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GEOPHYSICAL REPORT
FOR
GLENCORE CANADA CORPORATION
ON THE
MOBERLY PROJECT
MOBERLY AND THORBURN TOWNSHIPS
PORCUPINE MINING DIVISION
NORTHEASTERN, ONTARIO

JCGrant
Prepared by: J. C. Grant,
March 2023

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HISTORY AND PREVIOUS WORK:

-In 1976 to 1978, Hollinger Mines Ltd. carried out an exploration program on 82 contiguous claims in southeast Moberly Township and northeast Byers Township. The claims in Moberly Township abutted the present MOB-26 property to the west. Magnetic, HLEM and VLF surveys were run on lines spaced every 400 feet and oriented north-south in Moberly Township and east-west in Byers Township.
-A hole was drilled approximately 1200 meters to the southwest of the MOB-26 grid to test an EM anomaly. It intersected felsic to intermediate volcanics and tuffs. Banded magnetite, which was also intersected in the hole, explains an airborne magnetic high anomaly (OGS, 1988) which continues to the northeast through the MOB-26 property.

-In 1987, the Ontario Geological Survey flew a magnetic and EM survey over the Timmins area which included Moberly Township (OGS, 1988). This survey was flown along north-south lines spaced approximately every 200 meters. In 1988, Noranda Exploration Co. Ltd. ran magnetic and HLEM surveys in southeast Moberly Township and southwest Thorburn Township. The grid on the property consisted of lines spaced every 100 meters and oriented at 1150 Az. It covered parts of eleven 40-acre claims and included the southern half of the present MOB-26 survey area. The magnetic survey was run with a total field, proton precession magnetometer and the HLEM survey was run at frequencies of 444 and 1777 Hertz with a coil separation of 200 meters. Four conductors were detected, one within the present survey area.

-During March 2005, Doug Londry of Timmins Geophysics Ltd. completed a line cutting, magnetic and horizontal loop electromagnetic, (HLEM), surveys on the MOB-26 property, Moberly Township, for Falconbridge Limited. This work was part of an exploration program which included eight grids in Byers, Reid, Thorburn, Moberly and Robb Townships.

INTRODUCTION/SUMMARY:

The services of Exsics Exploration Limited were retained by Mr. Ross ward, on behalf of the Company, Glencore Canada Corporation, to complete detailed compass paced and GPS controlled grid which was then covered by a total field magnetic survey and VLF-EM survey over a portion of their claim holdings located in the Moberly Township within the Porcupine Mining Division in Northeastern Ontario. **The intent of this current ground program was to follow up on a historical drill hole completed in 2005 that returned trace chalcopyrite mineralization over narrow sulphide rich veinlets. Refer to page 9 for a brief of the drill hole results of 2005.**

The Program was completed between the middle of February 2023 as skidoo access was used to reach the grid area.

PROPERTY LOCATION AND ACCESS:

The Moberly Property is located approximately 39 kilometers northwest of the city of Timmins in the southeast corner of Moberly Township, Porcupine Mining Division. **The center of the grid is 446150E/5397900N, Zone 17N. Refer to the enclosed contoured magnetic and profiled VLF plan maps which were plotted in UTM points.**

