

42A15SW0105 2.13223 MCCART

010

MINING LANDS SECTION

2.13223

INTERPRETATION REPORT
on
GEOPHYSICAL SURVEYS
for
J.W. NEWSOME & ASSOCIATES
GEOLOGICAL CONSULTANTS
McCart Township

by
Joseph P. Rothfischer, P.Eng.
January, 1990

2.12769



42A15SW0105 2.13223 MCCART

010C

TABLE OF CONTENTS

	PAGE
ABSTRACT	i
INTRODUCTION	1
PROPERTY LOCATION AND ACCESS	1
CLAIMS	1
PERSONNEL	2
MAGNETICS SURVEY	
Theory	2
Field Method	3
Interpretation	3
HORIZONTAL LOOP EM SURVEY	
Theory	4
Field Method	6
Interpretation	6
CONCLUSIONS AND RECOMMENDATIONS	7
REFERENCES	9
CERTIFICATION	
APPENDIX A: Equipment Specifications	

LIST OF FIGURES

- Figure 1 Property Location - Regional
- Figure 2 Property Location - Local
- Figure 3 Claim Map
- Figure 4 Magnetics Survey - Grid A (Back Pocket)
- Figure 5 Magnetics Survey - Grid B (Back Pocket)
- Figure 6 Electromagnetic Survey 444 Hz - Grid A (Back Pocket)
- Figure 7 Electromagnetic Survey 1777 Hz - Grid A (Back Pocket)
- Figure 8 Electromagnetic Survey 444 Hz - Grid B (Back Pocket)
- Figure 9 Electromagnetic Survey 1777 Hz - Grid B (Back Pocket)
- Figure 10 Compilation Map - Grid A (Back Pocket)
- Figure 11 Compilation Map - Grid B (Back Pocket)

ABSTRACT

A geophysical program consisting of total field magnetics and horizontal loop EM surveys was conducted between January 17 and 29, 1990 for J.W. Newsome & Associates in McCart Township by Joe Rothfischer Geophysical Services. The purpose of this program was to further delineate moderate to strong INPUT anomalies within areas of elevated magnetic response, in order to evaluate the base metal potential of the property.

The magnetics survey revealed that the background value of 400 to 1000 gammas above base level reflects the response of sediments, and that the moderate (2400 gammas) to high response (up to 16800 gammas) above base level reflects the response of mafic and ultramafic volcanics.

The MaxMin II EM survey revealed that 2 strong conductors are located on the property, but have been interpreted as graphitic units. Three weaker anomalies have also been detected, the most promising being C₁ located in the northeast corner of Grid B. Further lines should be cut to the east to determine the strike extent of the feature.

It is evident that several strong INPUT features were not delineated by the ground EM survey. It is recommended that the eastern 4 claims of Grid A and all of Grid B should be reread with a 200m cable in an effort to delineate these airborne conductors on the property.

While no definite drill targets exist on the property at this time, except possibly for conductor C₁ on Grid B, the property's potential should be reassessed after the results of the recommended 200m cable survey have been examined.

INTRODUCTION

In late January, 1990, a geophysical program was conducted in McCart Township, near Iroquois Falls, Ontario, on behalf of J.W. Newsome & Associates Geological Consultants, by Joe Rothfischer Geophysical Services.

Examination of the 1988 OGS aeromagnetic and INPUT map of the area, (Map 81058 - back pocket), reveals that moderate to strong amplitude INPUT anomalies are located on the property, often associated with magnetic highs. The purpose of the ground geophysical surveys, which consisted of total field magnetics and horizontal loop EM, was to further characterize the response of these features, and determine drill hole locations based on favourable survey results.

PROPERTY LOCATION AND ACCESS

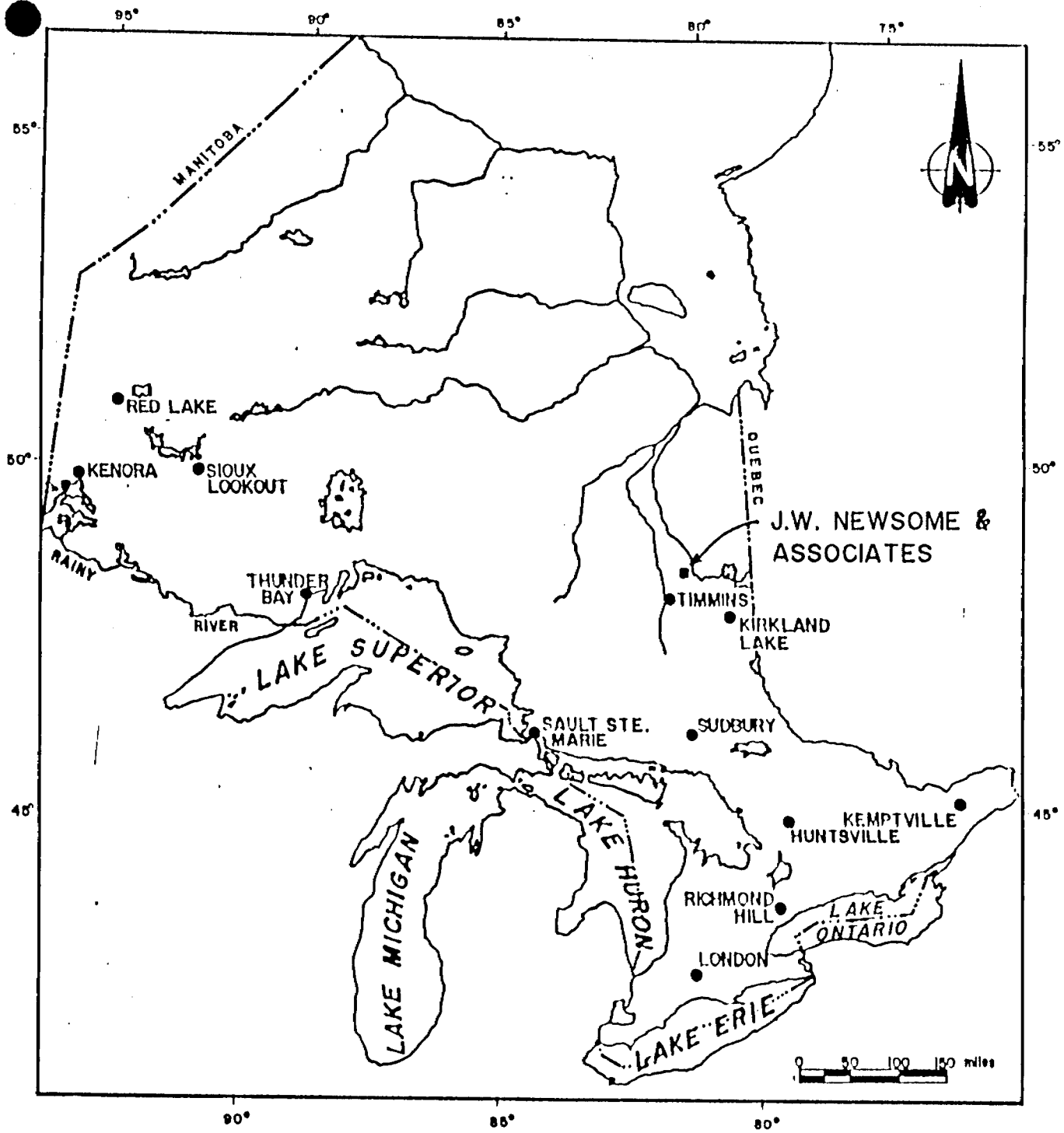
The property is located 15 km northwest of the town of Iroquois Falls in Ontario, and approximately 70 km northeast of Timmins (Figure 1). It was easily accessed by proceeding north on the Trans Canada Highway 5 km past the Iroquois Falls airport to Berlinghoff Road, and then proceeding west 4 km (Figure 2).

CLAIMS

The property consists of 2 blocks of contiguous claims, located in the Larder Lake Mining Division (Figure 3).

<u>Block A:</u>		
<u>Claim Number</u>	<u>No.</u>	<u>Recording Date</u>
1128689-1128690	2	December 21, 1989
1115976-1115979	4	December 21, 1989

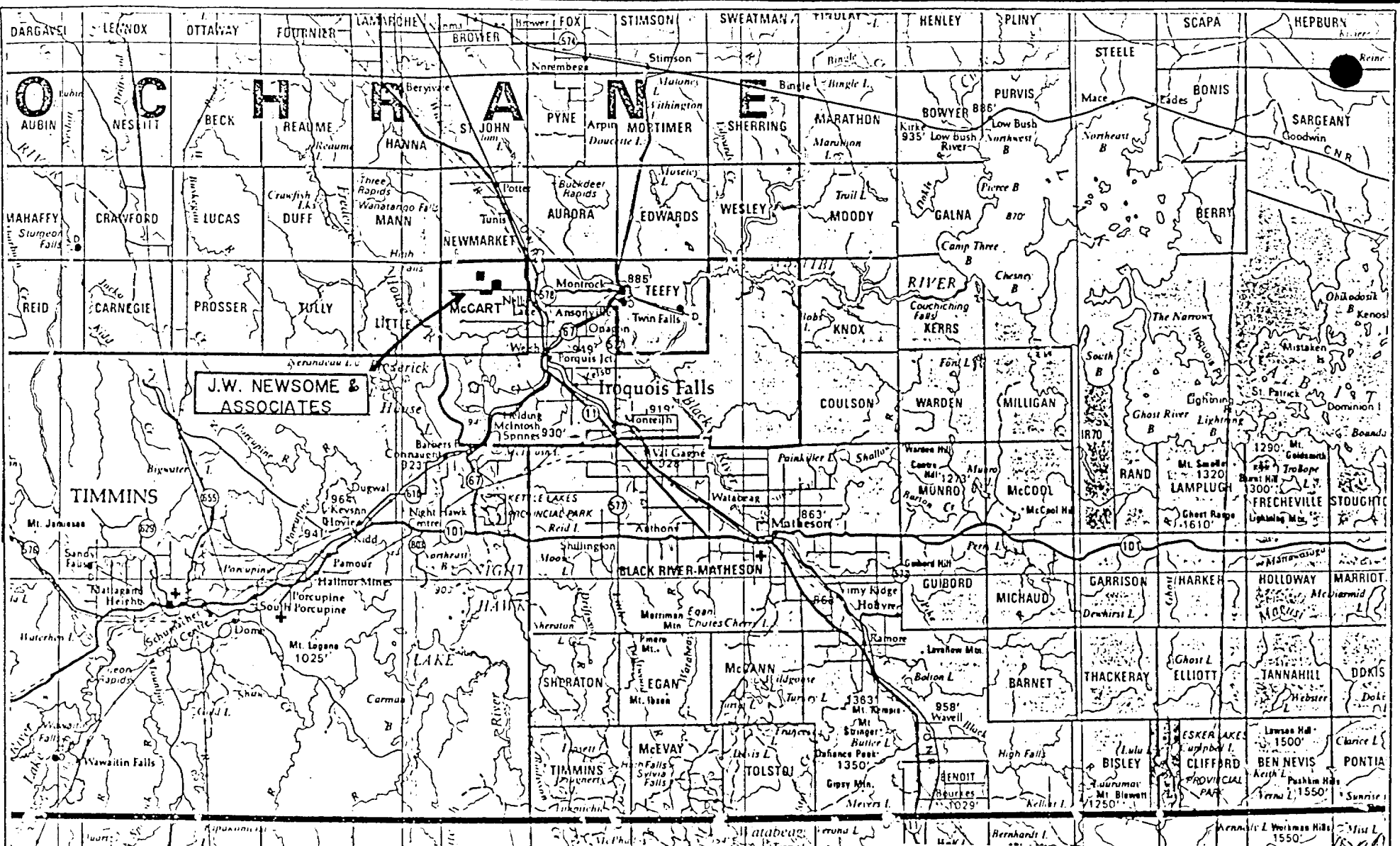
<u>Block B:</u>		
<u>Claim Number</u>	<u>No.</u>	<u>Recording Date</u>
1127990-1127993	4	November 21, 1989



