



42C03SW0080 2.10662 MISHIBISHU LAKE

723

010

REPORT ON AN
AIRBORNE MAGNETIC AND VLF-EM SURVEY
AUGUSTA LAKE PROPERTY
MISHIBISHU LAKE AREA
SAULT SAINTE MARIE MINING DIVISION, ONTARIO

for
SAN PAULO EXPLORATIONS INC.

RECEIVED

DEC 18 1987

MINING LANDS SECTION

by

TERRAQUEST LTD.
Toronto, Canada

December 2, 1987

240 Adelaide Street West, Toronto, Canada M5H 1W7, Telephone (416) 971-5400, Fax (416) 971-6449



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1. INTRODUCTION

This report describes the specifications and results of a geophysical survey carried out for San Paulo Explorations Inc. of 2314 - 401 Bay Street, Toronto, Ontario, M5H 2Y1 by Terraquest Ltd., 240 Adelaide Street West, Toronto, Canada. The field work was performed on October 31, 1987 and the data processing, interpretation and reporting from November 1 to December 2, 1987.

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 metres 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 the Mishibishu Lake area (Plan M-7), in the Sault Sainte Marie Mining Division of Ontario about 40 kilometres west of the town of Wawa. The property lies approximately two claims south of Mishibishu Lake which can be accessed by float plane from Wawa.

The latitude and longitude are 48 degrees 02 minutes, and 85 degrees 25 minutes respectively, and the N.T.S. reference is 42C/3.

The claim numbers are shown in figure 2 and listed below:

SSM	924415-924431	(17)	
	924465-924477	(13)	
	924478-924480	(3)	
	924485-924498	(14) Total 47 claims

