



PO Box 219, 14579 Government Road, Larder Lake, Ontario, P0K 1L0, Canada
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Magnetometer and VLF EM Surveys Over the

MIKWAM GOLD PROPERTY Noseworthy Township, Ontario



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1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the **Mikwam Gold Property**.

1.2 CLIENT

ESO Uranium Corp.
Suite 408
1199 West Pender Street
Vancouver, BC
V6E 2R1

1.3 LOCATION

The Mikwam Gold Property is located in Noseworthy Township approximately 150 km north of Kirkland Lake, Ontario. The survey area covers portions of claim numbered L3017411, L3019086, L4219736, L4246490, L4249335, L4249336, L4249337 and L4249339 located within the Larder Lake Mining Division.

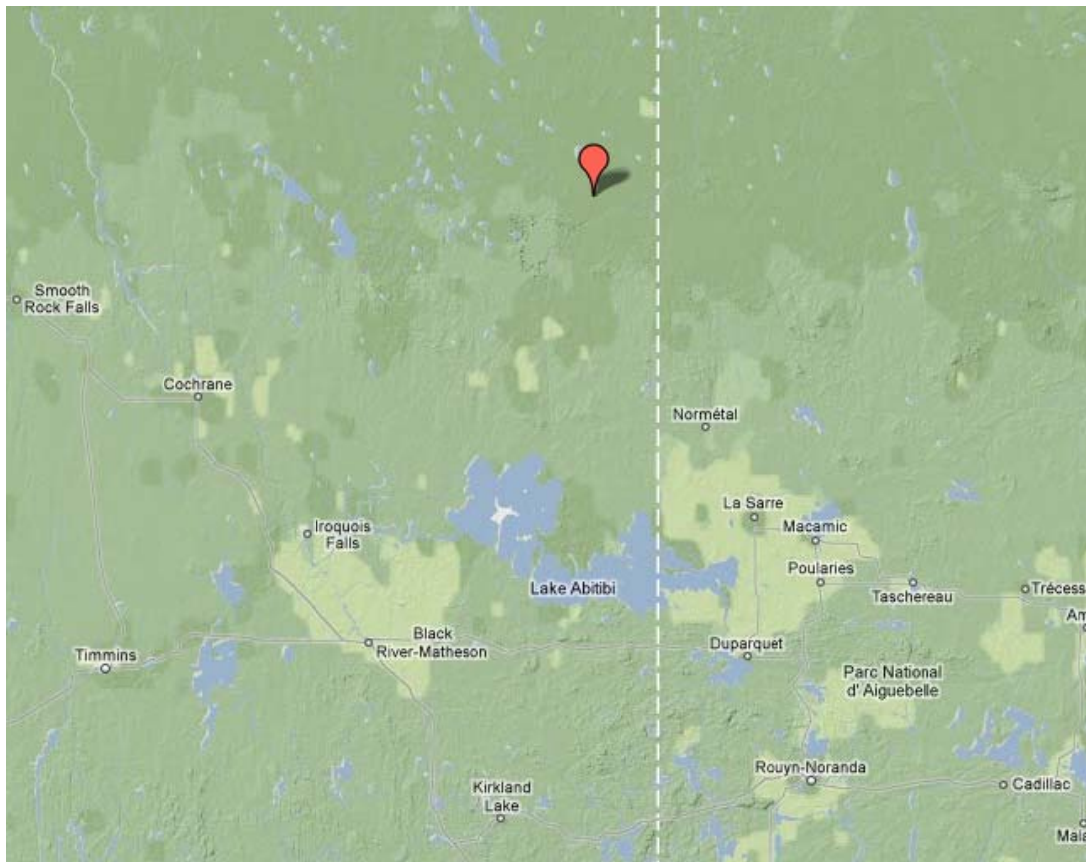


Figure 1: Location of Mikwam Gold Property

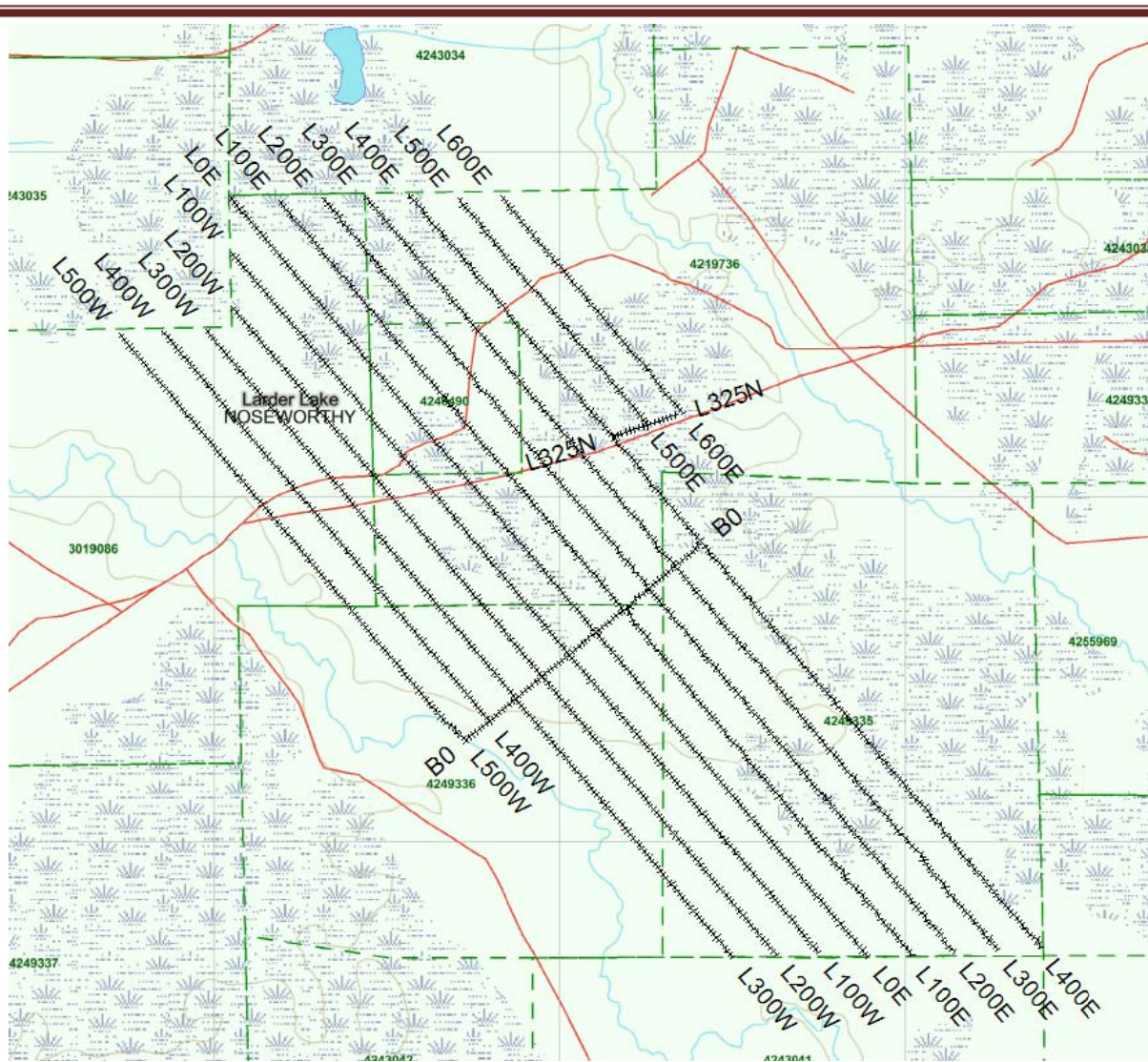


Figure 2: Claim Map with Noseworthy Traverses

1.4 ACCESS

Access to the property was attained via helicopter. The crew utilized Expedition Helicopters out of Cochrane and flew back and forth to the site from the main hangar in Cochrane.

1.5 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 12.5m in front of the magnetometer operator. GPS waypoints, magnetic and VLF samples were taken every 12.5m along these controlled traverses. The GPS used was a Garmin GPS Map 62S.

