



42A05NE2022 2.19820 TURNBULL

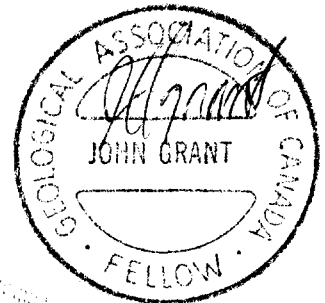
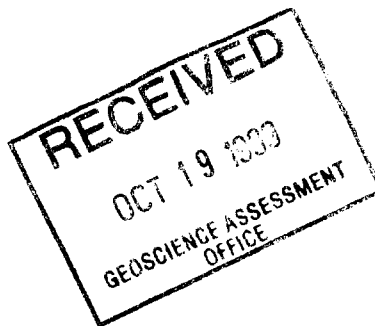
010

GEOPHYSICAL REPORT  
FOR  
PROSPECTOR'S ALLIANCE INC.  
ON THE  
CARSCALLEN-TURNBULL GRIDS  
CARSCALLEN AND TURNBULL TOWNSHIPS  
PORCUPINE MINING DIVISION  
DISTRICT OF COCHRANE  
NORTHEASTERN, ONTARIO

2.19820

*Deal #  
2.3943*

Prepared by: J.C. Grant, CET, FGAC  
October, 1999.





INTRODUCTION:

The services of Exsics Exploration Limited were retained by Mr. Lionel Bonhomme on the behalf of the Company, Prospector's Alliance Inc., to complete a line cutting and ground geophysical program across a portion of their claim holdings in the Townships of Carscallen and Turnbull.

The purpose of this program was to locate and outline sulphide targets that would be considered as favourable horizons for base metal deposition. These targets were to then be followed up with diamond drilling.

The ground program commenced in Carscallen on the 21st of September with the cutting of a detailed metric grid. The surveys were completed on the 30 of September and the 4th of October, 1999. The cutting on the Turnbull grid commenced on the 2nd of October and the surveys, along with the cutting was completed on the 7th of October, 1999.

A total of 13.6 kilometres of grid lines were cut on the two properties and 15.6 kilometres of surveys were read on the two properties.

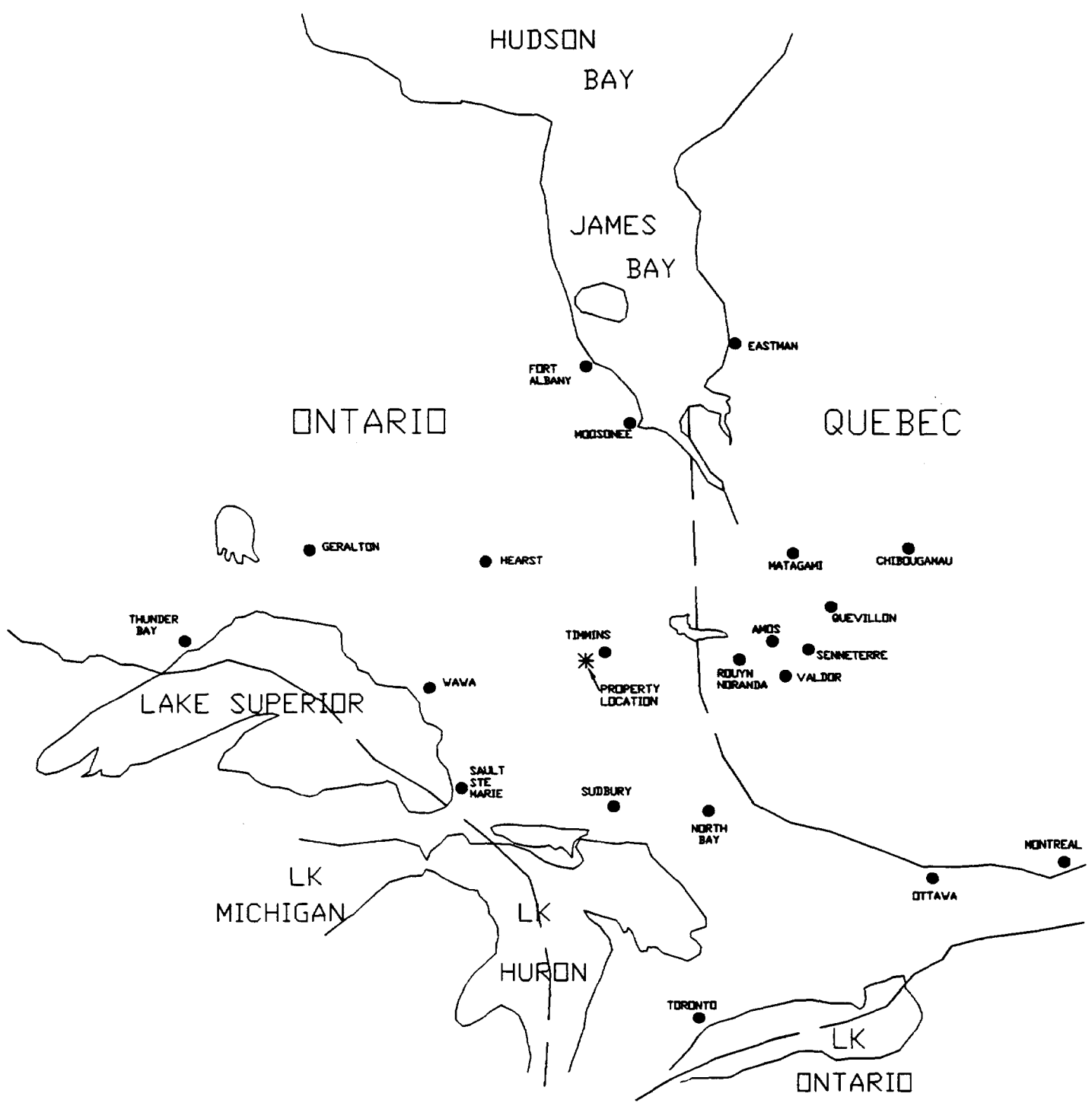
This report will discuss the survey results of the two grids separately and in detail.


PROPERTY LOCATION AND ACCESS:

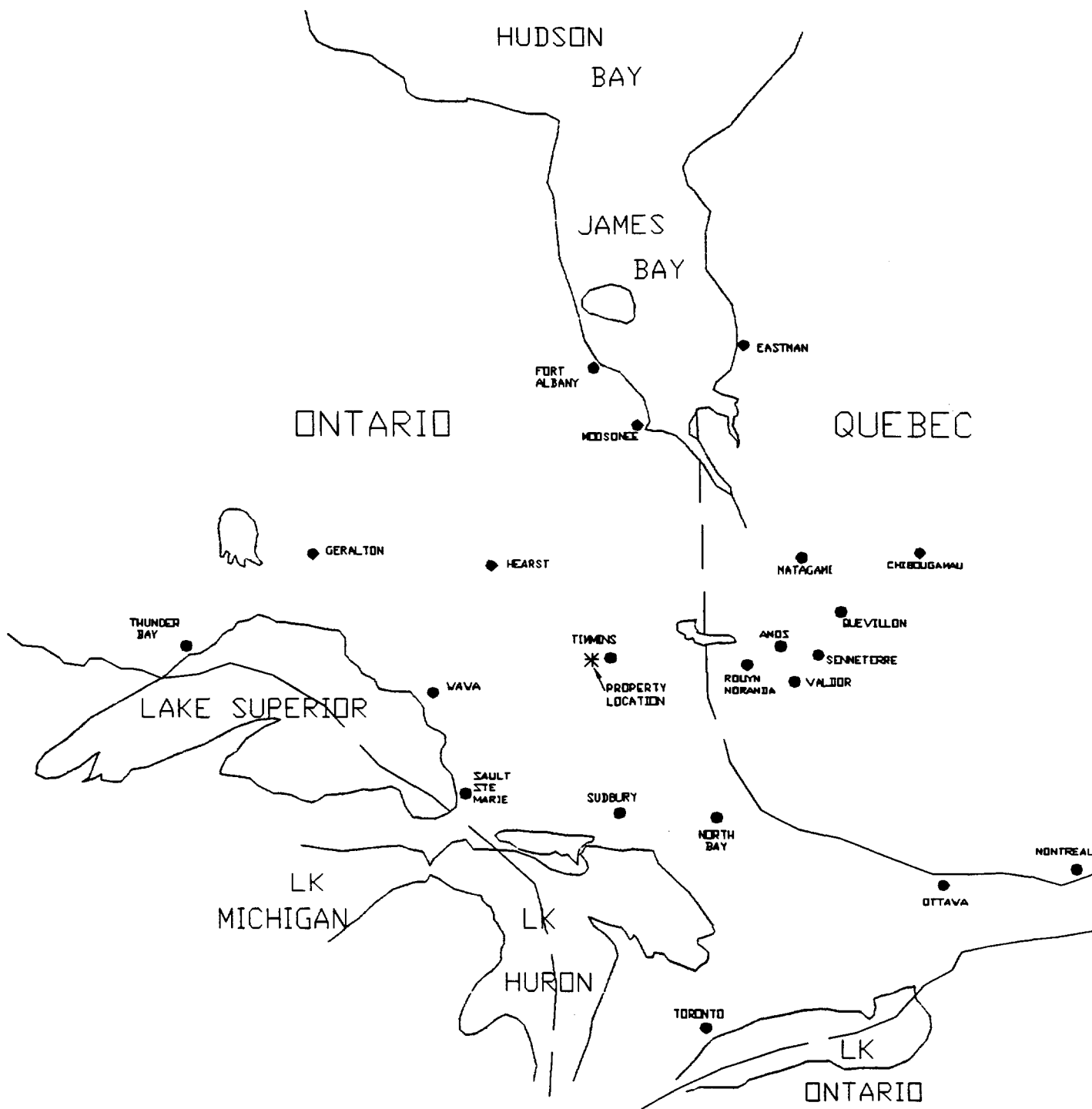
CARSCALLLEN GRID:


The Carscallen grid is located in the northwest quarter of the Township, approximately 22 kilometres west southwest of the City of Timmins. Carscallen is situated in the Porcupine Mining Division of the District of Cochrane in Northeastern, Ontario. Figure 1.

