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**CANADIAN EXPLORATION SERVICES LTD**

**NEW FOUND GOLD CORP.**

**Q2345 – Lucky Strike Property  
Magnetometer and VLF EM Surveys**

**C Jason Ploeger, P.Geo. – July 11, 2017**

# NEW FOUND GOLD CORP.

## **Abstract**

CXS was contracted by New Found Gold Corp. to perform approximately 11.3 kilometres of magnetometer and VLF EM surveys over the Lucky Strike Property.

The survey identified a strongly magnetic intrusive unit. Within this unit an alteration pattern, resulting in the depletion of magnetite, has been identified.

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## 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 UNDRTAKEN.....</b>	<b>5</b>
2.1	SURVEY LOG .....	5
2.2	PERSONNEL .....	6
2.3	SURVEY SPECIFICATIONS .....	6
<b>3.</b>	<b>OVERVIEW OF SURVEY RESULTS.....</b>	<b>7</b>
3.1	SUMMARY .....	7

## 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 Lucky Strike Property .....	3
Figure 2: Claim Map with the Lucky Strike Traverses .....	4
Figure 4: Magnetometer Plan of Lucky Strike on Google Earth .....	7
Table 1: Survey Log.....	6

## 1. SURVEY DETAILS

### 1.1 PROJECT NAME

This project is known as the **Lucky Strike Property**.

### 1.2 CLIENT

New Found Gold Corp.

69 Young St.  
Suite 1010  
Toronto, Ontario  
M5E 1K3

### 1.3 LOCATION

The Lucky Strike Property covers an area that encompasses Katrine and McVittie and Ossian Townships with the survey area approximately 10.0 km northeast of Larder Lake, Ontario. The survey area covers a portion of mining claims 4220722 located in Katrine Township, 3013260 located in Katrine and McVittie Township, 4220720 and 42200721 located in McVittie Township within the Larder Lake Mining Division.



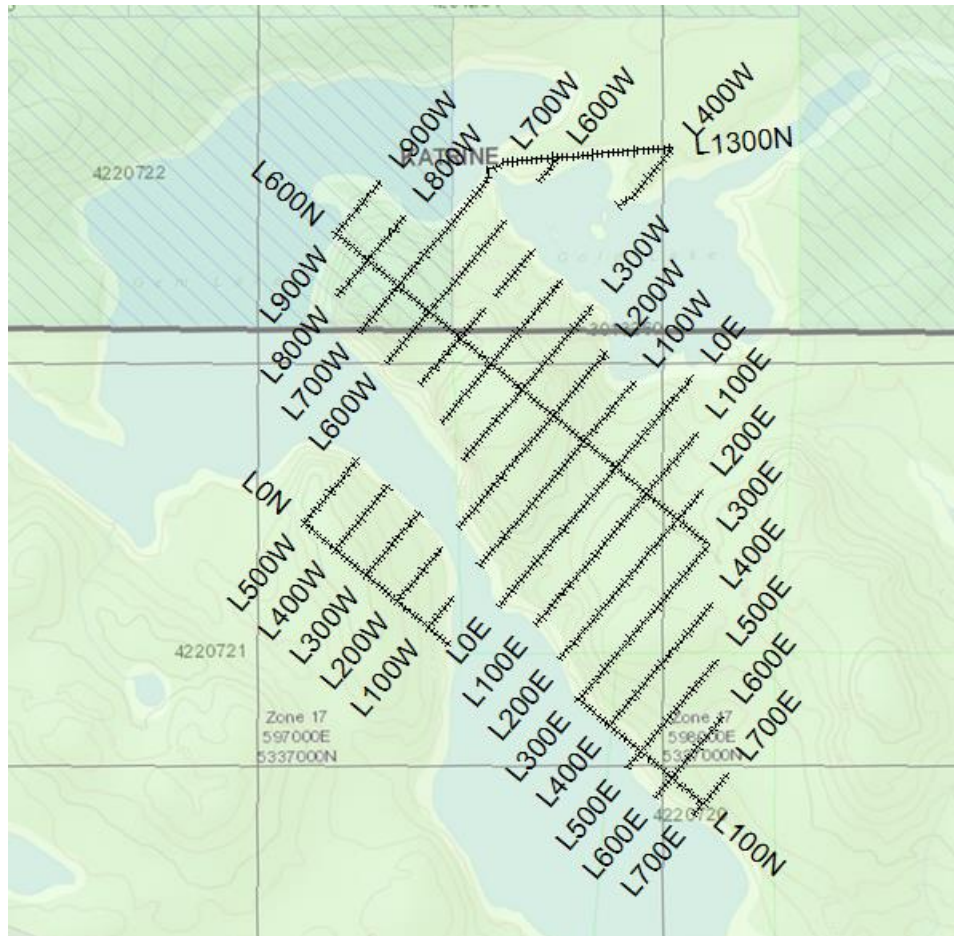
***Figure 1: Location of the Lucky Strike Property***

