

We are committed to providing [accessible customer service](#).
If you need accessible formats or communications supports, please [contact us](#).

Nous tenons à améliorer [l'accessibilité des services à la clientèle](#).
Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez [nous contacter](#).



CANADIAN EXPLORATION SERVICES LTD

ASHLEY GOLD MINES LIMITED

**Q2339 – Nicol Property
Magnetometer Survey**

C Jason Ploeger, P.Geo. – March 28, 2017



Abstract

CXS was contracted by Ashley Gold Mines Ltd to perform a small 1 day magnetometer survey over its Nicol Township Property.

ASHLEY GOLD MINES LIMITED

**Q2339 – Nicol Property
Magnetometer Survey**

C Jason Ploeger, P.Geo. – March 28, 2017

TABLE OF CONTENTS

| | | |
|-----------|---|----------|
| 1. | SURVEY DETAILS | 3 |
| 1.1 | PROJECT NAME | 3 |
| 1.2 | CLIENT | 3 |
| 1.3 | LOCATION | 3 |
| 1.1 | ACCESS | 4 |
| 1.2 | SURVEY GRID | 4 |
| 2. | SURVEY WORK UNDRTAKEN | 5 |
| 2.1 | SURVEY LOG | 5 |
| 2.2 | PERSONNEL | 5 |
| 2.3 | SURVEY SPECIFICATIONS | 5 |
| 3. | OVERVIEW OF SURVEY RESULTS | 6 |
| 3.1 | SUMMARY | 6 |

LIST OF APPENDICES

APPENDIX A: STATEMENT OF QUALIFICATIONS
APPENDIX B: THEORETICAL BASIS AND SURVEY PROCEDURES
APPENDIX C: INSTRUMENT SPECIFICATIONS
APPENDIX D: LIST OF MAPS (IN MAP POCKET)

LIST OF TABLES AND FIGURES

| | |
|--|---|
| Figure 1: Location of the Nicol Property | 3 |
| Figure 2: Claim Map with the Nicol Traverses | 4 |
| Figure 4: Magnetometer Plan on Google Earth | 6 |
| Table 1: Survey Log | 5 |

1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the **Nicol Property**.

1.2 CLIENT

Ashley Gold Mines Limited
14579 Government Rd.
Larder Lake, Ontario
P0K1L0

1.3 LOCATION

The Nicol Property is located in Nicol Township approximately 3 km east of Gowganda, Ontario. The survey area covers mining claim 4259497 and 4273065 within the Larder Lake Mining Division.

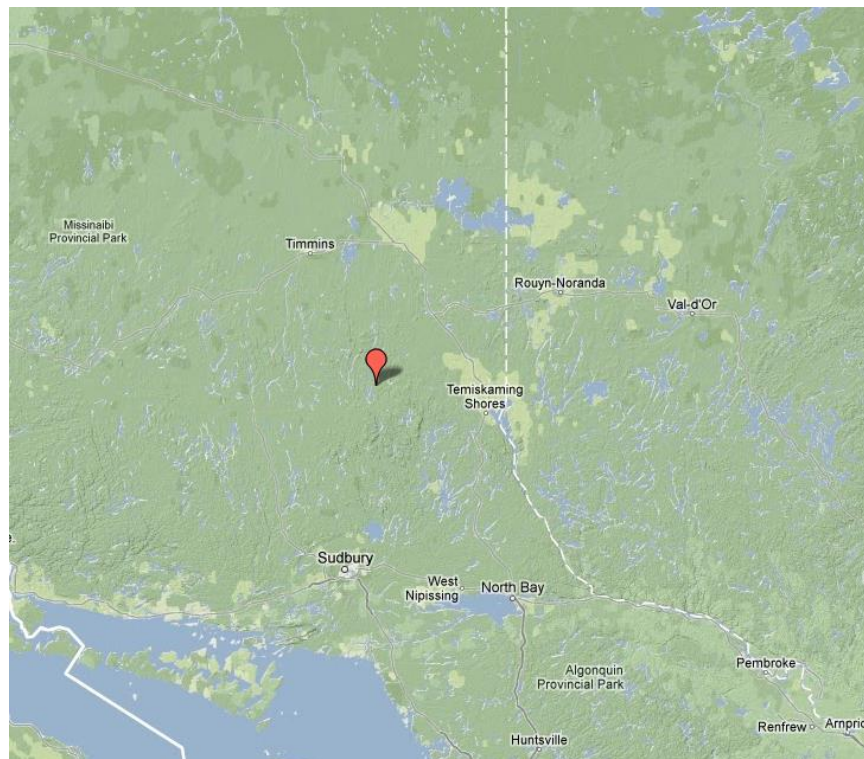


Figure 1: Location of the Nicol Property

1.1 ACCESS

Access to the property was attained with a 4x4 truck via highway 560. Nicol Property straddles highway 560, 3.5 kilometers east of Gowganda, Ontario.

