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Abstract

CXS was contracted to perform a magnetometer survey over a portion of the Hodgetts Property. The crew accessed the site on April 28th – 29th, 2022.

A total length of 8.8 kilometres was covered with 714 magnetometer samples taken at a 12.5-meter interval. Parallel linear magnetic signatures are observed that strike towards the historic mineralization, which may indicate an extension to the mineralization.

ASHLEY GOLD MINES LIMITED

**Q3012 – Hodgetts Property
Magnetometer and VLF EM Surveys**

C Jason Ploeger, P.Geol. – May 12th, 2022

TABLE OF CONTENTS

1.	SURVEY DETAILS	3
1.1	PROJECT NAME.....	3
1.2	CLIENT	3
1.3	OVERVIEW	3
1.4	OBJECTIVE.....	3
1.5	SURVEY & PHYSICAL ACTIVITIES UNDERTAKEN.....	3
1.6	SUMMARY OF RESULTS, CONCLUSIONS & RECOMMENDATIONS.....	4
1.7	CO-ORDINATE SYSTEM	4
2.	SURVEY LOCATION DETAILS	5
2.1	LOCATION	5
2.2	ACCESS.....	6
2.3	MINING CLAIMS	6
2.4	PROPERTY HISTORY	7
2.5	GENERAL REGIONAL/LOCAL GEOLOGICAL SETTINGS.....	8
2.6	TARGET OF INTEREST	8
3.	SURVEY WORK UNDERTAKEN	9
3.1	SUMMARY	9
3.2	SURVEY GRID	9
3.3	SURVEY LOG.....	9
3.4	PERSONNEL	10
3.5	SAFETY	10
2.2	SURVEY SPECIFICATIONS.....	10
3	OVERVIEW OF SURVEY RESULTS	11
3.1	SUMMARY	11

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 Hodgetts Property	5
Figure 2: Claim Map with the Hodgetts Property Traverse	7
Figure 3: Magnetometer Plan Map on Google Earth	11

Figure 4: VLF In Phase Map on Google Earth.....	12
Table 1: Survey and Physical Activity Details.....	3
Table 2: Mining Lands and Cells Information	6
Table 1: Survey Log	10

1. SURVEY DETAILS

1.1 PROJECT NAME

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

1.2 CLIENT

Ashley Gold Mines Limited

14579 Government Rd.
Larder Lake, Ontario
P0K1L0

1.3 OVERVIEW

CXS was contracted to perform a magnetometer and VLF EM surveys over a portion of the Hodgetts Property. The crew accessed the site on April 28th and April 29th, 2022.

A total length of 8.8 kilometres was covered with 714 magnetometer samples taken at a 12.5-meter interval. Parallel linear magnetic signatures are observed that strike towards the historic mineralization, which may indicate an extension to the mineralization.

1.4 OBJECTIVE

The objective of the magnetometer and VLF EM survey was to explore the area for magnetic and conductive signatures.

1.5 SURVEY & PHYSICAL ACTIVITIES UNDERTAKEN

Survey/Physical Activity	Dates	Total Days in Field	Total Line Kilometers
Magnetometer and VLF EM	April 28 to April 29, 2022	2	8.8

Table 1: Survey and Physical Activity Details

1.6 SUMMARY OF RESULTS, CONCLUSIONS & RECOMMENDATIONS

CXS was contracted to perform a magnetometer and VLF EM surveys over a portion of the Hodgetts Property. The crew accessed the site on April 28th and April 29th, 2022.

A total length of 8.8 kilometres was covered with 714 magnetometer samples taken at a 12.5-meter interval. Parallel linear magnetic signatures are observed that strike towards the historic mineralization, which may indicate an extension to the mineralization.

1.7 CO-ORDINATE SYSTEM

Projection: UTM zone 17N

Datum: NAD83

UTM Coordinates near center of grid: 481600 Easting and 5233000 Northing

2. SURVEY LOCATION DETAILS

2.1 LOCATION

The Hodgetts Property is located approximately 33km south of Shining Tree, Ontario. The survey on the property covers a portion of mining claims 551354, 551353, 551350 and 551355 located in Hodgetts Townships within the Sudbury Mining Division.

