

Prospecting Geophysics Limited

Geophysical & Geological Surveys

HUnter 1-1539 Montreal
Tel. Valley 4-3910 Val d'Or



41116NE0083 0015B1 SCHOLLES

3518 Vendome Ave.
Montreal 28, Que.

010

REPORT

ON THE

MAGNETOMETER SURVEY

ON THE PROPERTY OF

GULL LAKE IRON MINES LTD.

SCHOLLES TOWNSHIP, ONT.

| | |
|-----------------|---------------------------|
| ASSESSMENT WORK | |
| Rec'd from | <i>Resident Geologist</i> |
| | <i>C. COBALT</i> |
| Date | <i>Feb. 8/60</i> |
| | <i>W.H.</i> |
| | Resident Geologist |

Montreal, Que.

Sept. 21, 1959.



41116NE0083 001581 SCHOLÉS

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REPORT
ON THE
MAGNETOMETER SURVEY
ON THE PROPERTY OF
GULL LAKE IRON MINES LTD.
SCHOLES TOWNSHIP, ONT.

INTRODUCTION

A magnetometer survey was carried out over the property of Gull Lake Iron Mines Ltd. in Scholes township, Ontario.

A large tonnage of concentrating iron ore has been outlined on the adjacent property of North American Rare Metals and this property is presently being developed underground. Previous work has indicated the presence of similar magnetic anomalies on the ground that is now held by Gull Lake Iron Mines.

The object of the present magnetic survey was to outline carefully the magnetic anomalies and thus indicate the areas worthy of diamond drilling. The magnetic anomalies are known to be caused by magnetite and the magnetite content can be assumed to be directly related to the intensity of the magnetic readings.

PROPERTY AND LOCATION

The property consists of 20 claims of approximately 40 acres each in the township of Scholes, Temiskaming Mining

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Division of the Province of Ontario. The claims are registered with the Department of Mines under the following numbers:

T 46582 to T 46599 inclusive

T 47020 and T 47021

The property is situated in the northeast corner of Scholes township, immediately southeast of the property of North American Rare Metals.

It is accessible by road from River Valley to the property of North American Rare Metals and thence across to Gull Lake.

GEOLOGY

The entire area is apparently covered by a sill of diabase but exploration on the property of North American Rare Metals has shown iron formation underneath a 700 foot capping of diabase. A similar condition probably exists on the property of Gull Lake Iron Mines Ltd.

The iron formation on the property of North American Rare Metals shows a grade of approximately 31% iron with impurities such as titanium, sulphur and phosphorus being very low. The magnetite beds have an almost vertical dip and a northeasterly strike.

MAGNETOMETER SURVEY

A. PROCEDURE

A portion of the property is under the lake and the present survey covered all land portions, as shown on the

accompanying map.

A base line (No. 1) was cut in a direction N 60 E as shown on the accompanying map. Lines were started at 90 degrees to this base line at 400 foot intervals and cut to the boundaries of the property to the north and the lake to the south. Pickets were placed at 100 foot intervals along these lines and marked as stations. Base line No. 2 was cut in an east-west direction at the south boundary of claim T 46599 and the necessary picket lines cut to survey this claim.

Readings were taken at all stations and plotted as gammas on the accompanying map on a scale of 300 feet to the inch. Detailed readings were taken over the magnetic zones at 50 and 25 foot intervals. A Sharpe A-2 magnetometer was used in the survey.

B. RESULTS OF THE SURVEY

The results of the survey have been plotted on the accompanying map on a scale of 300 feet to the inch. The readings are represented graphically on the maps by means of contours with the areas of high magnetic intensity being shown in color.

An examination of the map shows background readings of between 2000 and 3000 gammas while readings over the magnetic zones go as high as 24,000 gammas. The magnetite content is no doubt proportionate to the magnetic readings but further investigation is required to determine what readings represent the economic limits of the zone. It is not likely

that anything below 10,000 gammas would represent economic values in iron as the effects of a large band of iron formation is registered by a magnetometer beyond the limits of the actual magnetite beds. Experience obtained in the exploration of the North American Rare Metals deposit should be of great value in assessing the importance of the magnetic zones.