J.W. NEWSOME & ASSOCIATES

PROVINCE OF ONTARIO

REVISIONS	JOE ROTHFISCHER GEOPHYSICAL SERVICES		
	for	J.W. NEWSOME & ASSOCIATES GEOLOGICAL CONSULTANTS	
	title	MCCART TOWNSHIP PROPERTY REGIONAL LOCATION MAP Fig. 1	
	Date: JAN 90	Scale: 1"=160ml.	N.T.S.:
	Drawn: JPR	Approved:	File: R-1



REVISIONS _____ _____ _____ _____		
JOE ROTHFISCHER GEOPHYSICAL SERVICES		
for J.W. NEWSOME & ASSOCIATES GEOLOGICAL CONSULTANTS		
Title McCART TOWNSHIP PROPERTY LOCATION MAP		
Fig. 2		
Date: JAN 90	Scale: 1:60000	N.T.S.:
Drawn: JPR	Approved:	File: R-1

2550 Ver 1901



13537 III3538 III3539 III3540
 7980- 867979- 876476- 876475-
 III3493 III3494 III3495 III3496

(160 ac.)

13490 III3489
 7972- 867977-
 1127993 1127990
 4933 Ver 1901

6137 Ver 1901

III3487 III3488
 7972- 867977-
 (161.50 ac.) 1127991
 1127992

(161.50 ac.)

BASE LINE

7969- 867970- 867957-
 III3485 III3484 III3483
 500m
 1090034
 1090036

7960- 867955- 867958-
 III3480 III3481 III3482
 P P
 1090033 1090035
 800m
 1115978
 106540
 1115979

Ref. 92955 (2 ac.)

17.7 kms.

867923- 867924- 867923-
 III3479 III3478 III3477
 400m
 1128690 1128689
 Ref. 115607

BASE LINE

7930- 867917- 867918-
 III3479 III3478 III3477
 867919- 867920-
 (78.50 ac.)

IV

REVISIONS	JOE ROTHFISCHER GEOPHYSICAL SERVICES	
	for	J.W. NEWSOME & ASSOCIATES GEOLOGICAL CONSULTANTS
	Title	McCART TOWNSHIP PROPERTY CLAIM MAP
	Date: JAN 90	Scale: 1:60000
	Drawn: JPA	Approved:
		N.T.S.: File: R-1

Fig. 3

PERSONNEL

All surveys were conducted by the author, who was assisted by John Burton, B.Sc. of Timmins with the MaxMin survey.

MAGNETICS SURVEY

Theory

The magnetic method is based on measuring alteration in the shape and magnitude of the earth's naturally occurring magnetic field caused by changes in the magnetization of the rocks in the earth.

These changes in magnetization are due mainly to the presence of the magnetic minerals, of which the most common is magnetite, and to a lesser extent ilmenite, pyrrhotite, and some less common minerals.

Magnetic anomalies in the earth's field are caused by changes in two types of magnetization: induced and remanent (permanent). Induced magnetization is caused by the magnetic field being altered and enhanced by increases in the magnetic susceptibility of the rocks, which is a function of the concentration of the magnetic minerals.

Remanent magnetism is independent of the earth's magnetic field, and is the permanent magnetization of the magnetic particles (magnetite, etc.) in the rocks. This is created when these particles orient themselves parallel to the ambient field when cooling. This magnetization may not be in the same direction as the present earth's field, due to changes in the orientation of the rock or the field.

The most common method of measuring the total magnetic field in ground exploration is with a proton precession magnetometer. This device measures the effect of the magnetic field on the magnetic dipole of hydrogen protons. This dipole is caused by the "spin" of the proton, and in a magnetometer these dipoles

in a sample of hydrogen-rich fluid are oriented parallel to a magnetic field applied by an electric coil surrounding the sample. After this magnetic field is removed, the dipoles begin to precess (wobble) around their orientation under the influence of the ambient earth's magnetic field. The frequency of this precession is proportional to the earth's magnetic field intensity.

Field Method

The magnetics data was collected with an EDA PPM 350 proton precession magnetometer, which measures the absolute value of the earth's magnetic field to an accuracy of ± 1 gammas. The magnetometer was carried down the survey line by a single operator, with the sensor mounted on an aluminum pole to remove it from any surface geologic noise. Readings were normally taken at 25m intervals, and at 12.5m intervals where a high gradient or anomaly was observed by the operator.

The readings were corrected for changes in the earth's total field (diurnal drift) with an EDA PPM 400 base station magnetometer, which recorded readings every 20 seconds as the survey was being conducted. The data from both magnetometers was then dumped with a computer and base corrected values were computed.

Interpretation

Examination of the survey data reveals that there is high magnetic relief on Grid A (Figure 4) and moderate relief on Grid B (Figure 5).

Values for Grid A range from -3520 gammas below to 16,898 gammas above the subtracted base level of 57000 gammas (this level was subtracted from all readings in the data set to facilitate computer processing). The background level appears to be 400 to 1000 gammas above this base level, and reflects the magnetic response of sediments. This lithology, which has been labelled magnetic domain 1, covers

most of the western portion of the grid, as well as the southeast corner. It is also evident that this weak magnetic response appears "interbedded" with the elevated response represented by magnetic domain II, which dominates the remainder of the property. Domain II is believed to reflect the response of mafic to ultramafic volcanics, with varying magnetite content.

The moderate magnetic relief on Grid B has values ranging from -357 gammas below to 3428 gammas above base level. As was observed with the results from Grid A, Grid B can also be divided into 2 magnetic domains, I representing the sediments, and II reflecting the response of mafic to ultramafic rocks. However, in the case of Grid B, the range of values is much subtler than that of Grid A, indicating that the magnetic content is much more pervasive.

HORIZONTAL LOOP EM SURVEY

Theory

The Max-Min II is a frequency domain, horizontal loop electromagnetic (HLEM) system, based on measuring the response of conductors to a transmitted, time varying electromagnetic field.

The transmitted, or primary EM field is a sinusoidally varying field at any of five different frequencies. This field induces an electromotive force, (emf), or voltage, in any conductor through which the field passes. This is defined by:

$$\oint E \cdot dl = -\frac{\partial O}{\partial t} \quad (\text{the Faraday Induction Principle})$$

where E is the electric field strength in volts/metre (and so $\oint E \cdot dl$ is the emf around a closed loop) and O is the magnetic flux through the conductor loop. This emf causes a "secondary" current to flow in the conductor in turn generating a secondary electromagnetic field.

The transmitted primary field also creates an emf in the receiver coil, which is much stronger than the secondary, and which must be corrected for by the receiver. This is done by electronically creating an emf in the receiver, whose magnitude is determined by the distance from receiver to transmitter as set on the receiver, and whose phase is derived from the receiver via an interconnecting wire.

Field Method

The Max-Min II survey was carried out in the "maximum coupled" mode (horizontal co-planar). The transmitter and receiver are carried in-line down the survey line separated by a constant distance (in this case 150m for Grid B and the SW portion of Grid A and 100m over the main portion of Grid A) with the receiver leading. Two transmitter frequencies were used: 444 Hz and 1777 Hz and readings were taken every 25m. The transmitter and receiver are connected by a cable, for phase reference and operator communication.

Interpretation

The Max-Min survey was conducted in order to delineate the response of airborne EM conductors plotted on OGS Map 81058 of McCart Township. The author referred to these survey results to determine which cable spacing would best resolve individual EM conductors, and avoid the response of multiple conductors located in close proximity to each other. It was decided that the eastern portion of Grid A would be read with a 100m cable, the western 2 claims of Grid A as well as Grid B with a 150m cable. Examination of the survey results (Figures 6 to 9) indicate that strong to weak bedrock conductors were identified on Grid A, and weak bedrock conductors on Grid B.

Anomaly C₁, characterized by a strong response at 444 and 1777 Hz, is located on Grid A between lines 3+00W and 0+00, at approximately 1+50 to 1+75S. A similar

response is displayed by conductor C_2 , found in the southeast corner of the 4 claim block to the east. Both C_1 and C_2 are located in magnetic domain 1, and are believed to reflect the response of a graphitic unit within the sediments.

Anomaly C_3 displays a weak anomalous response, and is located at 1+50N between lines 2+00E and 4+00E on Grid A. It is also coincident with the low magnetic response of Domain 1 and may represent an interformational graphitic horizon. Another weak response, best evidenced on the 444 Hz frequency, occurs on Grid A at approximately 6+75N on line 7+00E. It is associated with a magnetic low and may represent a graphitic unit.