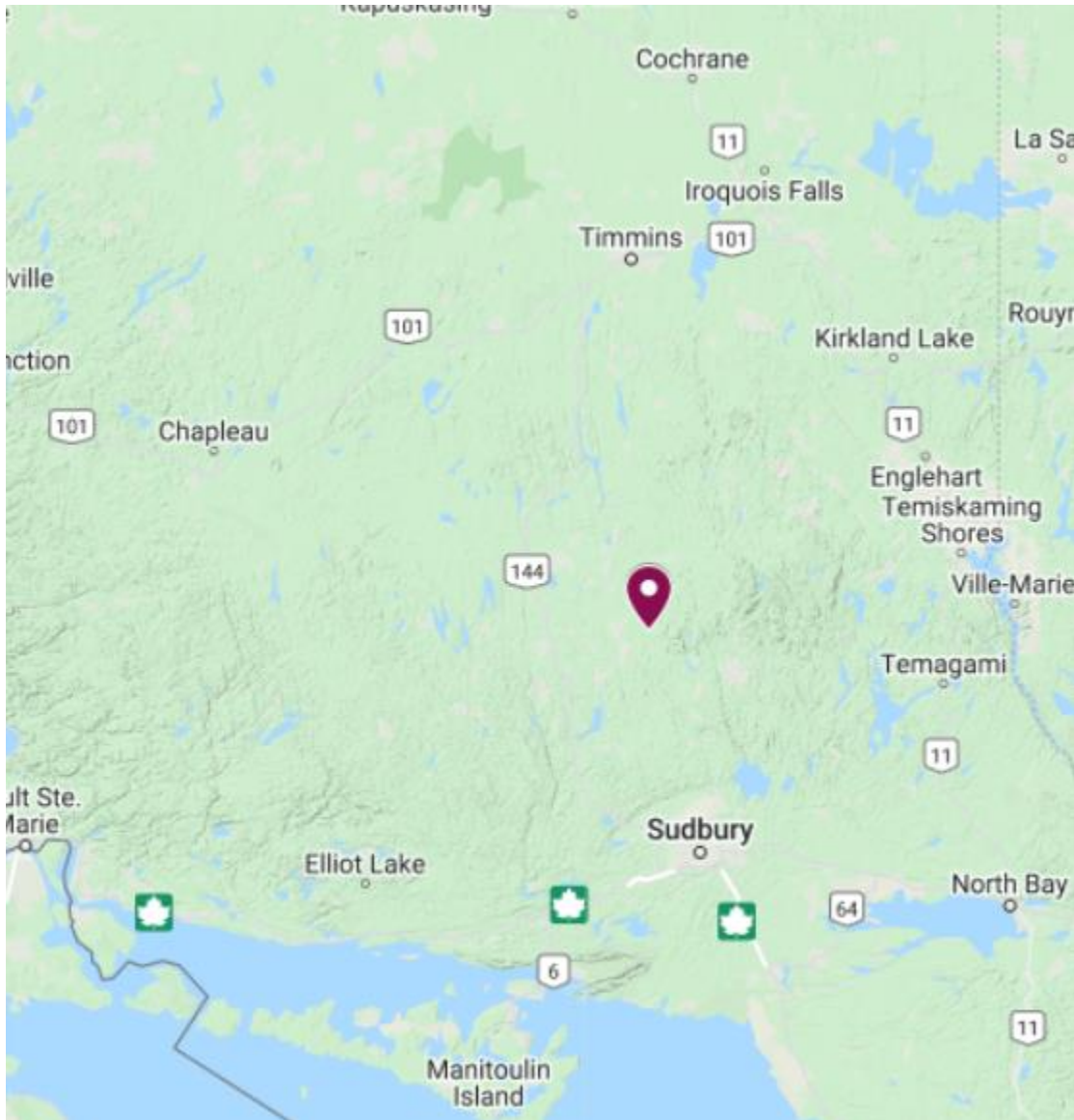


Figure 1: Location of the Hodgetts Property

2.2 ACCESS

Access to the property was attained with a 4x4 truck via highway 560 approximately 19 km west of Shining Tree, Ontario. At this point, the Meteor Lake Road was travelled south for 31 kilometers to a fork in the road where Lampman Road was travelled for an additional 10.5km. At this point, access was obtained through a new clear cut.

