



42A06NE0026 2.16268 DELORO

010

**GEOPHYSICAL REPORT
FOR
OUTOKUMPU MINES LIMITED
ON THE
DELORO PROPERTY, GRID B
DELORO TOWNSHIP
PORCUPINE MINING DIVISION
NORTHEASTERN, ONTARIO**

2.16268

RECEIVED

NOV 28 1995

MINING LANDS DIVISION

Qual. # 2.3943

PREPARED BY: **John C. Grant CET FGAC**
July 26/95





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INTRODUCTION

The services of Exsics Exploration Limited were hired by Outokumpu Mines Limited to complete a linecutting and geophysical program over a block of claims located in the central southeast section of Deloro Township of the Porcupine Mining Division, in Northeastern Ontario. Figure 1

The purpose of this program was to locate and outline conductive structure which would be considered favourable horizons for base metal deposition.

The linecutting portion of the program was completed between June 1 and June 23, 1995. The geophysics was completed between July 20 and 28, 1995.

This report will deal with the results of the present program.

PROPERTY LOCATION AND ACCESS

Grid B, of the Outokumpu properties in Deloro Township is situated in the central southeast of Deloro Township, Porcupine Mining Division, District of Cochrane in Northeastern Ontario.

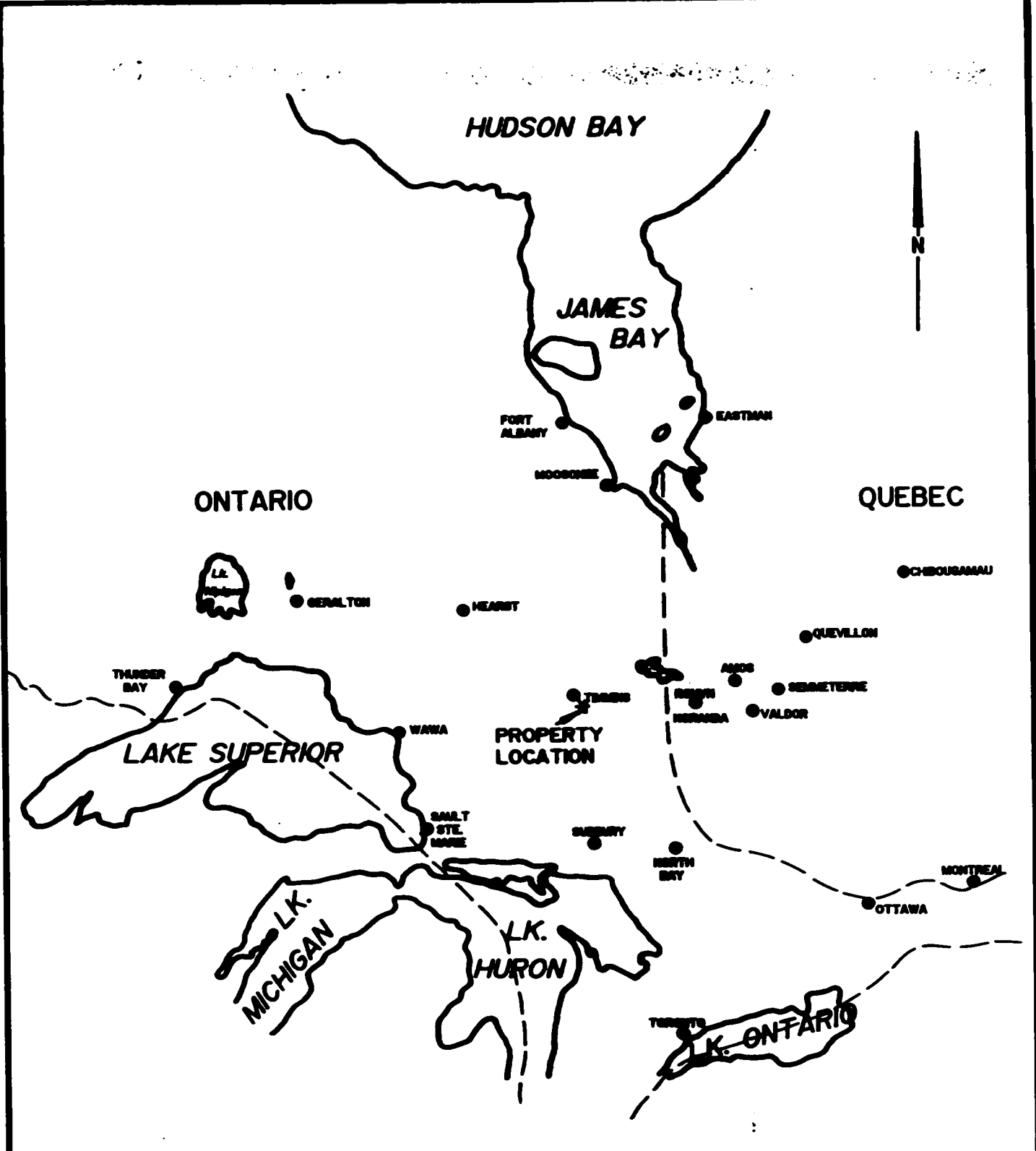
More specifically it is situated such that Shaw Creek cuts across the northwest of the block in a northeast to southwest direction.


The entire block is located approximately 15-18 kilometers south-southeast of the City of Timmins. Figures 1 and 2.

