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2022 AIRBORNE GEOPHYSICS
AND
LIDAR REPORT
ON THE
SAVANT LAKE PROPERTY

SAVANT LAKE AREA
District of Thunder Bay, Ontario, Canada
NTS MAP 52J/02
UTM NAD 83 Zone 15U
5565000N, 667600E

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1.0 SUMMARY

Prospectair Geosurveys and Eagle Mapping Ltd. was contracted by AuTECO Minerals Ltd. to perform a helicopter based airborne magnetic survey and LIDAR survey respectively over the 100% AuTECO Minerals Ltd. owned Savant Lake Property (Figure 1), from July 20 to July 23, 2022 and June 10, 2022.

The Savant Lake Property consists of 7 contiguous mining claims (Figure 2), covering a total of 31 km^2 as listed in Table 1. The Property is located approximately 370 km north-northwest of Thunder Bay, Ontario and 170 km south of Pickle Lake, Ontario (Figure 1).

AuTECO's Savant Lake Property is located in the northwestern Wabigoon Terrane which is an early Precambrian metavolcanic-metasedimentary sequence and underlies the central part of the Property. The sequence varies in width from 5 km to 11 km. The Savant Lake property is located in the Western Wabigoon Metavolcanic-Metasedimentary Belt in the Superior Province of the Canadian Shield (Trowell, 1981). It lies between the Winnipeg River and English River Subprovinces (Figure 3).

Historical work was collected using the digital portal on the Ministry of Northern Development and Mines online geoscience database (Ontario Assessment File Database) which resulted in identifying a variety of work conducted in the area since 1970 to the most current of 2012 on adjacent properties with minimal work on Savant Lake.

The purpose of this program was to better understand the geology and the associated mineralization and structures to identify drill targets for diamond drilling at a future date. The work highlighted the need for prospecting and diamond drilling of targets identified.

2.0 INTRODUCTION

Prospectair Geosurveys and Eagle Mapping Ltd. was contracted by AuTECO Minerals Ltd. to perform a helicopter based airborne magnetic survey and LIDAR survey respectively over the 100% AuTECO Minerals Ltd. owned Savant Lake Property (Figure 1), from July 20 to July 23, 2022 and June 10, 2022. This report was prepared by AuTECO Minerals Ltd., an Australian listed company who owns 100% of the Savant Lake Property that consists of 7 contiguous mining claims (Figure 2), covering a total of 31 km^2 as listed in Table 1. The Savant Lake Property is located approximately 370 km north-northwest of Thunder Bay, Ontario and 170 km south of Pickle Lake, Ontario (Figure 1).

The purpose of this program is to better understand the geology and the associated mineralization and structures to identify drill targets for diamond drilling at a future date.

3.0 LOCATION

The Savant Lake Property (hereafter simply referred to as "The Property") is located in the Beckington Lake Area which is situated in the Patricia Mining Division of Ontario with the claims being located on NTS sheets 52J/02. The property is located approximately 370 km north-northwest of the city of Thunder Bay, Ontario, 130 km north of Ignace along highway 599 towards Pickle Lake and 5 km southeast of Savant Lake village (Figure 1).

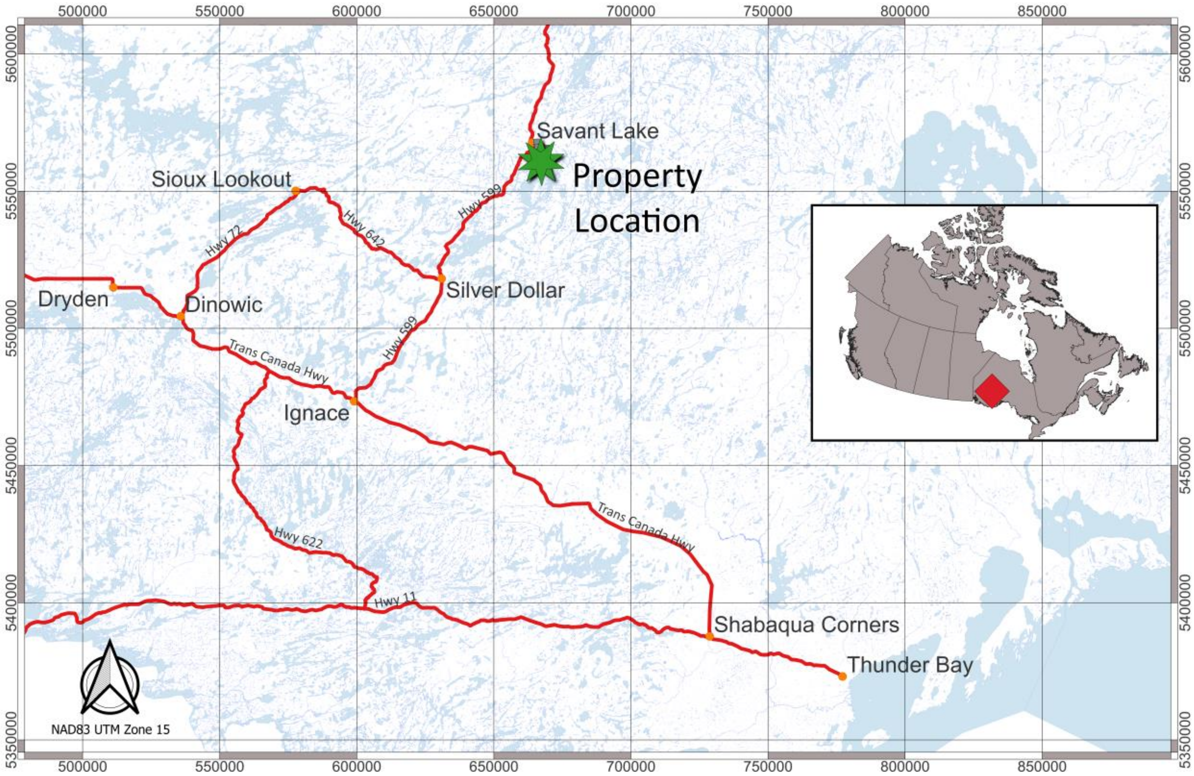


FIGURE 1: SAVANT LAKE PROJECT LOCATION MAP, DATUM NAD83 ZONE 15U.

4.0 ACCESS

The City of Thunder Bay (population of 110,000) provides support services, equipment, and skilled labor for both the mineral exploration and mining industry. Rail, national highway, port, and international airport services are available out of Thunder Bay. Tertiary supports are available out of the town of Sioux Lookout, Ontario. Accommodation and supplies are available in Savant Lake which is less than 5 km from the property.

The property can be reached from Thunder Bay by travelling west on highway 11/17, until the turnoff for highway 599 at Ignace which travels north towards Pickle Lake, thus providing ready access to the property from Thunder Bay, Dryden, Sioux Lookout, and Kenora, all of which enjoy air service from Toronto and Winnipeg. From Savant Lake village the property can be access via secondary logging roads and ATV trails.

5.0 CLAIMS

The Property is comprised of legal mineral properties registered under and subject to the Mineral Tenure Act and Mineral Land Tax Act of the Province of Ontario. The Property consists of 7 contiguous mining claims (Figure 2), covering a total of 31 km^2 as listed in Table 1. All claims are on located within the NTS Map 52J/02. All claims have not been legally surveyed, have no environmental liabilities and are all in good standing as of the publication of this report.

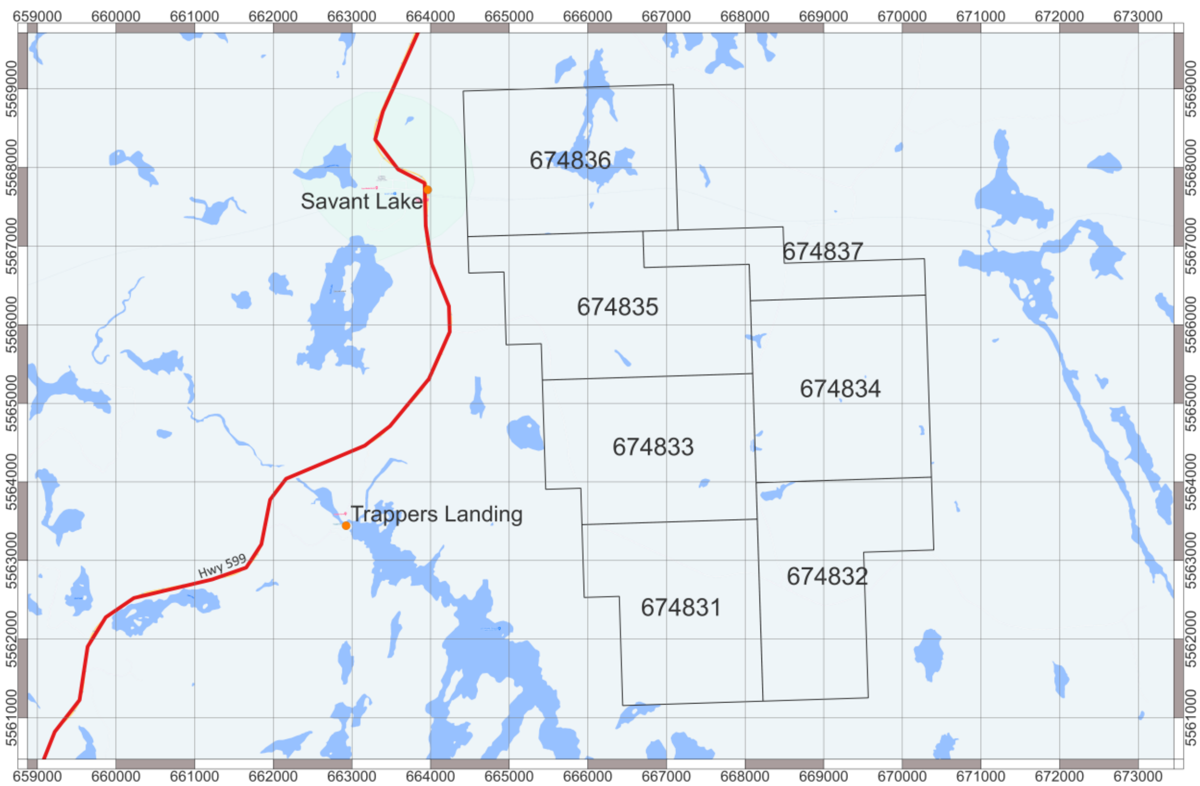


FIGURE 2: LAND TENURE FOR SAVANT LAKE PROJECT (REVEL RESOURCES LTD.). MAP DATUM NAD 83 ZONE 15U.

	Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Area (Ha)	Work Required
1	BECKINGTON LAKE AREA	674831	Multi-cell Mining Claim	2022-08-05	Active	455.1	$8,800
2	BECKINGTON LAKE AREA	674832	Multi-cell Mining Claim	2022-08-05	Active	455.1	$8,800
3	BECKINGTON LAKE AREA	674833	Multi-cell Mining Claim	2022-08-05	Active	475.6	$9,200
4	BECKINGTON LAKE AREA	674834	Multi-cell Mining Claim	2022-08-05	Active	516.9	$10,000
5	BECKINGTON LAKE AREA	674835	Multi-cell Mining Claim	2022-08-05	Active	516.8	$10,000
6	BECKINGTON LAKE AREA	674836	Multi-cell Mining Claim	2022-08-07	Active	495.9	$9,600
7	BECKINGTON LAKE AREA	674837	Multi-cell Mining Claim	2022-08-07	Active	186.0	$3,600

TABLE 1: SAVANT LAKE PROPERTY CLAIM DETAILS.

6.0 PHYSIOGRAPHY

Relief over the property is low, with outcrop exposures accounting for most topographic highs. Topographically low areas are often lakes or swampy areas between lakes. The claims are mostly covered with spruce and little underbrush. Intervening marshy areas are associated with muskeg, cedar and alders. On sandy hills, vegetation is less dense, and mostly jack-pine. To the north, birch and poplar trees are common.

The maximum local relief is never more than 80 m. The relief reflects both the differential erosion of the underlying bedrock units and the topography of the Pleistocene and Recent deposits. The major topographic feature in the map-area is a southwest-trending esker and delta complex that has local positive relief of 30 m and that crosses the eastern part of Boucher Township (Trowell, 1981)

Climate is typical of Northwestern Ontario. A typical temperature range for the winter months would be -8°C to -24°C with extreme lows of <-40°C. While in the summer months, a typical temperature range would be 10°C to 25°C with extreme highs of >35°C. The average annual rainfall for the area is 517 mm and the average annual snowfall is 204 cm.

7.0 HISTORY

An Investigation of the Ministry of Northern Development and Mines assessment files was conducted, resulting in a number of files identified on and adjacent to The Property. A variety of work was conducted in the area since 1970 to the most recent of 2012. Table 2 below provides a summary of assessment work listed by area, company, year and type of work that was performed.

The historical work provided by the Province has been obtained in this report through the digital portal on the Ministry of Northern Development and Mines online geoscience database (Ontario Assessment File Database). The files obtained contain technical reports on exploration work in the area. These details include locations, property ownerships, and work performed. It should be noted that the historical property location associated with the assessment reports is, in some cases, difficult to determine and as such requires validation and verification. In addition, raw data (e.g. airborne geophysical survey data) are typically not supplied and therefore cannot be verified by the author.

Area	Work Performed By	Year	Work Type	Report No.
Beckington Lake	Canadian Nickel	1970	Diamond Drilling	52J02NE0062
Beckington Lake	J.P.Jewell	1971	Electromagnetic Geophysical Survey	52J02NE0083
Endogoki Lake and Beckington Lake	P.Lassilu	1973	Diamond Drilling	20007177
Beckington Lake	Noranda Exploration	1975	Electromagnetic Geophysical Survey	52J02NE0080
Beckington Lake	Noranda Exploration	1976	Diamond Drilling	52J02NE0078
Beckington Lake	UMEX INC.	1980	Diamond Drilling	52J02NE0053
Beckington Lake	UMEX INC.	1980	Diamond Drilling	52J02NE0056
Beckington Lake	Roger J. Caven	1982	Ground Geophysics	52J02NE0031
Beckington Lake	J.J. Lefebvre	1982	Diamond Drilling	52J02NE0037
Beckington Lake	UMEX INC.	1982	Ground Geophysics	52J02NE8854
Beckington Lake	Jens E. Hansen	1983	Geophysics and Geochemistry	52J02NE0027
Beckington Lake	F.Felder	1983	Geochemical Survey	52J02NE0032
Beckington Lake	Brian Wing	1984	Mapping, Lithogeochemical and Geophysics (Induced Polarization)	52J02NE0016
Beckington Lake	UMEX INC.	1984	Lithogeochemical and Diamond Drilling	52J02NE0020
Beckington Lake	Jens E. Hansen	1984	Geophysics and Geochemistry	52J02NE0021
Beckington Lake	UMEX Corporation Ltd.	1985	Geochemical Survey	52J02NE0009
Beckington Lake	F.Felder	1985	Lithogeochemical Survey	52J02NE0015
Beckington Lake	UMEX INC.	1985	Diamond Drilling	52J02NE0018
Beckington Lake	John Ward	1985	VLF Geohysical Survey	52J02NE0410
Beckington Lake	Thomas E. Gillett	1987	Geological and Ground Geophysics	52J02NE0003
Boucher and Beckington Lake	Noranda Exploration	1995	Airborne Electromagnetic Geophysical Survey	52J07SE0005
Chevrier and Beckington Lake	Al Smith	1996	Airborne Electromagnetic Geophysical Survey	52J07SE0006
Boucher and Beckington Lake	R.A.Bernatchez	2005	Diamond Drilling	20001775
Beckington Lake and Squash Lake	Michael J.Vande Guchte	2012	Airborne Magnetic and VLF-EM Geophysical Survey	20012682

TABLE 2: SAVANT LAKE PROJECT HISTORICAL EXPLORATION SUMMARY.

8.0 GEOLOGICAL SETTING

8.1 REGIONAL GEOLOGY

The Wabigoon Subprovince exposes Archean greenstone and granitoid rocks with a strike greater than 700 km. Based on predominating rock types, the western part of the Subprovince is divided into two terranes: the northwestern Wabigoon Volcano-sedimentary and plutonic terrane (NWW) and the Wabigoon Diapiric Axis terrane (WDA) (Edwards and Davis, 1986).

The Savant Lake Property is located in the northwestern Wabigoon Terrane which is an early Precambrian metavolcanic-metasedimentary sequence and underlies the central part of the Property. The sequence varies in width from 5 km to 11 km. The area covers the transitional zone between the Savant Lake and Sturgeon Lake metavolcanic-metasedimentary belts (Towell, 1981).

The Savant Lake property is located in the Western Wabigoon Metavolcanic-Metasedimentary Belt in the Superior Province of the Canadian Shield (Trowell, 1981). It lies between the Winnipeg River and English River Subprovinces (Figure 3).

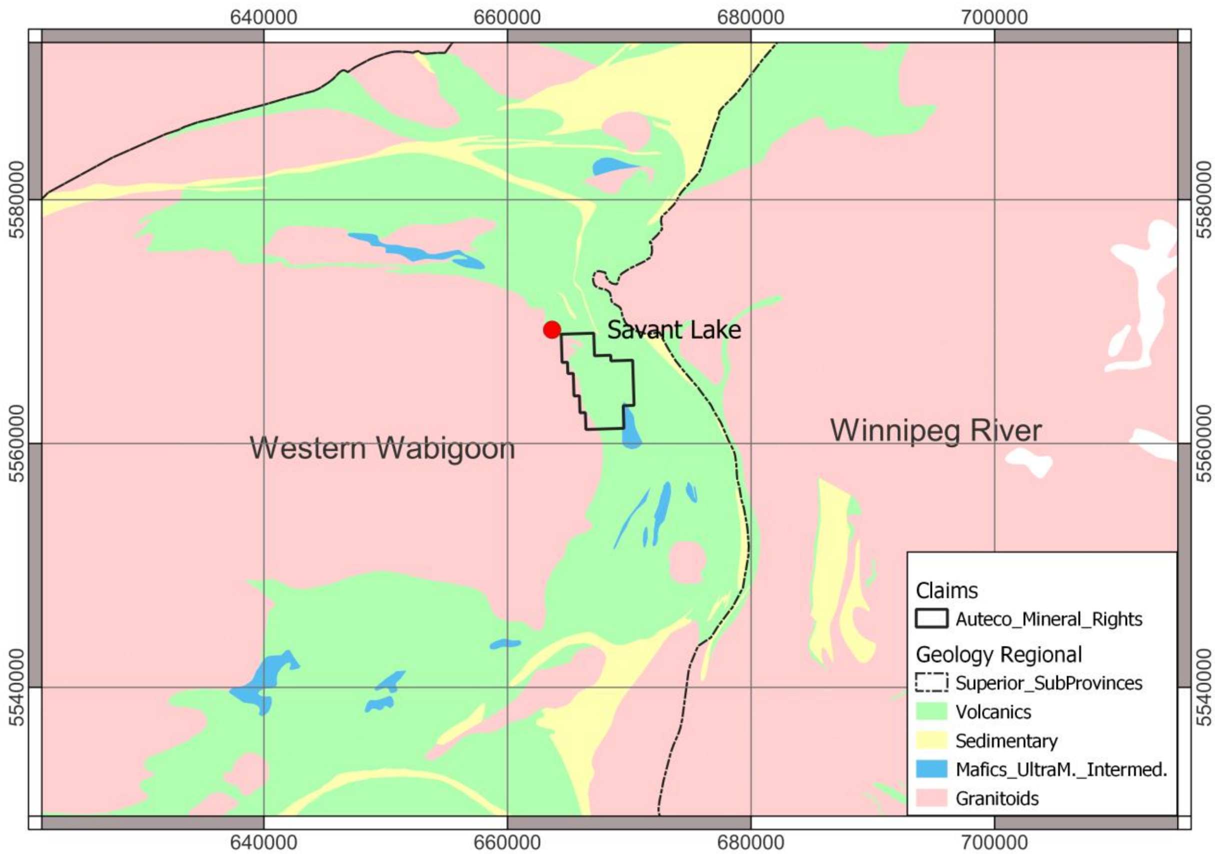


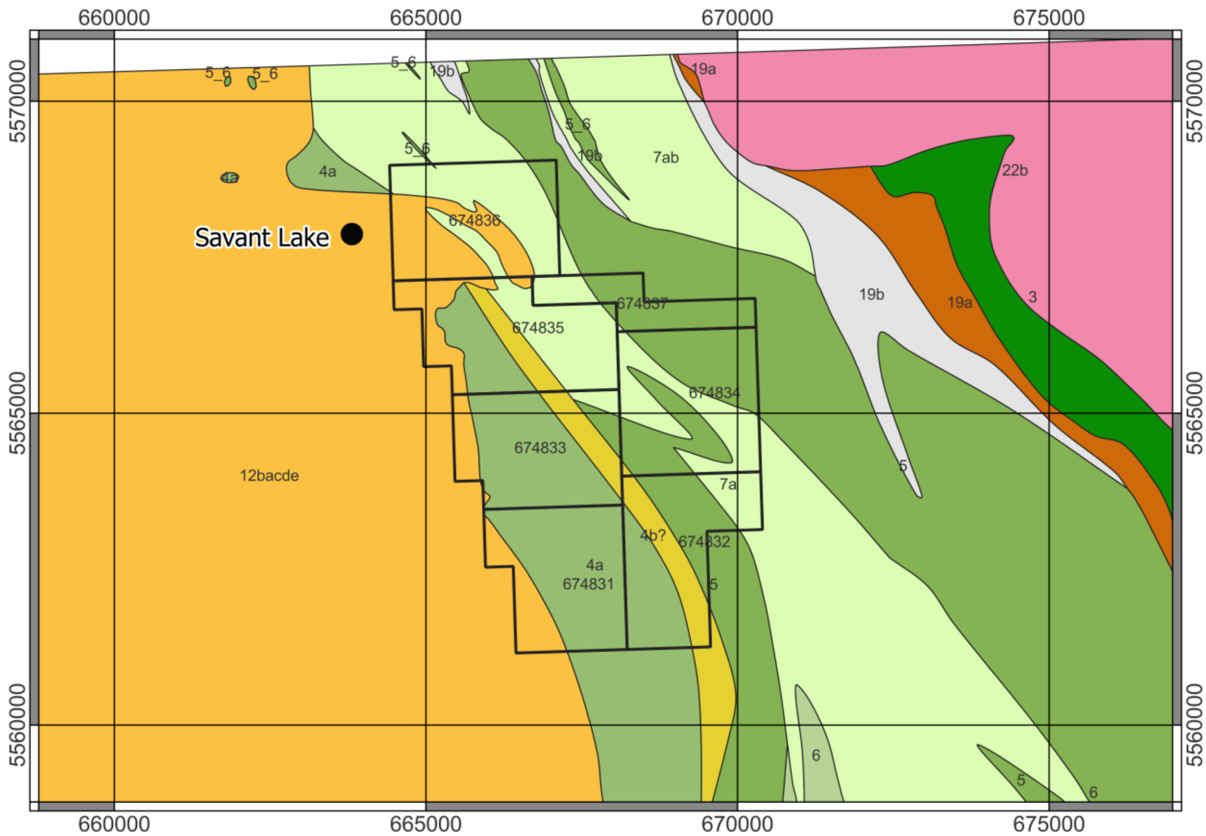
FIGURE 3: REGIONAL GEOLOGY MAP. SIMPLIFIED FROM MINERAL EXPLORATION RESEARCH CENTRE (MERC) SUPERIOR CRATON GEOLOGICAL MAP (MONTSION ET AL., 2018). MAP DATUM NAD 83 ZONE 15U.

