



32D04SW0038 2.7352 GAUTHIER

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REPORT ON
MAGNETOMETER SURVEY
GAUTHIER TOWNSHIP, ONTARIO

by

R.A. MacGregor, P. Eng.

October 23, 1984

RECEIVED

OCT 26 1984

MINING LANDS SECTION

I. INTRODUCTION

A magnetometer survey was carried out over previously cut lines in July-October 1984.

II. LOCATION, ACCESS AND OWNERSHIP

The property is located in the central part of Gauthier Township just north of the south boundary, Larder Lake Mining Division, District of Temiskaming, Ontario. The claims are numbered L544734 to 544738 inclusive and L565101 to 565106 inclusive. They are recorded in the name of R.A. MacGregor, 134 Palace Drive, Sault Ste. Marie, Ontario.

Highway 66, a paved highway, passes through the north-east corner of the claims. A bush road passable to 4-wheel drive vehicles extends south from the highway near the east side of the claims. The claims are about 6 miles west of Larder Lake and 12 miles east of Kirkland Lake, both on Highway 66.

III. PREVIOUS EXPLORATION

There are a few old pits and trenches on parts of the claims, and evidence of trenching to reach bedrock in the drift covered areas which cover most of the claims. Previous operators are also reported to have put down a number of diamond drill holes.

IV. TOPOGRAPHY

Nearly all of the property is covered by Pleistocene sand, gravel or swamp. There are two low hills on which there is some outcrop located. In the sandy areas which cover a large part of the property, forest cover consists of jackpine, spruce and some poplar and labrador tea. The swampy areas are covered with black spruce, alder, willow and some poplar. A stream runs through the east part of the claims, and is flooded for its entire length by a series of beaver ponds.

V. MAPPING PROCEDURE

A grid of picket lines were cut for the geological survey. A base line was cut south 45° east from the north boundary. Crosslines were cut every 400 feet north-east and south-west from the baseline. Two short baselines were cut from the most northerly and southerly crosslines to reach small angles in the claims. The picket lines were chained and picketed every 100 feet. The pickets were marked with flourescent red paint for easier observation.

Magnetometer readings were taken with a Sharpe MF-1 Fluxgate Magnetometer at 100-foot intervals. The looping method was used for control of variation. In this method a base station is selected, and readings taken along lines describing a loop, arriving back at the starting base station in less than two hours. A second loop is then started using either the same base station or another which is tied to the previous loop. Readings are then corrected for diurnal variation by assuming the time between

Mapping Procedure (Continued)

readings is the same and distributing any variation equally among the intervening readings. No correction was applied less than the accuracy of the base station readings.

VI. GENERAL GEOLOGY

The general geology of Gauthier Township has been described by J.E. Thomson and Q.T. Giffis⁽¹⁾. The area is underlain by early Precambrian volcanic, sedimentary and intrusive rocks. The area is crossed by the Larder Lake Break, a zone of carbonatization and shearing.

The classification used is the same as that for McVittie Township to the east. The volcanics are classified as Temiskaming or Keewating cut by later Algomian intrusives. The geological succession of the area as proposed by Thomson is given in the "Table of Formations".

VII. DISCUSSION OF RESULTS

Magnetometer readings do not show any great variation over areas known or believed to be underlain by syenite. Two higher than normal readings on lines 40SE and 44SE are a small diabase dyke. Areas believed underlain by volcanics give a more variable pattern and some higher readings.

1) O.D.M. Report Vol 50 part 8, 1941

VII. CONCLUSIONS

The magnetometer survey will be useful in attempting to define the syenite-volcanic contact.

Respectfully submitted



October 23, 1984

R.A. MacGregor, P. Eng.

CERTIFICATE

I, Robert A. MacGregor, Certify:

1. I am a Mining Engineer residing at 134 Palace Drive Sault Ste. Marie, Ontario. I have worked as a mining engineer and geologist for the past 17 years.
2. I am a member of the Association of Professional Engineers of the Province of Ontario and a member of the Canadian Institute of Mining and Metallurgy.
3. I attended Queen's University for two years in the Mining Geology course.
4. I am the recorded holder of the mining claims in this report and have personal knowledge of the work performed.