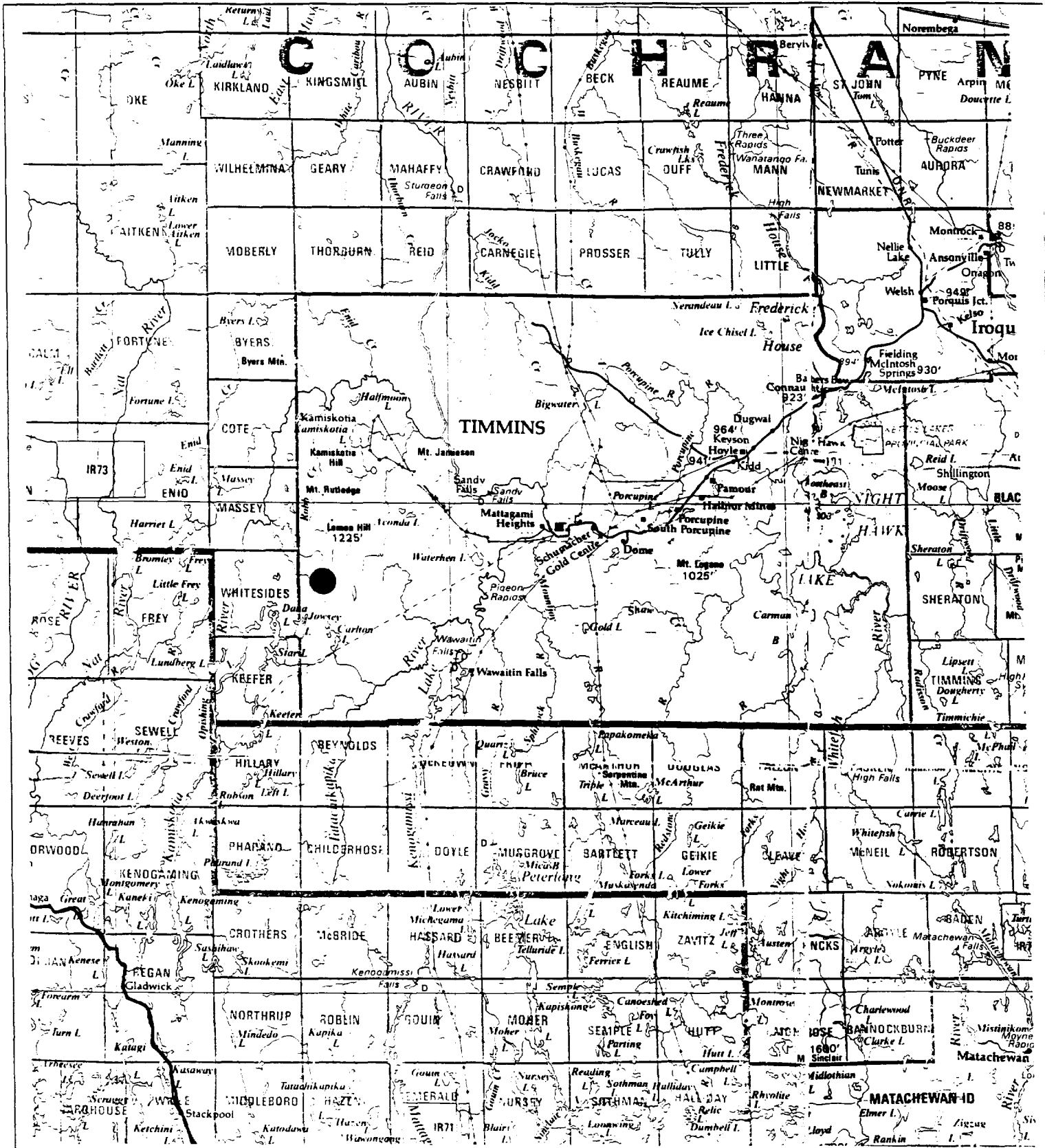
The location to the property is ideal. A short ride west from Timmins along Highway 101 allows access to a good gravel road locally called the Mallette main haulage road which travels north and northwest off of 101 and crosses about 2 kilometres to the north of the Carscallen grid. A good gravel road travels south from this main haulage road at about the 16 kilometre marker and crosses the northwest corner of the grid. The entire claim block is situated about 24 kilometres west of the City of Timmins. Travelling time from Timmins to the grid is about 40 minutes. Figures 1 and 2.




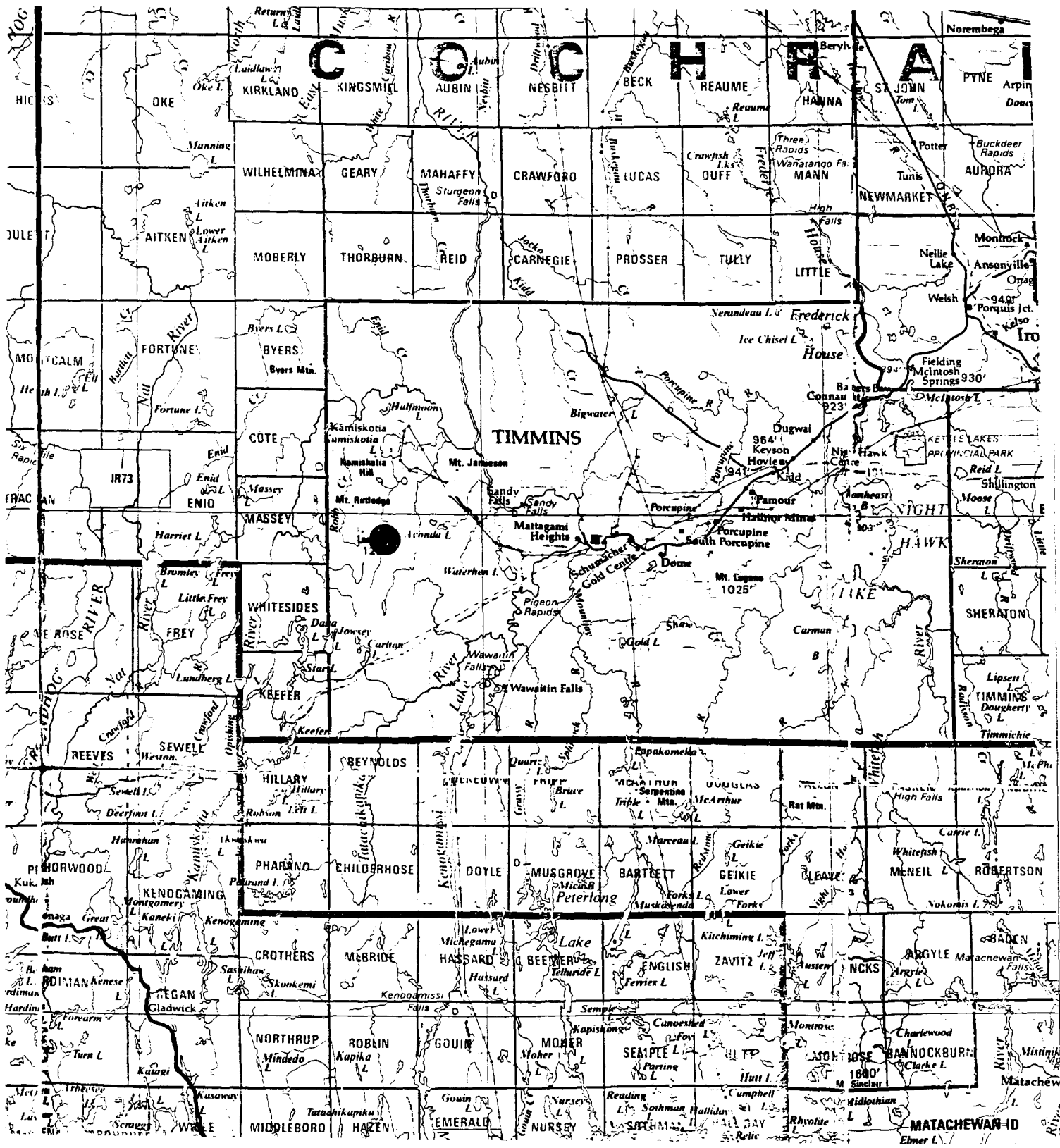
	<b>EXSICS EXPLORATION LTD.</b> P.O. Box 1880, P4N-7X1 Suite 13, Hollinger Bldg, Timmins Ont. Telephone: 705-267-4151, 267-2424	
	<b>CLIENT: PROSPECTORS ALLIANCE CORP.</b>	
<b>PROPERTY: CARSCALLEN TWP PROPERTY</b>		
<b>TITLE: CARSCALLEN TWP</b>		
<b>LOCATION MAP</b>		
Fig. 1		
Date: Oct. 1999	Scale: 1" = 125 miles	NTS:
Drawn: P. Gauthier	Interp: J.C. Grant	Job No: E-360



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	<b>CLIENT: PROSPECTORS ALLIANCE CORP.</b>	
<b>PROPERTY: TURNBULL TWP PROPERTY</b>		
<b>TITLE: TURNBULL TWP</b>		
<b>LOCATION MAP</b>		
Fig. 1		
Date: Oct. 1999	Scale: 1" = 125 miles	NTS:
Drawn: P. Gauthier	Interp: J.C. Grant	Job No.: E-359



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	<b>CLIENT: PROSPECTORS ALLIANCE CORP.</b>		
<b>PROPERTY: CARSCALLEN TWP PROPERTY</b>			
<b>TITLE: CARSCALLEN TWP</b>			
<b>PROPERTY LOCATION</b>			
Fig. 2			
Date: Oct. 1999	Scale: 1: 600 000	NTS:	
Drawn: P. Gauthier	Interp: J. C. Grant	Job No. E-360	



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 Suite 13, Hollinger Bldg, Timmins Ont.  
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CLIENT: PROSPECTORS ALLIANCE CORP.		
PROPERTY: TURNBULL TWP PROPERTY		
TITLE: TURNBULL TWP		
<b>PROPERTY LOCATION</b>		
Fig. 2		
Date: Oct. 1999	Scale: 1: 600,000	NTS:
Drawn: P. Gauthier	Interp: J. C. Grant	Job No: F-359

TURNBULL GRID:

The Turnbull grid is also situated to the west of the City of Timmins and it is located in the southeast quarter of the Township. Turnbull Township is also located in the Porcupine Mining Division, District of Cochrane of Northeastern, Ontario. Figure 1.

