

312

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.

In the Matter of The Geophysical Survey

To Wit:

carried out between April 4th and 20th, 1960 on the J.G. and Axis groups of Mineral claims located in the Marguete area of the Cariboo Mining District of British Columbia.

I, John A.C. Ross, Professional Engineer of British Columbia

of 2697 West 34th Ave., Vancouver, B.C.

in the Province of British Columbia, do solemnly declare that the following expenditures

have been made in connection with the aforementioned survey:
Lundberg Explorations Ltd.

Invoice for Survey, Report and Expenses.....		\$ 1,220.00
J.A.C. Ross, Expenses and time.		
Meals and travelling	\$ 108.62	
Assistant G.A. Ross 4 days	48.00	448.00
Time; Supervision 8 days @ \$50.00	<u>400.00</u>	<u>556.62</u>
A. Berglund, Time and expense.		
Time; Line-cutting 17 days @ \$20.00	340.00	
A. Appleseth, operator's helper, 10 days @ \$15.00	150.00	490.00
Board for crew 37 days @ \$5.00	<u>185.00</u>	<u>675.00</u>
J.S. Scott. Time in preparation of reports 2 days @ \$50.00		<u>100.00</u>
Total Cost.....		\$ 2,551.62 \$ 2,258.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that 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 Vancouver, in the Province of British Columbia, this 29 day of May, 1960, A.D.

[Handwritten signature]

Jill Turner
Sub-Deputy Registrar A Commissioner, etc.



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Statement for Assessment Purposes

*map #1 - Results of Ground Electric-
magnetic Survey. 6-276-1
1" = 200 feet*

LUNDBERG EXPLORATIONS LIMITED
96 EGLINTON AVE. EAST
TORONTO 12, ONT.



REPORT ON THE GEOPHYSICAL SURVEY
OF THE AXIS AND J. G. CLAIM GROUPS
MARGUERITE AREA,
BRITISH COLUMBIA
FOR
MR. J. S. SCOTT, VANCOUVER, B. C.

INTRODUCTION

During the period from April 5 to April 20, 1960, an electromagnetic survey was carried out on the Axis and J. G. Claim Groups in the Marguerite Area of British Columbia. An E. M. Gun unit, developed and built by AB Elektrisk Malmletning of Stockholm, Sweden, was used on this survey.

A total of 71,700 feet of profile was surveyed on Axis Claims Nos. 1 to 8 and 16, and J. G. Claims Nos. 11 to 14, 3, 4, and 7.

The survey was conducted in a broad valley. It is thought that overburden cover on most of the property is heavy.

THE GEOPHYSICAL SURVEY

The Method

The Electromagnetic Gun (E. M. Gun), is a two-man portable equipment for ore prospecting by the electromagnetic inductive method. It makes use of the fact that when an electrical current is subjected to a primary alternating field; a secondary current is induced in the conductor. This current produces a secondary alternating field which, together with the primary field, produces a resultant field of different amplitude and phase from the applied primary field. These differences indicate the presence of the conductor. In E.M. Gun investigations the primary field is set up by a transmitter unit, consisting of a transistorized oscillator and a transmitter coil wound on a ferrite core (the transmitter staff). The measurements are made with a receiver unit consisting of a receiver staff and a compensator-amplifier unit. A pair of headphones connected to the amplifier serve as a null instrument when measuring. The transmitter and the receiver staffs are connected to the compensator-receiver unit by a light weight reinforced cable.

E. M. Gun investigations may be used to locate vertical or steeply dipping conductors down to a depth of about 0.8 times the

transmitter-receiver distance. Horizontal or flatly dipping conductors can be detected down to a depth of about twice the transmitter-receiver separation. The E.M. Gun may also be used to determine the inclination of the field at the receiver; for these measurements, no connection is required between the transmitter and the receiver and they may be separated by as much as 100 metres.

Corrections for elevation changes have been applied to the observations wherever necessary. Staff separation throughout the survey was 200 feet.

