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CANADIAN EXPLORATION SERVICES LTD

KNIGHTSBRIDGE EXPLORATION LTD.

Q2736 – North Wind Property Magnetometer and VLF EM Surveys

C Jason Ploeger, P.Geo.

March 26, 2020

KNIGHTSBRIDGE EXPLORATION LTD.

Abstract:

Canadian Exploration Services Limited (CXS) was contracted to perform a walking magnetometer and VLF EM survey over the North Wind Property to target a previously determined airborne magnetic and EM anomaly.

The ground magnetic and VLF EM surveys successfully identified anomalous regions within the survey area. Three magnetic anomalies with proximal VLF anomalies may represent mineralized systems that should be investigated further.

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1. SUMMARY

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 OVERVIEW

CXS was contracted to perform a Magnetometer and VLF EM survey over a portion of the North Wind Property. A total of 19.65-line kilometres of Magnetometer and VLF EM samples was read over the North Wind Property between December 12 to December 16, 2019. This consisted of 786 magnetometer and VLF EM samples taken at a 25-metre interval.

1.4 OBJECTIVE

Historically, a VTEM survey had been flown which indicated numerous anomalous magnetic and conductive features. The magnetometer and VLF EM surveys were designed to ground locate magnetic and conductive responses from the VTEM survey.

Survey/Physical Activity	Dates	Total Days in Field	Total Line Kilometres
Magnetometer	December 12, 2019 – December 16, 2019	5	19.65
VLF EM	December 12, 2019 – December 16, 2019	5	19.65

1.5 SURVEYS & PHYSICAL ACTIVITIES UNDERTAKEN

Table 1: Survey & Physical Activity Details Undertaken



1.6 SUMMARY OF RESULTS, CONCLUSIONS & RECOMMENDATIONS

The ground magnetic and VLF EM surveys successfully identified anomalous regions within the survey area. Three magnetic anomalies with proximal VLF anomalies may represent mineralized systems that should be investigated further.

1.7 CO-ORDINATE SYSTEM

Projection: UTM zone 17N Datum: NAD83 UTM Coordinates near center of grid: 474000 Easting and 5272300 Northing



2. SURVEY LOCATION DETAILS

2.1 LOCATION

The North Wind Property is located approximately 10 km northwest of Shining Tree, Ontario.



Figure 1: Location of the North Wind Property (Map data ©2020 Google)

2.2 ACCESS

Access to the property was via a 4x4 pickup truck and ATVs. The crew was based near the intersection at Highway 144 and Sultan Industrial Road. Highway 560 was driven east for approximately 25 kilometres. Approximately 16km west of the town of Shining Tree, Ontario, a forestry access road was travelled north for an additional 19 kilometres to a point where the survey area crossed the road.

2.3 MINING CLAIMS

The survey area covers a portion of mining claims located in Connaught Township, within the Larder Lake Mining Division. The property is owned by Knightsbridge Exploration Ltd. The details of these claims are in the table below.





Cell Number	Cell Type	Ownership of Land	Township
154739	Claim	Knightsbridge Exploration Ltd.	Connaught
266629	Claim	Knightsbridge Exploration Ltd.	Connaught
176503	Claim	Knightsbridge Exploration Ltd.	Connaught
278416	Claim	Knightsbridge Exploration Ltd.	Connaught
163121	Claim	Knightsbridge Exploration Ltd.	Connaught
163122	Claim	Knightsbridge Exploration Ltd.	Connaught
222421	Claim	Knightsbridge Exploration Ltd.	Connaught
338036	Claim	Knightsbridge Exploration Ltd.	Connaught
278415	Claim	Knightsbridge Exploration Ltd.	Connaught
104459	Claim	Knightsbridge Exploration Ltd.	Connaught
549538	Claim	Knightsbridge Exploration Ltd.	Connaught
549539	Claim	Knightsbridge Exploration Ltd.	Connaught
549537	Claim	Knightsbridge Exploration Ltd.	Connaught

Table 2: Mining Land Cells Information



KNIGHTSBRIDGE EXPLORATION LTD.

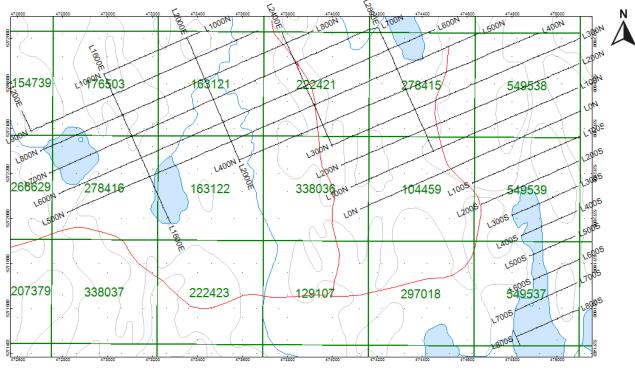


Figure 2: Operational Claim Map with Survey Grid

2.4 PROPERTY HISTORY

Significant historical exploration has been carried out over the years all over the survey area. The following list describes details of the previous geoscience work which was collected by the Mines and Minerals division and provided by OGSEarth (MNDM & OGSEarth, 2018).

1956: Montgarry Expl Ltd (File 41P14NW0441) Airborne Geophysics, Ground Geophysics and Geological Survey – Connaught Township

On October 3rd, 1956 an airborne magnetic survey was carried out near Burns Lake, Connaught Township. Then from November 2nd to 11th, 1956 an electromagnetic ground survey was carried out near the Burns Lake property for Montgarry Explorations Limited.

 1975: Texasgulf Canada Ltd. (File 41P11SW0041) Ground Geophysics – Connaught Township Conducted surveys consisting of proton precession mage

Conducted surveys consisting of proton precession magnetometer and horizontal loop electromagnetic traverses were performed over this group of six contiguous claims.

1980: Patino Mines (Quebec) Ltd (File 41P11NW0419)
 Ground Geophysics – Connaught Township

Two geophysical surveys (Magnetometer and Electromagnetic) occurred near



Shining Tree Ontario, to try and identify anomalies associated with economic ore bodies.

- 1981: Patino Mines (Quebec) Ltd (File 41P11NW0417)
- Geochemical Sampling, Diamond Drilling and Geological Surveying Connaught Township

During the summer of 1980 line cutting and subsequent electromagnetic and magnetic surveys were carried on a property optioned to Patino Mines (Quebec) Limited. During the latter half of September 1980, a geological survey was carried out over the previously cut lines spaced at 400-foot intervals oriented roughly north-south.

• 1981: Texasgulf Canada Ltd. (File 41P11NW0406) Ground Geophysics – Connaught Township

Geophysical surveys consisting of proton procession magnetometer, horizontal loop electromagnetic and VLF electromagnetic traverses were run over five groups of claims.

• 1983: 117455 Canada Ltd. (File 41P11SW0035) Ground Geophysics – Connaught Township

During August 1983, a grid was cut over the property and subsequent EM-16 and magnetometer surveys were conducted by NAREX Ore Search Consultants Inc.