1.2 SURVEY GRID

The traversed lines were established using a GPS in conjunction with the execution of the survey. The GPS operator would establish sample locations while remaining approximately 25m in front of the magnetometer operator. GPS waypoints, magnetic samples were taken every 25m along these controlled traverses. The GPS used was a Garmin GPSMAP 62s with an external antenna for added accuracy.

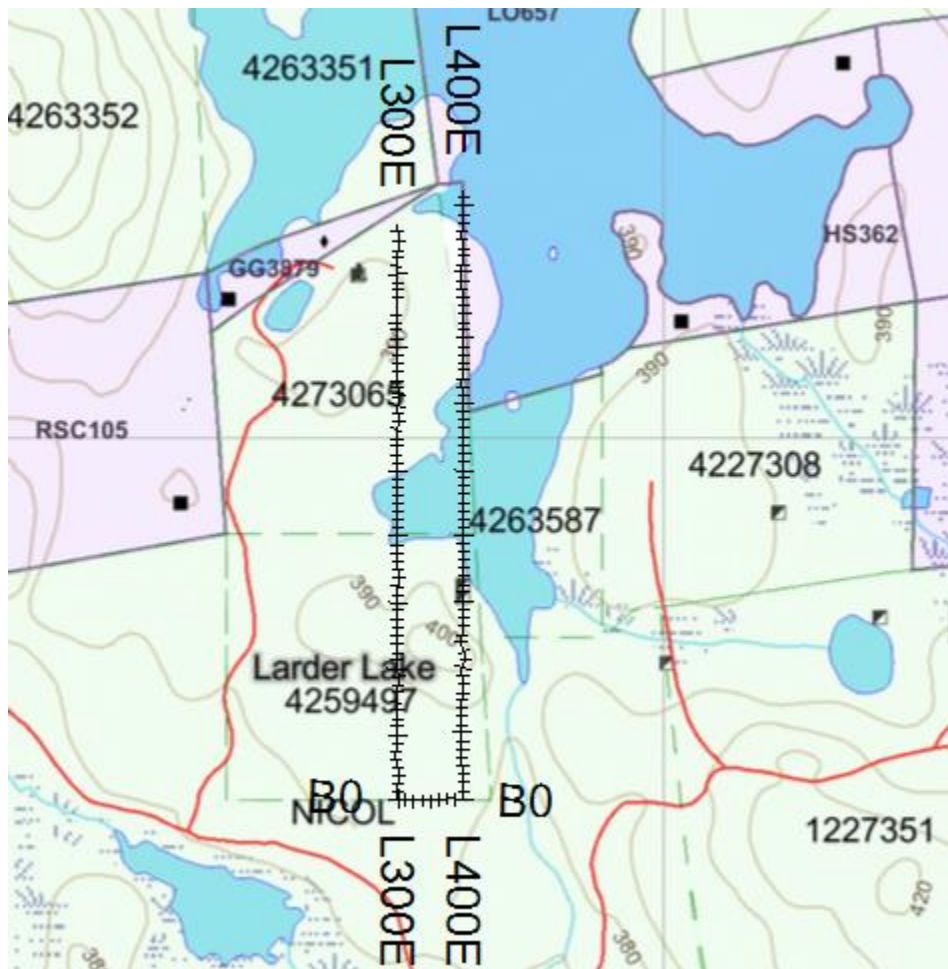


Figure 2: Claim Map with the Nicol Traverses

2. SURVEY WORK UNDRTAKEN

2.1 SURVEY LOG

| Date | Description | Line | Min Extent | Max Extent | Total Survey (m) |
|----------------|--|------|------------|------------|------------------|
| March 13, 2017 | Locate survey area and conduct survey. | 300E | 0 | 875N | 875 |
| | | 400E | 0 | 925N | 925 |
| | | 0N | 300E | 400E | 100 |

Table 1: Survey Log

2.2 PERSONNEL

Claudia Moraga of Britt, Ontario conducted all the magnetic data collection while Bill Bonney of Kirkland Lake, Ontario was responsible for the GPS control and GPS waypoint collection.

