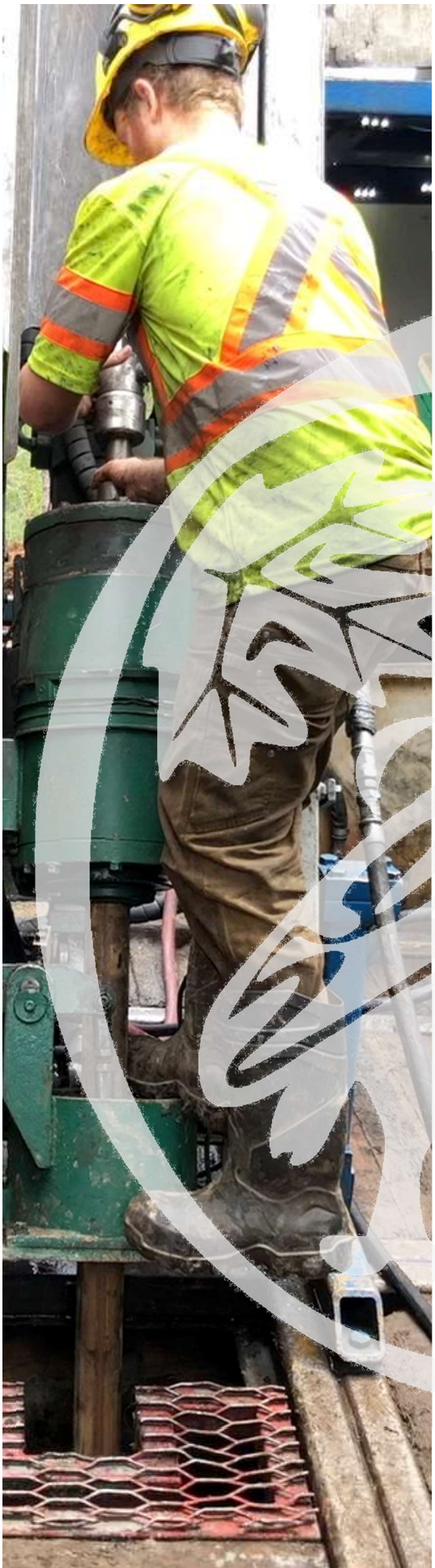
Ontario

We are committed to providing accessible customer service.
If you need accessible formats or communications supports, please contact us.

Nous tenons à améliorer l’accessibilité des services à la clientèle.
Si vous avez besoin de formats accessibles ou d’aide à la communication, veuillez nous contacter.



ISHKODAY GOLD AND POLYMETALLIC PROJECT

2021 LiDAR Survey and Interpretation

GREENSTONE, ONTARIO

THUNDER BAY MINING DIVISION
IRWIN, PIFHER WALTERS AND ELMHIRST TOWNSHIPS

NTS MAP: SHEET 42E/12 AND 42E/13

LAURION MINERAL EXPLORATION INC.
Suite 5800. 40 King Street West
Toronto, Ontario M5H 3S1

Prepared by:
Cynthia Le Sueur-Aquin (President and CEO)
Steve Leclerc MSc. P. Geo

March 23rd 2022

Table of Contents

1.0 SUMMARY

This report documents the 2021 mineral exploration activities completed on behalf of LAURION Mineral Exploration ("LAURION") on the Ishkoday Gold and Polymetallic Project ("Ishkoday" or the "Project"), as an assessment report to meet Ministry of Northern Development and Mines ("MNDM") reporting requirements of LAURION's 2021 mineral exploration work at Ishkoday. Ishkoday is being evaluated for its bulk and lode gold-silver and zinc-copper potential.

A portion of the 2021 field campaign was a LiDAR survey over the complete property combine to orthophotos. The Ishkoday project have the leisure of having many expose outcrops, following a certain pattern with structures and possible folding. First, Laurion hired Eagle Mapping Ltd, from Langley City BC to conduct the survey, and then provide the data set to Aurora Geoscience to reprocess, classify and to realize an interpretation.

2.0 INTRODUCTION

Ms. Cynthia Le Sueur-Aquin, CEO and president of LAURION and Mr. Steve Leclerc, MSc. P.Geo. Senior Project Geologist – GIS at LAURION (the "Authors"), compiled an Assessment Report (the "Report") to meet MNDM requirements related to LAURION's 2020 mineral exploration work (Phase 3 – Field Campaign) at Ishkoday. Ishkoday has been subject to numerous exploration programs conducted since 2007 by LAURION, and details of these historical exploration activities are outlined in numerous exploration reports.

3.0 LOCATION AND ACCESS

The Ishkoday Gold and Polymetallic Project is located 24km NE of the town of Beardmore Ontario (Figures 1 and 2), in the Thunder Bay Mining Division within Irwin, Pither, Walters and Elmhirst Townships. It is composed of a 46.97km^2 (4,442ha) land package as per the following table, located in NTS map sheet 42E/12 and 42E/13. Access can be made via the route 801, which is crossing the property from km 11.5 to km 18. Many secondary access roads such as the river road are located throughout the property and gives easy access either by pick-up or ATV on almost every corner of Ishkoday.

4.0 MINERAL CLAIMS ANDS LEASES BLOCKS

1.1 Surface Rights

LAURION owns the surface rights to the Ishkoday Main 15 mining leases shown above in TABLE 1. Ishkoday does not own the surface rights to any of the claims or leases areas. The land surrounding the property is Crown land, with limited access that is used primarily for recreation.

TABLE 1.0

100% interest:	**Interest**	**Hectares**
Ishkoday	15 mining leases	657
Ishkoday North	164 boundary and single cell claims	2,864
Ishkoday South	5 boundary cell claims	64
Ishkoday East	28 boundary and single cell claims	336
Jubilee-Elmhirst	4 mining leases	74
Beaurox	1 mining lease	447
		4,442

60% interest with an option to increase to a 100% interest:		
Brenbar	2 mining leases	255
		4,697

A complete listing of claim and tenure can be found following this report.

5.0 EXPLORATION PERMITS

All regulatory documentation relating to the Province of Ontario's Mining Act was filed with the Ministry of Northern Development and Mines by LAURION in Q1/2-2018 for the Ishkoday. LAURION has received all the necessary exploration permits for the 2018 Phase 1 Program – Stages 1 and 2 campaign permits for the period 2018 to 2021 (PL-18-010889) covering early higher impact exploration activities.

LAURION is committed to creating strong relationships with ongoing discussions with the Aboriginal communities in the area. LAURION is also committed to work in a collaborative way and engage the Aboriginal communities as part of LAURION's future exploration plans.

6.0 ENVIRONMENTALS LIABILITIES

There are mill tailing ponds, "waste" rock material, and a capped and fenced shaft and surface mine workings linked to the past producing Sturgeon River Gold Mine. There are other significant natural and man-made features, such as logging and tertiary winter and summer logging on the mineral claims and leases, all-terrain vehicle trails to access recent and historical trenches, pits, channel samples and drill holes; however, the Project is not subject to any liabilities due to previous mining or human activities that may impact future development of the Project.

LOCATION OF THE ISHKODAY PROPERTY - GREENSTONE, ONTARIO

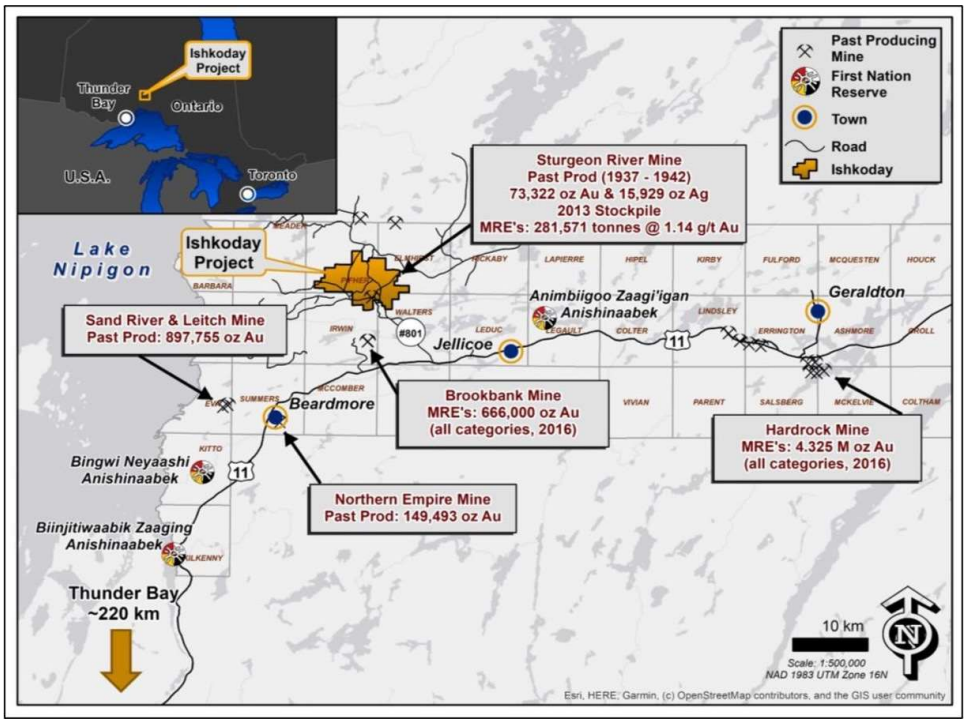
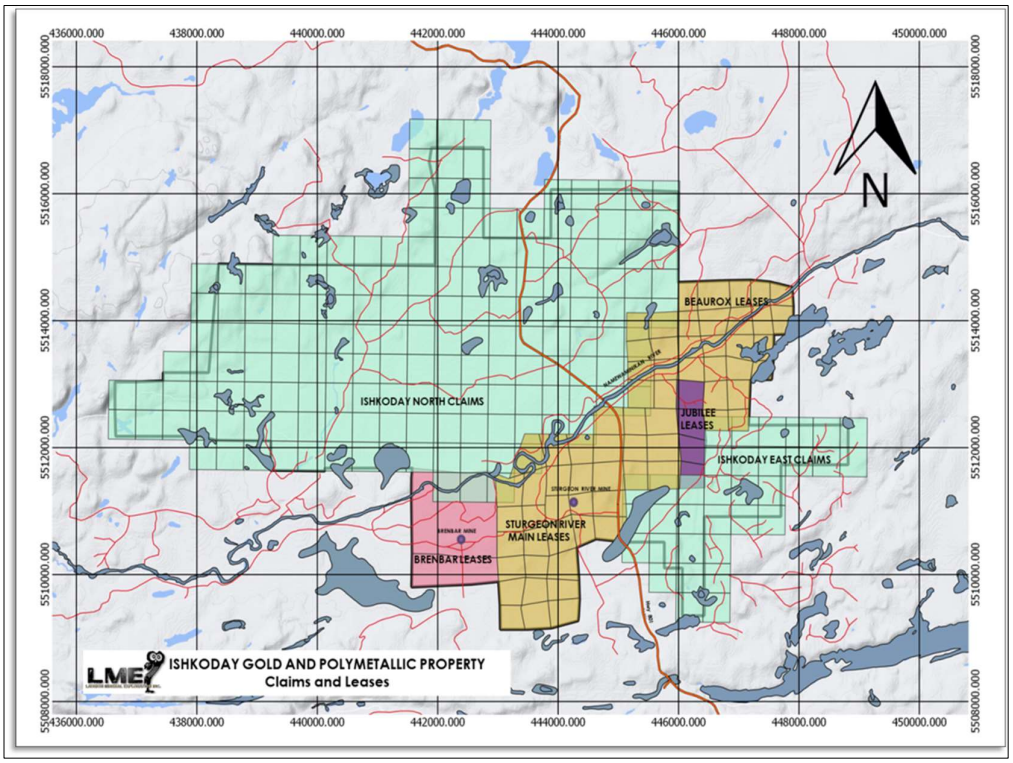


