92-I-7

800353

CANNON-HICKS ASSOCIATES LTD.
SUITE 604-744 WEST HASTINGS ST.
VANCOUVER 1, B.C.

Report on

# THE J M COPPER PROSPECT

(Formerly the Bod Group)

Kamloops Mining Division

British Columbia

for

MR. W. A. McCLELLAND

by

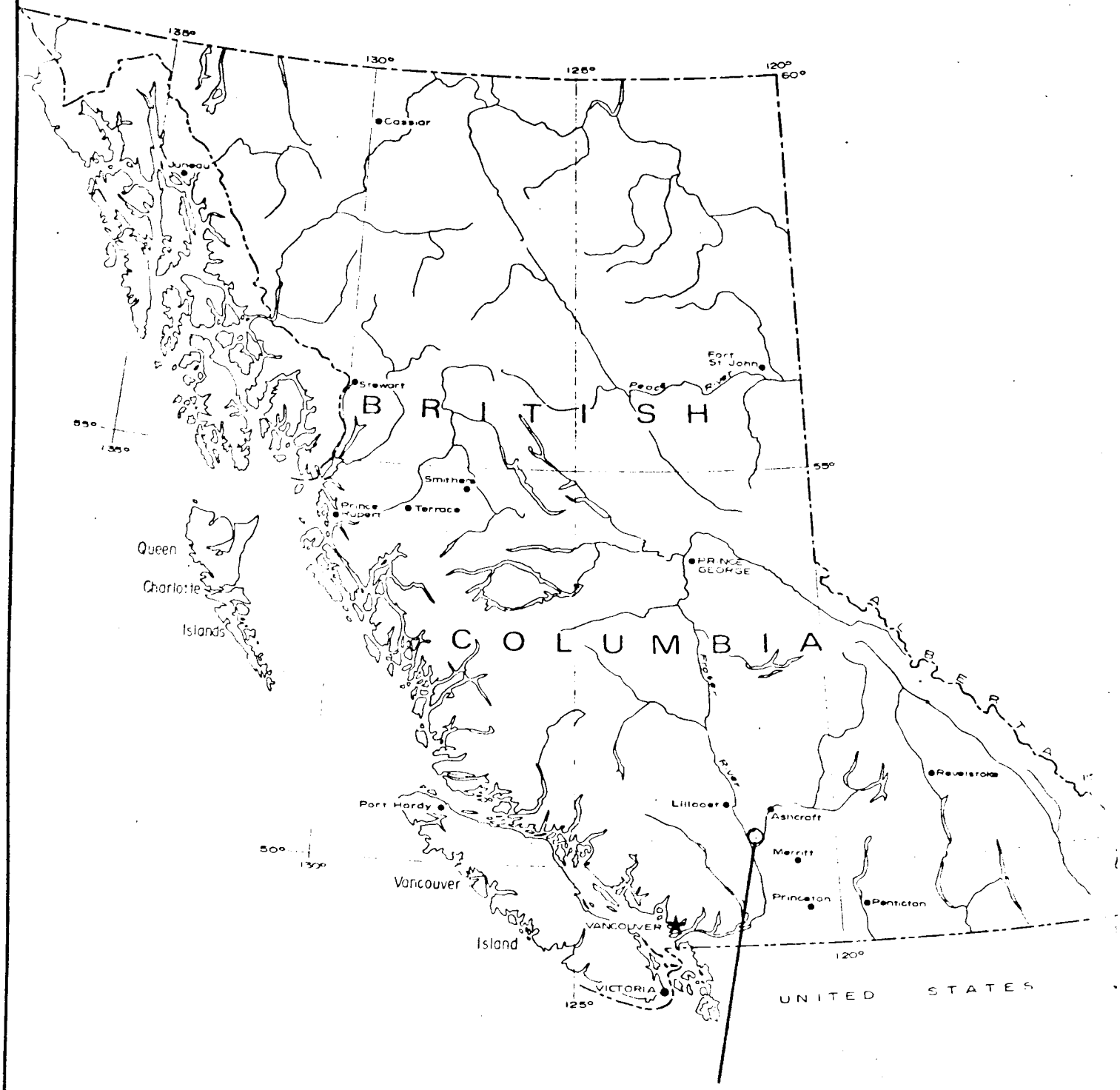
R. W. Phendler, P.Eng.

Vancouver, B.C. May. 16, 1974

## TABLE OF CONTENTS



## LIST OF ILLUSTRATIONS




J M CLAIMS

R. W. Phendle P. Eng.
May 6 1974

CANNON-HICKS ASSOCIATES LTD
VANCOUVER B.C.

