



52F05SE0505 2.12815 ROWAN LAKE

010

DENMARK LAKE PROPERTY

ASSESSMENT REPORT

MAY 1989

NTS 52F/5

PN 539

J. A. Lutz
Falconbridge Limited
Winnipeg, Manitoba
May 21, 1989



52F05SE0505 2.12815 ROWAN LAKE

010C

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Appendix Report on Geophysical Surveys on the Denmark
Lake Claim Group by Independent Exploration
Services Ltd., February, 1989

1.0 INTRODUCTION

This report details results from geophysical surveys conducted on the Denmark Lake Claim Group in the Rowan Lake area of northwestern Ontario, during February, 1989.

The surveys were conducted for Falconbridge Limited by Independent Exploration Services Ltd. of Winnipeg, Manitoba, and consisted of Magnetics, HL-EM, and VLF-EM.

2.0 PROPERTY

The Denmark Lake Claim Group comprises 10 contiguous claims totalling 160 hectares (map 1 - see appendix). Details of these claims are given in Table 1. The property is located in the Rowan Lake area (map G 2639) within the Kenora Mining Division of northwestern Ontario. These claims were staked in August, 1988, to encompass 1987 airborne GEOTEM - Mag anomalies in an area which may host potential copper-nickel mineralization. The property is located approximately 76 kilometres from the town of Kenora (figure 1 - see appendix).

3.0 OWNERSHIP

The above claims are held by Falconbridge Limited of Box 40, Commerce Court West, Toronto, Ontario.









4.0 GENERAL GEOLOGY

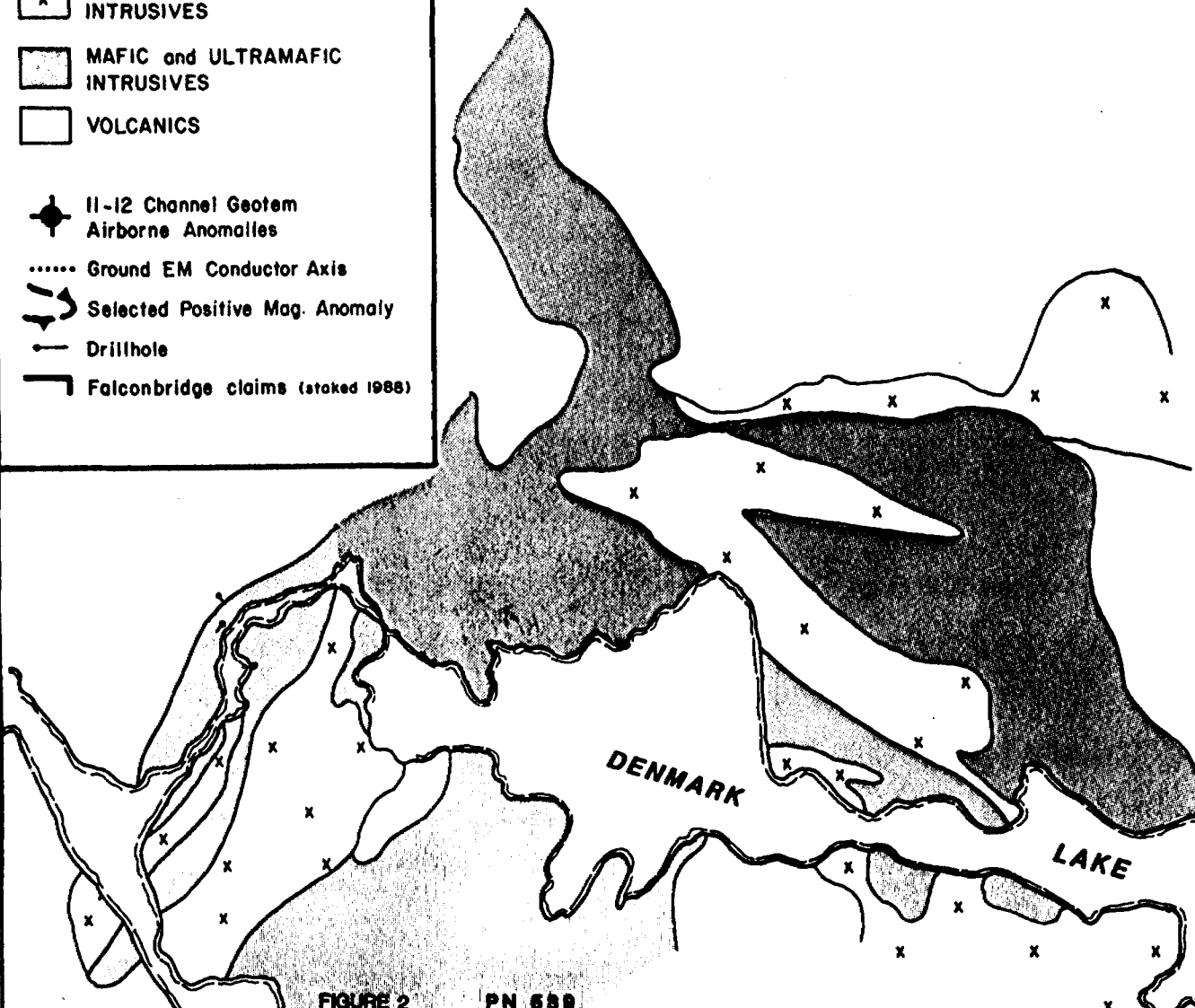
The rocks in the area are of Keewatin age. The Denmark Lake property is underlain by an oval-shaped mafic-ultramafic intrusion in metavolcanics. Three holes drilled by Falconbridge Limited in the 1950's indicated unmineralized gabbro and ultramafics near the eastern margin of the magnetic anomaly (figure 2).

5.0 GEOPHYSICS

GEOTEM and ground EM anomalies are semi-coincident with the northwestern margin of a 1 kilometer diameter bullseye

LEGEND

-  FELSIC and INTERMEDIATE INTRUSIVES
-  MAFIC and ULTRAMAFIC INTRUSIVES
-  VOLCANICS
-  11-12 Channel Geotem Airborne Anomalies
-  Ground EM Conductor Axis
-  Selected Positive Mag. Anomaly
-  Drillhole
-  Falconbridge claims (staked 1988)



No mineralized intersections, but drillholes located E. of main EM anomalies

Gabbro Ultramafic } In drillholes

Drillhole started in granite/gabbro. Ended in ultramafic.

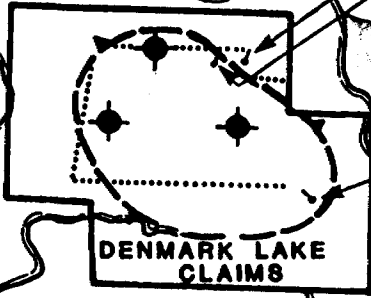


FIGURE 2 PN 689

FALCONBRIDGE LIMITED

DENMARK LAKE AREA

1000 0 2000 4000 Ft.

0 1 Km.

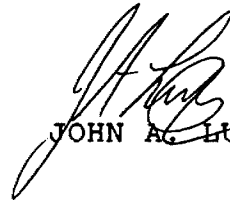
SCALE	DRAWN VCH/GDS
DATE OCT 1989	DATA BY JAL/JEL

positive magnetic anomaly. The ground geophysical surveys are described in the appendix.

STATEMENT OF QUALIFICATIONS

With regards to my report of May 1989 for Falconbridge Limited, I JOHN A. LUTZ, of 46 Sweetwood Bay, Winnipeg, Manitoba, do certify that:

1. I am a graduate of the University of Manitoba (B. Sc. (Honors) Geology, 1987;
2. I have been practising my profession continuously since 1987;
3. I have no interest in the claims covered by this report nor do I expect to receive any interest.