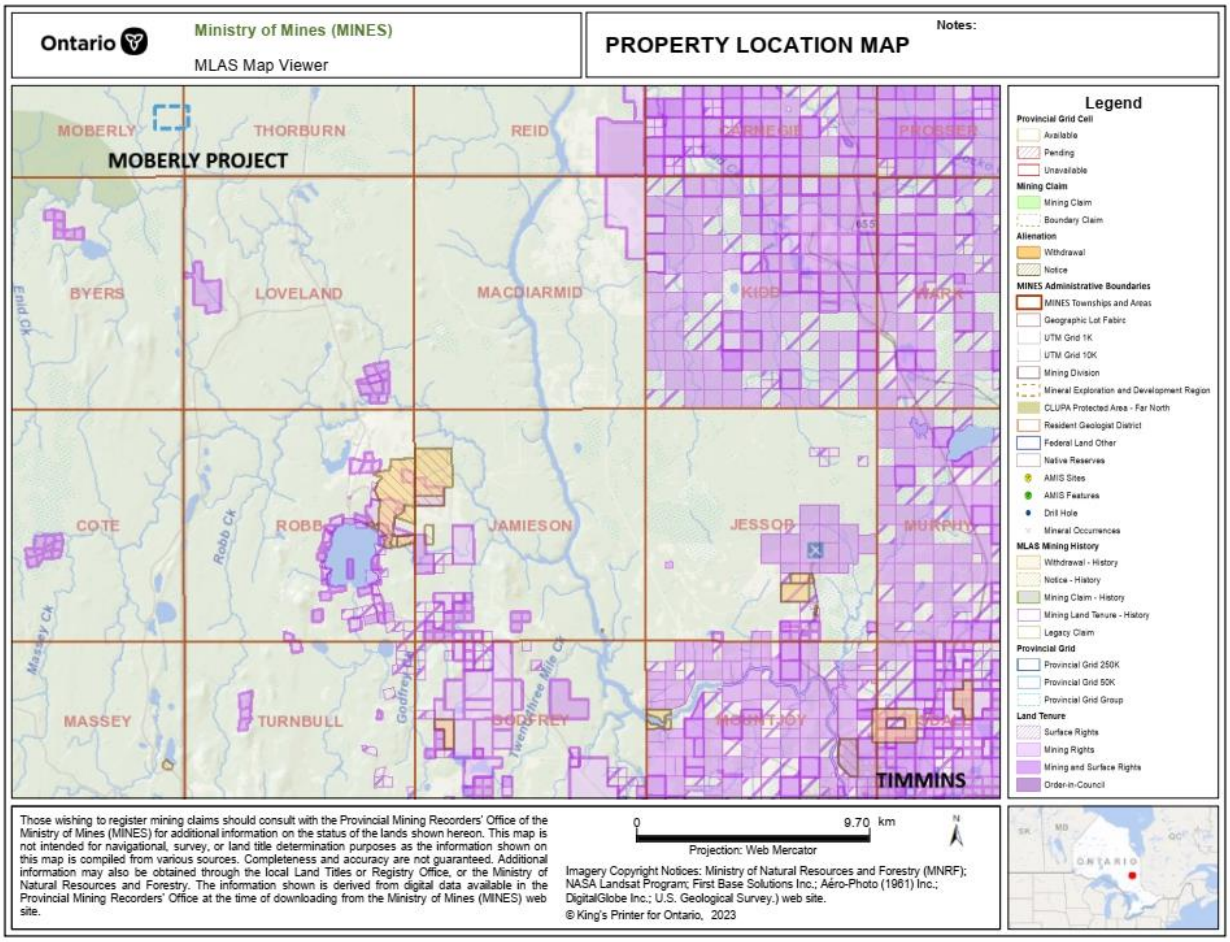
Access to the grid during the survey period is by way of Highway 101 West from the City of Timmins to the junction of Highway 576 about 10 kilometers west of the City center. Highway 576 runs north to northwest off of Highway 101 and services the Community of Kamiskotia and the Old Kamiskotia Mine that is about 32 kilometers north of Highway 101.

A good gravel road, locally called the Abitibi lumber access road runs north off of Highway 576, just to the north of Kamiskotia Lake, and provided good truck access to the kilometer 17 and the junction of a bush road which provided skidoo access along a 7-kilometer trail that ran west to southwest to the northeast section of the grid area.
Refer to Figures 1 and 2 of this report.

In all a total of 10.5 kilometers of grid lines spaced 50 meters apart, for the most part, were compassed paced and flagged using handheld GPS units for control of all lines. The grid was then completely covered by the magnetic and VLF-EM surveys at 12.5-meter reading intervals.