Anomalies C_4 and C_5 are weak 1777 Hz EM feature located on Grid B. The most promising in terms of base metal potential is anomaly C_4 , which is coincident to a relatively high magnetic response of 2300 gammas and may therefore be caused by sulphide mineralization.

CONCLUSIONS AND RECOMMENDATIONS

The magnetic survey revealed that the property is underlain by sediments, which generated a low magnetic response, and mafic to ultramafic rocks, which generated a moderate to high magnetic response due to the lack or concentration of magnetite.

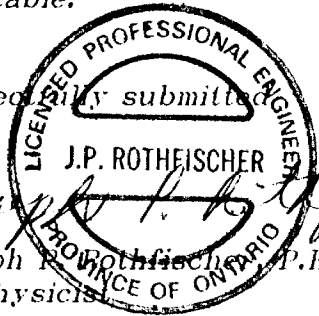
The MaxMin EM survey indicated that 2 strong conductors are located on the property, but are believed to be graphitic in nature. Weaker EM anomalies were also delineated, the most promising being C_4 , which is located on Grid B. It is recommended that additional lines be cut to the east to delineate the strike extent of this feature.

It is also recommended that the eastern portion of Grid A previously read with a 100m cable be read with a 200m cable, in order to attempt to delineate other

strong INPUT features which otherwise were not detected with the first phase of ground EM surveying. A similar situation exists with Grid B, so it too should be read with a 200m cable in hopes of identifying the location of other strong INPUT features.

Although no definite drill targets exist on the property at this time, except possibly for conductor C₁ on Grid B, its potential should be assessed following the outcome of the MaxMin survey read with a 200m cable.

Respectfully submitted

A circular seal for a Licensed Professional Engineer in the Province of Ontario. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER" at the top and "PROVINCE OF ONTARIO" at the bottom. The center of the seal contains the name "J.P. ROTHEISCHER".
Joseph P. Rotheischer
Joseph P. Rotheischer, P.Eng.
Geophysicist

REFERENCES

ONTARIO GEOLOGICAL SURVEY
1988

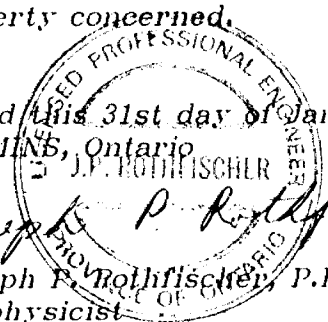
Airborne Electromagnetic and Total Intensity Survey, Timmins Area, McCart Township, Districts of Cochrane and Timiskaming Ontario; by Geoterrex Limited, for Ontario Geological Survey. Geophysical/Geochemical Series Map 81058. Scale 1:20,000. Survey and compilation from March 1987 to October 1987.

CERTIFICATION

I, Joseph P. Rothfischer, of 38 Fourth Avenue, in the town of Schumacher, province of Ontario, certify as follows concerning my report on the J.W. Newsome & Associates Geological Consultants Property in McCart Township, province of Ontario and dated January 31, 1990:

- 1) I am a graduate of Queen's University at Kingston, Ontario, with a B.Sc. (Eng) in Geophysics, obtained in 1986.
- 2) I am a member in good standing of the Association of Professional Engineers of Ontario.
- 3) I have been practising in Canada for the past 4 years.
- 4) I have no direct interest in the property of J.W. Newsome & Associates Geological Consultants, nor do I expect to receive any.
- 5) The attached report is a product of:
 - a) Examination of data included in the report which was collected by myself, on the property concerned.

Dated this 31st day of January, 1990
TIMMINS, Ontario


Joseph P. Rothfischer
Joseph P. Rothfischer, P.Eng.
Geophysicist

A P P E N D I X A

OMNIMAG PPM-350 Total Field Magnetometer

EDA



The PPM-350 is the latest addition to EDA's OMNIMAG*™ series of magnetometers and gradiometers. It is engineered to provide users with the latest state-of-the-art advances in microprocessor technology, including many features that are unique in the field.

Major benefits and features include:

- Significant increase in productivity
- Lowered survey costs
- Automatic diurnal correction
- Programmable grid coordinates
- Highly reproduceable data
- Ergonomic design
- Simplified fieldwork
- Computer-compatible



Specifications

Dynamic Range	18,000 to 93,000 gammas
Sensitivity	± 0.02 gamma
Statistical Error Resolution	0.01 gamma
Standard Memory Capacity	1383 data blocks or readings
Absolute Accuracy	± 15 ppm at 23°C, 50 ppm over the operating temperature range
Display Resolution	0.1 gamma
Capture Range	$\pm 25\%$ relative to ambient field strength of last stored value
Display	Custom-designed, ruggedized liquid crystal display with an operating temperature range from -35°C to $+55^{\circ}\text{C}$
Gradient Tolerance	5,000 gammas per meter
Sensor	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy
Sensor Cable	Remains flexible in temperature range; includes low strain connector
Operating Environmental Range	-35°C to $+55^{\circ}\text{C}$; 0-100% relative humidity; weather-proof
Power Supply	Non-magnetic rechargeable sealed lead acid battery cartridge or belt; or, Disposable "C" cell battery cartridge or belt
Battery Cartridge Life	2,000 to 5,000 readings, depending upon ambient temperature and rate of readings
Weight and Dimensions	
Instrument Console only	3.4 kg, 238 x 150 x 250 mm
Lead Acid Battery Cartridge	1.9 kg
Sensor	1.2 kg, 56 mm diameter x 200 mm
System Complement	Electronics console; sensor with 3-meter cable; sensor staff; power supply; harness assembly; operation manual.

EDA is a pioneer in the development of advanced geophysical systems and has created many innovations that increase field productivity and lower survey costs.

EDA's OMNIMAG series consists of the PPM-350 Total Field Magnetometer, PPM-400 Base Station Magnetometer, and the PPM-500 Vertical Gradiometer. Contact us *now* for details.

EDA Instruments Inc.
1 Thorncliffe Park Drive
Toronto, Ontario
Canada M4H 1G9
Telex: 06 23222 EDA TOR
Cable: Instruments Toronto
(416) 425-7800

In U.S.A.
EDA Instruments Inc.
5151 Ward Road
Wheat Ridge, Colorado
U.S.A. 80033
Telex: 00 450681 DVR
(303) 422-9112

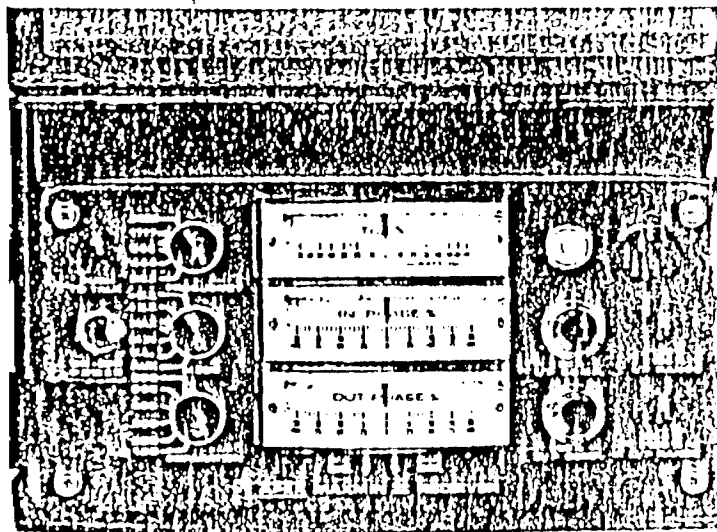
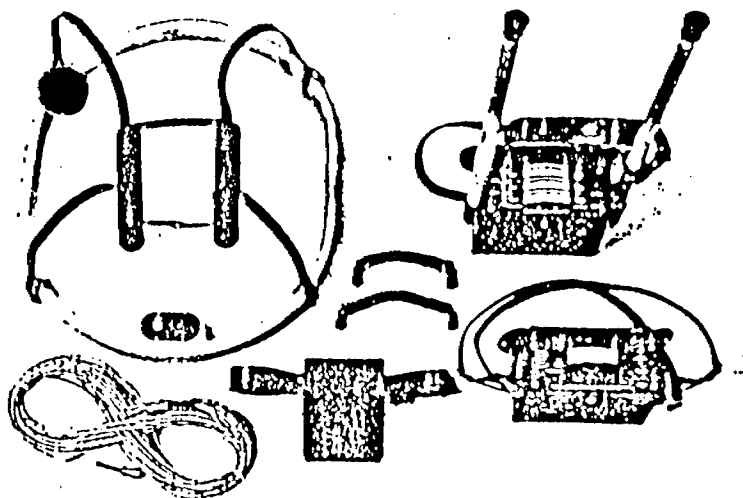
APEX

MAXMIN II PORTABLE EM

- Five frequencies: 222, 444, 888, 1777 and 3555 Hz.
- Maximum coupled (horizontal-loop) operation with reference cable.
- Minimum coupled operation with reference cable.
- Vertical-loop operation without reference cable.
- Coil separations: 25, 50, 100, 150, 200 and 250m (with cable) or 100, 200, 300, 400, 600 and 800 ft.
- Reliable data from depths of up to 180m (600 ft).
- Built-in voice communication circuitry with cable.
- Tilt meters to control coil orientation.

NOW ALSO $\pm 4\%$
QUADRATURE
FULL SCALE.





SPECIFICATIONS :

Frequencies: 222, 444, 888, 1777 and 3555 Hz.

Modes of Operation: MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with reference cable.

MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.

V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250m (MMII) or 100, 200, 300, 400, 600 and 800 ft. (MMIIF). Coil separations in V.L. mode not restricted to fixed values.

Parameters Read: - In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts: - Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90mm edgewise meters in V.L. mode.

Scale Ranges: In-Phase: $\pm 20\%$, $\pm 100\%$ by push-button switch.
Quadrature: $\pm 20\%$, $\pm 100\%$ by push-button switch.
Tilt: $\pm 75\%$ slope.
Null (V.L.): Sensitivity adjustable by separation switch.

Readability: In-Phase and Quadrature: 0.25% to 0.5% ; Tilt: 1%.

Repeatability: $\pm 0.25\%$ to $\pm 1\%$ normally, dependent on conditions, frequencies and separation used.

