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2022 Airborne Time Domain Electro Magnetic Survey
Gold Rock Property
Kenora Mining Division, Ontario

UTM 524200mE 5475700mN

NAD83 Zone 15N

For
Treasury Metals Inc.
15 Toronto Street
Suite 401
Toronto, ON M5C 2E3

April 11, 2023

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1.0 Introduction, Terms of Reference, and Disclaimer

1.1 Introduction

From September 28th to October 18th, 2022, **Treasury Metals Inc.** (“Treasury”) of Toronto had contracted Axiom Exploration Group Ltd (“Axiom”) to complete a helicopter borne Time-Domain Electro Magnetic survey with LiDAR data co-collected, covering all mining claims on its Gold Rock Project located approximately 40 km south of Dryden, Ontario. The objective of this program was to acquire high quality geophysical and LiDAR data for the use of identifying new exploration targets. The data collected was processed and used to create a set of 9 geophysical maps and derived data products in addition to high resolution digital elevation/surface models and contours, a 30-layer unconstrained layered earth inversion and an unconstrained 3D magnetic susceptibility inversion. A formal interpretation has not been included in the survey. This report has been written to summarize the results of this program, discuss, and make recommendations for additional work.

Treasury is a Canadian gold exploration and Development Company focused on its 100% owned Goliath Gold Project. The Gold Rock Project is held 100% by a subsidiary of Treasury Metals Inc., Goldeye Exploration Limited, and is a supplementary property for the company with a growing exploration program. The company is listed on the Toronto Stock Exchange (“TSX”) and trades under the symbol (“TML”). Information regarding Treasury’s resource definition and exploration activities is available on the SEDAR website at www.sedar.com or on Company website at www.treasuremetals.com.

1.2 Terms of Reference and Units

The Metric System is the primary system of measure and length used in this Report and is generally expressed in kilometres (km), metres (m) and centimetres (cm); volume is expressed as cubic metres (m³), mass expressed as metric tonnes (t), area as hectares (ha), and gold and silver concentrations as grams per tonne (g/t). Conversions from the Metric System to the Imperial System are provided below and quoted where practical. Many of the geologic publications and more recent documents now use the Metric System but older documents almost exclusively refer to the Imperial System. Metals and minerals acronyms in this report conform to mineral industry accepted usage and the reader is directed to www.maden.hacettepe.edu.tr/dmmrt/index.html for a glossary.

Where quoted, Universal Transverse Mercator (UTM) coordinates are provided in the datum of Canada, NAD83 Zone 15 North.

1.3 Disclaimer

This report is prepared exclusively for filing with the Ontario Ministry of Energy, Northern Development and Mines for assessment credit. Every effort has been made to ensure that this document meets MENDM assessment standards. This report has not been completed to National Instrument 43-101 specifications and is not intended for any other use than previously stated. Be advised that in completing this report the authors have relied heavily on existing information and reports of previous workers in the area but cannot assure the reliability or accuracy of the data collected or results of that work.

2.0 Property Description, Location and Land Tenure

2.1 Property Description and Location

The project is held 100% by a subsidiary of Treasury Metals Inc., Goldeye Exploration Limited and is located in the Harper Lake, Boyer Lake, Meggisi Lake, and Manitou Lakes Area of Northwestern Ontario, centred approximately 40 kilometres south of Dryden, Ontario at UTM 524200mE and 5475700mN (**Figure 1**). The project is accessible by highway 502 from Dryden. The Gold Rock Project is comprised of two separated blocks of claims, the Gold Rock block which contains 131 claims (2,423 ha) and the Thundercloud block which contains 9 claims (121 ha) for a combined total of 140 claims (2,544 ha) (**Figure 2**).

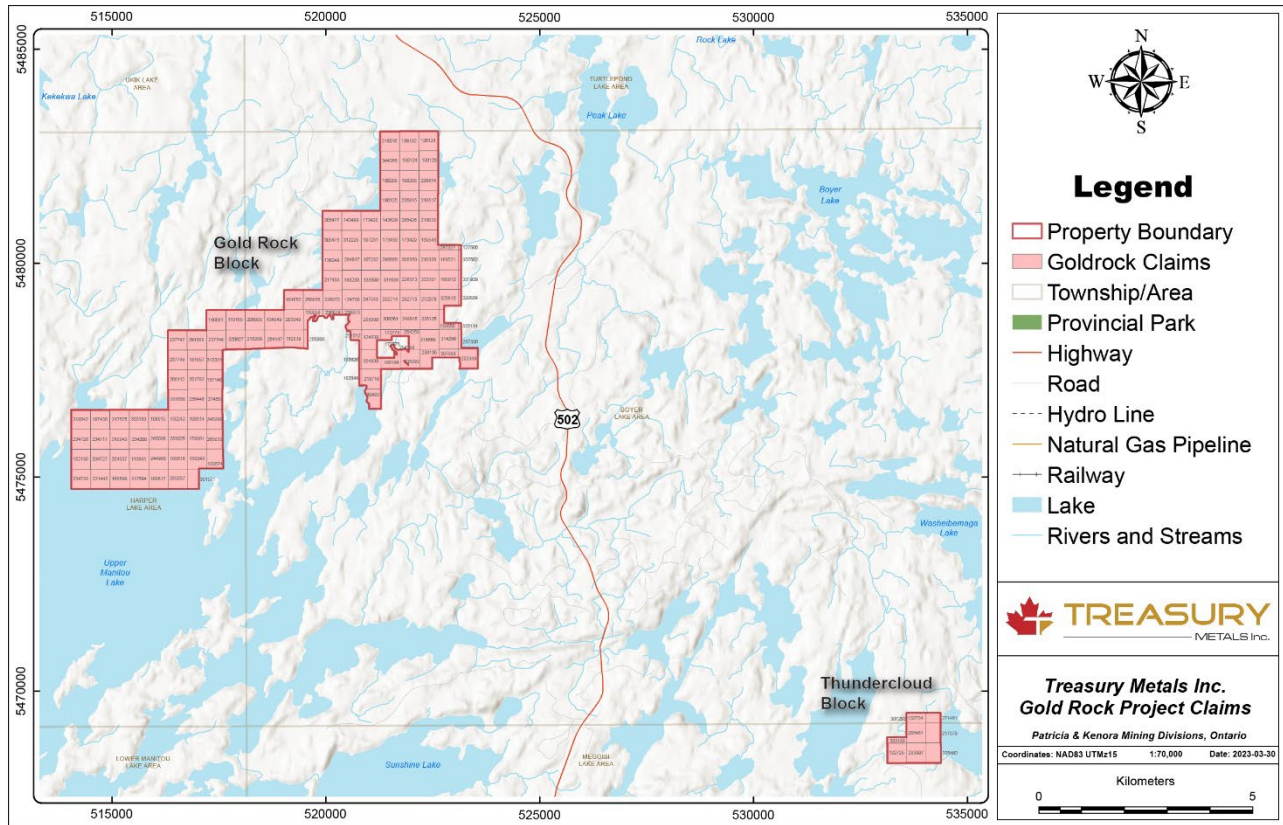
2.2 Land Tenure

All claims are currently in good standing with a portion of claims under an extension of time to complete the work outlined in this report and apply the appropriate credits. Under the provincial system for mining claims, since January 2018, the legacy claims have been converted into single-cell and boundary cell mining claims. The details of all Gold Rock Project mining cell claims are listed in Appendix A.

Figure 1 - Location of the Gold Rock Property, Ontario, Canada



Figure 2 - Gold Rock Property Claims Map



3.0 Accessibility, Climate, Local resources, Infrastructure and Physiography

The Gold Rock Project is located approximately 40 kilometres south of Dryden, Ontario, with the Gold Rock block immediately north of the north end of Upper Manitou Lake (**Figure 2**). From Dryden, Gold Rock can be reached by vehicle by travelling 6 kilometres west on Highway 594 then south on Highway 502 for an additional 50 kilometres. To access the Gold Rock block, from the highway a gravel trail leads west and southwest along the west side of Mud Lake to the historic town of Gold Rock situated at Trafalgar Bay on the north end of Upper Manitou Lake. The historic town is adjacent to the southwest corner of the Gold Rock Property and is approximately 8 kilometres from highway 502. The Thundercloud block can be accessed by old logging roads east of highway 502.

In general, the topography throughout the area is gently undulating with a relief in the order of 40 metres to 50 metres. The ridges are for the most part forested with black spruce, balsam fir and pine as well as birch and poplar. The lower ground between the rocky ridges generally is occupied by lakes, ponds and swampy wetlands. Overall, the bedrock imparts a northeasterly trend to the area.

The Project is located in northwestern Ontario where the climate is classified as continental. Typically the winters are cold with daily temperatures being in the -5°C to -20°C range. Overnight temperatures may drop to the -30°C range. Summer daytime temperatures are generally in the +10°C to +25°C range. The precipitation averages 700 mm per year with approximately one third of this being as snow which normally falls from late October and November through April. Experience indicates that most exploration activities can be executed year around, with the exception of geological and geochemical surveys.

4.0 Exploration and Mining History

The following comments on the historical work on the project and the adjacent areas were compiled and summarized from the following sources.

- Assessment Files, Ontario Ministry of Northern Development, Mines and Forestry (MNDMF).
- Publications by the Ontario Government through the Ontario Bureau of Mines, the Ontario Department of Mines, the Ontario Division of Mines and the Ontario Geological Survey.
- Cullen, D., and Clark, J.G., 2007; Technical Report on the Elora Property, Kenora Mining Division, Northwestern Ontario for Seafeld Resources Ltd., 41 p.
- Hamilton, W.S., 2007; Geology Report on the Gold Rock Property, Boyer Lake Area, Kenora Mining Division for Goldeye Explorations Limited, 21 p., Appendix.
- Maunula, T., 2010; Kenwest Property, NI43-101 Compliant Technical Report for Manitou Gold Inc., 49 p.

The first report of gold in the Manitou Lakes area was prior to 1894. Subsequently prospectors and miners came to the area between 1895 and 1912. The townsite of Dryden on the Canadian Pacific Railway (CPR) was established in 1895 and this would have facilitated access to the area. During the 1895-1912 period, there were reportedly 20 mines in the Gold Rock camp with the main properties being;

- the Big Master, 1900-1906 production,
- the Laurentian, 1906-1909 production and,
- the Jubilee/Elora, 1906-1907 production.

These were very small operations and in today's language would be referred to as "prospects".

Historical production for the Big Master Mine was a total of 2,565 ounces of gold from 14,470 tons which represents a recovered grade of 0.18 oz/ton Au or 6.1 g/t Au (Ferguson et al., 1971). This mine is located on the Kenwest Property, currently owned by Dryden Gold Corp. and previously held by Manitou Gold Inc.

The Elora Mine or Jubilee Mine is located approximately 500 metres northwest of the Big Master Mine on the current Seafield Resources Ltd. property. The mine was located on the Jubilee vein and historical references indicate a shaft was sunk to 18.9 metres by 1898. Work was terminated at this time, and development was only resumed in 1936 under the new owner, Elora Gold Mines Ltd. A new shaft was sunk to 53.3 metres and the Jubilee vein was explored on the 50 metre level. Total production from 1936 to 1939 was 1,370 ounces of gold and 296 ounces of silver, from 13,766 tons of ore milled (Ferguson et al., 1971). This is an average recovered grade of 0.10 oz/ton Au or 3.41 g/t Au.

The Laurentian shaft lies approximately 800 metres northeast of the Elora/Jubilee mine on the Seafield property and probably on the same northeast-trending structure. Mining operations began in 1903 by the Twentieth Century Mining Company and mining continued for six years with production reported for the period 1906 to 1909. During this production period 8,143 ounces of gold were produced from 19,950 tons of ore milled (Blackburn, 1981) for a grade of 0.41 oz/ton or 14.06 g/t Au.

Some of the old mines and prospects were re-examined in the 1930's after the increase in the gold price to \$US35/oz. This period saw additional production from the Elora (1939) and the Big Master (1942-43 and 1947) deposits. After this, the area was once again dormant until the 1980's. The Gold Rock claim group was prospected in the 1895 to 1912 period with little data from this work being available, however, the presence of old pits provide evidence of activity in the area.

In 1974, F.V. Regan drilled two holes totalling 62.5 metres. The drilling was designed to test the Little Master and Volcanic Reef gold prospects. No assay results are available.

Ari Resources Ltd. undertook magnetic and very low frequency electromagnetic ("VLF EM") surveys located northeast of the old Gold Rock mines in 1981 (Harron, 2003). The magnetic data illustrates a northeasterly trend, similar to that displayed in the airborne magnetic information. The VLF EM data correlated positively with bogs which also show a northeasterly trend, parallel to the regional foliation.

The Gold Rock occurrence on the current Gold Rock Property was developed by Gold Rock Mining and Milling Co. in 1904 and two shafts were sunk into this occurrence (Blackburn, 1981). This property was acquired by Kenwest Gold Mines Ltd. in 1939, but no further work was done on the prospect following the acquisition. Work performed later than 1975 on any of these occurrences noted above are not reported, as they are covered by patents.

In 1985 J.W. Redden acquired 85 claims along strike to the northeast of the known Gold Rock gold deposits and over the next 10 years carried out a series of work programs on the property as follows (Hamilton, 2007);

1990; J.W. Redden undertook a stripping campaign, which uncovered a sheared carbonatized zone approximately 100 metres wide containing quartz veining and a 1.5 metre wide zone of massive pyrite. The shear zone was traced for a distance of 520 metres to the northeast and 200 metres to the southwest. Twelve grab samples reported values from <5 to 1063 parts per billion (“ppb”) gold. The highest value was associated with a sample of leached semi-massive pyrite. This sulphide occurrence was considered to be associated with the Laurentian and Jubilee gold deposits.

1990; Aerodat completed a combined airborne VLF EM, magnetic and electromagnetic (“AEM”) survey at a line spacing of 100 metres over most of J.W. Redden’s claims. The magnetic survey showed a northeasterly trend. The AEM data did not detect the known sulphide occurrence or any other conductive zones. The VLF EM data generally showed northeasterly and northerly trends for the surficial conductive materials.

1994; J.W. Redden contracted a 2.55 kilometer induced polarization/resistivity (“IP/RES”) survey over selected lines. Prospecting was then carried out over the anomalous areas. The results indicated that the coincident resistivity low and chargeability high related to sheared and altered (carbonate-pyrite-silica) felsic rocks. Also in 1994, a MaxMin horizontal loop electromagnetic (“HLEM”) survey was performed. No bedrock conductors were located by this work.

1995; Two IP/RES anomalies were explored by mechanical trenching. The first anomaly was found to be associated with sheared and altered mafic volcanic rocks intruded by irregular felsic dykes and a 0.5 metre quartz vein. The other anomaly was found to be underlain by relatively fresh mafic volcanic rock. No samples were collected at either location. Also in 1995, J.W. Redden commissioned spectral IP/RES and magnetic surveys. Two chargeability anomalies flanked by resistivity highs were detected over a 250-metre width. Interpretation of the data indicates one high, one medium and one low priority targets in this area (JVX, 1997). This area corresponds to the alteration mapped in 1991 by Redden and subsequently explored by a previous IP/RES survey

and a partially successful mechanical trenching program. The magnetic data indicates a northeasterly trend to narrow anomalous features. Broad areas of subdued magnetic responses are attributed to both felsic and altered mafic rocks.

The Gold Rock Property was obtained by Goldeye Exploration Ltd. in 2002 and minor work was carried out in 2003.

In 2004 Goldeye carried out Time Domain, pole-dipole Induced Polarization (IP) surveys on 4.35 kilometres of pre-cut lines spaced at 100 metres. In addition, 5.8 line-kilometres of a magnetometer survey were completed. The Spectral IP and ground magnetic survey confirmed the airborne conductors that were associated with a magnetic anomaly “MN-2” has similarities with a magnetic anomaly that correlates with the Elora Mine.

In 2007 Goldeye mapped 12.35 line-kilometres on the southeastern shore of Double Lake. A total of 52 surface samples were collected in 2007. Sample assay values ranged between <5 ppb Au to 1650 ppb Au (1.65 g/t Au) with the best values coming from the east side of Double Lake.

Also in 2007, Goldeye completed 6.85 line-kilometres of magnetometer surveying and 4.65 line-kilometres of IP, resistivity and magnetic surveys.

During 2008, JVX Ltd. carried out Spectral induced polarization (IP)/resistivity and magnetic surveys on part of the Gold Rock Property on behalf of Bridgeport Ventures Inc. A total of 14.5 kilometres of magnetic surveying and 8.05 kilometres of IP/resistivity surveying were completed.

A grid was cut in 2012 and Induced spectral polarization, VLF and Magnetic surveys was completed, processed and compiled with previous surveys. A small prospecting program was completed with 48 samples collected. Followed by a six hole (765 metre) drill program testing the targets highlighted by the previous geophysical surveys.

In 2021, new geological maps and papers were published covering the western Wabigoon subprovince in the area of the Gold Rock property. This worked compiled historical geological and geophysical information to form new interpretations (Montsion et. al 2021 and Zammit et. al 2021).

5.0 Geology

The Gold Rock Project is situated in the Eagle-Wabigoon-Manitou Lakes greenstone belt (**Figure 3**). This greenstone belt trends northeasterly and is bounded on the northwest by the Atikwa granitoid batholith and on the southeast by the Irene-Eltrut Lakes batholith. The northeast trending, steeply southeast dipping Manitou Straits Fault (“MSF”) has been traced over a distance of 65 kilometres along strike and bisects the greenstone belt. This fault is considered to represent the eastern extension of the Pipestone-Cameron Fault located on the southwestern side of the Atikwa batholith

(Blackburn, 1979, 1981, 1982).

On the northwestern side of the MSF where the Gold Rock property is located, the Blanchard Lake group appears to occupy the axial portion of the Manitou Anticline and is considered to be the lowest stratigraphic assemblage in the area northwest of the MSF. The axis of the anticline strikes northeast and plunges northeast; however, the anticline is overturned as both limbs dip southeast. The Blanchard Lake Group tholeiitic basalts are predominately fine to medium-grained pillowed and massive flows with well developed flow top breccias. The western portion of the assemblage has been metamorphosed to amphibolite grade due to the intrusion of the Atikwa felsic batholith.

Unconformably overlying the Blanchard Lake basalts is a thick assemblage of coarse calc-alkaline pyroclastics of intermediate to felsic composition, with a subordinate amount of interbedded tholeiitic basalts occurring along the limbs of the Manitou Anticline and called the Upper Manitou Lake Group. Interbedded tuff breccias, lapilli tuff and fine-grained bedded tuff are the main rock units. The upper stratigraphic contact with the Benson Bay Subgroup of the Pincher Lake group is characterized by decreasing amounts of pyroclastic material and an increase in the quantity of basalt.

The Benson Bay Subgroup tholeiitic basalts are amygdaloidal, mainly massive flows, with lesser amounts of pillowed flows exhibiting well-developed flow top breccias. The western part of this sequence also exhibits amphibolite grade metamorphism caused by contact metamorphism from the Atikwa batholith. Near its margin, the batholith comprises porphyritic and fine-grained phases of quartz monzonite, granodiorite and trondjemite. Radiometric age dates and the presence of basalt xenoliths imply that the marginal phases of the batholith are synvolcanic.

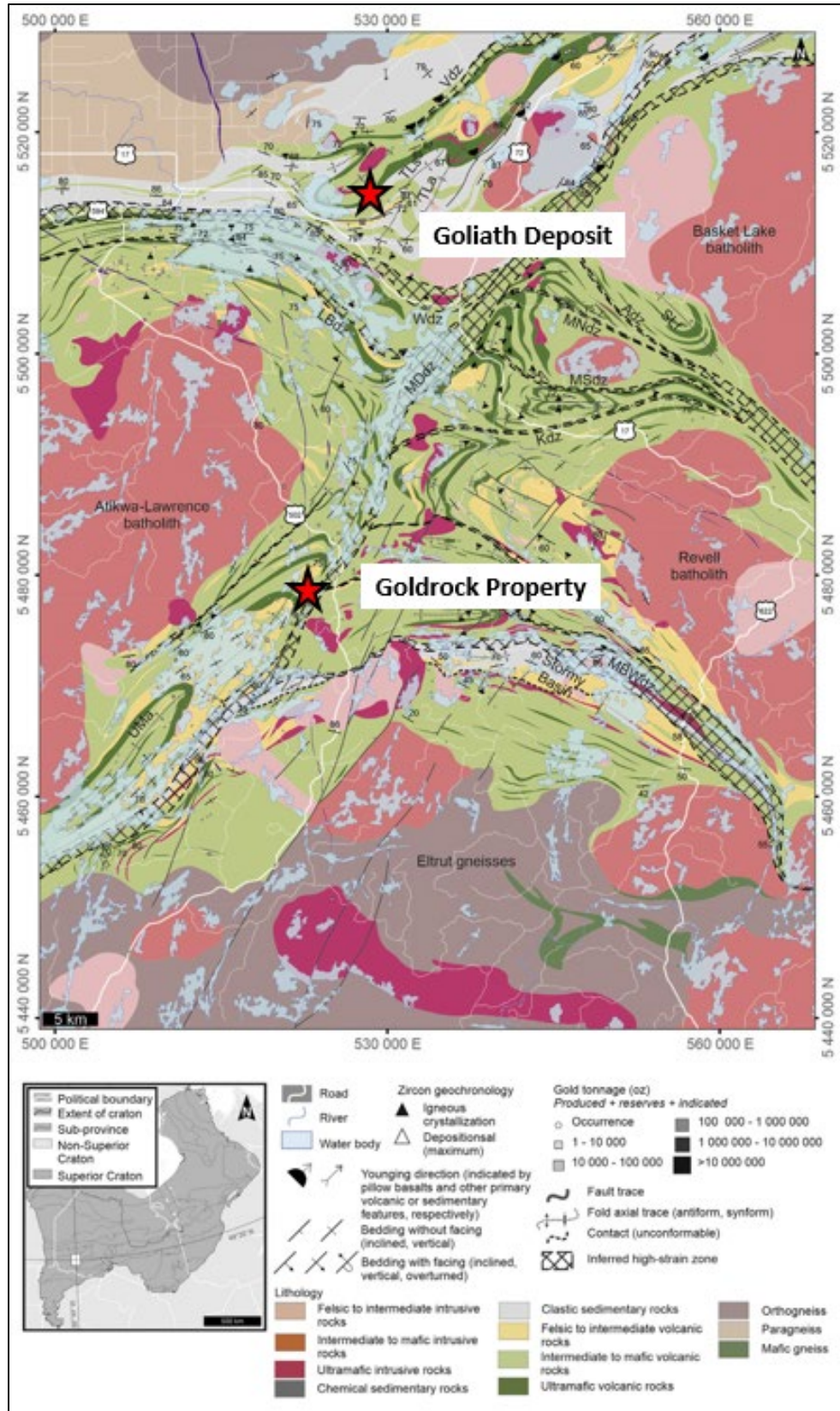


Figure 3 - Geology map of the Wabigoon Subprovince modified from Montsion et.al 2021

A dominant structural feature of the region is the Manitou Straits Fault (MSF) which was mapped by Blackburn (1976) as an at least 60 metre wide highly fissile, schistose, carbonate-altered, shear zone. Parker (1989) considered that the MSF was the southeastern limit of a much broader, 4 kilometre to 5 kilometre wide belt of parallel to anastomosing shears and structurally altered rocks which he called the Manitou Straits Deformation Zone (MSDZ) (**Figure 4**). The Gold Rock area is contained within this northeasterly trending zone as are most of the past producing gold deposits and occurrences in the area.

A second major structural feature in the area is the Manitou Anticline that lies on the northwest side of the MSF and trends northeasterly parallel to the fault. Plunge directions related to the anticline are in the range from 40° to >80° to the northeast. Shoots of gold mineralization in structures in the MSDZ may also have this northeasterly plunge.

Airborne magnetic maps of the area (OGS Maps 82164, 82168) show a strong magnetic pattern trending northeast along the margins of the MSDZ. Within the confines of the MSDZ, the magnetic fabric is more chaotic, reflecting the presence of carbonate alteration, subsidiary structures and a mixed lithology of felsic and mafic volcanics, as well as both felsic and mafic intrusions.

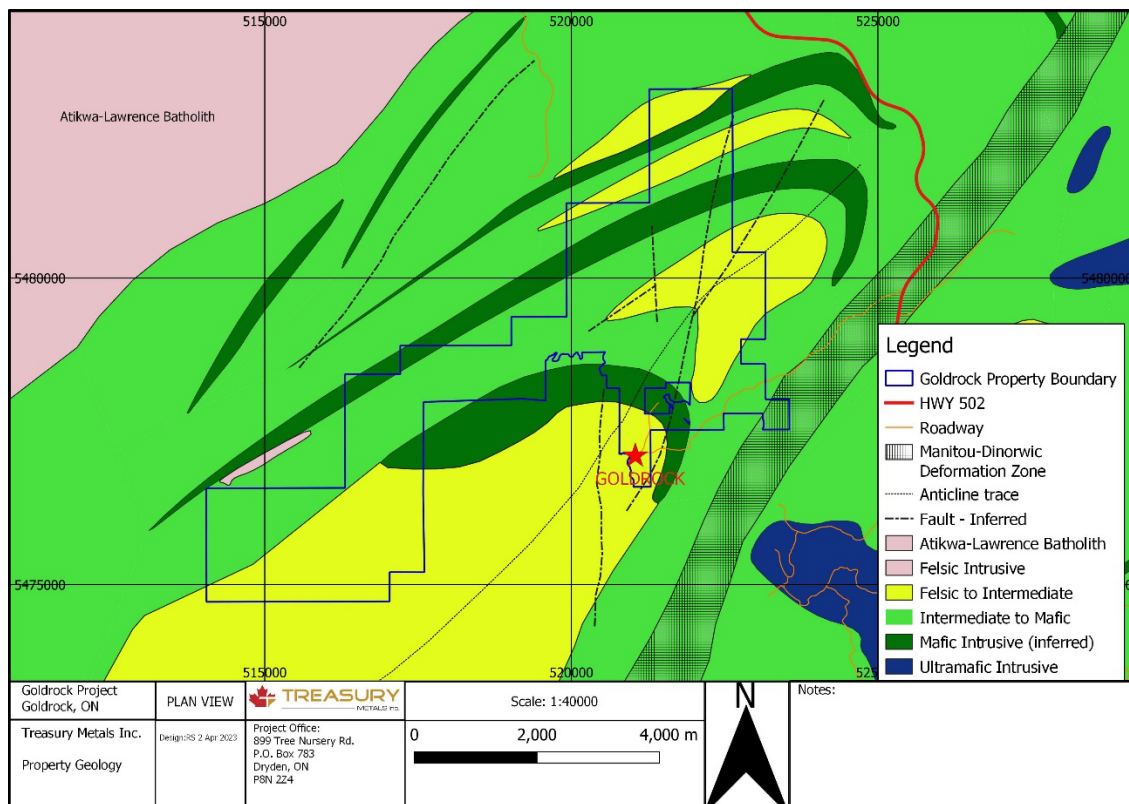


Figure 4 - Local geology of the Gold Rock Property

6.0 Mineralization

Within the Upper Manitou Lake area and the Gold Rock historic mining camp, there are in the order of 60 known gold showings, occurrences, prospects and deposits with approximately 90% of these being within the MSDZ. The main gold-bearing structures are within the MSDZ and trend north-northeast, northeast and east-west.

Three past producers; the Laurentian Mine (1906-1909), the Elora or Jubilee Mine (1906-1907) and the Big Master (1900-1906 and 1942-1943) are located within the MSDZ. The total production from the camp is estimated at 376 kg gold produced from 43,627 tonnes mined between 1900 and 1943. The Jubilee vein at the Laurentian and Elora mines, as well as the veins at the Big Master mine are all spatially associated with feldspar porphyric mafic volcanics rocks. Wallrock alteration consisting of bleaching at all three deposits comprises sericitization, chloritization, ferroan and calcium carbonatization and pyritization (1-5%) accompanied by tourmaline and fuchsite over widths of 1.5 to 1.8 metres. The mineralized veins consist of numerous grey-white quartz veins, stringers and lenses with visible gold and minor pyrite. The mineralized structures have strike lengths of 1 to 1.5 kilometres and the veins within them vary from a few centimetres to 4 metres in width. The variation in width is considered to be the result of boudinage and/or tectonic thickening.

Blackburn (1982) summarizes the Gold Rock area gold deposits as being quartz veins spatially associated with felsite units. In the broader Upper Manitou Lake area the deposits are described as quartz veins in subvolcanic porphyry, intermediate pyroclastics and mafic flows intruded by porphyry and felsite dykes. To the south from Manitou Island to Rector Lake the gold-bearing quartz veins are hosted by mafic volcanics except for the Gaffney prospect where gold occurs in a sulphide zone and at the Queen Alexandra prospect where the quartz veins are in a felsic stock. The Washeibemaga Lake or Pelham occurrence is described as gold and sulphide mineralization and quartz veins and silicified zones in the interior of thick, pillowed basaltic flows (Blackburn, 1981).

Hamilton (2007) reports on mineralization from the Gold Rock Property as follows.

- An outcrop of mineralized felsic tuff is foliated and contains 1-5% very finely disseminated pyrite and correlates with an Induced Polarization (IP) chargeability anomaly.
- Three small pits over a length of 12 metres are surrounded by rubble of semi-massive pyrite in basalt with minor quartz veining. This site also correlates with an IP anomaly.
- Another small pit exposes highly foliated basalt with white quartz, hematite staining and 5-15% pyrite. Highly altered, bleached and sheared basalt with 10-25% pyrite as

disseminations and stringers was also observed. An IP chargeability anomaly correlates with this location.

- Two outcrops of fine grained basalt contain up to 5% disseminated pyrite.
- Other showings/samples show quartz veining, locally with semi-massive pyrite in a chlorite schist. Grey quartz veins from 30 cm to 2 metres wide contain up to 5-10% pyrite.

Maunula (2010) describes the mineralization on the Manitou Gold Inc. Kenwest Property which is contiguous to the south of the Gold Rock Property as being of three styles;

1. Gold associated with quartz veins, stringers, and stockwork within the felsic dykes.
2. Gold associated with pyrite within the groundmass of the felsic dykes.
3. Gold associated with the sheared volcanics adjacent to the dyke contacts.

“Gold mineralization styles 1 and 3 are common and well documented in mesothermal gold deposits of many gold camps. The third style of gold mineralization, contained within the groundmass of the dyke, presents a relatively new and underexplored exploration opportunity.

The zones host mineralized felsic dykes with white to grey quartz veins within the dyke and oriented at oblique angles to the contacts. The quartz veins typically comprise 5% to 20% of the felsic dykes”.

In summary, the gold mineralization in the Gold Rock, Manitou Lakes and areas is considered to be typical, Archean mesothermal-type gold mineralization. The main features of the mineralization are;

- In general the mineralization is structurally controlled, quartz-pyrite vein to shear-hosted zones. Some zones carry up to 25% pyrite.
- Wallrock alteration consists of sericitization, carbonatization, chloritization and silicification.
- Gold-bearing veins/zones are commonly associated with felsic dykes/intrusive bodies and some mineralization is within the dykes.
- Some zones are hosted in mafic volcanic units.

Gold-bearing zones may consist of quartz veins or shear-hosted veins a few centimetres wide up to broad zones of multiple, parallel mineralized shears/veins.

7.0 Deposit Types

Gold mineralization in the general Manitou Lakes Area is considered to be typical, Archean age, mesothermal-type lode gold mineralization. The characteristics of mesothermal type deposits are summarized below based on the papers by Hodgson and MacGeehan (1982), Hodgson (1993) and Drew (2000?).

- Mesothermal gold deposits are mostly quartz-vein-related, gold-only deposits with associated carbonatized wallrocks.
- They occur in low- to medium-grade metamorphic terranes of all ages, but only in those that have been intruded by granitoid batholiths. The deposits are characterized by a high gold/silver ratio, great vertical continuity with little vertical zonation, and a broadly syn-tectonic time of emplacement.
- Commonly associated minerals include pyrite, the common base-metal sulphides, arsenopyrite, tourmaline and molybdenite.
- Mineralization may occur in any rock type and ranges in form from veins, to veinlet systems, to disseminated replacement zones. Most mineralized zones are hosted by and always related to steeply dipping reverse- or oblique-slip brittle-fracture to ductile-shear zones.
- At a regional scale, the deposits occur in prograding arc-trench complexes in association with major transcrustal fault zones, linear belts of fluviatile to shallow-marine sedimentary rocks, and small felsic alkalic and trondhjemitic intrusions, an assemblage of structures and rocks that developed after the main period of accretion-related contractional deformation, but before much of the metamorphism and penetrative fabric.
- Ore fluids are CO₂ rich and have been attributed to magmas, metamorphic devolatilization of supracrustal rocks and mantle degassing; current opinion favours devolatilization of subcreted volcanic and sedimentary rocks, with modification by interaction with the crustal column between the sites of fluid generation and ore deposition.

8.0 Airborne TDEM and LiDAR Survey

8.1 Program Objective and Details

From September 28th to October 18th, 2022, Axiom Exploration Group Ltd. ('Axiom') carried out a helicopter borne Time Domain Electro Magnetic survey with LiDAR data co-collected over the Gold Rock project near Dryden, Ontario. The survey consisted of 2 grids – Block 1 in the north and Block 2 in the southeast, totaling 545 line-km of magnetics and 490 km of EM with a traverse line spacing of 100 m and tie line spacing of 1000 m (**Figure 5**). The objective of this program

was to acquire high quality geophysical and LiDAR data for the use of identifying new exploration targets.

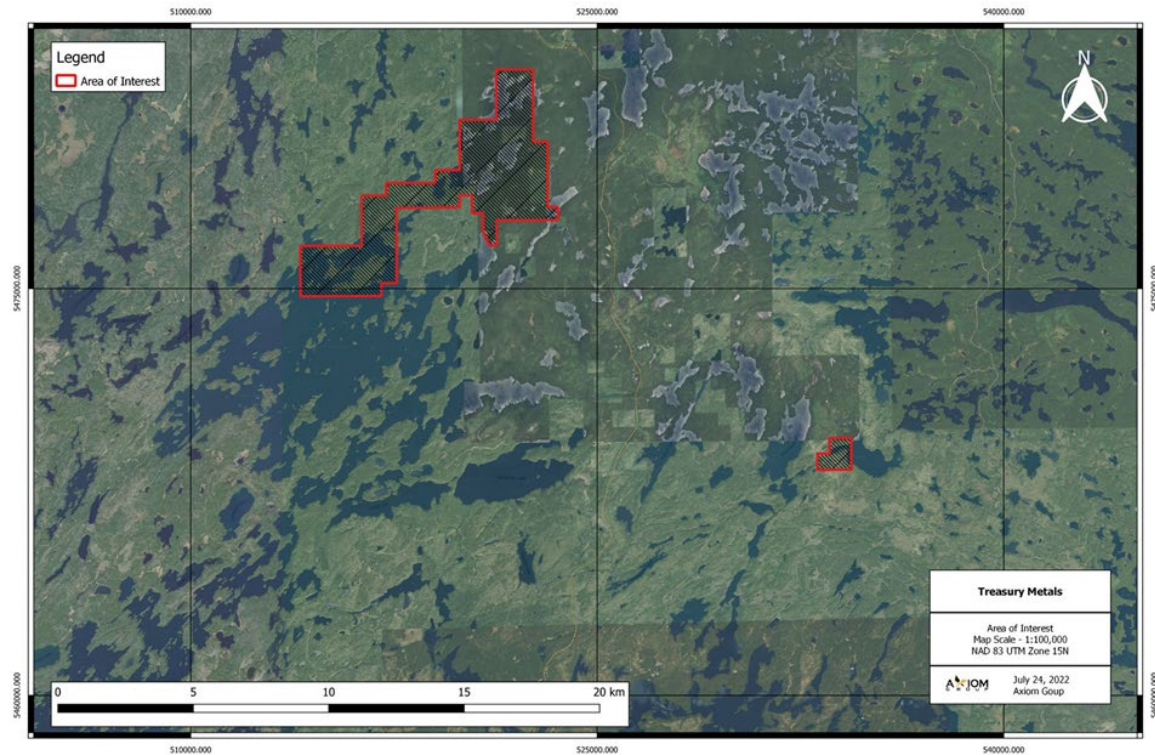


Figure 5 - TDEM Flight Plan for the Gold Rock Property

The survey was flown using the 30Hz Xcite™ TDEM system and a Phoenix Ranger LR Long Range LiDAR system with high-accuracy GNSS and IM units (system specifications shown in Table 1 and described in detail in Appendix B & C), towed by an FX2 helicopter platform (**Figure 6**), collecting time domain electromagnetic, magnetic, radiometric, and LiDAR data simultaneously. The flight had a mean altitude of 52 metres on Block 1 and 44 metres on Block 2 with an average survey speed of 60 km/hour. Data points were acquired by the survey instruments every 0.05 seconds.

A single Scintrex CS3 Cesium vapor magnetometer was used for this survey in its “Base” mode of operations. The magnetometer is equipped with a high-resolution integrated GPS. The base station was recording at 1 second intervals and was used to do the final diurnal corrections. Location information for the base stations is included in **Table 2** while instrument specifications are included in **Table 3**.

Table 1 - Towed TDEM and LiDAR system specifications

Electromagnetic system	
Type	Xcite™
Sensor configuration	Coincident Tx-Rx
Weight	~450kg
Structure	Fully inflatable frame
Aircraft type	AS360B series
Engine Type	Turbine
Fuel Type	JetA
Transmitter	
Diameter	18.4 m
Number of turns	4
Current	280 A
Peak dipole moment	300 000 NIA
Base frequency	30 Hz
Waveform	Nominal square wave
Receiver	
Diameter	0.613 m (effective) (X), 1.0 m (Z)
Number of turns	200 (X), 100 (Z)
Orientation	X & Z axes
Configuration	Concentric to Tx
Recording	Digitally at 625 kbps
Time gates	Extracted from streamed data – Typically 49 gates
Time gate windows	0.04ms to >1ms
Measurements	dB/dt and integrated B-field
Acquisition System	
Type	NRG RDAS II
CPU	Dual Core ARM 1.5Ghz
Operation Temperature	-10 to 65 Degrees C
Standard Sampling Rate	20 Hz (capable of >1kHz)
Magnetometer Counter	
Type	NRG RDAC II
Internal System Noise	< 0.0001 nT
ADC inputs	24
Magnetometer inputs	4
Recording Rate	20 Hz (capable of >1kHz)
Magnetometer Sensor	
Type	Single Sensor Scintrex CS3
Measurement Range	15 000 – 105 000 nT
Gradient Tolerance	40 000 nT/m
Operating Temperature	-40 to +50 Degrees C
Recording Rate	20 Hz (capable of >1kHz)
Laser altimeter	
Type	SF11/C (Loop) and SF00(Heli)
Range	0 – 60 m and 0 – 250m

Resolution	1 cm
Recording rate	20 Hz (capable of >1kHz)
Base station magnetometer	
Type	NRG VER 2
Manufacturer	NRG Engineering
Range	15 000 to 105 000 nT
Sensitivity Recording Rate	0.0006 nT $\sqrt{\text{Hz}}$ RMS 1Hz
Base station sensor	
Type	Single Sensor Scintrex CS3
Measurement Range	15 000 – 105 000 nT
Gradient Tolerance	40 000 nT/m
Operating Temperature	-40 to +50 Degrees C
Recording Rate	20 Hz (capable of >1kHz)
LiDAR sensor	
Type	Phoenix Ranger-LR
Measurement Range	1.5 m at 1 MHz PRR to 1,000 m at 50 kHz PRR
Max Effective Measurement Rate	1,500,000 shots/s
Horizontal Field of View	360°
Absolute Accuracy	1.5 – 3.0 cm RMSEz @ 120 m Range
Intraswath Precision	2 cm RMSDz @ 120 m
Constellation Support	GPS + GLONASS + BEIDOU + GALILEO
Support Alignment	Static, Kinematic, Dual-Antenna
Accuracy Position	1 cm+1ppm RMS horizontal

Table 2 - Base Station Information

Base Station	Easting (m)	Northing (m)	Coordinate System
#1 - 8062827	554917.9	6461388.1	WGS84 UTM Zone 15U

Table 3 - Base Station Specifications

Sensitivity	0.0006 nT @ 1 Hz	Gradient Tolerance	40,000 nT/m
Recording rate	20 Hz	Dynamic Range	15,000 to 105,000 nT
Resolution	0.01 nT	Absolute Accuracy	< 2.5 nT throughout range

The survey area was flown in a northwest to southeast (135° azimuth) direction with traverse line spacings of 100 metres as depicted in **Figure 5**. Tie lines were flown perpendicular to the traverse lines 1000 metres apart.



Figure 6 - Helicopter & Loop Configuration

Table 4 - Survey Specifications

Block	Line Type	Line Spacing (m)	Flight orientation	Actual Line-kms Flown
Block 1	Traverse	100	135° - 315°	430
	Tie	1000	45° - 225°	48
Block 2	Traverse	100	135° - 315°	60
	Tie	1000	45° - 225°	7
	Total			545 km

The LiDAR data collected using the Phoenix Long Ranger LR system was processed to produce a full-featured LiDAR point cloud and classified utilizing machine learning algorithms. By using the classified point cloud, the vegetation was stripped away to generate a bare earth topographic map, or Digital Elevation Model/Digital Terrain Model (‘DEM/DTM’). The functionality of the high-resolution DEM/DTM has a broad range of applications including: drainage analysis, baselines, volumetric analysis, drill hole planning, collar elevation corrections for historical drill holes, accurate topography for 3-D modelling, and vegetation analysis.

Quality control and quality assurance were completed daily during the acquisition phase to ensure all field data collected was at a high standard. Final processing and leveling were completed post acquisition. Full details on the data handling can be found in Appendix B.

9.0 Conclusions and Recommendations

A helicopter borne Time Domain Electro Magnetic survey with LiDAR data co-collected was flown successfully by Axiom Exploration on the Gold Rock property between September 28th and October 18th, 2022. The data collected was processed and used to create a set of 9 geophysical maps and derived data products in addition to high resolution digital elevation/surface models and contours, a 30-layer unconstrained layered earth inversion and an unconstrained 3D magnetic susceptibility inversion (see Appendix B & C).

A formal interpretation has not been included in this survey. A detailed interpretation/analysis of the results, and integration into a geological model are recommended to investigate this data in support of exploration for mineral potential.

10. Costs

A total of \$174,172.83 was spent on the entire airborne geophysical survey. The amount eligible for assessment credits include line-km flown within claim boundaries or the 200m overflight buffer and amount to a total of \$150,106.34. Costs are summarized in **Table 5**.

Table 5 - Summary of Costs

Survey Item	Units	Cost Per Unit	Amount
Survey-wide Costs			
Helicopter Mob/Demob	1	\$10,000	\$10,000.00
Field Crew Mob/Demob	1	\$3,000	\$3,000.00
Reconnaissance Flight	1	\$6,000	\$6,000.00
Food per Diem (4 people)	22	\$260	\$5,720.00
Accommodations (4-5 people)	109	\$87.41	\$9,528.00
Standby	7	\$3,600	\$25,200.00
LiDAR Survey	1	\$15,250	\$15,250.00
		Subtotal	\$74,698.00
Line Costs			
Flown Survey Lines	496	\$175/km	\$86,800.00
Fuel 3247	1	\$11,822.33	\$11,822.33
Fuel 310	1	\$852.50	\$852.50
		Subtotal	\$99,474.83
		Total	\$174,172.83
Line-km eligible within 200m buffer	376	\$175/km	\$65,800.00
Fuel eligible within 200m buffer	1	\$9,608.34	\$9,608.34
		Assessment Credit Total	\$150,106.34

11. References

- Assessment Files, Ontario Ministry Northern Development Mines and Forestry.
- Beard, R.C. and G.L. Garratt, 1976 Gold Deposits of the Kenora-Fort Frances Area, Districts of Kenora and Rainy River. Ontario Department of Mines, Ministry of Natural Resources, Mineral Deposit Circular 16.
- Blackburn, C.E. and Janes, D.A., 1983 Gold Deposits in Northwestern Ontario; p. 194-210 in the Geology of Gold in Ontario, edited by A.C. Colvine, Ontario Geological Survey, Miscellaneous Paper 110.
- Blackburn, C.E., 1979 Geology of the Upper Manitou Lake Area, District of Kenora; Ontario Geological Survey Report 189, 74 p. Accompanied by Map 2409, scale 1:31 680.
- Blackburn, C.E., 1981 Geology of the Boyer Lake – Meggisi Lake Area, District of Kenora. Ontario Geological Survey Report 202, 107 p. Accompanied by Maps 2437 and 2438, scale 1:31 680 (1 inch to one half mile) and 3 Charts.
- Blackburn, C.E., 1982 Geology of the Manitou Lakes Area, District of Kenora (Stratigraphy and Petrochemistry). Ontario Geological Survey Report 223.
- Blackburn, C.E., Beard, R.C. and Rivett, S., 1981 Kenora-Fort Frances Sheet, Kenora and Rainy River Districts. Ontario Geological Survey Compilation Series, Map 2443, Scale 1:253 440 or 1 inch to 4 miles.
- Cullen, D. and Clark, J.G., 2007 Technical Report on the Elora Property, Kenora Mining Division, Northwestern Ontario. Seafeld Resources NI 43-101 report, 36 pp.
- Drew, L.J., 2000(?) Low-Sulfide Quartz Gold Deposit Model, U.S. Geological Survey Reston, VA 20192, 24 p.
- Ferguson, S.A., Groen, H.A. and Haynes, R., 1971 Gold Deposits of Ontario, Part 1: Districts of Algoma, Cochrane, Kenora, Rainy River and Thunder Bay; Ontario Department of Mines and Northern Affairs, Mineral Resources Circular 13, 315 p.
- Goldeye Explorations Limited, 1995 Mineral Resource Prospects: Boyer Lake / Meggisi Lake Area for Goldeye Explorations Limited, 9 p., 3 app., 5 figures.
- Hamilton, W.S., 2007 Geology Report on the Gold Rock Property, Boyer Lake Area, Kenora Mining Division for Goldeye Explorations Limited, 21 p., 1 app., 5 figures, 1 map.
- Harron, & Associates Inc., 2003 Qualifying Report on Gold Rock Property for Goldeye Explorations Limited, Kenora M.D., Ontario, 20 p., 3 tables, 6 figures.

- Hodgson, C.J., and MacGeehan, P.J., 1982 A review of the geological characteristics of 'gold only' deposits in the Superior Province of the Canadian Gold Deposits (R.W. Hodder and W. Petruk, eds.), p. 211-229.
- Hodgson, C.J., 1993 Mesothermal lode-gold deposits, in Kirkham, R.V., Sinclair, W.D., Thorpe, R.I. and Duke, J.M. eds., Mineral Deposit Modeling: Geological Association of Canada, Special Paper 40, p. 635-678.
- JVX Ltd., 1998 A Logistical and Interpretive Report on Spectral IP/Resistivity and Magnetometer survey conducted on the Gold Rock Property, Northwest Ontario for Goldeye Explorations Limited., 13 p., 2 app., 3 tables, 2 figures.
- JVX Ltd., 2004 Report on IP/Resistivity and Magnetic Surveys, Gold Rock Property, Ontario for Goldeye Explorations Limited, 8 p., 2 app., 6 figures, 11 maps.
- JVX Ltd., 2008 Report on Spectral IP/Resistivity and Magnetic Surveys, Gold Rock Property, Dryden Area, Ontario for Bridgeport Ventures Inc., 17 p., 2 app., 11 figures.
- Maunula, T., 2010 Kenwest Property, NI 43-101 Compliant Technical Report for Manitou Gold Inc., 49 p., 7 tables, 16 figures.
- Parker, J.R., 1989 Geology, gold mineralization and property visits in the area investigated by the Dryden-Ignace Economic Geologist 1984-1987; Ontario Geologist Survey. Open File Report 5723, 306 p.
- Thomson, J.E., 1934 Geology of the Manitou – Stormy Lakes Area; Ontario Department of Mines, Volume 42, Part 4, 1933; p. 1-40, Accompanied by Map 42c, Scale 1:63 360 (1 inch to 1 mile).
- Thomson, J.E., 1942 Some Gold Deposits Near Gold Rock, Upper Manitou Lake; Ontario Department of Mines, Volume 47, Part 6, 1938, p. 1-10, Accompanied by Map 47k, Scale 1:4800 (1 inch to 400 feet).
- Winter, L.D.S., 2012 Technical Report NI 43-101 on the Goldrock Project Manitou Lakes Area, District of Kenora, Ontario, For Goldeye Explorations Ltd.

12. Certificates

**CERTIFICATE OF QUALIFIED PERSON
ADAM LARSEN, P.GEO.**

I, Adam C. Larsen, P.Geo., residing at 297 The Cliffs, Wabigoon, Ontario, do hereby certify that:

1. I am a Professional Geologist employed by Treasury Metals Incorporated as the Exploration Manager (December 2010 to present).
2. This certificate applies to the Assessment Report titled “2022 Airborne Time Domain Electro Magnetic Survey” prepared for Treasury Metals Inc.
3. I graduated from the University of Saskatchewan, Saskatoon, Saskatchewan in 2010 with a B.Sc. in Geological Sciences (High Honours), and have been practicing my profession as a geologist since 2008.
4. I am a member in good standing with "The Association of Professional Geoscientists of Ontario (APGO)" since September, 2015 (License No. 2580).
5. My relevant experience for the preparation of the report is:

Exploration Manager, Treasury Metals Incorporated 2019-Present
Senior Project Geologist, Treasury Metals Incorporated..... 2017-2018
Independent Geologist (Project Geologist), Treasury Metals Incorporated..... 2014-2016
Project Geologist, Treasury Metals Incorporated 2010-2014

Date: April 11, 2023



Adam Larsen, P.Geo.