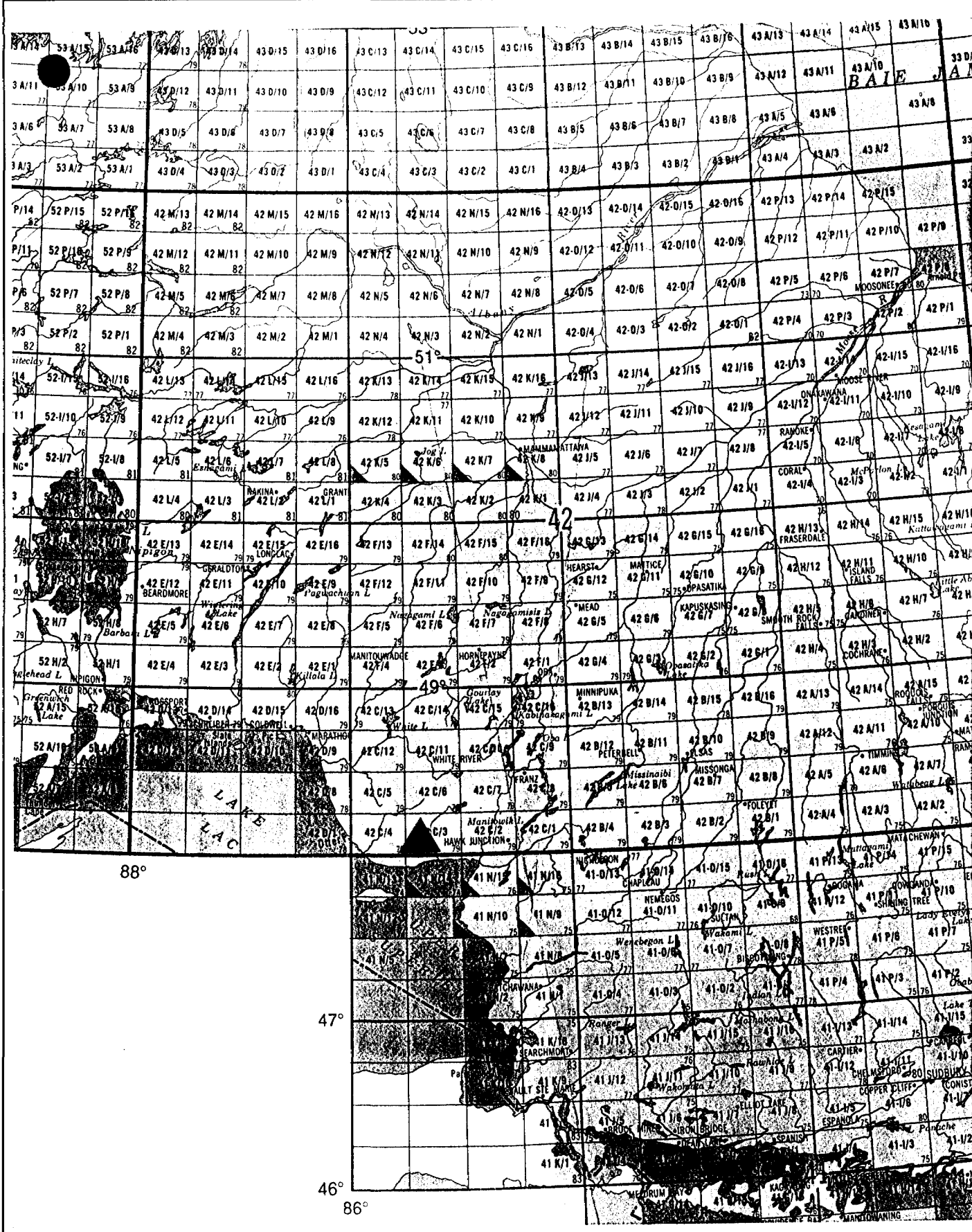


FIGURE 1. General Location

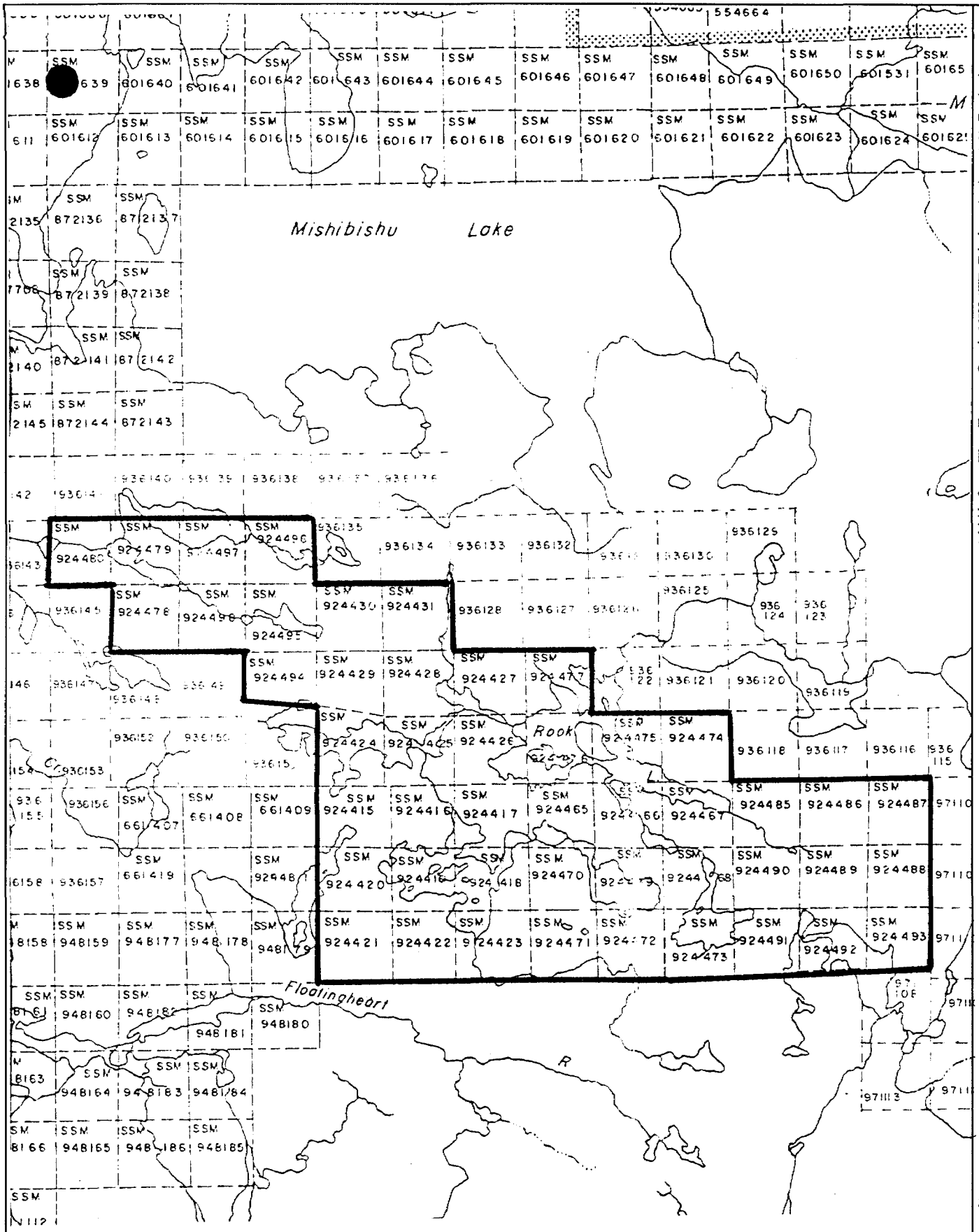


FIGURE 2 Claim Location Map (exact locations not certified)

3. GEOLOGY

Map References

1. Map 2220: Manitowadge-Wawa Sheet, Geological Compilation Series. scale 1:253,440. O.D.M. 1972.
2. Map 2333: University River. scale 1:63,360. O.D.M. 1976.
3. Map P.2970: Mishibishu Lake Area, Northeastern Section. scale 1:15,840. O.G.S. 1986.

The survey area is underlain by alternating sequences of Archean mafic to intermediate metavolcanics and metasediments trending to the east-west. These are represented respectively by massive to foliated andesite to basalt with minor felsic tuff, and greywacke to argillite. The Mishibishu Lake Stock borders the area to the north and is represented by porphyritic monzonite and quartz bearing monzonite.

Regional faults and diabase dykes trend to the northeast and northwest.

Gold mineralization occurs within the metasediments and metavolcanics in a similar geological environment along the northern side of the Mishibishu Lake Stock.

4. 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 based on the Overhauser effect. The Overhauser effect allows for polarization of a proton rich liquid of the sensor by adding a "free radical" to it and irradiating it by RF magnetic field. Strong precession signals are generated with modest RF power. The sensor element is mounted in an extension of the right wing tip. It's specifications are as follows:

Resolution:	0.5 gamma
Accuracy:	0.5 gamma
Cycle time:	0.5 second
Range:	20,000 - 100,000 gammas in 23 overlapping steps
Gradient tolerance:	Up to 5000 gammas per metre
Model:	GSM-9BA
Manufacturer:	GEM Systems Inc., 105 Scarsdale Rd., Don Mills, Ontario, M3B 2R5