2.3 SURVEY SPECIFICATIONS

The survey was conducted with a GSM-19 v7 Overhauser magnetometer with a second GSM-19 magnetometer in base station mode for diurnal correction.

A total of 1.9 line kilometers of magnetometer was read over the Nicol Property on March 13, 2017. This consisted of 152 magnetometer samples taken at a 12.5m sample interval.

3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

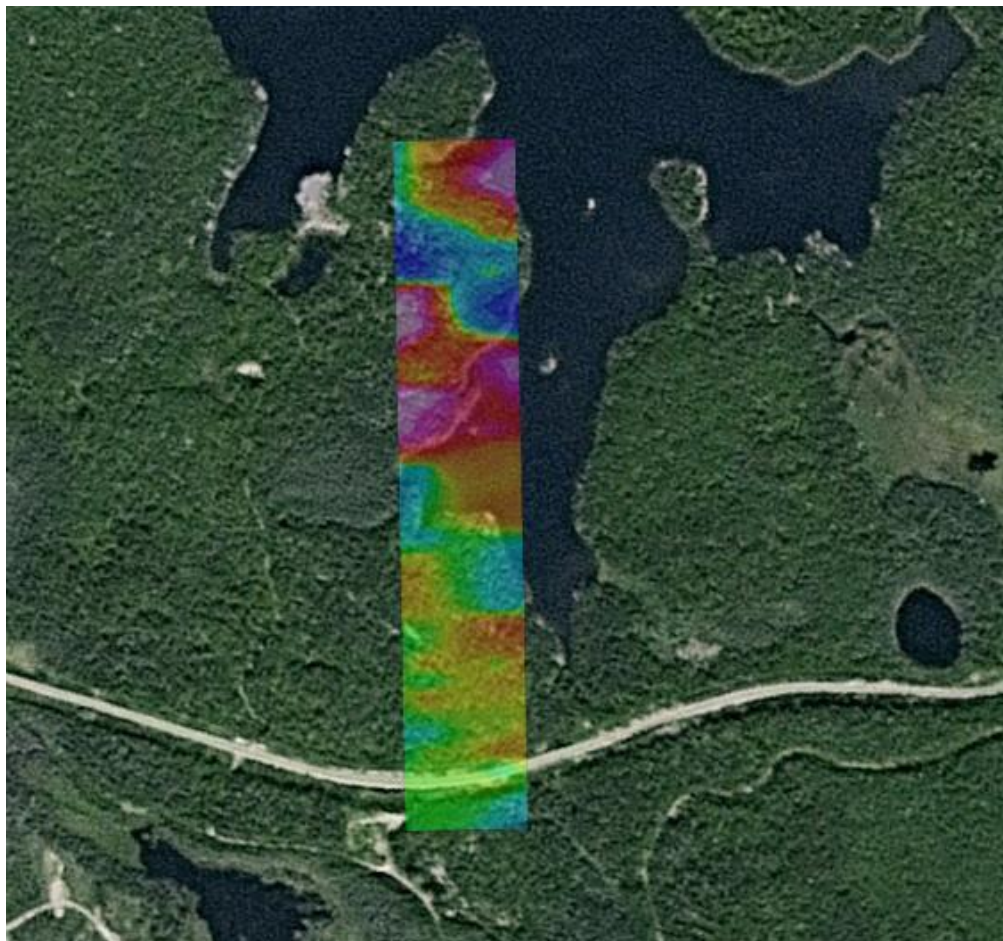


Figure 3: Magnetometer Plan on Google Earth

A strong magnetic variation occurs over the survey area. The intense variations between the north and the south parts of the survey area indicate the presence of two distinct underlying geological units.

The north half of the survey area exhibits strong variations in the magnetic signature. These variations indicate similar variations to a mafic to ultramafic volcanic or iron formation. Within this magnetically elevated region appears a magnetically depleted region. This may indicate the presence of an alteration corridor and should be further explored through prospecting.

