



42A01NE0045 2.8391 BOMPAS

010

T-5003

REPORT ON AN
AIRBORNE MAGNETIC AND VLF-EM SURVEY
GRENFELL TOWNSHIP
LARDER LAKE MINING DIVISION, ONTARIO

for

GLEN AUDEN RESOURCES LTD
ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

by

TERRAQUEST LTD.
Toronto, Canada

RECEIVED

JULY 4, 1985

AUG 28 1985

MINING LANDS SECTION

TERRAQUEST LTD.





42A01NE0045 2.8391 BOMPAS

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LIST OF FIGURES

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LIST OF MAPS IN JACKET

- No. T-5003-1, Total Magnetic Field
- No. T-5003-2, Vertical Magnetic Gradient
- No. T-5003-3, VLF-EM Survey
- No. T-5003-4, Interpretation



1. INTRODUCTION

This report describes the specifications and results of a geophysical survey carried out for Glen Auden Resources Ltd. by Terraquest Ltd., 905 - 121 Richmond St. W., Toronto, Canada. The field work was performed on Apr. 11 & 12, 1985 and the data processing, interpretation and reporting from Apr. 13 to August 27, 1985.

The purpose of a survey of this type is two-fold. One is to prospect directly for anomalously conductive and magnetic areas in the earth's crust which may be caused by, or at least related to, mineral deposits. A second is to use the magnetic and conductivity patterns derived from the survey results to assist in mapping geology, and to indicate the presence of faults, shear zones, folding, alteration zones and other structures potentially favourable to the presence of gold and base-metal concentration. To achieve this purpose the survey area was systematically traversed by an aircraft carrying geophysical instruments along parallel flight lines spaced at even intervals, 100 meters above the terrain surface, and aligned so as to intersect the regional geology in a way to provide the optimum contour patterns of geophysical data.

2. THE PROPERTY

The property is located in Grenfell, Maisonville, Bompas, and Lee townships, in the Larder Lake Mining Division of Ontario about 13 kilometers northwest of the town of Kirkland Lake, Ontario. They can be reached by Highway no. 11 which bisects the property.

The latitude and longitude are 48 10', and 80 15' respectively, and the N.T.S. reference is 42 A/1.

The claim numbers are indicated on figure 2 and listed in the appendix.

3. GEOLOGY

Map References

1. Map 2060: Bompas and Grenfell Twps, 1:31680, O.D.M., 1964.
2. Map 2214, Terry and Lee Twps, 1:31,680, O.D.M., 1971.
3. Map 2215, Benoit & Maisonville Twps, 1:31,680, O.D.M., 1971

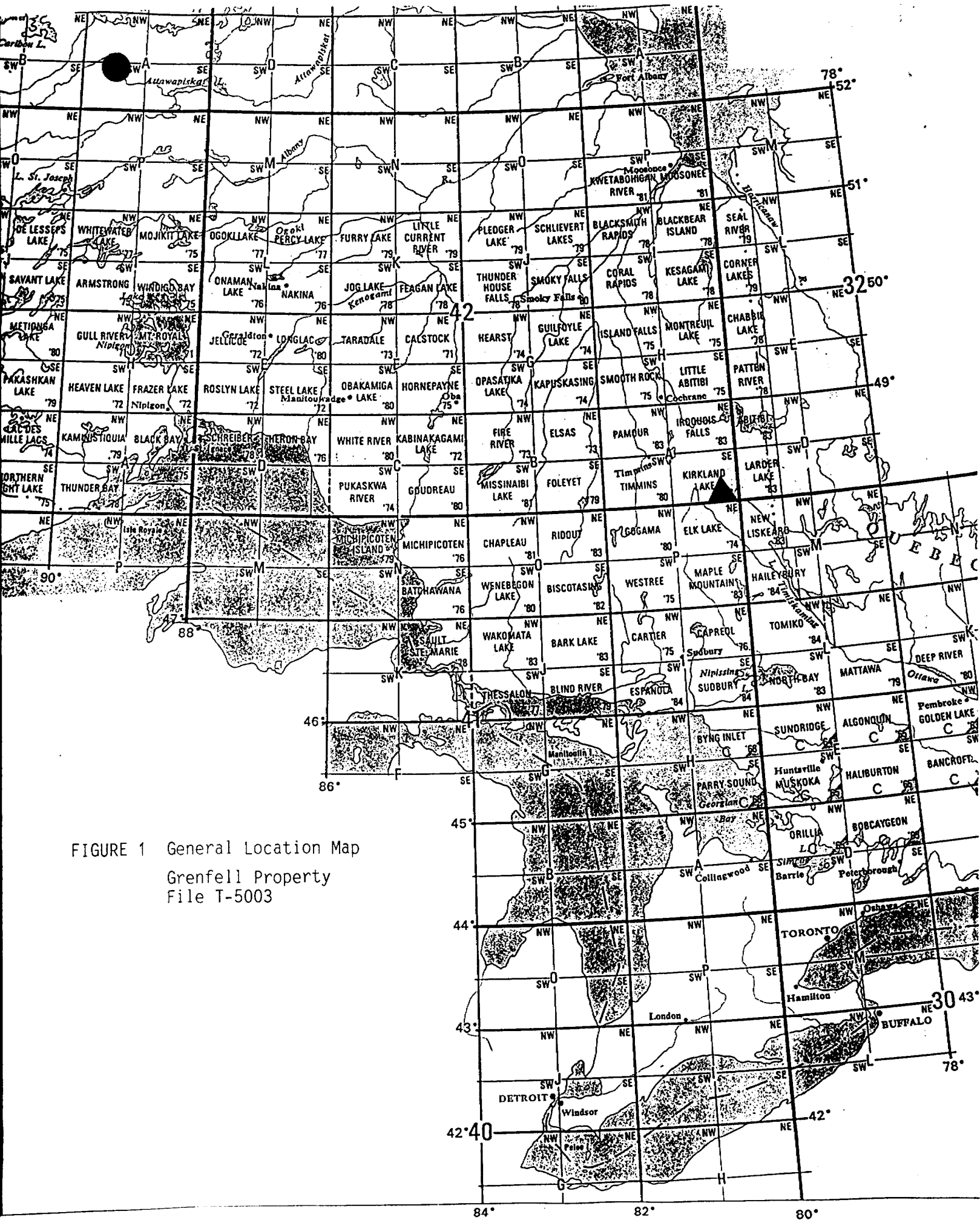


FIGURE 1 General Location Map
 Grenfell Property
 File T-5003

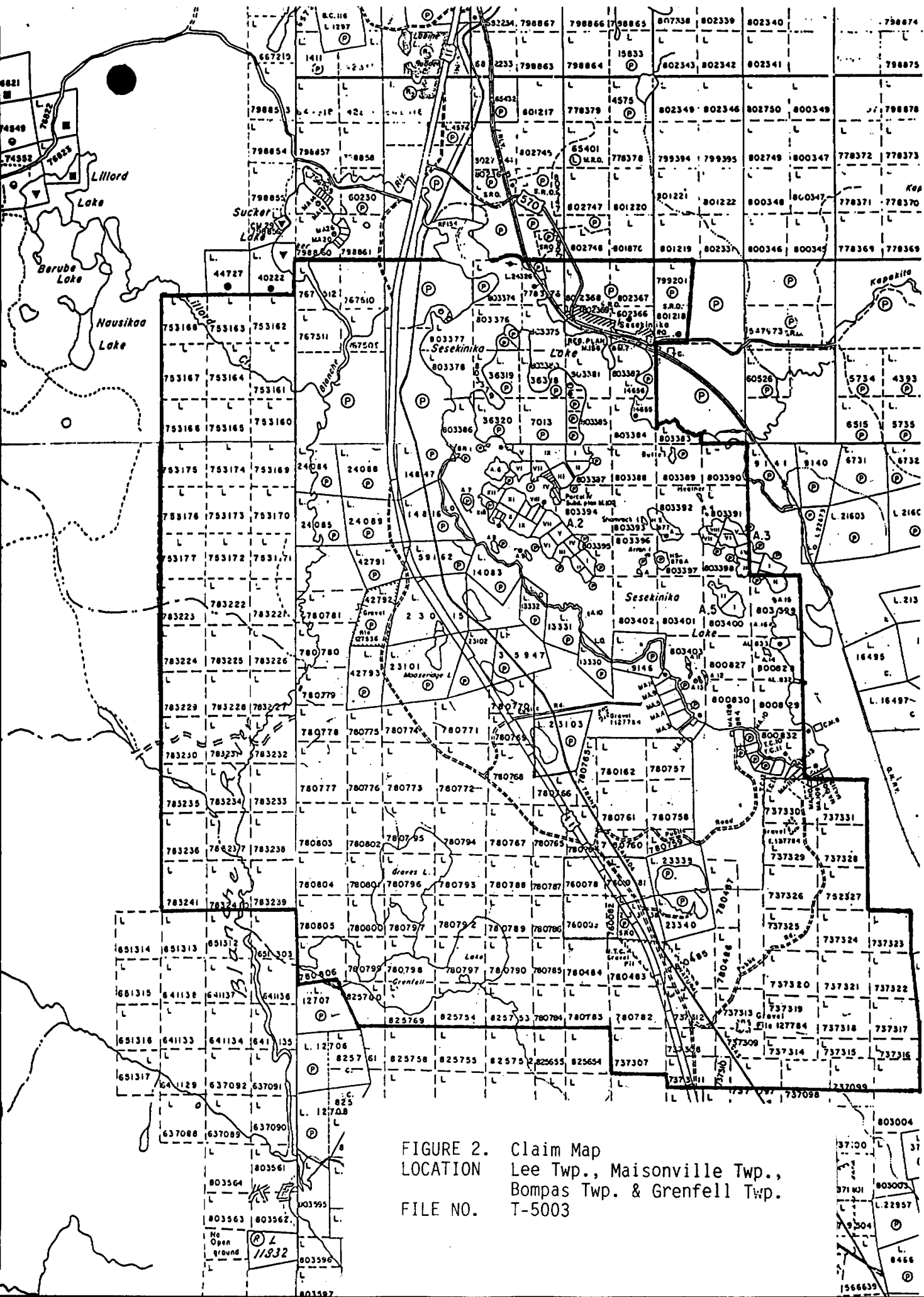


FIGURE 2. Claim Map
 LOCATION Lee Twp., Maisonville Twp.,
 Bompas Twp. & Grenfell Twp.
 FILE NO. T-5003

No
 Open
 Ground
 11832

803004
 37:00
 371 01
 803003
 L. 22957
 79504
 8466
 1566639

The main suite of rock types underlying the claim group is that of Archean mafic to to intermediate volcanics. These are primarily pillowed, fragmental or massive Keewatin basalts and andesites possessing moderately to steeply dipping schistosity trending to the northwest. Large pods of gabbro occur along the northern, eastern and south central boundaries of the survey area and in places are thought to represent coarser centres of the mafic flows. Minor dacite and rhyolite occur near the northern pods of the gabbro.

Several prominent NNW trending diabase dykes intrude the mafic volcanics along the southeast edge of Sesekinika Lake. A very narrow NW trending acidic intrusion, possibly syenite, occurs towards the southwest edge of the mafic volcanics.

A northerly trending synclinal belt of Huronian sediments overlies the mafic volcanics along the western boundary of the survey. These are shallow dipping sediments comprised primarily of arkose and greywacke with minor argillite. Adjacent areas indicate prominent north-south faulting.

SURVEY SPECIFICATIONS

4.1 Instruments

The survey was carried out using a Cessna 182 aircraft, registration C-FAKK, which carries a magnetometer and a VLF electromagnetic detector.

