



**CANADIAN EXPLORATION SERVICES LTD**

PO Box 219, 14579 Government Road, Larder Lake, Ontario, P0K 1L0, Canada  
Phone (705) 643-2345 Fax (705) 643-2191 www.cxsltd.com

---

# **KNIGHTSBRIDGE EXPLORATION LTD.**

## **VLF EM Survey Over the**

## **North Wind Property**

## **Connaught Township, Ontario**

## TABLE OF CONTENTS

<b>1.</b>	<b>SURVEY DETAILS .....</b>	<b>3</b>
1.1	PROJECT NAME.....	3
1.2	CLIENT .....	3
1.3	LOCATION .....	3
1.4	ACCESS.....	4
1.5	SURVEY GRID .....	4
<b>2.</b>	<b>SURVEY WORK UNDERTAKEN.....</b>	<b>5</b>
2.1	SURVEY LOG.....	5
2.2	PERSONNEL .....	5
2.3	SURVEY SPECIFICATIONS.....	5
<b>3.</b>	<b>OVERVIEW OF SURVEY RESULTS.....</b>	<b>6</b>
3.1	SUMMARY INTERPRETATION .....	6

## LIST OF APPENDICES

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

## LIST OF TABLES AND FIGURES

Figure 1: Location of the North Wind Property.....	3
Figure 2: Claim Map with North Wind Property Traverses.....	4
Figure 3: Survey Traverse Lines on VTEM Early Time Profiles.....	6
Figure 4: Google Earth with VLF Axis.....	7
Table 1: Survey Log .....	5

## 1. SURVEY DETAILS

### 1.1 PROJECT NAME

This project is known as the **North Wind Property**.

