

GEOLOGICAL REPORT 4379
On The 92H/IW
NO. 1 BRECCIA ZONE, I.T. CLAIMS,
ASHNOLA RIVER I.T.
26 MILES S.E. OF PRINCETON
LAT. 49°6'N., LONG. 120°21'W.
OSOYOOS MINING DIVISION
BY R.W. PHENDLER, P.ENG.
Claim Owners:
MINERAL MOUNTAIN MINING CO. LTD.
WORK DONE BETWEEN OCT. 26 & 31, 1972

4379



CANNON-HICKS ASSOCIATES LTD
SUITE 715-714 WEST HASTINGS ST.
VANCOUVER 1, B.C.

INTERIM REPORT

ON THE

NO. 1 BRECCIA ZONE, IT CLAIMS,

ASHNOLA RIVER, OSOYOOS MINING DIVISION

LAT. 49° 6' N. , LONG. 120° 21' W.

OF

MINERAL MOUNTAIN MINING CO. LTD.

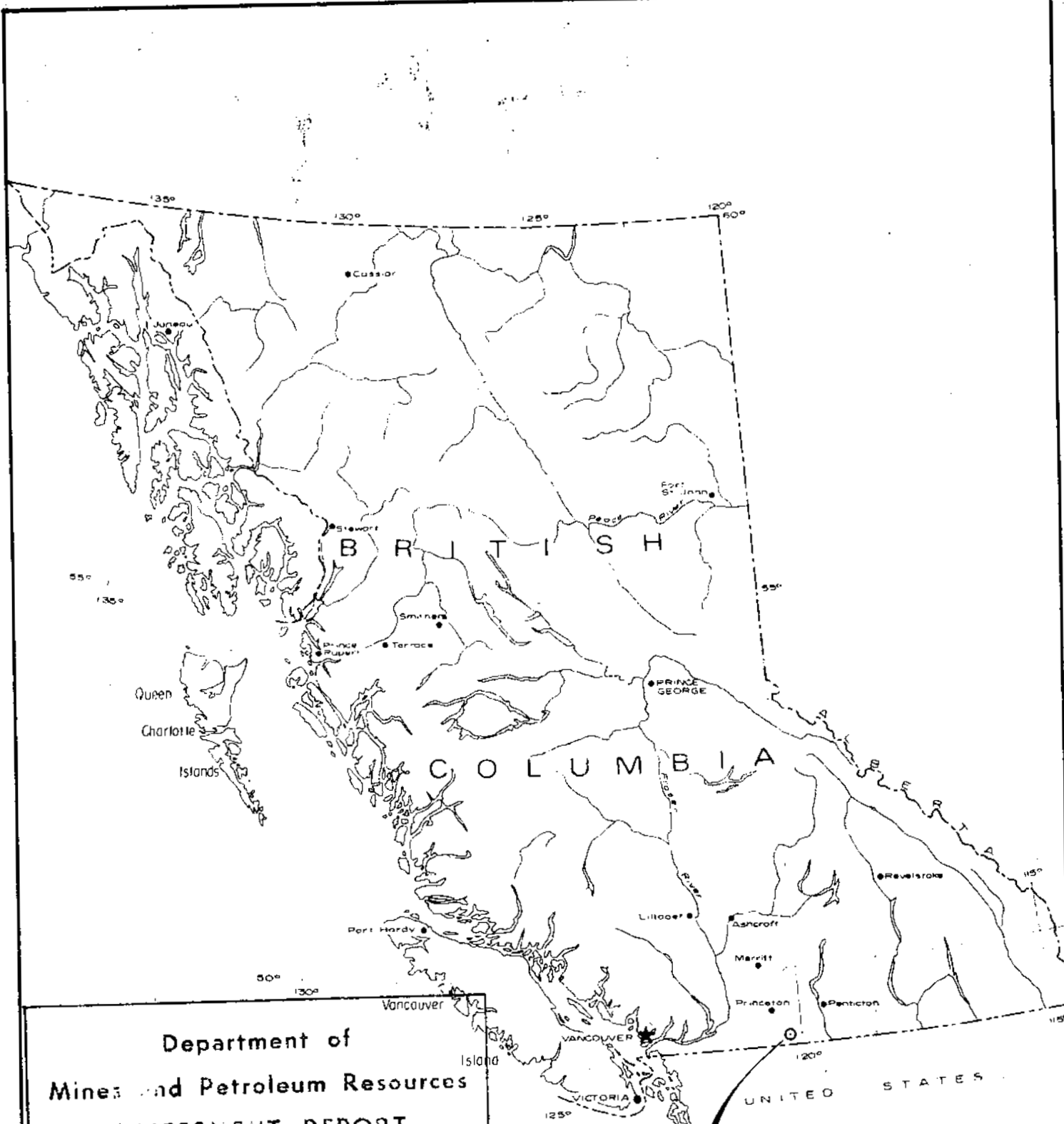
SUBMITTED BY

R. W. PHENDLER, P. ENG.

VANCOUVER, B.C. Department of MINES, DECEMBER 7, 1972.

Mines and Petroleum Resources
ASSESSMENT REPORT.