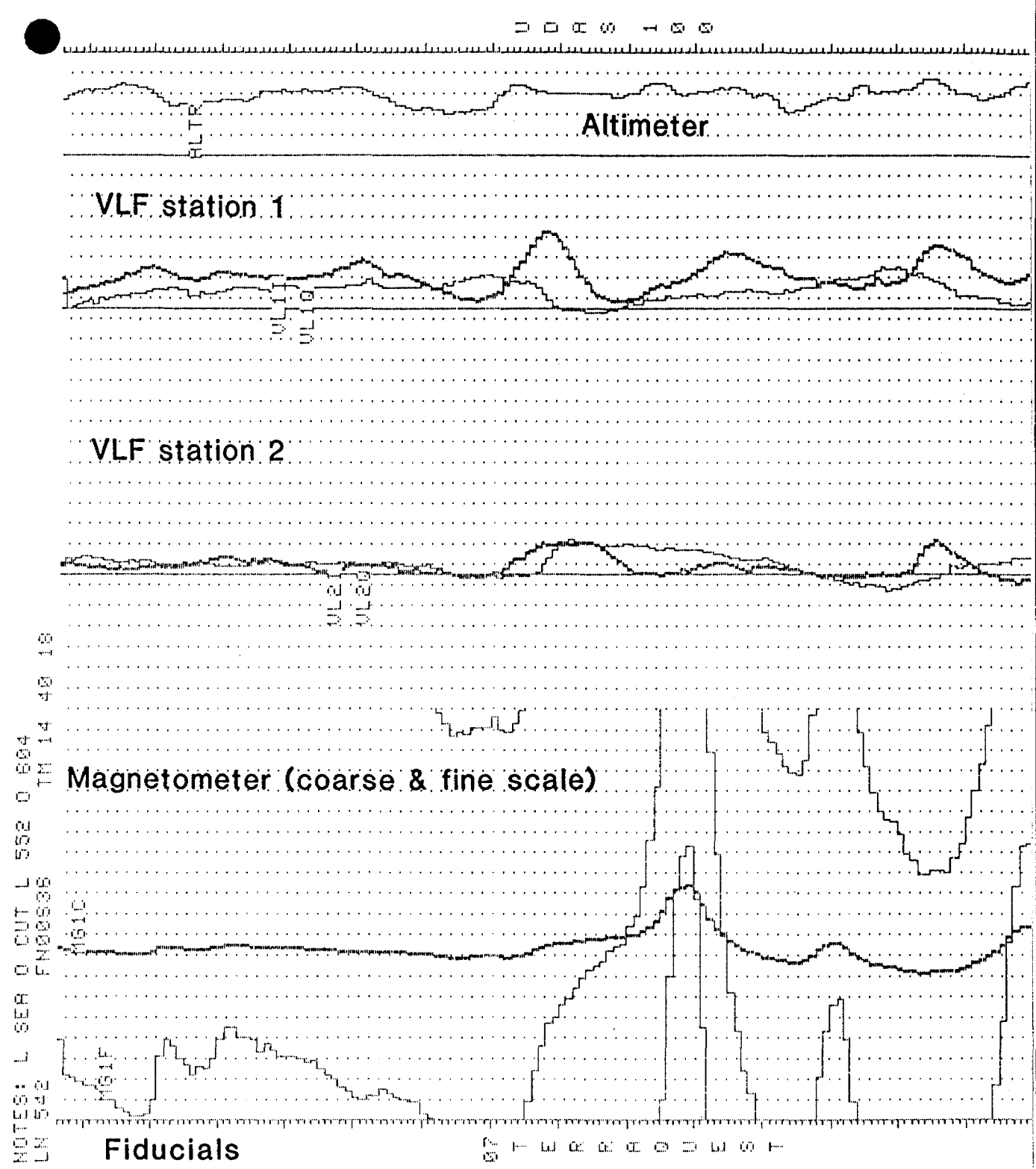


FIGURE 3. Sample of analogue data



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. It's 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 KRA-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 metres
- b) Line direction: 360 degrees
- c) Terrain clearance: 100 metres
- d) Average ground speed: 156 km/hr.
- e) Data point interval:
 - Magnetic: 27 metres
 - VLF-EM: 27 metres
- f) Tie Line interval: 2 kilometres
- g) Channel 1 (LINE): NAA Cutler, 24.0 kHz
- h) Channel 2 (ORTHO): NAA Cutler, 24.0 kHz
- i) Line km over total survey area including overrun: 150 line km
- j) Line km over claim groups: Magnetic survey totals.... 94 line km
VLF-EM survey totals..... 94 line km

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 metres for more than one km were reflown if safety considerations were acceptable.
- 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, semicontrolled mosaics of aerial photographs were made from existing air photos. Each individual photograph was photographically adjusted to conform to the NTS map system before the mosaic was assembled.

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 has 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 1/10th of an inch at map scale.

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. The computer program for this purpose is provided by Paterson, Grant and Watson Ltd. of Toronto.

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.

- Grant, F.S. and Spector A., 1970: Statistical Models for Interpreting Aeromagnetic Data; Geophysics, Vol 35
Grant, F.S., 1972: Review of Data Processing and Interpretation Methods in Gravity and Magnetics; Geophysics Vol 37-4
Spector, A., 1968: Spectral Analysis of Aeromagnetic maps; unpublished thesis; University of Toronto

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.

The VLF-EM conductor axes have been identified and evaluated according to the Terraquest classification system (Figure 4). This system correlates the nature and orientation of the conductor axes with stratigraphic, structural and topographic features to obtain an association from which one or more origins may be selected. Alternate associations are indicated in parentheses.

6.2 Interpretation

The magnetic and VLF-EM data are shown in contoured format on maps in the back pocket. A first pass interpretation map is also provided. The following notes are intended to supplement these maps.