JOHN A. LUTZ

WITNESS:





Denmark Lk

Ministry of Natural Resources

File _____

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

2.12815

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
Township or Area Rowan Lake G-2639
Claim Holder(s) Falconbridge Limited

Survey Company Independent Exploration Services Ltd.
Author of Report Horst Petak
Address of Author P. O. Box 7, Postal Station A Wpg
R3K 1Z9
Covering Dates of Survey Jan 31-March 1/89
(linecutting to office)
Total Miles of Line Cut 12.0 Miles (19.4 km)

MINING CLAIMS TRAVERSED
List numerically

K 1058740
K (prefix) 1058741 (number)
K 1058742
K 1058743
K 1058744
K 1058745
K 1058746
K 1058747
K 1058748
K 1058749

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 60
-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: _____ SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 2.3152

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 10

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 1537 Number of Readings 1537
Station interval 12.5m Line spacing 100m
Profile scale VLF-EM 40%-1.0cm
Contour interval 200 NT (Mag); 5% (VLF-EM)

MAGNETIC

Instrument EDA OMNI-PLUS
Accuracy - Scale constant Int
Diurnal correction method Base Station Recorder
Base Station check-in interval (hours) Continuous (30 sec sampling)
Base Station location and value ----

ELECTROMAGNETIC

Instrument VLF-EM: EDA OMNI-PLUS; MaxMin II
Coil configuration MaxMin: Horizontal Loop
Coil separation 200m (MaxMin)
Accuracy
Method: [] Fixed transmitter [] Shoot back [x] In line [] Parallel line
Frequency Cutler, Ma, 24.0 KHz (VLF-EM); 444 Hz & 1777 Hz (MaxMin)
Parameters measured VLF-EM; In-phase, Quadrature and Total Field Strength
MaxMin: Inphase and Quadrature

GRAVITY

Instrument
Scale constant
Corrections made
Base station value and location
Elevation accuracy

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 _____

Type of Survey(s): **Geophysical (VLF-EM)** Township or Area: **Rowan Lake G-2639**

Claim number(s): **Falconbridge Limited** Prospector's Licence No.: **A 21647**

Address: **P. O. Box 40, Commerce Court West, Toronto, ON, M5L 1B4**

Survey Company: **Independent Exploration Services Limited** Date of Survey (from & to): **31y | Q1 | 89 | 01y | Q3 | 89** Total Miles of line Cut: **12.0 mil. (19.4km)**

Name and Address of Author (of Geo-Technical report): **Horst Petak, P. O. Box 7, Postal Station A, Winnipeg, MB, R3K 1Z9**

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	20
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	
Electromagnetic	
Magnetometer	
Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
K	1058740				
	1058741				
	1058742				
	1058743				
	1058744				
	1058745				
	1058746				
	1058747				
	1058748				
	1058749				

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: **S** ÷ **15** = Total 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.

Total number of mining claims covered by this report of work. **10**

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

Date: **August 15, 1989** Recorded Holder or Agent (Signature): *[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: **John Lee, 100-3074 Portage Ave., Winnipeg, MB, R3K 0Y2**

Date Certified: **August 15, 1989** Certified by (Signature): *[Signature]*

TABLE 1

DENMARK LAKE CLAIM GROUP

<u>Claim No.</u>	<u>Expiry Date</u>
1058740	August 16, 1989
1058741	August 16, 1989
1058742	August 16, 1989
1058743	August 16, 1989
1058744	August 16, 1989
1058745	August 16, 1989
1058746	August 16, 1989
1058747	August 16, 1989
1058748	August 16, 1989
1058749	August 16, 1989

APPENDIX

REPORT ON GEOPHYSICAL SURVEYS ON THE
DENMARK LAKE CLAIM GROUP
BY INDEPENDENT EXPLORATION SERVICES LTD.
FEBRUARY, 1989



52F05SE0505 2.12815 ROWAN LAKE

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REPORT
ON
GEOPHYSICAL SURVEYS
ON THE
DENMARK LAKE CLAIM GROUP
IN THE
ROWAN LAKE AREA (G 2639)
KENORA MINING DIVISION, ONTARIO

By: Horst W. PETAK, Ph.D., P.Eng.
Independent Exploration Services Ltd.
Winnipeg, Manitoba

Winnipeg; April 27th, 1989



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page

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SUMMARY	1
INTRODUCTION	2
GEOPHYSICAL SURVEYS	2
LINE CUTTING	2
TOTAL FIELD & VERTICAL GRADIENT MAGNETIC SURVEY	2
VLF-EM SURVEY	3
HL-EM SURVEY	4

FIG:

===

- Fig.1: PROPERTY LOCATION
- Fig.2: AEROMAG & GEOTEM CONDUCTORS

MAPS: (all maps at scale 1: 5000)

=====

- Map#1: GRID MAP
- Map#2: TOTAL FIELD MAGNETIC CONTOUR MAP
- Map#3: VERTICAL GRADIENT MAGNETIC CONTOUR MAP
- Map#4: VLF-EM PROFILE MAP
- Map#5: VLF-EM CONTOUR MAP
- Map#6: TOTAL FIELD MAGNETIC POSTINGS
- Map#7: VERTICAL GRADIENT MAGNETIC POSTINGS
- Map#8: VLF-EM POSTINGS (In-Phase & Quadrature)
- Map#9: VLF-EM POSTINGS (Total Field Strength)
- Map#10: HL-EM PROFILE MAP (Frqu: 1777 Hz)
- Map#11: HL-EM PROFILE MAP (Frqu: 444 Hz)
- Map#12: HL-EM POSTINGS (Frqu: 1777 Hz)
- Map#13: HL-EM POSTINGS (Frqu: 444 Hz)

SUMMARY:

During February 1989 Independent Exploration Services Ltd. of Winnipeg carried out geophysical surveys on the Denmark Lake group of Claims held by Falconbridge Ltd. The objective was a ground follow-up of airborne magnetic and Geotem anomalies. The ground surveys consisted of LINE CUTTING, TOTAL FIELD & VERTICAL GRADIENT MAGNETIC SURVEY, VLF-EM and HL-EM SURVEY.

The survey results can be summarized as follows:

- 1.) The TOTAL FIELD & VERTICAL GRADIENT GROUND MAGNETIC SURVEYS not only confirmed the presence, but also greatly enhanced the resolution of the aeromagnetic anomaly in the centre of the claim group.
- 2.) The VLF-EM and HL-EM SURVEYS however failed to locate the airborne Geotem conductors which are associated with the airborne magnetic anomaly.

INTRODUCTION:

During February 1989 Independent Exploration Services Ltd. of Winnipeg carried out geophysical surveys on the Denmark Lake group of Claims. Most of the claims are water claims covering the east end of Denmark Lake in the Rowan Lake area (G 2639) within the Kenora Mining Division of Ontario. The property is accessible via a very short bush trail (about 300 m) from the logging road which extends from the Maybrun Mine road to the southeast.

The work was performed under contract for Falconbridge Ltd. and consisted of 19.4 km of LINE CUTTING, 16.6 KM of TOTAL FIELD and VERTICAL GRADIENT MAGNETIC SURVEY, 16.6 km of VLF-EM and HL-EM SURVEY.

The objective of this report is to describe the surveys and the results from them.

GEOPHYSICAL SURVEYS:

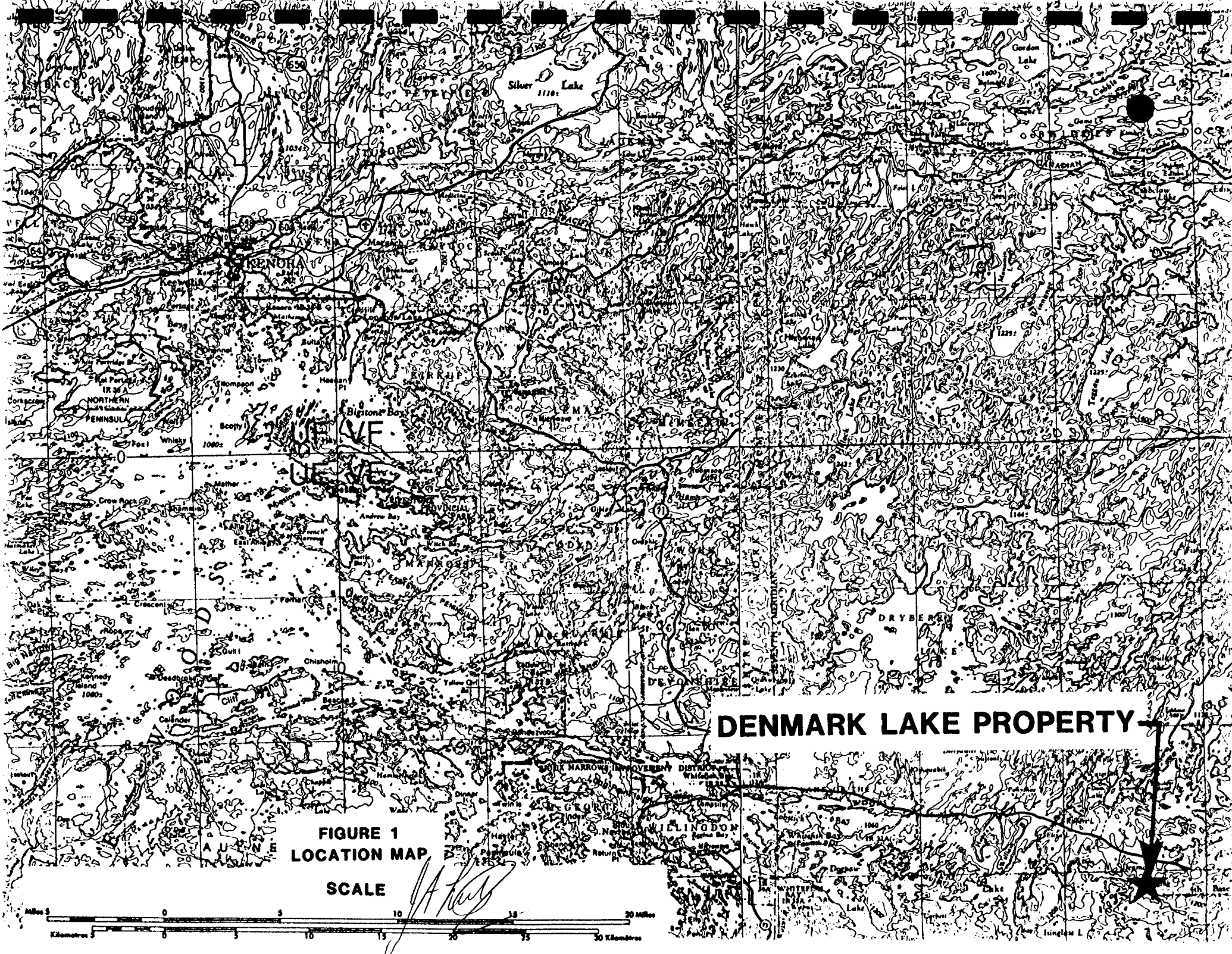
1.) LINE CUTTING:

A reference grid consisting of 19.4 km of cross lines, base-, and tie line was established. Marked pickets were erected on the cross lines at intervals of 25 metres. The cross lines were spaced at 100 metres. The grid layout is shown on Map#1

2.) TOTAL FIELD & VERTICAL GRADIENT MAGNETIC SURVEY:

A total of 16.6 km of picket lines were surveyed at station intervals of 12.5 metres.

The survey instrumentation consisted of an EDA Omni-Plus integrated system with base station. The diurnal correction of the total field magnetic data was done electronically by interfacing the field magnetometer with



DENMARK LAKE PROPERTY

**FIGURE 1
LOCATION MAP
SCALE**

A. Kelly



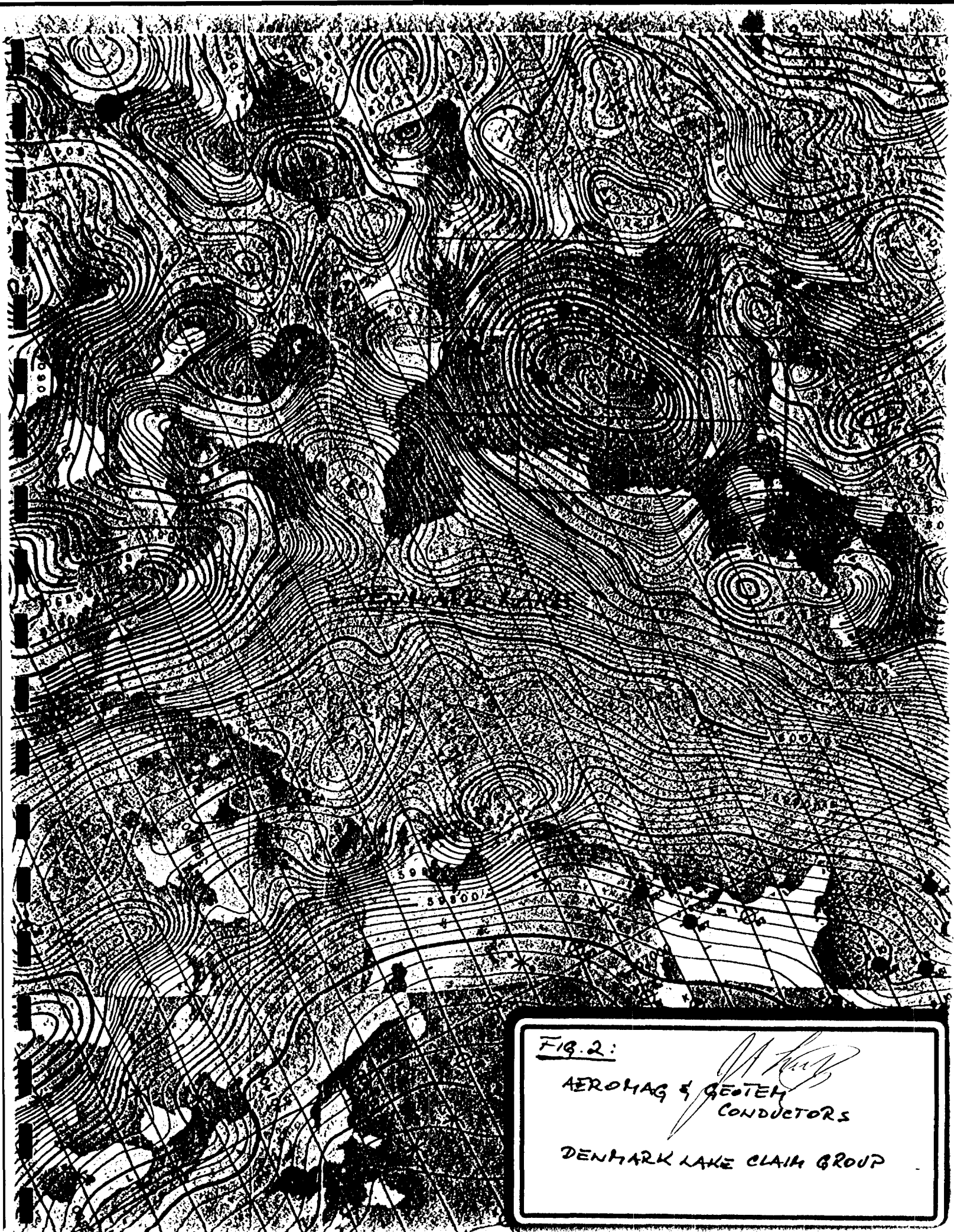


FIG. 2:
W. King
AEROMAG & GEOTEK
CONDUCTORS
DENMARK LAKE CLAIM GROUP

the base station unit during the data dump procedure. The sample interval on the base magnetometer was programed for 30 seconds.

The gradiometer survey records the vertical magnetic gradient between an upper and a lower sensor. The standard distance between the two sensors used with this type of instrument is 0.5 metre.

The daily field data were recovered in two formats. Firstly, they were transferred electronically from the memory bank of the field and base unit to magnetic disk. This was done via an "NEC Multispeed" lap top computer. Secondly, for backup purposes the data were also saved on a hard copy printout.

Data processing and plotting of the maps was done by Independent Exploration Services Ltd. in the Winnipeg office. The Geosoft software package was used and operated on an IBM PS2 (Mod60) computer interfaced with an HP plotter.

The contoured data are presented on attached maps #2 and #3 at a map scale of 1: 5000. The posted data are plotted on maps #6 and #7.

The ground surveys certainly confirmed the aeromagnetic high located in the center of the claim group. While the definition on the vertical gradient map is not as sharp, the total field magnetic contours on the other hand do provide a good resolution of the geometry of the magnetic anomaly. The anomaly consists of two peak areas which could possibly be structurally separated from each other. One occurs from 1125N (61108.5 nT) to 1225N (61088.9 nT) on line 600E. The amplitudes here are 1408.5 nT and 1388.9 nT above a background of 59700 nT. The other one extends from L-800E/1025N (61526.2 nT) to L-1000E/1100N (61309.8 nT). The two highest amplitudes there are 1826.2 nT and 1609.8 nT with a slight saddle between. The contours seem to indicate a steeper grade on the south flank of entire anomaly than on the north flank. This could suggest a steep northerly dip of whatever causes the anomaly.

3.) VLF-EM SURVEY:

The survey instrument was an EDA Omni-Plus integrated system. The VLF-EM module was tuned to the station NAA, Cutler, Ma, which transmits on the frequency 24.0 KHz at a power level of 1,000 kw. Readings, consisting of in-phase, quadrature, and total field strength were taken at intervals of 12.5 metres. The data dump procedure as well as the data

processing and plotting is basically the same as for the magnetic data described before. The processed data are presented in two formats on maps #4 and #5. Map#4 shows the profiled in-phase, quadrature, and total field strength components. Map#5 shows the Fraser filtered contoured in-phase component. The posted field readings are plotted on maps #8 and #9.

The objective of the VLF-EM survey was to pinpoint Geotem conductors which Fig.2 shows to be associated with the aeromagnetic high. The survey results in that regard however turned out to be inconclusive.

