GEOPHYSICAL REPORT
FOR
MELKIOR RESOURCES INC.
ON THE
AEM PROJECT
BRISTOL AND CARSCALLEN TOWNSHIP
PORCUPINE MINING DIVISION
NORTHEASTERN, ONTARIO

2.56073

Prepared by: J. C. Grant,
June 2015

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INTRODUCTION:

The services of Exsics Exploration Limited were retained by Jens Hansen, on behalf of the Company, Melkior Resources Inc., to cut and survey 3 lines of Magnetics and Horizontal Loop Electromagnetic, (HLEM) surveys over a portion of their claim holdings located in the northwest section of Bristol Township and the northeast section of Carscallen Township of the Porcupine Mining Division in northeastern Ontario.

The grid was done to cover several Airborne EM targets that lie at the northern section of Melkior's Big Marsh Lake Project.

The Big Marsh Lake Project area is to the immediate northwest of the Lake Shore Gold Mine operation. The deposit is open both at depth and along strike and is being mined from a surface ramp and an underground operation. The resource at Lake Shore has been expanded lately into what is called the Gap Zone which has added significant ounces to the operation.

PROPERTY LOCATION AND ACCESS:

The AEM Project is situated approximately 25 kilometers west-northwest of the City of Timmins. The entire claim block is situated in the northwest section of Bristol Township and the northeast section of Carscallen Township of the Porcupine Mining Division, Northeastern, Ontario. Refer to Figures 1 and 2 of this report.

More specifically the grid straddles the Township line between Bristol and Carscallen and lies about 800 meters south of the four corner post of Carscallen, Bristol, Godfrey and Turnbull Townships.

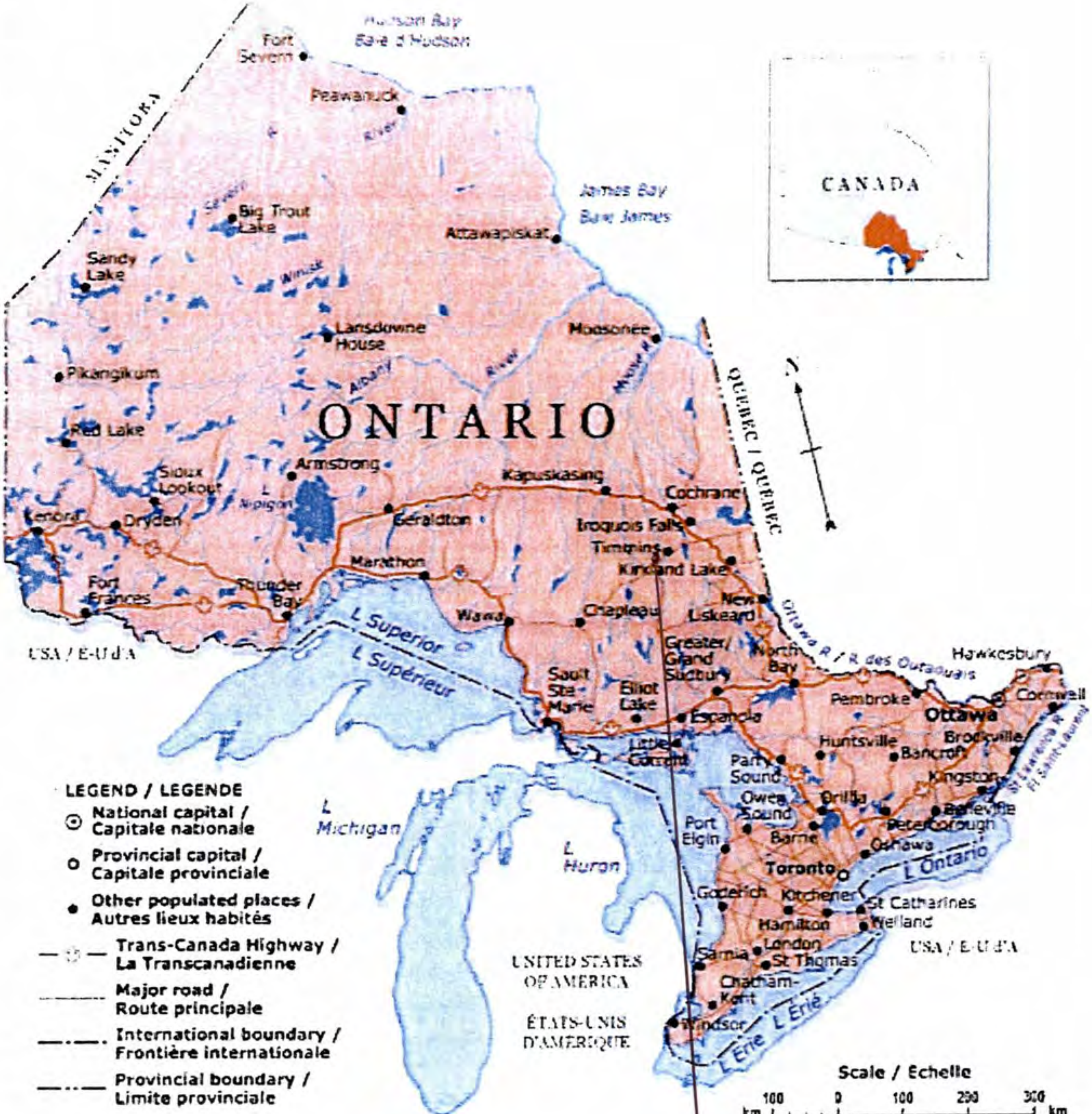
Access to the grid during the survey period is by way of Highway 101 west from Timmins to a good gravel road, locally called the Mallette access road, which runs northwest then west from Highway 101 and eventually runs west along the Township line between Godfrey and Turnbull to the north and Bristol and Carscallen to the south. A second gravel road allowed for 4 wheel drive access to the grid area. Traveling time from Timmins to the grid is about 1.5 hours.