 1983: 117455 Canada Ltd. (File 41P11SW0036) Geochemical Sampling and Geological Surveying – Connaught Township During August 1983, a grid was cut over the property and subsequent EM-16 and magnetometer and geological surveys were conducted by NAREX Ore Search Consultants Inc.

 1984: Manwa Expl Services Ltd (File 41P11NE0464) *Airborne Geophysics – Cabot Township* An electromagnetic/resistivity/magnetic/VLF survey totalling 812 line-km was flown with a 200m line-spacing for Manwa Exploration Services Ltd., from Au- gust 4th to August 11th, 1984 over three blocks in the Shining Tree area of On-tario.

• 1984: Narex Ore Search Consultants (File 41P11NW8518) Airborne Geophysics – Connaught Township

Survey was conducted near Shining Tree, Ontario. It was flown on April 9th and April 10th, 1984. A total of 516-line kilometres and 72-line kilometres of data were collected at line spacings of 150 and 200 metres, respectively.

• 1988: Actuate Resc Ltd. (File 41P11SW0034) Ground Geophysics – Connaught Township

From September 24th, 1988, a total of 54.5-km of magnetic data was collected over a block of 42 contiguous claims around Elephant Head Lake.



- 1991: Trinity Explorations (File 41P14NE0204) *Airborne Geophysics – Connaught Township* On February 18th, 1991 airborne magnetic and VLF-electromagnetic surveys were completed on the Shining Tree Prospect of Trinity Explorations in Con- naught Township. Magnetic and VLF-electromagnetic data was collected by airborne division of H. Ferderber Geophysics Ltd.
- 1994: Trinity Explorations (File 41P11SW8602–41P11SW0006) Ground Geophysics, Geochemical Sampling, Geological Surveying, Prospecting and Line Cutting – Connaught Township The work program completed in the fall of 1993 on the Elephant Head Lake Prospect and consisted of line cutting (mid-October 1993), prospecting and sampling (early November 1993), a magnetic survey (mid-November 1993), a VLF-E.M. survey (mid-Novemeber 1993), geological mapping and sampling (late November 1993) and a Max-Min survey (late November 1993).
- 1997: Anglaumaque Expl Inc (File 41P11SW0033) Ground Geophysics and Line Cutting – Connaught Township Geophysical surveys, including electromagnetic HEM, electromagnetic V.L.F. and magnetic surveys, were performed for Anglaumaque Exploration Inc near Shining Tree Ontario. This occurred from April 10th to 18th, 1997.
- 2008: Ashley Gold Mines Limited, Sedex Mining Corp (File 20000005923) Airborne Geophysics – Cabot Township

During March 9th to March 17th, 2008 Geotech Ltd. carried out a helicopterbased geophysical survey for Slocan Minerals Corp. over the Elephant block near Shining Tree, Ontario, Canada. The survey utilized a VTEM system and a cesium magnetometer.

- 2008: Ashley Gold Mines Limited (File 20000005502) Overburden Stripping – Connaught Township
 A total of 2 strippings were completed on the Elephant Head property. These
 strippings were mapped and sampled for analysis. This was to provide a better
 understanding of the surrounding bedrock and allow for follow-up programs.
- 2008-2009: Creso Resc Inc, Terraquest Ltd. (File 20000004462) Diamond Drilling, Airborne Geophysics and Geochemical sampling – Fawcett Township

An airborne geophysical survey (Aeromagnetic, VLF-EM and Radiometric) was carried out from January 17th to February 7th, 2008. The survey consists of three rectangular blocks that are near Shining Tree, Ontario.

• 2010: Creso Resources Inc, Plantinex Inc (File 20000005813) Diamond Drilling – Macmurchy Township

Three drill holes were drilled for 1003 metres to assess northerly trending



geophysical, geological and structural features and a ground stripping, sampling program initiated to assess historical Au occurrences.

 2014: Knightsbridge Exploration Ltd. (File 20000014243–20000014812) Line Cutting – Connaught Township

The rehabilitation was performed to further define the boundaries. Due to the harsh environment and previous forestry activities the claim lines required rehabilitation.

 2014: Knightsbridge Exploration Ltd. (File 20000014811) Ground Geophysics – Connaught Township
 A total of 4.75 km of no grid spectrometer was performed on September 22, 2014 with 0.25 km of this occurring on crown land. This consisted of 2176 HFR and LFR samples taken at 1 second intervals.

• 2014: Knightsbridge Exploration Ltd. (File 2000008552) Ground Geophysics – Connaught Township

A total of 4.75 km of no grid spectrometer was performed on September 22, 2014 with 0.25 km of this occurring on crown land. This consisted of 44 uranium, thorium and potassium assays taken at 100 m sample interval.

 2015: Knightsbridge Exploration Ltd. (File 20000008620–20000008593) Ground Geophysics – Connaught Township A total of 10.150 km of VLF EM and magnetometer was read over the North

Wind Property on March 17th and 18th, 2015. This consisted of 812 VLF EM and magnetometer samples taken at a 12.5 m sample interval.

• 2015: Knightsbridge Exploration Ltd. (File 20000014244–20000014245) Ground Geophysics – Connaught Township

A total of 7.825 km of Magnetometer and VLF EM was read over the North Wind Property on May 29th and 30th, 2015. This consisted of 626 magnetometer samples taken at a 12.5 m sample interval.

- 2016: Knightsbridge Exploration Ltd. (File 20000014246–20000015090) Ground Geophysics – Connaught Township
 A total of 23.0625 km of VLF EM and Magnetometer was read over the North Wind Property between May 16th and 20th, 2016. This consisted of 1845 VLF EM and Magnetometer samples taken at a 12.5 m sample interval.
- 2017: Knightsbridge Exploration Ltd. (File 20000013723) Ground Geophysics – Connaught Township
 A total of 20.3 km of VLF EM survey was performed in mid March 2017. Multiple
 targets of VLF EM response were noted with further geophysical follow-up rec ommended.



2.5 GENERAL REGIONAL/LOCAL GEOLOGICAL SETTINGS

The Elephant Head Lake Prospect is in the southwestern portion of the Abitibi Greenstone Belt. The Abitibi greenstone belt itself is located within the Abitibi Sub province of the Canadian Shield. It is one of largest greenstone belts in the world extending 500 km from Chibougamou, Quebec (northeast) to Timmins, Ontario (west). The greenstone belt also has some unique characteristics such as having a high ratio of supracrustal rocks to intrusive rocks, high diversity of mineral deposits and low metamorphic grade.

The Timmins–Kirkland Lake–Rouyn Noranda area forms a large east trending synclinorium (Jensen, 1985) that extends between the Lake Abitibi and Round Lake batholiths. Both limbs of the synclinorium are cut by large scale geological features, the Destor-Porcupine Fault Zone to the north and the Kirkland Lake-Larder Lake fault Zone to the south.

The Shining Tree area is bounded to the northwest by the Togo Batholith, to the southwest by the Miramichi granitoid complex and to the east by the unconformably overlying Paleoproterozoic rocks of the Huronian Supergroup. Consolidated rocks in the Shining Tree area are of the Precambrian age (Carter, 1980).