A nearly east - west striking weak conductive trend although was delineated in the southern most part of the grid between line 400E to 1600E. It seems to be associated with a narrow magnetic low which could indicate the presence of a fault zone.

4.) HL-EM (MaxMin) SURVEY:

The survey instrument was a MaxMin-II. It was operated in the horizontal loop mode on the frequencies 444 Hz and 1777 Hz at a coil separation of 200 metres. Readings on both frequencies were taken at station intervals of 25 metres. The data are presented in profile format on Map#10 (1777 Hz) and Map#11 (444 Hz). The field data are posted on Map#12 and Map#13.

The objective of the HL-EM survey was again to obtain a better resolution of above mentioned airborne Geotem conductors. Survey results from both frequencies however seem to be inconclusive.



8901.210

Type of Survey(s) **Geophysical (VLF-EM)** **2.12815** Township or Area **Rowan Lake G-2639**

Claim Holder(s) **Falconbridge Limited** Prospector's Licence No. **A 21647**

Address **P. O. Box 40, Commerce Court West, Toronto, ON, M5L 1B4**

Survey Company **Independent Exploration Services Limited** Date of Survey (from & to) **31. 03. 89 | 03. 89** Total Miles of line Cut **12.0 mil. (19.4km)**

Name and Address of Author (of Geo-Technical report) **Horst Petak, P. O. Box 7, Postal Station A, Winnipeg, MB, R3K 1Z9**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

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

Mining Claims			Mining Claims		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
K	1058740				
	1058741				
	1058742				
	1058743				
	1058744				
	1058745				
	1058746				
	1058747				
	1058748				
	1058749				

RECEIVED
AUG 23 1989
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures **S** ÷ **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.

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES
OFFICE
DEC - 8 1989
RECEIVED

RECEIVED
AUG 16 1989
789101112123456

1058740

Total number of mining claims covered by this report of work. **10**

Date **August 15, 1989** Recorded Holder or Agent (Signature) *[Signature]*

For Office Use Only

Total Days Cr. Date Recorded **200** **Aug. 16/89**

Date Approved as Recorded **24 Nov 89**

Mining Records *[Signature]* Branch Director *[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 **John Lee, 100-3074 Portage Ave., Winnipeg, MB, R3K 0Y2**

Date Certified **August 15, 1989** Certified by *[Signature]*



Ministry of Northern Development and Mines

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

DOCUMENT No.
W8901-210

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

Mining Act *ML*

0015

Type of Survey(s) Geophysical (VLF-EM)		Township or Area Rowan Lake G-2639	
Claim Holder(s) Falconbridge Limited		Prospector's Licence No. A 21647	
Address P. O. Box 40, Commerce Court West, Toronto, ON, M5L 1B4			
Survey Company Independent Exploration Services Limited	Date of Survey (from & to) 31y 01 89 01y 03 89	Total Miles of line Cut 12.0 mil. (19.4km)	
Name and Address of Author (of Geo-Technical report) Horst Petak, P. O. Box 7, Postal Station A, Winnipeg, MB, R3K 1Z9			

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
K	1058740				
	1058741				
	1058742				
	1058743				
	1058744				
	1058745				
	1058746				
	1058747				
	1058748				
	1058749				

RECEIVED
AUG 23 1989
MINING LANDS SECTION

KENORA
MINING
RECEIVED
AUG 16 1989
AM 11:50 PM
789101112123456

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures ÷ 15 = Total Days Credits

1058740

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

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.

For Office Use Only		
Total Days Cr. Recorded 200	Date Recorded Aug. 16/89	Mining Records <i>Scott Rivett</i>
	Date Approved as Recorded 24 Nov 89	Branch Director <i>[Signature]</i>

Date **August 15, 1989**

Recorded Holder or Agent (Signature) *[Signature]*

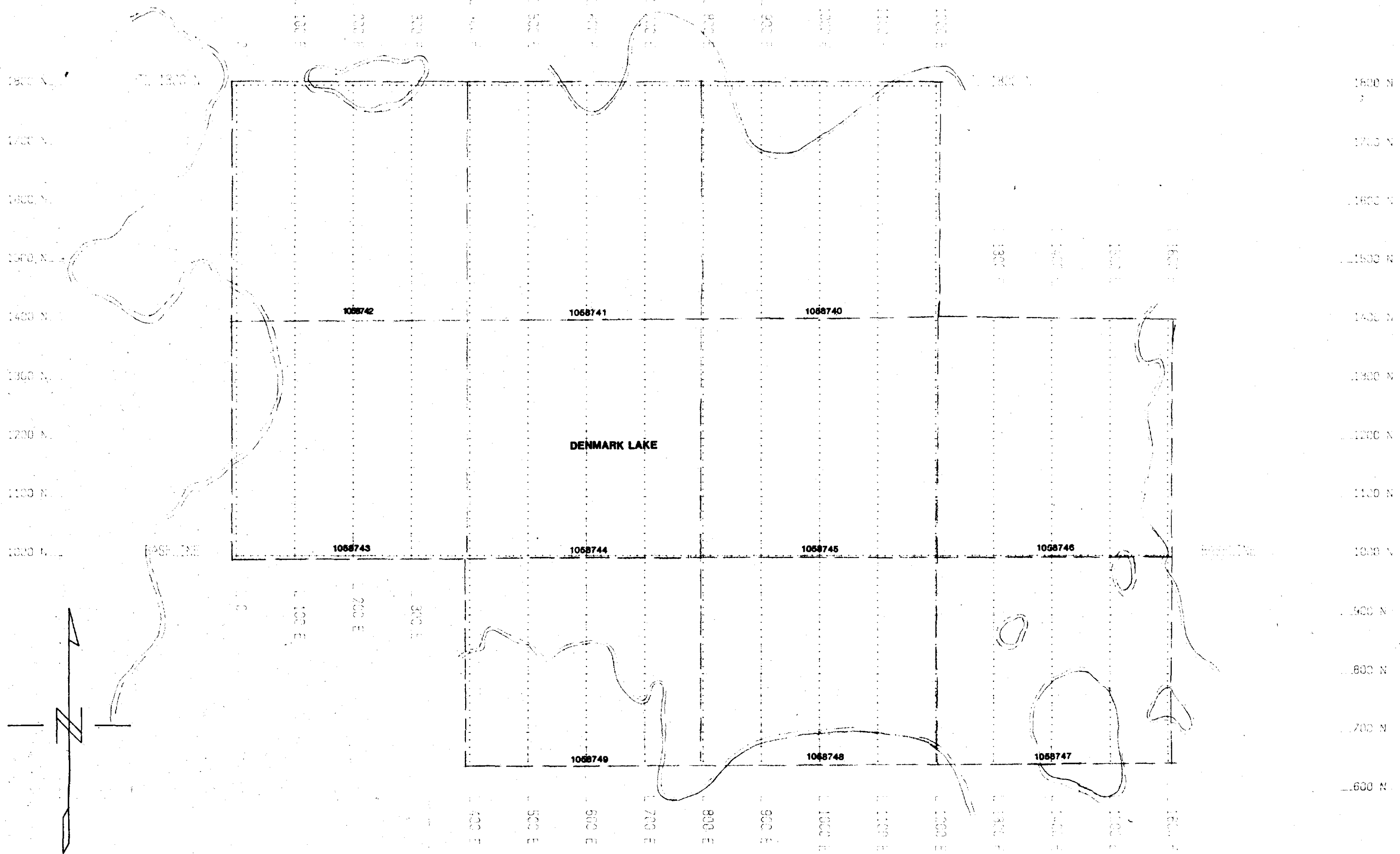
Certification Verifying Report of Work

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
John Lee, 100-3074 Portage Ave., Winnipeg, MB, R3K 0Y2

Date Certified **August 15, 1989**

Certified by (Signature) *[Signature]*



FALCONBRIDGE LTD.

ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

GRID MAP (MAP #1)

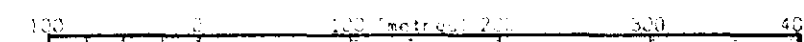
2.12815

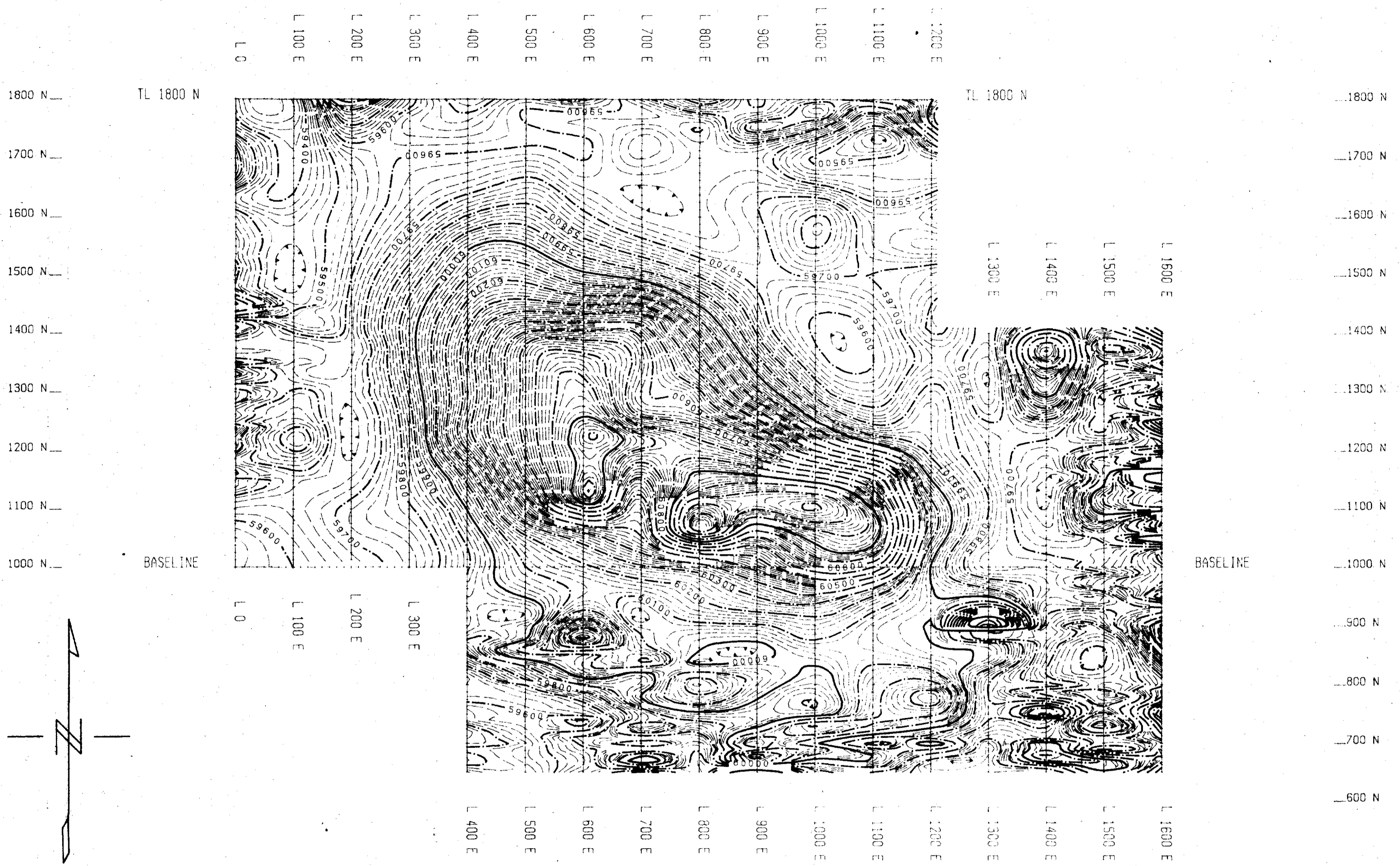
STAMPED DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 INDEPENDENT EXPLORATION SERVICES LTD.
 1147110, 1047 001

Claim Boundary

Claim number
 1068749

SCALE 1 : 5 000



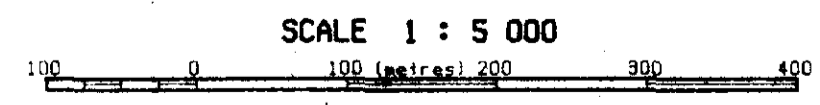
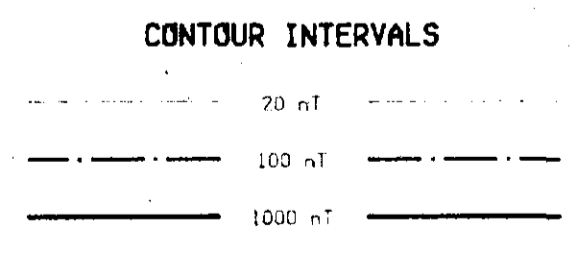


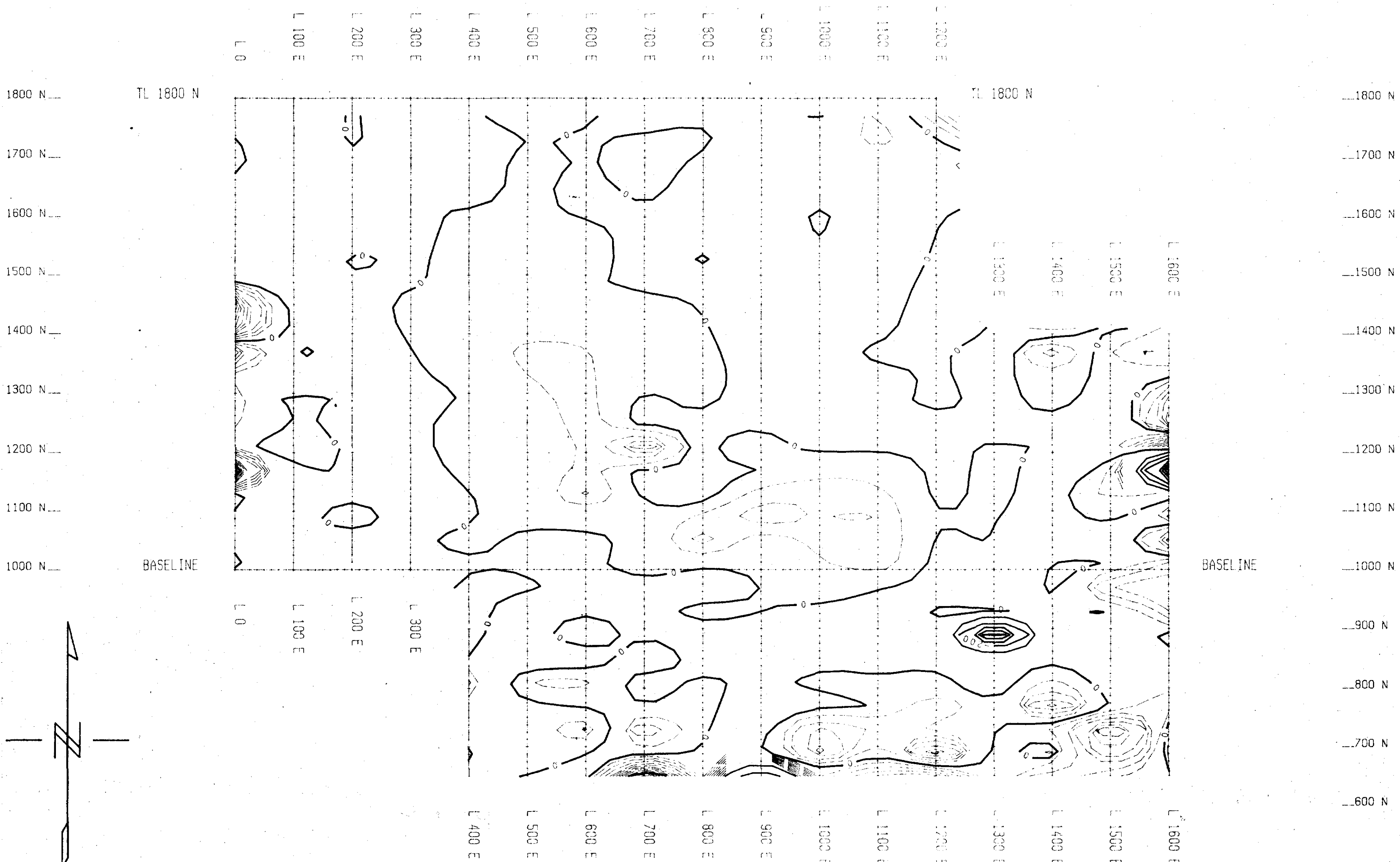
FALCONBRIDGE LTD.
 ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

TOTAL FIELD MAGNETIC CONTOUR MAP (MAP #2)
 (BASE STATION CORRECTED)

2.12815

SURVEY INSTRUMENT: EDM BMK1-PLUS WITH BASE STATION
 SURVEY DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 IMPROVED SURVEYING SERVICES LTD.
 1, 2072C, 10110A



FALCONBRIDGE LTD.