Transmitter Output: - 222Hz : 220 Atm²
- 444Hz : 200 Atm²
- 888Hz : 120 Atm²
- 1777Hz : 60 Atm²
- 3555Hz : 30 Atm²

Receiver Batteries: 9V trans. radio type batteries. Life: approx. 35hrs. continuously (alkaline, 0.5 Ah), less in weather.

Transmitter Batteries: 12V 6Ah Gel-type rechargeable battery. (Charger supplied).

Reference Cable: Light weight 2-conductor cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal and reference indicator lights to indicate erroneous readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F)

Receiver Weight: 6kg (13 lbs.)

Transmitter Weight: 13kg (29 lbs.)

Shipping Weight: Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notice.

APEX

PARAMETRICS LIMITED

200 STEELBASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

TIMMINS AREA
McCART TOWNSHIP

Airborne Electromagnetic Survey

Total Intensity Magnetic Survey

DISTRICTS OF COCHRANE AND TIMISKAMING

Scale 1:20 000

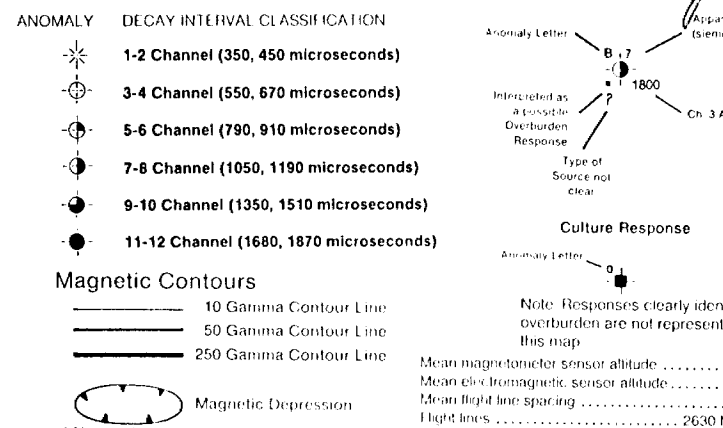


NTS References 42 A/10 42 A/15
ODM-GSC Aeromagnetic Map: 297 G 2337 G
O.G.S. Geological Compilation Map: 2205

© 1988 Government of Ontario. Printed in Ontario, Canada



GEOTEM® Peak Response Symbols





Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Tel: (416) 965-4888

June 28, 1990

Your File: W9006.60308
Our File: 2.13223

Mining Recorder
Ministry of Northern Development & Mines
60 Wilson Avenue
TIMMINS, Ontario
P4N 2S7


Dear Sir:

Re: Notice of Intent dated May 29, 1990 for a Geophysical
(Electromagnetic & Magnetometer) Survey submitted on Mining
Claims P 1127990 et al in McCart Township.

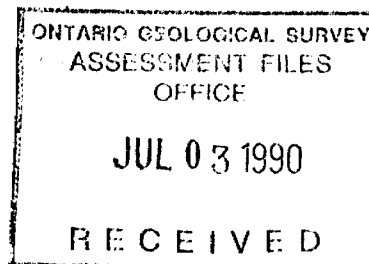
The assessment work credits, as listed with the above mentioned
Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so
indicate on your records.

Yours sincerely,


W. R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

JS:zm
Encl:



cc: Mr. W. D. Tieman
Mining & Lands Commissioner
Toronto, Ontario

Resident Geologist
TIMMINS, Ontario

J. W. Newsome
TIMMINS, Ontario



Recorded Holder
J.W. Newsome

Township or Area
McCart

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic <u>40</u> days	P 1127992 - 993
Magnetometer <u>20</u> days	1128689 - 690
Radiometric _____ days	1115976 - 979 incl.
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input type="checkbox"/>	
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

30 days electromagnetic - P 1127990 - 991
15 days magnetometer - P 1127990 - 991

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.

TOWNSHIP OF NEWMARKET

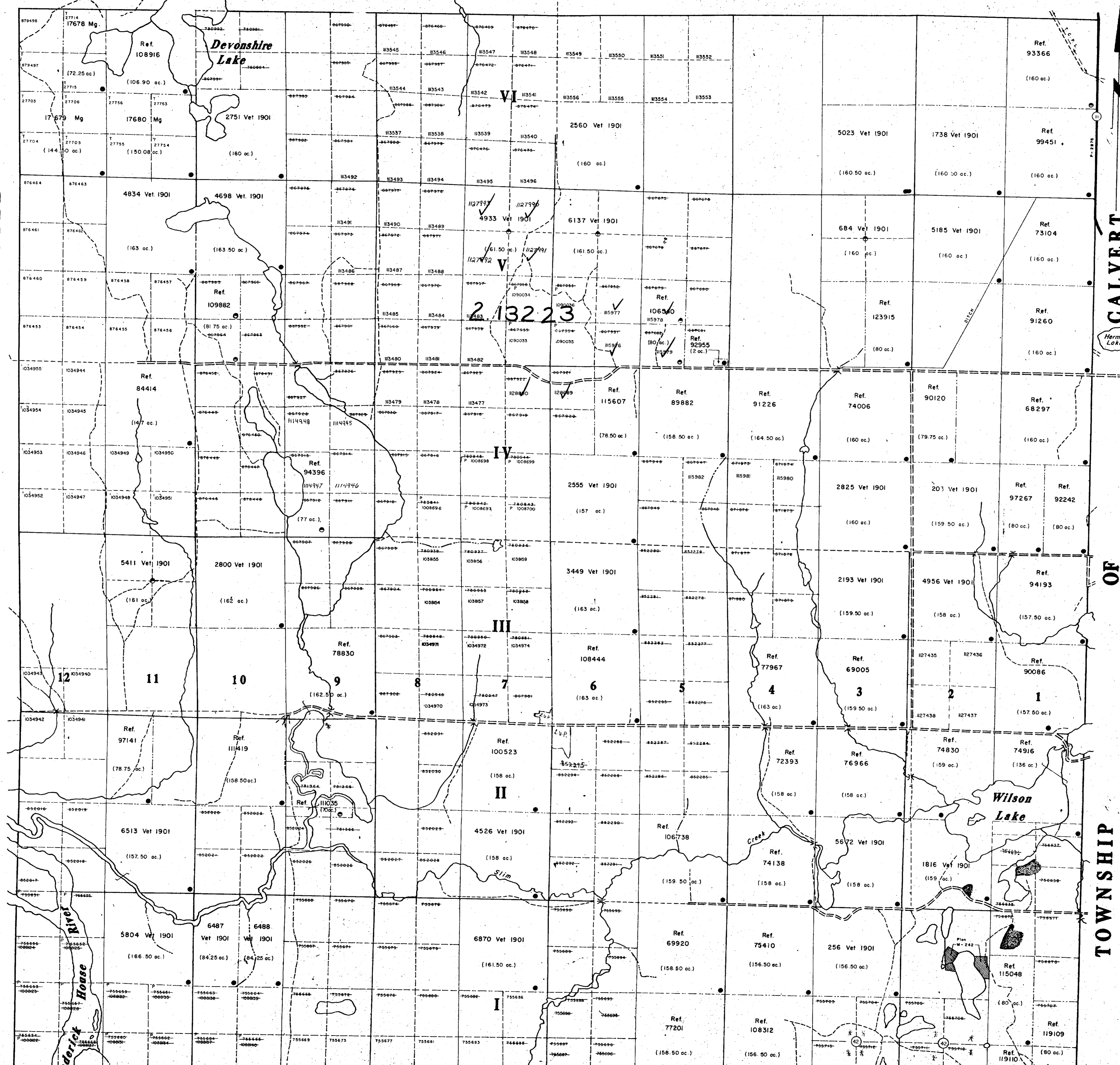
NOTE
 LOT AND CONCESSION LINES SHOWN HEREON ARE PROJECTED FROM THE BEST INFORMATION AVAILABLE, BUT THEIR TRUE POSITION IS NOT GUARANTEED.
 FOR LEGAL AND SURVEY PURPOSES CONSULT THE ORIGINAL SURVEY PLANS AND FIELD NOTES OF RECORD IN THE DEPARTMENT OF LANDS AND FORESTS, TORONTO.
 ACREAGES SHOWN IN RESPECT OF PATENTED LOTS ARE IN ACCORDANCE WITH AREA GRANTED.

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. - MINING RIGHTS ONLY	S.R.O. - SURFACE RIGHTS ONLY	M. & S. - MINING AND SURFACE RIGHTS		
Description	Order No.	Date	Disposition	File
REOPENED	N.R.O. 71/84	14/12/70	S.R.A.M.R.	36866

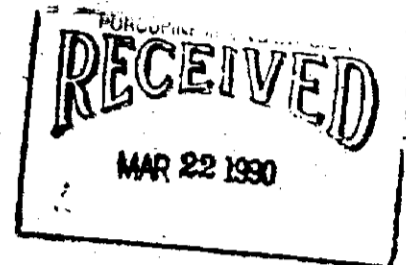
LITTLE OF TOWNSHIP

CALVERT OF TOWNSHIP



TOPOGRAPHY
 LAKES, RIVERS, ETC., FROM FOREST RESOURCES INVENTORY SHEETS N° 486804 AND 487804

SURVEYS
 TOWNSHIP OF McCART SUBDIVIDED BY A.D. GRIFFIN, O.L.S., 1904. FIELD NOTE BOOK 1533.
 WEST LIMIT OF McCART TOWNSHIP (SEE LITTLE TWP.) SURVEY BY J.W. FITZGERALD, O.L.S., 1904. FIELD NOTE BOOK 1402.
 EAST LIMIT OF McCART TOWNSHIP (SEE CALVERT TWP.) SURVEY BY ALEXANDER BARR, O.L.S., 1904. FIELD NOTE BOOK 1009.
 THIRD MERIDIAN (EAST LIMIT OF McCART TWP.) BY WILLIAM GALBRAITH, O.L.S., 1904. FIELD NOTE BOOK 2363.
 BASE LINE (SOUTH LIMIT OF McCART TWP.) BY T.J. PATTEN, O.L.S., 1903. FIELD NOTE BOOK 2460.



