



42C16NW0102 2.12452 ERMINE

010

GEOPHYSICAL REPORT  
ON THE  
DERRY-ERMINE PROJECT  
FOR  
DERRY GOLD INC.

RECEIVED

MAY 8 1989

MINING LANDS SECTION

Prepared by:  
S. Anderson  
Exsics Exploration  
April 20, 1989



42C16NW0102 2.12452 ERMINE

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INTRODUCTION

A magnetic and electromagnetic (horizontal loop) survey was conducted on the Derry-Ermine Project located in Derry and Ermine Townships, District of Algoma.

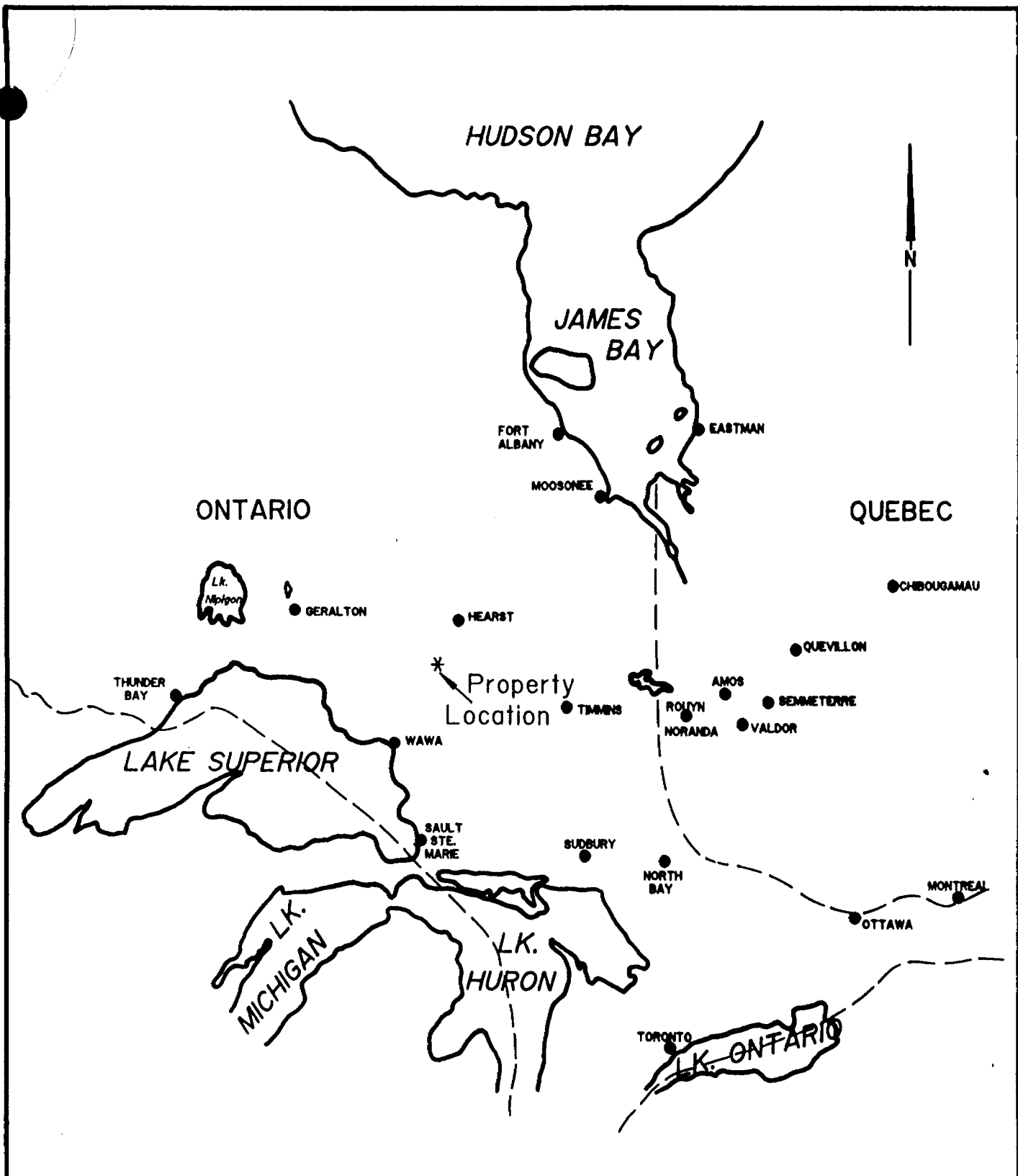
This survey was conducted by Exsics Exploration Limited under contract to Derry Gold Inc., and was completed during the month of December 1988. The program was carried out on a portion of the property, which consisted of 66 contiguous unpatented mining claims. All of the claims surveyed are located on, or partially on Kabinakagami Lake which were covered by a total of 56.6 km (35.17 miles) of grid lines. The purpose of the program was to investigate this portion of the property for any geophysical responses which may indicate areas favorable for gold or base metal deposition.


PERSONNEL

The people directly involved with this program were employed by Exsics Exploration Limited, and are as follows:

Wayne Pearson.....Timmins  
Richard Mathieu.....North Bay  
Robin Mathieu.....North Bay

All work was supervised by J. C. Grant.



		
<b>EXSICS EXPLORATION LTD.</b> P.O. Box 1000, P4N-7X1 Suite 13, Hollinger Bldg, Timmins Ont. Telephone: 705-267-4251		
<b>CLIENT: DERRY GOLD RESOURCES INC.</b>		
<b>PROPERTY: DERRY - ERMINE PROJECT</b>		
<b>TITLE:</b> <div style="text-align: center; font-size: 1.2em; font-weight: bold;">LOCATION MAP</div>		
Fig. 1		
<b>Date:</b> April 1989	<b>Scale:</b> 1"=125miles	<b>NTS:</b>
<b>Drawn:</b>	<b>Interp:</b>	<b>Job No.</b> EE-218

CLAIMS

The claims covered and partially covered by the Derry-Ermine  
Project are listed below:

<u>Claim #</u>	<u>Township</u>	<u>Claim #</u>	<u>Township</u>
916641	Ermine	952957	Ermine
916658	"	952958	"
916659	"	952959	"
916660	"	952967	"
916675	"	952968	"
916676	"	952969	"
916677	"	952970	"
916678	"	952983	"
916679	"	952984	"
916692	"	952985	"
916693	"	952986	"
916694	"	952993	"
916695	"	952994	"
916696	"	952995	"
916697	"	953011	"
916698	Ermine	953012	Ermine