The magnetometer is a proton precession type with the sensor element mounted in an extension of the right wing tip. It's specifications are as follows:

- Resolution: 0.5 gamma
- Accuracy: One gamma
- Cycle time: One second
- Range: 20000 - 100000 gammas in 23 overlapping steps
- Gradient tolerance: Up to 5000 gammas per meter
- Model: GSM-8BA
- Manufacturer: GEM Systems Inc., 105 Scarsdale Rd., Don Mills, Ontario, M3B 2R5



The VLF-EM unit uses three orthogonal detector coils to measure (a) the total field strength of the time-varying EM field and (b) the phase relationship between the vertical coil and both the "along line" coil (LINE) and the "cross-line" coil (ORTHO). The LINE coil is tuned to a transmitter station that is ideally positioned at right angles to the flight lines, while the ORTHO coil transmitter should be in line with the flight lines. Its specifications are:

Accuracy: 1%
Reading interval: 1/2 second
Model: TOTEM 2A
Manufacturer: Herz Industries, Toronto

The VLF sensor is mounted in the left wing tip extension.

Other instruments are:

- . King RA-10A Radar altimeter
- . UDAS-100 data processor with Digidata nine track tape recorder, manufactured by Urtec Ltd., Markham, Ontario.
- . Geocam video camera and recorder for flight path recovery, manufactured by Geotech Ltd., Markham, Ontario.

4.2 Lines and Data

- a) Line spacing: 100 meters
- b) Line direction: 90 degrees
- c) Terrain clearance: 100 meters
- d) Average ground speed: 156 km/hr.
- e) Data point interval:
 - Magnetic: 42 meters
 - VLF-EM: 21 meters
- f) Tie Line interval: 2 kilometers
- g) Channel 1 (LINE): NSS Annapolis, 21.4 kHz
- h) Channel 2 (ORTHO): NAA Cutler, Me., 24.0 kHz
- i) Line km over total survey area: 435
- j) Line km over claim groups: 300

4.3 Tolerances

- a) Line spacing: Any gaps wider than twice the line spacing and longer than 10 times the line spacing were filled in by a new line.
- b) Terrain clearance: Portions of line which were flown above 125 meters for more than one km were reflown if safety considerations were acceptable.

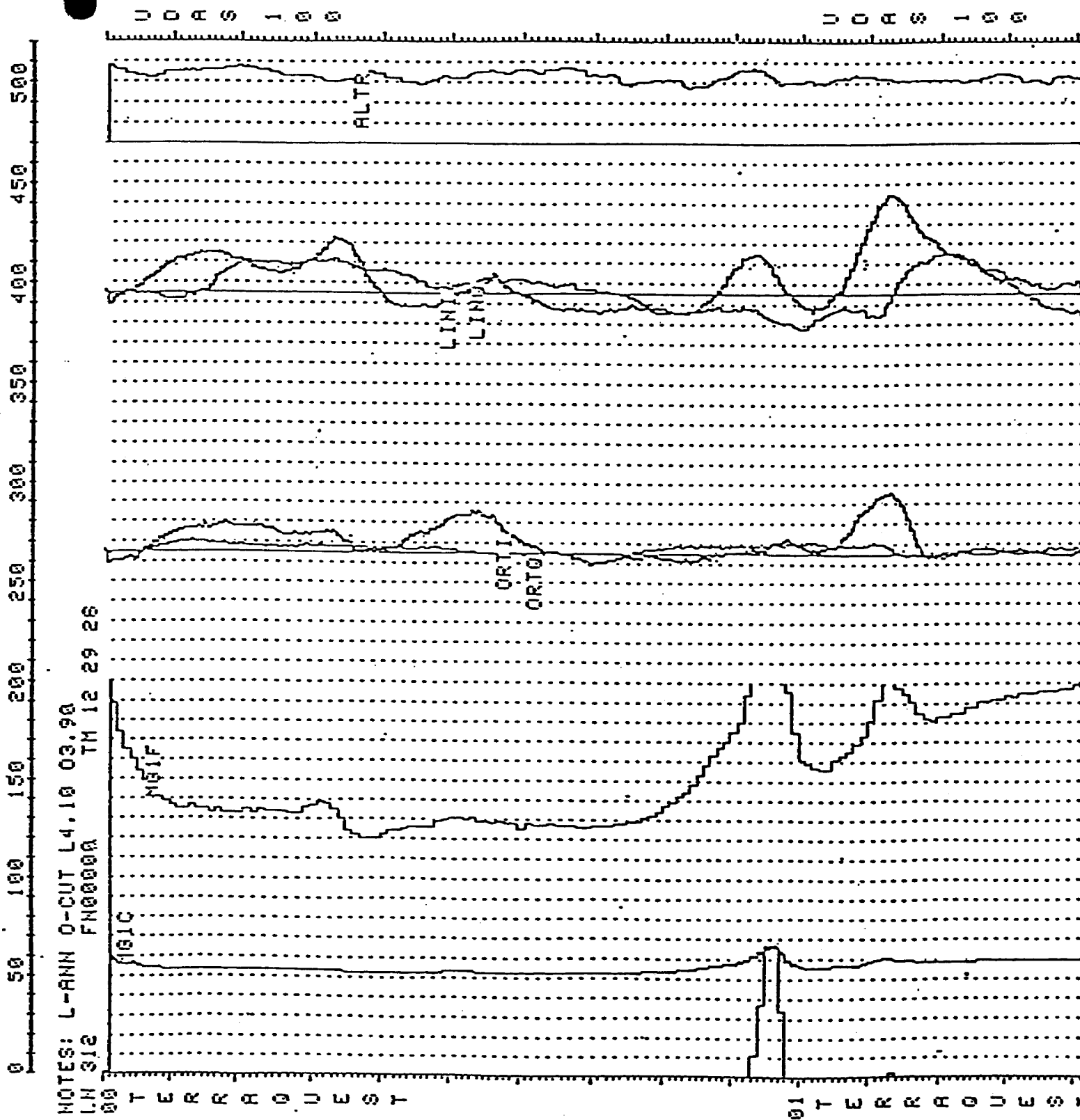


FIGURE 3. SAMPLE OF ANALOGUE DATA

- c) Diurnal magnetic variation: Less than twenty gammas deviation from a smooth background over a period of two minutes or less as seen on the base station analogue record.
- d) Manoeuvre noise: Approximately +/-5 gammas.

4.4 Photomosaics

For navigating the aircraft and recovering the flight path, mosaics of aerial photographs were made from existing air photos. In order to provide a semi-controlled base the photos were laid down on a topographic map which had been photographically adjusted to the photo scale. The laydown was then photographed and printed at the final map scale.

5. DATA PROCESSING

Flight path recovery was carried out in the field using a video tape viewer to observe the flight path as recorded by the Geocam video camera system. The flight path recovery was completed daily to enable reflights to be selected where needed for the following day.

The magnetic data was levelled in the standard manner by tying survey lines to the tie lines. The IGRF was not been removed. The total field was contoured by computer using a program provided by Dataplotting Services Inc. To do this the final levelled data set is gridded at a grid cell spacing of 1/4 the flight line spacing.

The vertical magnetic gradient is computed from the total field data using a method of transforming the data set into the frequency domain, applying a transfer function to calculate the gradient, and then transforming back into the spatial domain. The method is described by a number of authors including Grant, 1972 and Spector, 1968.

Grant, F.S.; Review of Data Processing and Interpretation Methods in Gravity and Magnetics; Geophysics, August 1972.

Spector, A.; Spectral Analysis of Aeromagnetic maps; unpublished thesis; University of Toronto, 1961.

The VLF data was treated automatically so as to normalize the non conductive background areas to 100 (total field strength) and zero (quadrature). The algorithms to do this were developed by Terraquest and will be provided to anyone interested by application to the company.

All of these dataprocessing calculations and map contouring were carried out by Dataplotting Services Inc. of Toronto.

6. INTERPRETATION

6.1 General Approach

To satisfy the purpose of the survey as stated in the introduction, the interpretation procedure was carried out on both the magnetic and VLF data. On a local scale the magnetic gradient contour patterns were used to outline geological units which have different magnetic intensity and patterns or "signatures". Where possible these are related to existing geology to provide a geological identity to the units. On a regional scale the total field contour patterns were used in the same way.

Faults and shear zones are interpreted mainly from lateral displacements of otherwise linear magnetic anomalies but also from long narrow "lows". The direction of regional faulting in the general area is taken into account when selecting faults. Folding is usually seen as curved regional patterns. Alteration zones can show up as anomalously quiet areas, often adjacent to strong, circular anomalies that represent intrusives. Magnetic anomalies that are caused by iron deposits of ore quality are usually obvious owing to their high amplitude, often in tens of thousands of gammas.

VLF anomalies are categorized according to whether the phase response is normal, reverse, or no phase at all. The significance of the differing phase responses is not completely understood although in general reverse phase indicates either overburden as the source or a conductor with considerable depth extent, or both. Normal phase response is theoretically caused by surface conductors with limited depth extent.

Areas showing a smooth response somewhat above background (ie. 110 or so) are likely caused by overburden which is thick enough and conductive enough to saturate at these frequencies. In this case no response from bedrock is seen.

6.2 Interpretation

The total field magnetic data shows about 1500 gammas relief over the survey area. The Cobalt Group of sediments along the western portion of the area are essentially invisible to the magnetometer, hence all magnetic relief is derived from the underlying volcanics and intrusives.

There is good correlation between the large strong magnetic anomalies and exposures of unit 4b, gabbro and diorite. These larger bodies appear to be stratigraphically related to the thinner, moderate strength magnetic unit 1m. Together these outline a large foldlimb with a fold nose toward the northern centre of the map area.

Most of the geologically mapped diabase dikes have a prominent and characteristic signature allowing interpretation of several others.

The correlation of the small felsic intrusive northwest of Groves Lake with a prominent magnetic anomaly indicates the potential for further such intrusives; however, this case should be verified by detailed ground follow-up.

Some VLF conductor axes are coincident with glacial scouring and clay infill while others are clearly related to bedrock sources and should be investigated on the ground by conventional EM or IP methods.

7. SUMMARY

A combined magnetic and VLF-EM survey has been done on the survey area at a data density of approximately 1.6 km. per mineral claim. The magnetic data has been used to modify and update the existing geology and has shown a number of new contacts and faults. A number of VLF-EM conductor axes were found of which some are believed to be have potential sulphide origin and have been recommended for additional investigation.

TERRAQUEST LTD.



Roger K. Watson, B.A.Sc., P.Eng.
Geophysicist



Charles Q. Barrie, M.Sc.
Geologist

APPENDIX
8.1 List of Claims

Claim List for Bompass, Lee, Grenfell, and Maisonville Townships
Total of 128 Claims

Glen Auden Resources Limited is the Claim Holder for the following Claims:
License # T 1915

737307	780800
737308	780801
737309	780802
737310	780803
737311	780804
737312	780805
737313	780806
737314	783221
737315	783222
737316	783223
737317	783224
737318	783225
737319	783226
737320	783227
737321	783228
737322	783229
737323	783230
737324	783231
737325	783232
737326	783233
737327	783234
737328	783235
737329	783236
737330	783237
737331	783238
780782	783239
780783	783240
780784	783241
780785	
780786	
780787	
780788	
780789	
780790	
780791	
780792	
780793	
780794	
780795	
780796	
780797	
780798	
780799	

TERRAQUEST LTD.