FIGURE 2.0 ISHKODAY CLAIM AND LEASES



7.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURES AND PHYSIOLOGY

7.1 Accessibility

Ishkoday is located in northwestern Ontario (Canada) approximately 220km NE of Thunder Bay in the Thunder Bay Mining District (FIGURE 1). The Project can be reached from Thunder Bay by travelling NE along Highway #17 to Nipigon (105km), and then turning north onto Highway #11 to the junction with Route #801 some 5km W of the town of Jellicoe. The Project can be accessed by continuing-NW along Highway #801 for 11km all-weather gravel road. Access to these claims is via logging roads, all-terrain vehicle trails and the Namewaminikan or Sturgeon River which cut the middle of the Project dividing the Ishkoday North Claim Block from the southern Lease and Claim Blocks in a NE-SW direction.

7.2 Climate

The mean annual temperature for the area is slightly below the freezing point at –1 Celsius. The average July temperature is +16 Celsius and the average January temperature is –20 Celsius. Average annual precipitation is 726 mm (expressed in mm of water). Rainfall is highest in July averaging 97mm. Snowfall is registered from September to June, with a peak period between November and April.

7.3 Local Resources

The town of Geraldton (Ontario), population of 4,650, is the closest service community. Experienced and general labour, including one laboratory facility for rock sample preparation is readily available at Geraldton and Thunder Bay (Ontario).

An ALS laboratory facility has a rock sample preparation facility in Thunder Bay (Ontario). There are no operating mines in the area. Jellicoe has no services. The town of Beardmore located 40 km W-SW of Jellicoe has some services available.

7.4 Physiography

Topographic relief throughout Ishkoday is moderate, generally less than 60m, with an average elevation of about 340m above sea level. The area is characterized by low ridges and hills, and flat areas of glacial outwash, swamps, small lakes and bogs. Sectors of siliceous rocks, such as felsic volcanic rocks tend to form the ridges flanked by steep metric faults or shears containing foliated Chlorite-sericite (carbonate) and sulphides, forming topographic lows.

The Namewaminikan River forms the main drainage system in the area flowing westward toward Lake Nipigon. The Namewaminikan River has steep sided banks and is quite fast flowing within the map-area.

8.0 MINERAL EXPLORATION HISTORY

8.1 Regional Mineral Exploration History

Since 1925, the OTGB and the BGGB have reportedly produced more than 4,373,300 ounces of gold and 300,000 ounces of silver, from at least 24 mining operations in the belts. Most of the production originated from the southern part of the belt between Beardmore and Geraldton (FIGURE 3).

The Ishkoday' Sturgeon River Mine is one of 24 former producers in the Beardmore-Geraldton/Onaman Tashota Greenstone Camps. The Phoenix property is situated in the northernmost belt, the "Northern Felsic Volcanic Domain", characterized by felsic to intermediate metavolcanics, intruded) by felsic to intermediate stocks (Mason et al, 1985; Mackasey,1971 to 1978.

Historically, the belt has yielded only one significant gold producer; the Sturgeon River Gold Mine, which produced 73,322 ounces of gold and 15,929 ounces of silver from the milling of approximately 145,123 tonnes of ore grading 17 g/t gold from between 1936 - 1942. The ore was essentially mined from the narrow, but high-grade No.3 Quartz Vein associated with an important dominant N-NE trending shear zone with a strike of 193° dipping 80° W and having an average width of 22cm.

Quartz Vein minerals from the Quebec Sturgeon River Mine, include calcite, pyrite, chalcopyrite, sphalerite and gold. Gold is found in quartz veins, in pyrite and between pyrite and gangue minerals, but also in fractures and most commonly associated with pyrite-chlorite-sericite of the wall rocks.

Previous work by other operators prior to LAURION indicated that over 120 quartz veins (Koskitalo,1986) across the Ishkoday project area have the potential for high grade gold values. In several cases these veins form sets of relatively closely spaced and sub-parallel vein sets. These veins are oriented NE-SW to NNE-SSW and occur within a clearly defined tectonic-geologic formation orienting north-easterly onto the Ishkoday north claims. While the veins in the Sturgeon River Mine workings consist simply of gold-silver bearing quartz, many of the veins on Ishkoday host a significant amount of sulphides, mainly sphalerite, chalcopyrite and pyrite.

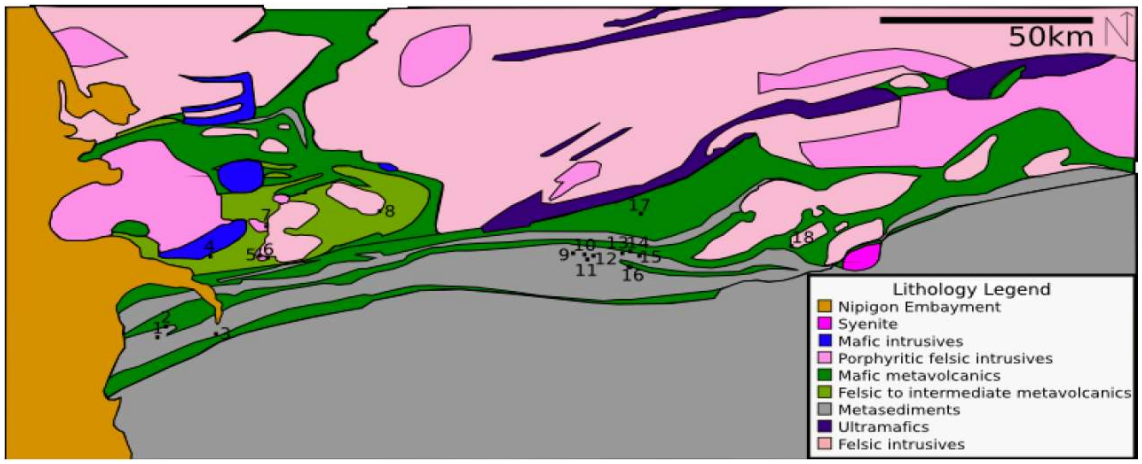


FIGURE 3.0 LOCATION AND GEOLOGICAL MAP OF HISTORICAL MINES

1. Sand River Mine, 2. Leitch Mine, 3. Northern Empire Mine, 4. Maloney Sturgeon Mine, 5. Brenbar Mine, 6. Sturgeon River Mine, 7. Greenoaks Mine, 8. Dik-Dik Mine, 9. Jellicoe Mine, 10. Bankfield Mine, 11. Tombill Mine, 12. Magnet Consolidated Mine,
13. Little Long Lac Mine, 14. Talmora Long Lac Gold Mine, 15. Hardrock Mine, 16. MacLeod-Cockshutt and Mosher Long Lac Mines, 17. Hutchinson Mine, 18. Theresa Gold Mine (After Speed and Craig, 1992; Johns et al., 2003).

8.2 Mineral Exploration History of the Ishkoday Project (pre 2002)

The mineral exploration history from 1925 to 2002 of Ishkoday and surrounding land package is summarized individually as follows (after Koskitalo 1988 and Westoll 2015):

1925
Early prospecting in region.

1934
Coniagas Mines Ltd. formed Sturgeon River Gold Mines Ltd., to operate a new gold mine on the No. 3 gold bearing quartz vein within Ishkoday's Sturgeon River Mine Claim Block.

1935-1942
Sturgeon River Gold Mines Ltd. commenced shaft sinking a three-compartment shaft and underground development in 1936 and proceeded to production at 45 tonnes per day in 1936.Operations were suspended in 1942 due to wartime restrictions of the labour supply and vital materials. By 1942, the shaft had reached 642m and lateral work below the bottom 533m production level showed an expanding picture for both ore veins and grade. Underground development included drifts totalling 6,096m and crosscut totalling 960m. The mine produced 73,322 ounces of gold and 15,929 ounces of silver between 1936 and 1942. Gold production was from narrow, high grade quartz veins between surface and the 533m level at a daily rate between 35 to 70 tonnes per day. The veins averaged 2cm in width, were mined across widths up to 76cm to produce a hoisted grade of 10.28 g/t gold.