2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
April 15, 2012	Mobilize to Cochrane, locate Expedition Helicopters hangar and fly to property. Begin survey.	200E	1375S	1475N	2850
		100E	1300S	1550N	2850
		0	0	1650N	1650
		100W	0	1525N	1525
		200W	700N	1400N	700
		300W	750N	1400N	650
		400W	800N	1475N	675
		500W	850N	1550N	700
		0N	200W	100E	300
April 16, 2012	Heavy freezing rain. Helicopter grounded.				
April 17, 2012	Helicopter takes off but required to return to Cochrane due to weather conditions.				
April 18, 2012	Weather clears and crews are able to complete survey,	600E	325N	1150N	825
		500E	375N	1225N	850
		400E	1525S	1325N	2850
		300E	1450S	1400N	2850
		0	1225S	0	1225
		100W	1125S	0	1125
		200W	1050S	700N	1750
		300W	975S	750N	1725
		400W	0	800N	800
		500W	0	850N	850
		0N	500W	200W	300
		0N	100E	400E	300
		325N	400E	600E	200

Table 1: Survey Log

2.2 PERSONNEL

Bruce Lavalley of Britt, Ontario and Chris Prest of Kirkland Lake, Ontario conducted the magnetic data collection while Claudia Moraga of Britt, Ontario and Wesley Cairns of Larder Lake, Ontario were responsible for the GPS control and GPS waypoint collection.