## 1.4 ACCESS

Access to the property was attained with a 4x4 truck on the Station Road, ATV and boat. The Station Road heads north from highway 66 approximately 1 kilometer east of Larder Lake, Ontario. Near kilometer 9 an old forestry access road extends to the west. This was traveled by ATV an additional 2.5 kilometers to the shores of Gem Lake. A boat was then used to access the survey area.

## 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/VLF EM operator. GPS way-points, magnetic and VLF EM samples were taken every 12.5m 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 Lucky Strike Traverses**

## 2. SURVEY WORK UNDERTAKEN

### 2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
May 30, 2017	Locate survey area and conduct magnetometer and VLF EM surveys. Extremely rugged terrain.	0E	600N	900N	300
		200E	150N	700N	550
		300E	100N	600N	500
		400E	100N	500N	400
		500E	50N	400N	350
		600E	37.5N	300N	262.5
		700E	62.5N	200N	137.5
		100N	300E	700E	400
		600N	0E	300E	300
		June 26, 2017	RE-occupy survey area with multiple crews and conduct magnetometer and VLF EM surveys. Extremely rugged terrain.	300W	375N
200W	237.5N			812.5	575
100W	200N			800N	600
0E	150N			600N	450
100E	175N			800N	625
600N	300W			0E	300
June 27, 2017	Continue magnetometer and VLF EM surveys with multiple. Extremely rugged terrain.			900W	600N
		800W	450N	750N	300
		700W	450N	1000N	550
		600W	437.5N	900N	462.5
		600W	1025N	1100N	75
		500W	450N	700N	250
		400W	1100N	1300N	200
		600N	900W	412.5W	487.5
		1300N	825W	400W	425
		July 05, 2017	Complete magnetometer and VLF EM surveys. Extremely	500W	0N

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
	rugged terrain.				
		500W	737.5N	887.5N	150
		400W	0N	212.5N	212.5
		400W	412.5N	875N	462.5
		300W	0N	212.5N	212.5
		200W	0N	175N	175
		100W	0N	100N	100
		0N	500W	25W	475
		600N	400W	312.5W	87.5
					<b>11262.5</b>

**Table 1: Survey Log**

## 2.2 PERSONNEL

Patrick McGuinty of Pickering, Ontario; Kevin Girard of Virginiatown, Ontario and David Benn of Ottawa, Ontario conducted the magnetic data collection while Bruce Lavalley of Britt, Ontario and Liam Sullivan of Larder Lake, Ontario were responsible for the GPS control and GPS waypoint collection.