CLAIM BLOCK:

The claim numbers that represent the Carscallen project can be found as Figure 3 of this report. Those claims covered by the geophysical survey are listed below.

4224651	4 units
4224652	4 units
4224653	4 units

Refer to Figure 3 copied from MNDM Plan Map of G-3040, Carscallen Township and Bristol Township, G-3998, for the positioning of the grid and the claim numbers within the Township.



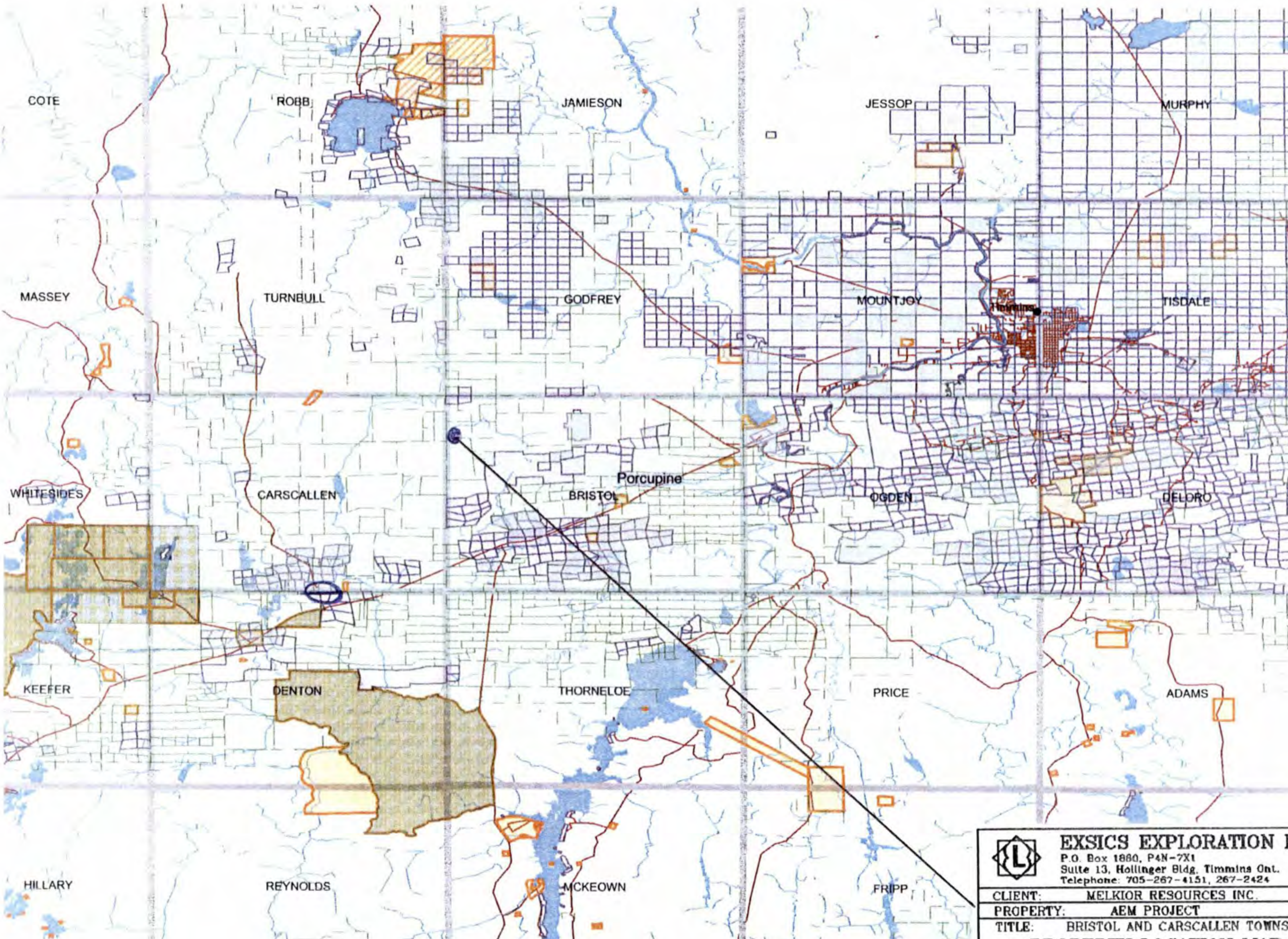
EXSICS EXPLORATION LTD.
P.O. Box 1880, P4N-7X1
Suite 13, Hollinger Bldg. Timmins Ont.
Telephone: 705-267-4151, 267-2424