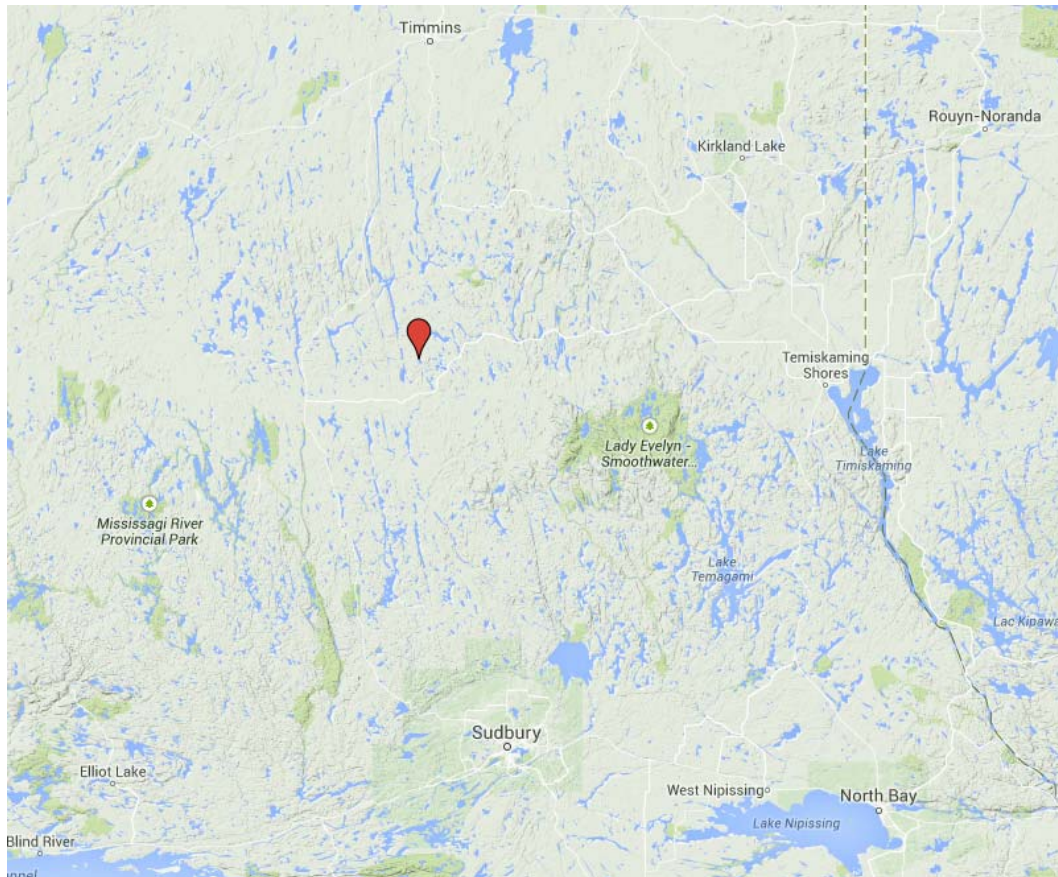
### 1.2 CLIENT

Knightsbridge Exploration Ltd

P.O. Box 219  
Larder Lake, Ontario  
P0K 1L0

### 1.3 LOCATION

The North Wind Property is located approximately 10 km northwest of Shining