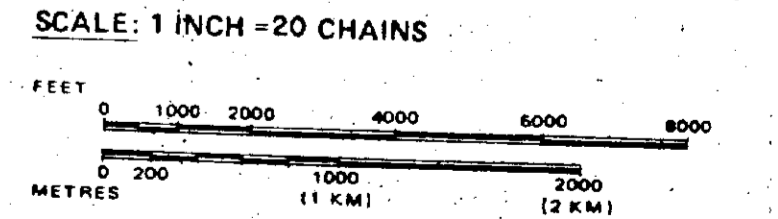
LEGEND

HIGHWAY AND ROUTE No.	
OTHER ROADS	
TRAILS	
SURVEYED LINES:	
TOWNSHIPS, BASE LINES, ETC.	
LOTS, MINING CLAIMS, PARCELS, ETC.	
UNSURVEYED LINES:	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC.	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON-PERMANENT STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKIE	
MINES	
TRAVERSE MONUMENT	

DISPOSITION OF CROWN LANDS

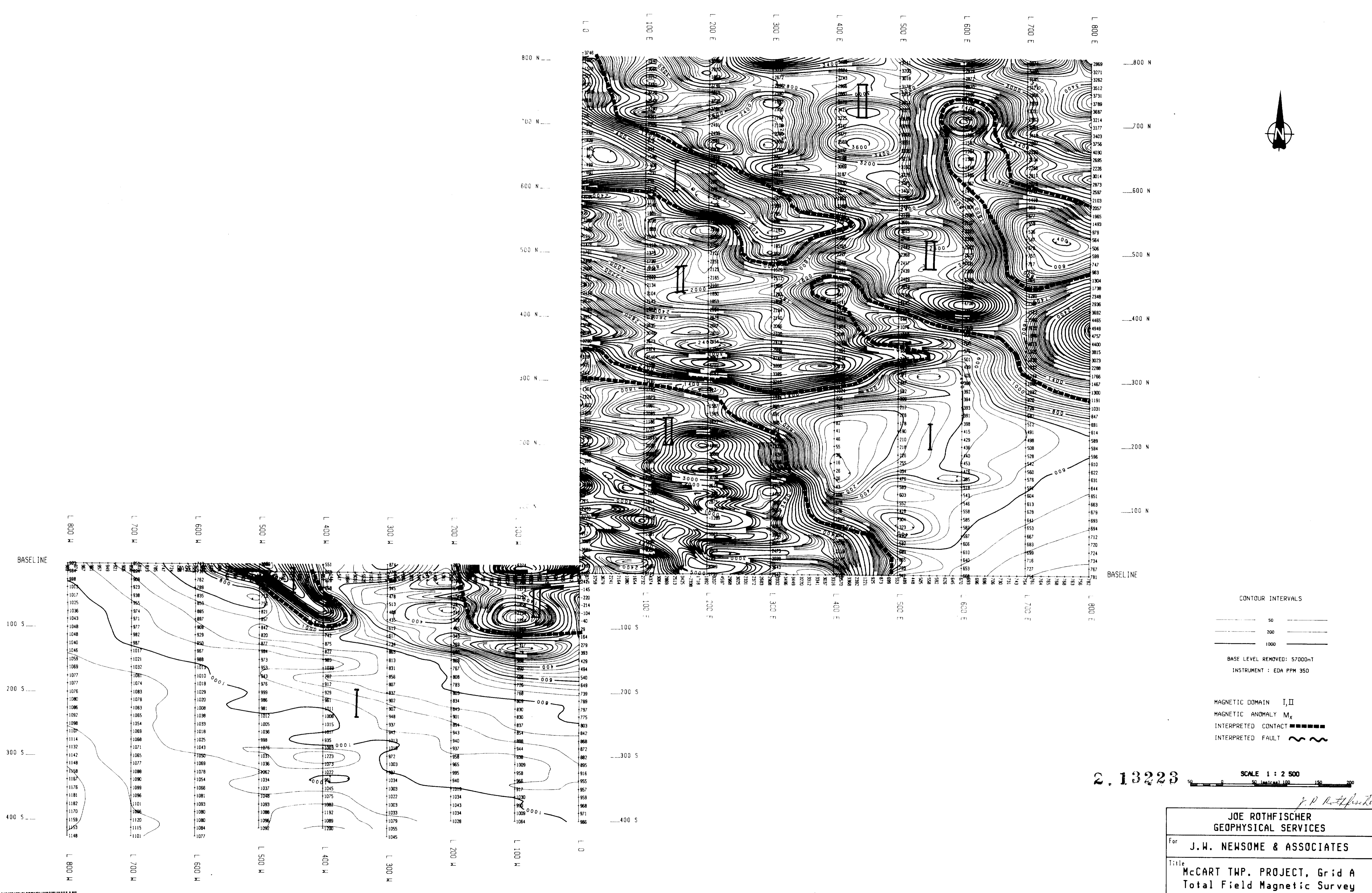
TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	◑
" SURFACE RIGHTS ONLY	◒
" MINING RIGHTS ONLY	◓
LICENCE OF OCCUPATION	◔
ORDER-IN-COUNCIL	OC
RESERVATION	○
CANCELLED	○
SAND & GRAVEL	○

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63 SUBSEC. 1.

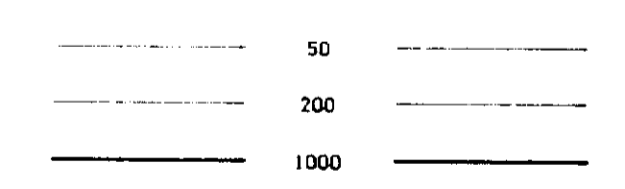


TOWNSHIP
McCART
 M.N.R. ADMINISTRATIVE DISTRICT
 COCHRANE
 MINING DIVISION
 PORCUPINE
 LAND TITLES / REGISTRY DIVISION
 COCHRANE





CONTOUR INTERVALS



BASE LEVEL REMOVED: 57000mT
INSTRUMENT : EDA PPM 350

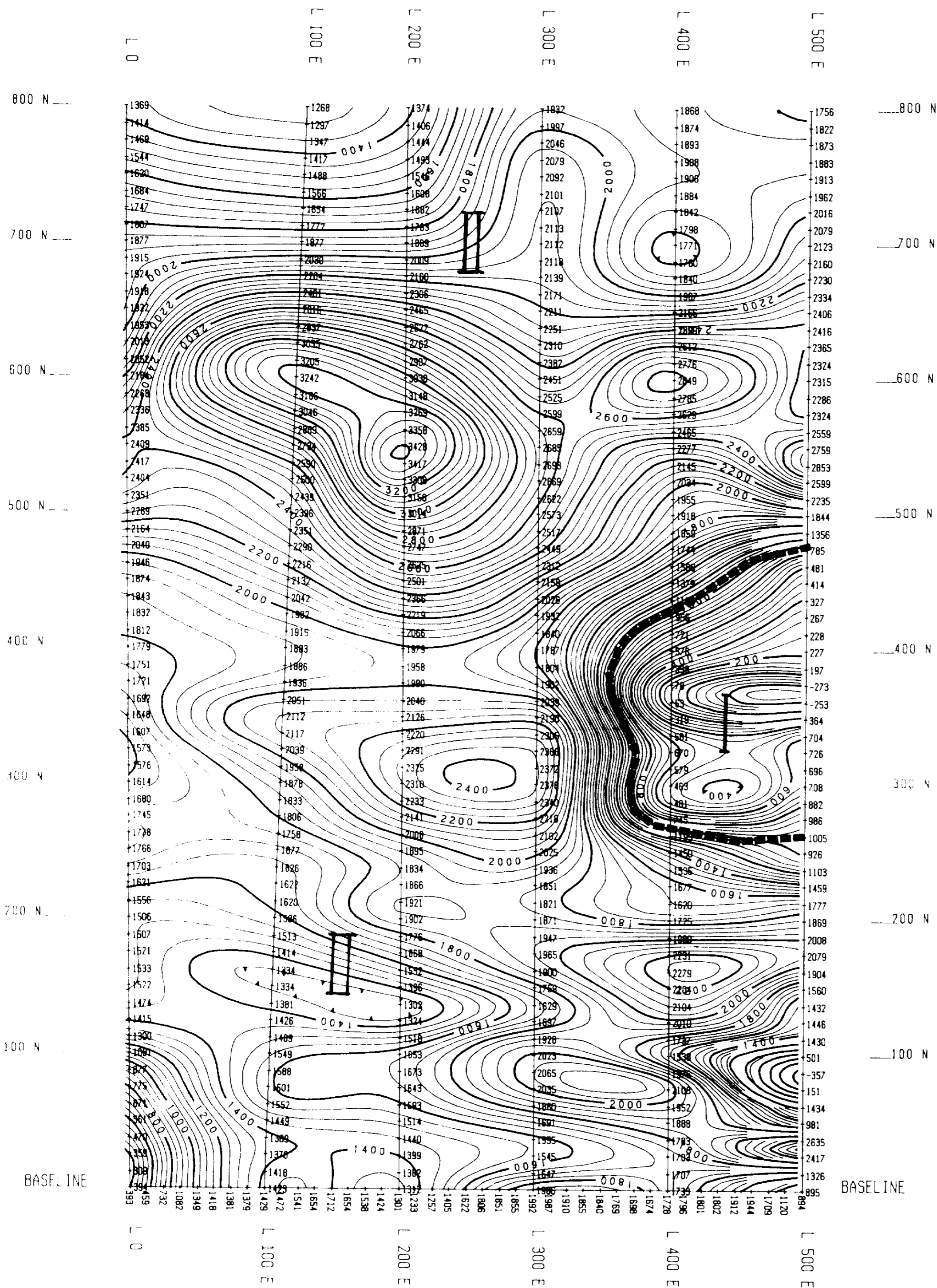
MAGNETIC DOMAIN I, II
MAGNETIC ANOMALY M_x
INTERPRETED CONTACT
INTERPRETED FAULT



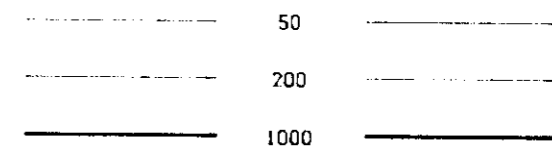
J.P. Rothfischer

JOE ROTHFISCHER GEOPHYSICAL SERVICES	
For	J.W. NEWSOME & ASSOCIATES
Title	McCart Twp. Project, Grid A Total Field Magnetic Survey McCart Twp., Ontario Fig. 4
Date: January '90	N.T.S.: 42 A/14
Operator: J.P. Rothfischer	Job #: R-1