The metavolcanic sequence commences with felsic (rhyolites) rocks followed by a younger cycle of mafic (tholeiitic) rocks, then finishes with pyroclastic rocks, interlayered sediments and felsic volcanic rocks.

Mafic intrusive rocks consist of quartz gabbro, olivine gabbro, and diorite. Felsic intrusive rocks are composed of syntectonic batholiths (quartz monzonite, granodiorite and trondjhemite) and tectonic stocks (massive to porphyritic quartz diorite, trondjhemite, syenodiorite and diorite).

Middle Precambrian rocks consist of chemical (limestone) and clastic sedimentary (Cobalt Group) rocks and Nipissing-type diabase sills. Early to Late Precambrian rocks consist of both northwest and northeast striking diabase dykes which cross-cut all the other rock units. The major structural feature of the area is a doubly plunging synclinorium within the metavolcanic/metasedimentary rock assemblage.

Property Geology:

All consolidated rocks in Connaught Township area are of Precambrian age. They are usually covered with a layer of unconsolidated Cenozoic glacial deposits Cenozoic glacial deposits (Pleistocene and more recent ages).

Archean rocks consist of a portion of the metasedimentary–metavolcanic assemblage (described in the Regional Geology section) together with mafic and felsic intrusive rocks.



The basement rocks are comprised of a suite of subalkalic to alkalic metavolcanic rocks (basalt to rhyolite), interlayered with mafic to ultramafic rocks (gabbroic to serpentinized dunite), and both chemical (limestone, chert and iron formations) and clastic (conglomerate, greywacke and argillite) metasedimentary rocks. Younging direction (from pillowed lavas and graded bedding in tuffs) indicates that it is facing northeast.

The metavolcanic–metasedimentary sequence can be subdivided into lower and upper portions based on the nature and composition of the volcanic rocks. The upper part, which is tightly folded consists of intermediate and pyroclastic volcanic rocks and metasedimentary rocks with minor amounts of mafic and felsic rocks. The lower portion of the sequence consists of an interlayered mafic (subaqueous flows) to felsic (pyroclastic) rocks. Metasedimentary rocks are rarer in the lower portion of the sequence.

Early to Late Precambrian rocks are the diabase dykes that trend northwest to north to northeast across the township area. As the dykes crosscut all the units including the batholith near Elephant Head Lake, they may belong to the Matachewan or Abitibi dyke sets.

Middle Precambrian rocks overlie the older series unconformably and include the Espanola Formation (limestones) of the Quirke Lake Group, the Gowganda Formation of the Cobalt Group (flat lying conglomerate and greywacke) and Nipissing Diabase.

All the units are intruded by the granitic Togo Batholith to the northwest and the felsic to intermediate Miramichi Batholith (quartz monzonite, granodiorite and trondhjemite) to the southwest (Carter, 1980).

Several major north-northwest striking faults pass through the region and are located close to the Elephant Head Lake area. They are the Michiwakenda Fault and the Elephant Head Lake Fault. They are thought to be part of the Onaping Lineament and are both sinistral wrench faults.

2.6 TARGET OF INTEREST

Historically, a VTEM survey had been flown which indicated numerous anomalous magnetic and conductive features. The magnetometer and VLF EM surveys were designed to ground locate magnetic and conductive responses from the VTEM survey.



3. PLANNING

3.1 EXPLORATION PERMIT/PLAN

The Magnetometer and VLF EM surveys were performed over claims owned by Knightsbridge Exploration Ltd. For these surveys no line cutting, or generators were needed, therefore no plan was required.

3.2 SURVEY DESIGN

This survey was designed to better resolve previously determined airborne magnetic and EM anomalies trending northwest-southeast. 60-degree routes spaced at 100metre intervals were planned to cross the 330-degree anomalies perpendicularly. Tie-line traverses were planned every 400m at 330-degrees, parallel to the anomalies. The green routes seen in Figure 3, show planned traverses not yet completed on the North Wind Property. The red routes were traverses previously completed with Magnetometer and VLF EM surveys. Magnetometer and VLF EM measurements were planned along the green routes, spaced at 25-metre intervals.

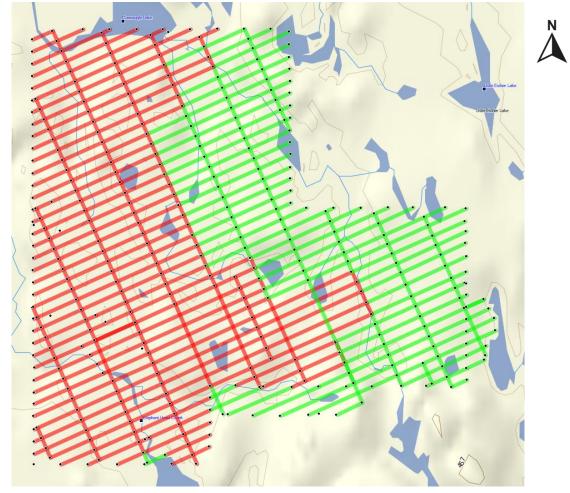


Figure 3: Survey Design



KNIGHTSBRIDGE EXPLORATION LTD.



Figure 4: Survey Design overlaid on Google Earth. (©2020 Google & Image ©2020 Maxar Technologies)



4. SURVEY WORK UNDERTAKEN

4.1 SUMMARY

CXS was contracted to perform a Magnetometer and VLF EM survey over a portion of the North Wind Property. A total of 19.65-line kilometres of Magnetometer and VLF EM samples was read over the North Wind Property between December 12 to December 16, 2019. This consisted of 786 magnetometer and VLF EM samples taken at a 25-metre interval.

4.2 SURVEY GRID

No survey grid was used in this project. Traverses were completed based on GPS corridors and a general route plan.

4.3 DATA ACQUISITION

Magnetometer and VLF EM Surveys

Magnetometer and VLF EM data acquisition took place between December 12 and December 16, 2019. One magnetometer was set in a fixed position (472685E, 5271874N) in a region of stable geomagnetic gradient to monitor and correct for daily diurnal drift. A second magnetometer was being operated to acquire magnetic and VLF EM data along traverses. This second unit was set to a stop-and-go mode for magnetometer and VLF readings. GPS data was collected at each 25-metre interval prior to the magnetic and VLF EM acquisition at that corresponding location. The GPS operator stayed a minimum of 10 metres away from the magnetometer operator, to refrain from causing any magnetic interference from the GPS.

A total of 19.650-line kilometres of both magnetometer and VLF EM measurements was taken. This consisted of 786 magnetometer and VLF EM samples read at a 25-metre interval over a 5-day period. The following figure shows the path taken by the VLF EM magnetometer operators, while acquiring data.



