



41016SE0450 2.5182 GENOA

010

FALCONBRIDGE LIMITED

GEOPHYSICAL SURVEY REPORT (MAGNETOMETER)

HEENAN, MARION, GENOA TOWNSHIPS

N.T.S. 41-O-16

RECEIVED

NOV 12 1982

MINING LANDS SECTION

October 26, 1982

LOCATION AND ACCESS:

As shown on the enclosed map, the property is located within Heenan, Marion and Genoa Townships. Access to the property is via commercial float aircraft landing on the Woman River either from Ivanhoe Lake some thirty air miles to the north or from Timmins some seventy air miles to the north east.

HOLDERS OF THE PROPERTY:

The 158 claims covered by this survey are held by Falconbridge Limited, which maintains a field office located at 167 Wilson Avenue, Timmins, Ontario. This report is being submitted by an agent of the company from the above address.

DATES OF SURVEY:

The magnetometer survey was completed during May and June of 1982 with office compilation of data during August and September of 1982.

PREVIOUS WORK:

Parts of the above claim group have been held at various times by numerous mining companies, the data for which can be viewed at the Regional Office of the Mining Recorder in Timmins, Ontario.

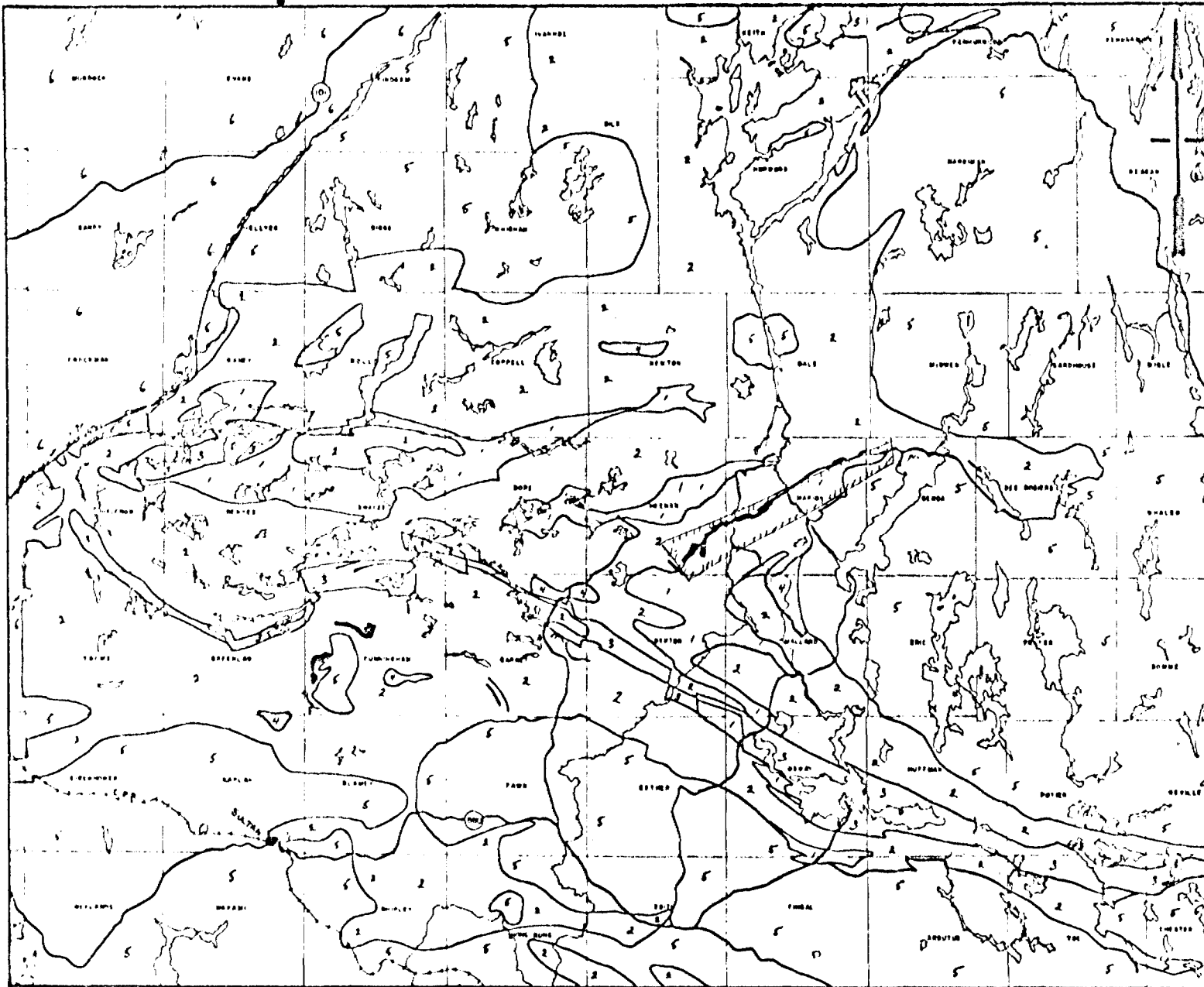
To date, Falconbridge has completed and submitted for assessment:

- a) A V.L.F. survey
- b) Diamond drilling and assays (3 D.D.H.'s totalling 1512' of drilling)
- c) Manual Labour (involving stripping of outcrops)

Under separate cover a geological survey is submitted for assessment current with this report.

TOTAL NUMBER OF STATIONS AND LINE MILES CUT:

A total of 5982 stations were established during this survey. 5156 of these stations were established on some 122.1 miles of previously existing grid and 826 stations were established on 18.68 miles of newly cut grid.

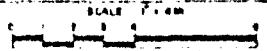


LEGEND

- Kapuskasing Gravity High
- Granite
- Gabbro-Diorite
- Sediments
- Mafic Volcanics
- Felsic Volcanics
- Iron Formation
- Heenan-Marion-Genoa Property

M. Mendenhall

**SWAYZE BELT
LOCATION MAP**



METHOD OF SURVEY AND INSTRUMENTATION:

MAGNETOMETER SURVEY:

The magnetometer survey was done using a Barringer proton magnetometer model GM-122. It has a range from 20,000 gammas to 99,999 gammas with an accuracy of ± 1 gamma. The sensor is an omnidirectional noise cancelling toroidal sensing head. The instrument can be operated from -40°C to $+55^{\circ}\text{C}$ with relative humidity from 0 to 100%.

The magnetometer operates on the principle that if a proton rich fluid is placed into a magnetic field the protons will align along the magnetic field vector. A magnetic field is induced in the sensor then suddenly removed. Protons which behave as elementary gyroscopes will start precessing around the remaining magnetic field - that of the earth. The precession frequency is directly proportional to the magnetic field of the earth. The magnetometer counts this frequency, divides it by the appropriate constant to obtain a reading in gammas and displays the reading in the form of a five digit number.

Because the Barringer GM-122 has a gradient tolerance of 600 gamma/ft; under extremely magnetic conditions (i.e. oxide iron formation) no readings are obtained and the interpretation can be made that exceptionally magnetic rocks are causing this highly anomalous condition.

For the area west of the Rush River correction for diurnal was made via the 'base line' method; the magnetic base lines being established by relating all readings to a 'base monitor' established on L 110 W and 139 + 00 S. While the base lines were being established readings were taken every five minutes at the 'base monitor'. For the area east of the Rush River all readings were related to a 'base monitor' established on L 853 W, 511 + 00 S. Readings at the 'base monitor' were taken every five minutes while the survey was being conducted. The two areas were related by simultaneously reading the two base stations.

RESULTS OBTAINED AND CONCLUSIONS:

INTRODUCTION:

The magnetic properties of rocks are measured with the survey, and these properties reflect, at times primary stratigraphy, providing that

magnetite or pyrrhotite is uniquely correlatable with individual rock units. Assuming this is the case, important structural and lithological observations can be inferred from continuity or lack of continuity of magnetic trends. Briefly, the claim group straddles the "Woman River Iron Formation" which is a typical "Algoma Type" consisting of banded magnetite, chert, jasper and sulfide facies with or without carbonate. To the north of the iron formation pillowed basalts dominate. South of the iron formation various facies of felsic volcanics predominate with numerous gabbroic dykes. Detailed geological information can be derived from maps accompanying the geological assessment report submitted currently with this geophysical report.

INTERPRETATION:

The dominant magnetic feature observed on the included maps is the north easterly trending magnetic high which is correlatable with the "Woman River" iron formation.

On sheet I the iron formation is almost uniquely correlatable with the "00" readings which as explained in the text above refers to extremely high magnetic gradients reflecting the dominant magnetite component of the iron formation. To the south of Claim Lake the magnetic expression indicates a thick sequence of iron formation, for example on L 244 E, however geological mapping has demonstrated that the volcanic laharic facies underlying the iron formation in this area contains an appreciable amount of detrital magnetite.

East of the Woman River to L 36 W on sheet 2, the 61,000 gamma contour almost uniquely defines the iron formation. To the south of this magnetic trend, magnetic highs can be correlated with the magnetic lahars. On sheet I, a major structural break roughly coincident with L 224 E is inferred from the lack of continuity of the strong magnetic trend. Geological evidence indicates that this feature is primarily the result of sinistral faulting of the iron formation.