2.3 MINING CLAIMS

The survey area covers a portion of mining claims 551354, 551353, 551350 and 551355 all located in Hodgetts Townships, within the Sudbury Mining Division.

Cell Number	Provincial Grid Cell ID	Ownership of Land	Township
551354	41P06B381	Ashley Gold Mines Limited	Hodgetts
551353	41P06B382	Ashley Gold Mines Limited	Hodgetts
551350	41P03J001	Ashley Gold Mines Limited	Hodgetts
551355	41P03J002	Ashley Gold Mines Limited	Hodgetts

Table 2: Mining Lands and Cells Information

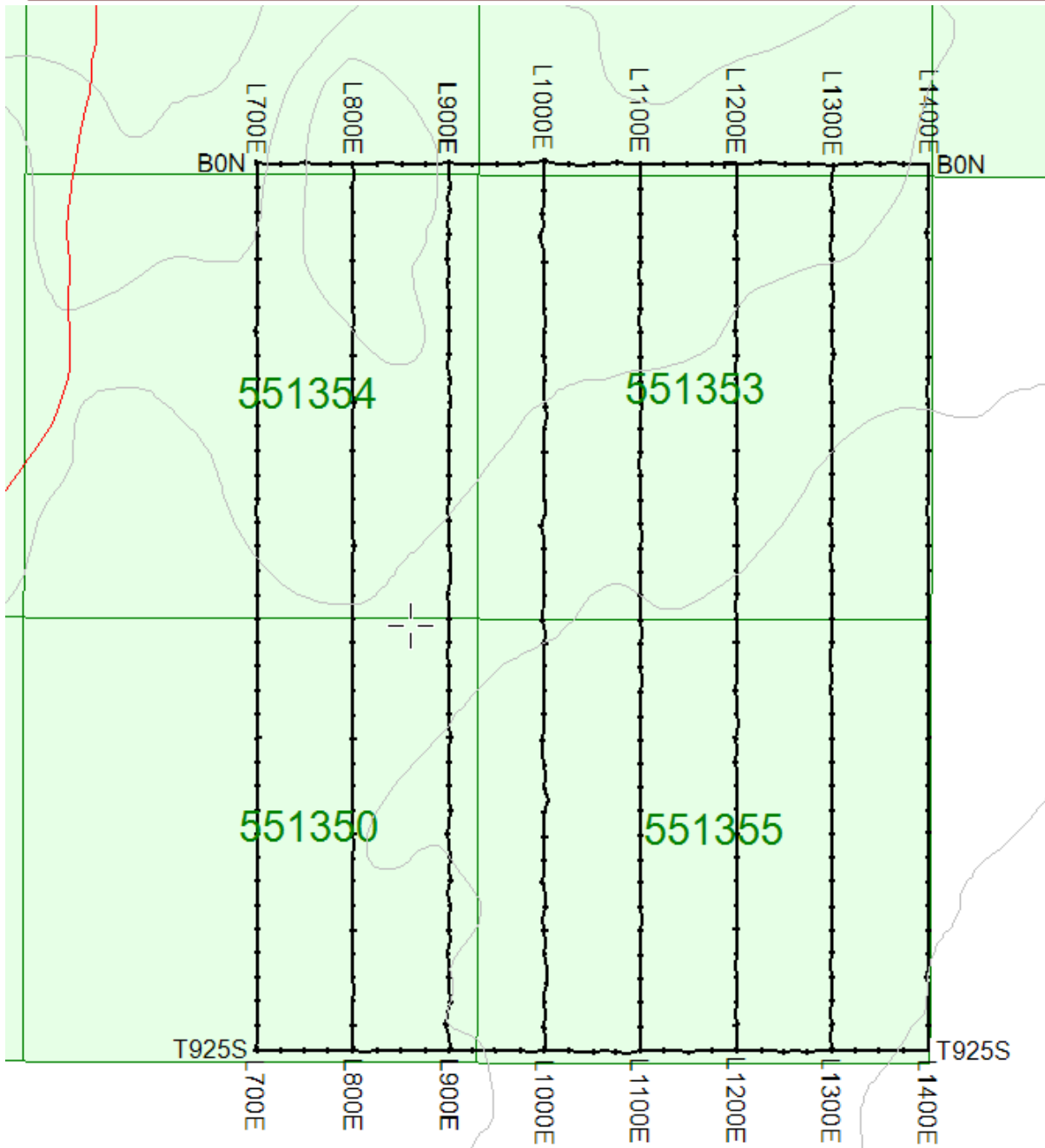


Figure 2: Claim Map with the Hodgetts Property Traverse

2.4 PROPERTY HISTORY

There have been many historical exploration projects 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, 2022).