CLIENT:	MELKIOR RESOURCES INC.
PROPERTY:	AEM PROJECT
TITLE:	BRISTOL AND CARSCALLEN TOWNSHIP

LOCATION MAP

Fig. 1

Date: JUNE 2015	Scale:	NTS:
Drawn: J.C.Grant	Interp:	Job No.: E-931



NAD 83
5 degree grid

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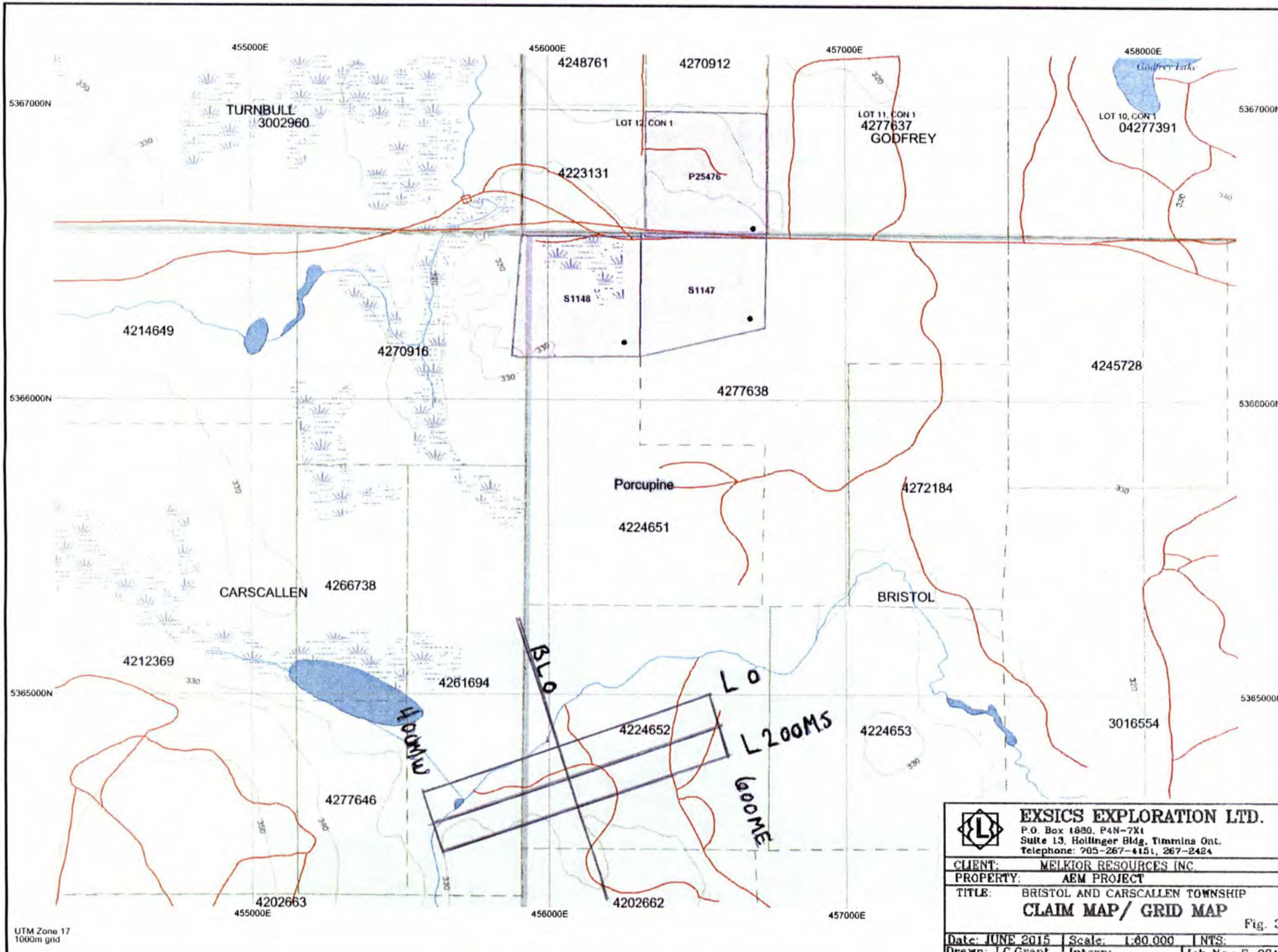
CLIENT: MELKIOR RESOURCES INC.		
PROPERTY: AEM PROJECT		
TITLE: BRISTOL AND CARSCALLEN TOWNSHIP **PROPERTY LOCATION MAP** Fig. 2		
Date: JUNE 2015	Scale: 1.600,000	NTS:
Drawn: J.C.Grant	Interp:	Job No.: E-931



