



42A15SW0047 2.16317 MANN

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GEOPHYSICAL REPORT  
 FOR  
 FALCONBRIDGE LIMITED MINING LANDS BRANCH  
 ON  
 GRID 95-04  
 MANN BELT PROJECT  
 # 8269  
 MANN TOWNSHIP  
 PORCUPINE MINING DIVISION  
 NORTHEASTERN ONTARIO

*anal. # 2-5244*

Prepared by: Paul Nielsen  
 Northwest Geophysics Ltd.

2.16317



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## INTRODUCTION

The services of Northwest Geophysics Limited were retained by Falconbridge Limited to complete a linecutting and geophysical program on Grid 95-04, located in Mann Township within the Porcupine Mining Division, District of Cochrane, Northeastern, Ontario (Fig. 1).

The purpose of this program was to test the property for geological structures which would be favourable areas for base metal deposition.

The linecutting on the Mann Project commenced on September 4, 1995 and was completed September 14, 1995. The geophysical program was completed between September 11, 1995 and September 25, 1995.

This report will deal with the results of the program as well as conclusions and follow up recommendations.

## LOCATION AND ACCESS

Grid #95-04 is located in the east-central part of Mann Township, Porcupine Mining Division, District of Cochrane, Northeastern Ontario (Fig. 2).

Access to the property can be gained via Potter Road that extends west through Newmarket and Mann Township from Highway 11. A branch road extends south and east from Potter Road on the east side of Pickerel Lake for approximately 4 km to the south west portion of the grid.

## CLAIMS

The claims which contain Grid 95-04 are as follows:

P-1200908 (16 units)  
P-1200920 (16 units)

Refer to Figure 3, copied from MNDM Claim Map # G3537 Mann Township, scale 1:20,000.

## PERSONNEL

Linecutting was completed by the following Northwest Geophysics personnel:

Francois Morin - Normetal, P.Q.

Robert Morin - Normetal, P.Q.  
Daniel Mercier - Normetal, P.Q.

The field crew directly involved with collecting the survey data were as follows:

Mike Milani - Thunder Bay, Ontario  
Dan McCollum - Thunder Bay, Ontario

The geophysical program was carried out under the direct supervision of Alfred Lambert. The plotting and computer compilation was completed by Paul Nielsen and Alfred Lambert of Northwest Geophysics Limited.

#### LINECUTTING PROGRAM

A detailed metric grid was first established across the property. All of the cross lines were chained at 25 meter station intervals. In all, a total of 5.3 Km. of grid lines were established across the property.

#### GEOPHYSICAL PROGRAM

This program consisted of a Total Field Magnetic survey being done in conjunction with a Horizontal Loop, Electromagnetic (HLEM), survey.

The HLEM was completed on the cross lines only, the magnetic survey was carried out on grid lines as well as Baseline 0+00.

#### MAGNETIC SURVEY

This survey was completed using the EDA OMNI IV System. Specifications for this instrument can be found as Appendix A of this report. The following parameters were kept constant throughout the survey period.

Linespacing	-100 meters
Station Record Interval	-12.5 meters
Diurnal Correction Method	-base station recorder
Base Station Record Interval	-30 sec reading interval
Unit Accuracy	- +/- 0.5 gammas
Reference Field	- 58,560 gammas
Datum Subtraction	- 59,000 gammas

The data was then corrected for diurnal variations, a base level of 59,000 gammas was removed from each reading, and the resultant data was plotted directly onto a vellum base map at a scale of 1:5,000. The data was then contoured at 200 gamma intervals wherever possible.

Copies of a contoured map, a profiled map and a map of the reading postings are included in the back pocket of this report.

### HLEM SURVEY

This survey was completed using the Apex Parametrics MaxMin I System. Specifications for this instrument can be found as Appendix B of this report.

The following parameters were kept constant throughout the survey period.

Linespacing	-100 meters
Reading Interval	-25 meters
Coil Separation	-150 meters
Theoretical Search Depth	-75 meters
Frequencies Recorded	-440 Hz, 1760Hz
Parameters Measured	-inphase and quadrature components of the secondary field
Unit Accuracy	- +/- 0.5%

The collected data was then plotted onto a vellum base map, one map for each frequency, at a scale of 1:5000. The data was then profiled at 1cm to 10% for 440 Hz. and 1cm to 20% for 1760 Hz. The conductor axis for each zone was located and placed directly on the base map. A copy of these base maps are included in the back pocket of this report.

### SURVEY RESULTS

The Maxmin HLEM survey was successful in locating one strong anomaly extending for a minimum of 200m between L100E and L200E. The strongest part of the anomaly on L100E at 575S indicates a depth of 36m and a conductivity of 33 mhos (440 Hz).

The magnetic survey indicates a 'break' extending east to west across the grid from 400S to 575S. North of the 'break' the terrain is marked by low magnetic relief (1400-2000 nT). South of the 'break' the terrain is marked by high magnetic relief (2000-8000 nT). The EM anomaly coincides directly with the trend of the 'break'.

### CONCLUSIONS AND RECOMMENDATIONS

The surveys were successful in locating a conductive zone that warrants a follow up program.

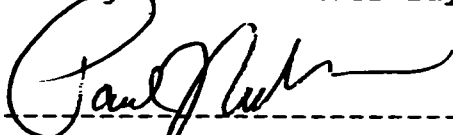
The conductive zone coincides with a discernable magnetic 'break' which may mark a major structural lineament or change in lithology. The EM anomaly is strongest on Line 100E and appears to extend off the grid in a westerly direction. A grid extension and followup geophysical surveys are thus recommended to assess the strike extent and mineralisation potential of this zone.

## CERTIFICATE

I, Paul E. Nielsen hereby certify that:

- I am a Canadian Citizen and reside at 170 Inglewood Crescent, Thunder Bay, Ontario, CANADA P7C 2E9.
- I have been actively engaged in base and precious metal exploration throughout Canada since 1974.
- I am a graduate of Lakehead University, Thunder Bay Ontario (HBSc. Geology, 1974)
- I have no specific or special interest in the described property.