<u>Claim #</u>	<u>Township</u>	<u>Claim #</u>	<u>Township</u>
931467	Derry	953019	Ermine
932313	"	953020	"
932314	"	953021	"
932315	"	953037	"
932333	"	953038	"
932334	"	953039	"
932335	"	953040	"
932336	"	932361	Derry
932337	"	932362	"
932338	"	932363	"
932339	"	932364	"
932340	"	932381	"
932356	"	932382	"
932357	"	932383	"
932358	"	932384	"
932359	"	932385	"
932360	"	932387	"

66 Claims

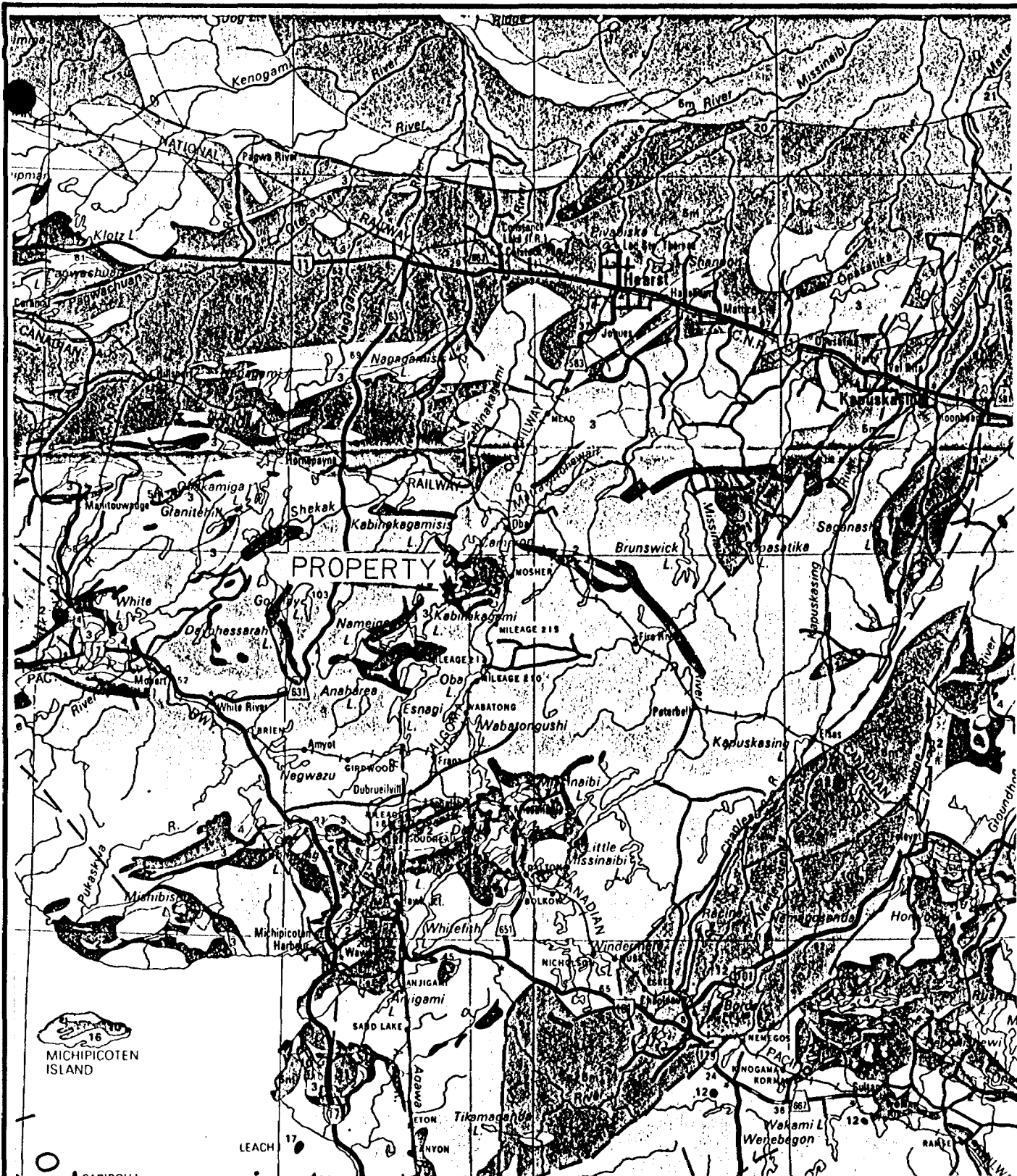
### LOCATION AND ACCESS

The Derry-Ermine Project is located in Derry and Ermine Townships, District of Algoma, Sault Ste. Marie Mining Division. It is situated approximately 96.5 km (60 miles) southwest from the town of Hearst and approximately 21 km (13 miles) southwest from the village of Oba. The entire grid is located on the central section of Kabinakagami Lake.

Access to the property during the survey period was gained by going south from Hearst on Hwy 583 and the Caithness road for approximately 96.5 km (60 miles) to the village of Oba.

From Oba, a camp was mobbed into Kabinakagami Lake by helicopter supplied by Canadian Helicopters from Wawa, and a base camp was established on the lake near the property. From here, the grid was accessed by snowmobile for the entire survey period. A one hour snowmobile ride from the base camp, down the Oba river, provided access to the village of Oba in case of emergency.

During the summer months, the property is most easily accessed by float plane. However, access by boat is also possible by way of the Oba River which leads from Oba to Kabinakagami Lake.