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Telephone: 705-267-4151, 267-2424

CLIENT: MELKIOR RESOURCES INC.
PROPERTY: AEM PROJECT
TITLE: BRISTOL AND CARSCALLEN TOWNSHIP
CLAIM MAP/ GRID MAP
Fig. 3

Date: JUNE 2015	Scale: 1:60,000	NTS:
Drawn: J.C.Grant	Interp:	Job No.: E-931

PERSONNEL:

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

R. Bradshaw	Timmins, Ontario
J. Francoeur	Timmins, Ontario
A. Chamberlain	Timmins, Ontario
D.J. Gibson	Timmins, Ontario
J. Hamelin	Timmins, Ontario

The work was completed under the direct supervision of J. C. Grant of Exsics.

GROUND PROGRAM:

The ground program was completed in two phases. The first phase was to cut three metric grid lines across a portion of the claim block that would also cover the strongest portion of the airborne targets. The grid lines were cut perpendicular to a base line that was first cut at an azimuth of 160 degrees from 450MN to 550MS. The three lines were spaced 100 meters apart and were labelled line 0+00 to 200MS. Each line was then cut and chained from tie line 400MW to 600ME using 25 meter station intervals. Upon the completion of the cutting the grid was then covered by a total field magnetic survey as well as the HLEM survey. The magnetic survey was done using the Scintrex Envi mag system and specifications can be found as Appendix A of this report. The HLEM survey was completed using the Apex Parametrics MaxMin II system that can be found as Appendix B of this report.

All of the cut grid was covered by the magnetic survey but only the three cross lines were covered by the HLEM survey.

In all, a total of 4.4 kilometers were cut and surveyed between November 20th and December 4th 2014.

MAGNETIC SURVEYS:

The following parameters were kept constant throughout the survey procedure.

Line spacing	100 meters
Station spacing	25 meters
Reading intervals	12.5 meters
Diurnal monitoring	base station monitor
Base record intervals	30 seconds
Reference field	56,000 nT
Base removed	55,500 nT
Unit accuracy	+/- 0.05 gamma

Once the data was collected it was then merged with the base station date, levelled, corrected and then plotted onto a base map at 1:2500 and then contoured at 50Nt where ever possible. A copy of this colored contoured plan map is included in the back pocket of this report.

HLEM SURVEY:

The following parameters were kept constant throughout the survey procedure.

Line spacing	100 meters
Station spacing	25 meters
Reading intervals	25 meters
Coil separation	150 meters
Theoretical search depth	75-85 meters vertical
Frequency recorded	1777Hz and 444Hz frequencies
Parameters plotted	In phase and quadrature components of the secondary field.

Once the data was collected it was then plotted directly onto base maps, 1 base map for each frequency recorded, and then profiled at 1cm= +/- 10 %. Any and all conductor axis were then interpreted and added to the plan maps. Copies of these profiled plan maps are included in the back pocket of this report.

SURVEY RESULTS:

The HLEM survey outlined a good legitimated bedrock conductor that generally coincides with the center south section of the airborne target. The zone appears to be at a depth of 45 to 50 meters and it has a conductivity of 27 to 30 Mhos. The zone appears to dip near vertical to slightly grid west. It correlates with a modest magnetic low that lies between two magnetic highs. The zone does not continue to line 0+00 but does continue off of the grid to the south.

The magnetic survey suggest the low associated with the conductor may strike a bit to the northeast or it may suggest that the narrow magnetic high coming into the grid from the south has pushed into the low. The narrow high may represent a dike like feature similar to the narrow magnetic high found at the eastern edges of all three grid lines.

The high magnetic unit that covers the western edge of the grid lines may be indicative of an ultramafic unit and or more dike like units. Additional coverage of the high would be needed to better define the unit.

CONCLUSIONS AND RECOMMENDATIONS:

The limited ground program was successful in locating and outlining a good bedrock Conductor that appears to coincide with the central south section of the Airborne conductor. The zone is open to the south and appears to dip near vertical to slightly grid west. It appears to coincide with a broad magnetic low feature that is either cut off by narrow magnetic highs around the zone or that the magnetic high pushing into the grid from the south and to the east of the conductor actually causes the low mag unit to wrap around the narrow high.

Further coverage of the zone to the south would help in better defining the conductor and its strike length and direction. HLEM and magnetic surveys appear to work well in defining the source of the airborne zone. Diamond drilling of the zone should also be considered after the results of the extended ground program.

Respectfully submitted

J. C. Grant
June 2015

CERTIFICATION

I, John Charles Grant, of 108 Kay Crescent, in the City of Timmins, Province of Ontario, hereby certify that:

1). I am a graduate of Cambrian College of Applied Arts and Technology, 1975, Sudbury Ontario Campus, with a 3 year Honors Diploma in Geological and Geophysical Technology.