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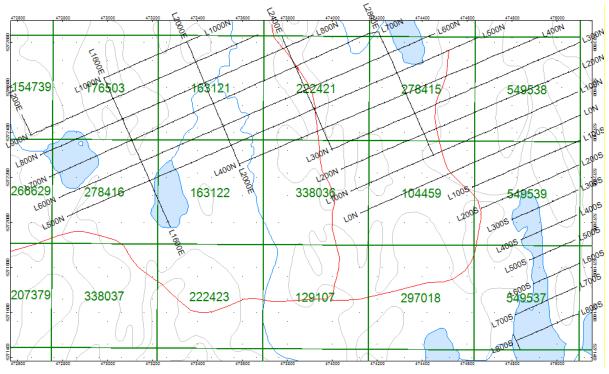


Figure 5: Traverses by Field Crew

4.4 SURVEY LOGS

Magnetometer and VLF EM Survey Log					
Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
December 12, 2019	Begin magnetometer	900N	1200E	1600E	400
	and VLF EM surveys.	800N	1200E	1600E	400
		700N	1200E	1600E	400
		600N	1200E	1600E	400
		500N	1200E	1600E	400
		1200E	1200E	1800E	600
		1600E	1200E	1800E	600
					3225
December 13, 2019	Continues surveys.	1000N	1600E	2075E	475
		900N	1600E	2300E	700
		800N	1600E	2525E	925



Magnetometer and VLF EM Survey Log					
Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
		700N	1600E	2400E	800
		600N	1800E	2450E	650
		500N	1800E	2400E	600
		400N	2000E	2400E	400
		2000E	400N	1000N	600
					5150
December 14, 2019	Continue surveys.	700N	2400E	2800E	400
		600N	2450E	3025E	575
		500N	2400E	3200E	800
		0N	2400E	2850E	450
		2400E	300N	850N	550
		2800E	100N	700N	600
					3375
December 15, 2019	Continue surveys.	400N	2400E	3450E	1050
		300N	2400E	3600E	1200
		200N	2400E	3550E	1150
		100N	2400E	3500E	1100
			ZHOOL	OOODE	4500
					4300
December 16, 2019	Complete surveys. Demobilize.	0N	2850E	3475E	625
		100S	2875E	3425E	550
		200S	2900E	3375E	475
		300S	3000E	3325E	325
		400S	3000E	3275E	275
		500S	3000E	3225E	225
		600S	2975E	3200E	225
		700S	2850E	3150E	300
		800S	2800E	3100E	300
		2800E	2850S	2750S	100
					3400



Magnetometer and VLF EM Survey Log					
Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
Total	19.650 Line Kilometres	6			

Table 3: Survey Log

4.5 PERSONNEL

Crew Member / Contractor	Position	Resident	Province
Bruce Lavalley	Magnetometer/GPS Operator	Britt	Ontario
Claudia Moraga	Magnetometer/GPS Operator	Britt	Ontario
Jason Ploeger, P.Geo	Senior Geophysicist	Larder Lake	Ontario
Andrew Salerno, GIT	Junior Geologist	Larder Lake	Ontario

Table 4: Magnetometer and VLF EM Survey Personnel

4.6 FIELD NOTES: CONDITIONS & CULTURE

The average maximum temperature over the field between December 12 and December 16, 2019 was -11.4°C. The hottest recorded temperature during the survey period was -1.5°C and the coldest recorded temperature being -23.8°C. Little precipitation fell during the survey period.

No culture that could impact the data was observed during the course of the survey.

4.7 SAFETY

Canadian Exploration Services Ltd prides itself in creating and maintaining a safe work environment for its employees. Each crew member is briefed on the jobsite location, equipment safety, standard operating procedures along with our health and safety manual. An emergency response plan is generated relating to the specific job and with the jobsite predominantly in the field, which is unpredictable, morning safety briefings are essential. Topics are generally chosen based off jobsite characteristics of the area, weather conditions, timing and crew experience. All possible topics discussed during a survey, dependent on field conditions and time of the year, are listed in the following table.



Safety Topic	Protocol
Active Work Site	Be aware of surrounding activities – drilling, mine monitoring, and traffic. Caution when working near roads, and post safety signs to alert passers-by of ongoing geophysical surveys.
ΑΤν	Conduct circle check before operating an ATV. Ensure brakes and tires are in good working condition. Drive at reasonable speeds according to terrain to avoid accidents. The use of hel- mets is mandatory.
Extreme Temperatures	With temperatures down to -40, there is an increased risk of cold related injuries (i.e. frostbite, hypothermia). Dress accordingly and take breaks to warm up if necessary. Bring extra clothing to anticipate for possible drop in temperature throughout the day. With temperatures up to +30C, there is an increased risk of heat stroke. Keep hydrated throughout the day and in shaded areas if possible.
Communication	Check in with the crew leader or any crew member when work- ing individually to inform the team of your safety and well-being.
Heavy Lifting	When lifting equipment individually, always lift with your legs ra- ther than your back. Always ask fellow crew members for help when lifting or moving heavy and large equipment (i.e. transmit- ter, generator, snowmobile, etc.).
Hunting Seasons	There may be more traffic during hunting season. Be careful when crossing. Wear proper (high-visibility) attire to avoid being mistaken for an animal in the bush.
Power Protocol	When in doubt, always assume that power is on and stay clear of survey circuits until confirmed otherwise.
Power Tools	Be alert when operating power tools – chainsaw, Tanaka, etc. Do not operate equipment when unsure of safety instructions for the specific tool.
Rain	Terrains may be slippery. Traverse carefully to avoid slipping, especially when ascending, descending, or walking along side of hills. When there is a chance of thunderstorm, notify person in-charge of transmitter when thunder is heard. Be extra careful with power protocol due to increased risk of shock. Bring extra clothing in case gear gets too wet and heavy.
Sharp Tools	Be careful when handling tools such as a machete and knives to avoid injuries. Inform another crew member of any injuries.
Slips, Trips and Falls	Increased risk of hidden hazards with snow coverage. Proper use of snow shoes is encouraged to avoid injuries from slipping, tripping, or falling. 3 points of contact is encouraged.
Snowmobile	Proper use of PPE (i.e. safety helmet, high visibility attire, etc.). Practice safety checks before operating snowmobiles. Ensure that engines and brakes are in good working condition. Ensure



Safety Topic	Protocol
	that oil, coolant, and gasoline levels are sufficient for distance of
	travel. Check that snowmobile is physically safe to operate (i.e. no broken parts).
	Conduct safety checks prior to operation of company trucks to
Truck and Trailer	ensure engines, brakes, tires, and etc. are in good working con-
	dition prior to operating vehicle. Conduct circuit checks when
	mobilizing and de-mobilizing trailers.
	Creeks, lakes, and swamps may not be fully frozen even under
Water Hazards	very low temperatures. The use of a stick or pole is encouraged
	for testing water bodies prior to crossing.
	Always be aware of surroundings, keeping an eye out for ani-
Wildlife	mals such as bears, moose and wolves. Carry bear spray when
	in the field during the summer.
	Snow accumulation, freezing rain and icy conditions create
Winter Driving	added road hazards. Road into field sites may be rough. Drive
	at appropriate speeds according to road conditions.