8.2 LOCAL GEOLOGY

Towell (1981) has subdivided the area into nine lithostratigraphic units that are equivalent to the Jutten Series (Rittenhouse 1936), G.H.Funk (1973) defined the Savant Lake Conglomerate and the Rittenhouse 1936 Handy Lake Volcanics (Figure 4).

The metavolcanic-metasedimentary belt is bounded on the east by a batholithic granitic complex (Eastern Granitic Complex). The rock varies compositionally from trondhjemite along its margins to granodiorite gradually changing to quartz monzonite to the east. Texturally, it is generally medium grained and varies from equigranular to porphyritic.

To the west of the Savant Lake property lies the Lewis Lake Batholith which is largely an elliptical batholith. Much of the Lewis Lake batholith consists of rocks whose composition, grain size and texture are both regionally and locally variable. The rocks are commonly coarse to medium grained, massive to foliated, gneissic, and tonalite to granodiorite in composition (Beakhouse, (2013); Williams (1993)). The granitoid rocks show varying degrees of mineral alignment to form a foliation and lineation. These fabrics are especially well developed both near the contact of the granitoid rocks with the greenstone belt and, associated with mafic volcanic xenoliths (Williams, 1993).



22b – Biotite-hornblende tonalite	7a – Handy Lake Assemblage – intermediate felsic pyroclastic rocks
19a – Warclub Assemblage – polymictic conglomerate	7b – Handy Lake Assemblage – massive phyric flows
19b – Warclub Assemblage – feldspathic and lithic wacke	6 – Handy Lake Assemblage – middle calcalkaline mafic sequence
12a – Early to Syn-Tectonic Plutonic Rocks – granodiorite	5 – Handy Lake Assemblage – lower tholeiitic mafic sequence
12b – Early to Syn-Tectonic Plutonic Rocks – tonalite	4a – Fourbay Lake Assemblage – mafic metavolcanic rocks
12c – Early to Syn-Tectonic Plutonic Rocks – porphyritic	4b – Fourbay Lake Assemblage – intermediate to felsic metavolcanic rocks
12d – Early to Syn-Tectonic Plutonic Rocks – leucocratic	3 – Jutten Assemblage – amphibolite
12e - Early to Syn-Tectonic Plutonic Rocks – dykes	

Figure 4: Property Geology Map. From Sturgeon Lake greenstone belt, western Superior Province, Ontario (Sanborn-Barrie and Skulski, 2005). Datum NAD83 Zone 15U.

The metavolcanic-metasedimentary belts have been metamorphosed to greenschist and lower almandine-amphibolite facies. In general, it would appear there is an increase in metamorphic grade from south to north suggestive of a thinning of the metavolcanic-metasedimentary sequence from south to north (Towell, 1981).

Part of the metavolcanic-metasedimentary belt (Jutten sequence) is overlain by the Handy Lake (Rittenhouse, 1936) sequence of metavolcanics (Figure 4). The Handy Lake volcanics face dominantly east where as the Jutten sequence face north. The dominant structure in this area is a northeast-trending antiform.

The majority of the metamorphic and metasedimentary rocks have a moderately to well developed metamorphic foliation, local schistosity, defined by the subparallel alignment of component mineral grains. The major foliation, formed during initial deformation of these rocks, is generally subparallel to primary bedding structures, whereas axial plane foliations and finer crenulations arising out of subsequent folding are concordant to discordant to both the primary structures and initially developed foliation (Towell, 1981).

9.0 AIRBORNE GEOPHYSICS ASSESSMENT WORK

Prospectair Geosurveys was contracted to perform a helicopter based airborne magnetic survey in July 2022 for AuTeco Minerals on the 100% owned Savant Lake Property (Figure 1) for a total of 341 line kilometers (l-km). The helicopter and survey crew operated out of the Sioux Lookout Airport located about 90 km to the west of the block. The field team included Marc Patenaude (survey pilot) and Johnathan Drolet (survey system technician) with support from the Prospectair Geosurveys office.

The following three sections (9.1, 9.2, 9.3) are an exert from the Technical Report provided to AuTeco from Prospectair upon completion of contracted work (Dube, 2022). For the entire report refer to the Appendix 2

9.1 Survey Equipment

9.1.1 Airborne Magnetometer

Geometrics G-822A

The heliborne system used a non-oriented (strap-down) optically-pumped Cesium splitbeam sensor. These magnetometers have a sensitivity of 0.005 nT and a range of 15,000 to 100,000 nT with a sensor noise of less than 0.02 nT. The heliborne sensor was mounted in a bird made of non-magnetic material located 19 m below the helicopter when flying. Totalmagnetic field measurements were recorded at 10 Hz in the aircraft.

9.1.2 Real-Time Differential GPS

Omnistar DGPS

Prospectair uses an OmniStar differential GPS navigation system to provide real-time guidance for the pilot and to position data to an absolute accuracy of better than 5 m. The Omnistar receiver provides real-time differential GPS for the AGIS on-board navigation system. The differential data set was relayed to the helicopter via the Omnistar network appropriate geosynchronous satellite for the survey location. The receiver optimizes the corrections for the current location.

9.1.3 Airborne Navigation and Data Acquisition System

Pico-Envirotec AGIS-XP system

The Airborne Geophysical Information System (AGIS-XP) is advanced, software driven instrument specifically designed for mobile aerial or ground geophysical survey work. The AGIS instrumentation package includes an advanced navigation system, real-time flight path information that is displayed over a map image of the area, and reliable data acquisition software. Thanks to simple interfacing, the radar and barometric altimeters and the Geometrics magnetometer are easily integrated into the system and digitally recorded. Automatic synchronization to the GPS position and time provides very close correlation between data and geographical position. The AGIS is equipped with a software suite allowing easy maintenance, upgrades, data QC, and project and survey area layout planning.

9.1.4 Magnetic Base Station

GEM GSM-19

A GEM GSM-19 Overhauser magnetometer, a computer workstation and a complement of spare parts and equipment serve as the base station. Prospectair establish the base station in a secure location with low magnetic noise. The GSM-19 magnetometer has resolution of 0.01 nT, and 0.2 nT accuracy over its operating range of 20,000- to 100,000 nT. The ground system was recording magnetic data at 1 Hz.

Altimeters

Free Flight Radar Altimeter

The Free Flight radar altimeter measures height above ground to a resolution of 0.5 m and an accuracy of 5% over a range up to 2,500 ft. The radar altimeter data is recorded and sampled at 10 Hz. Digital Barometric Pressure Sensor The barometric pressure sensor measures static pressure to an accuracy of ± 4 m and resolution of 2 m over a range up to 30,000 ft above sea level. The barometric altimeter data are sampled at 10 Hz.

Survey helicopter

Eurocopter EC120B (registration C-GEDI)

The survey was flown using Prospectair's EC120B helicopter that handles efficiently the equipment load and the required survey range. Table 3 presents the EC120B technical specifications and capacity, and the aircraft is shown in Figure 5.

Item	Specification
Powerplant	One 376kW (504hp) Turbomeca Arrius 2F
Rate of climb	1,150 ft/min
Cruise speed	223 km/h – 120 kts
Service ceiling	17,000 ft
Range with no reserve	710 km
Empty weight	991 kg
Maximum takeoff weight	1,715 kg

TABLE 3: TECHNICAL SPECIFICATIONS OF THE EC120B EUROCOPTER HELICOPTER.

FIGURE 5: C-GEDI EUROCOPTER EC120B.

9.2 SURVEY SPECIFICATIONS

9.2.1 Data Recording

The following parameters were recorded during the course of the survey:

In the helicopter:

- GPS positional data: time, latitude, longitude, altitude, heading and accuracy (PDOP) recorded at intervals of 0.1 s;
- Total magnetic field: recorded at intervals of 0.1 s;
- Pressure as measured by the barometric altimeter at intervals of 0.1 s;
- Terrain clearance as measured by the radar altimeter at intervals of 0.1 s;

At the base and remote magnetic ground stations:

- Total magnetic field: recorded at intervals of 1 s;
- GPS time recorded every 1 s to synchronize with airborne data.

9.2.2 Technical Specifications

The data quality control was performed on a daily basis. The following technical specifications were adhered to:

- Height – 50m mean terrain clearance for the helicopter except in areas where Transport Canada regulations prevent flying at this height, or as deemed by the pilot to ensure safety. Traverse lines and control lines must be flown at the same altitude at points of intersection; the altitude tolerances are limited to no more than 30 m difference between traverse lines and control lines.
- Airborne Magnetometer Data – A 0.5 nT noise envelope not to be exceeded for more than 500 m line-length without a reflight.
- Diurnal Specifications – A maximum tolerance of 5.0 nT (peak to peak) deviation from a long chord of one minute at the base station.
- Flying Speed – The average ground speed for the survey aircraft should be 120 kph. The acceptable high limit is 180 kph over flat topography.
- Radar Altimeter – minimal accuracy of 5%, minimum range of 0-2500 m.
- Barometer – Absolute air pressure to 0.1 kPa.
- Flight Path Following – The line spacing not to vary by more than 30% from the ideal spacing over a distance of more than 300 m, except as required for aviation safety.

9.2.2.1For Savant Lake Block:

- Traverse lines: Azimuth N062, 100 m spacing.
- Control Lines: Azimuth N152, 1000 m spacing.

9.3 SYSTEM TESTS

9.3.1 Magnetometer System Calibration

The survey configuration using a bird towed 19 m below any magnetic piece of the helicopter allows the simplification of the magnetic calibration requirement. Consequently, heading error and aircraft movement noise was considered negligible and no correction was applied to the data.

9.3.2 Instrumentation Lag

The magnetometer lag is a combination of two factors: 1) the time difference between when a reading is sensed, and when that value is recorded by the acquisition system, and 2) the time taken for the sensor to arrive at the location of the GPS antenna. The second factor is defined by the physical distance between the GPS antenna and any given sensor, and the speed of the aircraft. The average total magnetic lag value for the AGIS acquisition system has been calculated to -0.04 s for this survey.

9.4 Costing

Money spent for the work performed can be found in Table 4.

Description	Amount
Savant Lake Project: 341 l-km	$ 43,680
Move Sioux Lookout/Savant Lake	$ 2,000
TOTAL	**$ 45,680**

TABLE 4: COSTS FOR FIELD WORK PERFORMED BY PIONEER EXPLORATION.

10.0 AIRBORNE GEOPHYICS RESULTS & INTERPRETATION

10.1 Results

A total of 341 l-km were flown (flight lines shown in Figure 6) over the Savant Lake Property.

The following is an exert from the Technical Report provided to AuTeco from Prospectair upon completion of contracted work (Dube, 2022). For the entire report refer to the Appendix 2.

The residual Total Magnetic Intensity (TMI) of the Savant Lake block, presented in Figure 7, is relatively active and varies over a range of 5,603 nT, with an average of -153 nT and a standard deviation of 135 nT.

Most of the surveyed area is affected by linear magnetic features characteristic of alternating sequences of mafic volcanics with sedimentary or intermediate to felsic volcanic rocks, with possibly some intrusive stocks or dykes locally. Stronger anomalies, which are not very strong in absolute terms, are mostly found in the northeastern half of the block.

Stronger anomalies are best seen on Figure 8 which shows the residual TMI data with a linear color distribution. An area mainly located along the western edge of the block depicts relatively homogeneous magnetic textures, with lower amplitude anomalies, which is typical of large felsic to intermediate intrusive bodies. Other areas with lower background values and decreased signal variability are likely to be dominated by sedimentary or felsic intrusive/volcanic rocks.

Magnetic lineaments are generally trending from NNW-SSE to WNW-ESE in the area. A majority of lineaments appear curved, either by shearing or folding structures, or possibly also at the contact zone with the postulated intrusion to the west. These evidences are attesting that the area underwent strong deformation events in the past. In general terms, magnetic lineaments are related to rock formations that are enriched in magnetic minerals (magnetite and/or pyrrhotite).

Shorter wavelength anomalies are greatly enhanced on the FVD (Figure 9) and on the TILT (Figure 10) products. Since the FVD attenuates longer wavelength anomalies, and the TILT enhances very weak amplitude anomalies, they are the preferred products for structural interpretation (Figure 11).

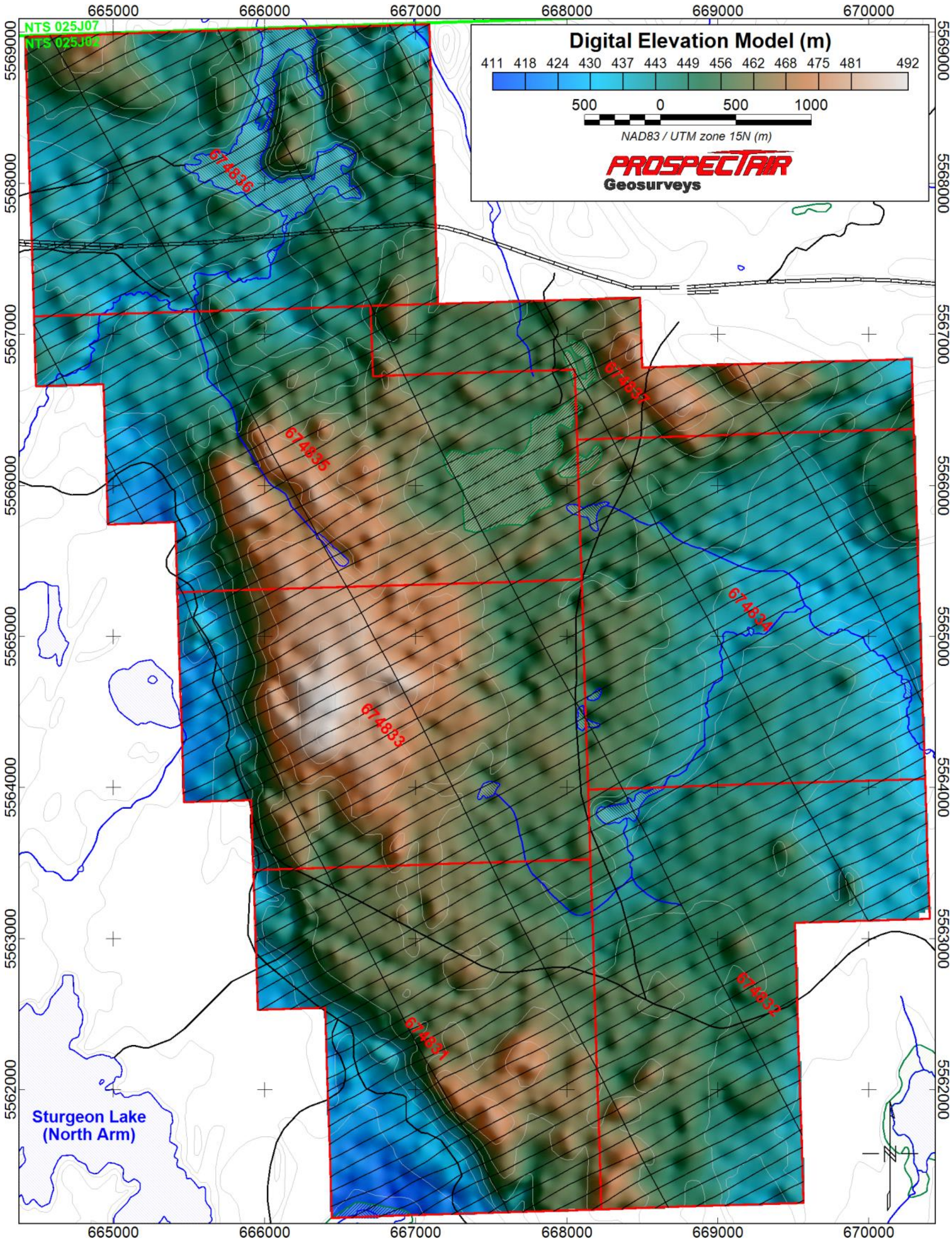


FIGURE 6: SURVEY LINES AND SAVANT PROPERTY CLAIMS SUPERIMPOSED ON A DIGITAL ELEVATION MODEL (M). DATUM NAD83/ UTM ZONE 15U.

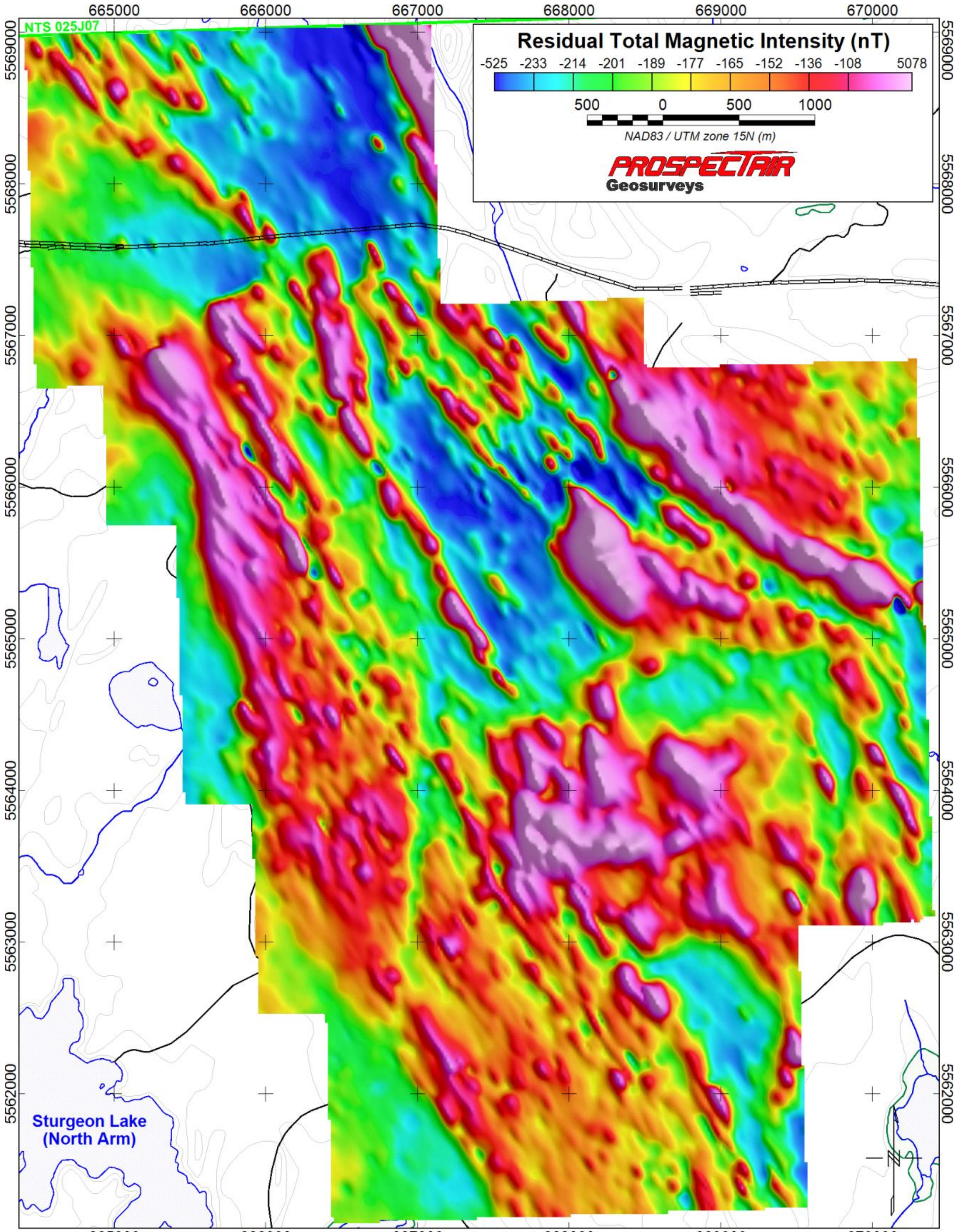


FIGURE 7: RESIDUAL TOTAL MAGNETIC INTENSITY WITH EQUAL AREA COLOR DISTRIBUTION. DATUM NAD83/ UTM ZONE 15U.