On sheet 2, from L 36 W to the Rush River the absence of a strong magnetic expression is the result of lack of magnetite within the iron formation as geological mapping has demonstrated that a cherty facies

predominates in this area. On L 36 W and 40 W, although unmapped, irregular bodies of oxide facies iron formation can be inferred from the strong magnetic signature.

From the Rush River to the east end of the claim area the 61,000 gamma contour is almost uniquely correlatable with the observed iron formation facies. Extending this magnetic trend into overburdened areas probably realistically defines the iron formation. Immediately south of Stake and Smithette Lakes numerous thin bands of iron formation can be inferred to occur continuously across the area. Intervening magnetic low areas probably reflect absence of oxide facies rather than absence of iron formation.

To the north of the iron formation throughout the map area the magnetic expression is uniformly lower, generally 57,000 - 59,000 gammas and relatively undisturbed which is comparable with the uniform sequences of pillowed basalts observed in the area.

CONCLUSIONS AND RECOMMENDATIONS:

Magnetic trends are correlatable with observed stratigraphic and structural features within the claim group. Hence the magnetic data can be used to confidently extend these observed features into overburdened areas. Prospecting and mapping within these areas should be undertaken to investigate for features of economic significance.



Barry Manchuk

October 26, 1982

CERTIFICATION

I, Barry Manchuk, residing at 1349 Chenier Avenue, Timmins, Ontario, an agent of Falconbridge, submitting this geophysical report dated October 26, 1982, do hereby affirm that:

- 1) I am a graduate of the University of Manitoba having received an M.Sc. (Geological Sciences) in 1971
- 2) I have been professionally practicing since 1971
- 3) I did personally set forth the facts in this report and did monitor the work contained herein
- 4) I do not have any interest in this claim group

Barry Manchuk



41016SE0450 2.5182 GENOA

900

310, 313, 314

1982 11 22

2.5182

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical
(Magnetometer) Survey submitted under Special Provisions
(credit for Performance and Coverage) on Mining Claims
P 624001 et al in the Townships of Heenan, Marion and
Genoa.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

DW:sc

cc: Falconbridge Limited
Toronto, Ontario

cc: Mr. Barry Manchuk
167 Wilson Avenue
Timmins, Ontario

Extension - Sec. 77(22)

P 553231 to 553239 inclusive	Marion Township
555037 to 555040 inclusive	
549240 to 549242 inclusive	
536791 to 536793 inclusive	
536851-52	
536782	
536916 to 536922 inclusive	
554500 to 554519 inclusive	
554011 to 554016 inclusive	
554685 to 554704 inclusive	Heenan Township
549613 to 549615 inclusive	
554017 to 554022 inclusive	
554665 to 554679 inclusive	
553222 to 553230 inclusive	Marion Township
568516 to 568518 inclusive	
583862 to 583873 inclusive	
583876 to 583886 inclusive	Genoa Township
628489 to 628445 inclusive	Marion Township
619128 to 619132 inclusive	
628434 to 628438 inclusive	
624001 to 624003 inclusive	
623000	
622999	
634522-23	

in the townships of Heenan, Marion and Genoa

Falconbridge Limited

Magnetometer & Electromagnetic
December 6, 82

September 10 82

Mining Recorder
Timmins, Ontario

Falconbridge Limited
Timmins, Ontario



In the matter of mining claims:

P 553231 to 553239 inclusive	Marion Township
555037 to 555040 inclusive	
549240 to 549242 inclusive	
536791 to 536793 inclusive	
536851-52	
536782	
536916 to 536922 inclusive	
554500 to 554519 inclusive	
554011 to 554016 inclusive	
554685 to 554704 inclusive	Heenan Township
549613 to 549615 inclusive	
554017 to 554022 inclusive	
554665 to 554679 inclusive	
553222 to 553230 inclusive	Marion Township
568516 to 568518 inclusive	
583862 to 583873 inclusive	
583876 to 583886 inclusive	Genoa Township
628439 to 628445 inclusive	Marion Township
619128 to 619132 inclusive	
628434 to 628438 inclusive	
624001 to 624003 inclusive	
623000	
622999	
634522-23	

in the townships of Heenan, Marion and Genoa

On consideration of an application from the recorded holder, Falconbridge Limited
under Section 77 Subsection 22 of The Mining Act, I hereby order that the time for filing reports and plans in support of
Magnetometer & Electromagnetic assessment work recorded on September 10 1982
be extended until and including December 6, 1982.

1982-11-09
Date

Signature of Director, Land Management Branch

Copies:

Mining Recorder
Timmins, Ontario

Falconbridge Limited
Timmins, Ontario



Jan 27/83

Mining Lands Comments

To: Geophysics *Mr. Barlow*

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date <i>Feb 28/83</i>	Signature <i>Ryan [Signature]</i>
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To: Geology - Expenditures

Comments

L.D.

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Geochemistry

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

Falconbridge Ltd
167 Wilson Ave
Timmins, Ont.

RECEIVED

NOV 25 1982

MINING LANDS SECTION

To: Mr. Barr / Anderson.

Dear Sirs.

Recently Falconbridge, from Timmin has
filed assessment geological & geophysical on
claims in Heenan, Maric & Seneca Twp's;
your file nos 2.5182 and 2.5183. Could
you please send any correspondence regarding
these claims to the below.

① Mr. R. TAYS.
FALCONBRIDGE LTD
P.O. Box 40
Commerce Court west
Toronto, Ont
MSLIB4
Thank you.

② Mr. J. BOISSONNAULT
FALCONBRIDGE LTD.
979 Ave de Bourgogne
St. Foy Quebec
G1W 2L4

③ Mr. B. MANCHUK
FALCONBRIDGE LTD.
167 Wilson Ave
Timmins Ont.
~~719272~~
P4N2T2

Berry Manchuk



FALCONBRIDGE

Falconbridge Limited
Box 40, Commerce Court West
Toronto, Canada M5L 1B4
Telephone 416/863-7000
Telex 065-24211 Rapifax 364-8986

November 4, 1982

RECEIVED

NOV - 5 1982

MINING LANDS SECTION

Mr. Fred Matthews
Ministry of Natural Resources
Land Management Branch
Room 6452, Queen's Park, *Whitney Block*
TORONTO, Ontario
M7A 1W3

Dear Sir:

Re: Reports of Work filed under cover of our Letter
dated September 9, 1982, copy enclosed.

The Report of Work with respect to the above noted filing were to have been filed within the 60 day period following filing however, the author of the Report, Mr. Manchuck of our Timmins office has had a death in his family and is not able to complete the Report before the due date of November 10th.

We hereby request a 30 day Extension of Time to file the Report.

With respect to the claims concerned, we enclose herewith copies of the Reports of Work whereon the claims are listed.

We trust that upon your receipt of this letter and enclosures, this request will meet with your favourable consideration and we will be advised accordingly in due course.

Yours very truly

FALCONBRIDGE LIMITED

R. H. Tays
Property Manager

RHT/jg
Encl.



FALCONBRIDGE NICKEL MINES LTD.

167 WILSON AVENUE
TIMMINS, ONTARIO

PHONE 264-0404

267 6009

P4N 2T2



SUPPORT THE HOSPITAL
FOR SICK CHILDREN FOND
DONNEZ UN
DE L'HOPITAL D'ENFANTS

Mr. Barry Anderson
Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3



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

2.5182
310
P-622999
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 below.

Type of Survey(s) MAGNETOMETER	Township or Area MARION TWP
Claim Holder(s) Exxonbridge Ltd	Prospector's Licence No. A-21647
Address 157 Wilson Ave Timmins ONT	
Survey Company Exxonbridge Ltd.	Date of Survey (from & to) 30 Day May 82 1 Day June 82 5.6 miles
Name and Address of Author (of Geo-Technical report) Scott Bruce 157 Wilson Ave Timmins	

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	40
	- Radiometric	
	- Other	
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	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
P.	624-001	
	624-002	
	624-003	
	623-000	
	622-999	
	634-522	
	634-523	

RECEIVED

SEP 27 1982

MINING LANDS SECTION

RECORDED

SEP 10 1982

Receipt No.

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s) **SEP 10 1982**

AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Calculation of Expenditure Days Credits

Total Expenditures \$ + 15 =

Total Days Credits

Total number of mining claims covered by this report of work. **7**

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.

Date **Aug 31/82** Recorded Holder or Agent (Signature) **Scott Bruce**

For Office Use Only

Total Days Cr. Recorded **280** Date Recorded **83.05.27** Mining Recorder **[Signature]**

Date Approved as Recorded **83.05.27** Branch Recorder **[Signature]**

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
Scott Bruce 167 Wilson Ave Timmins, ONT P4N 2T2

Date Certified **Nov 3, 1982** Certified by (Signature) **Scott Bruce**



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

P-619128

313

The Mining Act

2.5182

- 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 below.

