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GEOPHYSICAL REPORT

ON

A MAGNETOMETER SURVEY OF

THE

921/15 FS GROUP

OF

G.M. Keith, B.K. Olsson and K.W. Geiger

ΑT

KAMLOOPS, B.V.

50° 120° NW

 $\mathbf{B}\mathbf{Y}$ 

N.B. VOLLO, P.ENG.

JAN. 23rd, 1969

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In Pocket - Magnetic Survey, 1"=400' #/

#### Summary

Approximately two and one half miles of magnetometer survey were done on the FS group, over an alluvium
filled basin between two ridges of outcrop. Results indicate an abrupt change in rock type at the south edge of
the basin. In view of the pervasive copper mineralization
exposed to the south, the basin should be checked for
better grade mineralization by means of an IP survey.

### Location and Access

The group is located about 12 miles from Kamloops, at Frederick Siding, on the north shore of Kamloops Lake. The property is easily accessible by road from Kamloops, and the CNR main line passes along the south boundary.

# Topography and Climate

Elevations range from 1130' at Kamloops lake to about 2500 feet. The area is hilly, with a few high cliffs. The climate is arid and trees are limited to a few firs on north slopes and scattered ponderosa pines and junipers. Sagebrush is very abundant everywhere.

#### Claims

The group consists of 23 claims in the Kamloops Mining Division, under option from G.M. Keith of Kamloops, B.K. Olsson of New Westminster and K.W. Geiger of Edmonton, as follows:

| Sage 1-3     | rec. | nos.      | 37622-24          | G.M. | Keith  |
|--------------|------|-----------|-------------------|------|--------|
| OK 1 - 5     | 11   | 11        | 38126-30          | fi   | 11     |
| OK 9 - 12    | **   | Ħ         | 38606-09          | 11   | Ħ      |
| Hilltop 1-4  | н    | 11        | 37101-04          | tı   | Ħ      |
| Kamloops 1,2 | н    | If        | 37435-36          | B.K. | Olsson |
| Hilltop 7,8  | 11   | 11        | 38 <b>288-</b> 89 | 11   | н      |
| Lake 1-3     | 11   | <b>#1</b> | 71641-43          | K.W. | Geiger |

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# History and Previous Work

The group includes the old North Star or Maxine mine which produced a few tons of high grade copper ore (BC Ann. Rep. 1910, 1913, 1915, 1918, GSC Mem. 249) and is located on the present OK 9 claim. At about the same time a pit or shaft was sunk on a high grade copper showing on the present Hilltop 3 claim. In 1962 the group was optioned to the Arequipa Mining Co. who drilled two holes totalling 400 feet and did some geological mapping (BCDM 1962). In 1963 and 1964(?) considerable trenching was done on the mineralized ridge on the Hilltop 1 and 3 claims by Silver Arrow Mines.

# Geology

The area was mapped by Cockfield (GSC Mem. 249). Diorite and granodiorite, probably part of the Cherry Creek intrusion on the south side of Kamloops Lake, intrude Nicola volcanics and are overlain by Kingsvale group.

The ridge on the Hilltop 1 and 3 claims is largely dark, fine grained diorite, very sparsely mineralized with fine chalcopyrite and bornite, but with fairly abundant malachite stain. The ridge on the Hilltop 8 claim is composed of medium grained pink granodiorite. The basin between the two ridges is completely devoid of outcrop and may contain a considerable depth of alluvium.

## Field Work

Approximately 2½ miles of line were picketed and a magnetometer survey done between Dec. 5th and Dec. 13th, 1968.

# Magnetic Survey

Readings were taken at 100' intervals on lines spaced 400 feet apart, using a Sharpe MF-1 fluxgate magnetometer. A base station was established at  $\phi+\phi\phi$  without changing the magnetometer setting from that being used on an adjacent group. Sub stations were established along the base line, traverses were looped and correction made for diurnal variation.

Contoured results (in pocket) show a sharp contrast between the diorite outcrop ridge and the alluvium filled basin, indicating a probable contact near the basin edge.

## Conclusions and Recommendations

In view of the pervasive copper mineralization along the diorite ridge and the apparent contact relationship, the basin area should be checked for better grade mineralization. It should be covered by an Induced Polarization survey, using suitable spreads to penetrate at least 400 feet.

N.B. Vollo, P.Eng.

Jan. 23rd, 1969

#### ASSESSMENT DATA

### Personnel

N.B. Vollo, P.Eng., Supervisoon, report preparation - Dec. 5th/68, Jan. 23/69

1/B. John

- L. Loranger, Instrument operator, field work, draughting, - Dec. 5 - 13, 1968
- J. Havixbeck, chainman, ---- Dec. 6, 7,1968

### AFFIDAVIT ON EXPENDITURES

N.B. Vollo, 2 days @ \$70 -----\$140.00 L. Loranger, 6 days @ \$35 ----- 210.00 J. Havixbeck, 2 days @ \$27.50 ---- 55.00 Pickets, flagging, photos, prints - 51.10 \$456.10

I, Nels B. Vollo, of the City of Kamloops in the Province of British Columbia, make the above declaration, concient-iously believing it to be true and knowing it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

Declared before me at the City of Kamloops, in the Province of British Columbia, this 24th day of Joseph 1969 A.D.

A commissioner for taking affidavits for British Columbia

### QUALIFICATIONS OF OPERATOR

LEO LORANGER is 40 years of age and completed grade IX at Englehart, Ontario.

He was employed for four years, from 1962 to 1966, by the Noranda Exploration Co. at Matagami, Quebec, aa a geophysical assistant and instrument operator.

He was employed for two years, from 1966 to 1968, by Scurry Rainbow Oils, Calagary, Alberta, as a geophysical assistant and instrument operator.

He has been emplyed for one year by Royal Canadian Ventures, and has been carefully instructed in the operation of the Sharpe MF-1 magnetometer, by the undersigned, who knows his work to be carefully and reliably done. N.B. Vollo, P.Eng.