The major magnetic zone occurs in the northerly part of the property and has a strike length of approximately 5,800 feet in a northeasterly direction. It will be noted that the zone actually goes off the property at the southwest end but then crosses back onto claim 46595. There is a strike length on the property of approximately 2,000 feet showing very good readings over a width of 300 to 400 feet. Further to the northeast in the same zone is another area of readings over 10,000 gammas with approximate dimensions of 1,000 feet by 250 feet. Diamond drilling will determine whether all or part of this zone will be of economic value.

Another important zone is indicated on claim T 46584 and this likewise has a northeasterly trend but it appears to be a little more northerly. It shows as a wider zone but the core does not give as high readings with the highest being 11,000 gammas. The zone passes under the lake at the southwest end where incidentally the highest readings were obtained. This zone shows a length of 2,200 feet and an average width of 500 feet with readings in excess of 10,000 gammas and it is still open at the southwest end.

It seems quite possible that this zone may represent a faulted section of the main zone as the topography strongly suggests a northerly trending fault following the creek between Gull Lake and Longbow Lake.

There are other areas on the property with readings ranging from 6,000 to 9,000 gammas but at present these do not appear of economic importance.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey has outlined two major zones of high magnetic readings separated by a possible fault zone with the displacement to the south at the east end. It can be assumed that these represent beds of magnetite and the dimensions of these zones are such as to be of importance if it is shown that the underlying magnetite is in economic quantities.

The information available on the development of the large magnetite body at the adjacent North American Rare Metals should help to assess the importance of magnetic zones on the Gull Lake property.

A few widely spaced holes in the areas of the highest readings would appear to be warranted to determine the economic importance of the zones.

Respectfully submitted,
PROSPECTING GEOPHYSICS LTD.


H.J. Bergmann

Montreal, Que.
Sept. 21, 1959.

Prospecting Geophysics Limited

Geophysical & Geological Surveys

Hunter 1-1539 Montreal
Tel. Valley 4-3910 Val d'Or

3518 Vendome Ave.
Montreal 28, Que.

Dec. 25, 1959.

Gull Lake Iron Mines Ltd.,
Suite 602,
100 Adelaide St. W.,
Toronto, Ont.

Dear Sirs,

As requested, we are outlining the dates that our crew carried out the magnetometer survey on your property in Scholes township. The names and addresses of the crew are included on Page 8 of our report and the dates worked are as follows:

| | | | <u>Man days</u> |
|-----------------|--------------------------------------------------|---------------------|-----------------|
| Jack Leclair | - Malartic, Que. | Aug. 6 - Sept. 8 | 30 |
| Joseph Leclair | - New Liskeard, Ont. | Aug. 6 - Sept. 7 | 29 |
| Terry Ferderber | - Bourlamaque, Que. | Aug. 6 - Sept. 7 | 29 |
| R. Pelette | - Bourlamaque, Que. | Aug. 6 - Sept. 7 | 29 |
| H.J. Bergmann | - 3518 Vendome Ave. Montreal, Que. | Sept. 15, 18 and 21 | 3 |
| D. Grayton | - 1265 Ouimet Ave. Ville St. Laurent, Que. | Sept. 16, 17, 18 | 3 |
| M. Connolly | - 3475 Westmore Ave. Montreal, Que. | Sept. 21 | <u>1</u> |
| Total Man days | | | <u>124</u> |

Yours very truly,

PROSPECTING GEOPHYSICS LTD.

H.J. Bergmann p.m.c.
H.J. Bergmann

HJB/MC

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ASSESSMENT DETAILS

| | <u>Man Days</u> |
|---------------------|-----------------|
| Line Cutting | 72 |
| Magnetometer Survey | 45 |
| Office Work | <u>7</u> |
| Total Man Days | 124 x 4 |

= 496 days.