1972
Jupiter Minerals Inc. acquired the Sturgeon River Gold Mine holdings and completed geological mapping, magnetic and electromagnetic surveys, sub-humus soil sampling, and extensive prospecting of anomalous areas. A discontinuous, sheared zone with persistent sphalerite, chalcopyrite, and galena mineralization across widths of up to 15m was discovered, but no further work was completed.

Gibbs (1972) completed a report on the "ore reserves" remaining in the shaft. It was reported that there were 489,042 tonnes at an average of 9.60 g/t in 407,564 tonnes indicated by drilling and 81,479 tonnes of "probable ore" over a 2.78m width. Highly erratic values were cut to 34.28 g/t gold (or 1 oz/t). The "ore reserves" and "probable ore" are historical in nature, and a qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and LAURION is not treating the historical estimate as current mineral resources or mineral reserves

1983-1986
From 1983 to 1986, Phoenix Gold Mines Ltd. completed significant exploration work within the original Sturgeon River Mine Claim Block (included in the current Ishkoday Main Claims).

It was reported that tonnages of ore were left in place and new undeveloped orebodies were indicated in the shaft. As well, Phoenix sent a 7-tonne sample of ore for testing which indicated the higher-grade ore could be effectively sorted by mechanical means using a colorimetric upgrading technique for broken ore, such as the No. 3 vein which recovered 98.5% of the white quartz vein material that yielded a grade of 86.63 g/t gold.

During 1984 to 1986, Phoenix re-mapped the claims, completed geophysics and considerable stripping and trenching, basal till sampling, additional bulk sampling of surface stockpiled material from the No. 3 mine workings, and diamond drilling.

In 1984, Phoenix targeted a possible southwestward extension of vein systems developed in the former Sturgeon River Mine. Drilling yielded few encouraging results. Phoenix Gold Mines Ltd., targeted areas outside of the mine area, and discovered over 100 potentially gold

bearing quartz veins which were subsequently trenched and sampled. At the conclusion of their program, Phoenix recommended follow up diamond drilling on the 85-M1, A-9, A-11R, 85-A2, A2, A4, and A5-A6 quartz vein areas.

In 1985, Phoenix worked in the Marge vein area, located approximately 600m north of the No. 3 vein shaft. The vein was extended a further 145m. Previous work carried out on the Marge Vein reported an average grade of 22.61 g/t over a width of 35 cm and a length of 155m. The exposed new section carried an average of 9.14 g/t gold across a width of 37 cm. The vein reportedly disappeared under a swamp to the NE. The last surface exposure of Marge vein carried visible gold and a grade of 54.43 g/t gold across 91cm. The exploration also identified and sampled smaller veins, all throughout the area.

In 1986, Phoenix reported an estimated 220,000 tons of mine grade "ore reserves" above the 535m level at the Sturgeon River Mine. The "ore reserves" are historical in nature, and a qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves; and LAURION is not treating the historical estimate as current mineral resources or mineral reserves.

1988

In 1988, Placer Dome Ltd., optioned the claims, and completed a program of re-evaluation, line cutting and diamond drilling to test the 85-M1 vein (Marge Quartz Vein), the 85-2 and A-3 veins, the A5-A6 vein system, the A-2 vein and the J-vein. From May to December 1988, a total of 4,213m of BQ core was drilled in 25 holes (DDH351-001 to 025). The best results included 5 holes ranging in grade from 4.80 g/t gold over 0.9m to 18.5 g/t gold over 0.9m. Placer subsequently returned the claims to Phoenix.

1990

St. Andrew Goldfields Ltd. acquired the Sturgeon River Mine Project from Phoenix. In 1996, Watts, Griffis and McOuat was retained to complete a valuation of the St. Andrew Goldfields Ltd.'s assets, and a fair market value was established for the Sturgeon River Mine Project. 2001 Roxmark Mines Ltd. processed 4,545 tonnes from the existing waste rock stockpile on the Project.

2002

St. Andrew Goldfields Ltd. completed an in-house valuation report on the Project.

Historic Mineral Exploration by LAURION (2007 to 2018)

The following is a description of surface exploration work completed by LAURION on Ishkoday from 2007 to 2014 (Westoll, 2015).

2007

LAURION acquired Ishkoday from St. Andrew Goldfields Ltd. and completed an independent environmental due diligence report. The report found the historic waste stockpile and tailings located on Ishkoday from the former Sturgeon River Mine (1936-1942) to be non-acid generating and benign.

2008

LAURION collected a total of 14 selected grab samples during a preliminary project visit. Caracle Creek International Consulting Inc. completed a channel sampling program composed of 50 channel samples on the NW steeply dipping Marge gold-quartz vein over an identified strike length of approximately 365m. A NI 43-101 Technical Report was also completed for the Sturgeon River Mine Claim Block and was filed on SEDAR.

In 2008, high resolution aeromagnetic, VTEM and radiometric surveys were completed by Terraquest Ltd., for Kodiak Exploration Ltd., over an area of 14km (E-W) and 13km (N-S), completing 6,992-line kilometers at 100m line-spacings, covering the Ishkoday core claims and a portion of the North Ishkoday claims.

The survey identified and unexplained (to date) VTEM anomaly in the SE part of central Ishkoday (Figure 9). The anomaly lies between rhyolite flows and tuffs to the N and basaltic (-andesitic) volcanic rocks to the South. The airborne anomaly is located over a swamp which contains no outcrop.

Also, in 2008, a helicopter-borne magnetic and EM survey was completed by Pro-Am Exploration; a total of 446km lines was completed at 100m line-spacings, covering the total area of the Ishkoday North claims block. The Ishkoday North claim lock is covered by 50% to 65% overburden and was completed as a necessary method for geological and structural interpretation. Two dominant regional and northerly diabase dykes were interpreted from the magnetic data. A distinct E-W trending linear that transects the Project, which is sub-parallel to the Paint Lake Fault to the south.

2010

LAURION retained GeoVector in order to design the 2010 Ishkoday exploration program. Sampling by GeoVector of surface showings from the No. 3 gold-quartz vein at the former site of the Sturgeon River Mine returned 95 g/t gold and 51.6 g/t gold over a 30cm vein width, confirming the historically reported higher gold grade nature of this vein at surface. In addition, two samples of the adjacent host rock over approximately 50cm width returned values of 1.35 g/t gold and 1.16 g/t gold, indicating that the host rock may well carry significant gold grades. Some 165m South of the Sturgeon River Mine, two samples taken from the No. 3B quartz vein returned values of 34.6 g/t gold and 25.3 g/t gold.

GeoVector completed a 5-hole diamond drill program totalling 353m on the Marge Quartz Vein which was designed to intersect the vein at right angles over a 150m strike length. Significant gold assays were returned.

GeoVector also completed a project wide mapping and sampling program, which resulted in the discovery of two new higher-grade gold mineralized zones. In total, 100 surface selected surface grab samples were collected at the Tala mineralization trend and 92 samples on the Asha mineralization trend. The first discovery zone at Tala, is located west of the Sturgeon River Gold Mine area and appears to be on strike and E of the Argonaut (previously Prodigy Gold) Brenbar project. The second discovery zone at Asha is located south of the Sturgeon River Mine area. Higher gold assay values were clustered along an E-NE trend over a 1.8km of strike length.

The Tehya Zone showing was stripped of overburden to expose the mineralized zone for mapping and channel sampling, following two promising diamond drill holes results in the area.

Initial sampling by GeoVector of the waste stockpile at the Sturgeon River Mine returned a range of 0.06 g/t gold to 10.20 g/t gold with an average grade of 2.83 g/t gold from 8 random samples. It was reported in 1984 that a bulk sample extracted at that time by front end loader returned an average of 2.95 g/t gold. On the basis of these initial results, LAURION commissioned a comprehensive program to accurately determine the location and volume of the waste stockpile, and to sample the stockpile using an excavator to dig pits to acquire representative samples throughout the stockpile.

LAURION also completed 5 deep diamond drill holes totalling 3,516m below the Sturgeon River Mine workings to test the down dip extension of the No. 3 Quartz Vein. (LME10-008 to -010)

2011

LAURION acquired an undivided 100% interest in 13 mining claims totaling 179 units and primarily located in Pifher Township known as the Ishkoday North Claim Block.

LAURION retained Quantec Geoscience to complete two induced polarization and magnetic surveys carried out on the NE Grid at the Ahki mineralization trend and the SE Grid at Asha Zone. The survey was carried out over 16-line kilometres with 100m line spacing and 25m station intervals using TDIP pole-dipole array for the IP.

Seven diamond drill holes totalling 1,104m tested anomalies on the NE Grid at Ahki, the Makwa mineralization trend and at the Tehya Extension. All 7 holes intersected silver-copper-zinc +/- gold mineralization. Makwa is located northeast of the No. 3 vein.

6 diamond drill holes totalling 1,360m (LME11-018 to LME11-023) targeted multiple strong chargeability anomalies identified by the induced polarization survey on the southwest grid carried out by Quantec Geoscience on the Asha trend. Drilling totalling 280m (LME11-024 and LME11-025) examined the extent of the previously drilled Tehya at depth and along the 800m strike length between diamond drill holes LME10-007 and LME11-017.

2012

LAURION commenced a prospecting program covering the Tehya, Ahki, the Loki and a mineralization trends ("Loki" and "A") of base and precious metal sulphide trends. The program focused on the base metal occurrences in these trends to evaluate the VMS potential of the Project. LAURION mapped and sampled the polymetallic base metal veins, rarer gold and base metal veins as well as the gold in quartz veins with little to no base metals associated. The reader is referred to Westoll (2015) for details of this exploration program. A drilling program totalizing 3218m for 23 DDH was achieved, targeting mainly the A Zone, and also a possible extension north east of #3 vein.