Charles R. Morgan is the Claim Holder for the following Claims:
License # K 14751

753160	753177	780767
753161	753178	780768
753162	780483	780769
753163	780484	780770
753164	780485	780771
753165	780486	780772
753166	780487	780773
753167	780757	780774
753168	780758	780775
753169	780759	780776
753170	780760	780777
753171	780761	780778
753172	780762	780779
753173	780763	780780
753174	780764	780781
753175	780765	
753176	780766	

Wilf Cooper is the Claim Holder for the following Claims:
License # K 18068

- 767509
- 767510
- 767511
- 767512

Adrien Beaudin is the Claim Holder for the following claims:
License # M18830

- 825753
- 825754
- 825759
- 825760



Gyro Capital Ltd. is the Claim Holder for the following claims:

- | | |
|-----------|-----------|
| L- 778376 | L- 803390 |
| 778377* | 803391 |
| 803374 | 803392 |
| 803375 | 803393 |
| 803376 | 803394 |
| 803377 | 803395 |
| 803378 | 803396 |
| 803379 | 803397 |
| 803380 | 803398 |
| 803381 | 803399 |
| 803382 | 803400 |
| 803383 | 803401 |
| 803384 | 803402 |
| 803385 | 803403 |
| 803386 | 800827 |
| 803387 | 800828 |
| 803388 | 800829 |
| 803389 | 800830 |
| | 800831 |
| | 800832 |

* partial coverage;
remainder to follow
on survey to north

Premier Exploration is the Claim Holder for the following claims:

- L- 799201
- 802366
- 802367
- 802368
- 802369
- 801218



include work performed

UMOP

Claim List for Barrpass, Lee, Grenfell, and Maisonville Townships
Total of 128 Claims

Glen Auden Resources Limited is the Claim Holder for the following Claims:
License # T 1915

December 21, 1983	737307	on extension until	July 31, 1985
December 21, 1983	737308	on extension until	July 31, 1985
December 21, 1983	737309	on extension until	July 31, 1985
December 21, 1983	737310	on extension until	July 31, 1985
December 21, 1983	737311	on extension until	July 31, 1985
December 21, 1983	737312	on extension until	July 31, 1985
December 21, 1983	737313	on extension until	July 31, 1985
December 21, 1983	737314	on extension until	July 31, 1985
December 21, 1983	737315	on extension until	July 31, 1985
December 21, 1983	737316	on extension until	July 31, 1985
December 21, 1983	737317	on extension until	July 31, 1985
December 21, 1983	737318	on extension until	July 31, 1985
December 21, 1983	737319	on extension until	July 31, 1985
December 21, 1983	737320	on extension until	July 31, 1985
December 21, 1983	737321	on extension until	July 31, 1985
December 21, 1983	737322	on extension until	July 31, 1985
December 21, 1983	737323	on extension until	July 31, 1985
December 21, 1983	737324	on extension until	July 31, 1985
December 21, 1983	737325	on extension until	July 31, 1985
December 21, 1983	737326	on extension until	July 31, 1985
December 21, 1983	737327	on extension until	July 31, 1985
December 21, 1983	737328	on extension until	July 31, 1985
December 21, 1983	737329	on extension until	July 31, 1985
December 21, 1983	737330	on extension until	July 31, 1985
December 21, 1983	737331	on extension until	July 31, 1985
December 12, 1983	780782	on extension until	July 31, 1985
December 12, 1983	780783	on extension until	July 31, 1985
December 12, 1983	780784	on extension until	July 31, 1985
December 12, 1983	780785	on extension until	July 31, 1985
December 12, 1983	780786	on extension until	July 31, 1985
December 12, 1983	780787	on extension until	July 31, 1985
December 12, 1983	780788	on extension until	July 31, 1985
December 12, 1983	780789	on extension until	July 31, 1985
December 12, 1983	780790	on extension until	July 31, 1985
December 12, 1983	780791	on extension until	July 31, 1985
December 12, 1983	780792	on extension until	July 31, 1985
December 12, 1983	780793	on extension until	July 31, 1985
December 12, 1983	780794	on extension until	July 31, 1985
December 12, 1983	780795	on extension until	July 31, 1985
December 12, 1983	780796	on extension until	July 31, 1985
December 12, 1983	780797	on extension until	July 31, 1985
December 12, 1983	780798	on extension until	July 31, 1985
December 12, 1983	780799	on extension until	July 31, 1985

. Claim Holder Continued.....

December 12, 1983	780800	on extension until	July 31, 1985
December 12, 1983	780801	on extension until	July 31, 1985
December 12, 1983	780802	on extension until	July 31, 1985
December 12, 1983	780803	on extension until	July 31, 1985
December 12, 1983	780804	on extension until	July 31, 1985
December 12, 1983	780805	on extension until	July 31, 1985
December 12, 1983	780806	on extension until	July 31, 1985
January 6, 1983	783221	on extension until	July 6, 1985
January 6, 1983	783222	on extension until	July 6, 1985
January 6, 1983	783223	on extension until	July 6, 1985
January 6, 1983	783224	on extension until	July 6, 1985
January 6, 1983	783225	on extension until	July 6, 1985
January 6, 1983	783226	on extension until	July 6, 1985
January 6, 1983	783227	on extension until	July 6, 1985
January 6, 1983	783228	on extension until	July 6, 1985
January 6, 1983	783229	on extension until	July 6, 1985
January 6, 1983	783230	on extension until	July 6, 1985
January 6, 1983	783231	on extension until	July 6, 1985
January 6, 1983	783232	on extension until	July 6, 1985
January 6, 1983	783233	on extension until	July 6, 1985
January 6, 1983	783234	on extension until	July 6, 1985
January 6, 1983	783235	on extension until	July 6, 1985
January 6, 1983	783236	on extension until	July 6, 1985
January 6, 1983	783237	on extension until	July 6, 1985
January 6, 1983	783238	on extension until	July 6, 1985
January 6, 1983	783239	on extension until	July 6, 1985
January 6, 1983	783240	on extension until	July 6, 1985
January 6, 1983	783241	on extension until	July 6, 1985

Charles R. Morgan is the Claim Holder for the following Claims:

License # K 14751			
October 19, 1983	753160	on extension until	July 31, 1985
October 19, 1983	753161	on extension until	July 31, 1985
October 19, 1983	753162	on extension until	July 31, 1985
October 19, 1983	753163	on extension until	July 31, 1985
October 19, 1983	753164	on extension until	July 31, 1985
October 19, 1983	753165	on extension until	July 31, 1985
October 19, 1983	753166	on extension until	July 31, 1985
October 19, 1983	753167	on extension until	July 31, 1985
October 19, 1983	753168	on extension until	July 31, 1985
October 19, 1983	753169	on extension until	July 31, 1985
October 19, 1983	753170	on extension until	July 31, 1985
October 19, 1983	753171	on extension until	July 31, 1985
October 19, 1983	753172	on extension until	July 31, 1985
October 19, 1983	753173	on extension until	July 31, 1985
October 19, 1983	753174	on extension until	July 31, 1985
October 19, 1983	753175	on extension until	July 31, 1985
October 19, 1983	753176	on extension until	July 31, 1985
October 19, 1983	753177	on extension until	July 31, 1985
October 19, 1983	753178	on extension until	July 31, 1985
December 8, 1983	780483	on extension until	July 31, 1985
December 8, 1983	780484	on extension until	July 31, 1985
December 8, 1983	780485	on extension until	July 31, 1985
December 8, 1983	780486	on extension until	July 31, 1985
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December 8, 1983	780757	on extension until	July 31, 1985
December 8, 1983	780758	on extension until	July 31, 1985
December 8, 1983	780759	on extension until	July 31, 1985
December 8, 1983	780760	on extension until	July 31, 1985
December 8, 1983	780761	on extension until	July 31, 1985
December 8, 1983	780762	on extension until	July 31, 1985
December 8, 1983	780763	on extension until	July 31, 1985
December 8, 1983	780764	on extension until	July 31, 1985
December 8, 1983	780765	on extension until	July 31, 1985
December 8, 1983	780766	on extension until	July 31, 1985
December 8, 1983	780767	on extension until	July 31, 1985
December 8, 1983	780768	on extension until	July 31, 1985
December 8, 1983	780769	on extension until	July 31, 1985
December 8, 1983	780770	on extension until	July 31, 1985
December 8, 1983	780771	on extension until	July 31, 1985
December 8, 1983	780772	on extension until	July 31, 1985
December 8, 1983	780773	on extension until	July 31, 1985
December 8, 1983	780774	on extension until	July 31, 1985
December 8, 1983	780775	on extension until	July 31, 1985
December 8, 1983	780776	on extension until	July 31, 1985
December 8, 1983	780777	on extension until	July 31, 1985

December 8, 1983	780778	on extension until	July 31, 1985
December 8, 1983	780779	on extension until	July 31, 1985
December 8, 1983	780780	on extension until	July 31, 1985
December 8, 1983	780781	on extension until	July 31, 1985

Adrien Beaudin is the Claim Holder for the following claims:

License # M18830

August 17, 1984	825753	on extension until	August 17, 1985
August 17, 1984	825754	on extension until	August 17, 1985
August 17, 1984	825759	on extension until	August 17, 1985
August 17, 1984	825760	on extension until	August 17, 1985

Wilf Cooper is the Claim Holder for the following Claims:

License # K 18068

August 8, 1983
August 8, 1983
August 8, 1983
August 8, 1983

767509
767510
767511
767512

on extension until August 19, 1985
on extension until August 19, 1985
on extension until August 19, 1985
on extension until August 19, 1985

EM
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Timmins, Ontario P4N 7W8

Date Certified
June 27/85

Certified by (Signature)



List of 42 Claims

<u>Claim</u> #	<u>Recorded</u>
799 291	Premier Explorations Inc.
800 827	Gyro Capital Inc.
800 828	Gyro Capital Inc.
800 829	Gyro Capital Inc.
800 830	Gyro Capital Inc.
800 831	Gyro Capital Inc.
800 832	Gyro Capital Inc.
803 374	Gyro Capital Inc.
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803 399	Gyro Capital Inc.
803 400	Gyro Capital Inc.
803 401	Gyro Capital Inc.
803 402	Gyro Capital Inc.
803 403	Gyro Capital Inc.
802 366	Premier Explorations Inc.
802 367	Premier Explorations Inc.
802 368	Premier Explorations Inc.
802 369	Premier Explorations Inc.
801 218	Premier Explorations Inc.

* Premier Explorations Inc., 33 Premier Avenue West, Kirkland Lake
Ontario P2N 2S7

* Gyro Capital Inc., Suite 1710, 390 Bay Street, Toronto, Ont. M5H 2Y2

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

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) Air borne VLF-EM and magnetometer

Instrument(s) TOTEM 2A (EM) GSM-88A Gamma (GEM Systems)
(specify for each type of survey)

Accuracy 1 gamma 1% on VLF
(specify for each type of survey)

Aircraft used Cessna 182 N

Sensor altitude 100m

Navigation and flight path recovery method 35mm VIDEO plot on mosaics

Aircraft altitude 100m Line Spacing 100m

Miles flown over total area 266 Over claims only 190

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

APPENDIX
8.1 List of Claims

Claim List for Bompas, Lee, Grenfell, and Maisonville Townships
Total of 128 Claims

Glen Auden Resources Limited is the Claim Holder for the following Claims:
License # T 1915

737307	780800
737308	780801
737309	780802
737310	780803
737311	780804
737312	780805
737313	780806
737314	783221
737315	783222
737316	783223
737317	783224
737318	783225
737319	783226
737320	783227
737321	783228
737322	783229
737323	783230
737324	783231
737325	783232
737326	783233
737327	783234
737328	783235
737329	783236
737330	783237
737331	783238
780782	783239
780783	783240
780784	783241
780785	
780786	
780787	
780788	
780789	
780790	
780791	
780792	
780793	
780794	
780795	
780796	
780797	
780798	
780799	



Charles R. Morgan is the Claim Holder for the following Claims:
License # K 14751

753160	753177	780767
753161	753178	780768
753162	780483	780769
753163	780484	780770
753164	780485	780771
753165	780486	780772
753166	780487	780773
753167	780757	780774
753168	780758	780775
753169	780759	780776
753170	780760	780777
753171	780761	780778
753172	780762	780779
753173	780763	780780
753174	780764	780781
753175	780765	
753176	780766	

Wilf Cooper is the Claim Holder for the following Claims:
License # K 18068

767509
767510
767511
767512

Adrien Beaudin is the Claim Holder for the following claims:
License # M18830

825753
825754
825759
825760



Gyro Capital Ltd. is the Claim Holder for the following claims:

L- 778376	L- 803390
778377*	803391
803374	803392
803375	803393
803376	803394
803377	803395
803378	803396
803379	803397
803380	803398
803381	803399
803382	803400
803383	803401
803384	803402
803385	803403
803386	800827
803387	800828
803388	800829
803389	800830
	800831
	800832

* partial coverage;
remainder to follow
on survey to north

Premier Exploration is the Claim Holder for the following claims:

L- 799201
802366
802367
802368
802369
801218



Mining Lands Section

File No 2.8391

Control Sheet

TYPE OF SURVEY

- GEOPHYSICAL
- GEOLOGICAL
- GEOCHEMICAL
- EXPENDITURE

MINING LANDS COMMENTS:

< Masonville, Grantell >

Sept 1.8.