- **1956-1960: Minada Exploration Limited (File 41P06SE0027, 41P06SE8516)**
Geological and Ground Geophysics
Between 1956 and 1960 Minada mapped the geology along with performing a magnetometer and EM survey.
- **1969: AGN Syndicate (File 41P06SE0026)**
Ground Geophysics
In 1969 AGN reported performing a magnetometer and EM survey.
- **1977: Card Lake Copper Mines Limited (File 41P06SE0025)**
Diamond Drilling
In 1977 Card Lake reported drilling 3 holes totalling 1022 feet.
- **1978: Rio Tinto (File 41P06SE0024)**
Geological and Ground Geophysics
In 1978 Rio Tinto reported mapping the geology along with performing both magnetometer and IP surveys.
- **1983-1984: Goldmac Exploration Inc. (Files 41P06SE0023, 41P06SE0622)**
Geochemical , Geological and Ground Geophysics
In 1983 and 1984 Goldmac reported mapping the geology along with performing a magnetometer and VLF EM survey.

2.5 GENERAL REGIONAL/LOCAL GEOLOGICAL SETTINGS

General Geology:

The underlying geology is a foliated felsic intrusive. This has been covered with a sequence of Huronian Supergroup. These packages have been intruded with a Nipissing Diabase. The final intrusive results in mineralized vein structures.

2.6 TARGET OF INTEREST

The survey was designed to look for on strike extensions of the historic mineralization.

3. SURVEY WORK UNDERTAKEN

3.1 SUMMARY

CXS was contracted to perform a magnetometer and VLF EM surveys over a portion of the Hodgetts Property. The crew accessed the site on April 28th and April 29th, 2022.

A total length of 8.8 kilometres was covered with 714 magnetometer samples taken at a 12.5-meter interval. Parallel linear magnetic signatures are observed that strike towards the historic mineralization, which may indicate an extension to the mineralization.

3.2 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 25m 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.

3.3 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
April 28, 2022	Mobilize, locate survey area and perform magnetometer and VLF EM surveys.	1400E	925S	0	925
		1300E	925S	0	925
		1200E	925S	0	925
		1100E	925S	0	925
		0N	1100E	1400E	300
		925S	1100E	1400E	300
April 29, 2022	Complete the survey and demobilize.	1000E	925S	0	925
		900E	925S	0	925
		800E	925S	0	925
		700E	925S	0	925
		0N	700E	1100E	400
		925S	700E	1100E	400

Table 3: Survey Log

3.4 PERSONNEL

Claudia Moraga of Dobie, Ontario along with Giancarlo Smith of Virginiatown, Ontario conducted all the magnetic data collection with Bruce Lavalley of Dobie, Ontario and Cameron Hansen of Larder Lake, Ontario being responsible for GPS control and waypoint collection.

3.5 SAFETY

Canadian Exploration Services 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, time of year and crew experience.

2.2 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 8.8 line-kilometers of magnetometer was read over the Hodgetts Property on April 28th and April 29th, 2022. This consisted of 714 magnetometer samples taken at a 12.5m sample interval.