**EXSICS EXPLORATION LTD.**

P.O. Box 1000, P4N-7X1  
 Suite 13, Hollinger Bldg, Timmins Ont.  
 Telephone: 705-267-4751

**CLIENT: DERRY GOLD RESOURCES INC.**

**PROPERTY: DERRY - ERMINE PROJECT**

**TITLE:**

**ROAD LOCATION MAP**

Fig. 2

**Date: April 1989**

**Scale:**

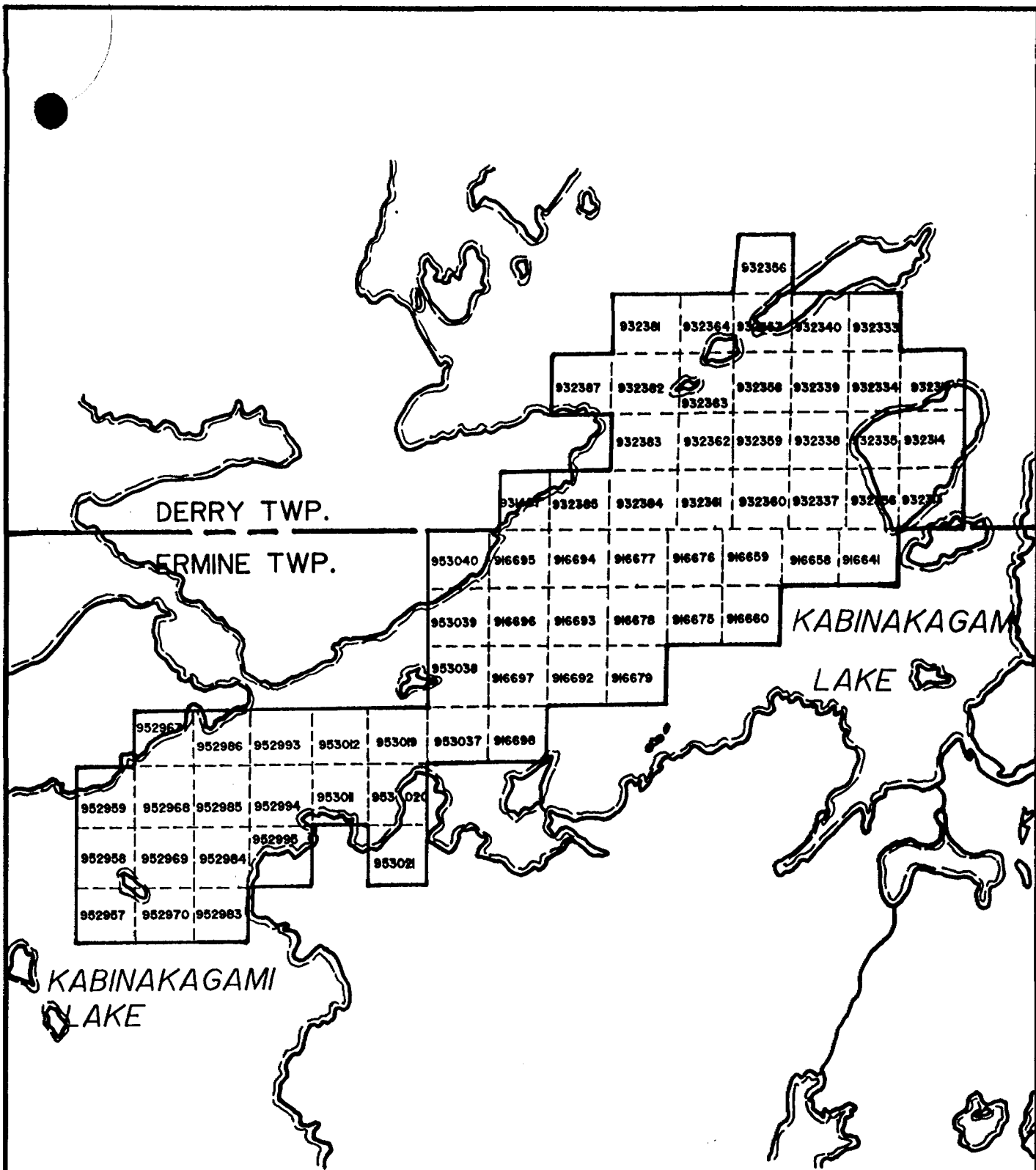
**NTS:**

**Drawn:**

**Interp:**

**Job No. EE-218**





**EXSICS EXPLORATION LTD.**  
 P.O. Box 1888, P4N-7X1  
 Suite 13, Hollinger Bldg. Timmins Ont.  
 Telephone: 705-267-4151

**CLIENT: DERRY GOLD RESOURCES INC.**

**PROPERTY: DERRY - ERMINE PROJECT**

**TITLE:**  
**CLAIM BLOCK SKETCH**

Fig. 3

Date: April 1989

Scale:

NTS:

Drawn: P.G.

Interp:

Job No. EE-218

## GEOPHYSICAL PROGRAM

This program, completed by Exsics Exploration Limited during the month of December 1988, consisted of a total field magnetic survey and a two frequency Horizontal Loop EM (Max-Min II) survey. The entire grid was read at 200 meter line spacing and 25 meter station intervals.

### Magnetic Survey

The magnetic survey was completed on 50 km (31 miles) of grid lines using the EDA Omni IV System. A total of 2000 readings were recorded across the grid. The specifications on the EDA Omni IV System can be found under Appendix A of this report.

This survey was done by using a base station. A fixed point was established on the survey grid, and the base station unit was tuned to a reference field of 58,000 gammas. The field units were also tuned at the same fixed point and set to the same reference field.

The base station unit was set to record and store readings at 30 second intervals, so as to monitor any spiking or change in the earth's diurnal throughout the day.

At the end of the day, the field units and the base station unit are coupled together and the raw field data is dumped to the base station, where it is merged. The internal microprocessor then computes the diurnal variation in the earth's magnetic field for each surveyed grid coordinate by comparing the times at which the readings

were taken and computing any mid-interval values.

This correlation is done during the data dump of the units. The retrieved data is corrected data ready for plotting. Each value has had 58,000 gammas subtracted from it for ease in plotting.

The base station corrected method is most useful in the northern latitudes where more detailed monitoring of the diurnal variation is required.

This unit is capable of recording and storing magnetic values accurate to the decimal point, thus greatly improving the accuracy and quality of the data obtained.

The data obtained in the field was then plotted on a base map at a scale of 1:5000 and contoured at 100 gamma intervals wherever possible. This map can be found in the back pocket of this report.

#### Horizontal Loop EM Survey

The HEM Survey was conducted on 50 km (31 miles) of grid lines using the Apex Max-Min II System. A total of 2000 readings were recorded across the entire grid.