FIGURE 1, LOCATION MAP

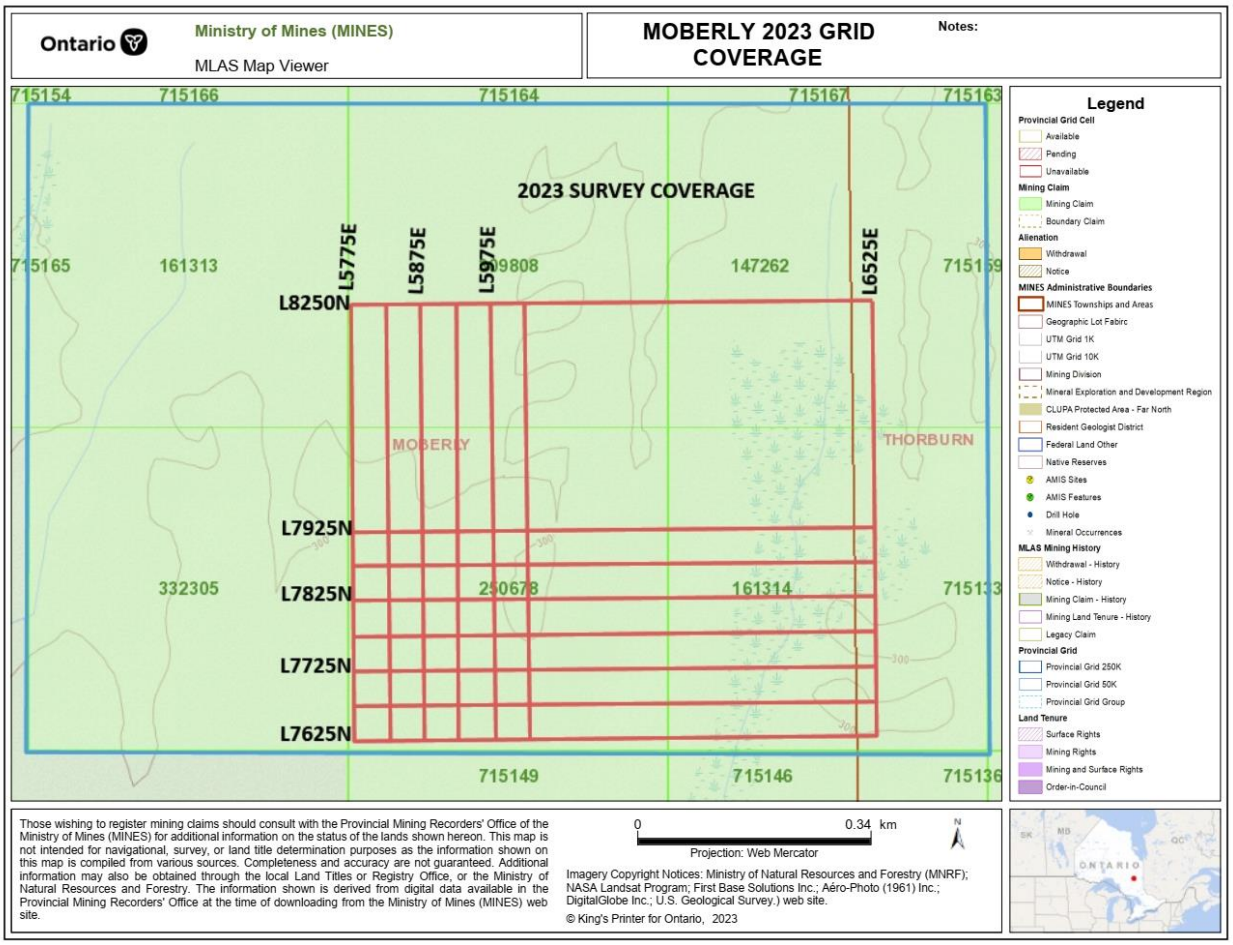
FIGURE 2, PROPERTY LOCATION MAP



CLAIM BLOCK:

The claim numbers that represent the Moberly project areas follows; 161313, 161314, 147262, 250678, 309808 and 332305. The claims covered by the 2023 ground program are 161314, 147262, 250678 and 309808Refer to Figure 3 for the positioning of the claim numbers and grid coverage.

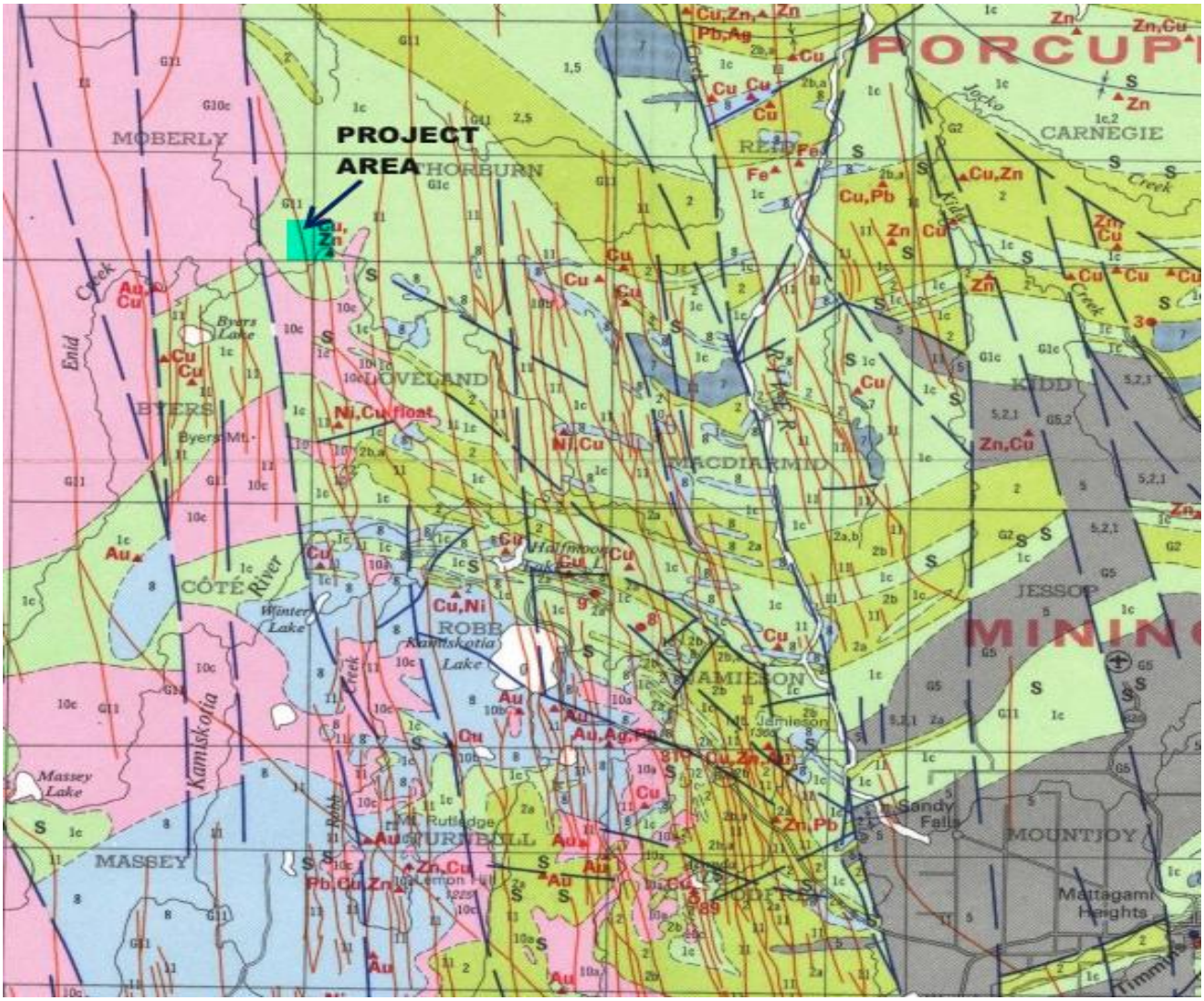
FIGURE 3, CLAIM BLOCK GRID MAP



REGIONAL GEOLOGY:

Moberly and Thorburn Township are situated near the west end of the Abitibi Greenstone Belt that consists of predominantly east-west striking, steeply dipping Archean Sediments and ultramafic to felsic volcanics. These rocks have been intruded and crosscut by mafic, ultramafic to felsic bodies, north-south to northwest striking Matachewan diabase dikes. Refer to map 2205 at a scale of 1 inch to 4 miles or map P3379 at a scale of 1:100,000, Figure 4.

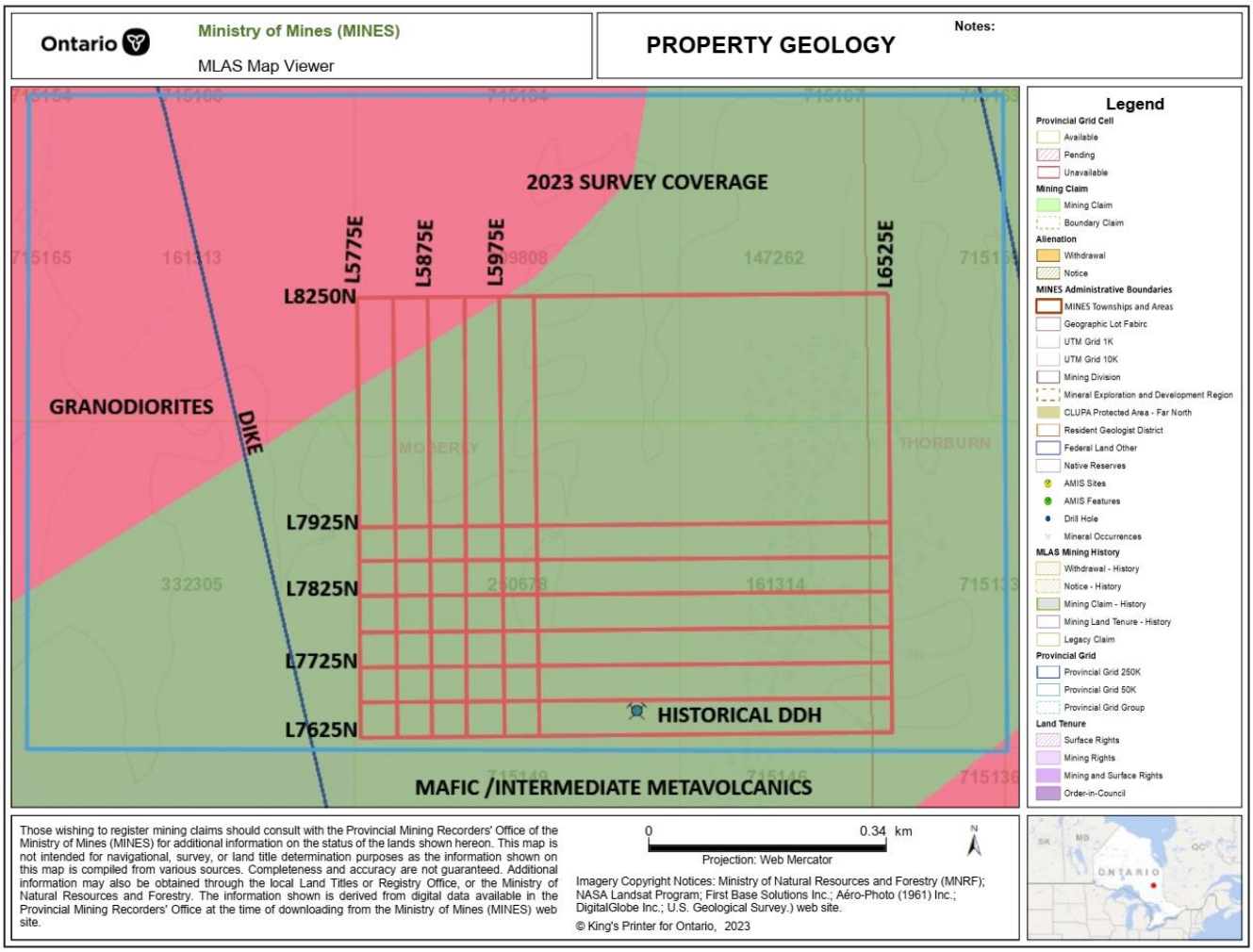
FIGURE 4, REGIONAL GEOLOGY MAP, (MAP 2205)



PROPERTY GEOLOGY

The grid area is underlain by Mafic to Intermediate metavolcanics with granodiorites underlying the northwest and southeast corners of the claim block. Two northwest to southeast striking diabase dikes crosscut the western and northeastern sections of the block. Refer to Figure 5.