2013

GeoVector completed a NI 43-101 Mineral Resources Estimates for the stockpile and tailings area associated with the processing of ore feed from the Sturgeon River Mine. The estimates for the stockpile were 144,070 tonnes grading 1.59 g/t gold for 7,383 contained ounces of gold in the Indicated category. The resource estimate for the tailing was 137,501 tonnes grading 1.67 g/t gold for 2,944 contained ounces of gold in the Indicated category. Total Indicated mineral resources for both the stockpile and tailings totaled 281,571 tonnes grading 1.14 g/t gold for 10,327 contained ounces of gold. The estimates were prepared by Dr. A. Armitage, P. Geo., an independent consultant to LAURION. The NI 43-101 report was filed on SEDAR.

Channel sampling followed up on several new discovery zones identified in a prospecting program (Westoll 2015).

2014

LAURION completed a drill program was composed of a total of 533m of diamond drilling completed in 4 holes (LBX14-016, LBX14-017, LME14-030 and LME14-031) in January 2014. In March 2014, two strategic diamond drill holes (LBX14-018 and LBX14-019) totalling 424m on the high grade polymetallic "A" Zone of the Loki Trend.

2018

In early 2018, LAURION designed a long term 3-stage exploration program over a 3-to-5-year period with the prime objective of rapidly defining a significant near-surface bulk metal polymetallic system in the order of 10 million gold equivalent ounces that could potentially be mined in one or more open pits. It was believed at the time there was sufficient evidence from the historical and LAURION's work for this potential to exist in a 3km by 1km are containing all of the known precious and base metals mineralization known to date.

Stage 1 consisted of an initial field validation exploration program with a first-pass interpretation to prove the existence of sufficient polymetallic mineralization that may offer the proposed Potential. Some 80% of Stage 1 was completed in 2018. The remainder formed part of the 2019-2020 Stage 2 exploration program that is to determine the actual Potential of the mineralized system via further outcrop stripping, continuous channel sampling, assaying, 2D and 3D geological modelling, and targeting to outline specific areas at Ishkoday. The 2021-2023 Stage 3 exploration program would ultimately consist of defining the size of the Ishkoday mineralized system in Mineral Resources of all categories.

In Stage 1 - Phase 1 work from May to July 2018, LAURION recompiled the available Ishkoday data, and followed-up with prospecting of poorly explored areas of the North Claims and the Target Area of the South Claims in an expedited fashion in order to move the project to the next exploration phase. The activities included regional prospecting, limited regional geological mapping and the prospecting of known mineralized "veins" and their extensions, and new areas in the less explored North Claims, located north of the Namewaminikan River.

Some new mineralized quartz vein occurrences were discovered on the North Claims. These vein sets were systematically manually stripped and sampled. Outcrop stripping, mapping and sampling was also done in the southern portion of the claims including the "85-A2" gold-quartz vein system and the polymetallic base metal veins. Hand stripping was completed in two areas, the "Jack showing" adjacent to Highway #801 and the 5157 area which was southwest of the 85-A2 Quartz Vein system.

The Phase 1 - Stage 2 work included mechanized and additional manual outcrop stripping, channel sampling and assaying. Two large, stripped areas/trenches, TR18-1 and TR18-2, were completed during this stage. Trenches were channel sampled in a semi-continuous fashion at 0.2m to 1.5m intervals. Trenches were designed to expose the favorable geology and veins associated with the 85-A2 Quartz Vein system (in TR18-1) and to test the lateral continuity of the gold mineralization and alteration on strike to the southwest.

Stripped area TR18-1 was constructed about 1km NE of the Sturgeon River Mine. The stripping was designed to expose a suite of NE-SW gold bearing quartz veins carbonatized and/or sericitized selvages that include the 85-A2 and other gold bearing quartz veins previously identified and to channel sample them in a semi-continuous fashion. Veins pinch and swell along strike from a few centimeters to locally over a meter in width. Quartz veins contain minor pyrite and rare chalcopyrite. The veins typically form anastomosing patterns. Thin 020^0 trending chlorite-magnetite polymetallic veins occur sparsely in TR18-1 and correspond to base metal values in the channel samples.

The stripped area TR18-2 was designed to expose the geology and explore for gold bearing veins on strike with those veins exposed in TR18-1 (SW of TR18-1). The trench intersected volcaniclastic and tuffaceous volcanic rocks, felsic to intermediate flows and intermediate composition intrusive rocks similar to rocks in TR18-1.

The 2018 exploration program at Ishkoday focused on determining the extent and grade of selective vein sets, whether gold-quartz or gold polymetallic veins and stockworks, which could further advance the overall potential. The work also enhanced the understanding of the mineralizing systems and confirmed the results of the historic work and confirmed that the polymetallic base and precious metal systems are long lived, multi-generational events that are clearly associated with structures formed by the deformation events that have affected the area.

In 2018, LAURION completed total of 20 SONIC drill holes on the Stockpile for 185.3m, averaging 9.3m in a range of 3.7m to 15.2 m. Each of the SONIC drill holes was strategically positioned to sample the inner core of the Stockpile to a minimum of 1.5m below the base of the Stockpile. However, additional specific gravity work of the Stockpile indicates ranges of 2.20 to 2.40 t/m3,

with a new volume range between 75,000m3 to 80,000m3 over an area of 12,000m2 or in the range of 150,000 to 190,000 tonnes, with gold grades between 0.67 to 1.59 g/t gold.

LAURION also completed Metallurgical laboratory test work on its surface stockpile. The purpose of the test work was a follow-up of the 2010 and 2014 testing, designed to evaluate the gravity recoverable gold followed by flotation of the gravity tailings to recover any remaining gold.

2019

The 2019 Stage two Field Campaign consisted of mechanized outcrop stripping, geological mapping and prospecting, channel, and selected grab sampling, assaying and litho-geochemical analysis, stripped area rehabilitation, a detailed airborne drone magnetic survey, current and historic data compilation and synthesis, 2-D and 3-D geological modelling, and reporting.

Outcrop stripping totalling 41,067m^2 was completed in 6 areas, of which 22% was rehabilitated in 2019:

- TR18-3 at the M24 Quartz Vein for 5,294 m^2 covering trenches numbered #1, 9, 10, 15, 16, 19, 21 and 24;
- TR19-1 at the Nos. 1, 2, 3 and 8/11 Quartz Veins (including the Coniagas Quartz Vein) for 4,943 m^2 covering trenches numbered #2, 4, 5, 6, 8, 11, 22 and 23;
- TR19-2 at the CRK Zone Oxide-Sulphide, Sulphide and A-2 Quartz Veins for 14,173 m^2
- covering trenches numbered #31 to #37, #39, 40, 41, 54 to 58, and 62 to 64;
- TR19-3 at the Marge, "F" and "X" Quartz Veins for 11,694 m2 covering trenches numbered #42 to 53 and 60;
- TR19-4 at the M23 and M25 Quartz Veins for 2,425 m^2 covering trench numbered #61;
- TR19-5 at the A9 and Nos 8/11 Quartz Veins for 2,538 m^2 covering trench numbered #59;

A total of 3,581 channel and 239 selected grab samples were sent to ALS Group laboratory for assay and limited litho-geochemical analysis.

2020

The Corporation's 2019 exploration work identified three major gold-mineralized trends, Sturgeon River Mine, M25/Marge and Loki, which extends along strike for 2+km, 1.8+km and 3+km, respectively.

A 3D conceptual model of the A-Zone, produced in GEMCOM™ by A. S. Horvath Engineering Inc., was initiated in December 2019 and completed in March 2020 in advance of the 2020 drill program. The model integrated approximately 26,000 m of historic (1987 to 1992) and recent (2012 to 2014) drill core and suggests that two orientations (010^0 and 035^0) of sub vertically dipping mineralized vein structures are present in the area.

Several large, NE-trending anomalous zones were identified, with chargeable and/or resistive zones extending to depth. Several of the new anomalies coincided with known gold mineralization in the A Zone. These results were used to aid in targeting during the ongoing 2020/2021 drill campaign.

On a property scale, the A-Zone lies near the northeast boundary of the ellipsoidal Sturgeon River Stock. The elongation of the stock, coupled with the nearby shear zones inferred through previous Ontario Geological Survey, Laurentian University Metal Earth and the Corporation mapping and geophysics, suggests that the A-Zone is hosted in a major prospective extensional zone.

In May 2020, the Corporation commenced the first of two diamond drill programs, comprising of 21 diamond drill holes of 4,925 metres, which focused of the A-Zone located 3.5 km to the

northeast of the Sturgeon River Mine. This drill program focused on testing historic intercepts and the validity of a new structural model previously reported for the A Zone of the Loki Trend.

The A-Zone drilling indicated a gold-enriched VMS-Style Mineralization Highlights:

- A wide, gold-bearing, low-grade zinc interval has been intersected in rock setting consistent with high-grade
- Volcanogenic Massive Sulphide (VMS)-style mineralization;
- Open for >400 m along trend to the northeast and >700 m to the southwest (total strike length of >1.1 km) and at depth;
- Zinc-bearing stratigraphy traced between seven 2020 drill holes;
- Widths vary from 3.37 to 63.93 m (true thickness estimated at >60%); and
- Corresponds well with a chargeable Induced Polarization anomaly identified in 2020.
- Infill assay sampling completed on two of the A-Zone drill holes, identified the presence of an unsampled, moderately dipping, 2 to 5 m wide shear zone with associated quartz veins in holes LBX14-016 and LBX14-017.