CONTOUR INTERVALS



BASE LEVEL REMOVED: 57000nT

INSTRUMENT : EDA PPM 350

MAGNETIC DOMAIN I,II

MAGNETIC ANOMALY M_x

INTERPRETED CONTACT **-----**

INTERPRETED FAULT **~~~~~**

2.13223

SCALE 1 : 2 500



J. P. Rothfischer

JOE ROTHFISCHER
GEOPHYSICAL SERVICES

For J.W. NEWSOME & ASSOCIATES

Title
McCART TWP. PROJECT, Grid B
Total Field Magnetic Survey

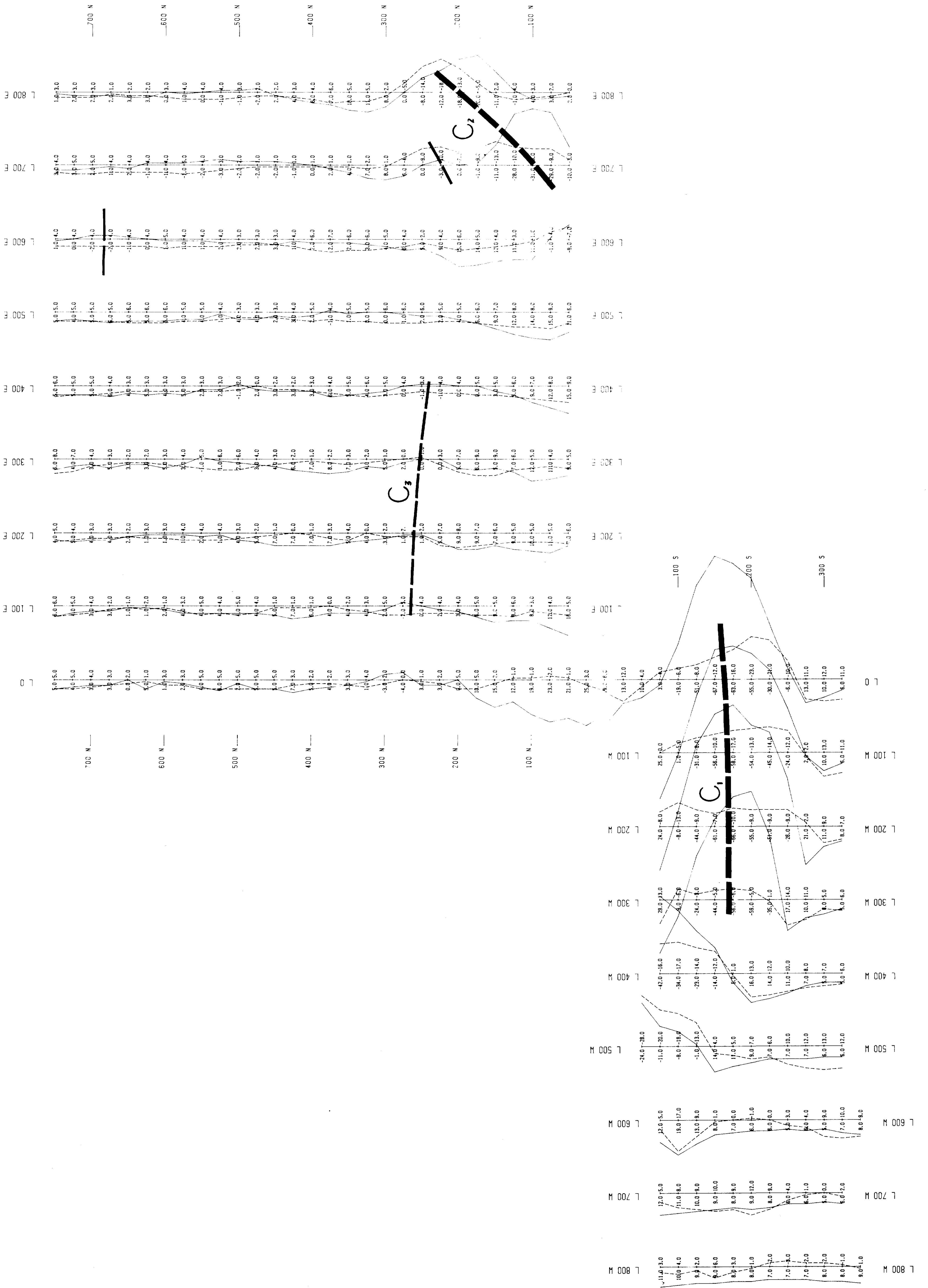
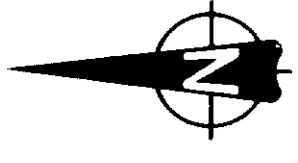
McCart Twp., Ontario Fig. 5

Date: January '90

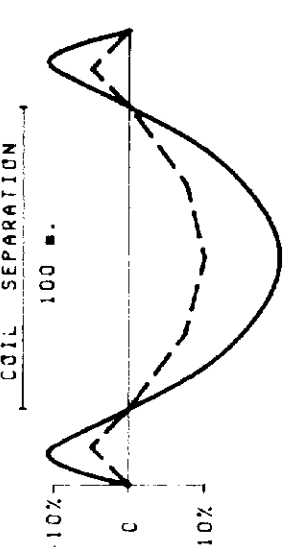
N.T.S.: 42 A/14

Operator: J.P. Rothfischer Job #: R-1





MAX-MIN II HLEM LEGEND
 Profile Scale: 1 cm. = 10 %
 FREQUENCY : 1777Hz
 IN PHASE
 QUADRATURE



2.13223

SCALE 1 : 2 500
 0 50 100 150 200 250 300

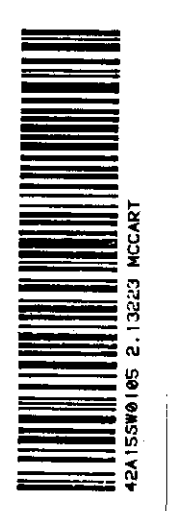
J. P. Rothfischer

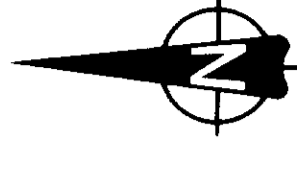
JOE ROTHFISCHER
GEOPHYSICAL SERVICES

For **J.H. NEWSOME & ASSOCIATES**

Title **McCART TWP. PROJECT, Grid A**
Maxmin II Survey
 McCart Twp., Ontario Fig. 7