Results of the Survey

One map, number 270-1, drawn to a scale of one inch equal to 200 feet, accompanies this report. This map shows the real and imaginary components of the electromagnetic field, drawn in profile. Anomalous zones are contoured and coloured orange. The survey is divided into two areas. Area No. 1 comprises the northern portion; Area No. 11, J. G. Claims 3 and 4.

Several anomalous zones were encountered on the property.

Area No. I

At 400 W on line 4800 S, an anomaly, having a 15% real component intensity, shows an indefinite strike of N 65 E. The conductor appears to dip to the west. The broad nature of the curve suggests a relatively deep-seated conductor. The lack of continuity of this zone to the north, could be caused by increased depth.

East of the most northerly lake, at 800 E on line 2000 S, an anomaly occurs on a single line. For this reason, the indicated strike of the conductor is questionable. The positive imaginary component on this anomaly suggests a flat-lying conductor, possibly in the overburden.

A minor zone occurs between 1250 E on line 7200 S and 1150 E on line 7600 S and is open at both ends. This zone strikes about N 45° W. The depth to the conductor is uncertain. However, the relatively broad nature of the real component curve, indicates a fair depth.

Area No. II

The most interesting conductive zone on the property occurs

in Area No. II. It shows a definite strike length over 900 feet and an indefinite length over 2500 feet. This zone strikes north and appears to dip to the west.

It should be pointed out that, although definite, these anomalies are not intense. This lack of intensity could be due to either; (a) a narrow and deep-seated conductor, or; (b) a disseminated and near-surface feature. A test run on the neighbouring Major Mines property produced a well-defined 20% real anomaly over a 15 inch sulphide vein at the surface. Therefore, it is possible that the anomalies encountered on J. G. Claims 3 and 4, represent a similar feature but at greater depth.

CONCLUSIONS

The electromagnetic anomalies on the J. G. and Axis Claims, although relatively well defined, do not warrant diamond drilling before further work is done. The anomalous zones should be thoroughly prospected, paying particular attention to mineralized float. Should sufficient corroborating evidence be found to warrant drilling, the southern portion of the Area No II anomaly appears to be the best location.

An alternative program would be to re-survey the interesting anomalies with a deep penetrating geophysical method, such as the resistivity ratiograph. Such a survey might provide more diagnostic information regarding the depth and width of the conductive zones.

Respectfully submitted,

LUNDBERG EXPLORATIONS LIMITED

Robert A. Knutson

Robert A. Knutson
Geologist

Toronto, Ontario
May 16
1960



STATEMENT FOR ASSESSMENT PURPOSES

1. Field Work - Kolbjorn Lovang - Operator - 7 days
Axel Berglund - Helper - 7 days
2. Interpretation & Report - R. A. Knutson - 4 days
3. Draughting - C. Leamon - 2 days

Qualifications

Mr. Lovang has worked in mining geophysics for the past three years and has been employed by Lundberg Explorations since August, 1959.

Mr. Knutson, refer to Department File No. 166 for a summary of qualifications.

Respectfully submitted,

LUNDBERG EXPLORATIONS LIMITED,

Robert A. Knutson,
Geologist.