The survey itself consisted of recording two frequencies, a high (1777 hz), and a low (444 hz), at 25 meter intervals. A coil separation of 150 meters was used throughout the entire survey, resulting in a theoretical search depth of 75-80 meters. The recorded values for this HEM Survey are plotted at the midpoint between the two operators.

This survey results in a negative value positioned over the conductor axis, with positive peaks approximately 75 meters each side of the negative. The shoulder with the higher positive peak represents the down dip side of the conductor.

The collected data for each of the two frequencies consisted of an in-phase and quadrature value.

The data for each of these frequencies was then plotted on separate base maps at a scale of 1:5000. The in-phase values were plotted on the right side of the line and the out of phase (quadrature) plotted on the left side. The values were then profiled at a scale of 1cm=20%, with negative values profiled to the left of the line and positive values to the right.

Maps for the 1777 hz and 444 hz frequencies can be found in the back pocket of this report.

## SURVEY RESULTS

The HEM Survey was successful in outlining a number of conductive zones striking across the property. Each of these zones will be discussed individually and in further detail below:

### Zone A:

This HEM conductor strikes the entire length of the property, from L48E/575N to L8W/400N, and likely extends off the grid to the east and west. The zone appears to be offset slightly between L42E and L44E, and between L28E and 30E. The western portion of this zone has an approximate conductivity of 1.5 mhos and a depth to source of 7.5 meters.

There is a weak magnetic high flanking this zone to the south from L32E to L38E. This zone is also situated along the northern flank of a strong bullseye magnetic feature from L18E to L26E. These strong magnetics may be the result of iron formation. As well, strong magnetics which may also be related to iron formation, flank this zone to the south from L4W to L6W.

This feature tends to run parallel and to the south of the lakeshore for it's entire strike length, and may be a overburden response.

Zone B:

This is an HEM conductor which strikes from L34E/875N to L42E/1050N, and would appear to extend off the property in both directions. It has approximate conductivity of 1.5 mhos and a depth to source of 12 meters.

The feature's conductor axis is offset slightly between L32E and L34E, and between L42E and L44E, which appears to be the result of influence from the shore line. As with Zone A, this feature parallels the shore line to the south throughout most of it's strike length, and may be an overburden response.

Zone C:

This zone strikes from L24E/175N to L50E/25S, and appears to extend off the property to the east. This feature may extend as far west as L34E/250N, being broken between L38E and L40E. The western portion of this zone is flanked to the south by a magnetic high on L36E.

Zone D:

This zone strikes from L10E/250S to L18E/50S. It is offset between L12E and L14E, which is likely the result of influence from a small island on L10W. This feature appears to be cut off to the east by the strong bullseye magnetics mentioned under Zone A. To the west it is cut off by north-south striking structure, shown by a magnetic high, which is likely a diabase dyke cutting through the area, as shown by Map 2220, Manitouwadge-Wawa Sheet, Geological Compilation Series.

## RECOMMENDATIONS AND CONCLUSIONS

The geophysical program conducted on the property was successful in outlining a number of areas of interest, which were described under results. All of these areas should be looked at in further detail.

First priority should be given to Zone A, which shows a relatively strong response, striking across most of the survey grid.

Zone B, also shows a relatively strong response, but over a shorter strike length, and should have second priority.

Zones C and D show weaker response over shorter strike lengths, and would have last priority.

As well as the zones discussed, there were a number of other areas with weak responses located. None of these areas should be dismissed without further investigation.

Because the survey grid is located almost entirely over Kabinakigami Lake, any further work is limited to either additional geophysical programs, or if the zones are felt to be resolved good enough, a drill program.



If some of the zones discussed are not felt to be resolved good enough to drill, further geophysical programs may be considered. An electromagnetic (Max-Min) survey using a different cable length may help detect any zones which could be the result of an overburden response. As well, a "gradient array" Induced Polarization Survey would be very useful in determining the validity of any of the zones in question.

Respectfully Submitted,



S. Anderson

Exsics Exploration Ltd.

CERTIFICATION

I, Steve Anderson of Timmins, Ontario hereby certify that:

1. I hold a three year Technologist Diploma from the Sir Sandford Fleming College, Lindsay, Ontario, obtained in 1982.
2. I have been practising my profession since 1980 in Ontario, Quebec, Saskatchewan and NWT, for Urangesellschaft Canada Ltd., Asamera Oil Ltd., Rayan Explorations, and most recently Exsics Exploration Ltd.
3. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience, and on the results of the field work conducted on the property during December, 1988.
4. I hold no interest, directly or indirectly in this property, nor do I expect to receive any interest in the DERRY-ERMINE PROJECT for DERRY GOLD INC., or any of it's subsidiary companies.

Dated this 20th day of April 1989  
at Timmins, Ontario.

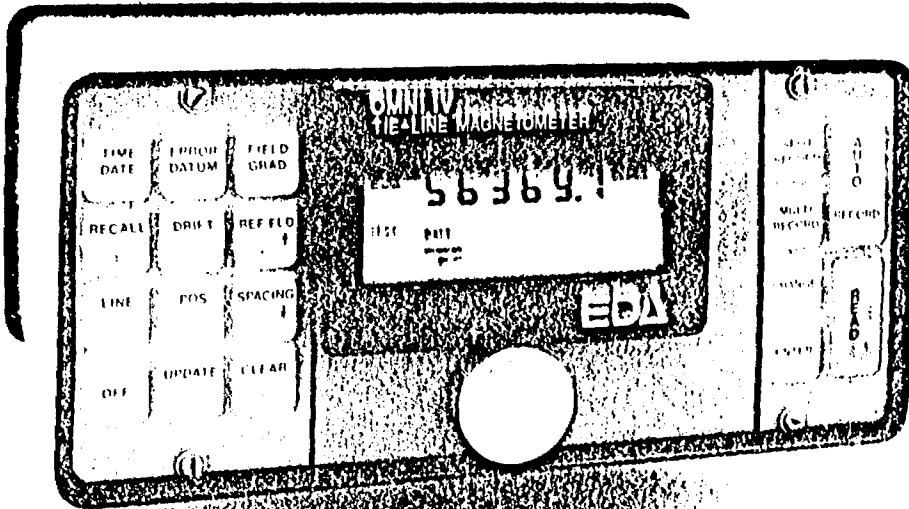


S. D. Anderson

APPENDICES

APPENDIX A

# OMNI IV "Tie-Line" Magnetometer



## OMNI IV's Major Benefits

- 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 (0.5m 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 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

