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# **SKEAD HOLDINGS LTD.**

## **Magnetometer Survey Over the Cunningham Property**

### **Cunningham Township, Ontario**

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## 1. SURVEY DETAILS

### 1.1 PROJECT NAME

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

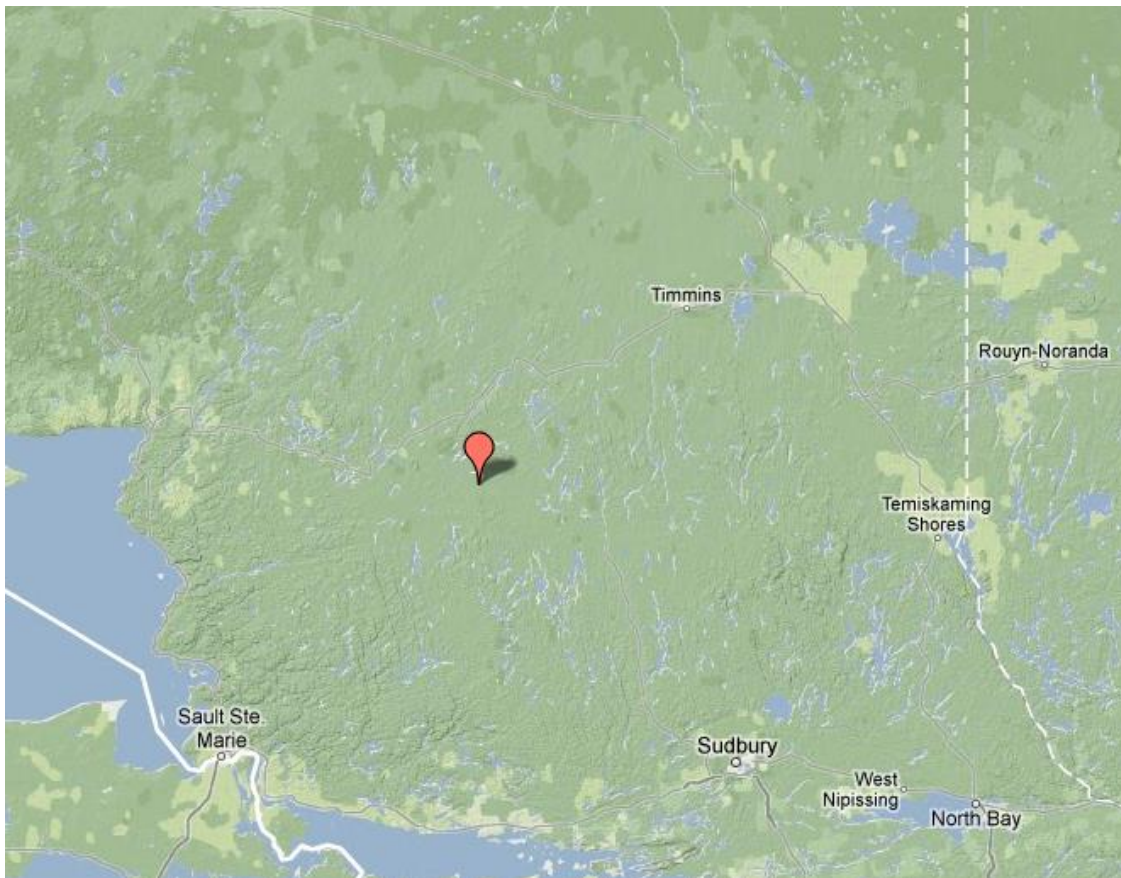
### 1.2 CLIENT

SKEAD HOLDINGS LTD.

28 Ford St.  
Sault Ste. Marie, Ontario  
P6A 4N4

### 1.3 LOCATION

The Cunningham Property is located in Cunningham Township approximately 10km northeast of Sault, Ontario. The survey area covers claim numbered 4260803, 4259264 and 4284299, within the Porcupine Mining Division.