Signed in Thunder Bay,



-----  
PAUL NIELSEN  
GEOLOGIST, BSc

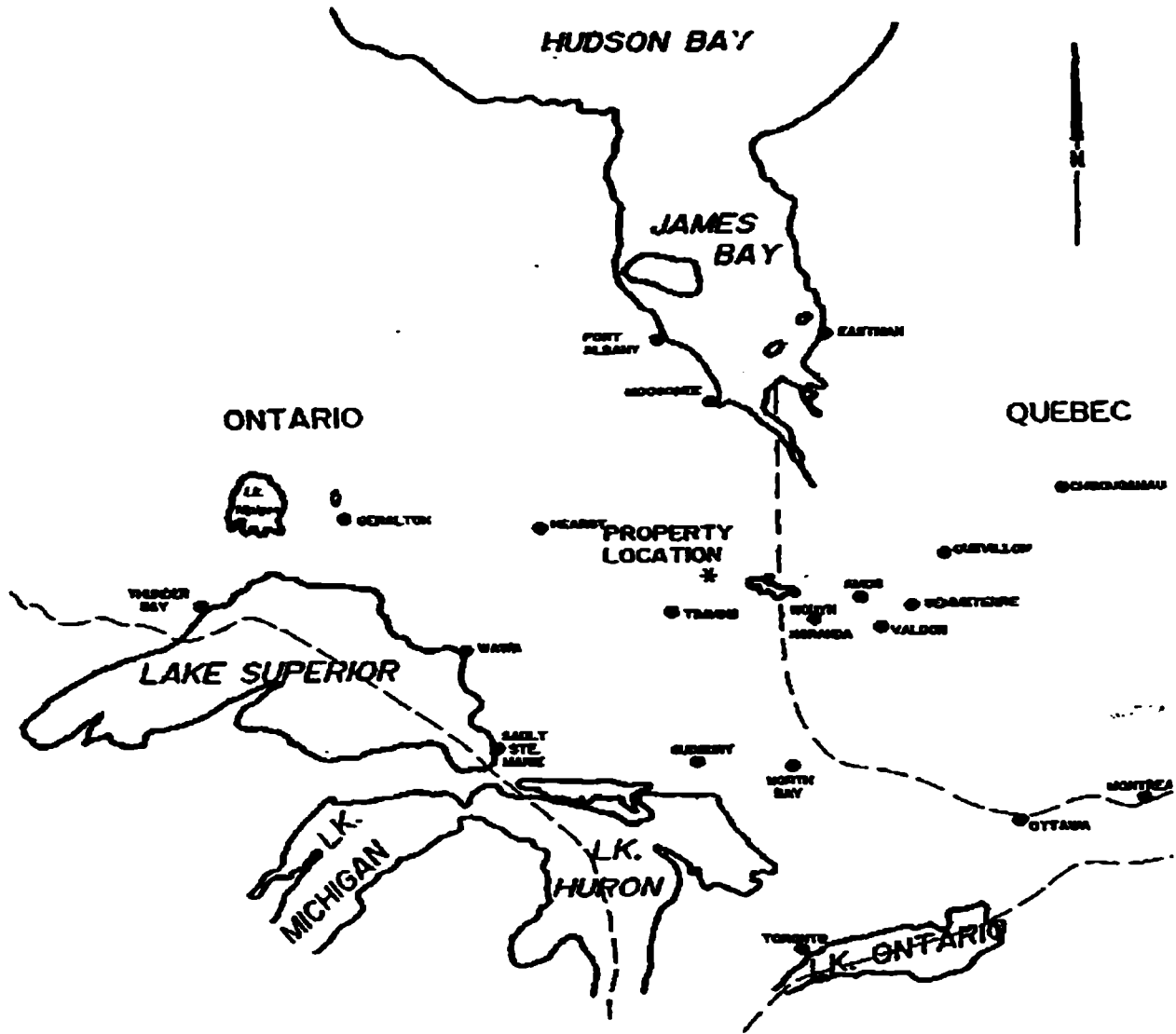
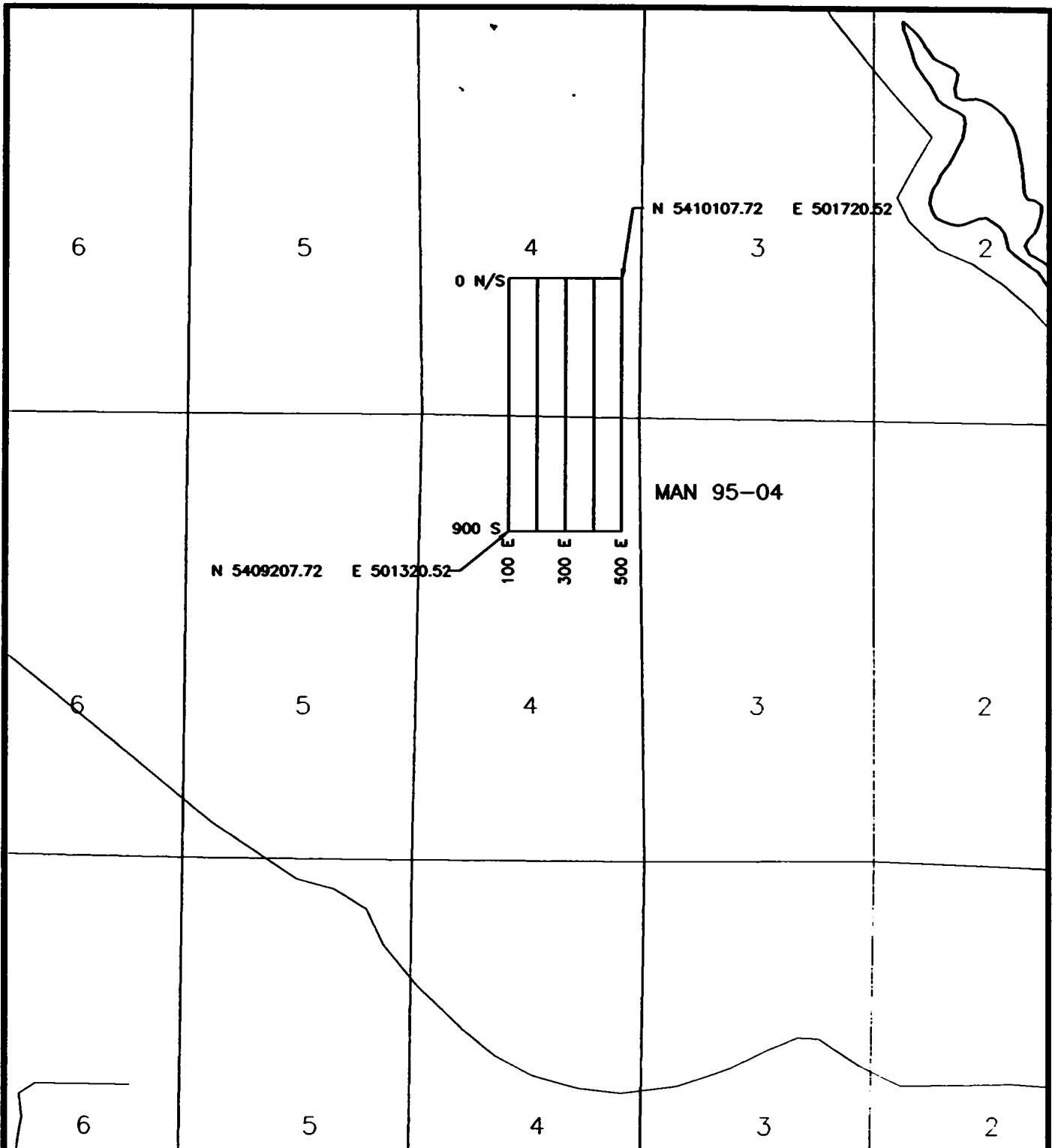


Fig. 1

Location Map

Mann Beit Project



**FALCONBRIDGE LIMITED**

Exploration Division

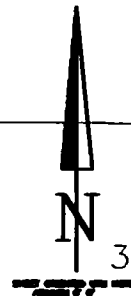
Timmins ONTARIO



**MANN BELT PROJECTS  
MANN TOWNSHIPS**

**GRID SKETCH  
COMPILATION MAP**

ASTRONOMIC



TRACED: T S	DATE: 08/95	REV: 42-A/95	PROJECT: 6289
DRAWN: T S	DATE: 01/06/95	MAP No:	FILE: 6289 E
SUPERVISED: P J Hagerl	DATE: 23/07/95	SCALE 1:20000 (metres)	
REVISED: 4 + 1	DATE: 08/08/95	0 100 200 300 400	