The access to the grid is somewhat more difficult. The grid is situated to the north of the same Mallette haulage road as the Carscallen grid. However, drivable access is only available to within 1200 meters of the southwest corner of the grid at the 10 kilometre marker on the haulage road . There is a drill road that travels north-northwest from this point that allows foot access to the grid. This drill road is extremely wet and is not suitable for ATV access but does give access to the southwest corner of the grid. Total travelling time from Timmins to the grid is about 90 minutes. Refer to figures 1 and 2.

CLAIM GROUP:

Carscallen Grid:

The claim numbers that were covered or partially covered by the Carscallen grid are as follows.

P-1226386.....9 units  
P-1219001.....4 units  
P-1226387.....6 units  
P-1185702.....6 units.

Refer to Figure 3, copied from MNDM Plan Map of Carscallen Township, G-3040, Scale 1:20,000.

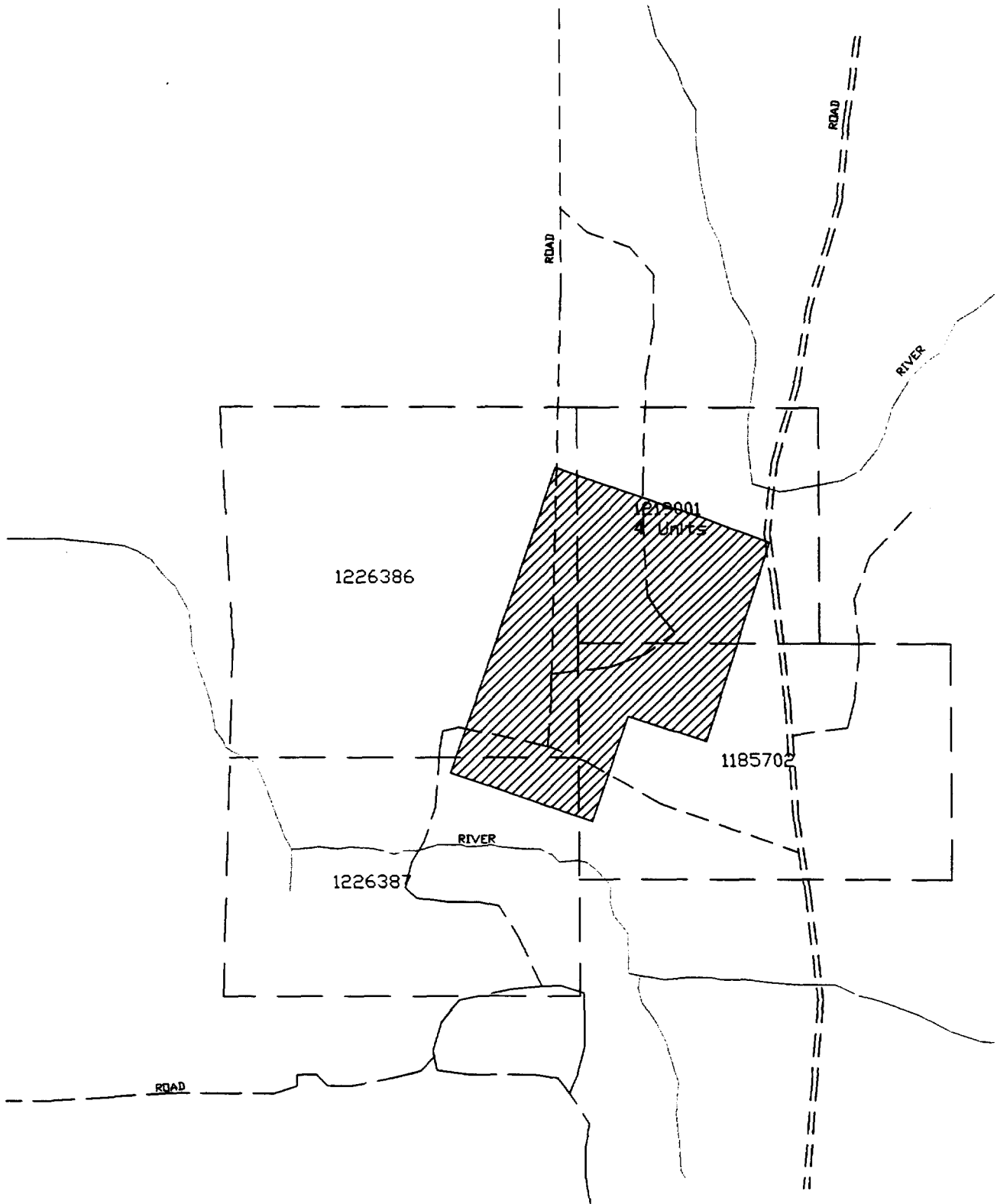
Turnbull Grid:

The claim numbers that were covered or partially covered by the Turnbull Grid are as follows.

P-1153103.....1 unit  
P-1153104.....1 unit  
P-1153105.....1 unit  
P-1153037.....1 unit  
P-1153042.....1 unit  
P-1152991.....1 unit  
P-1152990.....1 unit  
P-1152989.....1 unit  
P-1153098.....1 unit  
P-1153099.....1 unit

Refer to Figure 3, copied from MNDM Plan Map, G-3250, of Turnbull Township, scale 1:20,000. for the location of the claims.





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CLIENT: PROSPECTORS ALLIANCE CORP.

PROPERTY: CARSCALLEN TWP PROPERTY

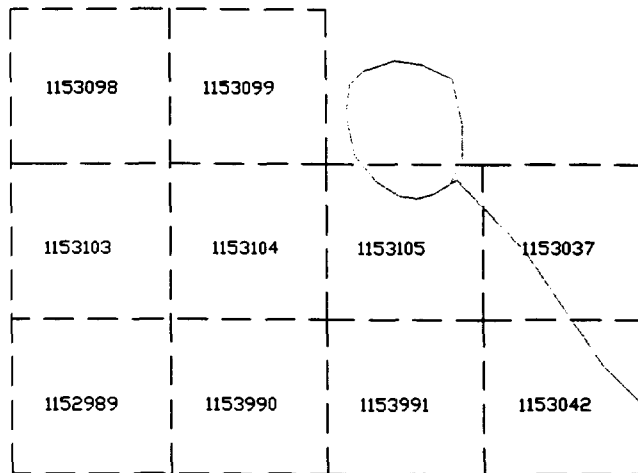
TITLE: CARSCALLEN TWP

**CLAIM SKETCH**

Fig. 3

Date: Oct. 1999	Scale: 1:20,000	NTS:
Drawn: P. Gauthier	Interp: J.C. Grant	Job No.: E-360

TURNBULL TWP



CREEK

GODFREY

GODFREY TWP

CARSCALLEN TWP



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Suite 13, Hollinger Bldg, Timmins Ont.  
Telephone: 705-267-4151, 267-2424

CLIENT: PROSPECTORS ALLIANCE CORP.

PROPERTY: TURNBULL TWP PROPERTY

TITLE: TURNBULL TWP

**CLAIM SKETCH**

Fig. 3

Date: Oct. 1999

Scale: 1:20,000

NTS:

Drawn: P. Gauthier

Interp: J.C. Grant

Job No.: E-359

PERSONNEL:

The field crew directly responsible for the collection of all of the raw data were as follows.

Erik Jaakkola.....Timmins, Ontario  
 Aurel Chaumont.....Timmins, Ontario  
 Joe DiMarco.....Timmins, Ontario

All of the work was completed under the direct supervision of J.C. Grant and all of the plotting and compilation was completed by P.Gauthier of Exsics.

GROUND PROGRAM:

The ground program that was completed on both of the grids were the same. Each grid had a detailed metric grid established using 100 meters line spacing with 25 meter stations on the Turnbull grid and 20 meter station spacing on the Carscallen Grid. A total of 3.6 kilometres of new grid was established on the Carscallen property and 10 kilometres of new grid was established on the Turnbull property. A total of 6.6 kilometres of surveys were done on the Carscallen Grid and 10 kilometres of survey were completed on the Turnbull Grid.

Upon completion of the cutting, each of the grids were then covered by a detailed magnetometer survey and an HLEM survey. The following parameters were kept constant throughout the survey of each grid.

Line spacing.....	100 meters
Station spacing.....	20 meters, Carscallen
Station spacing.....	25 meters, Turnbull
Mag readings.....	10 meters, Carscallen
Mag readings.....	12.5 meters, Turnbull
Diurnal correction.....	base station recorder
Record intervals.....	30 seconds
Reference field.....	58,500 gammas
Datum subtract.....	57,000 gammas
HLEM readings.....	20 meters, Carscallen
HLEM readings.....	25 meters, Turnbull
Coil separation.....	200 meters
Frequencies recorded.....	1777hZ and 444hz
Parameters measured.....	Inphase and quadrature components of the secondary field, in percent.