Signature of Assessor

Date

TERRAQUEST LTD.



28391

October 22, 1985

Land Management Branch,
Whitney Block, Room 6643,
Queen's Park,
Toronto, Ontario.
M7A 1W3

Attention: Susan Hurst

Re: File 2.8391, Larder Lake Mining Division

Dear Susan:

Returned, herein, is the Magnetometer plan in duplicate with the corner claim boundaries and numbers indicated. Also, included is a photocopy of the claim map which should have been in the text of the report.

Should there be any further problems, please do not hesitate to contact me.

Yours truly,

Charles Barrie
Vice-president

CB:mes
encl.

RECEIVED

OCT 25 1985

MINING LANDS SECTION

October 18, 1985

File: 2.8391

Terraquest Ltd
Suite 905
121 Richmond Street West
Toronto, Ontario
M5H 2K1

Attention: Charles Barrie

Dear Sir:

RE: Airborne Geophysical (Electromagnetic & Magnetometer)
Surveys submitted on Mining Claims L 753160, et al,
in Bompass, Lee, Grenfell & Maisonville Townships

Returned herein is the Magnetometer plan (in duplicate)
for the above-mentioned surveys. On each, please show
the perimeter claim numbers and return the plans to this
office, quoting file 2.8391.

For further information, please contact Susan Hurst at
(416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

SH/mc

cc: Mining Recorder
Kirkland Lake, Ontario
(#299, #306, #241)

Adrien Beaudin
Timmins, Ontario

Charles R. Morgan
Timmins, Ontario

Encl.

Wilf Cooper
St. Catharines, Ontario

Glen Auden Resources Ltd
Toronto, Ontario

REGISTERED

August 21, 1985

Report of Work #241

Wilf Cooper
39 Riverview Blvd
St. Catharines, Ontario
L2T 3L9

Dear SDr:

RE: Mining Claims L 767509, et al,
in Bompas, Lee, Grenfell and
Maisonville Townships

I have not received the reports and maps (in duplicate)
for Airborne Geophysical (Electromagnetic & Magnetometer
Surveys on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the
Mining Recorder on July 2, 1985 the 60 day period
allowed by Section 77 of the Mining Act for the submission
of the technical reports and maps to this office will
expire on August 31, 1985.

If the material is not submitted to this office by August 31,
1985, I will have no alternative but to instruct the Mining
Recorder to delete the work credits from the claim record
sheets.

For further information, please contact Mr. Arthur Barr
at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

A. Barr:mc
cc: Terraquest Ltd
Suite 905
121 Richmond Street West
Toronto, Ontario
M5H 2K1

cc: Mining Recorder
Kirkland Lake, Ontario

Encl.

REGISTERED

August 21, 1985

Report of Work #241

Adrien Beaudin
Box 7
R.R.#1
Timmins, Ontario

Dear Sir:

RE: Mining Claims L 825753, et al,
in Bompas, Lee, Grenfell and
Maisonville Townships

I have not received the reports and maps (in duplicate)
for Airborne Geophysical (Electromagnetic & Magnetometer)
Surveys on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the
Mining Recorder on July 2, 1985 the 60 day period
allowed by Section 77 of the Mining Act for the submission
of the technical reports and maps to this office will
expire on August 31, 1985.

If the material is not submitted to this office by August 31,
1985, I will have no alternative but to instruct the Mining
Recorder to delete the work credits from the claim record
sheets.

For further information, please contact Mr. Arthur Barr
at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

A. Barr:mc
cc: Terraquest Ltd
Suite 905
121 Richmond Street West
Toronto, Ontario
M5H 2K1

cc: Mining Recorder
Kirkland Lake, Ontario

Encl.

REGISTERED

August 21, 1985

Report of Work #241

Charles R. Morgan
Box 1326
Timmins, Ontario
P4N 7J8

Dear Sir:

RE: Mining Claims L 753160, et al,
in Bompass, Lee, Grenfell and
Maisonville Townships

I have not received the reports and maps (in duplicate)
for Airborne Geophysical (Electromagnetic & Magnetometer)
Surveys on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the
Mining Recorder on July 2, 1985 the 60 day period
allowed by Section 77 of the Mining Act for the submission
of the technical reports and maps to this office will
expire on August 31, 1985.

If the material is not submitted to this office by August 31,
1985, I will have no alternative but to instruct the Mining
Recorder to delete the work credits from the claim record
sheets.

For further information, please contact Mr. Arthur Barr
at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

A. Barr:mc
cc: Terraquest Ltd
Suite 905
121 Richmond Street West
Toronto, Ontario
M5H 2K1

cc: Mining Recorder
Kirkland Lake, Ontario

Encl.

REGISTERED

August 21, 1985

Report of Work #241

Glen Auden Resources Limited
Suite 2400
130 Adelaide Street West
Toronto, Ontario
M5H 3C2

Dear Sirs:

RE: Mining Claims L 737307, et al,
in Lee Grenfell, Bompas &
Maisonville Townships

I have not received the reports and maps (in duplicate)
for Airborne Geophysical (Electromagnetic & Magnetometer)
Surveys on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the
Mining Recorder on July 2, 1985 the 60 day period
allowed by Section 77 of the Mining Act for the submission
of the technical reports and maps to this office will
expire on August 31, 1985.

If the material is not submitted to this office by August 31,
1985, I will have no alternative but to instruct the Mining
Recorder to delete the work credits from the claim record
sheets.

For further information, please contact Mr. Arthur Barr
at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

A. Barr:mc

cc: Terraquest Ltd
Suite 905
121 Richmond Street West
Toronto, Ontario
M5H 2K1
Enc).

cc: Mining Recorder
Kirkland Lake, Ontario

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
			S.R.O.	27993
SEC 36/80	M. 48/81	11/8/81	S.A.O.	27993
SEC 36/80	M. 101/81	27/10/81	SR SWR	
SEC 36/80	M. 102/81	6/11/81	WFO	
SEC 36/80	M. 103/81	6/11/81	6-R SWR	

SAND AND GRAVEL

- ① GRAVEL FILE 127536
- ② GRAVEL FILE 127784
- ③ M.T.C. GRAVEL PIT
- ④ GRAVEL FILE 64647

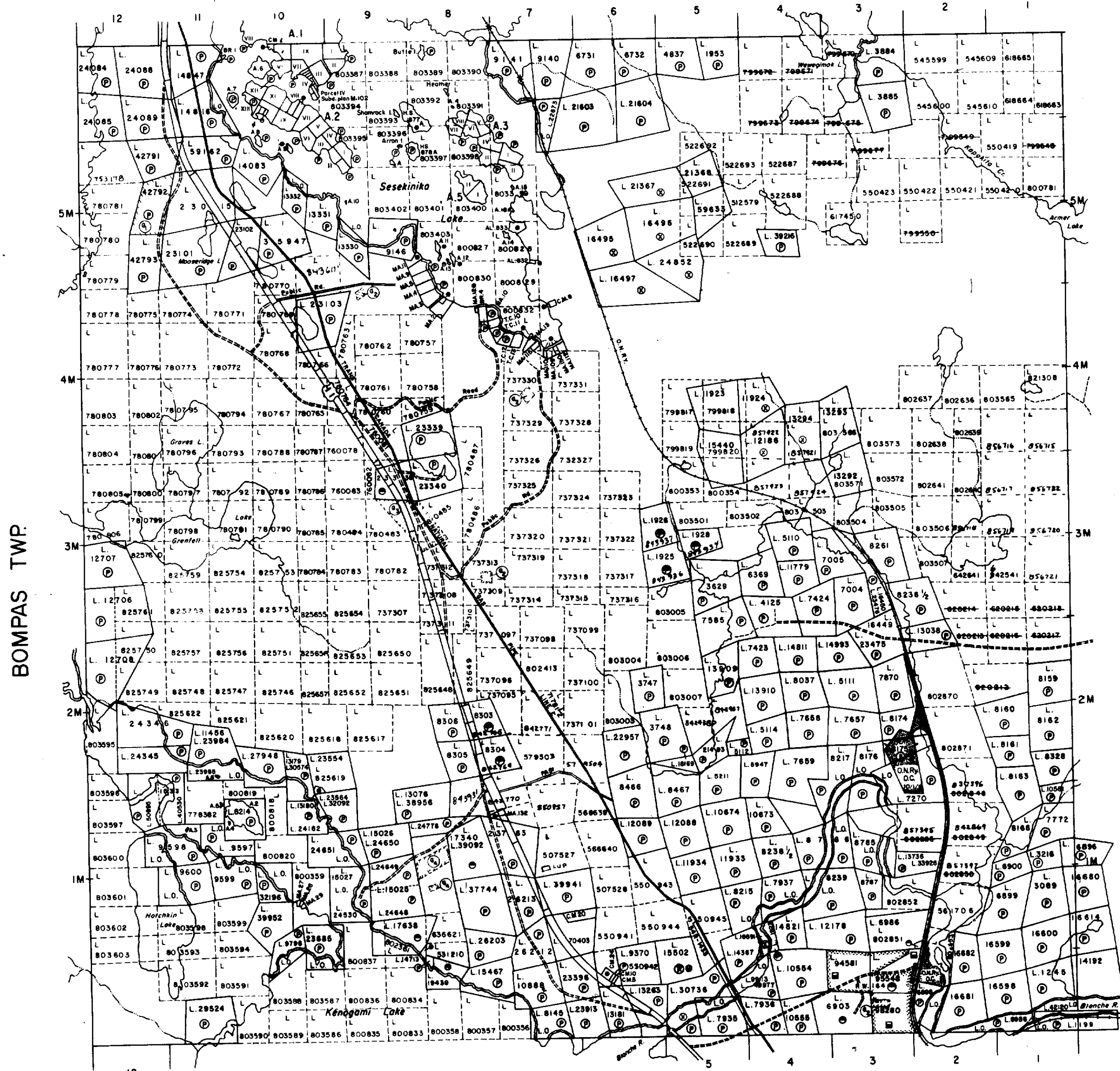
NOTES

ALL ISLANDS IN SESEKINIKA LAKE ARE WITHDRAWN FROM STAKING BY ORDER-IN-COUNCIL DATED DEC.7,1921

Sept. 10/85

LARDER LAKE MINING DIV.

MAISONVILLE TWP.



LEGEND

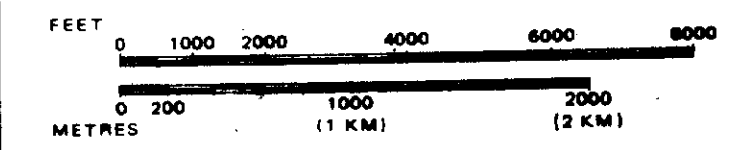
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
 - TOWNSHIPS, BASE LINES, ETC.
 - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
 - LOT LINES
 - PARCEL BOUNDARY
 - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	⊙ or ●
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	●
LEASE, SURFACE & MINING RIGHTS	⊙
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	●
LICENCE OF OCCUPATION	L.O. or
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.