4

3

2



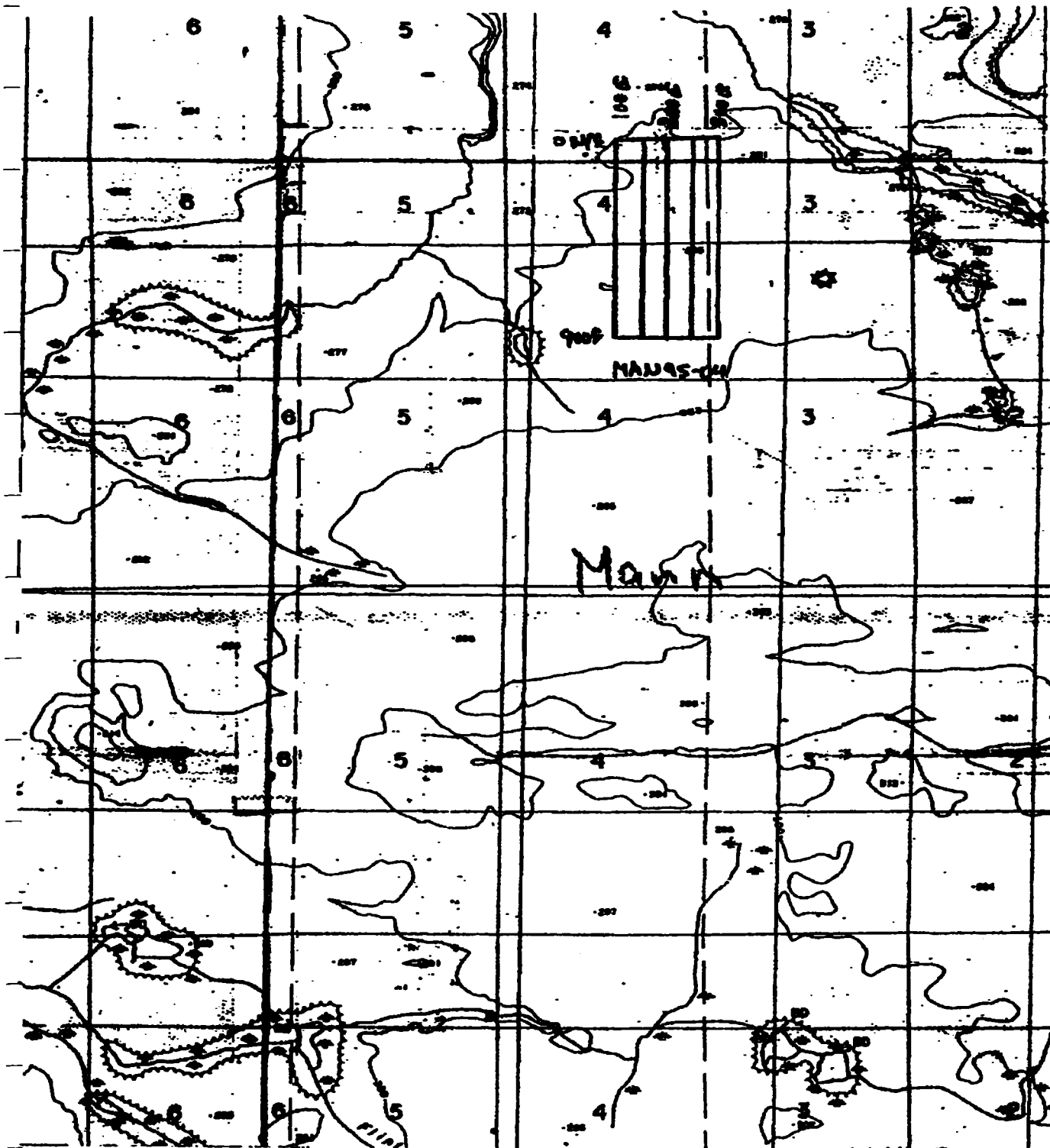


Fig. 2  
Property Location Map  
Grid Man 95-04

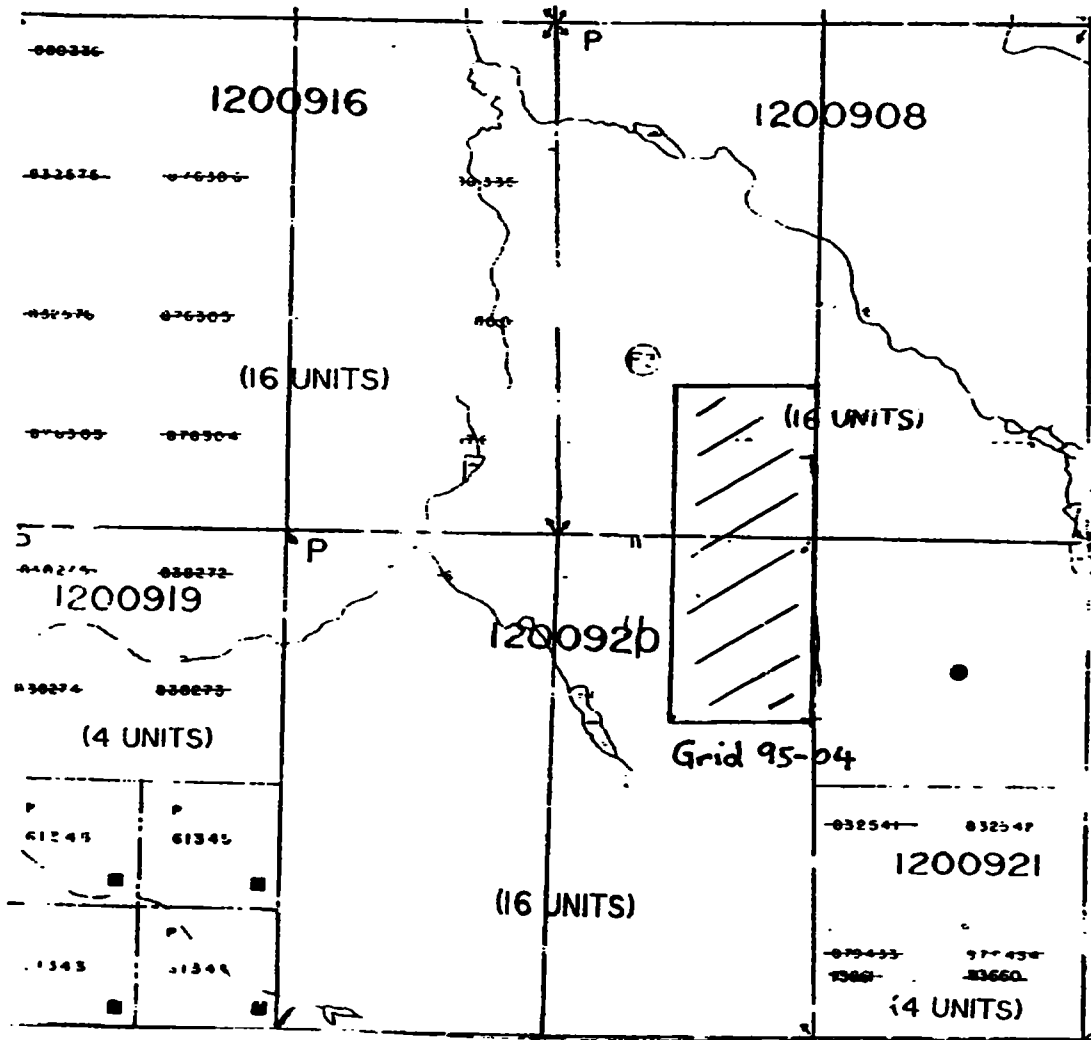


Fig. 3

Claim Map (G3537)  
Grid 95-04

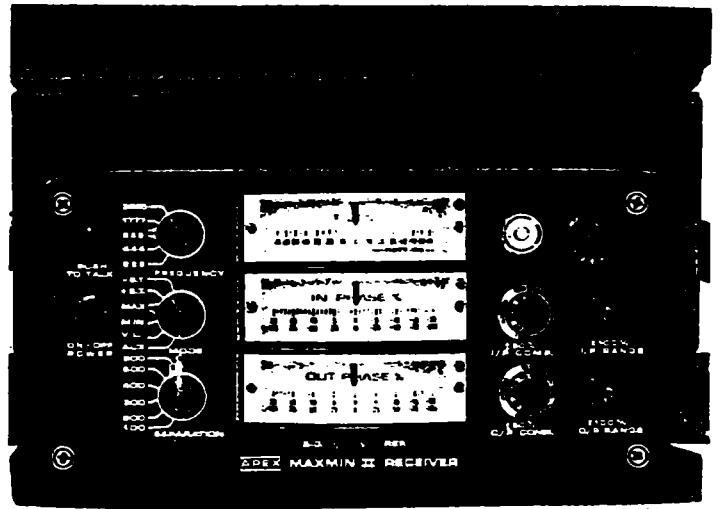
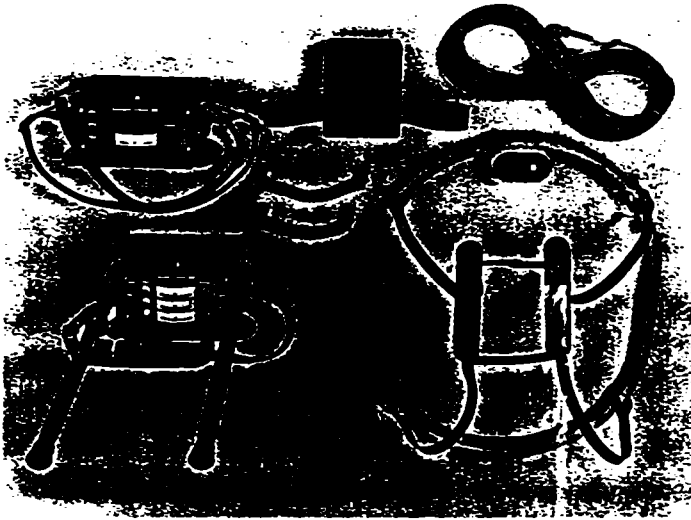
## Specifications