The surveys were completed using the Scintrex Envi Mag system and the Apex Parametrics, MaxMin II system. The EDA, OMNI IV system was used for the base station recorder for the magnetic survey. Refer to Appendix A and B of the report for the unit specifications.

Upon completion of the ground surveys, the collected data was then plotted onto base maps at a scale of 1:5000. The magnetic data was corrected and then levelled using a datum subtraction of 57,000 gammas. This data was then contoured at 10 gamma intervals on both grid where possible. A copy of these contour maps are included in the back pocket of this report.

The HLEM survey was also plotted onto base maps at a scale of 1:5000, one such map for each frequency. The data was then profiled at 1cm to +/-20%. The 444 frequency of the Carscallen grid was profiled at 1cm to +/- 10 %.

#### SURVEY RESULTS:

The survey results will be discussed separately for each of the grids.

#### TURNBULL GRID:

The surveys were successful in outlining several zones across the grid. Each of the zones have been labelled and will be discussed separately.

##### Zone A:

This zone is the strongest conductor on the grid and it can be followed from line 0 to 800MN and continues off of the grid in both directions. It has a conductivity range of 5 to 33 mohs and ranges in depth from 80 to 104 meters. The central and strongest portion of the zone has a direct magnetic high association.

##### Zone B:

This conductor parallels zone A and strikes across lines 400MN and 500MN. It has a conductivity range of 15 to 18 mohs and a depth range of 60 to 85 meters. The zone lies along the northern edge of the magnetic unit that is host to Zone A.

Zone C:

This conductor is situated at the east ends of lines 0 to 300MN and appears to continue off of the grid in both directions. It has a conductivity value of 14 mohs and lies at a depth of 100 meters. It also lies along the northern edge of a subtle magnetic low unit that can be followed from line 0 to 200MN. further coverage of the zone is required to better define the strike of this zone.

Zone D:

At this writing, this feature is weak and somewhat questionable. Further work is required to better define the zone. It does appear to lie in the center of the subtle magnetic high unit striking from line 0 to 200MN.

CARSCALLEN GRID:

The survey was successful in locating and outlining several zones across the grid. Each of the zones will be discussed separately.

Zone A:

This zone strikes from lines 4800ME to 5100ME and continues off of the grid to the east. The zone ranges in conductivity from 6 to 8 mohs and lies at a depth of 84 to 90 meters. The entire strike of the conductor correlates to a modest magnetic high unit.

Zone B and B':

Zone B is a strong conductor that strikes off of the grid to the east and continues to the west as far as line 4600ME. The zone was not covered by the present magnetic survey as it had been covered by an earlier survey. This conductor lies at a depth of 76 meters and has a conductivity of about 6 mohs.

Zone B' appears to relate to the same source as Zone B possibly a closely parallel stringer type response. At this writing it would require further coverage to better define the source.

Zone C:

This zone is a weak questionable zone at this time. It strikes across the southern sections of lines 4700ME to 4400ME and may continue off of the grid in both directions. The zone lies within and along a modest magnetic high unit. Further coverage would be required to better define the source of the zone.

CONCLUSIONS AND RECOMMENDATIONS:

Turnbull Grid:

The geophysical surveys were successful in locating and outlining at least three legitimate bedrock conductors worthy of further follow-up. Conductors A and B both represent good strong zones that should be tested by drilling. The zones appear to be dipping slightly grid west to near vertical. Both of the targets may be tested from the same collar location on line 500MN and or 400MN.

Zone C should also be followed up further as it appears to represent a good strong target that is getting stronger to the west.

At this writing, zone D is a somewhat weak and questionable response that may be followed up should zone C prove to be interesting once it is drill tested.

Carscallen Grid:

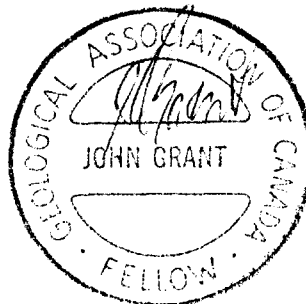
The geophysical program was also successful in locating and outlining several zones of modest conductivity across the grid. Certainly, zone A should be followed up with drilling to define the source of the zone. Zone B and B' should also be drill tested.

At this writing, zone C is a weak and questionable zone that may require further follow up to better define the source of the conductor.

Should any of these zone return favourable results, then all of the targets would have to be prioritized and followed up to full potential.

Respectfully submitted:

J.C.Grant, CET, FGAC  
October, 1999.



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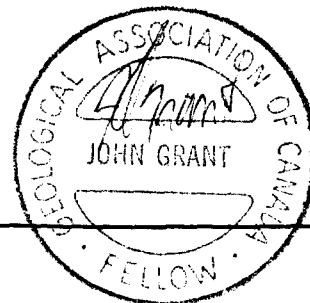
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CERTIFICATE

I, John C. Grant, hereby certify that:

- 1) I am a graduate technologist, (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 currently as Exploration Manager and Geophysicist for Exsics Exploration Limited since 1980.
- 2) I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984
- 3) I am a Fellow of the Geological Association of Canada, (FGAC), since 1986.
- 4) I have been actively engaged in my profession since May of 1975, including all aspects of exploration studies, surveys and interpretation.
- 5) I have no specific or special interest in the described property. I have been retained as a Consulting Geophysicist by the Property holders.

John Charles Grant, CET, FGAC.



*APPENDIX A*



# SCINTREX

## ENVI-MAG Environmental Magnetometer/Gradiometer

### Locating Buried Drums and Tanks?

The ENVI-MAG is the solution to this environmental problem. ENVI-MAG is an inexpensive, lightweight, portable WALKMAG™ which enables you to survey large areas quickly and accurately.

ENVI-MAG is a portable, proton precession magnetometer and/or gradiometer, for geotechnical, archaeological and environmental applications where high production, fast count rate and high sensitivity are required. It may also be used for other applications, such as mineral exploration, and may be configured as a total-field magnetometer, a vertical gradiometer or as a base station.

#### The ENVI-MAG

easily detects buried drums to depths of 10 feet or more

- more sensitive to the steel of a buried drum than EM or radar
- much less expensive than EM or radar
- survey productivity much higher than with EM or radar

### Features and Benefits

#### WALKMAG™

##### Magnetometer/Gradiometer

The "WALKMAG" mode of operation (sometimes known as "Walking Mag") is user-selectable from the keyboard. In this mode, data is acquired and recorded at the rate of 2 readings per second as the operator walks at a steady pace along a line. At desired intervals, the operator "triggers" an event marker by a single key stroke, assigning coordinates to the recorded data.

#### True Simultaneous Gradiometer

An optional upgrade kit is available to configure ENVI-MAG as a gradiometer to make true, simultaneous gradiometer measurements. Gradiometry is useful for geotechnical and archaeological surveys where small near surface magnetic targets are the object of the survey.

#### Selectable Sampling Rates

0.5 second, 1 second and 2 second sampling rates user selectable from the keyboard.

#### Main features include:

- select sampling rates as fast as 2 times per second
- "WALKMAG" mode for rapid acquisition of data
- large internal, expandable memory
- easy to read, large LCD screen displays data both numerically and graphically
- ENVIMAP software for processing and mapping data

ENVI-MAG comprises several basic modules; a lightweight console with a large screen alphanumeric display and high capacity memory, a staff mounted sensor and sensor cable, rechargeable battery and battery charger, RS-232 cable and ENVIMAP processing and mapping software.

For gradiometry applications an upgrade kit is available, comprising an additional processor module for installation in the console, and a second sensor with a staff extender.

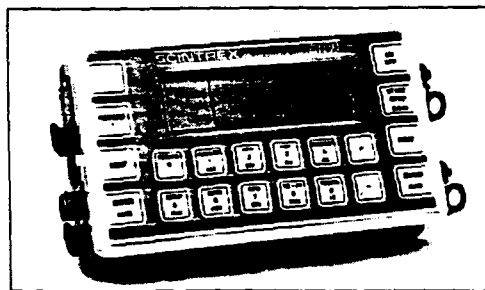


ENVI-MAG Proton Magnetometer in operation

For base station applications a Base Station Accessory Kit is available so that the sensor and staff may be converted into a base station sensor.

#### Large-Key Keypad

The large-key keypad allows easy access for gloved-hands in cold-weather operations. Each key has a multi-purpose function.



Front panel of ENVI-MAG showing a graphic profile of data and large-key keypad

#### Large Capacity Memory

ENVI-MAG with standard memory stores up to 28,000 readings of total field measurements, 21,000 readings of gradiometry data or 151,000 readings as a base station. An expanded memory option is available which increases this standard capacity by a factor of 5.

#### Easy Review of Data

For quality of data and for a rapid analysis of the magnetic characteristics of the survey line, several modes of review are possible. These include the measurements at the last four stations, the ability to scroll through any or all previous readings in memory, and a graphic display of the previous data as profiles, line by line. This feature is very useful for environmental and archaeological surveys.

#### Highly Productive

The "WALKMAG" mode of operation acquires data rapidly at close station intervals, ensuring high-definition results. This increases survey productivity by a factor of 5 when compared to a conventional magnetometer survey.

#### "Datacheck" Quality Control of Data

"Datacheck" provides a feature wherein at the end of each survey line, data may be reviewed as a profile on ENVI-MAG's screen. Datacheck confirms that the instrument is functioning correctly and

allows the user to note the magnetic relief (anomaly) on the line.

### Large Screen Display

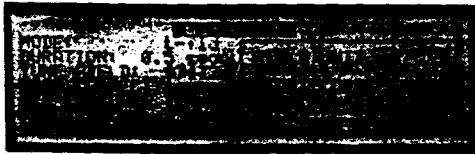
"Super-Twist" 64 x 240 dot (8 lines x 40 characters), LCD graphic screen provides good visibility in all light conditions. A display heater is optionally available for low-temperature operations below 0°C.