## 2.3 SURVEY SPECIFICATIONS

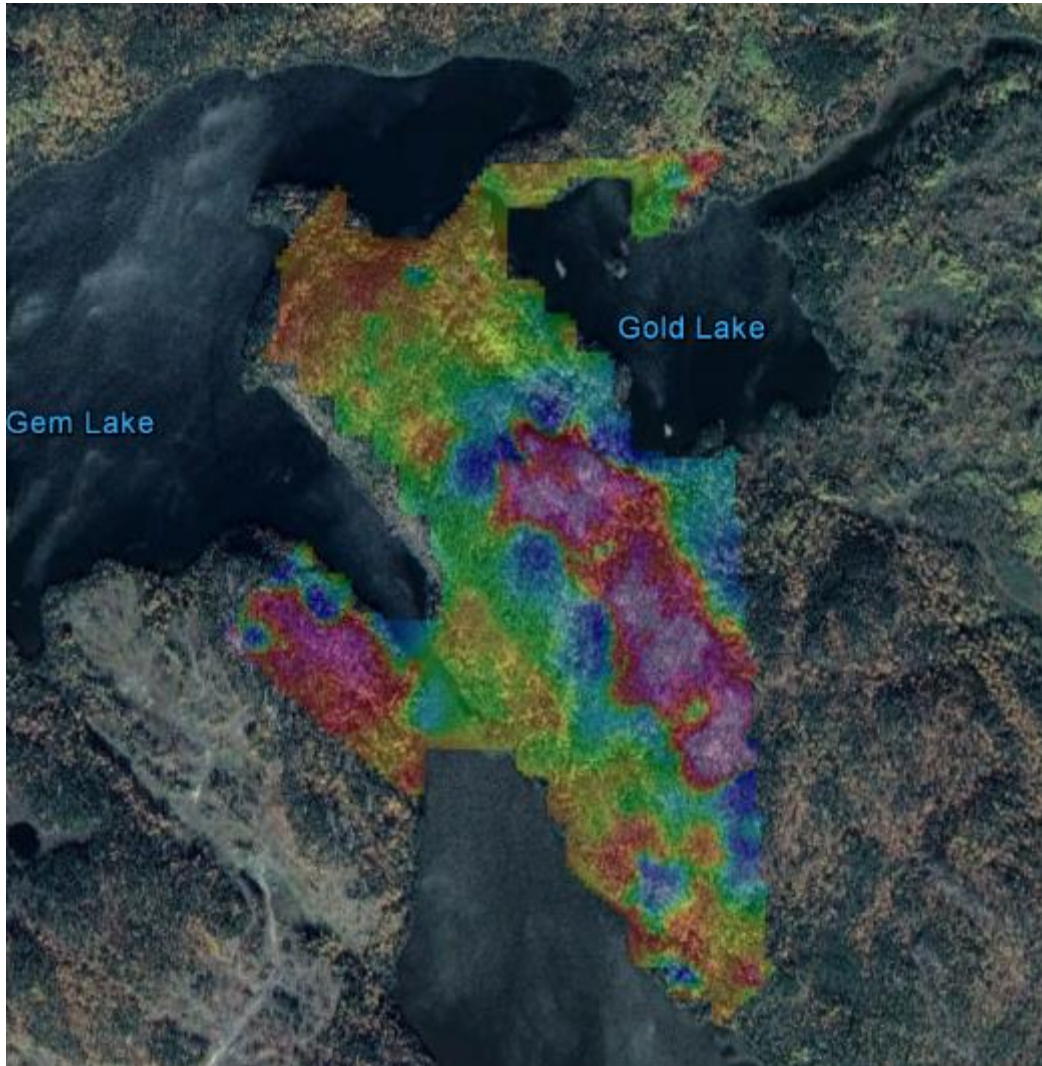
The survey was conducted with a GSM-19 v7 Overhauser magnetometer/VLF with a second GSM-19 magnetometer for a base station mode for diurnal correction.

A total of 11.2625-line kilometers of magnetometer and VLF EM was read over the Lucky Strike Property between May 30 and July 05, 2017. This consisted of 901 magnetometer samples taken at a 12.5 meters sample interval.



### 3. OVERVIEW OF SURVEY RESULTS

#### 3.1 SUMMARY



*Figure 3: Magnetometer Plan of Lucky Strike on Google Earth*

No culture was noted during the survey process. The crews found the survey challenging because of the rugged terrain.

The magnetometer survey indicates the property is most likely underlain by two different magnetic units. The primary magnetic unit appears as the background magnetics for the survey area. There is a slight variation in the magnetic signature from the north side of the survey area to the south side. This may represent various units in a volcanic pile.

Within this neutral magnetic unit appears a region of intense magnetic signature. This signature appears to be related to an intrusive system such as a gabbro. A

second similar intrusive signature appears on the south shore of Gem Lake.

A linear magnetic low appears within the intrusive signature. This low most likely represents a structural feature resulting in the depletion of magnetite.

The VLF survey returned weak signals for various frequencies over the survey. The final VLF profiles were generated from an amalgamation of frequencies 24.0 (NAA), 24.8 (NLK) and 25.2 (NML). Because of the various coupling directions, each profile was plotted and compared to the remainder. From this exercise, no VLF signatures of note were identified.

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## 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 **New Found Gold Corp.**
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  
July 11<sup>th</sup>, 2017

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## 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 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 kilometers 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. 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 aerials 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](http://www.garmin.com)*

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## **APPENDIX D**

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

Magnetometer Plan Map (1:2500)

- 1) Q2345-NEW FOUND GOLD-LUCKY STRIKE-Mag-Cont

VLF EM Plan Map (1:2500)