2). I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited, (5 years, 1975 to 1980), and currently as Exploration Manager and Chief Geophysicist for Exsics Exploration Limited, since May, 1980.

3). I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984.

4). I am in good standing as a Fellow of the Geological Association of Canada, (FGAC), since 1986.

5). I have been actively engaged in my profession since the 15th day of May, 1975, in all aspects of ground exploration programs including the planning and execution of field programs, project supervision, data compilation, interpretations and reports.

6). I have no specific or special interest nor do I expect to receive any such interest in the herein described property. I have been retained by the property holders and or their Agents as a Geological and Geophysical Consultant and Contract Manager.

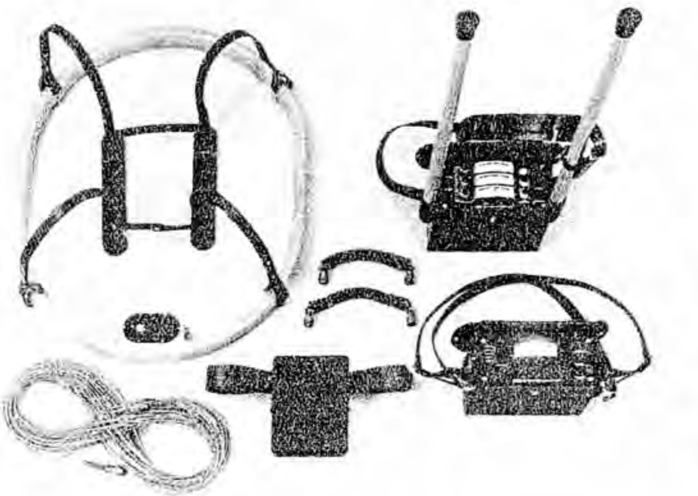
John Charles Grant, CET., FGAC

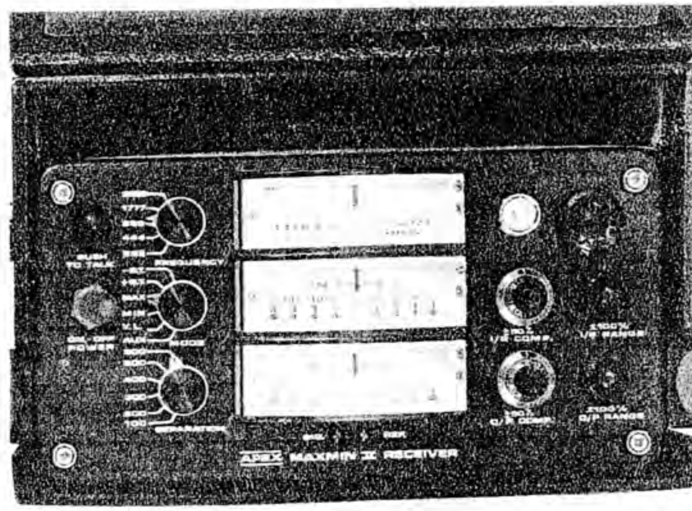
GEOLOGICAL ASSOCIATION OF CANADA
JOHN GRANT
FELLOW

APPENDIX A

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 180 m (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 V.L. mode not restricted to fixed values.

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

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

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

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

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

Transmitter Output:
- 222Hz : 220 Atm^2
- 444Hz : 200 Atm^2
- 888Hz : 120 Atm^2
- 1777Hz : 60 Atm^2
- 3555Hz : 30 Atm^2

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 6 Ah 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: 06-966773 NORDVIK TOR

APPENDIX B

SCINTREX

ENVI-MAG Environmental Magnetometer/Gradiometer

Locating Buried Drums and Tanks?

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

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

The ENVI-MAG

- easily detects buried drums to depths of 10 feet or more
- more sensitive to the steel of a buried drum than EM or radar
- much less expensive than EM or radar
- survey productivity much higher than with EM or radar

Main features include:

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

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

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

ENVI-MAG Proton Magnetometer in operation

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

Features and Benefits

"WALKMAG" Magnetometer/Gradiometer

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

True Simultaneous Gradiometer

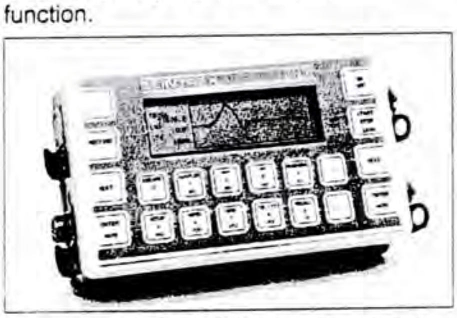
An optional upgrade kit is available to configure ENVI-MAG as a gradiometer to make true, simultaneous gradiometer measurements. Gradiometry is useful for geotechnical and archaeological surveys where small near surface magnetic targets are the object of the survey.

