

2304

REPORT ON
MAGNETOMETER SURVEY
McLEESE LAKE AREA, BRITISH COLUMBIA
ON BEHALF OF
CHAPPARAL MINES LIMITED

93B/9W

by

Richard O. Crosby, B.Sc., P.Eng.

February 18, 1970

CLAIMS:

<u>Name</u>	<u>Record Number</u>
NAIL 1 - 20 (Inclusive)	50447 - 50466 (Inclusive)

LOCATION:

About 35 miles south of Quesnel, British Columbia
Cariboo Mining Division
52°30' 122°30' W

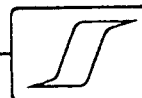
DATES:

February 2 to February 8, 1970.

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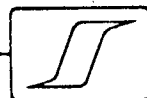
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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2304 MAP



SUMMARY

A magnetometer survey has revealed one region of magnetic relief in the northern portion of the survey area. This magnetic relief is attributable to the presence of igneous intrusive or extrusive rocks. An induced polarization survey in progress may resolve the ambiguity.



REPORT ON
MAGNETOMETER SURVEY
McLEESE LAKE AREA, BRITISH COLUMBIA
ON BEHALF OF
CHAPPARAL MINES LIMITED

INTRODUCTION

From February 2 through February 8, 1970, a magnetometer survey was executed on behalf of Chapparal Mines Limited over mineral claims NAIL 1 - 20 (inclusive) in the McLeese Lake area, British Columbia.

The survey consisted of magnetomer measurements read at stations every 100 feet along traverses separated by 400 feet. The baseline is oriented generally north-south, perpendicular to the traverse direction. The magnetometer operator was Mr. Alvin Johns of Quesnel, British Columbia. The supervision of survey procedures and interpretation of data was by Mr. Richard O. Crosby, P. Eng.

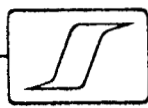
The magnetometer was a Sharpe MF-1, vertical force, fluxgate magnetometer. Appendix "A", attached gives full details of the instrument.

The intensity of the earths vertical magnetic field in the survey area measures approximately 55,800 gammas.

The purpose of the present programme was to map the magnetic field in the survey area.

PRESENTATION OF DATA

Magnetic observations are presented in the form of a contour map of the observed vertical magnetic field on a scale of 1" = 200feet, with a contour interval of 20 gammas. Corrections



for diurnal variations and any possible instrumental drift have been made where required.

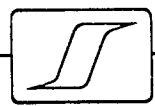
DISCUSSION OF RESULTS

The observed magnetic relief is a total of 200 gammas and occurs almost entirely in the northern most quarter of the survey area. The magnetic relief over the remainder of the area is of the order of 40 gammas. The most prominent feature of the survey is a magnetic depression of approximately 200 gammas trending generally east-west, for a distance of 3000 feet within NAIL 8 and NAIL 13 mineral claims.

Quantitative depth interpretation in the anomalous area suggest the source of the magnetic anomaly is approximately 100 feet subsurface.

CONCLUSIONS AND RECOMMENDATIONS

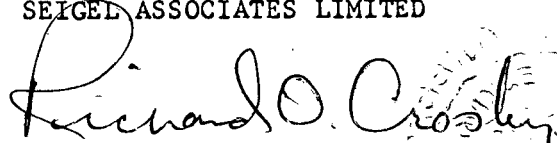
The magnetic survey has revealed one area of magnetic relief in the northern part of the mineral claim group. This magnetic relief is attributable to the presence of igneous rocks, either volcanics which sometimes exhibit relatively strong magnetic negative anomalies or possibly an altered portion of an intrusive.



A combined induced polarization and resistivity
survey presently in progress may provide the correct answer.

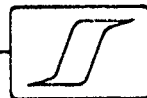
Respectfully submitted

SEIGEL ASSOCIATES LIMITED



Richard O. Crosby, B.Sc., P.Eng.
Consulting Geophysicist.

Vancouver, B.C.
February 18, 1970.



APPENDIX "A"