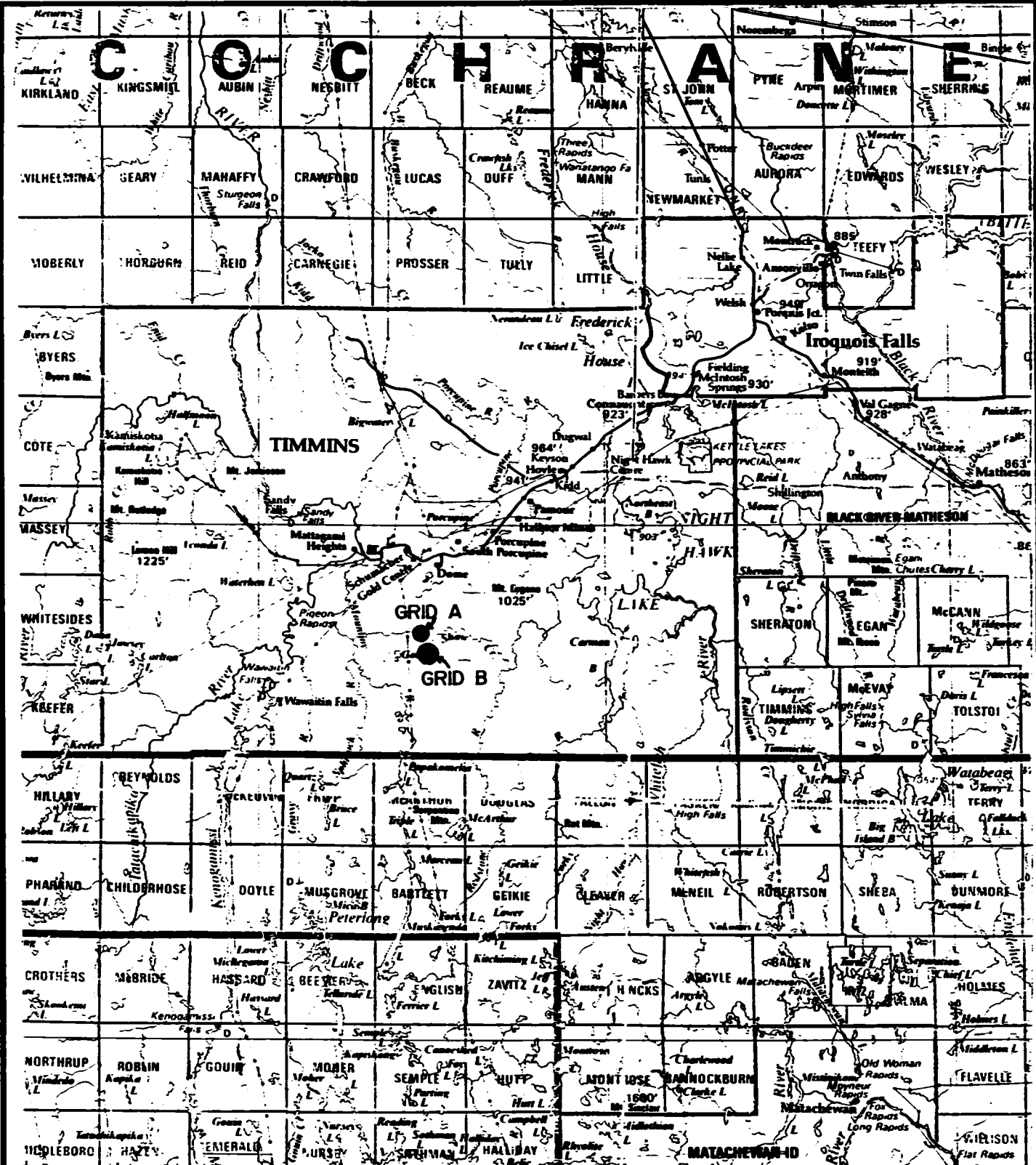
Access to the property was fair. The backroad from Timmins to South Porcupine provides drivable access to the Old Buffalo-Ankerite mine site and townsite. A gravel road south from this townsite provides good access to a small lake and bike trail approximately 4.5 kilometers south of the townsite. A 3.2 kilometer ATV ride along a partially flooded road will provide access to the Shaw Creek crossing. A bridge had to be constructed to cross the creek.

An additional 3-4 kilometers of ATV travel is required after the bridge to access the lower southeast section of the grid. Heavy flooding south of the bridge along the trail by beavers creates some difficulty in accessing the southeast section of the grid.

A second ATV road just to the north of the Shaw Creek crossing runs southwest through the grid and allows good access to the northwest section of the property.



	EXSICS EXPLORATION LTD: P.O. Box 1000, P40-733 Suite 10, Milligan Bldg, Timmins Ont. Telephone: 705-267-4351	
	CLIENT: OUTOKUMPU MINES LIMITED	
PROPERTY: DELORO TOWNSHIP		
TITLE: <div style="text-align: center; font-size: 1.2em;">LOCATION MAP</div> <div style="text-align: right;">Fig. 1</div>		
Date: July 1995	Scale: 1"=125miles	MNDM Plan#:
Drawn: P. Gauthier	Interp: J.C. Grant	Job No.: E-114



EXSICS EXPLORATION LTD.
 P.O. Box 1000, P4N-7X1
 Suite 13, Hollinger Bldg, Timmins Ont.
 Telephone: 705-267-4511