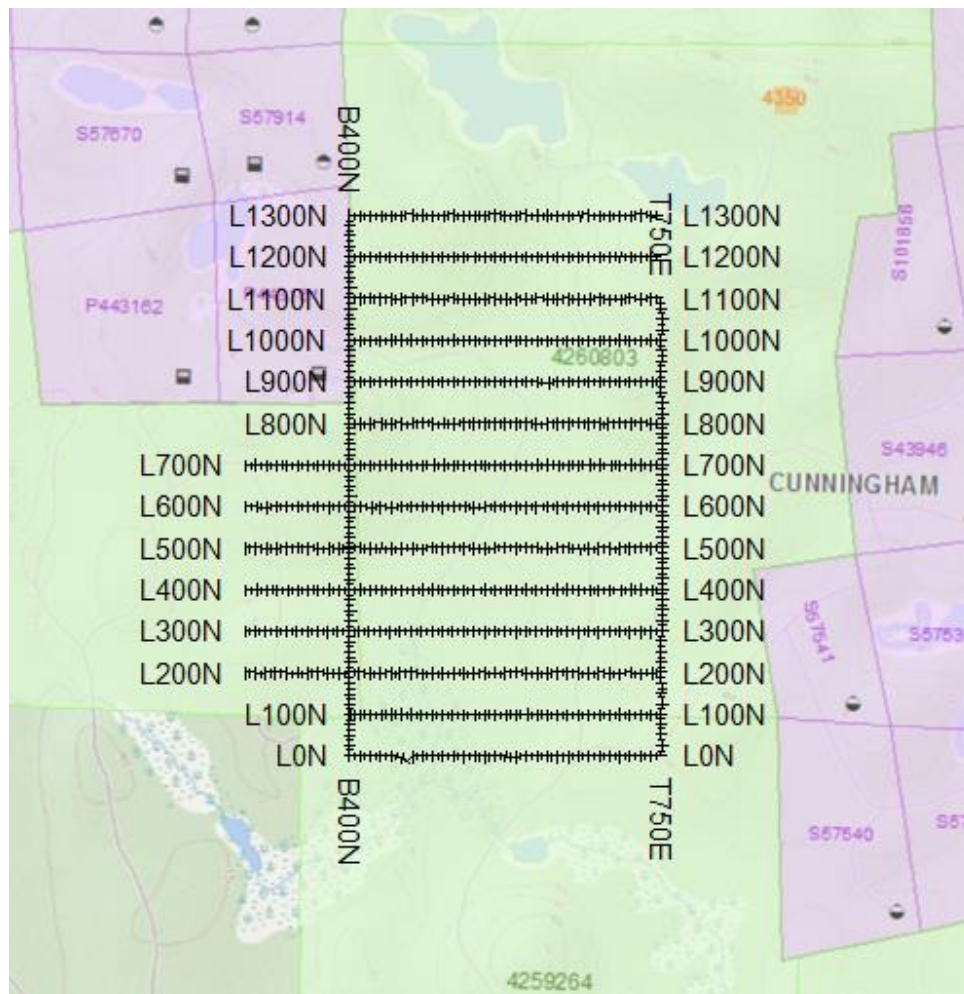
**Figure 1: Location of the Cunningham Property**

## 1.4 ACCESS

Access to the property was attained with a 4x4 truck by travelling on Highway 129 for approximately 28 km from the Town of Chapleau the taking Regional Rd 667 for approximately 47km. From that point, ATV's were used to travel for an additional 20km north and east on a series of old logging roads to the beginning of the property.

## 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 and magnetic 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 Cunningham Property Traverses**

## 2. SURVEY WORK UNDERTAKEN

### 2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
May 13, 2016	Locate survey area and clear access. Begin survey.	0N	0	750E	750
		100N	0	750E	750
		200N	250W	750E	1000
		300N	250W	750E	1000
		0E	0N	500N	500
		400E	0N	300N	300
May 14, 2016	Continue magnetic survey.	400N	250W	750E	1000
		500N	250W	750E	1000
		600N	250W	750E	1000
		700N	250W	750E	1000
May 15, 2016	Complete magnetic survey.	800N	0	750E	750
		900N	0	750E	750
		1000N	0	750E	750
		1100N	0	750E	750
		1200N	0	750E	750
		1300N	0	750E	750
		0E	500N	1300N	800
		750E	800N	1100N	300