PERSONNELField Crew

| | | |
|-----------------|---|--------------------|
| Jack Leclair | - | Malartic, Que. |
| Joseph Leclair | - | New Liskeard, Ont. |
| Terry Ferderber | - | Bourlamaque, Que. |
| R. Pelotte | - | Bourlamaque, Que. |

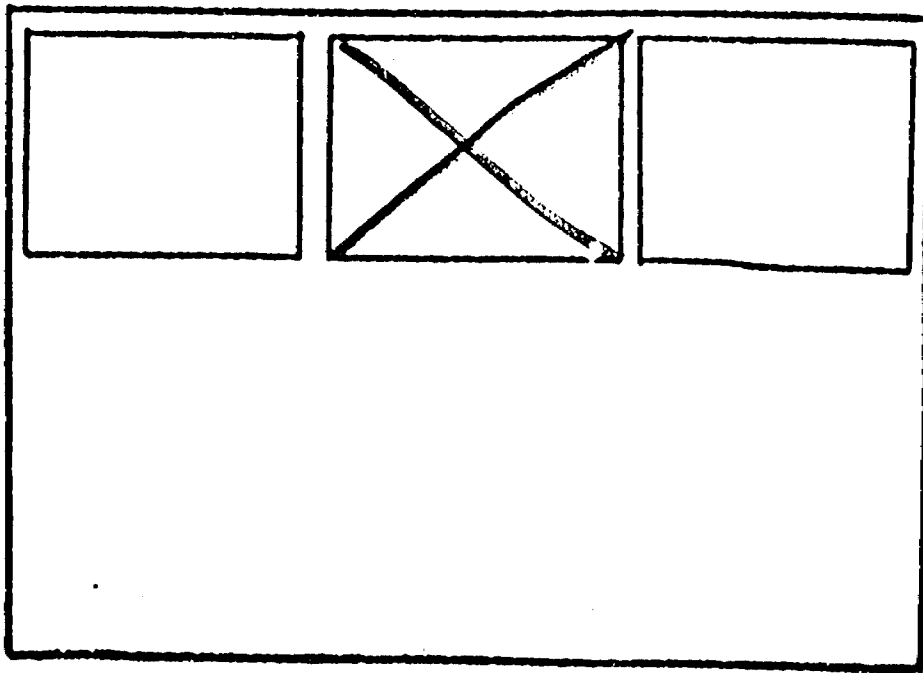
Office Staff

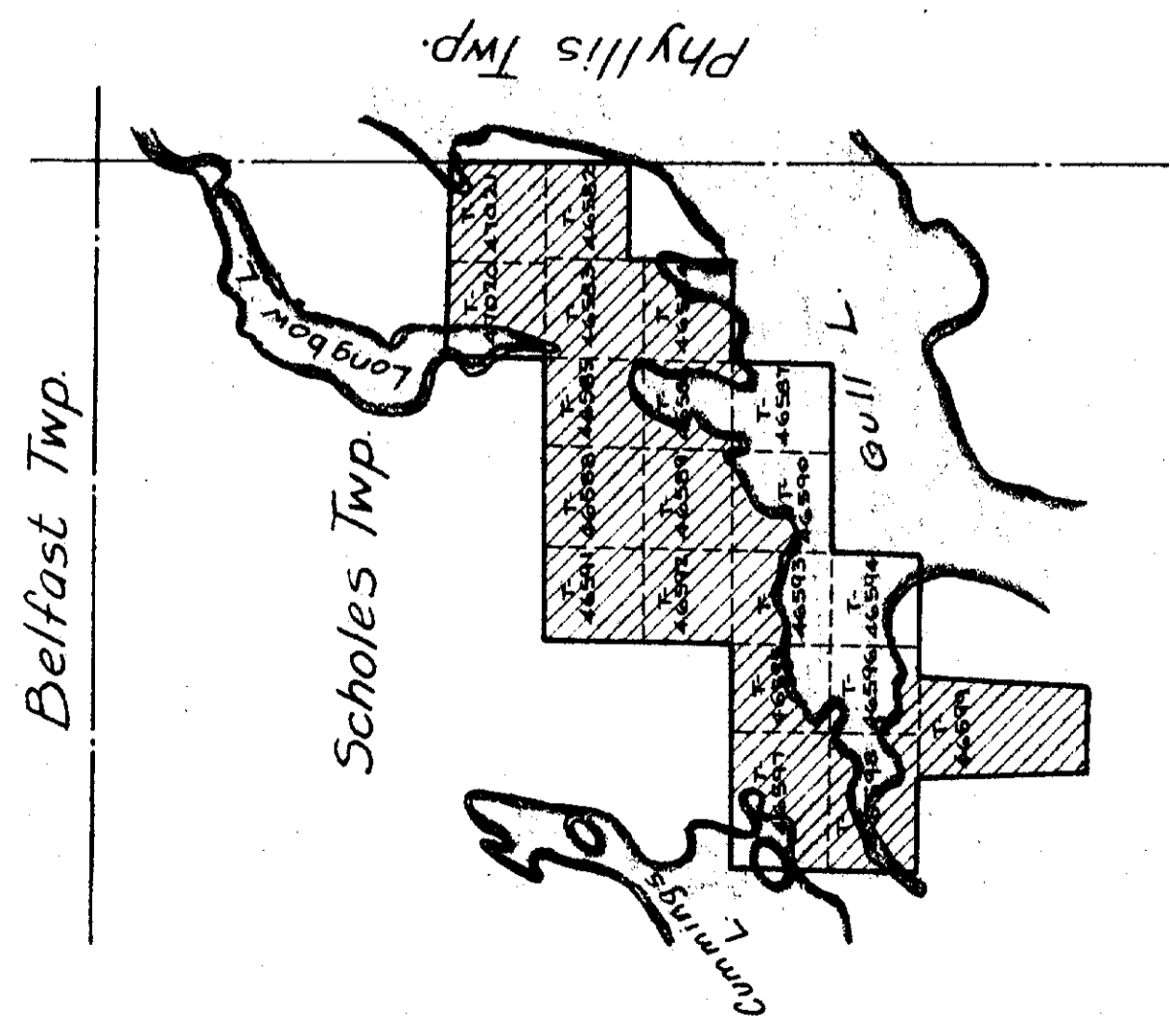
| | | |
|---------------|---|-------------------------|
| H.J. Bergmann | - | Montreal, Que. |
| D. Grayton | - | Ville St. Laurent, Que. |
| M. Connolly | - | Montreal, Que. |