Table 5: General Safety Topic Protocols

Emphasized daily topics discussed in the field for this project include:

Date	Safety Topic
December 12, 2019	Mobilization and trucks, trailers, and snowmachine circuit checks.
December 13, 2019	Winter driving and adverse conditions.
December 14, 2019	Traversing rough terrain, increase in slip, trips and falls.
December 15, 2019	Ice safety.
December 16, 2019	Demobilization and trucks and trailer checks

Table 6: Daily Safety Topics



5. INSTRUMENTATION & METHODS

5.1 INSTRUMENTATION

The survey was conducted with a GSM-19 v7 Overhauser magnetometer in stop and go mode with a second GSM-19 magnetometer in base station mode for diurnal correction. The system was also configured to collect VLF EM data.

The GSM-19 measures the Earth's magnetic field with less than 0.1 nT sensitivity, 0.01 resolution, and 0.2 nT absolute accuracy over its full temperature range.

The VLF EM receiver measures the vertical and horizontal in-phase (IP) and quadrature (OP) components of the anomalous field from electrically conductive zones.

5.2 THEORETICAL BASIS

Magnetometer Survey

The GSM-19 Overhauser magnetometer measures the Earth's magnetic field in a multi-step process that provides better results by using the Overhauser effect. The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms. The unpaired electrons couple with the protons within the hydrogen atom, to produce a two-spin system. This electron-proton coupling is then disturbed once exposed to secondary polarization from a strong radio frequency (RF) magnetic field. The unpaired electrons transfer their stronger polarization to hydrogen atoms, which allows an increased polarization of protons in the sensor liquid. Thus, generating a strong precession signal, which causes a deflection of the proton magnetization into the plane of precession. A pause then allows the electrical transient to die off. This leaves the proton precession signal to slowly decay above the noise level. Following this slow decay, the proton precession frequency is counted, measured and converted into magnetic field units. Finally, the results are stored in memory with the date, time, and coordinates of the measurements. In the base station mode, only the time and total field are stored (GEM Systems, 2007).

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 3pT 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 (GEM Systems, 2007).



The EM field consists of a planar and horizontal field at a large distance from the EM source. The two horizontal components, p and v, created by the source field are orthogonal to each other. The first horizontal component's (p) axis is parallel to the operator's direction while the second horizontal component's (v) axis lies at right angles to the direction of the operator's propagation. In order to ensure good coupling, the strike of possible conductors should lie in the direction of the transmitter to allow one of the horizontal vectors to pass through the anomaly, in turn, creating a secondary EM field which is measured as the In Phase and Out of Phase measurements. (GEM Systems, 2007).

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.

5.3 SURVEY SPECIFICATIONS

Magnetometer Survey

Base station corrected Total Magnetic Field surveying was used for this magnetometer survey. Two synchronized GSM-19 v7 Overhauser magnetometers of identical type were needed. One magnetometer unit was 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 of the magnetic field. This magnetometer, given the term 'base station', stored the time, date and total field measurement at fixed time intervals over the survey day. A second, remote mobile unit was set to magnetometer mode. Readings were taken at 25-metre increments determined previously by the GPS operator. The remote magnetometer stored the grid coordinates time, date, and the total field measurements, simultaneously. The procedure consisted of taking total field magnetic measurements of the Earth's magnetic field along traverse corridors at 25-metre intervals.

VLF EM Survey

At the start of each day the availability of VLF EM stations was checked. The three stations that were checked during this survey were frequencies 24.0 (NAA located in Cutler, Maine, USA), 24.8 (NLK located in Arlington, Washington, USA) and 25.2 (NML located in LaMour, North Dakota, USA). The stations that returned a signal strength greater than 3 would be used for the day. The VLF EM sample points consists of taking measurements every 25-metres along predetermined traverse corridors.



6. QUALITY CONTROL & PROCESSING

6.1 DATA QC & PROCESSING

For optimal data quality, when conducting the survey, ferromagnetic objects were kept away from the operator, so as not to impair the quality of measurements. A sensor was mounted on a backpack at a height of approximately 2-metres, in order to optimally minimize localized near-surface geologic noise. Noise spikes and/or nulls during acquisition were noted and repeats at those locations were taken until the readings normalized. These noise spikes and nulls were removed during post processing.

The VLF EM sensor was mounted on the back of a backpack along with the mag sensor. Two of the three standard frequencies (24 Hz and 25.2 Hz) were set during the survey. The 24.8 Hz frequency was noted to have a weak signal (<3 pt) on the first day of acquisition. Thus, 24.8 Hz was not acquired on following days and removed from the data.

At the end of a survey day, the mobile and base-station units were linked, via RS-232 ports, for diurnal drift and other magnetic activity (ionospheric and sferic) corrections using internal software. Diurnally corrected magnetic data (Total Field Magnetic; TFM) was gridded using the Minimum Curvature Gridding option in Geosoft Oasis (Figure 6). If necessary, lines were returned to and repeated and/or manual edits were made.

Repeats were also taken during the course of the survey day. The start and finish of each survey line was repeated and compared for consistency. The operator also repeated any survey point which was deemed to be inconsistent.

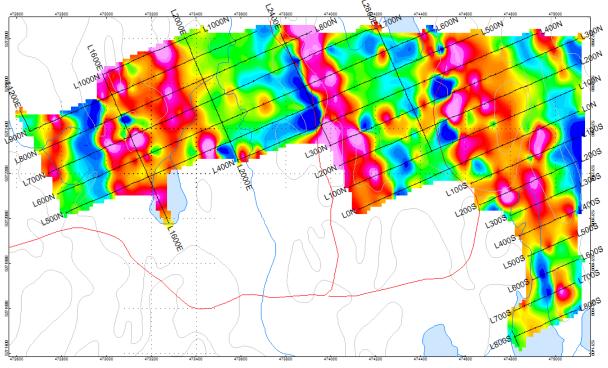


Figure 6: Diurnally Corrected Mag Grid (TFM)





7. RESULTS, INTERPRETATION & CONCLUSIONS

7.1 RESULTS

The following figures show the results obtained from the magnetic and VLF EM surveys over the North Wind Property.