Dynamic Range .....	18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.
Tuning Method .....	Tuning value is calculated accurately utilizing a specially developed tuning algorithm
Automatic Fine Tuning .....	± 15% relative to ambient field strength of last stored value
Display Resolution .....	0.1 gamma
Processing Sensitivity .....	± 0.02 gamma
Statistical Error Resolution .....	0.01 gamma
Absolute Accuracy .....	± 1 gamma at 50,000 gammas at 23°C ± 2 gamma over total temperature range
<b>Standard Memory Capacity</b>	
Total Field or Gradient .....	1,200 data blocks or sets of readings
Tie-Line Points .....	100 data blocks or sets of readings
Base Station .....	5,000 data blocks or sets of readings
Display .....	Custom-designed, ruggedized liquid crystal display with an operating temperature range from -40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.
RS 232 Serial I/O Interface .....	2400 baud, 8 data bits, 2 stop bits, no parity
Gradient Tolerance .....	6,000 gammas per meter (field proven)
Test Mode .....	A. Diagnostic testing (data and programmable memory) B. Self Test (hardware)
Sensor .....	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.
Gradient Sensors .....	0.5 meter sensor separation (standard), normalized to gammas/meter. Optional 1.0 meter sensor separation available. Horizontal sensors optional.
Sensor Cable .....	Remains flexible in temperature range specified, includes strain-relief connector
Cycling Time (Base Station Mode) .....	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environmental Range .....	-40°C to +55°C; 0-100% relative humidity; weatherproof
Power Supply .....	Non-magnetic rechargeable sealed lead-acid battery cartridge or belt; rechargeable NiCad or Disposable battery cartridge or belt; or 12V DC power source option for base station operation.
Battery Cartridge/Belt Life .....	2,000 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of readings
<b>Weights and Dimensions</b>	
Instrument Console Only .....	2.8 kg, 238 x 150 x 250mm
NiCad or Alkaline Battery Cartridge .....	1.2 kg, 235 x 105 x 90mm
NiCad or Alkaline Battery Belt .....	1.2 kg, 540 x 100 x 40mm
Lead-Acid Battery Cartridge .....	1.8 kg, 235 x 105 x 90mm
Lead-Acid Battery Belt .....	1.8 kg, 540 x 100 x 40mm
Sensor .....	1.2 kg, 56mm diameter x 200mm
Gradient Sensor (0.5m separation-standard) .....	2.1 kg, 56mm diameter x 790mm
Gradient Sensor (1.0m separation-optional) .....	2.2 kg, 56mm diameter x 1300mm
Standard System Complement .....	Instrument console; sensor; 3-meter cable, aluminum sectional sensor staff, power supply, harness assembly, operations manual.
Base Station Option .....	Standard system plus 30 meter cable
Gradiometer Option .....	Standard system plus 0.5 meter sensor

EDA Instruments Inc.  
4 Thorncliffe Park Drive  
Toronto, Ontario  
Canada M4H 1H1  
Telex: 06 23222 EDA TOR  
Cable: Instruments Toror  
(416) 425 7800

In U.S.A.  
EDA Instruments Inc.  
5151 Ward Road  
Wheat Ridge, Colorado  
U.S.A. 80033  
(303) 422 9112

Printed in Canada



## SPECIFICATIONS :

<b>Frequencies:</b>	222, 444, 888, 1777 and 3555Hz.	<b>Repeatability:</b>	±0.5% to ±1% normally, depending on conditions, frequencies and coil separation used.
<b>Modes of Operation:</b>	<p><b>MAX:</b> Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refer. cable.</p> <p><b>MIN:</b> Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.</p> <p><b>V.L. :</b> Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.</p>	<b>Transmitter Batteries:</b>	<p>222Hz : 175 Atm<sup>2</sup></p> <p>444Hz : 160 Atm<sup>2</sup></p> <p>888Hz : 100 Atm<sup>2</sup></p> <p>1777Hz : 60 Atm<sup>2</sup></p> <p>3555Hz : 30 Atm<sup>2</sup></p>
<b>Coil Separations:</b>	25, 50, 100, 150, 200 & 250m (MMI) or 100, 200, 300, 400, 600 and 800 ft. (MMIF). Coil separations in V.L. mode not restricted to fixed values.	<b>Receiver Batteries:</b>	9V trans. radio type batteries (4). Life: approx. 35hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.
<b>Parameters Read:</b>	<ul style="list-style-type: none"> <li>- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.</li> <li>- Tilt-angle of the total field in V.L. mode.</li> </ul>	<b>Transmitter Batteries</b>	12V 7.5Ah Gel-Cell rechargeable batteries (2 x 6V in series).
<b>Readouts:</b>	<ul style="list-style-type: none"> <li>- Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.</li> <li>- Tilt angle and null in 50mm edgewise meters in V.L. mode.</li> </ul>	<b>Reference Cable:</b>	Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.
<b>Scale Ranges:</b>	<p><b>In-Phase:</b> ±20%, ±100% by push-button switch.</p> <p><b>Quadrature:</b> ±20%, ±100% by push-button switch.</p> <p><b>Tilt:</b> ±75% slope.</p> <p><b>Null (V.L.):</b> Sensitivity adjustable by separation switch.</p>	<b>Voice Link:</b>	Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.
<b>Readability:</b>	<b>In-Phase and Quadrature:</b> 0.5 %. <b>Tilt:</b> 1%	<b>Indicator Lights:</b>	Built-in signal and reference warning lights to indicate erroneous readings.
		<b>Temperature Range:</b>	-40°C to +60°C (-40°F to +140°F).
		<b>Receiver Weight:</b>	6kg (13 lbs.)
		<b>Transmitter Weight:</b>	13kg (29 lbs.)
		<b>Shipping Weight:</b>	Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

**APEX** PARAMETRICS LIMITED  
200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612

Cables: APEXPARA TORONTO

Telex: 06-966773 NORDVIK TOR

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for the purposes of the Mining Act. This collection should be directed to the Provincial Manager, Mining Lands, M<sup>3</sup> Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

- Instructions:
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for the Recorder.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch, showing the claims the work is assigned to, must accompany this form.



900

Recorded Holder(s) <b>FALCONBRIDGE LIMITED</b>		Client No. <b>130679</b>
Address <b>571 Moneta Ave. P.O. Box 1140 Timmins, Ont. P4N7H9</b>		Telephone No. <b>(705) 267-1188</b>
Mining Division <b>PORCUPINE</b>	Township/Area <b>MANN</b>	M or G Plan No.
Date Work Performed From: <b>September 4, 1995</b>	To:	<b>September 25, 1995</b>

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Line cutting, Magnetic + HLEM Surveys
Physical Work, Including Drilling	
Rehabilitation	Taking Air Photos + Spotting Grids
Other Authorized Work	
Assays	
Assignment from Reserve	

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**DEC 20 1995**  
**MINING LANDS BRANCH**

Total Assessment Work Claimed on the Attached Statement of Costs \$ 3744 3547

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
NW Geophysics Ltd.	Box 3263 Thunder Bay Ont. P7B 5E8
Hillside Photo	66 Brousseau Ave. Timmins, Ont. P4N5Y2
Frank Renaudat Expl.	Box 1092 Timmins, Ont. P4N7H9

(attach a schedule if necessary)

Certification of Beneficial Interest \* See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.

Date <b>Oct. 10 '95</b>	Recorded Holder or Agent (Signature) <b>Paul Nagel</b>
----------------------------	---

Certification of Work Report

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

Name and Address of Person Certifying  
**PAUL NAGERL 571 Moneta Ave. Timmins, Ont.**

Telephone No. <b>(705) 267-1188</b>	Date <b>Oct. 10 '95</b>	Certified By (Signature) <b>Paul Nagel</b>
--	----------------------------	---

For Office Use Only

Total Value Cr. Recorded <b>3547</b> <b>3744</b>	Date Recorded	Mining Recorder <b>Jay White</b>	Received Stamp <b>OCT 11 1995</b> <b>11-20-95 (C) CC</b>
	Deemed Approval Date <b>Jan 9/96</b>	Date Approved	
Date Notice for Amendments Sent			



# Report of Work Conducted After Recording Claim

## Mining Act

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

- Instructions:**
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch, showing the claims the work is assigned to, must accompany this form.

