

INTER-OFFICE LETTER

DATE: JULY 26, 1974

COPIES TO:

JFA

860640

TO: L.W. SALEKEN

FROM: R. OVERSTALL

WHEN FEASIBLE, CONFINE LETTER  
TO ONE SUBJECT

RE: EXAMINATION OF BURN GROUP (LUC SYNDICATE) 21-25 JULY, 1974

### Introduction

Between 1971 and 1973 the Luc Syndicate had carried out geochemical, geophysical, trenching and diamond drilling work on a molybdenum-copper prospect in the Kwanika Creek area of the Hogem Batholith.

A Brascan Resources crew of four spent five days prospecting, geological mapping and examining trenches and drill core to see if there were possibilities of ore grade mineralization on the property.

### General Geology

The Hogem Batholith lies at the northern end of the Quesnel Trough, a northwest trending basin of Mesozoic island-arc volcanics intruded by Jurassic-Cretaceous granitic plutons. In the Kwanika Creek area a differentiated Lower Jurassic monzonite-diorite complex has been intruded by a Lower Cretaceous granite. Several copper-molybdenum prospects occur at the contact of the granite with a monzonitic phase of the batholith. The Burn group is one of these prospects.

### Previous Work

A broad valley trending northwards between rounded hills about 5,000 to 6,000 feet in elevation contains creeks anomalous in molybdenum and copper. Soil geochemical surveys indicate a northerly trending anomaly 8,000 ft. by 5,000 ft. in area on the west flank of the valley as defined by the >40 ppm Mo contour. Within this anomalous zone Mo values up to 250 ppm and Cu values of several thousand ppm were found.

An I.P. survey was apparently carried out over much of the soil anomaly but the results of this work are not available at the time of the examination. A ground

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magnetometer survey was useful in following the contacts between rock units into areas of overburden cover.

Three trenches were cut across the best geochemical values and twelve BX diamond drill holes were sited on geochemistry, geophysics and geology.

### Conclusions

The source of the geochemical anomaly appears to be a strong north-south alteration and shear zone within a 1500 wide outcrop of monzonite. A syeno-diorite that outcrops on the hills to the west of the valley contains little mineralization while the alaskite/granite occupying the valley floor contains sparse disseminated molybdenite for about two hundred feet in from its contact with the monzonite.

Very occasional quartz veins with molybdenite selvage can be found throughout the monzonite. However about average values appear confined to two zones.

1. Syeno-diorite/monzonite contact - the 500 ft. wide zone of moderate rusty fracturing with local silicification that follows the contact lies solely within the monzonite. A slight increase in frequency of observed molybdenite bearing veins occurs within this zone.
2. Shear zone - this is about 400-500 feet wide to the east of the baseline in the two northern most trenches and intersected in DDH 7. Intense chloritic and locally sericitic alteration trends north-south over 2,500 ft. Pyrite is common as disseminations and fracture fillings. The molybdenite mineralization occurs as:
  - (a) Selvage or grey quartz veins.
  - (b) Within pegmatitic quartz/orthoclase veins.
  - (c) As a fine scattering on close fractures.

It is unfortunate that the angled diamond drill-holes were orientated north or south and thus did not provide a good cross section of the zone. However DDH 7, with the highest Mo content, appears to have been collared in the centre of the zone and provides a fair testing of the Mo grade. This was well below ore grade.

The low grade of molybdenite mineralization can be correlated with the high and wide spread soil anomaly if the extremely friable nature of the rock in the shear zone is taken into account. Mechanical dispersal of the Mo bearing clay material down slope is the best explanation.

Prospecting to the south and north of the mineralized zone produced no further occurrences. As the outcrop seen in these areas is fresh, unfractured and with very low pyrite content it can be assumed that the soil geochemistry has outlined the main mineralized area.

#### Recommendations

1. As the best zone within the mineralized area has been tested with two trench cuts and one diamond drill hole with results well below ore grade there is little incentive for further exploration within the area.
2. As the soil geochemistry has provided a good delineation of the mineralized outcrop there is unlikely to be further targets in other parts of the property.
3. On a theoretical basis, the absence of porphyritic dykes, cupolas and small bosses about the granitic intrusions suggests the erosion level in this area may be too deep for economic grade mineralized deposits.

Telkwa  
July 26, 1974

Richard Overstall  
Geologist

INTER-OFFICE LETTER

DATE: OCTOBER 15, 1974

COPIES TO:

W. BACON

TO: F.B. WHITING

FROM: L.W. SALEKEN

WHEN FEASIBLE, CONFINE LETTER  
TO ONE SUBJECT

RE:

BURN PROPERTY, KWANIKA CREEK, B.C. (93N-11E)

Summary and Recommendations

The property was examined between July 21-25, 1974 by Brascan personnel. A summary report by Mr. R.J. Overstall of the examination is included. I concur with his geologic observations but I am not in full agreement with his recommendations. Upon careful correlation of previous data combined with this year's work, I feel that there is sufficient encouragement to instigate further work on the property. A two-stage \$100,000 work program for 1975 is recommended.

Stage I: Firm \$40,000

Geological mapping, prospecting,  
geochem. check I.P., trenching and/or  
percussion drilling.

Stage II: Contingent

Addition geophysics, diamond drilling \$60,000

Target Areas

As a general comment, more preliminary work away from the grid area is required. The two most favorable target areas existing on the property are indicated on the Composite Geology - I.P. map.