A P P E N I X   B

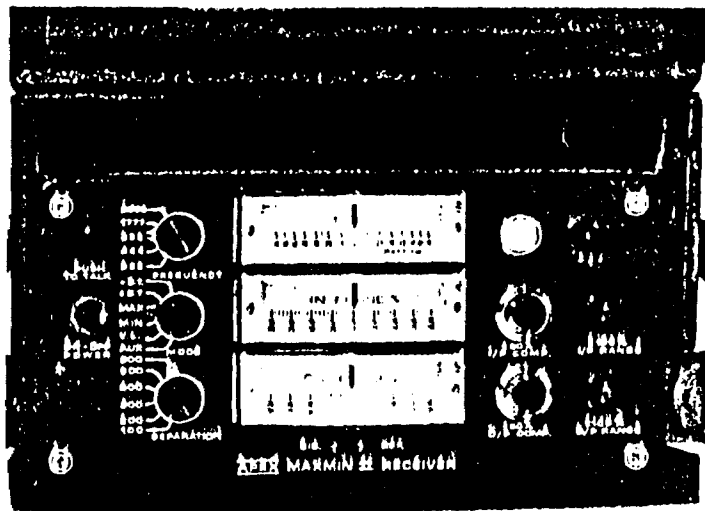
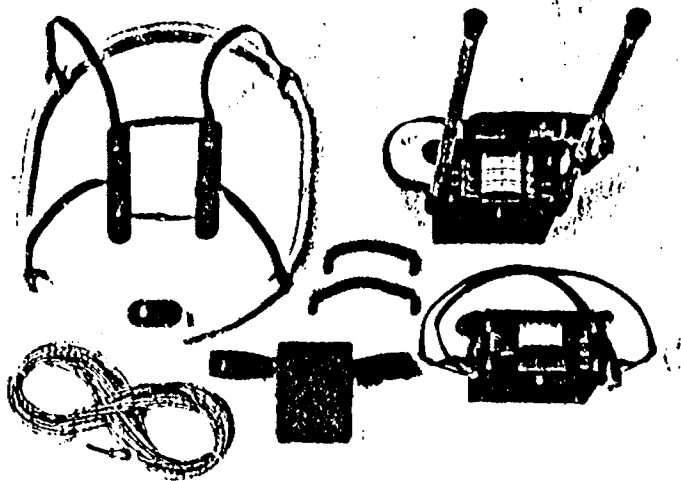
# APEX

# 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.







## SPECIFICATIONS :

- Frequencies:** 222, 444, 888, 1777 and 3555 Hz.
- Modes of Operation:**
- MAX:** Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with 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 VL 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 VL 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 VL mode.
- Scale Ranges:**
- In-Phase:  $\pm 20\%$ ,  $\pm 100\%$  by push-button switch.
  - Quadrature:  $\pm 20\%$ ,  $\pm 100\%$  by push-button switch.
  - Tilt:  $\pm 75\%$  slope.
  - Null (V.L.): Sensitivity adjustable by separation switch.
- Readability:** In-Phase and Quadrature: 0.25% to 0.5% ; Tilt: 1%.
- Repeatability:**  $\pm 0.25\%$  to  $\pm 1\%$  normally, depending on conditions, frequencies and coil separation used.
- Transmitter Output:**
- 222 Hz : 220 Atm<sup>2</sup>
  - 444 Hz : 200 Atm<sup>2</sup>
  - 888 Hz : 120 Atm<sup>2</sup>
  - 1777 Hz : 60 Atm<sup>2</sup>
  - 3555 Hz : 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 PARAMETRICS LIMITED

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

Phone: (416) 495-1612

Cables: APEXPARA TORONTO

Telex: 06-968773 NORDVIK TOR

A P P E N D I X C



CLAIM LIST

<u>CLAIM #</u>	<u>TOWNSHIP</u>	<u>WORK DAYS CREDIT</u>
P-916641	ERMINE	60
P-916658	"	"
P-916659	"	"
P-916660	"	"
P-916675	"	"
P-916676	"	"
P-916677	"	"
P-916678	"	"
P-916679	"	"
P-916692	"	"
P-916693	"	"
P-916694	"	"
P-916695	"	"
P-916696	"	"
P-916697	"	"
P-916698	"	"
P-931467	DERRY	"
P-932313	DERRY	"
P-932314	DERRY	"
P-932315	DERRY	"
P-932333	DERRY	"
P-932334	DERRY	"
P-932335	DERRY	"
P-932336	DERRY	"
P-932337	DERRY	"
P-932338	DERRY	"
P-932339	DERRY	"
P-932340	DERRY	"
P-932356	DERRY	"
P-932357	DERRY	"
P-932358	DERRY	"
P-932359	DERRY	"
P-932360	DERRY	"
P-932361	DERRY	"
P-932362	DERRY	"
P-932363	DERRY	"
P-932364	DERRY	"
P-932381	DERRY	"
P-932382	DERRY	"
P-932383	DERRY	"
P-932384	DERRY	"
P-932385	DERRY	"
P-932387	DERRY	"
SSM-952957	ERMINE	"
SSM-952958	ERMINE	"
SSM-952959	ERMINE	"
SSM-952967	ERMINE	"
SSM-952968	ERMINE	"
SSM-952969	ERMINE	"

<u>CLAIM #</u>	<u>TOWNSHIP</u>	<u>WORK DAYS CREDIT</u>
SSM-952970	ERMINE	60
SSM-952983	ERMINE	"
SSM-952984	ERMINE	"
SSM-952985	ERMINE	"
SSM-952986	ERMINE	"
SSM-952993	ERMINE	"
SSM-952994	ERMINE	"
SSM-952995	ERMINE	"
SSM-953011	ERMINE	"
SSM-953012	ERMINE	"
SSM-953019	ERMINE	"
SSM-953020	ERMINE	"
SSM-953021	ERMINE	"
SSM-953037	ERMINE	"
SSM-953038	ERMINE	"
SSM-953039	ERMINE	"
SSM-953040	ERMINE	"

TOTAL 66 CLAIMS



TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT  
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT  
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Magnetic, Electromagnetic (Max-Min)

Township or Area Derry and Ermine Townships

Claim Holder(s) Derry Gold Resources Inc.