FIGURE 4

TERRAQUEST CLASSIFICATION OF VLF-EM CONDUCTOR AXES

<u>SYMBOL</u>	<u>CORRELATION</u>	<u>ASSOCIATION: Possible Origins</u>
a , A	Coincident with magnetic stratigraphy	Bedrock magnetic horizons: stratabound mineralogic origin or shear zone
b , B	Parallel to magnetic stratigraphy	Bedrock non-magnetic horizons: stratabound mineralogic origin or shear zone
c , C	No correlation with magnetic stratigraphy	Association not known: possible small scale stratabound mineralogic origin, fault or shear zone, overburden
d , D	Coincident with magnetic dyke	Dyke or possible fault: mineralogic or electrolytic
f , F	Coincident with topographic lineament or parallel to fault system	Fault zone: mineralogic or electrolytic
ob , OB	Contours of total field response conform to topographic depression	Most likely overburden: clayey sediments, swampy mud
cul , CUL	Coincident with cultural sources	Electrical, pipe or railway lines

NOTES

- 1 - Upper case symbols denote a relatively strong total field strength
- 2 - Underlined symbols denote a relatively strong quadrature response
- 3 - Mineralogic origins include sulphides, graphite, and in fault zones, gouge
- 4 - Electrolytic origins imply conductivity related to porosity or high moisture content

The total magnetic field has a relief of approximately 1,150 gammas and shows east-west trending units and three strong anomalies to the north. The vertical magnetic gradient offers slightly improved resolution.

All the very strong responses to the north correlate with exposures of the Mishibishu Lake Stock lithology (Unit 10). A few exposures of this intrusive to the northwest correlate with moderate strength responses and have been shown on the interpretation map as unit 10a.

Exposures of diabase dykes (Unit 11) correlate with moderate to strong, narrow magnetic trends. Note that not all the geologically mapped diabase dykes correlate with strong magnetic responses.

All the moderate strength responses have been interpreted as magnetic members (Unit 1m) of the mafic metavolcanics. These are probably related to increased concentrations of magnetic minerals such as magnetite or pyrrhotite or possibly to more mafic compositions.

The remaining weak to moderate magnetic responses correlate with intermediate metavolcanics (Unit 2), felsic metavolcanics (Unit 3) and clastic metasediments (Unit 5). At this scale all these lithologies are characterized by poor magnetic responses and individual rock types cannot be discriminated. Their identifications on the interpretation map have been taken from the mapped geology.

Numerous magnetically interpreted faults trend to the northeast and a few to the east. These are readily detected as they cross the magnetic trends. The Rook Lake shear zone parallels the magnetic trends and is difficult to detect but generally follows a broad magnetic-low zone and a subtle change in the vertical magnetic gradient data.

The VLF-EM data show numerous moderate to strong conductive zones trending to the east and southeast. Most of these correlate with lakes and valleys suggesting that a major component is derived from conductive overburden.

The Rook Lake shear zone and several magnetically interpreted structures correlate with VLF-EM conductor axes. This type of conductivity may be related to: a) minerals such as graphite, sulphides or gouge along the structure, or b) an ionic effect created by porosity or water along the structure or clay in an overlying topographic depression.

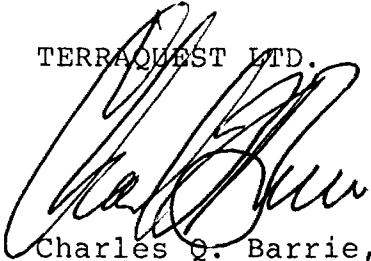
A few conductor axes coincide with magnetic stratigraphy and therefore possess potential for stratabound bedrock origins. These may be created by sulphides or graphite and should be followed up on the ground using EM or IP methods.

7. SUMMARY

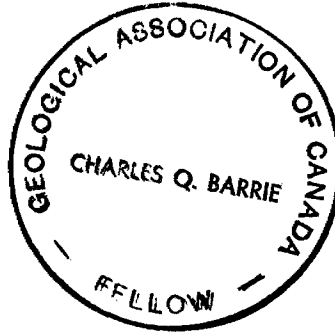
An airborne combined magnetic and VLF-EM survey has been done on the property at line intervals of 100 metres. The total field and vertical gradient magnetic data, VLF-EM data and interpretation maps are produced at a scale of 1:10,000.

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 a few are believed to have potential sulphide origins and have been recommended for additional investigation.

TERRAQUEST LTD.



Charles Q. Barrie, M.Sc.
Geologist





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900

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) Airborne Magnetic & VLF Survey
Township or Area Mishibishu Lake Area
Claim Holder(s) San Paulo Explorations Inc
Survey Company Terraquest Limited
Author of Report C. Barrie
Address of Author 240 Adelaide St. West, Toronto, Ontario
Covering Dates of Survey 31/10/87 to 02/12/87
Total Miles of Line Cut

MINING CLAIMS TRAVERSED
List numerically

Table with 2 columns: SSM.924415 (prefix) and SSM.924472 (number). Rows list claim numbers from 924415 to 924472.

If space insufficient, attach list

SPECIAL PROVISIONS CREDITS REQUESTED table with columns: Geophysical, Geological, Geochemical, and DAYS per claim. Includes instructions for entering days.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer 40 Electromagnetic 40 Radiometric

DATE: December 15/87 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. Qualifications 2.8305

Table with 4 columns: File No., Type, Date, Claim Holder. Includes header 'Previous Surveys'.

TOTAL CLAIMS 47

OFFICE USE ONLY

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) Total field magnetic and VLF-EM (NAA CUTLER)

Instrument(s) G SM - 9BA (GEM SYSTEMS) and TOTEM 2A (Herz Ind.)

