PROGRESS REPORT

ELK PROPERTY

located on

NORTHERN VANCOUVER ISLAND, in the NANAIMO MINING DIVISION

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Maps (in back pocket)

SUMMARY

During May, June and July of 1972 a program of mapping, geochemical surveys and magnetometer surveys was carried out on the ELK property, located on and around Knob Hill on the extreme northern tip of Vancouver Island.

From the information available it appears that a good target for further work exists on Knob Hill, with secondary targets also indicated on the property.

A drilling program is recommended for the property.

INTRODUCTION

In the spring of 1972 several exploration proposals were prepared and submitted to the four members of the syndicate operating in British Columbia under the name of West Coast Mining & Exploration. At a general meeting held in Vancouver, B.C. on April 4, 1972 one of the projects, entitled the "Knob Hill Proposal" was selected by the members as the main part of the 1972 program.

Some claims had been staked in the Knob Hill area previous to the April meeting, and additional claims were staked in the second half of April, enlarging the property to a total of 170 claims.

The program as suggested in the original "Knob Hill Proposal" was expanded to allow for the fact that the staked area is considerably larger than originally anticipated. For that reason the original proposed budget of $15,000 was doubled to $30,000 and a larger crew was hired to complete the job within the time limits set in the proposal.

The work was started on May 15, 1972 and was largely completed by July 15 1972, except for some tail-end thin section work and the writing of the final report.

As is shown in the following pages, the work done confirms the existence of favourable targets in the Knob Hill area of the Elk Property.

CLAIMS

The ELK property on Northern Vancouver Island consists of a total of 170 claims, centered around the area of Knob Hill. The claims are all called ELK, followed by a number, (ELK 3, ELK 4, etc.). Part of the claims were staked on the 22nd and 23rd of February and recorded on March 14th, 1972. The rest of the claims were staked between April 19th and April 25th, and recorded on May 9th, 1972. The expiry dates are March 14, 1973 and May 9th, 1973 and assessment work has to be recorded before these dates to keep the claims in good standing.

The claims were all staked by agents for J.P. Jemmett, and were recorded in his name. On June 27, 1972 a Bill of Sale was filed with the Mining Recorder in Vancouver, B.C. transferring all claims to Cominex Holdings Ltd., a B.C. company formed for the purpose of holding claims for the syndicate.

Quintana Minerals own 2 claims in the vicinity of Knob Hill according to the claim map at the Nanaimo Mining Recorder in whose district the area is located. To date, no posts have been found on or near our property, and it is possible that they are well removed from the area we are interested in. However, if this is not the case a deal with Quintana would be advisable before diamond drilling is proceeded with.

WORK DONE

Work started on the property on May 17 and most of the fieldwork was completed in the early part of July. The program consisted of:

1. Geological Mapping
2. Prospecting
3. Geochemical Survey
4. Magnetometer Survey
5. Ronka E.M. 16 (a few lines only).

The first part of the field work consisted of establishing a system of east-west base lines, coinciding with the established Section line survey system. A O+OONorth base line, a 1 mile North and a 1 mile South base line were established and chained, with stations marked every 100 feet. Grid lines were run to the north and south starting at the O+OONorth base line. The grid lines were chained and marked, with stations at 100 feet intervals. The grid lines were tied into the 1 Mile North and 1 Mile South base lines, affording a good degree of accuracy. The interval between grid lines is 400 feet.

Geological Mapping

(A Detailed report on the geology of the property by Peter Folk is attached). Reconnaissance traverses were run during the first week or so to establish the main contacts and determine rock types while waiting for the grid system to develop on the ground. Because of scarcity of outcrops most of the mapping was done in the main creek beds. Near the top of Knob Hill only a few outcrops were found, and to the north as well as to the south of the hill large flat areas are totally devoid of outcrop.

Prospecting

The area was prospected for signs of mineralization of copper, molybdenum, zinc and any other metals that might be found. The results of this were disappointing, and no major or even minor showings were discovered.