NO. 4379 MAP



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **4379** MAP # **2**

R. W. Phendler
 PROFESSIONAL ENGINEER
 PROVINCE OF BRITISH COLUMBIA
 R. W. PHENDLER
 1973

CANNON-HICKS ASSOCIATES LTD.
 VANCOUVER B. C.
 MINERAL MOUNTAIN MINING CO. LTD.
 PROJECT: ASHNOLA RIVER No. _____
 REPORT by: R. W. PHENDLER
 SCALE: 1" = 136 Mls. DATE: OCT. - 72

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GEOPHYSICAL REPORT ON THE INDUCED POLARIZATION SURVEY -
IT CLAIMS, ASHNOLA RIVER AREA - G.E. WHITE.

ILLUSTRATIONS

#1 | 1. - Geological Map of No. 1 Breccia Zone, IT Claims, Ashnola
River - 1" = 200'.

~~2. IT Claims Geophysical Map - I.P. - Apparent Charge
Ability - 1" = 200'.~~

~~3. IT Claims Geophysical Map - I.P. - Apparent resistivity
2" = 200'.~~

#2 Location map

PART "A"

SUMMARY AND CONCLUSIONS:

As a result of geological mapping and prospecting carried out by the writer with Mr. D. Atkinson in September, 1972, a limonite-stained breccia pipe was discovered. Preliminary examination showed that anomalous copper conditions existed in the soil within the breccia zone, which appeared to measure 1300' by 500'.

It was recommended that additional claims be staked and that an induced polarization survey be carried out. This program was carried out in late October, 1972 and although a zone of weak above - background chargeability is present coincident with the breccia, it is not of sufficient magnitude to warrant diamond drilling. The intensity of the chargeability indicates that the breccia zone contains about 1.5% of chargeable material.

RECOMMENDATIONS:

It is recommended that additional induced polarization work be carried out south of the #1 Breccia Zone for at least 1500 feet. Additional gossan-stained breccia has been discovered and a soil sample shows copper content higher than background one thousand feet south of the principal zone.

This programme should be delayed until summer

conditions prevail as during the present program work was hampered by 1 - 2 feet of snow.

COST ESTIMATE:

| | | |
|---|----|--------------------------|
| 1. - Three Miles of Grid @ \$100/Mile | \$ | 300.00 |
| 2. - Three Miles of Induced Polarization @ \$400/Mile | | 1,200.00 |
| 3. - Mobilization and Demobilization of crews | | 700.00 |
| 4. - Mobilization, - Helicopter - 3 hrs. @ \$250/hr. | | 750.00 |
| 5. - Engineering and Geology | | 500.00 |
| | \$ | <u>3,450.00</u> |
| 15% Contingencies | | <u>518.00</u> |
| GRAND TOTAL | \$ | <u>3,968.00</u> ===== |

Respectfully submitted,

R. W. Phendler, P. Eng

R. W. PHENDLER, P. ENG.



RWP/lcc

PART "B"INTRODUCTION:

Between October 26 and 31, 1972, the writer was engaged in carrying out exploration work on the No. 1 Breccia Zone on the IT Claims of Mineral Mountain Mining Ltd., which are located in the Ashnola River area of the Osoyoos Mining Division of British Columbia.

This program followed out the recommendations as outlined in the September 28, 1972 report by the writer on this property and consisted of the following:

- 1) Five additional claims were staked south of the No. 1 Breccia Zone.
- 2) A grid was established totalling 10,000 feet.
- 3) Detailed geological mapping was carried out over the grid.
- 4) An induced polarization survey was conducted by Glen E. White Geophysical Services Ltd. utilizing a Hunttec 2.5 KW time domain system deployed in the three array with "a" spacing and traverse interval of 200 feet and 400 feet.

WORK PERFORMED:

- 1) The five claims that were staked will cover the southern part of the No. 1 Breccia Zone and any possible extension for 3,000 feet to the south. These claims were staked by the writer on October 28, 1972 and were recorded in Vancouver on November 2, in the name of Mineral Mountain

Mining Ltd. They are claims IT 75, IT 76, IT 77, IT 78 and IT 79.

2) A grid was established over the No. 1 Breccia Zone. The base line was run for 1600 feet on a bearing of N 15° E and 5 cross lines varying from 1300 feet to 1800 feet long were chained and marked at 400 feet intervals.

3) Geological mapping was conducted by the writer over the No. 1 Breccia Zone. All outcrops were related to the grid and elevations were recorded throughout. Reconnaissance to the south showed additional brecciation in this area.

4) A crew of four men conducted an induced polarization survey over the gridded area. Snow conditions prevailed (1.5 feet - 2.0 feet) assisting in making good electrical ground contact.

5) A helicopter pad was established near the south end of the grid.

GEOLOGY:

Detailed geological mapping in the area of the No. 1 Breccia Zone has determined the host rock to be fine-grained dark green andesite, probably belonging to the Nicola group of the volcanics of Triassic Age. They appear to be dipping gently to the north and are fractured and silicified close to the breccia zone and massive elsewhere.