For the second phase of this program (LBX20-016 to LBX20-021), the drill was moved 800 m southwest of the main A-Zone to the McLeod Zone. Drill Holes on the McLeod sector tested a number of historic holes, testing a high-grade sulphide sector and to the northwest. The McLeod Zone appears to be a direct continuation of the gold mineralization intersected 700 m along trend of the A-Zone.

The gold-bearing veins and shear zones can be traced directly between these areas and imply continuity of mineralization, although the style of mineralization differs somewhat at McLeod:

- The mineralized, shear-hosted veins intersected are generally much wider and vary from 1 cm to 100 cm in true width; and,
- The orientation of the shear zones varies, and vein widths increase with the changing orientation.

In September 2020, LAURION commenced the second phase of a 10 holes Diamond Drill Program comprising of 2,962 m, focused on testing the mineralization both along and across strike at the CRK, Azurite, Ahki and Cooper Zone, and several other parallel NE- or N-striking mineralization.

The focus of this drill program was to define a low-grade halo around the main CRK trend, which is located approximately 1,400 m to the southwest of the A-Zone and McLeod Zone.

9.0 REGIONAL GEOLOGY AND SETTING

Ishkoday is located in the Onaman-Tashota Greenstone Belt ("OTGB"), which lies to the north and contiguous to the Beardmore-Geraldton Greenstone Belt ("BGGB"), situated in the Wabigoon Sub province in the Superior Geological Province (Stott et al., 2002). The 30 km wide southern BGGB extends for 180km from Lake Nipigon eastward to the town of Longlac (Ontario).

The BGGB is interpreted as a transitional metavolcanic and metasedimentary terrain separating the granite-greenstone OTGB to the north from the metasedimentary Quetico Subprovince further to the south. The north boundary of the BGGB against the OTGB is defined by the Paint Lake Fault, a major regional deformation zone similar to Cadillac-Larder Lake, Destor-Porcupine and Casa Berardi Breaks, major gold bearing regional deformation zones of the Abitibi Greenstone Belt in Quebec and Ontario, located some 650km to the east.

The south boundary of the BGGB is separated from the 2698Ma to 2688Ma Quetico Subprovince wackes and arenites by the Blackwater River Fault near Beardmore. The Quetico

Subprovince rocks are metamorphosed to greenschist facies next to the BGGB and to granulite facies further south. The OTGB consists of 2980Ma to 2710Ma supracrustal rocks intruded by 2690Ma to 2920Ma granitoid plutons. The OTGB just north of the BGGB consists of a succession of felsic, intermediate and mafic metavolcanic, part of the 2740Ma Elmhirst-Rickaby Assemblage, which correlate with the metasedimentary rocks in the BGGB.

The BGGB is dominated by an E-NE trending, isoclinally folded sequence of mafic to felsic metavolcanics and overlying metasedimentary rocks. These rocks are cut by a series of felsic to intermediate dykes and plutons. Lower Proterozoic diabase dykes crosscut all of the above units and felsic intrusives and are interpreted to postdate mineralization.

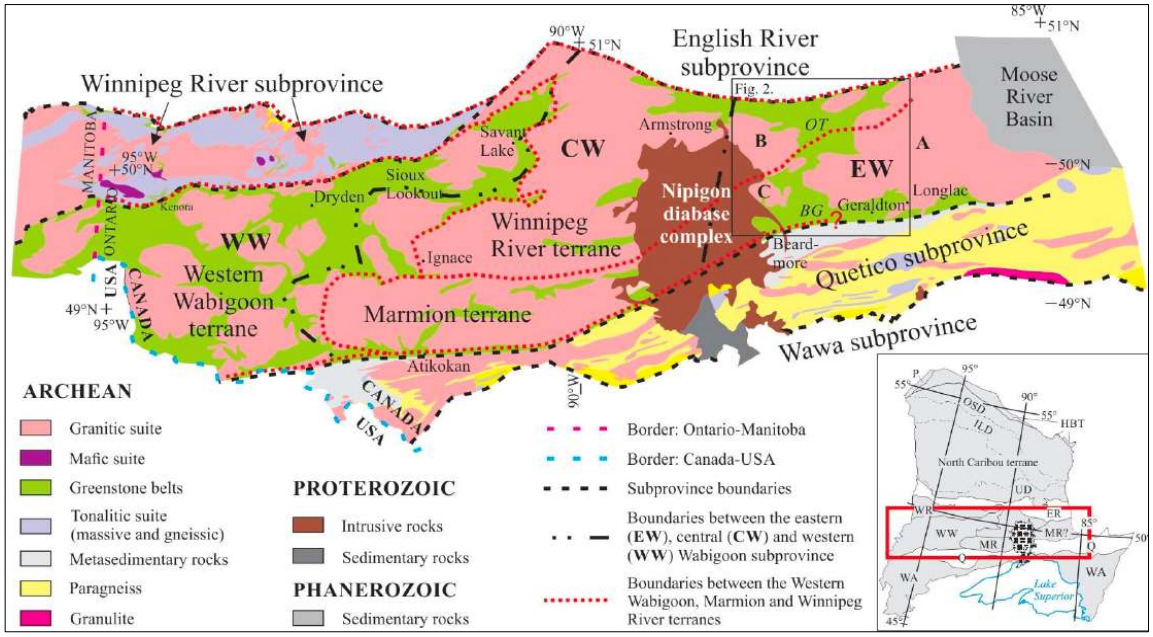
In detail, the OTGB consists of felsic to mafic metavolcanic (calc-alkaline and tholeiitic) sequences bound to the south by the BGB's northern contact defined by the Paint Lake Deformation Zone. Metavolcanic rocks of the OTGB are deformed into arcuate shaped belts related to the emplacement of ovoid granitoid intrusions.

Regional structures and stratigraphy exhibit N-NE trends while late NW-SE trending fragile structures are common in the southern part of the OTGB. The mafic metavolcanic rocks are interbedded with felsic pyroclastic rocks and quartz-feldspar porphyries with rhyolite flows. The mafic meta-volcanic rocks consist of massive to foliated, pillowed, porphyritic and amygdaloidal flows and chlorite schists, tuffs and agglomerates. The felsic metavolcanics consist of rhyolitic to rhyodacitic flows, rhyolite porphyry, crystal tuff, lapilli-tuff, tuff breccia, rhyolitic quartz feldspar porphyry and pyroclastic breccia.

9.1 HISTORICAL GOLD PRODUCTION IN THE REGION

The Beardmore-Geraldton Gold Camp has historically produced more than 4.12Moz of gold from 19 producing mines since 1925 (Figure 3). Most of this production came from two gold areas, the Geraldton Camp and the Beardmore Camp. The balance of gold production came from several small mines scattered 35km NE of Beardmore and one deposit south of Longlac. Most of the gold emanated from narrow, high grade, lode gold bearing quartz veins.

FIGURE 4.0 REGIONAL MAP OF WINNIPEG, WABIGOON AND QUETICO SUBPROVINCES



Regional geological maps of the Winnipeg River, Wabigoon and Quetico subprovinces showing the historical subdivision (WW: western Wabigoon subprovince; CW: central Wabigoon subprovince; EW: eastern Wabigoon subprovince) and the new subdivision (modified after Beakhouse, 1991; Blackburn et al., 1991; Sutcliffe, 1991; Williams, 1991; Morris, 1999; Tomlinson and Dickin, 2003; Tomlinson et al., 2004; Lu et al., 2013). Abbreviations: Greenstone belts: BG: Beardmore-Geraldton greenstone belt, OT: Onaman-Tashota greenstone belt, Plutons: **A**: Onaman Lake batholith, **B**: Ombabika batholith, **C**: North Wind pluton.

The inset map below shows the location of the BGB in the western Superior Province (after Percival et al., 2012). Abbreviations of terranes: ER: English River; HBT: Hudson Bay; MR: Marmion; P: Pikwitonei; Q: Quetico; WA: Wawa-Abitibi; WR: Winnipeg River; WW: Western Wabigoon; Domains of North Caribou terrane: ILD: Island Lake Domain; OSD: Oxford-Stull Domain; UD: Uchi Domain

10.0 GEOLOGY OF THE ISHKODAY

At least three styles of mineralization have been identified on the Ishkoday property:

1. Early syn-volcanic gold and base metal mineralization occurs along sulphide-rich horizons
2. and possible feeder stockwork and breccia zones NE-trending quartz veins axial planar to F1 folds or as tension gashes oblique to this trend.
3. Late Quartz-Actinolite-Chlorite orogenic veins.

