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TO: W. M. SIROLA  
FROM: J. C. LUND August 25, 1970  
SUBJECT: Assessment of the Goodenough Property, Vernon, B.C.

INTRODUCTION:

The Goodenough prospect lies about 15 miles by road from Vernon, B C. on the west side of Dkanagan Lake.

John Lamb, consulting geologist, brought the property to our attention. It is held by Tom Hughes, engineer for Wright Engineering Ltd. Mr. Hughes is looking for some company prepared to do serious work to prove or disprove the property's potential.

Work to date has included bulldozer trenching, geochem, magnetometer, S.P., and I.P. surveys as well as geological mapping and diamond drilling. Ten holes were drilled in 1964 by Empire Development under the writer's supervision. This drilling encountered low grade mineralization across a zone 300 to 500 feet wide by 500 feet long, and to a depth of 400 feet. Not all the core was assayed. Longest intersection obtained was from drill hole #9 which had 315 feet of 0.16% Cu. This hole was still in 0.24% Cu when stopped.

Mineralization occurs as chalcopyrite in fine fractures and in greenstone remnants within a diorite intrusion. Chalcopyrite is the only economic mineral. Pyrite is distributed over much of the rock, consequently a good I.P. response can be expected. This intrusion has been emplaced along the crest of a north-northwesterly trending anticline consisting of Cache Creek

limestones and volcanic rocks in a north-northwesterly direction. The intrusion has been traced for 3600 feet. Of this length, 500 feet has been tested by drilling, much remains untested.

A re-examination of the work done by Empire Development and later by Hudson Bay Mining suggests that the area drilled by Empire is the main mineralized zone. Any work should be done to expand on this zone. To a depth of 400 feet, length of 1200 feet and width of 300 feet, the potential is 12-million tons of between 0.2 and 0.3% Cu. If we assume that mineralization continues along strike for 3600 feet and to a depth of 500 feet, the potential increases to about 45- to 60-million tons of uncertain grade. Work to date does not indicate the existence of a high grade section from which capital cost could be recovered in the first 3 years or 4 years. Any work contemplated would have to be done with the realization that an initial 4-year pit may not exist. Also, any high grade section would have to lie below the 400-foot depth. Since early drilling was done with a standard "A" size drill and recovery was generally poor, some increase in grade might be expected.

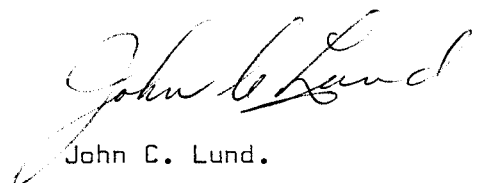
The prospect is readily accessible and a rotary type drill could be used to test the ground. Overall cost of diamond drilling 2 holes 1200 feet long could reach \$12. - \$14. Cost of a rotary drill capable of 1000-foot depths might be in the order of \$4.50 to \$5.00. These figures were given me from a company who has been using both diamond and rotary rigs in the Okanagan - Kamloops area. A recovery of 90%  $\pm$  could be expected with a rotary drill.

Mr. Hughes, owner of the prospect, is not asking for any cash. He would like some company to come in and drill to test the downward and lateral extensions to the mineralized zone. If encouraging results were encountered, he is prepared to go along with any reasonable agreement proposed.

SUMMARY AND RECOMMENDATIONS:

- 1) The probability of better grade material below the 400-foot depth does exist.
- 2) The probability of the mineralized zone extending laterally for 1200 feet is good; for 3600 feet is possible.
- 3) Cost of exploration is reasonably low - four 800-foot rotary holes would cost about \$20,000.
- 4) Property is readily accessible. It lies 15 miles by road from Vernon on the west side of Okanagan Lake four miles from the west side road.
- 5) Mineralized zone is narrow (300' - 400') where explored with no grades high enough to provide a 3-year tax free pit for capital cost recovery.
- 6) Wast to ore ratios could be high even if a higher grade section existed below the 400-foot level. This ratio would have to be weighed against the grades obtained from drilling.

I would recommend that we take a serious look at this before making a final decision keeping in mind that deposits like Brenda were not considered mineable five years ago.

  
John C. Lund.