Tree, Ontario. The survey area covers mining claim numbered 4217075 and 4266574, located in Connaught Township, within the Larder Lake Mining Division.



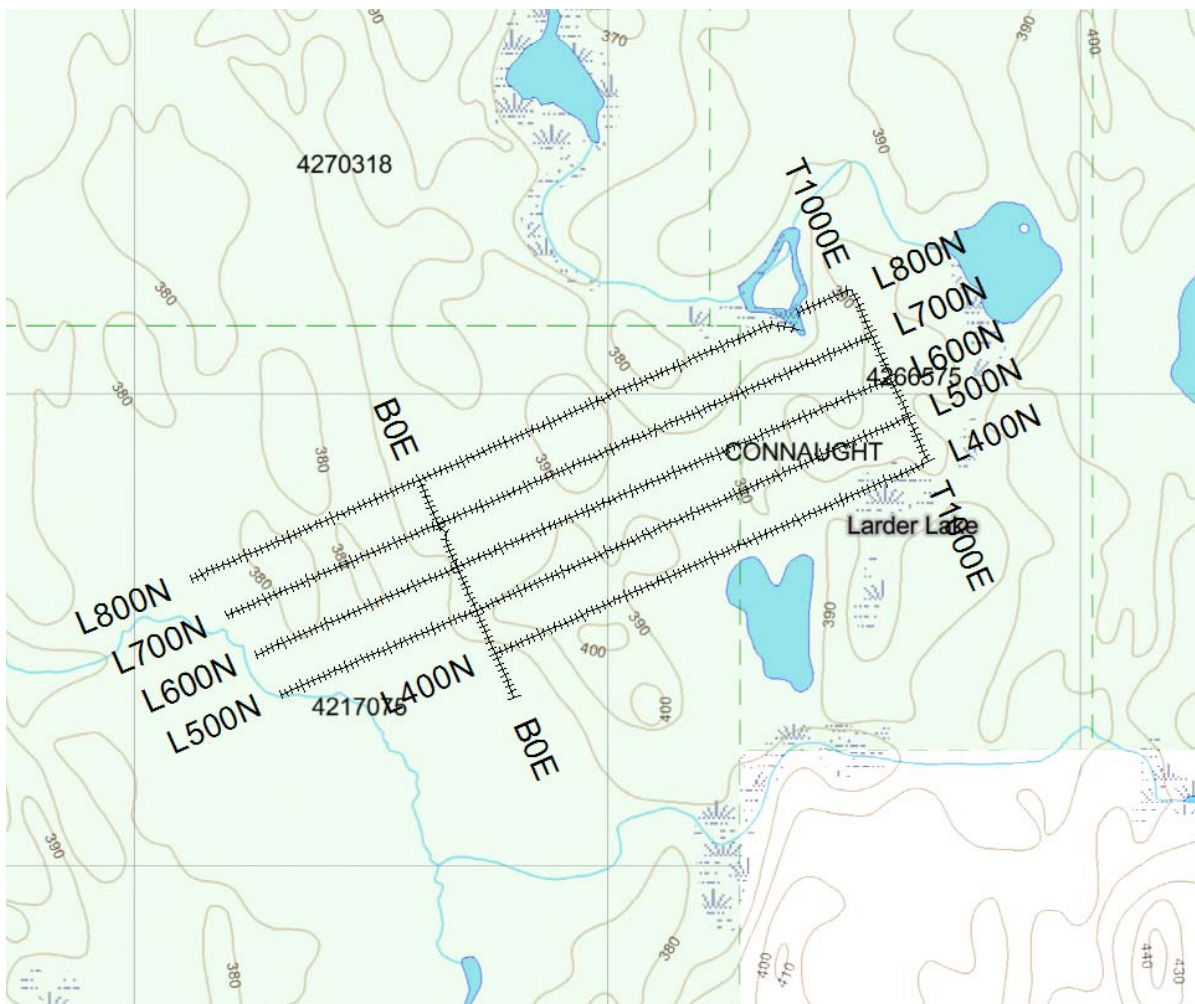
**Figure 1: Location of the North Wind Property**