**2.163.17**

Recorded Holder(s) <b>FALCONBRIDGE LIMITED</b>		Client No. <b>130679</b>
Address <b>P.O. Box 1140, 571 MONETA AVE. TIMMINS, ONTARIO P4N 7H9</b>		Telephone No. <b>(705) 267-1188</b>
Mining Division <b>PORCUPINE</b>	Township/Area <b>MANN</b>	M or G Plan No.
Dates Work Performed From: <b>September 4, 1995</b>		To: <b>September 25, 1995</b>

**Work Performed (Check One Work Group Only)**

Work Group	Type
<input type="checkbox"/> Geotechnical Survey	<b>LINECUTTING, MAGNETIC + ALEM SURVEYS</b>
<input type="checkbox"/> Physical Work, including Drilling	
<input type="checkbox"/> Rehabilitation	
<input type="checkbox"/> Other Authorized Work	
<input type="checkbox"/> Assays	
<input type="checkbox"/> Assignment from Reserve	

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**DEC 20 1995**  
**MINING LANDS BRANCH**

Total Assessment Work Claimed on the Attached Statement of Costs \$ **197 (PART OF \$374 TOTAL)**

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

**Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)**

Name	Address
<b>NW GEOPHYSICS LTD.</b>	<b>Box 3263 THUNDER BAY, ONT. P7B 5E8</b>

(attach a schedule if necessary)

**Certification of Beneficial Interest \* See Note No. 1 on reverse side**

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date <b>Nov. 28, 1995</b>	Recorded Holder or Agent (Signature) <i>Christine Petch</i>
--	------------------------------	--

**Certification of Work Report**

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying <b>CHRISTINE PETCH P.O. Box 1140, 571 MONETA AVE. TIMMINS, ONTARIO P4N 7H9</b>		
Telephone No. <b>(705) 267-1188</b>	Date <b>NOVEMBER 28, 1995</b>	Certified By (Signature) <i>Christine Petch</i>

**For Office Use Only**

Total Value Cr. Recorded	Date Recorded	Mining Recorder
	Deemed Approval Date	Date Approved
	Date Notice for Amendments Sent	

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NOV 30 1995

@11:15 (c) llc

PORCUPINE MINING DIVISION







Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

W9560.00456

SEE PAGE 2

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Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain	500.00	500.00
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type NW Geophys.	2814	
	Hillside Photo	80.00	
	F. Renaudat	20.00	2914
Supplies Used Fournitures utilisées	Type Flaggging	10.00	
	Hip Chain		
			10.00
Equipment Rental Location de matériel	Type TRUCK	41.90	
	ATV	41.25	
	GAS	40.00	123.15
Total Direct Costs Total des coûts directs			3547

2. Indirect Costs/Coûts indirects

\*\* Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
	RECEIVE		
Food and Lodging Nourriture et hébergement	DEC 20 1995		
Mobilization and Demobilization Mobilisation et démoblisation	MINING LANDS BRANCH		
Sub Total of Indirect Costs Total partiel des coûts indirects			
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0,50 =

Certification Verifying Statement of Costs

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as PAUL NAGERL (Recorded Holder, Agent, Position in Company) I am authorized

to make this certification.

Attestation de l'état des coûts

J'atteste par la présente : que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de \_\_\_\_\_ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature <u>Paul Nagerl</u>	Date Oct. 10 '95
---------------------------------	---------------------



2.15317

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type N/GEO PHYSICS	197. <sup>33</sup>	
			197
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			197

2. Indirect Costs/Coûts indirects

Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démobilisation			
Sub Total of Indirect Costs Total partiel des coûts indirects			
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)			197

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MINING LANDS

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

- Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

- Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
- Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0,50 =

Certification Verifying Statement of Costs

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as CHRISTINE PETCH I am authorized  
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente : que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de \_\_\_\_\_ je suis autorisé  
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature <u>Christine Petch</u>	Date Nov. 28/95
-------------------------------------	--------------------

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Geoscience Approvals Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (705) 670-5853  
Fax: (705) 670-5863

December 28, 1995

Our File: 2.16317  
Transaction #: W9560.00456

Mining Recorder  
Ministry of Northern Development & Mines  
60 Wilson Avenue, 1st Floor  
Timmins, Ontario  
P4N 2S7

Dear Mr. White:

**Subject: APPROVAL OF ASSESSMENT WORK CREDITS ON MINING CLAIMS  
1200908 & 1200920 IN MANN TOWNSHIP**

Assessment credits have been approved as outlined on the report of work form. The credits have been approved under Section 14 (Geophysical) of the Mining Act Regulations.

The approval date is December 27, 1995.

If you have any questions regarding this correspondence, please contact Steven Beneteau at (705) 670-5855.

Yours sincerely,  
ORIGINAL SIGNED BY:



Ron C. Gashinski  
Senior Manager, Mining Lands Section  
Mining and Land Management Branch  
Mines and Minerals Division

 SBB/jl  
Enclosure:

cc: Resident Geologist  
Timmins, Ontario

✓ Assessment Files Library  
Sudbury, Ontario

G-3535  
MANN  
NEW MARKET TOWNSHIP  
LITTLE TOWNSHIP  
G-3535

AREAS WITH RIGHTS FROM DISPOSITION  
M.R.O. - MINING RIGHTS ONLY  
S.R.O. - SURFACE RIGHTS ONLY  
M.L.S. - MINING AND SURFACE RIGHTS

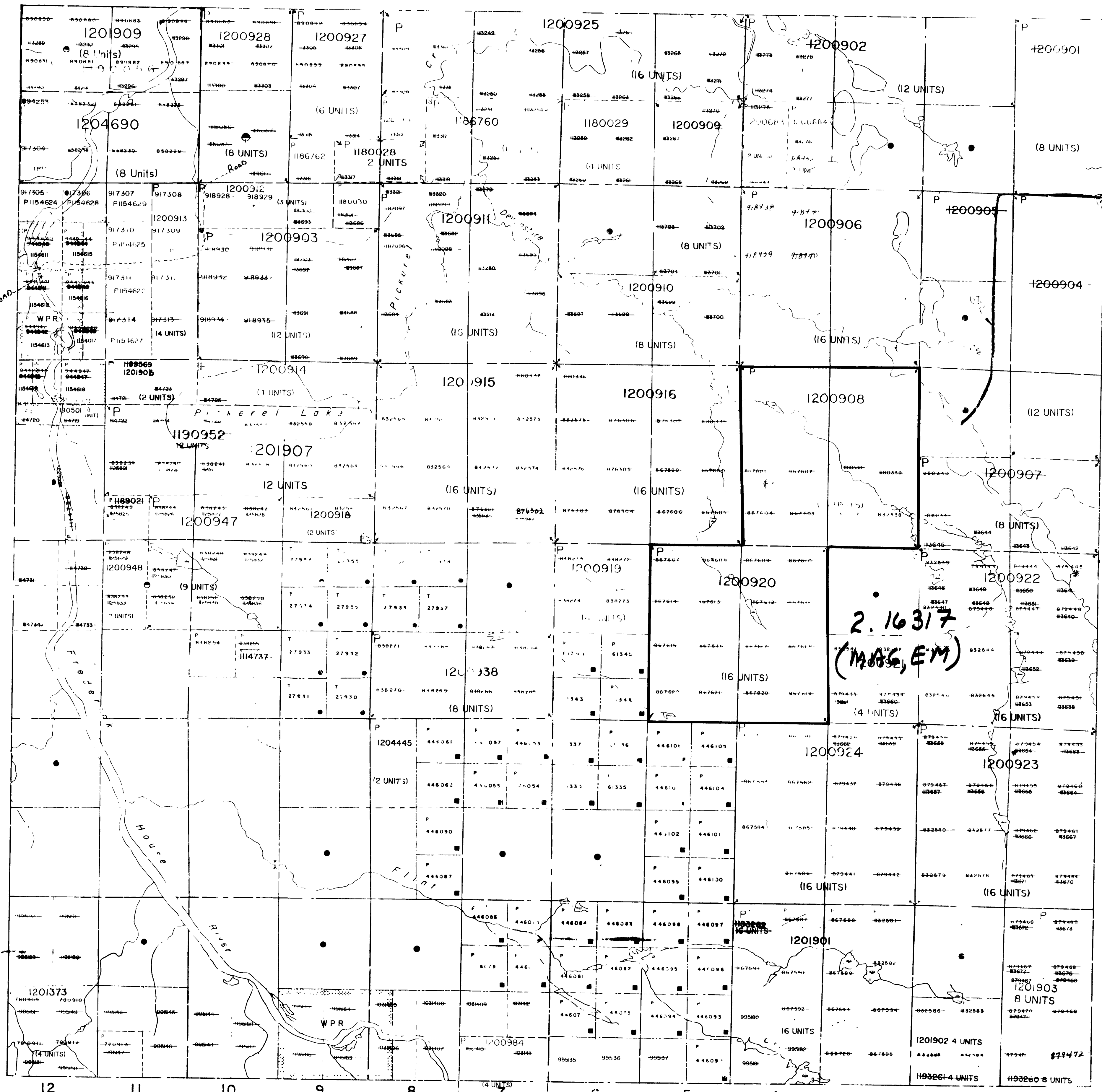
WATER POWER RESERVE

WO 87/87

MINING AND SURFACE RIGHTS WITHDRAWN UNDER SECTION 36 OF THE MINING ACT (OCTOBER 15 1987) see No. 834953  
SURFACE AND MINING RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 36 OF THE MINING ACT R.S.O. 1980 EFFECTIVE 30-SEP-85 AT 7AM E.S.T. ORDER NO. G.P. 4/79 HE DATED 30-AUG-22.