3 OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

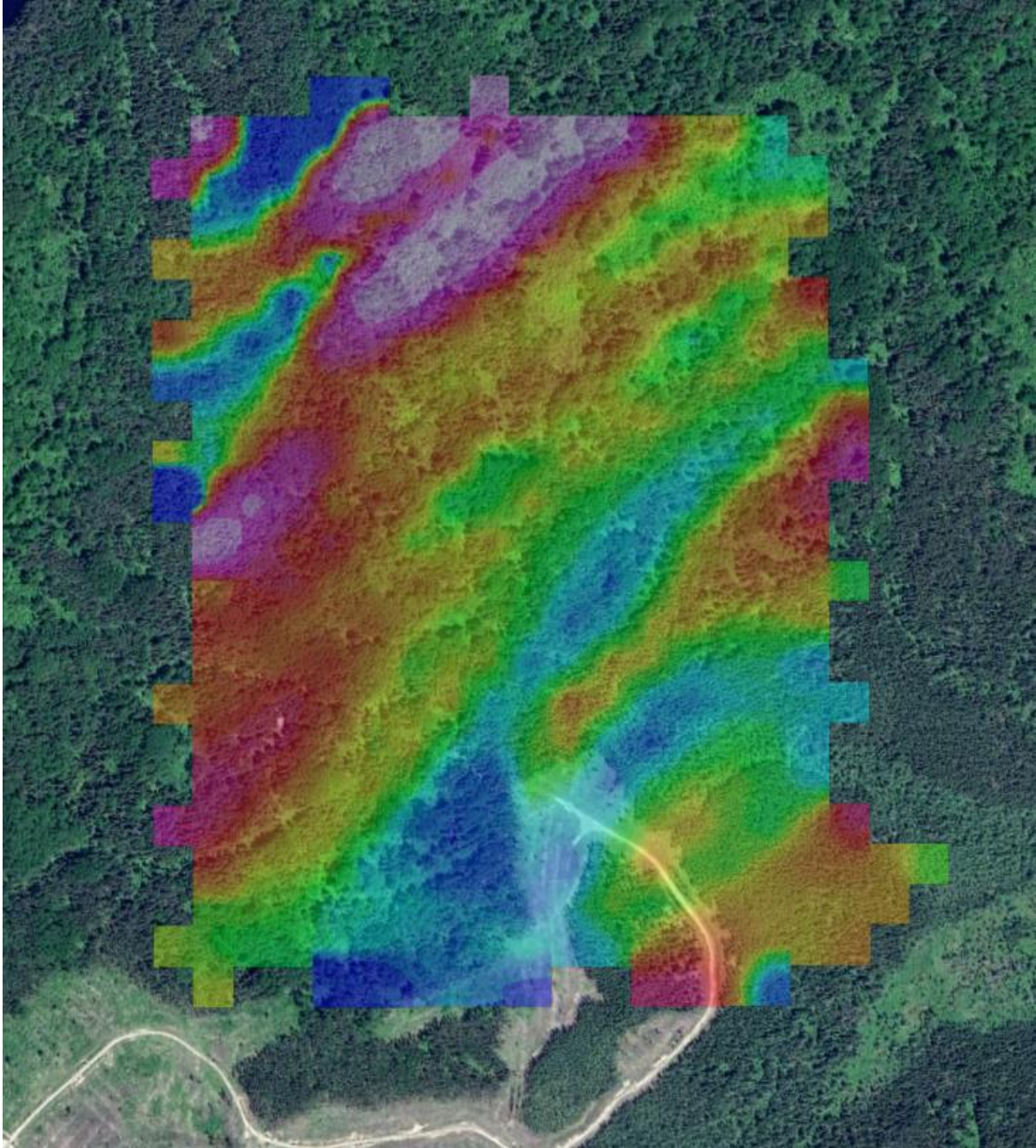


Figure 3: Magnetometer Plan Map on Google Earth



Figure 4: VLF In Phase Map on Google Earth

No culture was noted through the traverse area.

Two linear magnetically elevated anomalies occur in the north-west corner of the claim that strike at approximately 45 degrees. A third parallel magnetically high anomaly appears to exist to the north-east.

These most likely represent the on-strike extensions of the historic mineralization.

The VLF is extremely noisy. This is an indication of the presence of argillite sediments within the underlying Huronian Supergroup

It is recommended that the area of the magnetically elevated linear anomalies be prospected. The recent forestry activity may have uncovered rock outcroppings, that may better identify the source of the anomaly.

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 of **Ashley Gold Mines 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.

May 12th, 2022

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.