CLIENT: OUTOKUMPU MINES LIMITED

PROPERTY: DELORO TOWNSHIP

TITLE: PROPERTY LOCATION

Fig. 2

Date: July 1995

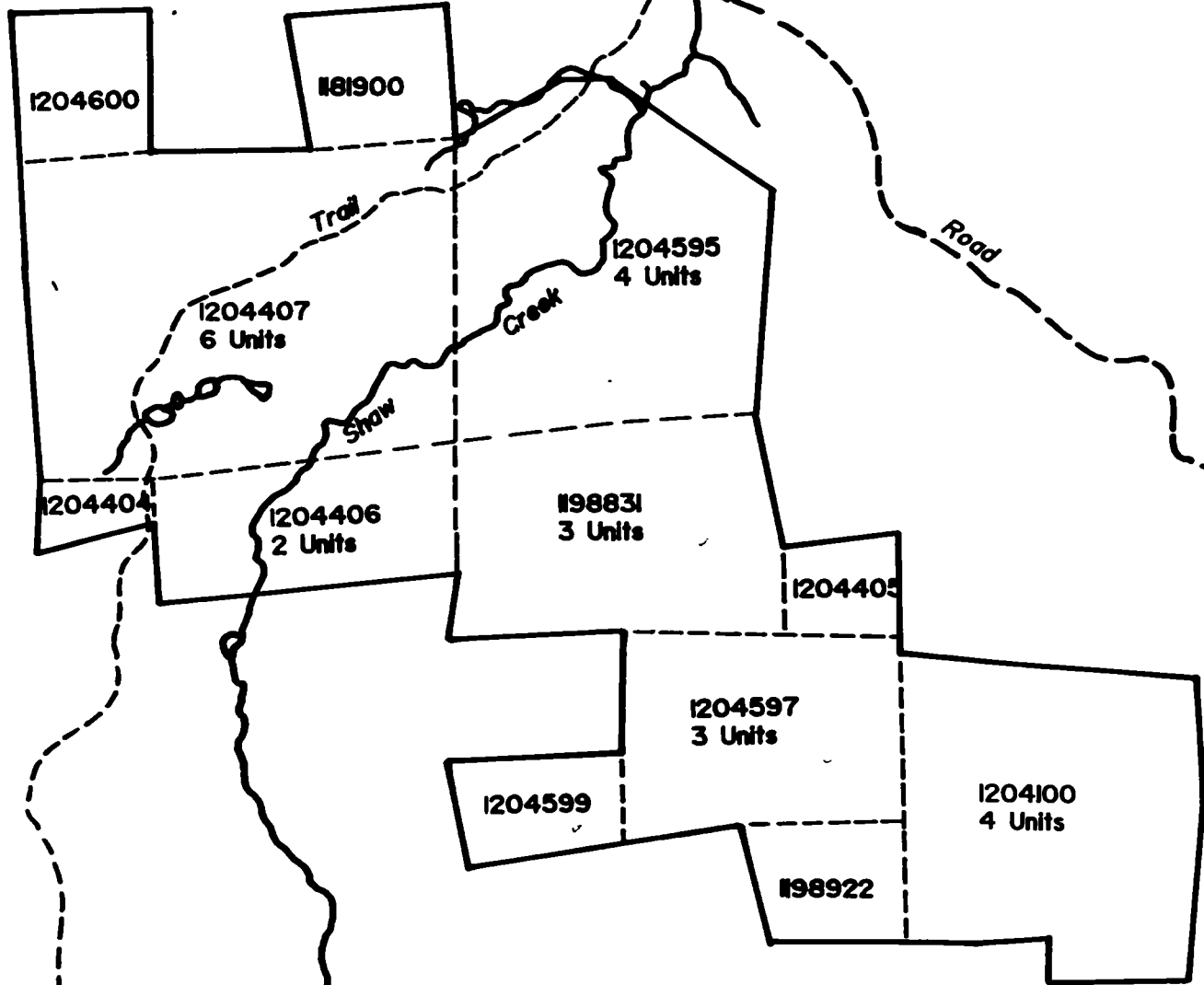
Scale: 1:600,000

MNDM Plan#:

Drawn:

Interp: J.C. Grant

Job No. E-114



DELORO TOWNSHIP
 ADAMS TOWNSHIP



EXSICS EXPLORATION LTD.

P.O. Box 1000, P4M-7X1
 Suite 13, Hollinger Bldg, Timmins Ont.
 Telephone: 705-267-4151

CLIENT: **OUTOKUMPU MINES LIMITED**

PROPERTY: **DELORO TOWNSHIP**

TITLE: **GRID B
 CLAIM SKETCH**

Fig. 3

Date: July 1995	Scale: 1:20,000	MNDM Plan#: G-3993
Drawn: P. Gauthier	Interp: J.C. Grant	Job No. E-114

CLAIM GROUP

The claim numbers which make up grid B of the Deloro Property are as follows:

P-1181900	1 unit
P-1204600	1 unit
P-1204407	6 units
P-1204595	4 units
P-1204406	2 units
P-1198831	3 units
P-1204405	1 unit
P-1204100	4 units
P-1204597	3 units
P-1204599	1 unit
P-1198922	1 unit

Refer to Figure 3, Copied form MNM Plan Map G-3993, Deloro Township

PERSONNEL

The field crew directly responsible for collecting the field data were as follows:

John C. Grant	-Timmins, Ontario
Yvon Collin	-Timmins, Ontario
P. Gauthier	-Timmins, Ontario
B. Pigeon	-South Porcupine, Ontario
S. Olink	-Timmins, Ontario

The entire program was carried out under the direct supervision of J. C. Grant. The plotting and compilation was completed by P. Gauthier of Exsics Exploration Limited.

GROUND PROGRAM

The first phase of the program was to cut a detailed metric grid across the claim block. This was accomplished by first cutting a series of north-south tie lines and base line at 400 meter interval across the property from the west to east boundary. Cross lines were then turned off of these tie lines at 100 meter intervals and cut to the west and east limits of the grid. All of the cut lines were chained with 20 meter pickets that were metal tagged. In all, a total of 57.1 kilometers of grid were established.

The second phase of the program consisted of a Total Field Magnetic Survey done in conjunction with an HLEM Survey. The magnetic Survey was completed over the entire cut grid. However, the HLEM Survey was read on the cross lines only.

GEOPHYSICAL SURVEY

Magnetic Survey:

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

Linespacing	-100 meter
Reading Interval	-10 meter
Duurnal Correction	-Base Station Recorder
Base Station Record Interval	-30 second interval
Reference Field	-59,000 gammas
Datum Subtraction	-58,000 gammas
Accuracy	- +/- 0.5 gammas

The corrected, levelled data was then plotted onto a mylar base map at a scale of 1:5000 and contoured at 20 gamma intervals where possible. A copy of this contoured map has been included in the back pocket of this report.

Author's Note:

During the last day of the magnetic survey, upon completion of the grid work, it was learned that the base station recorder had malfunctioned. The days collected data was then corrected manually and all lines were tied into BL3000ME which was a base station corrected line. This procedure does not affect the quality of the magnetic data.

HLEM Survey:

This survey was completed using the Apex Parametrics Max Min II System. Specifications can be found as Appendix B of this report. The following parameters were kept constant throughout the survey period.

Linespacing	-100 meter
Station Spacing	-20 meter
Coil Separation	-100 meter
Theoretical Search Depth	-50-60 meters
Frequencies Measured	-1777Hz and 444Hz
Parameters Measured	-inphase and quadrature components of the secondary field.
Unit Accuracy	- +/- 0.5%

The collected data was then plotted directly onto a mylar base map, one map for each frequency, at a scale of 1:5000. The data was then profiled at 1 cm to +/- 20% where possible. All conductor axis were placed on this base map and all conductor characteristics were placed directly on the map.

A copy of these maps have been included in the back pocket of this report.

SURVEY RESULTS

The EM Survey was somewhat successful in locating and outlining a number of weak questionable targets on the grid.

Three of the more consistent structures labelled A, C and D may be structure related but require further work to better define them.

Zones B and E are of lesser importance at this writing as they are somewhat short and weaker targets.

The magnetic survey was successful in outlining the structural trends of the property.

The southeast section of the grid appears to be underlain by the more massive mafic volcanics represented by a magnetic signature of 1000 to 1300 gammas. The spotty magnetic highs may relate to isolated blebs of iron rich material within the mafic units. These spot highs are seen as small bullseyes of 300, 600 and 1500 gamma highs above the background.

As you progress north and west into the grid from the south, the magnetic signature increases by 1000 to 1200 gamma suggesting a change to a more intermediate volcanic possibly more iron rich and more distorted suggesting possible flow structure.

The central section of the grid between lines 2800MN and 3700MN and between 1800ME and the east edge of the property show another increase in magnetic signature of 1500 to 2500 gammas suggesting a more ultramafic rich unit. This feature appears to have been cross cut by a dike like structure striking east-northeast across lines 3600MN to 3800MN.

A mafic unit again appears to be situated in the northwest section of the grid to the north and south of the suspected dike structure.

CONCLUSIONS AND RECOMMENDATIONS

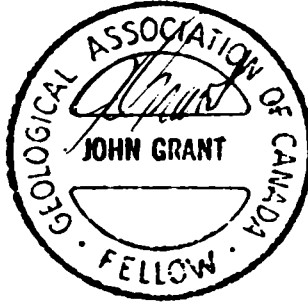
The EM Survey outlined several areas of interest which probably relate to fracture zones or contact zones within or between rock units.