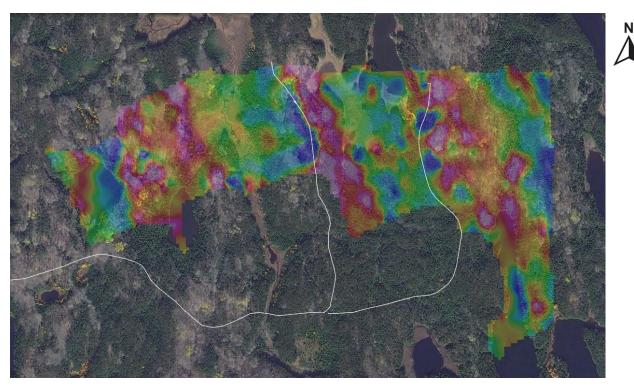


Figure 7: Magnetic plan over the North Wind Property on Google Earth. (©2020 Google & Image ©2020 Maxar Technologies)



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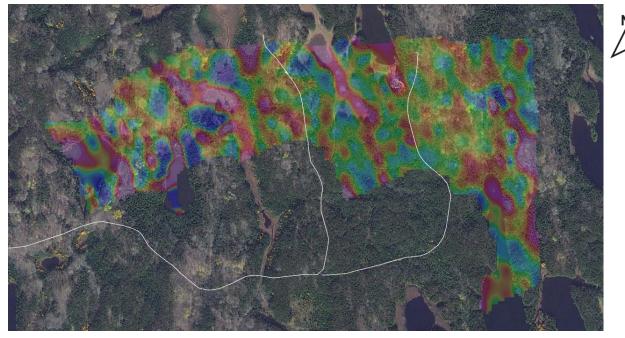


Figure 8: Fraser filter of the VLF EM frequency NML. (©2020 Google & Image ©2020 Maxar <u>Technologies)</u>

7.2 INTERPRETATIONS

The magnetic and VLF EM surveys were designed to define and ground truth airborne magnetic and EM anomalies noted in a previous VTEM survey. With new forestry activities completed, access was available to the east side of the property. This allowed for an east extension of the previous ground magnetic and VLF EM surveys.

During the course of the survey, no culture was noted that could affect the data.

Within the magnetic dataset a series of north-south linear magnetic features are noted. These appear to cut other magnetic regions and most likely represent Matachewan Diabase Dykes.

Numerous VLF EM axes occur over the survey area. Due to the nature of the axes, it is difficult to characterize them with a Fraser filter.

Some coincident magnetic and VLF EM anomalies occur on through the survey area. One coincident magnetic and VLF linear response is located between lines 500N and 1000N from station 1700E and 1900E respectively. This feature appears to extend through some topographically elevated ground and therefore could easily be prospected.

Astrong magnetic response with a flanking VLF EM response occurs between lines 0N and 800N at 2600E. The VLF response appears to follow a depression with a swamp covering the northern portion of it; however the southern part of the system appears to extend onto high ground. I would recommend prospecting the area to determine if the linear feature is related to mineralization or structural.



7.3 RECOMMENDATIONS

A compilation of the historic work on the property is recommended. This may better identify the source of the anomalies.

The anomalies discussed are recommended to be prospected. These areas indicate VLF crossovers and magnetic signatures that may be consistent with that of favorable mineralization.

The results also merit a grid being cut over these anomalous areas. On this grid an IP survey and HLEM survey is recommended to be performed.

7.4 CONCLUSIONS

The ground magnetic and VLF EM surveys successfully identified anomalous regions within the survey area. Three magnetic anomalies with proximal VLF anomalies may represent mineralized systems that should be investigated further.



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 Practicing 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 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 Ltd.

> Larder Lake, ON March 26, 2020



APPENDIX B

GSM 19

GEM Systems		100	The second second				
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GSM-19	Överhauser Magnetometer				0 0	1	

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 diametre 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 (GEM Systems, 2007).



APPENDIX C

REFERENCES

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- Jensen, L. S., & Langford, F. F. (1985). *Geology and petrogenesis of the Archean Abitibi belt in the Kirkland Lake area, Ontario* (Vol. 123). Toronto, Ont. Ontario Ministry of Natural Resources.
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APPENDIX D

DIGITAL DATA

The digital data contains

- 1) PDF copy of this report
- 2) PDF copy of the maps
- 3) Raw data in ascii format

Data Columns:

- 1 X *(m)*
- 2 Y *(m)*
- 3 UTMX *(m)*
- 4 UTMY (m)
- 5 UNCORRECTED MAG (nT)
- 6 SIGNAL QUALITY (sq)
- 7 CORRECTED MAG (cor-nT)
- 8 DISTANCE (m)
- 9 VLF STATION FREQUENCY 1 (kHz)
- 10 IN PHASE (%)
- 11 QUADRATURE (%)
- 12 p HORIZONTAL COMPONENT
- 13 v HORIZONTAL COMPONENT
- 14 FIELD STRENGTH (*pT*)
- 15-20 [9-14] repeated with VLF STATION FREQ 2



APPENDIX E

LIST OF MAPS (IN MAP POCKET)

Grid Sketch (1:5000)

1) Q2736-KNIGHTSBRIDGE-NORTHWIND-TRAVERSE-CLAIMS

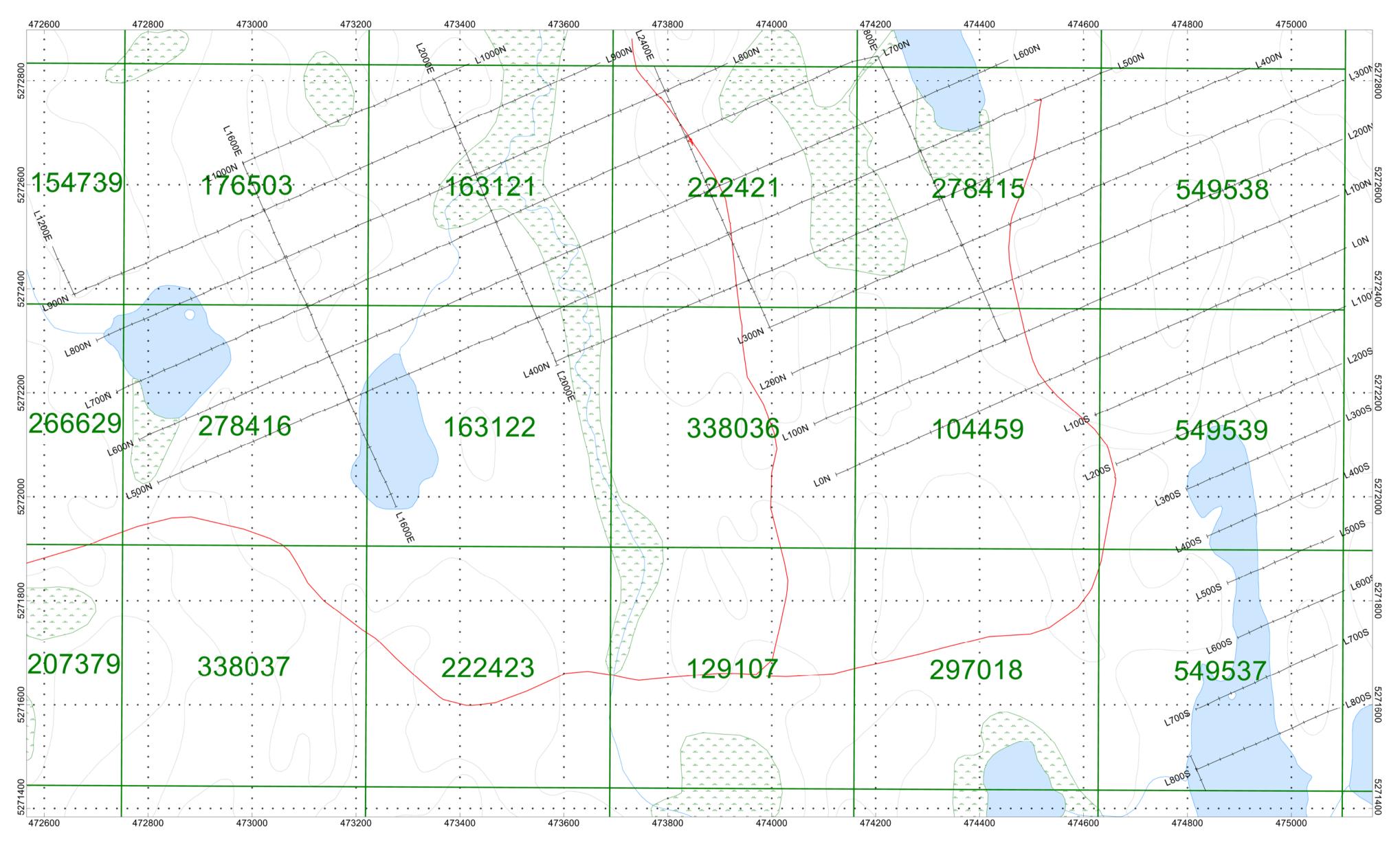
Magnetometer Plan Map (1:5000)