## 1.4 ACCESS

Access to the property was attained with a 4x4 truck via the Highway 560 approximately 16km west of the town of Shining Tree, Ontario. From here, a forestry access road was travelled north for an additional 19 kilometers to a point where the survey area crossed the road.

## 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 VLF EM operator. GPS waypoints and VLF EM samples were taken every 12.5m along these controlled traverses. The GPS used was a Garmin GPSMAP 62s.



**Figure 2: Claim Map with North Wind Property Traverses**

## 2. SURVEY WORK UNDERTAKEN

### 2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
May 29, 2015	Locate survey area and begin survey.	BL0	300N	800N	500
		800N	525W	0	525
		700N	487.5W	0	487.5
		600N	462.5W	0	462.5
		500N	450W	0	450
		400N	0	1000E	1000
May 30, 2015	Complete the survey traverses.	1000E	400N	800N	400
		800N	0	1000E	1000
		700N	0	1000E	1000
		600N	0	1000E	1000
		500N	0	1000E	1000

**Table 1: Survey Log**

### 2.2 PERSONNEL

Claudia Moraga of Britt, Ontario conducted all the VLF EM data collection with Bruce Lavalley also of Britt responsible for the GPS control and GPS waypoint collection.

### 2.3 SURVEY SPECIFICATIONS

The survey was conducted with a GSM-19 VLF.