The magnetic survey was successful in outlining a somewhat complex structure situated in the central north section of the grid. This area appears to lie between a suspected dike to the northwest and mafic volcanics to the southwest and southeast.

There is abundant outcrop in all of these areas to explain much of the magnetic activity as well as several of the more consistant EM targets.

Respectfully Submitted,

John C. Grant. CET FGAC



CERTIFICATE

I, John C. Grant, hereby certify that:

1) I am a graduate geophysicist (1975) of the three year program in Geological Technology at Cambrian College of Applied Arts and Technology, Sudbury, Campus. I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited (5 years), North Bay office, and as Exploration Manager and Geophysicist for Exsics Exploration Limited from 1980 to present.

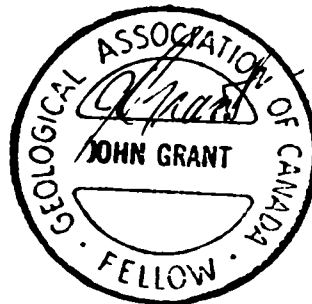
2) I am a Member of the Certified Engineering Technologist Association since 1984.

3) I am a member of the Geological Association of Canada.

4) I have been actively engaged in my profession for the last twenty (20) years, including all aspects of exploration studies, surveys and interpretations.

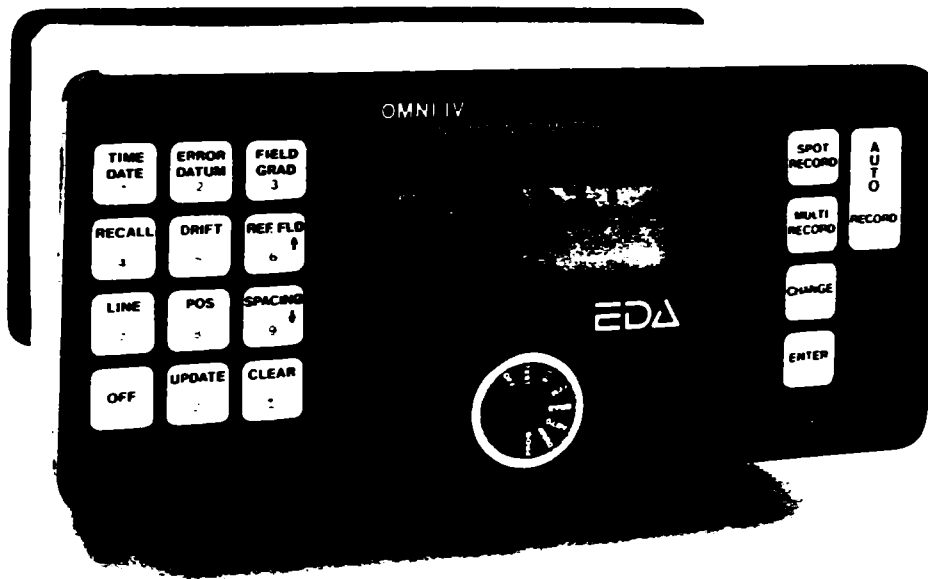
5) I have no specific or special interest in the described property. I have been retained as a Consulting Geophysicist. for property appraisal.

John Charles Grant, CET, FGAC



APPENDIX A

OMNI IV "Tie-Line" Magnetometer



- Four Magnetometers in One**
- Self Correcting for Diurnal Variations**
- Reduced Instrumentation Requirements**
- 25% Weight Reduction**
- User Friendly Keypad Operation**
- Universal Computer Interface**
- Comprehensive Software Packages**



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	$\pm 15\%$ 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
Standard Memory Capacity	
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 $+55^{\circ}\text{C}$. 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 $+55^{\circ}\text{C}$; 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
Weights and Dimensions	
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 (0.5 m separation - standard)	2.1 kg, 56mm diameter x 790mm
Gradient Sensor (1.0 m 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 Toronto
(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

APPENDIX B

INDEX

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.

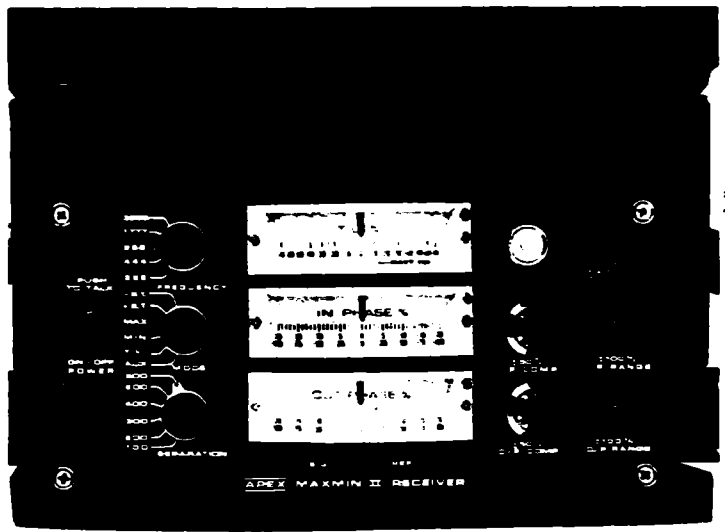
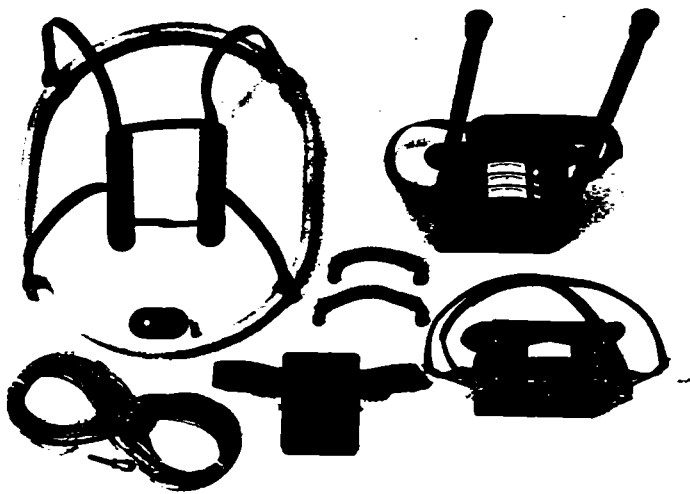
Coil separations: 25, 50, 100, 150, 200 and 250 m (with cable) or 100, 200, 300, 400, 600 and 800 ft.

Reliable data from depths of up to 180m (600 ft).

Built-in voice communication circuitry with cable.

Tilt meters to control coil orientation.





222, 444, 888, 1777 and 3555 Hz.

MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refer. 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.

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.

- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.

- Tilt-angle of the total field in V.L. mode.

- 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.

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.