Appendix A – Mineral Claim List for the Gold Rock Property

Table 6 - Mineral Claims List

Tenure #	Tenure Type	Anniversary Date	Work Required	Claim Holder
107231	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
107232	Single Cell Mining Claim	2022-08-03	\$400	Goldeye Explorations Limited
108208	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
108209	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
108614	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
108615	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
108616	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
108617	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
110058	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
112839	Boundary Cell Mining Claim	2022-11-27	\$200	Goldeye Explorations Limited
113884	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
115165	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
124739	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
124838	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
126121	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
127500	Boundary Cell Mining Claim	2023-04-21	\$200	Goldeye Explorations Limited
132724	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
132725	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
133574	Boundary Cell Mining Claim	2022-12-07	\$200	Goldeye Explorations Limited
134049	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
136249	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
138132	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
138899	Single Cell Mining Claim	2022-08-03	\$400	Goldeye Explorations Limited
139548	Boundary Cell Mining Claim	2023-04-21	\$200	Goldeye Explorations Limited
139550	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
143499	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
143629	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
149981	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
150242	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
150243	Boundary Cell Mining Claim	2022-12-07	\$200	Goldeye Explorations Limited
152130	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
157148	Boundary Cell Mining Claim	2022-11-27	\$200	Goldeye Explorations Limited
168699	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
168810	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
172775	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
173428	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
173429	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
173430	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
178801	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
181657	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
181658	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
182049	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited

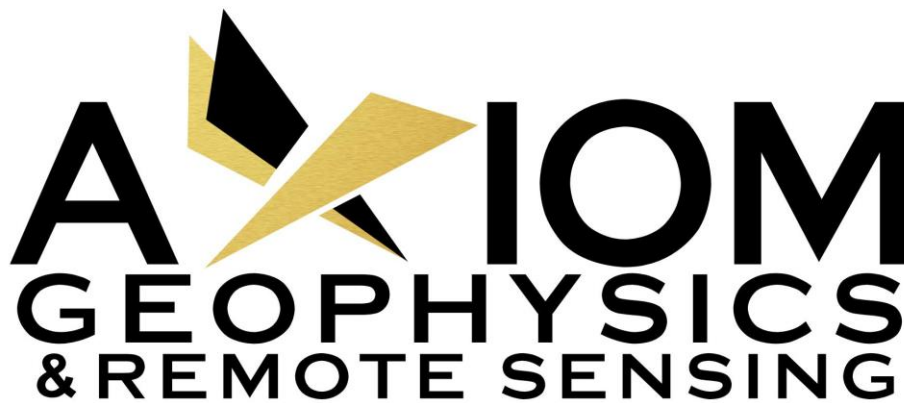
Tenure #	Tenure Type	Anniversary Date	Work Required	Claim Holder
188230	Single Cell Mining Claim	2022-08-03	\$400	Goldeye Explorations Limited
188828	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
190123	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
190124	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
190125	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
190198	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
191521	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
191652	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
197430	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
201012	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
201782	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
203848	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
205461	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
205462	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
206085	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
209112	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
210306	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
216669	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
217434	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
217575	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
217579	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
217594	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
218016	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
218017	Boundary Cell Mining Claim	2022-11-14	\$200	Goldeye Explorations Limited
218018	Boundary Cell Mining Claim	2023-04-21	\$200	Goldeye Explorations Limited
218209	Boundary Cell Mining Claim	2022-11-27	\$200	Goldeye Explorations Limited
218716	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
226073	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
226814	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
226815	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
234208	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
234717	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
234726	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
234727	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
234728	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
235292	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
236135	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
236872	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
236873	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
236874	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
237746	Boundary Cell Mining Claim	2022-11-27	\$200	Goldeye Explorations Limited
237747	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
237748	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
244980	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
247543	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
248915	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
253025	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited

Tenure #	Tenure Type	Anniversary Date	Work Required	Claim Holder
254258	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
256446	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
259856	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited
263997	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
264007	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
264147	Boundary Cell Mining Claim	2022-11-27	\$200	Goldeye Explorations Limited
265035	Boundary Cell Mining Claim	2022-12-07	\$200	Goldeye Explorations Limited
265036	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
265037	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
265999	Boundary Cell Mining Claim	2022-11-14	\$200	Goldeye Explorations Limited
271461	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
272078	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
274508	Boundary Cell Mining Claim	2022-11-27	\$200	Goldeye Explorations Limited
284017	Single Cell Mining Claim	2022-08-03	\$400	Goldeye Explorations Limited
285426	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
286666	Single Cell Mining Claim	2022-08-03	\$400	Goldeye Explorations Limited
287327	Boundary Cell Mining Claim	2023-04-21	\$200	Goldeye Explorations Limited
287330	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
288050	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
291588	Single Cell Mining Claim	2022-11-27	\$400	Goldeye Explorations Limited
292713	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
292714	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
295349	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
301293	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
301571	Boundary Cell Mining Claim	2022-12-07	\$200	Goldeye Explorations Limited
301929	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
304830	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
304831	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
305477	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
305478	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
306859	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
307552	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
307553	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
308261	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
311634	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
312226	Single Cell Mining Claim	2023-04-21	\$400	Goldeye Explorations Limited
312321	Boundary Cell Mining Claim	2022-11-27	\$200	Goldeye Explorations Limited
314256	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
318542	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
318543	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
320809	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
320810	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
320827	Boundary Cell Mining Claim	2022-11-27	\$200	Goldeye Explorations Limited
331442	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
333186	Single Cell Mining Claim	2022-12-07	\$400	Goldeye Explorations Limited
333188	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
333301	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited

Tenure #	Tenure Type	Anniversary Date	Work Required	Claim Holder
335134	Boundary Cell Mining Claim	2022-08-07	\$200	Goldeye Explorations Limited
335135	Single Cell Mining Claim	2022-08-07	\$400	Goldeye Explorations Limited
340399	Boundary Cell Mining Claim	2022-12-07	\$200	Goldeye Explorations Limited
344355	Single Cell Mining Claim	2022-11-14	\$400	Goldeye Explorations Limited

**Appendix B – Gold Rock Project, Ontario – Airborne Time Domain Electromagnetic
Survey Logistics Report**

**Goldrock Project, Ontario:
Airborne Time Domain Electromagnetic Survey
Logistics report**



Prepared for:

Adam Larsen

Treasury Metals

Date: December 11th, 2022
Prepared by:

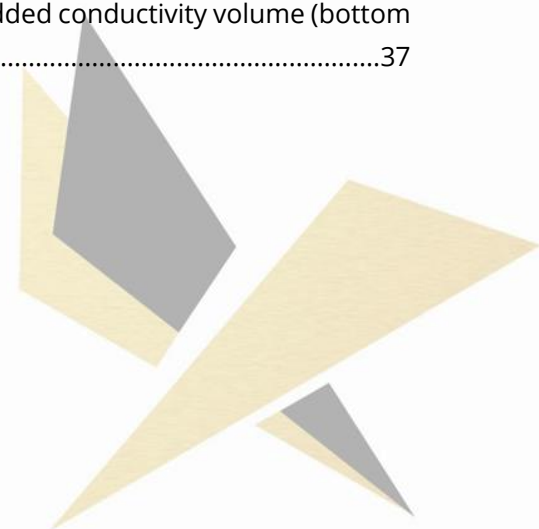
2223.5212.TRM.Goldrock_Report
Tanya Coetzee, P.Geo
Chris Brown, P.Geo
Vessela Hobson, M.Sc.

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1. Introduction

From September 28th to October 18th 2022, Axiom Exploration Group Ltd. ('Axiom') carried out a helicopter borne electromagnetic survey over the Goldrock project near Dryden, Ontario. The survey consisted of 2 blocks, totaling 545 line-km of magnetics and 490 km of EM with a traverse line spacing of 100 m and tie line spacing of 1000 m.

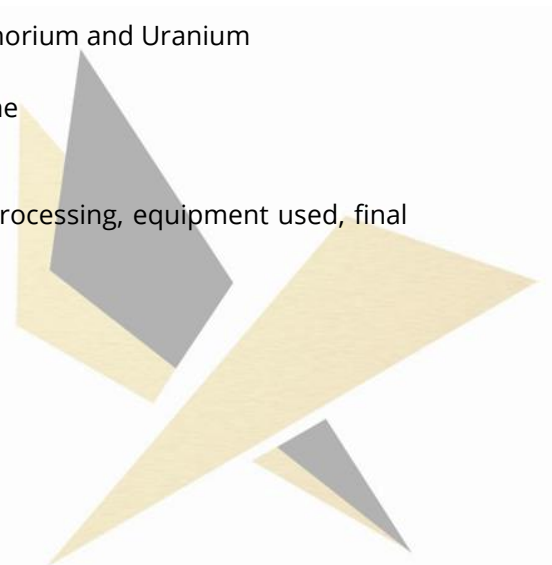
The survey was flown using the 30Hz Xcite™ TDEM system (described in detail in section 0), towed by an FX2 helicopter platform, collecting time domain electromagnetic, magnetic, and radiometric data simultaneously.

Quality control and quality assurance were completed daily during the acquisition phase to ensure all field data collected was at a high standard. Final processing and leveling were completed post acquisition

Final deliverables from the survey include:

- A final leveled dataset including all X and Z EM components, magnetic data and NASVD processed radiometric data.
- Map products including:
 - dB/dt channel grids
 - Selected B field Z component grids
 - Total Magnetic Intensity (TMI) Map
 - Residual Magnetic Intensity (RMI) Map
 - Analytic Signal (AS) Map
 - Tilt Derivative (TDR) Map
 - Total Horizontal Gradient (THDR) Map
 - First Vertical Derivative (VD1) Map
 - Line Path Map with Base Stations Locations
 - Radiometric total counts. Equivalent Potassium, Thorium and Uranium
 - Normalized radiometric ratios
 - Layered earth inversion depth slices and 3D volume

The survey report describes the procedures for data acquisition, processing, equipment used, final image presentation and the specifications for the digital data set.



2. Location & Access

The general location of the project is roughly 40 km South of the town of Dryden, Ontario. The survey comprised 2 grids – Block 1 in the north and Block 2 in the south-east.

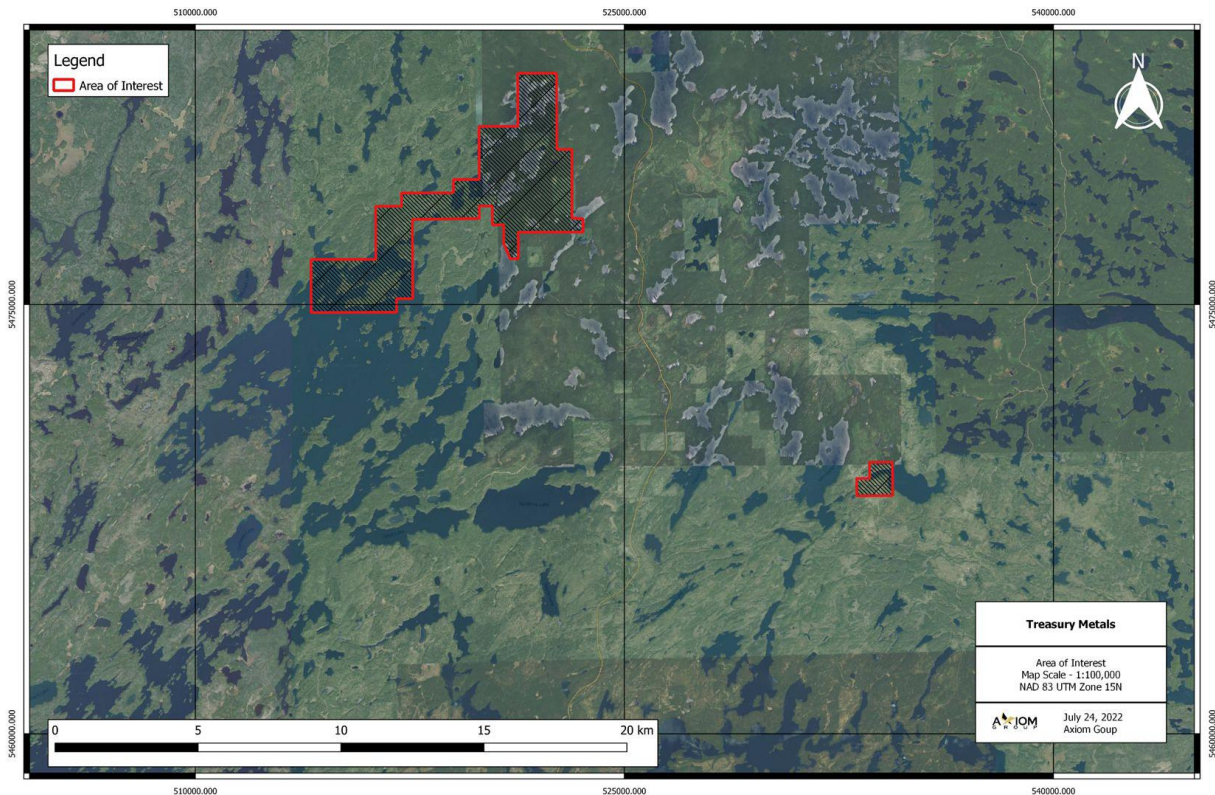


FIGURE 1 - GENERAL LOCATION

3. Project Specifics

Axiom works in partnership with Exploration Helicopters to offer our helicopter-borne geophysical surveys. Exploration Helicopters has an extensive aviation background specializing in precision long line. Personnel and support staff that were directly involved in this project including the data processing and QA/QC are listed in Table 1.

TABLE 1: PROJECT PERSONNEL & SUPPORT STAFF

Pilot-In-Command (PIC)	Stephanie Wilson
Geophysicist	Vessela Hobson
Project Manager	Tanya Coetzee

3.1. Topographical Relief & Cultural Features

The main portion of the survey area is predominantly flat lying, dominated by lakes and forests. The terrain relief varied from 400 m and 500 m (Figure 2).

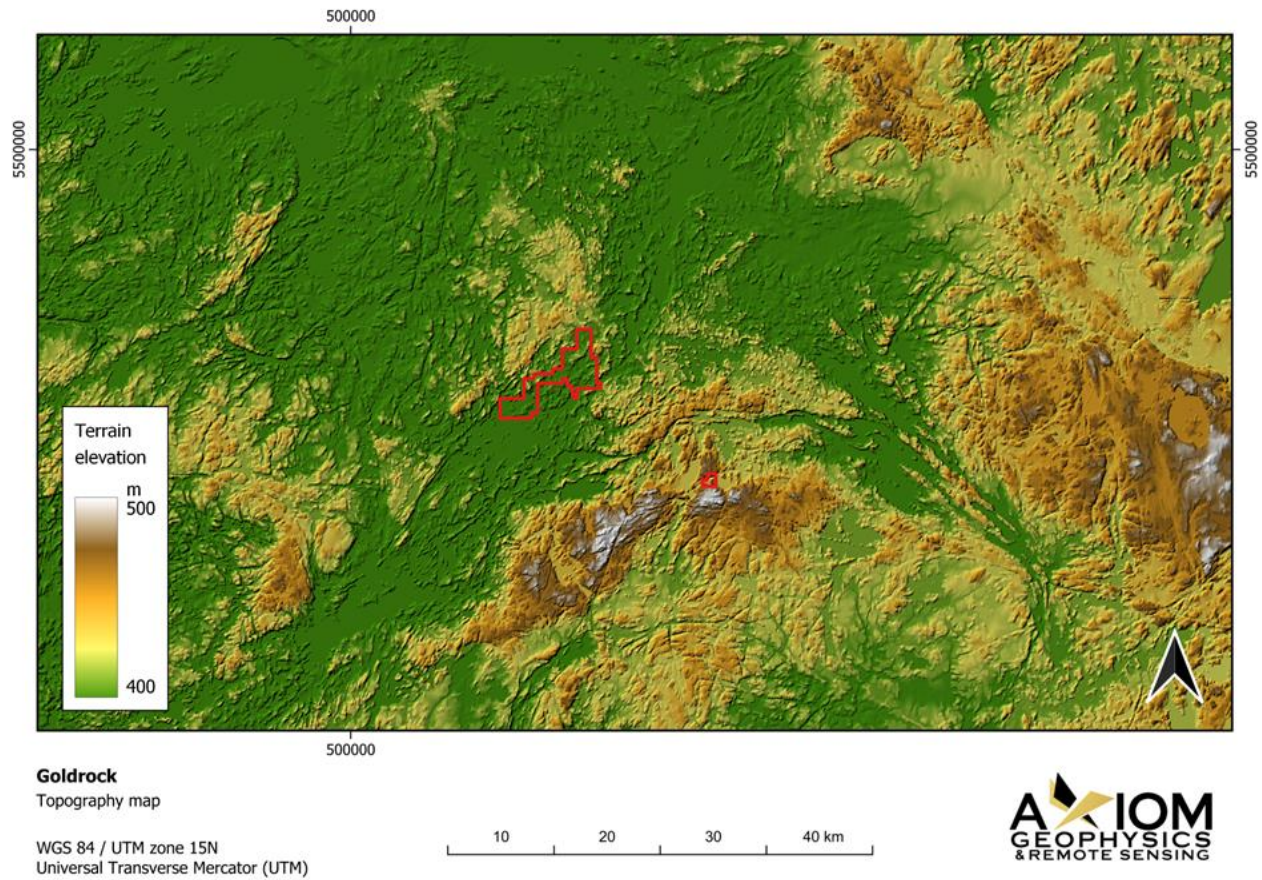
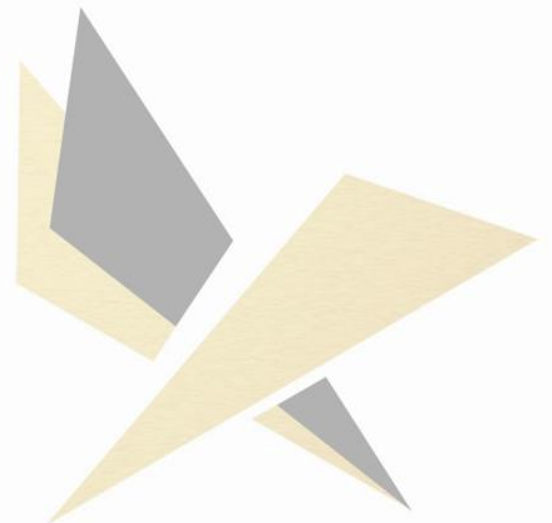


FIGURE 2: DIGITAL ELEVATION MODEL



3.2. Survey Parameters

From September 28th to October 18th 2022, Axiom Exploration Group Ltd. ('Axiom') carried out a helicopter-borne time domain EM, magnetic and radiometric survey over Treasury Metals' 'Goldrock claim near Dryden, Ontario. The survey consisted of 545 line-kms with a traverse line spacing of 100 m and tie line spacing of 1000 m. Final flight paths are plotted in Figure 3.

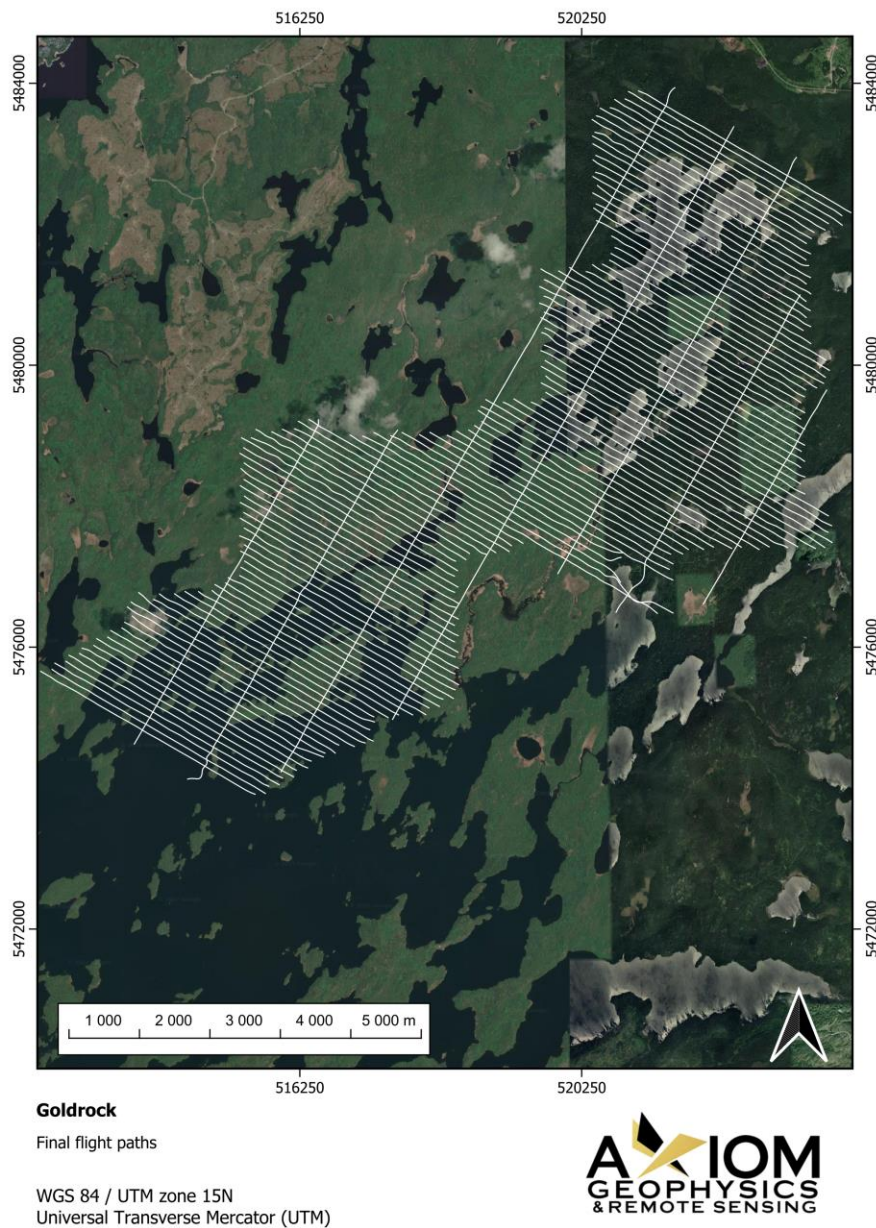


FIGURE 3: FINAL FLIGHT PATHS.



TABLE 2: SURVEY PARAMETERS

Block	Line Type	Line Spacing (m)	Flight orientation	Actual Line-kms Flown
Block 1	Traverse	100	135° - 315°	430
	Tie	1000	45° - 225°	48
Block 2	Traverse	100	135° - 315°	60
	Tie	1000	45° - 225°	7
	Total			545 km

The final survey was defined by the boundary coordinates shown in Table 3.

TABLE 3: SURVEY AREA COORDINATES

Easting	Northing	Easting	Northing
Block 1		523722.92	5477431.83
		521511.50	5477405.71
513893.42	5476360.95	521398.32	5477405.71
513902.13	5476656.96	521407.02	5476482.84
515390.92	5476874.62	520884.64	5476482.84
515486.69	5477005.22	520893.35	5476665.67
515512.81	5478929.33	519308.79	5477562.43
516592.40	5479242.76	518464.27	5477327.35
517001.60	5478946.74	518359.79	5477022.63
518838.64	5479094.75	518403.32	5475324.89
518890.88	5479495.24	517915.77	5475063.70
519735.40	5479503.95	517410.80	5475063.70
519752.81	5481340.99	517201.84	5475072.40
520693.10	5481410.64	517193.14	5474663.20
520780.17	5481785.02	516653.34	5474576.14
520788.87	5481898.20	515556.34	5473844.80
520458.03	5482107.15	515451.86	5473801.27
520466.74	5483465.35	515451.86	5473801.27
521171.95	5483944.20	512561.35	5475568.67
524010.23	5482272.58		
523609.74	5481985.27	Block 2	
523322.43	5481602.18		
523444.32	5480348.47		
523688.10	5479921.85	531550.83	5469165.07
523296.31	5479573.60	532851.91	5470421.99
523313.72	5478180.58	535895.61	5468638.16
523592.33	5478180.58	534888.90	5467237.00
523705.51	5478197.99		

3.3. Survey Equipment

A single Scintrex CS3 Cesium vapor magnetometer was used for this survey in its “Base” mode of operations. The magnetometer is equipped with a high-resolution integrated GPS. The base station was recording at 1 second intervals and was used to do the final diurnal corrections.

Location information for the base stations is included in Table 4 while instrument specifications are included in Table 5.

TABLE 4: BASE STATION INFORMATION

Base Station	Easting (m)	Northing (m)	Coordinate System
#1 - 8062827	554917.9	6461388.1	WGS84 UTM Zone 15U

TABLE 5: BASE STATION SPECIFICATIONS

Sensitivity	0.0006 nT @ 1 Hz	Gradient Tolerance	40,000 nT/m
Recording rate	20 Hz	Dynamic Range	15,000 to 105,000 nT
Resolution	0.01 nT	Absolute Accuracy	< 2.5 nT throughout range

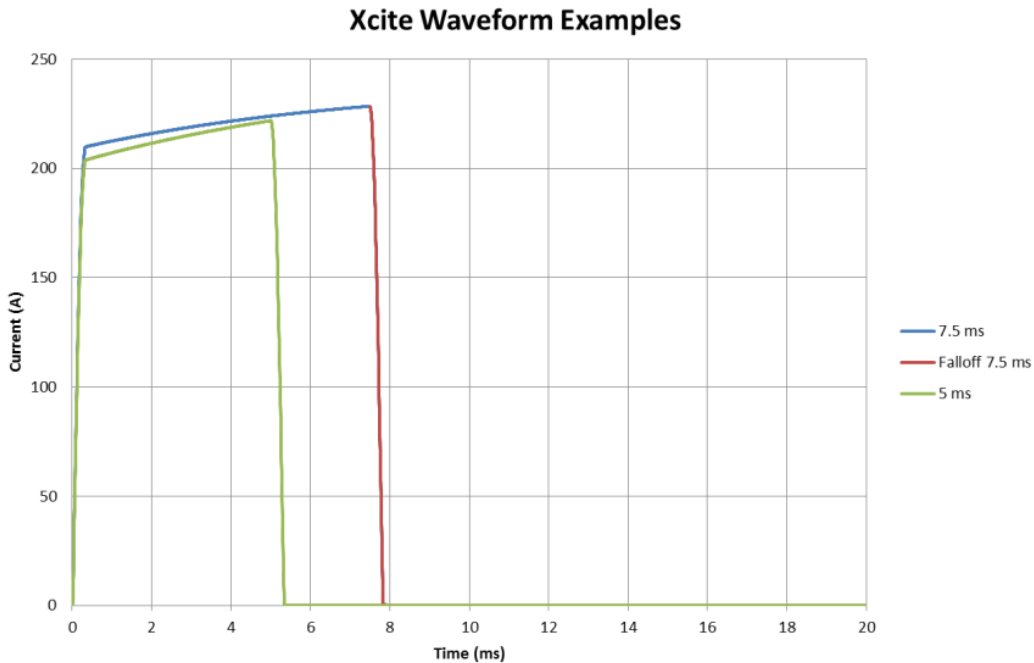
3.4. Towed TDEM system specifications

Electromagnetic system	
Type	Xcite™
Sensor configuration	Coincident Tx-Rx
Weight	~450kg
Structure	Fully inflatable frame
Aircraft type	AS360B series
Engine Type	Turbine
Fuel Type	JetA
Transmitter	
Diameter	18.4 m
Number of turns	4
Current	280 A
Peak dipole moment	300 000 NIA
Base frequency	30 Hz
Waveform	Nominal square wave
Receiver	
Diameter	0.613 m (effective) (X), 1.0 m (Z)
Number of turns	200 (X), 100 (Z)

Orientation	X & Z axes
Configuration	Concentric to Tx
Recording	Digitally at 625 kbps
Time gates	Extracted from streamed data – Typically 49 gates
Time gate windows	0.04ms to >11ms
Measurements	dB/dt and integrated B-field
Acquisition System	
Type	NRG RDAS II
CPU	Dual Core ARM 1.5Ghz
Operation Temperature	-10 to 65 Degrees C
Standard Sampling Rate	20 Hz (capable of >1kHz)
Magnetometer Counter	
Type	NRG RDAC II
Internal System Noise	< 0.0001 nT
ADC inputs	24
Magnetometer inputs	4
Recording Rate	20 Hz (capable of >1kHz)
Magnetometer Sensor	
Type	Single Sensor Scintrex CS3
Measurement Range	15 000 – 105 000 nT
Gradient Tolerance	40 000 nT/m
Operating Temperature	-40 to +50 Degrees C
Recording Rate	20 Hz (capable of >1kHz)
Laser altimeter	
Type	SF11/C (Loop) and SF00(Heli)
Range	0 – 60 m and 0 – 250m
Resolution	1 cm
Recording rate	20 Hz (capable of >1kHz)
Base station magnetometer	
Type	NRG VER 2
Manufacturer	NRG Engineering
Range	15 000 to 105 000 nT
Sensitivity Recording Rate	0.0006 nT $\sqrt{\text{Hz}}$ RMS 1Hz
Base station sensor	
Type	Single Sensor Scintrex CS3
Measurement Range	15 000 – 105 000 nT
Gradient Tolerance	40 000 nT/m
Operating Temperature	-40 to +50 Degrees C
Recording Rate	20 Hz (capable of >1kHz)

Typical Xcite™ Waveform Shapes

The Xcite™ waveform is programmable for a variety of on and off time configurations. Typically, a 4 to 7.5 ms on-time pulse is selected. The following example shows the shape of a 5ms and 7.5 ms on-time pulse and the fast falloff time <<400μs. The fast turn off times approximating a ‘square’ wave is preferred to a slower turn-off time typical in a ‘trapezoid’ waveform.



Waveform

TABLE 6: XCITE WAVEFORM

Time [ms]	Normalized Current [A]	Time [ms]	Normalized Current [A]	Time [ms]	Normalized Current [A]	Time [ms]	Normalized Current [A]
0.0000	0.0000	1.8133	0.9544	3.6267	0.9907	4.4160	0.6453
0.0267	0.0241	1.8400	0.9550	3.6533	0.9911	4.4213	0.6312
0.0533	0.1072	1.8667	0.9555	3.6800	0.9916	4.4267	0.6169
0.0800	0.1940	1.8933	0.9561	3.7067	0.9921	4.4320	0.6024
0.1067	0.2789	1.9200	0.9567	3.7333	0.9926	4.4373	0.5878
0.1333	0.3611	1.9467	0.9573	3.7600	0.9930	4.4427	0.5729
0.1600	0.4398	1.9733	0.9579	3.7867	0.9935	4.4480	0.5578
0.1867	0.5143	2.0000	0.9585	3.8133	0.9940	4.4533	0.5426
0.2133	0.5841	2.0267	0.9591	3.8400	0.9944	4.4587	0.5272
0.2400	0.6485	2.0533	0.9596	3.8667	0.9949	4.4640	0.5116
0.2667	0.7071	2.0800	0.9602	3.8933	0.9954	4.4693	0.4959

0.2933	0.7593	2.1067	0.9608	3.9200	0.9958	4.4747	0.4800
0.3200	0.8048	2.1333	0.9614	3.9467	0.9963	4.4800	0.4639
0.3467	0.8432	2.1600	0.9619	3.9733	0.9967	4.4853	0.4478
0.3733	0.8742	2.1867	0.9625	4.0000	0.9972	4.4907	0.4314
0.4000	0.8975	2.2133	0.9631	4.0267	0.9977	4.4960	0.4150
0.4267	0.9131	2.2400	0.9636	4.0533	0.9981	4.5013	0.3984
0.4533	0.9209	2.2667	0.9642	4.0800	0.9986	4.5067	0.3817
0.4800	0.9221	2.2933	0.9648	4.1067	0.9990	4.5120	0.3649
0.5067	0.9230	2.3200	0.9653	4.1333	0.9994	4.5173	0.3480
0.5333	0.9236	2.3467	0.9659	4.1600	0.9998	4.5227	0.3309
0.5600	0.9242	2.3733	0.9664	4.1653	0.9999	4.5280	0.3138
0.5867	0.9249	2.4000	0.9670	4.1707	1.0000	4.5333	0.2966
0.6133	0.9256	2.4267	0.9676	4.1760	0.9999	4.5387	0.2793
0.6400	0.9262	2.4533	0.9681	4.1813	0.9996	4.5440	0.2619
0.6667	0.9270	2.4800	0.9687	4.1867	0.9988	4.5493	0.2445
0.6933	0.9276	2.5067	0.9692	4.1920	0.9976	4.5547	0.2270
0.7200	0.9283	2.5333	0.9698	4.1973	0.9957	4.5600	0.2094
0.7467	0.9290	2.5600	0.9703	4.2027	0.9935	4.5653	0.1918
0.7733	0.9297	2.5867	0.9708	4.2080	0.9908	4.5707	0.1741
0.8000	0.9303	2.6133	0.9714	4.2133	0.9878	4.5760	0.1564
0.8267	0.9310	2.6400	0.9719	4.2187	0.9844	4.5813	0.1387
0.8533	0.9317	2.6667	0.9725	4.2240	0.9807	4.5867	0.1209
0.8800	0.9323	2.6933	0.9730	4.2293	0.9766	4.5920	0.1031
0.9067	0.9330	2.7200	0.9735	4.2347	0.9722	4.5973	0.0854
0.9333	0.9336	2.7467	0.9741	4.2400	0.9675	4.6027	0.0677
0.9600	0.9343	2.7733	0.9746	4.2453	0.9625	4.6080	0.0506
0.9867	0.9349	2.8000	0.9751	4.2507	0.9571	4.6133	0.0349
1.0133	0.9356	2.8267	0.9756	4.2560	0.9514	4.6187	0.0217
1.0400	0.9363	2.8533	0.9762	4.2613	0.9454	4.6240	0.0121
1.0667	0.9369	2.8800	0.9767	4.2667	0.9391	4.6293	0.0060
1.0933	0.9376	2.9067	0.9772	4.2720	0.9324	4.6347	0.0028
1.1200	0.9382	2.9333	0.9777	4.2773	0.9255	4.6400	0.0013
1.1467	0.9389	2.9600	0.9783	4.2827	0.9182	4.6453	0.0006
1.1733	0.9395	2.9867	0.9788	4.2880	0.9106	4.6507	0.0004
1.2000	0.9401	3.0133	0.9793	4.2933	0.9028	4.6560	0.0002
1.2267	0.9408	3.0400	0.9798	4.2987	0.8946	4.6613	0.0001
1.2533	0.9414	3.0667	0.9803	4.3040	0.8861	4.6667	0.0001
1.2800	0.9421	3.0933	0.9808	4.3093	0.8773	4.6720	0.0001
1.3067	0.9427	3.1200	0.9813	4.3147	0.8682	4.6773	0.0001

1.3333	0.9433	3.1467	0.9818	4.3200	0.8589	4.6827	0.0001
1.3600	0.9440	3.1733	0.9823	4.3253	0.8492	4.6880	0.0001
1.3867	0.9446	3.2000	0.9828	4.3307	0.8393	4.6933	0.0001
1.4133	0.9452	3.2267	0.9833	4.3360	0.8291	4.6987	0.0001
1.4400	0.9458	3.2533	0.9838	4.3413	0.8186	4.7040	0.0001
1.4667	0.9465	3.2800	0.9843	4.3467	0.8079	4.7093	0.0001
1.4933	0.9471	3.3067	0.9848	4.3520	0.7968	4.7147	0.0001
1.5200	0.9477	3.3333	0.9853	4.3573	0.7856	4.7200	0.0001
1.5467	0.9483	3.3600	0.9858	4.3627	0.7740	4.7253	0.0001
1.5733	0.9489	3.3867	0.9863	4.3680	0.7622	4.7307	0.0001
1.6000	0.9495	3.4133	0.9868	4.3733	0.7502	4.7360	0.0001
1.6267	0.9502	3.4400	0.9873	4.3787	0.7379	4.7413	0.0001
1.6533	0.9508	3.4667	0.9878	4.3840	0.7253	4.7467	0.0001
1.6800	0.9514	3.4933	0.9883	4.3893	0.7126	4.7520	0.0001
1.7067	0.9520	3.5200	0.9888	4.3947	0.6996	4.7573	0.0001
1.7333	0.9526	3.5467	0.9892	4.4000	0.6863	4.7627	0.0001
1.7600	0.9532	3.5733	0.9897	4.4053	0.6729	4.7680	0.0001
1.7867	0.9538	3.6000	0.9902	4.4107	0.6592	16.6613	0.0001

Receiver windows

TABLE 7: 30 HZ RECEIVER GATE TIMES

Number	Start [ms]	End [ms]	Middle [ms]	Width [ms]
0	4.64800	4.65333	4.65067	0.00533
1	4.65333	4.65867	4.65600	0.00533
2	4.65867	4.66400	4.66133	0.00533
3	4.66400	4.66933	4.66667	0.00533
4	4.66933	4.67467	4.67200	0.00533
5	4.67467	4.68000	4.67733	0.00533
6	4.68000	4.68533	4.68267	0.00533
7	4.68533	4.69067	4.68800	0.00533
8	4.69067	4.69600	4.69333	0.00533
9	4.69600	4.70133	4.69867	0.00533
10	4.70133	4.70667	4.70400	0.00533
11	4.70667	4.71200	4.70933	0.00533
12	4.71200	4.71733	4.71467	0.00533
13	4.71733	4.72800	4.72267	0.01067
14	4.72800	4.73867	4.73333	0.01067

15	4.73867	4.74933	4.74400	0.01067
16	4.74933	4.76533	4.75733	0.01600
17	4.76533	4.78133	4.77333	0.01600
18	4.78133	4.80267	4.79200	0.02133
19	4.80267	4.82400	4.81333	0.02133
20	4.82400	4.85067	4.83733	0.02667
21	4.85067	4.87733	4.86400	0.02667
22	4.87733	4.90933	4.89333	0.03200
23	4.90933	4.94667	4.92800	0.03733
24	4.94667	4.98933	4.96800	0.04267
25	4.98933	5.03733	5.01333	0.04800
26	5.03733	5.09600	5.06667	0.05867
27	5.09600	5.16533	5.13067	0.06933
28	5.16533	5.24533	5.20533	0.08000
29	5.24533	5.33600	5.29067	0.09067
30	5.33600	5.43733	5.38667	0.10133
31	5.43733	5.55467	5.49600	0.11733
32	5.55467	5.68800	5.62133	0.13333
33	5.68800	5.84267	5.76533	0.15467
34	5.84267	6.02400	5.93333	0.18133
35	6.02400	6.23200	6.12800	0.20800
36	6.23200	6.46667	6.34933	0.23467
37	6.46667	6.73333	6.60000	0.26667
38	6.73333	7.04267	6.88800	0.30933
39	7.04267	7.39467	7.21867	0.35200
40	7.39467	7.80000	7.59733	0.40533
41	7.80000	8.26933	8.03467	0.46933
42	8.26933	8.80800	8.53867	0.53867
43	8.80800	9.42667	9.11733	0.61867
44	9.42667	10.13600	9.78133	0.70933
45	10.13600	10.95200	10.54400	0.81600
46	10.95200	11.89067	11.42133	0.93867
47	11.89067	12.96267	12.42667	1.07200
48	12.96267	14.20000	13.58133	1.23733
49	14.20000	15.90667	15.05333	1.70667

3.5. Survey Aircraft

Designed for heavy loads and superior performance in hot and high conditions. A Favourite in the mining industry, The FX2 has the same internal and external gross weight as the AS350 B2, however the Honeywell-powered FX2 delivers additional upside. It offers better operational margins and lifting capacity than the B2 as both altitude and temperature increase.

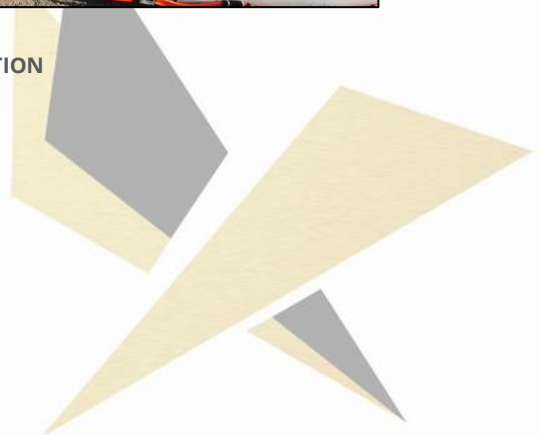
TABLE 8: HELICOPTER SPECIFICATIONS

Aircraft Type	FX2
Range	2.5 hrs
Survey Speed	60 km/hr (Terrain Dependent)
Fuel Type	JET A
Fuel Consumption	170 L/hr

Figure 4 shows the complete helicopter and loop setup.



FIGURE 4: HELICOPTER & LOOP CONFIGURATION



3.6. On-Board GPS Equipment

Our pilots utilize a state-of-the-art navigation interface developed in-house by NRG Engineering which allows them to stay precisely on target. The aircraft and TDEM loop each have laser altimeters which allow us to precisely gauge our ground altitude and safely survey close to the terrain and vegetation.



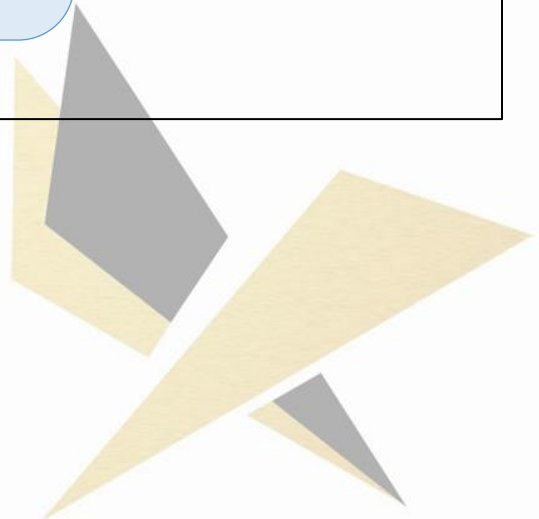
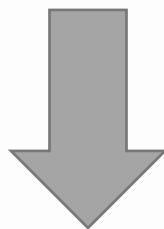
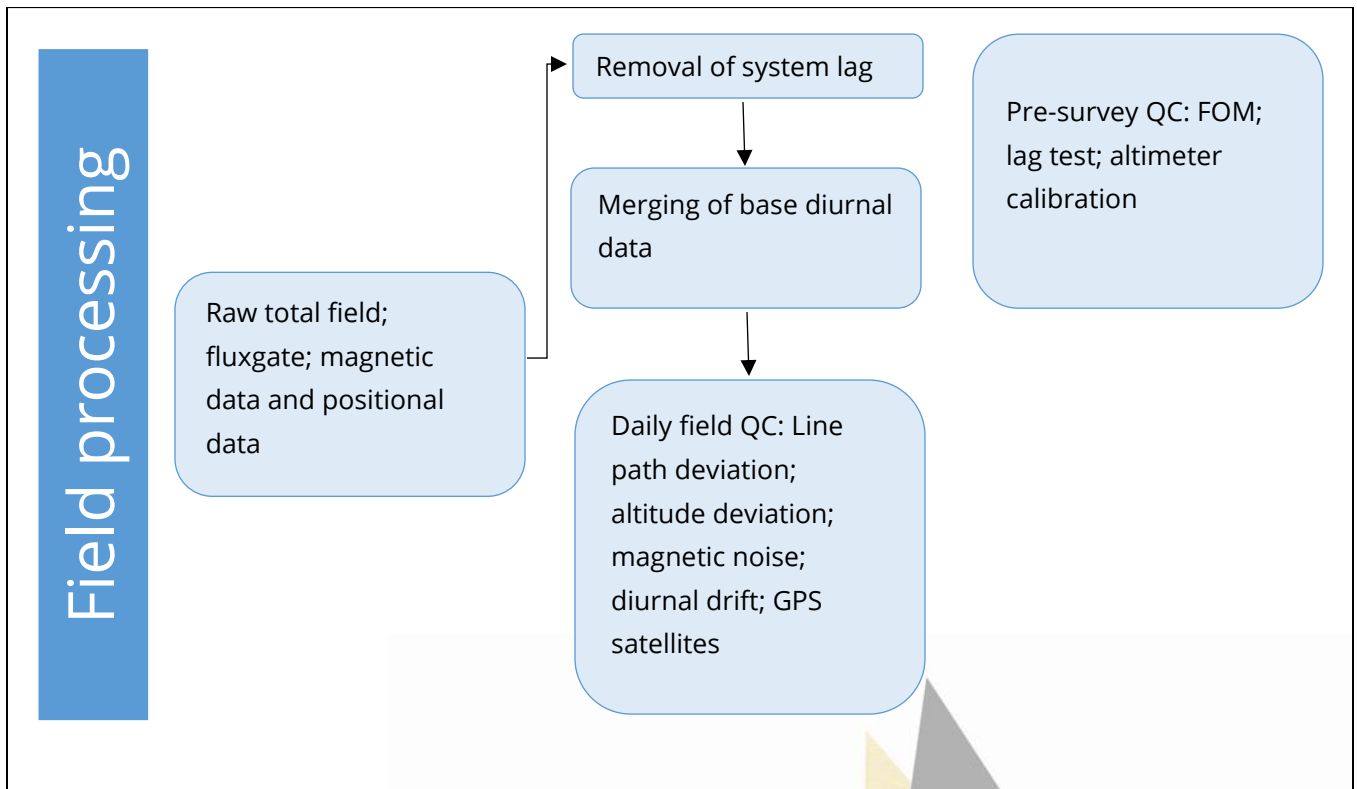
FIGURE 5: HELICOPTER NAVIGATION SYSTEM

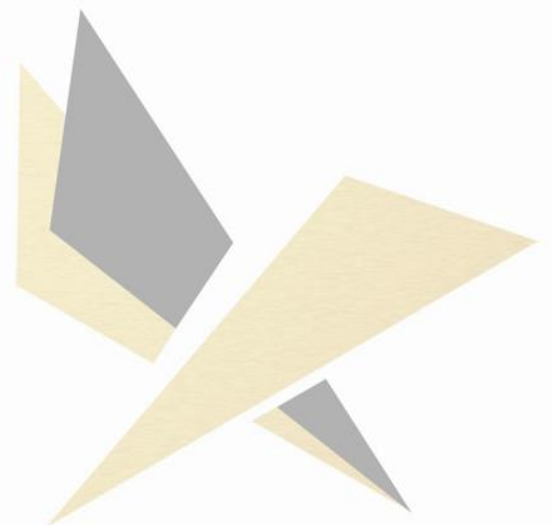
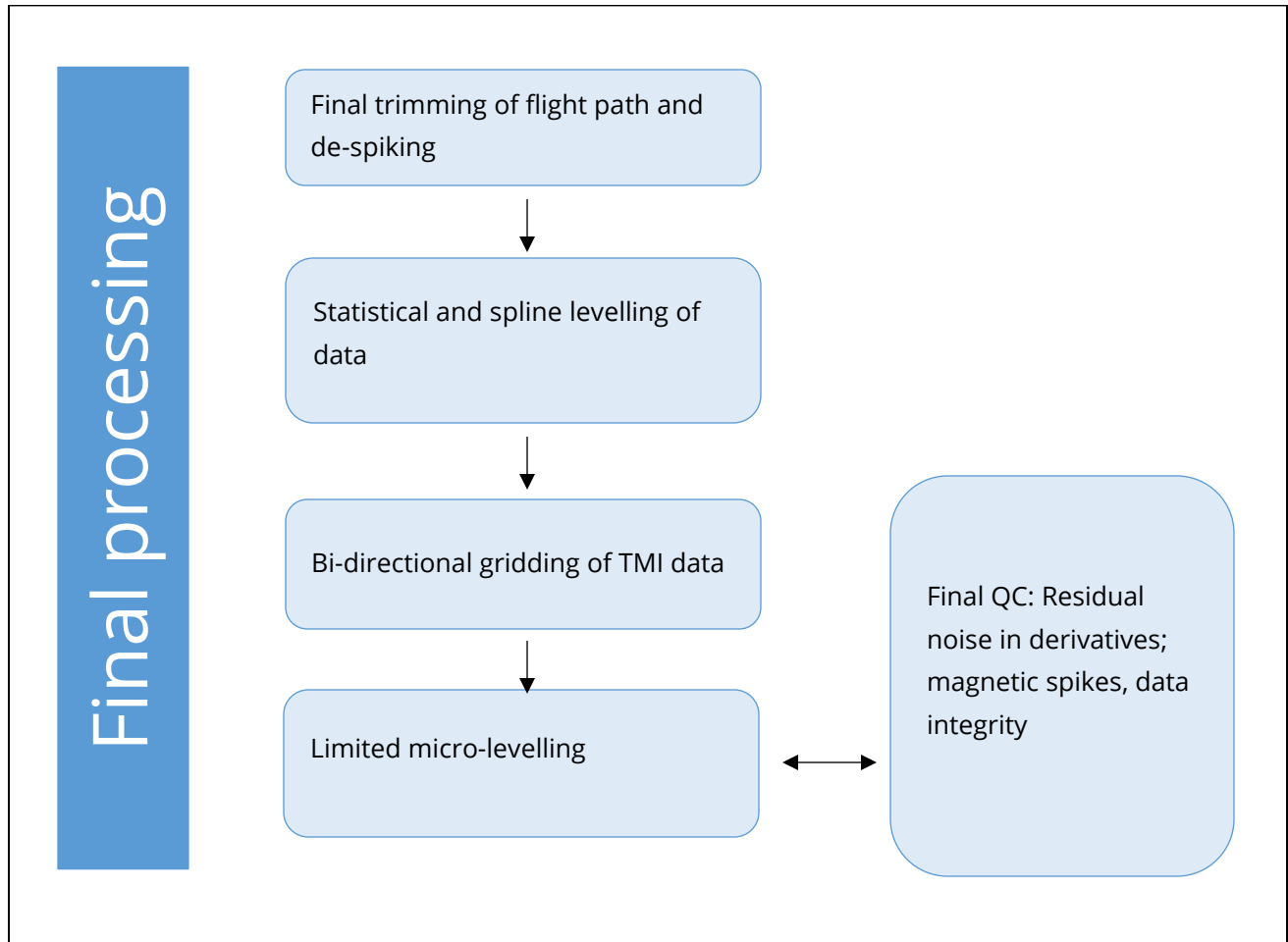
4. Data Processing

All post-field data processing was carried out using Geosoft Oasis Montaj and Microsoft Excel software. Presentation of final maps used QGIS and/or Geosoft’s Oasis Montaj. Results were gridded using minimum curvature method and a grid cell size of approximately 1/5 of flight line spacing.

