON/8W a float sample of skarn yielded an assay value of .7 oz./ton of gold. (Sample No. 27514). No other significant Au values have been determined and no other similar material has been located.

Although significant and widespread mineralization has been located over the grid there is only limited information on the extent and controls involved.

The plot of geochemical results indicate strong trends. The results have been an excellent aid to locating mineralization but nowhere has the mineralization been followed below the oxidation/weathering horizon.

Massive sulphides (galena, sphalerite, chalcopyrite) have been located 3 miles ESE of the grid. See Map 105-B-10-SE,
Sample Nos. 22615-22616-22617 and 37271. The mineralization was found as angular boulders in the creek bottom. The ground has an overburden cover believed to be minimal and a good deal of brush. The boulders are scattered within a relatively small area (50' radius).

Dissiminated galena has been found in float 1½ miles NE of the grid. The mineralization was found in a pass and a soil sample obtained in the area yielded geochemical values of 20/364/408 ppm. (Cu. Pb. Zn)

A sample containing visible bornite was found 3 miles north of the grid. The area is in a rugged valley. Analyses of the rock yielded values of 500/1240/3840 ppm. (Cu. Pb. Zn).

3 miles NE of the grid sample No. 22614 yielded assay values of .02%, .50%, .20% (Cu. Pb. Zn)

The mineralization discovered in the area surrounding the grid was located during reconnaissance sampling and prospecting. No follow up work has been carried out in these areas due to distance and lateness of season.
A limited geophysical investigation was conducted during the 1975 season. The ground though locally rugged presents no particular problem to geophysical prospecting methods. See Maps Y-46, Y-47.

The program consisted of a magnetometer and an Em-17 survey over the southern section of the grid.

No significant magnetic response was observed.

The EM-17 survey results should be discarded as the instrument used in the survey was faulty. Also the survey was conducted utilizing a 400 foot coil spacing. This separation is not recommended for work in the cordillera as the younger rocks have not developed strong electrolytic properties.

The type of mineralization (primarily galena) poses a problem concerning the effectiveness of an EM survey. Galena tends to oxidize on its crystal faces which cuts the EM response of the mineralized body. Since the mineralization located appears to be highly oxidized this may render an EM-17 survey ineffectual at delineating the mineralized bodies.

An IP survey probably would provide the best practical results for delineating the veins as well as provide a reconnaissance method.
SUMMARY

The control and source of the mineralization whether pegmatite bodies or a fault vein system has to form the basis for any consideration of the economic potential of the area.

The fault vein system is suggested by the nature of the weathering observed at several mineralized locations. Also there is an absence of pegmatite at several localities. A combination of the two types is possible.

Mineralization has a wide spread spatial distribution and there are distinct variations in mineralogy and settings in the different localities. The mineralized bodies have not been observed below the weathering horizon. The depth of weathering appears to vary at the different localities of mineralization; from minimal to depths beyond the capabilities of hand trenching.

Geochemical analyses results indicate the possibility of more extensive bodies than observed in the field.

Geochemical prospecting is a strong and important tool for surface work in the area. Magnetic and electromagnetic methods appear to have limited applicability. Despite this due to its relatively low cost an EM-17 survey should be attempted for confirmation.

Several short diamond drill holes would be invaluable for determining the behaviour at depth of the veins observed on surface. They would also provide a view of the unweathered mineralization and an exhibition of the relationship of the veins to the surrounding rock. It could also be used to determine the relative density of high grade stringers.
APPENDIX I

GEOLOGY OF THE BUMMER LAKE AREA

(BINGY CLAIMS)

SEPTEMBER, 1974
The area is immediately southeast of Bummer Lake, which drains into the south end of Cabin Creek, and is within latitudes 60°30'30" - 60°31'30" and longitudes 130°40' - 130°37'30". It was mapped in late August and early September 1974 on a scale of 400 feet to the inch, using soil sample grid #17. Eighteen claims were staked.

Skarn (1) is probably the oldest rock in the area and forms a unit of variable width (10-80 feet) through the centre of the west half of the grid. The skarn is banded greyish-green and red, fine-grained, equigranular, dense and composed of feldspar, diopside and garnet. Garnet tends to concentrate locally. Layers of pure calcite up to several feet thick are always present and pinch and swell structure is well-developed in the harder siliceous layers. Mottled black and white, fine-grained, massive, equigranular granodiorite (2) occurs principally in the west half of the grid, along with a series of schists and gneisses (3). These latter rocks are the metamorphosed equivalents of the granodiorite, and vary from fairly massive, light grey, reddish brown weathering, biotite-quartz-feldspar gneisses through schistose gneisses to muscovite-biotite-quartz-feldspar schists. Granite (4) predominates in the east half of the grid; it is generally fine to medium-grained, light grey to white, massive, equigranular, and of biotite granite to alaskite composition. Pegmatite (5) occurs throughout the area and is white, coarse-grained, composed essentially of quartz and alkali feldspar, with biotite and muscovite. Crystals of feldspar and books of mica up to 6 inches in size are well exposed in certain zones in cliffs at the north end of the grid. The possible presence of uranium is suggested by local greenish-yellow stains.
The association of pegmatite with gneisses, schists, and skarn is constant in the field. Frequent bands consist of a mixture (5a) of pegmatite, granite, granodiorite and contorted schists and gneisses in which pegmatite cuts across and intrudes all other rock types. Schists and gneisses commonly displayed quartzitic layers near contacts with pegmatite. In skarn exposures, seams of pegmatite even exhibit pinch and swell structure. The composition of the pegmatite most closely matches that of the white granite (4).

All the rocks trend north-northwest (325-355°). Foliation of the schists and gneisses generally dips steeply (70-85°) west, although it is rarely vertical or steeply east-dipping. Layering or banding in the skarn is usually west-dipping, 55-80°, but on 0 + 00 section line is found to dip quite steeply east. The skarn has probably been twisted and tilted by later intrusions and deformation. Fractures abound in the intrusives, generally trending 330° and 060°, with variable dips. Along 0 + 00 base line, a sharp ravine and the broken up nature of the pegmatite suggest some possibility of a north-south trending fault.

**Economic Geology**

An anomalous geochemical reading led to the location of galena-sphalerite float at which is now the intersection of 0 + 00 base line and 0 + 00 section line. Trenching (A) has not exposed positive outcrop, but a solid band, 2 feet thick, of galena-sphalerite with minor chalcopyrite, trending 310°, has been uncovered over a distance of 25 feet. There is a less constant 8 inch band parallel to it. Surrounding rocks are highly weathered granitic gossans; similar material occurs throughout the grid.
Abundant large blocks of calcareous quartzite with vuggy galena-sphalerite-silver in fillings occur in talus at 6 + 00N, 25 + 00W. Sphalerite and galena in gossans can be found at various points from 22 + 50W to 29 + 00W in this area. Trenching (B) at 6 + 00N, 25 + 00W has not yet exposed outcrop of this material.

Galena-sphalerite float and host rock identical to that of showing (A) occurs at 36 + 00S, 4 + 00W, but trenching (C) exposed no outcrop.

Recommendations

Further trenching and several drill holes would be useful at showing (A). Further trenching at showing (B) is necessary. A good ground geophysics program over the map area should be attempted to determine the possible zones suggested in the showings (A) and (B).

Stephen McKenna

October 15, 1974