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

$\pm 0.25\%$ to $\pm 1\%$ normally, depending on conditions, frequencies and coil separation used.

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

9V trans. radio type batteries (4). Life: approx. 35hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

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

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

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

Built-in signal and reference warning lights to indicate erroneous readings.

Operating temperature: -40°C to $+60^{\circ}\text{C}$ (-40°F to $+140^{\circ}\text{F}$).

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 notification

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

Phone: (416) 495-1612

Cables: APEXPARA TORONTO

Telex: 06-966773 NORDVIK TOR



Report of Work Conducted After Recording Claim

Mining Act

Transaction Number
W9560.00390

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, 150 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7284.

2.16268

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



42A06NE0026 2.16268 DELORO

900

Recorded Holder(s) <i>Autokumpu Mines Ltd.</i>		Client No. <i>178525</i>
Address <i>P.O. Box 1123, Suite 30a, 637 Algonquin Blvd. E., P4N 7H9</i>		Telephone No. <i>(705) 264-5024</i>
Mining Division <i>Porcupine</i>	Township/Area <i>Deloro Township</i>	M or G Plan No. <i>6-3993</i>
Dates Work Performed From: <i>June 1, 1995</i>		To: <i>July 20, 1995</i>

Work Performed (Check One Work Group Only)

Work Group	Type
<input checked="" type="checkbox"/> Geotechnical Survey	<i>Line Cutting, Magnetic Geophysical Survey, Max-Min Geophysical Survey</i>
<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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MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs \$ *28,355.00*

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
<i>John C. Grant, Kasis Exploration Ltd.</i>	<i>P.O. Box 1880, Suite 13, Hollinger Bldg. Timmins, Ontario, P4N 7X1</i>

(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 <i>Sept 5, 1995</i>	Recorded Holder or Agent (Signature) <i>Paul</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 <i>Paul Davis, Autokumpu Mines Ltd, P.O. Box 1123, Timmins, Ontario, P4N 7H9</i>		
Telephone No. <i>(705) 264-5024</i>	Date <i>Sept 5, 1995</i>	Certified By (Signature) <i>Paul</i>

For Office Use Only

Total Value Cr. Recorded <i>\$2,102.</i>	Date Recorded	Mining Recorder <i>undated</i> <i>Jay White</i>	Received Stamp RECEIVED S.W. SEP 5 1995
	Deemed Approval Date <i>Dec 4/95</i>	Date Approved	
	Date Notice for Amendments Sent		



Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des mines

**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
W9560.0390

2-16268

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^e 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		
	Line cutting	14,275 ⁰⁰	
	Geophysics	14,080 ⁰⁰	
			28,355 ⁰⁰
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			28,355⁰⁰

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)		Valueur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)	

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NOV 23 1995

MINING LANDS DIV.

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 Project Geologist 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 _____ Date Sept 5, 1995

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 04, 1995

Our File: 2.16268
Transaction #: W9560.00390

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
1204405 & 1198922 IN DELORO 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 November 28, 1995.

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

ORIGINAL SIGNED BY:



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

SBB SBB/jl
Enclosure:

cc: Resident Geologist
Timmins, Ontario

✓ Assessment Files Library
Sudbury, Ontario

MAP SYMBOLOGY

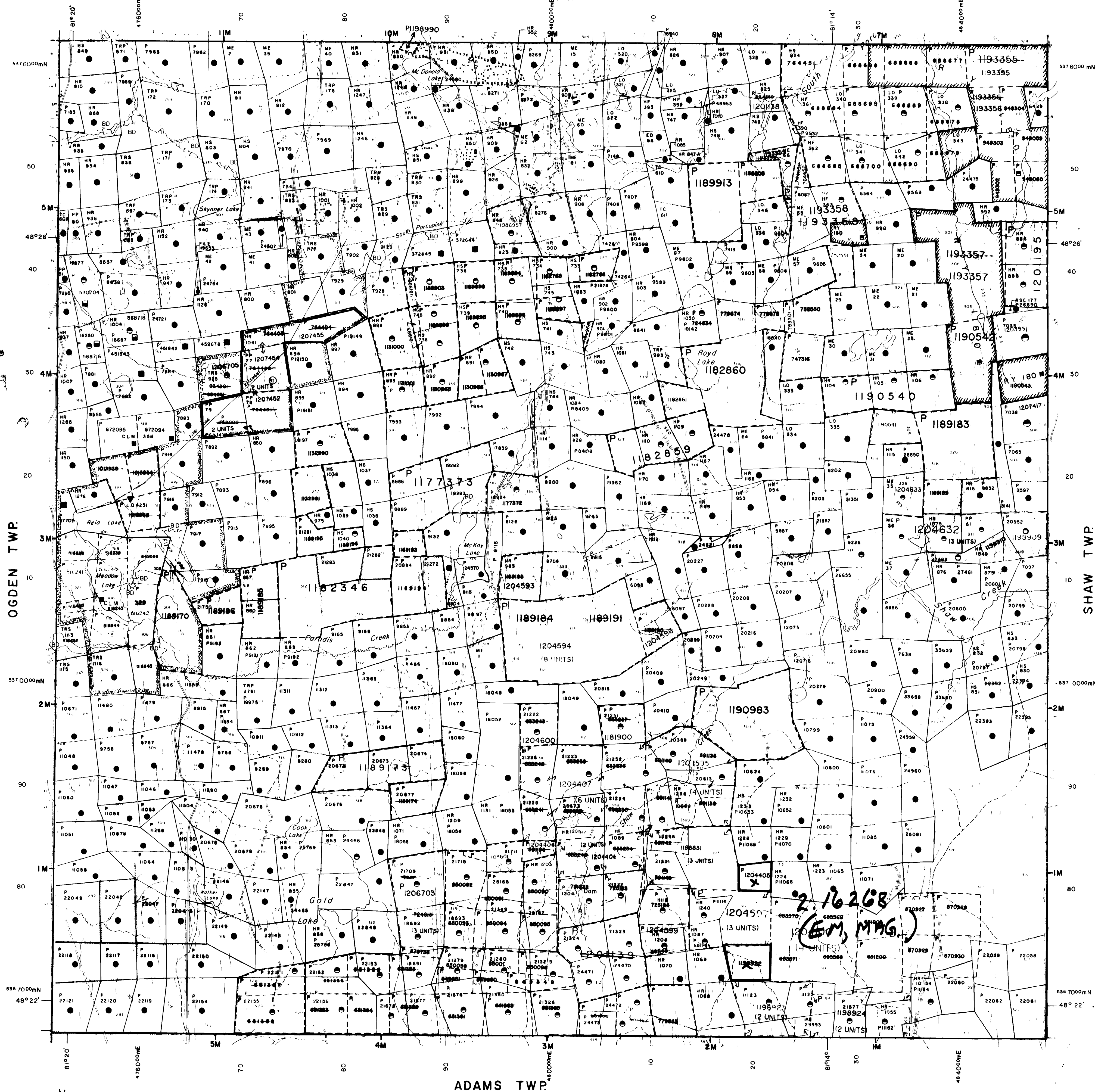
Aerial Cableway	Pipelng (above ground)
Boundary	Railroad
International	Single Track
Interprovincial	Double Track
District, Township, Indian Reserve	Abandoned
Appurtenance	Turntable
Lot, Concession	Road
Approach	Highway, County
Post Boundary	Tramway
Bridge	Access Road of doubtful maintenance or significant driveway
Road, Railroad	Tract, Bush Road (dotted line)
Building	Rapids
Chimney	Double line river with multiple rapids
Cliff, Pit, Pile	Reservoir
Contours	River, Stream, Canal
Interpretation	Approximate Assessment
Approximate	Direction of flow
Control Points	Lock
Horizontal	Spot Elevation (above sea level)
Vertical	Tower
Culvert	Transmission Line
Falls	Tunnel
Double line river with multiple rapids	Utility Pole
Feature Outline (Construction Features, etc.)	Wharf, Dock, Pier
Flooded Land	Wooded Area
Lock	
Marsh or Swamp	
Moat	
Mine Head Frame	
Outcrop	