Steve Wengle

Survey Company Exsics Exploration Ltd.

Author of Report Steve Anderson

Address of Author P.O. Box 1880, Timmins On P4N 7X7

Covering Dates of Survey Dec 15/88 - Dec 22/88  
(linecutting to office)

Total Miles of Line Cut 56.6 km (35.17 miles)

**MINING CLAIMS TRAVERSED**  
List numerically

See Attached

(prefix)

(number)

SSM

**SPECIAL PROVISIONS  
CREDITS REQUESTED**

DAYS  
per claim

- Geophysical
- Electromagnetic 40
- Magnetometer 20
- Radiometric \_\_\_\_\_
- Other \_\_\_\_\_
- Geological \_\_\_\_\_
- Geochemical \_\_\_\_\_

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

**AIRBORNE CREDITS** (Special provision credits do not apply to airborne surveys)

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: April 29/89 SIGNATURE: [Signature]  
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications 212306

**Previous Surveys**

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 66

If space insufficient, attach list

# GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 2,000 Number of Readings 2,000  
Station interval 25 Meters Line spacing 200 Meters  
Profile scale 1 cm = 20%  
Contour interval \_\_\_\_\_

MAGNETIC

Instrument EDA - Omni IV  
Accuracy – Scale constant + 0.1 gamma  
Diurnal correction method Base Station  
Base Station check-in interval (hours) 30 seconds  
Base Station location and value \_\_\_\_\_

ELECTROMAGNETIC

Instrument Apex Max-Min II  
Coil configuration Co Planar  
Coil separation 150 meters  
Accuracy + 1%  
Method:  Fixed transmitter  Shoot back  In line  Parallel line  
Frequency 444 Hz and 1777 Hz  
(specify V.L.F. station)  
Parameters measured In-Phase and Quadrature (out-of-phase)

GRAVITY

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

INDUCED POLARIZATION  
RESISTIVITY

Instrument \_\_\_\_\_  
Method  Time Domain  Frequency Domain  
Parameters – On time \_\_\_\_\_ Frequency \_\_\_\_\_  
– Off time \_\_\_\_\_ Range \_\_\_\_\_  
– Delay time \_\_\_\_\_  
– Integration time \_\_\_\_\_  
Power \_\_\_\_\_  
Electrode array \_\_\_\_\_  
Electrode spacing \_\_\_\_\_  
Type of electrode \_\_\_\_\_

SELF POTENTIAL

Instrument \_\_\_\_\_ Range \_\_\_\_\_

Survey Method \_\_\_\_\_

Corrections made \_\_\_\_\_

RADIOMETRIC

Instrument \_\_\_\_\_

Values measured \_\_\_\_\_

Energy windows (levels) \_\_\_\_\_

Height of instrument \_\_\_\_\_ Background Count \_\_\_\_\_

Size of detector \_\_\_\_\_

Overburden \_\_\_\_\_  
(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey \_\_\_\_\_

Instrument \_\_\_\_\_

Accuracy \_\_\_\_\_

Parameters measured \_\_\_\_\_

Additional information (for understanding results) \_\_\_\_\_

AIRBORNE SURVEYS

Type of survey(s) \_\_\_\_\_

Instrument(s) \_\_\_\_\_  
(specify for each type of survey)

Accuracy \_\_\_\_\_  
(specify for each type of survey)

Aircraft used \_\_\_\_\_

Sensor altitude \_\_\_\_\_

Navigation and flight path recovery method \_\_\_\_\_

Aircraft altitude \_\_\_\_\_ Line Spacing \_\_\_\_\_

Miles flown over total area \_\_\_\_\_ Over claims only \_\_\_\_\_





Claim #	Township	Claim #	Township
916641	Ermine	952957	Ermine
916658	"	952958	"
916659	"	952959	"
916660	"	952967	"
916675	"	952968	"
916676	"	952969	"
916677	"	952970	"
916678	"	952983	"
916679	"	952984	"
916692	"	952985	"
916693	"	952986	"
916694	"	952993	"
916695	"	952994	"
916696	"	952995	"
916697	"	953011	"
916698	"	953012	"
931467	Derry	953019	"
932313	"	953020	"
932314	"	953021	"
932315	"	953037	"
932333	"	953038	"
932334	"	953039	"
932335	"	953040	"
932336	"		
932337	"		
932338	"		
932339	"		
932340	"		
932356	"		
932357	"		
932358	"		
932359	"		
932360	"		
932361	"		
932362	"		
932363	"		
932364	"		
932381	"		
932382	"		
932383	"		
932384	"		
932385	"		
932387	"		



Ontario

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

August 10, 1989

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

Telephone: (416) 965-4888

Your File: W8905-87  
Our File: 2.12452

Mining Recorder  
Ministry of Northern Development and Mines  
875 Queen Street East  
Box 669  
Sault Ste. Marie, Ontario  
P6A 2B3


Dear Madam:

Re: Notice of Intent dated July 10, 1989 Geophysical (Electromagnetic and Magnetometer) Survey submitted on Mining Claims P 916641 et al in Ermine and Derry Townships.

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

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

Yours sincerely,

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

R/S. RM:eb  
Enclosure

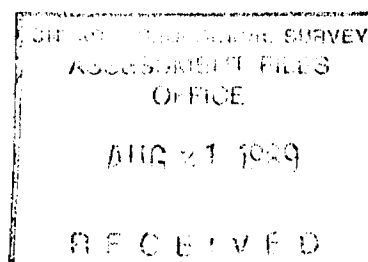
cc: Mr. G.H. Ferguson  
Mining and Lands Commissioner  
Toronto, Ontario

Resident Geologist  
Wawa, Ontario

Steve Wengle  
Toronto, Ontario

Steve Anderson  
Timmins, Ontario

Randy Maass  
Timmins, Ontario





Recorded Holder  
**Steve Wengle**

Township or Area  
**Ermine and Derry Townships.**

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic <u>29</u> days	P 916641
Magnetometer <u>15</u> days	916658 to 660 incl.
Radiometric _____ days	916675 to 679 incl.
Induced polarization _____ days	916692 to 698 incl.
Other _____ days	931467
Section 77 (19) See "Mining Claims Assessed" column	932313 to 315 incl.
Geological _____ days	932333 to 340 incl.
Geochemical _____ days	932356 to 364 incl.
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	932381 to 385 incl.
Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/>	932387
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	952957 to 959 incl.
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	952967 to 970 incl.
	952983 to 986 incl.
	952993 to 995 incl.
	953011-012
	953019 to 021 incl.
	953037 to 040 incl.