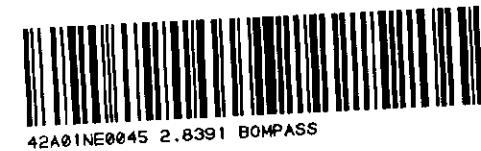
SCALE: 1 INCH = 40 CHAINS



TOWNSHIP
GRENFELL
 M.N.R. ADMINISTRATIVE DISTRICT
KIRKLAND LAKE
 MINING DIVISION
LARDER LAKE
 LAND TITLES / REGISTRY DIVISION
TIMISKAMING



Date JANUARY, 1985
 Number **G-3212**



BENOIT TWP. - M.326

THE TOWNSHIP OF

MAISONVILLE

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

- PATENTED LAND ● or ⊙
- CROWN LAND SALE C.S.
- LEASES
- LOCATED LAND Loc.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED
- PATENTED S.R.O.

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Areas withdrawn from staking under Section 43 of the Mining Act, R.S.O. 1970. (Sec. 42, R.S.O. '60)

Order No.	File	Date	Disposition
22032		11/8/70	S.R.O.
22032		23/1/81	S.R.O.

Aug. 8/85

All islands in Sesekinika Lake are withdrawn from staking by Order-in-Council dated Dec. 7, 1921.

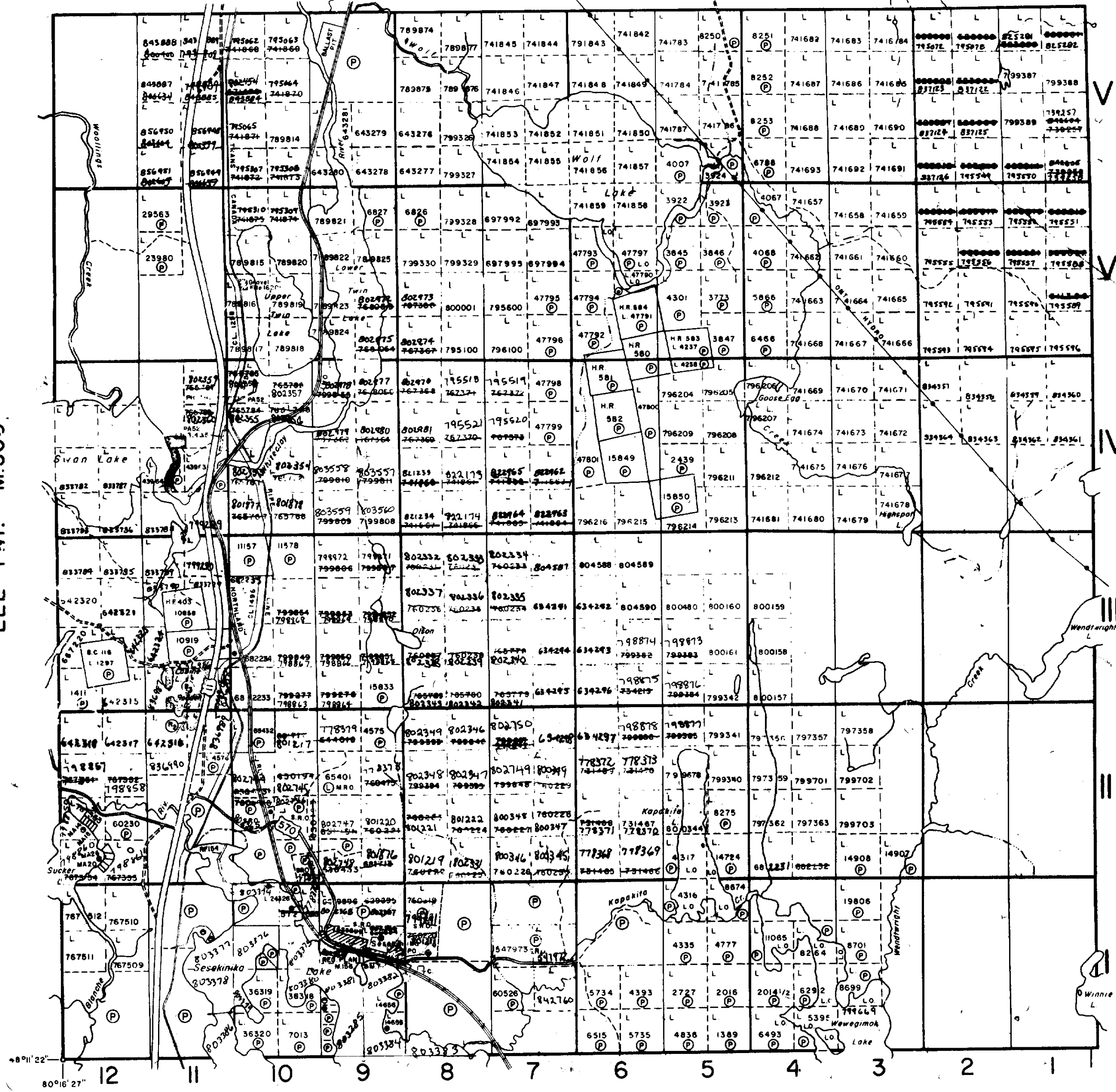
Withdrawn from staking, see 31 (b) pending application under public lands Act.

PLAN NO. M.361 #2

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

LEE TWP. - M.360

BERNHARDT TWP. - M.327



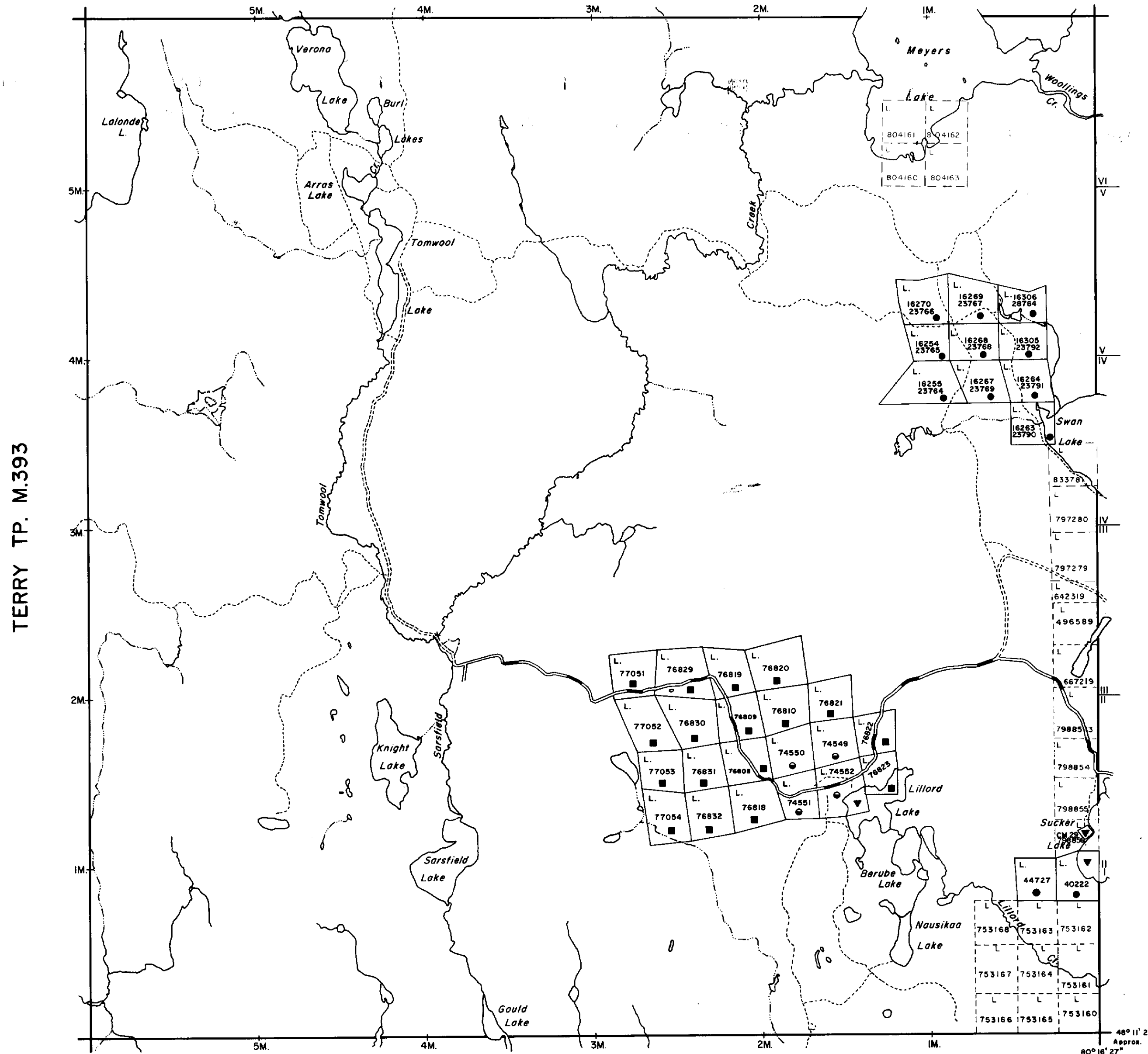
GRENFELL TWP. - M.351



NOTES

400' surface rights reservation along the shores of all lakes and rivers.

BLACK TP. M.329



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
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

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	
CROWN LAND SALE	C.S.
ORDER-IN-COUNCIL	O.C.
RESERVATION	
CANCELLED	
SAND & GRAVEL	

SCALE: 1 INCH = 40 CHAINS



ACRES	HECTARES
40	16

TOWNSHIP

LEE

DISTRICT

TIMISKAMING

MINING DIVISION

LARDER LAKE



Ministry of Natural Resources

Ontario Surveys and Mapping Branch

Date FEB. 11, 75.

Plan No.

Whitney Block
Queen's Park, Toronto

M.360



42A01NE0045 2.8391 BOMPASS

BOMPAS TP. M.330

MAISONVILLE TP. M.361

NOTES:

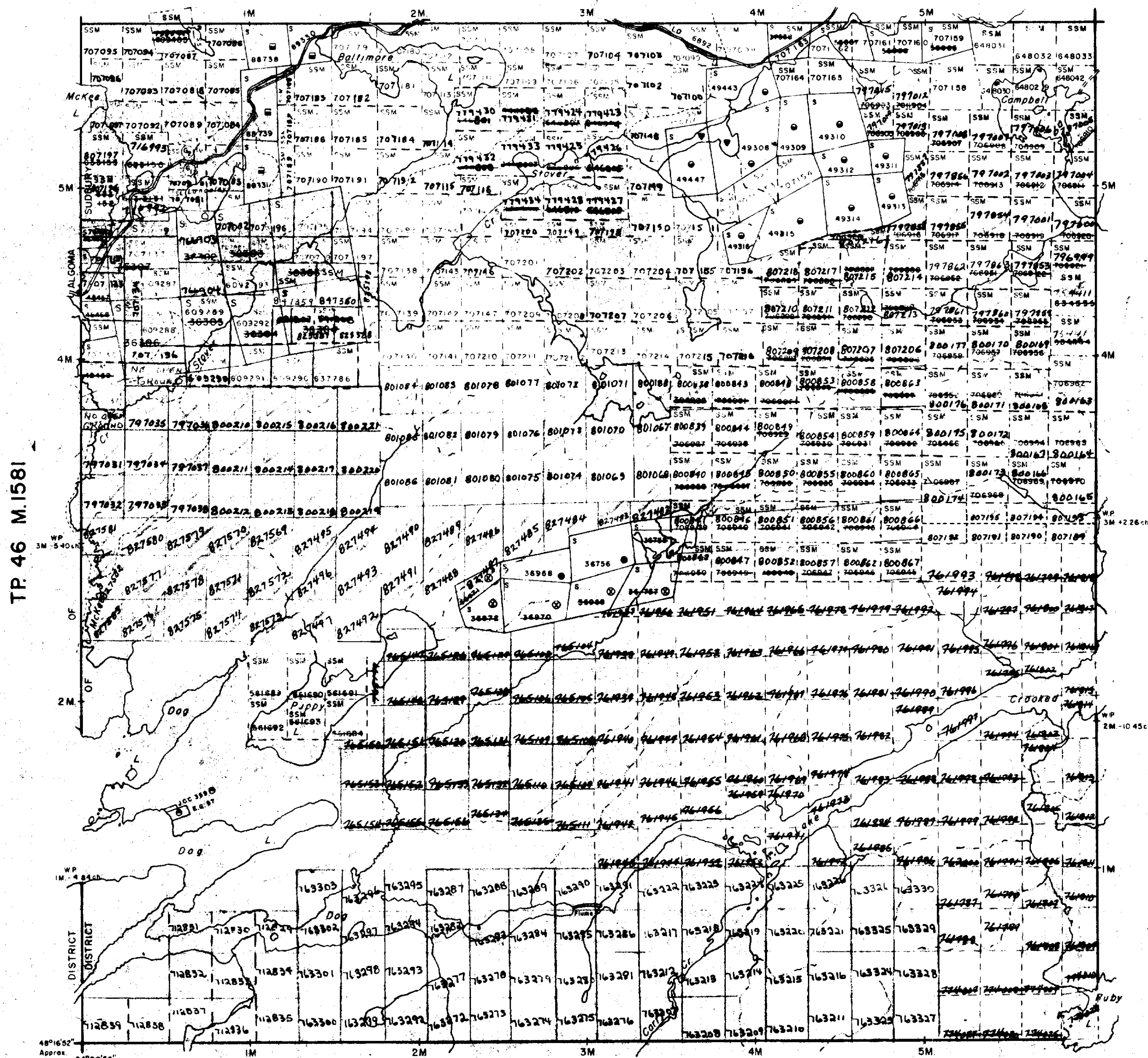
400 surface rights reservation along the shores of lakes and rivers