Target 1: Lies mainly within the monzonite that contains a zone of strong chlorite-epidote-sericite alteration. Molybdenite mineralization within the zone occurs in quartz veins and along fractures with the best molybdenite values occurring in sheared quartz veins. Pyrite is common. The I.P. response within the target area bears little correlation to the known mineralization thus

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suggesting a discrepancy in surveying. The best drillhole (DDH 72-7) was within the alteration zone but follow-up drilling was not conducted to test its potential. The target area, as indicated, has not been fully tested and is large enough in size to permit the existence of an ore body.

Target 2: Is associated with a rusty, silicified fracture zone along the diorite-monzonite contact. There is no I.P. response over the zone which appears to be abnormal in view of existing fracturing and reported mineralization. This area has not been drilled but hole DDH 72-11 shows a slight increase in molybdenum values in the last 20 feet of the hole. The anomalous moly values down-slope from the zone indicate this to be the source area.

Work Program

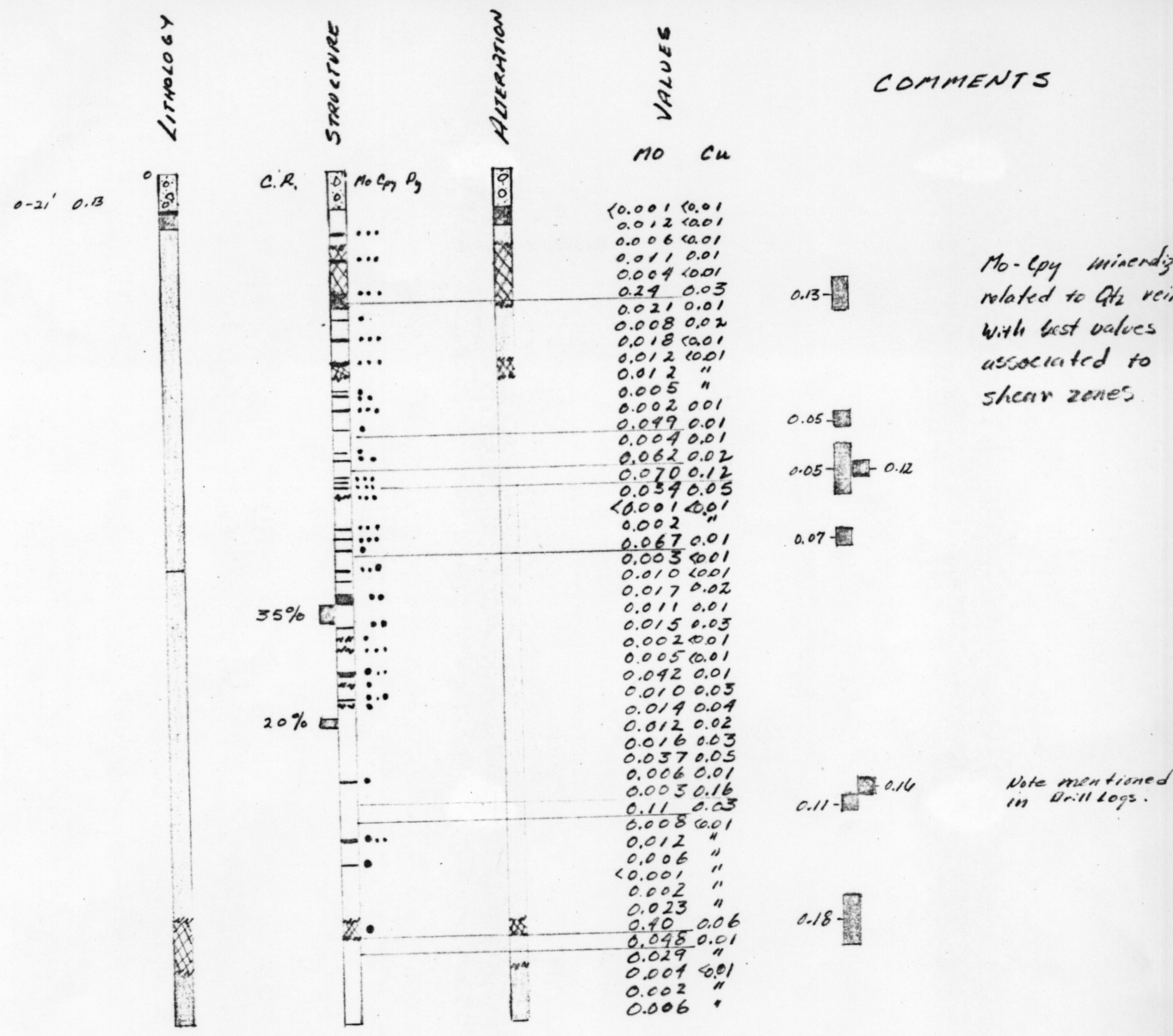
The initial work program of geological mapping, check I.P. and trenching and/or percussion drilling should delineate the target areas. A Stage II program would depend on the results of the foregoing program.

  
L.W. SALEKEN

BY L.W.S DATE Aug 22/74  
 CHKD. BY \_\_\_\_\_ DATE \_\_\_\_\_

SUBJECT BURN - DDH # 7  
56N, 34E @ -55° SOUTH

SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_  
 JOB NO. \_\_\_\_\_



- Andesite
- Diorite (Qtz Diorite & Monzo-Diorite)
- Monzonite
- Alaskite
- Granite
- Fault or Shear
- Qtz vein
- Fault or Shear Zone
- Fracture
- Mo, Cpy, Py
- Fracture zone

- Silicification
- Propylitic (Sericite-chlorite-epidote)
- K-spar
- Cu
- Mo

*LWS*