Oct 23/84

Date

Robert A. MacGregor



VERTICAL INTENSITY FLUXGATE MAGNETOMETER MF-1

SPECIFICATIONS

MODEL MF-1 Standard surveying and prospecting magnetometer with self-leveling sensor.

Ranges: Plus or minus -
1000 gammas f. sc. Sensitivity: 20 gammas per div.
3000 " 50 "
10,000 " 200 "
30,000 " 500 "
100,000 " 2000 "

Meter: Taut-band suspension. 1000 gamma scale: 1 7/8" long - 50 div.
3000 " " : 1 11-16" long - 60 div.

Accuracy: 1000 to 10,000 gamma ranges \pm 0.5% of full scale
30,000 to 100,000 gamma ranges \pm 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)

Bucking Adjustments: 10,000 to 75,000 gammas by 9 steps of approximately .
(Latitude) 8,000 gammas and fine control by 10 turn potentiometer.
Convertible for Southern hemisphere or \pm 30,000 gammas equatorial.

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" - 255 mm dia. x 410 mm

Weights: Instrument 5 lbs. 12 oz. - 2.6 kg.
Battery Pack: 2 lbs. 4 Oz. - 1 kg.
Shipping: 13 lbs.

MODIFIED FLUXGATE MAGNETOMETERS

MODEL MF-1R Magnetometer equipped with standard (self-leveling) sensor and additional recording outlet.

Noise Level: 1 gamma P - P

Long Term Stability: \pm 1 gamma for 24 hours at constant temperature



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File _____

900

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) MAGNETOMETER
Township or Area Gauthier
Claim Holder(s) R.A. MacGregor

Survey Company Colex Explorations Inc.
Author of Report R.A. MacGregor
Address of Author 134 Palace Dr., S.S. Marie, Ont.
Covering Dates of Survey July-October 1984
(linecutting to office)
Total Miles of Line Cut _____

MINING CLAIMS TRAVERSED
List numerically

L544734
.....
(prefix) (number)
L544735
.....
L544736
.....
L544737
.....
L544788
.....
L565101
.....
L565104
.....
L565105
.....
L565106
.....

If space insufficient, attach list

**SPECIAL PROVISIONS
CREDITS REQUESTED**

DAYS
per claim

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

Geophysical _____
-Electromagnetic _____
-Magnetometer 20
-Radiometric _____
-Other _____
Geological _____
Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Oct. 23/84 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 2.1102

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 9

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations 449 Number of Readings 449

Station interval 100 feet Line spacing 400 feet

Profile scale _____

Contour interval 100 gammas

MAGNETIC

Instrument Sharpe MP-1

Accuracy - Scale constant 20 gammas on lowest scale

Diurnal correction method Looping method

Base Station check-in interval (hours) 2 hours or less

Base Station location and value various along baseline

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters - On time _____ Frequency _____

- Off time _____ Range _____

- Delay time _____

- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

Ministry of Natural Resources
Ontario
File 2544734

Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

27352

The Mining Act

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas.

Oct 29/84
8408451

Type of Survey(s) Magnetometer		Township or Area Gauthier	
Claim Holder(s) R.A. MacGregor		Prospector's Licence No. K-15070	
Address 134 Palace Dr., Sault Ste. Marie, Ontario P6B 5H5			
Survey Company Colex Explorations Inc.		Date of Survey (from & to) Day Mo. Yr. Day Mo. Yr. 7 84 8 84	Total Miles of line Cut --
Name and Address of Author (of Geo-Technical report) Robert A. MacGregor, 134 Palace Dr., Sault Ste. Marie, Ontario P6B 5H5			

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For each additional survey: using the same grid: Enter 20 days (for each)	Geological Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical - Electromagnetic - Magnetometer - Radiometric - Other Geological Geochemical	Days per Claim
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic Magnetometer Radiometric	Days per Claim