Type of Survey(s) MAGNETOMETER		Township or Area MARION TWP	
Claim Holder(s) Falconbridge Ltd		Prospector's Licence No. A-21647	
Address 167 Wilson Ave Timmins ONT			
Survey Company Falconbridge Ltd	Date of Survey (from & to) 27 May 82 29 May 82 Day Mo. Yr. Day Mo. Yr.		Total Miles of line Cut 10.9 miles
Name and Address of Author (of Geo-Technical report) SCOTT BRUCE 167 Wilson Ave Timmins			

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
P	628443	✓
	628442	✓
	628441	✓
	628440	✓
	628439	✓
	628444	✓
	628445	✓
	619132	✓
	619131	✓
	619130	✓
	619129	✓
	619128	✓
	628438	✓
	628437	✓
	628436	✓
	628435	✓
	628434	✓

RECEIVED

SEP 27 1982

MINING LANDS SECTION

RECORDED

SEP 10 1982

Receipt No.

Expenditures (excludes power stripping)

Type of Work Performed **PROCUPINE MINING DIVISION**

Performed on Claims **RECEIVED**

SEP 10 1982

AM 10 11 12 1 2 3 4 5 6 PM

Calculation of Expenditures (in Dollars) and Days Credits

Total Expenditures \$ + 15 =

Days Credits

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.

Date **Aug 31/82** Recorded Holder or Agent (Signature) *Scott Bruce*

For Office Use Only

Total Days Cr. Recorded **680** Date Recorded **Sept 10/82**

Date Approved as Recorded **9/21/82** Mining Recorder *[Signature]*

Date Approved as Recorded **9/21/82** Inspector *[Signature]*

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 appended 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
SCOTT BRUCE 167 Wilson Ave Timmins ONT P4N 2T2

Date Certified **10/1/82** Certified by (Signature) *Scott Bruce*

Total number of mining claims covered by this report work. **17**

DATE APPROVED AS RECORDED **9/21/82** Mining Recorder

DATE APPROVED AS RECORDED **9/21/82** Inspector

SCHEDULE "A"

Name	Number
Marion Twp.	P553231
"	P553232
"	P553233
"	P553234
"	P553235
"	P553236
"	P553237
"	P553238
"	P553239
"	P555037
"	P555038
"	P555039
"	P555040 ↑
"	P549240
"	P549241
"	P549242
"	P536791 ↓
"	P536792
"	P536793 ↑
"	P536851
"	P536852 ↑
"	P536782

Name	Number
Marion Twp.	P536916 ↓
Marion	P536917
Marion	P536918
Marion	P536919
Marion	P536920
Marion	P536921
Marion	P536922 ↑
Marion	P554500 ↓
Marion	P554501
Marion	P554502
Marion	P554503
Marion	P554504
Marion	P554505
Marion	P554506
Marion	P554507
Marion	P554508
Marion	P554509
Marion	P554510
Marion	P554511
Marion	P554512
Marion	P554513
Marion	P554514
Marion	P554515
Marion	P554516
Marion	P554517
Marion	P554518
Marion	P554519 ↑
Marion	P554011 ↓
Marion	P554012
Marion	P554013
Marion	P554014
Marion	P554015
Marion	P554016 ↓
Heenan	P554685 ↓
Heenan	P554686
Heenan	P554687
Heenan	P554688
Heenan	P554689
Heenan	P554690
Heenan	P554691
Heenan	P544692
Heenan	P554693
Heenan	P554694

Name	Number
Heenan	P554695
"	P554696
"	P554697
"	P554698
"	P554699
"	P554700
"	P554701
"	P554702
"	P554703
"	P554704 ↓
"	P549613 ↓
"	P549614
"	P549615 ↓
"	P554017 ↓
"	P554018
"	P554019
"	P554020
"	P554021
"	P554022 ↓
"	P554665 ↓
"	P554666
"	P554667
"	P554668
"	P554669
"	P554670
"	P554671
"	P554672
"	P554673
"	P554674
"	P554675
"	P554676
"	P554677
"	P554678
"	P554679
Marion Twp.	P553222
"	P553223
"	P553224
"	P553225
"	P553226
"	P553227
"	P553228
"	P553229
"	P553230

SCHEDULE ^WA

2,5182

Name	Number
Marion	P568516
Marion	P568517
Marion	P568518

Green

Name	Number
Marion Twp.	583862
"	583863
"	583864
"	583865
"	583866
"	583867
"	583868
"	583869
"	583870
"	583871
"	583872
"	583873

red

Name	Number
Genoa	583876
"	583877
"	583878
"	583879
"	583880
"	583881
"	583882
"	583883
"	583884
"	583885
"	583886

23

24
23
—
54



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL TECHNICAL DATA STATEMENT

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) Geophysical (Magnetometer)

Township or Area Heenan, Marion, Genoa Townships

Claim Holder(s) Falconbridge Limited

Survey Company Falconbridge Limited

Author of Report Barry Manchuk

Address of Author 167 Wilson Ave., Timmins, Ontario

Covering Dates of Survey May 1982 - June 1982 (linecutting to office)

Total Miles of Line Cut Schedule A & B previously existing 122.14 mi., Schedule C 7.52 mi & 11.16 mi. (new grid)

Table with 2 columns: SPECIAL PROVISIONS CREDITS REQUESTED, DAYS per claim. Includes categories like Geophysical, Geological, Geochemical with sub-items like Electromagnetic, Magnetometer, Radiometric, Other.

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

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

DATE: Oct 16/82 SIGNATURE: Barry Manchuk Author of Report or Agent

Res. Geol. _____ Qualifications 2.1363

Previous Surveys

Table with 4 columns: File No., Type, Date, Claim Holder. Multiple rows for listing previous surveys.

MINING CLAIMS TRAVERSED List numerically SCHEDULE C (40 Days requested). List of claim numbers and days requested, including a TOTAL CLAIMS 158 at the bottom.

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations $\frac{(C) \quad (A+B)}{826 + 5156 = 5982}$ Number of Readings $\frac{(C) \quad (A+B)}{826+5156 = 5982}$
Station interval $\frac{100'}$ Line spacing $\frac{400'}$
Profile scale _____
Contour interval 56000, 57000, 57500, 58000, 58500, 59000, 59500, 60000, 60500, 61000, 62000,
63000, 64000, 65000, 70000. Note extremely high gradients given "0" reading

MAGNETIC

Instrument Barringer GM-122 Proton Magnetometer
Accuracy - Scale constant + 1 gamma
Diurnal correction method Base station
1) magnetic base line established by continuously monitoring
Base Station check-in interval (hours) a base station; 2) continuous base station (5 min.)
Base Station location and value 60,016 gammas @ L110W, 139+00S
60,016 gammas @ L853W, 511S

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 _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p-p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

SCHEDULE B:

P553231
P553232
P553233
P553234
P553235
P553236
P553237
P553238
P553239
P555037
P555038
P555039
P555040
P549240
P549241
P549242
P536791
P536792
P536793
P536851
P536852
P536782
P536916
P536917
P536918
P536919
P536920
P536921
P536922
P554500
P554501
P554502
P554503
P554504
P554505
P554506
P554507
P554508
P554509
P554510
P554511
P554512
P554513
P554514
P554515
P554516
P554517
P554518
P554519
P554011
P554012
P554013
P554014
P554015
P554016

SCHEDULE A:

P568516
P568517
P568518
P583862
P583863
P583864
P583865
P583866
P583867
P583868
P583869
P583870
P583871
P583872
P583873
P583876
P583877
P583878
P583879
P583880
P583881
P583882
P583883
P583884
P583885
P583886

McOWEN TWP.

MARION TWP. (M.853)

DESROSIERS TWP. (M.759)

ERIC TWP. (M.789)

THE TOWNSHIP

III

GENOA

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S
LEASES	Ⓛ
LOCATED LAND	Lac
LICENSE OF OCCUPATION	L.O
MINING RIGHTS ONLY	M.R.O
SURFACE RIGHTS ONLY	S.R.O
ROADS	— — — — —
IMPROVED ROADS	— — — — —
KING'S HIGHWAYS	— — — — —
RAILWAYS	— — — — —
POWER LINES	— — — — —
MARSH OR MUSKEG	— — — — —
MINES	✕
CANCELLED	Ⓞ