NOTE: P1125837 PLOTTED IN ERROR, S/B P1114737.

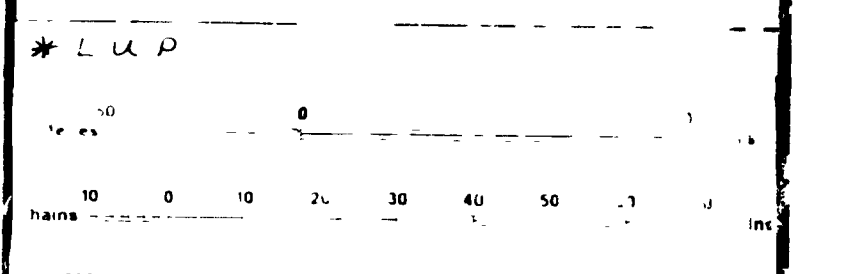
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



2.16317  
(MANN, EM)

LEGEND  
HIGHWAY TO RIGHT  
RAILWAY TO RIGHT  
RAILWAY TO LEFT  
RAILWAY TO RIGHT OF WAY  
RAILWAY TO LEFT OF WAY  
NON-FLOODING BEAM  
FLOODING BEAM  
SUBDIVISION OR CONVEYANCE PLAN  
RESERVATIONS  
ORIGINAL SHORELINE  
MARSH OR MUSKEG  
MINES  
REVERSE MONUMENT

DISPOSITION OF CROWN LANDS  
TYPE OF DOCUMENT  
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  
RESERVATION  
CANCELLED  
SAND & GRAVEL  
LAND USE PERMIT  
NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO 1913 VESTED IN ORIGINAL PATENTEE BY LANDS ACT R.S.O. 1910 CHAP. 180 SEC. 6, 18.



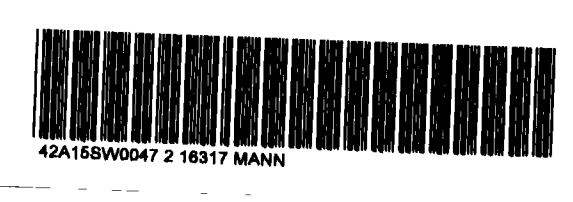
SCALE 1:20 000  
NOTICE RECEIVED 90-11-09

2.16317  
DEC 13 1995  
PORCUPINE MINING DIVISION

RECEIVED  
DEC 20 1995  
MINING LANDS BRANCH

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

Ministry of Natural Resources  
Ministry of Northern Development and Mines  
SEPTEMBER 1986  
G-3537



Year: 5/88  
Thu 21 Sep 1995 at 20:10 Centre of plot at 449.062/300.00 Serial # 49102 Registered User: NORTHWEST GEOPHYSICS LTD.

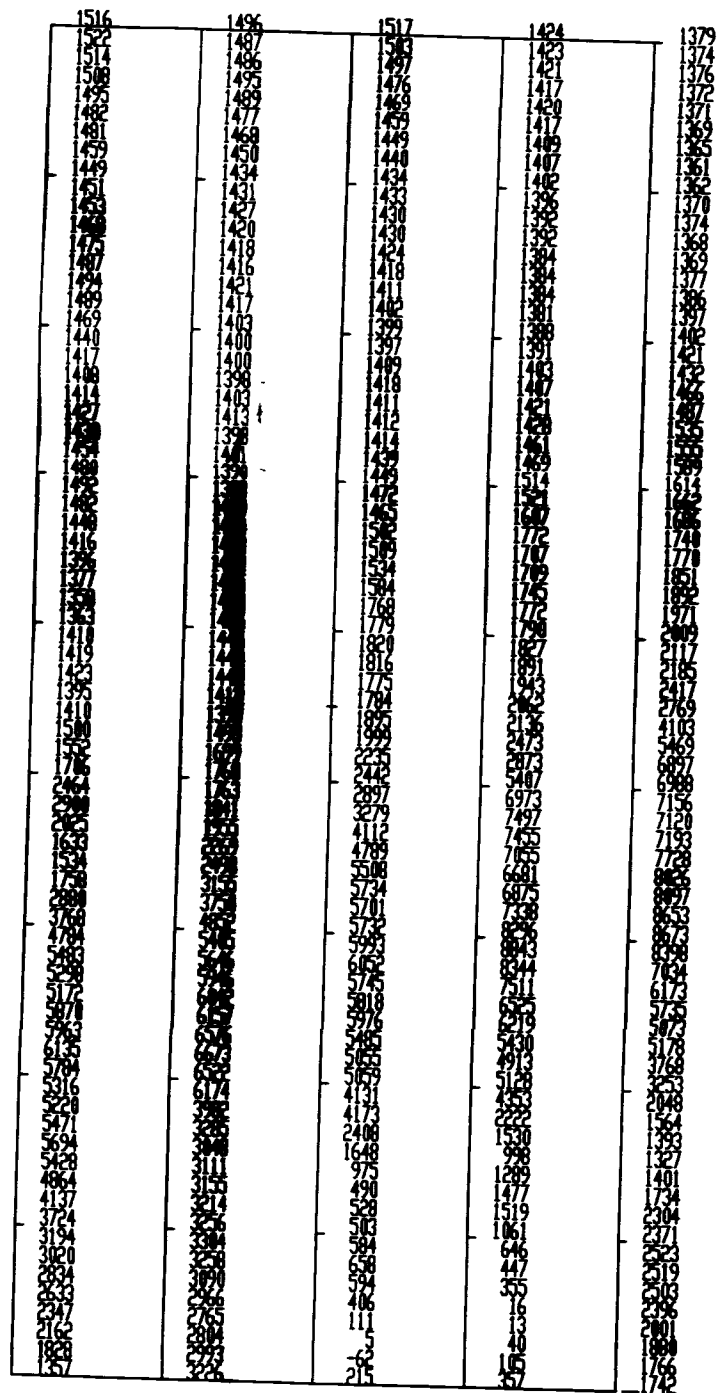


100E  
200E  
300E  
400E  
500E

BASELINE 0+00

TIELINE 900S

Mann's. 04  
TFM



2.163 17

RECEIVED  
DEC 20 1995 2.163 17  
MINING LANDS BRANCH

GRID MANN 95-04



Instrument : DMI  
Field : TOTAL  
Station : 59000.0 nT  
Contour Interval :  
Conductor Axis :

<b>FALCONBRIDGE LIMITED</b>	
<b>MAGNETOMETER SURVEY</b>	
PROJECT: MANN BELT	PROJECT #: 8269
BASELINE AZIMUTH: 90 Deg.	
SCALE = 1 : 5000	DATE : 9/15/95
SURVEY BY : NWG	NTS : 42 A/16
NORTHWEST GEOPHYSICS LTD.	

Year: 5/95  
Thu 21 Sep 1995 at 20:17 Centre of Plot at 450.00/300.00 Normal profile centred on EGCS 0 nT Serial # M90182 Registered User: NORTHWEST GEOPHYSICS LTD.