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, C. Jason Ploeger, hereby declare that:

1. I am a professional geophysicist with residence in Larder Lake, Ontario and am presently employed as a Geophysicist and Geophysical Manager of Canadian Exploration Services Inc. of Larder Lake, Ontario.
2. I am a Practising Member of the Association of Professional Geoscientists, with membership number 2172.
3. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.
4. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.
5. I am a member of the Ontario Prospectors Association, a Director of the Northern Prospectors Association and a member of the Society of Exploration Geophysicists.
6. I do not have nor expect an interest in the properties and securities of **Ashley Gold Mines Limited**.
7. I am responsible for the final processing and validation of the survey results and the compilation of the presentation of this report. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.



C. Jason Ploeger, P.Geo., B.Sc.
Geophysical Manager
Canadian Exploration Services Inc.

Larder Lake, ON
March 28th, 2017

APPENDIX B

THEORETICAL BASIS AND SURVEY PROCEDURES

TOTAL FIELD MAGNETIC SURVEY

Base station corrected Total Field Magnetic surveying is conducted using at least two synchronized magnetometers of identical type. One magnetometer unit is set in a fixed position in a region of stable geomagnetic gradient, and away from possible cultural effects (i.e. moving vehicles) to monitor and correct for daily diurnal drift. This magnetometer, given the term 'base station', stores the time, date and total field measurement at fixed time intervals over the survey day. The second, remote mobile unit stores the coordinates, time, date, and the total field measurements simultaneously. The procedure consists of taking total magnetic measurements of the Earth's field at stations, along individual profiles, including Tie and Base lines. A 2 meter staff is used to mount the sensor, in order to optimally minimize localized near-surface geologic noise. At the end of a survey day, the mobile and base-station units are linked, via RS-232 ports, for diurnal drift and other magnetic activity (ionospheric and spheric) corrections using internal software.

For the gradiometer application, two identical sensors are mounted vertically at the ends of a rigid fiberglass tube. The centers of the coils are spaced a fixed distance apart (0.5 to 1.0m). The two coils are then read simultaneously, which alleviates the need to correct the gradient readings for diurnal variations, to measure the gradient of the total magnetic field.

APPENDIX C

GSM 19



Specifications

Overhauser Performance

Resolution: 0.01 nT
Relative Sensitivity: 0.02 nT
Absolute Accuracy: 0.2nT
Range: 20,000 to 120,000 nT
Gradient Tolerance: Over 10,000nT/m
Operating Temperature: -40°C to +60°C

Operation Modes

Manual: Coordinates, time, date and reading stored automatically at min. 3 second interval.
Base Station: Time, date and reading stored at 3 to 60 second intervals.
Walking Mag: Time, date and reading stored at coordinates of fiducial.
Remote Control: Optional remote control using RS-232 interface.
Input/Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Operating Parameters

Power Consumption: Only 2Ws per reading. Operates continuously for 45 hours on standby.
Power Source: 12V 2.6Ah sealed lead acid battery standard, other batteries available
Operating Temperature: -50°C to +60°C

Storage Capacity

Manual Operation: 29,000 readings standard, with up to 116,000 optional.
With 3 VLF stations: 12,000 standard and up to 48,000 optional.
Base Station: 105,000 readings standard, with up to 419,000 optional (88 hours or 14 days uninterrupted operation with 3 sec. intervals)
Gradiometer: 25,000 readings standard, with up to 100,000 optional. With 3 VLF stations: 12,000, with up to 45,000 optional.

Omnidirectional VLF

Performance Parameters: Resolution 0.5% and range to $\pm 200\%$ of total field.
Frequency 15 to 30 kHz.

Measured Parameters: Vertical in-phase & out-of-phase, 2 horizontal components, total field coordinates, date, and time.

Features: Up to 3 stations measured automatically, in-field data review, displays station field strength continuously, and tilt correction for up to $\pm 10^\circ$ tilts.

Dimensions and Weights: 93 x 143 x 150mm and weighs only 1.0kg.

Dimensions and Weights

Dimensions:

Console: 223 x 69 x 240mm

Sensor: 170 x 71mm diameter cylinder

Weight:

Console: 2.1kg

Sensor and Staff Assembly: 2.0kg

Standard Components

GSM-19 magnetometer console, harness, battery charger, shipping case, sensor with cable, staff, instruction manual, data transfer cable and software.