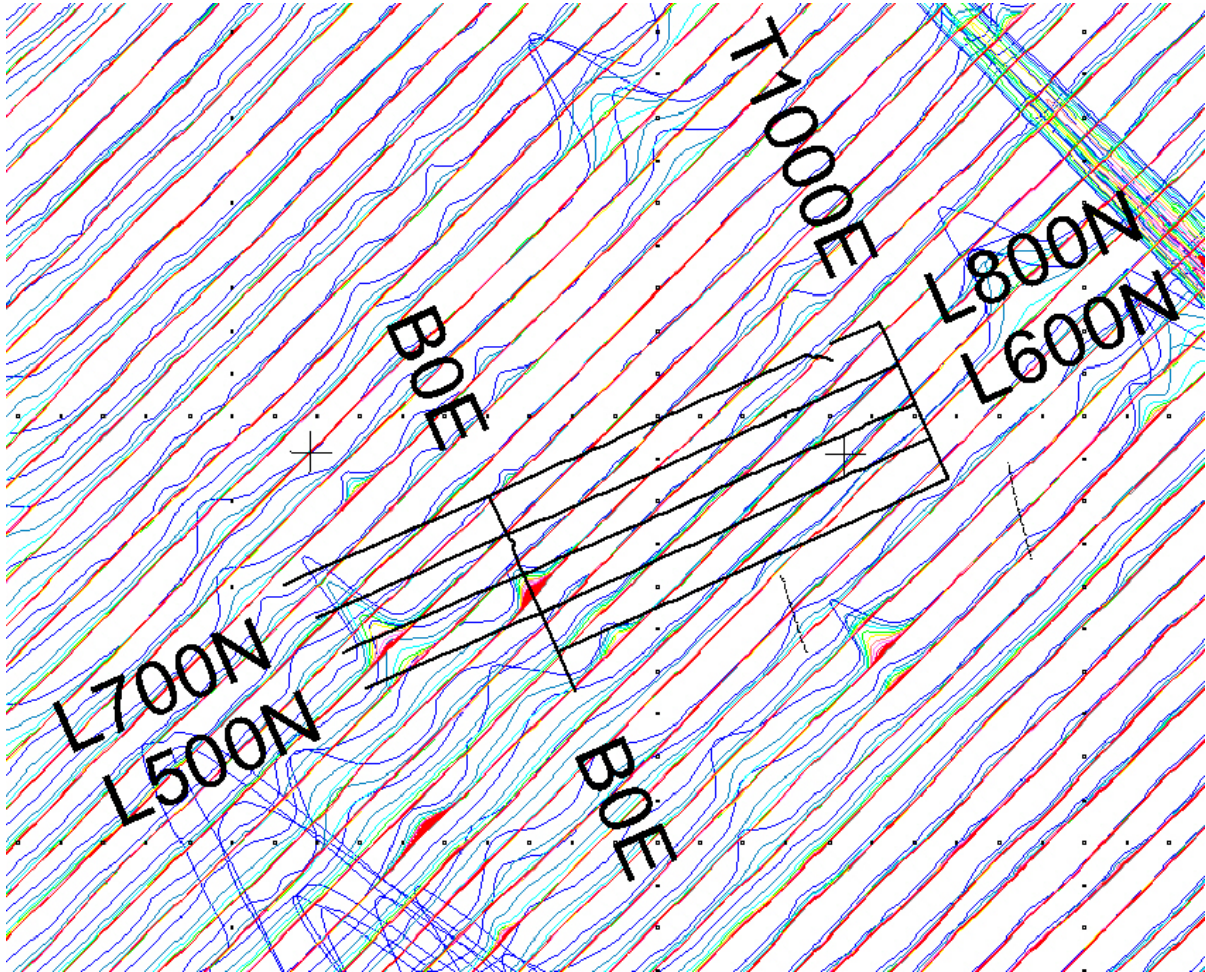
A total of 7.825 line kilometers of VLF EM was read over the North Wind Property on May 29<sup>th</sup> and 30<sup>th</sup>, 2015. This consisted of 626 VLF EM samples taken at a 12.5m sample interval.



### 3. OVERVIEW OF SURVEY RESULTS

#### 3.1 SUMMARY INTERPRETATION

The VLF EM survey was designed to followup an historic VTEM airborne survey. The area targeted also exhibited historic trenching with anomalous mineralization.



***Figure 3: Survey Traverse Lines on VTEM Early Time Profiles***



**Figure 4: Google Earth with VLF Axis**

The VLF EM survey indicates numerous trends located throughout the survey area. Three of these trends stand out and should be further investigated. The first of these occurs at 500N and 325W. This axis appears to coincide with a massive sulfide showing within a trenched area. This can be seen in figure 4 as the western-most axis.

The other two trends are indicate a similar response to the axis at the trench. These are located at 400S and 550E, 600N and 800E through 700N and 775E. All of these locations should be prospected and sampled to determine mineral potential.



---

## 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 Ltd. 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 **Knightsbridge Exploration Ltd.**
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 Ltd.

Larder Lake, ON  
July 10, 2015



---

## APPENDIX B

### THEORETICAL BASIS AND SURVEY PROCEDURES

#### VLF EM SURVEY

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).