Date: January '90 N.T.S.: 42 A/14
 Operator: Burton/Rothfischer Lot #: P-1

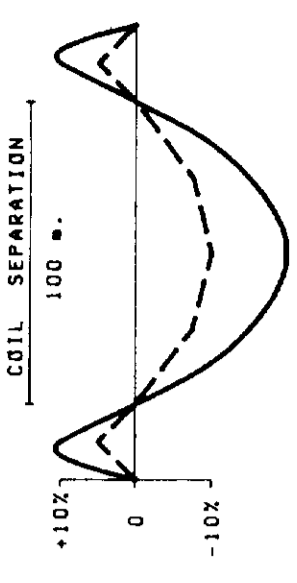




MAX-MIN II HLEM LEGEND

Profile Scale: 1 cm. = 10 %
FREQUENCY : 444Hz

IN PHASE
QUADRATURE



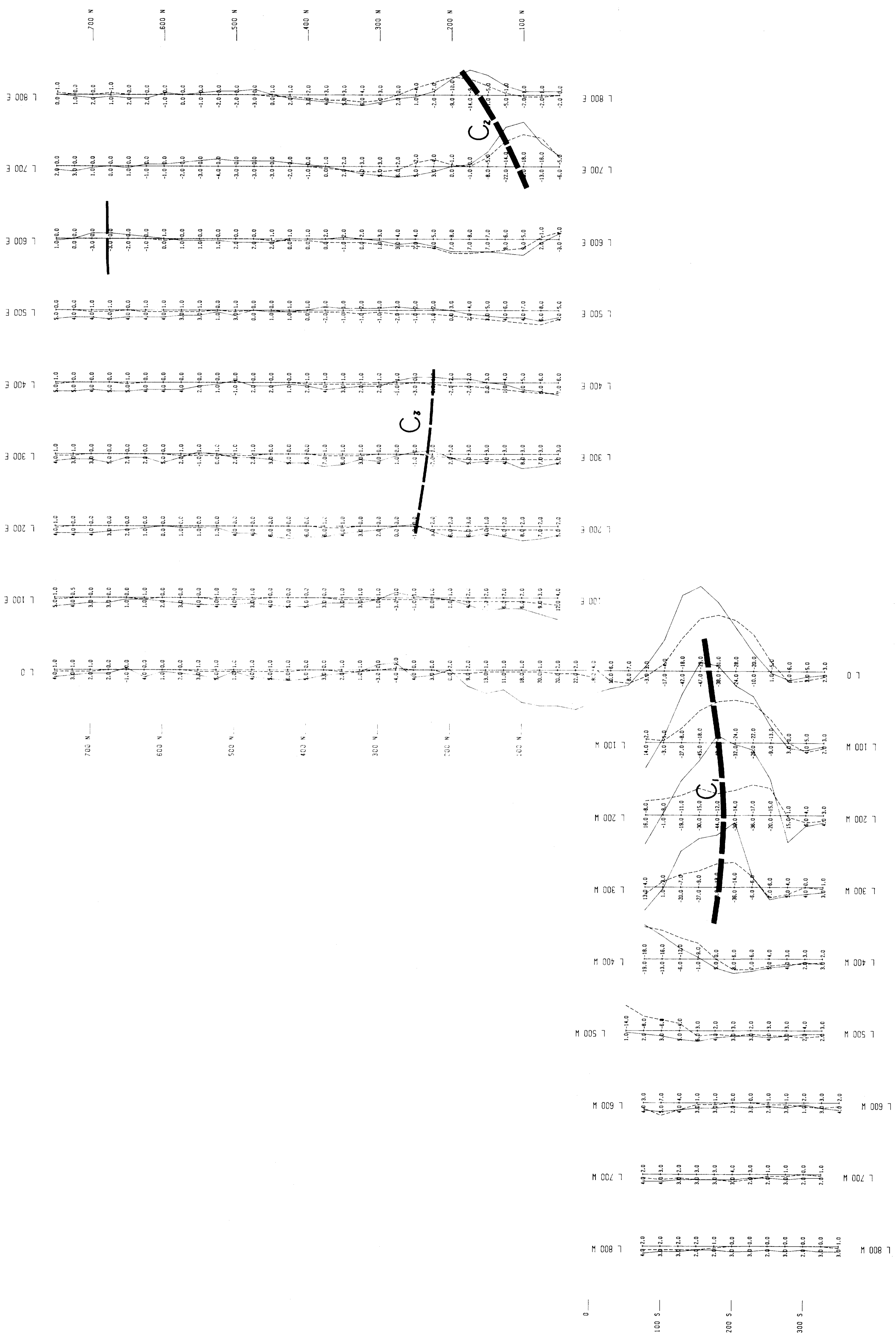
CONDUCTOR AXIS - HEAK
CONDUCTOR AXIS - STRONG

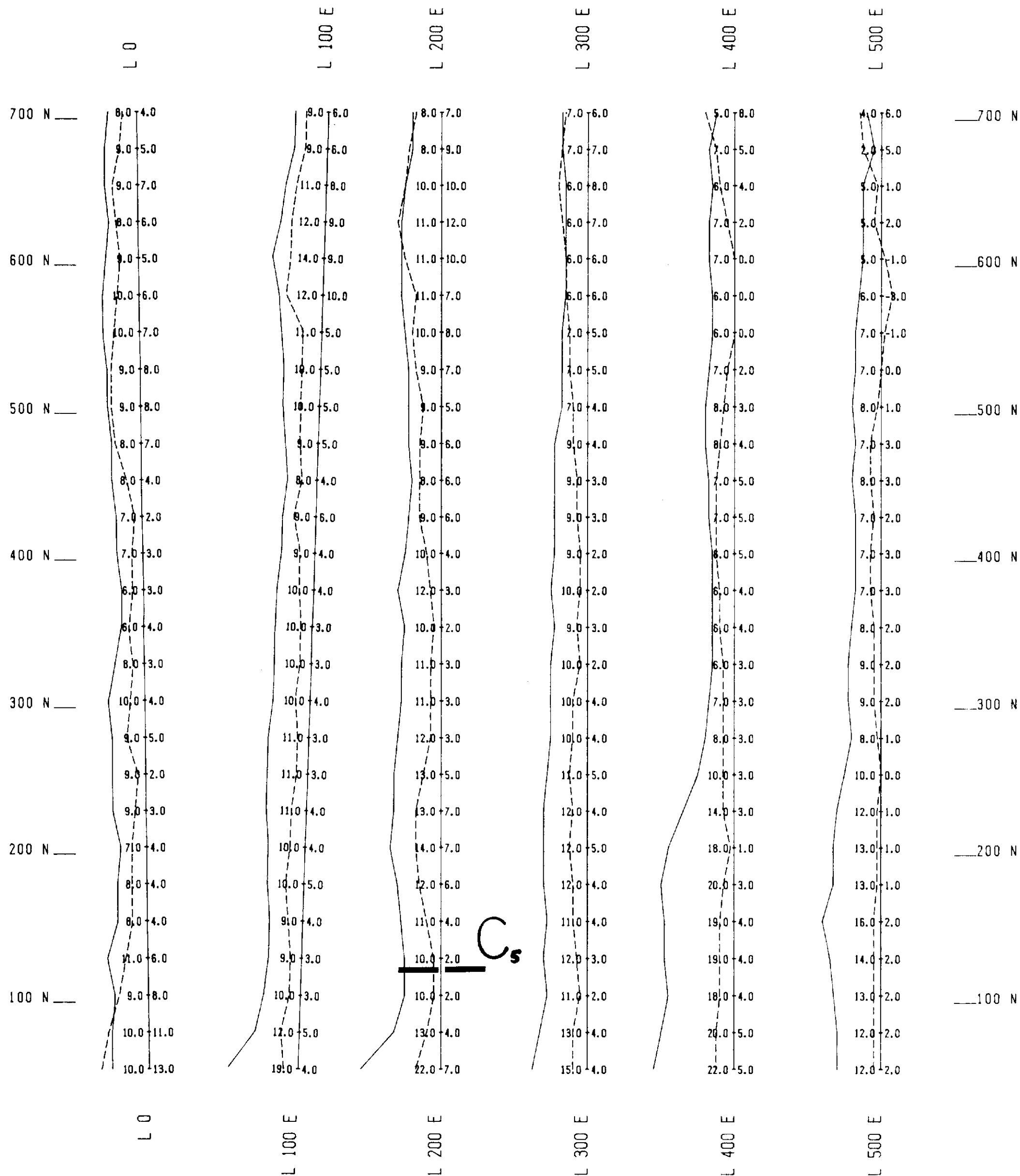
2, 13223

SCALE 1 : 2 500
50 100 150 200

J.P. Rothfischer

JOE ROTHFISCHER GEOPHYSICAL SERVICES	
For J.H. NEWSOME & ASSOCIATES	
Title McCART TWP. PROJECT, Grid A Maxmin II Survey McCart Twp., Ontario Fig 6	
Date: January '90	N.I.S.: 42 A/14
Operators: Burton/Rothfischer Job #: R-1	

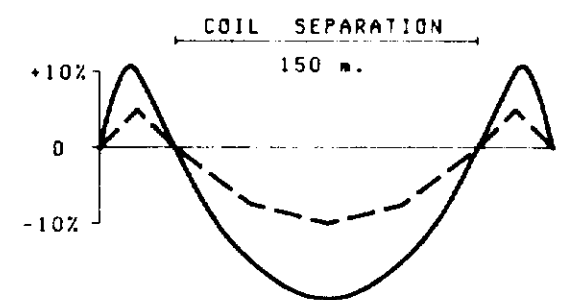




MAX-MIN II HLEM LEGEND

Profile Scale: 1 cm. = 10 %
 FREQUENCY : 444Hz

IN PHASE ————
 QUADRATURE - - - -



CONDUCTOR AXIS - WEAK ————
 CONDUCTOR AXIS - STRONG ————

2.13223

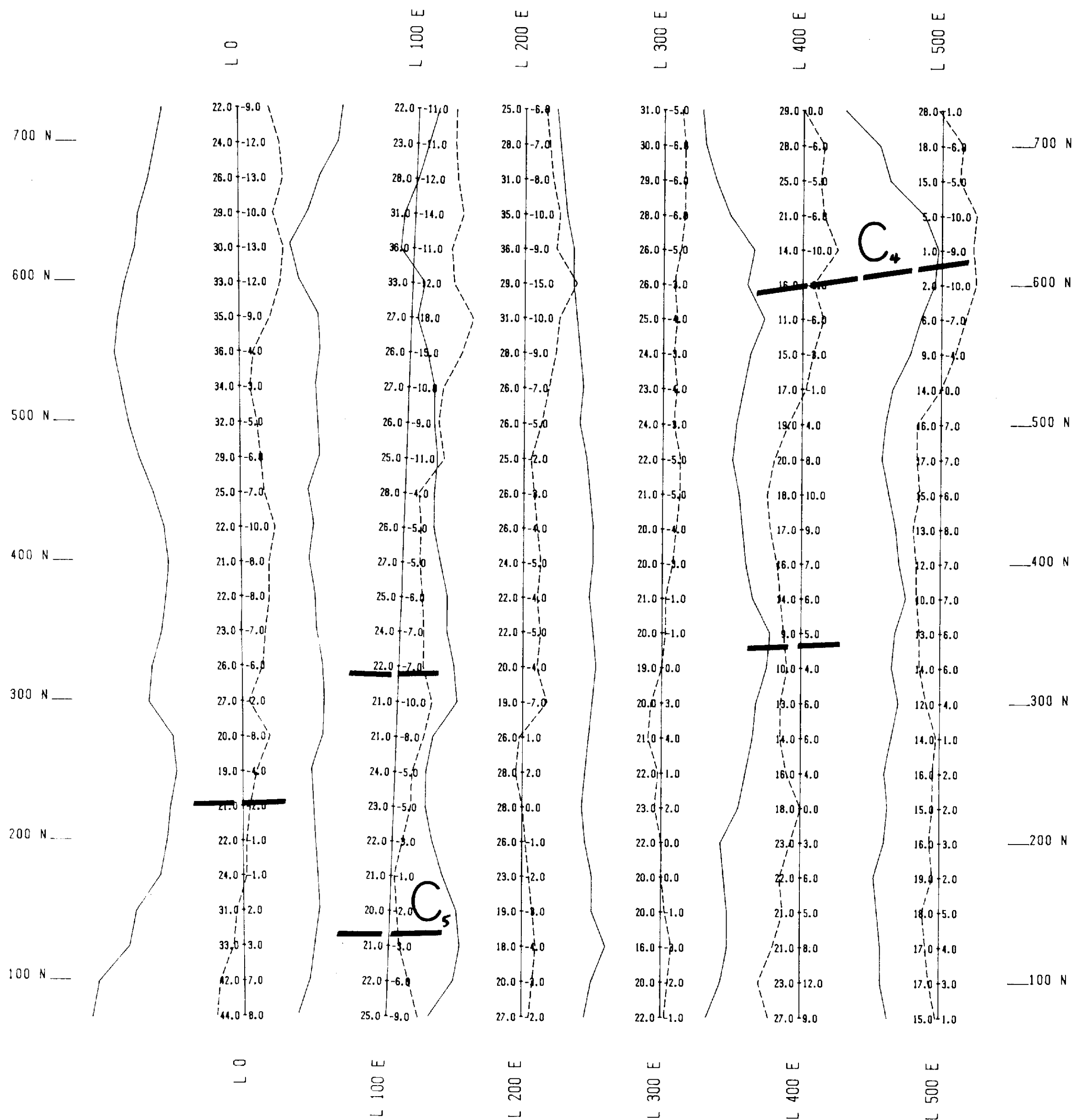
SCALE 1 : 2 500



J. P. Rothfischer

JOE ROTHFISCHER GEOPHYSICAL SERVICES	
For J.W. NEWSOME & ASSOCIATES	
Title McCART TWP. PROJECT, Grid B Maxmin II Survey McCart Twp., Ontario Fig. 8	
Date: January '90	N.T.S.: 42 A/14
Operators: Burton/Rothfischer	Job #: R-1