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	544734				
	544735				
	544736				
	544737				
	544738				
	565101				
	565104				
	565105				
	565106				

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SEP 11 1984
MINING LANDS SECTION

RECEIVED
AUG 30 1984
7 18 19 10 11 12 13 14 15 16 PM

Expenditures (excludes power stripping)

Type of Work Performed
Performed on Claim(s)
Calculation of Expenditure Days Credits
Total Expenditures <input type="text"/> ÷ <input type="text" value="15"/> = Total Days Credits <input type="text"/>
Instructions Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. **9**

Date Aug. 29/84	Recorded Holder or Agent (Signature) <i>R. MacGregor</i>
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For Office Use Only		
Total Days Cr. Recorded 180	Date Recorded AUG 30 1984	Mining Recorder Acting <i>J. Betting</i>
	Date Approved as Recorded <i>Nov 7/84</i>	Branch Director <i>J. W. Matthews</i>

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying R.A. MacGregor, 134 Palace Dr., Sault Ste. Marie, Ont. P6B 5H5	
Date Certified Aug. 29/84	Certified by (Signature) <i>R. MacGregor</i>

1984 11 05

Your File: 351
Our File: 2.7352

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We received reports and maps on October 26, 1984 for a Geophysical (Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 544734 et al in the Township of Gauthier.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-4888

S. Hurst:sc

cc: R.A. MacGregor
134 Palace Drive
Sault Ste. Marie, Ontario
P6B 5H5

P.O. BOX 1110
SAULT STE. MARIE
ONTARIO P6A 5N7

R. A. MACGREGOR, P.ENG.
MINING ENGINEER
134 PALACE DRIVE
SAULT STE. MARIE, ONTARIO
P6B 5H5

OFFICE:
705-949-5928
HOME:
705-949-4250

Oct. 23/84

PROJECTS BRANCH
MINISTRY OF NATURAL RESOURCES
Room 1617
Mining Lands Section
Whitney Block
Queen's Park
TORONTO, Ontario
M5C 2M6

Dear Sir or Madam:

Enclosed are reports on Magnetometer Survey

Manthorpe Township, Ont. - October 23, 1984.

Yours truly

R. A. MacGregor

per J.A.
Robert A. MacGregor

RAM/jh

Encl.

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Oct. 26 1984

MINING LANDS SECTION

Mining Lands Section

File No 2.7352

Control Sheet

TYPE OF SURVEY



GEOPHYSICAL



GEOLOGICAL



GEOCHEMICAL



EXPENDITURE

MINING LANDS COMMENTS:

dept L.D.