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 64



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:	8.1 oz (230 g) with batteries
Battery:	2 AA batteries (not included); NiMH or Lithium recommended
Battery life:	16 hours
Waterproof:	yes (IPX7)
Floats:	no

High-sensitivity receiver:	yes
Interface:	high-speed USB and NMEA 0183 compatible
Maps & Memory:	
Basemap:	yes
Ability to add maps:	yes
Built-in memory:	4 GB
Accepts data cards:	microSD™ card (not included)
Custom POIs (ability to add additional points of interest)	yes
Waypoints/favorites/locations:	5000
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)
<u>Geocaching-friendly:</u>	yes (paperless)
<u>Custom maps compatible:</u>	yes
Hunt/fish calendar:	yes
Sun and moon information:	yes
Tide tables:	yes
Area calculation:	yes
Picture Viewer	yes

- *Specifications obtained from www.garmin.com*

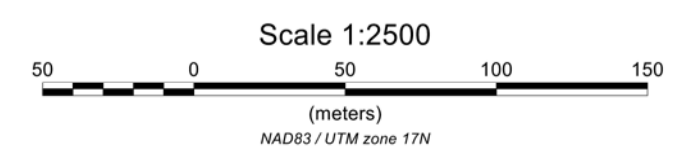
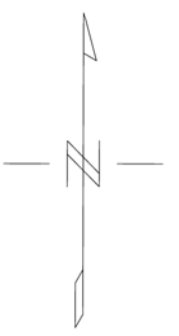
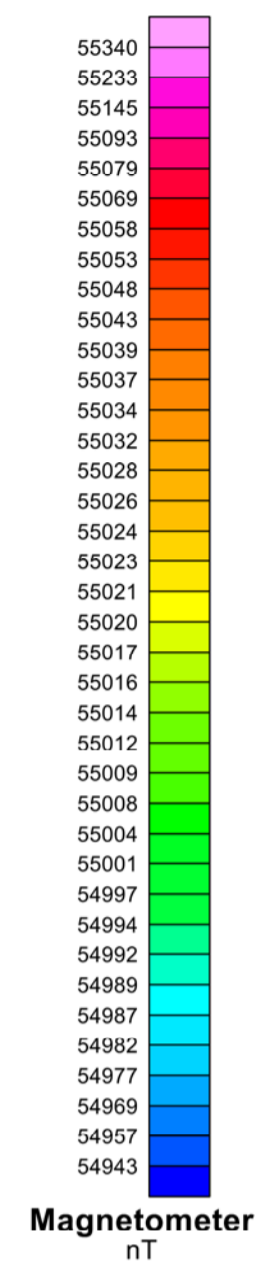
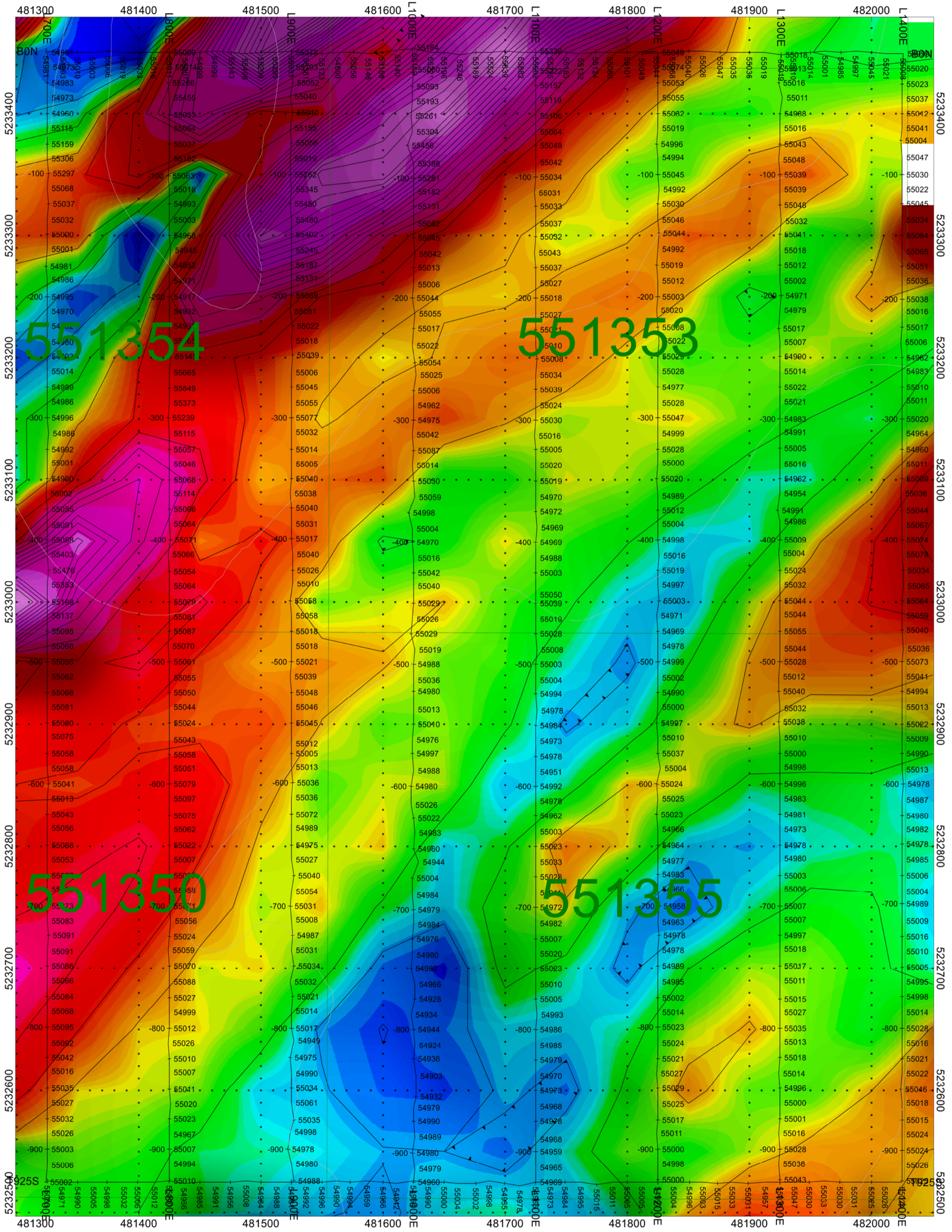
APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Magnetometer Plan Map (1:2500)