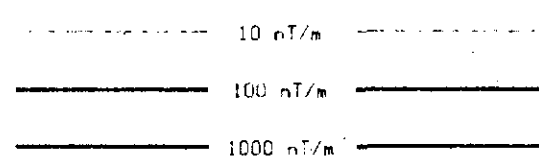
ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

VERTICAL GRADIENT MAGNETIC CONTOUR MAP (MAP #3)

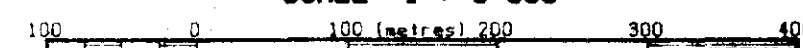
2.12815

SURVEY INSTRUMENT: EDI DMMI-PLUS
 SURVEY DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 INTERTECH SURVEY SERVICES LTD.

CONTOUR INTERVALS

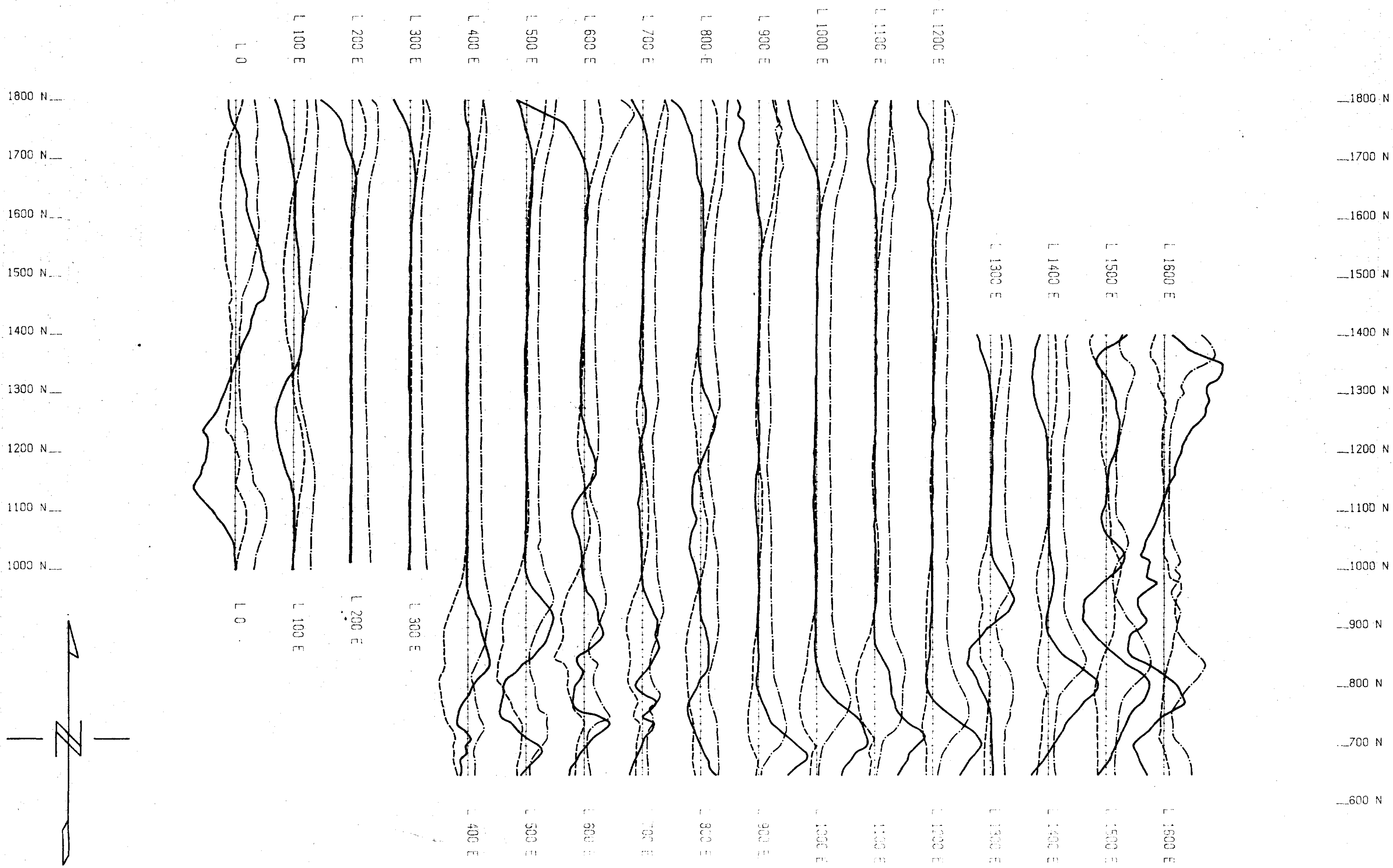


SCALE 1 : 5 000



52F055E0505 2.12815 ROWAN LAKE

[Handwritten signature]



FALCONBRIDGE LTD.

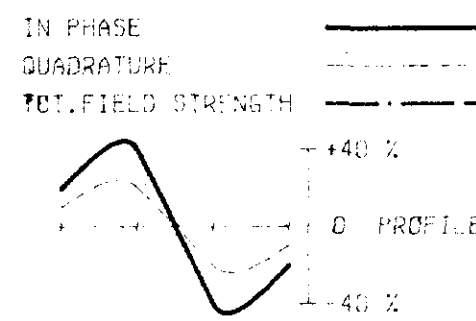
ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

VLF-EM PROFILE MAP (MAP #4)
 (IN-PHASE, QUAD., TOT. FIELD STRENGTH)

2.12815

SURVEY INSTRUMENT: EDI OMNI-PLUS
 SURVEY DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 IMPROVEMENT EXPLOITATION SERVICES LTD.
 (M.P. 100)

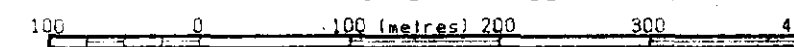
VLF - EM PROFILES



Tx Location: CUTLER, MAINE (NAA 24.0 kHz)

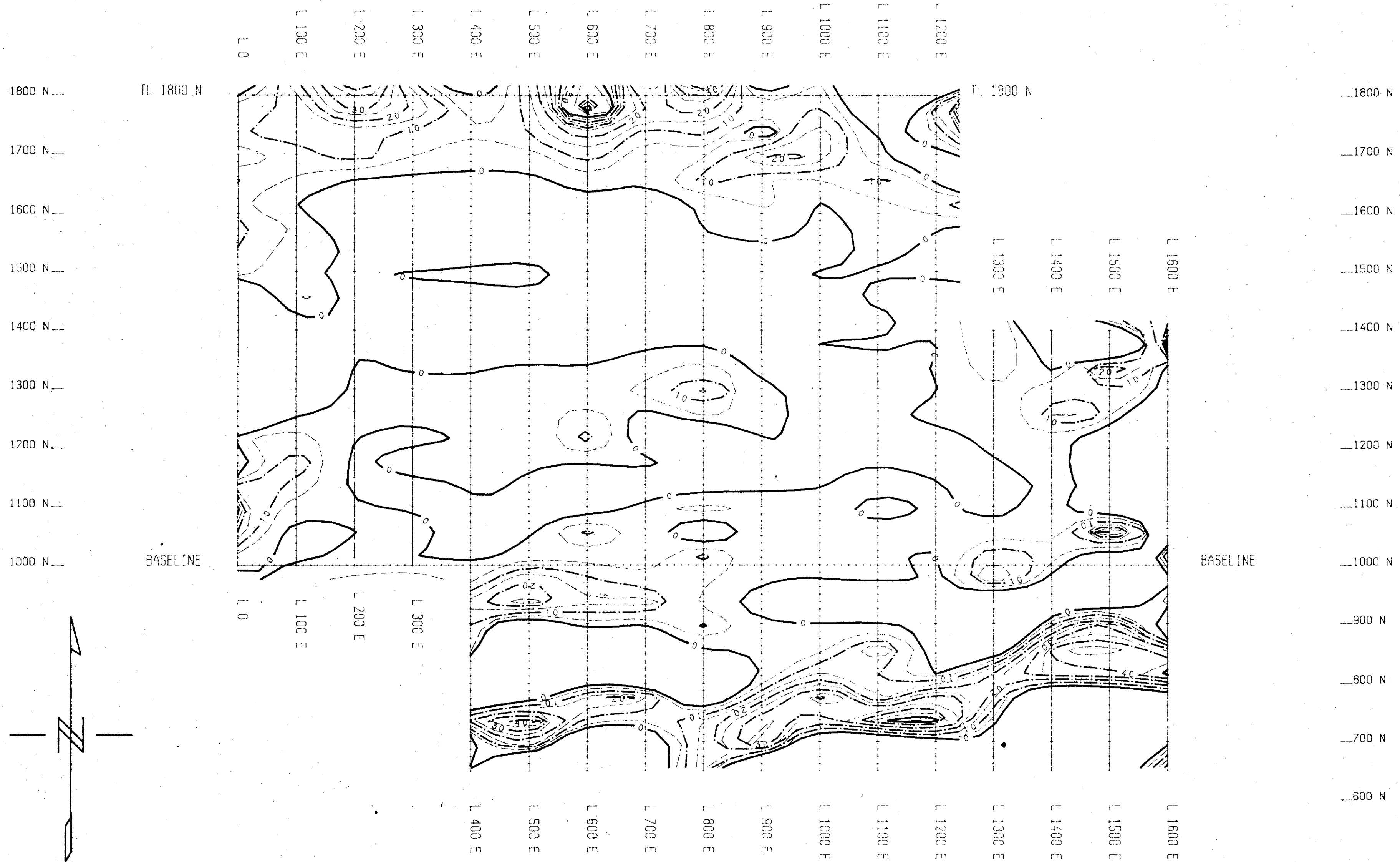
Instrument: EDI OMNI-PLUS

SCALE 1 : 5 000



[Handwritten signature]





FALCONBRIDGE LTD.