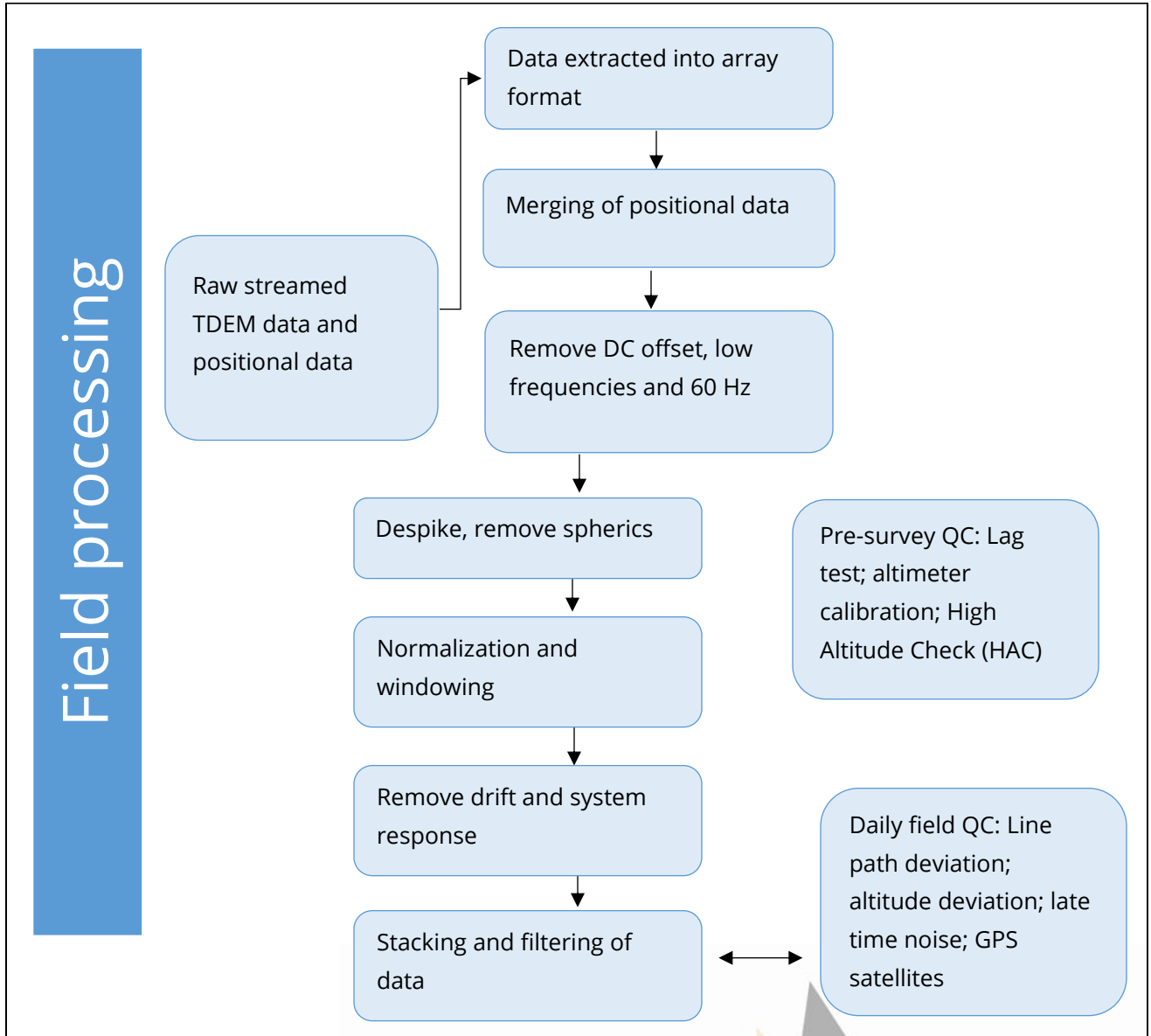
The geophysical images accompanying this report are positioned using the WGS 1984 Datum. The survey geodetic GPS positions have been projected to map using the Universal Transverse Mercator (UTM) projection.

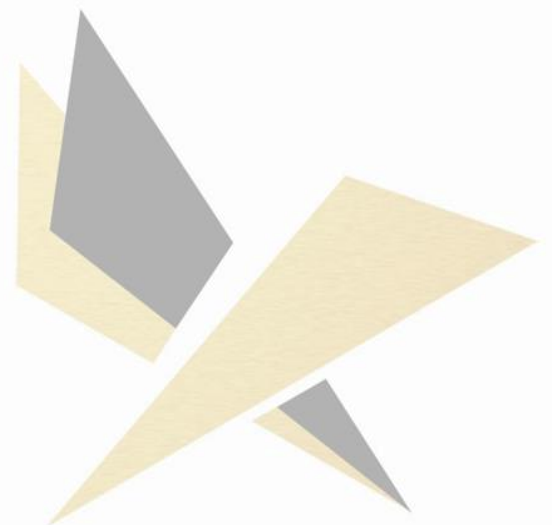
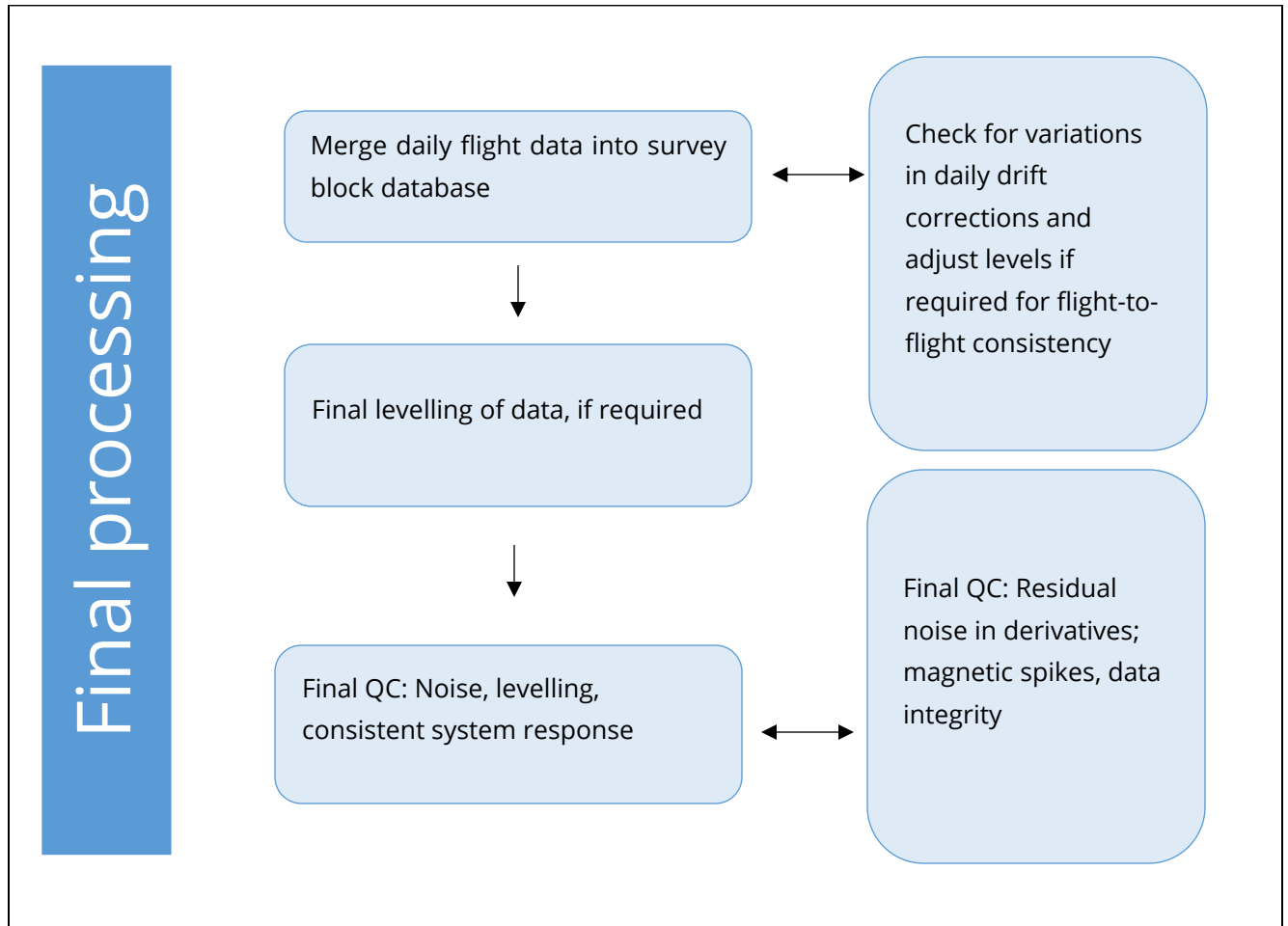
Magnetic data process flow:





Time domain EM data process flow:





4.1. Base Station diurnal results

The diurnal magnetic field has been recorded at 1 Hz to monitor for excessive diurnal variation. If the measured diurnal field varies by more than 3 nT per 3min chord the data collected during this period is to be reflight.

4.2. Calibration results

4.2.1. Electromagnetic data

Two high altitude sections are flown with each flight of data acquisition. These sections are used to determine the system response as a function of time for each flight. The system response is removed from the measured data to isolate the true earth response. Electromagnetic data do not require a parallax correction as the GPS is mounted on the bird frame.

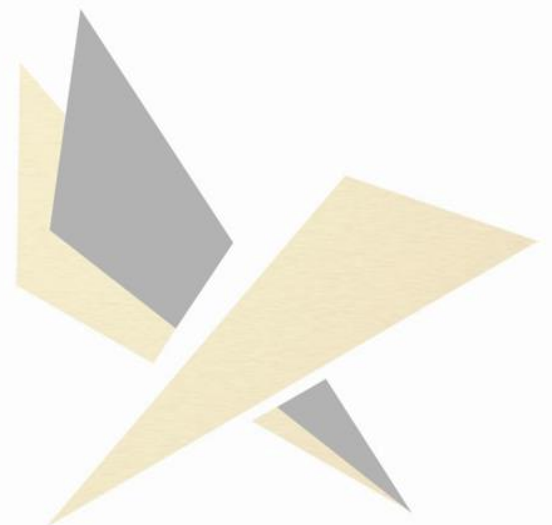
4.2.2. Magnetic data

Lag and parallax control:

Several lines flown over a well-controlled magnetic feature are used to establish the lag and relationship between GPS, magnetic and electromagnetic readings (parallax).

Altimeter:

The laser altimeter is calibrated at the start of every survey.

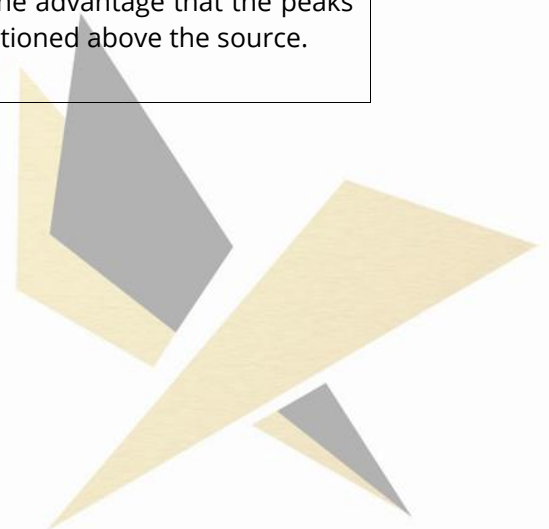


4.3. Magnetic data filtering

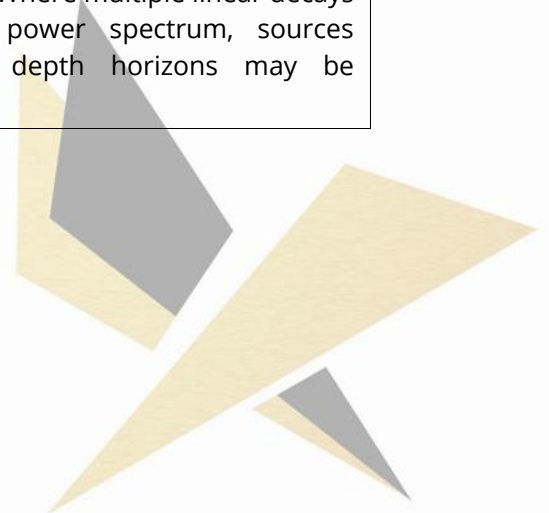
The following magnetic filter products are delivered in grid format and maps.

TABLE 9: MAGNETIC FILTER PRODUCTS

Total magnetic intensity (TMI)	Base corrected total magnetic intensity
Reduced to Pole (RTP) TMI	Reduction to pole is a mathematical function applied to TMI data in the frequency domain. The resultant product is the equivalent TMI data situated at the magnetic pole thus replacing the dipolar magnetic response with a simple peak positioned above the magnetic source. There are a few limitations to this filter, which need to be understood when interpreting data: The filter assumes the magnetic response to be due to induced magnetisation and ignores the effect of magnetic remanence. This results in incorrect solutions where the remanent magnetic contribution is large and differs in orientation from the induced magnetic contribution (often manifested as a smearing of anomalies).
First vertical derivative of TMI	The first vertical derivative of the magnetic data is a standard product, which is calculated either in the space or the frequency domain. The filter accentuates shallow features and structures and enhances magnetic textural changes, which often characterise lithologies. As a result, the vertical derivative images typically provide a good match with mapped geology
First vertical derivative	As with the derivatives on the TMI, the same process can be applied to RTP data with the advantage that the peaks are theoretically spatially positioned above the source.



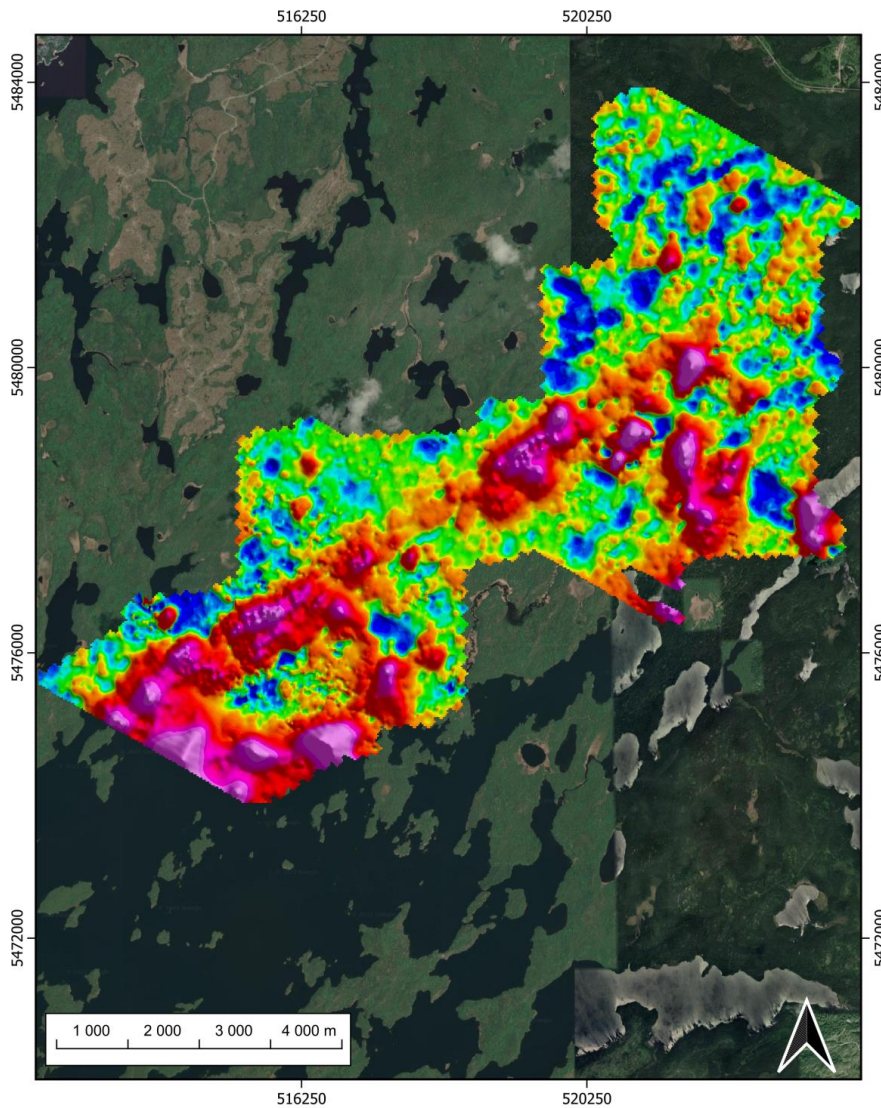
<p>Analytic signal TMI</p>	<p>Analytic signal is defined as the square-root of the sum of the squared derivatives of the total magnetic field. The analytic signal is useful in locating the edges of magnetic source bodies and spatially positioning anomalies correctly, particularly where remanence and/or low magnetic latitude complicates interpretation. The filter accentuates shallow features at the expense of deeper (or longer wavelength) features.</p>
<p>Tilt derivative reduced to pole TMI</p>	<p>This filter calculates the angle between the horizontal and vertical derivatives providing a useful edge detection and structural mapping tool. As a phase measurement, the filter includes more of the deeper structural information compared with conventional derivative products. The tilt derivative is generally applied to reduced-to-magnetic pole data and is a useful product for direct spatial positioning of magnetic anomalies. In addition to the standard tilt derivative filter, a residual product was also created which highlights shorter wavelength anomalies.</p>
<p>Total Horizontal Derivative of reduced to pole TMI</p>	<p>Directional derivatives highlight structures and trends in a particular orientation. The Total Horizontal Derivative is the square-root of the sum of the squared x- and y-derivatives. This filter is useful for delineating edges and internal magnetic fabrics of near surface structures.</p>
<p>Regional-residual filtering</p>	<p>Power-spectrum analysis is routinely used in potential field data processing. Sources originating from specific depth intervals can be correlated to a linear decay in the log power spectrum plots allowing for more intelligent regional-residual separation. Where multiple linear decays can be identified in the power spectrum, sources originating from different depth horizons may be separated (depth-slicing).</p>



5. Maps & Derived Data Products

5.1. EM dB/dt channel grids

A series of time slices were gridded from the TDEM channel data. These are selected to best highlight conductors of interest.

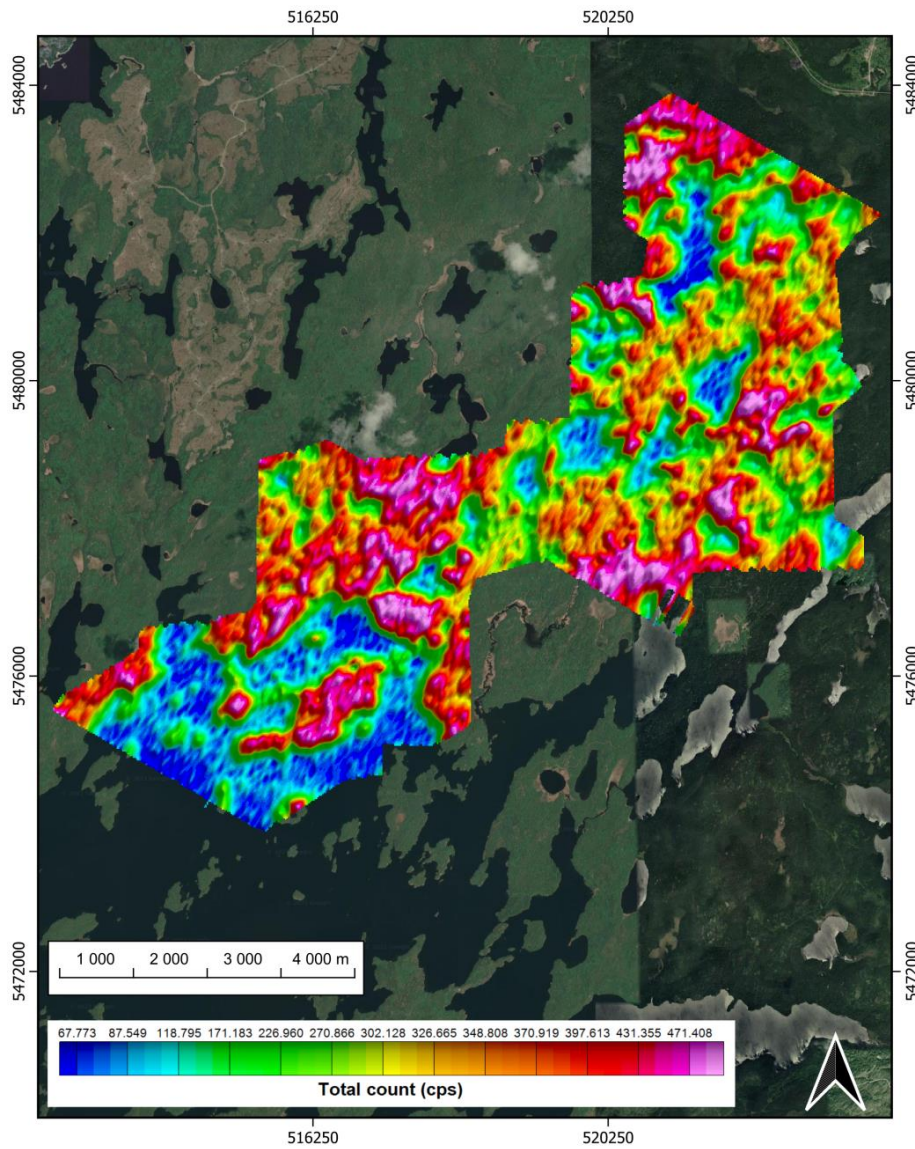


Goldrock
 dB/dt Z component channel 20
 Centered at 4.82 ms
 WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)

FIGURE 6: TIME SLICE OF DB/DT CHANNEL 20

5.2. Radiometrics

NASVD processed radiometric data are provided in total counts (K percent and U and Th ppm), as well as a ternary radiometric image and normalized ratios (Th/K, U/Th and U/K).



Goldrock

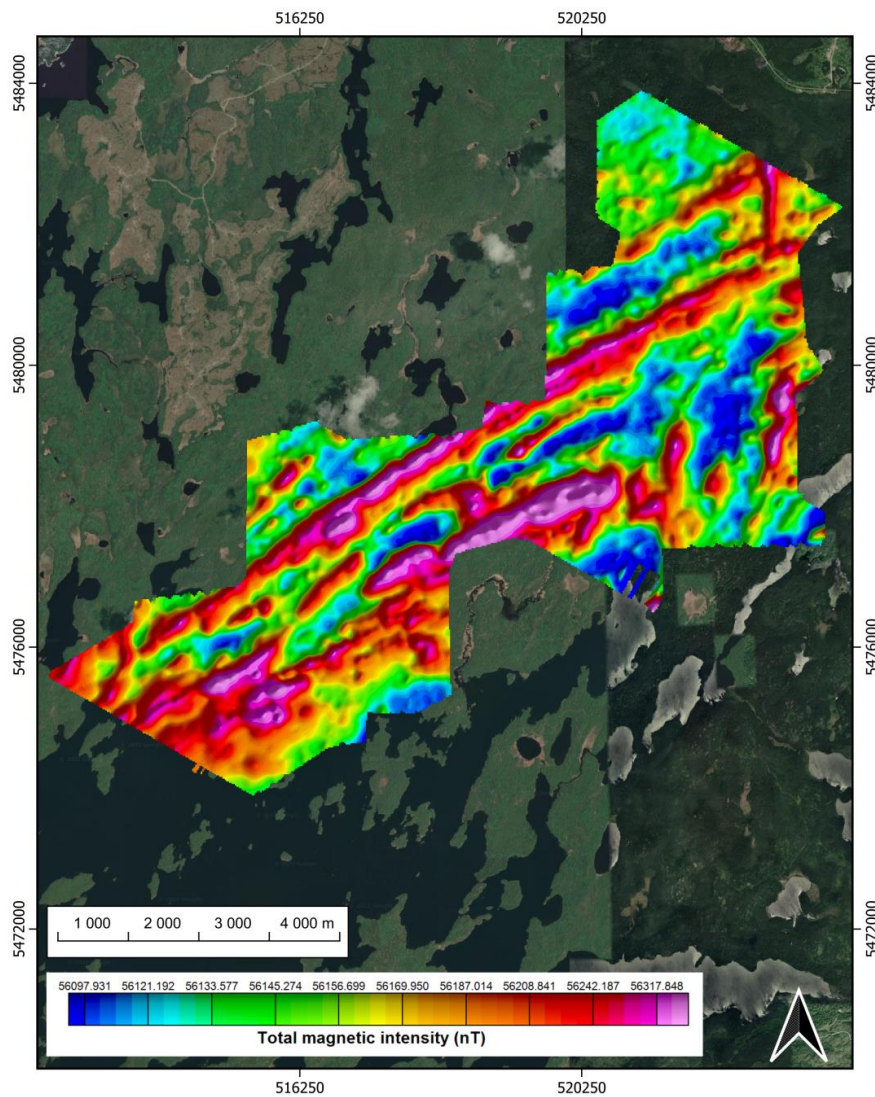
Total count cps
NASVD processed

WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)

FIGURE 7: RADIOMETRIC TOTAL COUNT (CPS)

5.3. Total Magnetic Intensity

Based on the flight lines of the FX2, the total magnetic field map grid was created by interpolating the filtered magnetic data. The Total Magnetic Intensity (TMI) data collected in flight was profiled on screen along with a fourth difference channel calculated from the TMI. Spikes were removed manually where indicated by the fourth difference.



Goldrock
 Total magnetic intensity
 WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)

FIGURE 8: TOTAL MAGNETIC INTENSITY (TMI).

5.4. Reduction to pole

Reduction to pole is a mathematical function applied to TMI data in the frequency domain. The resultant product is the equivalent TMI data situated at the magnetic pole thus replacing the dipolar magnetic response with a simple peak positioned above the magnetic source. The filter assumes the magnetic response to be due to induced magnetization and ignores the effect of magnetic remanence.

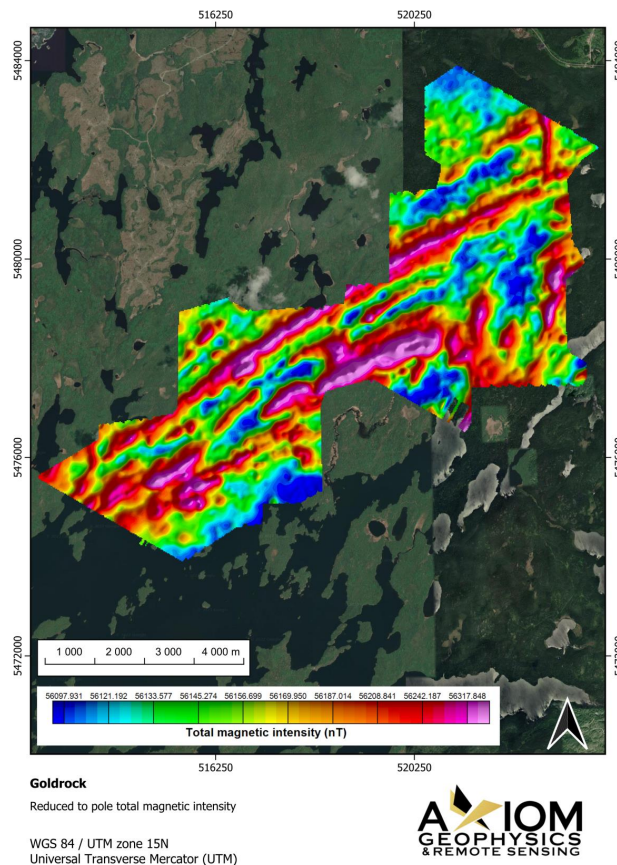
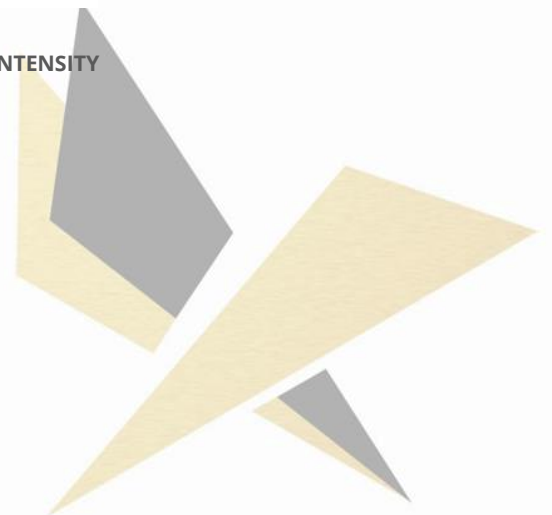


FIGURE 9: REDUCED TO POLE TOTAL MAGNETIC INTENSITY



5.5. Residual Magnetic Intensity

The residual magnetic intensity (RMI) was calculated by removing the effects of the earth’s magnetic field (the IGRF) from the data. This highlights local features which might otherwise be obscured by the regional field.

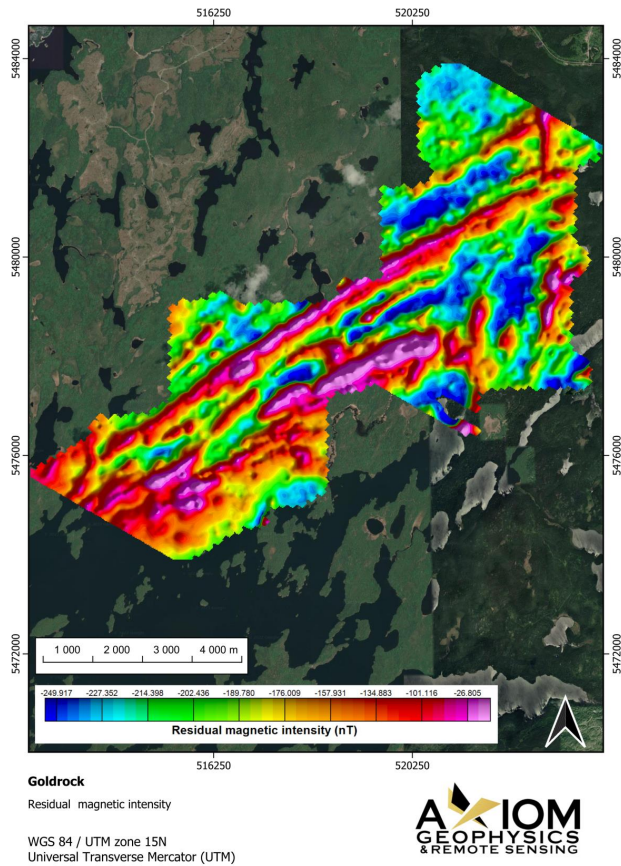
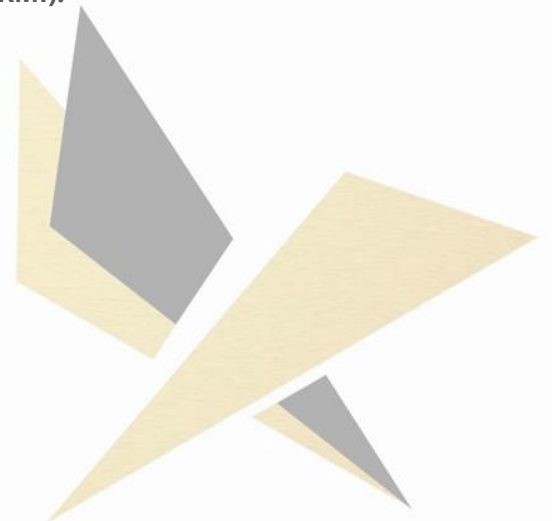


FIGURE 10: RESIDUAL MAGNETIC INTENSITY (RMI).



5.6. Analytic Signal

The analytic signal is the square root of the sum of the squares of the derivatives in the x, y, and z directions:

$$\text{Analytical Signal} = \sqrt{dx * dx + dy * dy + dz * dz}$$

Mapped highs in the calculated analytic signal of the magnetic parameter locate the anomalous source body edges and corners (e.g. contacts, fault/shear zones, etc.). Analytic signal maxima are located directly over faults and contacts, regardless of structural dip, and independently of the direction of the induced and/or remnant magnetizations. The analytic signal is also useful in locating the edges of magnetic source bodies, particularly where remnant magnetic signals and/or low magnetic latitude complicates interpretation.

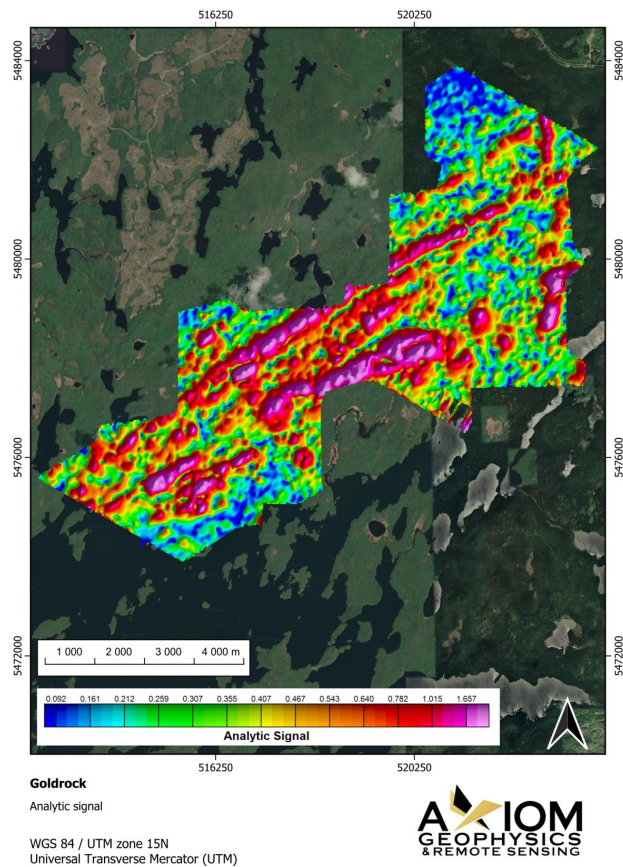
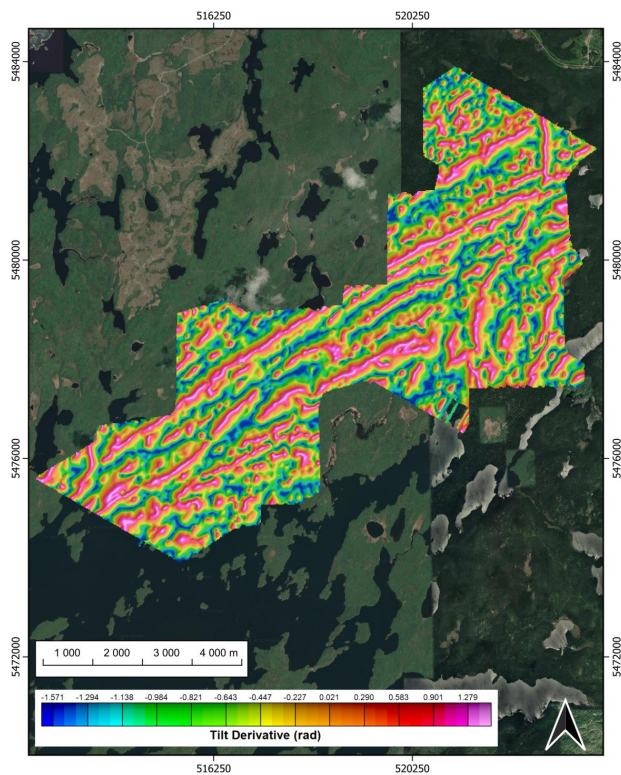


FIGURE 11: ANALYTIC SIGNAL.

5.7. Tilt derivative

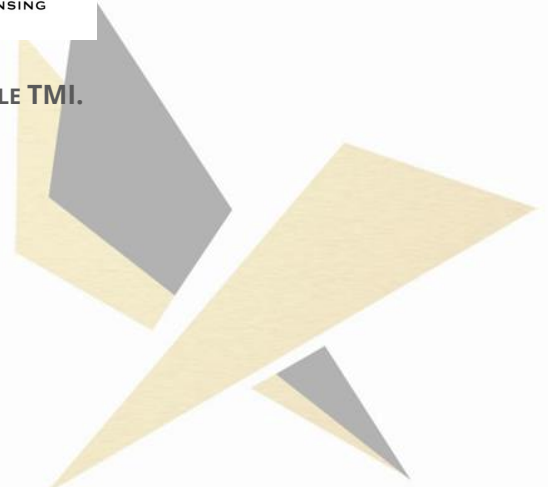
This filter calculates the angle between the horizontal and vertical derivatives providing a useful edge detection and structural mapping tool. As a phase measurement, the filter includes more of the deeper structural information compared with conventional derivative products. The tilt derivative is generally applied to reduced-to-magnetic pole data and is a useful product for direct spatial positioning of magnetic anomalies. In addition to the standard tilt-derivative filter, a residual product was also created which highlights shorter wavelength anomalies.



Goldrock
 Tilt derivative of reduced to pole total magnetic intensity
 WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



FIGURE 12: TILT DERIVATIVE OF REDUCED TO POLE TMI.



5.8. Total horizontal gradient

Directional derivatives highlight structures and trends in a particular orientation. The Total Horizontal Derivative is the square-root of the sum of the squared x- and y-derivatives. This filter is useful for delineating edges and internal magnetic fabrics of near surface structures.

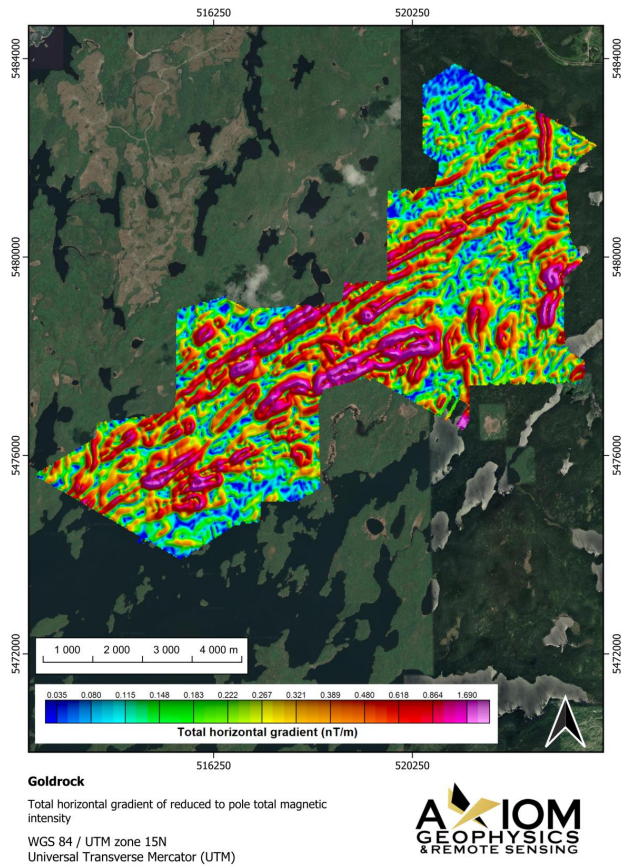
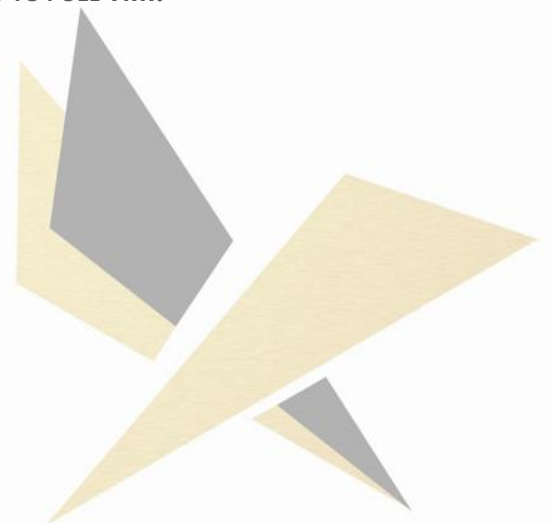


FIGURE 13: TOTAL HORIZONTAL GRADIENT OF REDUCED TO POLE TMI.



5.9. Vertical gradient

The first vertical derivative of the magnetic data is a standard product, which is calculated either in the space or the frequency domain. The filter accentuates shallow features and structures and enhances magnetic textural changes, which often characterize lithologies. As a result, the vertical derivative images typically provide a good match with mapped geology.

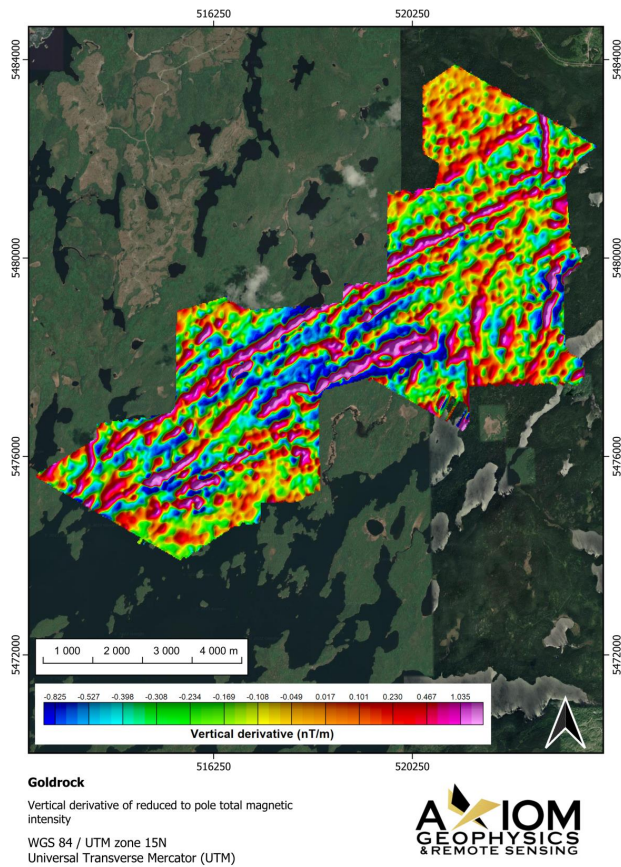
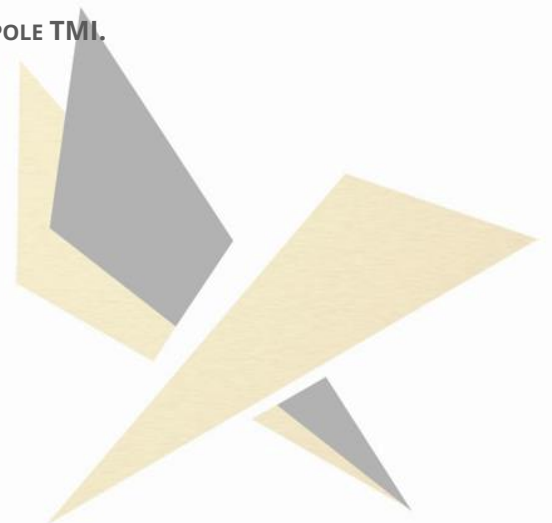


FIGURE 14: VERTICAL GRADIENT OF REDUCED TO POLE TMI.



6. Layered earth inversion

A 30-layer, unconstrained layered earth inversion was performed on the final data using Geoscience Australia's GALEI package. The software as well as complete documentation is available from <https://github.com/GeoscienceAustralia/ga-aem>. The resulting profiles were gridded in 3D and provided as a geosoft voxel, as well as in profile maps and depth slices as illustrated in Figure 15 (see Appendix A for a full suite of maps).

The provided inversion results are not an interpretation of data. These are products generated to ensure data were processed properly and to indicate the location of major conductive units. Inversion results are non-unique and vary depending on the algorithm used, the starting model, noise specification and other inversion parameters. The GALEI algorithm is based on layered earthed (1D) geological models and does not allow for modelling of Superparamagnetic (SPM) or Induced Polarization (IP) effects very often observed in AEM data. More advanced interpretations and inversions customized to specific geological targets are strongly recommended prior to pursuing ground follow-up or drilling.

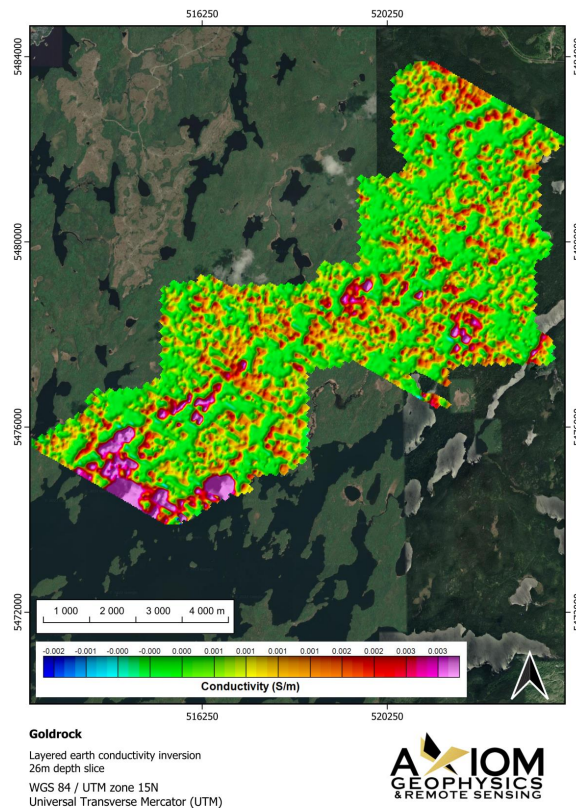


FIGURE 15: CONDUCTIVITY DEPTH SLICE EXTRACTED FROM LAYERED EARTH INVERSION VOLUME.

7. 3D Magnetic susceptibility inversion

7.1. Unconstrained susceptibility inversion

An unconstrained inversion was performed on the residual filtered TMI using Fullagar’s VPem suite run through Mira Geoscience Analyst at a cell size of 25 m.

The inversion performs 10 iterations followed by a forward calculation, until a sufficiently low misfit or the maximum number of inversion steps is achieved (as illustrated in Figure 16 below).

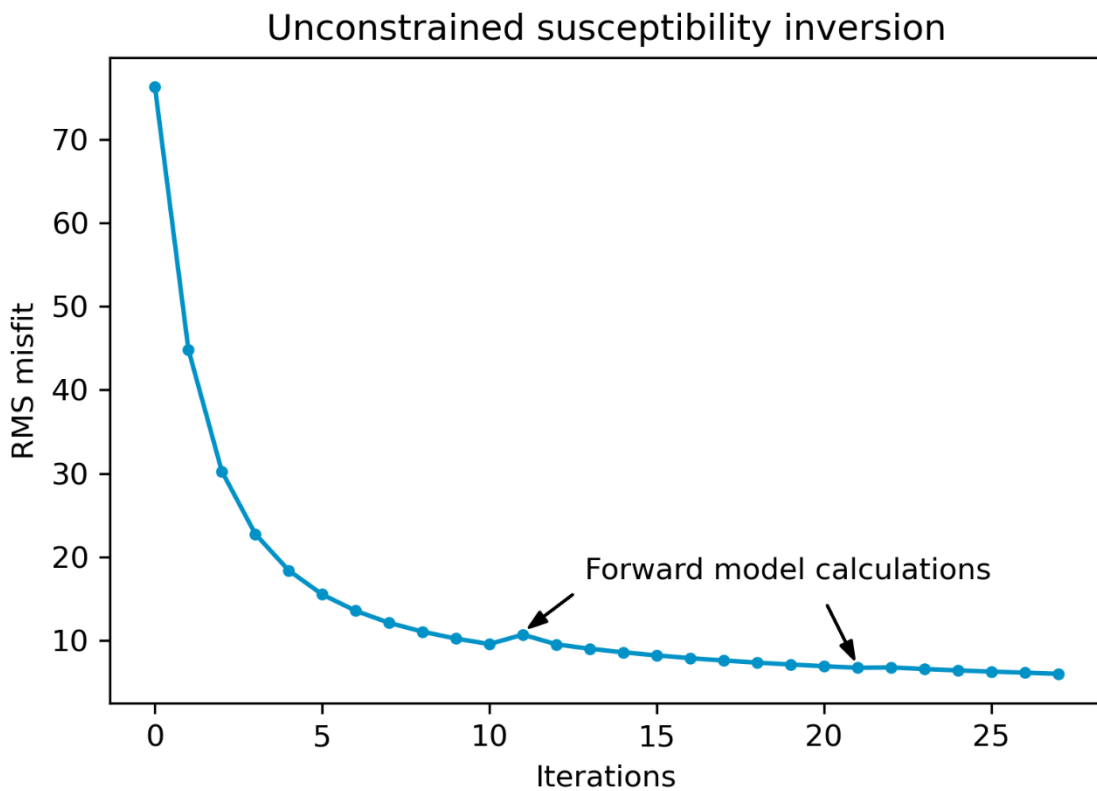


FIGURE 16: RMS MISFITS PER INVERSION ITERATION.