- 1) Q3012-Ashley-Hodgetts-Mag-Cont
- 2) Q3012- Ashley-Hodgetts-VLF-NAA
- 3) Q3012- Ashley-Hodgetts-VLF-NML

TOTAL MAPS = 3



HODGETTS PROPERTY
Hodgetts Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected

Posting Level: 0nT
Field Inclination/Declination: 71.5degN/10.6degW
Station Separation: 12.5 meters
Total Field Magnetic Contours: 100nT

GSM-19 OVERHAUSER MAGNETOMETER v7

Receiver Operated By: Claudia Moraga
and Giancarlo Smith
GPS Operated By: Bruce Lavalley and
Cameron Hanson
Processed by: C Jason Ploeger, P.Geo.
Map Drawn By: C Jason Ploeger, P.Geo.
May 2022



Drawing: Q3012-AGM-Hodgetts-Mag-Cont



HODGETTS PROPERTY
Hodgetts Township, Ontario

VLF IN PHASE/OUT PHASE PROFILE
 24.0kHz NAA - CUTLER USA

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

Vertical Profile Scales: 3 %/mm

Station Separation: 12.5 meters
 Posting Level: 0

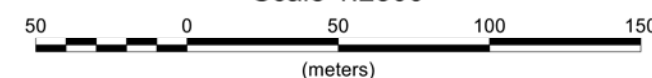
GSM-19 OVERHAUSER MAGNETOMETER v7

Receiver Operated By: Claudia Moraga
 and Giancarlo Smith
 GPS Operated By: Bruce Lavalley and
 Cameron Hanson
 Processed by: C Jason Ploeger, P.Geo.
 Map Drawn By: C Jason Ploeger, P.Geo.
 May 2022