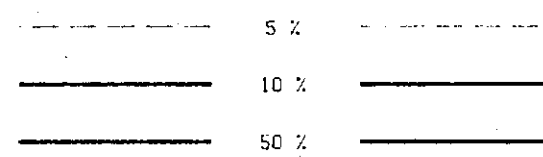
ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

VLF-EM CONTOUR MAP (MAP #5)
 (FRASER FILTERED IN-PHASE)
2.12815

SURVEY INSTRUMENT: EDA 8MM-PLUS
 SURVEY DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 GEOPHYSICAL SERVICES LTD.

J. H. [Signature]

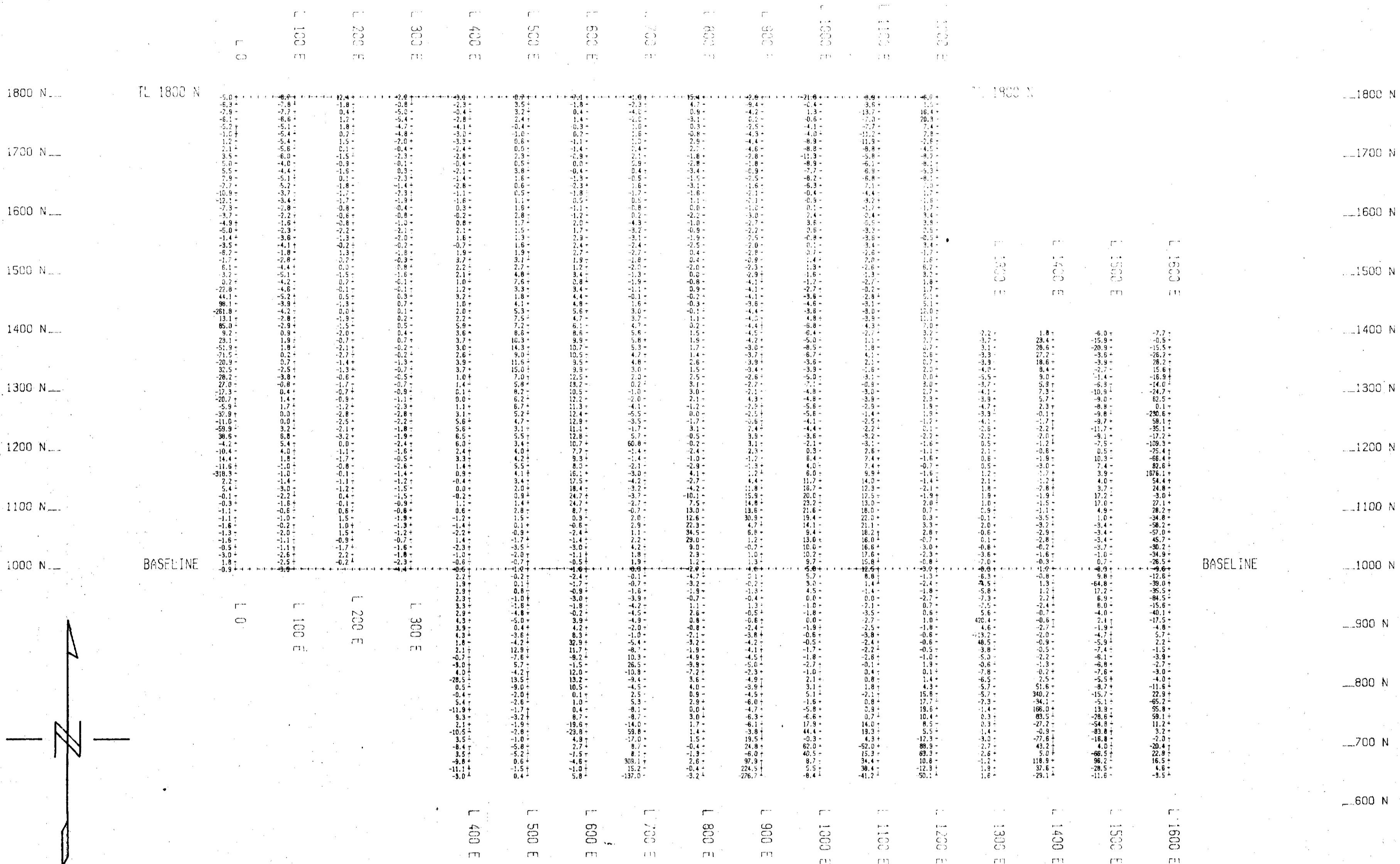
CONTOUR INTERVALS



SCALE 1 : 5 000



52P655E0505 2.12815 ROWAN LAKE



FALCONBRIDGE LTD.

ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

VERTICAL GRADIENT MAGNETIC POSTINGS (MAP #7)
2.12815
2.12815

SURVEY INSTRUMENT: EDI DMI-PLUS
 SURVEY DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 INTERTECH CONSULTING SERVICES LTD.

J.A. [Signature]

SCALE 1 : 5 000
 100 0 100 (metres) 200 300 400



52F055E0505 2.12815 ROWAN LAKE

1800 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1800 N
1700 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1700 N
1600 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1600 N
1500 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1500 N
1400 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1400 N
1300 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1300 N
1200 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1200 N
1100 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1100 N
1000 N	L 100 E	L 200 E	L 300 E	L 400 E	L 500 E	L 600 E	L 700 E	L 800 E	L 900 E	L 1000 E	L 1100 E	L 1200 E	L 1300 E	L 1400 E	L 1500 E	L 1600 E	1000 N

FALCONBRIDGE LTD.

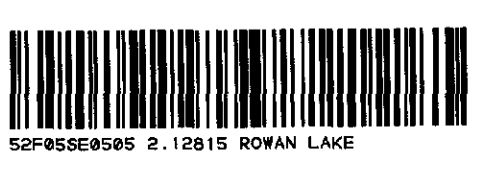
ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