The 3D susceptibility volumes of the inversions are provided in Geosoft Voxel format (Figure 17).

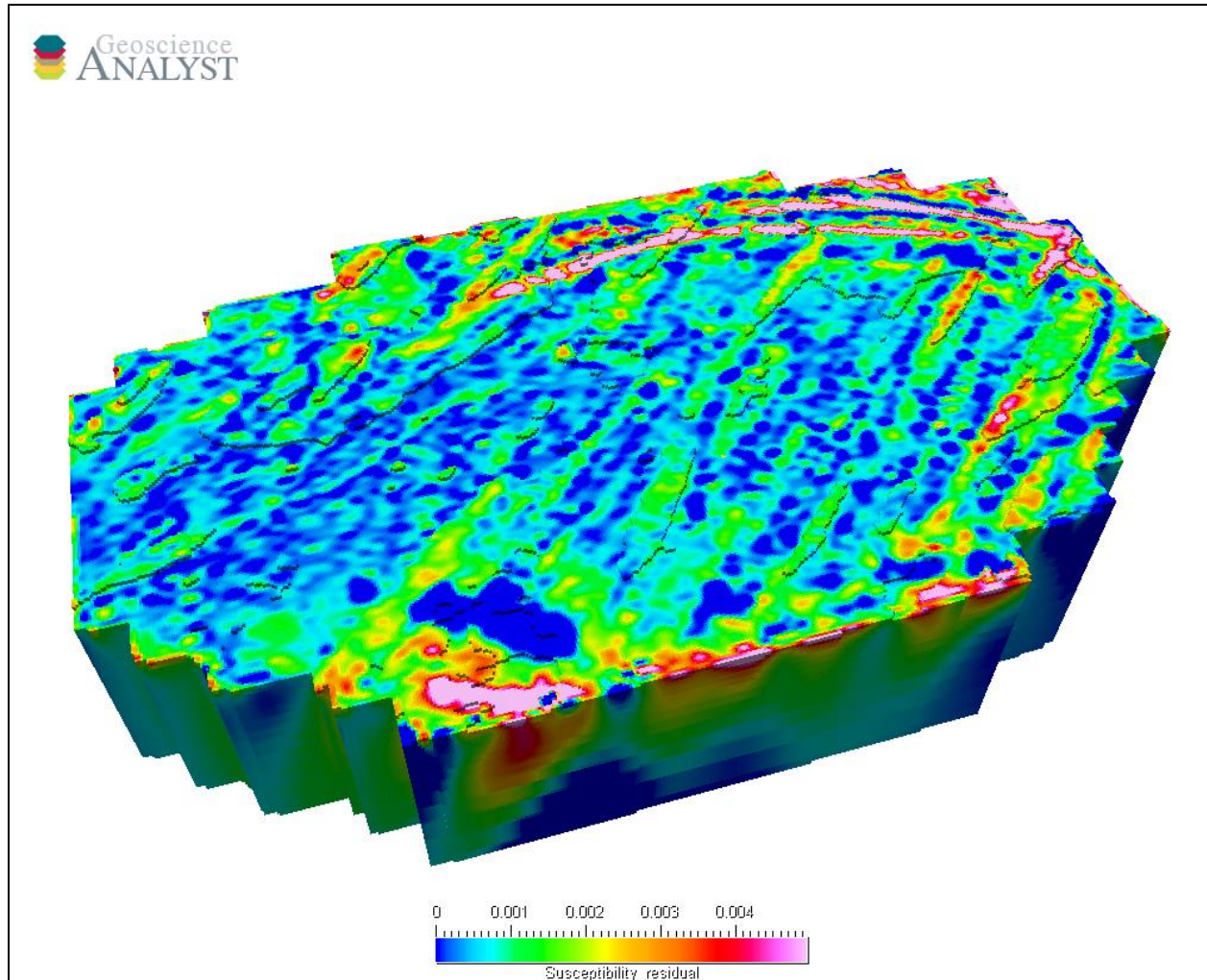
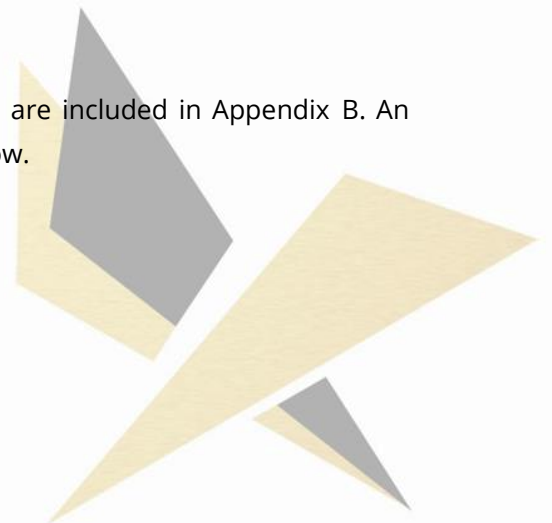
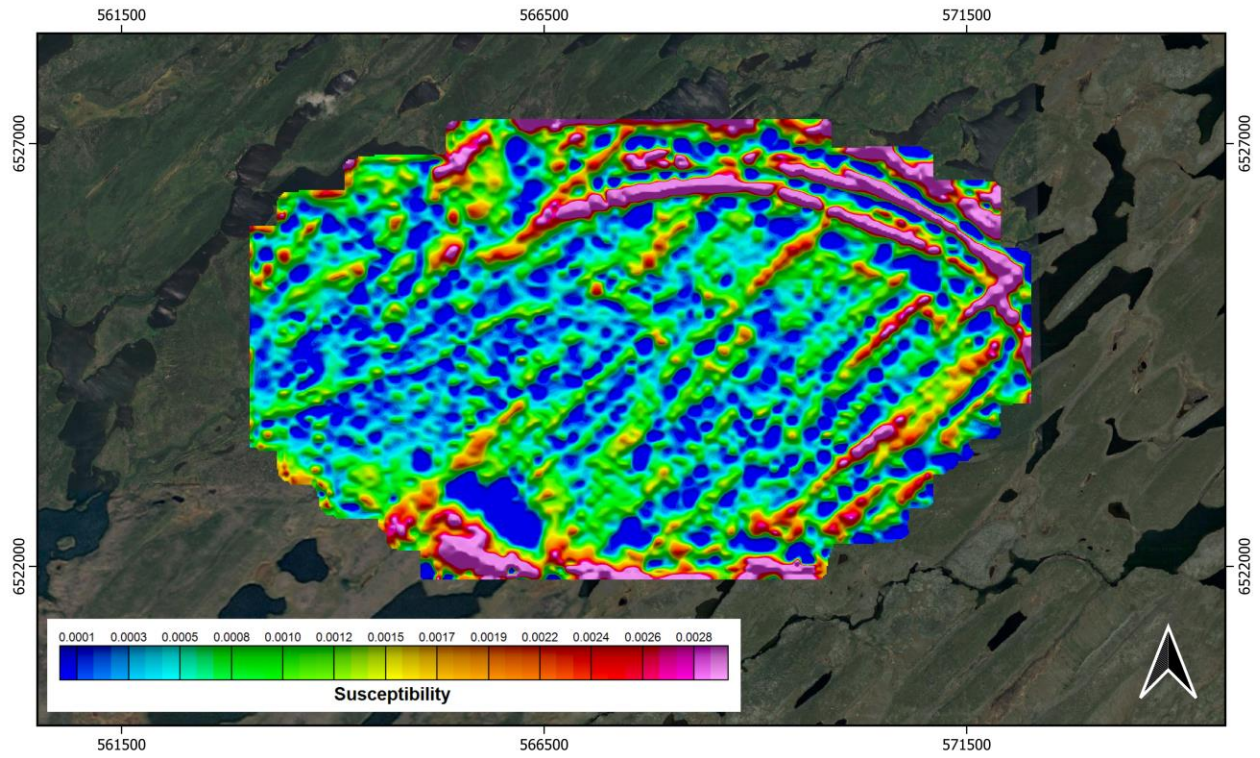


FIGURE 17: UNCONSTRAINED SUSCEPTIBILITY INVERSION VOLUME.

A series of depth slices were extracted from the resulting volume are included in Appendix B. An example of a susceptibility depth slice is illustrated in Figure 18 below.





Ascent
 Unconstrained susceptibility inversion - residual TMI
 30 m depth slice
 WGS 84 / UTM zone 13N
 Universal Transverse Mercator (UTM)

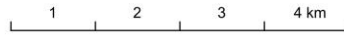
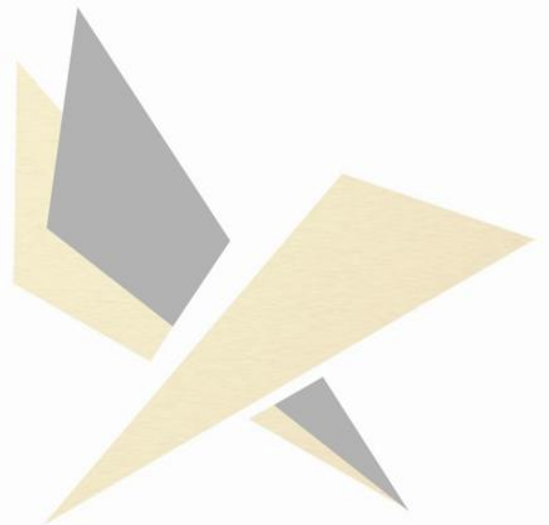


FIGURE 18: SUSCEPTIBILITY DEPTH SLICE EXTRACTED FROM UNCONSTRAINED INVERSION.



All raw data and final deliverables are delivered in Geosoft format grids, Geotiffs and database, as well as in 3D in a Mira Geoscience Analyst project. The data can be interrogated in 3D (Figure 19), as well as in 2D profiles (Figure 20) using Geoscience Analyst's *2D Profile Viewer* panel.

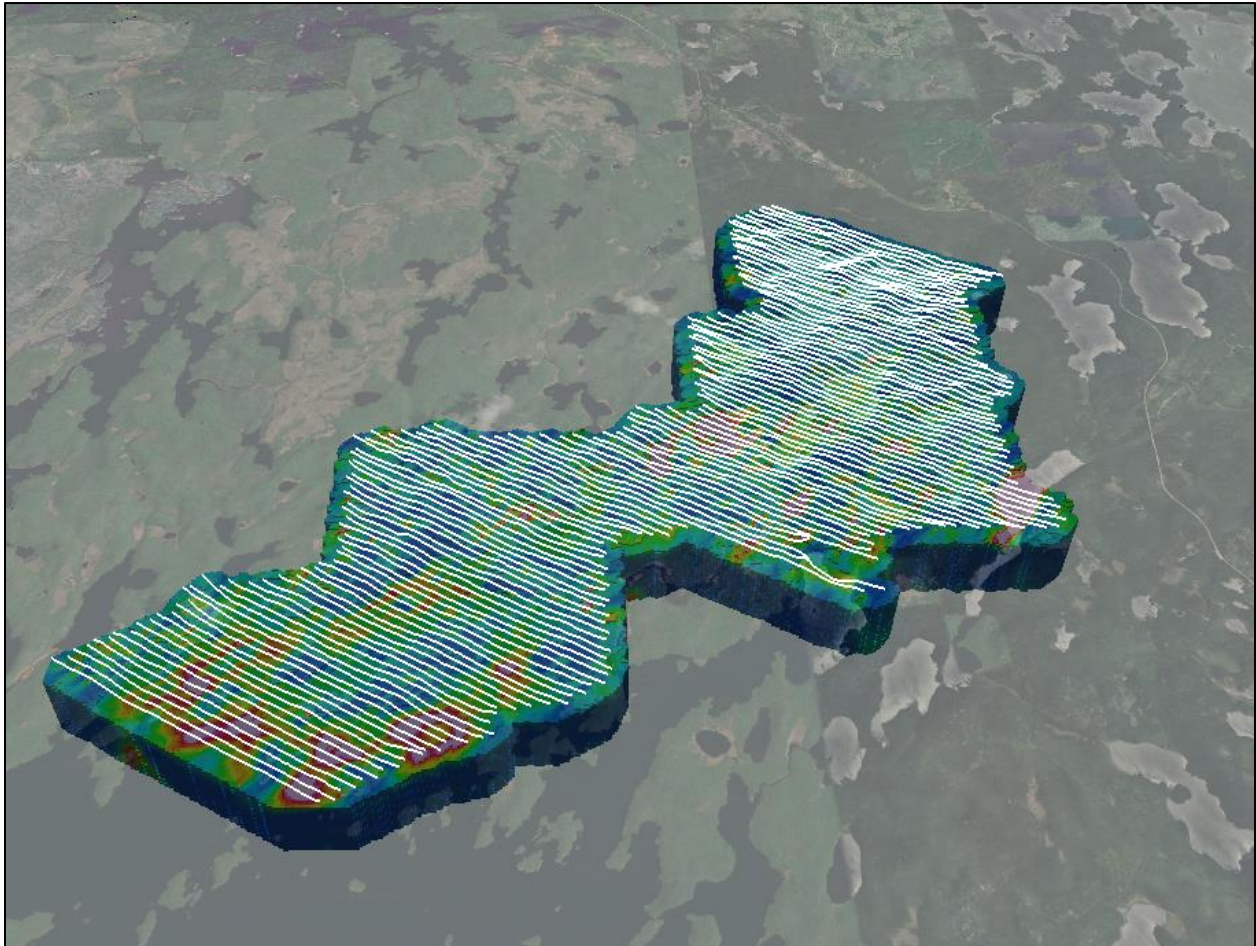
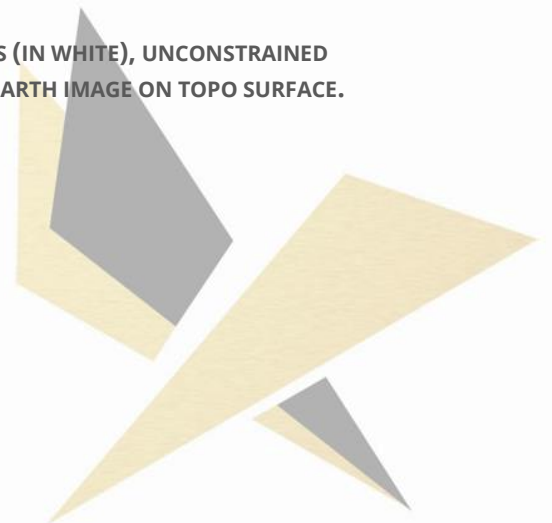


FIGURE 19: GEOSCIENCE ANALYST VIEWPORT DISPLAYING FLOWN LINES (IN WHITE), UNCONSTRAINED SUSCEPTIBILITY INVERSION VOLUME AND SEMI-TRANSPARENT GOOGLE EARTH IMAGE ON TOPO SURFACE.



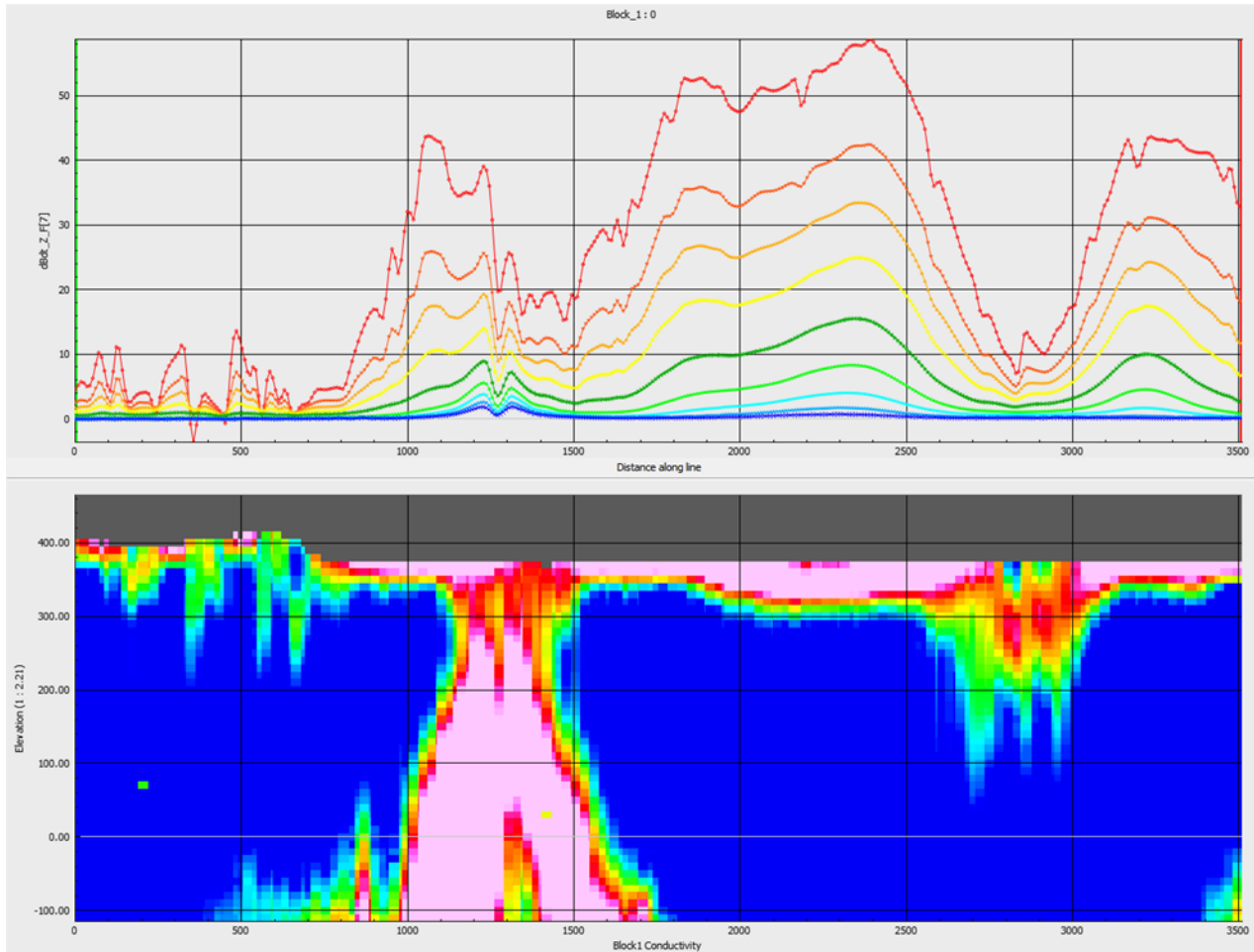
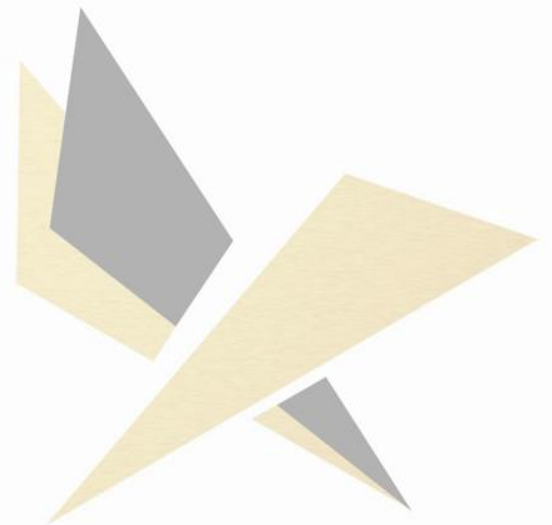


FIGURE 20: PROFILE COMPARISON OF RAW dB/dT DATA (TOP PROFILE) WITH GRIDDED CONDUCTIVITY VOLUME (BOTTOM PROFILE).



8. Deliverables

8.1. Database

All data is typically delivered in either Geosoft Database ('GDB') or simple formats such as .txt or csv. The data deliverables are client specific to best suit their needs and software requirements. Regardless of software, a database is supplied to the client with the following channel descriptions:

TABLE 10: DATABASE CHANNEL DESCRIPTIONS

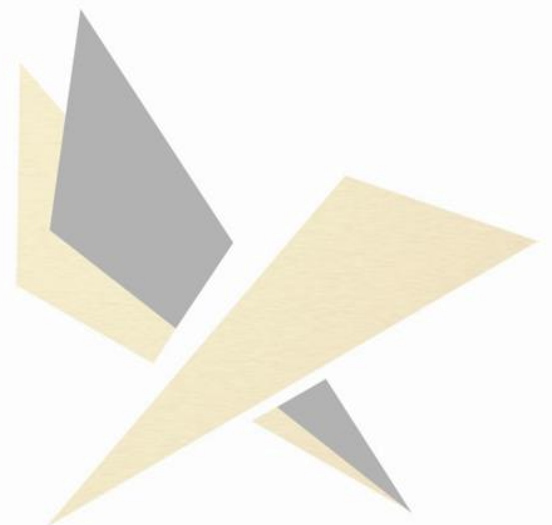
Channel name	Description	Unit
Line	<i>Line number</i>	Real
FID	<i>Fiducial</i>	Integer
Synctime	<i>GPS time</i>	Seconds
X_Rx	<i>X UTM Coordinate of EM Receiver</i>	Metres
Y_Rx	<i>Y UTM Coordinate of EM Receiver</i>	Metres
Receiver elevation EM	<i>EM Receiver height above sea level</i>	Metres
Receiver elevation mag	<i>Magnetic sensor height above sea level</i>	Metres
Receiver altitude EM	<i>EM Receiver height above ground</i>	Metres
Receiver Altitude Mag	<i>Magnetic sensor height above ground</i>	Metres
Digital terrain	<i>Levelled Digital Terrain Model</i>	Metres
dBdt_Z	<i>dBdt Z data (pre-filtered)</i>	pV/(Am ⁴)
dBdt_X	<i>dBdt X data (pre-filtered)</i>	pV/(Am ⁴)
Bfield_Z	<i>Bfield Z data (pre-filtered)</i>	fT/(Am ²)
Bfield_X	<i>Bfield X data (pre-filtered)</i>	fT/(Am ²)
dBdt_X_TC	<i>dBdt X data (pre-filtered, tilt corrected)</i>	pV/(Am ⁴)
Bfield_X_TC	<i>Bfield X data (pre-filtered, tilt corrected)</i>	fT/(Am ²)
dBdt_Z_F	<i>dBdt Z data (filtered)</i>	pV/(Am ⁴)
dBdt_X_F	<i>dBdt X data (filtered)</i>	pV/(Am ⁴)
Bfield_Z_F	<i>Bfield Z data (filtered)</i>	fT/(Am ²)
Bfield_X_F	<i>Bfield X data (filtered)</i>	fT/(Am ²)
dBdt_X_TC_F	<i>dBdt X data (filtered, tilt corrected)</i>	pV/(Am ⁴)
Bfield_X_TC_F	<i>Bfield X data (filtered, tilt corrected)</i>	fT/(Am ²)
Conductivity	<i>Conductivity</i>	S/m
Cond_Z	<i>Elevations correlated to Conductivity values</i>	Metres
PhiD	<i>GALEI data misfits</i>	NA

dBdt_Z_GALEI_Model	<i>dBdt_Z response of final GALEI model</i>	pV/(Am ⁴)
Processed Magnetics	<i>Magnetic Total Field corrected for diurnal variations and micro-levelled</i>	nT
PowerLineMonitor	<i>60 Hz monitor</i>	NA
IGRF	<i>IGRF model magnetic intensity</i>	nT
Inc	<i>IGRF model magnetic inclination</i>	Degrees
Dec	<i>IGRF model magnetic declination</i>	Degrees

9. Maps

All maps are presented in the coordinate / projection system WGS84 Datum, UTM Zone 13U. A list of maps provided are as follows:

- dB/dt channel grids
- Selected B field Z component grids
- Total Magnetic Intensity (TMI) Map
- Residual Magnetic Intensity (RMI) Map
- Analytic Signal (AS) Map
- Tilt Derivative (TDR) Map
- Total Horizontal Gradient (THDR) Map
- First Vertical Derivative (VD1) Map
- Line Path Map with Base Stations Locations
- Radiometric total counts. Equivalent Potassium, Thorium and Uranium
- Normalized radiometric ratios
- Layered earth inversion depth slices and 3D volume



10. Conclusions

Axiom Exploration Group successfully completed a Helicopter TDEM survey in the over the Ascent claim for Standard Uranium. The survey consisted of a total of 455 line-kms flown.

Ultimately, the data collected was very successful in delineating and defining targets for further investigations. It should be noted that all geophysical interpretations need to be vetted with geology and other relevant information for optimal results.

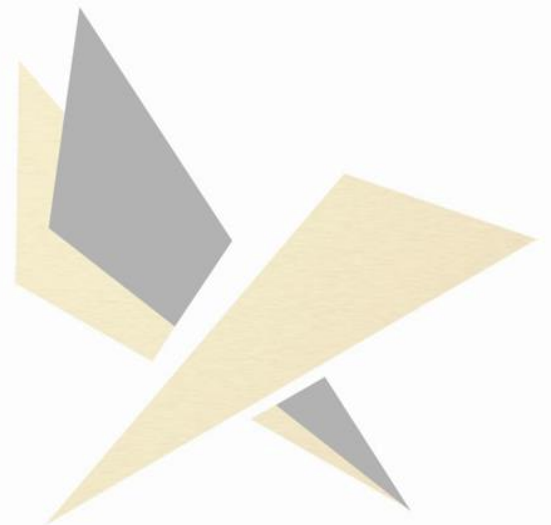
Respectfully submitted,

A handwritten signature in black ink, appearing to read "Doug Engdahl", is positioned above the typed name.

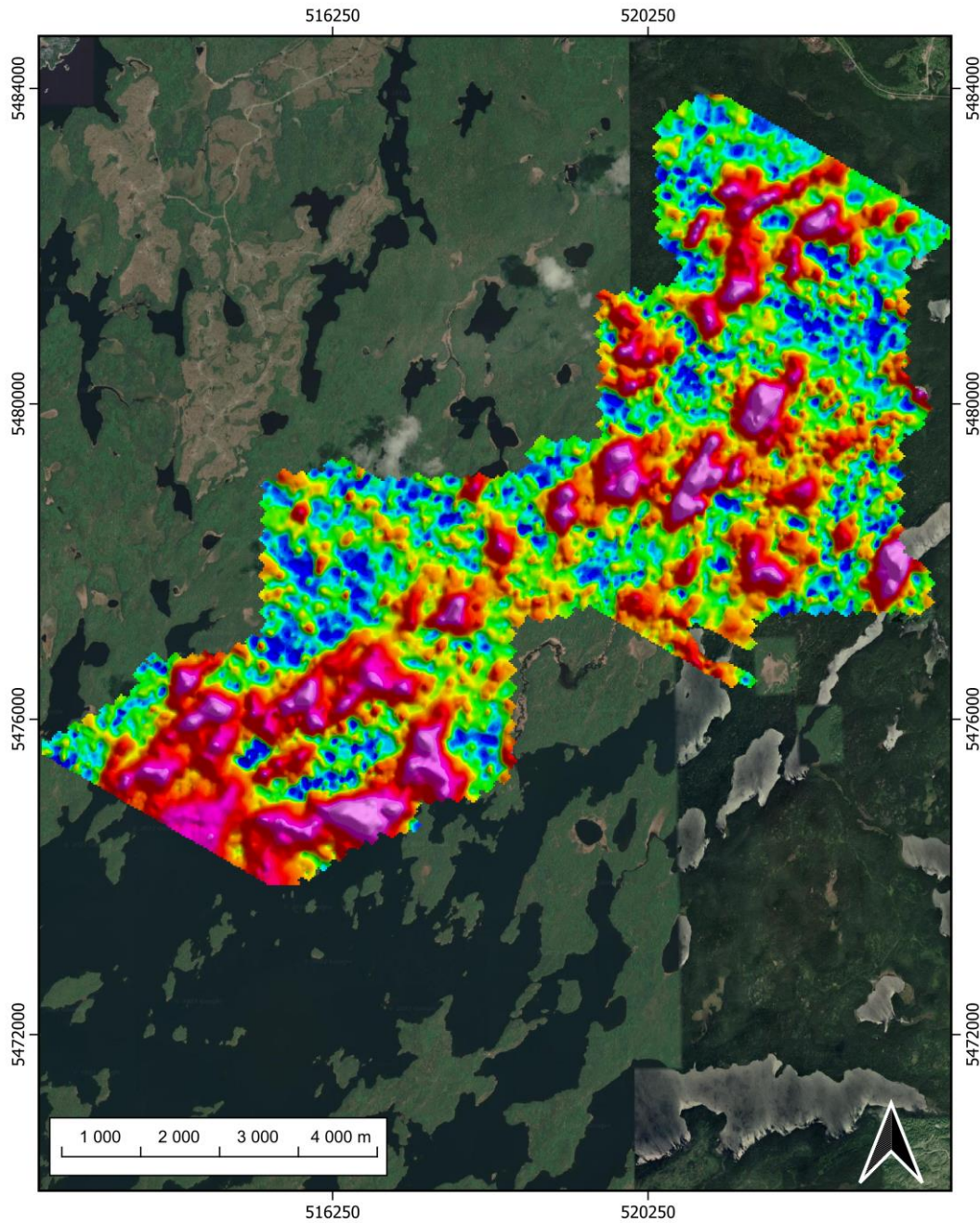
Doug Engdahl, P.Geol.

President & CEO

Axiom Exploration Group Ltd.



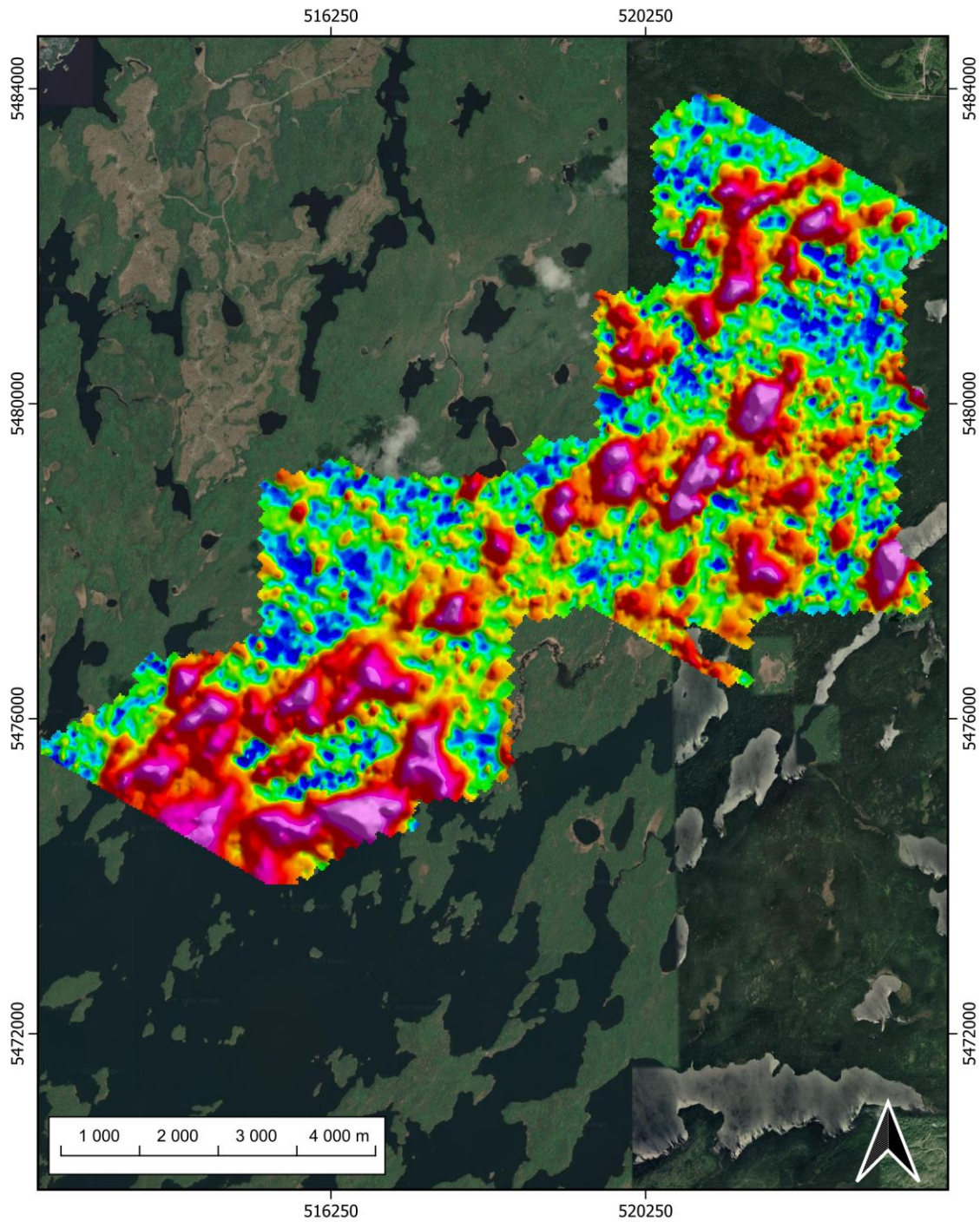
Appendix A - EM products



Goldrock

dB/dt Z component channel 7
Centered at 4.68 ms

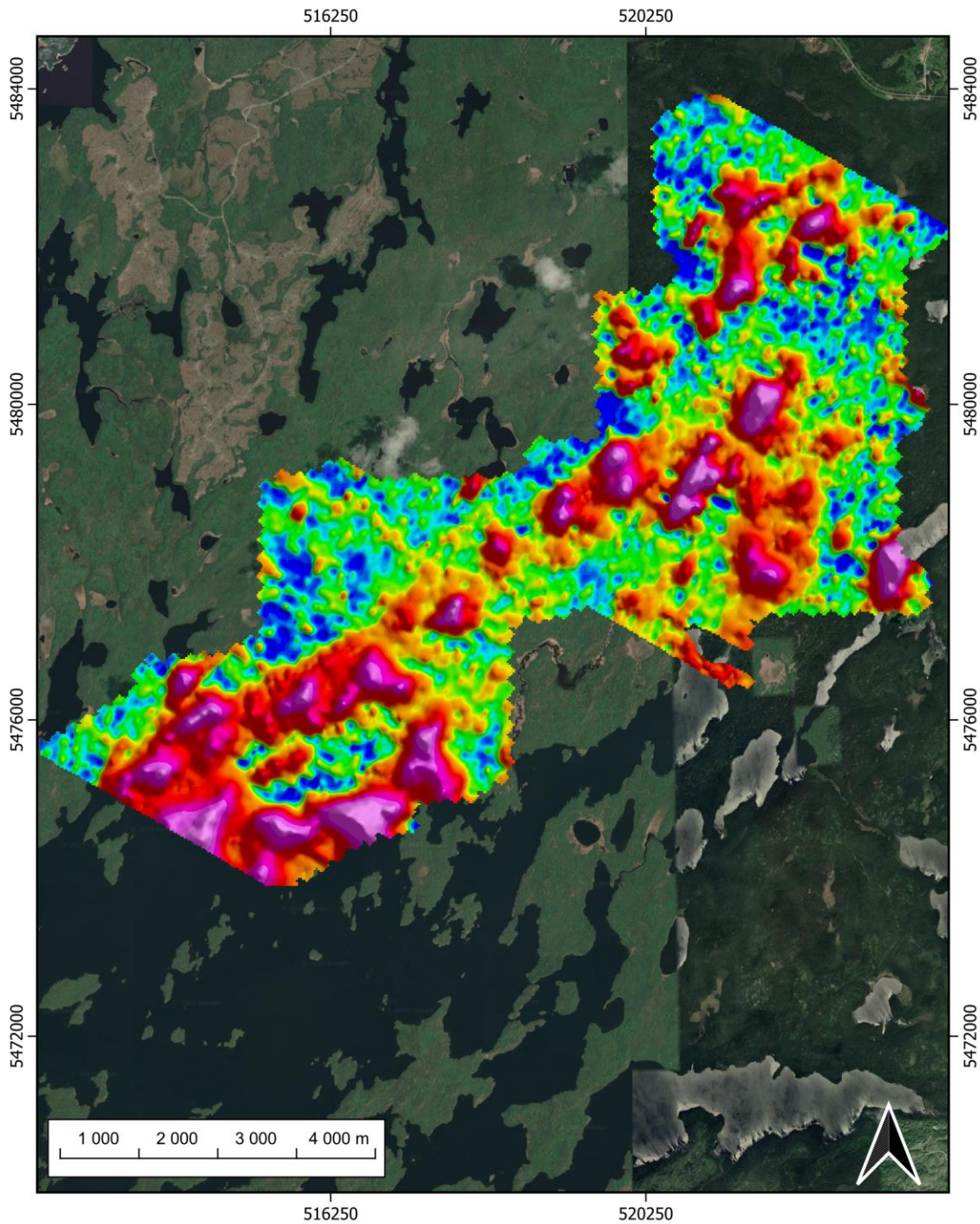
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

dB/dt Z component channel 10
Centered at 4.70 ms

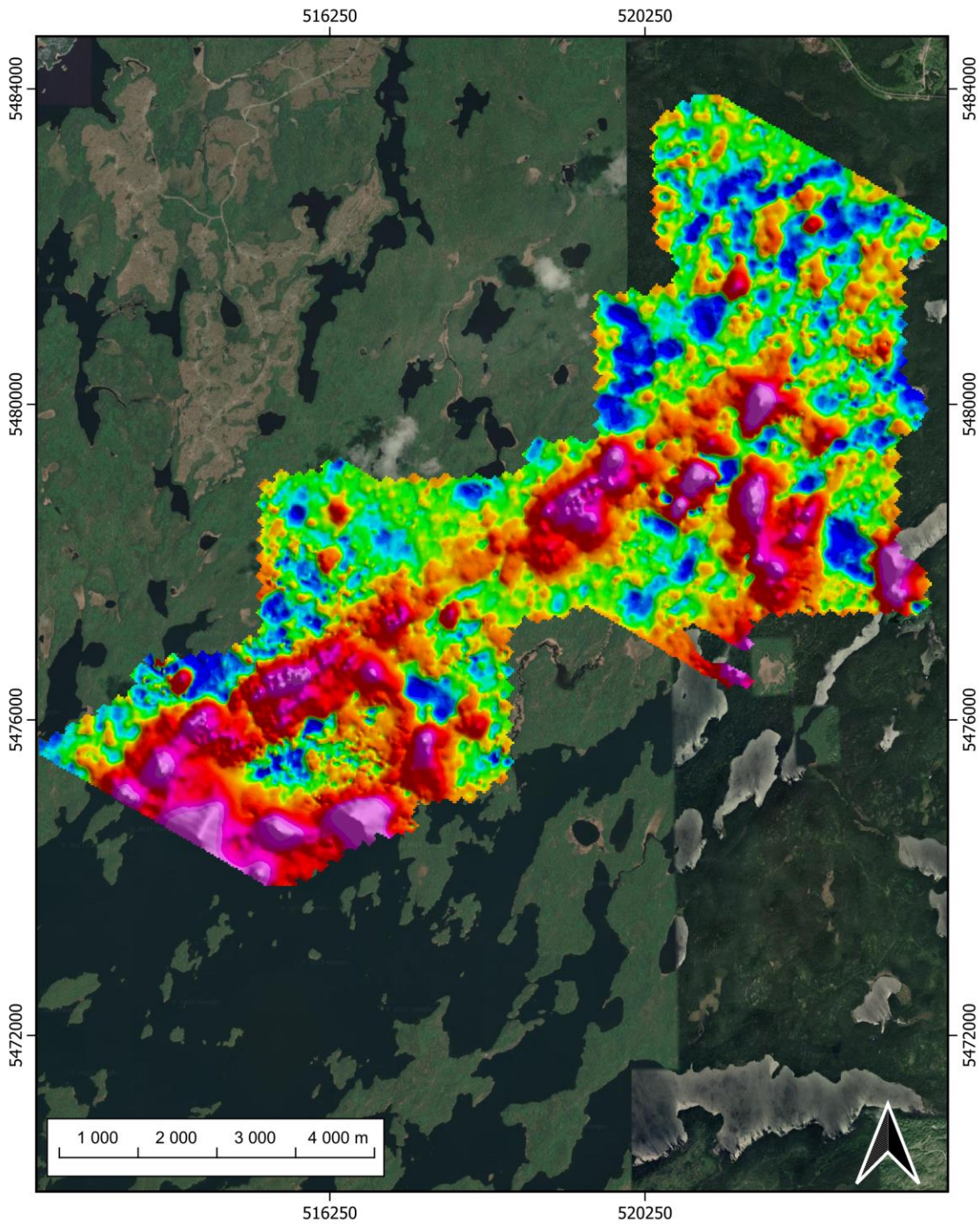
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

dB/dt Z component channel 15
Centered at 4.74 ms

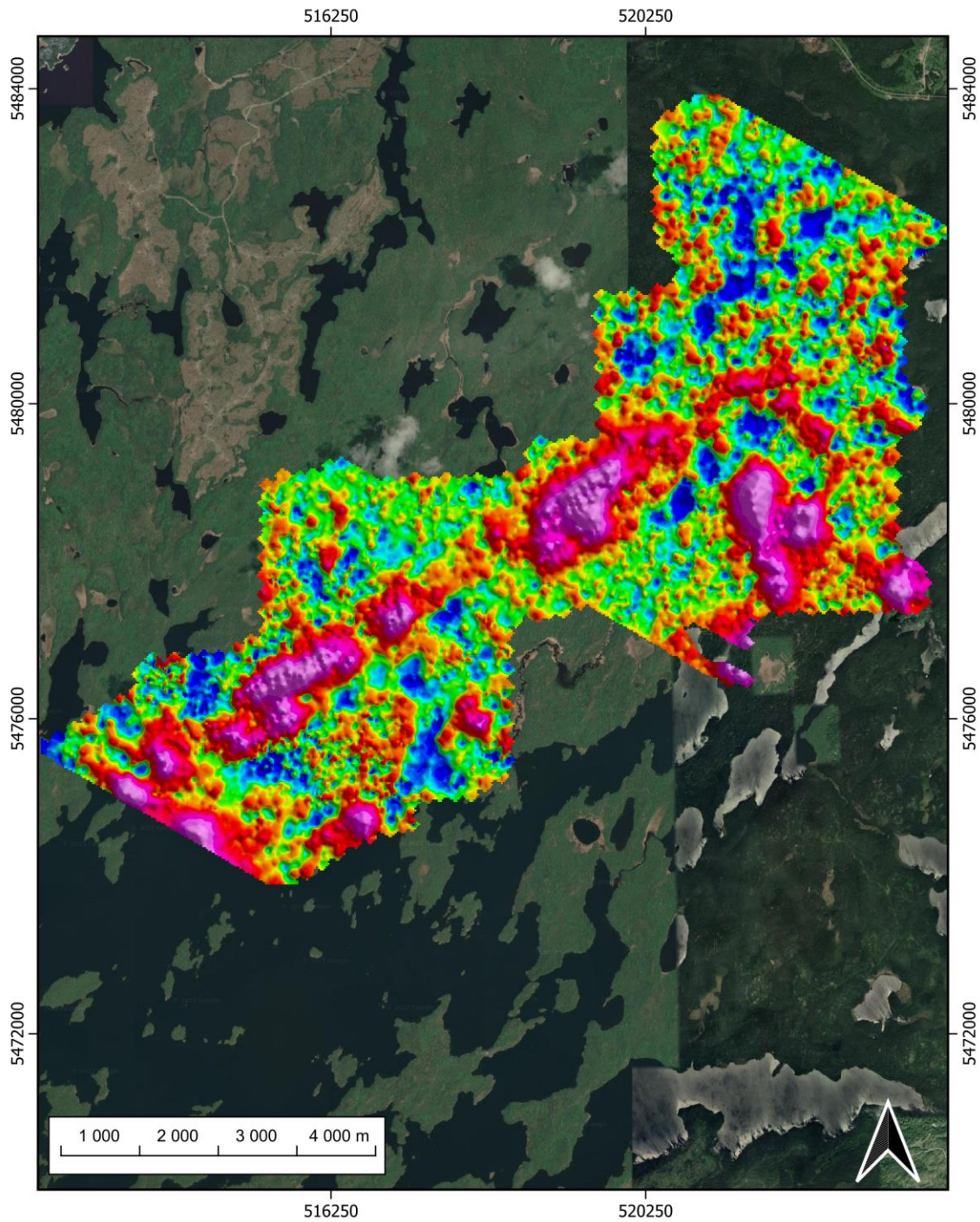
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

dB/dt Z component channel 20
Centered at 4.82 ms

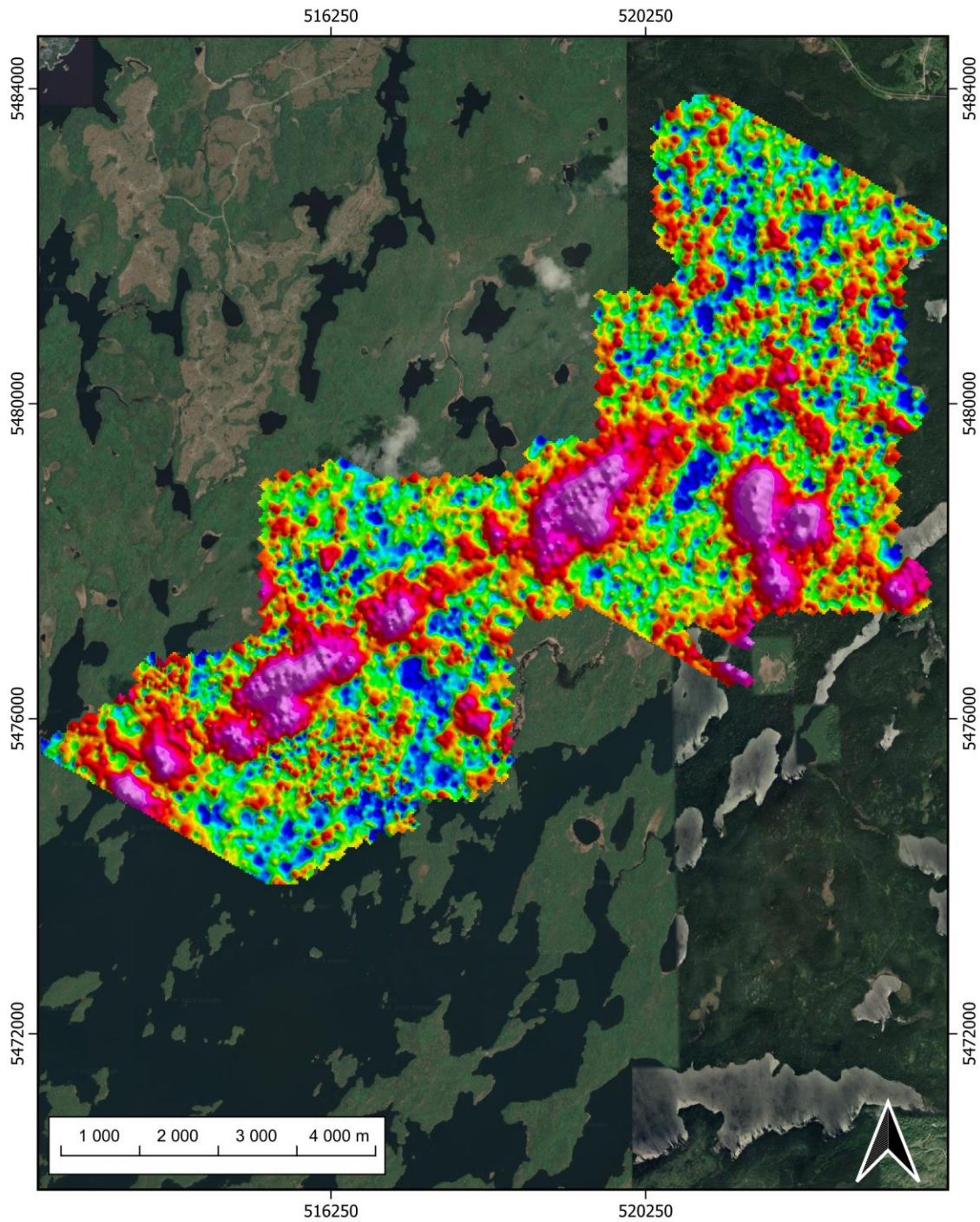
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