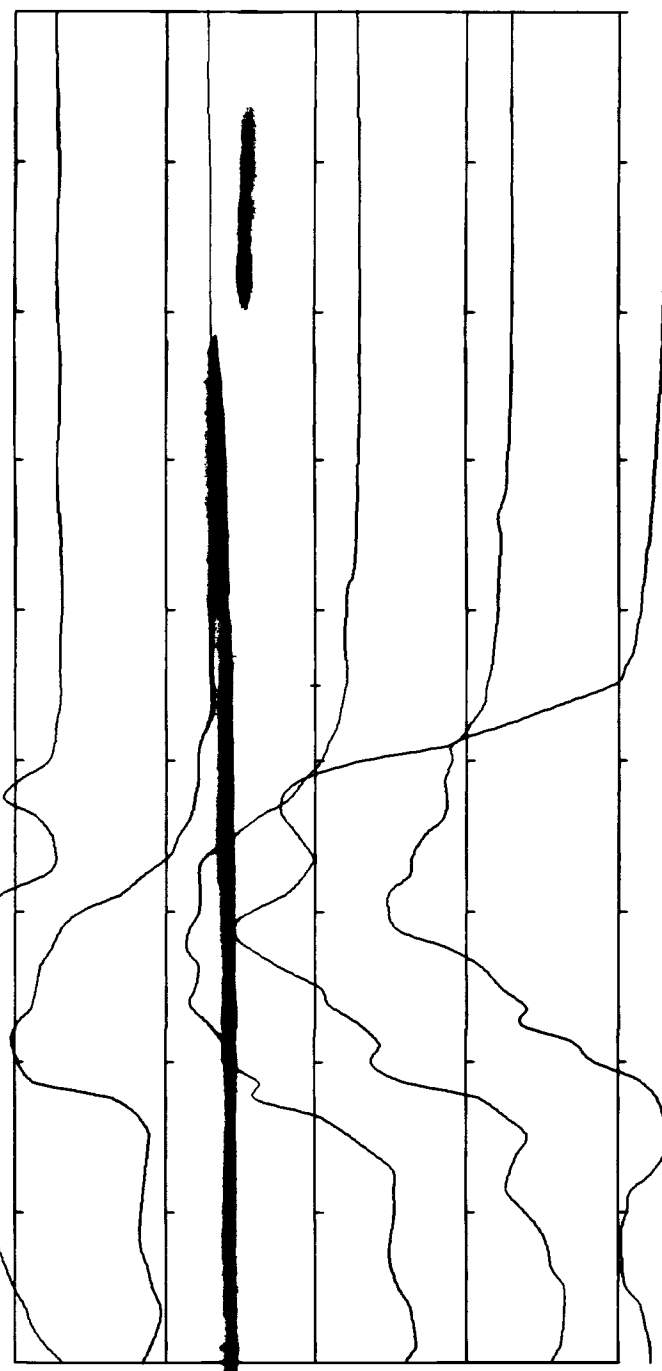


100E  
200E  
300E  
400E  
500E

BASELINE 0+00

Mann 95-04  
TFM

TIELINE 900S



2.16317

RECEIVED

DEC 20 1995

MINING LANDS BRANCH GRD MANN 95-04

2.16317



Instrument : DMG  
Field : TOTAL  
Datum : 59000.0 nT  
Contour Interval :  
Profile Scale : 2000 nT / Cm  
Conductor Axis :

<b>FALCONBRIDGE LIMITED</b>	
<b>MAGNETOMETER SURVEY</b>	
PROJECT: MANN BELT	PROJECT #: 8269
BASELINE AZIMUTH: 90 Deg.	
SCALE = 1 : 5000	DATE : 9/15/95
SURVEY BY : NWG	NTS : 42 A/16
NORTHWEST GEOPHYSICS LTD.	



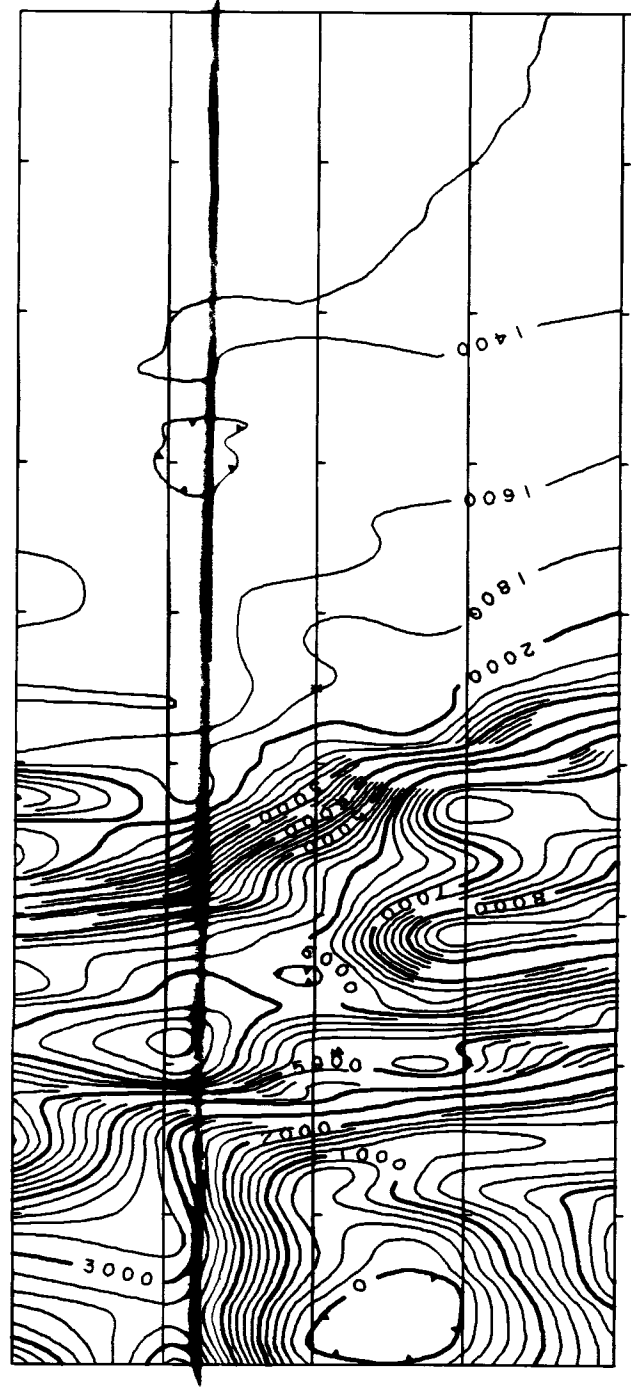
Rev. 5.02 Thu 21 Sep 1995 at 20:03 Centre of plot at 450.05/200.0E Serial # 191182 Registered User - NORTHWEST GEOPHYSICS LTD.



100E  
200E  
300E  
400E  
500E

BASELINE 0+00

Mann 95-04  
TFM



TIE LINE 900S

RECEIVED

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DEC 20 1995

MINING LANDS BRANCH

GRID MANN 95-04



Instrument : DMI  
Field : TOTAL  
Datum : 59800.0 nT  
Contour Interval : 200 mT  
Conductor Axis :

<b>FALCONBRIDGE LIMITED</b>	
<b>MAGNETOMETER SURVEY</b>	
PROJECT: MANN BELT	PROJECT #: 8269
BASELINE AZIMUTH: 90 Deg.	
SCALE = 1 : 5000	DATE: 9/15/95
SURVEY BY: MWG	NTS: 42 A/16
<b>NORTHWEST GEOPHYSICS LTD.</b>	