(specify for each type of survey)

Accuracy .5 gamma (Magnetometer) & 1% total field (VLF)

(specify for each type of survey)

Aircraft used Cessna 182 C-FAKK

Sensor altitude 100 m

Navigation and flight path recovery method photo mosaics for both navigation & flight path recovery, flight path record on Geocam video camera & recorder

Aircraft altitude 100 m Line Spacing 100 m

Miles flown over total area 150 km Over claims only 94 km

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 _____



Ministry of Northern Development and Mines
Ontario

Report of Work *W.R. # 228/87*
(Geophysical, Geological, Geochemical and Expenditures) *2.10662*

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Mining Act

Type of Survey(s) Airborne Magnetic and VLF - EM		Township or Area Mishibishu Lake Area	
Claim Holder(s) San Paulo Explorations Inc.		Prospector's Licence No. T 1561	
Address P.O. Box 2656, Thunder Bay, Ontario P7B 5G2			
Survey Company Terraquest Ltd.		Date of Survey (from & to) 31 10 87 02 12 87 Day Mo. Yr. Day Mo. Yr.	Total Miles of line Cut
Name and Address of Author (of Geo-Technical report) C. Barrie, Terraquest Ltd., 240 Adelaide St. West, Toronto, Ontario M5H 1W7			

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions For first survey: Enter 40 days. (This includes line cutting) RECEIVED For each additional survey: using the same grid: Enter 20 days (for a JAN 12 1988 MINING LANDS SECTION	Geophysical - Electromagnetic - Magnetometer - Radiometric	Days per Claim
	Geological	
Man Days Complete reverse side and enter total(s) here SAULT STE MARIE MINING DIV. RECEIVED DEC 22 1987 A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.	Geophysical - Electromagnetic - Magnetometer - Radiometric Other	Days per Claim
	Geological	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	40
	Radiometric	

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
SSM	924415	/	SSM	924472	/
	924416	/		924473	/
	924417	/		924474	/
	924418	/		924475	/
	924419	/		924476	/
	924420	/		924477	/
	924421	/		924478	/
	924422	/		924479	/
	924423	/		924480	/
	924424	/		924485	/
	924425	/		924486	/
	924426	/		924487	/
	924427	/		924488	/
	924428	/		924489	/
	924429	/		924490	/
	924430	/		924491	/
	924431	/		924492	/
	924465	/		924493	/
	924466	/		924494	/
	924467	/		924495	/
	924468	/		924496	/
	924469	/		924497	/
	924470	/		924498	/
	924471	/			

Expenditures (excludes power stripping)	
Type of Work Performed ASSESSMENT FILE RESEARCH OFF	RECORDED
Performed on Claim(s) FEB 8 1983	DEC 22 1987
Recorded	

Calculation of Expenditure Days Credits	Total Days Credits
$S \div 15 =$	

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. **47**

Date December 15, 1987	Recorded Holder or Agent (Signature) <i>John Gingerich</i>
----------------------------------	---

For Office Use Only		Mining Recorder
Total Days Cr. Recorded 3,760	Date Recorded Dec 22 1987	<i>[Signature]</i>
	Date Approved as Recorded 25 Jan 88	Branch Director <i>[Signature]</i>

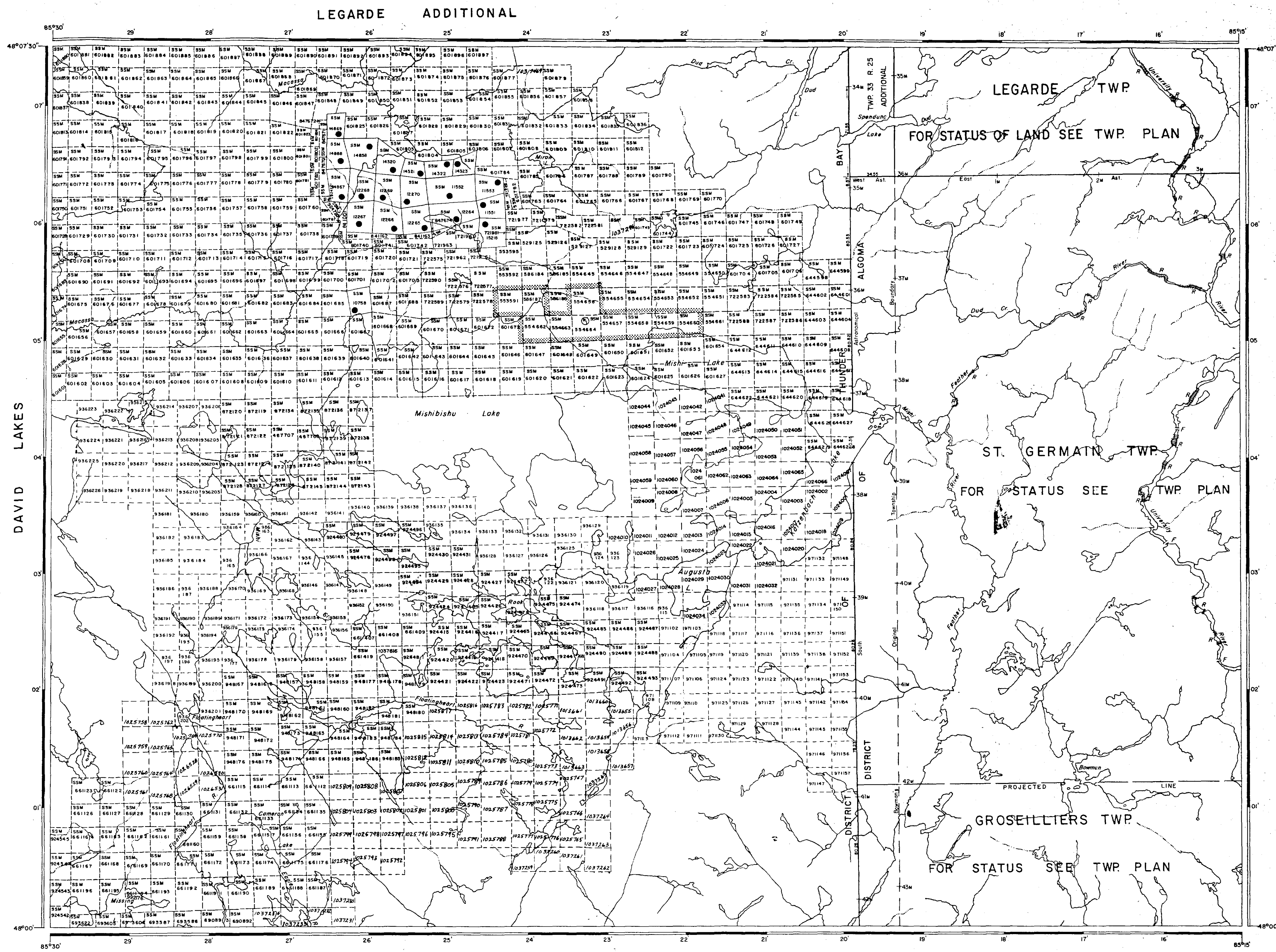
Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying John Gingerich, P.O. Box 2656, Thunder Bay, Ontario P7B 5G2	
Date Certified Dec. 15, 1987	Certifier's (Signature) <i>[Signature]</i>