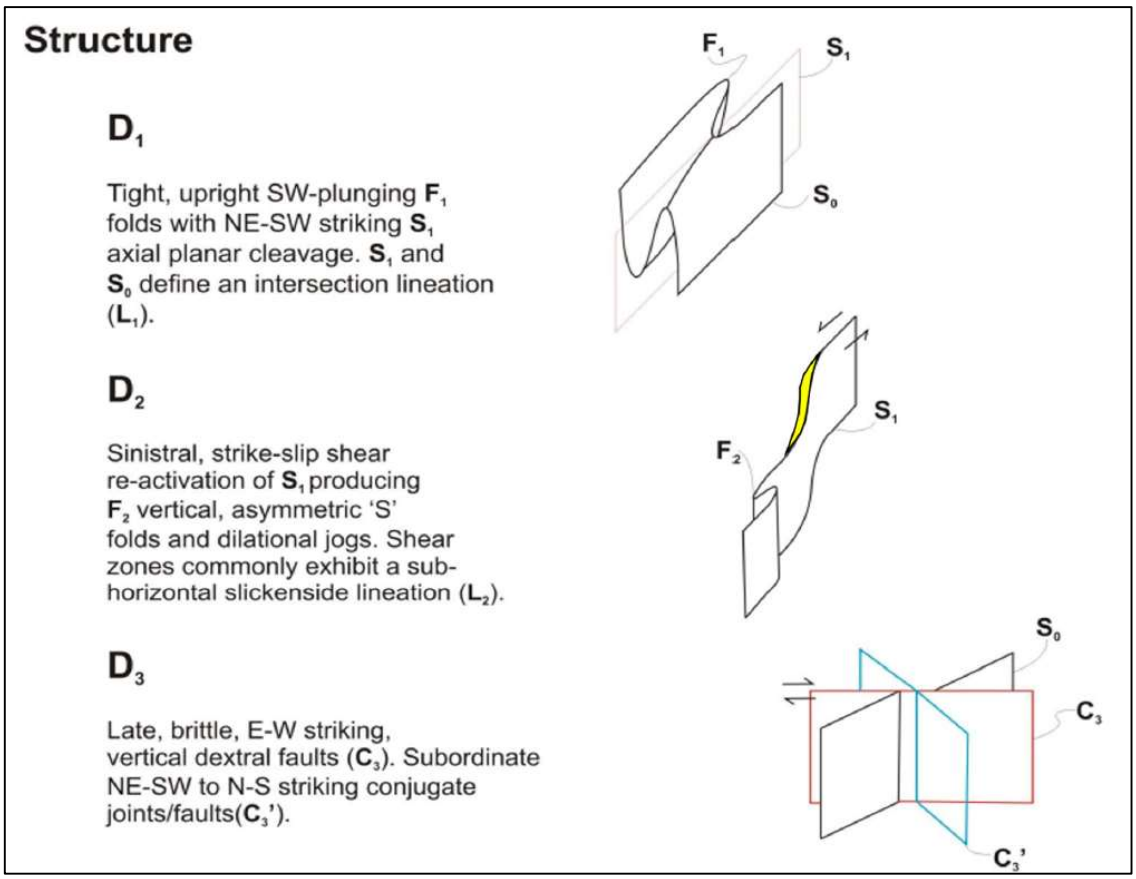
Three generations of deformation have been previously recognized regionally (Lafrance, 2004, DeWolfe et al. 2007, Toth, 2019) and at a property scale (Kruse, 2014). D_1 represents an early regional N-S shortening event, which resulted in the production of isoclinal F_1 folds and related S_1 axial planar cleavage. D_2 is characterized by structures related to sinistral transpression and reactivation along the S_1 foliation, resulting in S-shaped F_2 folds and a N to NE-striking, en echelon set of extensional quartz veins. D_2 may have been a temporally discrete deformation event or, more likely, it may have been the result of late-stage partitioning of D_1 from N-S shortening to transpressional shearing as stratigraphy was rotated into a sub-vertical orientation.

Regionally, D_3 is characterized by dextral transpression which overprinted earlier sinistral fabrics with Z-shaped F_3 folds and second regional cleavage (Toth, 2019). At a property-scale, D_3

structures occur as ubiquitous late, high level dextral faults and jointing which transect the property. Offsets along these faults were observed to be on the order of < 1 m.

Gibson (2014) suggests that both base-metal bearing sulphide horizons and associated gold mineralization was likely produced in a syn-volcanic transitional epithermal-VMS system and thus, pre-date D_1 deformation. From an exploration perspective, structural thickening and repetition of sulphide horizons that occurred during D_1 imbricate thrusting could produce prolate, plunging "shoots" parallel to the local F_1 fold axis orientation. This has been the prevailing exploration model on site in recent exploration programs in addition to shallow level VMS stockwork as well as late (?)-stage orogenic gold mineralization. More recently, LAURION has shifted from narrow vein-hosted gold targets to exploring the low-grade bulk-tonnage potential of the property.

FIGURE 5.0 STRUCTURAL DEVELOPMENT OF THE ISHKODAY PROPERTY (KRUSE 2014)



Dilation jogs are highlighted in YELLOW

FIGURE 6.0 STRUCTURAL AN STRATIGRAPHY CONTROLS ON ISHKODAY MINERALIZATION

Field observations and structural measurements show that the area comprises tightly folded isoclinal folds with a regional fold axis with shallow dips (15-35°) and trending NE-SW, locally varying to NS.

Folded sulphide horizon observed at the A zone stripped area

Fold hinge in the sulphide rich horizon at the A zone stripped area

Folded S0 in the intermediate volcanics of the stripped A zone area

MIRA GEOSCIENCE 2020

FIGURE 7.0 STRUCTURAL AND STRATIGRAPHICAL CONTROLS ON MINERALIZATION

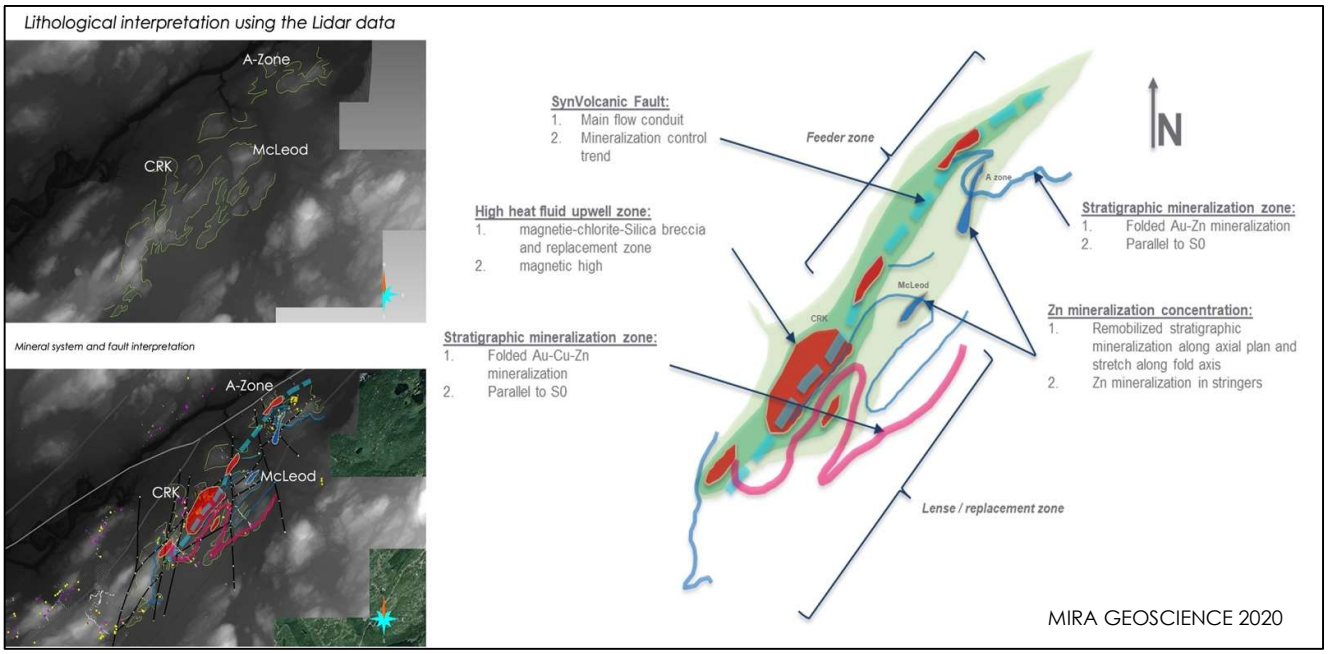


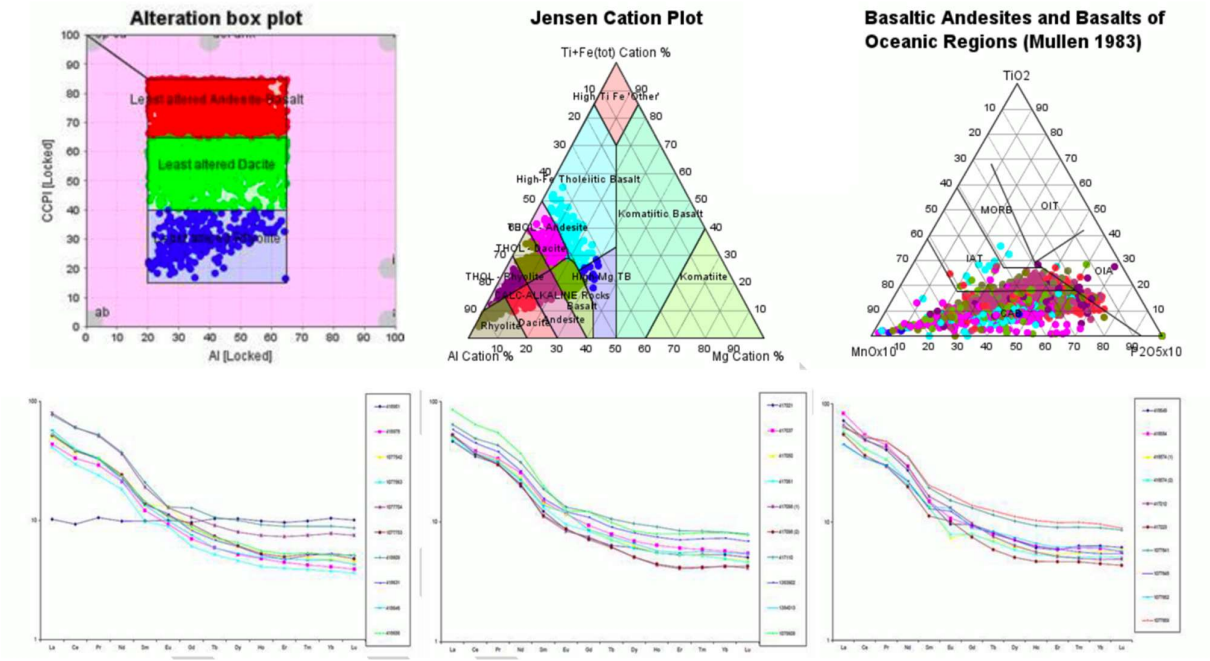
FIGURE 7.0 above - The mineral system identified over the A zone – CRK trend shows metal and alteration zonation with CRK interpreted to represent the highest temperature portion of the hydrothermal system and the A - Zone representing the feeder structure. The higher temperature zone comprises extensive chlorite alteration and silicification with varying amounts magnetite. These high heat flow zone have been modelled using the 3D constrain inversion of the magnetic data.