- 2) Q2345-NEW FOUND GOLD-LUCKY STRIKE-VLF

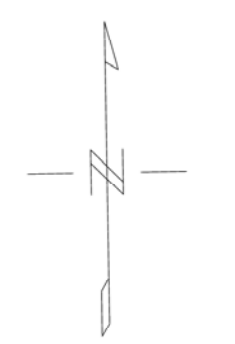
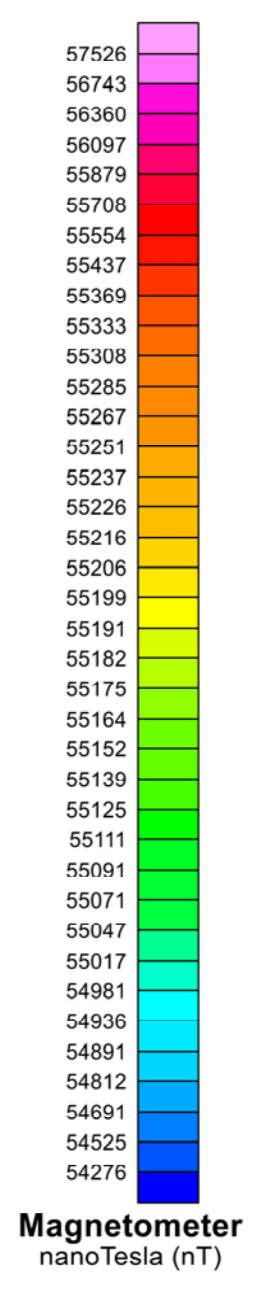
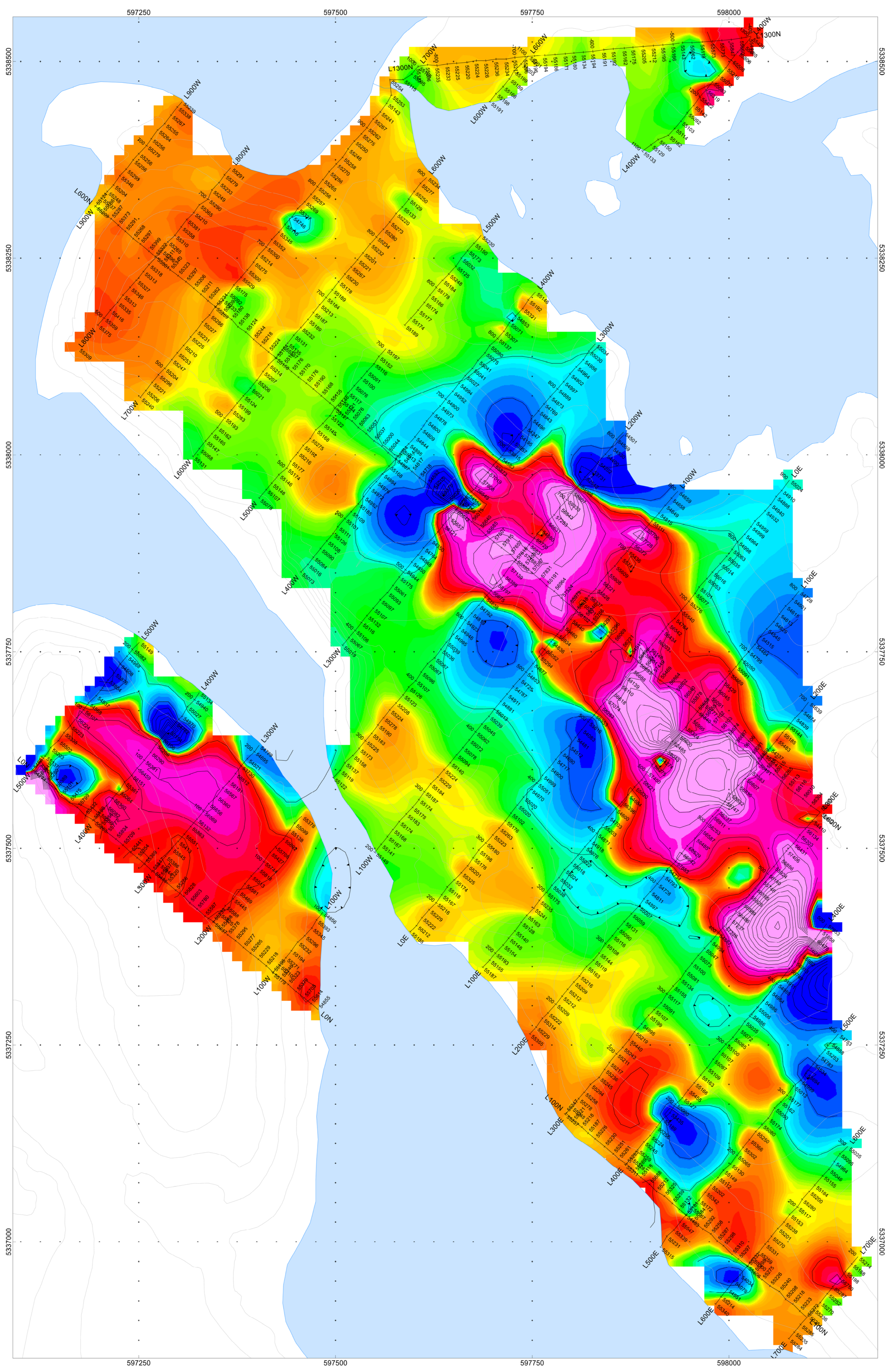
Interpretation Plan Map (1:2500)