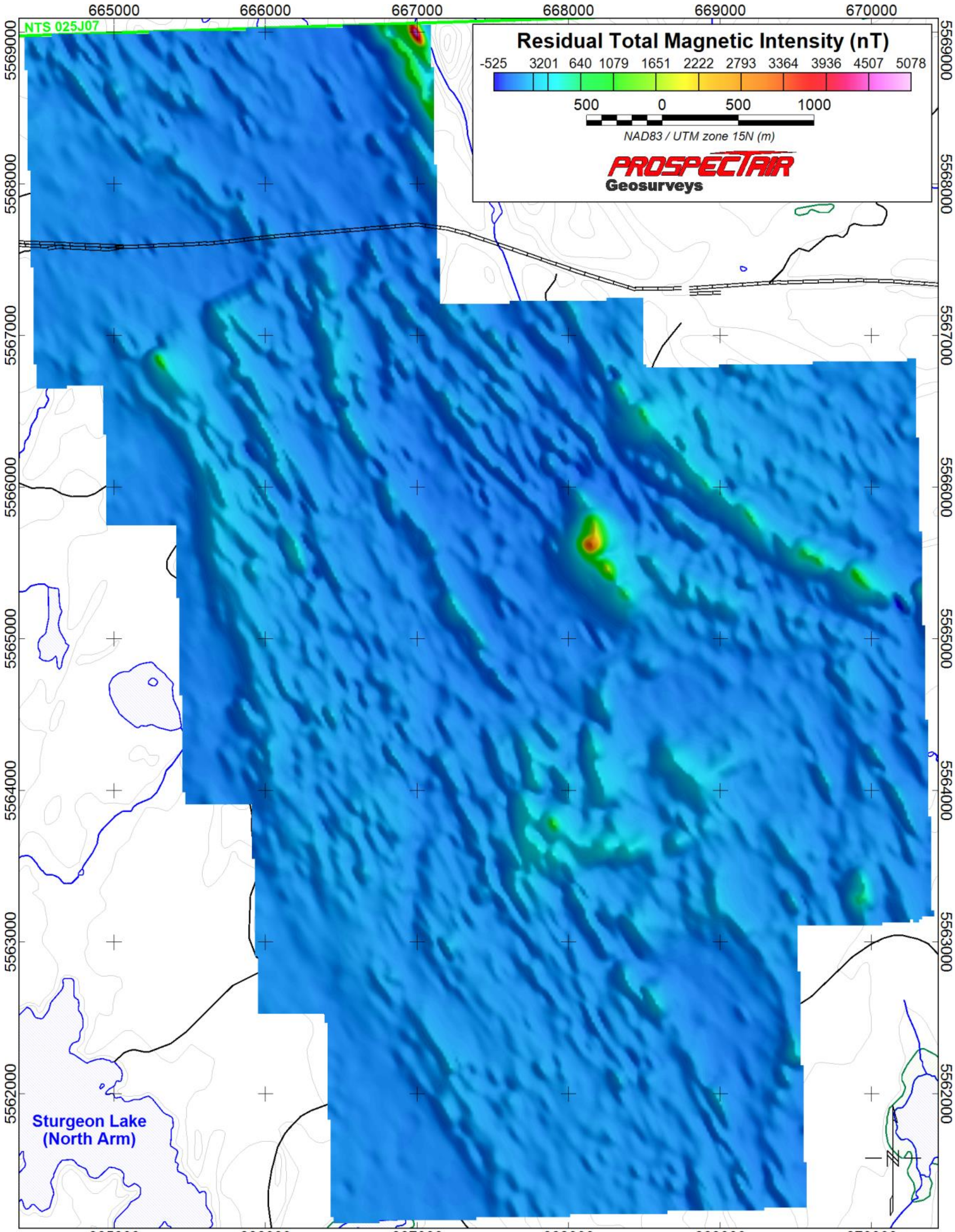


FIGURE 8: RESIDUAL TOTAL MAGNETIC INTENSITY WITH LINEAR COLOR DISTRIBUTION. DATUM NAD83 ZONE 15U.

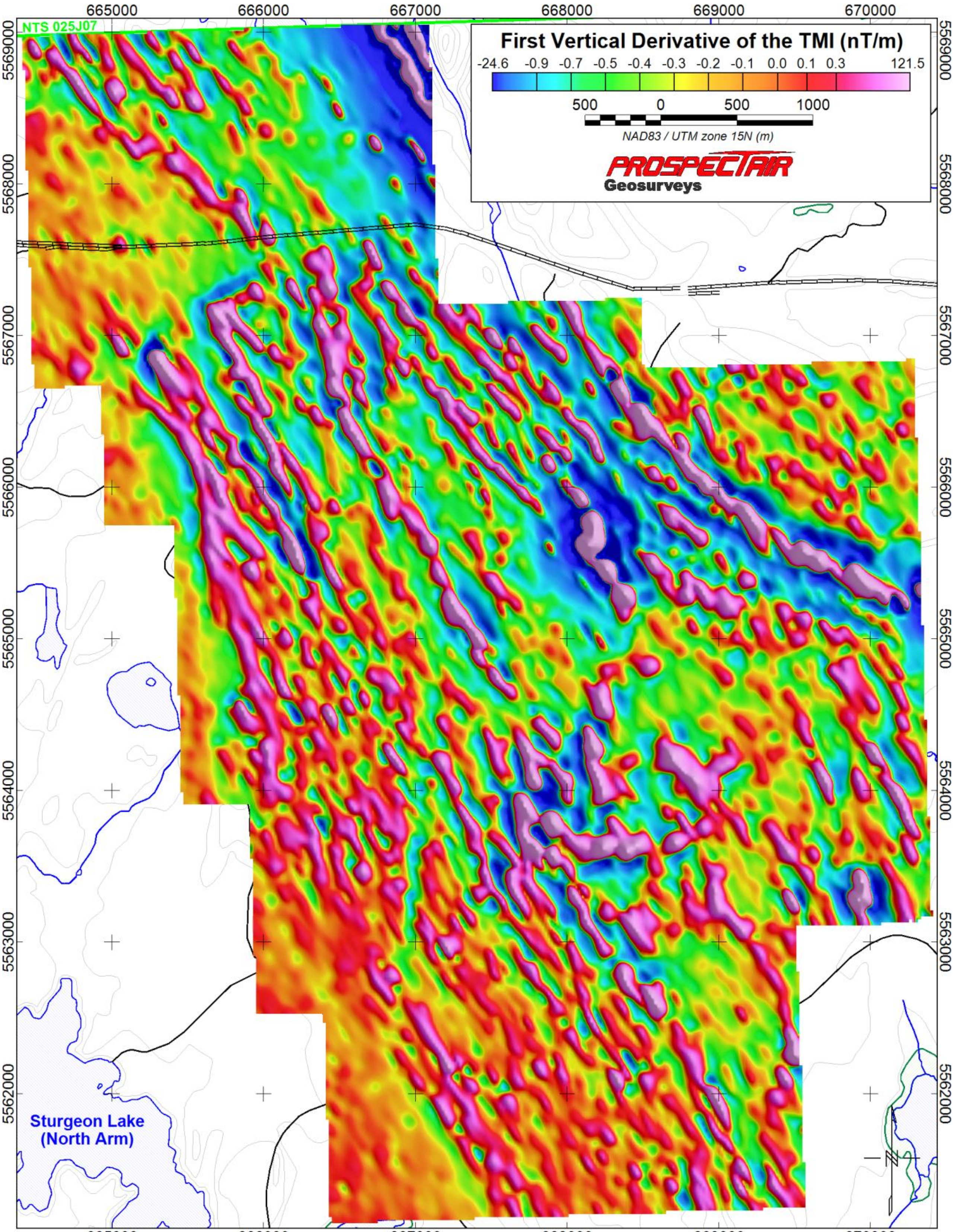


FIGURE 9: FIRST VERTICAL DERIVATIVE OF TMI. DATUM WGS 84 / UTM ZONE 15U.

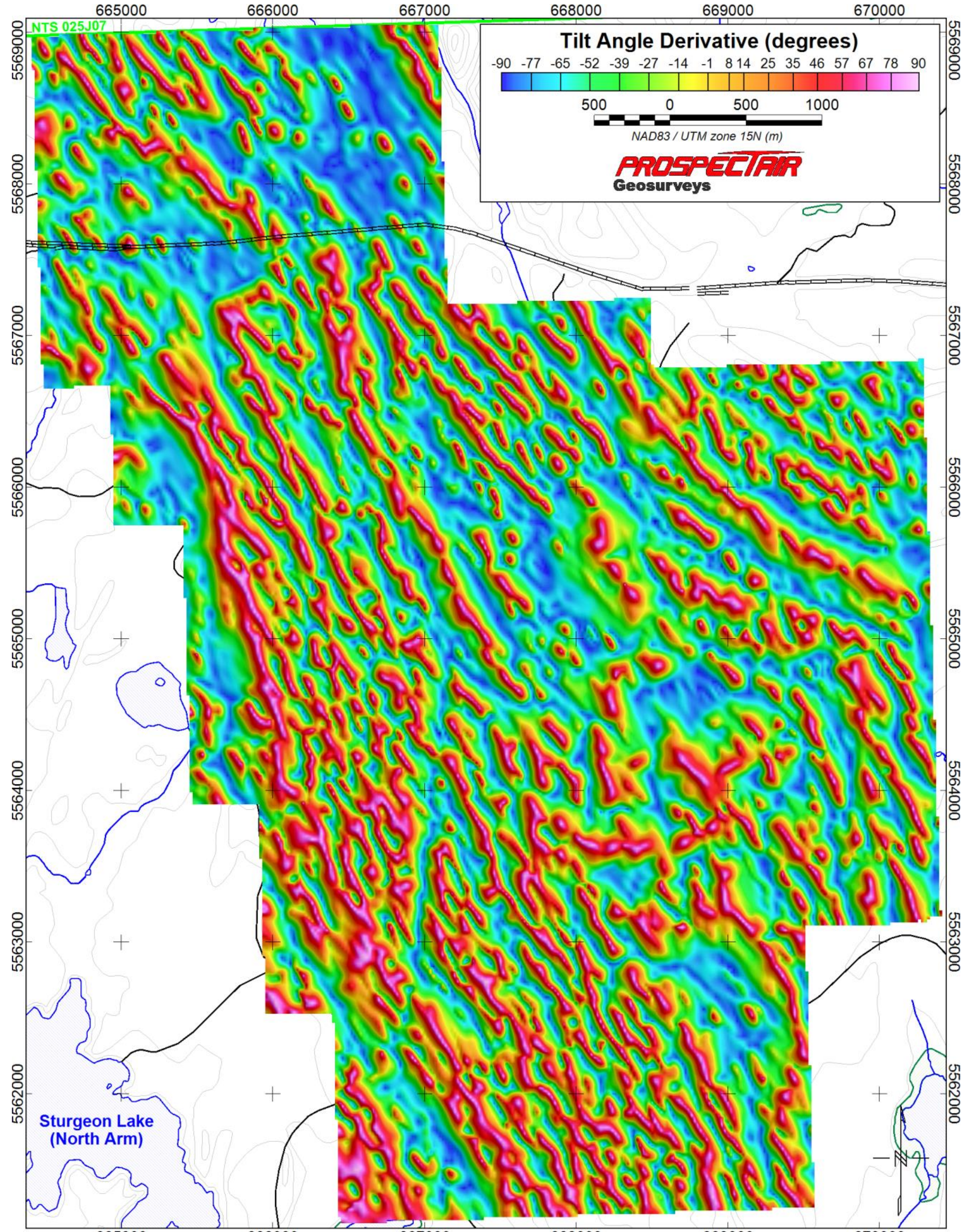


Figure 10: Tilt Angle Derivative. Datum WGS 84 / UTM Zone 15U.

10.2 Interpretation – Preliminary

A high level preliminary structural interpretation was performed on the TILT geophysics (Figure 11) by AuTECO Minerals Ltd.

Overall, the geophysics displays several stringers of magnetic highs that define a NW trend which could define a deformation corridor. When compared with the geology it matches relatively well. There are some interesting features in the southeast corner of the property which could be multiple folds and a possible anticline plunging north.

10.2.1 Costing

Money spent for the work performed can be found in Table 5.

Description	Amount
Structural Interpretation: 2 days @ 750$/day	$ 1,500
TOTAL	**$ 1,500**

TABLE 5: COSTS FOR PRELIMINARY GEOPHYSICAL INTERPRETATION BY AUTECO STAFF.

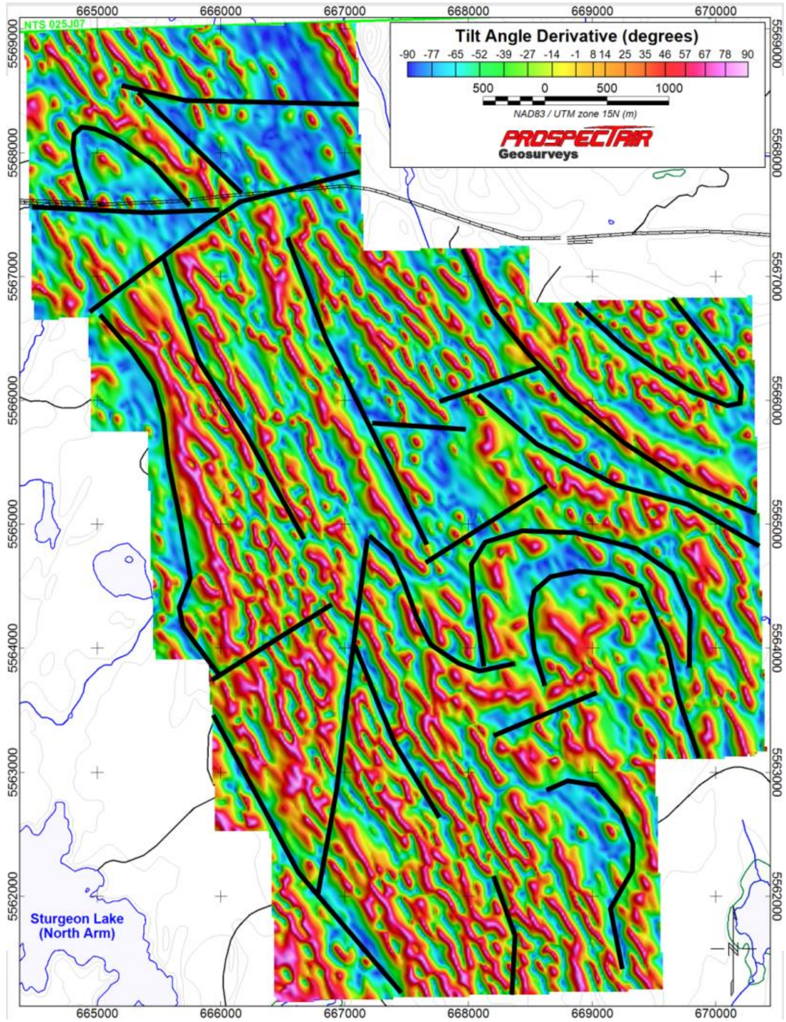


FIGURE 11: PRELIMINARY INTERPRETATION OF TILT ANGLE DERIVATIVE. DATUM WGS 84 / UTM ZONE 15U.

10.3 Interpretation - Final

H. Veldhuyzen was hired to provide Interpretation on the Airborne Geophysics that was flown in 2022. Mr. Veldhuyzen worked a total of 36 hours to provide his interpretation on the lithological units and geological structures. The following is a summary of his report.

10.3.1 Costing

Money spent for the work performed can be found in Table 6.

Description	Amount
Savant Lake Printing	$ 112.93
Savant Lake Interpretation	$ 3,240.00
TOTAL	**$ 3,352.93**

TABLE 6: COSTS FOR FINAL GEOPHYSICAL INTERPRETATION BY H. VELDHUYZEN.

10.3.2 Lithological Units

H. Veldhuyzen provided an interpretation on the lithological units (Figure 12) using two regional surveys completed by the Ontario Geological Survey and the Geological Survey of Canada, local claim scale mapping completed by mineral exploration companies that previously held the claims, the newly flown geophysical data by Prospectair Geosurveys in 2022 and historical assessment files (Figure 12). The following is a summary of his report:

- The previously interpreted folding within and adjacent to the Savant Lake claim area, in Mr. Vehdhuyzens opinion, is considered a sub-volcanic intrusive and has been misinterpreted as folding
- Unit boundaries are chosen at the top of high magnetic bands - sulphides or iron formations (Figure 13).
- The nature and continuity of the volcanic cycles on either side of the sub-volcanic intrusive is evident in the geophsyics (Figure 14).
- There is no evidence of large scale drag folding as per GSC mapping interpretation.

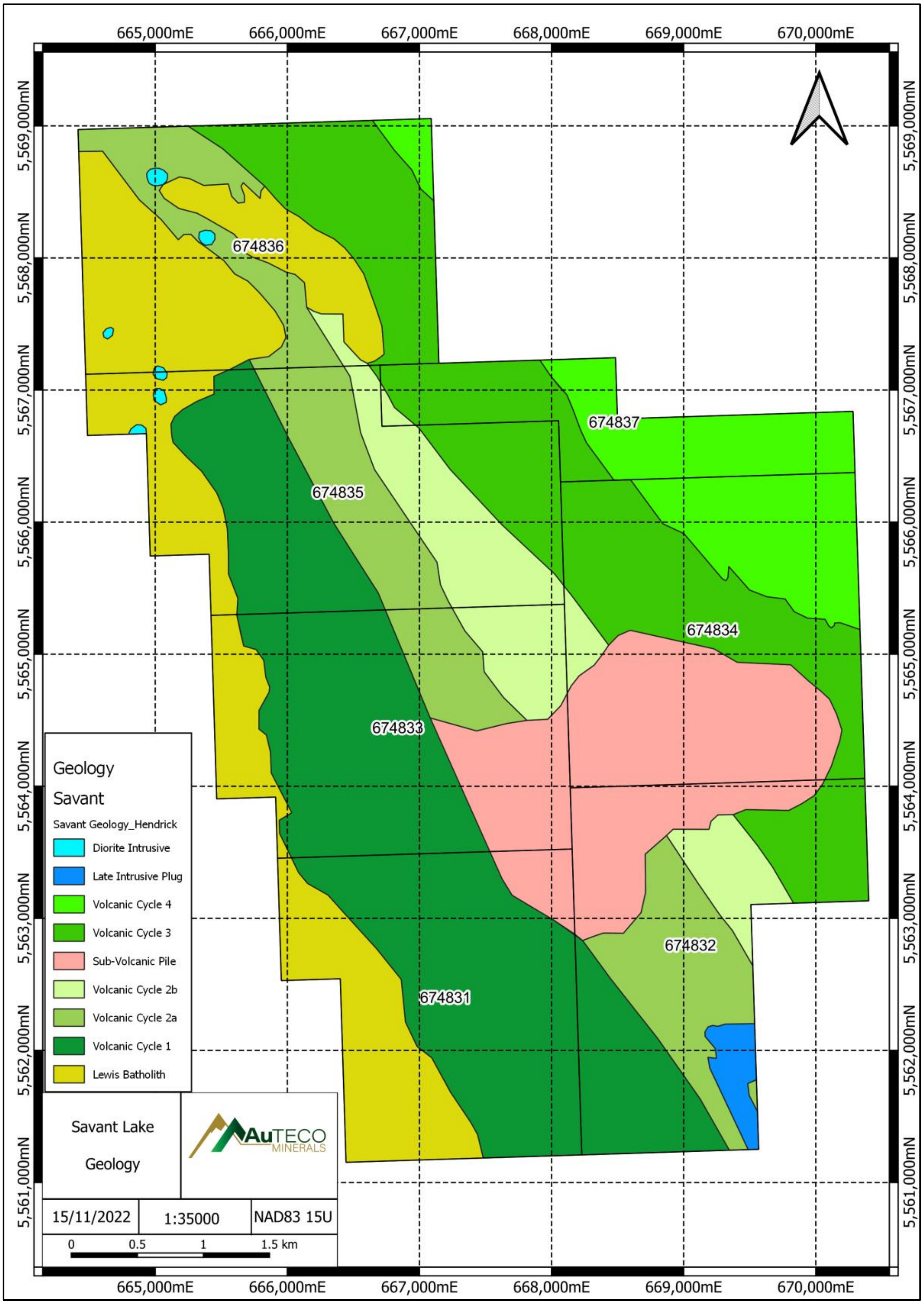


Figure 12: Geological Interpretation From Airborne Geophysics performed 2022 with OGS and GSC Geological Maps in the area. Datum WGS 84 / UTM Zone 15U (Veldhuyzen, 2022).

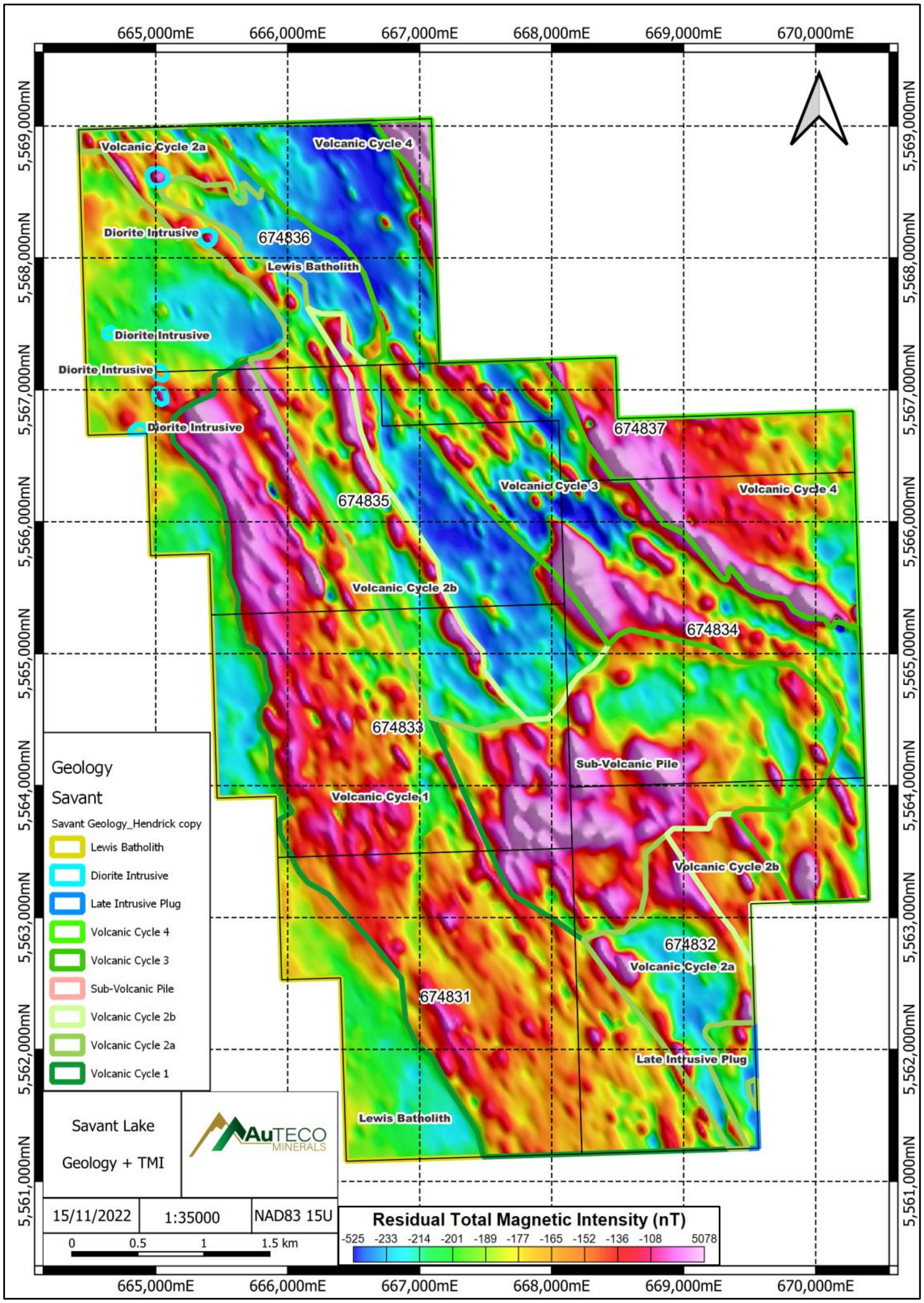


FIGURE 13: LITHOLOGICAL BOUNDARIES RELATIVE TO TMI (TOTAL MAGNETIC INTENSITY) PLOT, DATUM WGS 84 / UTM ZONE 15U (VELDHUYZEN, 2022).