2.3 SURVEY SPECIFICATIONS

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

A total of 27,550 line kilometers of no grid mag and VLF EM was performed between April 15th and April 18th, 2012. This consisted of 2204 magnetometer and VLF EM samples taken at 12.5m intervals.

3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY INTERPRETATION

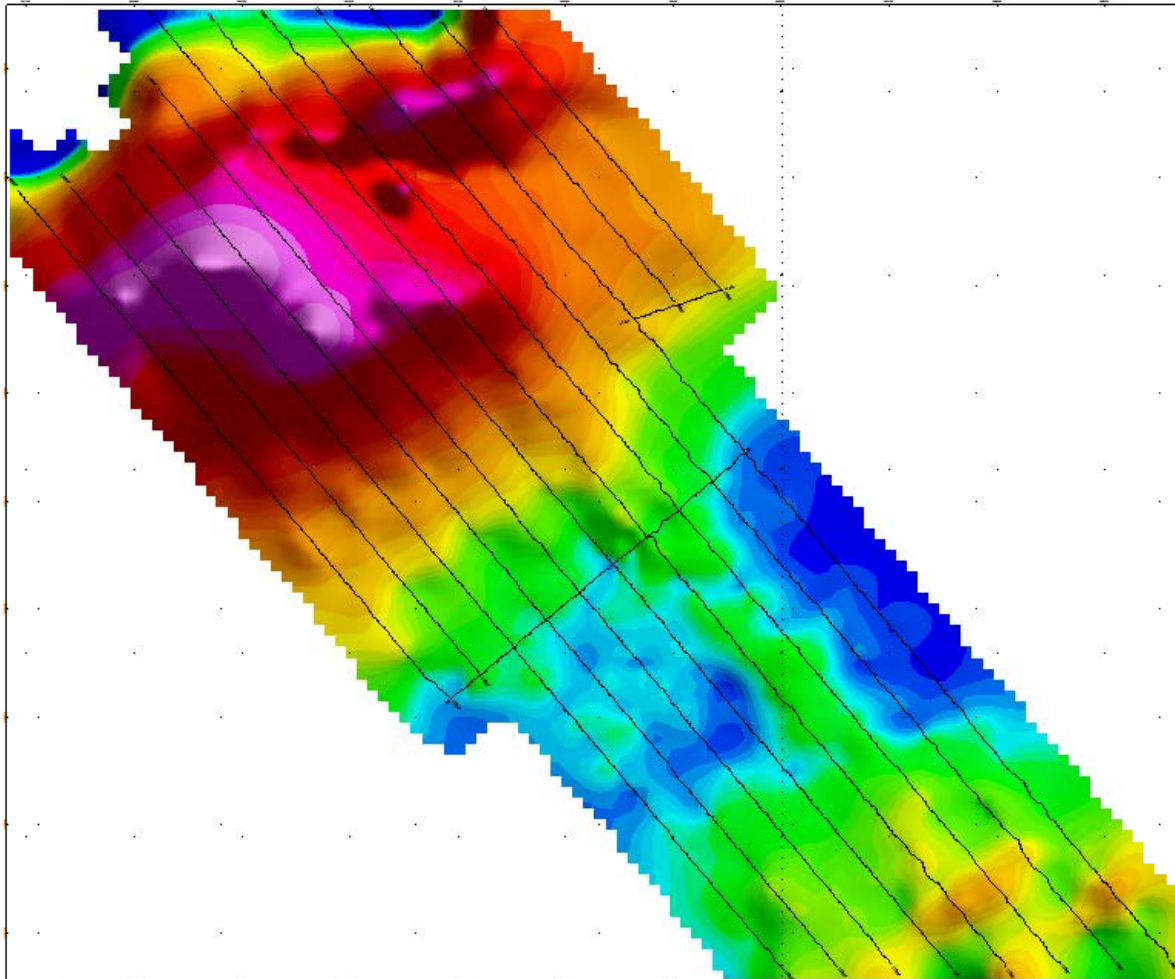


Figure 3: Total Field Magnetic Plan map over Mikwam Gold Property

The magnetic survey indicates the presence of variable magnetic susceptibilities throughout the survey area. From this survey, we can see two, with a possible third magnetic signature or geological unit.