Selectable Sampling Rates

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

Large-Key Keypad

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



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

Large Capacity Memory

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

Easy Review of Data

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

Highly Productive

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

"Datacheck" Quality Control of Data

"Datacheck" provides a feature wherein at the end of each survey line, data may be reviewed as a profile on ENVI-MAG's screen. Datacheck confirms that the instrument is functioning correctly and allows the user to note the magnetic relief (anomaly) on the line.

Large Screen Display

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

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

Interactive Menus

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

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

Rechargeable Battery and Battery Charger

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

HELP-Line Available

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

ENVIMAP Processing and Mapping Software

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

a) read the ENVI-MAG data and reformat it into a standard compatible with the ENVIMAP software
b) grid the data into a standard grid format
c) create a vector file of posted values with line and baseline identification that allows the user to add some title information and build a suitable surround
d) contour the gridded data
e) autoscale the combined results of the posting/surround step and the contouring step to fit on a standard 8.5 ins. wide dot-matrix printer
f) rasterize and output the results of step e) to the printer

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

Options Available

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

Specifications

Total Field Operating Range
20,000 to 100,000 nT (gammas)

Total Field Absolute Accuracy
+/- 1nT

Sensitivity
0.1 nT at 2 second sampling rate

Tuning
Fully solid state. Manual or automatic, keyboard selectable

Cycling (Reading) Rates
0.5, 1 or 2 seconds, up to 9999 seconds for base station applications, keyboard selectable

Gradiometer Option
Includes a second sensor, 20 inch (½m) staff extender and processor module

"WALKMAG" Mode
0.5 second for walking surveys, variable rates for hilly terrain

Digital Display
LCD "Super Twist", 240 x 64 dots graphics, 8 line x 40 characters alphanumerics

Display Heater
Thermostatically controlled, for cold weather operations

Keyboard Input
17 keys, dual function, membrane type

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

Standard Memory

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

Expanded Memory

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

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

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

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

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

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

External 12 Volt input for base station operations

Optional external battery pouch for cold weather operations

Battery Charger
110 Volt - 230 Volt, 50/60 Hz

Operating Temperature Range
Standard 0° to 60°C
Optional -40°C to 60°C

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

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

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

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

Weight
Console - 5.4 lbs (2.45 kg) with rechargeable battery
T. F. sensor - 2.2 lbs (1.15 kg)
Grad. sensor - 2.5 lbs (1.15 kg)
Staff - 1.75 lbs (0.8 kg)

