

270

NORANDA EXPLORATION COMPANY LIMITED

GEOPHYSICAL SURVEY

of the

ETTA and NORA MINERAL CLAIMS

THREE MILES NORTH

of

LOWER NICOLA, B.C.

30° 120° EAST SOUTHEAST

M.M. Mensies, P.Eng.

MAY-JUNE, 1959.

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NORANDA EXPLORATION COMPANY LIMITED

COST OF GEOPHYSICAL SURVEY

of the

ETTA and NORA MINERAL CLAIMS

LOWER NICOLA, B.C.

MAY-JUNE, 1959

SUPERVISORY -	6 days @ \$35.00/day -	\$ 210.00
DRAUGHTING -	3 days @ \$20.00/day -	\$ 60.00
LINE CUTTING -	40 days @ \$15.00/day -	\$ 600.00
SURVEY -	10 days @ \$20.00/day -	\$ <u>200.00</u>
	TOTAL -	\$1,070.00

COST DISTRIBUTION:

<u>GROUP</u>	<u>NO. of CLAIMS</u>	<u>DISTRIBUTION/CLAIM</u>	<u>DISTRIBUTION/GROUP</u>
Nora 1 to 5	5	\$100.00	\$500.00
Etta 1 to 5	<u>5</u>	\$100.00	<u>\$500.00</u>
	10 Claims		TOTAL \$1,000.00

W. H. Hughes

NORANDA EXPLORATION COMPANY LIMITED

GEOPHYSICAL SURVEY

of the

ETTA and NORA MINERAL CLAIMS

INTRODUCTION:

Noranda Exploration Company Limited first became interested in the Merritt area in the summer of 1957 and by the spring of 1958 had acquired 147 claims and fractions by staking, purchase and option. Work was started in November 1957. Line cutting and geophysical surveying were carried on during 1958 as well as surface geological mapping and diamond drilling. Reports covering geological and geophysical work on a number of claims were made during 1958. Further geophysical surveys were carried out during 1959.

DESCRIPTION:

The claims covered by this report are in the valley of Stumbles Creek three miles north of Lower Nicola, B.C. The flat valley floor is at an elevation of about 2200 feet, west of the valley, slopes rise to the summit of Promontory Hills at 5688 feet while to the east a gravel bench is about 300 feet above the valley floor. East of this gravel bench is the wide valley of Guichon Creek. During the summer months the smaller streams disappear into the gravel which underlies their lower course.

Climate is characteristic of the interior dry belt with only slight rainfall during the summer months. Most of the area is covered by small pine trees with light underbrush.

A branch line of the Canadian Pacific Railway and a Provincial highway follow the winding Nicola River Valley three miles south of the property. A good gravel road passes through most of the claims.

Prospectors have been active in the Merritt district at various times for the past seventy or eighty years. The only nearby properties which have any recorded production are the Aberdeen mine eight miles to the north and the Copper Belle five miles to the south east. Small quantities of high grade copper ore were found at both properties. The Craigmont mine, where large quantities of copper ore have been indicated, is about one mile west of the area covered by the 1959 work. On the old Eric claim, immediately west of the Etta claims, small amounts of copper mineralization are associated with magnetite.

During the past two summers several companies, syndicates and individuals conducted exploration programmes on claims near Lower Nicola and in Highland Valley twenty miles to the north.

BIBLIOGRAPHY:

- Cockfield, W.E. (1948):
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- White, W.H., Thompson, R.M., McTaggart, K.C. (1958):
The Geology and Mineral Deposits of
Highland Valley, British Columbia;
C.I.M. Transactions Vol. LX, 1957 PP 273-289.

GENERAL GEOLOGY:

Table of Formations occurring near the Etta and Nora Claims

Coldwater Beds - - - - -	Oligocene - Lower Miocene
Relationship unknown	
Kingsvale Group - - - - -	Lower Cretaceous
unconformity	
Guichen Creek Batholith - -	Lower Jurassic
intrusive contact	
Nicola Group - - - - -	Upper Triassic

The Nicola group is composed mainly of volcanic rocks with some interbedded sediments, and includes tuffs, breccias, agglomerates, limestone, argillite and conglomerate. Limestone normally occurs in short, narrow lenses interbedded with other rocks. Upper Triassic fossils are found in the sediments. The Group is spread over a very large area extending southerly from north of Kamloops Lake to a point just north of the International Border.

The Guichen Creek Batholith is composed mainly of granodiorite and quartz diorite with some diorite and gabbro. The batholith is intrusive into the Nicola Group and is overlain by Mid-Jurassic rocks. It was probably emplaced during the Lower Jurassic period and is, therefore, older than the main Coast Intrusions west of the Fraser River.

The Etta and Nora claims are near the southern extremity of the main Guichen Creek batholith and rocks belonging to the batholith outcrop west of Stumbles Creek just west of the north end of the Etta claims. The batholith extends 40 miles to the northwest and has a maximum width of 17 miles. A stock 1 to 3 miles northwest of Lower Nicola is separated from the main batholith by older Nicola rocks and

and the overlying Kingsvale Group and thus its exact relationship with the main batholith is unknown.

