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GEOPHYSICAL REPORT FOR INTERNATIONAL EXPLORERS AND PROSPECTORS INC. ON THE WALKER PROPERTY WALKER TOWNSHIP LARDER LAKE MINING DIVISION NORTHEASTERN, ONTARIO

Prepared by: J. C. Grant, January 2019

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INTRODUCTION:

The services of Exsics Exploration Limited were retained by Mr. Lionel Bonhomme, on behalf of the Company, International Explorers and Prospectors Inc., (IEP), to complete a small grid of GPS controlled compassed and paced lines that were to be followed up with a total field magnetic and VLF survey. The program was completed across a claim block, called the Walker Property, located in Walker Township of the Larder Lake Mining Division.

The purpose of the ground program was to check the claim block for a favorable geological setting that may lend itself to potential gold and or base metal deposition.

PROPERTY LOCATION AND ACCESS:

The Walker Property is situated approximately 54 kilometers to the northeast of the City of Timmins and is situated in the southwest section of the Township such that the southernmost grid line represents the township line between Walker and Taylor. Walker Township is part of the Larder Lake Mining Division in Northeastern, Ontario. Refer to Figures 1 of this report.

More specifically the property is situated in the south central section of the township such that Line 0+00 represents the Township line between Walker and Taylor

Access to the grid during the survey period was ideal. Highway 101 runs east from the City of Timmins to the junction of highway 11 north, about 61 kilometers to the east of the City. A 13 kilometer run up highway 11 to the north will access the Town of Val Gagne which lies to the immediate southeast of the grid area. A short ride north along a local road called Dumont road and then east for 800 meters along the Walker Taylor boundary road will allow drivable access to the southwest corner of the grid. This point represents Line 0+00 and baseline of the grid. Travelling time from Timmins to the grid is about 1.5 hours. Figures 1 and 2.

FIGURE 1 LOCATION MAP: 1:100,000 scale



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FIGURE 2 PROPERTY LOCATION MAP/ GRID LINES



CLAIM BLOCK:

The claim numbers that represent the Walker property of IEP, can be found on Figure 3 copied from MNDM Plan Map of Walker Township for the positioning of the grid lines and the claim numbers within the Township. The numbers are 174589, 139395, 287231, 221197, 191411, 104798, 228659, 295870 and 241326.

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FIGURE 3, CLAIM BLOCK GRID LOCATON:



PERSONNEL:

The field crew directly responsible for the collection of all the raw data were as follows:J. FrancoeurTimmins, OntarioD. PorierTimmins, Ontario

The program was completed under the direct supervision of J. Grant and the plotting and report was completed by J. C. Grant of Exsics.

GROUND PROGRAM:

The ground program consisted of establishing a metric grid consisting of 100 meter spaced lines across the property commencing at the southwest corner of the claim block. The base line was turned off at this start point and it was called Line 0+00 base line. The base line was then compassed paced and flagged north from this start point for 700 meters using a hand held GPS unit for grid control. The most northerly line was called 700MN. Cross lines were turned off of this base line at 100 meter intervals from line 0 to and including 700MN and were labelled 100MN to 600MN. All of these cross lines were then compassed paced and flagged to 800ME using the GPS for control of each line. 800ME represented the eastern edge of the claim block. All of the cross lines were flagged at 100 meter station intervals with readings recorded at 25 meter intervals. In all a total of 5.6 kilometers of grid lines were established across the claim block.

Once the lines were completed the entire grid was covered by a total field magnetic survey that was done in conjunction with a VLF survey using the Scintrex Envi mag system. Specifications for this system can be found as Appendix A of this report. In all a total of 5.6 kilometers of grid lines were covered by magnetic and VLF-EM survey between January 16th and the 23rd. The following parameters were kept constant throughout the survey period.