Taking Advantage of a “Quirk” of Physics

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 measurement. In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and reduces 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).

-
- The unique Overhauser unit blends physics, data quality, operational efficiency, system design and options into an instrumentation package that ... exceeds proton precession and matches costlier optically pumped cesium capabilities

APPENDIX C

GARMIN GPS MAP 62S



| Physical & Performance: | |
|----------------------------|--|
| Unit dimensions, WxHxD: | 2.4" x 6.3" x 1.4" (6.1 x 16.0 x 3.6 cm) |
| Display size, WxH: | 1.43" x 2.15" (3.6 x 5.5 cm); 2.6" diag (6.6 cm) |
| Display resolution, WxH: | 160 x 240 pixels |
| Display type: | transflective, 65-K color TFT |
| Weight: | 9.2 oz (260.1 g) with batteries |
| Battery: | 2 AA batteries (not included); NiMH or Lithium recommended |
| Battery life: | 20 hours |
| Waterproof: | yes (IPX7) |
| Floats: | no |
| High-sensitivity receiver: | yes |

| | |
|--|--|
| Interface: | high-speed USB and NMEA 0183 compatible |
| Maps & Memory: | |
| Basemap: | yes |
| Preloaded maps: | no |
| Ability to add maps: | yes |
| Built-in memory: | 1.7 GB |
| Accepts data cards: | microSD™ card (not included) |
| Waypoints/favorites/locations: | 2000 |
| Routes: | 200 |
| Track log: | 10,000 points, 200 saved tracks |
| Features & Benefits: | |
| Automatic routing (turn by turn routing on roads): | yes (with optional mapping for detailed roads) |
| Electronic compass: | yes (tilt-compensated, 3-axis) |
| Touchscreen: | no |
| Barometric altimeter: | yes |
| Camera: | no |
| <u>Geocaching-friendly:</u> | yes (paperless) |
| <u>Custom maps compatible:</u> | yes |
| Photo navigation (navigate to geotagged photos): | yes |
| Outdoor GPS games: | no |
| Hunt/fish calendar: | yes |
| Sun and moon information: | yes |

| | |
|---|-----|
| Tide tables: | yes |
| Area calculation: | yes |
| Custom POIs (ability to add additional points of interest): | yes |
| Unit-to-unit transfer (shares data wirelessly with similar units): | yes |
| Picture viewer: | yes |
| Garmin Connect™ compatible (online community where you analyze, categorize and share data): | yes |

- *Specifications obtained from www.garmin.com*

APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Magnetometer Plan Map (1:2500)

1) Q2339-AGM-NICOL-Mag-Cont

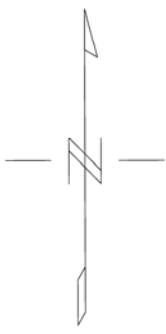
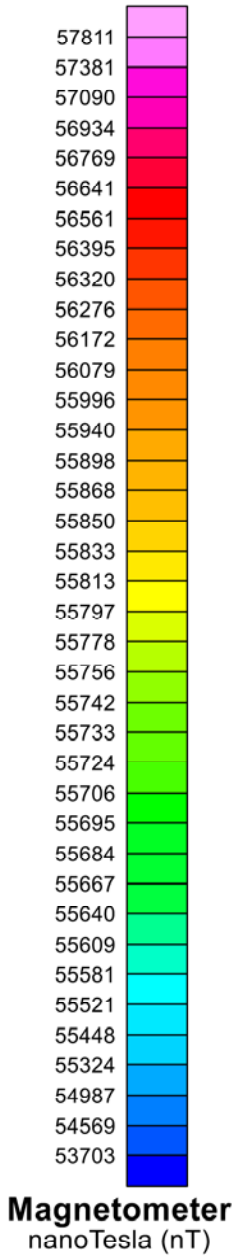
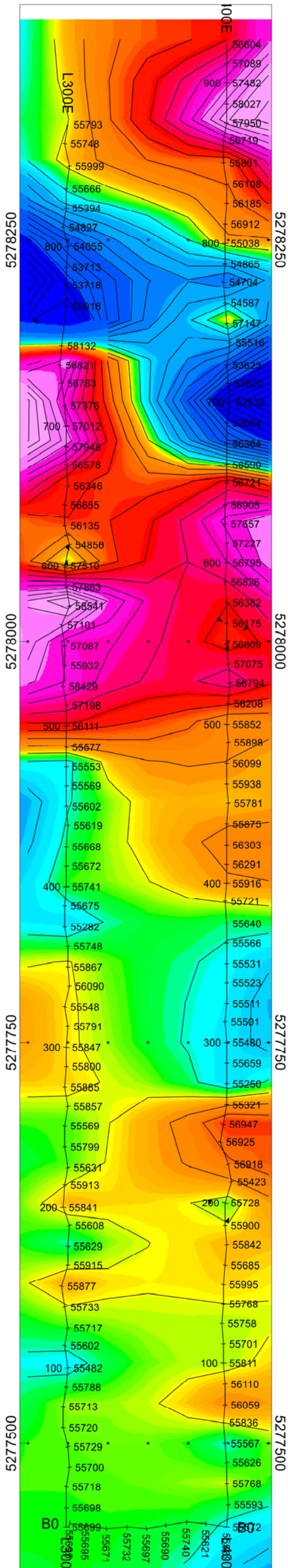
Claim Map with Magnetic Traverses (1:20000)