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

Description	Order No.	Date	Disposition	File
	W. 50/86	2/5/86	M.S.	



REFERENCES

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
 - TOWNSHIPS, BASE LINES, ETC.
 - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
 - DOT 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. 83, SUBSEC.

SCALE: 1 INCH = 40 CHAINS

FEET: 0 1000 2000 4000 6000 8000

METRES: 0 200 1000 2000

DATE OF ISSUE

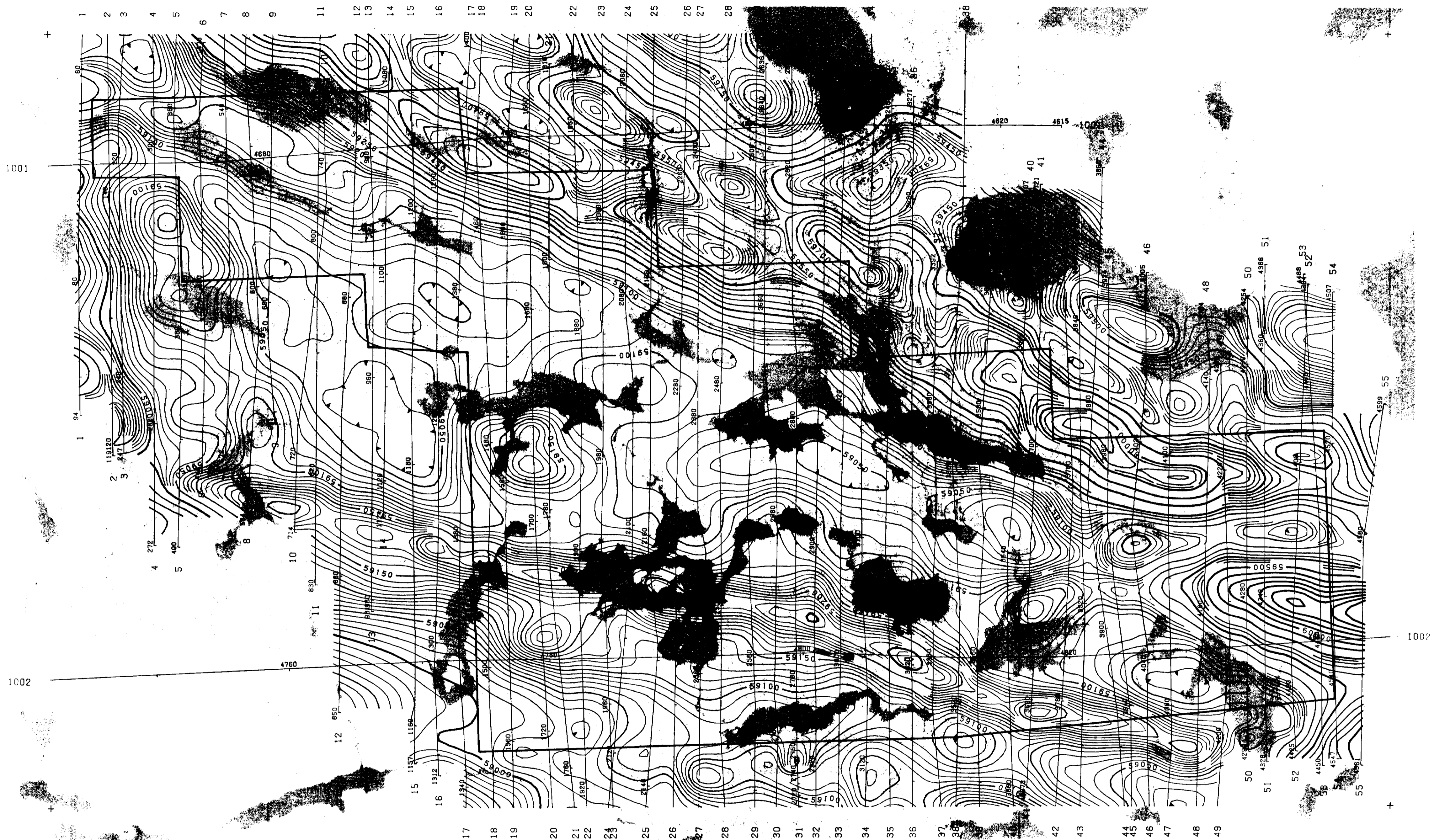
JAN 15 1986

SAULT STE. MARIE
MINING RECORDER'S OFFICE

AREA
MISHIBISHU LAKE
 M.N.R. ADMINISTRATIVE DISTRICT
 WAWA
 MINING DIVISION
 SAULT STE. MARIE
 LAND TITLES / REGISTRY DIVISION
 ALGOMA

Ministry of Natural Resources
 Ministry of Northern Development and Mines

Date: FEBRUARY, 1987
 Number: **G-3772**



LEGEND

Terrain Clearance 100 meters
 Line Spacing 100 meters

TOTAL MAGNETIC FIELD
 1000 gammas
 250 gammas
 50 gammas
 10 gammas

SAN PAULO EXPLORATIONS INC.