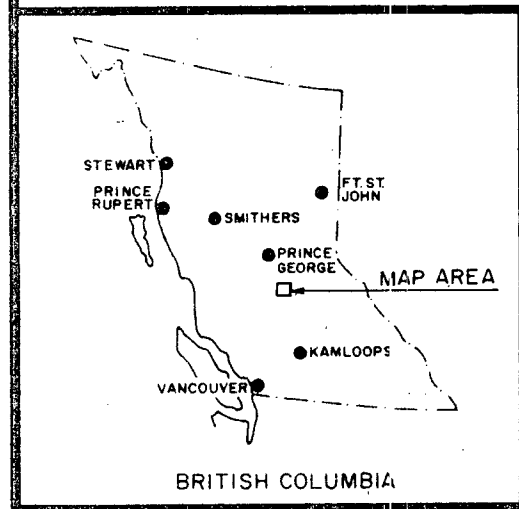
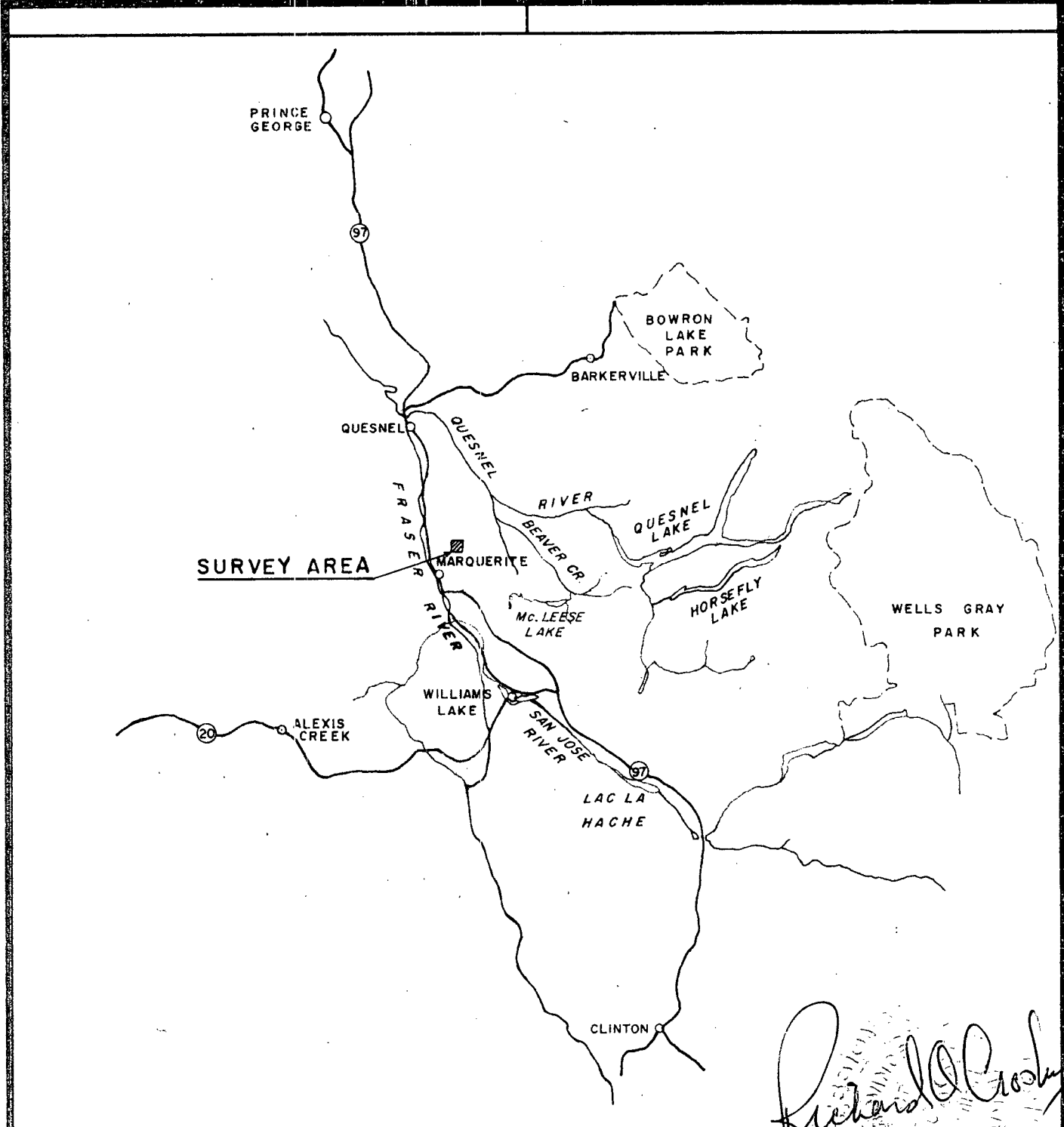
SPECIFICATIONS OF
FLUXGATE MAGNETOMETER
MODEL MF-1