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

DATE OF ISSUE

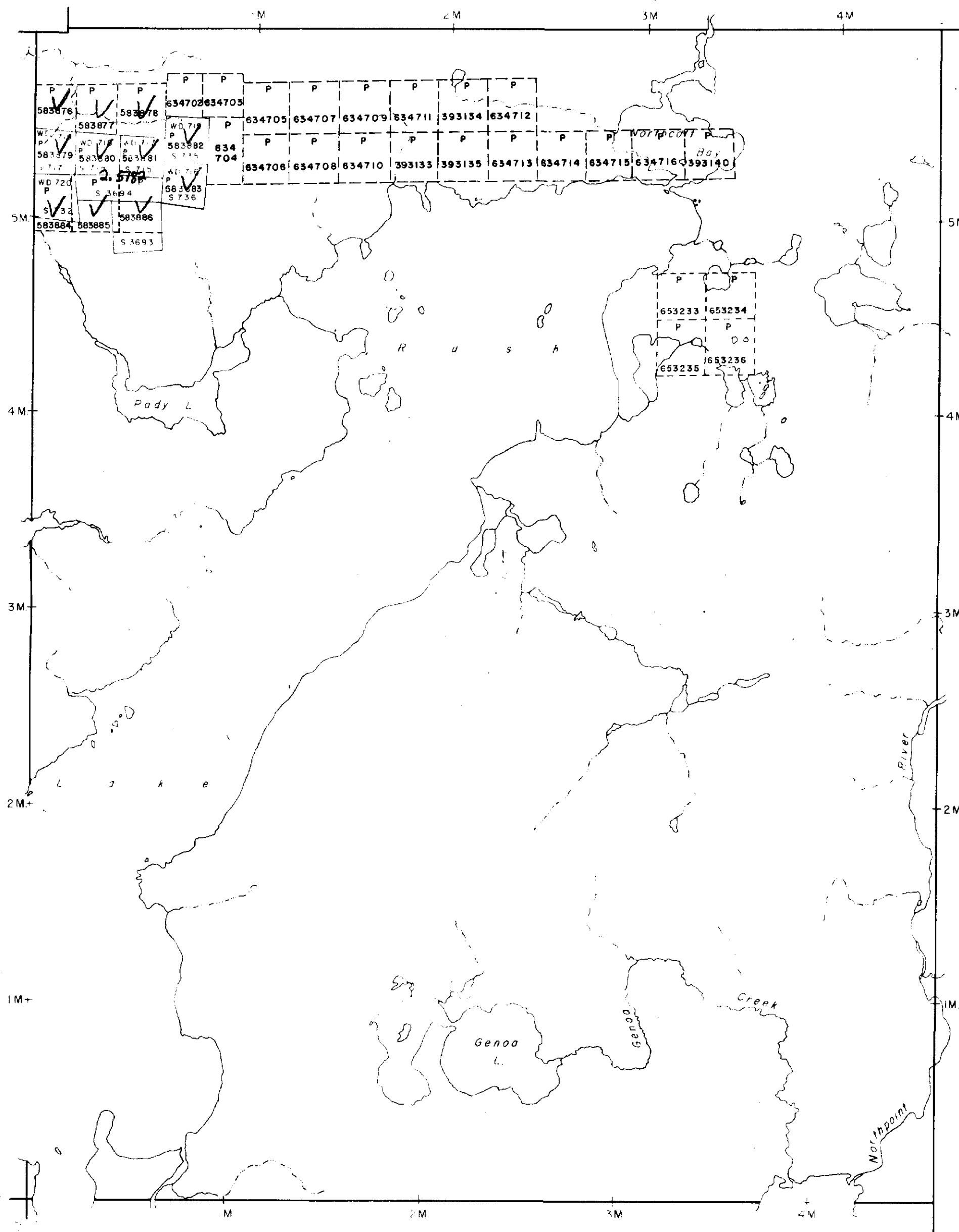
JUN 13 1983

Ministry of Natural Resources
TORONTO

PLAN NO. **M.833**

ONTARIO
MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH



41016SE0450 2.5182 GENOA

200

DALE TWP.

THE TOWNSHIP
OF

MARION

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	—
CANCELLED	—
PATENTED S.R.O.	—

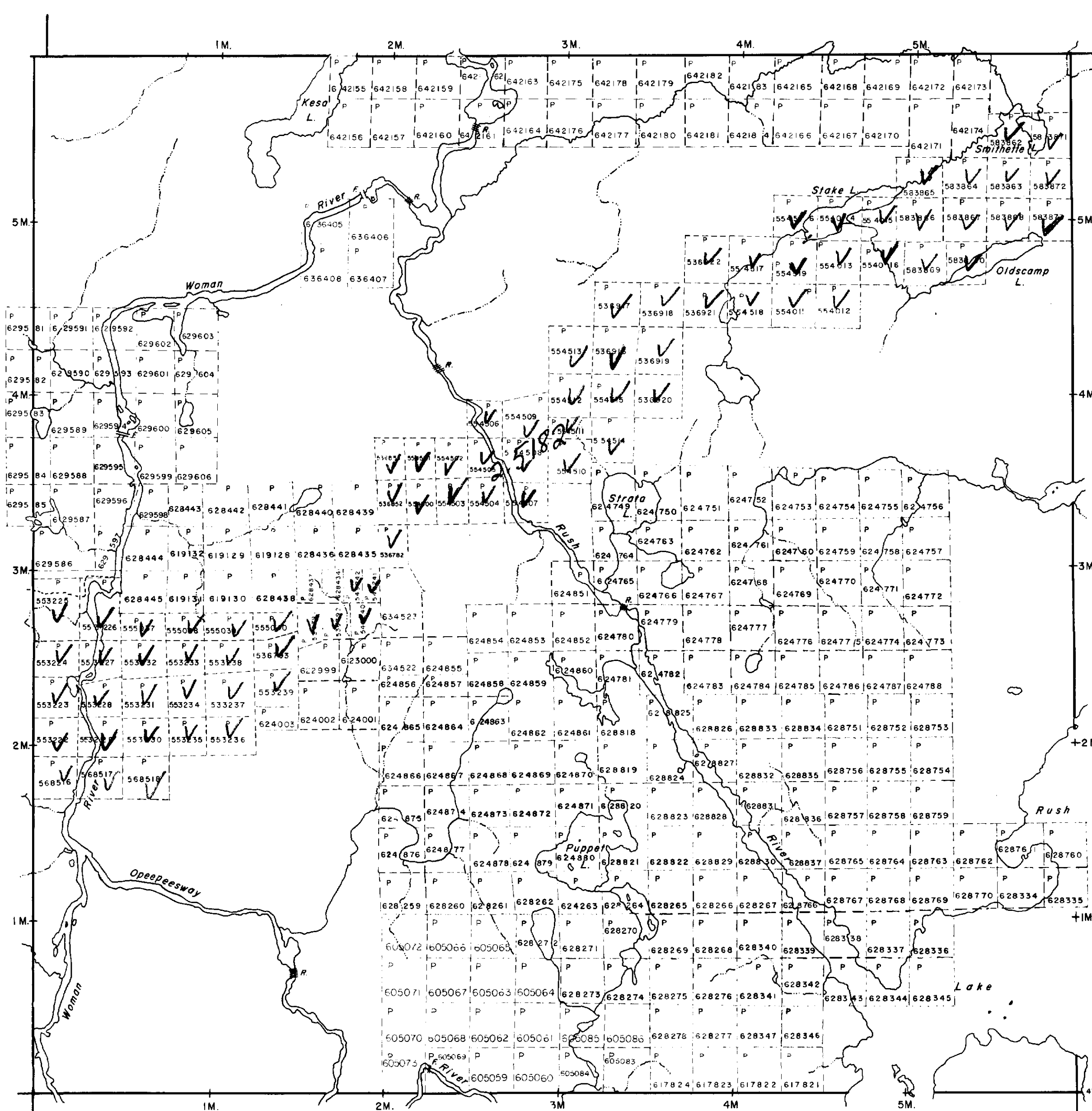
NOTES

400' surface rights reservation along the shores of all lakes and rivers.

DATE OF ISSUE
JUN 13 1983
Ministry of Natural Resources
TORONTO

PLAN NO. M. 853

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



HEENAN TWP. (M.925)

GENOA TWP. (M.833)

ARD TWP. (M.849)



41016SE0450 2.5182 GENOA

82°13'00" Approx.

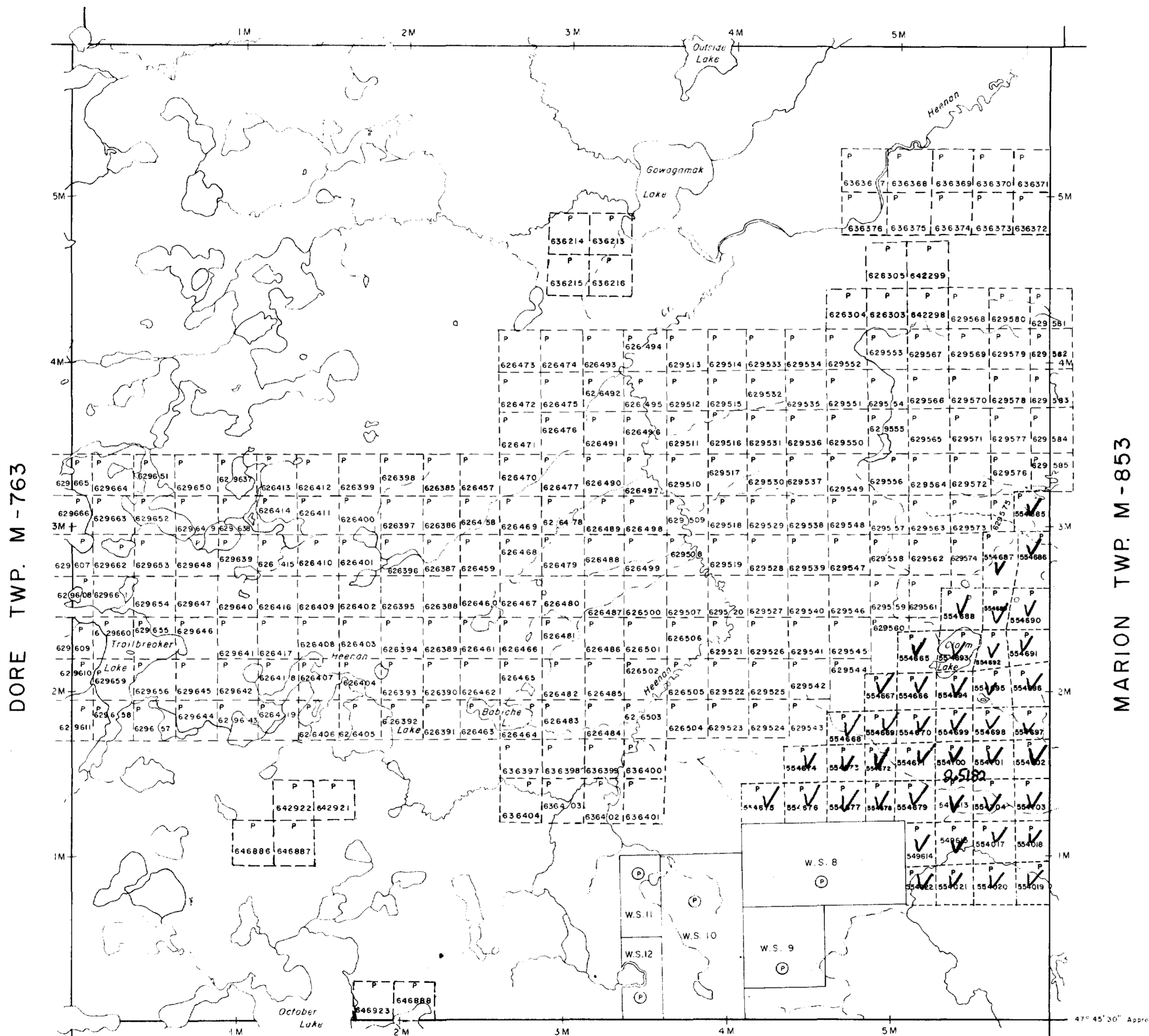
NEWTON TWP.