Geochemistry

A rock chip geochemical survey was carried out on the property in conjunction with the geological mapping. Geochemical samples were taken by the geologist from some 90 locations. Most of the samples consist of composites prepared from chip samples taken at regular intervals from certain stretches of outcrop. The length of each individual sample varies greatly and may range from a few feet to over 400 feet. The average sample length may be a little over 100 feet. This sampling method was decided upon when it became clear that due to lack of outcrop it would not be feasible to take a few chips at each appropriate grid station. Because of the small number of samples that could be taken, the inclusion of erratic highs had to be avoided. By preparing composites in the described manner any erratic high present would suffer dilution to such an extent that it would not greatly distort the final picture.

All geochemical samples were run for copper, molybdenum, lead, zinc, silver and sulphur and finally, gold. The gold assays were so low that no further reference will be made to gold in this report. The assays for sulphur should be a fair reflection of the pyrite content in the rock, except where a very high content of other sulphides is present. As this is not the case for any of the rock samples that were part of this survey the sulphur is assumed to represent pyrite.

Assay values for each of the elements mentioned were plotted on a set of base maps on a scale of 1" = 800 feet.

Magnetics

A total of over 6000 readings were taken on the property, covering an area of approximately 10 square miles. In addition to this two 6 mile long traverses in an east-west direction and one 6 mile long travers in a north-south direction were run to obtain regional magnetic profiles of the area. The instruments used were two MF-2 magnetometers and one MF-2-100 Base Station magnetometer, manufactured by Scintrex Ltd. of Toronto. A base station was set up in camp, where the MF-2-100 was connected to a continuous recorder. This set-up afforded a great deal of accuracy in the total survey and made the application of the necessary corrections both simpler and more reliable. Some time was saved also because of the fact that the running of base lines and tie-in loops became unnecessary.

The results of the survey were plotted on a scale of 1" = 400 feet. The contoured map was subsequently reduced to a more convenient size on a scale of 1" = 800 feet.

Ronka E.M. 16

A few lines were run with the Ronka E.M. 16, using Hawaii and Seattle transmitter stations. Hawaii however was off the air for most of the time, and the direction of our lines (north-south) made the use of the Seattle transmitter less than desirable. (Lines should be run close to 90 degrees from the direction to the transmitter).

DISCUSSION

Geology

(The reader is referred again to the attached report by Peter Folk, describing the geology, structure and alteration in detail).

The overall geological picture developed much along the same lines as indicated on the map included with the original "Knob Hill Proposal". A large area in the northern and western part of the claim block is underlain by a medium grained granodiorite of probable Mesozoic age. The intrusive extends for several miles to the north of the property and is part of the large mass of "Island Intrusions" known to occur here. Some traces of copper and molybdenum have occasionally been found in this rock type, but it can generally be considered barren. Weathering forms massive rounded outcrops. To the southwest, and underlying the central part of the property are the Bonanza Volcanics, consisting of andesitic and rhyolitic lavas, tuffs and breccias. The Bonanza Volcanics form the host rock in the case of the Island Copper, Red Dog and Hep copper deposits in the general area. On our claims the Bonanza Volcanics form the potential target area, underlying about 50% of the total area staked. Alteration, silicification and pyritization are intense within the Bonanza on our property, indicating widespread hydrothermal acitivity.

The third rock unit found in the extreme southwesterly corner of the property consists of Cretaceous sediments. These sediments are generally dipping gently to the south and west, and may form a relatively thin cover near the contact with the Bonanza, which probably thickens in a southerly direction.

The structural picture at this junction is not at all clear. Some faulting may be observed on aerial photographs, and breaks in the magnetic contours in some cases confirm the existence and continuity of these faults. The domal structure that may form Knob Hill cannot be clearly proven for lack of outcrop in the general area. Where outcrop does exist it is difficult to determine attitudes of the volcanics for lack of definite bedding.

Mineralization consists of pyrite, pyrrhotite, magnetite, chalcopyrite, molybdenite and sphalerite, roughly in that order of visible frequency. Pyrite is all pervasive and appears to be present in most of the Bonanza rocks on the property. The relationship between the above mentioned sulphides, the sequence of deposition and their spatial arrangement will be discussed under "Geochemistry".

Geochemistry

Six rock geochemistry maps for the elements copper, molybdenum, zinc, lead silver and sulphur are attached to this report. The maps are on a scale of 1" = 800 feet, the same as the scale used for the geological and magnetic maps. A total of 90 samples were taken, covering about 9 square miles. Sections 13 and 14 however have large areas from which no samples and assays are available. Interpretation of the geochemical results as shown on the maps should take this into consideration. The plotted assays show that anomalous conditions exist in the Knob Hill area, and that the different elements complement each other in a very definite manner.