FIGURE 5, PROPERTY GEOLOGY MAP



PERSONNEL:

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

Magnetic and VLF-EM Survey:

N. Collins	Timmins, Ontario
K. Wilson	Timmins, Ontario

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

GROUND PROGRAM:

The ground program was completed between 10th and 18th of February and consisted of a detailed two directional grid to better define the magnetic features outlined in the 2005 ground program. A total of 7 east-west lines were established commencing at the western edge of claims 309808 and 250678. The first 6 lines were done at 50-meter intervals from 5775ME to and including 6025ME with the last line being 6525ME located close to the eastern edge of claims 147262 and 161314. These lines were flagged at 25-meter intervals from 8250MN to7625MN and all of the lines were covered by the magnetic and VLF-EM surveys with reading recorded at 12.5-meter reading intervals.

A series of 8 north lines were also read commencing from the southern edge of claims 250687 and 161314. The first seven lines were done at 50-meter intervals from 7625MN to and including 7925MN with the last line being 8250MN crosscutting claims 147262 and 309808. All of these lines were flagged at 25-meter intervals from 5775ME to 6525ME and all of the lines were covered by the magnetic and VLF-EM surveys with readings at 12.5-meter intervals.

In all, a total of 10.5 kilometers of grid lines were cut and surveyed across the property between February 10th and the 18th.

The ground surveys were completed using the Gem GSM-19 Overhauser system. Specifications for this unit can be found as Appendix A of this report. The following parameters were kept constant throughout the survey.

Magnetic Survey:

Line spacing	50 meters.
Station spacing	25 meters.
Reading intervals	12.5 meters
Diurnal monitoring	base station controlled at 30 second reading interval.
Reference field	55500 nT
Datum subtracted	550000 nT
Unit accuracy	+/- 0.01 gamma

The collected data was then corrected with the base station data, leveled, and then plotted onto a base map at a scale of 1:2500 and then contoured at 25 gamma intervals.

VLF-EM Survey:

Line spacing	50 meters.
Station spacing	25 meters.
Reading intervals	12.5 meters
Transmitter station	Cutler, Maine 24.0 Khz
Parameters measured	In phase and quadrature components of the secondary field.

The collected In phase data was then plotted on a base map at a scale of 1:2500 and then profiled at 1CM = +/- 10%.

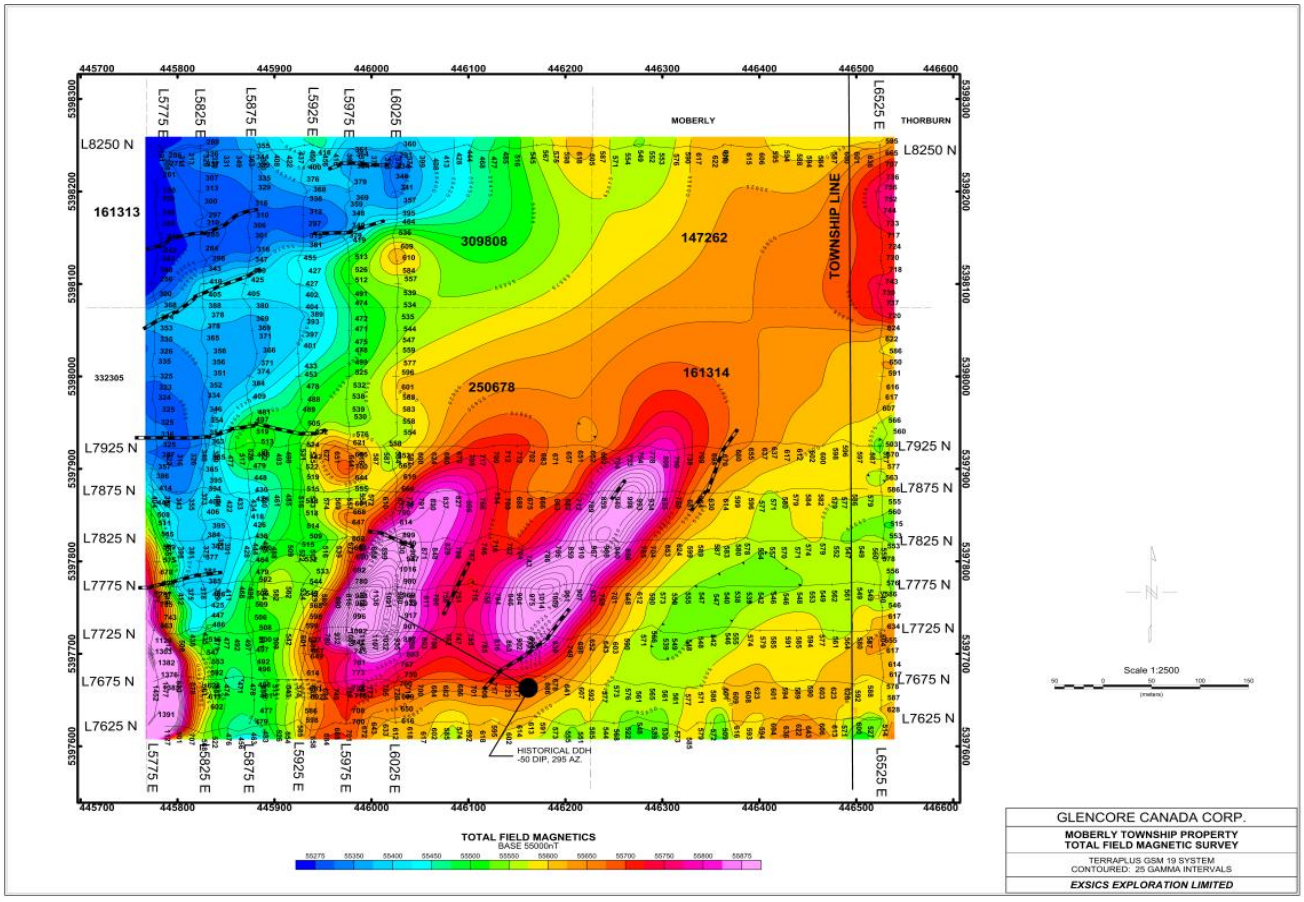
Magnetic and VLF-EM Survey Results:

The magnetic survey was successful in locating and outlining two well defined magnetic high units that generally strike northeast southwest. From the contour of the two zones, the eastern high appears to dip slightly to the northwest and the western high appears to dip slightly to the southeast. Both zones continue off the survey grid to the northeast and the western zone appears to continue off of the grid to the southwest.

The eastern magnetic high has a coincidental VLF conductor running along its eastern edge that also appears to continue off the grid to the northeast and southwest. A single line VLF zone was also noted directly associated with the north central section of the magnetic high.

The magnetic high building up in the southwest corner of the grid most probably represents the northwest striking diabase dike. A similar magnetic high, albeit somewhat weaker was noted in the northeast corner of the grid and it also may be indicative a diabase dike.

TOTAL FIELD MAGNETIC PLAN MAP

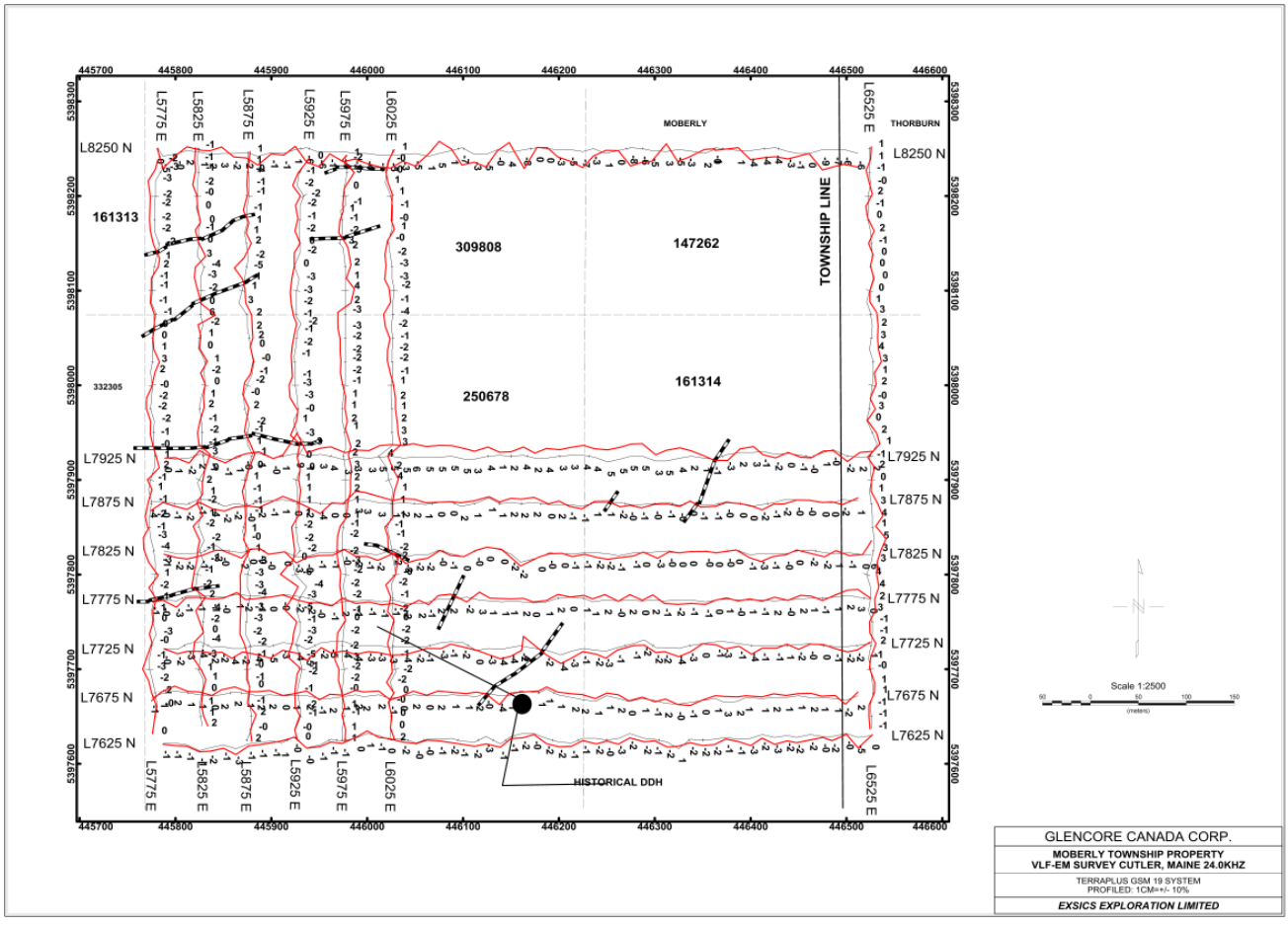


There is a VLF zone paralleling a section of the eastern edge of the western magnetic high. This zone is a one-line response striking across line 7775MN. A second one-line response was also noted on line 6025ME at 7825MN that lies along the central north tip of the western high.

Several east-northeast VLF zones were noted between lines 7925MN and 8250MN. The two parallel zone cutting across the northwest section of the grid correlate to a modest magnetic low and both zones continue off of the grid to the southwest.

The VLF zone striking from line 5775ME to and including 5925ME is associated with a modest magnetic high emanating from the strong western magnetic high unit with the western extension of the VLF zone crosscutting a modest magnetic low feature. This zone also continues off of the grid to the west.

VLF-EM PLAN MAP



CONCLUSIONS AND RECOMMENDATIONS:

The ground geophysical program was successful in outlining the geological characteristics of the grid area. The most predominant features correlate to two northeast to southwest magnetic high units both of which have some VLF EM conductor correlation.

Potentially the magnetic survey may suggest that the magnetic features could represent a possible synclinal structure with the western high representing one upper edge and the southeastern high the other upper edge. This is based solely on the slight dips to both of the magnetic high units which suggest the highs are dipping towards each other.

The location of the historical drill hole was obtained from the report on file completed by Falconbridge in 2005. Below is a brief of the hole copied from the 2005 report.