dB/dt Z component channel 25
Centered at 4.99 ms

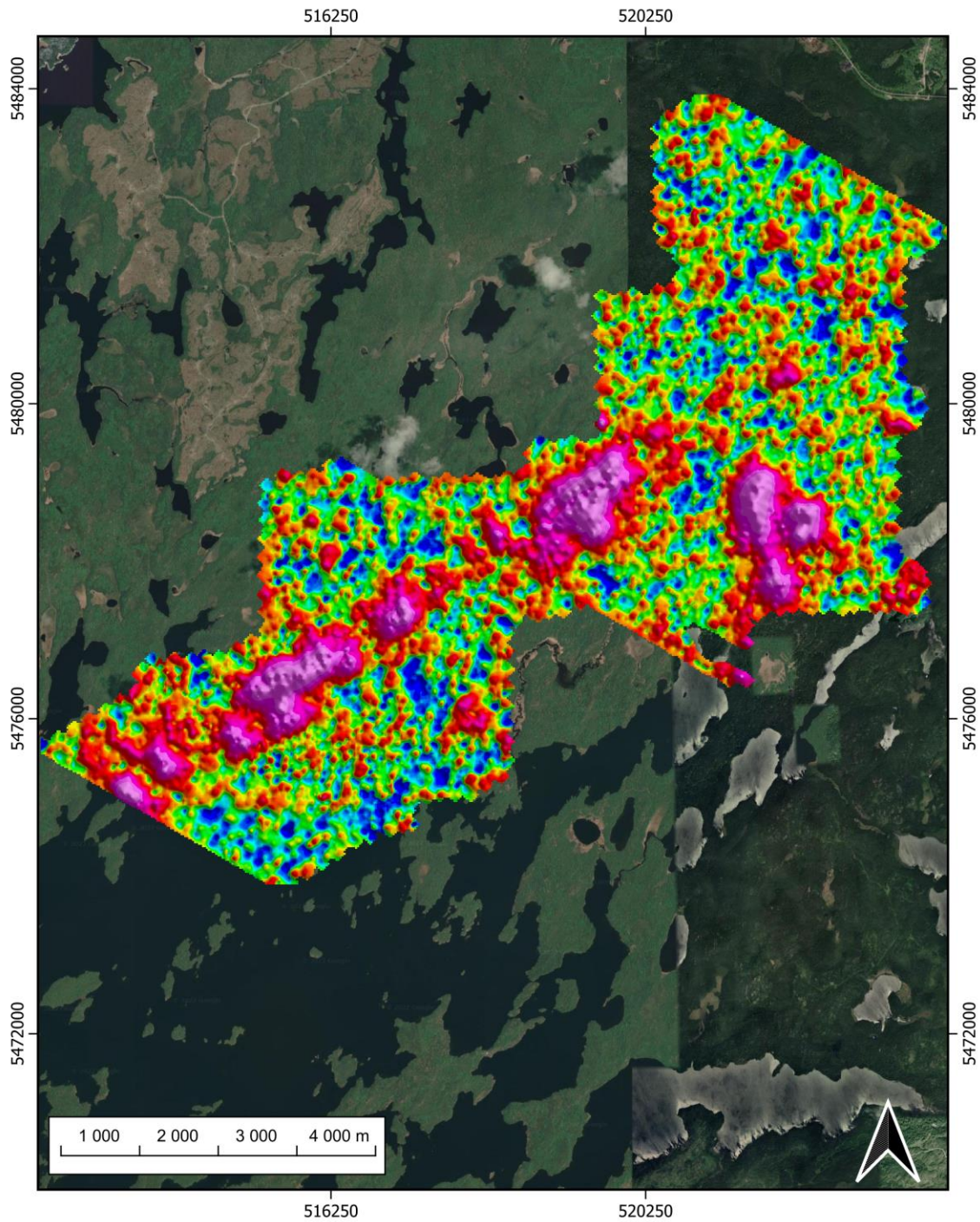
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

dB/dt Z component channel 30
Centered at 5.34 ms

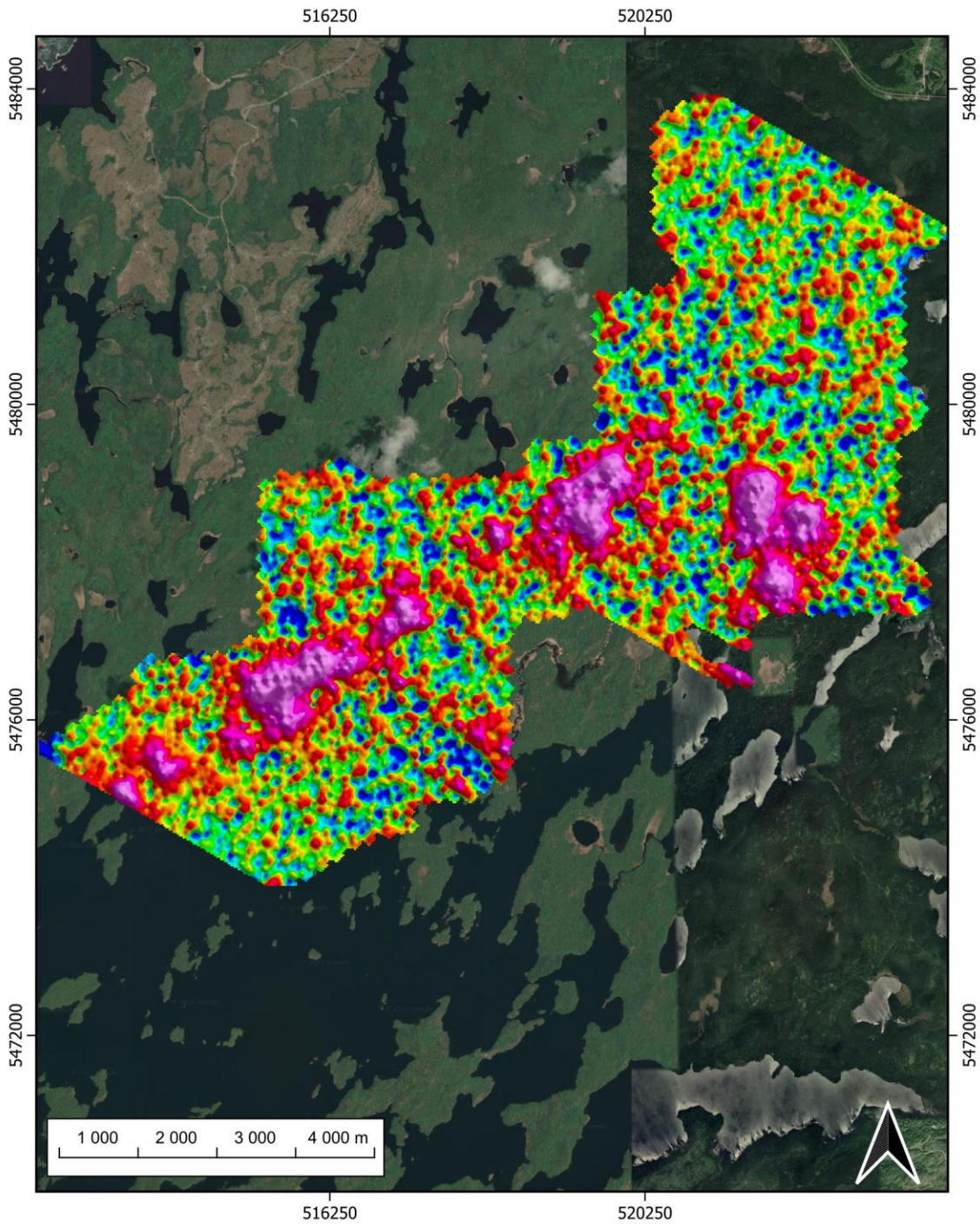
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

dB/dt Z component channel 35
Centered at 6.02 ms

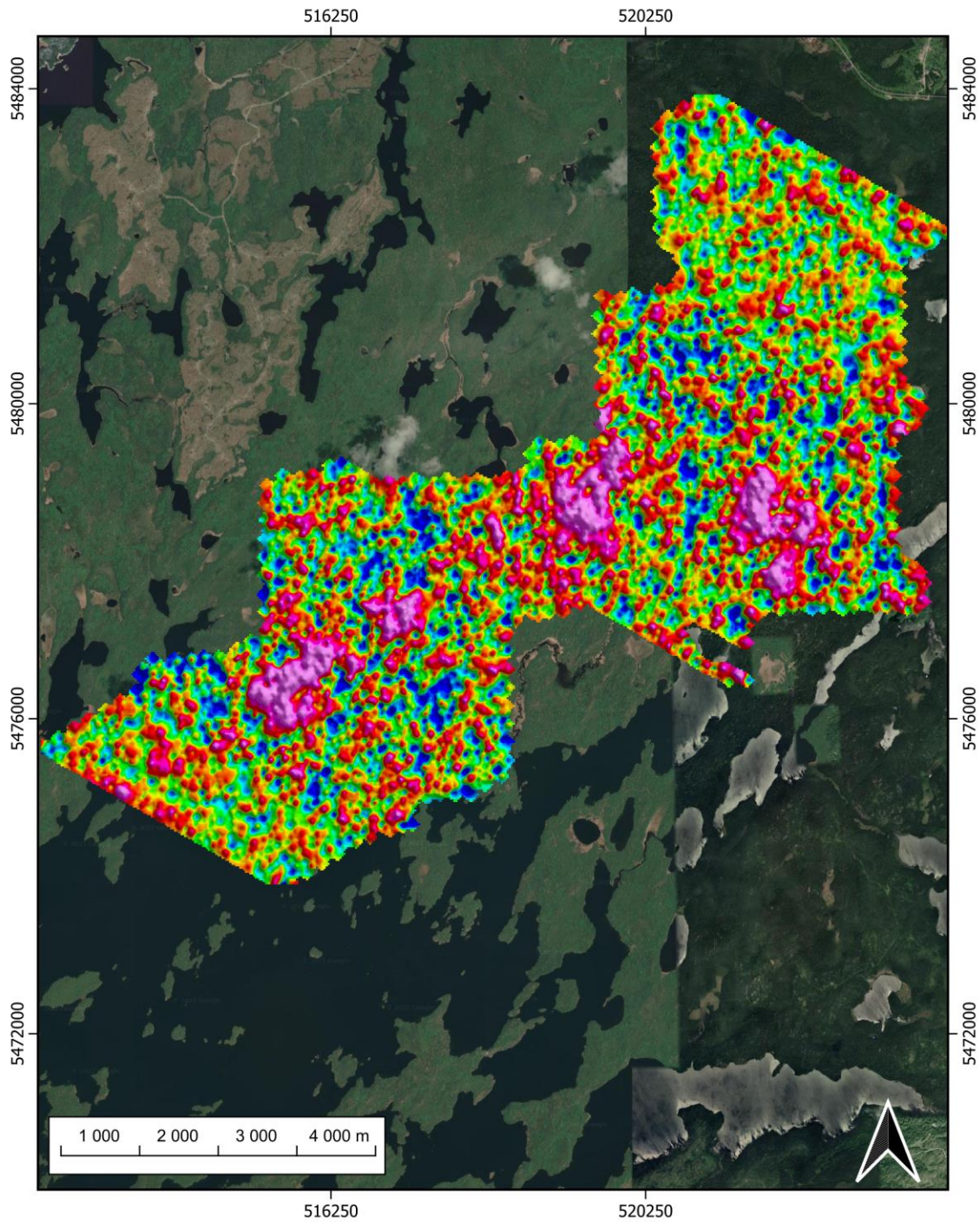
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

dB/dt Z component channel 40
Centered at 7.39 ms

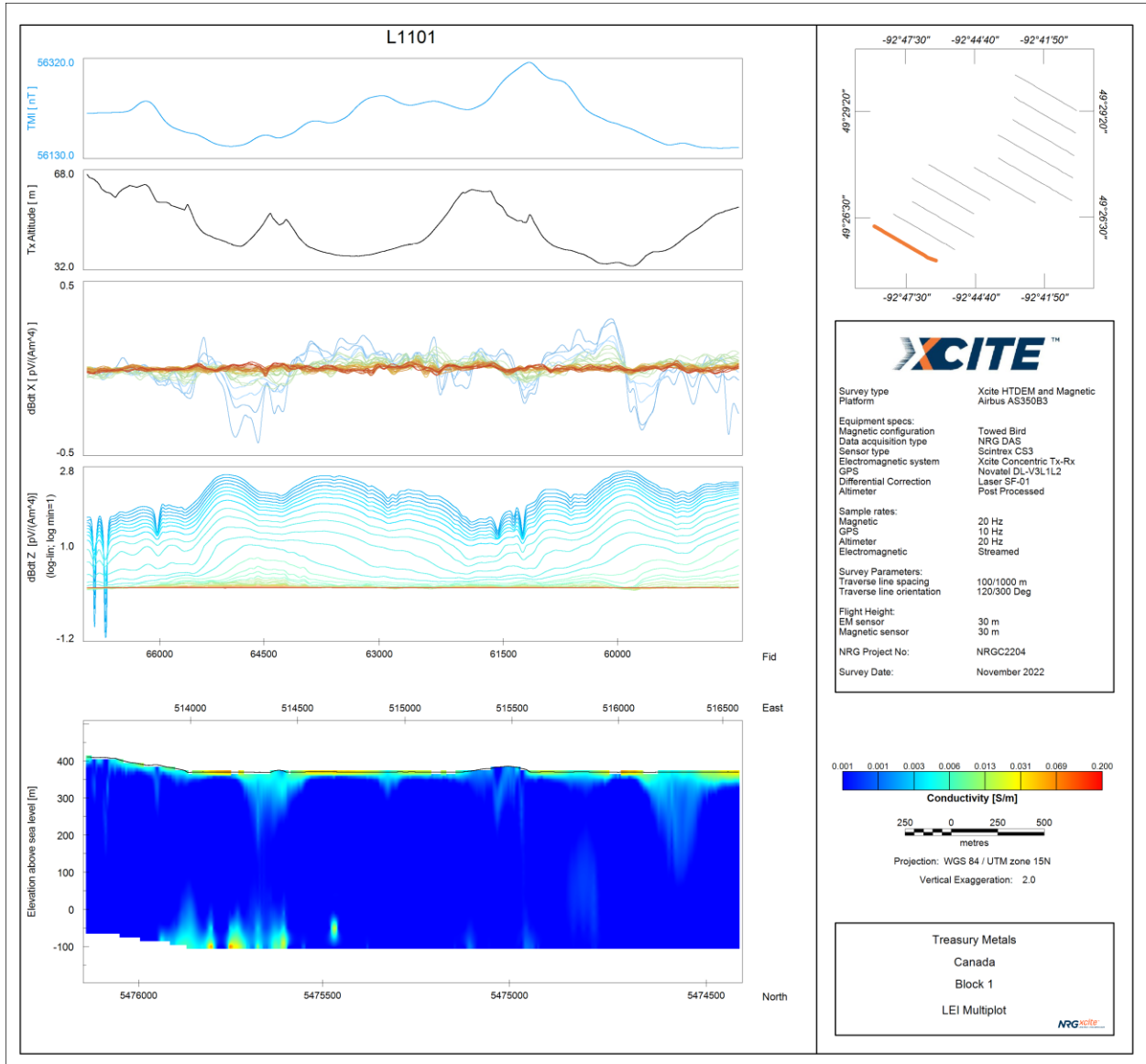
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)

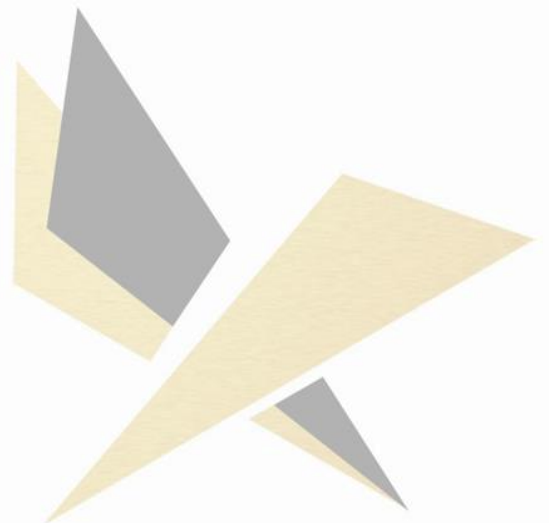
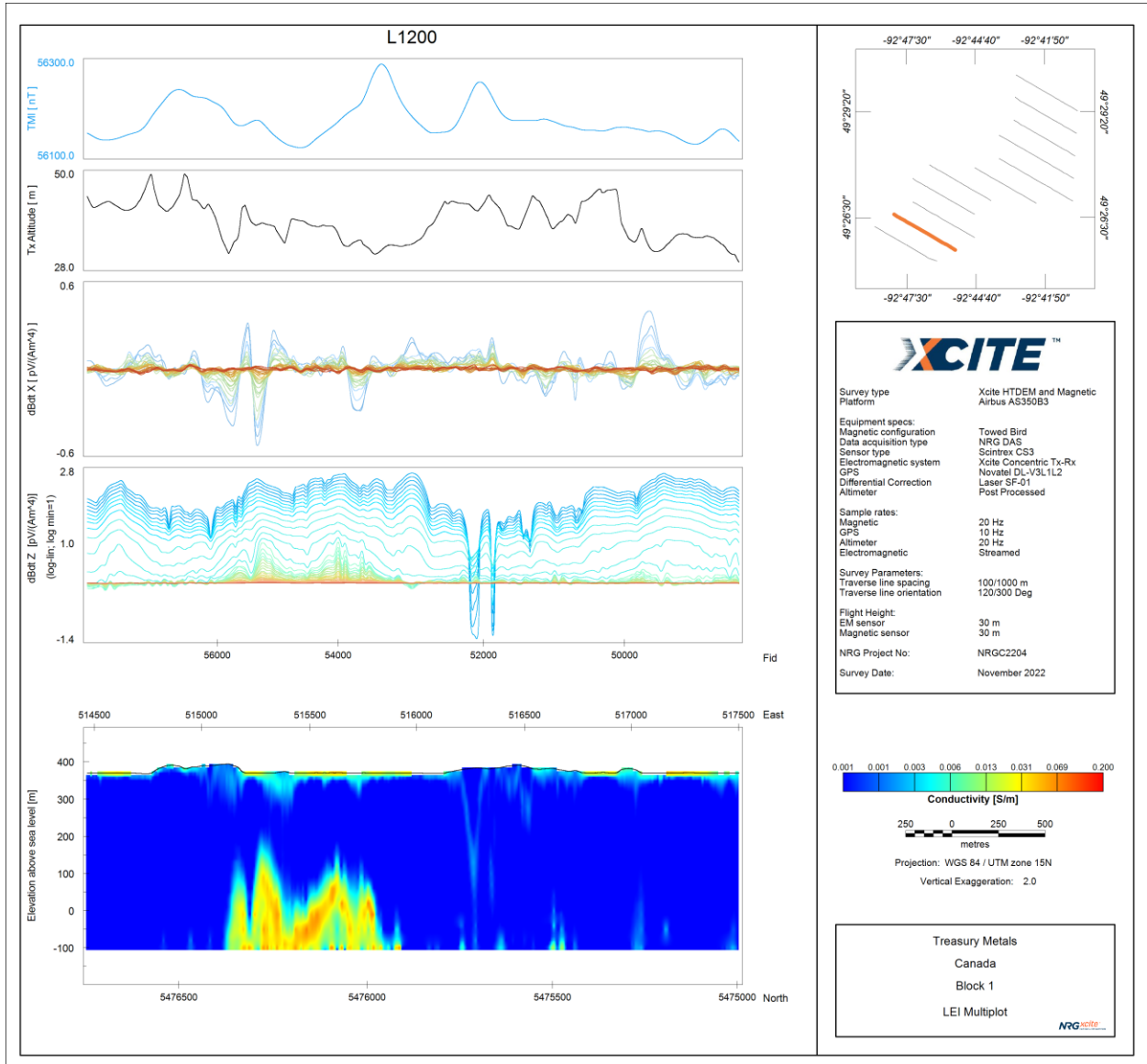


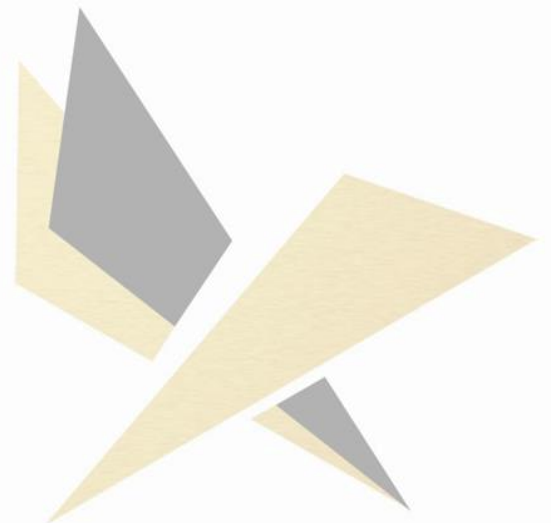
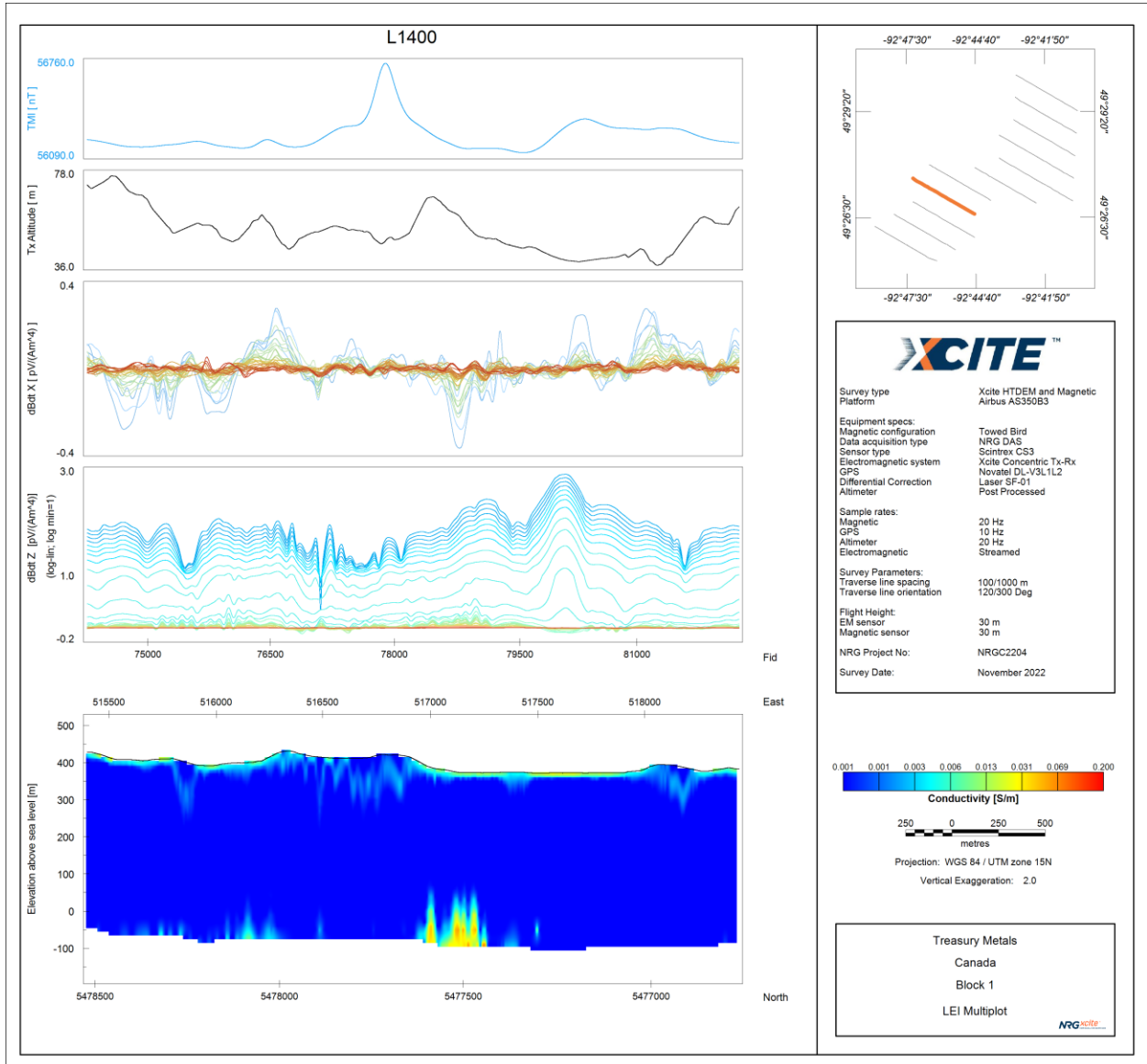
Goldrock

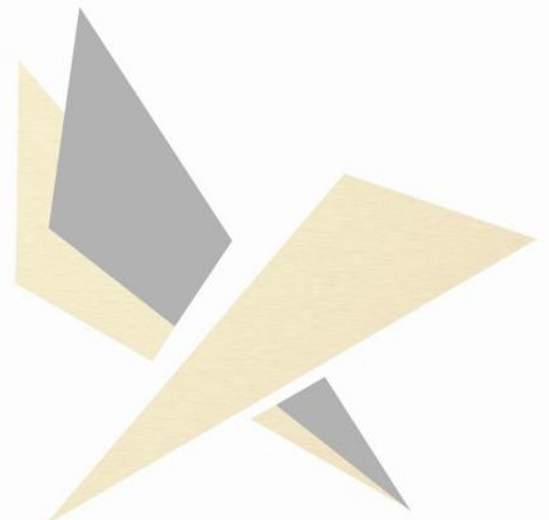
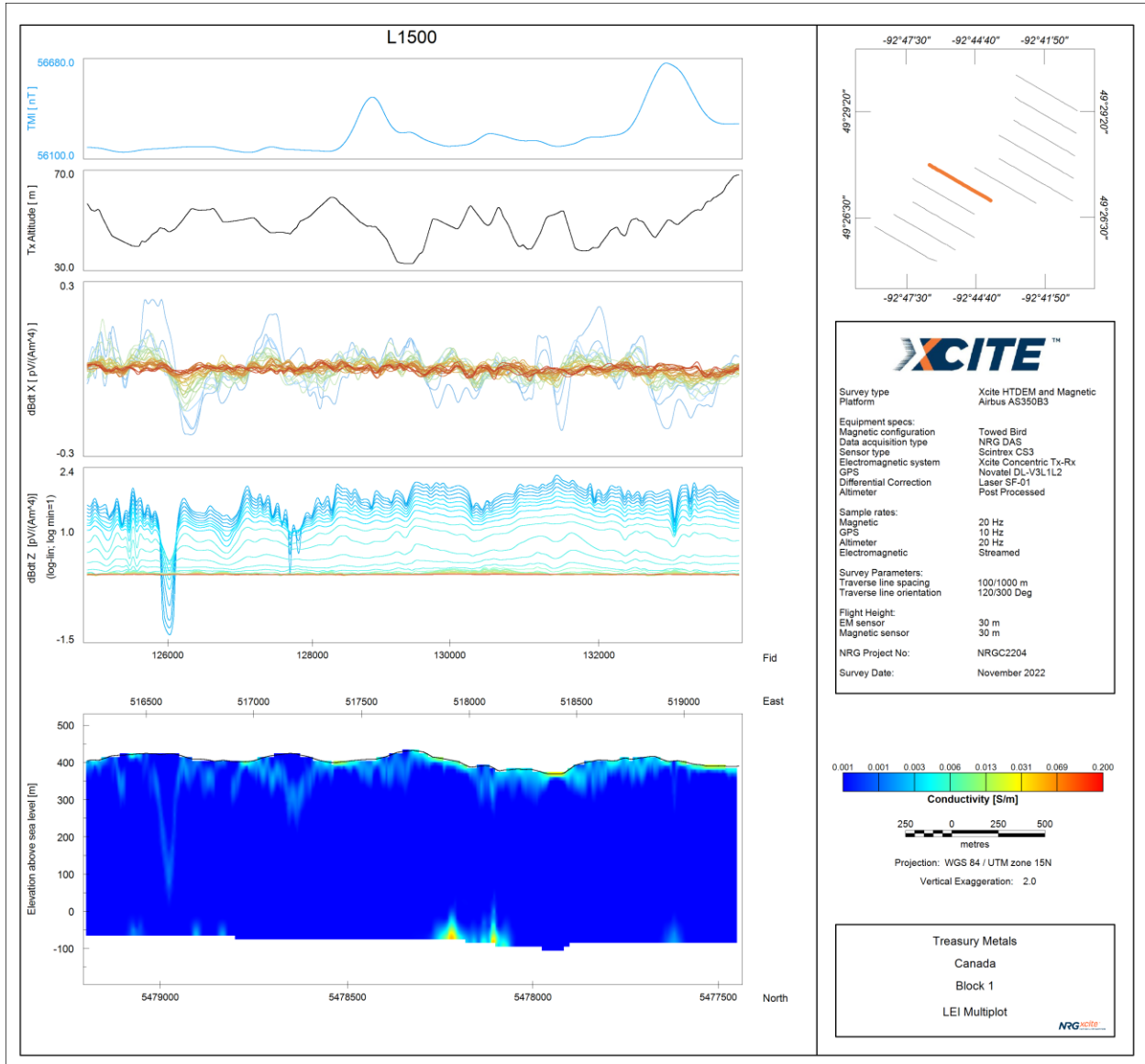
dB/dt Z component channel 45
Centered at 10.54 ms

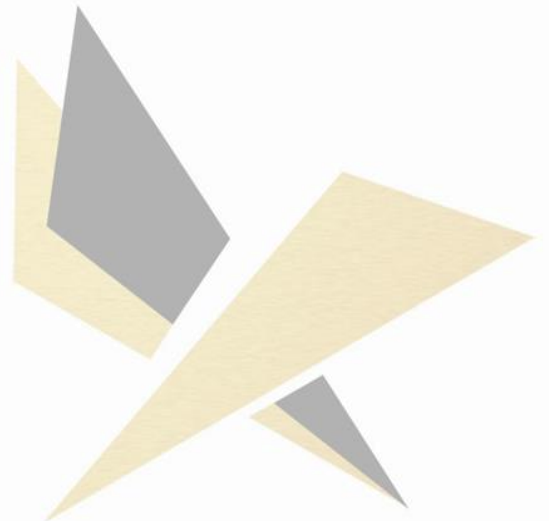
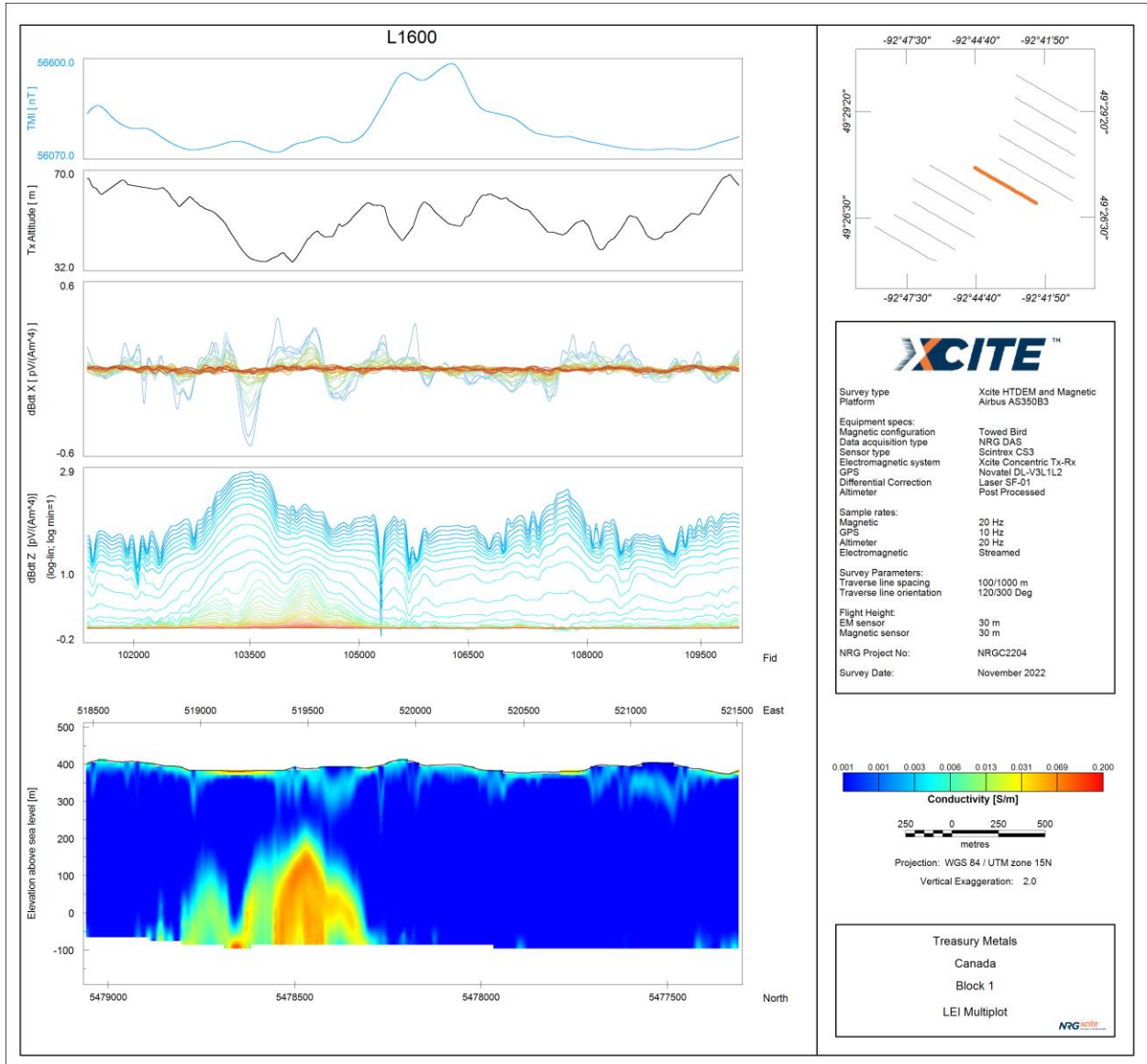
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)

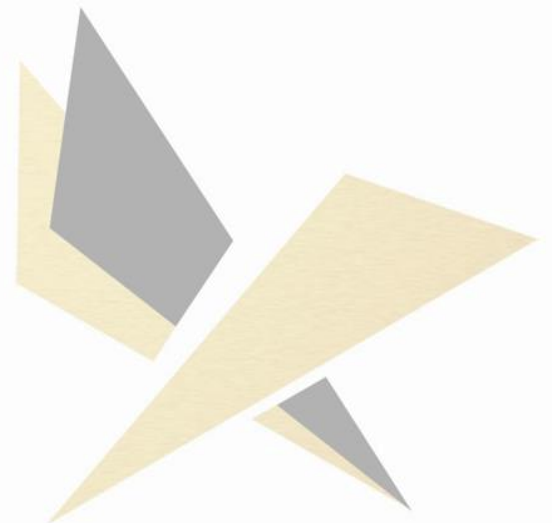
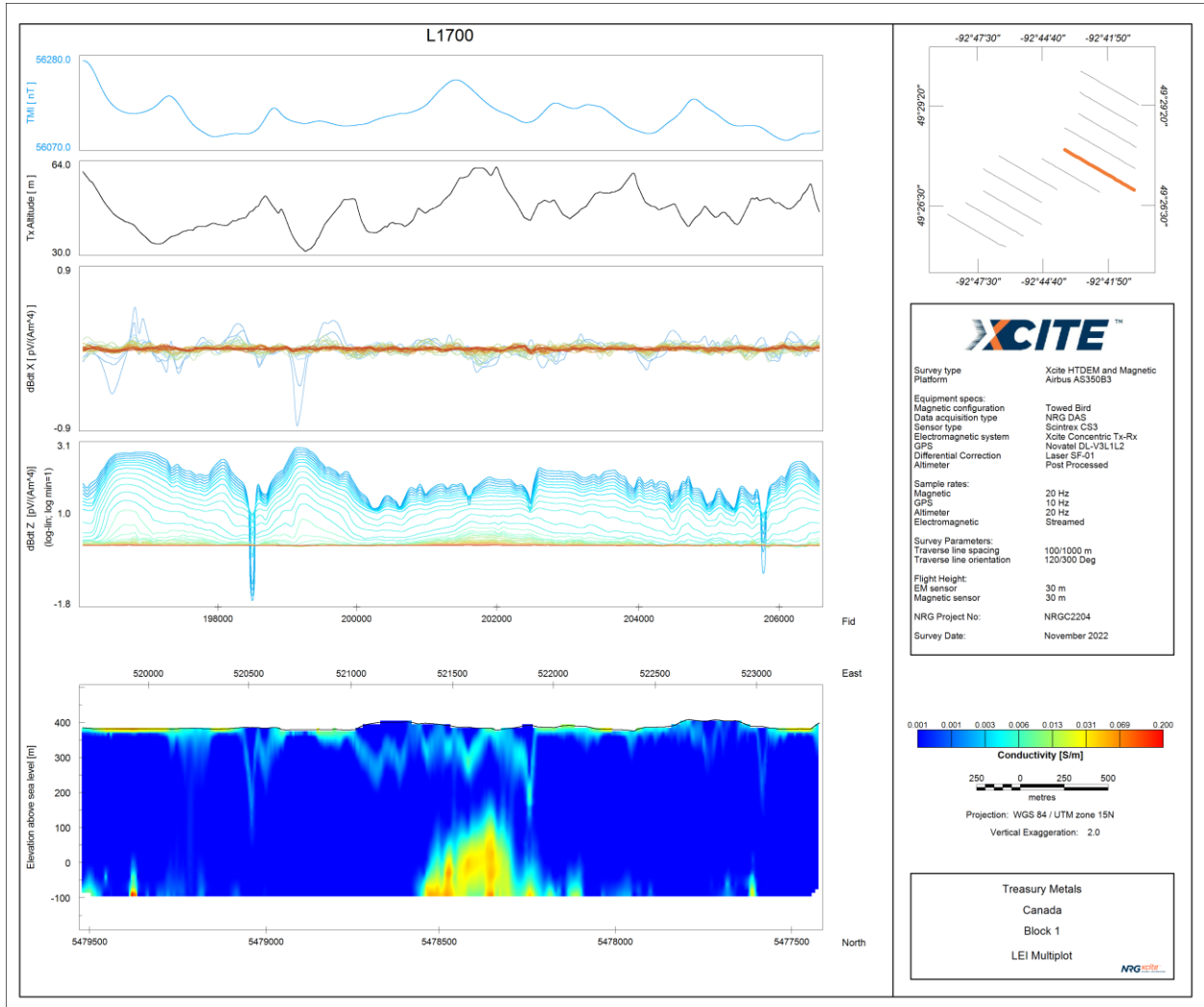


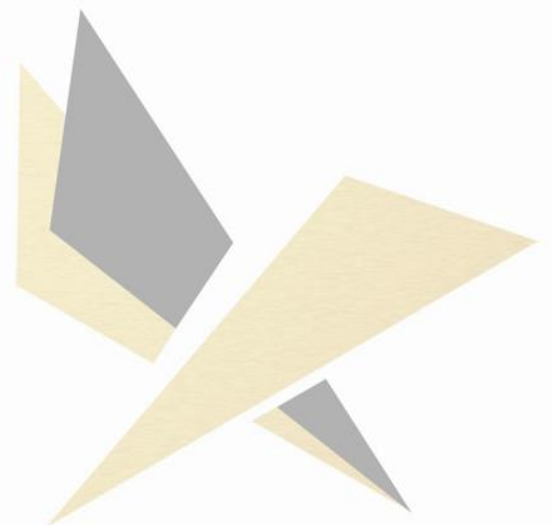
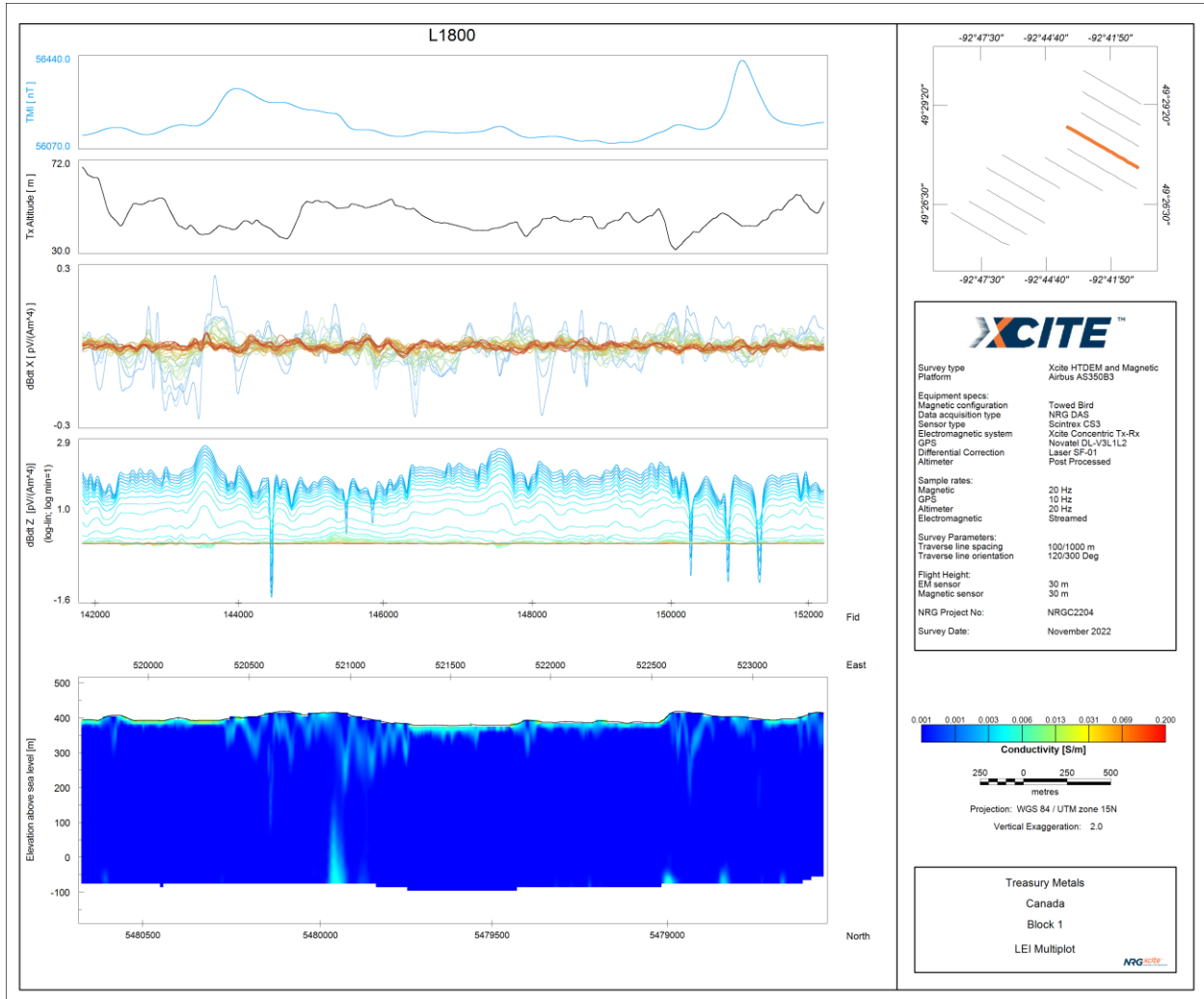


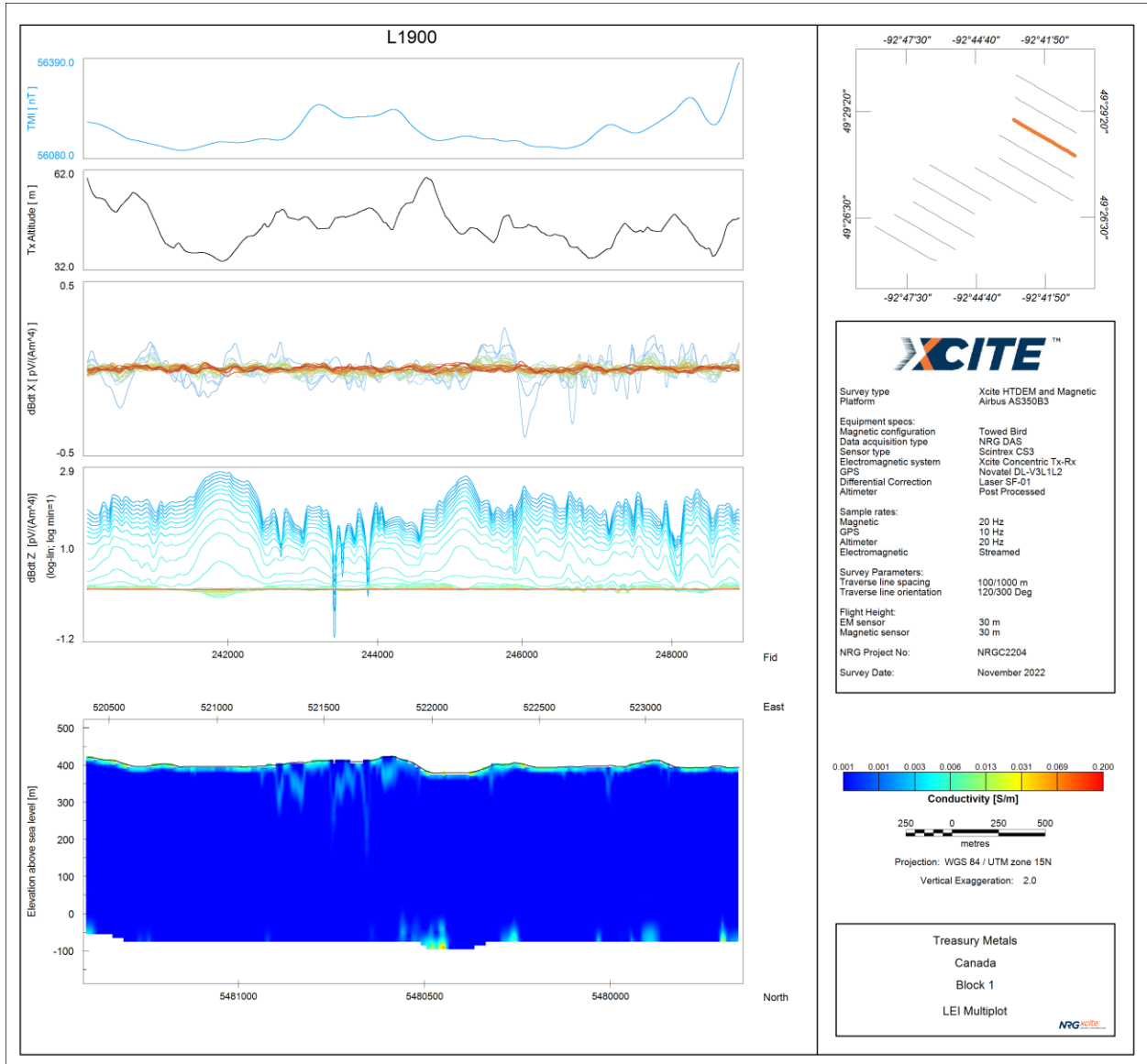


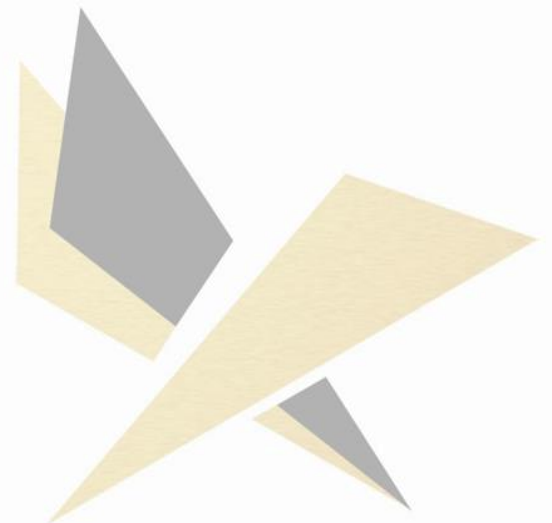
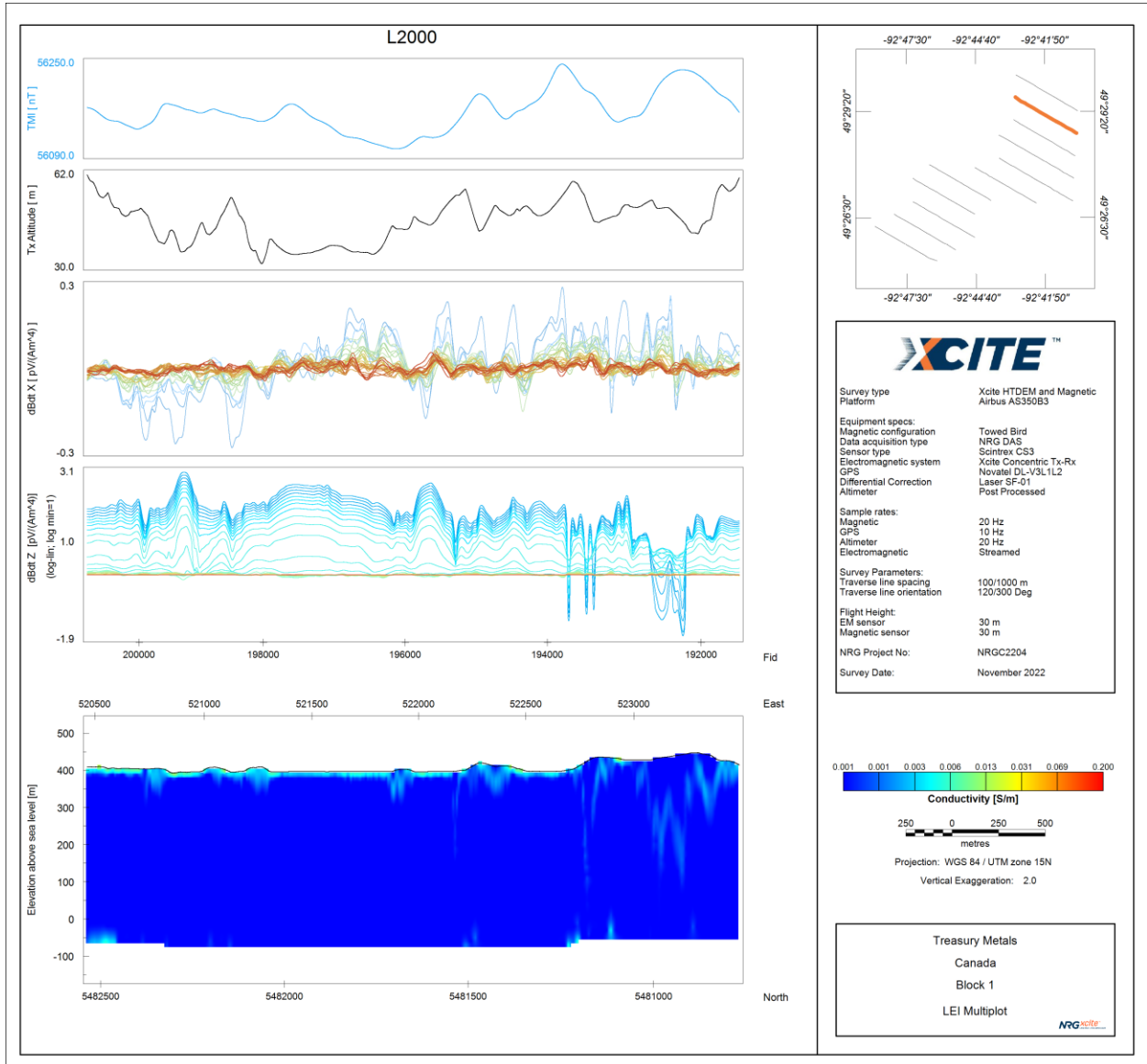