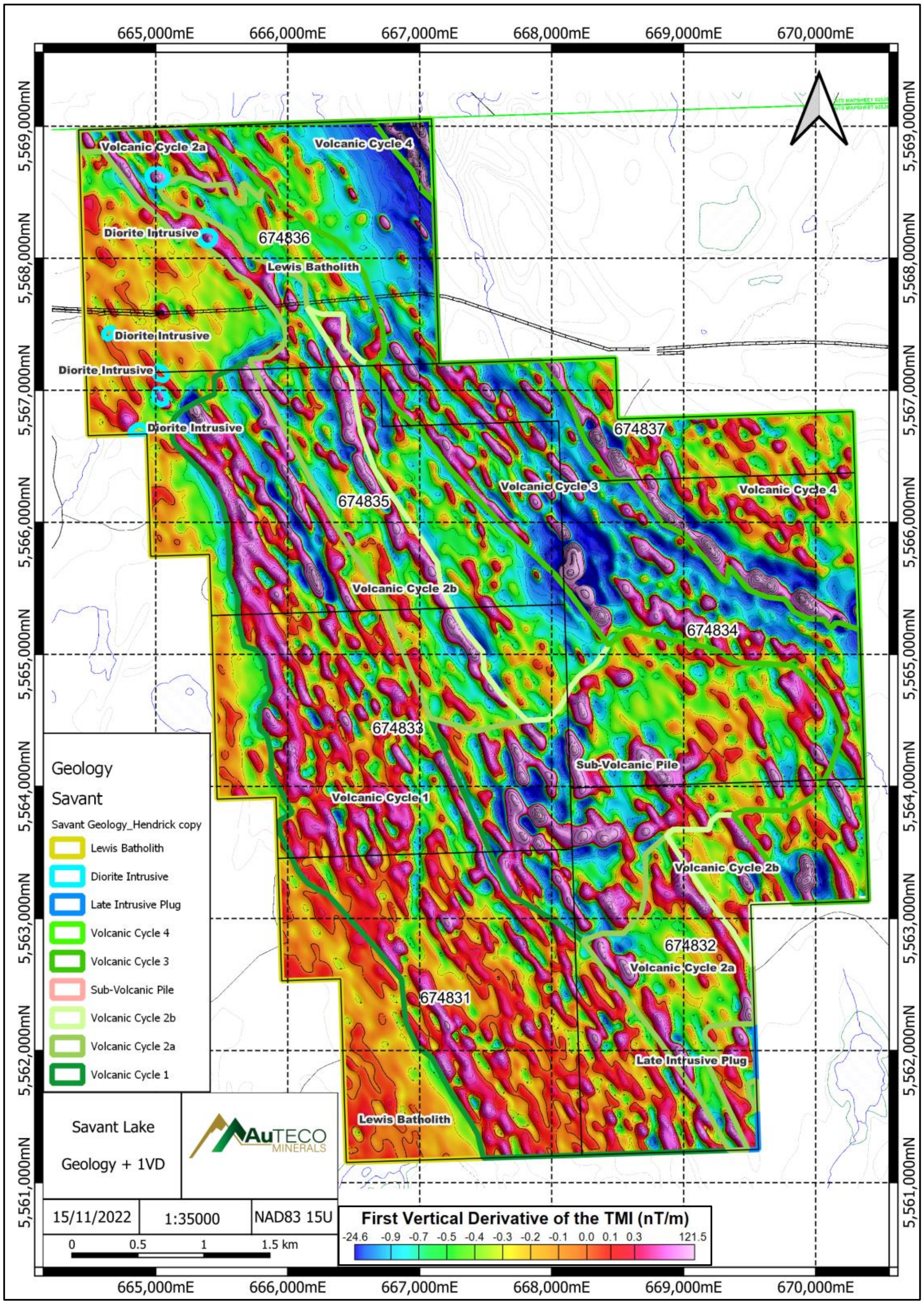


FIGURE 14: LITHOLOGICAL BOUNDARIES RELATIVE TO THE FIRST VERTICAL DERIVATIVE (1VD) PLOT. DATUM WGS 84 / UTM ZONE 15U (VELDHUYZEN, 2022).

10.3.3 Structural Interpretation:

H. Veldhuyzen identified four orientations of structural breaks (Figure 15). An early 065 degree trend perpendicular to the stratigraphy. The three remaining structural break orientations: 338, 352 and lastly a 012 degree trend developed progressively in response to a shifting in the orientation of the regional stress.

The four structural breaks or faults (65; 338; 352 and 12 degree trends) are responsible for the destruction of magnetic minerals, hence the structures are marked by magnetic lows (Figure 16).

The destruction of magnetic minerals along the trace of the fault suggests some measure of fluid flow along the structural breaks or a physical fracturing and brecciation of the rock.

The higher magnetic units within the volcanics (more magnetic sulphides as found previously by drilling) are much more geographically constrained. TILT angle anomalies can be deeper (Figure 17)

The narrowness of the 338 trend suggests the less physical or alteration halo surrounding these structures.

The 065 structural orientation is poorly resolved on the TILT data processing indicating an ill defined edge to the structural break.

On the 1DV plot the subtle more intense blue (lows) suggests greater alteration or structural juxtaposition by faulting (Figure 18).

The only structural orientation known to locally host gold is the 352 degree trend at the St. Anthony's Gold mine, approx. 15 km south of the claims, in a small late intrusion near the Lewis Batholith contact. Gold is also reported to occur at the shear batholith contact, orientation unknown.

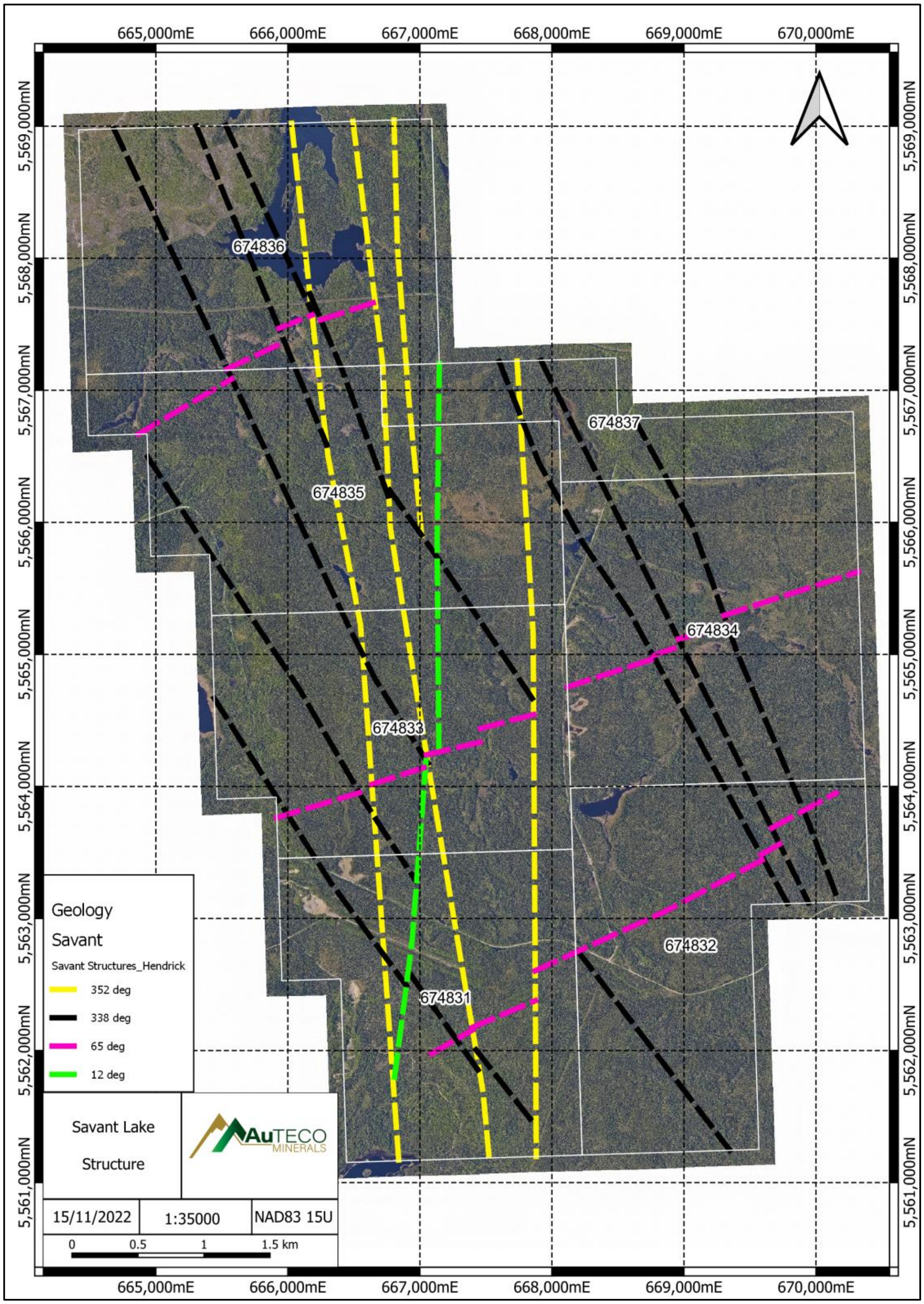


FIGURE 15: STRUCTURAL INTERPRETATION, FOUR ORIENTATIONS OF STRUCTURAL BREAKS. DATUM WGS 84 / UTM ZONE 15U (VELDHUYZEN, 2022).

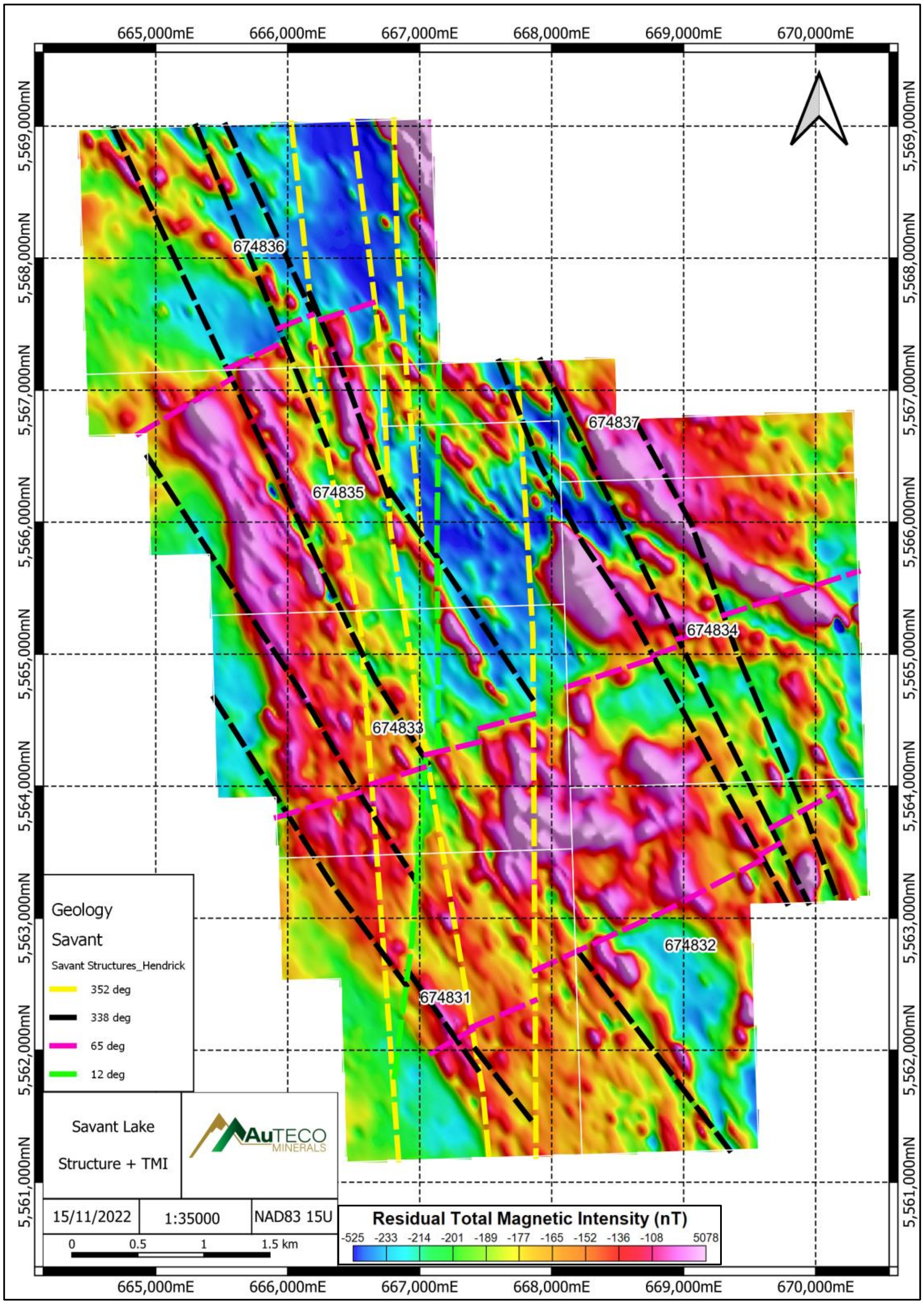


FIGURE 16: STRUCTURAL BREAKS PLOTTED ON TOTAL MAGNETIC INTENSITY (TMI). DATUM WGS 84 / UTM ZONE 15U (VELDHUYZEN, 2022).

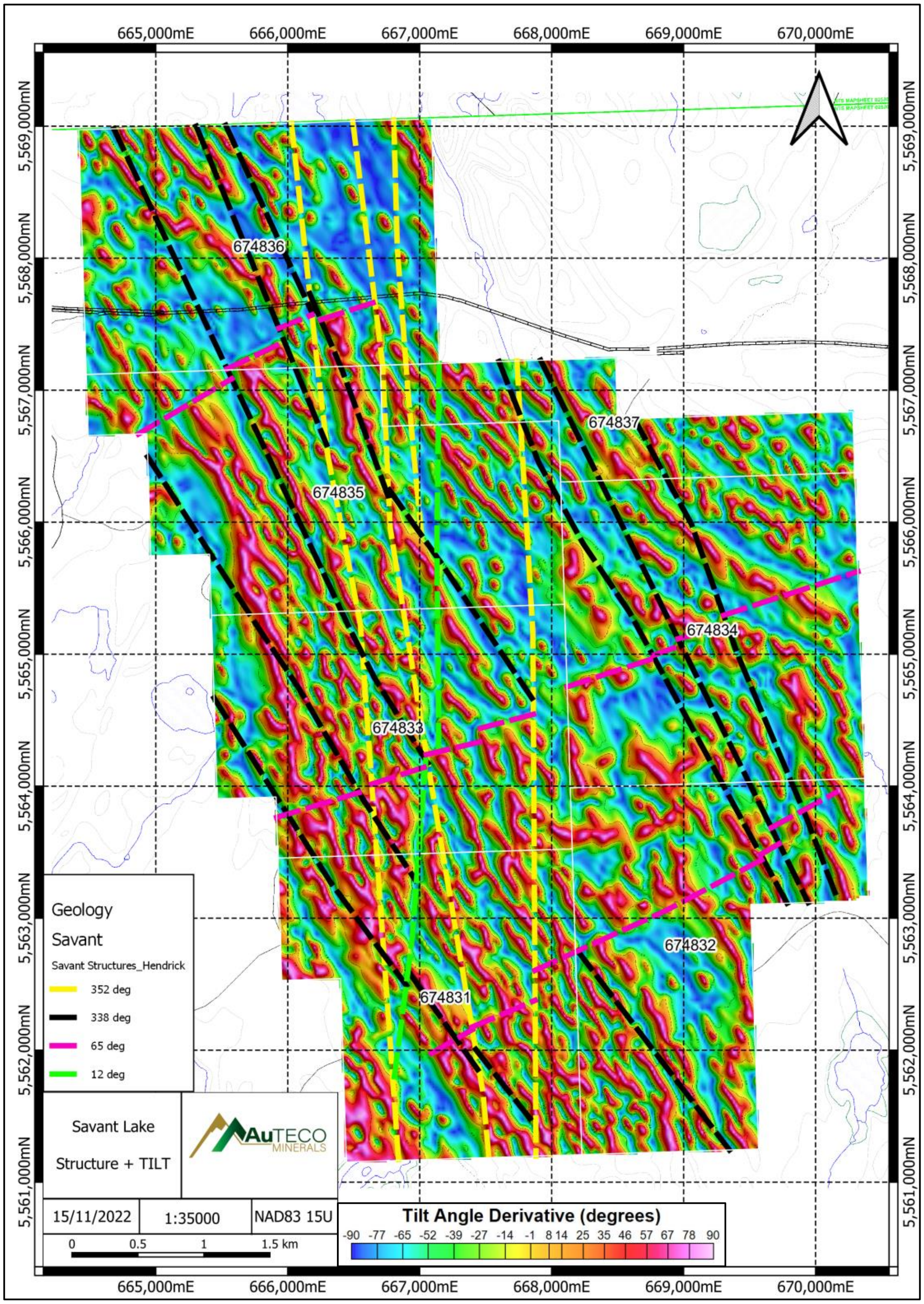


FIGURE 17: STRUCTURAL BREAKS PLOTTED ON TILT ANGLE DERIVATIVE (TILT). DATUM WGS 84 / UTM ZONE 15U (VELDHUYZEN, 2022).

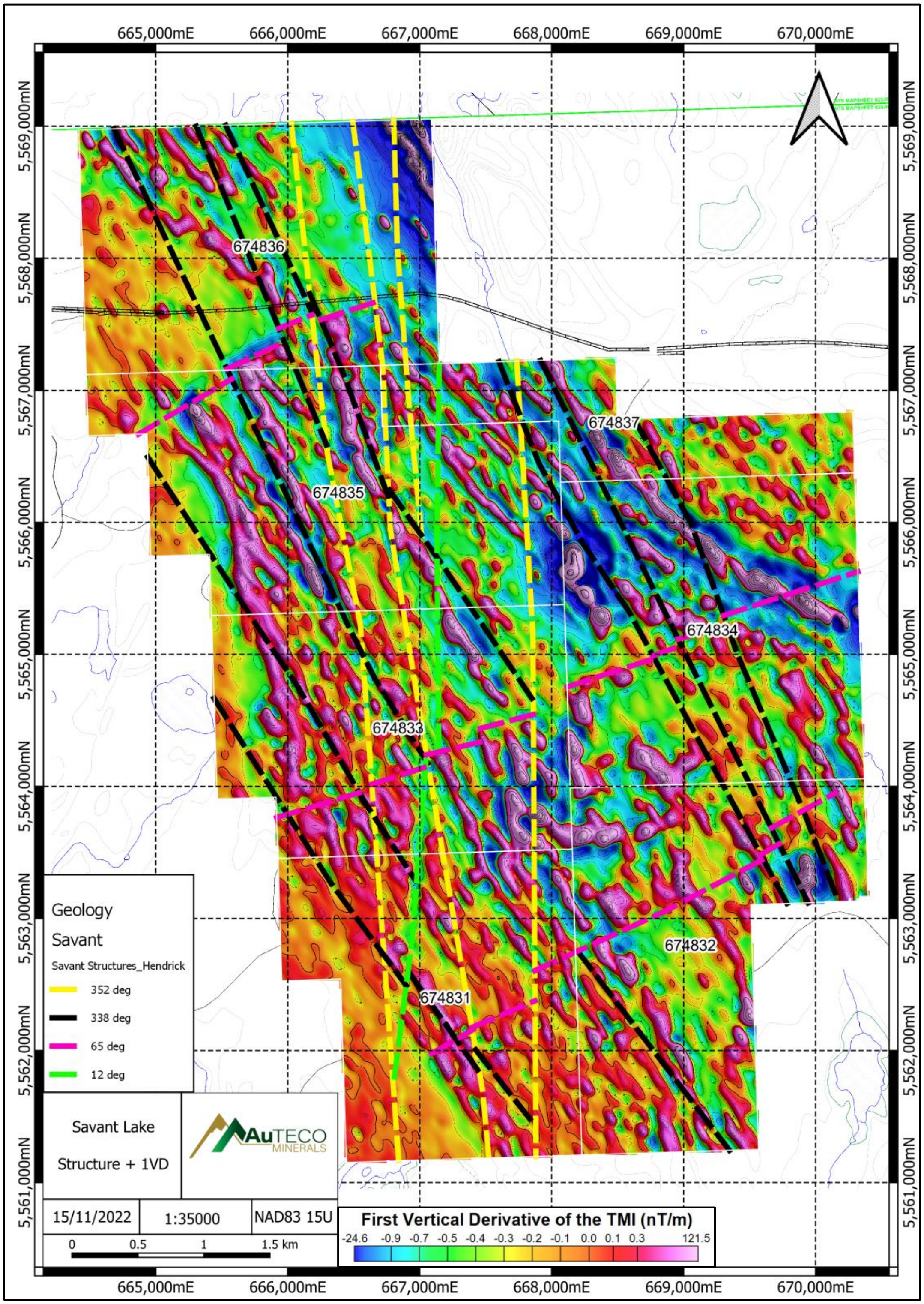


FIGURE 18: STRUCTURAL BREAKS PLOTTED ON FIRST VERTICAL DERIVATIVE (1VD) OF THE TMI. DATUM WGS 84 / UTM ZONE 15U (VELDHUYZEN, 2022).

10.3.4 Combined Lithological and Structural Interpretation

Together the lithological and structural interpretation packages for the 338 structural direction has the opportunity for the largest intersection of favourable stratigraphy for mineralization (Figure 19). The 352 direction has shorter intersection, unfortunately this is the orientation that host the St. Anthony's Gold Mine.