LOCATION MAP

PROJECT J M Claims
Report by R.W. Phendle
Scale: 1"=136 Miles Date: May 74

ALTAIR drafting services ltd.

PART "A"

SUMMARY AND CONCLUSIONS

The J M Copper Prospect consists of eleven mineral claims and is located near Lytton at the northeast edge of the Coast Range granite intrusives immediately north of the Thompson River in South Central British Columbia.

Mineralization consists of widespread disseminated chalcopyrite with associated pyrite and magnetite within brecciated and shattered diorite and gabbro.

A few pits and short adits exist on the property from early (circa 1910) exploration but current work began in 1970 when Kalco Valley Mines Ltd. held the ground and the firm of Cannon-Hicks Associates Ltd. carried out preliminary studies. The following year $50,000.00 was spent on the property, but because of its location, little was spent on trenching and sampling. All geologists who have examined the abundant showings agree that additional exploration work is warranted.

In the immediate vicinity of the principal showings there is ample room for the discovery of additional mineralization in large overburden covered areas. The showings cover an area measuring 3500 feet by 800 feet with a second area measuring 1800 feet by 300 feet to the south.

Very limited trenching, which was partially sampled, and earlier sampling of mineralized outcrops by

# GENERAL TESTING LABORATORIES

DIVISION SUPERINTENDENCE COMPANY (CANADA) LTD.
1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2
PHONE (604) 254-1647 TELEX 04-507514 CABLE SUPERVISE

TO:
Peachiney Development Ltd.
701 - 744 West Hastings Street
VANCOUVER, B.C.

## CERTIFICATE OF ASSAY

No.: 7506-0955 DATE: June 12/75

*We hereby certify that the following are the results of assays on:* Ore

| MARKED | ~~XXXX~~ OZ/ST GR/MT | ~~XXXX~~ OZ/ST GR/MT | Total Copper Cu (%) | Sulfide Copper Cu (%) | XXX | XXX | XXX | XXX |
|---|---|---|---|---|---|---|---|---|
| LIT - 1 | | | 0.76 | 0.27 | | | | |
| LIT - 2 | | | 0.07 | 0.03 | | | | |
| BAR #1 | | | 0.18 | — | | | | |
| E - 174074 | | | | | | | | |
| Lwmja | | | | | | | | |

JAI prospect

NOTE: REJECTS RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS. ON REQUEST PULPS AND REJECTS WILL BE STORED FOR A MAXIMUM OF ONE YEAR.



L. WONG
PROVINCIAL ASSAYER

COPY

reputable geologists suggest that appreciable tonnages of copper-bearing material exists on the property.

RECOMMENDATIONS

It recommended that:

1. A grid be prepared over the mineralized area.
2. A magnetometer survey be conducted over the grid.
3. Soil sampling be carried out over the grid.
4. The access road be re-opened and the trenches be cleaned out, mapped and sampled.

If results of Phase I give encouraging results Phase II should be carried out as follows:

1. Percussion drilling of anomalous areas should be done.
2. All drilling should be sampled at ten foot intervals.

## COST ESTIMATE

### Stage I

| | | |
|---|---|---|
| 1. | Grid Preparation 5 x 150 | $ 750.00 |
| 2. | Magnetometer Survey 5 x 150 | 750.00 |
| 3. | Geochemistry Survey - collect 330 samples at $1.50 each | 495.00 |
| | - analyze 330 samples at $1.20 each | 400.00 |
| 4. | Mobilize and demobilize bulldozer | 800.00 |
| | Repair roads and clean out trenches | 2,500.00 |
| | Sampling of trenches and assaying | 1,400.00 |
| 5. | Engineering and Geological Mapping | 2,000.00 |
| | | 9,095.00 |
| | 10% Contingencies | 910.00 |
| | | $10,005.00 |

### Stage II

| | | |
|---|---|---|
| 1. | Percussion Drilling 3000x $3.50 | 10,500.00 |
| 2. | Assay drill samples 300 x 4 | 1,200.00 |
| 3. | Engineering and Geology | 2,000.00 |
| | | 13,700.00 |
| | 10% Contingencies | 1,370.00 |
| | | $15,070.00 |

The sum of $10,000.00 should be provided at this time to carry out Phase I of the above program.

Respectfully submitted

CANNON-HICKS ASSOCIATES LTD.