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
W.P. 12/92 NR. 92-FER-24 S.R.O. (APPLICATION UNDER THE PUBLIC LANDS ACT FOR A WASTE DISPOSAL SITE)				

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.

TISDALE TWP



ADAMS TWP

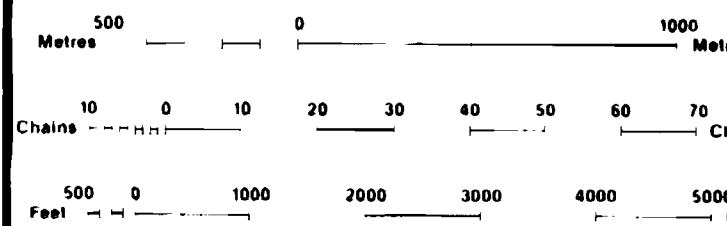
LEGEND

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 PERENNIAL STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATION	
ORIGINAL SHORELINE	
MARSH OR MUSKEG	
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



SCALE 1:20 000
GRID ZONE : 17

NOTES

- REGISTERED PLAN OF SUBDIVISION
- MINING CLAIMS SHOWN WITHIN THIS AREA ARE SUBJECT TO THE RIGHTS AND PRIVILEGES GRANTED TO DELORO MINES LTD. UNDER AN EASEMENT ORDER DATED MAY 19, 1937.
- DOMESTIC MINES LIMITED SURFACE RIGHTS LEASE #107926

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NOV 23 1995

MINING LANDS BRANCH

TOWNSHIP

DELORO

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

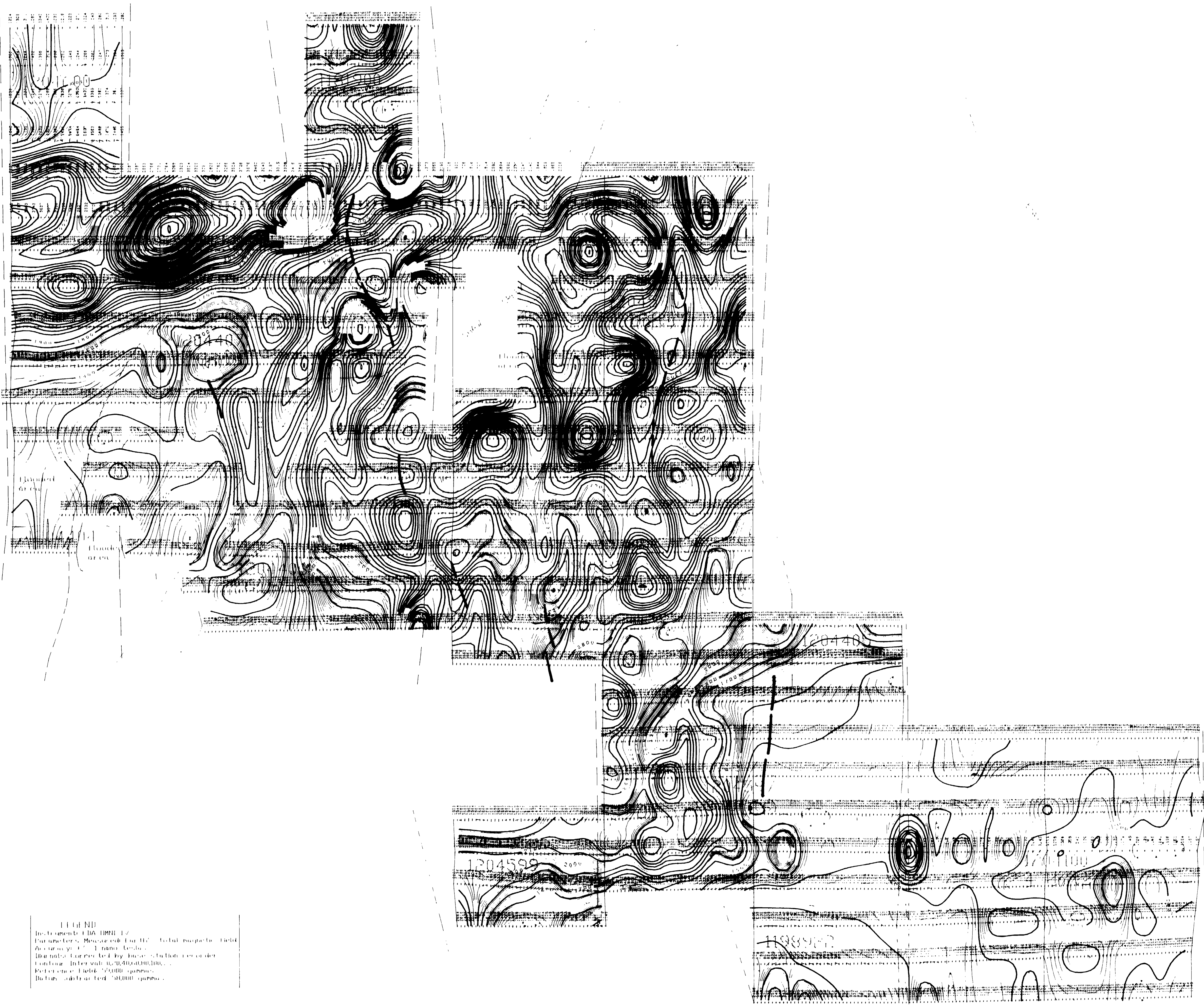
Ministry of Natural Resources
Land Management Branch
Ontario