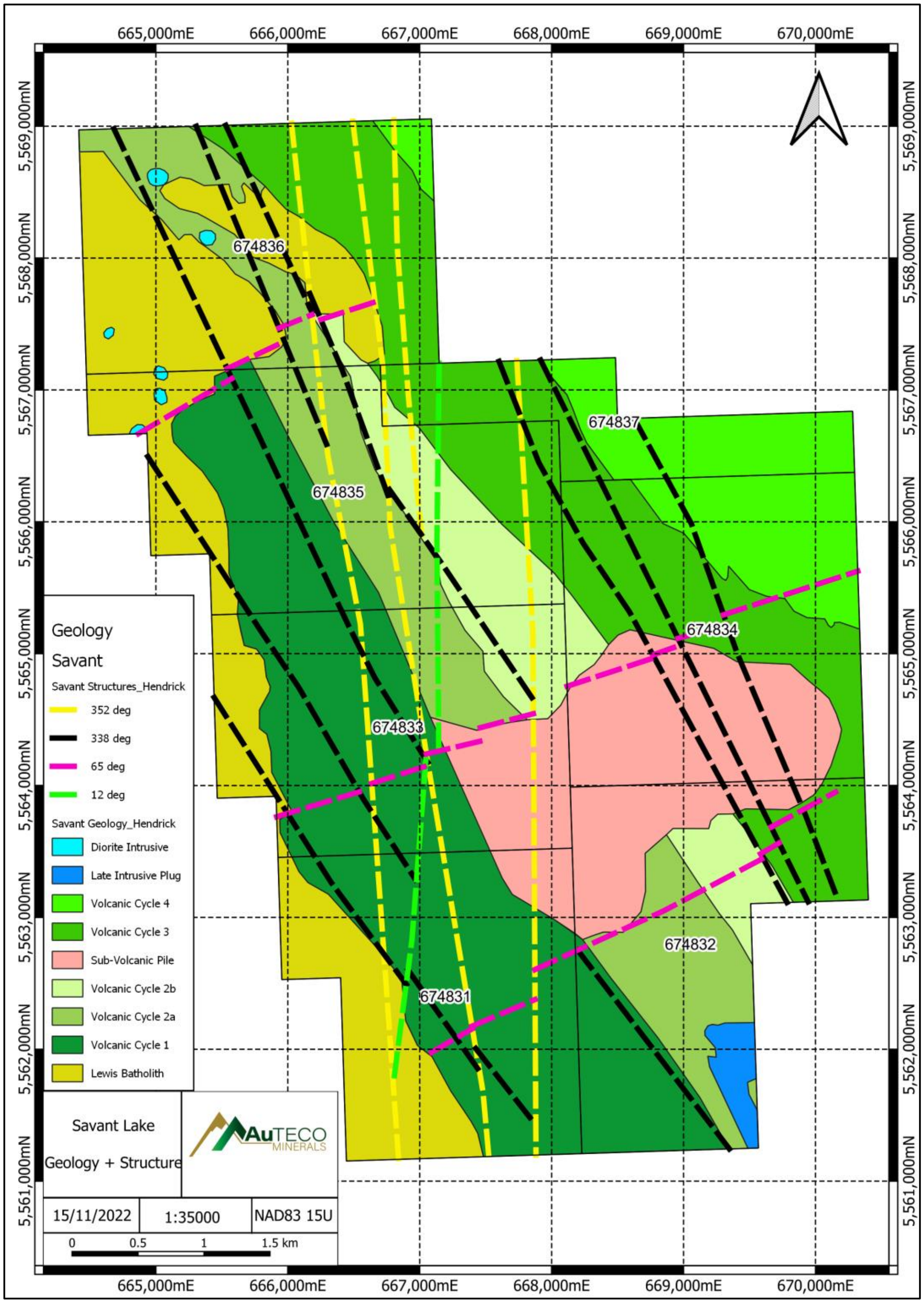


FIGURE 19: STRUCTURAL BREAKS ON INTERPRETED LITHOLOGICAL UNITS, DATUM WGS 84 / UTM ZONE 15U (VELDHUYZEN, 2022).

11.0 LIDAR ASSESSMENT WORK

Eagle Mapping Ltd was contracted to conduct an airborne LIDAR survey. The survey was flown on June 10, 2022 using a Cessna 206 aircraft with a Riegl LMS-Q1560 LiDAR unit and a iXM-RS150F cameral unit. Survey and data acquisition details are found in the Appendix 3. The following were the products generated from the survey:

- High-Resolution Air Photo, Figure 20
- Topographic Contours (0.5 m spacing), Figure 21
- Digital Elevation Model (DEM, 0.5 m resolution) Figure 22
- Bare Earth Hillshade (BEHS) Image, Figure 23

The air photo, DEM, BEHS and topographic contours were generated by Eagle Mapping Ltd to:

- Generate more accurate elevation surfaces
- For assistance in field program planning (mapping, sampling, drilling, etc.)
- For general geological use,
- Future 3D modeling work.

11.1 Costing

Money spent for the work performed can be found in Table 7.

Description	Amount
Savant Lake Project: Acquisition/Processing	$ 11,804
Savant Lake Project: Vectorizing Hydro/Outcrops	$ 2,700
TOTAL	**$ 14,504**

TABLE 7: MONEY SPENT FOR LIDAR ACQUISITION/PROCESSING AND VECTORIZATION BY EAGLE MAPPING LTD.

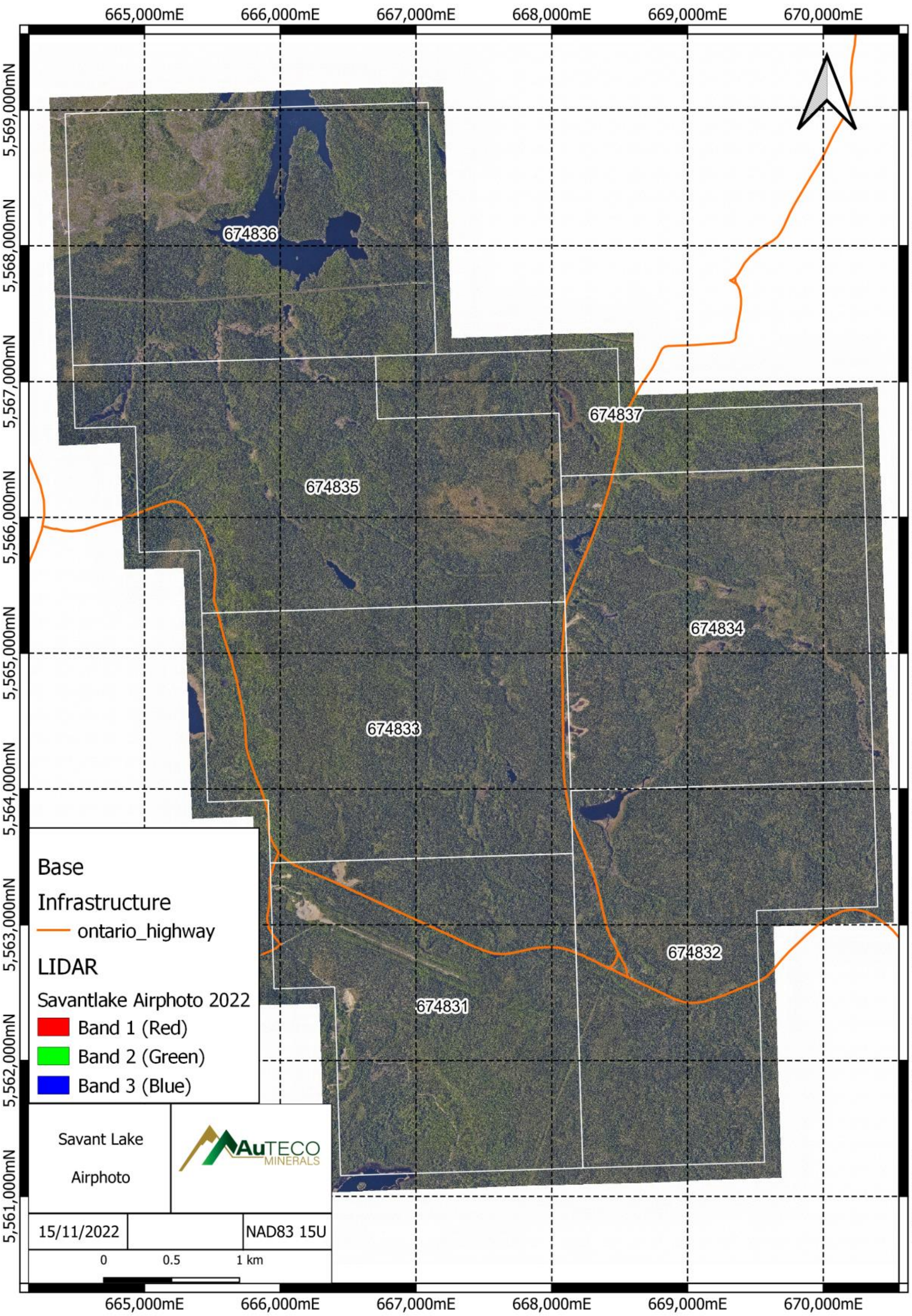


FIGURE 20: SAVANT LAKE AIRPHOTO. DATUM NAD 83 ZONE 15U.

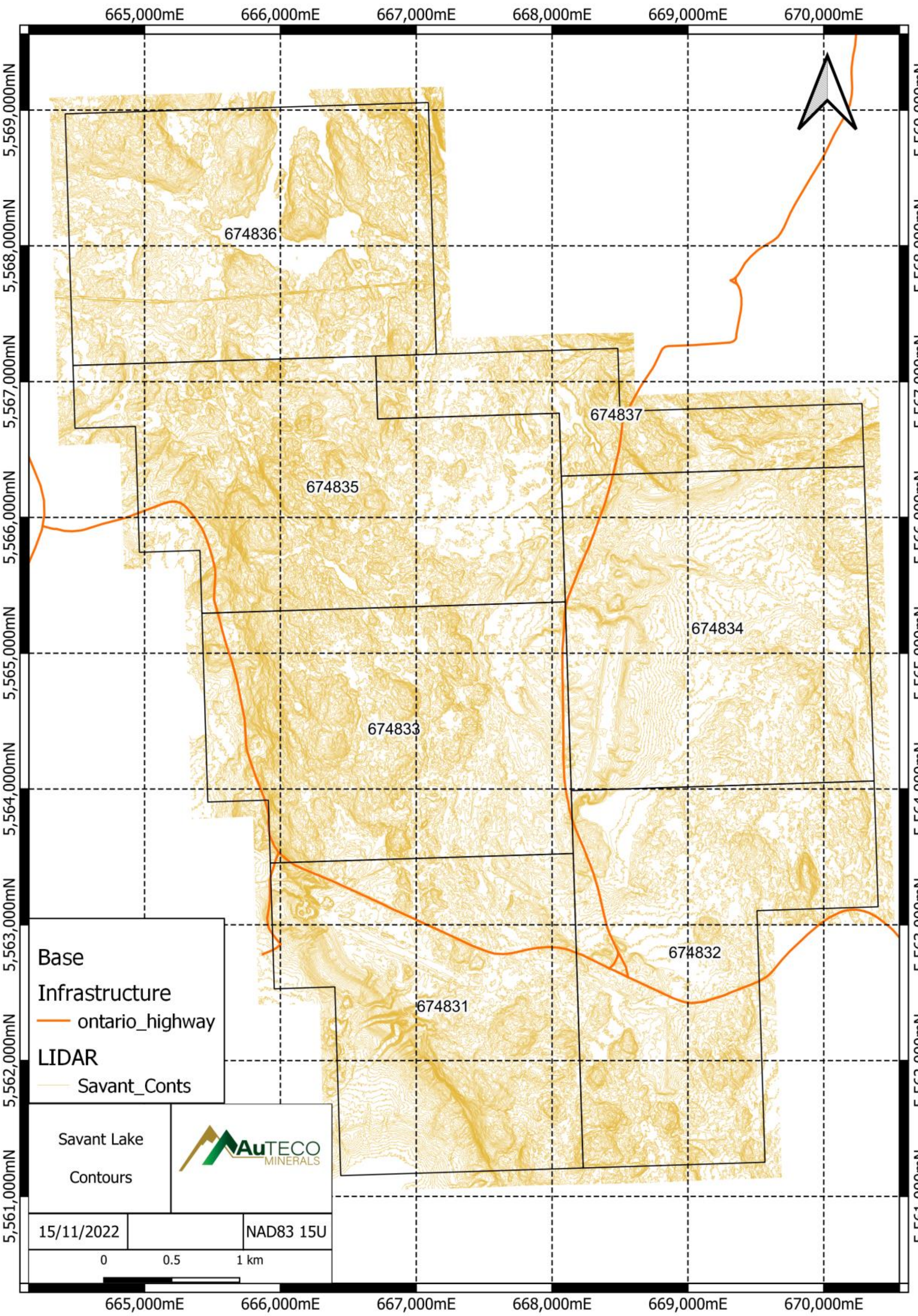


FIGURE 21: SAVANT LAKE CONTOURS (0.5M CONTOURS). DATUM NAD 83 ZONE 15U.

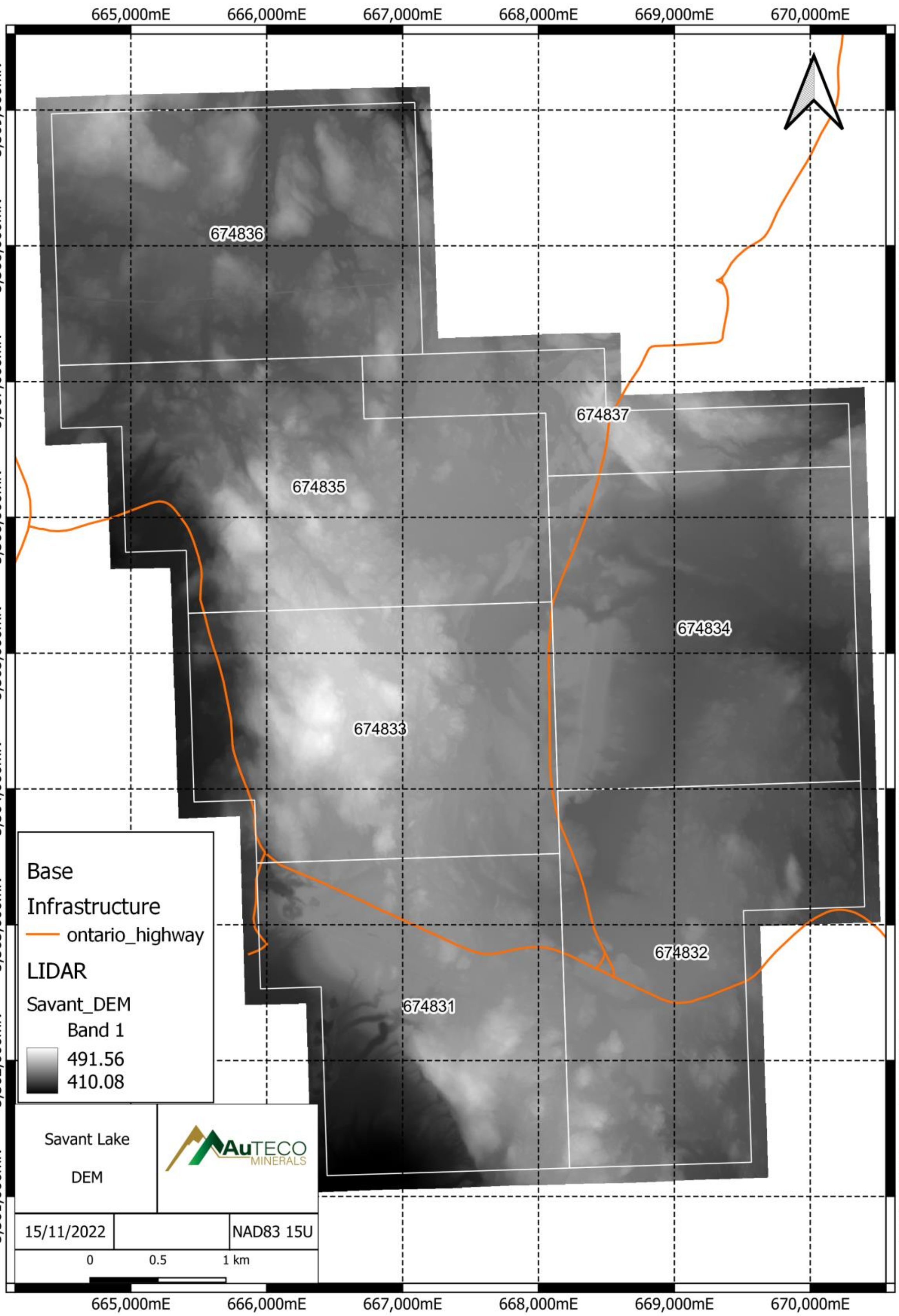


FIGURE 22: SAVANT LAKE DIGITAL ELEVATION MODEL. DATUM NAD 83 ZONE 15U.

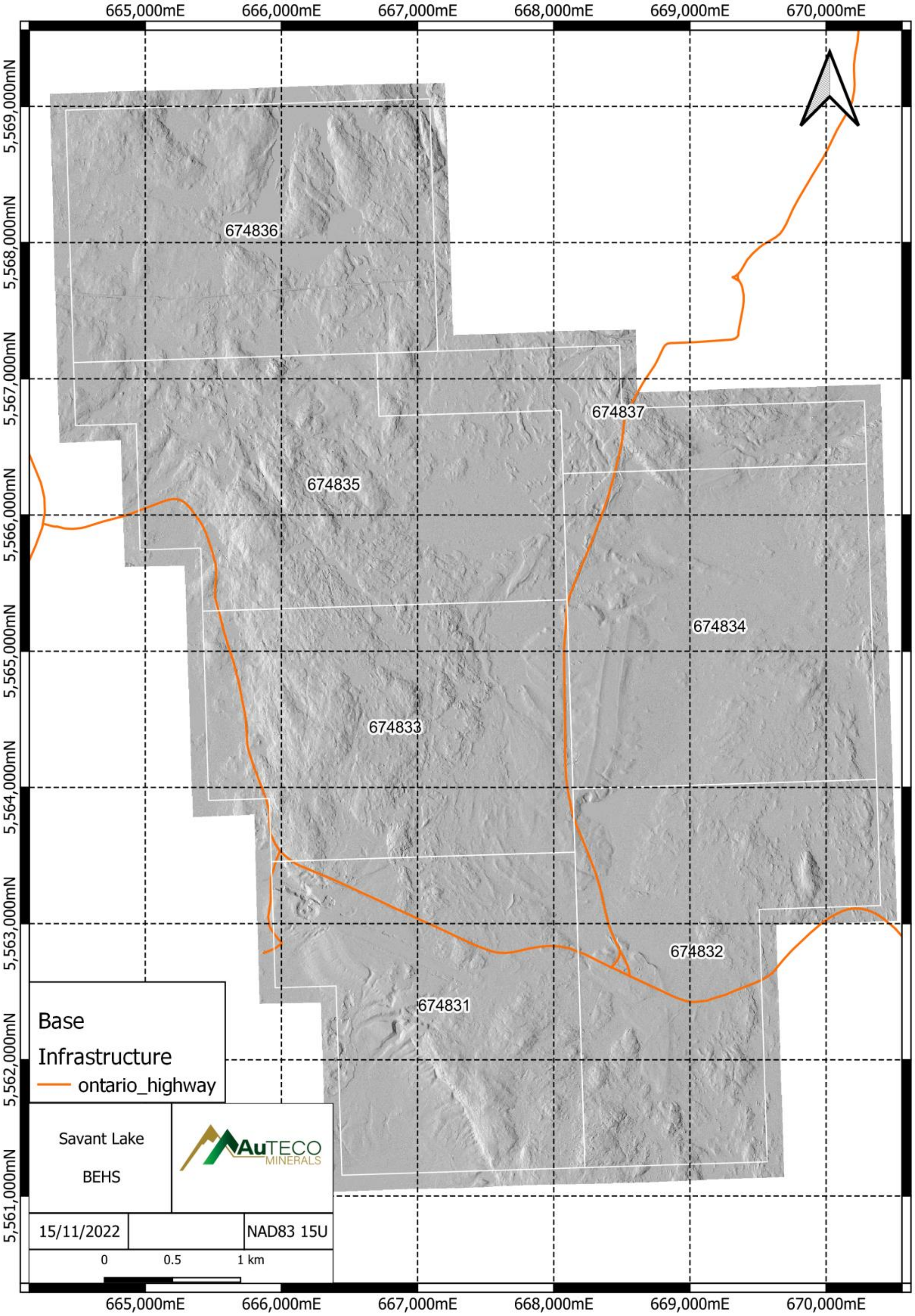


FIGURE 23: SAVANT LAKE BARE EARTH HILLSHADE (BEHS). DATUM NAD 83 ZONE 15U.

12.0 LIDAR RESULTS AND INTERPRETATION

The combined acquisition of LIDAR point data and high-resolution imagery permits the production of base maps of exceptional quality over the Property.

As part of Eagle Mapping Ltd deliverables was to interpret the LIDAR images for waterways including streams, rivers, swamps and lakes (Figure 24).

The results from the LIDAR survey have greatly improved outcrop identification, included in the Eagle Mapping deliverables. Included shape files that identify areas that suggest bare outcrop (Figure 25). The Property contains flat areas covered with dense bush. These conditions previously made it difficult to locate rock outcrops during initial mapping operations.

The LIDAR data, integrated into the GIS systems, will allow actionable structural interpretation of bedrock fabric and faulting, determining the locations of historic trenching and pitting locations, and determining areas of potential outcrop, especially in low-lying or swampy areas. The LIDAR elevation data, used in conjunction with geological mapping, prospecting, geophysics will remain an important tool to explore The Property.