SAND and GRAVEL

- 1) Gravel File: 137603
- 2) M.N.R. Gravel File 147 File: 137603

Note
Mining Rights - SSM 36302 ARE OPEN FOR PROSPECTING, STAKING OUT, SALE OR LEASE AT 7:00 AM STANDARD TIME ON JUNE 1ST, 1983
ONT. GAZETTE - MAY 1, 1983

RENNIE TP M.1076

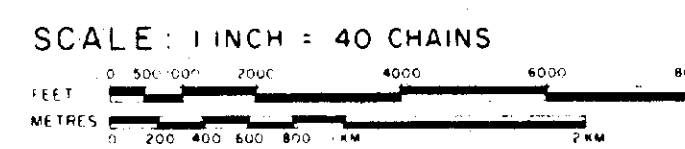


LEGEND

- HIGHWAY AND ROUTE No
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS, PARCELS, ETC.
- MINING CLAIMS
- RAILWAY AND RIGHT-OF-WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBSIDENCE
- NATIONAL SHORELINE
- MINES

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 | ◔ |
| CROWN LAND SALE | CS |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | ⊙ |
| CANCELLED | ⊘ |
| SAND & GRAVEL | ⊚ |

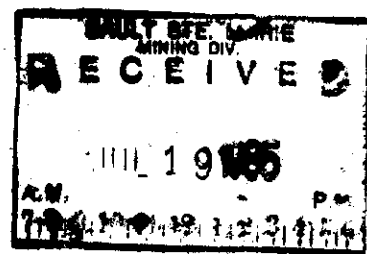


ACRES	HECTARES
40	16

TOWNSHIP
STOVER
DISTRICT
SUDBURY
MINING DIVISION
SAULT STE. MARIE

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

DATE DEC 25th, 1972 PLAN No. M.1141
WHITNEY BLOCK QUEEN'S PARK, TORONTO



NOTES

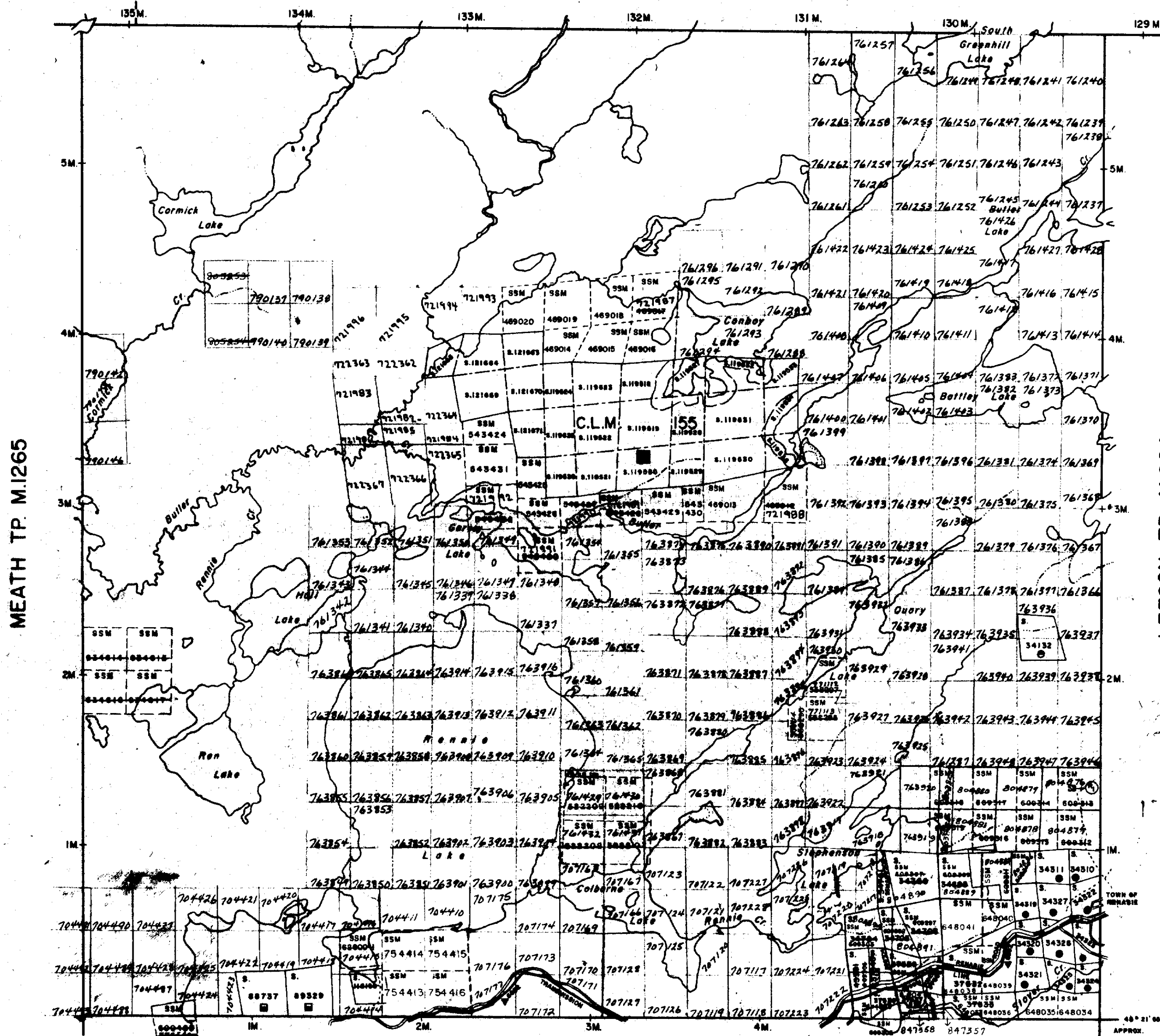
400' surface rights reservation along the shores of all lakes and rivers.

AREAS WITHDRAWN FROM STAKING

S.R. - SURFACE RIGHTS		M.R. - MINING RIGHTS		
Section	Order No.	Date	Disposition	File
43(R.S.O.1970)		31/8/72	S.R.	121313

ACTON TP. M.1133

WINGET TP. M.1370



MEATH TP. M.1265

LEESON TP. M.984

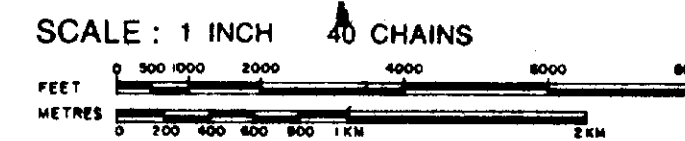
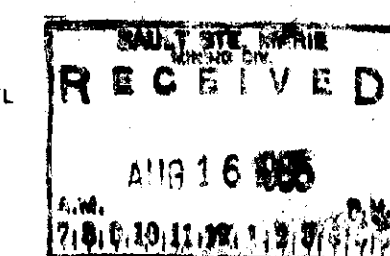
STOVER TP. M.1141

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
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

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	▼
CROWN LAND - SALE	CS
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊗
SAND & GRAVEL	⊘



ACRES	HECTARES
40	16

TOWNSHIP
RENNIE
 DISTRICT
 SUDBURY
 MINING DIVISION
 SAULT STE. MARIE

Ministry of Natural Resources
 Ontario Surveys and Mapping Branch

Date Feb. 21, 1974 Plan No. M.1076
 Whitney Block Queen's Park, Toronto



NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Parcels M6, M7, & M8 are patented under Order in Council dated Oct 31, 1901.

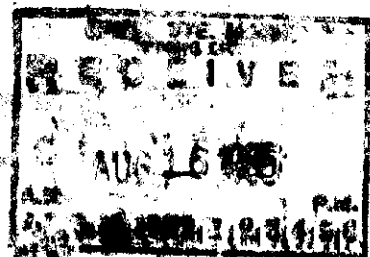
SAND and GRAVEL

- ① M.T.C. GRAVEL PIT 1015
- ② " " " 959
- ③ GRAVEL FILE : 127106
- ④ M.N.R. GRAVEL PIT NO. 148 FILE : 127106
- ⑤ MNR GRAVEL RESERVE 4-G-5