R. W. Phendler P. Eng

R. W. Phendler, B.Sc., P.Eng.

R.W. PHENDLER BRITISH COLUMBIA ENGINEER

PART "B"

INTRODUCTION

At the request of Mr. W. A. McClelland of Merritt, British Columbia, the writer compiled this report from information from the files of Cannon-Hicks Associates Ltd. and from the Phelps Dodge Corporation of Canada Limited. Personnel of the former company carried out preliminary investigations and follow-up exploration in 1970. Snow conditions at the time of writing do not permit an examination of the property.

LOCATION AND ACCESS

The J M Property is located at an elevation of 1500 - 3000 feet immediately north of the Thompson River and eight miles east of Lytton in south central British Columbia.

Access is somewhat difficult as no auto bridges exist across the Thompson River in the vicinity. However, the Canadian National Railway line follows the north side at this point, and can be utilized to transport equipment to the property.

A foot bridge from the Trans-Canada Highway provides access across the Thompson River about one mile west of the claims under discussion. From Pitquah, one

mile farther west, a four mile bush road reaches the claims from a railroad siding. Helicopter pads exist on the property and are shown on the accompanying map of the claims (Figure 2).

## PROPERTY AND OWNERSHIP

The J M Prospect is comprised of eleven mineral claims as follows:

| CLAIM NAME | TAG NUMBER | CLAIM NAME | TAG NUMBER |
|---|---|---|---|
| JM 1 | 390019 M | JM 6 | 390024 M |
| JM 2 | 390020 M | JM 7 | 390025 M |
| JM 3 | 390021 M | JM 8 | 390026 M |
| JM 4 | 390022 M | JM 9 | 389708 M |
| JM 5 | 390023 M | JM 10 | 389709 M |
| | | JM 11 | 568148 |

The claims are held by Mr. W. McClelland, were staked on May 7, 1974 and were recorded on May 10, 1974.

## HISTORY

Little is known of early exploration work which consisted of some trenching and minor underground work probably around 1910. Following rediscovery by Mr. L. Bourgh in early 1970, 164 mineral claims in two blocks were staked

porphyrytic andesite, quartz-diorite breccia zone with widespread alteration and chalcopyrite mineralization. The property is attrative geologically but it is extremely difficult to explore and copper values are sub-marginal." Mr. Malcolm states (personal communication, May 16, 1974) that "insufficient trenching was carried out in 1971 and the few samples taken at the time were collected with the purpose of avoiding rock chips with visible chalcopyrite or malachite staining. This sampling is not representative of the mineralization. More work is warranted."

Thirty samples which averaged 0.06% Cu were taken by personnel of Phelps Dodge Corporation of Canada Ltd. It is not known from where these samples were taken.

## GEOLOGY AND MINERALIZATION

The area in which the J M Claims are located is underlain by an outlier of and near the northeast edge of the Mount Lytton batholith, which is part of the Coast Range intrusive complex. This batholith, of Jurassic age, measures eighty miles by ten miles; its long dimension striking northwest and is composed of granodiorite, quartz diorite, diorite and gabbro. The granitic mass, which underlies the J M Claims, is separated from the main batholith by a lens of metamorphosed quartz mica schist and granitic gneiss. These

on behalf of Kalco Valley Mines Ltd. The first 38 were staked on March 18, 1970, adjoining claims of Lytton Minerals Ltd.

During May and June of 1970, personnel of Cannon-Hicks Associates Ltd. conducted topographic and geological surveying and prospecting for Kalco Valley Mines Ltd. leading to the staking of additional claims. This work disclosed the presence of widespread copper mineralization and was carried out by Messrs. M. Guiguet, A.E. Nevin, P.Eng. and B. Switzer under the direction of Mr. D. M. Cannon, P.Eng.

On May 1, 1970 the property was examined by D. C. Malcolm, P.Eng., who stated that it was well mineralized over large areas with chalcopyrite and magnetite and recommended extensive bulldozer trenching.

Dr. J. M. Carr of Teck Corporation examined the showings on November 11, 1970. He states that the property is an excellent prospect with widespread copper in a strongly crackled environment.

In early 1971 the claims were optioned by Phelps Dodge Corporation of Canada Ltd., who constructed access roads and carried out geological mapping and very limited bulldozer trenching and sampling spending approximately $50,000.00. The program (March 1 to June 20, 1971) was under the direction of Mr. D. C. Malcolm, P.Eng., who concluded "that the property covers a very large gabbro, diorite,

rocks are considered to be part of the Cache Creek volcanics of Permian or Triassic age and are overlain, as are the granitic rocks, by Spences Bridge volcanics and clastic sediments (Cretaceous).