The strongest most prevalent unit occurs in the northern portion of the survey area. Within this region, there are intense magnetic features whose gradient appears to be strong enough to indicate a potential iron formation. The region north of the baseline most likely indicates an area of metasediments including an iron formation. Within the heart of the elevated magnetic anomaly along lines 0 and 100E appears to be a linear feature of lower magnetic susceptibility. West of this feature appears to exhibit a broadening of the magnetic anomaly. This may indicate a structural feature crossing at this location resulting in the depletion of magnetite within the probable iron formation. This depletion may result in some remobilization and concentration of economic minerals and may be a tar-

get for future exploration programs.

South of this area, appears a more neutral on non-fluctuating region of magnetic susceptibility. This appears to indicate the possible presence of two distinct regimes which may indicate some volcanic flows grading from felsic to intermediate.

No strong VLF EM axis was apparent over the survey area.

The program failed to indicate VLF EM targets however; it did highlight a magnetometer target. The magnetometer survey indicates that there is a probable iron formation in the northern portion of the survey area. Within the iron formation, there appears to be a structural feature that may have resulted in a concentration of economic minerals. I would recommend completing the magnetic survey over the remainder of the claim group. Also, a MMI soil sampling program may help with identifying the source of the magnetic anomaly.

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, C. Jason Ploeger, hereby declare that:

1. I am a geophysicist (non-professional) with residence in Larder Lake, Ontario and am presently employed as Geophysical Manager of Canadian Exploration Services Ltd. of Larder Lake, Ontario.
2. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.
3. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.
4. 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.
5. I do not have nor expect an interest in the properties and securities of **ESO Uranium Corp.**
6. 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.

Larder Lake, ON
April 2012



C. Jason Ploeger, B.Sc. (geophysics)
Geophysical Manager
Canadian Exploration Services Ltd.

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.

VLF Electromagnetic

The frequency domain VLF electromagnetic survey is designed to measure both the vertical and horizontal in-phase (IP) and Quadrature (OP) components of the anomalous field from electrically conductive zones. The sources for VLF EM surveys are several powerful radio transmitters located around the world which generate EM radiation in the low frequency band of 15-25kHz. The signals created by these long-range communications and navigational systems may be used for surveying up to several thousand kilometres away from the transmitter. The quality of the incoming VLF signal can be monitored using the field strength. A field strength above 5pT will produce excellent quality results. Anything lower indicates a weak signal strength, and possibly lower data quality. A very low signal strength (<1pT) may indicate the radio station is down.

The EM field is planar and horizontal at large distances from the EM source. The two components, electric (E) and magnetic (H), created by the source field are orthogonal to each other. E lies in a vertical plane while H lies at right angles to the direction of propagation in a horizontal plane. In order to ensure good coupling, the strike of possible conductors should lie in the direction of the transmitter to allow the H vector to pass through the anomaly, in turn, creating a secondary EM field.

The VLF EM receiver has two orthogonal aeriels which are tuned to the frequency of the transmitting station. The direction of the source station is located by rotating the sensor around a vertical axis until a null position is found. The VLF EM survey procedure consists of taking measurements at stations along each line on the grid. The receiver is rotated about a horizontal axis, right angles to the traverse and the tilt recorded at the null position.

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)

Posted profiled TFM plan map (1:2500)