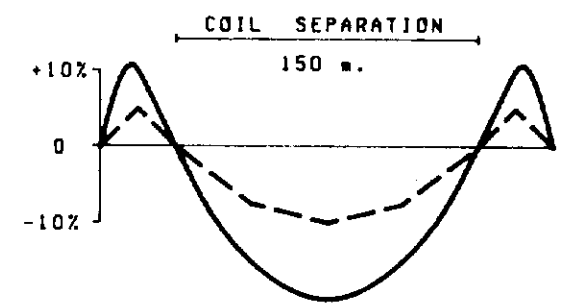




MAX-MIN II HLEM LEGEND

Profile Scale: 1 cm. = 10 %
 FREQUENCY : 1777Hz

IN PHASE —————
 QUADRATURE - - - - -



CONDUCTOR AXIS - WEAK ————
 CONDUCTOR AXIS - STRONG ————

2.13223

SCALE 1 : 2 500



J.P. Rothfischer

**JOE ROTHFISCHER
 GEOPHYSICAL SERVICES**

For **J.W. NEWSOME & ASSOCIATES**

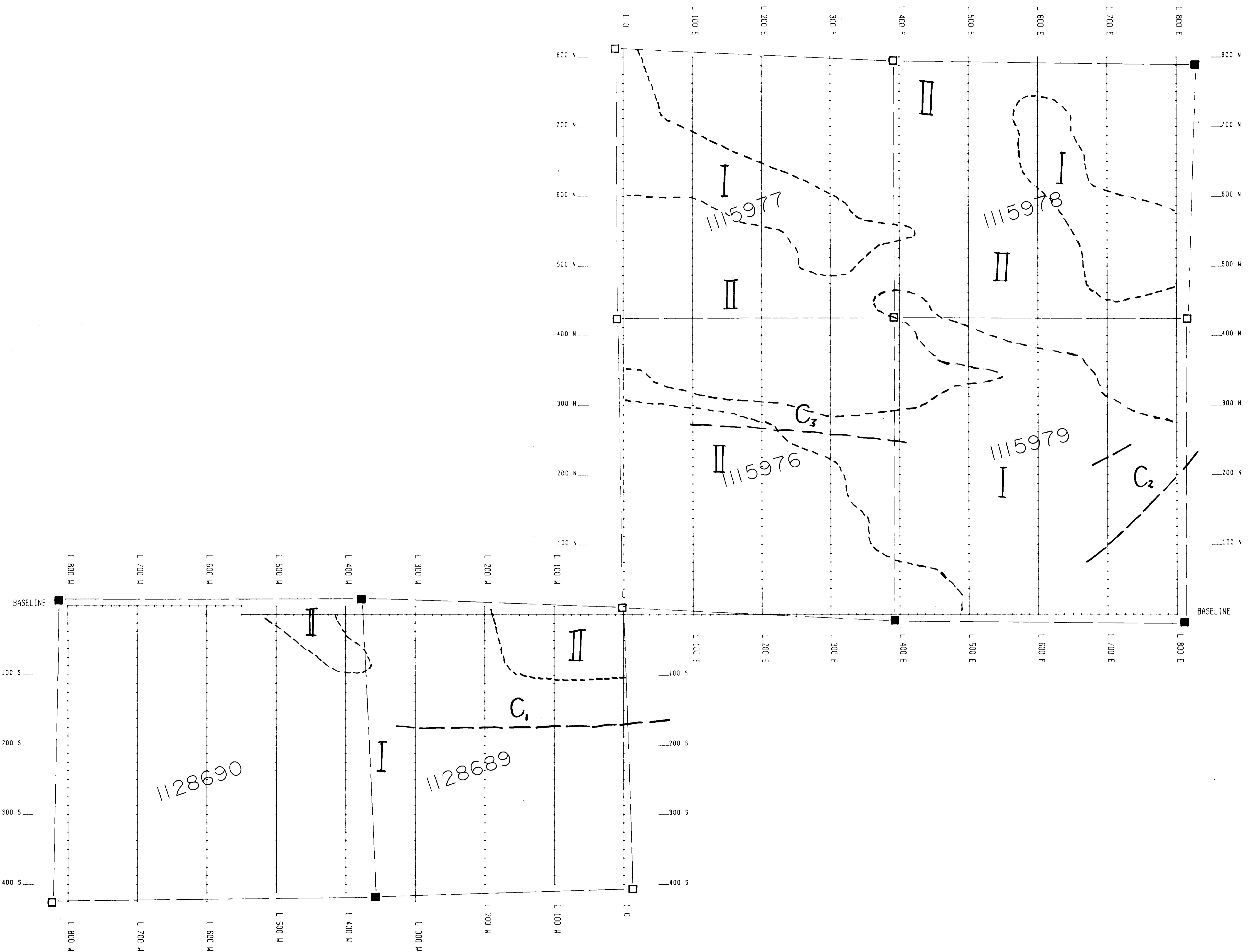
Title
**McCART TWP. PROJECT, Grid B
 Maxmin II Survey
 McCart Twp., Ontario Fig. 9**

Date: January '90 N.T.S.: 42 A/14

Operators: Burton/Rothfischer Job #: R-1



42A155W0105 2.13223 MCCART



MAGNETIC DOMAIN I, II
 INTERPRETED CONTACT
 HLEM CONDUCTOR C_x

TOPOGRAPHY

- CLAIM POST —■—
- Located, Assumed ■ □
- STREAM ————
- SWAMP ▽
- ACCESS ROAD =====
- BUSH ROAD - - - - -

2.13223

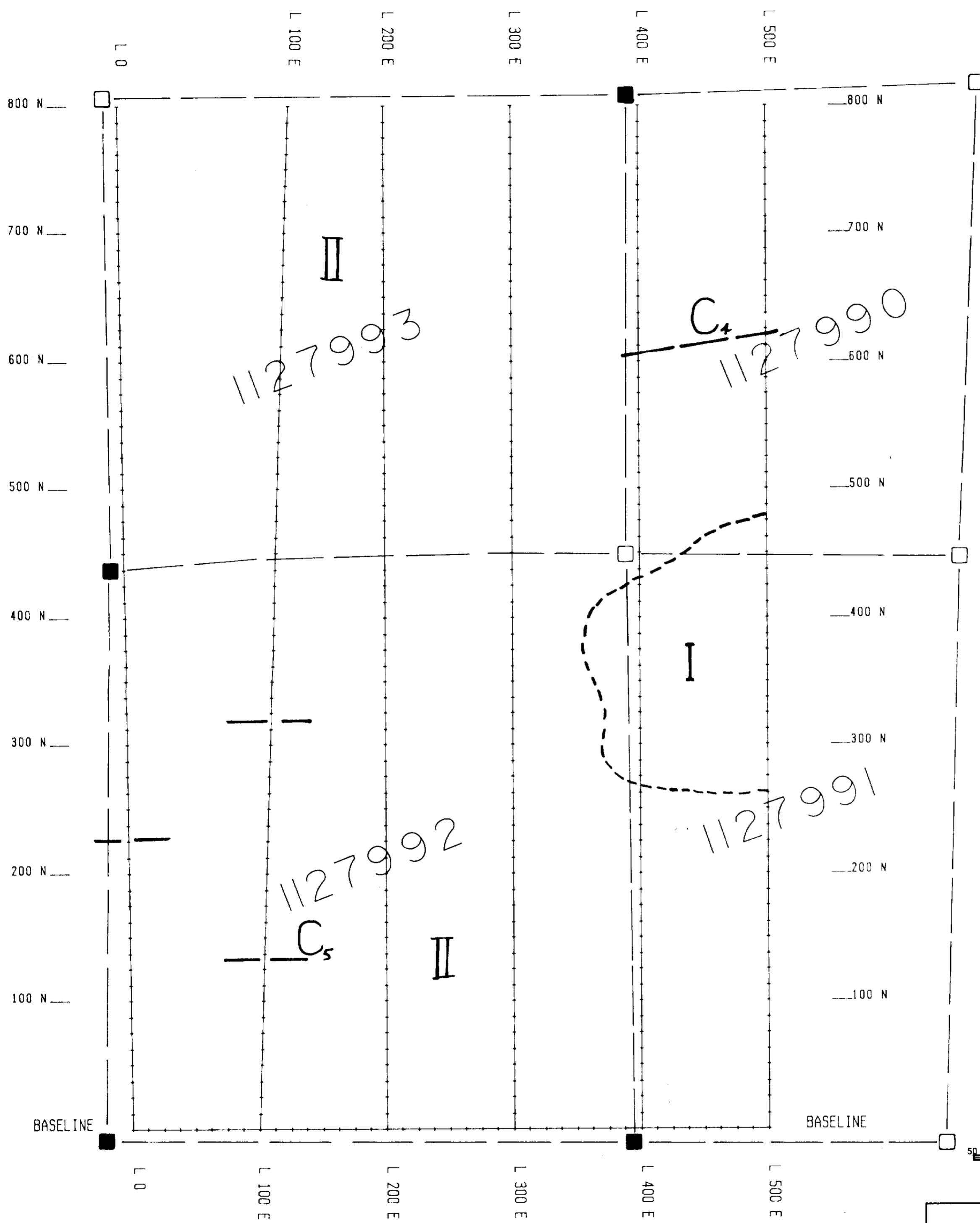
SCALE 1 : 2 500



J. P. Rothfischer

JOE ROTHFISCHER GEOPHYSICAL SERVICES	
For J.W. NEWSOME & ASSOCIATES	
Title McCART TWP. PROJECT, Grid A Compilation Map McCart Twp., Ontario Fig. 10	
Date: January '90	N.T.S.: 42 A/14
Compiled by: J.P.R.	Job #: R-1





- TOPOGRAPHY
- CLAIM POST ———— ■ ————
 - Located, Assumed ■, □
 - STREAM ————
 - SWAMP ↘
 - ACCESS ROAD = = = =
 - BUSH ROAD - - - -

2.13223

SCALE 1 : 2 500
 50 100 150 200

J. P. Rothfischer

JOE RÖTHFISCHER GEOPHYSICAL SERVICES	
For J.W. NEWSOME & ASSOCIATES	
Title McCART TWP. PROJECT, Grid B Compilation Map McCart Twp., Ontario Fig. II	
Date: January '90	N.T.S.: 42 A/14
Compiled by: J.P.R	Job #: R-1