SCINTREX

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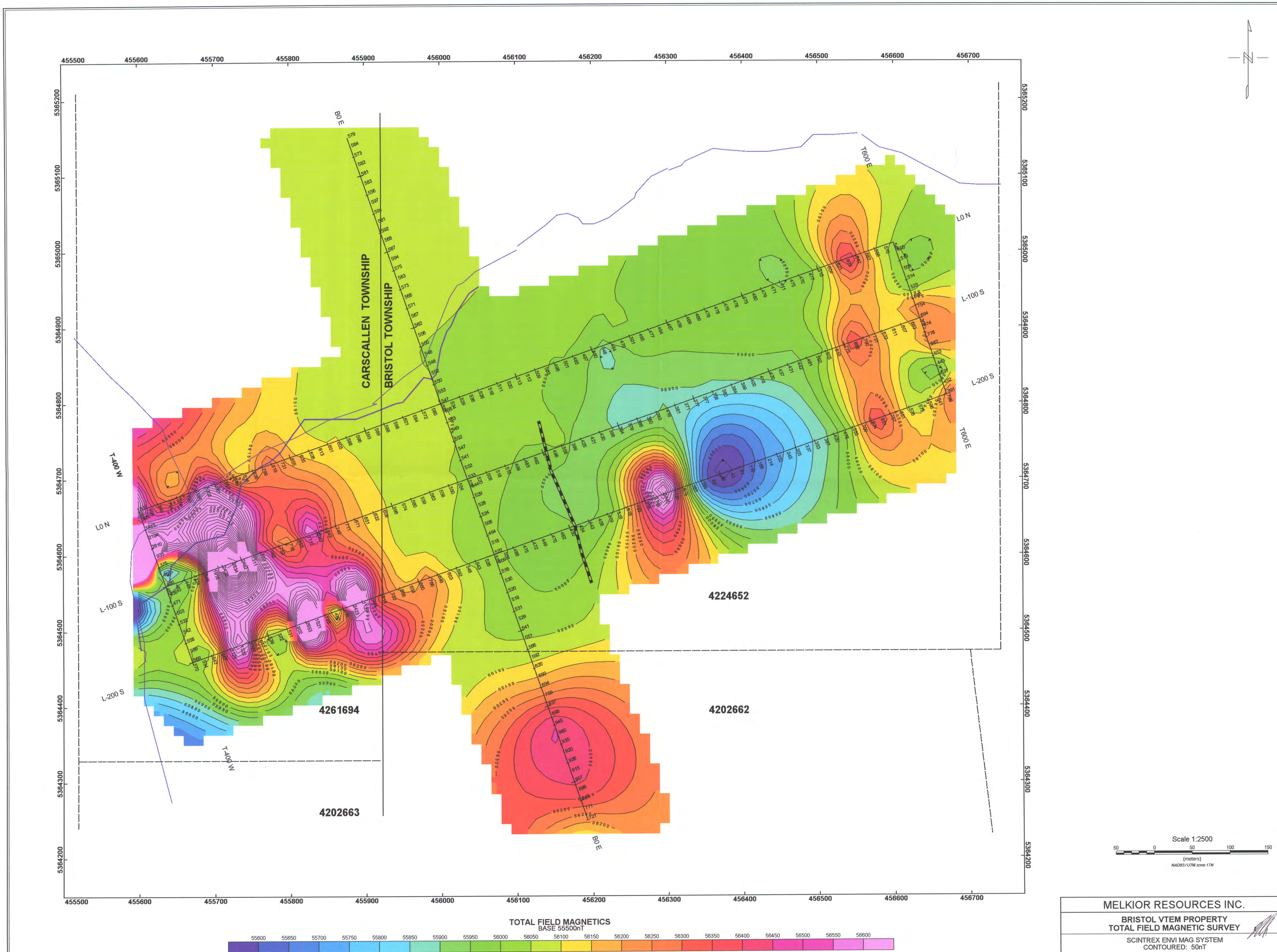
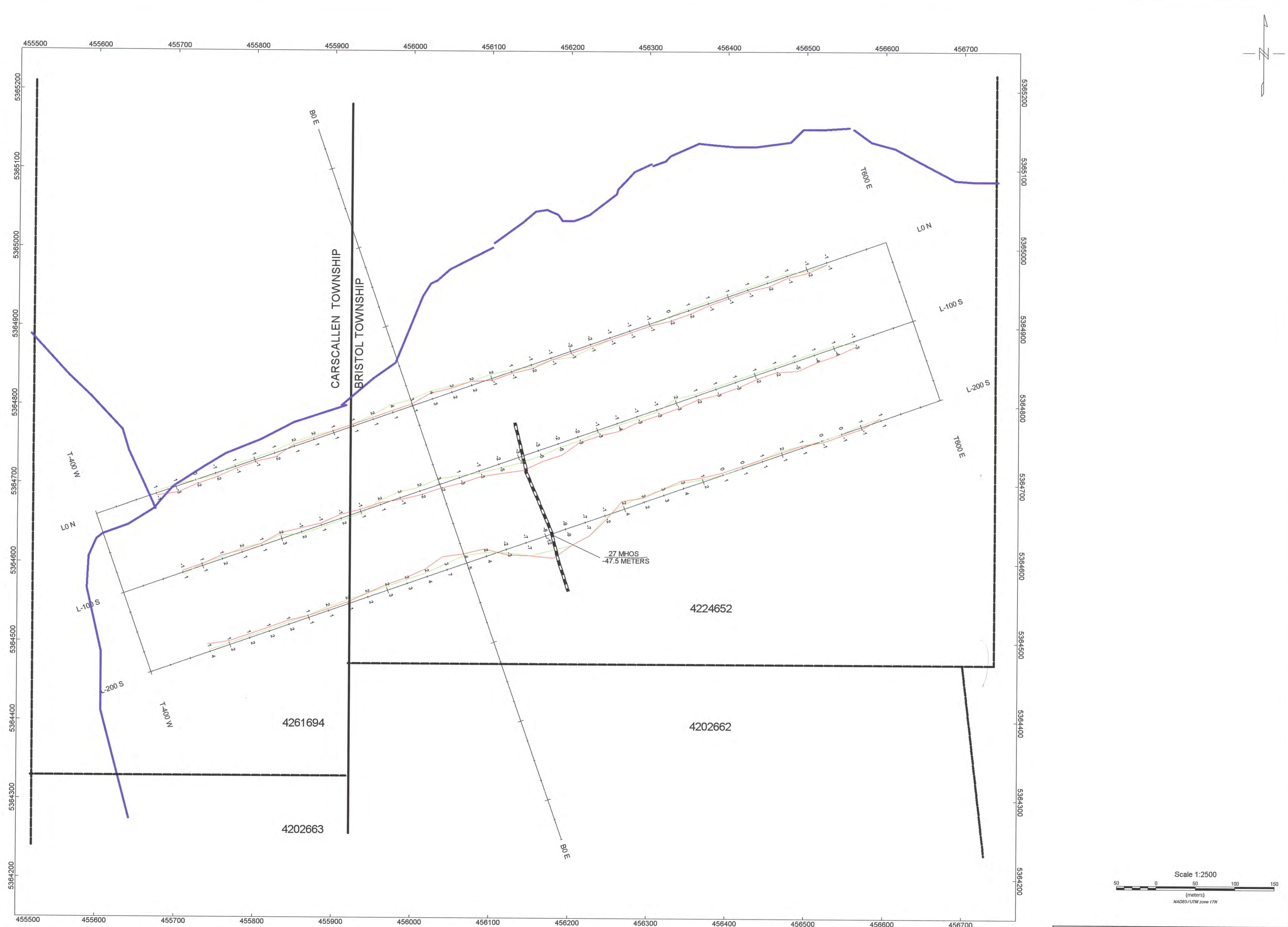


MELKIOR RESOURCES INC.