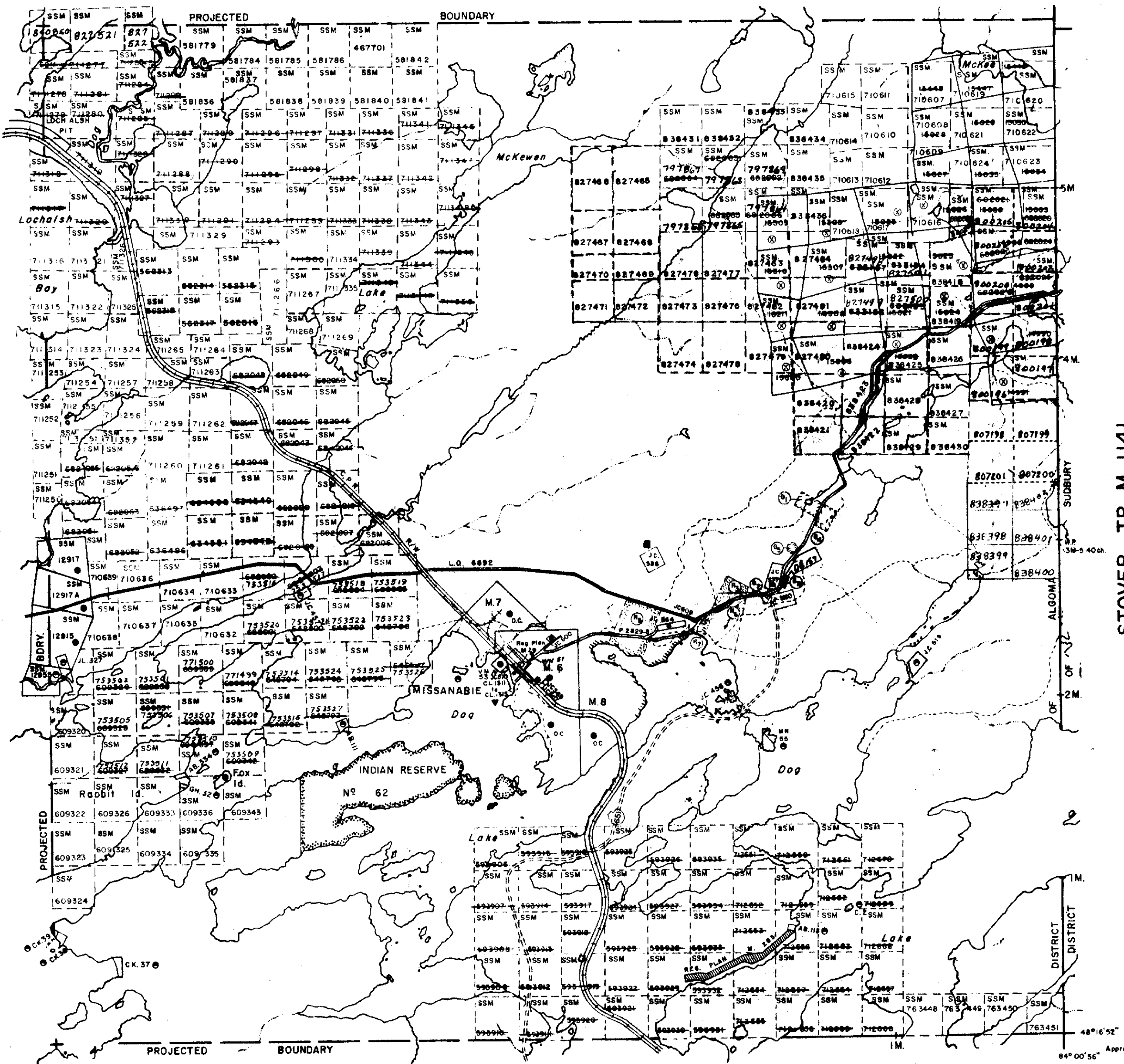
AREAS WITHDRAWN FROM STAKING

S.R. - SURFACE RIGHTS M.R. - MINING RTS.
Section Order No. Date Disposition File

④ 43 (R.S.O.' 70)	W.7/81	2/7/81	S.R.	127108
④ SEC 36/80	W.19/81	4/12/81	S.R.	163002
④ SEC 36/80	W.20/81	4/12/81	S.R.	163002
④ SEC 36/80	W.21/81	4/12/81	S.R.	163002



MEATH TP. M.1265

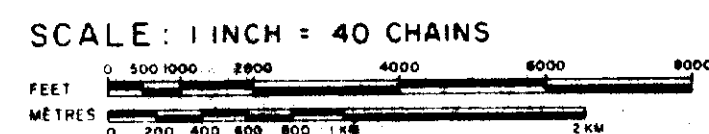


LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
 - TOWNSHIPS, BASE LINES, ETC
 - LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES:
 - LOT LINES
 - PARCEL BOUNDARIES
 - MINING CLAIMS, ETC
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

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	▼
CROWN LAND SALE	C.S.
ORDER-IN-COUNCIL	OC
RESERVATION	○
CANCELLED	○
SAND & GRAVEL	○



ACRES	HECTARES
40	16

TOWNSHIP
WEST
(Tp 46)
DISTRICT
ALGOMA
MINING DIVISION
SAULT STE. MARIE

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

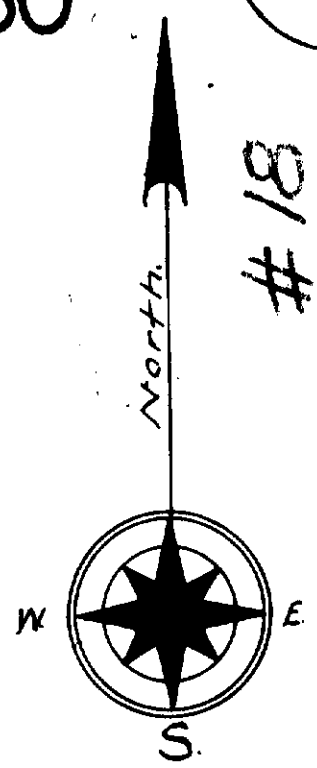
DATE DEC 25th, 1972 PLAN No.
WHITNEY BLOCK **M.1581**
QUEEN'S PARK, TORONTO



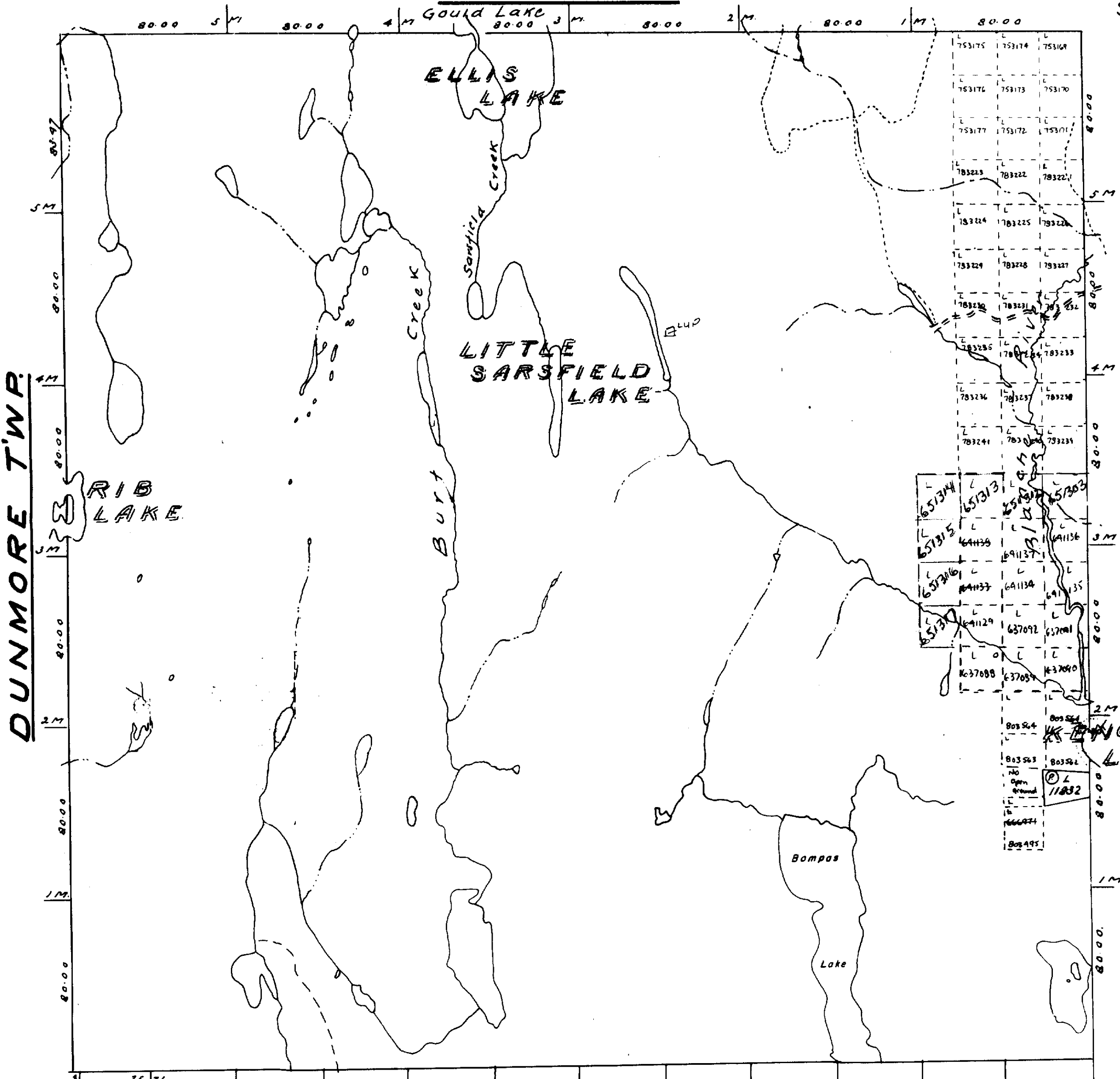
COPENACE Tp M.1580

PLAN OF
BOMPAS TWP.
LARDER LAKE MINING DIVISION.
DISTRICT OF TIMISKAMING
— Scale 40 chains to an inch —

#18



LEE TWP.



DUNMORE TWP.

GRENFELL TWP.

BURT TWP.

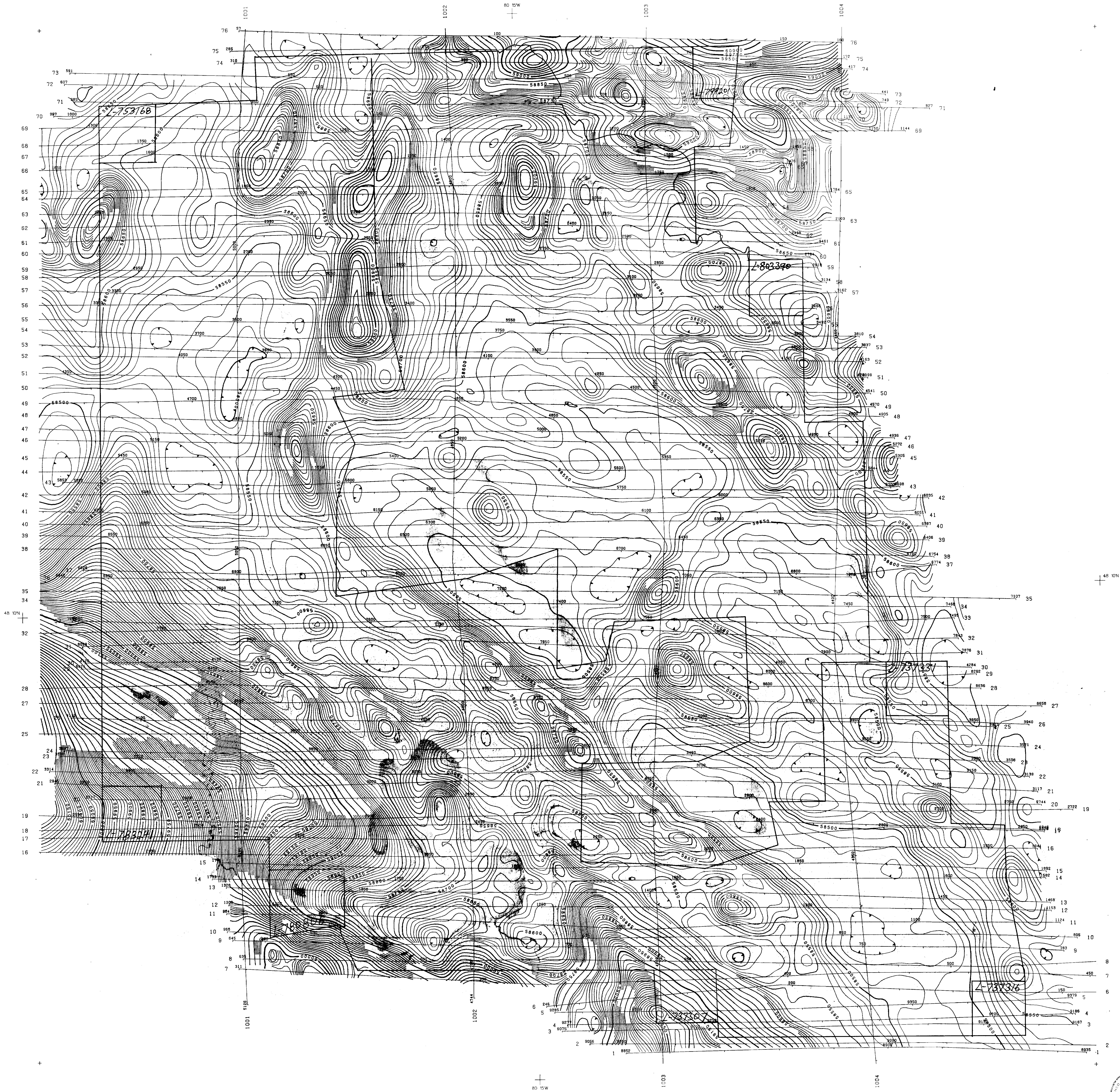
Notes

- Railways shown
 - Paved Highways
 - Gravel Highway Route No.
 - Other Roads
 - Trails & Paths
 - Telephone & Telegraph Lines
 - Electric Power Lines
- 400' Surface rights reservation around all lakes and rivers.