2) Q2736-KNIGHTSBRIDGE-NORTHWIND-MAG-CONT

VLF EM Plan Map (1:5000)

3) Q2736-KNIGHTSBRIDGE-NORTHWIND-VLF-NML

TOTAL MAPS = 3



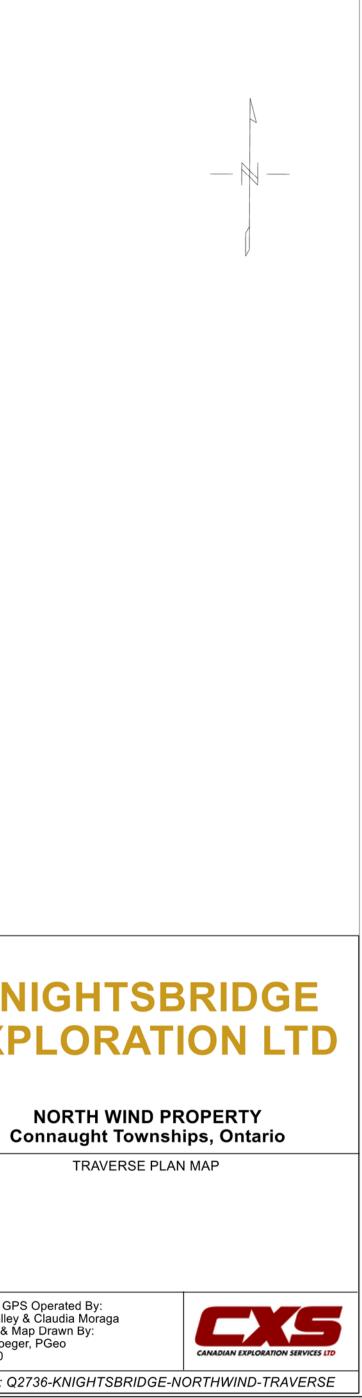
Scale 1:5000 100 (meters) NAD83 / UTM zone 17N

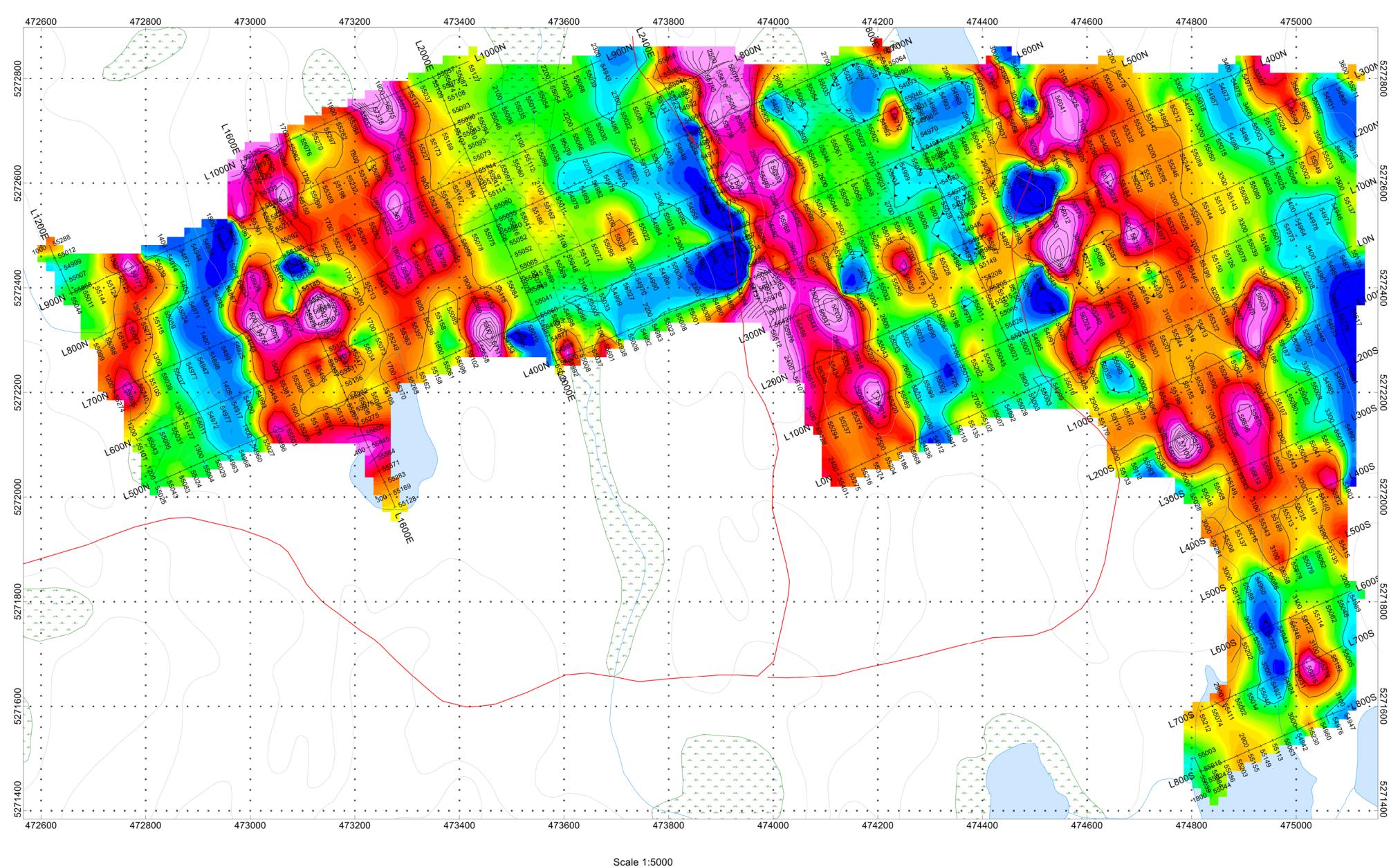
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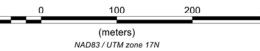
TRAVERSE PLAN MAP