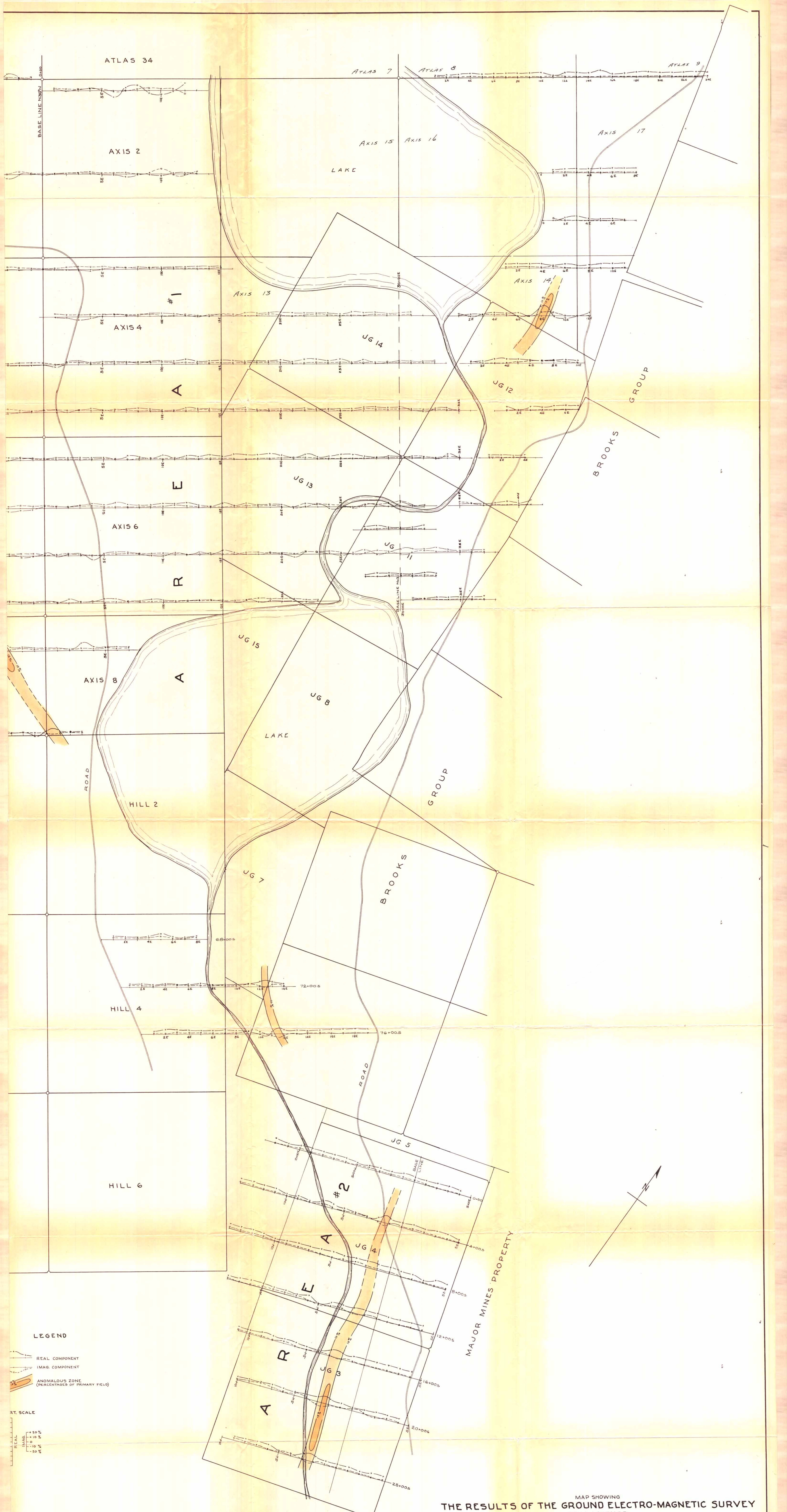
Toronto, Ontario
May 16
1960

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ms-29



SCALE 0 500 1000 1500 2000 2500 3000 FEET

THE RESULTS



LEGEND

REAL COMPONENT
 IMAG COMPONENT
 ANOMALOUS ZONE
 (PERCENTAGES OF PRIMARY FIELD)

RT. SCALE

REAL
 +20%
 +10%
 0
 -10%
 -20%

1000 1500 2000 2500 3000 FEET
SCALE

MAP SHOWING
THE RESULTS OF THE GROUND ELECTRO-MAGNETIC SURVEY
 GUN METHOD

ON THE
AXIS AND J.G. CLAIM GROUPS
 MARGUERITE AREA
 CARIBOO MINING DIVISION, B.C.
 FOR
J. S. SCOTT

SCALE 1 INCH = 200 FEET

TO ACCOMPANY REPORT BY
 LUNDBERG EXPLORATIONS LIMITED
 TORONTO, MAY 1960

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 312 MAP #1

Robert A. Hamilton

312 G-270-1