Close-up of the ENVI-MAG screen showing data presented after each reading

### Interactive Menus

The set-up of ENVI-MAG is menu-driven, and minimizes the operator's learning time, and on-going tasks.



Close-up of display of ENVI-MAG showing interactive set-up menu

## Specifications

### Total Field Operating Range

20,000 to 100,000 nT (gammas)

### Total Field Absolute Accuracy

+/- 1nT

### Sensitivity

0.1 nT at 2 second sampling rate

### Tuning

Fully solid state. Manual or automatic, keyboard selectable

### Cycling (Reading) Rates

0.5, 1 or 2 seconds, up to 9999 seconds for base station applications, keyboard selectable

### Gradiometer Option

Includes a second sensor, 20 inch (1/2m) staff extender and processor module

### "WALKMAG" Mode

0.5 second for walking surveys, variable rates for hilly terrain

### Digital Display

LCD "Super Twist", 240 x 64 dots graphics, 8 line x 40 characters alphanumeric

### Display Heater

Thermostatically controlled, for cold weather operations

### Keyboard Input

17 keys, dual function, membrane type

### Notebook Function

32 characters, 5 user-defined MACRO's for quick entry

### Rechargeable Battery and Battery Charger

An "off-the-shelf" lead-acid battery and charger are provided as standard. The low-cost "Camcorder" type battery is available from electronic parts distributors everywhere.

### HELP-Line Available

Purchasers of ENVI-MAG are provided with a HELP-Line telephone number to call in the event assistance is needed with an application or instrumentation problem.

### ENVIMAP Processing and Mapping Software

Supplied with ENVI-MAG, and custom designed for this purpose, is easy-to-use, very user-friendly, menu driven data processing and mapping software called ENVIMAP. This unique software appears to the user to be a single program, but is in fact a sequence of separate programs, each performing a specific task. Under the menu system, there are separate programs to do the following:

- read the ENVI-MAG data and reformat it into a standard compatible with the ENVIMAP software
- grid the data into a standard grid format
- create a vector file of posted values

### Standard Memory

Total Field Measurements: 28,000 readings  
Gradiometer Measurements: 21,000 readings  
Base Station Measurements: 151,000 readings

### Expanded Memory

Total Field Measurements: 140,000 readings  
Gradiometer Measurements: 109,000 readings  
Base Station Measurements: 750,000 readings

### Real-Time Clock

Records full date, hours, minutes and seconds with 1 second resolution, +/- 1 second stability over 12 hours

### Digital Data Output

RS-232C interface, 600 to 57,600 Baud, 7 or 8 data bits, 1 start, 1 stop bit, no parity format. Selectable carriage return delay (0-999 ms) to accommodate slow peripherals. Handshaking is done by X-on/X-off

### Analog Output

0 - 999 mV full scale output voltage with keyboard selectable range of 1, 10, 100, 1,000 or 10,000 nT full scale

### Power Supply

Rechargeable "Camcorder" type, 2.3 Ah, Lead-acid battery.

12 Volts at 0.65 Amp for magnetometer, 1.2 Amp for gradiometer,

External 12 Volt input for base station operations

Optional external battery pouch for cold weather operations

### Battery Charger

110 Volt - 230 Volt, 50/60 Hz

with line and baseline identification that allows the user to add some title information and build a suitable surround

- contour the gridded data
- autoscale the combined results of the posting/surround step and the contouring step to fit on a standard 8.5 ins. wide dot-matrix printer
- rasterize and output the results of step e) to the printer

ENVIMAP is designed to be as simple as possible. The user is required to answer a few basic questions asked by ENVIMAP, and then simply toggles "GO" to let ENVIMAP provide default parameters for the making of the contour map. The user can modify certain characteristics of the output plot. ENVIMAP'S menu system is both keyboard and mouse operable. HELP screens are integrated with the menu system so that HELP is displayed whenever the user requests it.

### Options Available

- True simultaneous gradiometer upgrade
- Base station upgrade
- Display heater for low temperature operations
- External battery pouch

### Operating Temperature Range

Standard 0° to 60°C  
Optional -40°C to 60°C

### Dimensions

Console - 10 x 6 x 2.25 inches  
(250 mm x 152 mm x 55 mm)

T.F. sensor - 2.75 inches dia. x 7 inches  
(70 mm x 175 mm)

Grad. sensor and staff extender - 2.75 inches dia. x 26.5 inches (70 mm x 675 mm)

T.F. staff - 1 inch dia. x 76 inches (25 mm x 2 m)

### Weight

Console - 5.4 lbs (2.45 kg)  
with rechargeable battery

T. F. sensor - 2.2 lbs (1.15 kg)

Grad. sensor - 2.5 lbs (1.15 kg)

Staff - 1.75 lbs (0.8 kg)

# SCINTREX

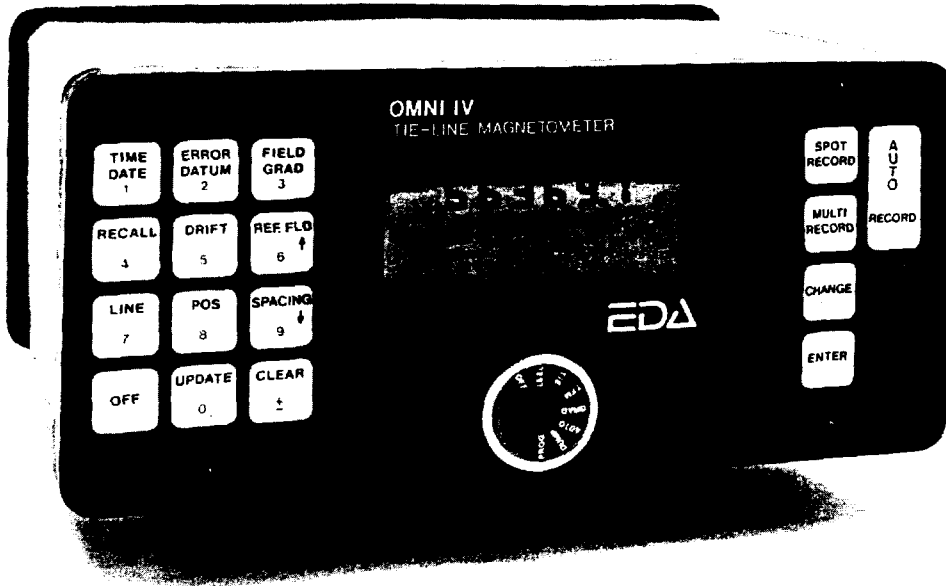
### Head Office

222 Snidercroft Road  
Concord, Ontario, Canada L4K 1B5  
Telephone: (905) 669-2280  
Fax: (905) 669-6403 or 669-5132  
Telex: 06-964570

### In the USA:

Scintrex Inc.  
85 River Rock Drive  
Unit 202  
Buffalo, NY 14207  
Telephone: (716) 298-1219  
Fax: (716) 298-1317

# 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	$\pm 0.02$ gamma
Statistical Error Resolution	0.01 gamma
Absolute Accuracy	$\pm 1$ gamma at 50,000 gammas at 23°C $\pm 2$ 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 $-40^{\circ}\text{C}$ 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	$-40^{\circ}\text{C}$ 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

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

Printed in Canada

*APPENDIX B*

# APEX

# MAXMIN II PORTABLE EM

**Five frequencies: 222, 444, 888, 1777 and 3555 Hz.**

**Maximum coupled (horizontal-loop) operation with reference cable.**

**Minimum coupled operation with reference cable.**

**Vertical-loop operation without reference cable.**

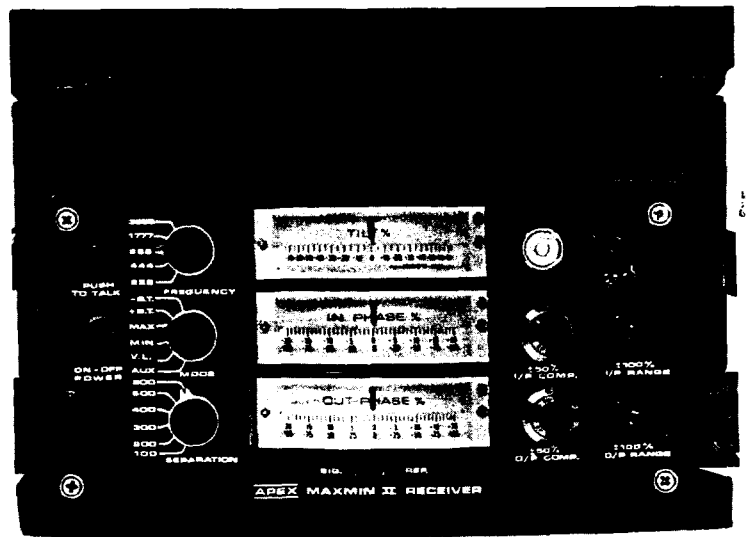
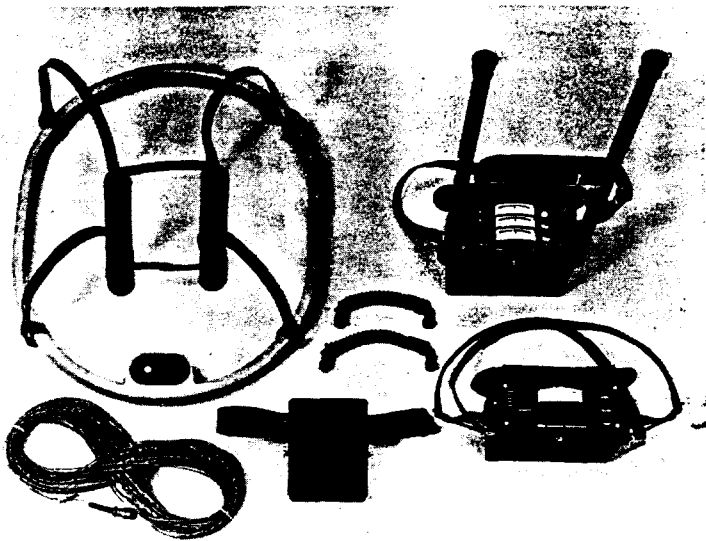
**Coil separations: 25, 50, 100, 150, 200 and 250 m (with cable) or 100, 200, 300, 400, 600 and 800 ft.**

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

**Built-in voice communication circuitry with cable.**

**Tilt meters to control coil orientation.**





**OPERATIONAL DATA**

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

**Types of Measurement:**

- 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.

