

CORNUCOPIA

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104P-12

104P/5E

SUMMATION REPORT

STATEMENT OF EXPENDITURES on the

DORCHESTER RESOURCES LTD. (N.P.L.)

CASSIAR GOLD PROPERTY

LIARD MINING DIVISION, BRITISH COLUMBIA

Lat. 56° 16' N
Long. 129° 40' W

104P/5E

Claim Name

Record Number

012 -

Copco 1 - 6	8213M - 8218M
Roy 1 - 4	55511M - 55514M
Roy Fraction	8515H
Atlas 1 - 11	69566 - 69576
Atlas Fractions 12 - 14	69577 - 69579
Tod 7 & 8	57648N & 57649N
Dor 1	69692D
Thrush	7329M

by

G. B. Phelps, M.Sc., P.Eng.

ATLED EXPLORATION MANAGEMENT LTD.

Vancouver, B. C.

July, 1973

NTS 104P 5E

A SUMMATION REPORT ON
DORCHESTER RESOURCES LTD. (N.P.L.)
CASSIAR GOLD PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA

INTRODUCTION

This report is a summation of the available data on the Dorchester Cassiar gold property written at the request of Mr. Mel Rahal, President of Dorchester Resources Ltd. (N.P.L.). In view of the high price of gold it has become evident that the property warrants further exploration, and at a price of over \$100.00 per ounce for gold it has potential as an open pit type operation as well as an underground mine. The writer has not examined the Dorchester property. This report is based on previous Engineer's reports, company records, B.C. Department of Mines publications, Geological Survey of Canada publications and personal interviews.

ACKNOWLEDGEMENTS

The writer wishes to acknowledge the kind assistance of Dr. Paul Richardson and Newconex Canadian Exploration Ltd. who made all the data from their exploration program available and made copies of their maps for Dorchester Resources Ltd. Mr. R. Westervelt, who supervised the Newconex exploration program and Mr. C. Hood Jr., who was managing director for Hanna Gold Mines Limited provided much information in personal interviews. Mr. C. Ikona, Mining Engineer, assisted in planning the proposed exploration work and reviewing the previous metallurgical studies.

SUMMARY

Numerous quartz veins occur in massive Upper Devonian - Lower Mississippian andesites of the Sylvester Group on the Dorchester property. The veins are accompanied by widespread and extensive dolomitic alteration. Sulphide mineralization occurs in the quartz veins and in mineralized zones of andesite between closely spaced quartz veins. The mineralized zones are much wider than the quartz veins, and are of more economic interest.

Free gold occurs as flakes in the quartz and is associated with pyrite, tetrahedrite, sphalerite and minor arsenopyrite. The presence of sphalerite often indicates strong gold values.

Strong faulting preceded and followed mineralization. The gold-bearing veins are displaced by the faulting. Shearing and brecciation have caused localized poor ground conditions in the underground workings.

The continuation of vein structures at depth has been confirmed by diamond drilling. The complex faulting and lack of a marker horizon make the continuity of individual veins uncertain. Additional underground development and diamond drilling will be necessary to prove the vertical continuity of individual veins, however, future exploration should also be planned to test the possibility of a large tonnage-low grade deposit.

CONCLUSION

Future exploration should be planned to test the potential for a high tonnage-low grade operation as well as an underground high grade mine.

An open pit operation would eliminate the high costs of underground development in narrow vein mines which would be increased, in this case, by structural complications.

The alteration zones and veins are easily visually distinguished from waste rock by colour and would permit sorting of ore and waste by shovel operators in selective open pit type mining.

The available data on veins that have not been extensively sampled shows that the sampling of structures and alteration zones not previously tested may greatly increase ore reserves.

Two deep, large diameter, diamond drill holes drilled south of the present workings would test the present veins at depth and probably locate new veins which would be crossed by a low level adit driven from the south. These holes would help determine the extent of alteration and should give some assay information although it would not necessarily be representative.

The presence of numerous rich gold bearing veins, the strong hydrothermal alteration, the continuity of structure, the close spacing of adjacent veins, the continuation of mineralization at depth, the large area over which quartz veins are emplaced and the easy visual identification of ore and waste show that the property merits further exploration for both a low grade-high tonnage operation and for a high grade-low tonnage operation.