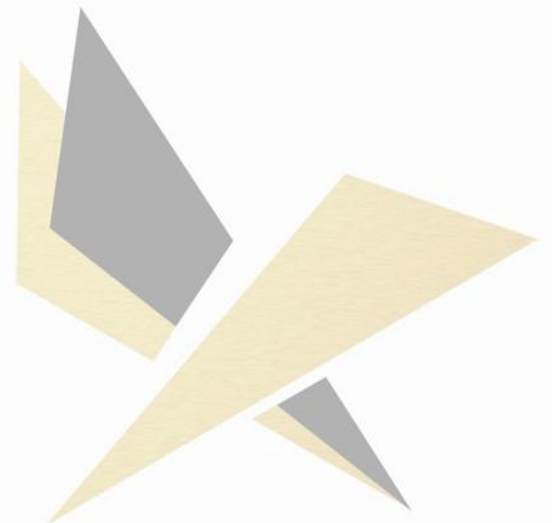
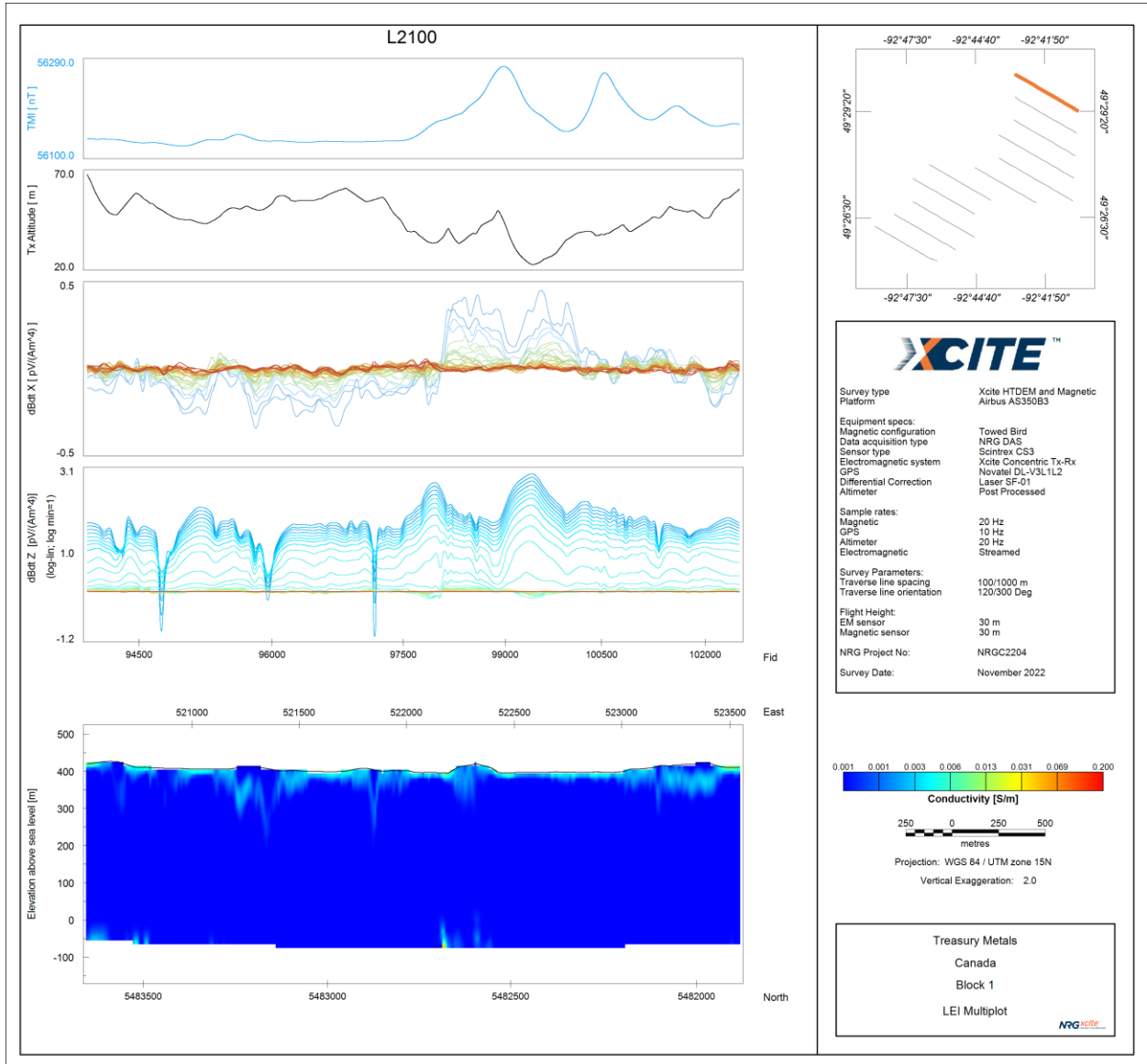


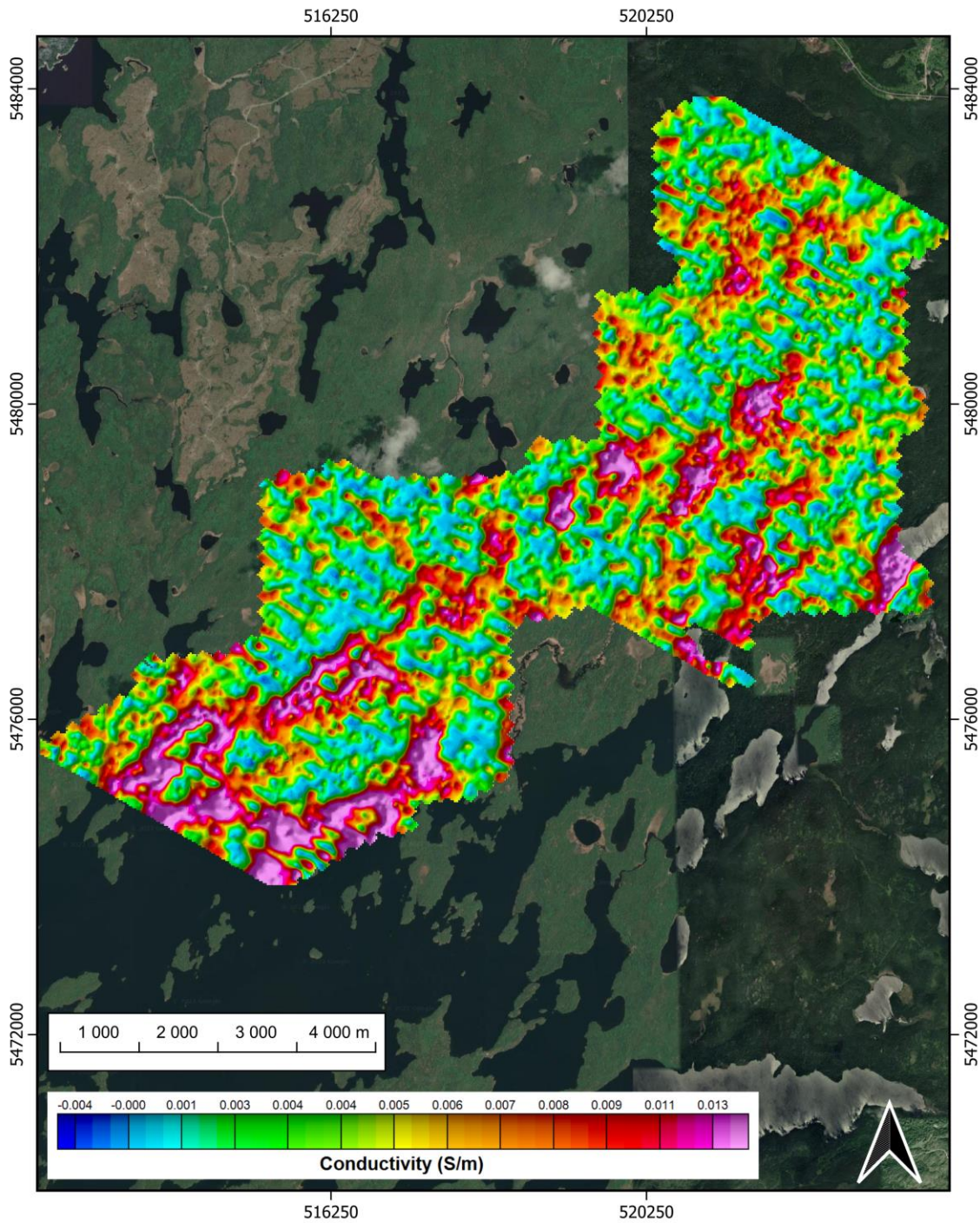






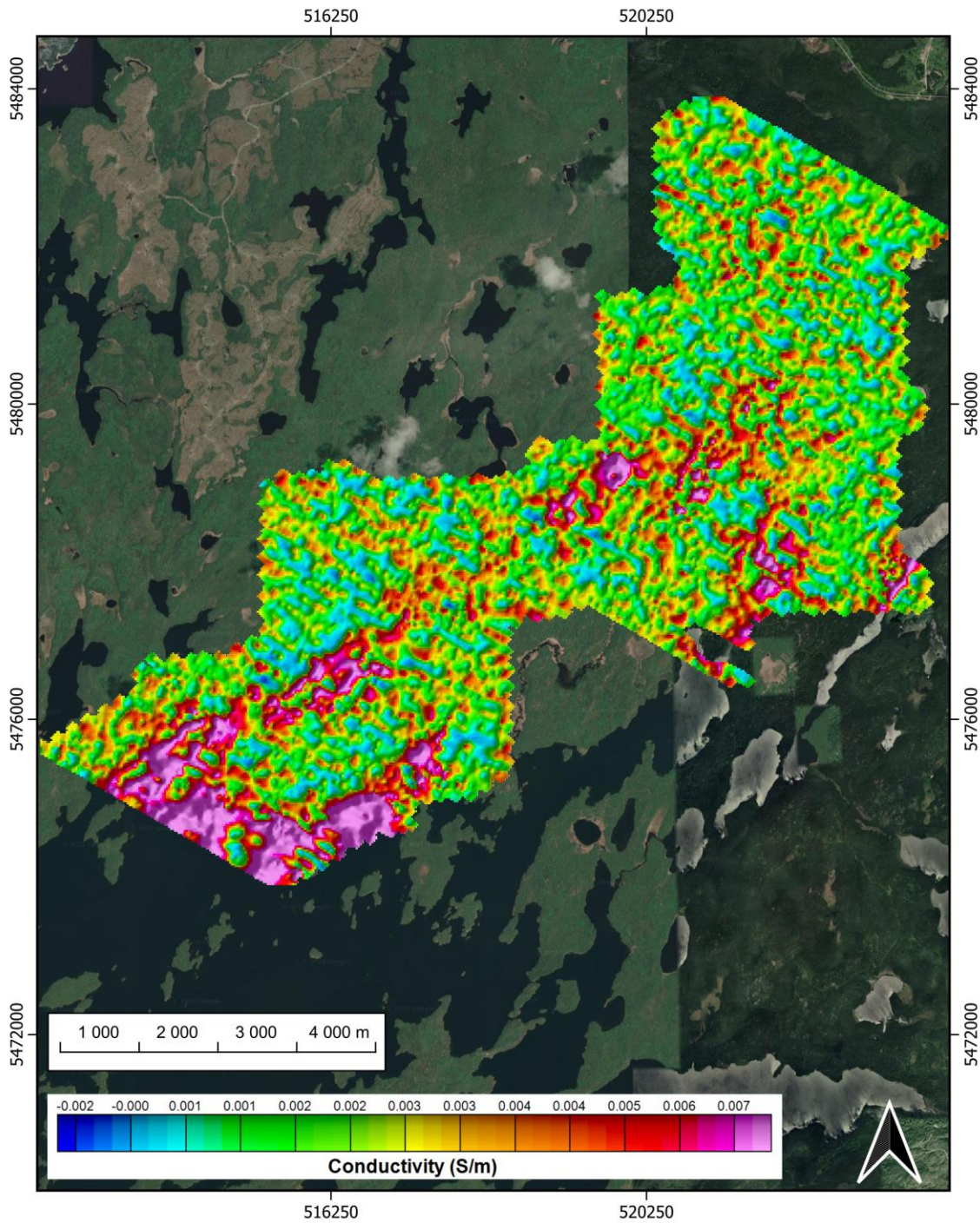






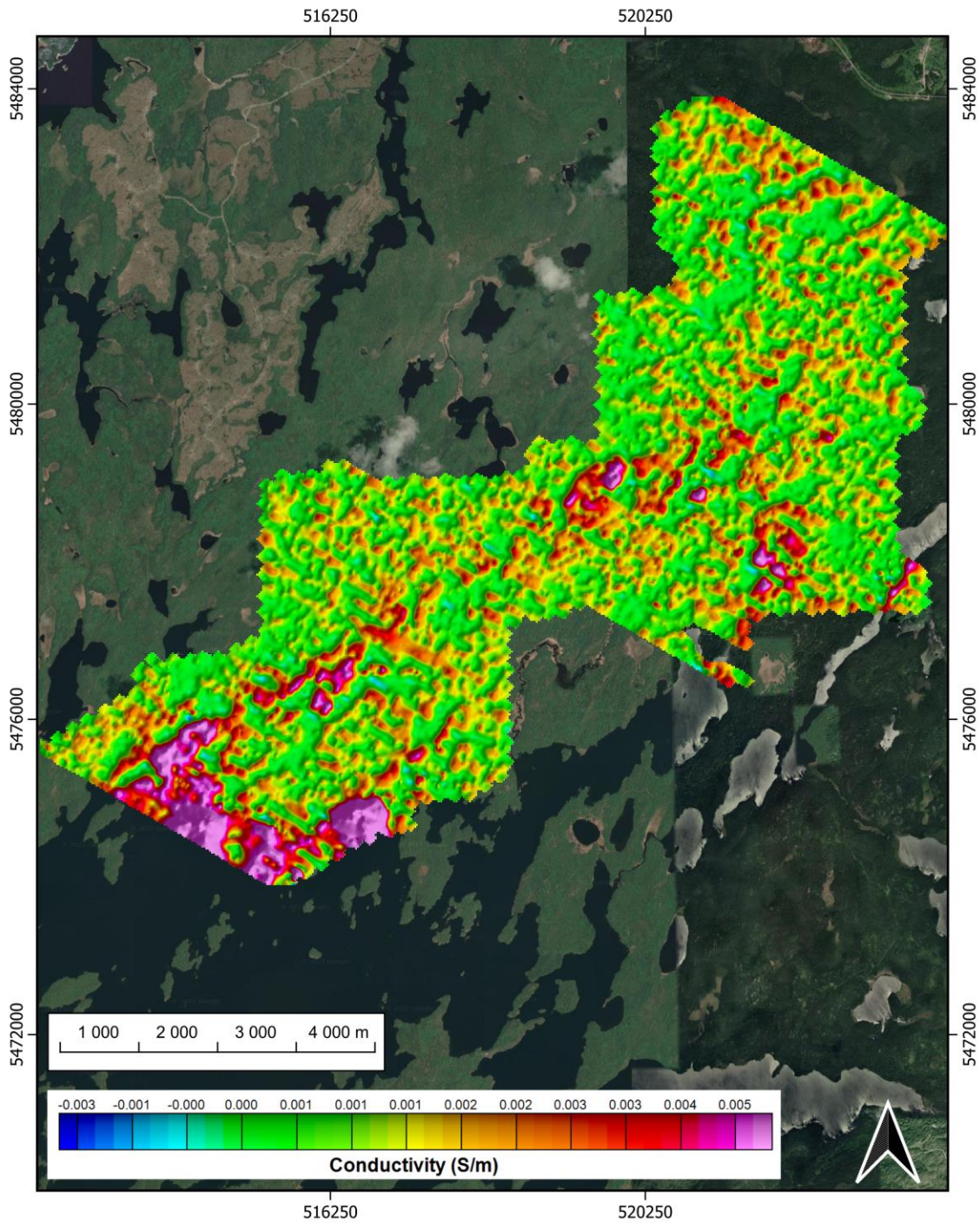
Goldrock

Layered earth conductivity inversion
5m depth slice
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

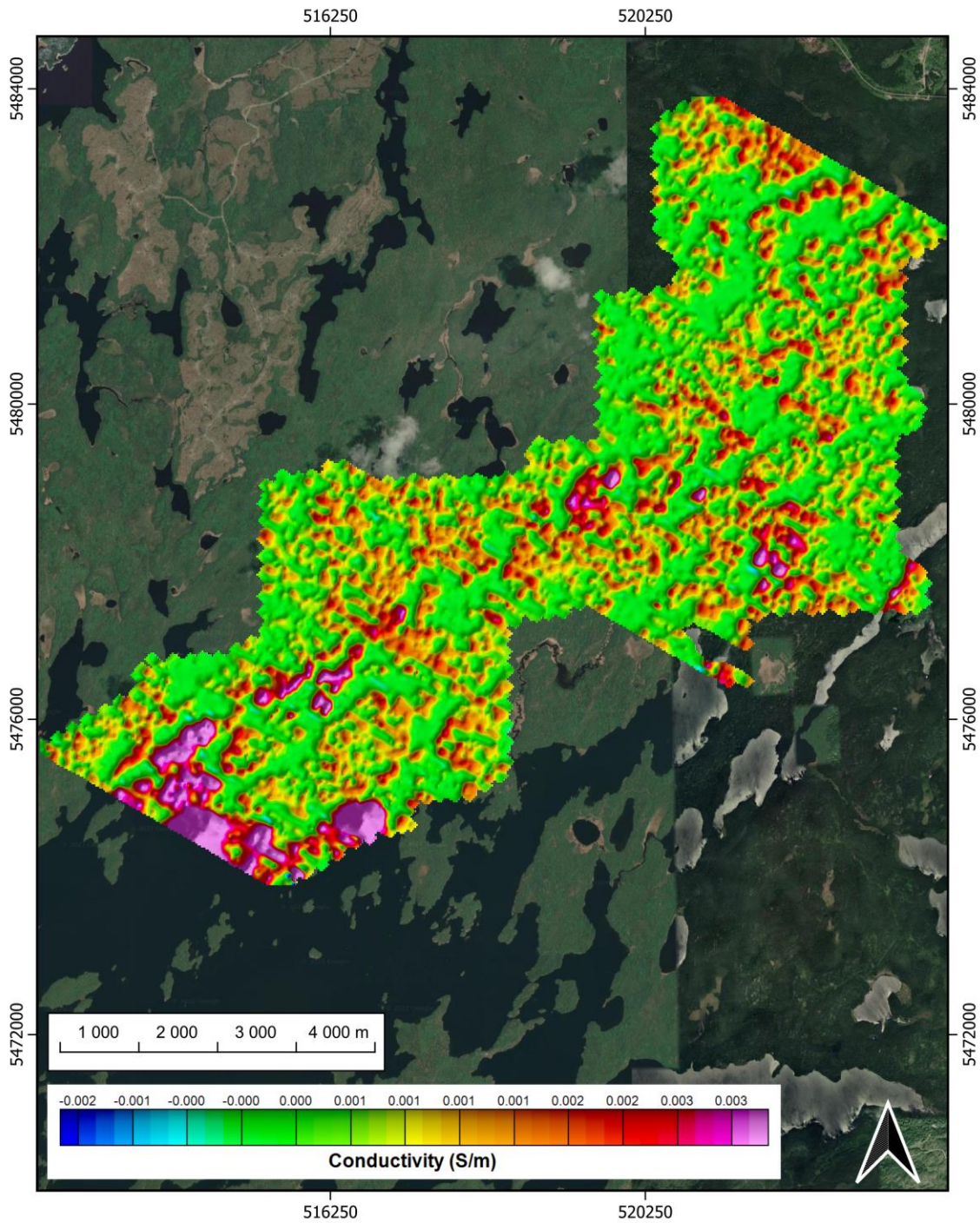
Layered earth conductivity inversion
8m depth slice
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

Layered earth conductivity inversion
16m depth slice

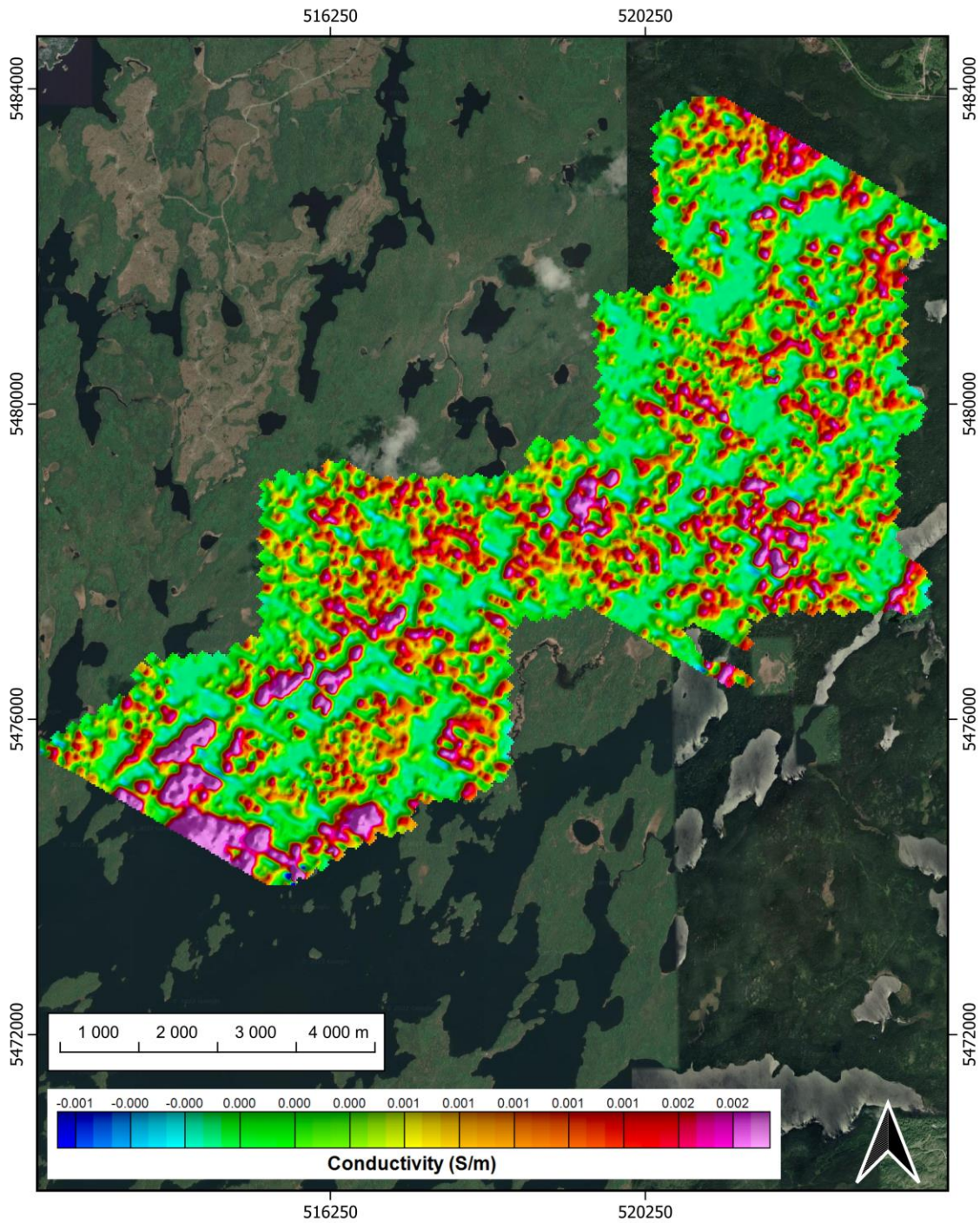
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

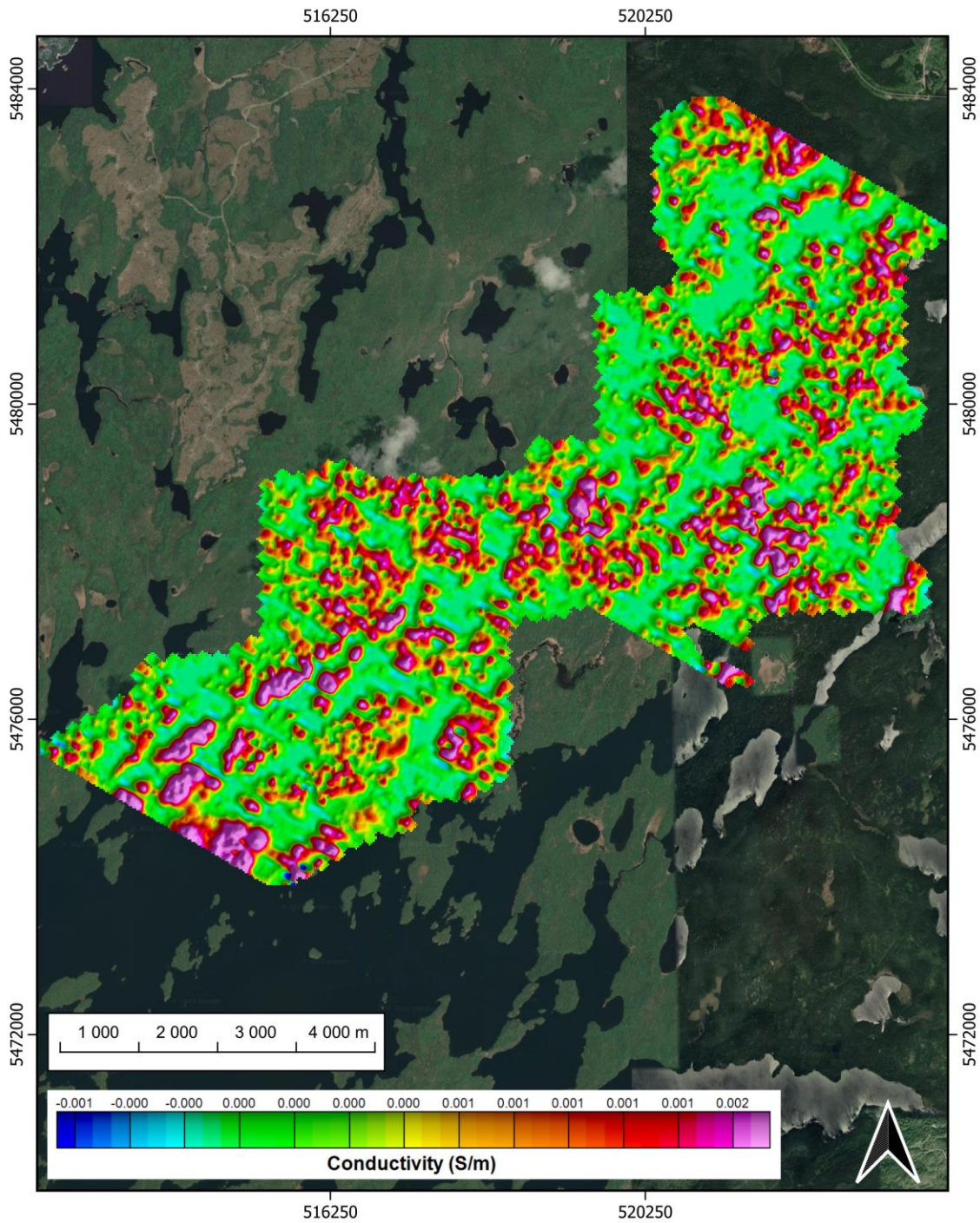
Layered earth conductivity inversion
26m depth slice

WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



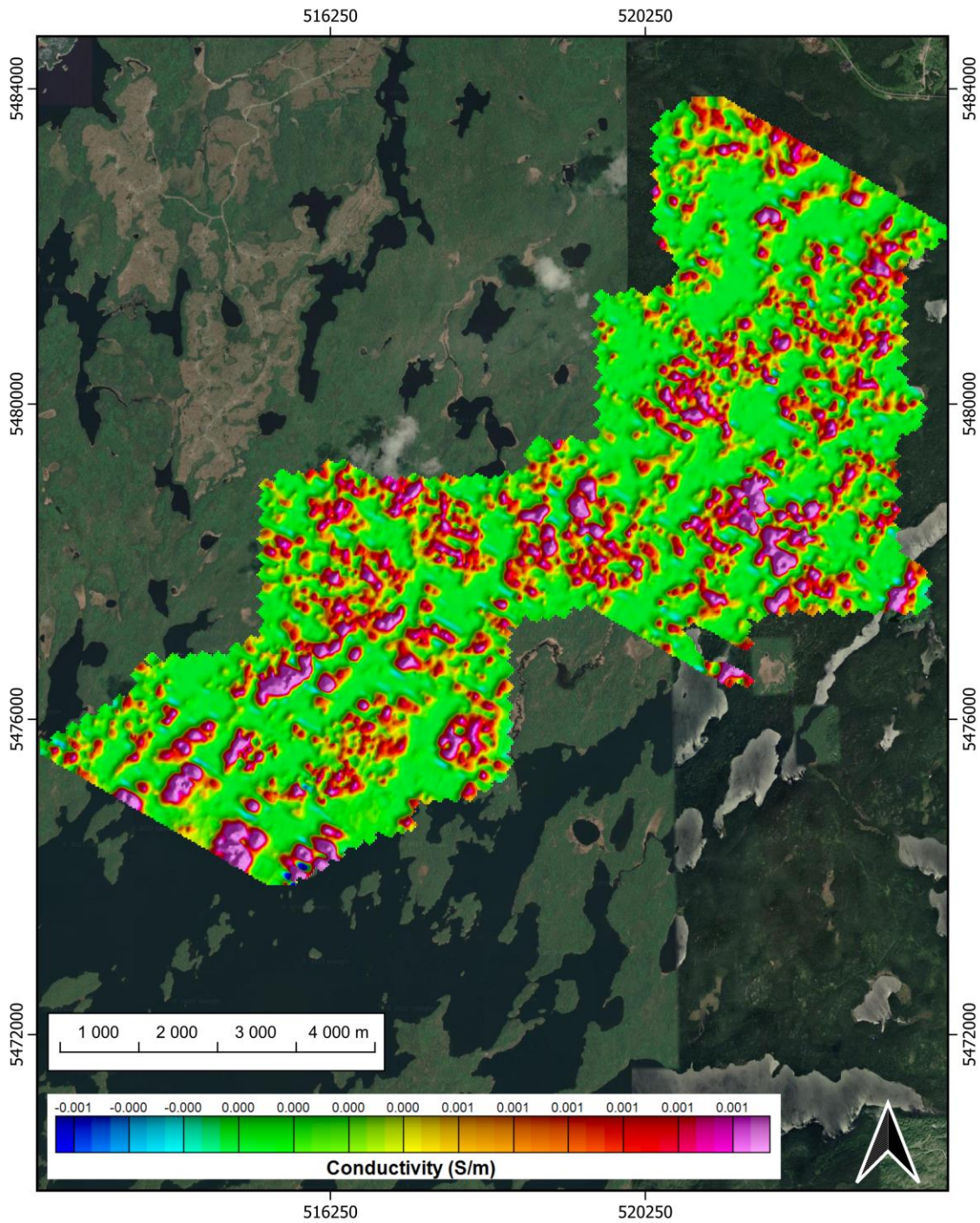
Goldrock

Layered earth conductivity inversion
 38m depth slice
 WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



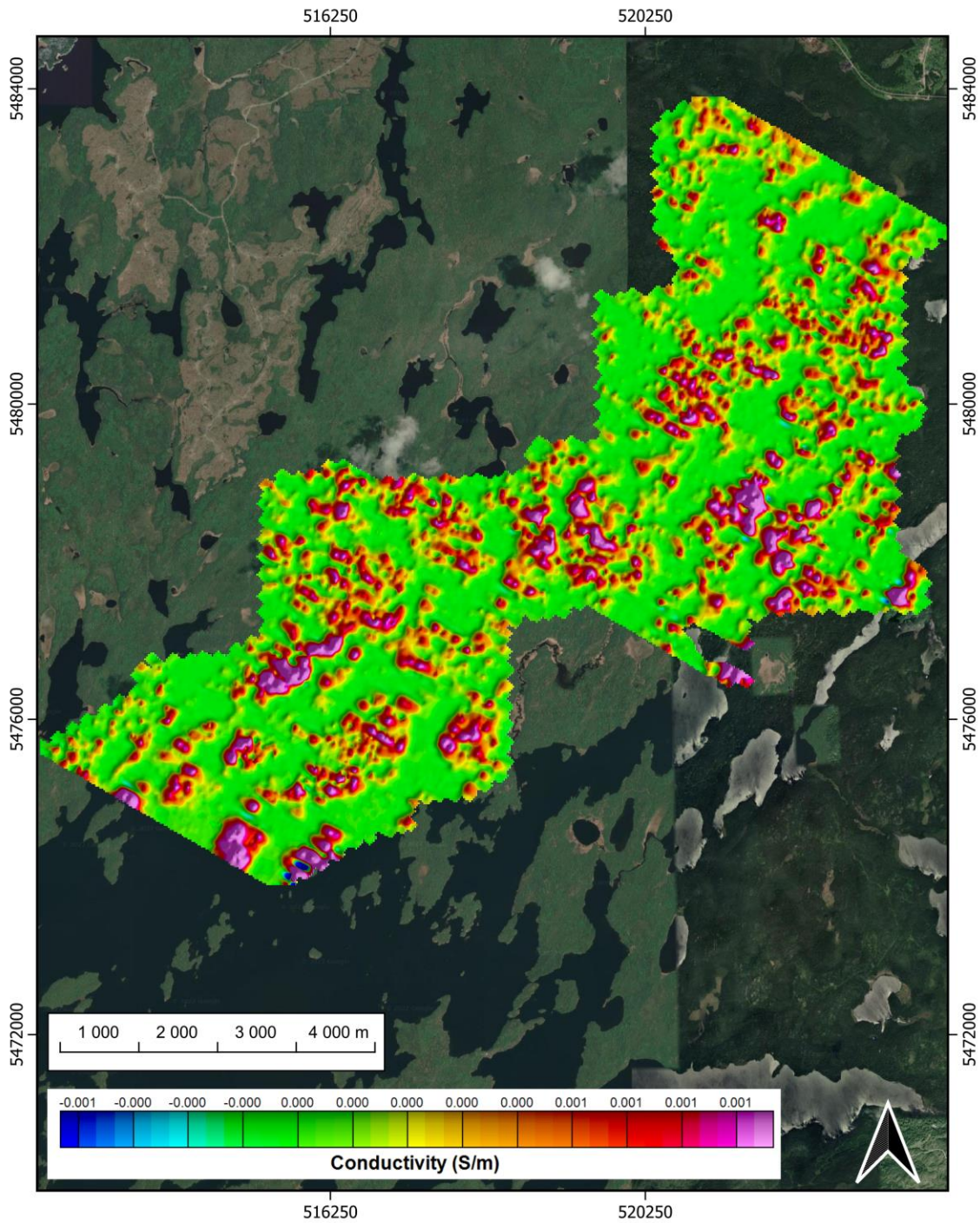
Goldrock

Layered earth conductivity inversion
50m depth slice
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

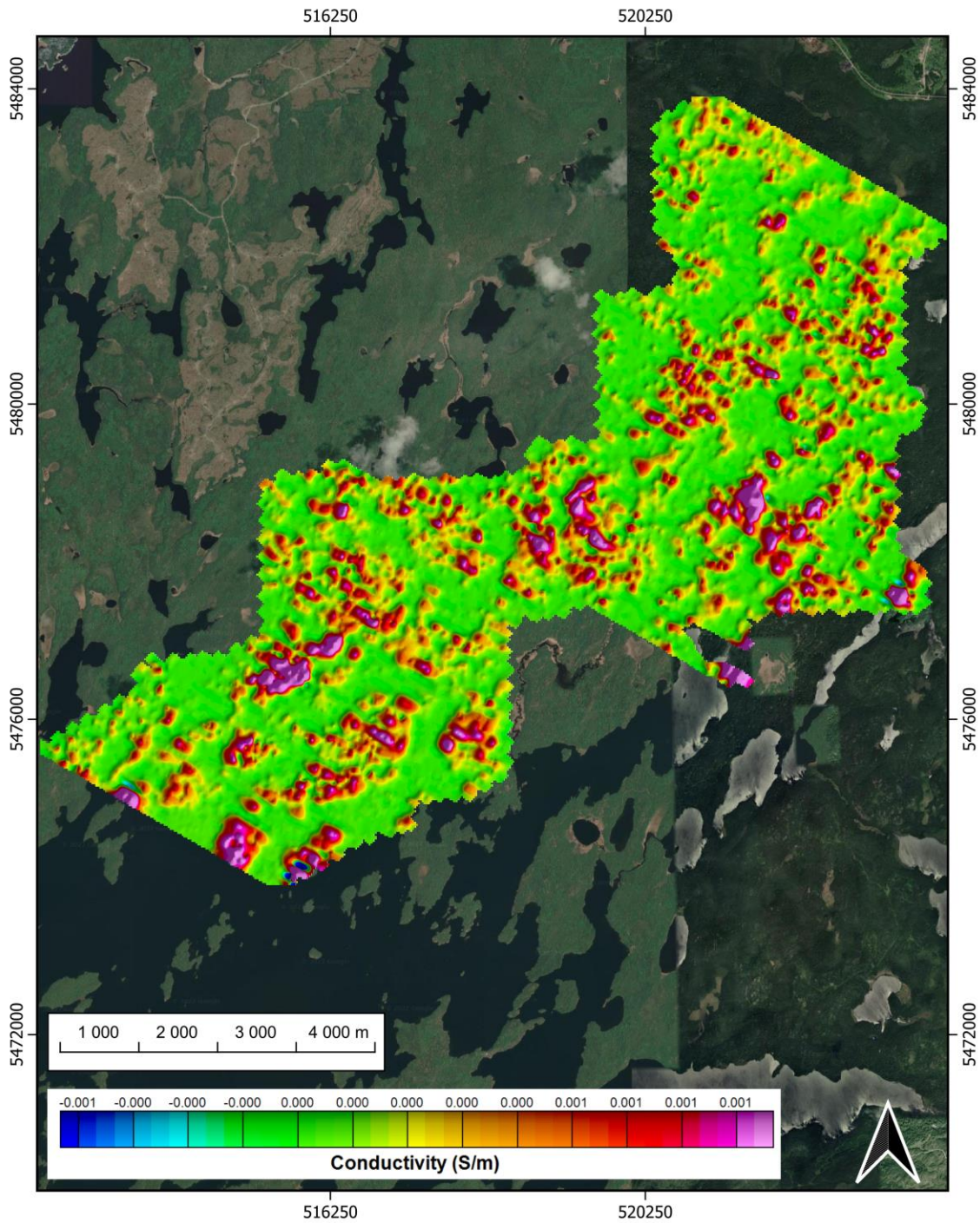
Layered earth conductivity inversion
69m depth slice
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

Layered earth conductivity inversion
100m depth slice

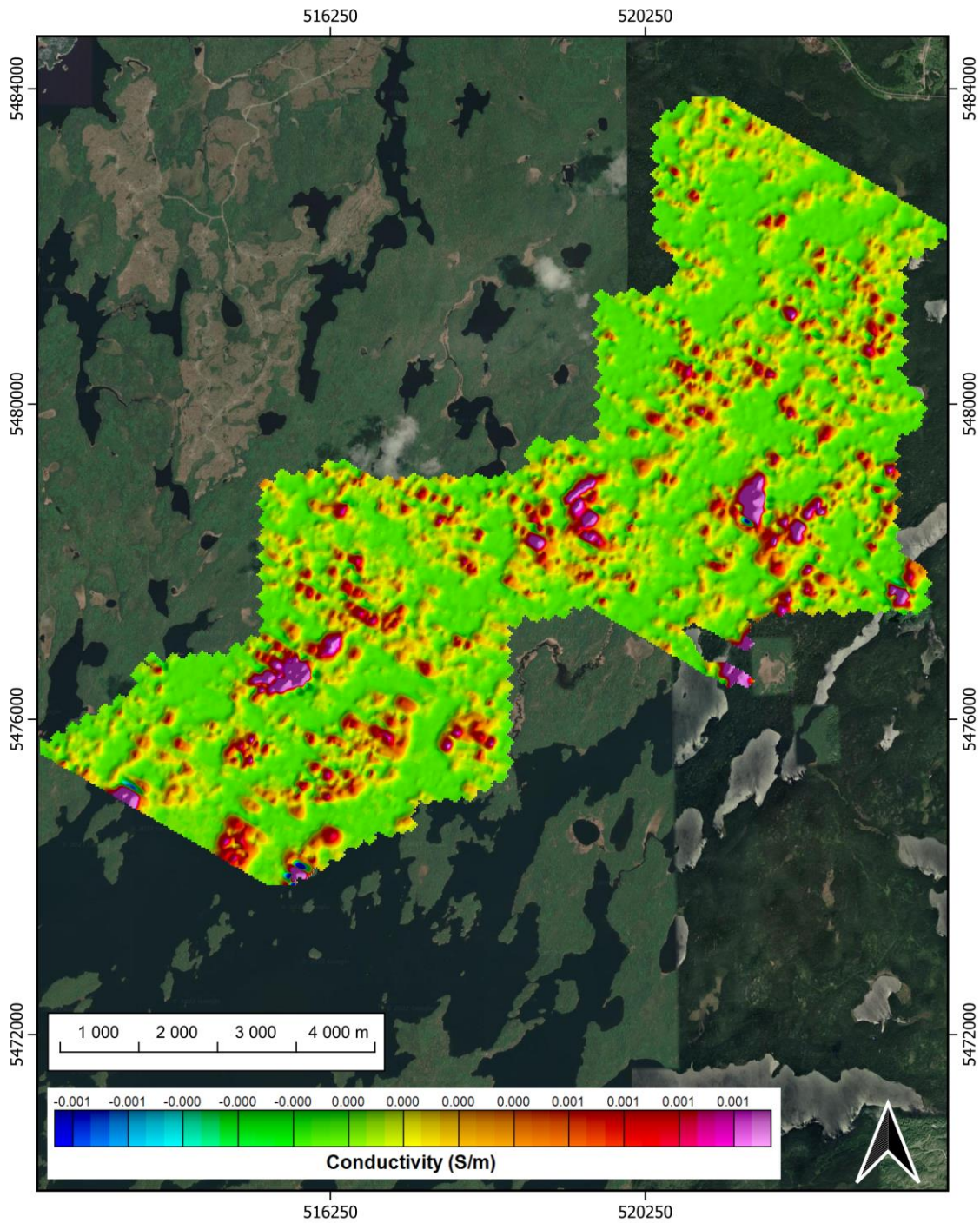
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

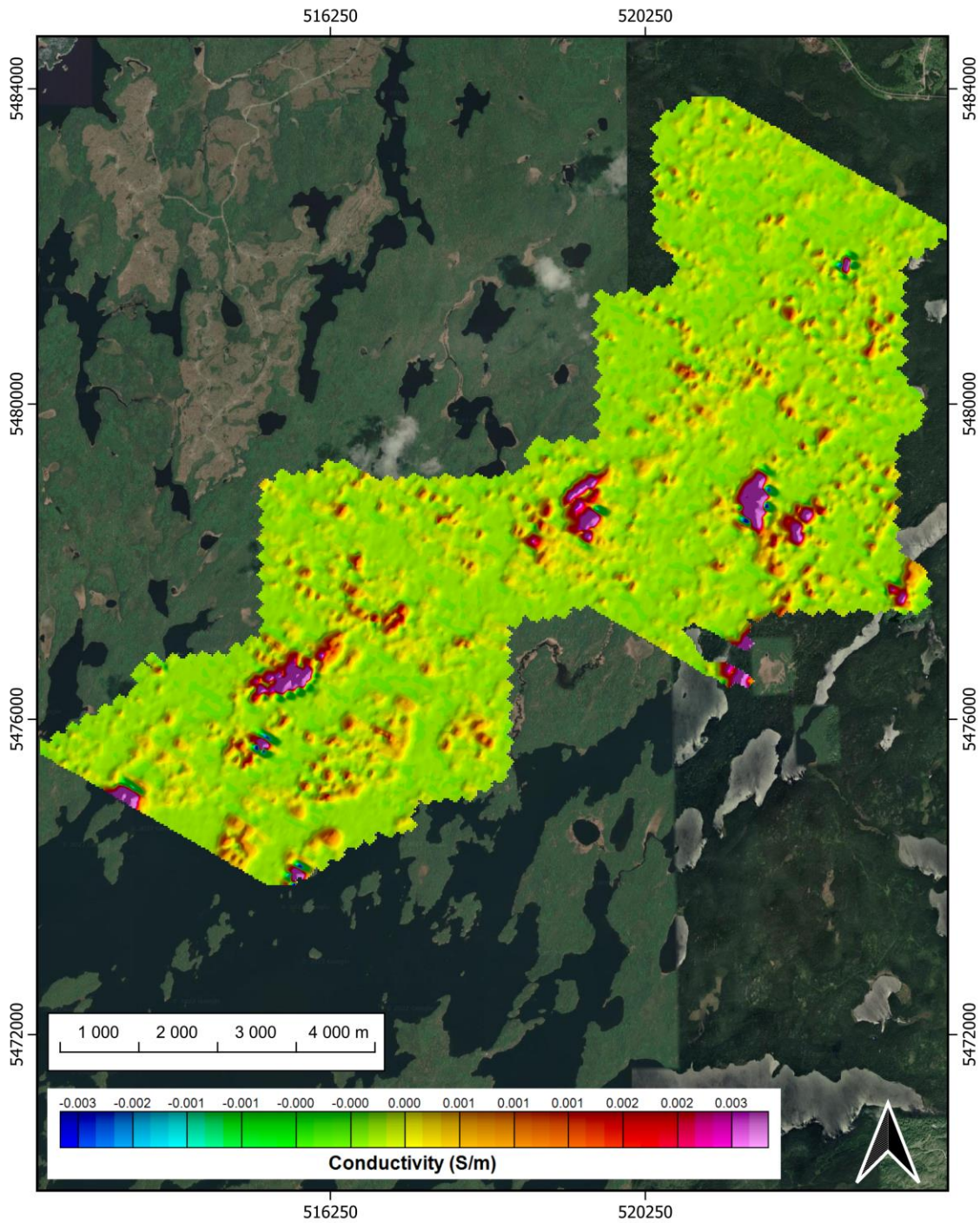
Layered earth conductivity inversion
130m depth slice

WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



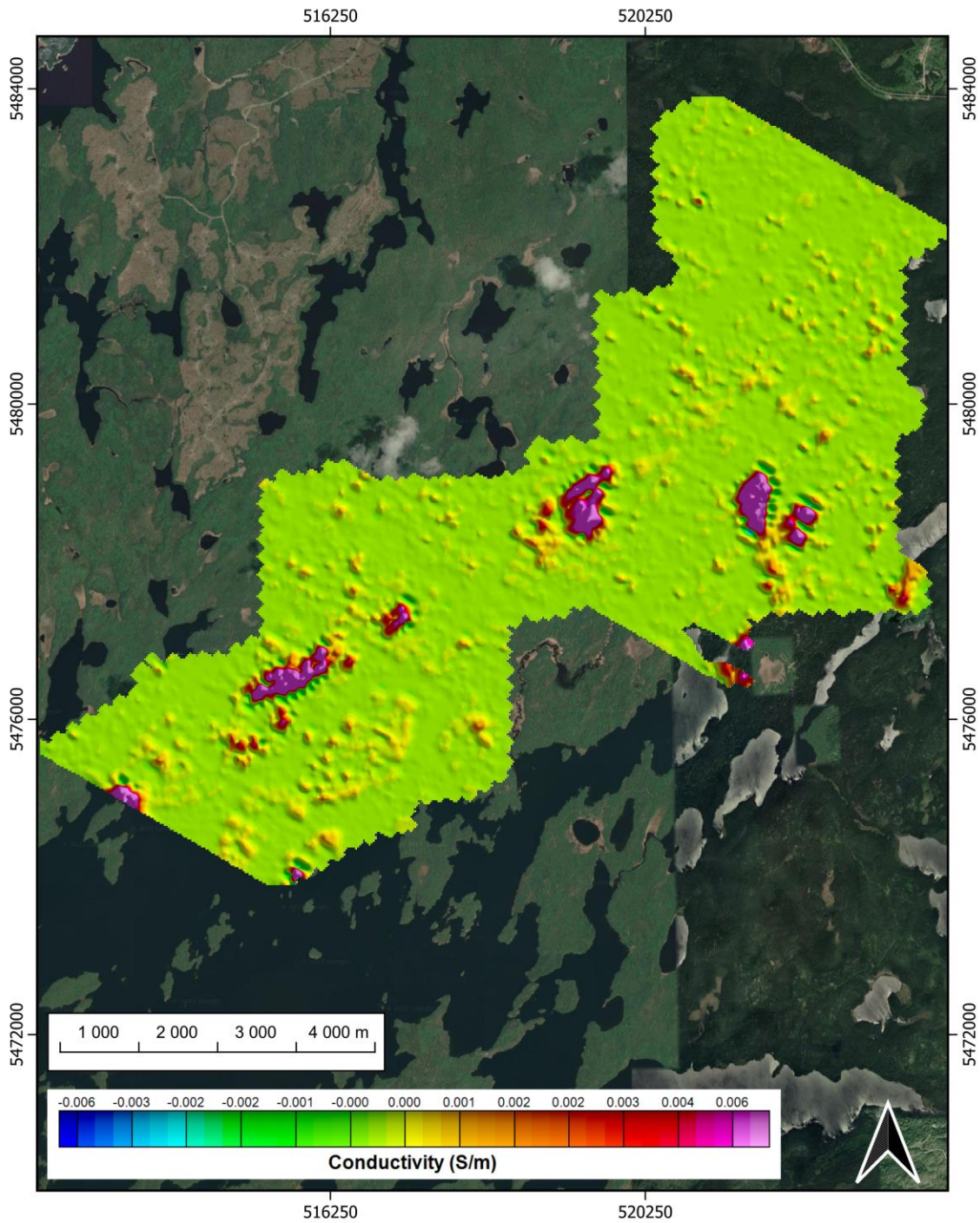
Goldrock

Layered earth conductivity inversion
162m depth slice
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Goldrock