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

**Parameters Read:**

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

**Readouts:**

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

**Scale Ranges:**

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

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

**Repeatability:** ±0.25% to ±1% normally, depending on conditions, frequencies and coil separation used.

**Transmitter Output:**

- 222Hz : 220 Atm<sup>2</sup>
- 444Hz : 200 Atm<sup>2</sup>
- 888Hz : 120 Atm<sup>2</sup>
- 1777 Hz : 60 Atm<sup>2</sup>
- 3555Hz : 30 Atm<sup>2</sup>

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

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

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

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

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

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

**Receiver Weight:** 6kg (13 lbs.)

**Transmitter Weight:** 13kg (29 lbs.)

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

Specifications subject to change without notification.

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

Phone: (416) 495-1612      Cables: APEXPARA TORONTO      Telex: 06-966773 NORDVIK TOR



Declaration of Assessment Work Performed on Mining Land

Mining Act, subsections 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)

1996000393

Assessment Files Research Imaging



42A05NE2022 2.19820 TURNBULL 900

subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, all assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Assessment Files Research Imaging, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

- Instructions: - For work performed on Crown Lands before recording a claim, use form 0240. - Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Form with fields for Name, Address, Client Number, Telephone Number, and Fax Number for Falconbridge Limited and Lionel Barkhouse Agent.

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

- Geotechnical: prospecting, surveys, assays and work under section 18 (regs) [checked]
Physical: drilling stripping, trenching and associated assays [unchecked]
Rehabilitation [unchecked]

Form with fields for Work Type (Linecutting, Geophysics), Office Use, Commodity, Total \$ Value of Work Claimed (\$5778), Dates Work Performed, NTS Reference, Mining Division, and Resident Geologist District.

- Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - provide proper notice to surface rights holders before starting work; - complete and attach a Statement of Costs, form 0212; - provide a map showing contiguous mining lands that are linked for assigning work; - include two copies of your technical report.

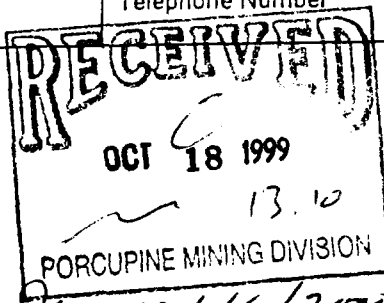
3. Person or companies who prepared the technical report (Attach a list if necessary)

Form with fields for Name, Address, Telephone Number, and Fax Number for Exsics Exploration Limited. Includes a RECEIVED stamp dated OCT 19 1999.

4. Certification by Recorded Holder or Agent

I, Lionel Barkhouse Agent, do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Form with fields for Signature of Recorded Holder or Agent, Date (Oct 16, 1999), and Agent's Address.



Received: January 16, 2000



land where work was performed, at the time work was performed. A map showing the contiguous claims must accompany this form.

W9960.00393

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of to be distributed at a future date
eg TB 7827	16 ha	\$26,825	2.16020 N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 1152990	1	1057	400	479	178
2 1153104	1	1126	400	726	
3 1153103	1	912	400	512	
4 1153098	1	97	400		
5 1152989	1	503	400	103	
6 1153105	1	893	400	493	
7 1153037	1	73	400		
8 1153042	1	74	400		
9 1152991	1	616	400	216	
10 1152994	1	37	400		
11 1153100	1	36	400		
12 1153099	1	354	400		
13 1153050	1		400		
14 1153051	1		400		
15					
Column Totals		5778	5600	2529	178

I, Lionel Bonhomme Agent, do hereby certify that the above work credits are eligible for subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: [Signature] Date: Oct 16/99

**6. Instructions for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you will prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working back wards, or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

**For Office Use Only**

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

OCT 18 1999  
13.10

**RECEIVED**  
OCT 19 1999  
GEOSCIENCE ASSESSMENT OFFICE

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2.19820

Work Type	Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small>	Cost Per Unit of work	Total Cost
Linecutting	10 Km.	265.	2650.
MAG.	10 Km.	90	900
MAXMIN	8 Km.	150.	1200.
<b>Associated Costs (e.g. supplies, mobilization and demobilization).</b>			
	Report writing	*65 Km.	650.
<b>Transportation Costs</b>			
<b>Food and Lodging Costs</b>			
			5400
			378
			5778
<b>Total Value of Assessment Work</b>			5778

OCT 13 1999

13.10

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total \$ value of assessment work

**Note:**

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

**Certification verifying costs:**

I, Richard Robinson, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work. I am authorized to make this certification.

**RECEIVED**  
OCT 19 1999  
GEOSCIENCE ASSESSMENT OFFICE

Agent  
Signature

Date  
OCT 15/99

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

Telephone: (888) 415-9845  
Fax: (877) 670-1555

November 19, 1999

FALCONBRIDGE LIMITED  
SUITE 1200, 95 WELLINGTON STREET WEST  
TORONTO, ONTARIO  
M5J-2V4

Visit our website at:  
[www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpg.htm](http://www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpg.htm)

Dear Sir or Madam:

**Submission Number:** 2.19820

**Status**

**Subject: Transaction Number(s):** W9960.00393 Approval

---

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact STEVE BENETEAU by e-mail at [steve.beneteau@ndm.gov.on.ca](mailto:steve.beneteau@ndm.gov.on.ca) or by telephone at (705) 670-5855.

Yours sincerely,



ORIGINAL SIGNED BY  
Blair Kite  
Supervisor, Geoscience Assessment Office  
Mining Lands Section

# Work Report Assessment Results

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**Submission Number:** 2.19820

**Date Correspondence Sent:** November 19, 1999

**Assessor:** STEVE BENETEAU

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<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9960.00393	1152990	TURNBULL	Approval	November 18, 1999

**Section:**

14 Geophysical MAG

14 Geophysical EM

**Correspondence to:**

Resident Geologist  
South Porcupine, ON

**Recorded Holder(s) and/or Agent(s):**

Lionel Bonhomme  
TIMMINS, ONTARIO, CANADA

Assessment Files Library  
Sudbury, ON

FALCONBRIDGE LIMITED  
TORONTO, ONTARIO

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REFERENCES

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

(R2) - AGGREGATE PERMIT - NOTICE RECEIVED JUNE 16, 1993

(R3) - THE MINING AND SURFACE RIGHTS ARE WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT R.S.O. 1990 DATED JAN. 11, 1996 AT 10:15 A.M. ORDER NO. W-P-1/96 NER.

NOTES

THIS TOWNSHIP LIES WITHIN THE MUNICIPALITY OF THE CITY OF TIMMINS.

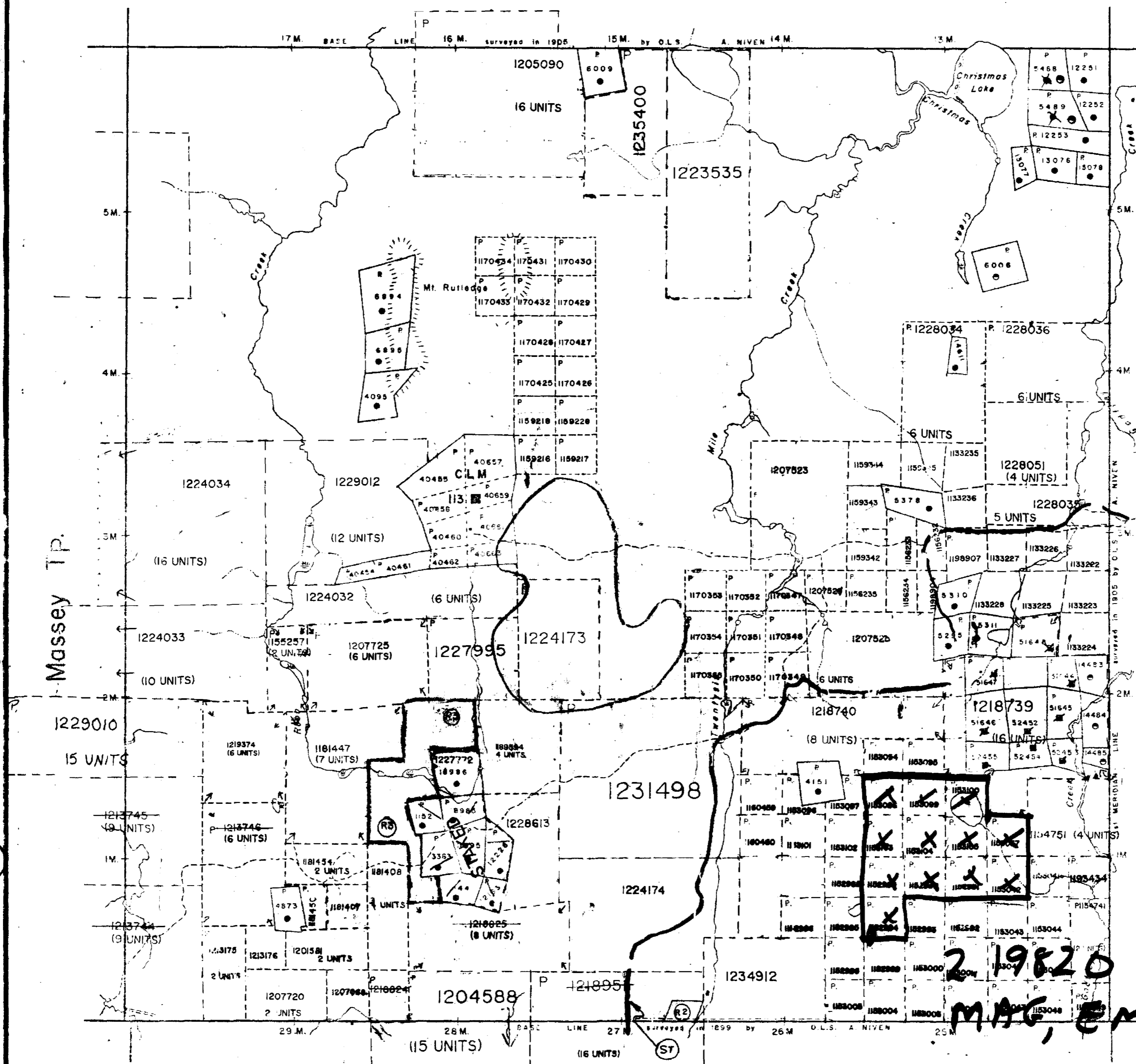
(ST) - PROPOSED SNOWMOBILE TRAIL NOTICE REC'D 93-MAY-20