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS

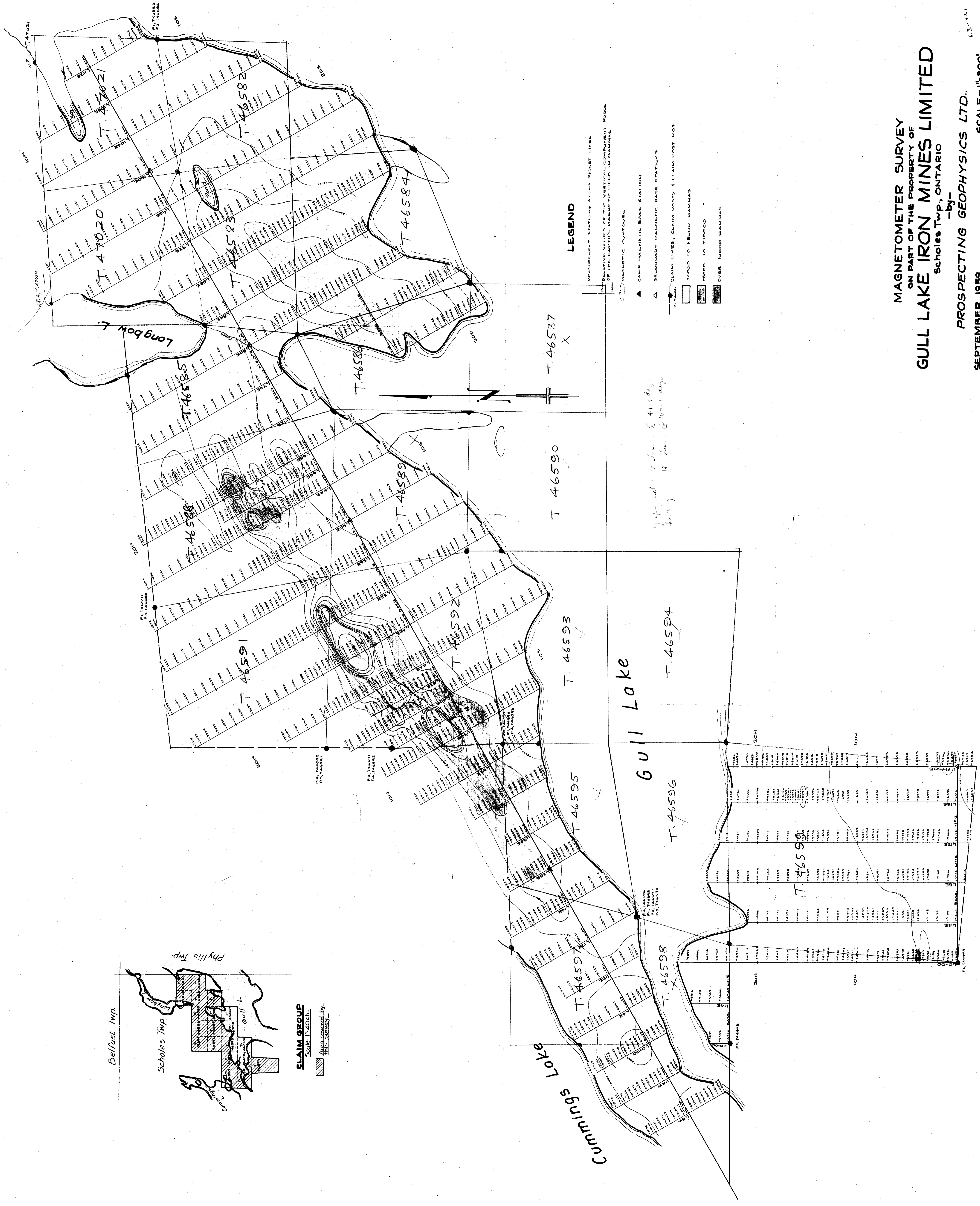
SCHOLES-0015-B1-#1

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)





CLAIM GROUP
Scale: 1" = 40 ch.
Area covered by this survey



LEGEND

MEASUREMENT STATIONS ALONG PICKET LINES
RELATIVE VALUES OF THE VERTICAL COMPONENT FORCE
OF THE EARTH'S MAGNETIC FIELD IN GAMMAS

- ▲ CAMP MAGNETIC BASE STATION
- △ SECONDARY MAGNETIC BASE STATIONS
- CLAIM LINES, CLAIM POSTS & CLAIM POST NOS.
- 16000 TO 17000 GAMMAS
- 17000 TO 18000
- OVER 18000 GAMMAS
- MAGNETIC CONTOURS

*Approx. used: 12 diameters @ 41-3 days
18 diameters @ 100-1 days*

MAGNETOMETER SURVEY
ON PART OF THE PROPERTY OF
GULL LAKE IRON MINES LIMITED
Scholtes Twp., ONTARIO

PROSPECTING GEOPHYSICS LTD.

SEPTEMBER 1959

63-1021

SCALE - 1" = 300'

[Signature]