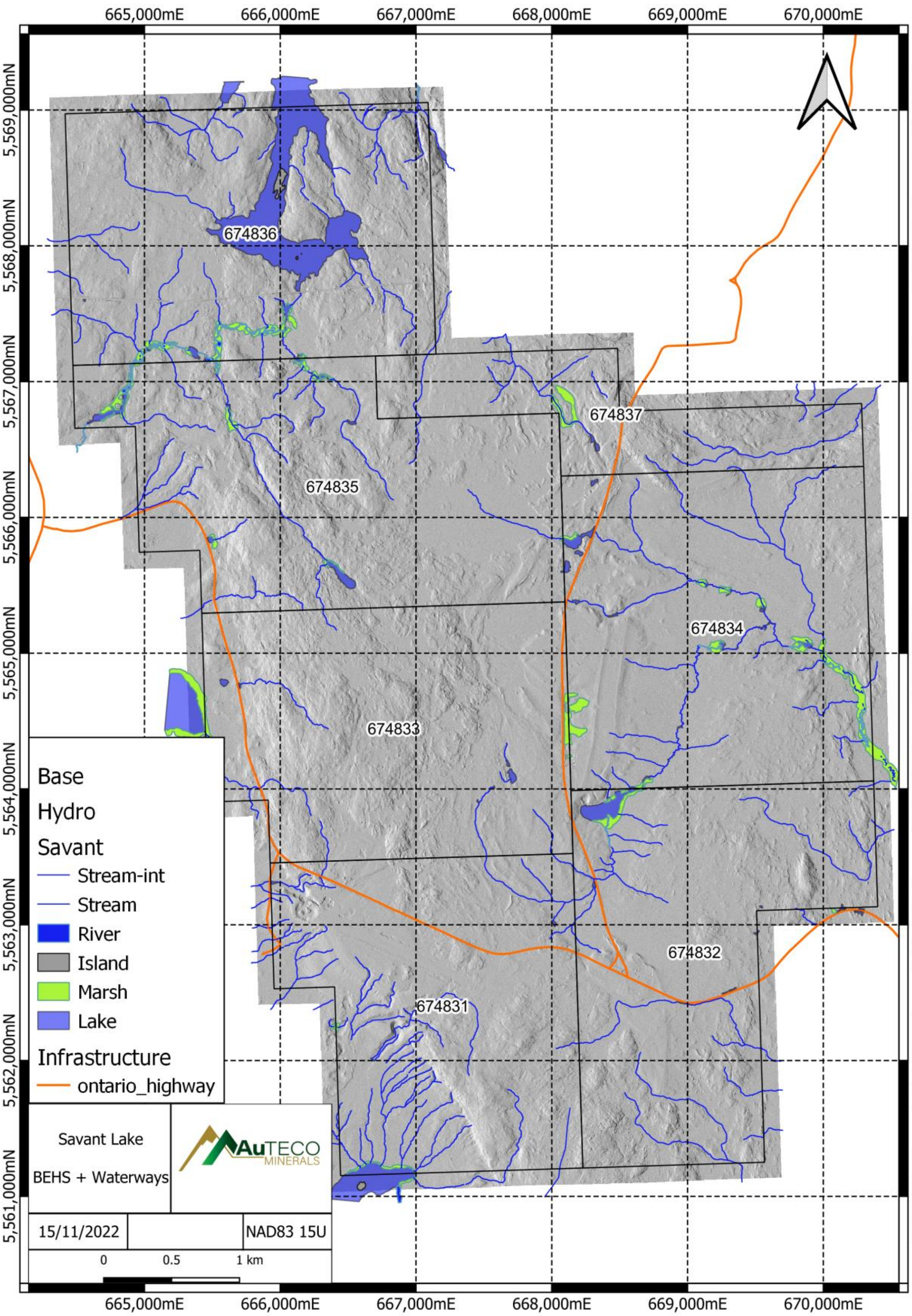


FIGURE 24: SAVANT LAKE VECTORIZED WATERWAYS. DATUM NAD 83 ZONE 15U.

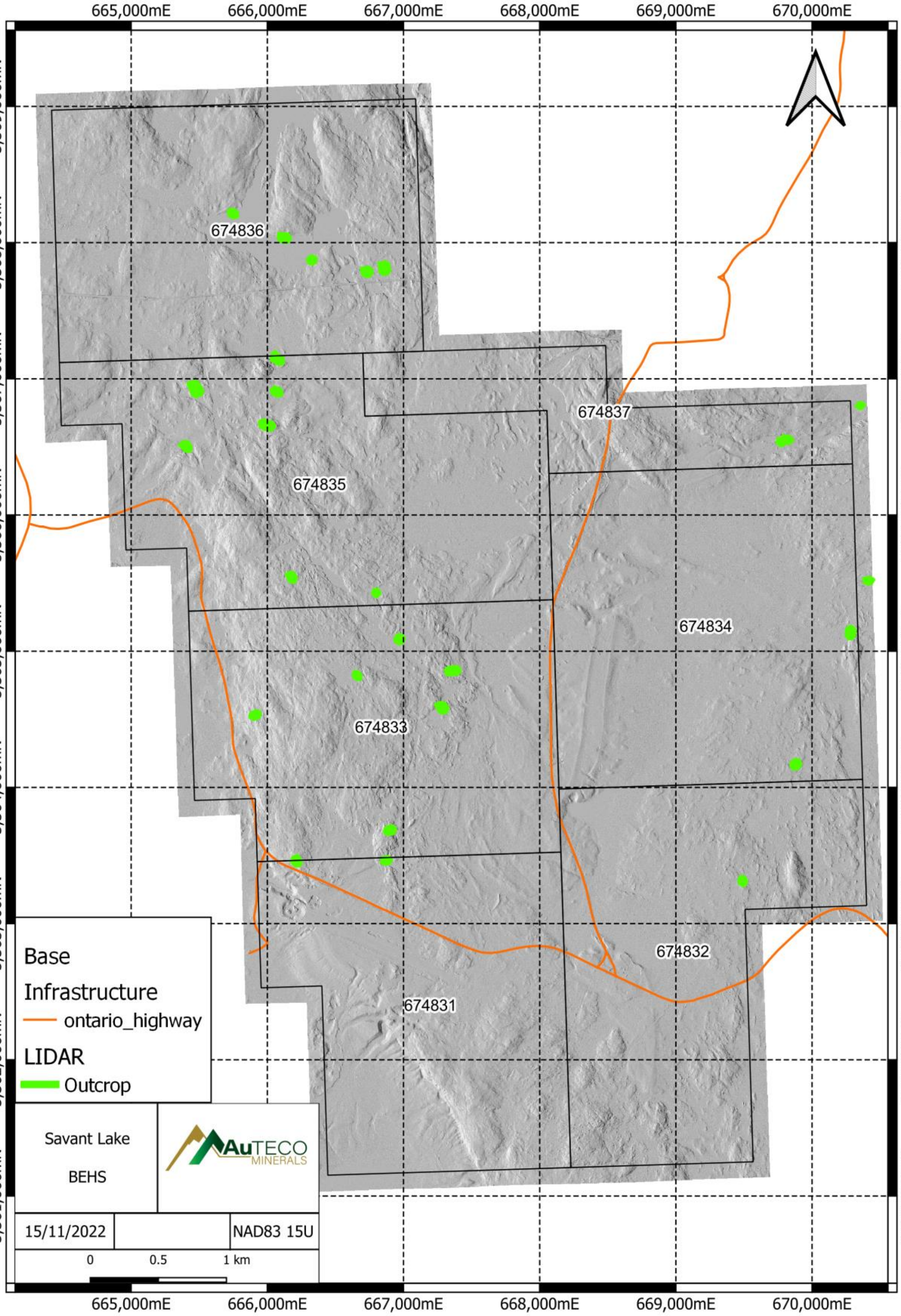


FIGURE 25: SAVANT LAKE VECTORIZED OUTCROP, DATUM NAD 83 ZONE 15U.

13.0 CONCLUSIONS AND RECOMMENDATIONS

In conclusion the airborne magnetic survey, the LIDAR and the high-resolution air photos produced this summer were a success. These new data sets will greatly aid in our successful future prospecting and drillhole targeting in the coming years.

In conclusion the airborne magnetic survey flown in Savant Lake was successful producing areas of interest for prospecting and possible drillhole targets.

The geophysics displays several stringers of magnetic highs that define clearly a NW trend which could define a deformation corridor. When analyzed with the Ontario geology the geophysics follows similar trends. A high level structural interpretation was performed on the geophysics data which resulted in four main structural orientations identified, one following the same trend as the historic St Anthony's Mine 15 km to the south.

The structural interpretation has provided focused locations for prospecting and diamond drillhole targets. Future work should include prospecting and soil sampling interesting areas that have been highlighted with the recent survey and the structural interpretation. The prospecting will then lead to targeting areas for a diamond drill program in the area.

The LIDAR produced, along with the new high resolution air photo will be used in assisting with planning and execution of future field programs. The LIDAR interpretations generated GIS shape files of waterways and outcrops that will further assist in the planning of future field programs.

The work reported on in this assessment file was successful in producing areas of interest for future work in the area. It will help in planning this work in the most efficient way possible.

13.1 Budget

A summary of the costing for this program can be found in Table 8.

Description	Amount
Aeromagnetic Geophysical Survey	$ 45,680
Preliminary Structural Interpretation	$ 1,500
Final Structural Interpretation	$ 3,353
LIDAR Survey + Interpretation	$ 14,504
Report Writing	$ 3,750
TOTAL	**$ 68,787**

TABLE 8: TOTAL COSTING OF PROGRAM.

14.0 REFERENCES

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Trowell, N.F. 1983. Geology of the Sturgeon Lake area, districts of Thunder Bay and Kenora; Ontario Geological Survey, Report 221, 97p. Accompanied by Maps 2456, 2457 and 2458, scale 1:50 000

Veldhuyzen, H. 2022. Savant Lake Claim Group Geophysical – Structural Interpretation; Internal Report

Williams, H.R. 1993. Re-assessment of the stratigraphy and structure of the northern part of the Sturgeon Lake region, districts of Kenora and Thunder Bay; Ontario Geological Survey, Open File Report 5845, 123p.

15.0 STATEMENT OF AUTHORSHIP

STATEMENT OF QUALIFICATIONS:

I, Jim Edwards, of the town of Caledon, Ontario, do hereby swear and affirm that:

1. I am a Professional Geologist registered in good standing with the Association of Professional Geoscientists of Ontario (Membership #2215) (since 2009).

2. I have an Honours B.Sc. degree in Geology from Laurentian University in Sudbury, ON.

3. I was employed as an exploration geologist by several major mining companies and the public sector on a full-time or contract basis from 1992 to 2022 throughout Ontario. From 2005 to March 2015. I was employed at the Musselwhite gold mine as a Senior Geologist. Mine Geologist in 2016 with Harte Gold at the Sugar Zone. In 2017-2018 Employed as a Senior Project Geologist with Agnico Eagle Nunavut. I consulted in 2019-2020 and have been employed by Auteco Minerals since September 2021.

4. I am currently an Exploration Manager at Auteco Minerals and personally overseen the geological work and directly supervised all contractors and employees on site.

5. I have no financial interest in Auteco Minerals or the properties it owns.

Jim Edwards

Date: _June 6, 2022

APPENDICES

APPENDIX 1: INVOICES

APPENDIX 2: PROSPECTAIR GEOSRUVEYS REPORT

Technical Report

High-Resolution Heliborne Magnetic Survey

Savant Lake Property, Savant Lake Area
Patricia Mining Division, Ontario, 2022

Revel Resources Ltd.
Ground Floor, 24 Outram Street West
Perth, WA 6005
Australia

Prospectair Geosurveys

Dynamic Discovery Geoscience

Prepared by:
Joël Dubé, P.Eng.

July 2022

Dynamic Discovery Geoscience
7977 Décarie Drive
Ottawa, ON, K1C 3K3
jdube@ddgeoscience.ca
819-598-8486

Survey flown by :

PROSPECTAIR Geosurveys

15 chemin de l'Étang
Gatineau, Québec J9J 3S9
819-661-2029
contact@prospectair.ca

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FIGURES

TABLES

I. INTRODUCTION

Prospectair Geosurveys conducted a heliborne high-resolution magnetic (MAG) survey for the mineral exploration company Revel Resources Ltd. on its Savant Lake Property located in the Savant Lake area, Patricia Mining Division, Province of Ontario (Figure 1). The survey was flown from July 20 to 23, 2022.

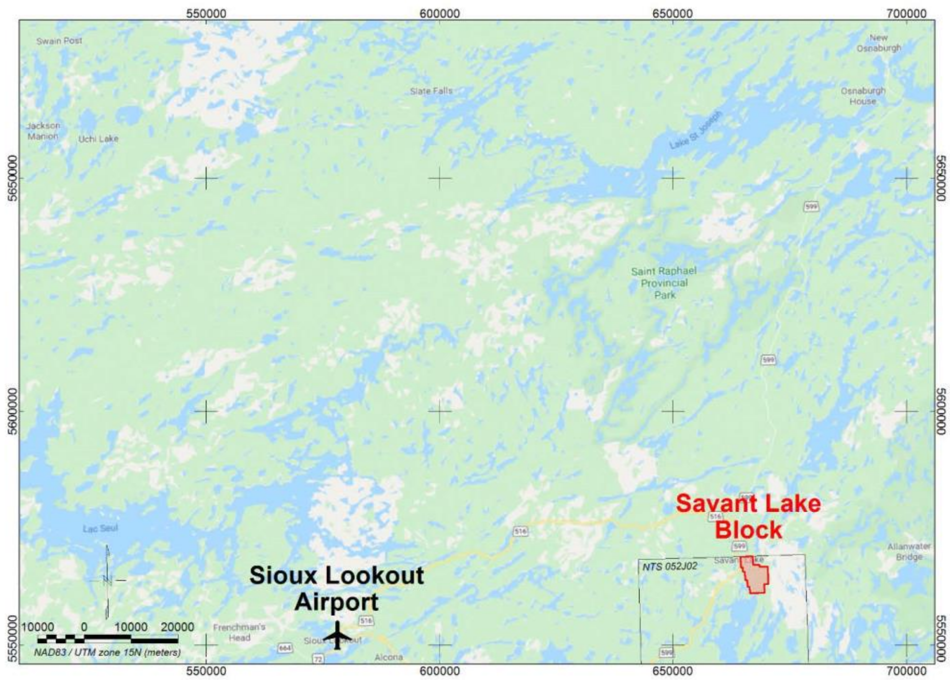
Figure 1: **General Survey Location**

One survey block was flown for a total of 341 l-km. A total of 6 production flights were performed using Prospectair's Eurocopter EC120B, registration C-GEDI. The helicopter and survey crew operated out of the Sioux Lookout Airport located about 90 km to the west of the block (Figure 2).

Table 1: **Survey block particulars**

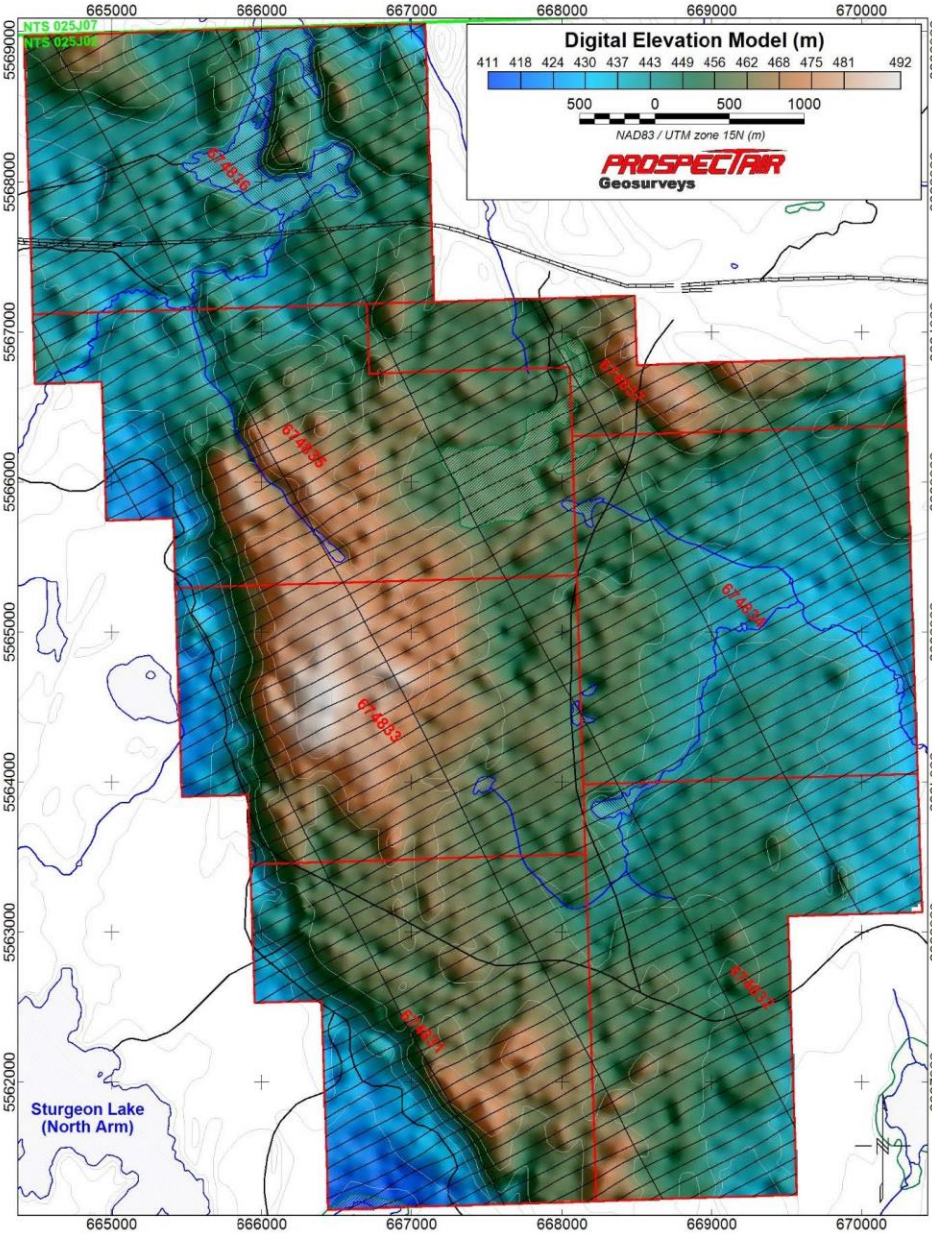
Block	NTS Mapsheet	Line-km flown	Flight numbers	Dates Flown
Savant Lake	052J02	341 l-km	Flt 1 to 6	July 20 to 23

Figure 2: **Survey Location and base of operation**



The Savant Lake block was flown with traverse lines at 100 m spacing and control lines spaced every 1000 m. The survey lines were oriented N062. The control lines were oriented perpendicular to traverse lines. The average height above ground of the helicopter was 44 m and the magnetic sensor was at 25 m. The average survey flying speed was 29.3 m/s. The survey area is covered by forest, lakes and some wetlands. The topography is mostly gently undulating, with a few low-level hills. The elevation is ranging from 411 to 492 m above mean sea level (MSL). The block is approximately located at the north end of the large Sturgeon Lake, and immediately east of the village of Savant Lake. From the ground, the block can be easily accessed via secondary forestry roads connecting to Highway 599, which links Savant Lake to the village of Pickle Lake towards the north, and to the village of Silver Dollar towards the southwest. The main infrastructure found within the block is the railway crossing it in an E-W fashion in its northern part. Coordinates outlining the survey block are given in Appendix A, with respect to NAD-83 datum, UTM projection zone 15N. The location of the Savant Lake Property claims (in red) and of the survey lines is shown on Figure 3. The Property claims numbers, as well as the approximate amount of line-km flown over each claim, are also listed in Appendix B.

Figure 3: **Survey lines and Savant Lake Property claims**



II. SURVEY EQUIPMENT

Prospectair provided the following instrumentation for this survey:

Airborne Magnetometer

Geometrics G-822A

The heliborne system used a non-oriented (strap-down) optically-pumped Cesium split-beam sensor. These magnetometers have a sensitivity of 0.005 nT and a range of 15,000 to 100,000 nT with a sensor noise of less than 0.02 nT. The heliborne sensor was mounted in a bird made of non-magnetic material located 19 m below the helicopter when flying. Total magnetic field measurements were recorded at 10 Hz in the aircraft.

Real-Time Differential GPS

Omnistar DGPS

Prospectair uses an OmniStar differential GPS navigation system to provide real-time guidance for the pilot and to position data to an absolute accuracy of better than 5 m. The *Omnistar* receiver provides real-time differential GPS for the Agis on-board navigation system. The differential data set was relayed to the helicopter via the Omnistar network appropriate geosynchronous satellite for the survey location. The receiver optimizes the corrections for the current location.

Airborne Navigation and Data Acquisition System

Pico-Envirotec AGIS-XP system

The Airborne Geophysical Information System (AGIS-XP) is advanced, software driven instrument specifically designed for mobile aerial or ground geophysical survey work. The AGIS instrumentation package includes an advanced navigation system, real-time flight path information that is displayed over a map image of the area, and reliable data acquisition software. Thanks to simple interfacing, the radar and barometric altimeters and the Geometrics magnetometer are easily integrated into the system and digitally recorded. Automatic synchronization to the GPS position and time provides very close correlation between data and geographical position. The AGIS is equipped with a software suite allowing easy maintenance, upgrades, data QC, and project and survey area layout planning.

Magnetic Base Station

GEM GSM-19

A GEM GSM-19 Overhauser magnetometer, a computer workstation and a complement of spare parts and equipment serve as the base station. Prospectair establish the base station in a secure location with low magnetic noise. The GSM-19 magnetometer has resolution of 0.01 nT, and 0.2 nT accuracy over its operating range of 20,000- to 100,000 nT. The ground system was recording magnetic data at 1 Hz.

Altimeters

Free Flight Radar Altimeter

The Free Flight radar altimeter measures height above ground to a resolution of 0.5 m and an accuracy of 5% over a range up to 2,500 ft. The radar altimeter data is recorded and sampled at 10 Hz.

Digital Barometric Pressure Sensor

The barometric pressure sensor measures static pressure to an accuracy of ± 4 m and resolution of 2 m over a range up to 30,000 ft above sea level. The barometric altimeter data are sampled at 10 Hz.

Survey helicopter

Eurocopter EC120B (registration C-GEDI)

The survey was flown using Prospectair's EC120B helicopter that handles efficiently the equipment load and the required survey range. Table 3 presents the EC120B technical specifications and capacity, and the aircraft is shown in Figure 4.

Table 2: **Technical specifications of the EC120B Eurocopter helicopter**

Item	Specification
Powerplant	One 376kW (504hp) Turbomeca Arrius 2F
Rate of climb	1,150 ft/min
Cruise speed	223 km/h – 120 kts
Service ceiling	17,000 ft
Range with no reserve	710 km
Empty weight	991 kg
Maximum takeoff weight	1,715 kg

Figure 4: **C-GEDI Eurocopter EC120B**

III. SURVEY SPECIFICATIONS

Data Recording

The following parameters were recorded during the course of the survey:

In the helicopter:

- GPS positional data: time, latitude, longitude, altitude, heading and accuracy (PDOP) recorded at intervals of 0.1 s;
- Total magnetic field: recorded at intervals of 0.1 s;
- Pressure as measured by the barometric altimeter at intervals of 0.1 s;
- Terrain clearance as measured by the radar altimeter at intervals of 0.1 s;

At the base and remote magnetic ground stations:

- Total magnetic field: recorded at intervals of 1 s;
- GPS time recorded every 1 s to synchronize with airborne data.