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

[Empty box for special credits]

No credits have been allowed for the following mining claims

not sufficiently covered by the survey       insufficient technical data filed

[Empty box for no credits]

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

**LEGEND**

HIGHWAY AND ROUTE N  
 OTHER ROADS  
 SURVEYED LINES  
 TOWNSHIP, RANGE, LOT, ETC.  
 LOTS, MINING CLAIM, PANELS, ETC.  
 UNSURVEYED LINES  
 MINING CLAIMS  
 PARCEL BOUNDARY  
 MINING CLAIMS ETC.  
 RAILWAY AND RIGHT OF WAY  
 UTILITY LINES  
 SUBDIVISION OR COMPOSITE PLAN  
 FLOODING OR FLOODING RIGHTS  
 RESERVATIONS  
 ORIGINAL SHORELINE  
 MARSH OR MUSKEG  
 MINES  
 TRAVEL MONUMENT

**DISPOSITION OF CROWN LAND:**

TYPE OF DOCUMENT SYMB  
 PATENT SURFACE & MINING RIGHTS  
 SURFACE RIGHTS ONLY  
 MINING RIGHTS ONLY  
 LEASE SURFACE & MINING RIGHTS  
 SURFACE RIGHTS ONLY  
 MINING RIGHTS ONLY  
 LICENSE OF OCCUPATION  
 ORDER IN COUNCIL  
 RESERVATION  
 CANCELLED  
 SAND & GRAVEL  
 NOTE: MINING RIGHTS IN PARCELS PATENTED BY THE GOVERNMENT ARE NOT SUBJECT TO THIS ACT.

SCALE 1:20 000

NOTE:  
 SURFACE RIGHTS ONLY OF THIS TOWNSHIP  
 PATENTED  
 ALL MINING CLAIMS MINING RIGHTS ONLY.

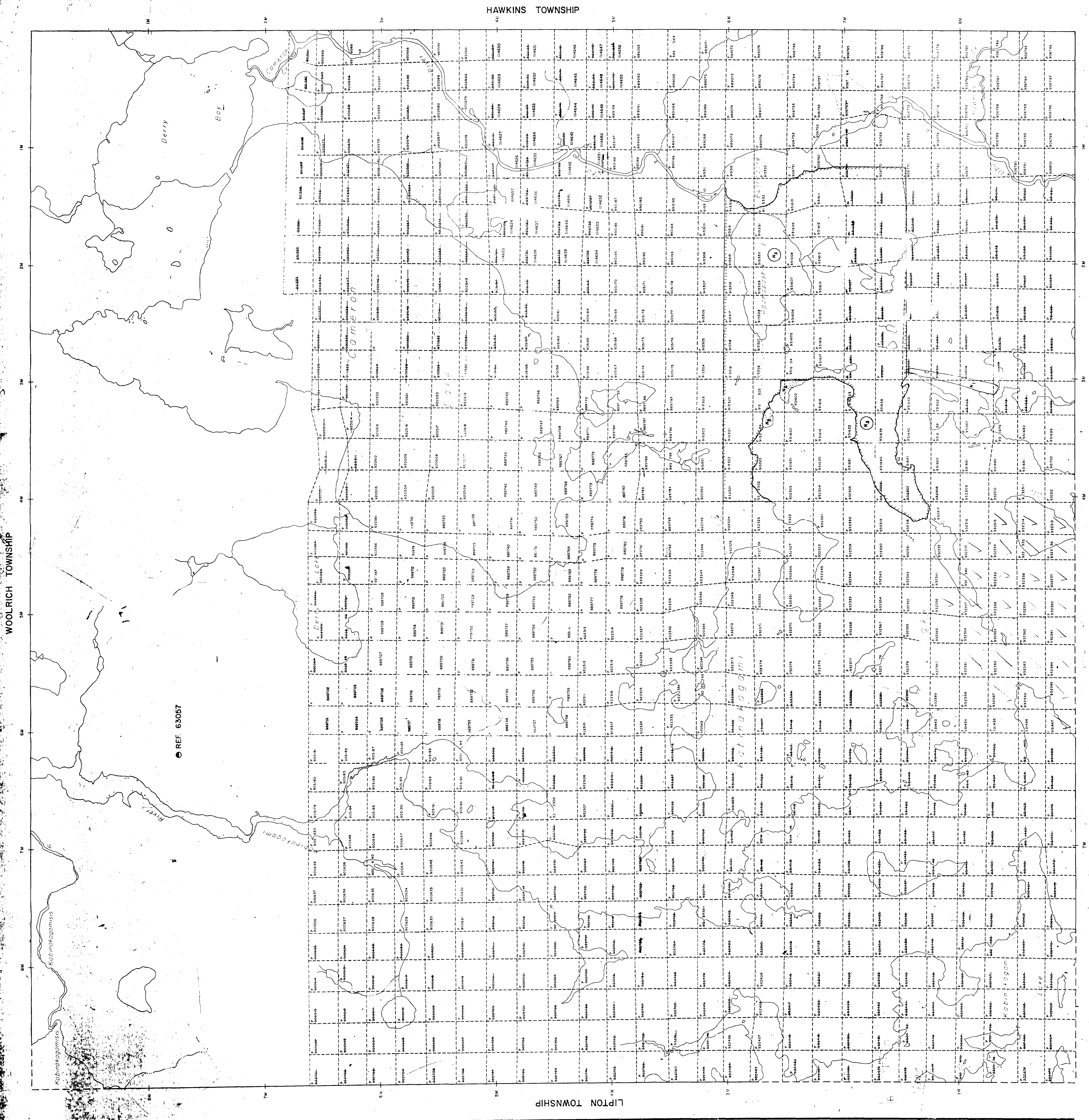
**NEWAYGO FOREST PRODUCTS**  
**LEASE AGREEMENTS**