## 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
<b>Maps &amp; Memory:</b>	
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
<b>Features &amp; Benefits:</b>	
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](http://www.garmin.com)*

---

## **APPENDIX D**

### **LIST OF MAPS (IN MAP POCKET)**

Posted Profiled VLF EM Plan Map (1:2500)

- 1) KNIGHTSBRIDGE-NORTH WIND-VLF-NAA

Claim Map with VLF EM Traverses (1:20000)

- 2) KNIGHTSBRIDGE-NORTH WIND-GRID

**TOTAL MAPS = 2**

Date / Time of Issue: Tue Sep 23 14:12:12 EDT 2014

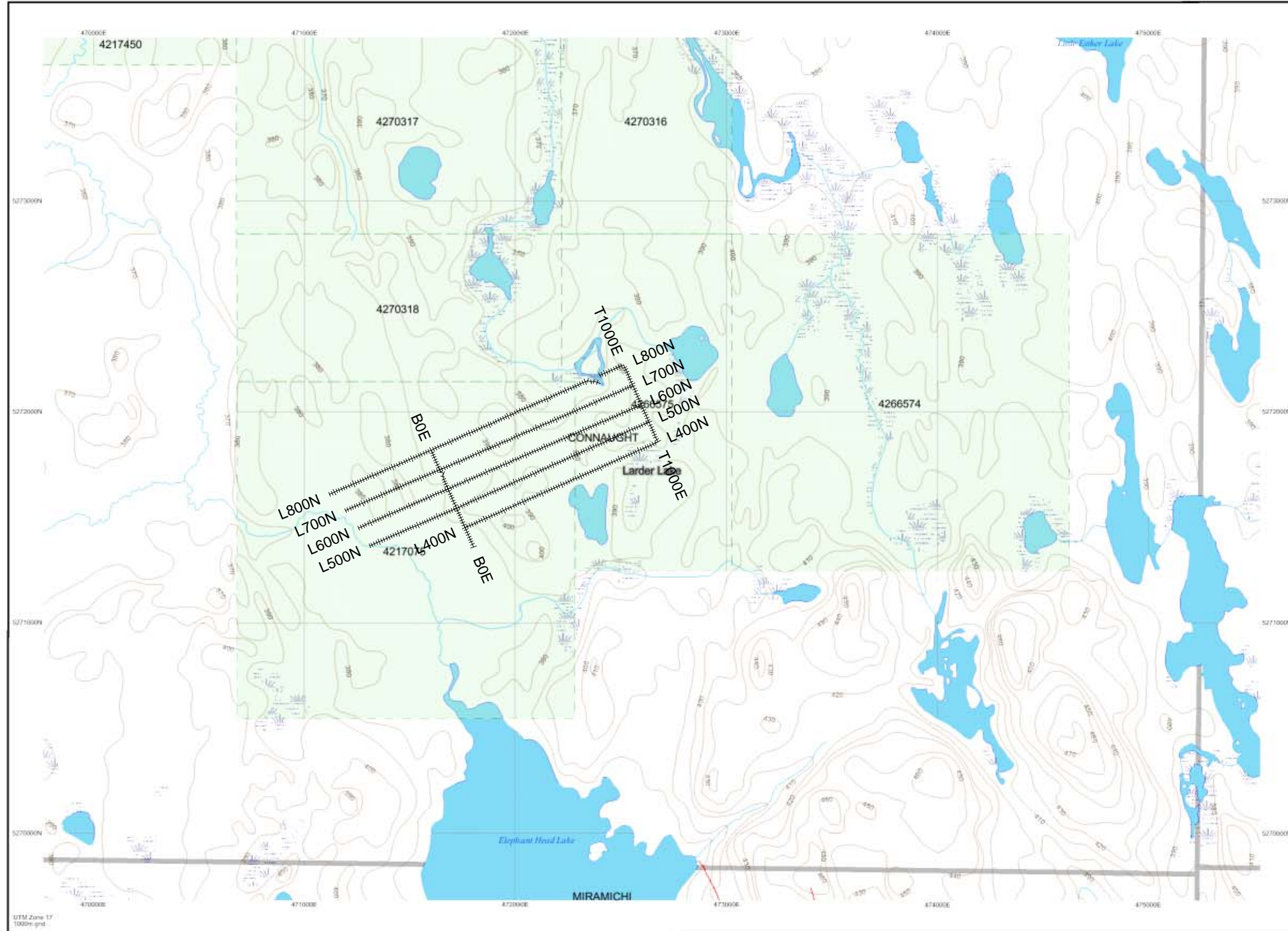
TOWNSHIP / AREA  
CONNAUGHT

PLAN  
G-0966

ADMINISTRATIVE DISTRICTS / DIVISIONS

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

Larder Lake  
SUDBURY  
TIMMINS



TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession Lot
- Provincial Plans
- Indian Reserve
- CIE, P1 & P2
- Contour
- Mine Shafts
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Utilities
- Tower

Land Tenure

- Feehold 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 Permits**
  - Order In Council (Not open for staking)
  - Water Power Lease Agreement

MATTADAMI	BURROWS	KEMP	BOGD
TODD	CABOT	HELVIN	NATAL
BRUNDECK	CONNAUGHT	CHURCHILL	
LONDONBERRY	MIRAMICHI	ASOUTH	FAMBETT
GARVEY	GARIBOLDI	SHEARD	OSLEW

- LAND TENURE WITHDRAWALS**
- Mining Claim
  - Filled Only Mining Claims
  - 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



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.