10.1 Geochemical Interpretation

Whole rock chemistry of least altered rocks agrees with previous interpretations (Lafrance et al. 2004, Gibson, 2014) of calc-alkaline chemical affinity of the majority of the volcanic and intrusive rocks on Ishkoday. The geochemical data resulting from multi-element analysis can be used to interpret the volcanic setting and identify key rock compositions.

When looking at the unaltered rock geochemistry, on the Ishkoday rocks exhibit a bimodal distribution varying from basaltic to rhyolitic compositions. The geochemistry also suggests a bimodal volcanism associated with an Island Arc Calc-Alkaline environment. This is further supported by the LREE enrichment of the volcanic lithologies. This environment is conductive to the formation of volcanogenic type mineralization.

FIGURE 8.0 GEOCHEMICAL INTERPRETATION (Mira Geoscience - 2020



10.2 Orogenic Structurally Controlled Mineralization

Orogenic associated mineralization is mostly observed as veins and shear hosted Au mineralization. The vein systems at Ishkoday are mostly controlled by the regional NE first order structures and third order structures developed as part of a strike-slip deformation regime. The veins are often associated with more competent lithologies, which allow for open fracturing during deformation and Fe-rich units which act as chemical traps for the mineralization.

The syn- to early tectonic, fault-fill style, crack-seal textured, gold bearing quartz veins have been described as the "Sturgeon River" style ("Quartz Veins"), with a distinct carbonate-sericite-chlorite alteration halo that locally includes iron carbonate and pyrite. Several veins have been historically identified and systematically named and most veins extend over more that 100M up to 1,000m in strike length. The veins occur as multiple individual sinuous and anastomosing centimeter to meter wide veins that also pinch and swell, and form corridors tens to several hundred meters wide. Within these corridors, individual veins trend in at least

three different directions, likely due to the changing strain field during the progressive deformation of the belt.

There may be at least three observable generations of quartz veining. An early crack and seal veining event, with centimeter-wide laminar, foliated veins lined with chlorite and sulphide disseminations and laminas, that may host altered and sheared host rock. A second, later central massive white quartz, barren in sulphide, but containing rare altered and sheared host rock; and a late crosscutting massive quartz vein with chlorite as disseminations and centimeter aggregates, commonly found at right angles in the necks of quartz boudins (*Mira Geoscience - Jean Phillipe Paiement – 2020 – Internal Memo*).

FIGURE 9.0 OROGENIC TYPE Au VEIN MODELS (Mira Geoscience - 2020)

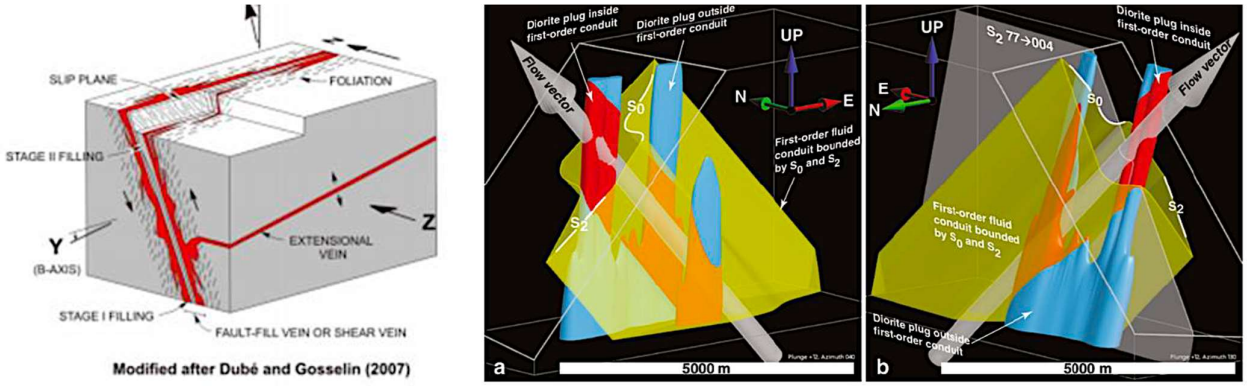


FIGURE 10.0 EXAMPLE OF OROGENIC Au VEINS ON ISHKODAY

Au Vein as extensional veins (*left)*, Boudinaged veins (*middle*) and Laminated (*right*) – (*MIRA GEOSCIENCE 2020*

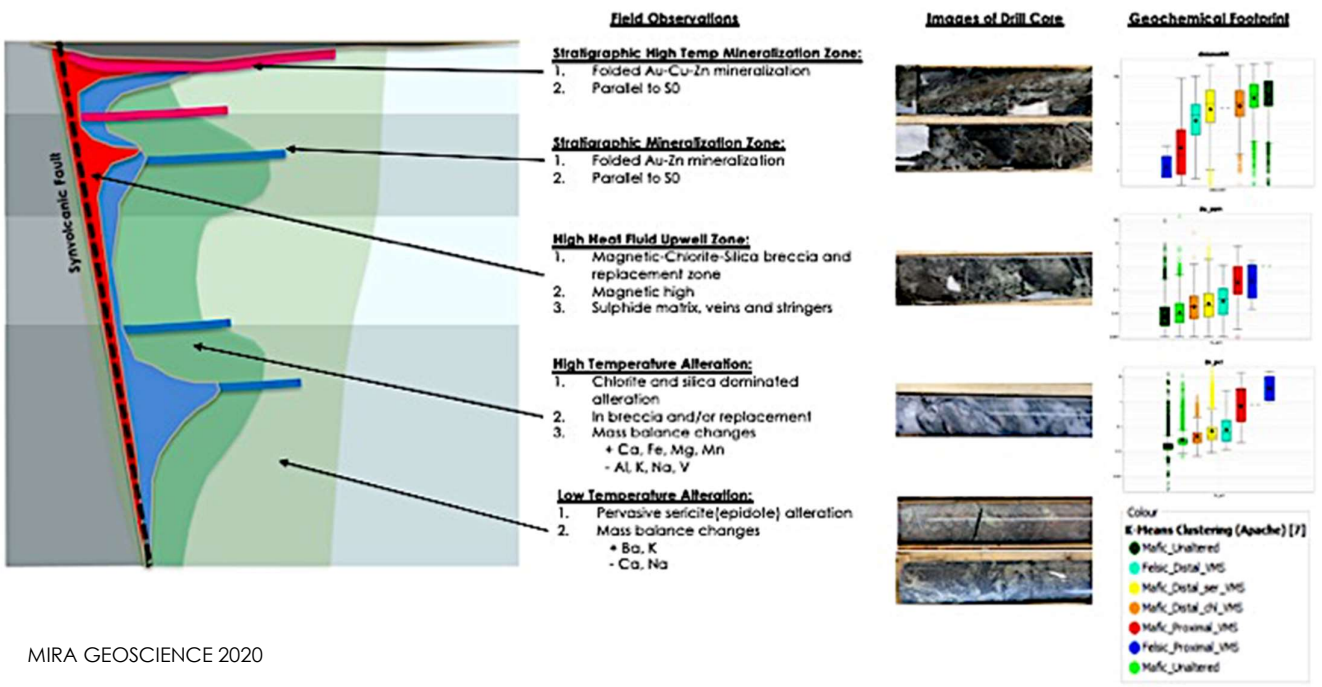
10.3 Volcanogenic Mineralization

The volcanogenic mineralization at Ishkoday mostly comprises Au-Zn mineralization with variable amount of Cu-Ag-Pb. This mineralization type is interpreted to represent an early, likely syn-volcanic hydrothermal system, termed the "Ishkoday" style, manifested as discordant, zoned, stockwork-style veins consisting of a magnetite-actinolite(-sulphide) core ("Oxide-Sulphide Veins"), and a peripheral zone of hydrothermal veins, within patchy to pervasive epidote-sericite-carbonate-K feldspar alteration, with minor pods of chlorite alteration. The zoned nature of the alteration system suggests progressive temperature changes with the feeder structure and apex proximity.

The system extends for a minimum 1.2km in strike length over a known width approaching 450m. The high crustal shortening in this area of the Project generated a series of isoclinal folds with regional axis trend NE, locally changing to NS as parasitic folds. The deformation is also responsible for the parallelization of the syn-volcanics system with possible remobilization of sulphides in fold hinges or as axial plan veining.

Mineralization is observed as massive, deformed sulphide rich horizons mostly comprising pyrite-sphalerite-chalcopyrite with varying amounts of magnetite and quartz. A second type of mineralization is also observed and is composed of sphalerite-rich veins, also containing pyrite, chalcopyrite, galena, silver and gold ("Sulphide Veins"), which are interpreted to be part a larger stockwork zone which forms the feeder structures.

FIGURE 11.0 VOLCANOGENIC MINERALIZED MODEL FOR THE CRK ZONE



MIRA GEOSCIENCE 2020

10.4 Exploration Data

The Ishkoday holds a very extensive exploration dataset comprising numerous geophysical airborne and ground survey, extensive surface sampling (grab and channels), both historical and recent drill holes together with lithological and structural interpretations. The data has recently been compiled by Mira into a single 3D CAD platform (GOCAD Mining Suite) to perform data reviews and exploration model constructions.

Numerous recent and historical geophysical survey exist over the project area. The surveys mostly consist of airborne magnetic, EM and ground IP. The surveys were acquired by past owners and LAURION, and all the compiled data was made from either the databases or the gridded properties.

The Ontario Geological Survey (OGC) magnetic survey (1989) covering the property is part of a regional Beardmore-Geraldton Belt survey and shows magnetic properties and apparent resistivity. This survey was mostly used for regional structural interpretation and 3D modelling of the Coyle Lake intrusive suite.