- 1) ESO-MIKWAM GOLD-MAG-CONT

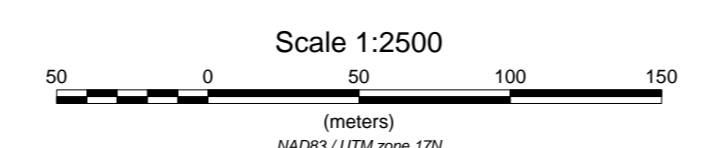
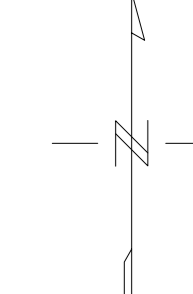
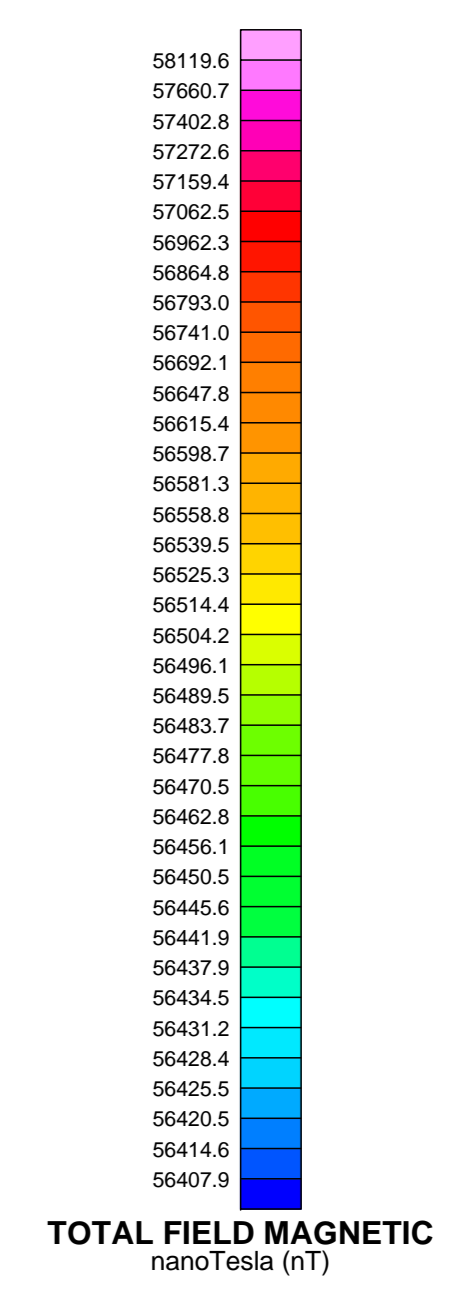
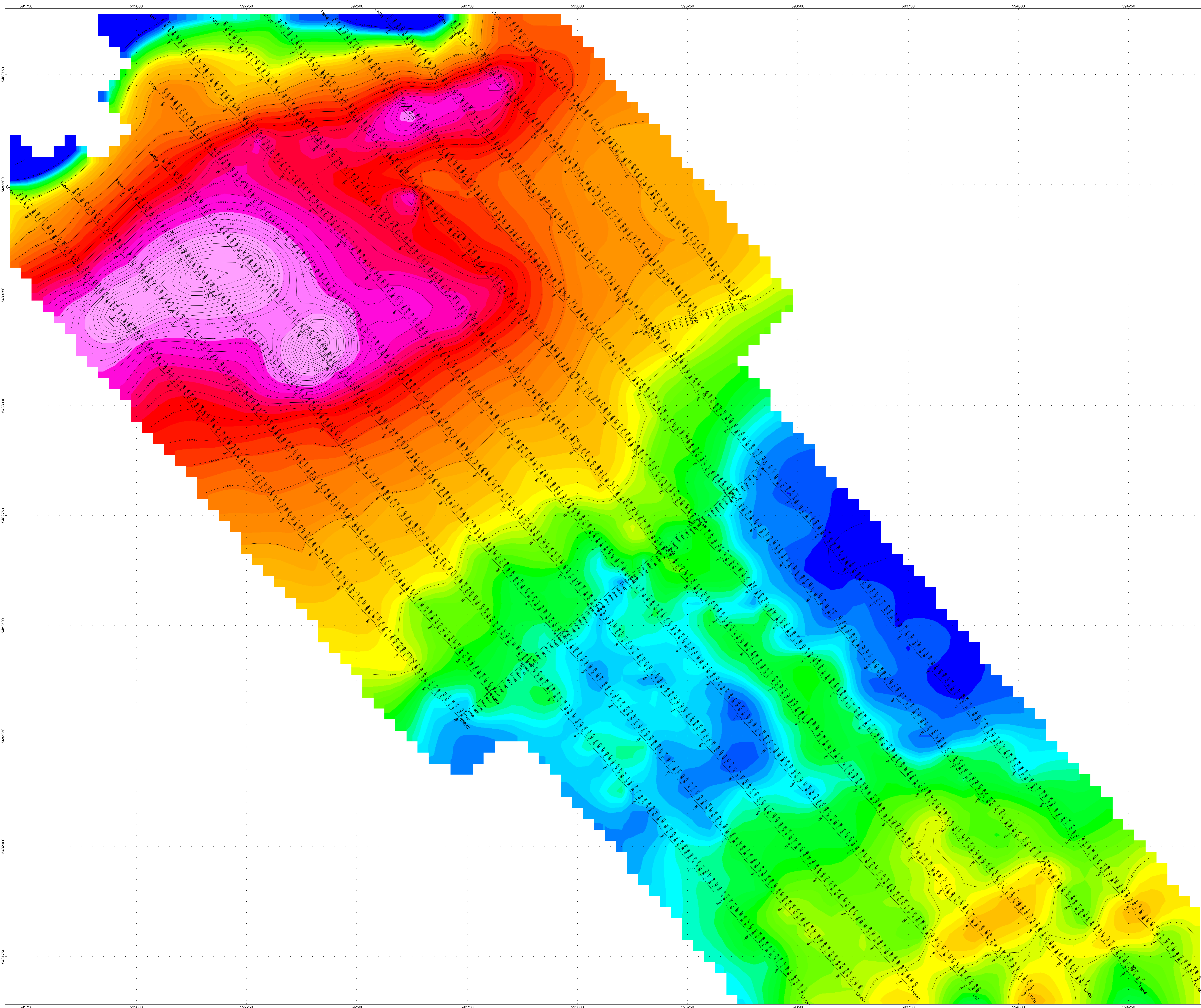
Posted profiled Fraser Filtered VLF EM plan map (1:2500)