**Table 1: Survey Log**

### 2.2 PERSONNEL

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

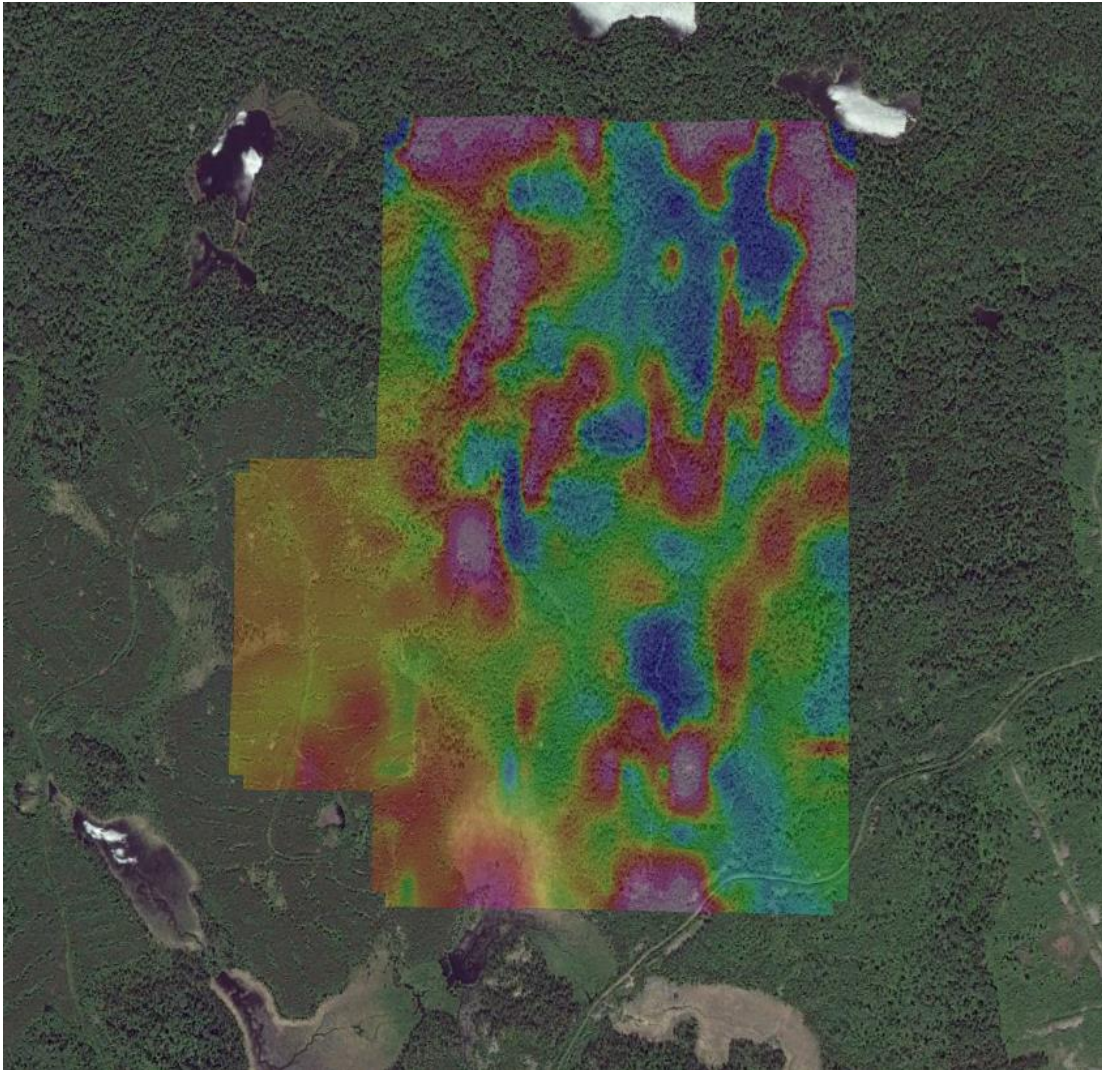
### 2.3 SURVEY SPECIFICATIONS

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

A total of 13.9 line kilometers of magnetometer was read over the Cunningham Property between May 13<sup>th</sup> and May 15<sup>th</sup>, 2016. This consisted of 1112 magnetometer samples taken at a 12.5m sample interval.