THE TOWNSHIP
OF
HEENAN

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS



LEGEND

- PATENTED LAND (P)
- CROWN LAND SALE (C.S)
- LEASES (L)
- LOCATED LAND (Loc)
- LICENSE OF OCCUPATION (L.O)
- MINING RIGHTS ONLY (M.R.O)
- SURFACE RIGHTS ONLY (S.R.O)
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED

NOTES

400' Surface rights reservation around the shores of all lakes and rivers.

DATE OF ISSUE

JUN 13 1983

Ministry of Natural Resources
TORONTO

PLAN NO.

M-925

ONTARIO

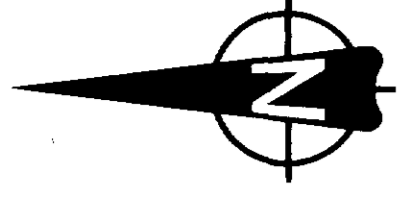
MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH



41016SE0450 2.5182 GENOA

NTON TWP. M-659



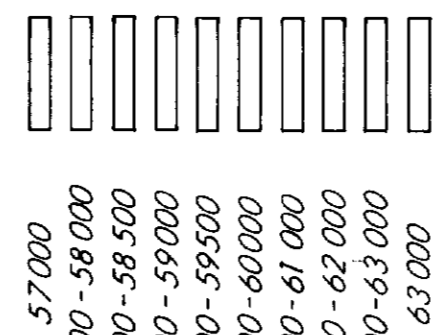
LEGEND

o • CLAIM POST - Assumed, Found

--- CLAIM BOUNDARY

▲ B.S. 1,2
Base Station Reading
60016 gammas at both stations

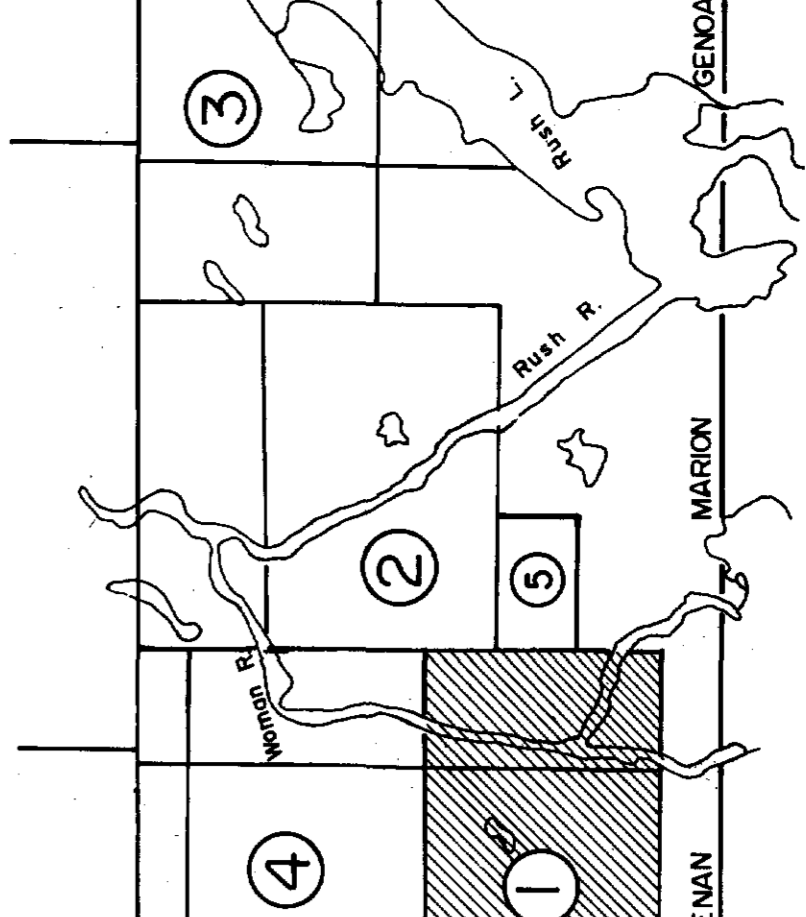
CONTOURS (gamma) (m)



Extremely high gradients
give 'OO' reading

Instrument : Barringer Mag Model GM-122

SHEET LOCATION MAP



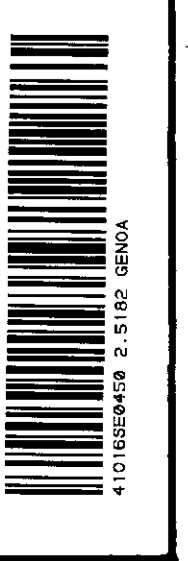
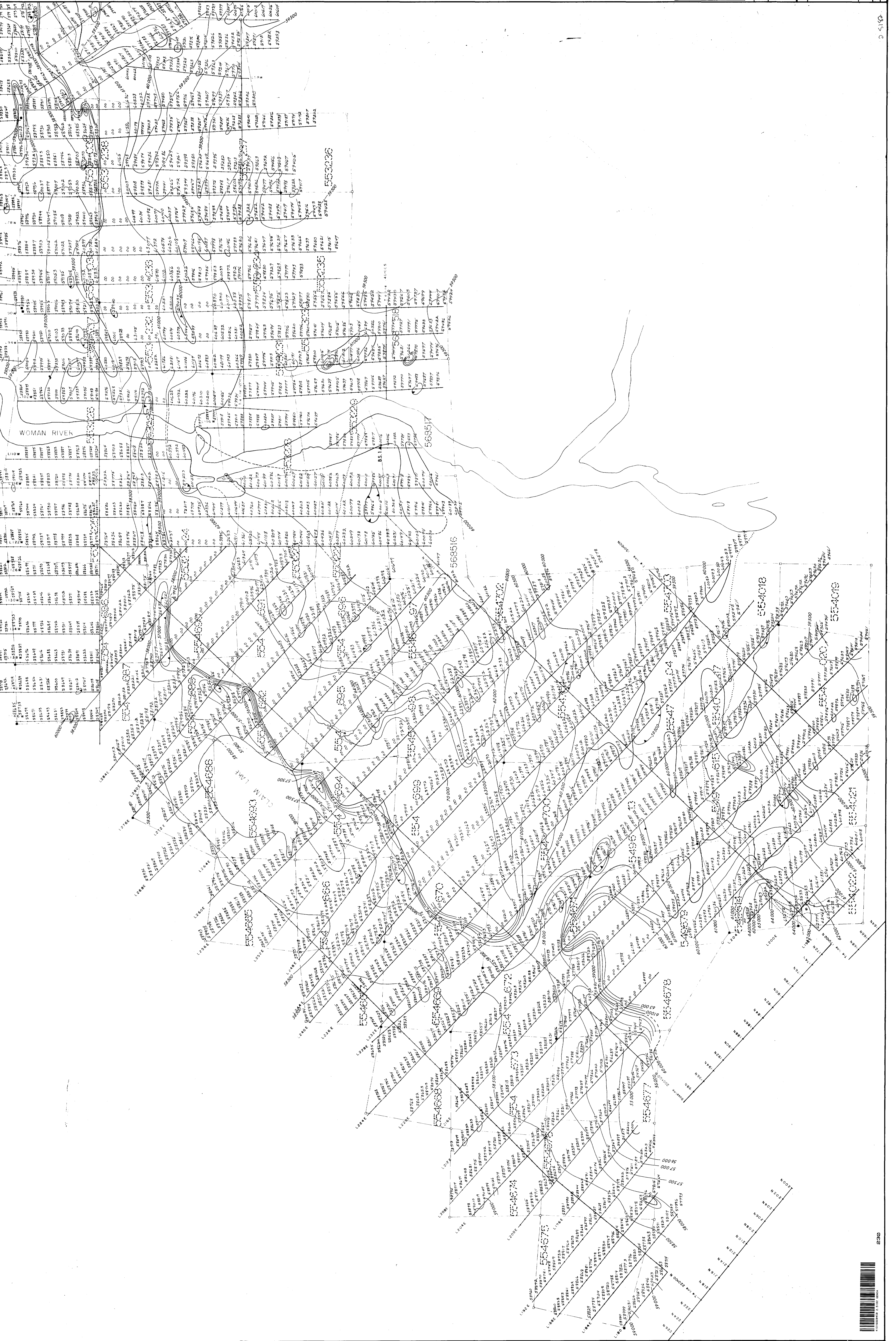
SCALE 1" = 2 MI.