Copper deposits at Highland Valley are found in granitic rocks intruding the Guichen Creek batholith and in breccias partially derived from them. The Craigmont copper deposit occurs in Nicola rocks near the contact between the Guichen Creek batholith and limy tuffs of the Nicola Group.

The Kingsvale Group consists of two parts, a series of sedimentary rocks at the base of the group and a series of volcanic rocks conformably above. These rocks are arkose, grit, mudstone, conglomerate, tuff and breccia. The sedimentary beds are not always present. The Kingsvale Group is unconformably above the Nicola Group and the Guichen batholith. Between Promontory Hills and Lower Nicola the Cretaceous rocks have been mapped as Kingsvale by the Geological Survey of Canada but these are somewhat different from Kingsvale rocks found elsewhere.

Some small outcrops of the Coldwater beds are composed of sandstones, shales, conglomerate and coal seams.

No rock outcrop was found on any of the claims examined. The entire area is covered by thick deposits of sand and gravel.

REASONS FOR INVESTIGATIONS:

The claims lie approximately one mile east of the Craigmont orebody and since the trend of this orebody is easterly it was hoped that another orebody of the Craigmont type might be discovered.

The magnetometer instrument was used for the following reasons:

1. The presence of magnetite in the Craigmont orebody.

2. The association of Copper mineralization with magnetite on the Eric claim.
3. The great depth of overburden makes the use of most other methods impractical.

CONTROL:

The system of control used in 1958 was extended to cover the required area. The zero base line was laid out by transit with the point of origin near the southwest corner of lot 1915. This line was cut and chained at 100 foot intervals 8,800 feet to the east where it intersected the west boundary of Nicola-Mamit Indian Reserve No. 1. A base line at 4500 north was also used. Section lines, spaced 400 feet apart, were carried to the north and south of the zero base line by pickets and chained at 100 foot intervals. This system of lines was used to control the geophysical survey.

MAGNETOMETER INSTRUMENT:

The instrument used is a Sharpe D.I.M. magnetometer, a super-dip type. Readings represent the number of degrees of clockwise needle swing from zero at top center. The scale constant of the instrument used is very nearly 100 gammas per degree in the 90° to 180° quadrant. Before starting a survey in any area the auxilliary magnet is adjusted so that readings will fall within this quadrant of maximum sensitivity.

PROCEDURE:

Readings were taken every 100 feet along the section and base lines. Corrected readings were plotted at a scale of 1 inch to 400 feet.

A base control station was established at 56 E ON. Diurnal

readings were obtained by referring to the base station three times daily

RESULTS:

No large areas of anomalous readings were discovered. Slightly higher readings at the north end of the Etta claims are probably due to their proximity to the old Eric showing.

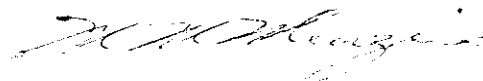
Average readings were about 166⁰.

CONCLUSIONS:

Except for a few readings near the Eric showing no orebody having a magnetic intensity sufficient to affect the instrument used was encountered on the property. The great depth of the gravels may mask the effect of any orebody having a weak magnetic field.

Possibly surface topography and depth of overburden have combined to mask any bedrock variations and have produced the differences in readings encountered.

