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REPORT ON A

### MAGNETOMETER SURVEY

# OF THE

# H.J. 13, 14, 16 AND 18 MINERAL CLAIMS

NICOLA M.D.

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By

M.K. Lorimer, P.Eng. 5 February, 1962

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#### SUMMARY

A magnetometer survey of four claims of the H.J. Group near Merritt, B.C., was made in September, 1961.

The survey revealed that about half the area was weakly magnetic but there were no significant cores in these anomalies.

Since the area is almost entirely covered by a heavy mantle of overburden very little geologic information was obtained.

The results of the magnetometer survey and the available geologic information indicate that there is little likelihood of finding an important copper deposit on the property.

It is recommended that the option on the H.J. Group be dropped.

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Map

In Pocket



#### REPORT ON A

#### MAGNETOMETER SURVEY

#### OF THE

# H.J. 13, 14, 16 AND 18 MINERAL CLAIMS

NICOLA M.D.

#### OBJECT

This report is submitted for the purpose of recording the results of a magnetometor survey carried out on the H.J. Nos. 13, 14, 16 and 18 Mineral Claims in the Nicola Mining Division in September, 1962, and for the purpose of presenting the conclusions to be drawn from these results.

#### LOCATION

The H.J. Group is located four miles north of Merritt, B.C., and north of Jesse Creek.

The Group as originally staked consisted of 18 claims extending eastward from the east boundary of Indian Reserve No. 1. In the course of the survey described in this report it was discovered that most of the Group had been staked over the Frajo Group which was still in good standing at the time the H.J. Group was staked. Only the eastern end of the Group was staked over open ground. As a result of this error, only the H.J. No. 14 and portions of the H.J. Nos. 13, 16 and 18 Mineral Claims are valid.

#### TITLE

The claims under consideration in this report are held as follows:

Claim	Tag Number	Data Recorded Title
H.J. No. 13	399 <b>58</b> 3	7 February, 1961 W.D. Barr
H.J. NO. 14	399 <b>58</b> 4	7 February, 1961 W.D. Barr
H.J. No. 16	399 <b>58</b> 6	7 February, 1961 W.D. Barr
H.J. No. 18	399 <b>588</b>	7 February, 1961 W.D. Barr

#### TRANSPORTATION

The H.J. Group may be reached by a two-mile logging road which branches off the Mamit Lake Road at a point about two miles north of the junction of the Mamit Lake Road and the Merritt-Spences Bridge Highway. The total road distance from Marritt is seven miles.

Merritt is well provided with transportation facilities. It has highway connections with Spences Bridge, Princeton and Kamloops, and it is on the Canadian Pacific Railway line from Spences Bridge to Princeton. Daily passenger and freight services are available by highway and railway.

Merritt is 240 miles from Vancouver by road and by rail.

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TOPOGRAPHY

The Group Lies on a southern slope which forms the northern side of the Jesse Creek valley. The southern part of the Group is hilly and wooded; the northern part is mostly grass-covered with a few groves of aspen. The elevation varies from about 3200 feet to 4000 feet.

There is no year-round source of water on the property but Jesse Creek and its tributaries to the south and west carry small flows of water throughout the year.

Most of the area is covered with a thick mantle of overburden. There are only three small rock outcrops on the Group,

#### CLIMATE

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The climate is generally dry with hot summers and cold winters. The snowfall reaches a maximum depth of about three feet.

#### GEOLOGY

The H.J. Group lies across a contact between Nicola volcanic rocks and the Guichon batholith. Only three small outcrops were noted in the course of the survey - two of Nicola volcanics and one of Guichon batholith granodiorite. The distribution of these outcrops suggests a north-south orientation of the contact.

The largest of the outcrops is on the H.J. No. 16 Mineral Claim. The rock is a broken and altered andesite with specular hematite and chalcopyrite showing in a small test pit.

#### SURVEY METHODS

A straight base line running east and west was laid out by transit and stadia rod. The direction of the line was established by compass and is a true direction. The base line was designated as line M.

Magnetometer stations were established every 200 feet along the base line. From these stations, lines were run north and south by compass and 200-foot chain. These lines were designated by numbers. At every 200-foot mark, corrected for slope, a lath stake was placed and marked with the letter and number which identified its location. Magnetometer readings were taken at each of these stations and the time of the reading noted.

A station on the road was chosen as base for the survey and assigned a value of 2000 gammas. Auxiliary base stations were established along line M. Readings were taken at the base station at the start and finish of each day's work and at M-line stations through the day. Diurnal corrections were applied to all readings, the readings were converted to gammas plus or minus the base reading of 2000 and the resulting values plotted on the map.

The instrument used was a Fadar Magnetometer, Serial Number 45, with a range of approximately 38000 gammas.

The field party was under the direction of the writer, who did the transit and magnetometer work. A. Chupa, M. Dexter and C. Watson were the other members of the party. Not more than two of these men were employed at any one time. The hours worked and the wages paid were as follows:

	Name	Hours	Rate	Wages
<b>A.</b>	Chupa	20	1.73	34.60
N,	Dexter	68	1.73	117.64
C.	Watson	<b>5</b> 2	1.73	89.96
	TOTALS	140		\$242,20

Work commenced on 8 September, 1961, and was completed on 20 September, 1961.

#### RESULTS

The results of the survey are plotted on the accompanying map to a scale of 200 feet to the inch. Readings of over 3000 gammas are regarded as anomalous.

Most of the central portion of the area is weakly anomalous. Three cores with readings of over 4000 gammas were located within this area. The maximum reading was 4890 gammas.

A small and weak anomaly was located in the northeastern corner of the H.J. No. 14 Mineral Claim. The maximum reading was 3424 gammas.

The outcrop area in the vicinity of Station 9L gave only normal readings despite the fact that there is a test pit in this area in which hematite and chalcopyrite are visible. The inference is that the copper mineralization in this area is not necessarily associated with magnetite.

#### CONCLUSIONS

The absence of strongly magnetic anomalies and the scarcity of limestone in the vicinity of the test pit indicate that there is little likelihood of finding an important copper deposit on the H.J. Group

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### RECOMMENDATIONS

# It is recommended that the option on the

H.J. Group be dropped.

Respectfully submitted,

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M.K. Lorimer, P.Eng.