(E2) - THIS TWP SUBJECT TO FOREST ACTIVITY IN 1995-9 FURTHER INFORMATION AVAILABLE ON FILE.

**□ - open**  
**June 1/97.**  
**(see Ont. Gazette)**

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.

Robb TP



LEGEND

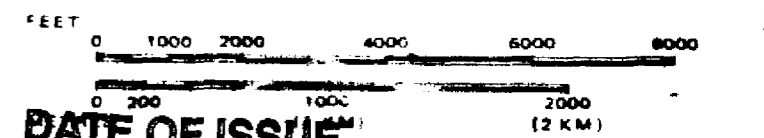
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- 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. 1910 CHAP. 380, SEC. 63, SUBSEC. 1

SCALE: 1 INCH = 40 CHAINS



DATE OF ISSUE

OCT 01 1998

PROVINCIAL RECORDING  
 OFFICE - SUDBURY  
 TOWNSHIP

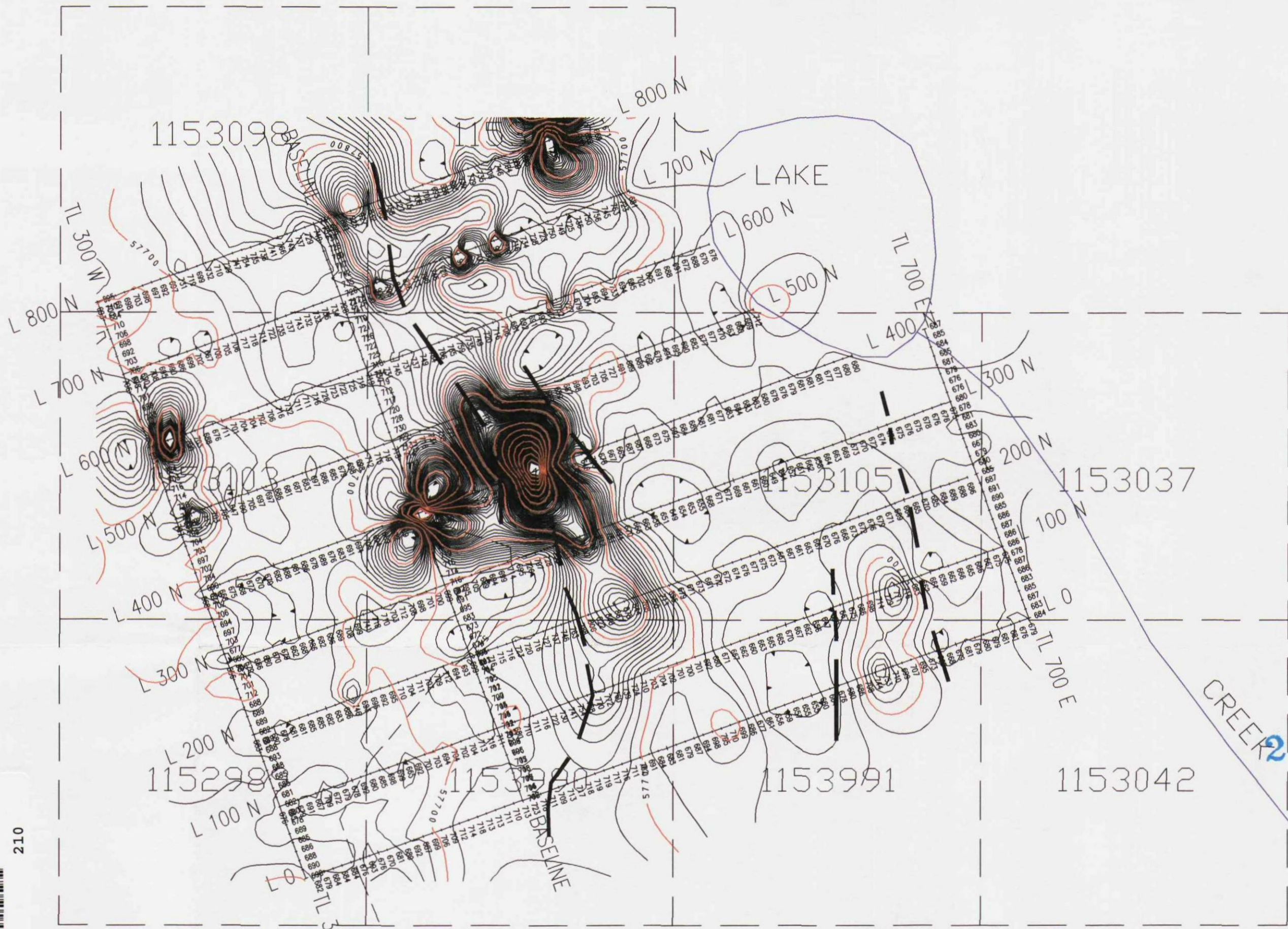
TURNBULL

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

Ministry of Natural Resources  
 Land Management Branch  
 Ontario

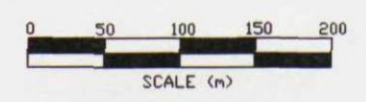
Date MARCH, 1985  
 Number G-3250  
 ACTIVATED JANUARY 30, 1990






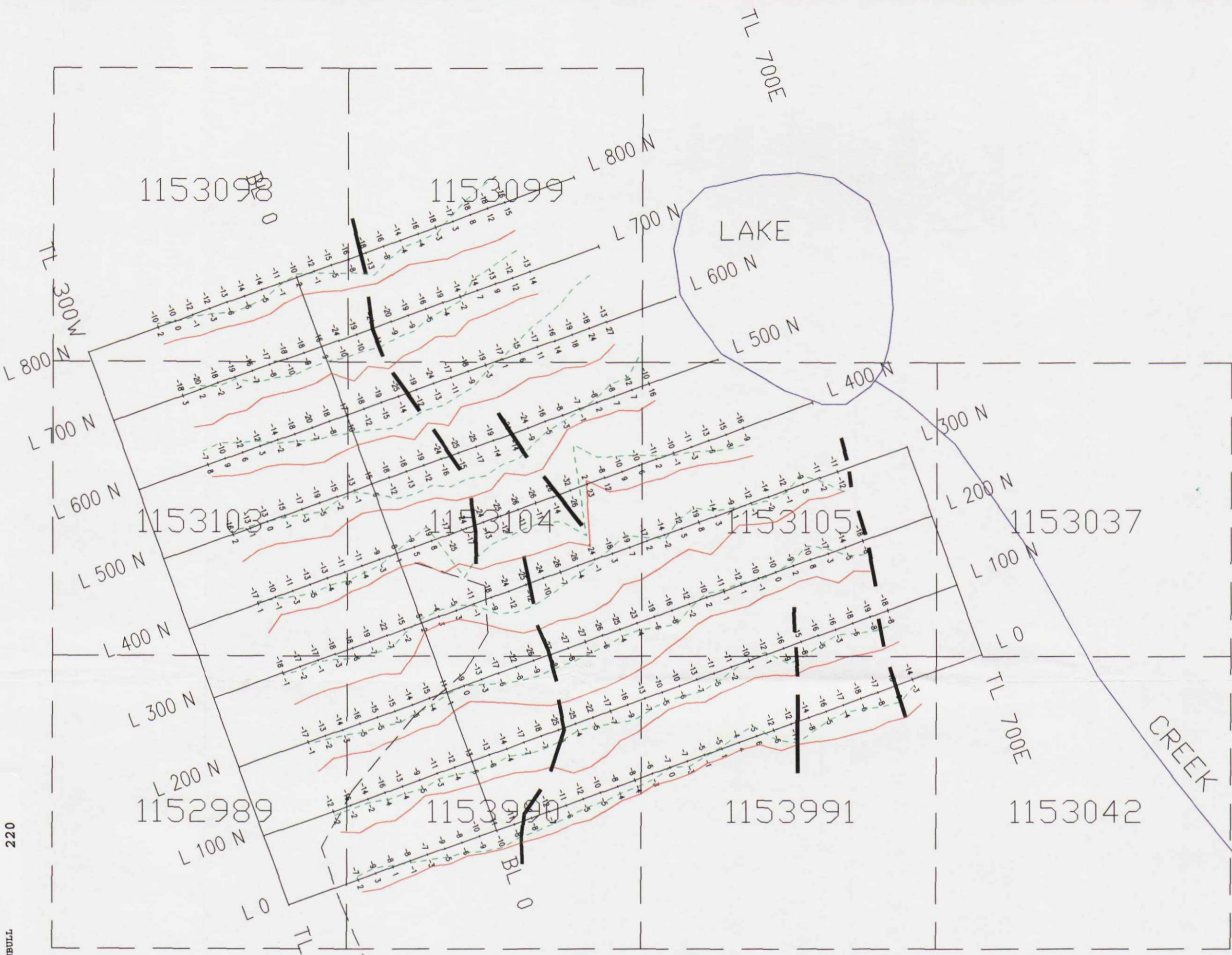
2.19820 CREEK

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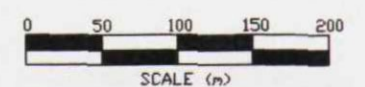