- 2) ESO-MIKWAM GOLD-VLF-NAA

Grid Sketch on Claim Map (1:20000)

- 3) ESO-MIKWAM GOLD-GRID

TOTAL MAPS=3



ESO
URANIUM CORP.
MIKWAM GOLD PROPERTY
Noseworthy Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected
Posting Level: 0nT
Field Inclination/Declination: 14degN/12degW
Station Separation: 12.5 meters
Total Field Magnetic Contours: 100nT
GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Receiver By: Bruce Lavalley and Chris Prest
GPS By: Wesley Cairns and Claudia Moraga
Processed By: Claudia Moraga
Map Drawn By: C Jason Ploeger
April 2012
Drawing: ESO-MIKWAM GOLD-MAG-CONT



Date / Time of Issue: Thu Apr 19 15:51:19 EDT 2012

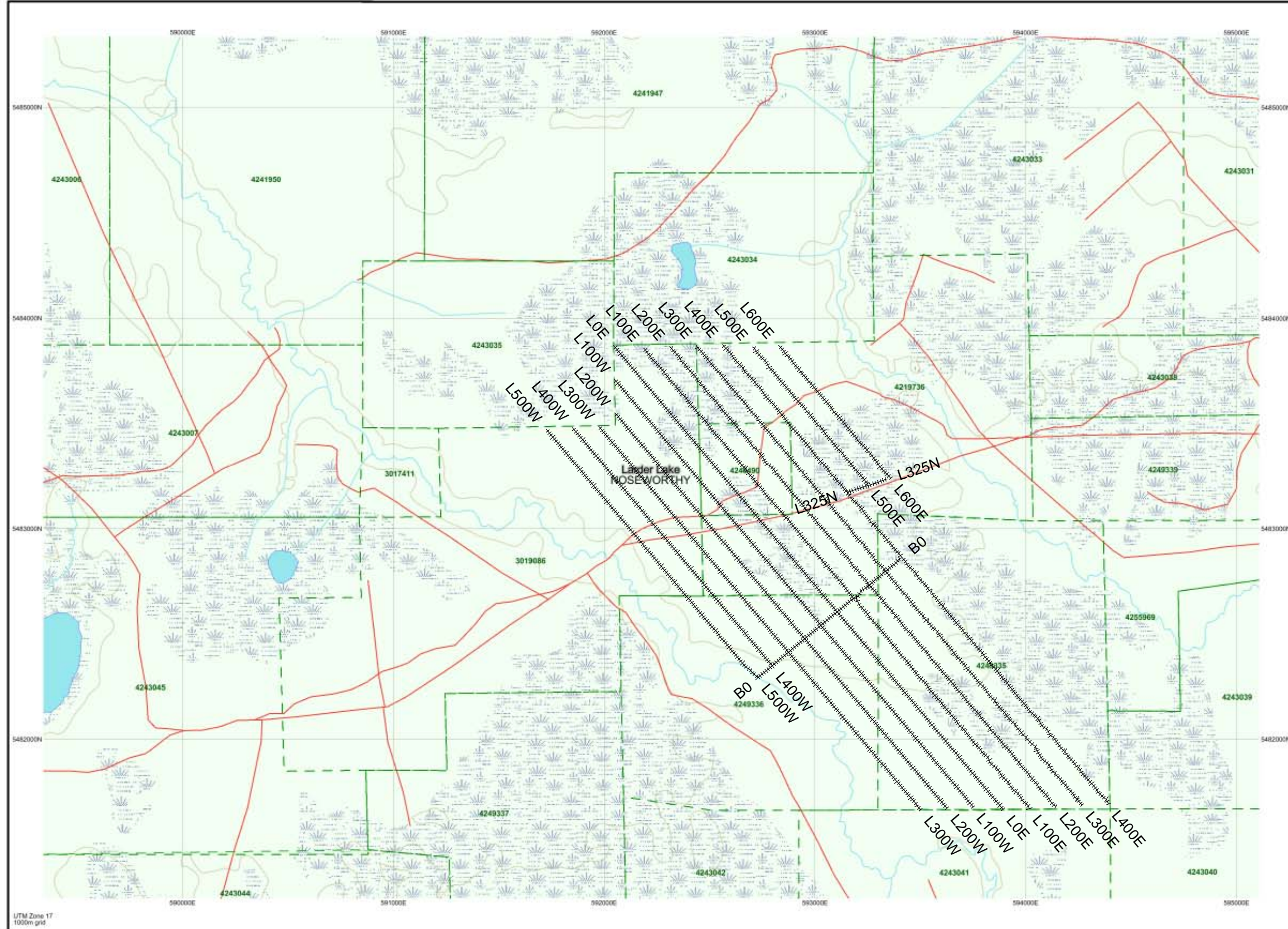
TOWNSHIP / AREA
NOSEWORTHY

PLAN
G-3549

ADMINISTRATIVE DISTRICTS / DIVISIONS

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

Larder Lake
COCHRANE
COCHRANE

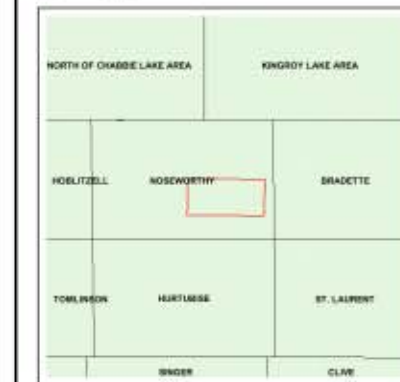


TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession, Lot
- Provincial Park
- Indian Reserve
- Cliff, Pt & Pile
- Contour
- Mine Shafts
- 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
- License of Occupation**
 - Uses Not Specified
 - Surface And Mining Rights
 - Surface Rights Only
 - Mining Rights Only
- Land Use Permit**
 - Land Use Permit
- Order In Council (Not open for staking)**
 - Order In Council (Not open for staking)
- Water Power Lease Agreement**
 - Water Power Lease Agreement



LAND TENURE WITHDRAWALS

- Mining Claims
- Filed Only Mining Claims
- 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
- No** IMPORTANT NOTICES



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.