MOB26-01 (225m) targeted a low amplitude HLEM response trending northeast along the margin of a strong magnetic anomaly. Approximately 74m of overburden were encountered before the hole reached bedrock, collaring in massive, mafic volcanic flows. The conductor was intersected between 126-140m where a thick interval of sedimentary rocks, including banded iron formations and mafic tuffs were intersected. The sequence contained several thin intervals (5-10cm) of semi-massive pyrrhotite (+/-pyrite) with trace chalcopyrite. The highest assay returned from the unit graded 1,940ppm Cu over 0.2m however most other values were less than 500ppm Cu. Borehole EM surveys defined an low conductance 'edge-type' response associated with the zone with the bulk of the conductor located below the **Hole.**

The angle of the hole and the dip suggest that the hole appears to have intersected the VLF zone striking across the southwest section of the eastern magnetic high but may have not reached the strong western magnetic high**.**

If the property is considered for futrue follow up program a possible 2-4 line IP survey should be completed over lines 7775MN to and including 7625MN to better define the magnetic highs**.**

Respectfully submitted.

JCGrant

J. C. Grant
March 2023

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

REFERENCES:

March 2005, Doug Londry of Timmins Geophysics Ltd. Geophysical Report, magnetic and horizontal loop electromagnetic, (HLEM), surveys on the MOB-26 property, Moberly Township, for Falconbridge Limited. This work was part of an exploration program which included eight grids in Byers, Reid, Thorburn, Moberly and Robb Townships.

Ayer, J.A. and Trowell, N.F.
1998: Geological compilation of the Timmins Area, Abitibi Greenstone Belt; Ontario geological Survey, Preliminary Map P.3379, scale 1:100.000

Ontario Geological Survey
1988: Airborne Electromagnetic and Total Intensity Survey, Timmins Area, Moberly Township, District of Cochrane and Timiskaming Ontario, By Geoterrex Limited for Ontario Geological Survey, Map 81051, scale 1:20,000, Survey and compilation from march 1987 to October 1987.

Pyke, D.R. Ayres, L.D. and Innes, D.
1973, Timmins-Kirkland Lake Sheet, Ontario Division of Mines, geological Compilation Series, Map 2205, scale 1" = 4 miles

APPENDIX A

v7.0

Overhauser

Magnetometer / Gradiometer / VLF (GSM-19 v7.0)

GEM's unique Overhauser system combines data quality, survey efficiency and options into an instrument that matches costlier optically pumped Caesium devices.

And the latest v7.0 technology upgrades provide even more value:

Data export in standard XYZ (i.e. line-oriented) format for easy use in standard commercial software programs

Programmable export format for full control over output

GPS elevation values provide input for geophysical modeling

Enhanced GPS positioning resolution
<1.5m standard GPS for high resolution surveying
<1.0m OmniStar GPS
<0.7m for newly introduced CDGPS

Multi-sensor capability for advanced surveys to resolve target geometry

Picket marketing / annotation for capturing related surveying information on-the-go

And all of these technologies come complete with the most attractive savings and warranty in the business!

Overhauser (GSM-19) console with sensor and cable. Can also be configured with additional sensor for gradiometer (simultaneous) readings.