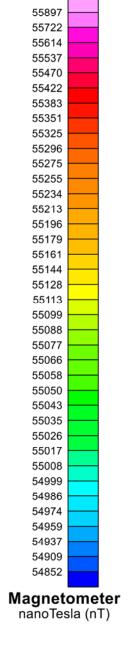
Receiver & GPS Operated By: Bruce Lavalley & Claudia Moraga Processed & Map Drawn By: C Jason Ploeger, PGeo March 2020

Drawing: Q2736-KNIGHTSBRIDGE-NORTHWIND-TRAVERSE









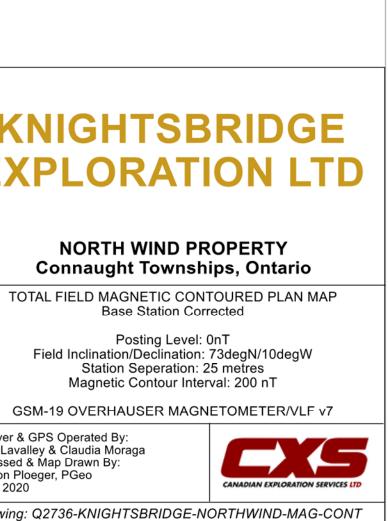
KNIGHTSBRIDGE EXPLORATION LTD

Base Station Correcte

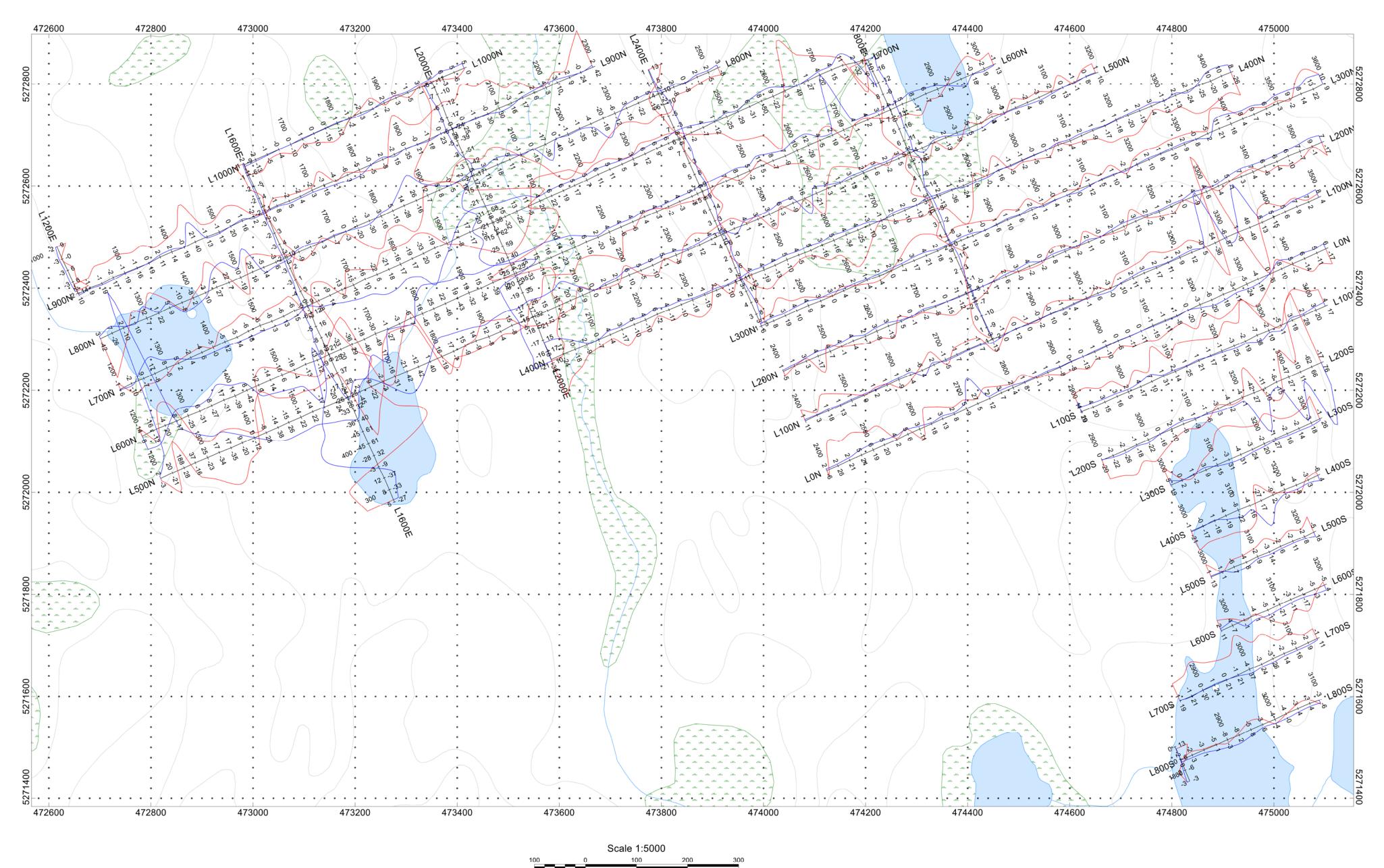
GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Receiver & GPS Operated By: Bruce Lavalley & Claudia Moraga Processed & Map Drawn By: C Jason Ploeger, PGeo March 2020

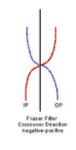
Drawing: Q2736-KNIGHTSBRIDGE-NORTHWIND-MAG-CONT







(meters) NAD83 / UTM zone 17N



KNIGHTSBRIDGE EXPLORATION LTD

NORTH WIND PROPERTY Connaught Townships, Ontario

VLF IN PHASE/OUT PHASE PROFILE 25.2 kHz NML - LAMOUR USA

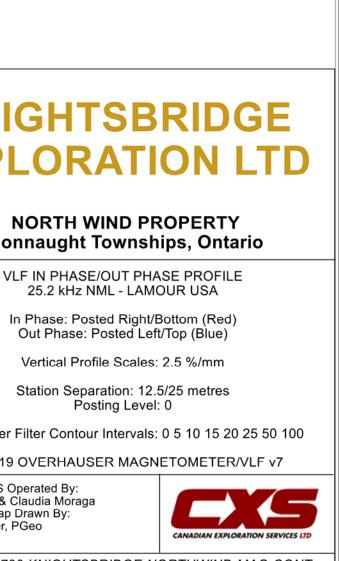
Vertical Profile Scales: 2.5 %/mm

VLF Fraser Filter Contour Intervals: 0 5 10 15 20 25 50 100

GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Receiver & GPS Operated By: Bruce Lavalley & Claudia Moraga Processed & Map Drawn By: C Jason Ploeger, PGeo March 2020

Drawing: Q2736-KNIGHTSBRIDGE-NORTHWIND-MAG-CONT





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