The No. 1 Breccia Zone measures 1200 feet (North-South) by 500 feet to 1000 feet in width with a narrow (± 200 foot wide) extension that may extend 1000 feet to the south. One small outcrop of breccia, soil from which contains 67 ppm. Cu. (near anomalous) was seen here.

Fragments within the breccia are composed of dacitic crystal tuff - similar to the Kingsvale volcanics to the north and east, and andesite. The similarity of the majority of the fragments to the rocks to the north suggest that this was the volcanic vent within the Triassic volcanics from which was derived the Cretaceous Kingsvale flows.

The porous nature of the brecciated material suggests that leaching and weathering could extend to some depth. The anomalous copper conditions in the soil and the lack of visible copper oxides on the outcrops indicate that this is so.

INDUCED POLARIZATION SURVEY:

Because of the presence of coarse talus in the breccia area, some readings could not be recorded due to poor grounding of the electrodes.

The results of the survey show that background is considered to be in the range of 2.0 - 2.5 milliseconds. Anomalous conditions were found over an area which coincides with the No. 1 Breccia pipe.

This central zone ranges around 3.5 milliseconds and rises to a high of 4.2. This indicates the presence of about 1.5% chargeable material at a depth of 150' ("a" spacing - 200'). A second separation ($a = 400'$) showed a slight increase in chargeability with depth. However, the per volume chargeability response with either separation indicates that there is only a minor amount of chargeable material present. A small (100' to 200') target exists on line 4+00 N, 2+00 E with one reading to 4.2 milliseconds but this does not appear to warrant investigation by diamond drilling.

RESULTS OF PRISM EXPLORATION:

(Two miles north of #1 Breccia Zone.)

Geophysical

It has been learnt that induced polarization work conducted in 1970 by D. Cochrane with "a" spacing of 600' disclosed the presence of a high amplitude moderate to strongly anomalous chargeability zone which is arranged in a crude horseshoe shape open to the east. The entire anomaly is about two miles in outside diameter and 1/2 mile in inside diameter. The central core is irregular and measures 3400 feet by 1500 feet and is characterized by IP response below 10 milliseconds (considered to be background for that area by Cochrane).

The anomalous zone (greater than 20 milliseconds) contains three areas of intensity greater than 40 milliseconds.

The largest of these, which was believed to contain 8% by volume of disseminated sulphide, measures 6000' by 1000'.

Resistivity data shows anomalous conditions coincident with chargeability.

Geochemical

A zone containing anomalous copper and molybdenum values roughly coincides with the central part of the horse-shoe shaped IP anomaly, but not with the area of highest chargeability.

Alteration, Pyritization

A large central core of alteration (bleaching, sericitization) exists, superimposed upon the host rhyolite porphyry. This zone measures 4000' by 2000', the long dimension striking north-south. Near the southwest corner of this area, is a large pyritic zone with strong limonite staining.

Two smaller pyritic zones exist at the extremities of the limbs of the horseshoe-shaped induced polarization anomaly.

Diamond Drilling

In 1970, Quintana Minerals Corporation confined their drilling to an intrusive plug of granite porphyry. Six holes were drilled and only one (3A) showed appreciable mineralization containing 0.10% Cu. over 506'.

The recent investigation (1972) by Getty Mines Ltd. centered around the alteration zone where little drilling had previously been carried out. Most holes showed continuous weakly-pyritic rhyolite with two holes to the east intersecting pyritized agglomerate.

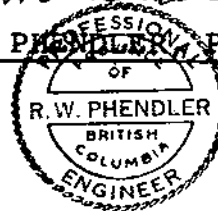
One hole (of six) in the central zone averaged 0.17% Cu. across 500'.

It was felt that the drilling adequately explained the presence of the induced polarization anomalies.

Respectfully submitted,

R. W. Phendler, P. Eng


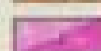




R. W. PHENDLER, P. ENG.



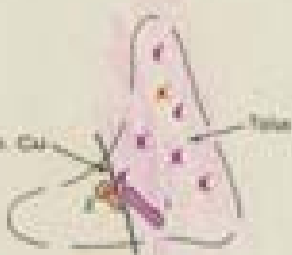
RWP/lcc



LEGEND

-  Volcanic breccia, limestone stained
-  Andesite, fine gr'd, fractured
-  Outcrop, flat
-  Timbered area
-  Spot elevation
-  Claim pole

Geochron - 67ppm Cu



*The occupancy status (geological) report
by R.W. Plender, P. Eng. on the
No. 1 Breccia Zone IT claims,
Ashnola River, Oregon Mining
Division dated Dec 7, 1972*

*R.W. Plender, P. Eng.
Jan 3 1973*

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 4379 MAP # 1

CANNON-HICKS ASSOCIATES LTD

MINERAL MOUNTAIN MINING CO. LTD
GEOLOGICAL MAP

OF
No. 1 BRECCIA ZONE, IT CLAIMS, ASHNOLA RIVER
OSOYOOS MINING DIVISION, BRITISH COLUMBIA

SCALE 1" = 200'

FEET 200 0 200 400 600 FEET

GEOLOGY BY R.W. PLENDER, P. ENG. 011-72