Geochemistry (cont.)

The folowing sequence, representing a zonal arrangement from a center to the outer margin, illustrates this relationship:

Silver: A rather large but very weak anomaly with an east-west trend over Knob Hill. Some poorly defined and lower anomalies at distances of a mile or more from Knob Hill give a "fringe" effect.

Molybdenum: A picture similar to the one for silver. A large but weak high over Knob Hill, trending east. One of the "Fringe" anomalies, in the northeast of section 24 and the southwest of section 25 has become strong.

Sulphur: This element, representing pyritization appears to conform very well to the general pattern. The Knob Hill anomaly extends in an easterly direction as far as Section 18. The "fringe" anomaly on Sections 24 and 25 is now a very strong part of the main anomaly around Knob Hill and almost dominates it. The "fringe" anomaly on Section 12 in the southeast corner is increasing in strength.

Copper: The main or Knob Hill anomaly shows its maximum strengths for this element. The "fringe" anomalies appear to increase in strength as well, indicating fairly widespread copper mineralization.

Zinc: The pattern appears to be breaking up. Knob Hill itself has become a "Background" area, with most of the highs now being located in the fringe areas, indicating that the zinc mineralization is largely peripheral.

Lead: The zinc pattern is repeated, with a "low" on Knob Hill which largely coincides with the high that was indicated for molybdenum. The anomalous "high" areas are all located in the fringe.

From this it appears that a zonal arrangement of the different elements is indicated in the order listed above. The focus of the zones appears to be near Knob Hill, with some secondary centres of activity that may be fault controlled, such as the one on Section 12.

MAGNETICS

The geological contacts indicated in the mapping have a distinct magnetic expression. The diorite in the north and northwesterly part of the property shows a fair amount of magnetic relief, with assorted highs and lows indicative of intrusive rock. The contact between the diorite and the Bonanza Volcanics shows up well, especially on Section 24, where a northwesterly running contact zone is clearly indicated. The Bonanza Volcanics are generally without much magnetic relief, as is shown on Section 24 and 13. Two outstanding features occur within the Bonanza Volcanics: The first one is the roughly circular area of intense magnetic activity on Knob Hill and its westerly slopes. This area of highs and lows is uncharacteristic of the Bonanza and may represent a shallow plug of younger intrusive rock. The second one is a similar feature which occurs in the northeast corner of Section 13, and the west half of Section 18. An area of about half a mile in diameter, and generally oval in outline shows much greater variation than normal for Bonanza Volcanics. A shallow plug of intrusive rock in this location is a possible explanation. A small area of magnetic anomalies occurs near the southeast corner of Section 18. This same area also shows up anomalous in the geochemical survey. Fault-related intrusive and hydrothermal activity in this area may explain this.

On Section 26, in the northwest corner of the property a large anomalous area appears to be building up. Immediately to the west a small copper-zinc showing indicates active mineralization. Geological mapping shows intrusive and volcanic rock. As this is off our claims however no further work was done in this direction.

EVALUATION

Several sources of information point to the existence of a centre of hydro-thermal activity and related mineralization on Knob Hill:

1. Geological mapping and alteration studies indicate Knob Hill may be a focus of activity. (See report by Peter Folk)
2. Geochemical information strongly suggests a focus on Knob Hill. The spatial distribution of 6 elements in a total of 90 rock samples indicates a zonal arrangement with a centre on, or near Knob Hill.
3. The magnetic survey shows magnetic activity on Knob Hill that could represent a plug of younger intrusive rock within the Bonanza Volcanics.

Some negative aspects of Knob Hill as a potential target area are:

1. Outcrops are very scarce on Knob Hill and its immediate vicinity. Geological and geochemical information are based on few samples.
2. No copper mineralization was found on or near Knob Hill beyond a few traces. The best copper showing in the area (and it is not very good) is about a mile and a half to the west, and off our property.
3. No intrusive rock of any kind has been found on or near Knob Hill. The existence of a possible intrusive plug is based on magnetic interpretation only.
4. Because the weakness or near absence of copper mineralization it may be a long way down before mineralization is strong enough to make ore. Economic limits may have been reached before that.

RECOMMENDATION

Let's drill some holes and find out!

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