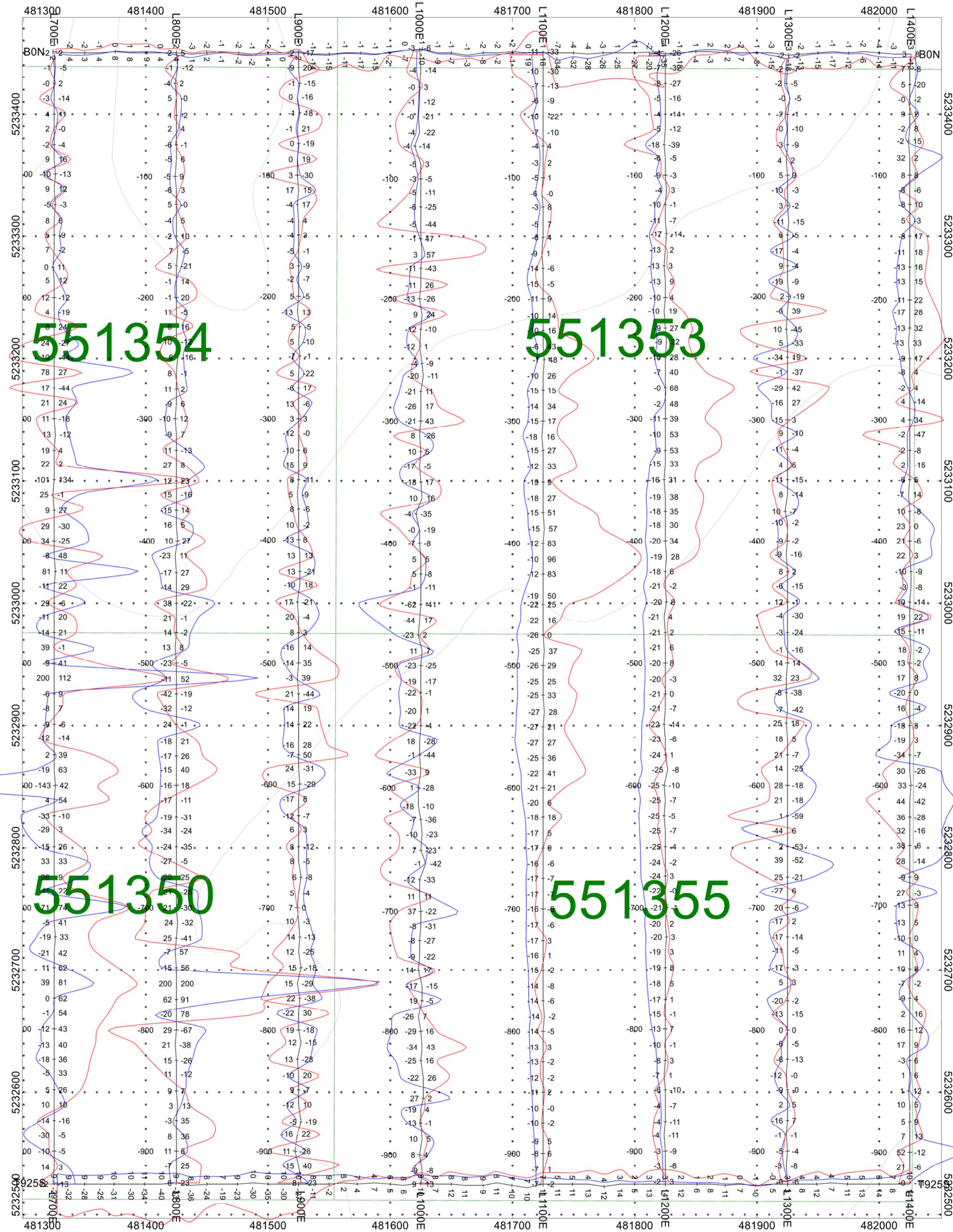
Drawing: Q3012-AGM-Hodgetts-VLF-NAA

Scale 1:2500



(meters)

NAD83 / UTM zone 17N



**HODGETTS PROPERTY
Hodgetts Township, Ontario**

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

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

Vertical Profile Scales: 3 %/mm

Station Separation: 12.5 meters
Posting Level: 0

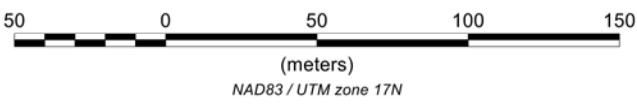
GSM-19 OVERHAUSER MAGNETOMETER v7

Receiver Operated By: Claudia Moraga
and Giancarlo Smith
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Cameron Hanson
Processed by: C Jason Ploeger, P.Geo.
Map Drawn By: C Jason Ploeger, P.Geo.
May 2022



Drawing: Q3012-AGM-Hodgetts-VLF-MNL

Scale 1:2500



551354

551353

551350

551355