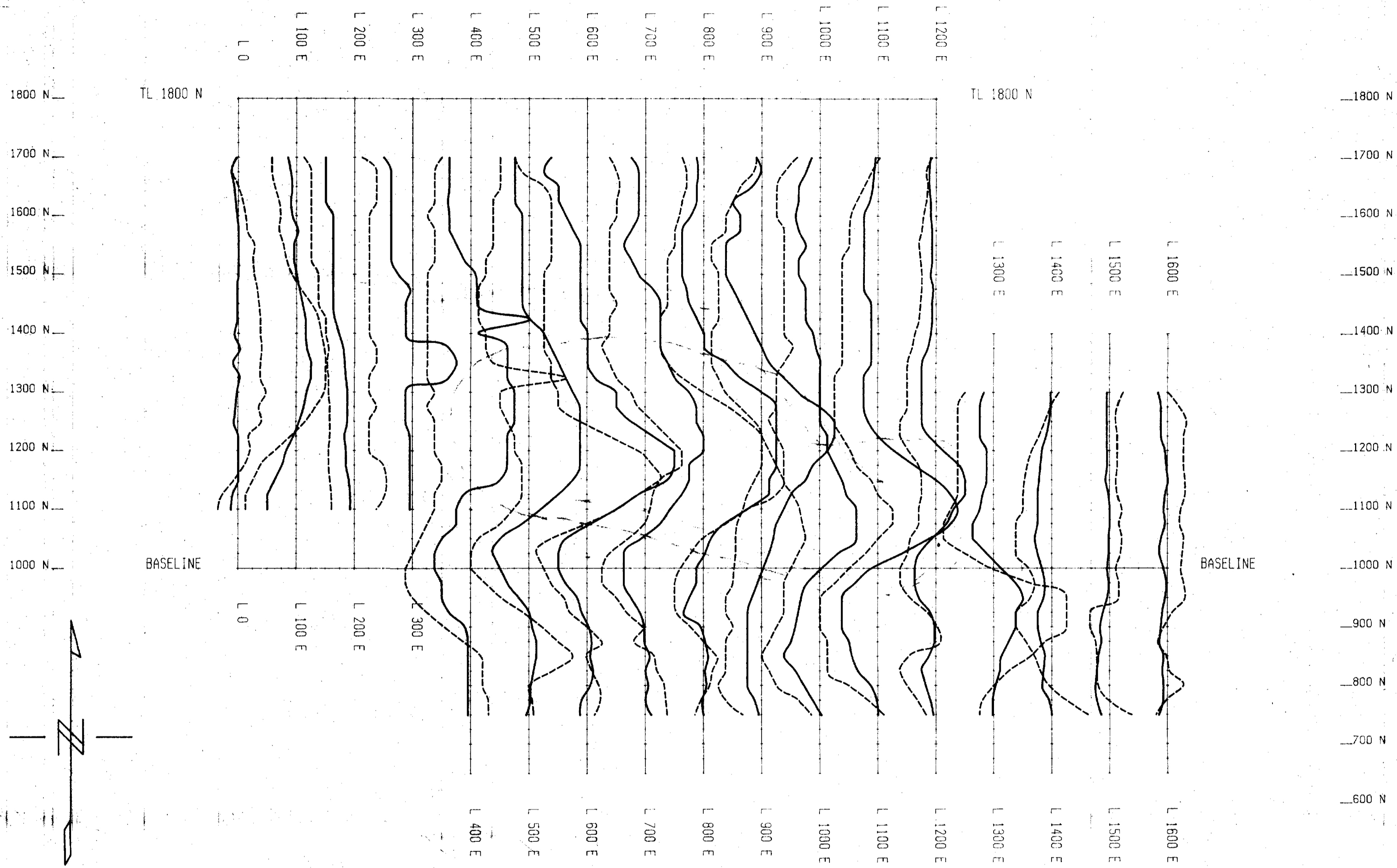
VLF-EM POSTINGS (MAP #8)
 (IN-PHASE & QUADRATURE)
 2.12815

SURVEY INSTRUMENT: GOMARK-PLUS
 SURVEY DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 GEOTECHNICAL SERVICES LTD.
 LITHIC, ONTARIO

J. K. King

SCALE 1 : 5 000





FALCONBRIDGE LTD.

ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

HL-EM PROFILE MAP (MAP #10)
 2.12815

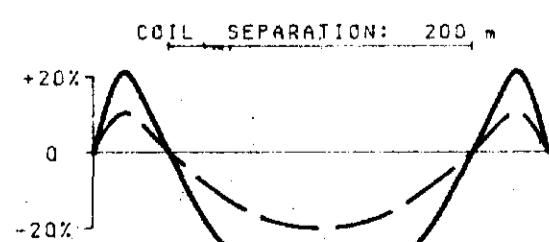
SURVEY INSTRUMENT: MAX-MIN
 SURVEY DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 INTERPRETIVE PHYSICS SERVICES LTD.

J. H. [Signature]

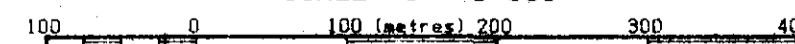
MAX-MIN HORIZONTAL LOOP LEGEND

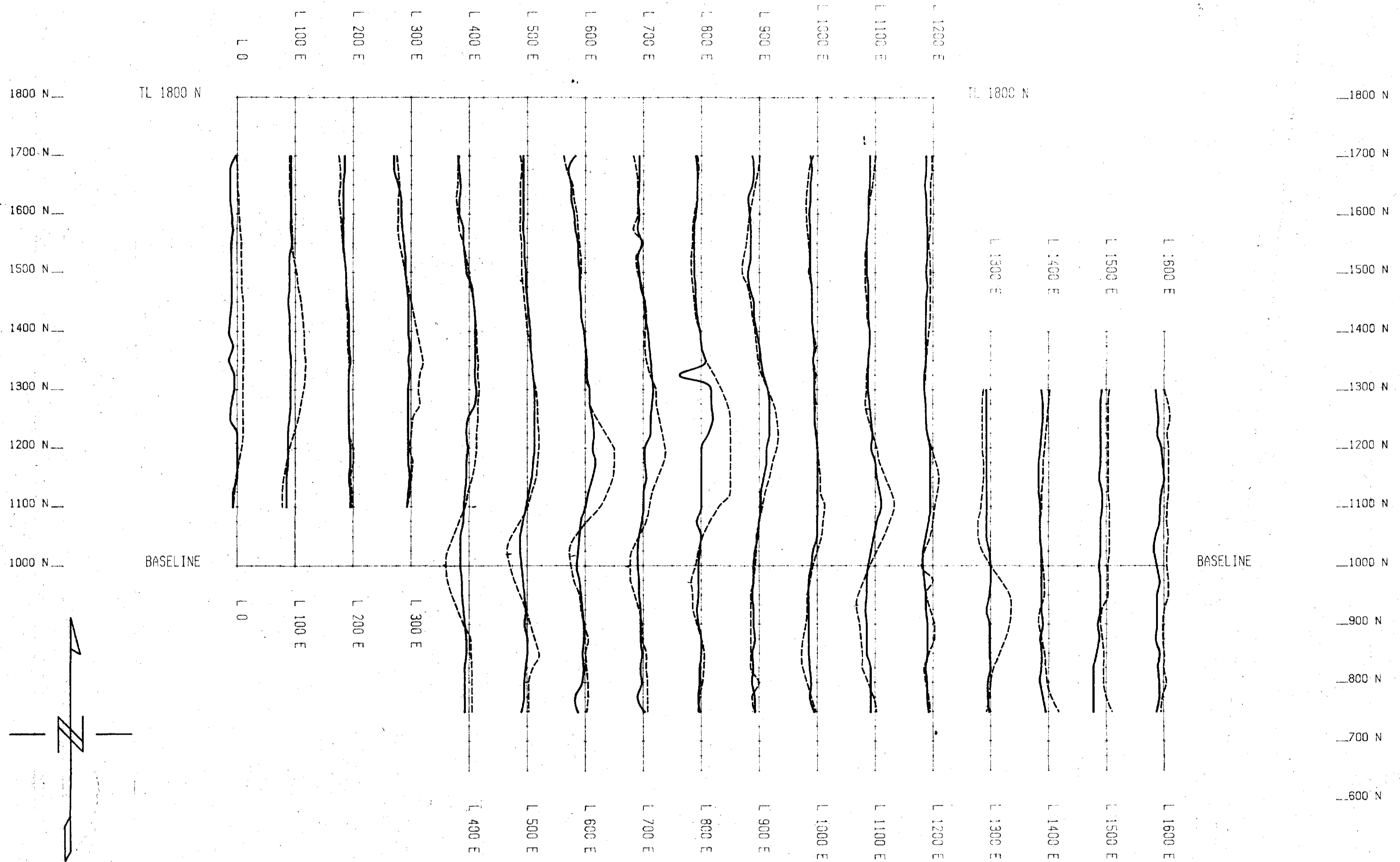
1 cm. = 20 %
 FREQUENCIES: 1777 Hz

IN PHASE ———
 QUADRATURE - - - -



SCALE 1 : 5 000





FALCONBRIDGE LTD.

ATIKWA LAKE PROJECT (# 539)
 ROWAN LAKE (G 2639)
 KENORA MINING DIV., ONTARIO
 DENMARK LAKE GRID

HL-EM PROFILE MAP (MAP #11)

2.12815

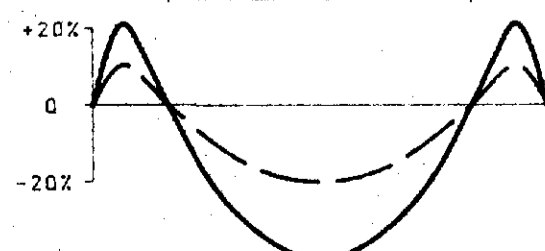
SURVEY INSTRUMENT: MAX-MIN
 SURVEY DATE: FEBRUARY 1989
 DATA PROCESSING AND PLOTTING BY:
 GEOPHYSICAL SERVICES LTD.
 TORONTO, ONTARIO

[Handwritten signature]

MAX-MIN HORIZONTAL LOOP LEGEND

1 cm. = 20 %
 FREQUENCIES: 444 Hz
 IN PHASE ———
 QUADRATURE - - -

COIL SEPARATION: 200 m



SCALE 1 : 5 000