The GSM-19 v7.0 Overhauser instrument is the total field magnetometer / gradiometer of choice in today's earth science environment -- representing a unique blend of physics, data quality, operational efficiency, system design and options that clearly differentiate it from other quantum magnetometers.

With data quality exceeding standard proton precession and comparable to costlier optically pumped cesium units, the GSM-19 is a standard (or emerging standard) in many fields, including:

- o Mineral exploration (ground and airborne base station)
- o Environmental and engineering
- o Pipeline mapping
- o Unexploded Ordnance Detection
- o Archeology
- o Magnetic observatory measurements
- o Volcanology and earthquake prediction

Taking Advantage of the Overhauser Effect

Overhauser effect magnetometers are essentially proton precession devices -- except that they produce an order-of-magnitude greater sensitivity. These "supercharged" quantum magnetometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field.

The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal -- that is ideal for very high-sensitivity total field measurements.

In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and eliminates noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously -- which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds).

Other advantages are described in the section called, "GEM's Commercial Overhauser System" that appears later in this brochure.

Key System Components

Key components that differentiate the GSM-19 from other systems on the market include the sensor and data acquisition console. Specifications for components are provided on the right side of this page.

Sensor Technology

GEM's sensors represent a proprietary innovation that combines advances in electronics design and quantum magnetometer chemistry.

Electronically, the detection assembly includes dual pick-up coils connected in series opposition to suppress far-source electrical interference, such as atmospheric noise. Chemically, the sensor head houses a proprietary hydrogen-rich liquid solvent with free electrons (free radicals) added to increase the signal intensity under RF polarization.

From a physical perspective, the sensor is a small size, light-weight assembly that houses the Overhauser detection system and fluid. A rugged plastic housing protects the internal components during operation and transport.

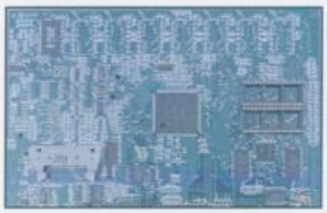
All sensor components are designed from carefully screened non-magnetic materials to assist in maximization of signal-to-noise. Heading errors are also minimized by ensuring that there are no magnetic inclusions or other defects that could result in variable readings for different orientations of the sensor.

Optional omni-directional sensors are available for operating in regions where the magnetic field is near-horizontal (i.e. equatorial regions). These sensors maximize signal strength regardless of field direction.

Data Acquisition Console Technology

Console technology comprises an external keypad / display interface with internal firmware for frequency counting, system control and data storage / retrieval. For operator convenience, the display provides both monochrome text as well as real-time profile data with an easy-to-use interactive menu for performing all survey functions.

The firmware provides the convenience of upgrades over the Internet via the GEMLinkW software. The benefit is that instrumentation can be enhanced with the latest technology without returning the system to GEM -- resulting in both timely implementation of updates and reduced shipping / servicing costs.



About GEM Advanced Magnetometers

GEM Systems, Inc. delivers the world's only magnetometers and gradiometers with built-in GPS for accurately-positioned ground, airborne and stationary data acquisition. The company serves customers in many fields including mineral exploration, hydrocarbon exploration, environmental and engineering, Unexploded Ordnance Detection, archeology, earthquake hazard prediction and observatory research.

Key products include the QuickTracker™ Proton Precession, Overhauser and SuperSenser™ Optically-Pumped Potassium instruments. Each system offers unique benefits in terms of sensitivity, sampling, and acquisition of high-quality data. These core benefits are complemented by GPS technologies that provide metre to sub-metre positioning.

With customers in more than 50 countries globally and more than 20 years of continuous technology R&D, GEM is known as the only geophysical instrument manufacturer that focuses exclusively on magnetic technology advancement.

"Our World is Magnetic"

Specifications

Performance

Sensitivity:	< 0.015 nT / √Hz @ 1 Hz
Resolution:	0.01 nT
Absolute Accuracy:	+/- 0.1 nT
Range:	10,000 to 120,000 nT
Gradient Tolerance:	> 10,000 nT/m
Samples at:	60+, 5, 3, 2, 1, 0.5, 0.2 sec
Operating Temperature:	-40C to +55C

Operating Modes

Manual: Coordinates, time, date and reading stored automatically at minimum 3 second interval.

Base Station: Time, date and reading stored at 3 to 60 second intervals.

Remote Control: Optional remote control using RS-232 interface.

Input / Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Storage - 16 MB (# of Readings)

Mobile:	738,769
Base Station:	2,708,821
Gradiometer:	625,112
Walking Mag:	1,354,410

Dimensions

Console:	223 x 69 x 240 mm
Sensor:	175 x 75mm diameter cylinder

Weights

Console with Belt:	2.1 kg
Sensor and Staff Assembly:	1.0 kg

Standard Components

GSM-19 console, GEMLinkW software, batteries, harness, charger, sensor with cable, RS-232 cable, staff, instruction manual and shipping case.

Optional VLF

Frequency Range: Up to 3 stations between 15 to 30.0 kHz

Parameters: Vertical in-phase and out-of-phase components as % of total field. 2 components of horizontal field amplitude and total field strength in pT.

Resolution:	0.1% of total field

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