J. Hurst

Signature of Assessor

84-10-05

Date

2.7352

544734

✓

565101

✓

35

✓

4

✓

36

✓

5

✓

37

✓

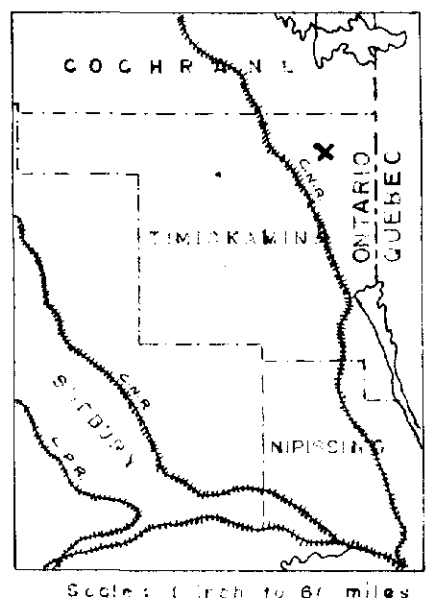
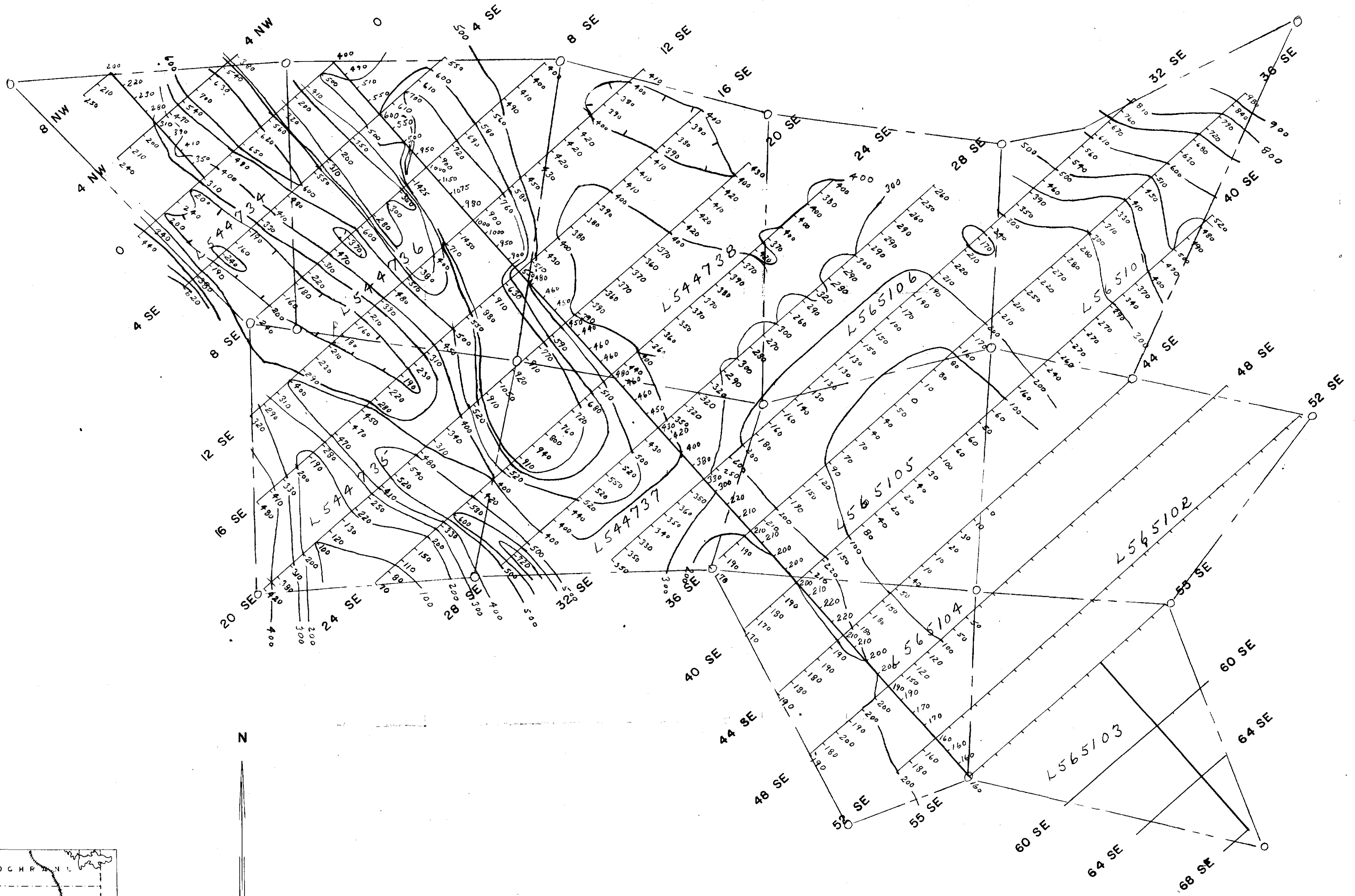
6

✓

38

✓

23.



Scale: 1 inch to 64 miles

Magnetometer Survey
 GAUTHIER SOUTH GRID
 GAUTHIER TOWNSHIP
 SCALE 1" = 400'



Inst. - Sharpe MF-1
 Contour Interval - 100 gammas

2-1352