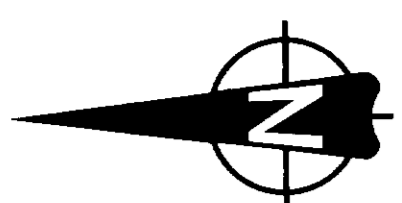
FALCONBRIDGE NICKEL MINES LTD.

HEENAN, MARION, GENOA
MAGNETOMETER SURVEY

Sheet No. 1

DATE 12/1/66
OPERATOR IMT, SB
DRAWN BY





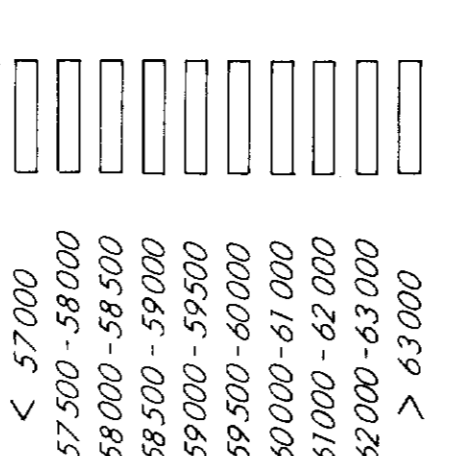
LEGEND

□ CLAIM POST - Assumed, Found

— CLAIM BOUNDARY

Base Station Reading
60016 gammas at both stations
A.B.S. 1, 2

CONTOURS (gammas)

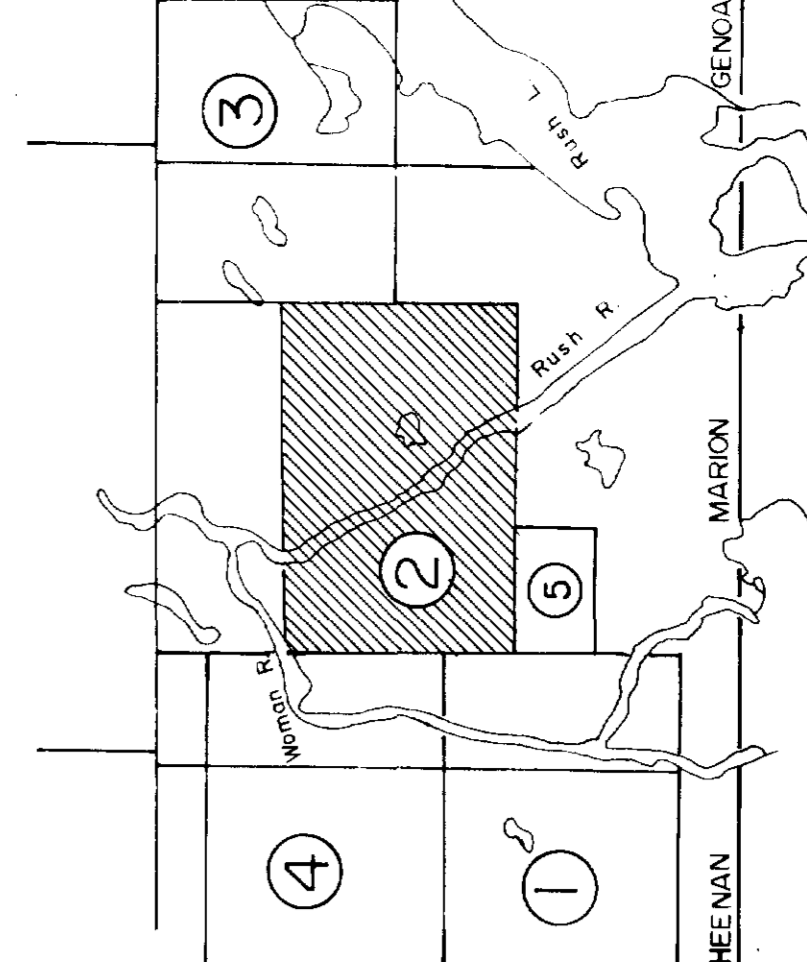


Extremely high gradients
give '00' reading

Instrument : Barringer Mag Model GM-122



SHEET LOCATION MAP



SCALE 1" = 2 MI.

FALCONBRIDGE NICKEL MINES LTD.

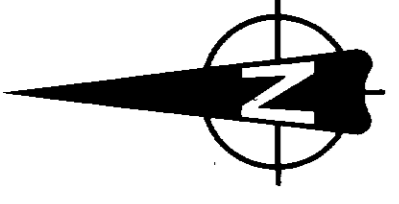
HEENAN, MARION, GENOA

MAGNETOMETER SURVEY

Survey 1961-62
SHEET NO. 2

DATE 11/1/62 OPERATOR TIM SB
DTS 41-0-14 DRAWN BY

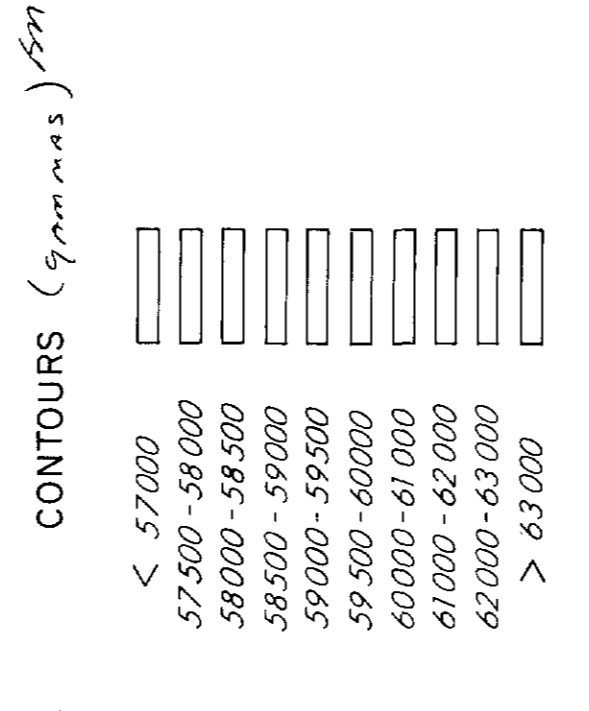




LEGEND

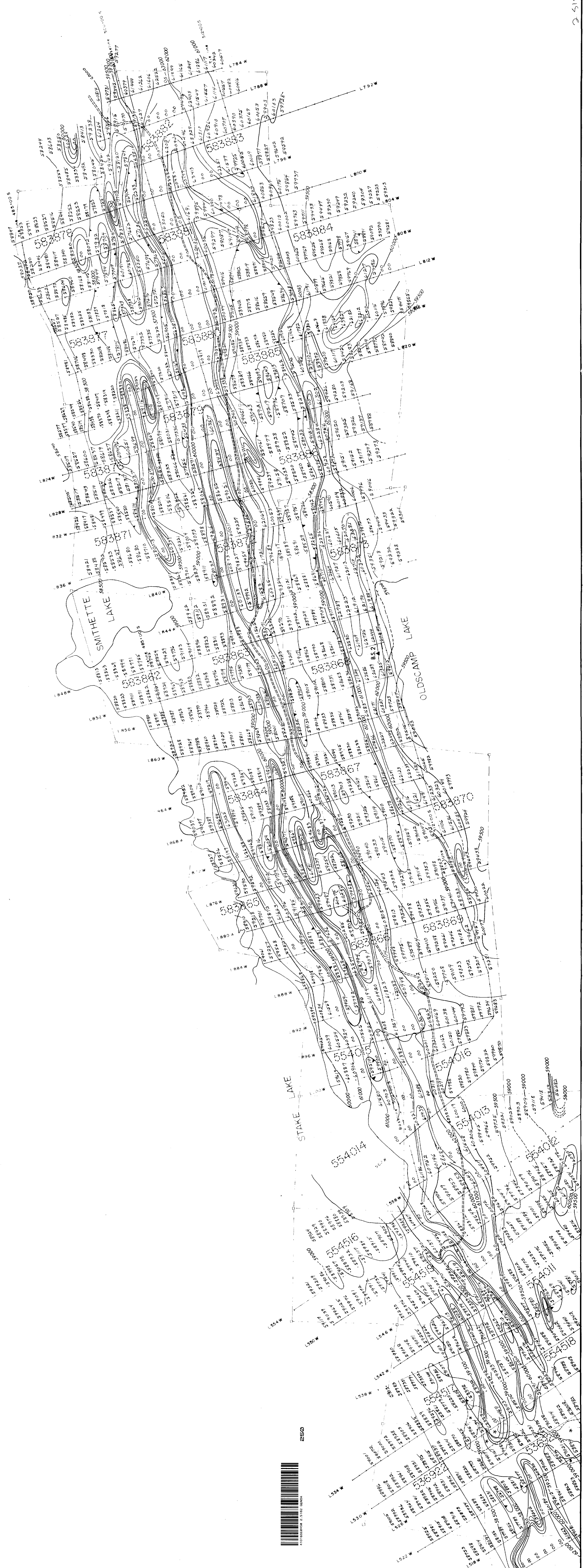
- CLAIM POST - Assumed, Found
- CLAIM BOUNDARY