### 3. OVERVIEW OF SURVEY RESULTS

#### 3.1 SUMMARY INTERPRETATION



**Figure 3: Google Image with Magnetic Overlay**

The survey area exhibits intense variations in the magnetic field. The signatures tend to indicate a series of intensely magnetic units striking across the property at approximately 30 degrees. The strength of these signatures indicate that the source of these may be an iron formation.

The magnetometer crew indicated the presence of several trenches in the north-east part of the survey area. They also noted two diamond drill holes located at 374493E / 5286829N and 374620E / 5286722N. This area appears intensely magnetic and broad and this may represent a mineralized area. I would recommend researching the historic drilling, which may assist in identifying the source of this anomaly.

I would also recommend cutting a grid and performing a follow-up program. This program should include: geology, MMI Survey and an IP Survey.

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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 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 **Skead Holdings 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  
May 20, 2016



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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.

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**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.

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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

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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)**

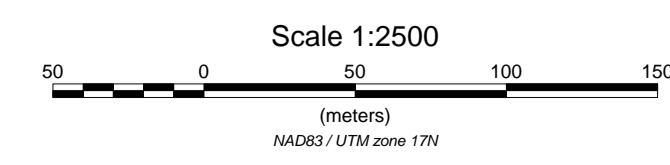
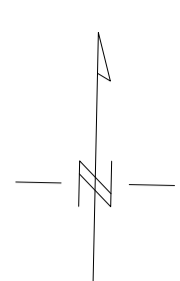
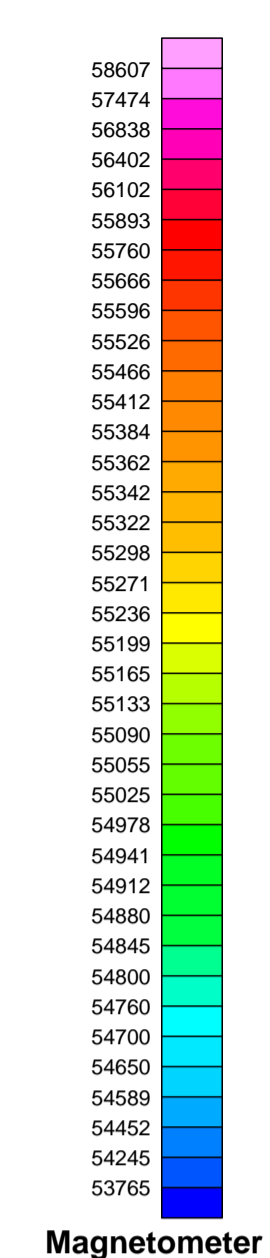
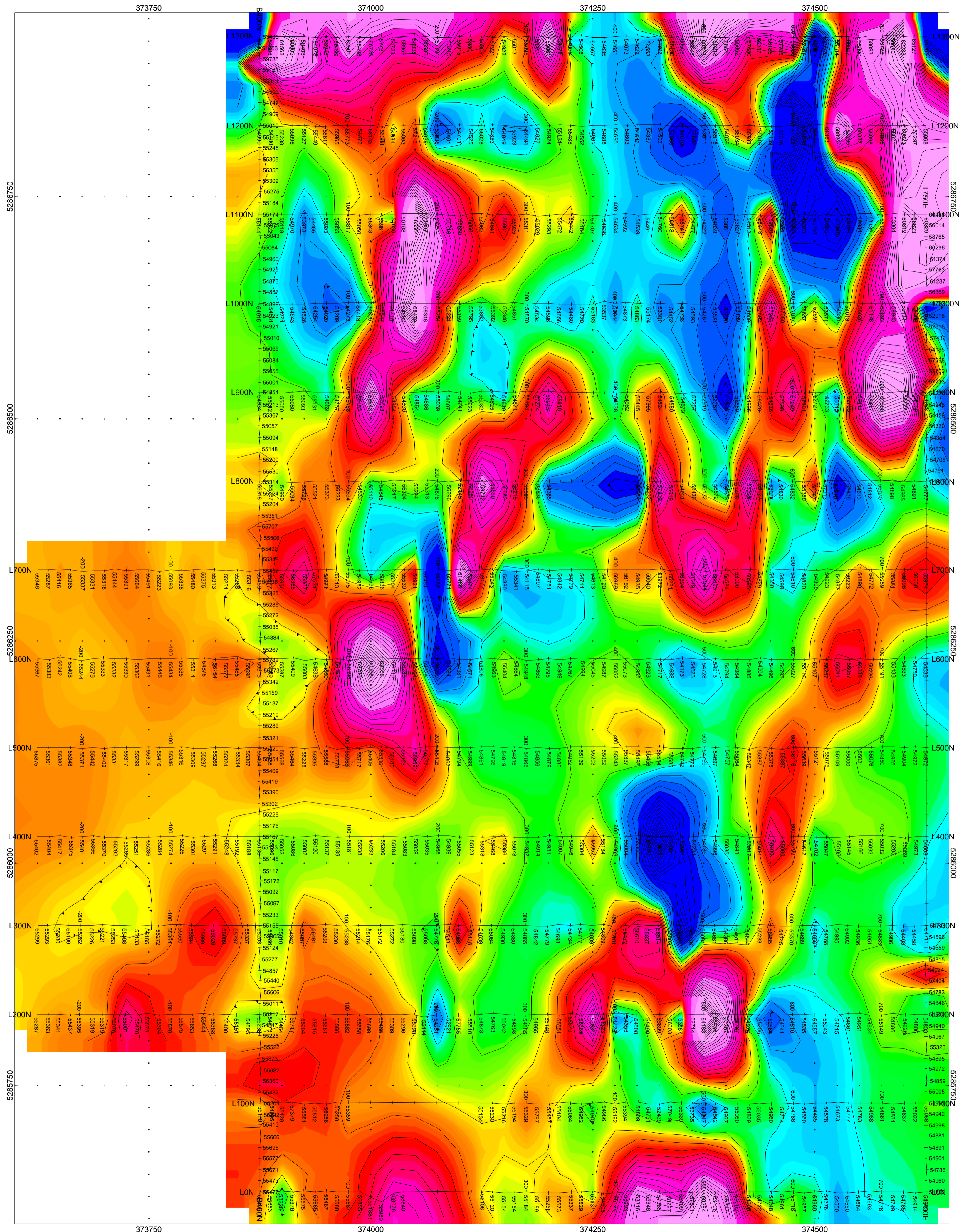
Posted contoured TFM plan map (1:2500)