Technical Specifications

The data quality control was performed on a daily basis. The following technical specifications were adhered to:

- *Height* – 50m mean terrain clearance for the helicopter except in areas where Transport Canada regulations prevent flying at this height, or as deemed by the pilot to ensure safety. Traverse lines and control lines must be flown at the same altitude at points of intersection; the altitude tolerances are limited to no more than 30 m difference between traverse lines and control lines.
- *Airborne Magnetometer Data* – A 0.5 nT noise envelope not to be exceeded for more than 500 m line-length without a reflight.
- *Diurnal Specifications* – A maximum tolerance of 5.0 nT (peak to peak) deviation from a long chord of one minute at the base station.
- *Flying Speed* – The average ground speed for the survey aircraft should be 120 kph. The acceptable high limit is 180 kph over flat topography.
- *Radar Altimeter* – minimal accuracy of 5%, minimum range of 0-2500 m.
- *Barometer* – Absolute air pressure to 0.1 kPa.
- *Flight Path Following* – The line spacing not to vary by more than 30% from the ideal spacing over a distance of more than 300 m, except as required for aviation safety.

  For Savant Lake Block:

  Traverse lines: Azimuth N062, 100 m spacing.

  Control Lines: Azimuth N152, 1000 m spacing.

IV. SYSTEM TESTS

Magnetometer System Calibration

The survey configuration using a bird towed 19 m below any magnetic piece of the helicopter allows the simplification of the magnetic calibration requirement. Consequently, heading error and aircraft movement noise was considered negligible and no correction was applied to the data.

Instrumentation Lag

The magnetometer lag is a combination of two factors: 1) the time difference between when a reading is sensed, and when that value is recorded by the acquisition system, and 2) the time taken for the sensor to arrive at the location of the GPS antenna. The second factor is defined by the physical distance between the GPS antenna and any given sensor, and the speed of the aircraft. The average total magnetic lag value for the AGIS acquisition system has been calculated to -0.04 s for this survey.

V. FIELD OPERATIONS

The survey operations were conducted out of the Sioux Lookout Airport, from July 20 to 23, 2022. The data acquisition required 6 flights. At the end of each production day, the data were sent to the Dynamic Discovery Geoscience office via internet. The data were then checked for Quality Control to ensure they fulfilled contractual specifications. The full dataset was inspected prior to provide authorization for the field crew to demobilize. The GSM-19 magnetic base station was set up in a magnetically quiet area close to the block, at latitude 50.1961724°N, longitude 90.6702524°W. The survey pilot was Marc Patenaude and the survey system technician was Jonathan Drolet.

Figure 5: **Example of a magnetic base station setup**

VI. DIGITAL DATA COMPILATION

Data compilation including editing and filtering, quality control, and final data processing was performed by Joël Dubé, P.Eng. Processing was performed on high performance computers optimized for quick daily QC and processing tasks. Geosoft software Oasis Montaj version 2021.2.1 was used.

Magnetometer Data

General

The airborne magnetometer data, recorded at 10 Hz, were plotted and checked for spikes and noise on a flight basis. An average of -0.04 second lag correction was applied to the data to correct for the time delay between detection and recording of the airborne data.

Ground magnetometer data were recorded at 1 sample per second and interpolated by a spline function to 10 Hz to match airborne data. Data were inspected for cultural interference and edited where necessary. Low-pass filtering was deemed necessary on the ground station magnetometer data to remove minor high frequency noise. The diurnal variations were removed by subtracting the ground magnetometer data to the airborne data and by adding back the average of the ground magnetometer value.

The levelling corrections were applied in several steps. First of all, a correction for altitude was applied by multiplying the First Vertical Derivative (FVD) of the Total Magnetic Intensity (TMI) by the difference between the actual survey altitude and the average survey altitude. Standard levelling corrections were then performed using intersection statistics from traverse and tie lines. After statistical levelling was considered satisfactory, decorrugation was applied on the data to remove any remaining subtle non-geological features oriented in the direction of the traverse lines.

Once the Total Magnetic Intensity (TMI) was gridded, its First Vertical Derivative (FVD) and Second Vertical Derivative (SVD) were calculated to enhance narrow and shallow geological features. Finally, the component of the normal Earth's magnetic field, described by the International Geomagnetic Reference Field (IGRF), has been removed from the TMI to yield the residual TMI.

Tilt Angle Derivative

In order to enhance the subtle magnetic features some more, the Tilt Angle Derivative (TILT) was also computed for this project.

It has been shown that it is possible to use the Tilt Angle Derivative to estimate both the location and depth of magnetic sources (Salem et al., 2007).

When two body of different magnetic susceptibility are in contact, the vertical and horizontal gradients along a horizontal line perpendicular to the vertical contact are governed by the following equations:

$\delta M/\delta h=2KFc(z_c/(h^2+z_c^2))$
$\delta M/\delta z=2KFc(h/(h^2+z_c^2))$

where
K = susceptibility contrast
F = magnetic field's strength
c = 1-$\cos^2$(field Inclination)$\sin^2$(field Declination)
h = location along an horizontal axis perpendicular to the contact
z_c = contact depth
$\delta M/\delta h = \text{sqrt}((\delta M/\delta x)^2+(\delta M/\delta y)^2)$

The Tilt Angle (θ) is defined as
$\theta = \tan^{-1}[(\delta M/\delta z)/(\delta M/\delta h]$

By substitution of the gradients we get
$\theta = \tan^{-1}[h/z_c]$

This has two main implications for any given anomaly:

1- The 0° angle line is located directly above the contact between a magnetic source and the surrounding rock. This allows for accurate estimation of source location.
2- The distance between the 0° and the +45° contour lines as well as the distance between the -45° and the 0° contour lines are equal to the depth of the source at the contact. This allows for a direct estimation of the depth of the source of the anomaly. The depth estimated with this method is actually the distance between the magnetic sensor and the top of the source. Knowing that the sensor was 25 m above the ground in average enables direct depth estimates.

In practice, the signal originating from multiple sources at different depth within a same area will cause juxtaposition of the Tilt Angle values, and complicate location and depth estimation. Nevertheless, the method remains an excellent tool for rapid assessment of sources characteristics, without the need for complex assumptions to be made or heavy computer requirements, as is the case with 3D Euler deconvolution or 3D data inversions.

Gridding
The magnetic data were interpolated onto a regular grid using a bi-directional gridding algorithm to create a two-dimensional grid equally incremented in x and y directions. The final grids of the magnetic data are supplied with a 20 m grid cell size. Traverse lines were used in the gridding process.

Radar Altimeter Data
The terrain clearance measured by the radar altimeter in metres was recorded at 10 Hz. The data were filtered to remove high frequency noise using a 1 sec low pass filter. The final data were plotted and inspected for quality.

Positional Data

Real time DGPS correction provided by Omnistar was applied to the recorded GPS positional data.

Positional data were originally recorded at 10 Hz sampling rate in geographic longitude and latitude with respect to the WGS-84 datum. The delivered data locations are provided in X and Y using the UTM projection zone 15 North, with respect to the NAD-83 datum. Altitude data were initially recorded relative to the GRS-80 ellipsoid, but are delivered as orthometric heights (MSL elevation).

Terrain Data

Terrain elevation data (also referred to as digital elevation model, or DEM) are computed from the altitude of the helicopter, given by DGPS recordings, and the radar altimeter data.

VII. RESULTS AND DISCUSSION

The residual Total Magnetic Intensity (TMI) of the Savant Lake block, presented in Figure 6, is relatively active and varies over a range of 5,603 nT, with an average of -153 nT and a standard deviation of 135 nT.

Most of the surveyed area is affected by linear magnetic features characteristic of alternating sequences of mafic volcanics with sedimentary or intermediate to felsic volcanic rocks, with possibly some intrusive stocks or dykes locally. Stronger anomalies, which are not very strong in absolute terms, are mostly found in the northeastern half of the block. They could be related to layers of mafic volcanic rocks, to meta-sedimentary horizons enriched in magnetic minerals or to intermediate/mafic intrusions. Stronger anomalies are best seen on Figure 7 which shows the residual TMI data with a linear color distribution. An area mainly located along the western edge of the block depicts relatively homogeneous magnetic textures, with lower amplitude anomalies, which is typical of large felsic to intermediate intrusive bodies. Other areas with lower background values and decreased signal variability are likely to be dominated by sedimentary or felsic intrusive/volcanic rocks.

Magnetic lineaments are generally trending from NNW-SSE to WNW-ESE in the area. A majority of lineaments appear curved, either by shearing or folding structures, or possibly also at the contact zone with the postulated intrusion to the west. These evidences are attesting that the area underwent strong deformation events in the past. In general terms, magnetic lineaments are related to rock formations that are enriched in magnetic minerals (magnetite and/or pyrrhotite).

In some areas, it is possible to detect structural features offsetting observed magnetic lineaments and causing abrupt interruption or changes of the magnetic response. These features are typically caused by faults, fractures and shear zones. If they are thought to be favorable structures in the exploration context of the Savant Lake project, they should be paid particular attention and should be the object of a comprehensive structural interpretation, which is beyond the scope of this report.

Shorter wavelength anomalies are greatly enhanced on the FVD (Figure 8) and on the TILT (Figure 9) products. Since the FVD attenuates longer wavelength anomalies, and the TILT enhances very weak amplitude anomalies, they are the preferred products for structural interpretation.

Regarding cultural interference, human infrastructures, such as the railway crossing the block in a general E-W fashion in the northern part of the block, are known to be possible sources of non-geological noise in the magnetic data. There is also the possibility for large vehicles or pieces of equipment located on or beside forestry roads, elsewhere within the block, to be causing local perturbation of the magnetic field. As a consequence, high frequency anomalies located near such features could actually originate from cultural sources and should be treated with caution when planning ground investigations of magnetic anomalies.

Figure 6: **Residual Total Magnetic Intensity with equal area color distribution**

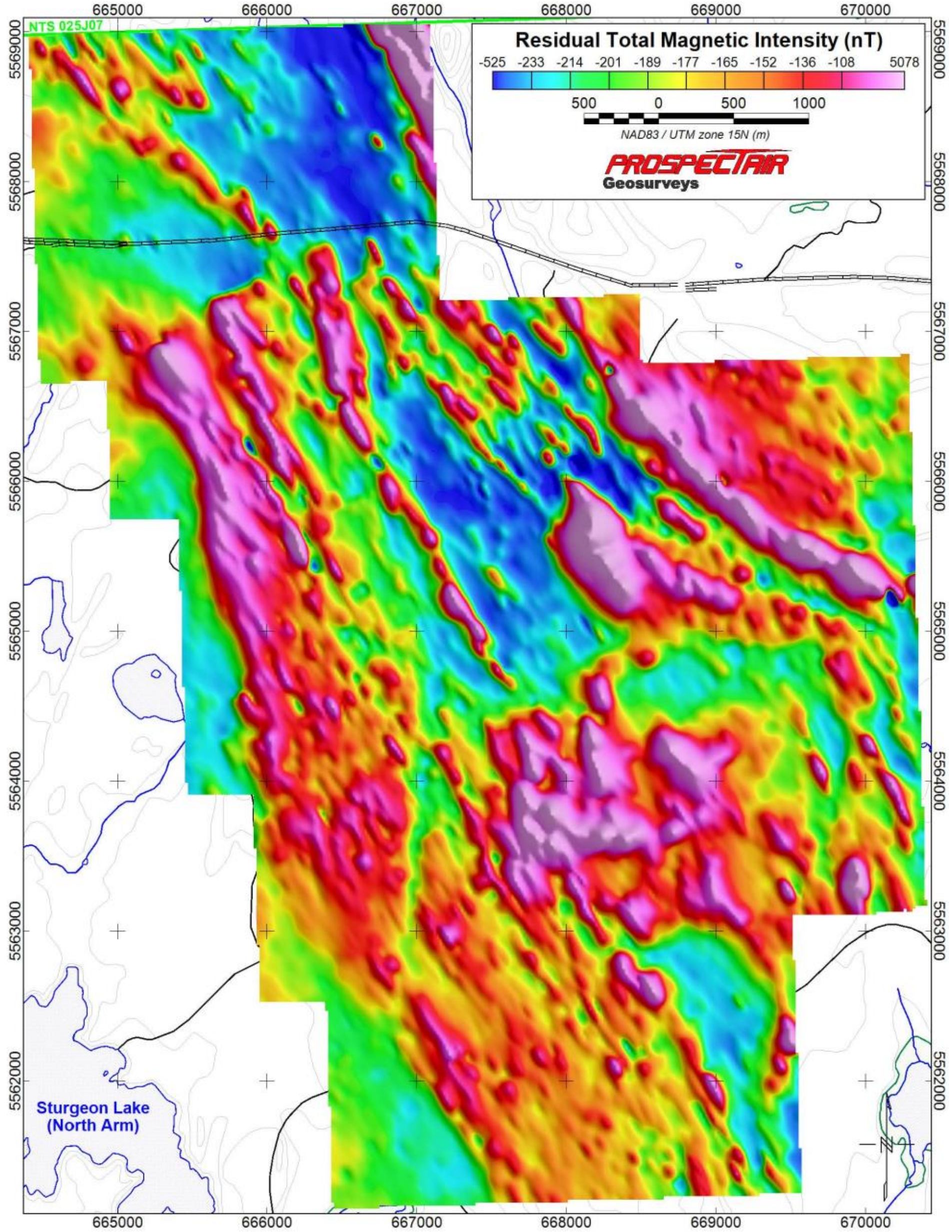


Figure 7: **Residual Total Magnetic Intensity with linear color distribution**

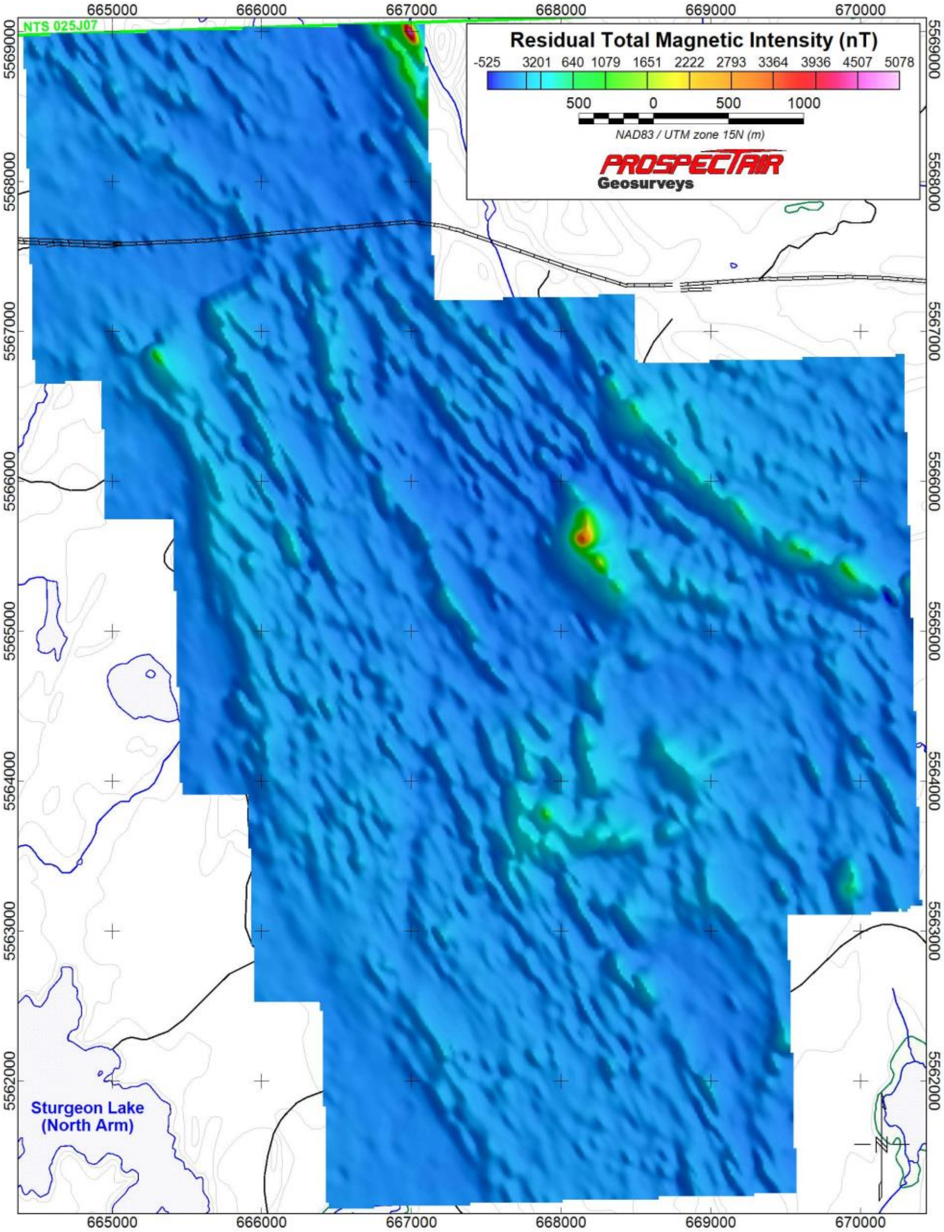


Figure 8: **First Vertical Derivative of TMI**

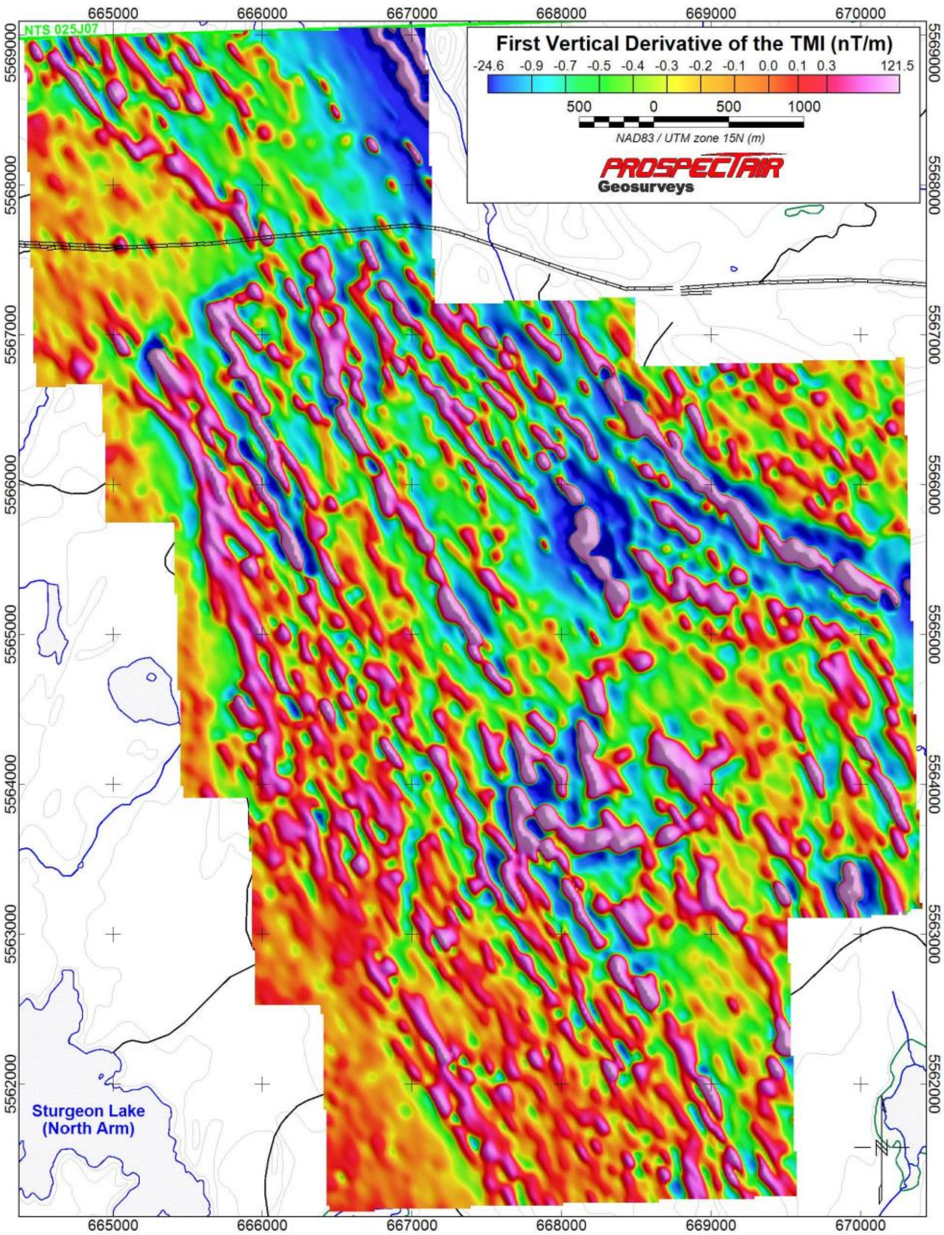
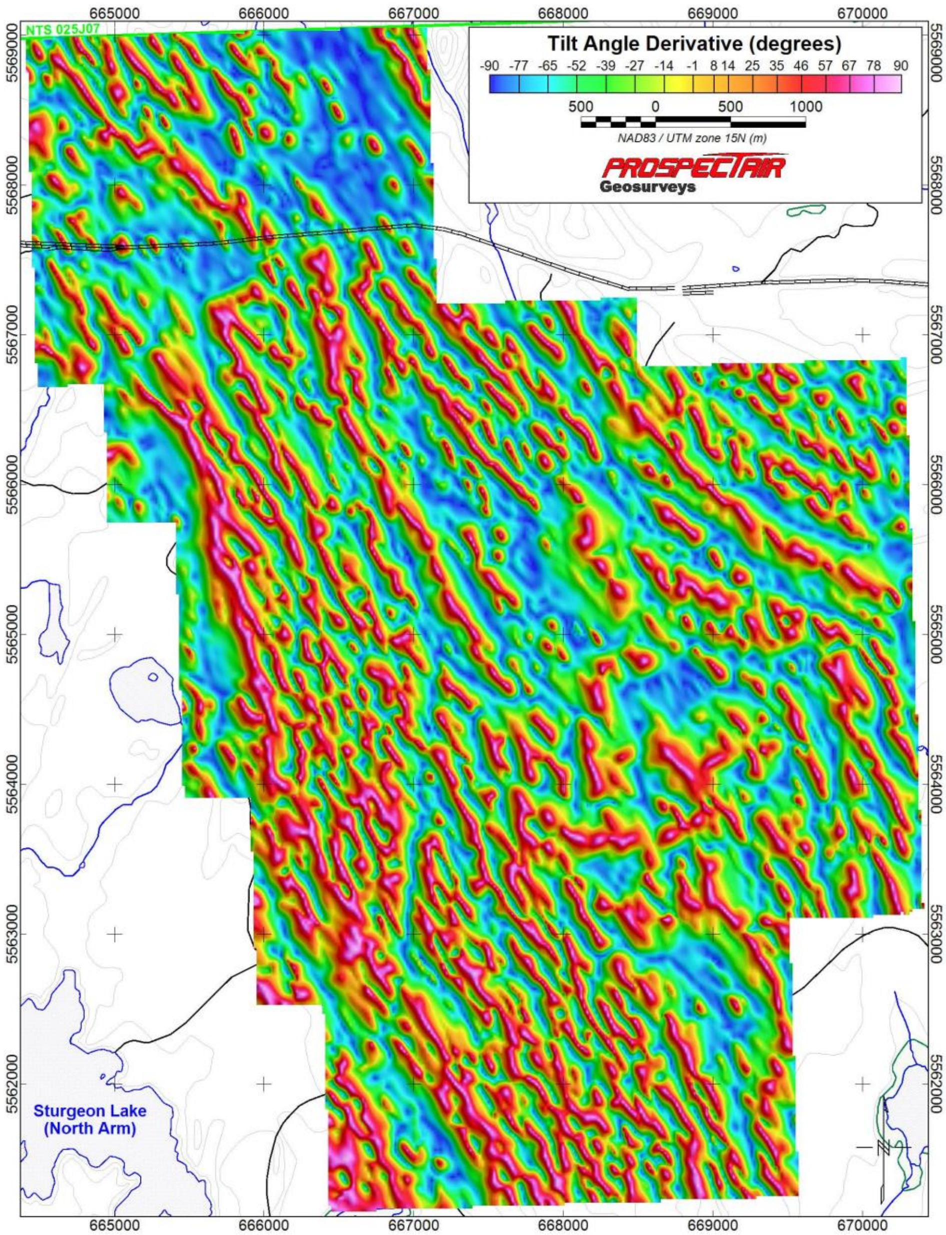


Figure 9: **Tilt Angle Derivative**



VIII. FINAL PRODUCTS

Digital Line Data

The Geosoft database is provided with the channels detailed in Table 3.