Ranges:	Plus or minus — 1,000 gammas f. sc. 3,000 " 10,000 " 30,000 " 100,000 "
	Sensitivity 20 gammas/div. 50 " 200 " 500 " 2,000 "
Meter:	Taut-band suspension 1000 gammas scale 1 7/8" long — 50 div. 3000 gammas scale 1 11/16" long — 60 div.
Accuracy:	1000 to 10,000 gamma ranges ± 0.5% of full scale 30,000 and 100,000 gamma ranges ± 1% of full scale
Operating Temperature:	—40°C to +40°C —40°F to +100°F
Temperature Stability:	Less than 2 gammas per °C (1 gamma /°F)
Noise Level:	Total 1 gamma P-P
Long Term Stability:	± 1 gamma for 24 hours at constant temperature
Bucking Adjustments: (Latitude)	10,000 to 75,000 gammas by 9 steps of approximately 8,000 gammas and fine control by 10 turn potentiometer. Convertible for southern hemisphere or ± 30,000 gammas equatorial.
Recording Output:	1.7 ma per oersted for 1000 to 100,000 gamma ranges with maximum termination of 15,000 ohms.
Response:	DC to 5 cps (3db down)
Connector:	Amphenol 91-MC3F1
Batteries:	12 x 1.5V-flashlight batteries "C" cell type) (AC Power supply available)
Consumption:	50 milliamperes
Dimensions:	Instrument — 6 1/2" x 3 1/2" x 12 1/2" 165 x 90 x 320 mm Battery pack — 4" x 2" x 7" 100 x 50 x 180 mm Shipping Container — 10" dia x 16" 254 mm dia. x 410 mm
Weights:	Instrument — 5 lbs. 12 oz. 2.6 kg. Battery Pack — 2 lbs. 4 oz. 1.0 kg. Shipping — 13 lbs. 6.0 kg.



SCINTREX LIMITED

79 Martin Ross Avenue, Downsview, Ontario, Canada



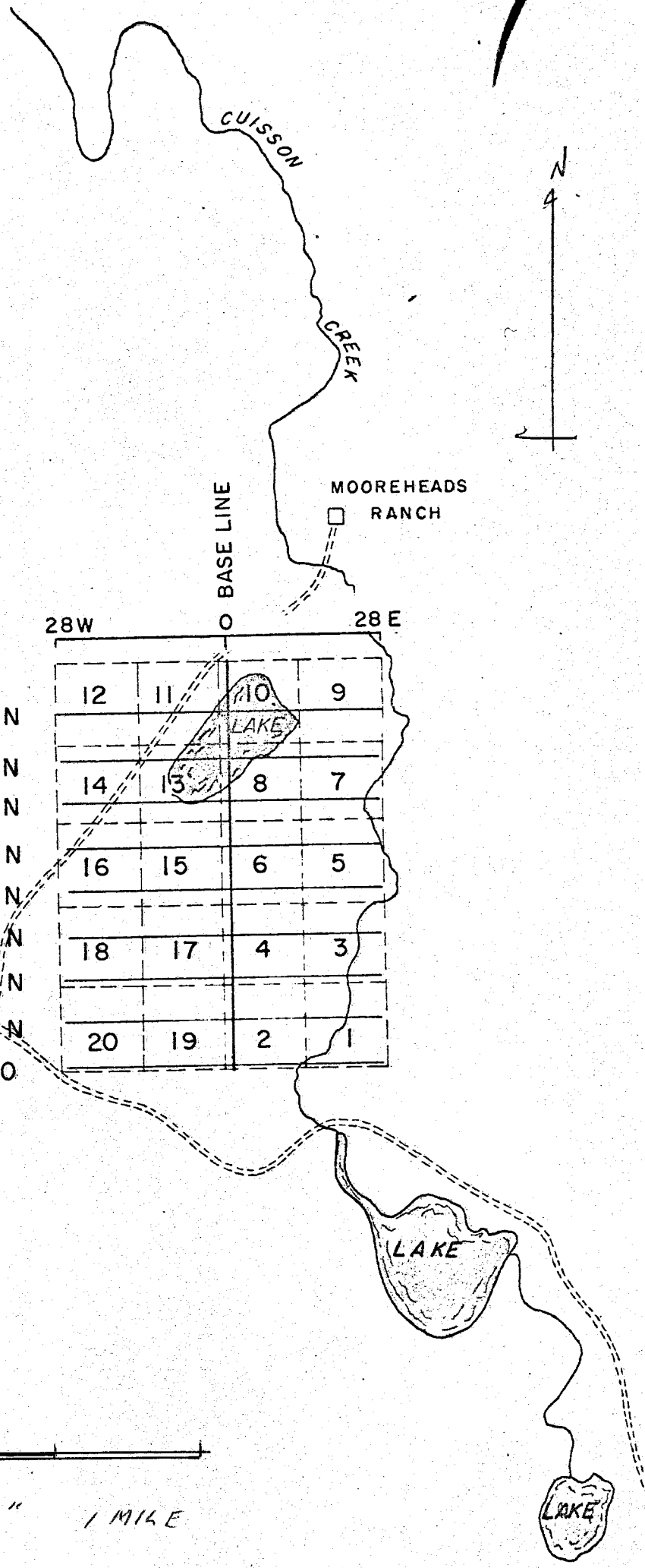
CHAPPARAL MINES LIMITED	
LOCATION MAP	
MC LEESE LAKE AREA, BRITISH COLUMBIA	
<p>30 0 30 60 SCALE IN MILES</p>	
INTERPRETATION BY SEIGEL ASSOCIATES LTD. FEBRUARY, 1970	PLATE I