2) Q2339-AGM-NICOL-Traverses

TOTAL MAPS = 2

877.504.2345 | info@cxsltd.com | www.cxsltd.com





NICOL PROPERTY
Nicol Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected

Posting Level: 0nT
Field Inclination/Declination: 74degN/12degW
Station Separation: 12.5 meters
Total Field Magnetic Contours: 200 nT

GSM-19 OVERHAUSER MAGNETOMETER

Receiver Operated By: Claudia Moraga
GPS Operated By: Bill Bonney
Processed by: Jason Ploeger
Map Drawn By: C Jason Ploeger, B.Sc.
March 2017



Date / Time of Issue Thu Apr 03 12:08:19 EST 2014

TOWNSHIP / AREA
NICOL

PLAN
G-3692

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division
Land Titles/Registry Division
Ministry of Natural Resources District

Larder Lake
TIMISKAMING
KIRKLAND LAKE

TOPOGRAPHIC

- Administrative Boundaries
- Township
 - Concession Lot
 - Provincial Park
 - Indian Reserve
 - Gift, Pt & Pie
 - Contour
 - Mine Shaft
 - Mine Headframe
 - Railway
 - Road
 - Trail
 - Natural Gas Pipeline
 - Utilities
 - Tower

Land Tenure

- Freehold Patent
- Surface And Mining Rights
 - Surface Rights Only
 - Mining Rights Only
- Leasehold Patent
- Surface And Mining Rights
 - Surface Rights Only
 - Mining Rights Only
- Licence of Occupation
- Uses Not Specified
 - Surface And Mining Rights
 - Surface Rights Only
 - Mining Rights Only
 - Land Use Permit
 - Order In Council (Not open for staking)
 - Water Power Lease Agreement



- Mining Claim
- 1234567
 - 1234567
- Filed Only Mining Claims
- 1234567

LAND TENURE WITHDRAWALS

- 1234 Areas Withdrawn from Disposition
- Mining Acts Withdrawal Types
- Surface And Mining Rights Withdrawn
 - Surface Rights Only Withdrawn
 - Mining Rights Only Withdrawn
- Order In Council Withdrawal Types
- Surface And Mining Rights Withdrawn
 - Surface Rights Only Withdrawn
 - Mining Rights Only Withdrawn