Table 3: **MAG line data channels**

No.	Name	Description	Units
1	UTM_X	UTM Easting, NAD-83, Zone 15N	m
2	UTM_Y	UTM Northing, NAD-83, Zone 15N	m
3	Lat_deg	Latitude in decimal degrees	Deg
4	Long_deg	Longitude in decimal degrees	Deg
5	Gtm_sec	Second since midnight GMT	Sec
6	Radar	Ground clearance given by the radar altimeter	m
7	Terrain	Calculated Digital Elevation Model (w.r.t. MSL)	m
8	GPS_Z	Helicopter altitude (w.r.t. MSL)	m
9	Mag_Raw	Raw magnetic data	nT
10	Mag_Lag	Lagged magnetic data	nT
11	Gnd_mag	Base station magnetic data	nT
12	Mag_Cor	Magnetic data corrected for diurnal variation	nT
13	TMI	Fully levelled Total Magnetic Intensity	nT
14	TMIres	Residual TMI (IGRF removed)	nT

Maps

All maps are referred to NAD-83 datum in the UTM projection Zone 15 North, with coordinates in metres. Maps are at a 1:10,000 scale and are provided in PDF, PNG and Geosoft MAP formats for the products detailed in Table 4.

Table 4: **Maps delivered**

No.	Name	Description
1	DEM+FlightPath+Claims	Digital Elevation Model with flight path and property claims
2	TMI	Residual Total Magnetic Intensity
3	FVD	First Vertical Derivative of the TMI
4	TILT	Tilt Angle Derivative

Grids

All grids are referred to NAD-83 in the UTM projection Zone 15 North, with coordinates in metres. Grids are provided in Geosoft GRD format, with a 20 m grid cell size, as well as in the Geotiff format for the products listed in Table 5.

Table 5: **Grids delivered**

No.	Name	Description	Units
1	Terrain	Calculated Digital Elevation Model	m
2	TMI	Total Magnetic Intensity	nT
3	FVD	First Vertical Derivative of TMI	nT/m
4	SVD	Second Vertical Derivative of TMI	nT/m^2
5	TMIres	Residual TMI (IGRF removed)	nT
6	TILT	Tilt Angle Derivative	Degree

Project Report

The report is submitted in PDF format.

Respectfully submitted,

LICENSED PROFESSIONAL ENGINEER
J. P. DUBÉ
100194954
PROVINCE OF ONTARIO

Joël Dubé, P.Eng.
July 29, 2022

IX. STATEMENT OF QUALIFICATIONS

Joël Dubé
7977 Décarie Drive
Ottawa, ON, Canada, K1C 3K3

Telephone: 819.598.8486
E-mail: jdube@ddgeoscience.ca

I, Joël Dubé, P.Eng., do hereby certify that:

1. I am a Professional Engineer specialized in geophysics, President of Dynamic Discovery Geoscience Ltd., registered in Canada.

2. I earned a Bachelor of Engineering in Geological Engineering in 1999 from the École Polytechnique de Montréal.

3. I am an Engineer registered with the Ordre des Ingénieurs du Québec, No. 122937, and a Professional Engineer with Professional Engineers Ontario, No. 100194954 (CofA No. 100219617), with the Association of Professional Engineers and Geoscientists of New Brunswick, No. L5202 (CofA No. F1853), with the Association of Professional Engineers of Nova Scotia, No. 11915 (CofC No. 51099), with Engineers Geoscientists Manitoba, No. 43414. (CofA No. 6897), with Professional Engineers & Geoscientists Newfoundland & Labrador, No. 10012 (PtoP No. N1134) and with the Northwest Territories Association of Professional Engineers & Geoscientists, No. L4447 (PtoP No. P1414).

4. I have practised my profession for 23 years in exploration geophysics.

5. I have not received and do not expect to receive a direct or indirect interest in the properties covered by this report.

Dated this 29th day of July, 2022

LICENSED PROFESSIONAL ENGINEER
J. P. DUBÉ
100194954
PROVINCE OF ONTARIO

____
Joël Dubé, P.Eng. #100194954

X. Appendix A – Survey block outline

Savant Lake Block

Easting	Northing
669570	5561249
666441	5561150
666398	5562540
665952	5562526
665909	5563916
665463	5563902
665405	5565755
664959	5565741
664930	5566667
664485	5566654
664413	5568975
667091	5569058
667149	5567205
668486	5567248
668501	5566784
670284	5566841
670403	5563131
669511	5563102

XI. Appendix B – Property claims covered by the survey

Tenure number	Holder	l-km within claim
674831	(100) Revel Resources Ltd	50.035
674832	(100) Revel Resources Ltd	50.035
674833	(100) Revel Resources Ltd	52.290
674834	(100) Revel Resources Ltd	56.832
674835	(100) Revel Resources Ltd	56.821
674836	(100) Revel Resources Ltd	54.533
674837	(100) Revel Resources Ltd	20.454

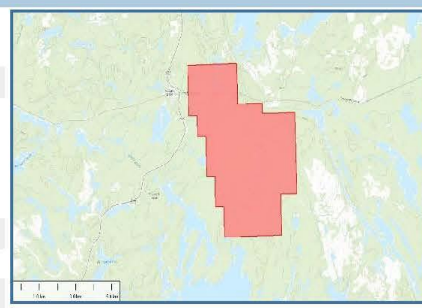
APPENDIX 3: EAGLE MAPPING REPORT

EAGLE MAPPING — REPORT

EM #: 22-039

SAVANT LAKES

Client Name:	Revel Resource Ltd. A wholly owned subsidiary of Auteco Minerals
Client Address:	24 Outram Street - Ground Floor West Perth WA 6005 Australia



Specifications:

LiDAR:	8 pulses/m²
Imagery:	15 cm
AOI:	~ 31 sq. km

MAP PROJECTION

Projection:	UTM Z15 N
Horizontal Datum:	NAD83(CSRS)
Vertical Datum:	CGVD2013
Geoid:	CGG2013a
Units:	meters
EPSG:	3159

PRODUCT DELIVERABLES

Product	Resolution/Type	Delivered As	File Format
Point Cloud	unclass & ground	prj file	LAS v1.4 (.las)
DEM & DSM	0.50 m	prj file	ASCIIGrid (.asc)
BE Hillshade	0.50 m	prj file	GeoTIFF (.tif)
Contours	0.50 m (2.5m indicies)	prj file	Shapefile (.shp)
Orthophoto Vectorized Hydro & Outcrops	0.15 m	prj tiles & prj file	GeoTIFF (.tif) & ECW (.ecw)
Bdy & Tile Layout	1500 m	prj file	Shapefile (.shp)

ACQUISITION DETAILS

Flight Date(s):	June 10, 2022
Aircraft:	Cessna 206
Flight Altitude:	1600 m (AGL)
Flight Speed:	120 knots

Sensor Settings

LiDAR Unit:	Riegl LMS-Q1560	**Camera Unit:**	iXM-RS150F
Scan Rate:	800kHz (533kHz usable)	**Simultaneous:**	yes
Field of View:	58°	**Forward-lap**	60%
Overlap:	55%	**Side-lap**	55%

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Langley City, BC. Canada
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www.eaglemapping.com

EAGLE MAPPING Report

TRAJECTORY PROCESSING - SBET

INS-GNSS:	Applanix POS AV610 (IMU 57)
Processing Software:	POSPac MMS v 8.7
Processing Mode:	IN-Fusion PP-RTX
Ref. Station:	none

Results:	Satellites		PDOP		RMSE (m)	
	Min:	7	**Range:**	1.1 - 2.8	**X, Y:**	0.014
	Max:	17	**Mean:**	1.4	**Z:**	0.037

WAVEFORM ANALYSIS

Extraction & Registration Software:	RiPROCESS v 1.9.2.2
Calibration Software:	BayesStripAlign v 2.21
Quality Control Software:	LAStools v 220613

Results:	**Avg. Pulse Density**	**Passing Cells**
	14 ppm	93%

Pulse Density verification is conducted using a 5m grid covering the entire project using last and only returns. Initial noise classes are excluded from the calculation as well as any acceptable data voids such as waterbodies. The quality routine identifies cells containing the required project pulse density and those which did not. A visual grid is output showing cells that pass as green and those that fail as red.

POSITIONAL ACCURACY

LiDAR	
Number of GCP:	N/A
Average Dz:	
Minimum Dz:	
Maximum Dz:	
Avg. Magnitude:	
Std. Deviation	

RMS(95%)	N/A

IMAGERY	
Number of GCP:	N/A
Avg. Magnitude:	

No control was available to verify the absolute accuracy of the dataset. However, due to a robust trajectory solution and good calibration results, it is Eagle Mappings conclusion that the delivered dataset is positioned with a horizontal accuracy of ± 0.30m and vertical accruacy of ± 0.15m. Visual inpsection of the rectified imagery determined the orthophoto is accurate to within ± 2 pixels.

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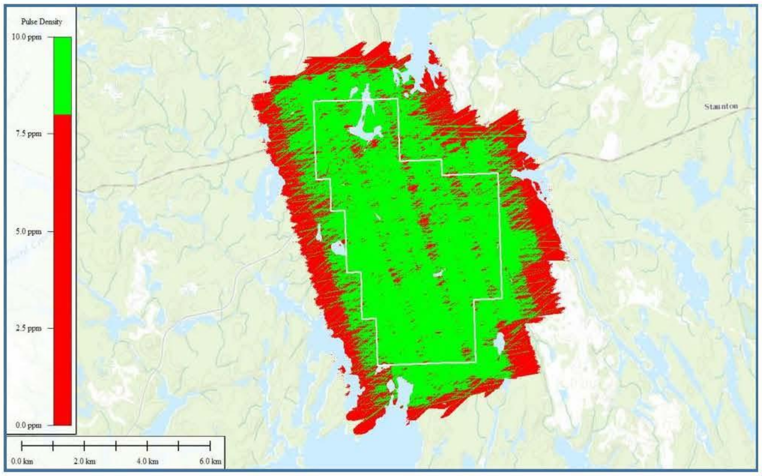
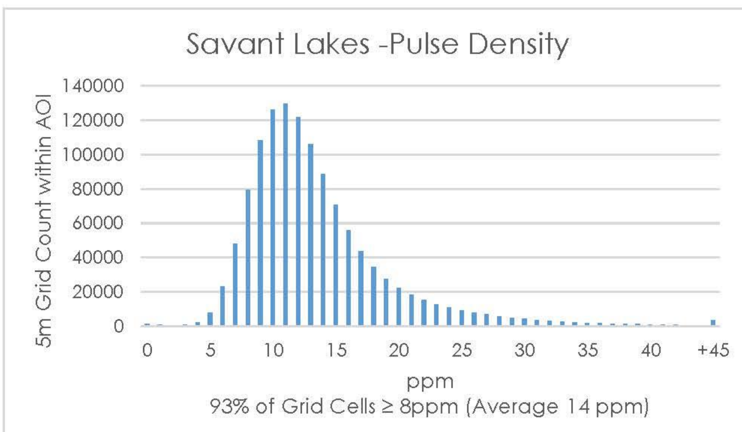
EAGLE MAPPING

Report

PULSE DENISTY - LAST &ONLY RETURNS

Savant Lakes





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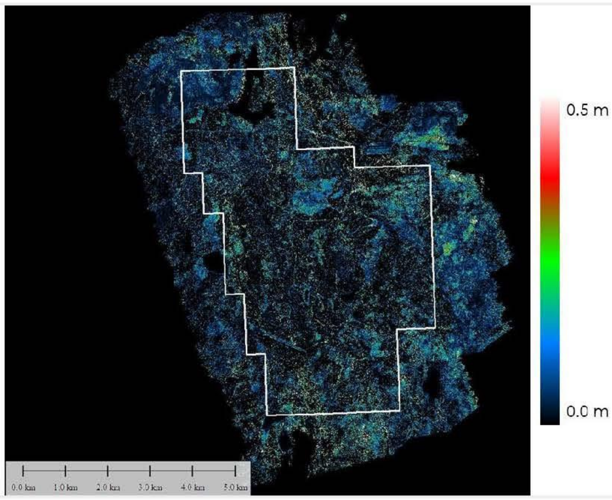
EAGLE MAPPING

Report

CALIBRATION RESULTS -SAVANT LAKES

Savant Lakes

ELEVATION DIFFERENCES AFTER CALIBRATION



CORRECTIONS APPLIED (m)								
Mean (X, Y, Z)			StdDev (X, Y, Z)			RMS (X, Y, Z)		
0.000	-0.013	+0.006	0.032	0.018	0.039	0.112	0.131	0.041

ELEVATION DIFFERENCE (m)			
Dataset	StdDev	RMS	
Input	0.055	0.065	
Registered	0.025	0.025	

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EAGLE MAPPING

Report

LiDAR EXTRACTION & CALIBRATION PROCEDURES

Process:	Trajectory Solution
Software:	Applanix POSPac MMS
Description:	

GNSS post processing is performed using Applanix POSPac MMS software. Here the aircraft GNSS and IMU data is coupled together to provide adjusted positions for the aircraft in latitude, longitude, height, roll, pitch and yaw. The final trajectory is then smoothened and exported in .pos format for use in LiDAR processing. The resulting flight path is commonly referred to as a Smoothed Best Estimate of Trajectory (SBET).

Process:	Extract & Register LiDAR Point Cloud
Software:	Riegl RiPROCESS
Description:	

Riegl RiPROCESS is used to extract and register point cloud data using calibrated scanner parameters calculated from a boresight mission. Target point extraction is performed to digitize the echo signals and transform range and scan-angle data into the Scanner's Own Coordinate System (SOCS). The result is a point cloud dataset where each point contains descriptors such as timestamp and intensity values. The SBET is then applied to transform the point cloud data from the SOCS to a real-world coordinate system. The LiDAR data is then exported in LAS format with the proper projection and geoid applied.

Process:	LiDAR Swath Calibration
Software:	BayesStripAlign
Description:	

LiDAR data is calibrated using BayesStripAlign software. This software registers overlapping LiDAR swaths and corrects both relative and absolute geometric errors. It uses a rigorous time-dependent approach to reduce discrepancies between strips due to IMU attitude and positional errors. Once aligned, results are inspected, and manual cross-section checks are performed to verify the automatic results. If control is present, elevation comparison reports are generated, and data is visually examined to identify systematic positioning errors which could be compensated for with further calibration.

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EAGLE MAPPING

Report

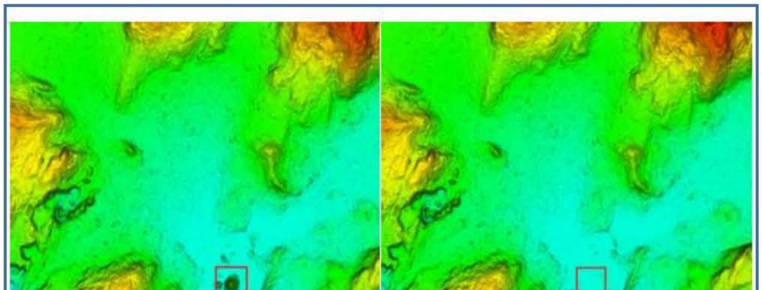
LiDAR CLASSIFICATION & DELIVERABLE PROCEDURES

Process:	LiDAR Classification
Software:	TerraScan
Description:	

TerraScan software is used for LiDAR classification. Calibrated swath data is imported into project tiles with the appropriate source ID values for swath identification. Point cloud data is then cleaned by classifying any low or high noise using an isolated point algorithm and via manual cross-section cleaning. Once cleaned, proprietary classification macros are run to generate Digital Elevation Models (DEMS). These models are then visually checked for inconsistencies in the ground surface and any outliers are flagged and then manually corrected in TerraScan. Then if available, the ground surface is compared against survey checkpoints to ensure positional accuracy. Once a final ground class has been identified, algorithms are then run to classify any additional project classifications such as vegetation, buildings or water features and automatic results are again visually inspected and manually corrected in TerraScan.

Process:	Deliverables
Software:	TerraScan, LASTools & Global Mapper
Description:	

Once the point cloud has been classified and quality control checks have been satisfied, The LiDAR data is exported in LAS format. Project deliverables such as DEMs and DSMs are generated at the project required grid spacing and all outputs are examined by LiDAR technicians to ensure each product is correctly clipped to the project boundary and in the correct format. Metadata for each deliverable type is viewed to confirm units, projection, min/max elevation ranges, and covered area. Lastly, a file count is performed to ensure consistency between final deliverable products. The data is then archived for shipping.



DEM artifact from erroneous ground classified point. DEM after manual correction

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EAGLE MAPPING — Report

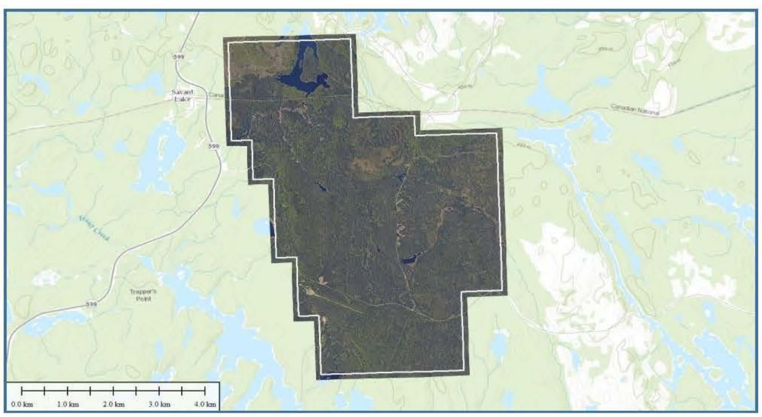
ORTHOPHOTO PROCEDURES

Process:	Photo Orientation & Aerial Triangulation
Software:	Leica Aerial Triangulation Mensuration & Match AT
Description:	

Imagery is first reviewed for any issues that may inhibit the accuracy or resolution, such as cloud cover. The Airborne GNSS/IMU data is then extracted to provide an initial photo orientation. The orientation data is then further refined by incorporating Aerial Triangulation (AT). This involves tying all photos to each adjacent frame photogrammetrically using tie-points, as well as surface model data, LiDAR intensity, calibrated camera parameters and control if available. AT tie-points as well as Airborne GNSS/IMU data is then run through a least-squares adjustment package to provide the best possible orientation solution.

Process:	Orthorectification & Mosaicing
Software:	Inpho Ortho Processing & Global Mapper
Description:	

The Orientation data is then used in the orthophoto rectification process, along with the LiDAR DEM. First, Imagery is colour balanced to provide even tones with the best radiometry. Then each frame is rectified to eliminate distortions caused by undulation of the terrain utilizing the central portion of the image to lessen the radial distortion. The rectified frames are then mosaicked together using care in the placement of seamlines. Tiles are then extracted from the overall mosaic and visually inspected by a technician before being exported into the final delivery format.



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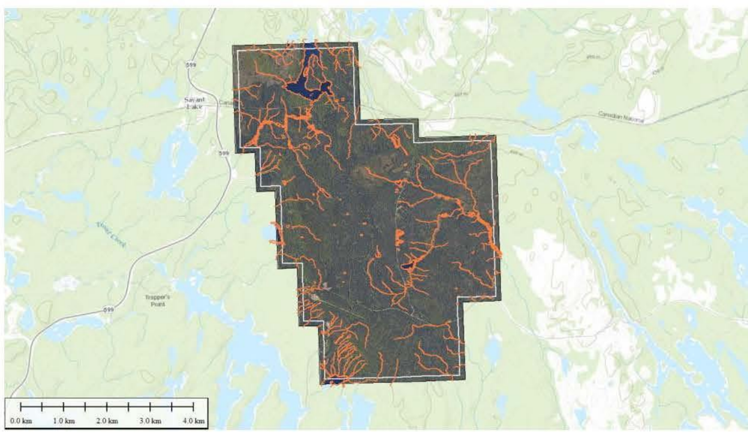
EAGLE MAPPING Report

VECTORIZATION OF OUTCROPS/DRAINAGE

Process:	Vectorization
Software:	Global Mapper, QGIS, AutoCad
Description:	

The drainage was manually digitized from the orthophoto imagery, with the Contour file in background as a reference. This was done in Global Mapper. The potential Outcrops were identified using a combination of QGIS to automatically identify areas that are elevated from surrounding terrain. A more manual inspection of the hillshade and imagery was incorporated to identify potential outcrops that were not picked up in QGIS. Once the basic delineation of the drainage and outcrops were generated, the data was edited in Autocad to provide a more cartographically correct data set. The final data was output to a shape file for each feature captured.



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