▲ B.S. 1,2 Base Station Reading
60016 gammas at both stations

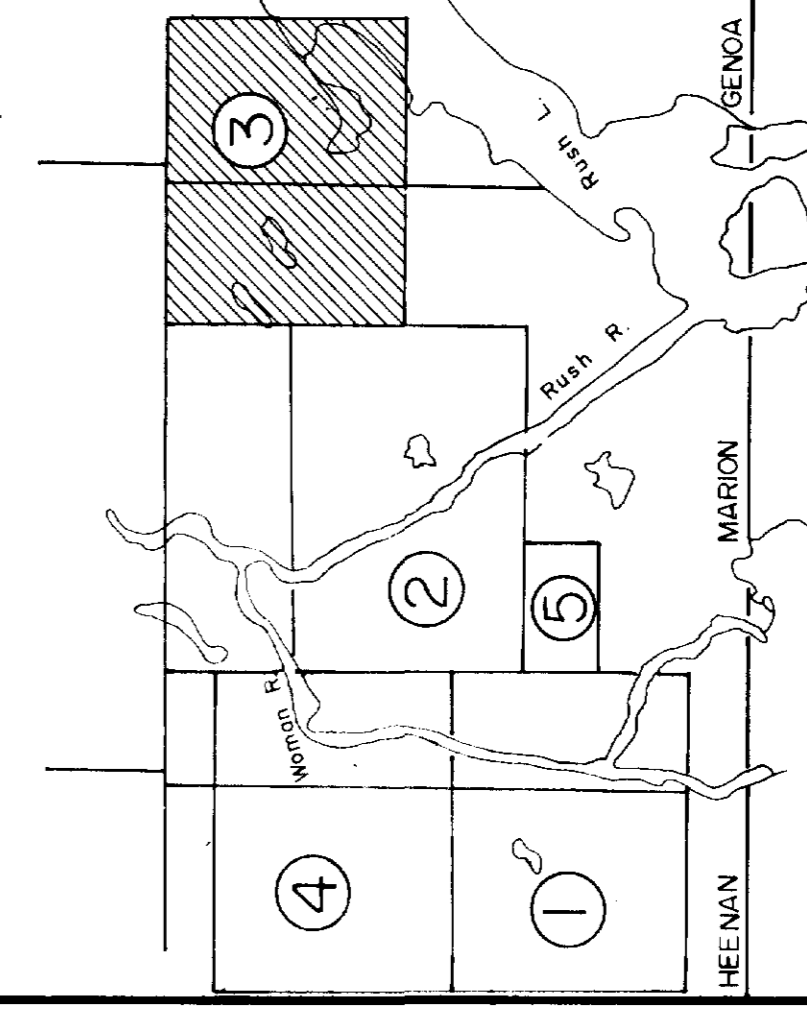


Extremely high gradients give 'OO' reading

Instrument : Barringer Mag Model GM-122



SHEET LOCATION MAP

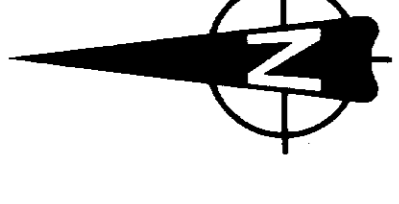


SCALE 1" = 2 MI.

FALCONBRIDGE NICKEL MINES LTD.

HEENAN, MARION, GENOA
MAGNETOMETER SURVEY
SHEET NO. 3

DATE: 10/1/62 OPERATOR: J.M. SR
DRAWN BY: H.O.L.



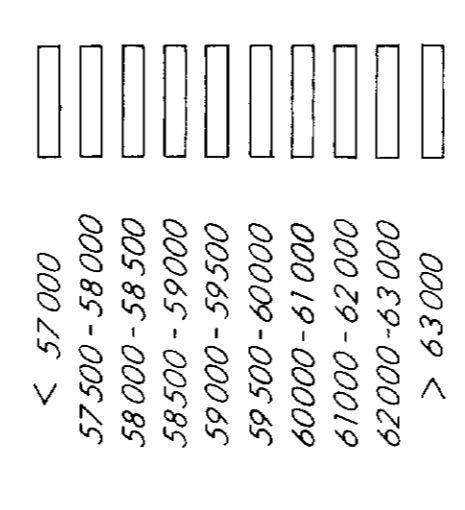
LEGEND

◼ CLAIM POST - Assumed, Found

--- CLAIM BOUNDARY

▲ B.S. 1,2 Base Station Reading
60016 gammas at both stations

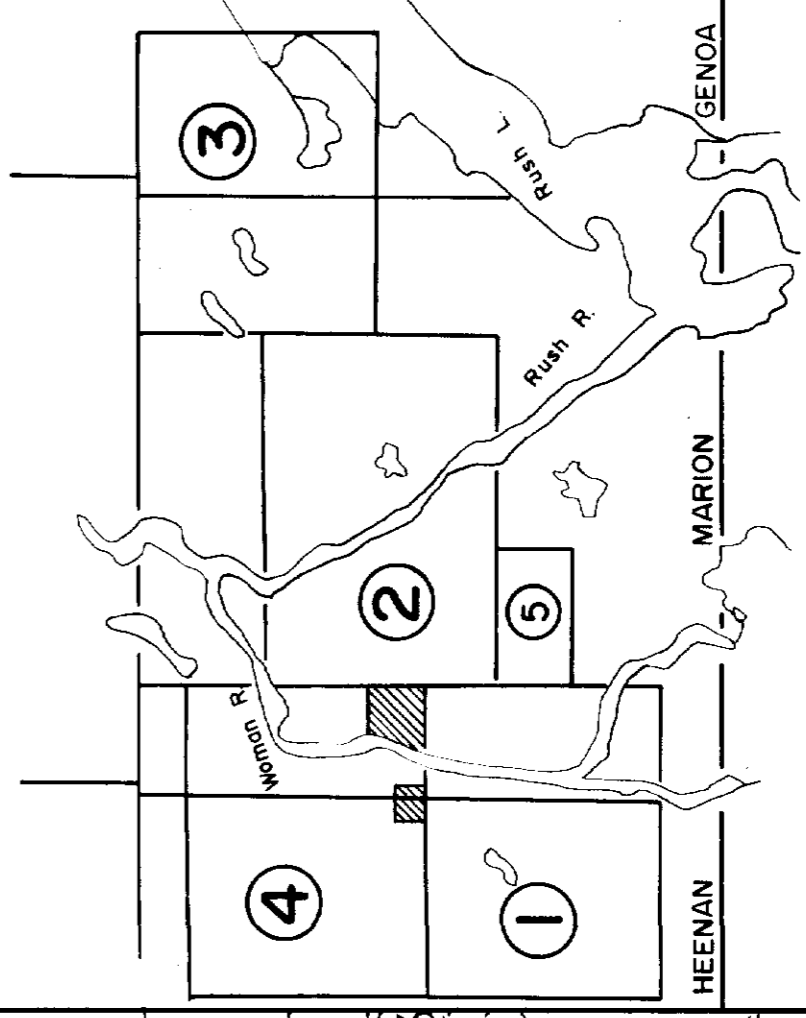
CONTOURS (gamma) (1/10)