Layered earth conductivity inversion
203m depth slice
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)

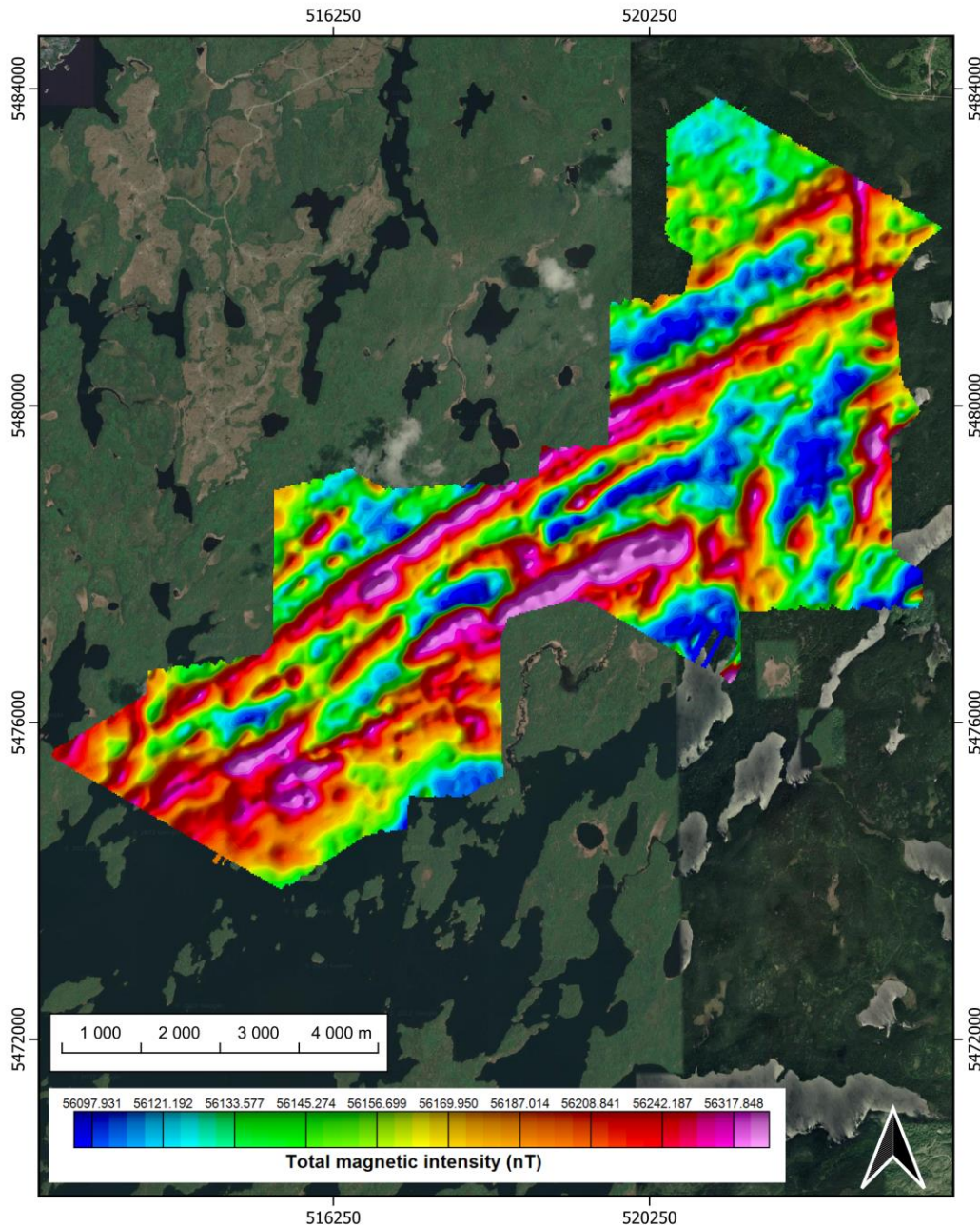


Goldrock

Layered earth conductivity inversion
250m depth slice

WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)

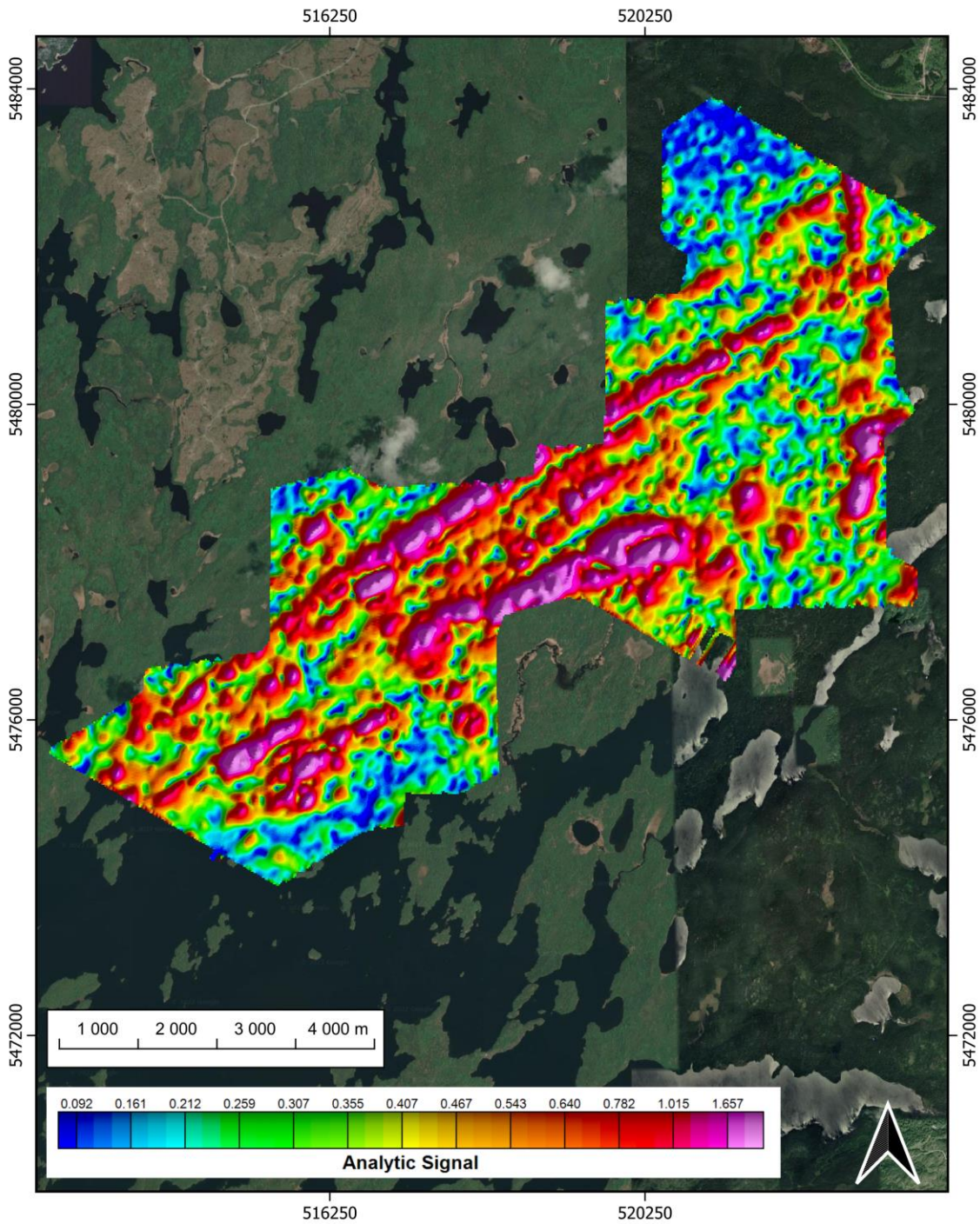
Appendix B - Magnetic products



Goldrock

Total magnetic intensity

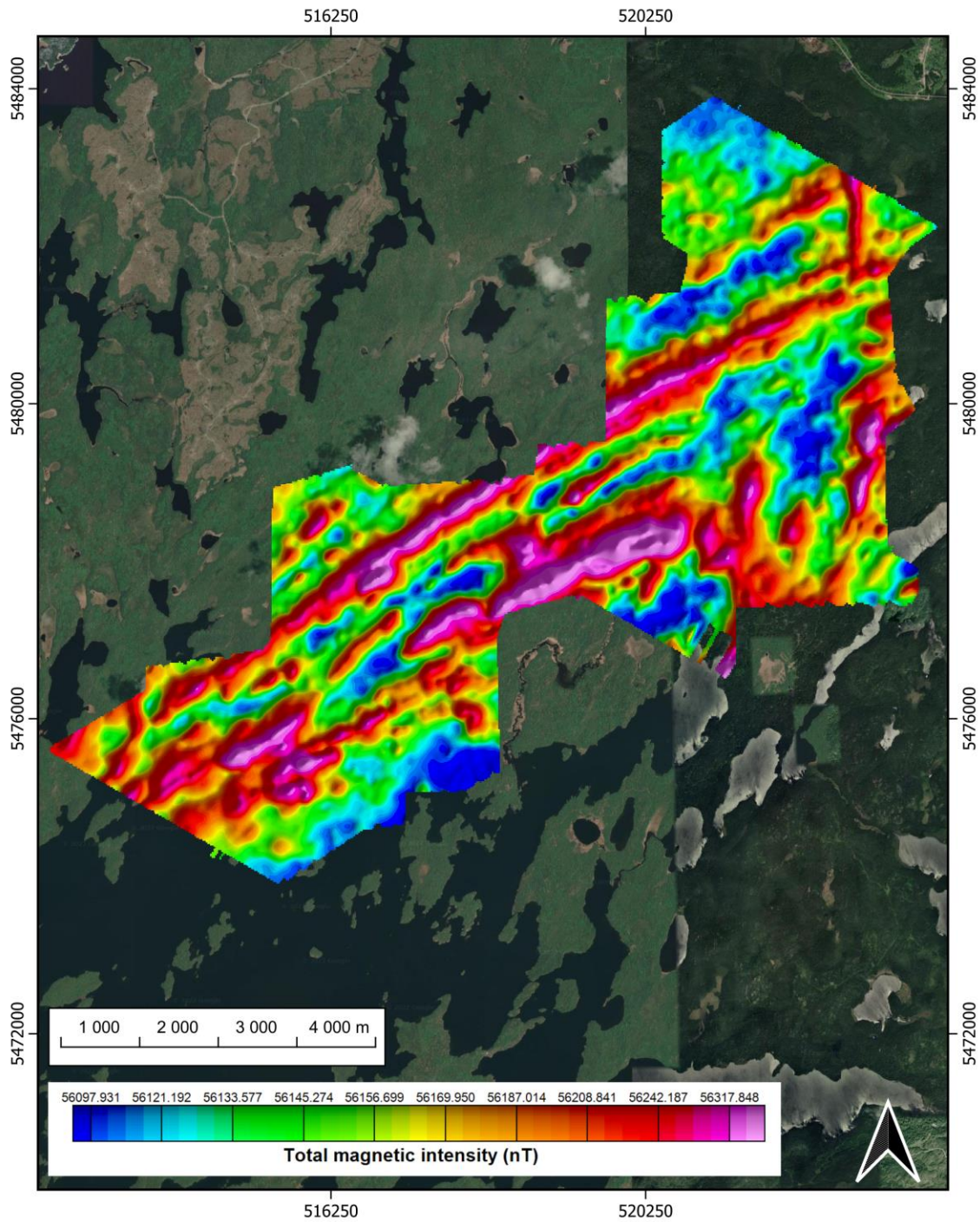
WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



Goldrock

Analytic signal

WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)

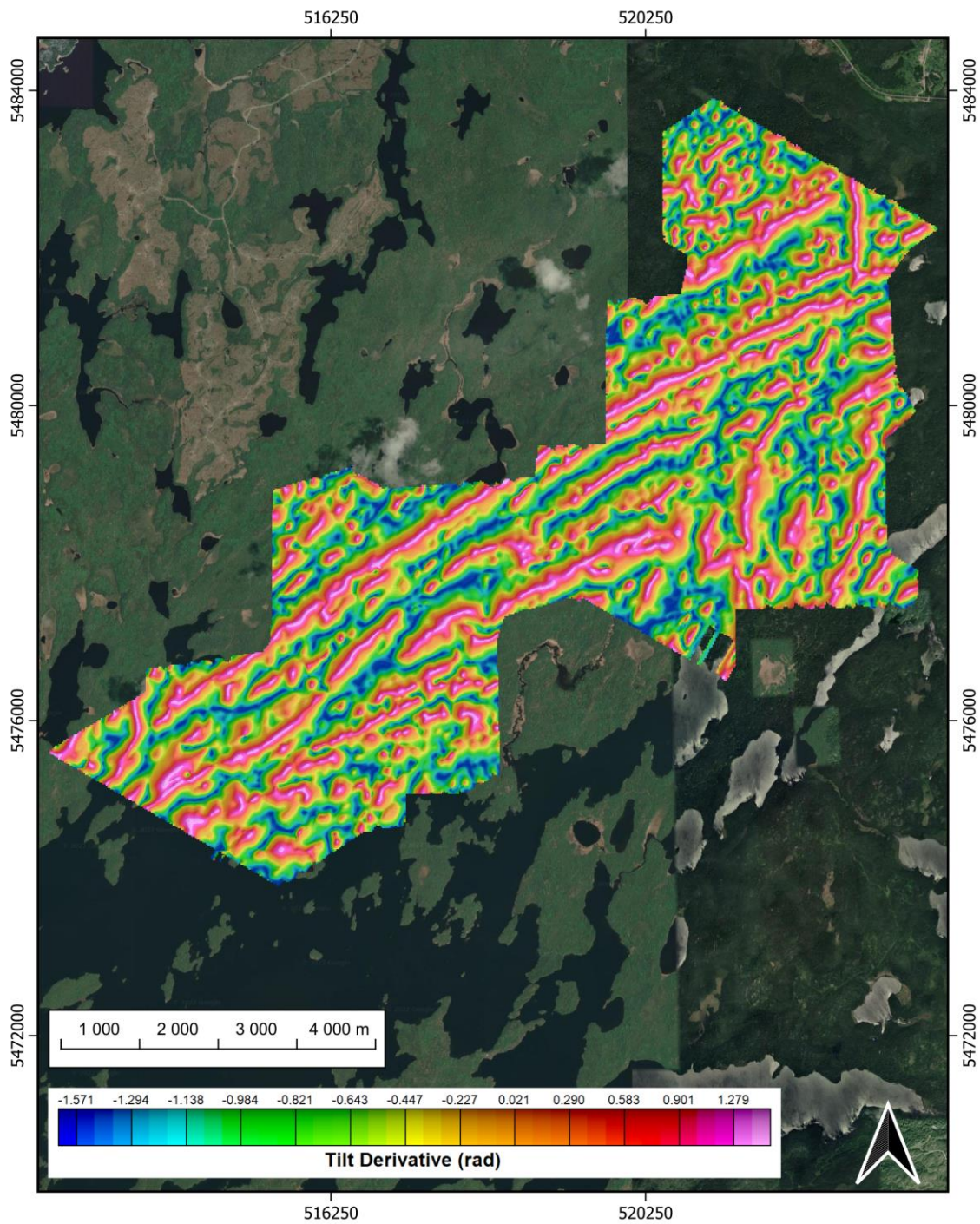


Goldrock

Reduced to pole total magnetic intensity

WGS 84 / UTM zone 15N

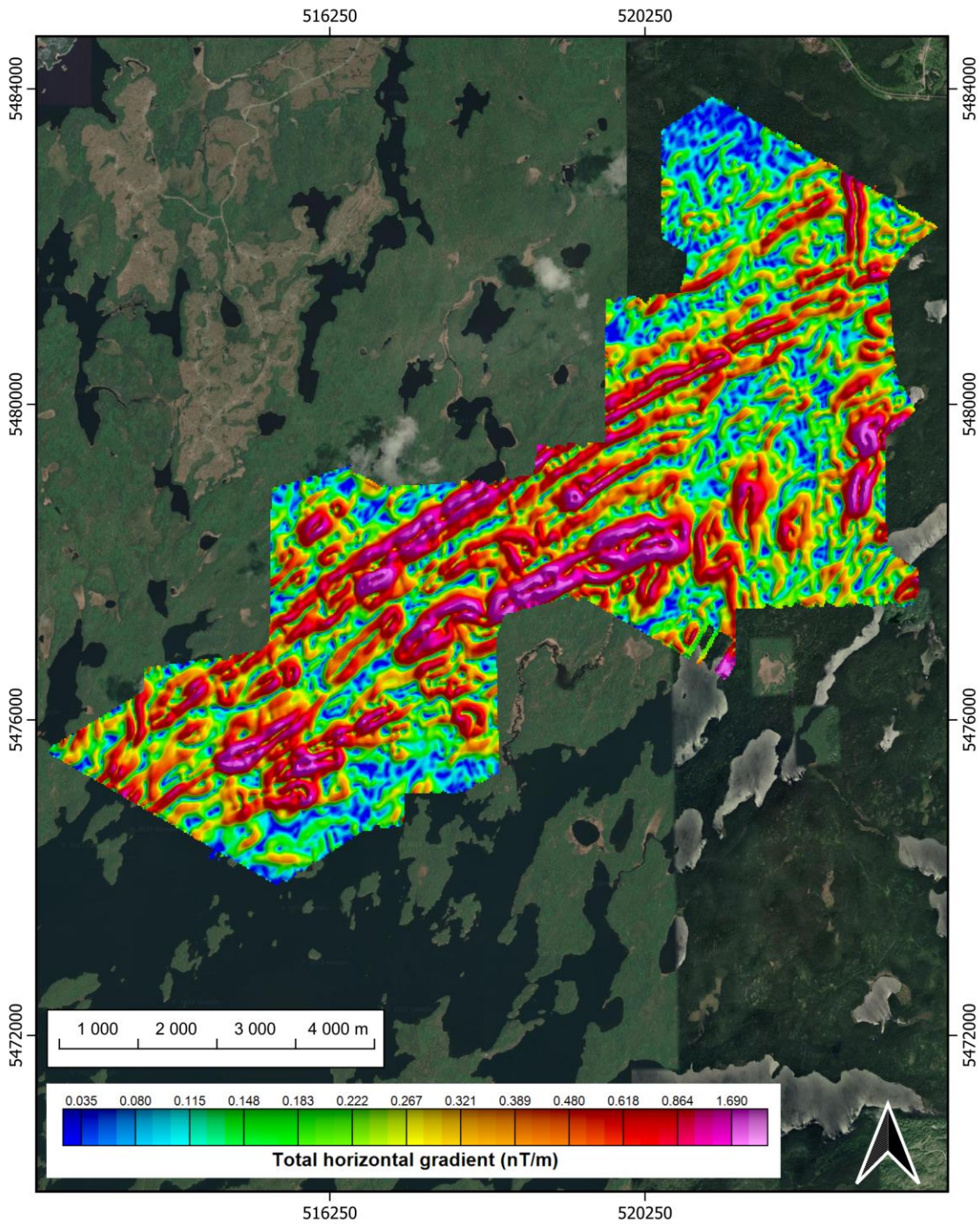
Universal Transverse Mercator (UTM)



Goldrock

Tilt derivative of reduced to pole total magnetic intensity

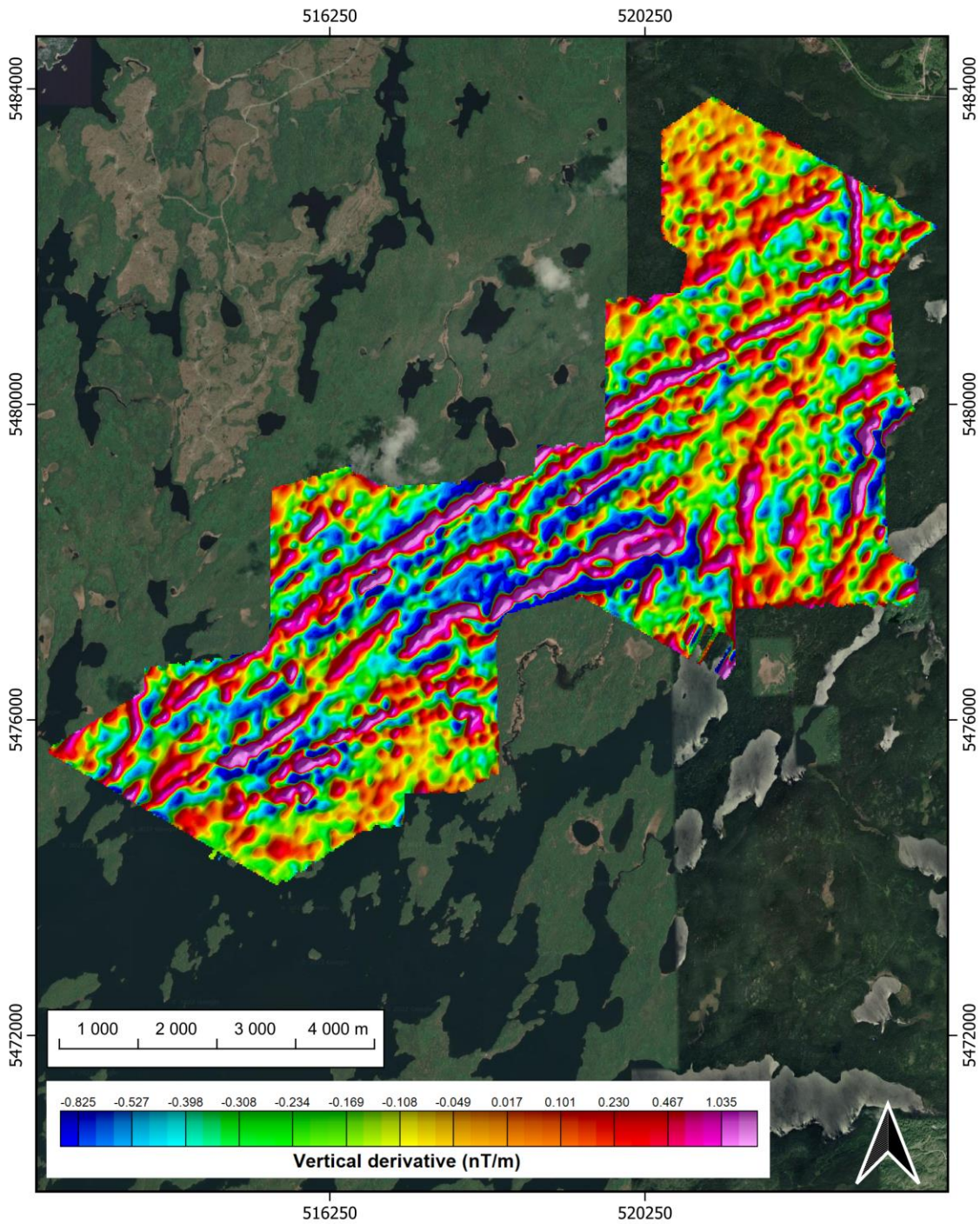
WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



Goldrock

Total horizontal gradient of reduced to pole total magnetic intensity

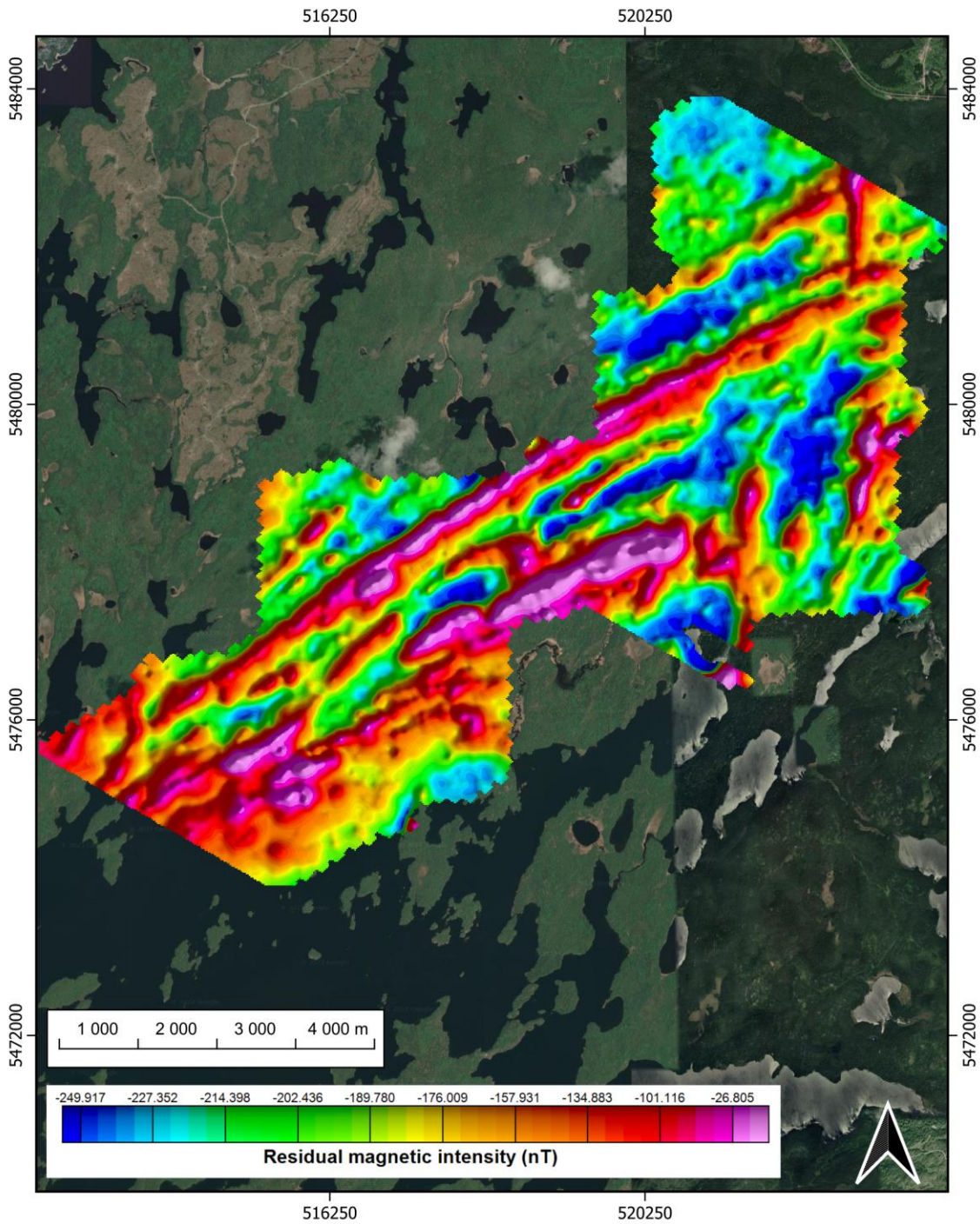
WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



Goldrock

Vertical derivative of reduced to pole total magnetic intensity

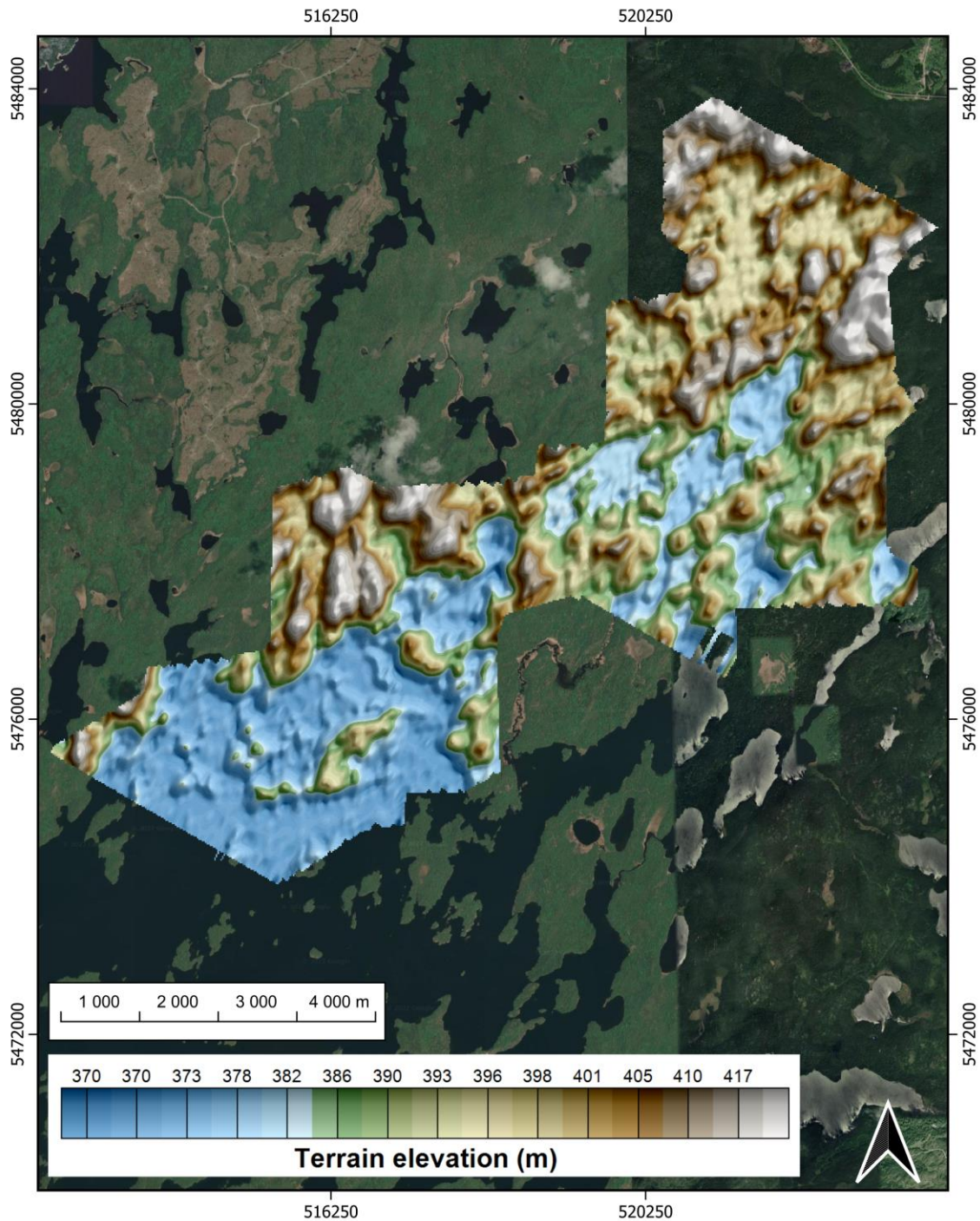
WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



Goldrock

Residual magnetic intensity

WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)

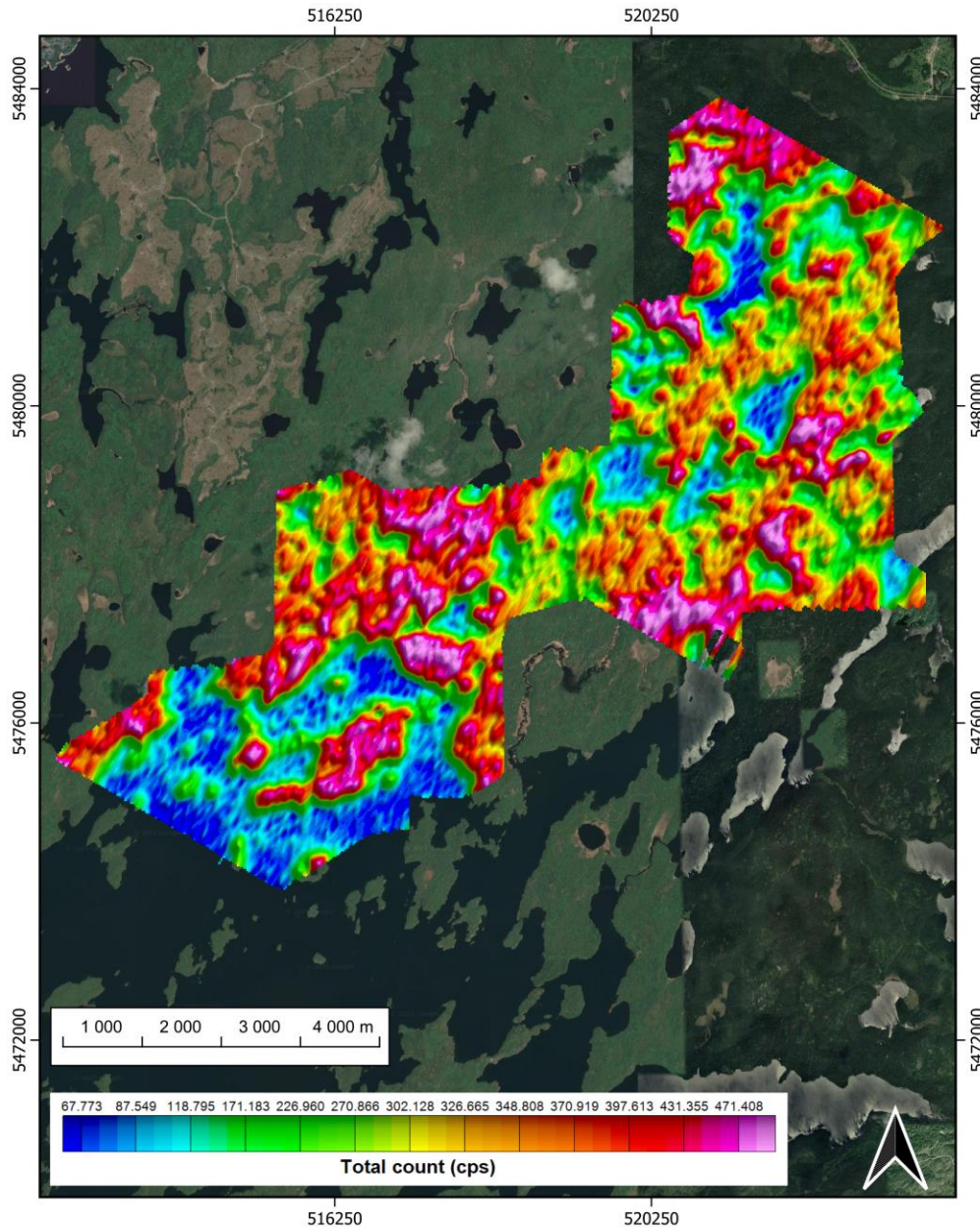


Goldrock

Digital terrain model

WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)

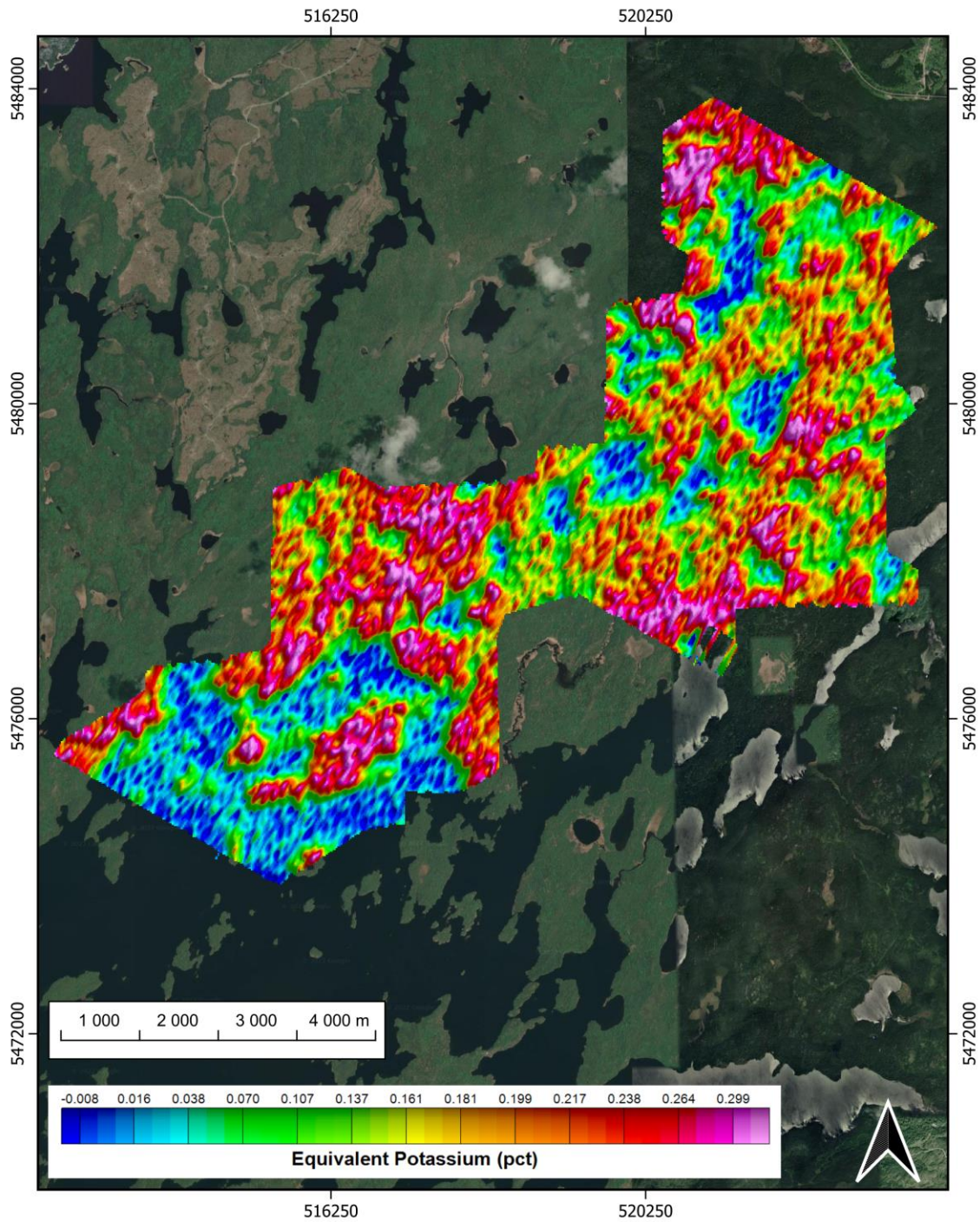
Appendix C - Radiometric products



Goldrock

Total count cps
 NASVD processed

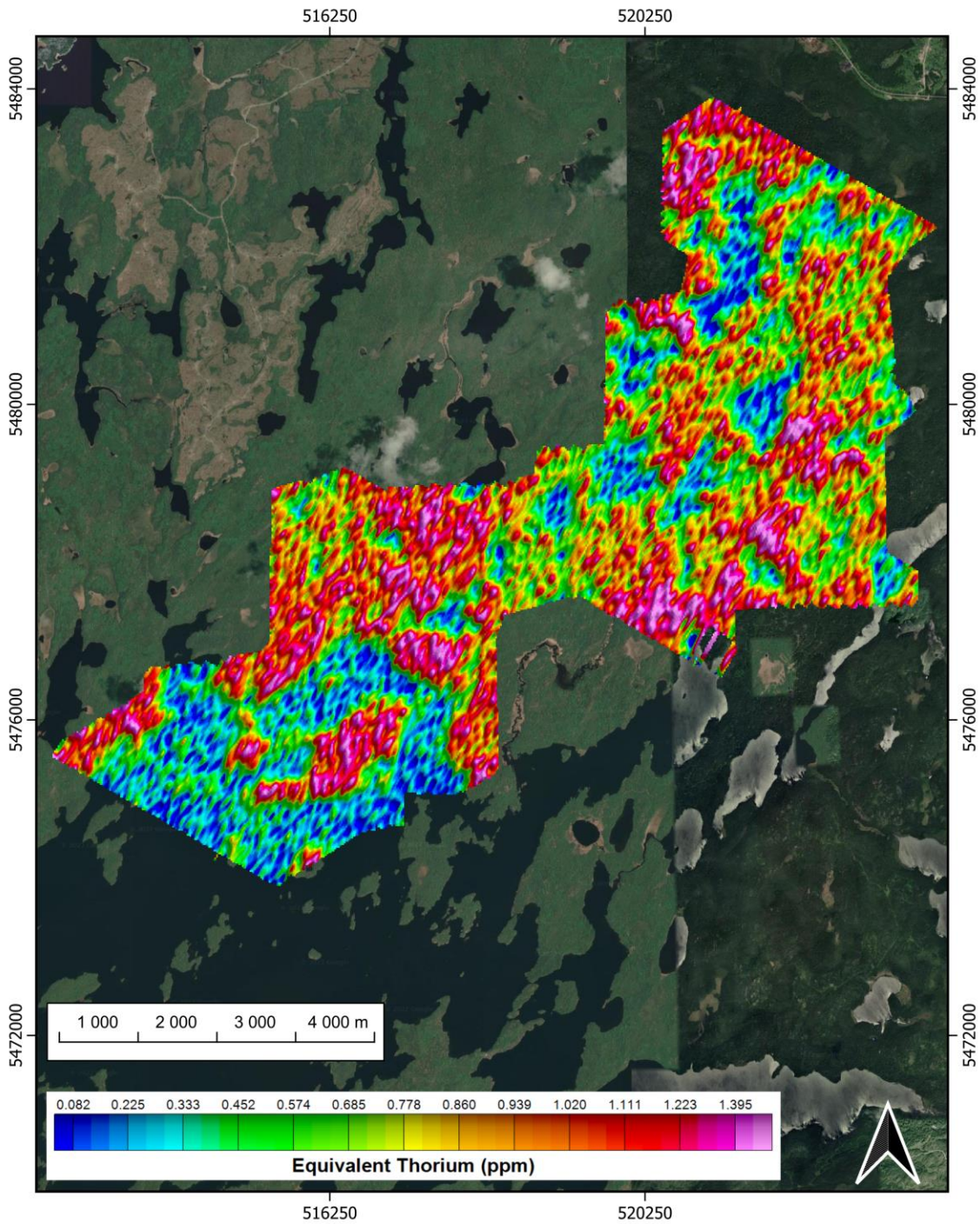
WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



Goldrock

Potassium percent
 NASVD processed

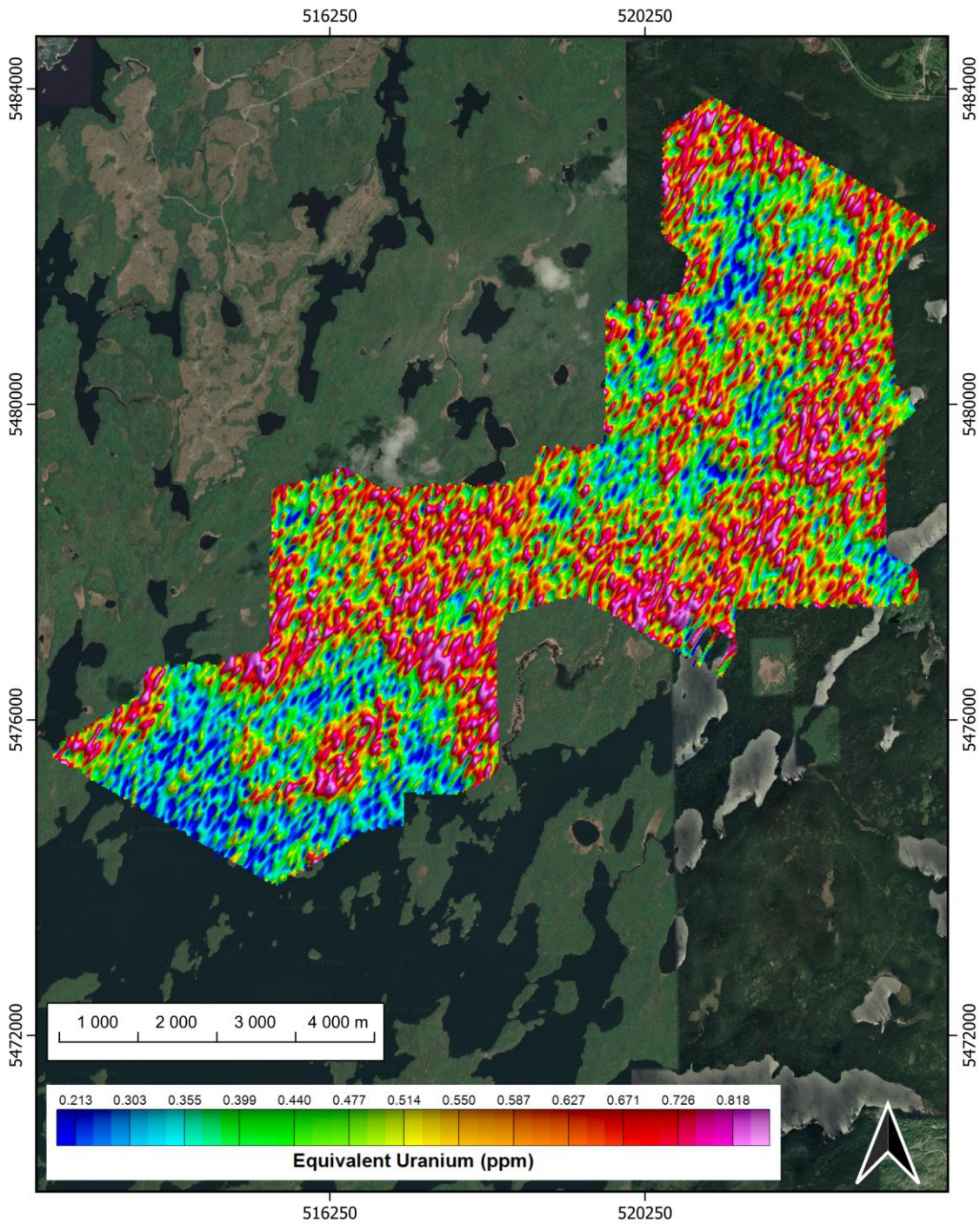
WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



Goldrock

Thorium ppm
 NASVD processed

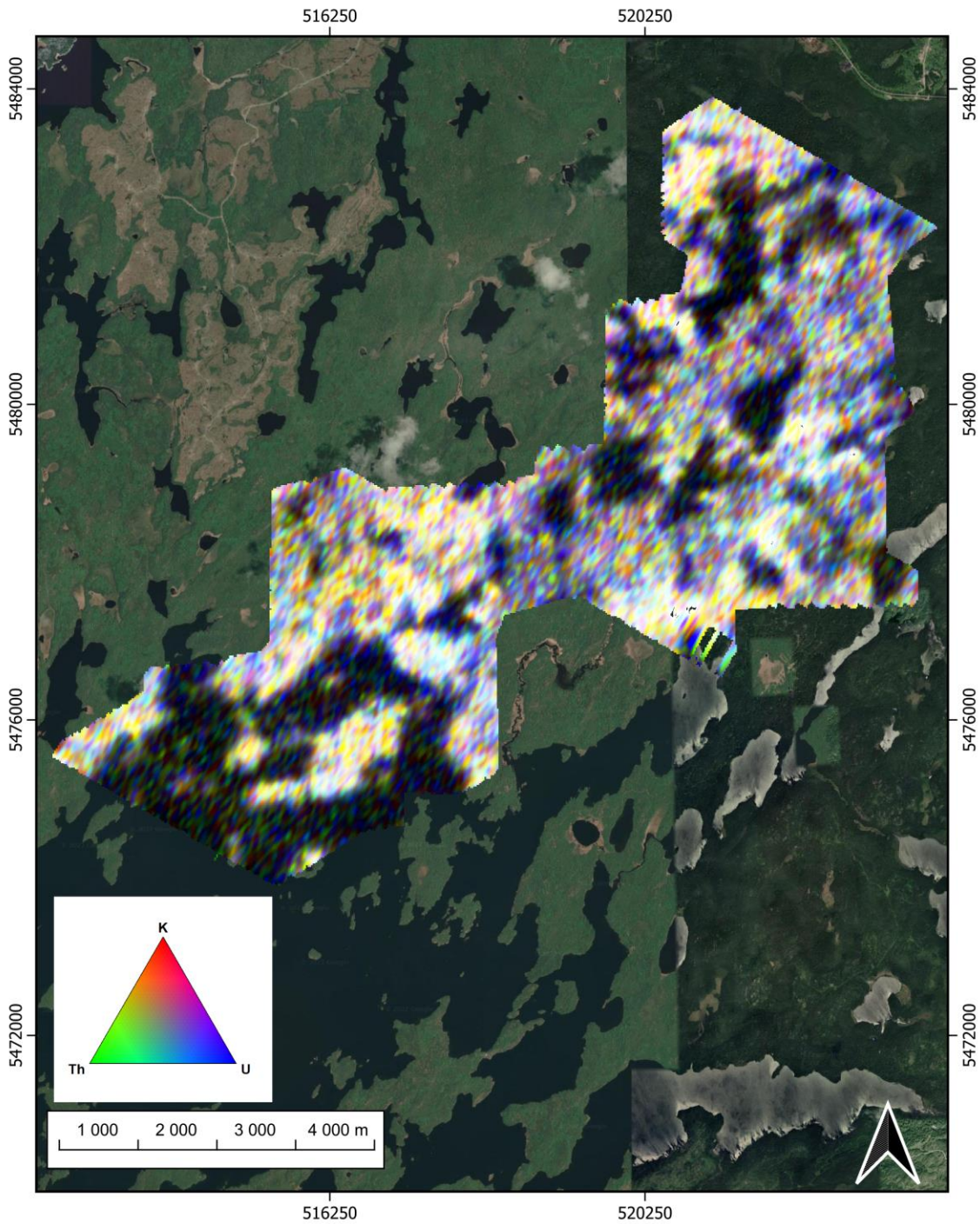
WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



Goldrock

Uranium ppm
 NASVD processed

WGS 84 / UTM zone 15N
 Universal Transverse Mercator (UTM)



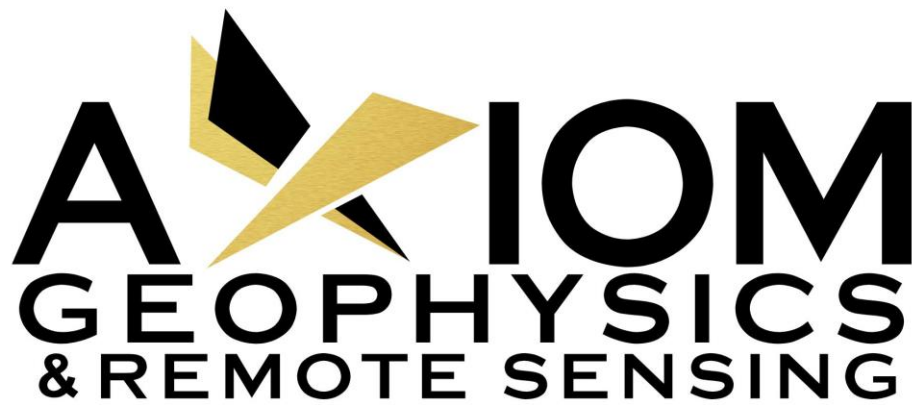
Goldrock

Radiometric ternary image

WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)

Appendix C – Gold Rock Project, Ontario – Airborne LiDAR Survey Logistics Report

**Goldrock Project, Ontario:
Airborne LiDAR Survey
Logistics Report**



Prepared for:

**Adam Larsen,
Treasury Metals**

**Date: August 8th, 2023
Prepared by:**

**2223.5212.TRM.Goldrock_Report
Tanya Coetzee, P.Geo
Chris Brown, P.Geo
Vessela Hobson, M.Sc.**

1. Introduction

From September 28th to October 18th, 2022 Axiom Exploration Group Ltd. ('Axiom') carried out a helicopter-borne LiDAR Survey over the Goldrock project near Dryden, Ontario. The survey consisted of 545 line-kms with a traverse line spacing of 100 m and tie line spacing of 1000 m.