The diorite and gabbro is locally well brecciated in the area of the claims. These breccia zones are pipe-like or elongate and often intense.

Mineralization consists of chalcopyrite, pyrite and magnetite as fine disseminations and discontinuous fracture fillings in strongly jointed and shattered diorite. Numerous small irregular limestone bodies occur and often contain narrow mineralized shear zones. These metasediments appear to have a general north-easterly trend, as do two narrow basic dykes.

The mineralization, which is commonly altered to malachite and azurite, is discontinuously disseminated over an area measuring 3500 feet by 800 feet but insufficient exploration work has been carried out to calculate an average copper grade.

All samples taken on the property (from available information) are as follows:

| Location | Width or Length | % Cu | Sampled By | Date | Number or Type of Sample |
|---|---|---|---|---|---|
| Claim JM 2 | 20.0' | 0.65 | Guiguet | 1970 | chip |
| Claim JM 3 | 180.0' | 0.58 | Bourgh | 1970 | grab |
| Claim JM 3 | 250.0' | 0.29 | M. Carr | 1970 | - |
| Claim JM 5 | 150.0' | 1.16 | Guiguet | 1970 | grab |
| Claim JM 10 | 10.0' | 0.25 | Guiguet | 1970 | chip |
| Claim JM 10 | 250.0' | 0.29 | Guiguet | 1970 | grab |
| Claim JM 9 | 30.0' | 0.48 | Guiguet | 1970 | chip |
| Claim JM 9 | 10.0' | 0.82 | Guiguet | 1970 | chip |
| Claim JM 9 | - | 0.09 | M. Carr | 1970 | - |
| Trench B | - | 0.06 | Phelps | 1971 | 9 |
| Trench C | - | 0.04 | Phelps | 1971 | 4 |
| Trench D | - | 0.22 | Phelps | 1971 | 2 |
| Trench A | - | 0.04 | Phelps | 1971 | 15 |

Although in no way can this be considered to be indicative, the arithmetic average of these samples is 0.38% copper.

Pipe-like zones of highly kaolinized quartz diorite and widespread epidotization and chloritization have been reported.

GEOCHEMISTRY

Phelps-Dodge Corporation of Canada Ltd. collected 18 geochemical samples from the property and these samples

were analysed for Cu, Pb, Zn, Mn, Ag and Au. The sample locations are not known and the only significance result is that the background for Cu appears to be around 15 ppm, the threshold about 30 and anything over 50 can be considered to be anomalous. One sample was shown to contain 248 ppm Cu.

Fourteen samples were taken for rock geochemistry. Significant values of 1460 ppm Cu, 96 ppm Cu, 102 ppm Cu and 915 ppm Cu were received.

GEOPHYSICS

Aeromagnetic maps of the area show a pronounced magnetic anomaly over the J M claims. This is probably caused by the presence of magnetite which has been reported in abundance from the area.

## BIBLIOGRAPHY

1. Guiguet, M., "Preliminary Report - Bod Group of Claims for Kalco Valley Mines Ltd., Spencers Bridge, B.C.", April 14, 1970.

2. Nevin, A.E., "Report on the Bod Claim Group, Kalco Valley Mines Ltd. (N.P.L.), Kamloops Mining Division", May 1, 1970.

3. Switzer, B.J., "Progress Report on Bod Claim Group for Kalco Valley Mines Ltd.", June 4, 1970.

4. Malcolm, D.C., "Geological Report on the Bod Group", June 21, 1971.

## CERTIFICATION

I, ROY WILLIAM PHENDLER, of the City of Vancouver, in the Province of British Columbia, hereby certify as follows:

1. That I am a registered Professional Engineer in the Province of British Columbia, No. 4421.
2. That I am a graduate of McGill University, Montreal, Quebec with a Bachelor of Science degree in Geology.
3. That I have practiced my profession as geologist continuously for the past twenty-two years in Quebec, Ontario, Saskatchewan, Newfoundland, British Columbia, and the Yukon Territory in Canada; in the western U.S.A.; Mexico, Peru, Colombia and Chile in South America.
4. I have not received nor do I expect to receive any interest directly or indirectly in the J M Claims.
5. That the information contained herein was compiled as a result of my examination of all available reports on the property and a personal knowledge of most of the geologists involved and their integrity.

R.W. Phendler, B.Sc., P.Eng.

Vancouver, B.C.

May 16, 1974.