ACTIVATED NOV 24/93 BY: DJC
ORIGINAL COMPLETION JULY 1984
REVISED CHECKED BY: RW
Number: G-3993



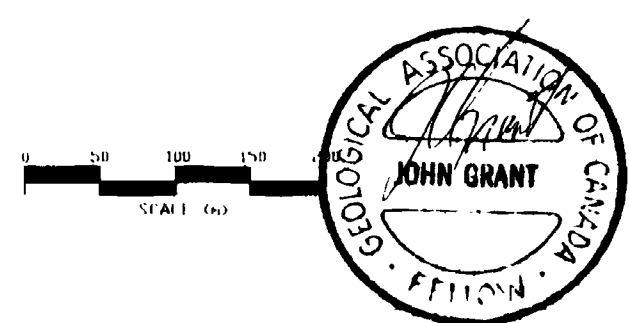
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 4200 NORTH
 4100 NORTH
 4000 NORTH
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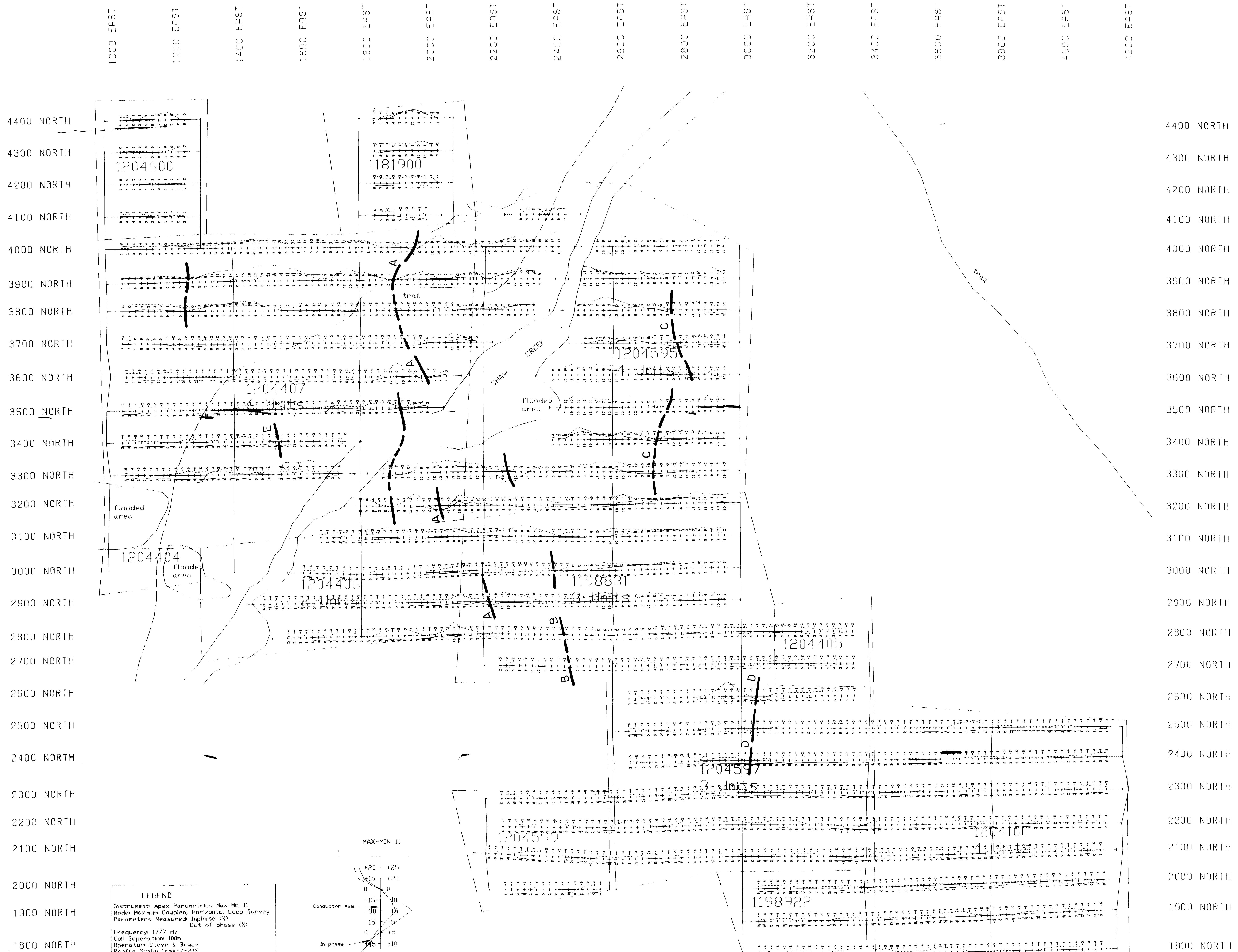


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 198982
 20448

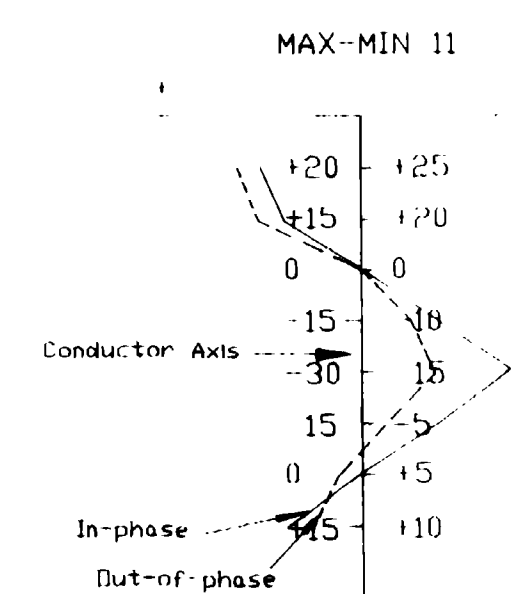
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 MINING LANDS BRANCH



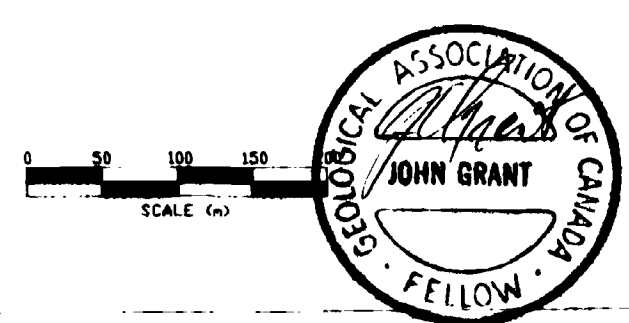
EXSICS EXPLORATION LTD.
 P.O. Box 1880, P4N 7X1
 Suite 13, Hollinger Bldg, Timmins Ont.
 Telephone 705 267 4151
 CLIENT: **OUTOKUMPU MINES LIMITED**
 PROPERTY: **DELORO TOWNSHIP**
 TITLE: **GRID B**
MAGNETOMETER SURVEY
 Date Aug. 1995 | Scale: 1:5000 | NTS:
 Drawn P. Gauthier | Interp. J.C. Grant | Job No. E-114