BRISTOL VTEM PROPERTY
TOTAL FIELD MAGNETIC SURVEY

SCINTREX ENVI MAG SYSTEM
CONTOURED: 50nT

NOV. 2014 EXSICS EXPLORATION LIMITED E-931

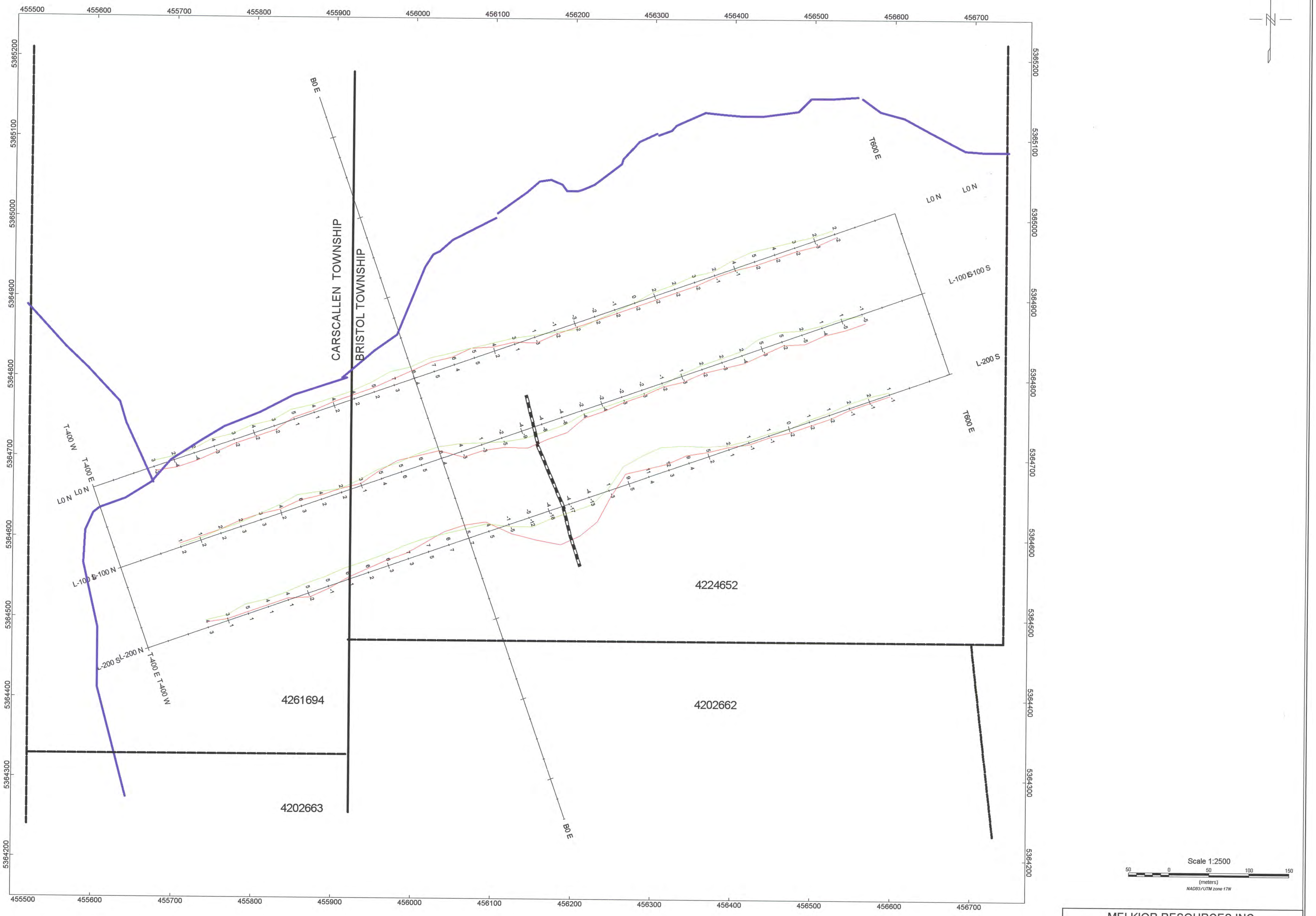


MELKIOR RESOURCES INC.

BRISTOL VTEM PROPERTY
HLEM SURVEY 444 HZ-150 METER CABLE

APEX PARAMETRICS MAXMIN II SYSTEM
PROFILED: 1CM= +/- 10%

NOV. 2014 EXSICS EXPLORATION LIMITED E-931



MELKIOR RESOURCES INC.

BRISTOL VTEM PROPERTY
HLEM SURVEY 1777 HZ-150 METER CABLE

APEX PARAMETRICS MAXMIN II SYSTEM
PROFILED: 1CM= +/- 10%

NOV. 2014 EXSICS EXPLORATION LIMITED E-931