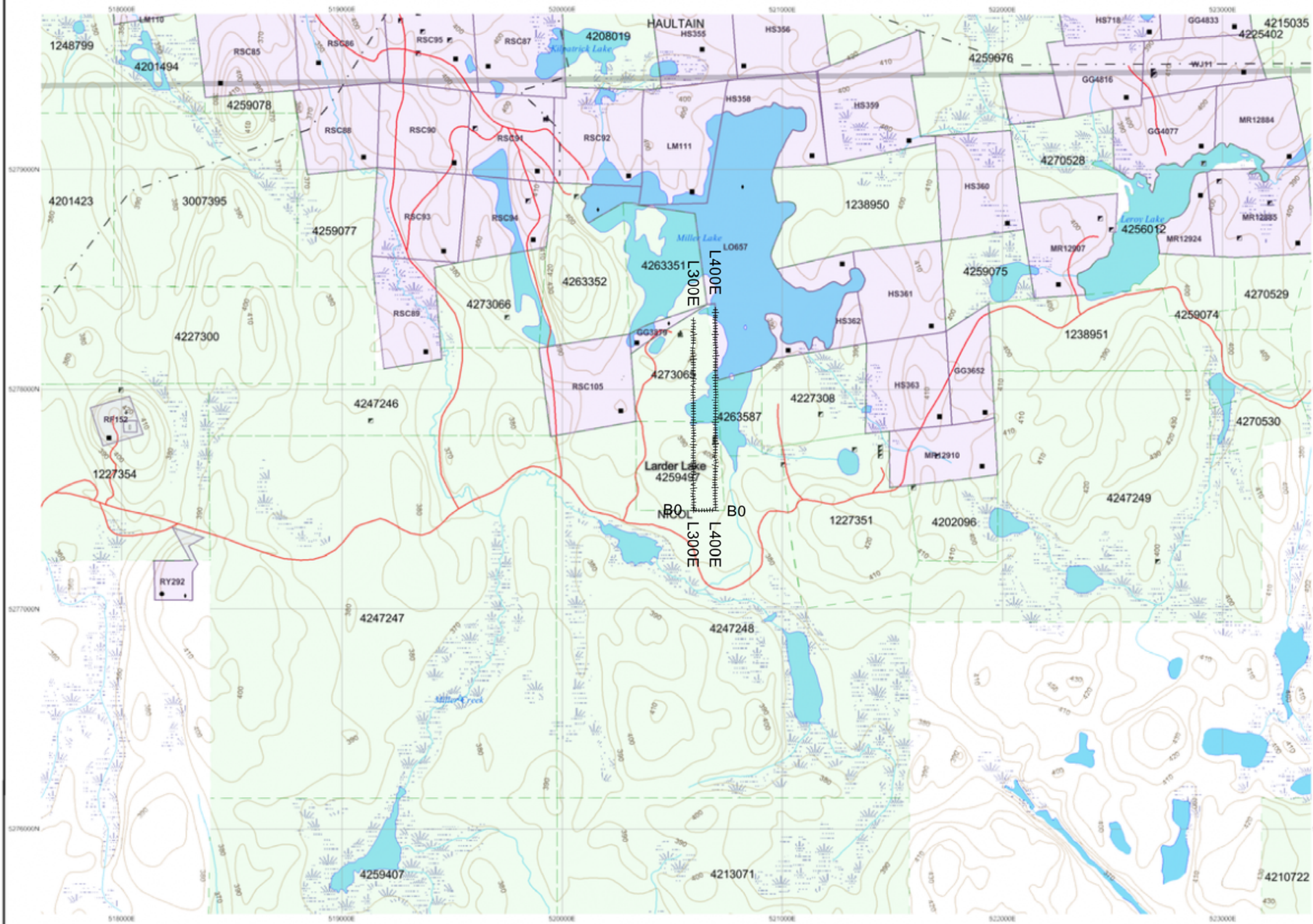
IMPORTANT NOTICES

Scale 1:20000



LAND TENURE WITHDRAWAL DESCRIPTIONS (list may not be complete)

| Identifier | Type | Date | Description |
|------------|------|-------------|---|
| 4424 | Wsm | Jan 1, 2001 | GOWGANDA TOWNSITE - SEE SECTION 29 (8) MINING ACT - NO STAKING WITHOUT PERMISSION OF THE MINISTER |
| 4435 | Wsm | Jan 1, 2001 | 400 FT SURFACE RIGHTS RESERVATION ALONG THE SHORES OF ALL LAKES & RIVERS |



UTM Zone 17
1000m grid

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

General Information and Limitations

Contact Information:
Provincial Mining Recorders' Office
Willet Green Miller Centre 933 Ramsey Lake Road
Sudbury ON P3E 6B5
Home Page: www.mdmn.gov.on.ca/MNDM/MINES/LANDS/Minimppg.htm

Toll Free
Tel: 1 (888) 415-9845 ext 574
Fax: 1 (877) 670-1444

Map Datum: NAD 83
Projection: UTM (6 degree)
Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.