The ore reserves should be increased substantially by bulk sampling, sampling of additional veins and by vertical development. Previous work was designed to determine the extent of the veins rather than to prove and block out ore reserves. Despite the previous underground development and diamond drilling no limitations on the extent of the veins or mineralization have been determined.

It is probable that bulk sampling will add to the present ore reserves, but it may also demonstrate that the alteration zones carry sufficient gold values to consider an open pit type operation.

The new exploration program will necessarily repeat some of the previous work because the high price of gold changes the economic considerations. The property could not be considered previously as an open pit type operation and consequently none of the work was intended to test the possibility of that type of deposit.

RECOMMENDATIONS

The following exploration program is recommended.

Phase I

- A. Compile all existing geological and assay information available, make longitudinal and cross-sections. Determine which structures are incompletely sampled and where assays are missing.
- B. Complete the underground sampling of structures by channel samples.
- C. Map and sample the raise.
- D. Take bulk samples of selected areas to determine if a correction factor has to be applied to the channel samples.

- E. Bulk sample the cross-cuts in the vein zones, alteration zones and wall rock.
- F. Drive short test raises on the vein (in locations suitable for production purposes) and take bulk samples. This should be done in both the high grade zones and low grade zones.
- G. Underground diamond drilling 1,000 feet, wire line N size. This drilling will test continuity of high grade veins and will test for the high grade zone discovered in D.D.H. No.4. which was not reached by the 196N cross-cut.

Phase II

Phase II is contingent upon the results of Phase I. Drill two deep diamond drill holes of large diameter south of the present workings. Depth and location will depend upon results obtained in Phase II total drilling--2,000 feet.