Magnetic VLF EM and Survey:

Line spacing	100 meters
Station spacing	25 meters
Reading intervals	25 meters
Reference field	56,000Nt
Datum subtracted	55,500Nt
Diurnal monitoring	base station recorder
Recorder interval	30 seconds
Contour intervals	20Nt
VLF- transmitter	Cutler, Maine 24.0Khz
Parameters measured	Inphase and Quadrature components of the
	secondary field
Parameter plotted	Inphase component
Profile scale:	1 cm = +/-10%

Once the survey was completed the collected data was corrected and then plotted onto a base map at a scale of 1:5000 and then contoured at 25 gamma intervals where ever possible. A copy of the colored plan map is included in the back pocket of this report.

MAGNETIC SURVEY RESULTS:

The magnetic survey outlined a good narrow magnetic high unit that generally strikes north-south across the central section of the survey area. It also appears that this unit may have been cross cut by two minor shears and or faults that have offset the central portion of the zone between lines 400MN and 500MN. The high may represent a dike like unit that may have been cross cut by the northern edge of the Porcupine-Destor fault cuts across the southern section of the property. Refer to map 2205, Timmins-Kirkland lake Geological compilation series. The remainder of the grid is relatively flat magnetically.



PLAN MAP OF THE TOTAL FIELD MAGNETIC SURVEY:

VLF-EM Survey Results:

The VLF survey did not return any significant conductive zones across the grid area. The two weak zones noted on the plan map appear to correlate with the edges of the suspected dike like unit.





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CONCLUSIONS AND RECOMMENDATIONS:

The magnetic survey was successful in outlining a narrow magnetic high across the grid area that appears to represent a dike like unit. This unit in turn appears to have been cross cut and or offset by the presence of the northern edge of the Destor- Porupine fault that is thought to cut across the southern edge of the grid area.

The property should be followed up with either a two line IP survey to check the property more thoroughly for a conductive horizon. A soil sampling program may also be effective as follow up to the magnetic survey especially in the area of the dike offset.

Respectfully Submitted

JC Grant

J. C. Grant, CET, FGAC January 23rd, 2019.

CERTIFICATION

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

- 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.
- 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.
- I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984
- 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 heroin described property. I have been retained by the property holders and or their Agents as a Geological and Geophysical Consultant and Contract Manager.

MASSI MICH

No.

John Charles Grant, CET., FGAC.

APPENDIX A

SCINTREX

ENVI-MAG Environmental Magnetometer/Gradiometer

Locating Buried Drums and Tanks?

The ENVI-MAG is the solution to this environmental problem. ENVI-MAG is an inexpensive, lightweight, portable "WALKMAG" which enables you to survey large areas quickly and accurately. ENVI-MAG is a portable, proton precession magnetometer and/or gradiometer, for geotechnical, archaeological and environmental applications where high production, fast count rate and high sensitivity are required. It may also be used for other applications, such as mineral exploration, and may be configured as a total-field magnetometer, a vertical gradiometer or as a base station.

The ENVI-MAG

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

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

Specifications \equiv

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

Total Field Absolute Accuracy

+/- 1nT

Sensitivity

0.1 nT at 2 second sampling rate

Tuning Fully solid state. Manual or automatic, keyboard selectable

Cycling (Reading) Rates

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

Gradiometer Option

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

"WALKMAG" Mode

0.5 second for walking surveys, variable rates for hilly terrain

Digital Display

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

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

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, Leadacid battery.

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

External 12 Volt input for base station operations Optional external battery pouch for cold

weather operations

Battery Charger

110 Volt - 230 Volt, 50/60 Hz

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

- d) contour the gridded data
- autoscale the combined results of the posting/surround step and the contouring step to fit on a standard 8.5 ins. wide dotmatrix 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

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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International Explorers & Prospectors Inc Walker - Taylor survey costs January 16 to 23 2019

			costs	
Exsics Exploration	inv1837		2,900)
L Bonhomme	1 day @		500)
	Total cost		3,400)
	# of stations		233	L
	cost per station		14.71861472	2
claim id number	stations per claim		cost per station	\$ per cell
104798		19	14.72	2 280
241326		4	14.72	2 59
287231		10	14.72	147
139395		50	14.72	736
174589		10	14.72	147
191411		95	14.72	1,398
221197		19	14.72	280

228659	4	14.72	59
295870	20	14.72	294
totals	231		3,400