LEGEND
 Instruments: Apex Parametrics Max-Min II
 Model: Maximum Coupled, Horizontal Loop Survey
 Parameters: Measured In-phase (I)
 Parameters: Measured Out of phase (O)
 Frequency: 1777 Hz
 Coil Separation: 100m
 Operator: Steve & Bruce
 Profile: Stator 1cm/1/-20%

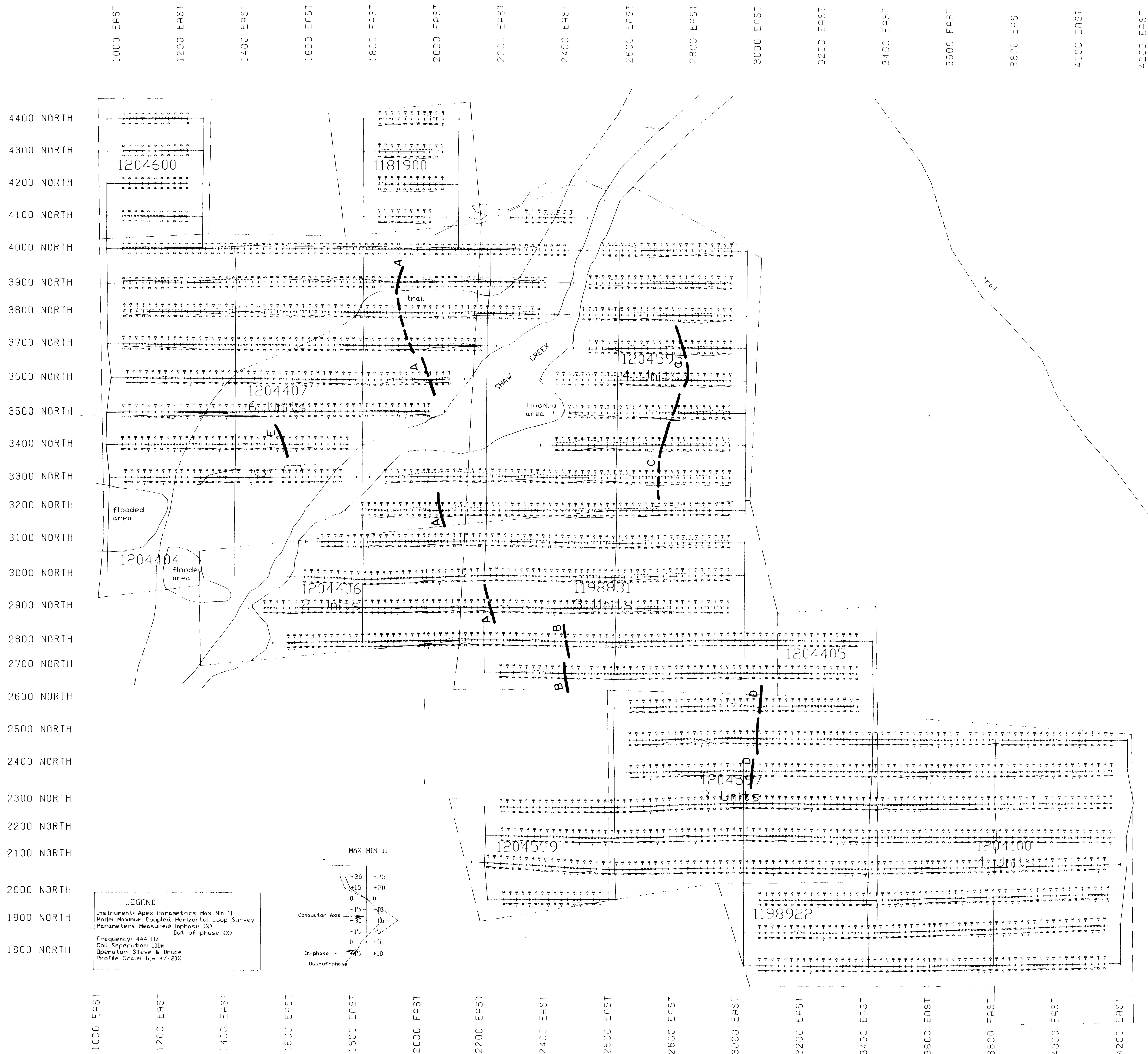


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 2-16268
 MINING LANDS BRANCH



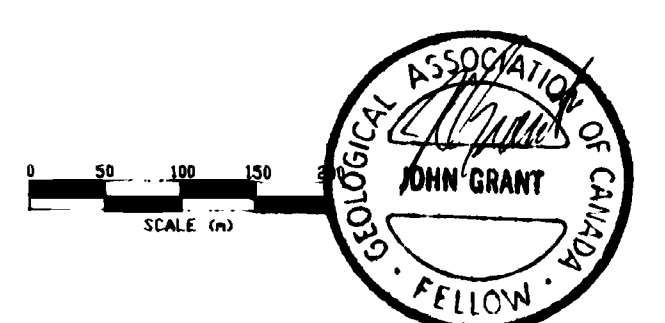
EXSICS EXPLORATION LTD.
 P.O. Box 1880, P4N-7X1
 Suite 13, Hollinger Bldg, Timmins Ont.
 Telephone: 705-267-4151
CLIENT: AUTOKUMPU MINES LIMITED
PROPERTY: DELORO TOWNSHIP
TITLE: GRID B
MAX MIN II 1777 Hz
 Date: Aug. 1995 | Scale: 1:5000 | NTS:
 Drawn: P. Gauthier | Interp: J.C. Grant | Job No.: E-114

220



4400 NORTH
4300 NORTH
4200 NORTH
4100 NORTH
4000 NORTH
3900 NORTH
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3700 NORTH
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2400 NORTH
2300 NORTH
2200 NORTH
2100 NORTH
2000 NORTH
1900 NORTH
1800 NORTH

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NOV 23 1995
MINING LANDS BRANCH



EXSICS EXPLORATION LTD.
P.O. Box 1880, P4N-7X1
Suite 13, Hollinger Bldg, Timmins Ont.
Telephone: 705-287-4151
CLIENT: **OUTOKUMPU MINES LIMITED**
PROPERTY: DELORO TOWNSHIP
TITLE: GRID B
MAX-MIN II 444 Hz

Date: Aug. 1995 Scale: 1:5000 INTS:
Drawn: P. Gauthier Interp: J.C. Grant Job No. E-114