- Non-perennial streams
- Bridges
- Buildings
- Swamps
- Areas marked (L.O.) are Patented Leased L.O. held under Licence of Occupation

- CROWN LAND SALE
- LOCATED LAND
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- CANCELLED
- C.S.
- Loc.
- M.R.O.
- S.R.O.
- C.





270

LEGEND
 PROPERTY BOUNDARY
 TERRAIN CLEARANCE
 LINE SPACING
 1000 gammas
 250 gammas
 50 gammas
 10 gammas

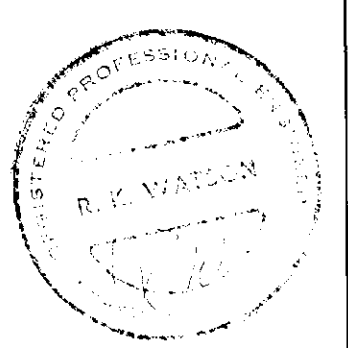
ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

AIRBORNE MAGNETIC SURVEY
 TOTAL MAGNETIC FIELD

GRENFELL PROPERTY

NT.S. NO. 42 A/1	DRAWING N. T-5003-1
SCALE 1:10,000	JULY 1985

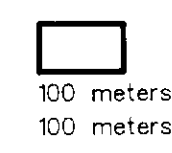
TERRAQUEST LTD
 TORONTO, CANADA





280

LEGEND
 PROPERTY BOUNDARY ———
 TERRAIN CLEARANCE ———
 LINE SPACING ———
 2500 gammas / meter ———
 500 gammas / meter ———
 100 gammas / meter ———
 525 gammas / meter ———



ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

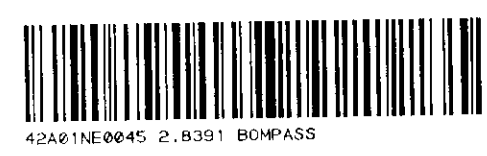
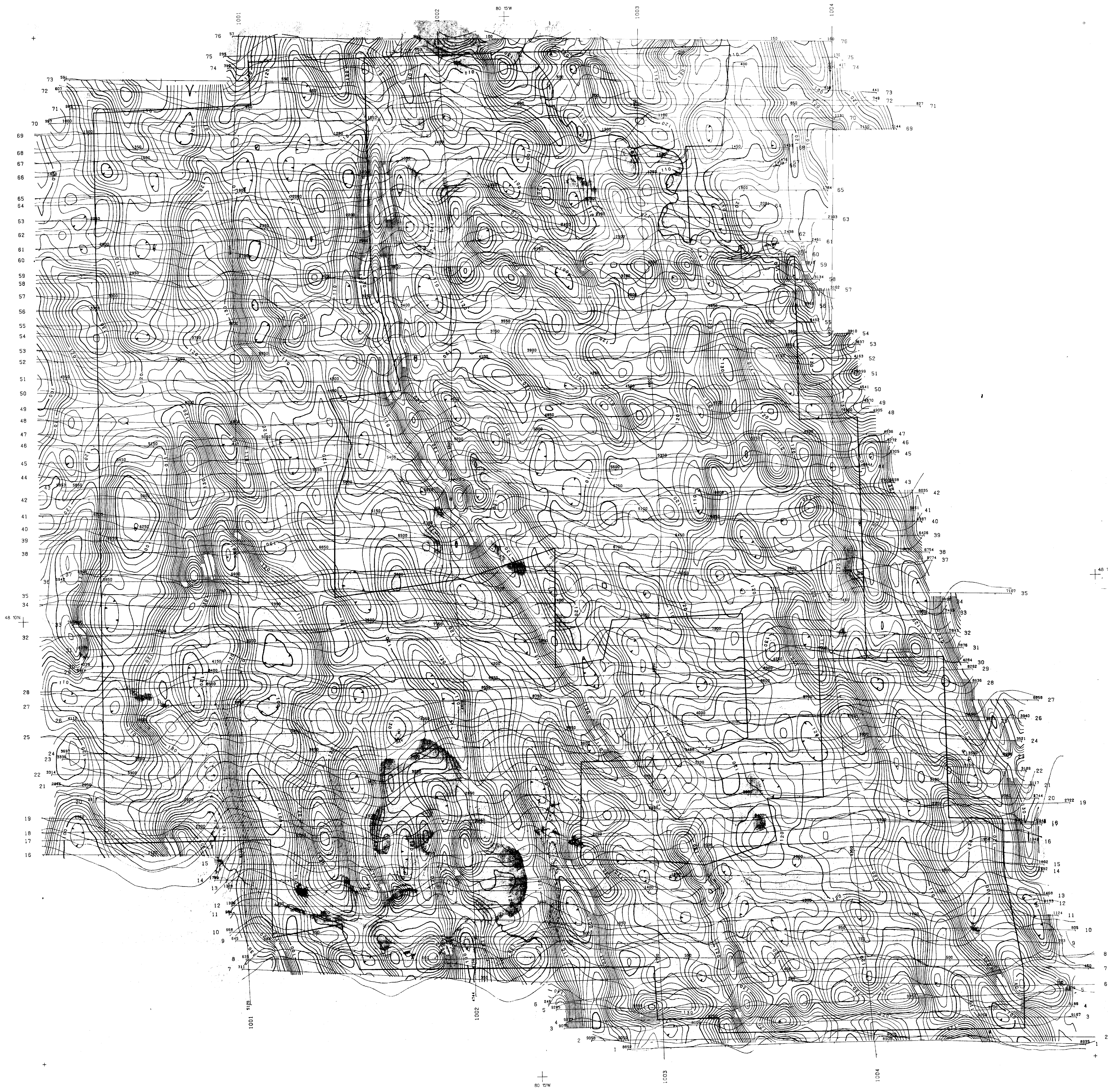
AIRBORNE MAGNETIC SURVEY
 VERTICAL MAGNETIC GRADIENT
 Calculated From Total Field

GRENFELL PROPERTY

N.T.S. NO. 42 A/1	DRAWING NO. T-5003-2
SCALE 1 : 10,000	DATE: JULY 1985

TERRAQUEST LTD.
 TORONTO, CANADA





280

LEGEND

PROPERTY BOUNDARY 100 meters
 TERRAIN CLEARANCE 100 meters
 LINE SPACING 100 meters

FIELD STRENGTH

50 %

10 %

2 %

QUADRATURE

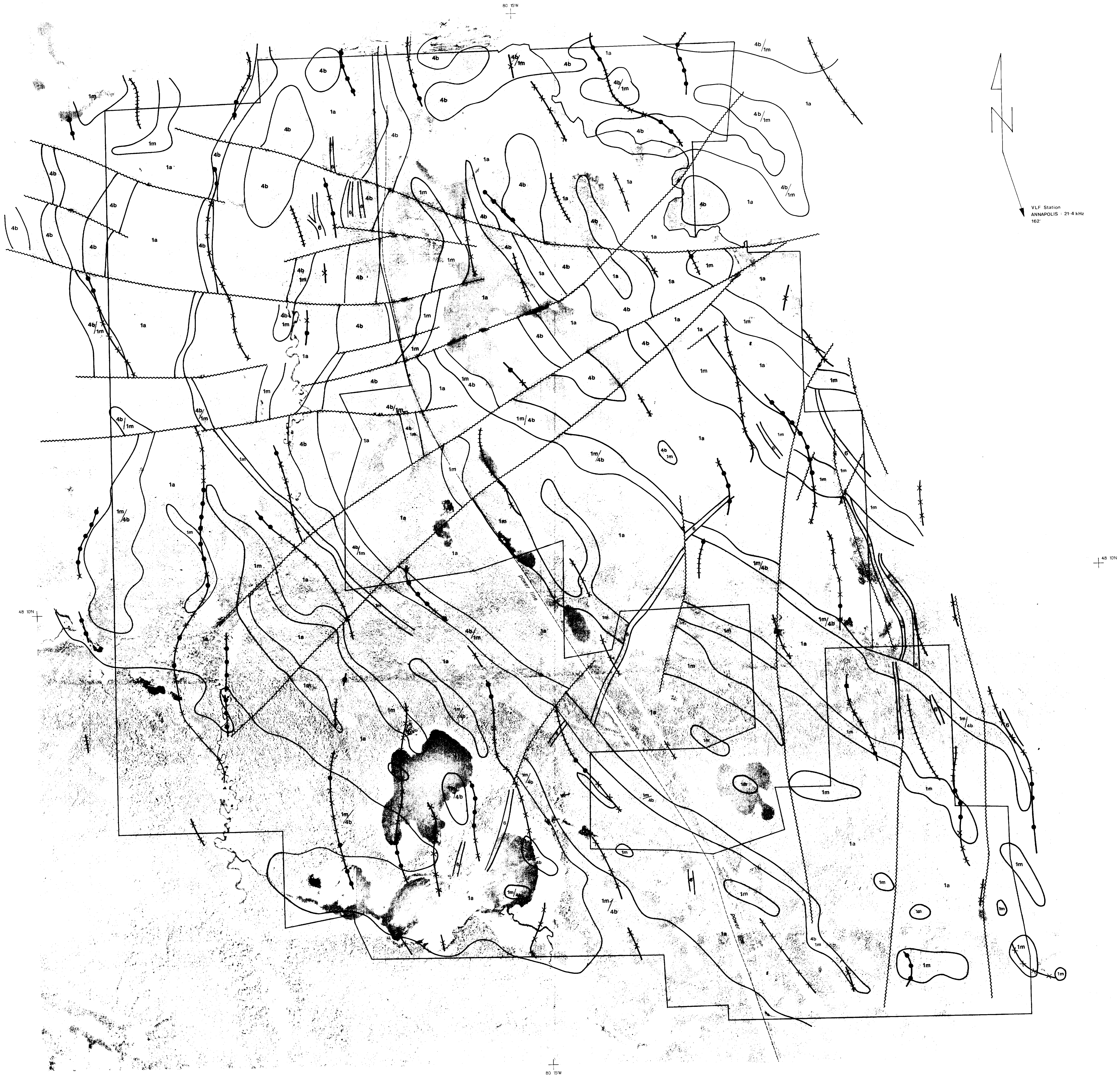
ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

AIRBORNE VLF-EM SURVEY
 CONTOURS OF TOTAL FIELD STRENGTH
 PROFILES OF QUADRATURE

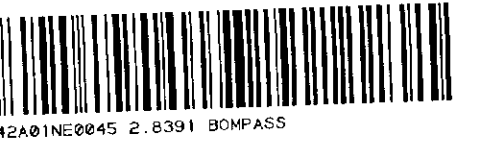
GRENFELL PROPERTY

N.T.S. NO. 42 A/2	DRAWING NO. T-5003-3
SCALE 1 : 10,000	DATE: JULY 1985

TERRAQUEST LTD.
 TORONTO, CANADA



VLF Station
ANNAPOLIS - 21.4 kHz
162



302

LEGEND

INTERPRETATION	LITHOLOGY
Contact	Diabase
Fault	Gabbro/Diorite
Property Boundary	Mafic to intermediate volcanics
VLF-EM Conductor Axes	Magnetic unit within 1a
normal quadrature	
reverse quadrature	
in phase only	

ROBERT S. MIDDLETON EXPLORATION SERVICES INC.

INTERPRETATION

GRENFELL PROPERTY

N.T.S. NO.	42 A/1	DRAWING NO.	T-5003-4
SCALE	1 : 10,000	DATE	JULY 1985

TERRAQUEST LTD.
TORONTO, CANADA