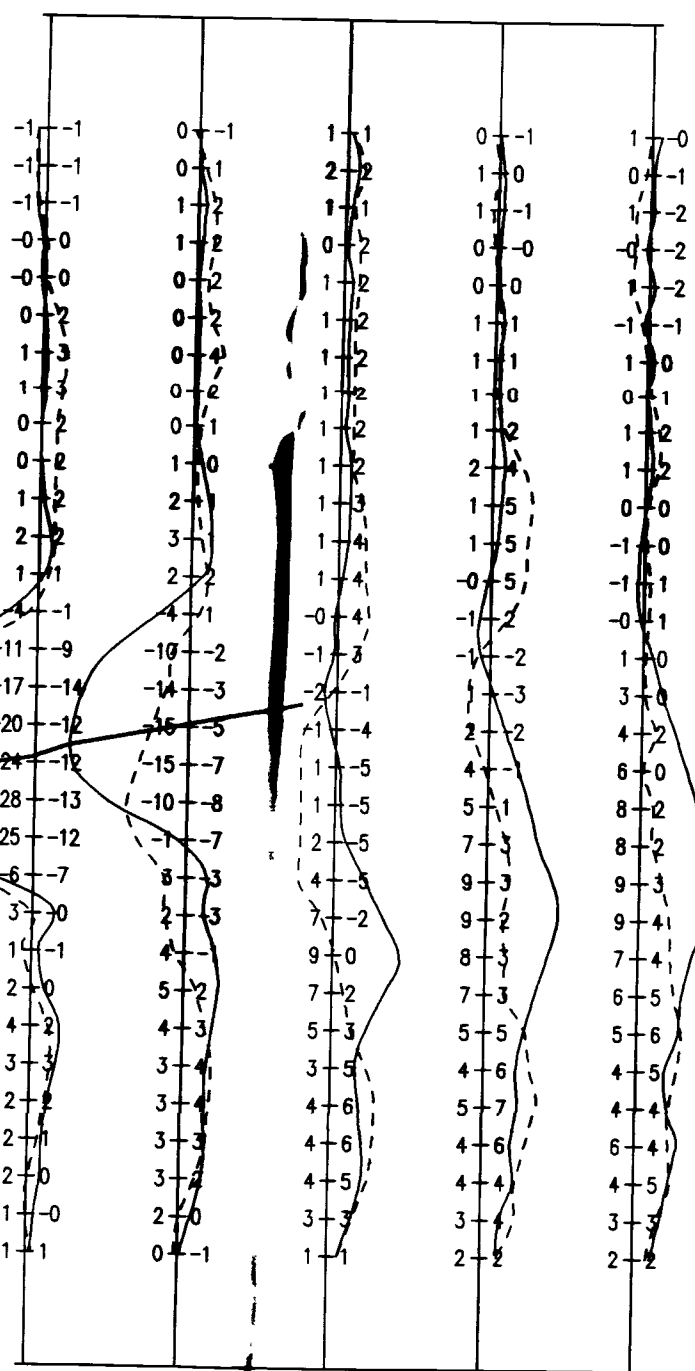




BASELINE 0+00

L 100 E  
L 200 E  
L 300 E  
L 400 E  
L 500 E

TIELINE 9+00S



Man 95-04  
440 Hz

D36  
C33

RECEIVED 2.16312

DEC 20 1995

MINING LANDS BRANCH  
Depth in metres  
Conductivity rhos

GRID MAN 95-04

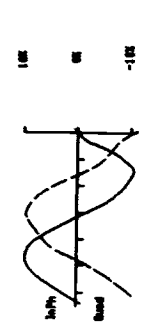
FALCONBRIDGE LIMITED

HLEM SURVEY  
FREQ. 440 HERTZ

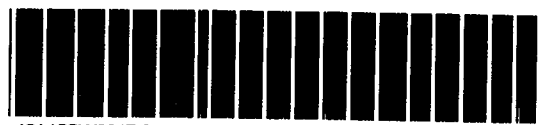
PROJECT: MANN BELT PROJECT #: 8269  
BASELINE AZIMUTH: 90 Deg.

SCALE = 1:5000 DATE: 9/9/95  
SURVEY BY: NVG NTS: 42 A/16

NORTHWEST GEOPHYSICS LTD.



Instrument : MANNIN  
Coil Spacing : 150m  
Vertical Scale: 1cm = 100  
Frequency : 440 Hz  
In Phase : 02  
Quadrature : 02



42A155W0047 2 16317 MANN

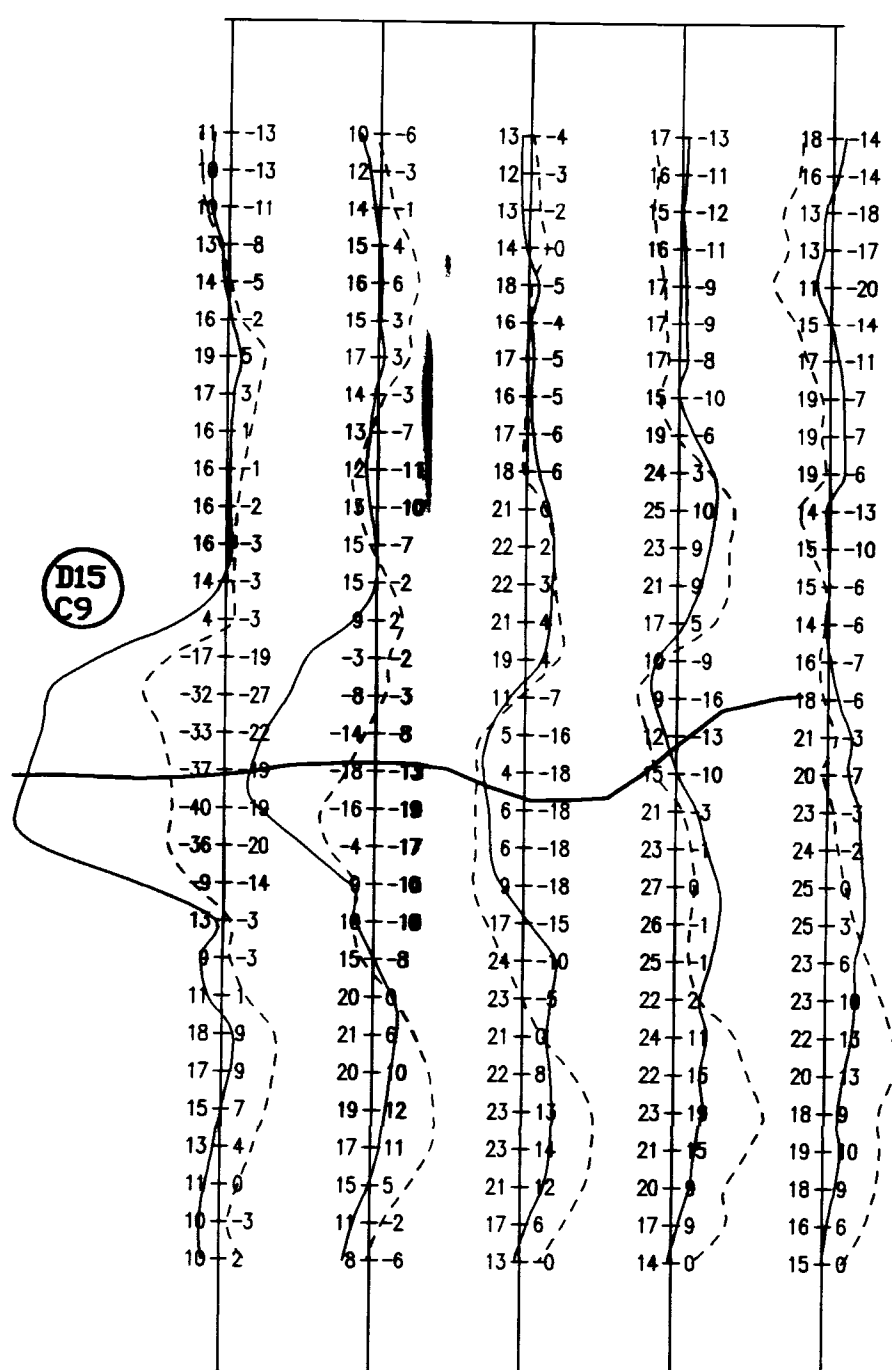




BASELINE 0+00

L 100 E  
L 200 E  
L 300 E  
L 400 E  
L 500 E

Man 95-04  
1760 Hz



TIELINE 9+00S

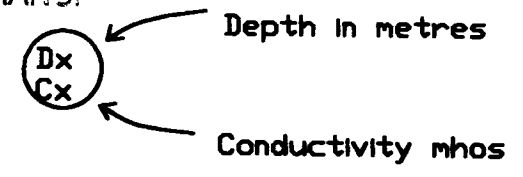
L 100 E  
L 200 E  
L 300 E  
L 400 E  
L 500 E

RECEIVED

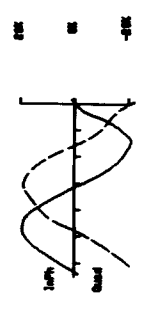
DEC 20 1995

2.163 17

MINING LANDS BRANCH



GRID MAN 95-04



Instrument : NAUMEN  
 Coil Spacing : 150m  
 Vertical Scale : 1cm = 20%  
 Frequency : 1760 Hz  
 In Phase : 15%  
 Quadrature : -5%

<b>FALCONBRIDGE LIMITED</b>	
HLEM SURVEY	
FREQ. 1760 HERTZ	
PROJECT: MANN BELT	PROJECT #: 8269
BASELINE AZIMUTH : 90 Deg.	
SCALE = 1 : 5000	DATE : 9/ 9/95
SURVEY BY : NNG	NTS : 42 A/16
NORTHWEST GEOPHYSICS LTD.	