**AIRBORNE MAGNETIC SURVEY
 TOTAL MAGNETIC FIELD**

AUGUSTA LAKE PROPERTY
 Mishibishu Lake Area, Ontario

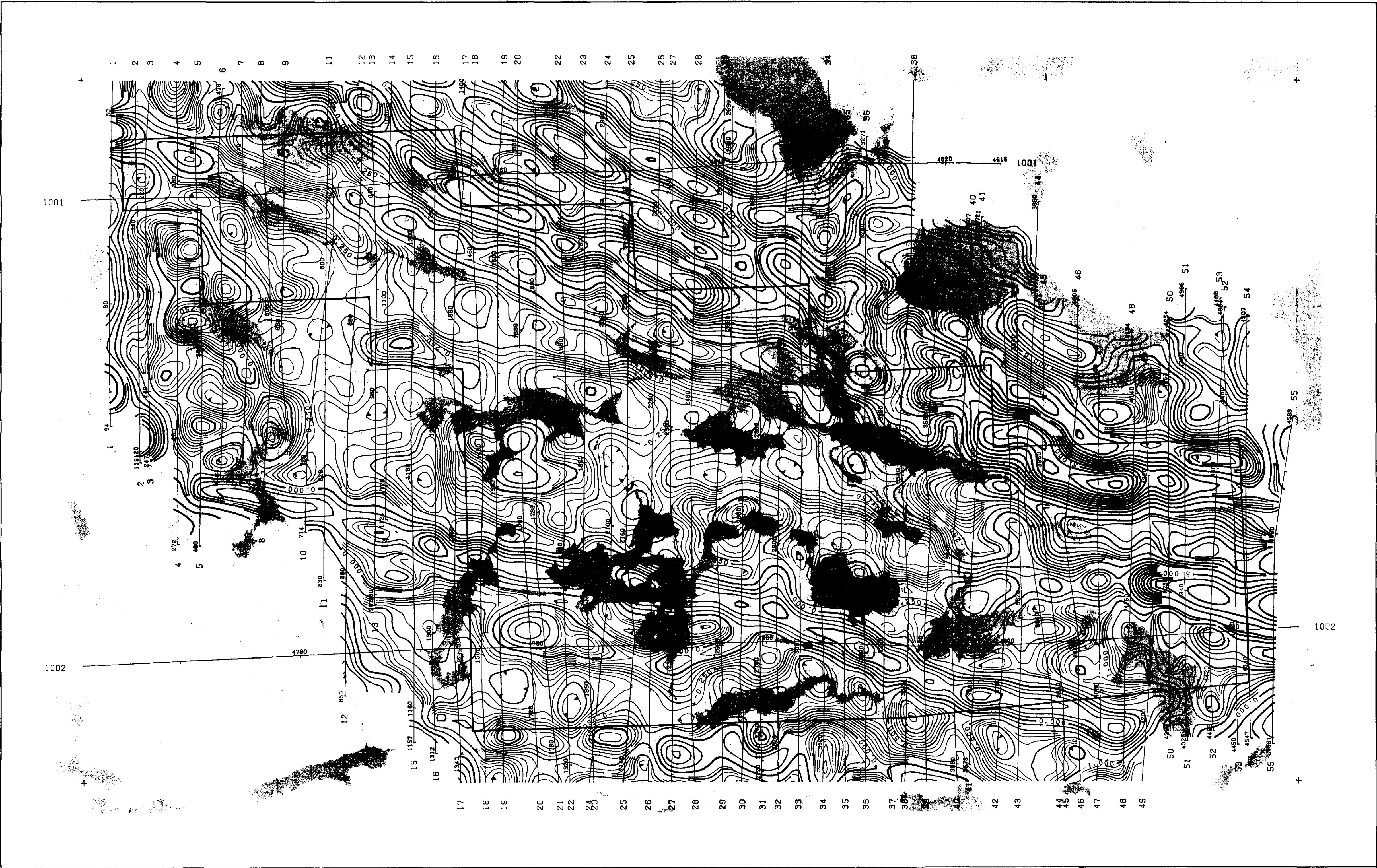
NTS. NO. 42C/3 DRAWING NO. A-723-1

SCALE 1:10,000 DATE December 1987

TERRAQUEST LTD. 
 TORONTO, CANADA

2-10662





LEGEND

Terrain Clearance 100 meters
 Line Spacing 100 meters

VERTICAL MAGNETIC GRADIENT
 5.00 gammas/meter
 1.00 gammas/meter
 0.25 gammas/meter
 0.05 gammas/meter

SAN PAULO EXPLORATION INC.