- 1) Q2141-SKEAD-CUNNINGHAM- MAG-CONT

Claim Map with Magnetic Traverses (1:20000)

- 2) Q2141-SKEAD-CUNNINGHAM-TRAVERSE

**TOTAL MAPS = 2**



**SKEAD HOLDINGS LTD.**  
**CUNNINGHAM PROPERTY**  
 Cunningham Township, Ontario

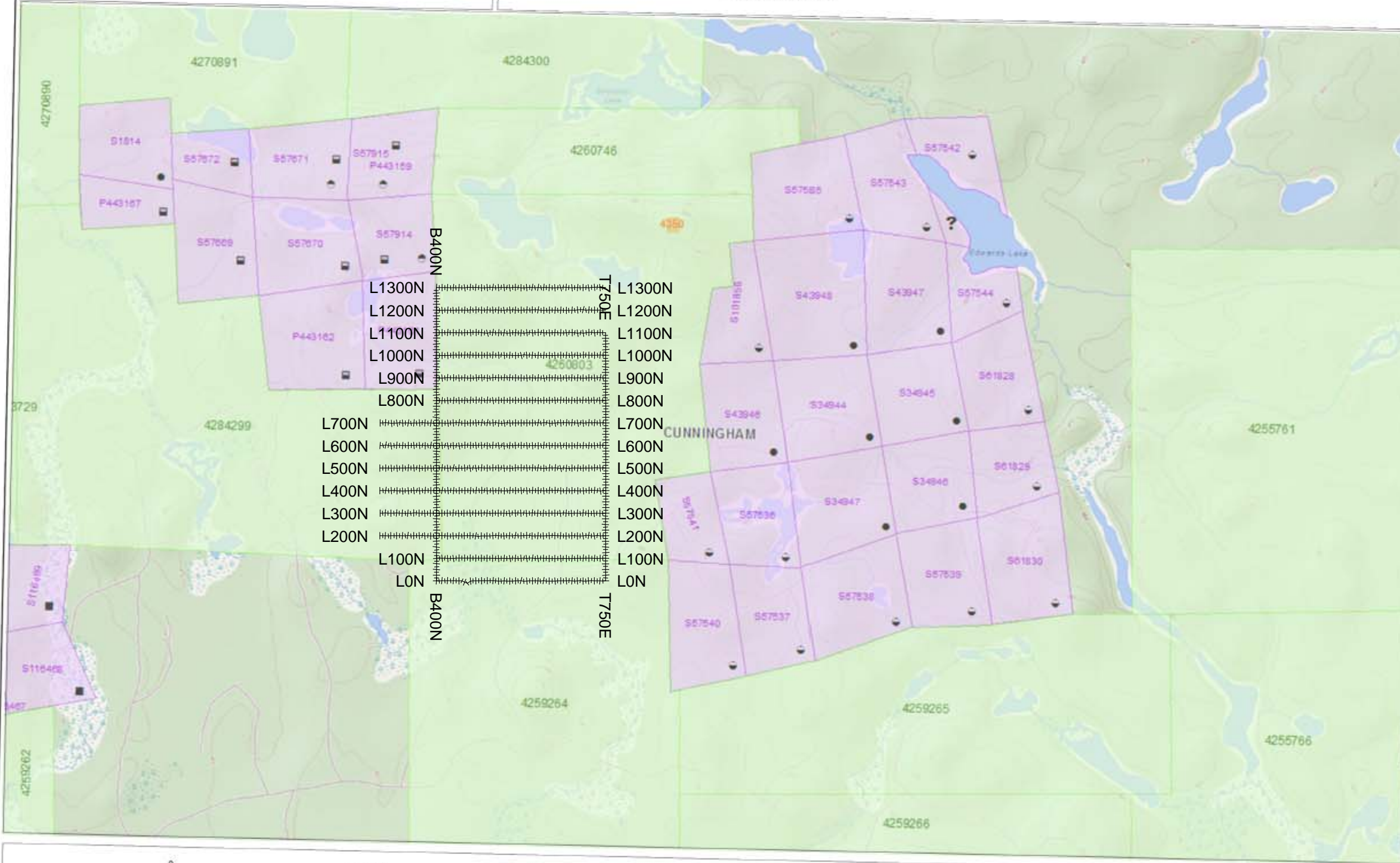
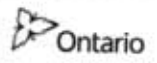
TOTAL FIELD MAGNETIC CONTOURED PLAN MAP  
 Base Station Corrected  
 Posting Level: 0nT  
 Field Inclination/Declination: 74degN/12degW  
 Station Separation: 12.5 meters  
 Total Field Magnetic Contours: 250nT

GSM-19 OVERHAUSER MAGNETOMETER v7

Receiver Operated By: Claudia Moraga  
 GPS Operated By: Bruce Lavalley  
 Processed by: Jason Ploeger  
 Map Drawn By: C Jason Ploeger, PGeo  
 May 2016







### Legend

**Administration Boundaries**

- Mining Division
- Resident Geological District
- Townships and Areas

**Mineral Tenure Grid**

- OMTO Tenure Grid

**Alienations**

- Withdrawal
- Stake

**Unpatented Claim**

- Active
- Pending

**Disposition**

- Disposition

**Disposition Symbols**

- Camp
- Disposition Unknown/Ending
- Freehold Patent Mining Rights Only
- Freehold Patent Surface Rights Only
- Freehold Patent Surface and Mining Rights
- Land Use Permit
- Leasehold Patent Mining Rights Only
- Leasehold Patent Surface Rights Only
- Leasehold Patent Surface and Mining Rights
- License of Occupation Mining Use Only
- License of Occupation Surface Use Only
- License of Occupation Surface and Mining Rights
- License of Occupation Use Not Specified
- Order in Council
- Trees
- WFLA

**Geology Layers**

- AMIS Sites
- AMIS Features
- Drill Holes
- Mineral Occurrences



Projection: Web Mercator

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