- 3) Q2345-NEW FOUND GOLD-LUCKY STRIKE-INTERP

Claim Map with Magnetic Traverses (1:20000)

- 4) Q2345-NEW FOUND GOLD-LUCKY STRIKE-Traverses

**TOTAL MAPS = 4**



**NEW FOUND  
GOLD CORP.**

**LUCKY STRIKE PROPERTY**  
McVittie and Katrine Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP  
Base Station Corrected

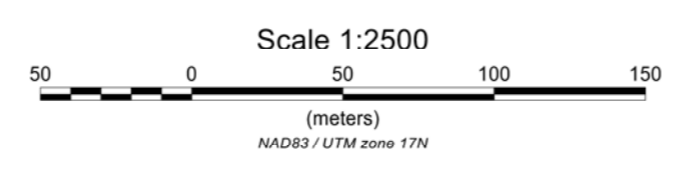
Posting Level: 0nT  
Field Inclination/Declination: 74degN/12degW  
Station Separation: 12.5 meters  
Total Field Magnetic Contours: 500nT

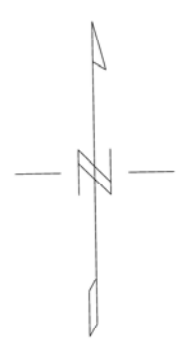
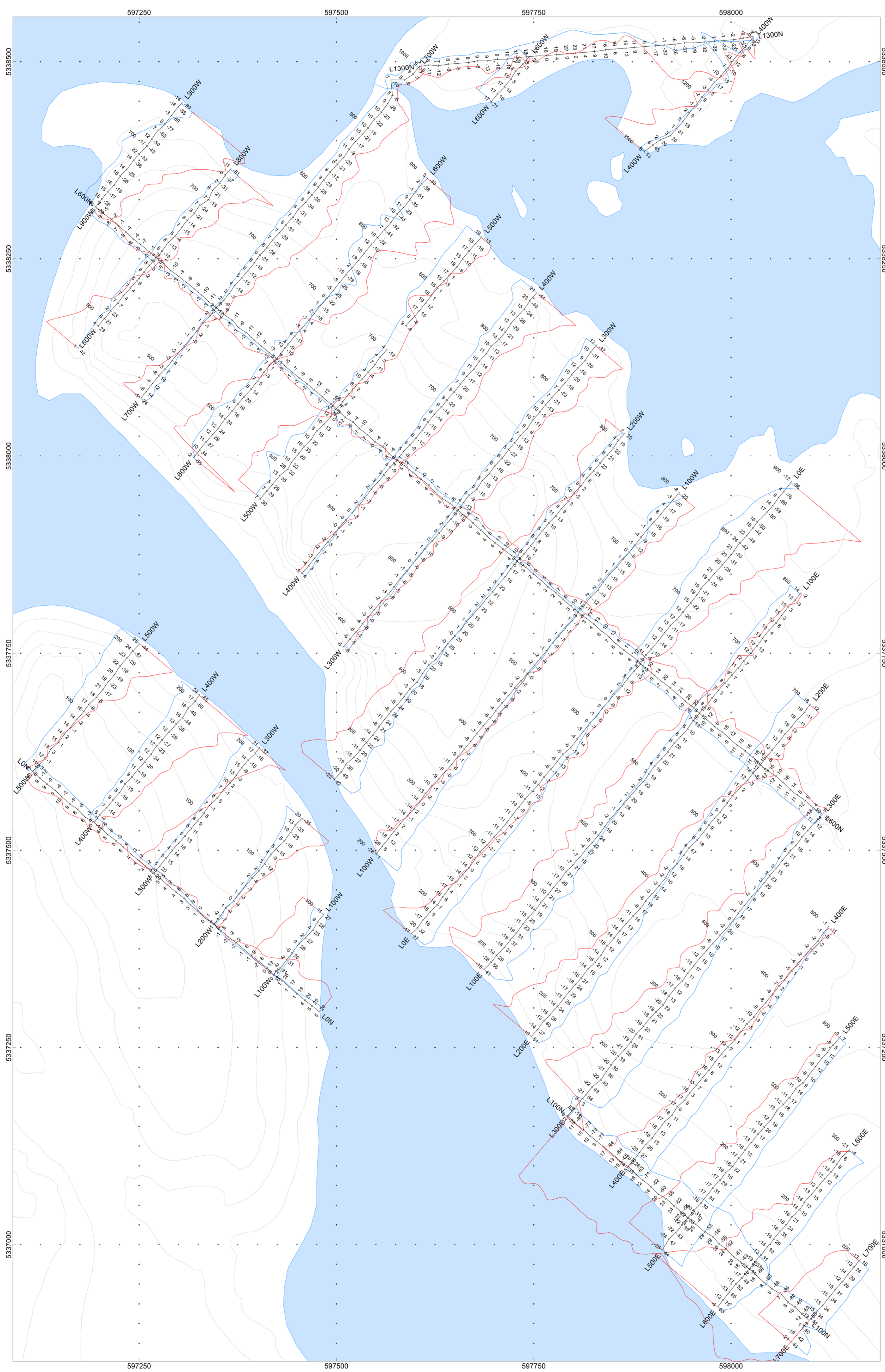
GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Operated By: Patrick McGuinty, Kevin Gerard  
GPS Operated By: Bruce Lavalley, Liam Sullivan  
Processed by: C Jason Ploeger, P.Geo.  
Map Drawn By: C Jason Ploeger, P.Geo.  
July 2017