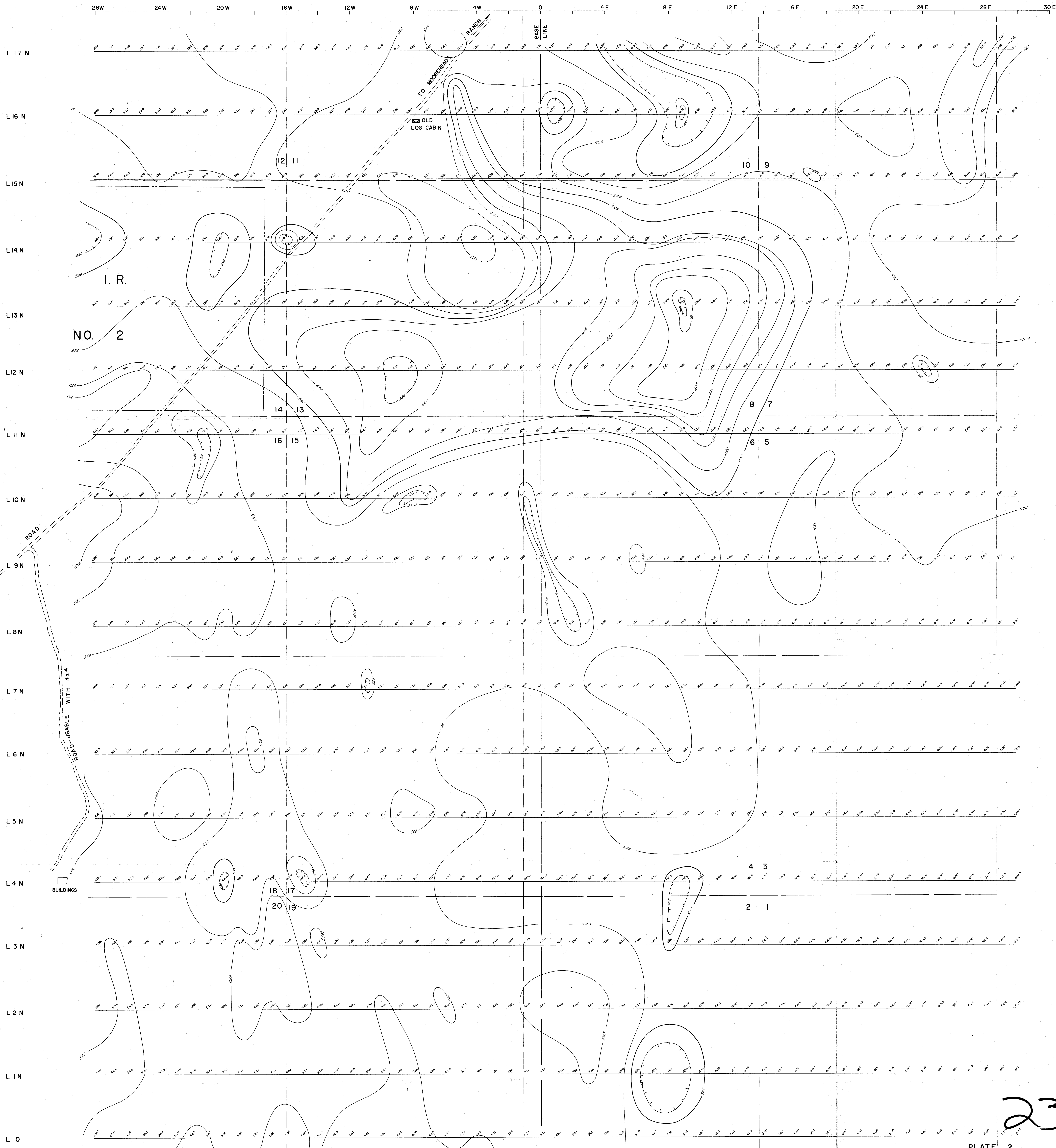


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NO. **2304** MAP **#1**

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Department of
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TO MARGUAYE POST OFFICE
HIGHWAY 97

LEGEND:
MAGNETIC CONTOUR INTERVAL
20 GAMMAS

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2304 MAP #2

TO ACCOMPANY A GEOPHYSICAL REPORT
BY R. O. CROSBY DATED FEBRUARY 19, 1970.

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PLATE 2
CHAPPARAL MINES LIMITED
McLEESE LAKE AREA, BRITISH COLUMBIA
MAGNETOMETER SURVEY
CLAIMS AND GRID
MAGNETIC CONTOURS
1" = 200'
SCALE IN FEET
INTERPRETATION BY SEIGEL ASSOCIATES LIMITED
FEBRUARY, 1970

Richard [Signature]