AIRBORNE MAGNETIC SURVEY
 VERTICAL MAGNETIC GRADIENT
 Calculated From Total Field

AUGUSTA LAKE PROPERTY
 Mishibishu Lake Area, Ontario

NTS NO 42C/3

DRAWING NO A-723-2

SCALE 1:10,000

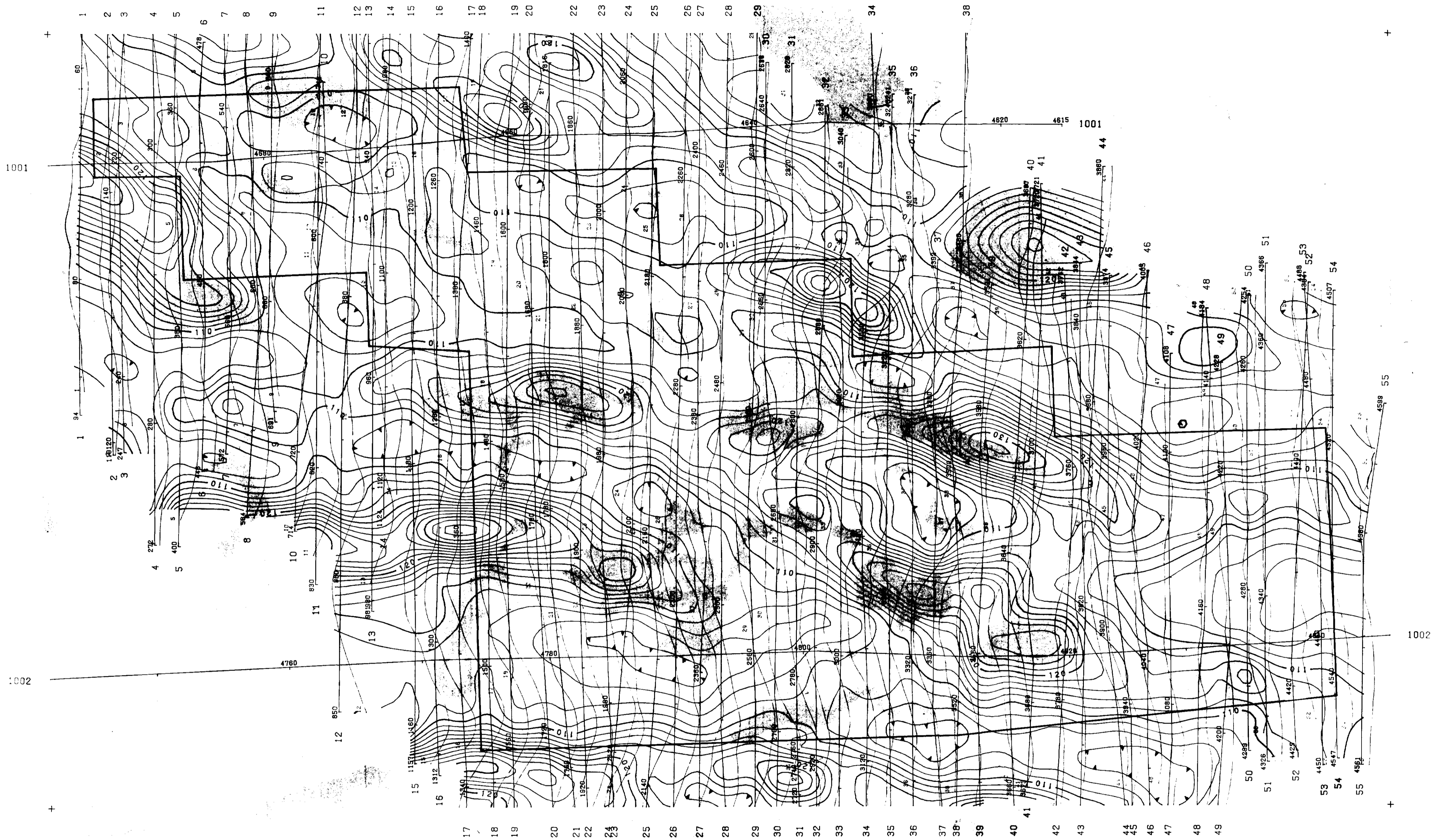
DATE December 1987

TERRAQUEST LTD. ↑
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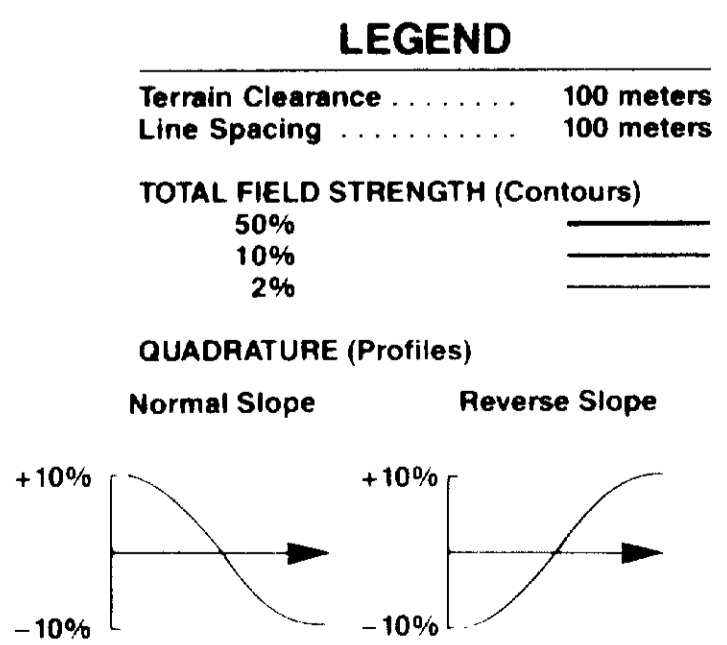
2.10662



4202358888 2 10662 MISHIBISHU LAKE



VLF Transmitter
 NAA Cutler, 24.0 kHz
 Azimuth 99



SAN PAULO EXPLORATIONS INC.

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

AUGUSTA LAKE PROPERTY
 Mishibishu Lake Area, Ontario

N.T.S. NO. 42C/3 DRAWING NO. A-723-3
 SCALE 1:10,000 DATE December 1987

TERRAQUEST LTD