Drawing: Q2345-NEW FOUND GOLD-LUCKY STRIKE-MAG-CONT





## NEW FOUND GOLD CORP.

### LUCKY STRIKE PROPERTY McVittie and Katrine Township, Ontario

VLF IN PHASE/OUT PHASE PROFILE  
 24.0kHz NAA - Seattle USA  
 24.8kHz NLK - Cutler USA  
 25.2kHz NML - LaMour USA

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

Vertical Profile Scales: 2.5 %/mm

Station Separation: 12.5 meters  
 Posting Level: 0

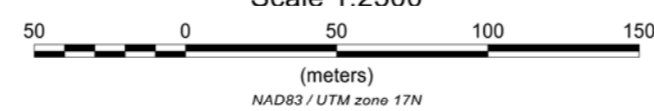
GSM-19 VLF v7

Operated By: Patrick McGuinty, Kevin Gerard  
 GPS Operated By: Bruce Lavalley, Liam Sullivan  
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 Map Drawn By: C Jason Ploeger, P.Geo.  
 July 2017

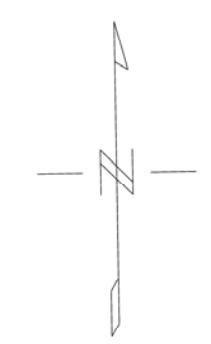
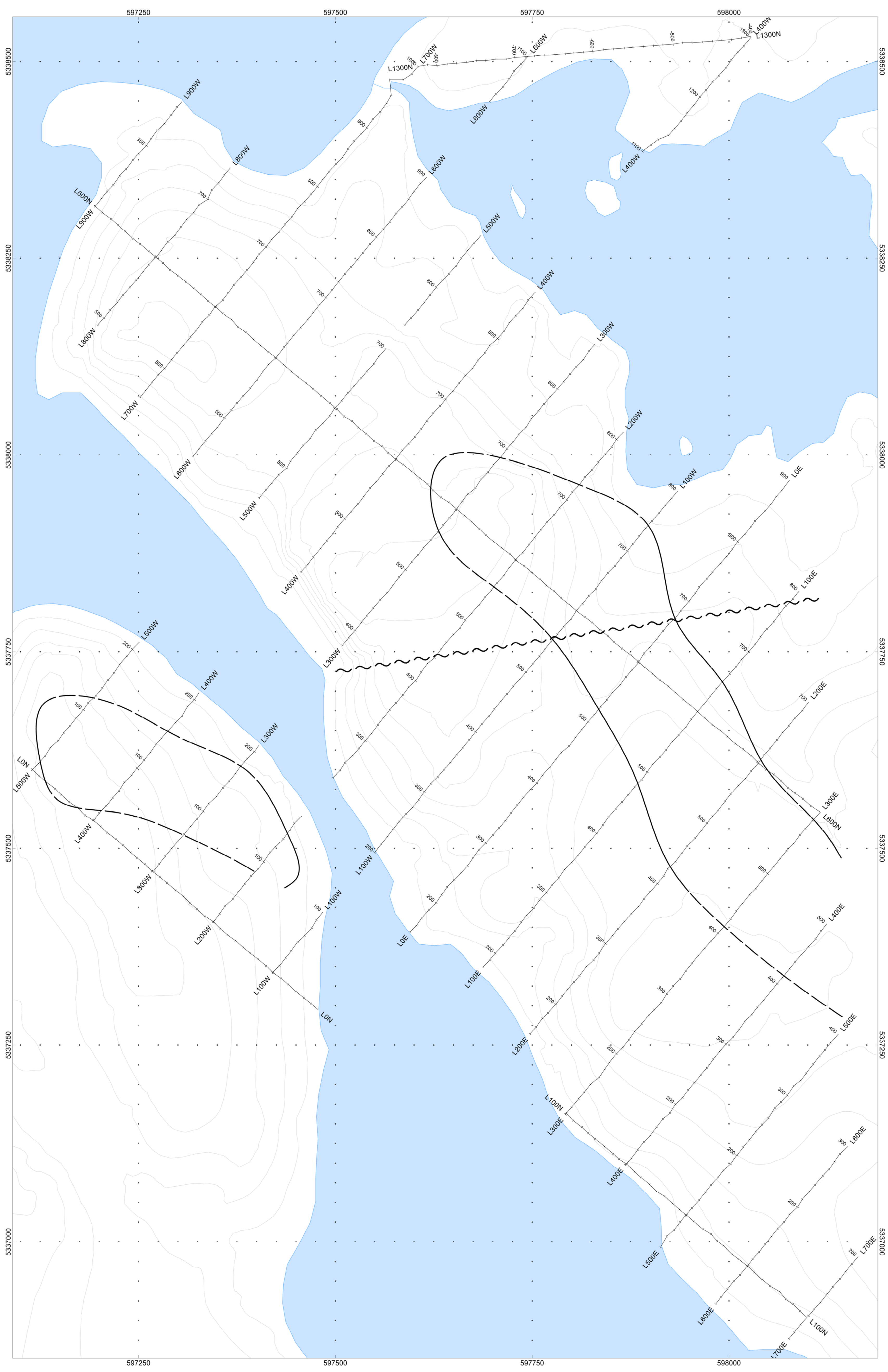



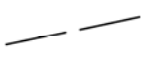
Drawing: Q2345-NEW FOUND GOLD-LUCKY STRIKE-VLF

Scale 1:2500



(meters)  
 NAD83 / UTM zone 17N



 Interpreted Structure  
 Interpreted Magnetic Contact

**NEW FOUND GOLD CORP.**

**LUCKY STRIKE PROPERTY**  
 McVittie and Katrine Township, Ontario

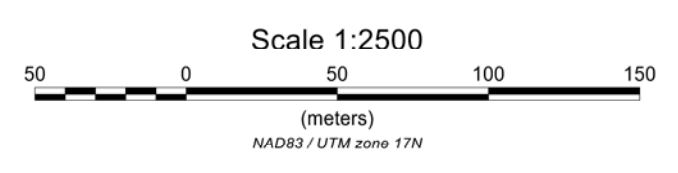
INTERPRETATION PLAN MAP

GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Operated By: Patrick McGuinty, Kevin Gerard  
 GPS Operated By: Bruce Lavalley, Liam Sullivan  
 Processed by: C Jason Ploeger, P.Geo.  
 Map Drawn By: C Jason Ploeger, P.Geo.  
 July 2017