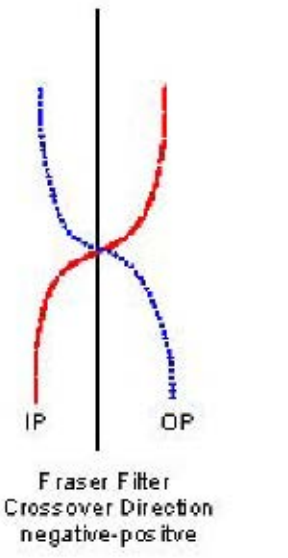
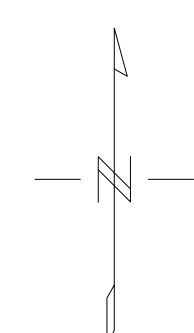
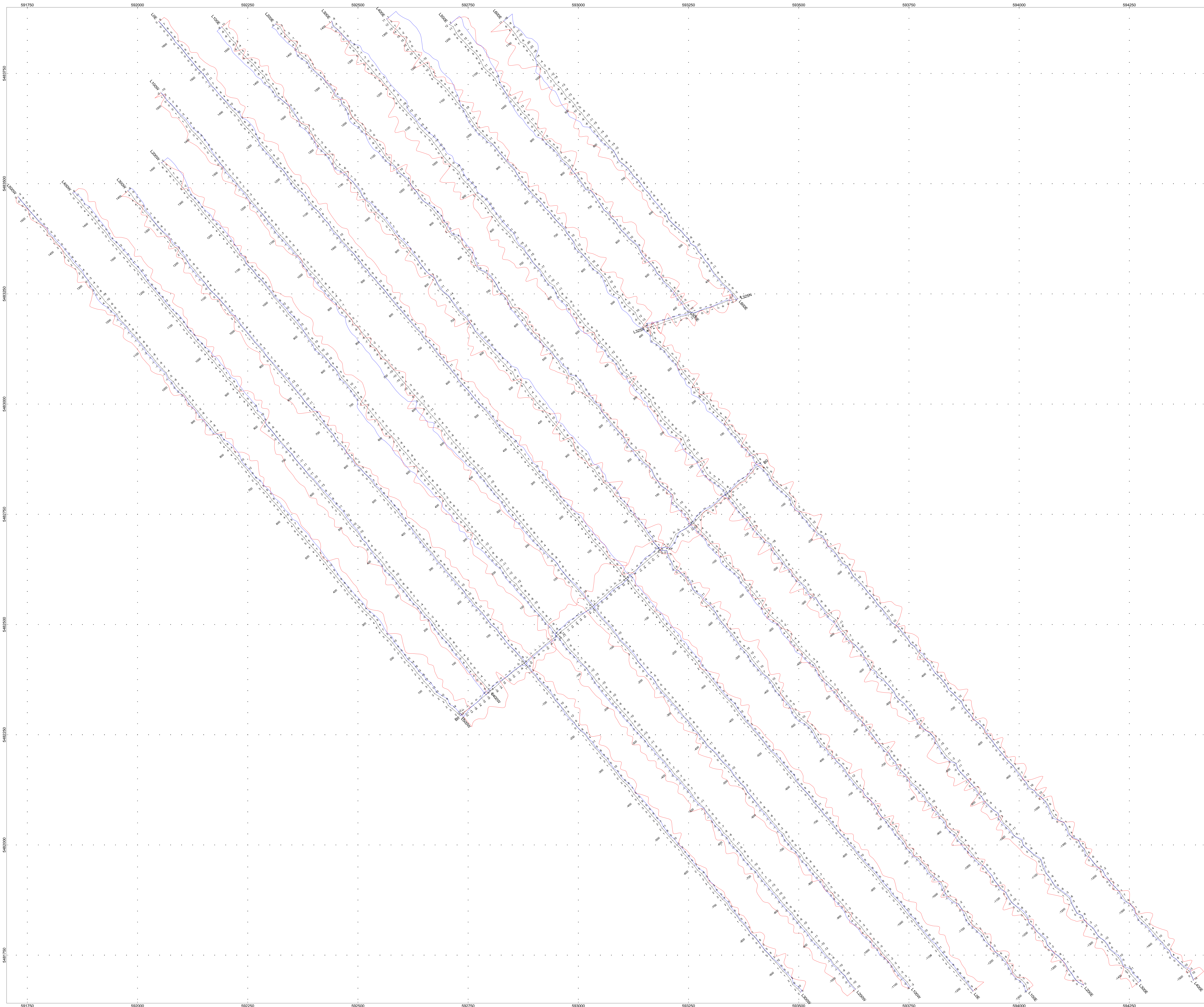
General Information and Limitations

Contact Information:
Provincial Mining Recorders' Office
Wildcat Green Mine Centre 933 Ramsey Lake Road
Sudbury ON P3E 6B5
Home Page: www.mdm.gov.on.ca/MNDM/MINES/LANDS/landmaprpg.htm

Toll Free
Tel: 1 (888) 415-9645 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.



MIKWAM GOLD PROPERTY
 Noseworthy Township, Ontario

VLF IN PHASE/OUT PHASE PROFILED PLAN MAP
 24.0kHz NAA - CUTLER USA
 In Phase: Posted Right/Bottom (Red)
 Out Phase: Posted Left/Top (Blue)
 Vertical Profile Scales: 1µm/m
 Contour Interval: 0, 5, 10, 15, 20, 25, 50, 100
 Station Separation: 12.5 meters
 Posting Level: 0

GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Receiver By: Bruce Lavalley and Chris Prost
 GPS By: Wesley Cairns and Claudia Moraga
 Processed by: Claudia Moraga
 Map Drawn By: C. Jason Ploeger
 April 2012



Drawing: ESO-MIKWAM GOLD-VLF-NAA