ESTIMATED COSTS

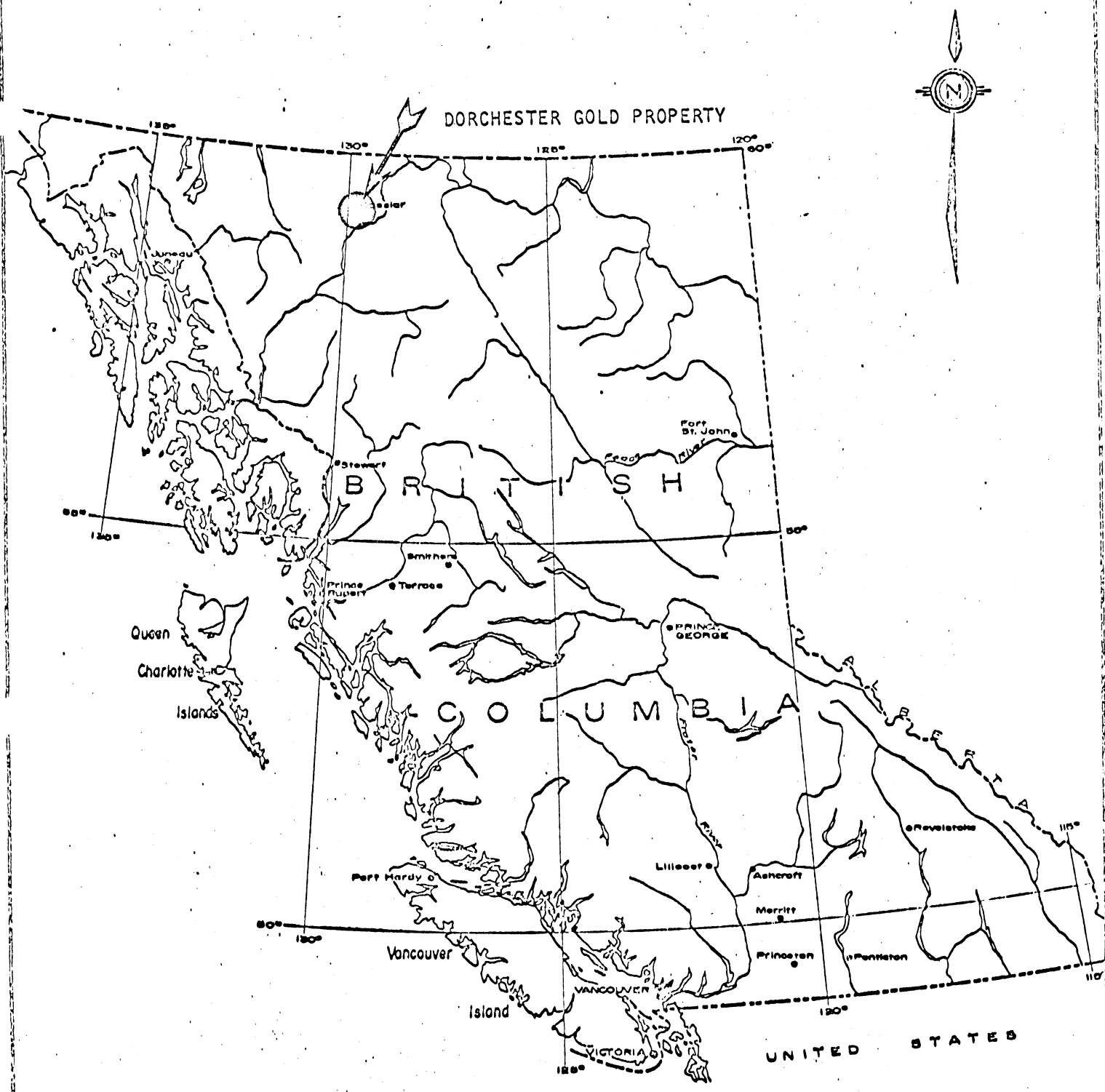
Phase I

Geological data compilation, preparation of sections, underground mapping of raise, channel sampling of veins not previously sampled....2 weeks.....	\$ 5,600.00
Bulk sampling plant.....	22,000.00
Bulk sampling program - geologist, technician, crusher operator, sampler, including rental of mining equipment and two miners.....	48,000.00
Diamond drilling	
1,000 feet @ \$20.00/per foot.....	<u>20,000.00</u>
TOTAL COST PHASE I	<u>\$ 95,600.00</u>

Phase II

Supervision, geology, assaying and drill site preparation.....	4,700.00
Diamond drilling	
2,000 feet @ \$25.00/per foot.....	<u>50,000.00</u>
TOTAL COST PHASE II	<u>\$ 54,700.00</u>

TOTAL COST PHASE I AND II.....\$ 150,300.00



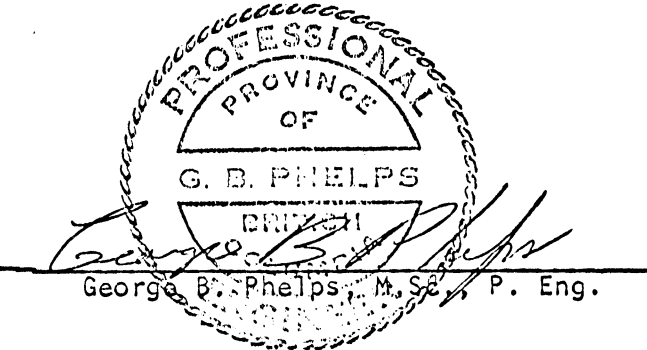
LOCATION MAP

DORCHESTER GOLD PROPERTY

ENGINEER'S CERTIFICATE

I, GEORGE B. PHELPS, of #501-2061 Beach Avenue, in the City of Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:-

1. That I am a consulting geological engineer with a business address of 420-475 Howe Street, Vancouver, British Columbia.
2. That I am a graduate of the Montana College of Mineral Science and Technology where I obtained my B.Sc. in geological engineering in 1966 and my M.Sc. in geological engineering in 1969.
3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia.
4. That I have practiced my profession as a geological engineer for the past eight years, and
5. That I have no interest, direct or indirect, in the property with which this report is concerned, nor do I expect to receive any such interest. I have no interest in the securities of Dorchester Resources Ltd.



The seal is circular with a double-line border. The outer ring contains the text "PROFESSIONAL ENGINEER" at the top and "BRITISH COLUMBIA" at the bottom. Inside the ring, the text "PROVINCE OF" is at the top, "G. B. PHELPS" is in the center, and "M.Sc., P. Eng." is at the bottom. A handwritten signature of George B. Phelps is written across the seal.

George B. Phelps, M.Sc., P. Eng.

DATED at the City of Vancouver, Province of British Columbia,
this 7th day of July 1973.