Respectfully submitted,



Morris M. Mensies, P.Eng.,

6th June, 1959

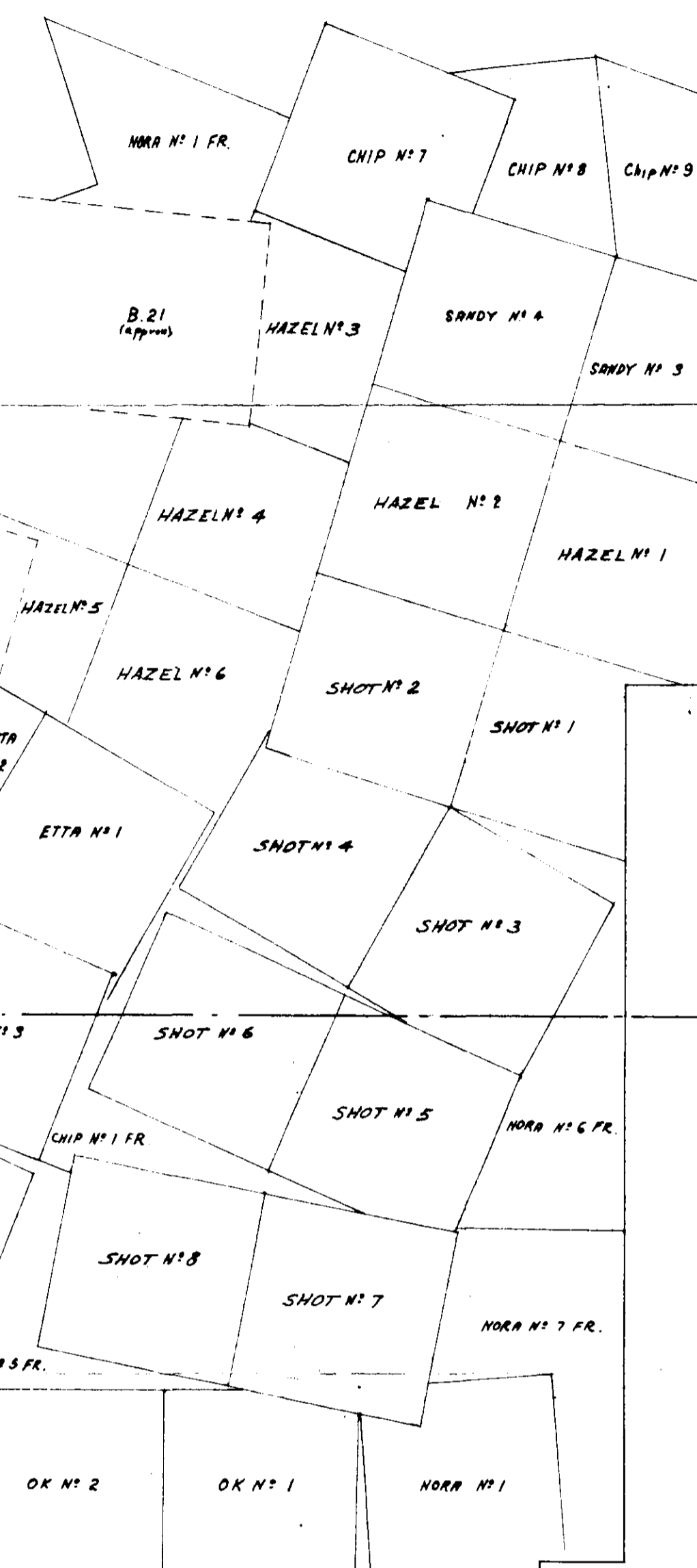
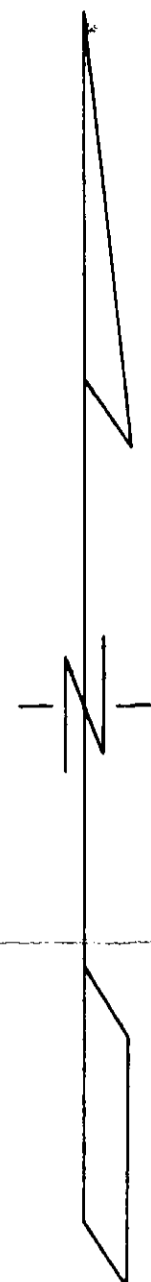
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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 270 MAP #1

270

NORANDA EXPLORATION COMPANY LTD.
MERRITT PROPERTY
MERRITT, B.C.
Mining Division - NICOLA
MAGNETOMETER SURVEY
(Type - SHARP, D-15M)
1" = 100' GRAPHIC
Field Work by
SCALE 1" = 400'



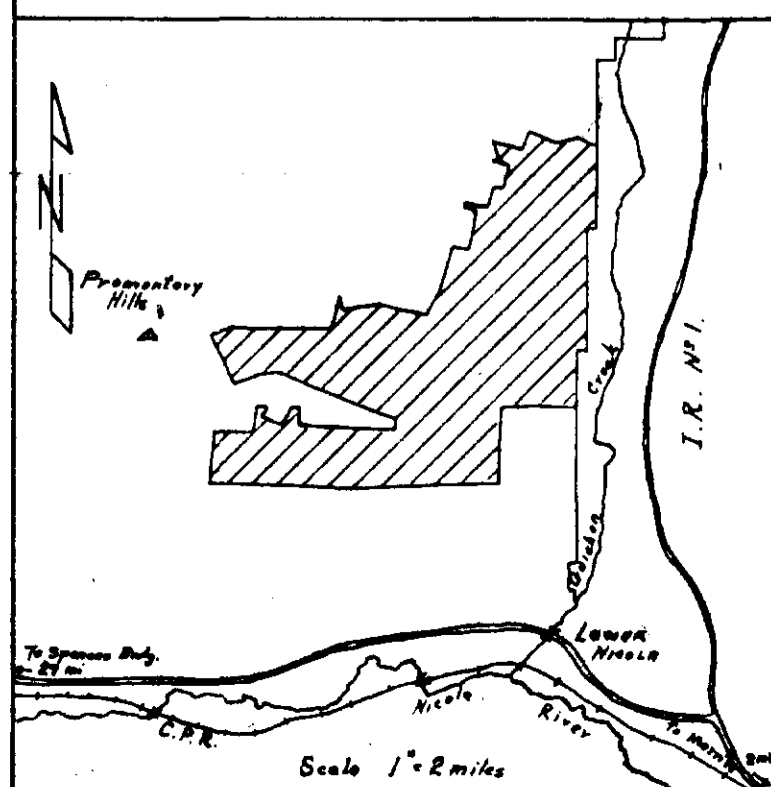
NE Sheet

NICOLA - MAMEET I.R. No 1

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 270 MAP #2

SW Sheet

SE Sheet



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NORANDA EXPLORATION COMPANY LTD
MERRITT PROPERTY
MERRITT, B.C.
NICOLA MINING DIVISION
INDEX MAP
Field Work by: H.T. Conwell Date: Sept 1958
SCALE: 1" = 1000'