① AIRPORT  
 ② TOURIST CAMP  
 ③ LAND USE

**DATE OF ISSUE**  
 JUL 28 1988  
 SAULT STE MARIE  
 MINING REGISTRY OFFICE

TOWNSHIP  
**DERRY**  
 N. E. ADMINISTRATIVE DISTRICT  
**HEARST**  
 MINING DIVISION  
**SAULT STE. MARI**  
 LAND TITLES / REGISTRY DIVISION  
**ALGOMA**

Ministry of Natural Resources and Mines  
 Ontario  
 DATE: OCTOBER 1986  
 G-2300



**REFERENCES**

AREAS WITHDRAWN FROM DISPOSITION  
 M.R.D. - MINING RIGHTS ONLY  
 S.R.D. - SURFACE RIGHTS ONLY  
 M.R.S. - MINING AND SURFACE RIGHTS

Description Order No. Date Disposition File

**RECORD**

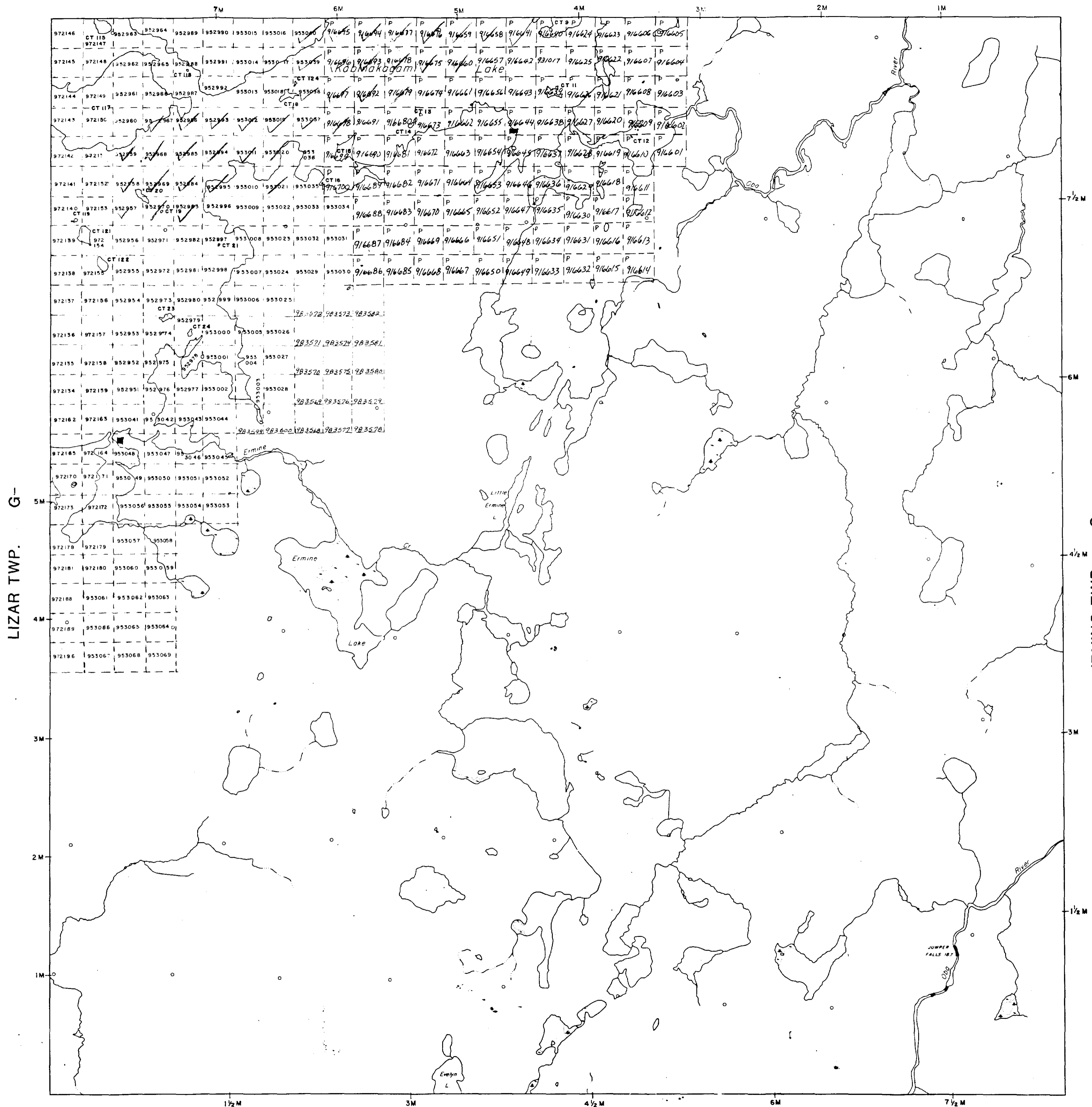
REFERENCE

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

DERRY TWP. G-



REFERENCE

DATE OF ISSUE  
 APR 21 1987  
 SAULT STE MARIE  
 MINING RECORDER'S OFFICE

LEGEND

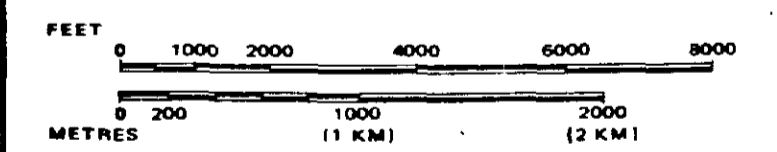
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:  
 TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:  
 LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- 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	
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 INCH = 40 CHAINS



TOWNSHIP  
**ERMINE**  
 M.N.R. ADMINISTRATIVE DISTRICT  
**HEARST**  
 MINING DIVISION  
**SAULT STE. MARIE**  
 LAND TITLES / REGISTRY DIVISION  
**ALGOMA**

Ministry of Natural Resources  
 Land Management Branch  
 Ontario  
 Received July 4/86

Date DECEMBER, 1982  
 Checked by *ZV*  
 Checked by *Cj*  
**G-2292**



**LEGEND**  
 Contour Interval: 5m  
 Elevation: 1400m  
 Contour Interval: 5m  
 Datum: Canadian Mean Sea Level (C.M.S.L.)  
 Projection: UTM  
 Zone: 18N