Extremely high gradients give "00" reading

Instrument : Barringer Mag Model GM-122

SHEET LOCATION MAP



SCALE 1" = 8 MI

FALCONBRIDGE LIMITED

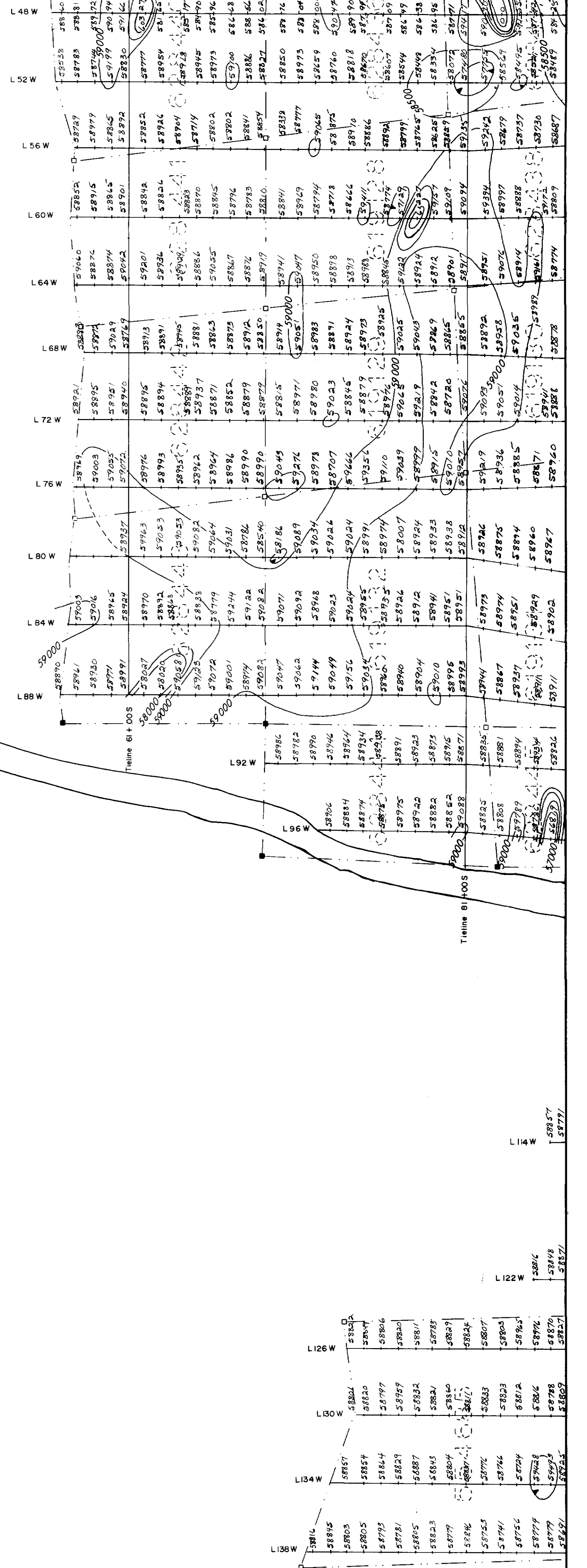
HEENAN, MARION, GENOA

MAGNETOMETER SURVEY

Sheet No. 4

DATE 11/15/52 OPERATOR M. S. B.

DRAWN BY M. S. B.



LEGEND

□ ■ CLAIM POST - Assumed, Found

— CLAIM BOUNDARY

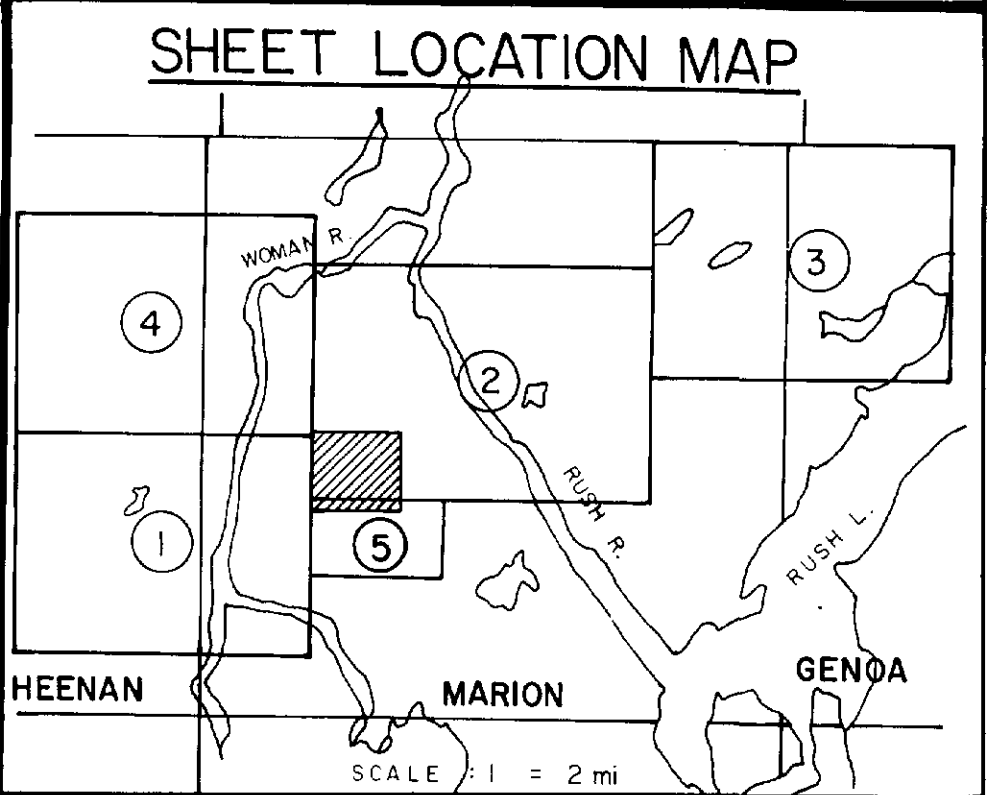
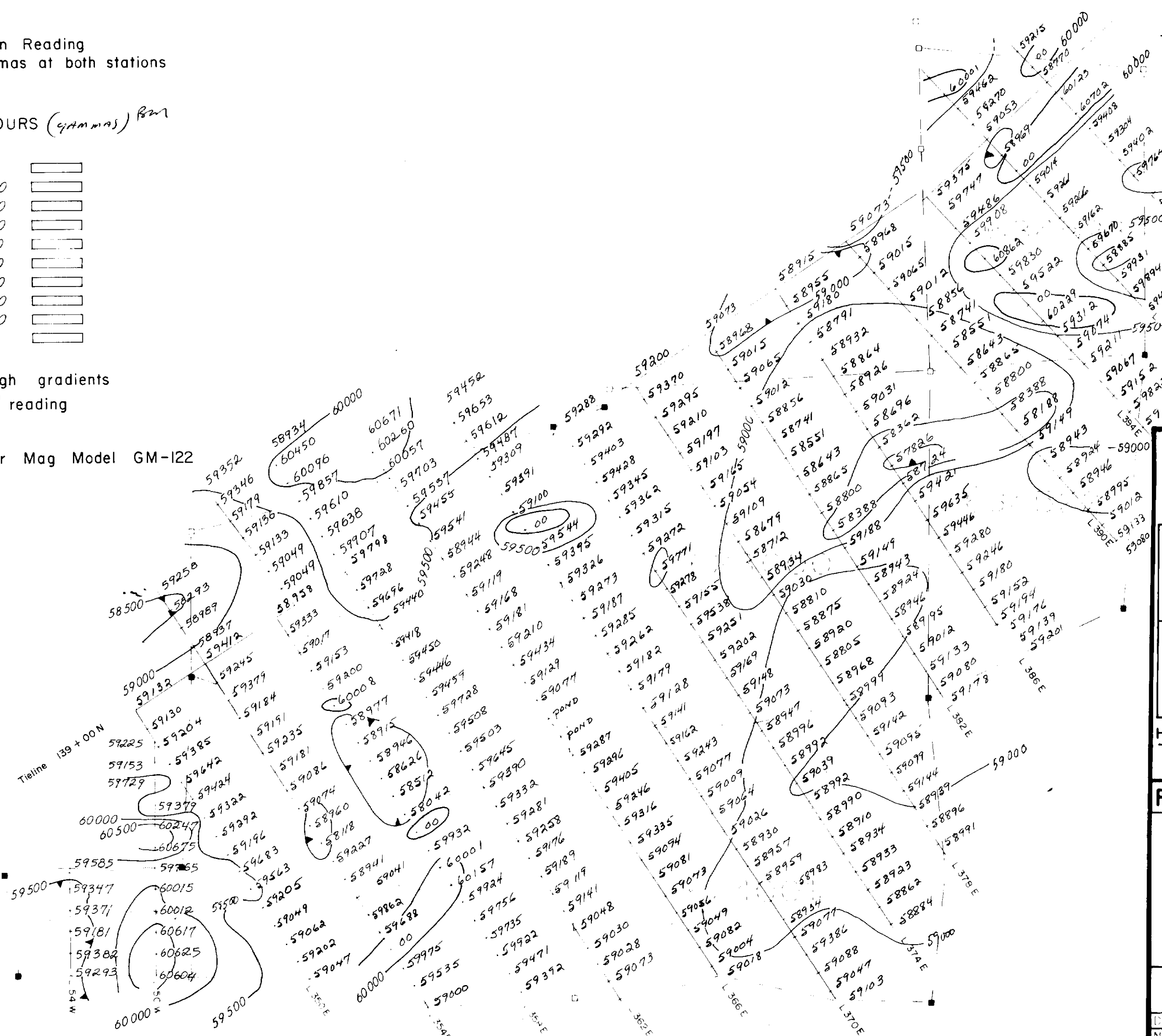
▲ B.S. 1,2 Base Station Reading
60016 gammas at both stations

CONTOURS (gammas) *Rm*

< 57000	[]
57500 - 58000	[]
58000 - 58500	[]
58500 - 59000	[]
59000 - 59500	[]
59500 - 60000	[]
60000 - 61000	[]
61000 - 62000	[]
62000 - 63000	[]
> 63000	[]

Extremely high gradients
give "00" reading

Instrument : Barringer Mag Model GM-122



FALCONBRIDGE NICKEL MINES LTD.

HEENAN, MARION, GENOA

MAGNETOMETER SURVEY

Fairy Mountain SHEET NO. 5

SCALE 1" = 400'

DATE *May - November 82* OPERATOR IM, SB
 NTS *41016* DRAWN BY