**LEGEND**  
Instrument: SCINTREX ENVI MAG, BRGM OMNI-IV  
Parameters Measured: Earth's total magnetic field  
Accuracy: +/- 0.1 nano-teslas  
Diurnals: Corrected by base station recorder  
Contour Interval: 0,10,20,30,40,50,.....  
Reference Field: 58,500 gammas  
Datum Subtracted: 57,000 gammas

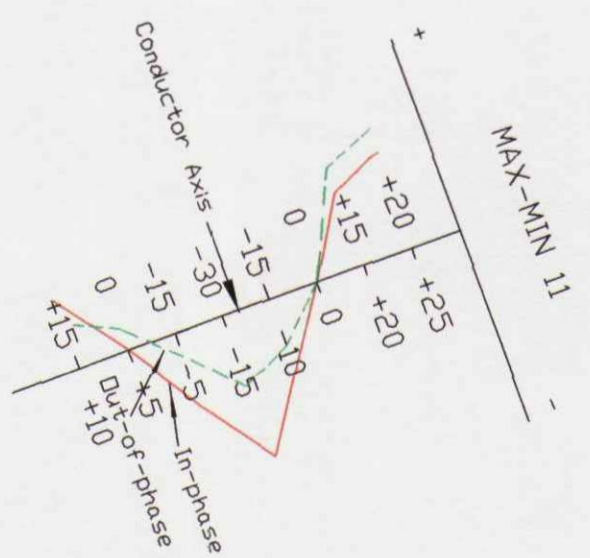
 **EXSICS EXPLORATION LTD.**  
P.O. Box 1880, P4N-7X1  
Suite 13, Hollinger Bldg, Timmins Ont.  
Telephone: 705-267-4151, 267-2424  
CLIENT: PROSPECTORS ALLIANCE CORP  
PROPERTY: TURNBULL TWP PROPERTY  
TITLE: TURNBULL TWP  
**MAGNETOMETER SURVEY**  
Date: Oct. 1999 Scale: 1:5000 NTS:  
Drawn: P.Gauthier Interp: J.C.Grant Job No.: E-359



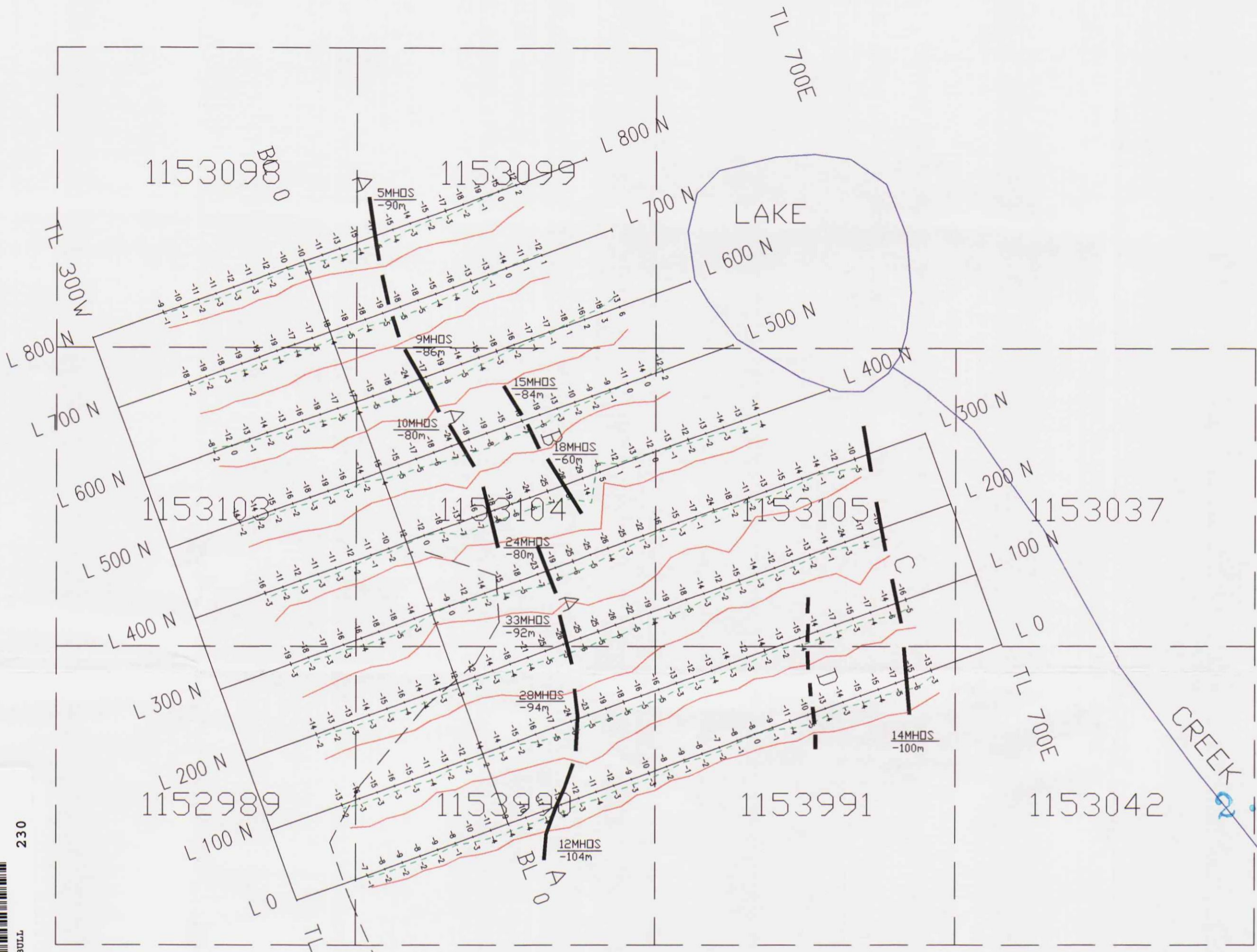
2.19820 RECEIVED  
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**LEGEND**  
Instrument: Apex Parametrics Max-Min 11  
Mode: Maximum Coupled, Horizontal Loop Survey  
Parameters Measured: Inphase (%)  
Out of phase (%)  
Frequency: 1777 Hz  
Coil Separation: 200m  
Operator: E. Jaakkola  
Profile Scale: 1cm=+/-20%

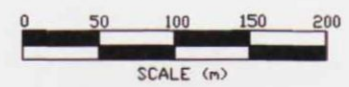


EXSICS EXPLORATION LTD. P.O. Box 1880, P4N-7X1 Suite 13, Hollinger Bldg, Timmins Ont. Telephone: 705-267-4151, 267-2424		
CLIENT: PROSPECTORS ALLIANCE CORP.		
PROPERTY: TURNBULL TWP PROPERTY		
TITLE: TURNBULL TWP MAX-MIN II 1777Hz		
Date: Oct. 1999	Scale: 1:5000	NTS:
Drawn: P.Gauthier	Interp: J.C.Grant	Job No.: E-359

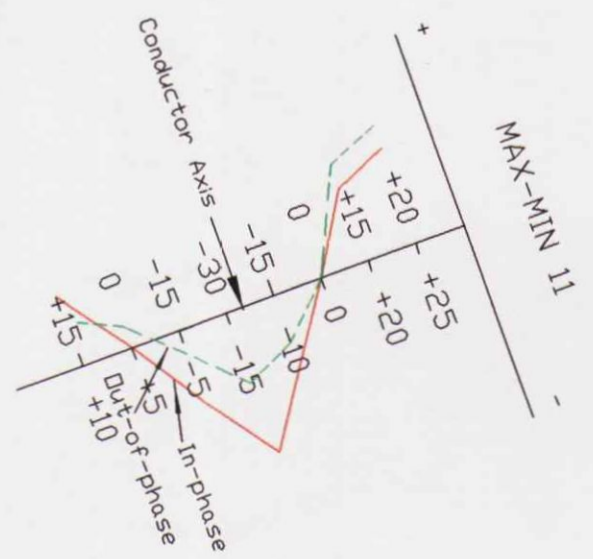



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OFFICE

2.19820



**LEGEND**  
Instrument: Apex Parametrics Max-Min 11  
Mode: Maximum Coupled, Horizontal Loop Survey  
Parameters Measured: Inphase (%)  
Out of phase (%)  
Frequency: 444 Hz  
Coil Separation: 200m  
Operator: E. Jaakkola  
Profile Scale: 1cm=+/-20%



 **EXSICS EXPLORATION LTD.**  
P.O. Box 1880, P4N-7X1  
Suite 13, Hollinger Bldg, Timmins Ont.  
Telephone: 705-267-4151, 267-2424  
**CLIENT: PROSPECTORS ALLIANCE CORP.**  
**PROPERTY: TURNBULL TWP PROPERTY**  
**TITLE: TURNBULL TWP**  
**MAX-MIN II 444Hz**  
Date: Oct. 1999 Scale: 1:5000 NTS:  
Drawn: P. Gauthier Interp: J.C. Grant Job No.: E-359