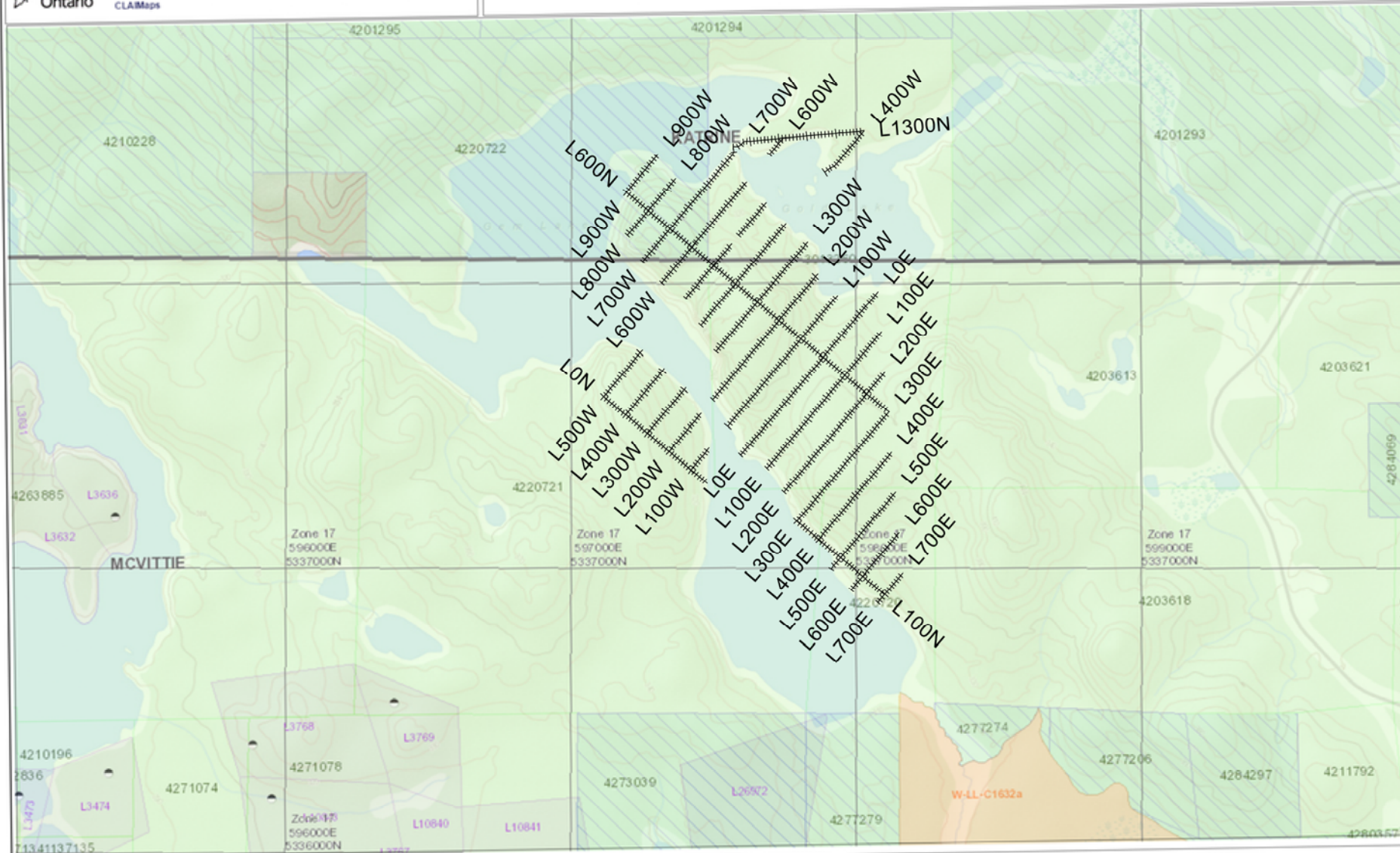
Drawing: Q2345-NEW FOUND GOLD-LUCKY STRIKE-INTERP





# Lucky Strike

Notes: Enter map notes



## Legend

- Administration Boundaries**
- Wiring Districts
  - Resident Geographical District
  - Townships and Areas
  - Water Grid
  - Geographic Lot Fabric
  - Other Federal Land
- Mineral Tenure Grid**
- 2010 Tenure Grid
- Alterations**
- Withdrawal
  - Notice
- Unpatented Claim**
- Active
  - Recorded
  - Pending
  - Disposition
- Disposition Symbols**
- 2: Core
  - 7: Disposition Unknown/Pending
  - 5: Freehold Patent Mining Rights Only
  - 6: Freehold Patent Surface Rights Only
  - 8: Freehold Patent Surface and Mining Rights
  - 9: Land Use Permit
  - 10: Leasehold Patent Mining Rights Only
  - 11: Leasehold Patent Surface Rights Only
  - 12: Leasehold Patent Surface and Mining Rights
  - 13: License of Occupation Mining Use Only
  - 14: License of Occupation Surface Use Only
  - 15: License of Occupation Surface and Mining Rights
  - 16: License of Occupation Uses Not Specified
  - 17: OMLA
  - 18: Order in Council
  - 19: Tower
  - 20: Other
- Geology Layers**
- AMS Sites
  - AMS Features
  - Drill Holes
  - Mineral Occurrences



Projection: Web Mercator



The Ontario Ministry of Northern Development and Mines shall not be liable in any way for the use of, or reliance upon, this map or any information on this map. This map should not be used for: navigation, a plan of survey, routes, nor locations.

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