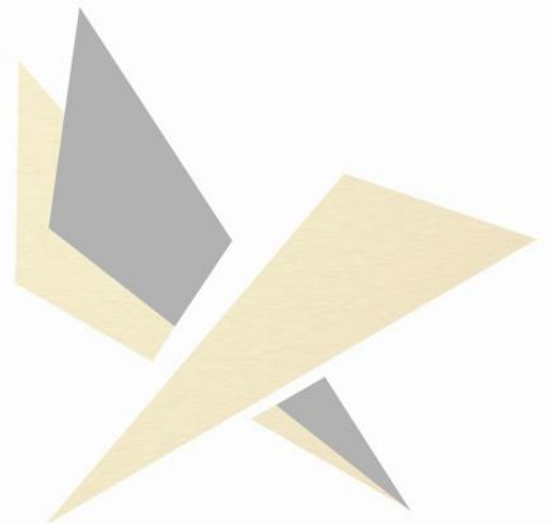
The survey was flown using an FX2 Helicopter, equipped with a Phoenix Ranger LR Long Range LiDAR system with high-accuracy GNSS and IMU units.

Quality control and quality assurance were completed daily during the acquisition phase to ensure all field data collected was at a high standard. Final processing and leveling were completed post acquisition

Final deliverables from the survey include:

- A final leveled dataset which includes:
 - Contours
 - DEM
 - DSM
 - Hillshade DEM

The survey report describes the procedures for data acquisition, processing, equipment used, final image presentation and the specifications for the digital data set.



2. Location & Access

The General Location of the project is roughly 40km south of the town of Dryden, Ontario. The survey comprised of 2 grids – Block 1 in the north and Block 2 in the south-east.

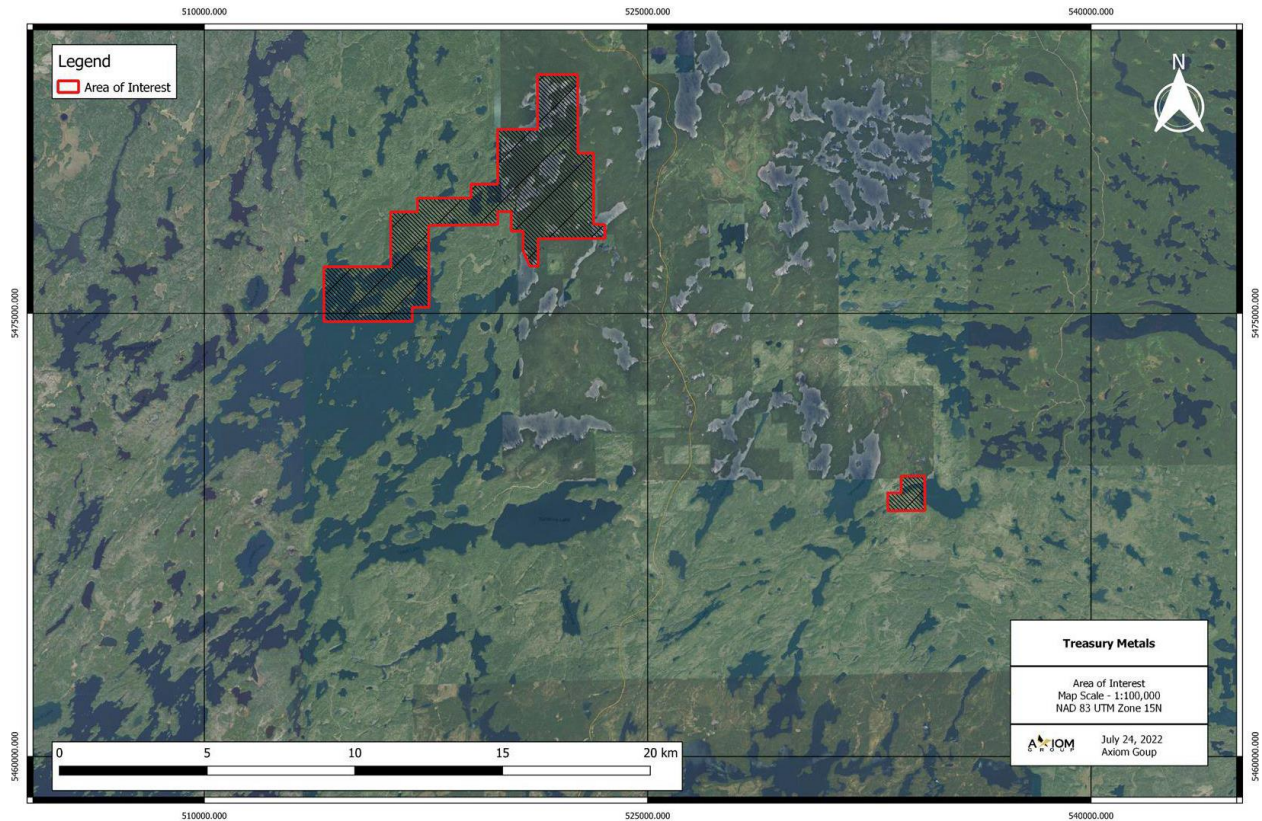


FIGURE 1 – GENERAL LOCATION AS SHOWN ON GOOGLE EARTH

3. Project Specifics

Axiom works in partnership with Exploration Helicopters to offer our helicopter-borne geophysical surveys. Exploration Helicopters has an extensive aviation background specializing in precision long line. Personnel and support staff that were directly involved in this project including the data processing and QA/QC are listed in Table 1.

Table 1: Project Personnel & Support Staff

Pilot-In-Command (PIC)	Stephanie Wilson
Secondary Pilot	
LiDAR Specialist	Simran Kharal
Project Manager	Tanya Coetzee

3.1. Topographical Relief & Cultural Features

The main portion of the survey area is predominantly flat lying, dominated by lakes and forests. The terrain relief varied from 400 m and 500 m (Figure 2).

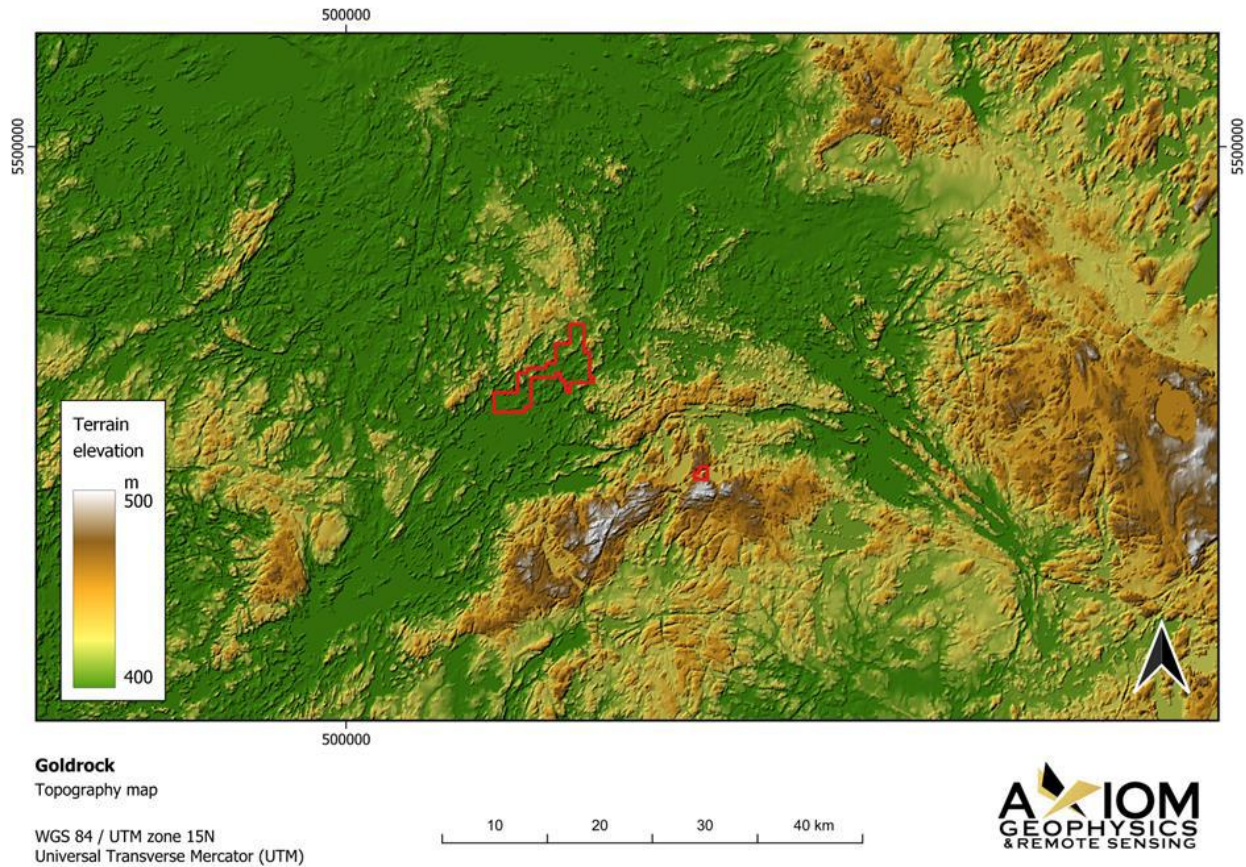
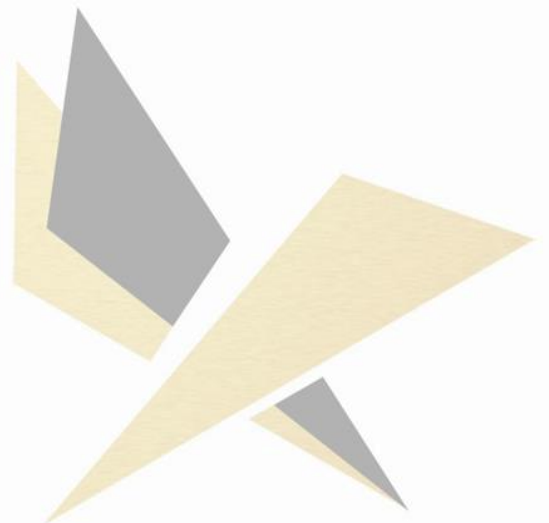


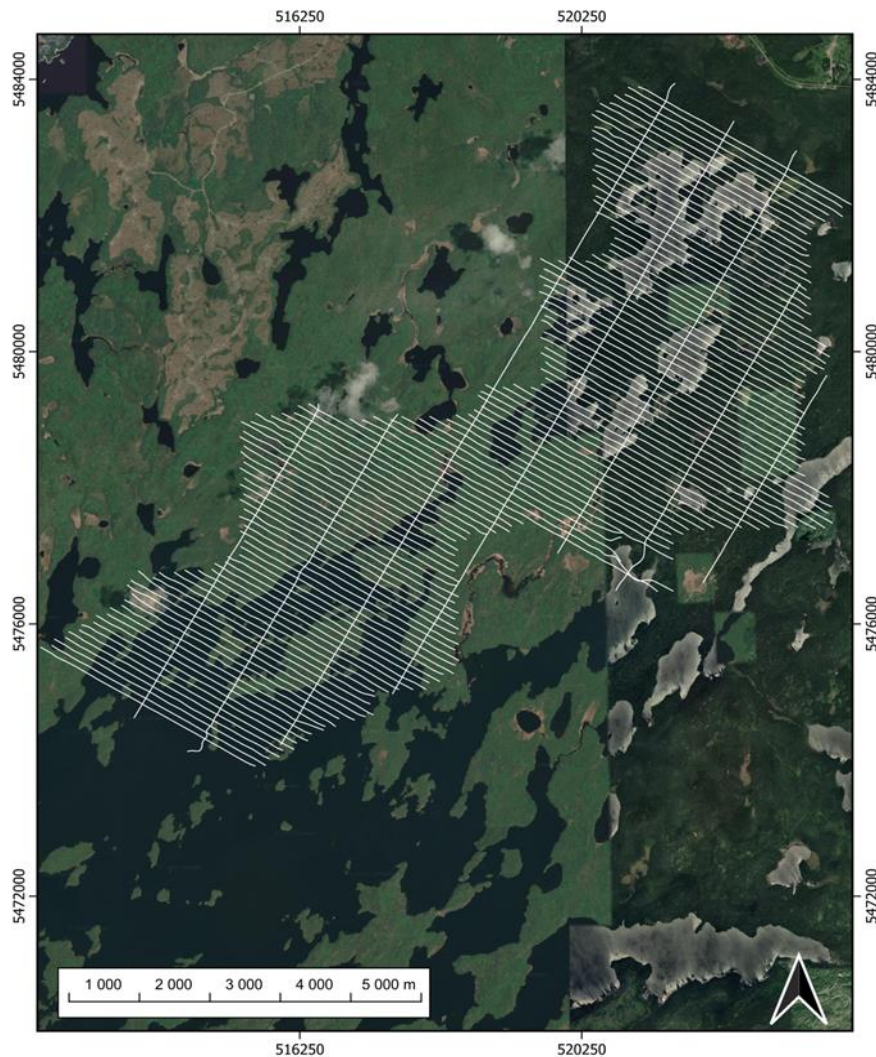
FIGURE 2: DIGITAL ELEVATION MODEL



3.2. Survey Parameters

From September 28th to October 18th 2022, Axiom Exploration Group Ltd. ('Axiom') carried out a helicopter-borne LiDAR survey over Treasury Metals' Goldrock claim near Dryden, Ontario. The survey consisted of 545 line-kms with a traverse line spacing of 100 m and tie line spacing of 1000 m.

Final flight paths are plotted in Figure 3.



Goldrock
Final flight paths
WGS 84 / UTM zone 15N
Universal Transverse Mercator (UTM)



Further survey parameters can be found in Table 2.

TABLE 2: SURVEY PARAMETERS

Survey Block	Line Type	Line Spacing (m)	Flight Direction (Degrees)	Actual Line-kms Flown
Block 1	Traverse	100	135° - 315°	430
	Tie	1000	45° - 225°	48
			Total:	478

Survey Block	Line Type	Line Spacing (m)	Flight Direction (Degrees)	Actual Line-kms Flown
Block 2	Traverse	100	135° - 315°	60
	Tie	1000	45° - 225°	7
			Total:	67

The final survey was defined by the boundary coordinates shown in Table 3.

TABLE 3: SURVEY AREA COORDINATES

Easting	Northing	Easting	Northing
Block 1		523722.92	5477431.83
		521511.50	5477405.71
513893.42	5476360.95	521398.32	5477405.71
513902.13	5476656.96	521407.02	5476482.84
515390.92	5476874.62	520884.64	5476482.84
515486.69	5477005.22	520893.35	5476665.67
515512.81	5478929.33	519308.79	5477562.43
516592.40	5479242.76	518464.27	5477327.35
517001.60	5478946.74	518359.79	5477022.63
518838.64	5479094.75	518403.32	5475324.89
518890.88	5479495.24	517915.77	5475063.70
519735.40	5479503.95	517410.80	5475063.70
519752.81	5481340.99	517201.84	5475072.40
520693.10	5481410.64	517193.14	5474663.20
520780.17	5481785.02	516653.34	5474576.14
520788.87	5481898.20	515556.34	5473844.80
520458.03	5482107.15	515451.86	5473801.27
520466.74	5483465.35	515451.86	5473801.27
521171.95	5483944.20	512561.35	5475568.67
524010.23	5482272.58		
523609.74	5481985.27		
523322.43	5481602.18	Block 2	
523444.32	5480348.47		
523688.10	5479921.85	531550.83	5469165.07
523296.31	5479573.60	532851.91	5470421.99
523313.72	5478180.58	535895.61	5468638.16
523592.33	5478180.58	534888.90	5467237.00
523705.51	5478197.99		

3.3. Survey Aircraft

Designed for heavy loads and superior performance in hot and high conditions. A favorite in the mining industry, the FX2 has the same internal and external gross weight as the AS350 B2, however the Honeywell-powered FX2 delivers additional upside. It offers better operational margins and lifting capacity than the B2 as both altitude and temperature increase.

TABLE 4: HELICOPTER SPECIFICATIONS

Aircraft Type	FX2
Registration	
Range	2.5 hrs
Survey Speed	80 km/hr (Terrain Dependant)
Fuel Type	JET A
Fuel Consumption	170L/hr

Unlike other external load survey systems in the industry, because Axiom Exploration utilizes a radar altimeter on the bird instead of the helicopter, this allows the pilot a precise altitude of the bird. **Error! Reference source not found.** shows the complete helicopter and triaxial setup in which the LiDAR was flown at the same time.

3.4. On-Board GPS Equipment

Our pilots utilize a state-of-the-art navigation interface developed in-house by NRG Engineering which allows them to stay precisely on target. The aircraft has a laser altimeter which allows us to precisely gauge our ground altitude and safely survey close to the terrain and vegetation.

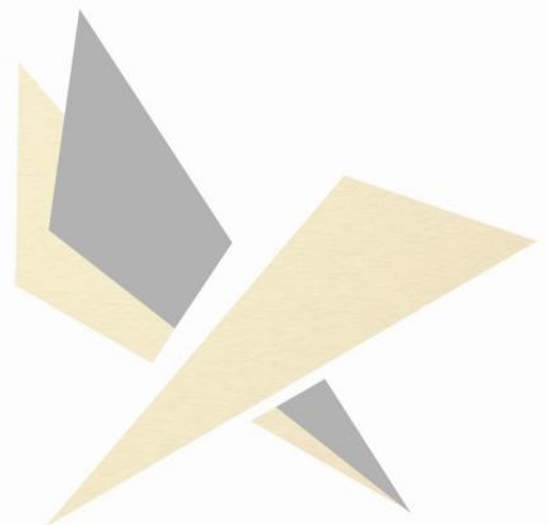




FIGURE 2 – HELICOPTER NAVIGATIONAL SYSTEM

4. Data Processing

The LiDAR data collected using the Phoenix Long Ranger LR system was processed to produce a full-featured LiDAR point cloud and classified utilizing machine learning algorithms. By using the classified point cloud, the vegetation was stripped away to generate a bare earth topographic map, or Digital Elevation Model/Digital Terrain Model ('DEM/DTM'). The functionality of the high-resolution DEM/DTM has a broad range of applications including: drainage analysis, baselines, volumetric analysis, drill hole planning, collar elevation corrections for historical drill holes, accurate topography for 3-D modelling, and vegetation analysis.

5. Deliverables

5.1. Digital Elevation Model (DEM)

This model represents the surface elevation with all trees and infrastructure stripped of the data set. The red areas highlight the lows, grading into the blue areas which Highlight the highs. The historic drill well area can be seen clearly in this image as well as the road leading into it. The topography is seen to be covered with small hills which is consistent with the surrounding observed pastureland.

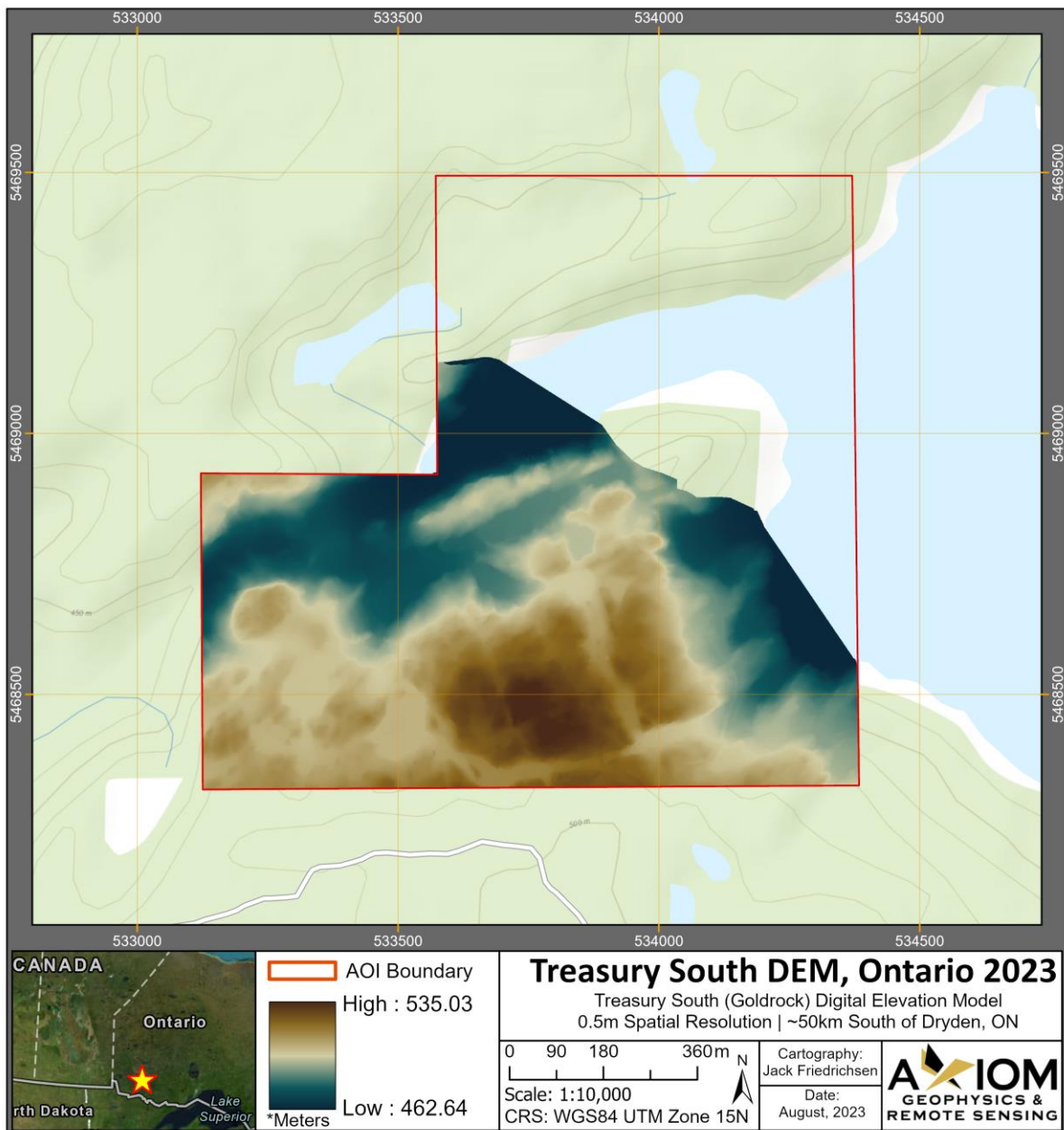
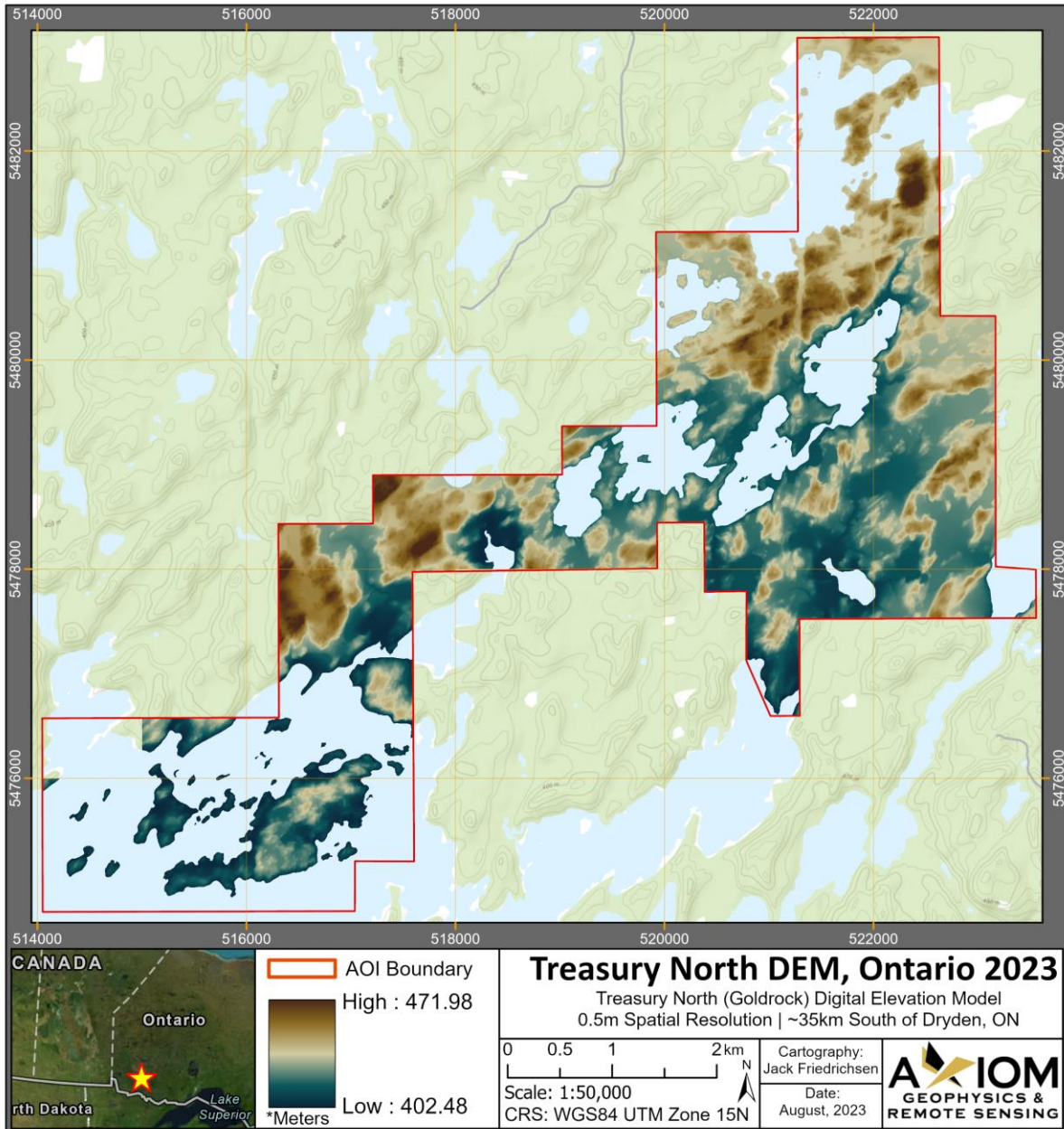


FIGURE 3: DEM



5.1.1. Digital Surface Model(DSM)

The Digital Surface Model shows the elevation including all trees and other infrastructure on the property, the elevation colour pallet is the same as the DEM previously.

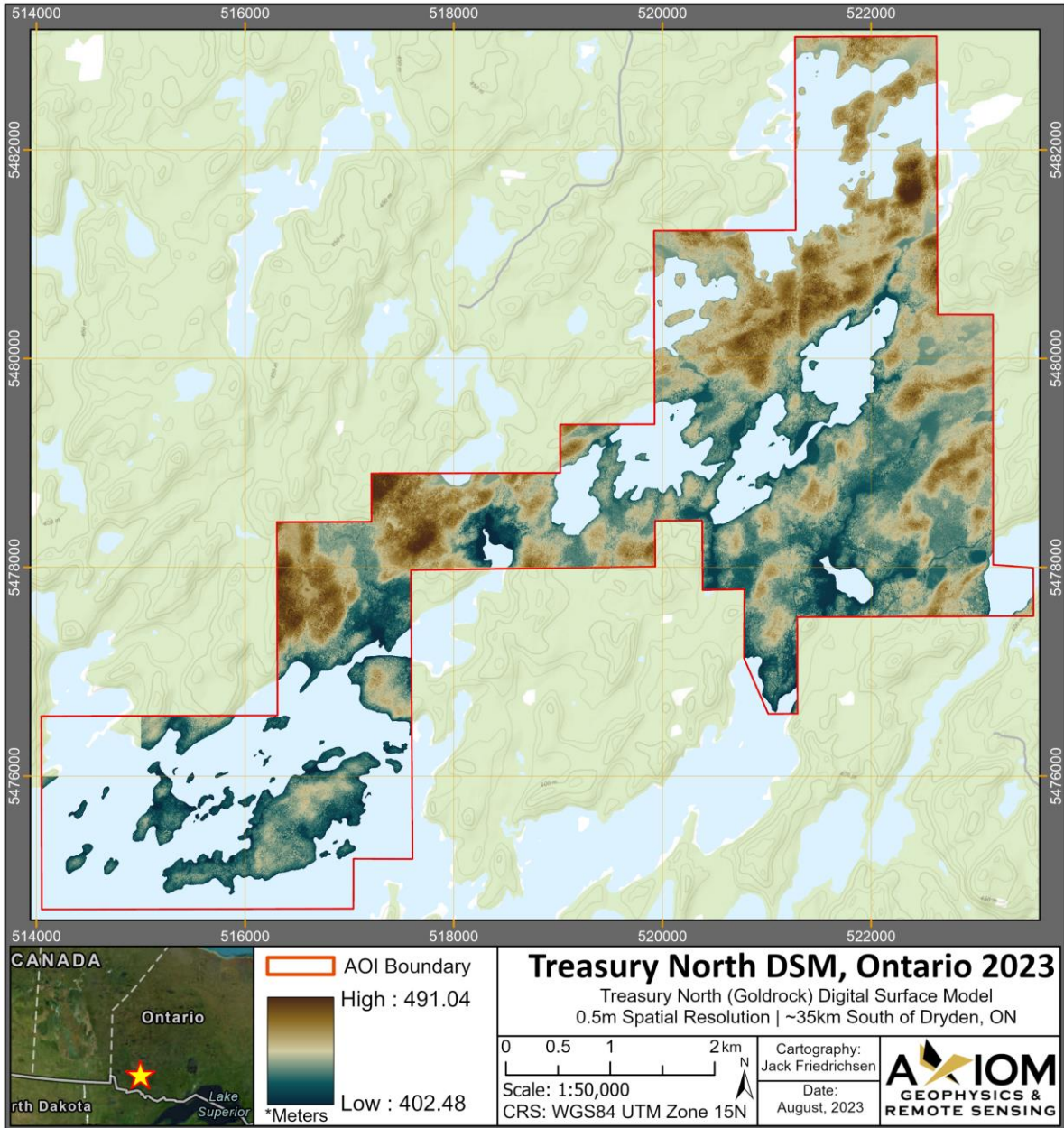


FIGURE 6: DSM

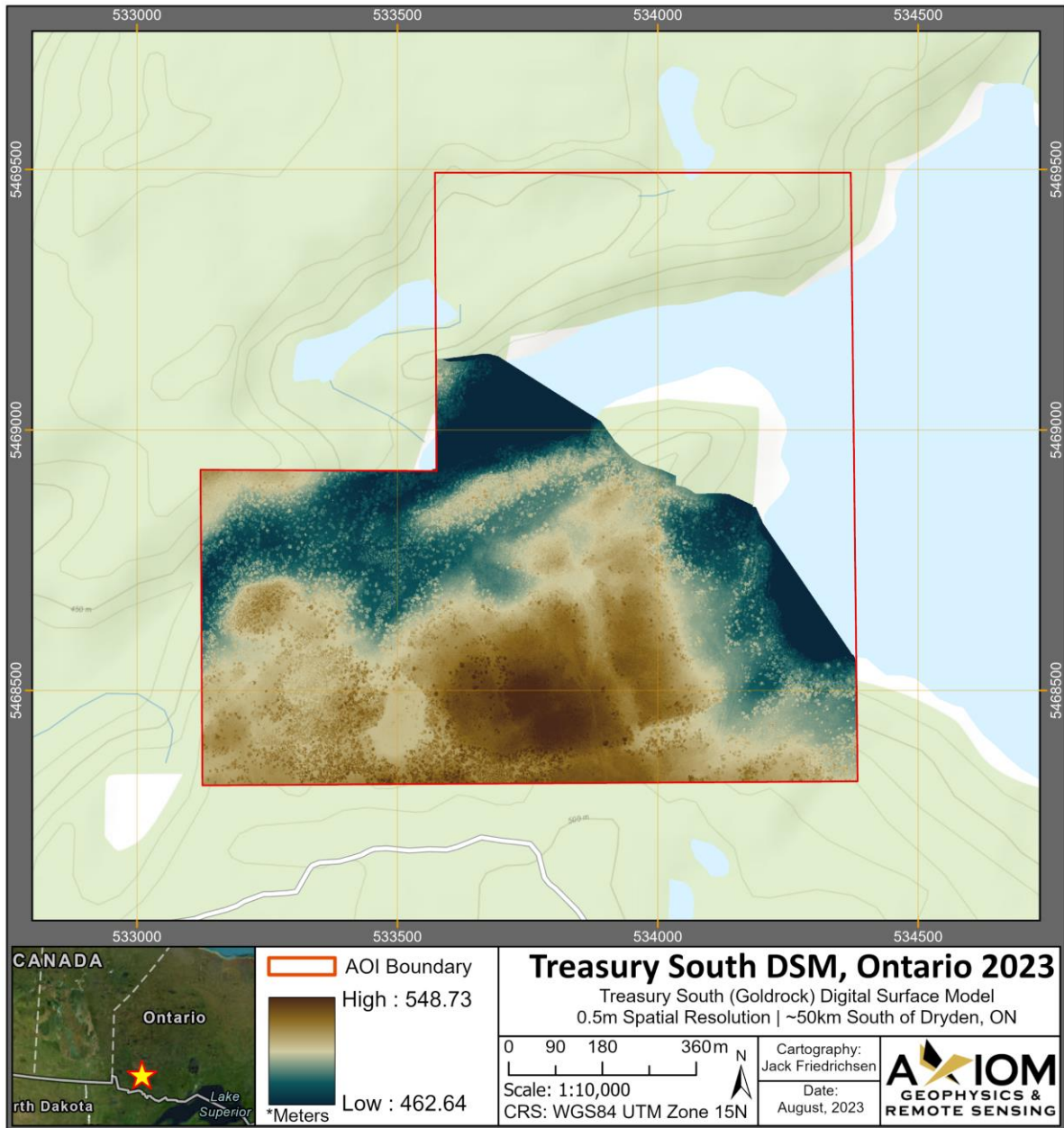


FIGURE 7: DSM

5.2. Contours

These contours are at a 25cm interval. They represent topography only, all trees and infrastructure has been stripped prior to creating these intervals. They will be clearer if you zoom in on the image.

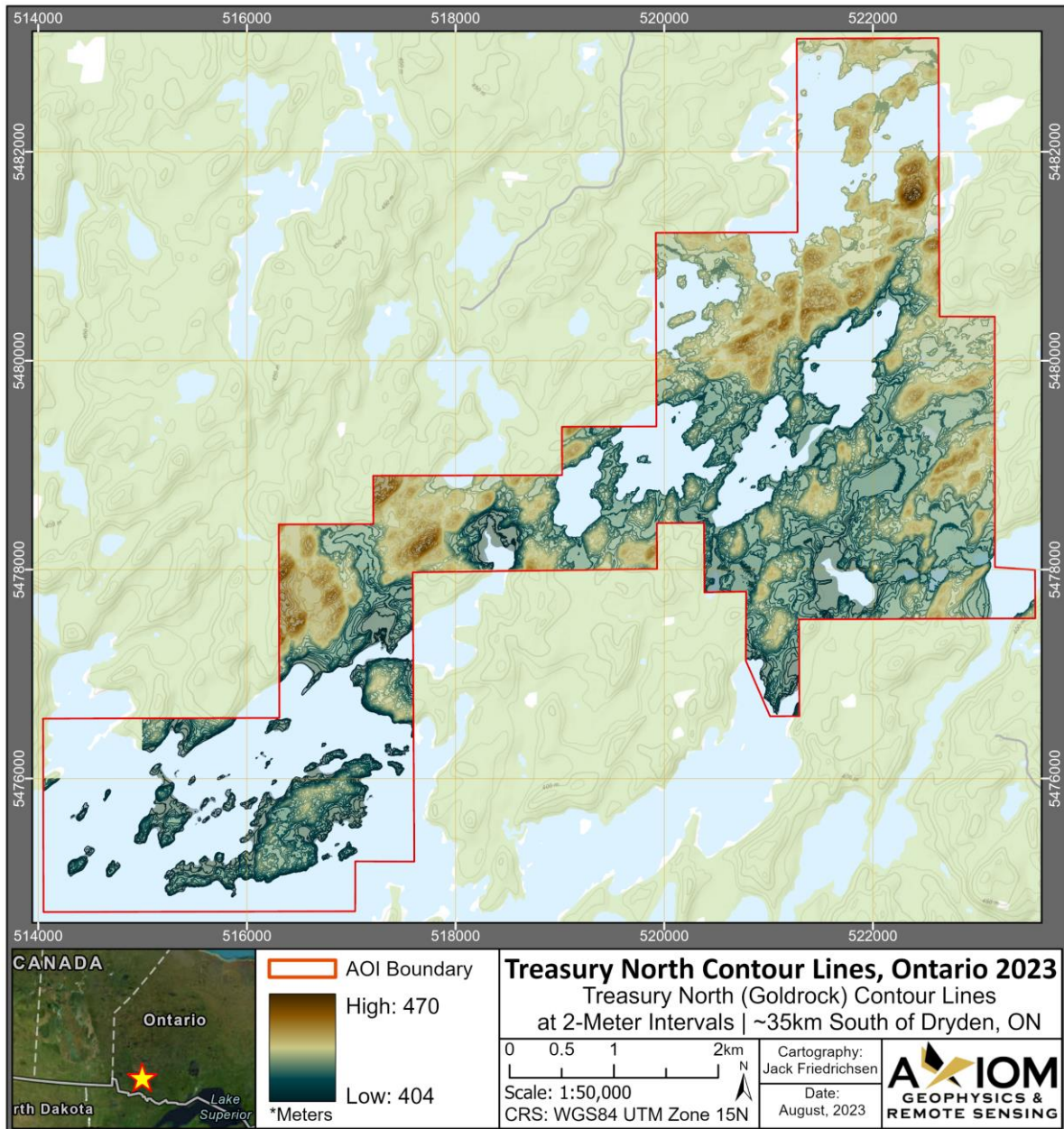


FIGURE 4: CONTOURS

5.3. Hill Shade

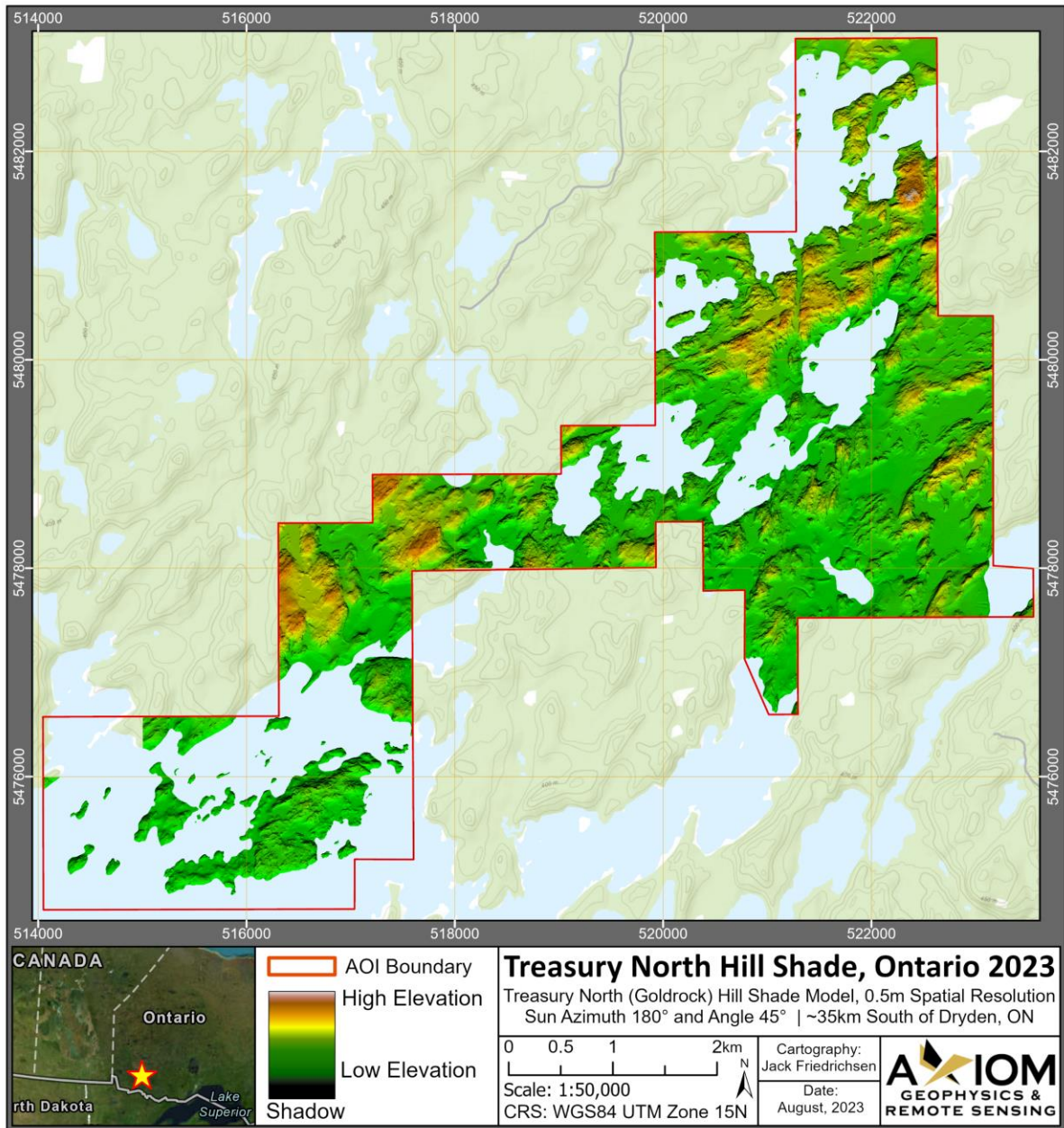
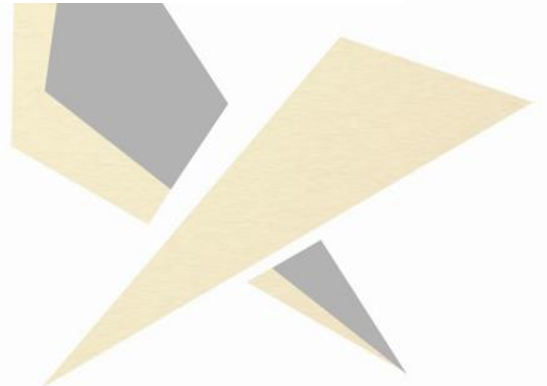


FIGURE 9: HILL SHADE



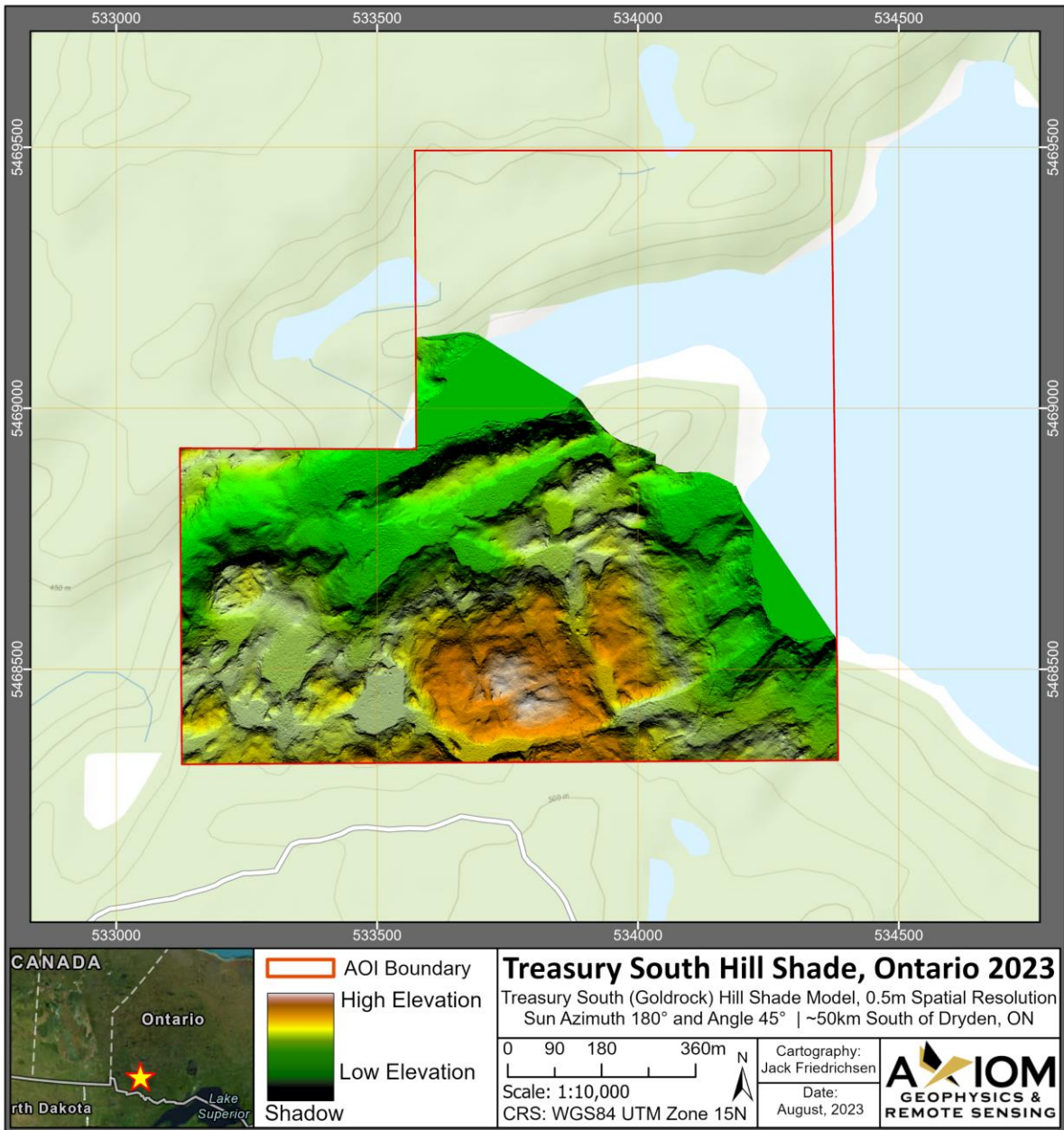
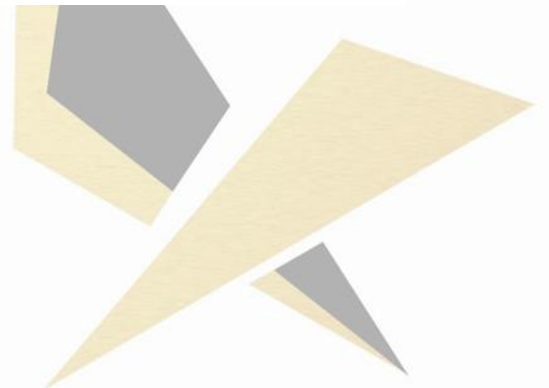


FIGURE 10: HILL SHADE



6. Conclusions

Axiom Exploration Group successfully completed a Helicopter LiDAR survey in the over the Goldrock Project for Treasury Metals. The survey consisted of a total of 545 line-kms flown.

Respectfully submitted,



Doug Engdahl, P.Ge.
President & CEO
Axiom Exploration Group Ltd.