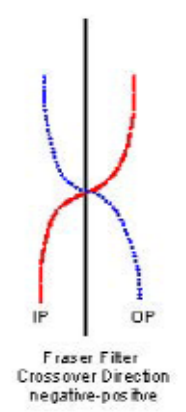
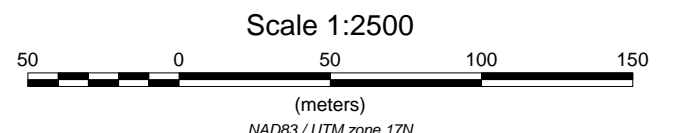
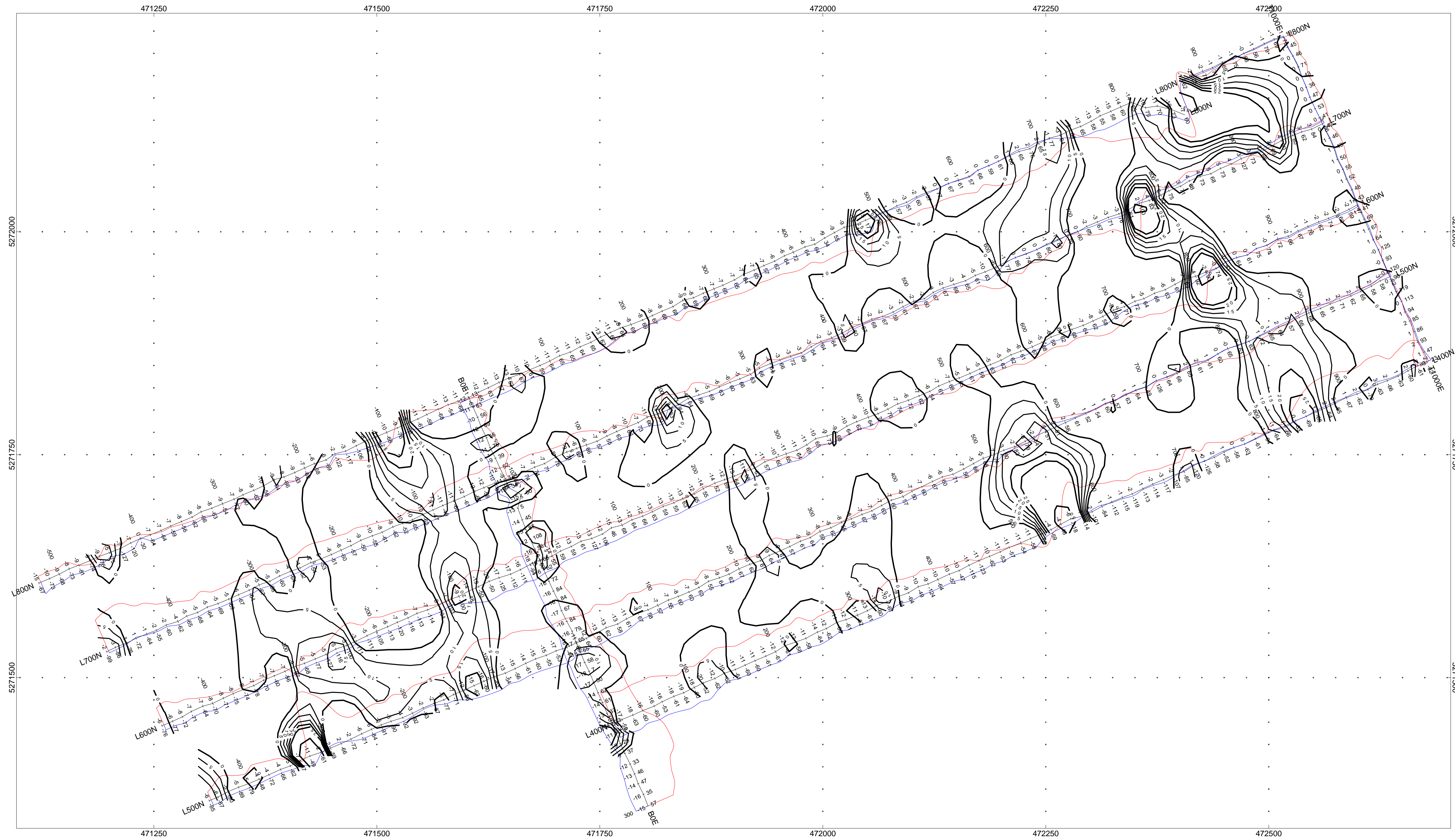
General Information and Limitations  
 Contact Information  
 Provincial Mining Recorders' Office  
 Walnut Green Mill Centre 933 Ramsey Lake Road  
 Sudbury ON P3E 6B5  
 Home Page: [www.mrdm.gov.on.ca/MNDM/MINES/LANDS/mrmpgpe.htm](http://www.mrdm.gov.on.ca/MNDM/MINES/LANDS/mrmpgpe.htm)

Toll Free  
 Tel: 1 (888) 415-9845 ext 5742  
 Fax: 1 (877) 670-1444

Map Datum: NAD 83  
 Projection: UTM @ 18 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.





**KNIGHTSBRIDGE EXPLORATION LTD.**

**NORTH WIND PROPERTY**  
**Connaught Township, Ontario**

VLF IN PHASE/OUT PHASE PROFILE  
 VLF FRASER FILTERED CONTOURED PLAN MAP  
 24.0kHz NAA - CUTLER USA

In Phase: Posted Right/Bottom (Red)  
 Out Phase: Posted Left/Top (Blue)

Vertical Profile Scales: 2.5%/mm  
 Contour Interval: 0, 5, 10, 15, 20, 25, 50, 100

Station Separation: 12.5 meters  
 Posting Level: 0

GSM-19 VLF

Receiver Operated By: Claudia Moraga  
 GPS Operated By: Bruce Lavalley  
 Processed by: Jason Ploeger  
 Map Drawn By: C Jason Ploeger, P.Geo  
 July 2015



Drawing : KNIGHTSBRIDGE-NORTH WIND-VLF-NAA