The Geotech HeliTEM survey mostly covers the northern portion of the Property (North of the Sturgeon River) and has magnetic properties attached to the grid. Since most of the exploration is currently focused on the South portion of the Property, this survey hasn't been utilized yet.

In 2008, TerraQuest acquired magnetic and radiometric data over the southern portion of the Property. The magnetic and radiometric, especially the Potassium count, were used in both the detailed structural interpretation and geological model building.

The Geotech VTEM survey covering the Southern portion of the Property has been acquired in 2010 by Kodiak. The magnetic data was used, in combination with all other magnetic survey to conduct and unconstrained inversion and constrained modelling of the magnetic anomalies. Furthermore, the EM data was inverted via 1D inversion to help in modelling more conductive lithologies. Early to mid-channels were also submitted to manual anomaly picking in order to identify possible discrete conductors possibly associated with sulphide mineralization.

Unconstrained inversions of the Abitibi Geophysics IP data over the CRK-A zone trend, and at the 200m depth slice, the resistivity matches the modelled VMS horizons and is useful in aiding the extrapolation the modelled horizon outside of the drill hole coverage.

Most data exist in the digital form and is held as GIS layers. The historical drill hole data has been digitized and incorporated into the drilling database (Geotic© format). The drilling database comprises historical drill holes and recent drillholes conducted by LAURION between 2007 and 2021. The historical drillhole cores are not available for review and most collar location and very fewcould be validated on the field.

Over the course of the last 14 years, LAURION as conducted many trenching and channel sampling campaigns in order to identify outcropping mineralization. A total of 68 areas were stripped and washed channel samples were taken were outcropping veins and sulphide mineralization were visible.

A total of 5,879 channel samples were taken of the project area with metal (Au ± Cu, Zn, Ag, Pb) assays and multielement analysis. The channel sample results were used in order to map out mineralized areas for model construction.

Additionally, a total of 2,358 grab samples are available. The Grab samples data are mostly comprised of Au assay results with varying amounts of Cu-Zn-Ag-Pb results and multielement analysis.

REFERENCES

Barclay, W.A., 2013
Structural geology observations at Ishkoday, Internal Memo, 4 pages

DeWolfe J.C., LaFrance, B., and Stott, G.M., (2004). Geology of the shear-hosted Brookbank gold prospect in the Beardmore-Geraldton belt, Wabigoon Subprovince, Ontario. Canadian Journal of Earth Science. v. 44: 925–946.

Gibbs, G.H., 1972
Jupiter Minerals Incorporated, Beardmore Property

Gibson, H.L., (2014). Review of Laurion's Ishkoday Project, NW Ontario. Laurion Mineral Exploration Inc.'s. Internal Memo.

Koskitalo, L. O., 1986
1986 Exploration Program Report, Sturgeon River Gold Mines Property, Beardmore Area, Ontario Phoenix Gold Mines Limited, Assessment River – July-November 1985
1986, Channel Samples Maps, Tables and Assay Tables

Koskitalo, L. O., 1988
1986 Exploration Program Report, Sturgeon River Gold Mines Property, Beardmore Area, Ontario. Phoenix Gold Mines Limited, Assessment Report, 34 pages.

Kruse, S., 2014
Ishkoday – 2014 Mapping Program Report. Internal Memo, 8 pages.

Lafrance, B., DeWolfe, J. C., Stott, G. M., 2004
A structural reappraisal of the Beardmore-Geraldton Belt at the southern boundary of the Wabigoon Subprovince, Ontario, and implications for gold mineralization. Canadian Journal of Earth Sciences, v.41, pp. 217-235.

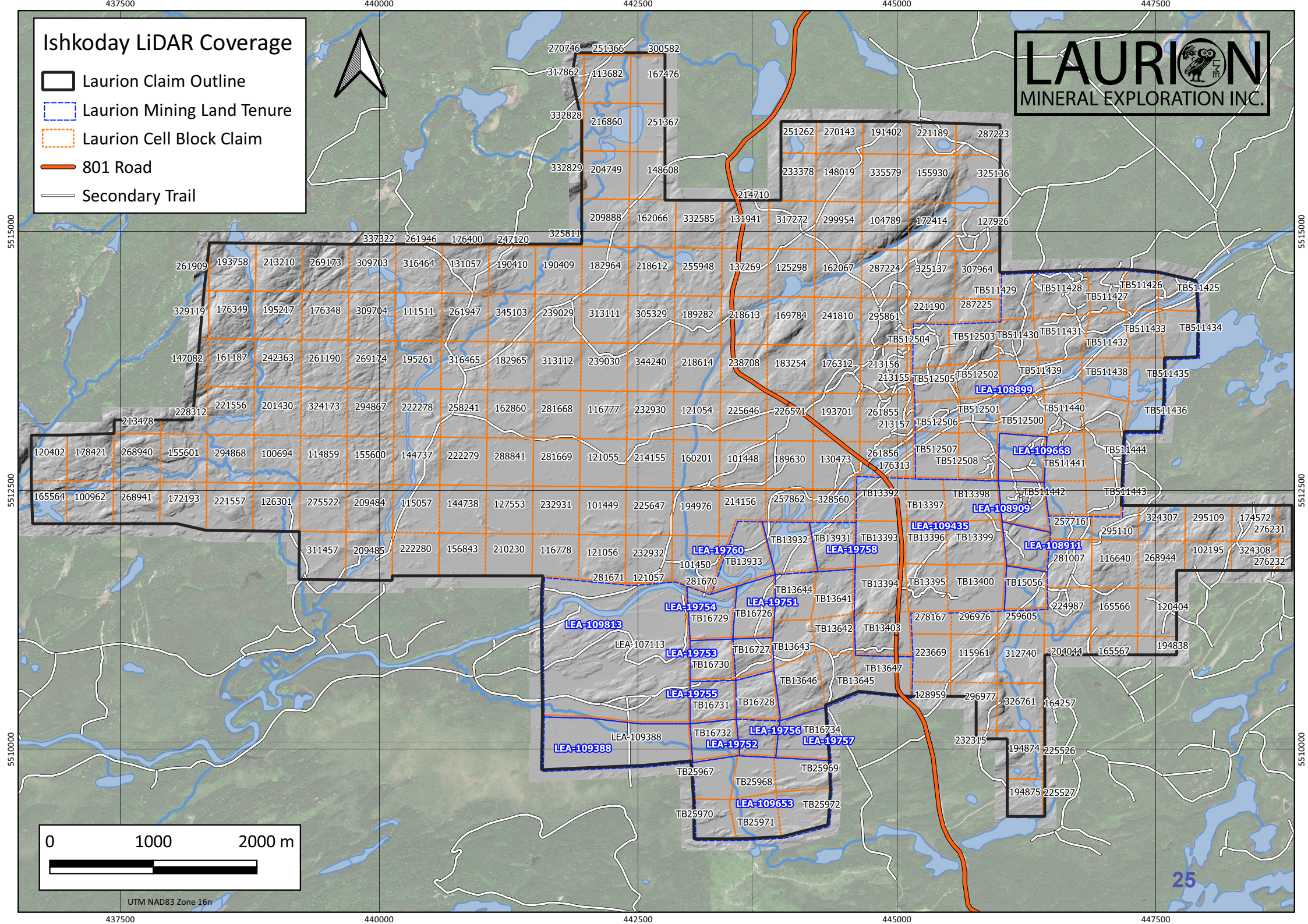
Sillitoe, R. H., 2010
Porphyry Copper Systems: Economic Geology, v. 105 p. 3-41.

Stott, G. M., Davis, D. W., Parker, J. R., Straub, K. J., and Tomlinson, K. Y. 2002
Geology and tectono-stratigraphic assemblages, eastern Wabigoon Subprovince, Ontario. Ontario Geological Survey, Preliminary Map P-3449, Geological Survey of Canada Open File 4285, scale 1: 250 000.

Strongman, K.R., Gibson, H.L., Lafrance, B., Lewis, D, Hamilton, M.A., Mark, B., Stott, G., Toth, Z. The Ishkoday deposit: an Archean epithermal Zn-Cu-Au-Ag-Pb deposit overprinted by orogenic gold veins. *In press.* 87 p.

Z. Toth et al., 2019
"The Geraldton-Onaman Transect – Volcanology, Metamorphism, Deformation and Mineralization", MERC 2019 Geraldton-Onaman Field Trip Guide "pp. 11 to 14; and LAURION's exploration work in 2018-2019)

Westoll, N., 2015
Report on grab sampling, channel sampling and diamond drilling programs, Ishkoday Property, Beardmore, Ontario, Canada. LAURION Mineral Exploration Inc., Assessment Report, 182 pages.


Ishkoday LiDAR Coverage
Laurion Claim Outline
Laurion Mining Land Tenure
Laurion Cell Block Claim
801 Road
Secondary Trail
LAURION
MINERAL EXPLORATION INC.
437500
440000
442500
445000
447500
5515000
5512500
5510000
0
1000
2000 m
UTM NAD83 Zone 16n
25

Claim Number	Mining Land Tenure Number	Claim Type	Township	Anniversary date	Claim Holder
127926	-	Boundary Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
221189	-	Boundary Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
287223	-	Boundary Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
307964	-	Boundary Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
325136	-	Boundary Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
155930	-	Single Cell Mining Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
172414	-	Single Cell Mining Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
176313	-	Single Cell Mining Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
213155	-	Single Cell Mining Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
213157	-	Single Cell Mining Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
221190	-	Single Cell Mining Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
287225	-	Single Cell Mining Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
325137	-	Single Cell Mining Claim	ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
TB13640	LEA-108911	Mining Rights only	ELMHIRST	2022-05-31	LAURION MINERAL EXPLORATION INC.
102195	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
120404	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
165567	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
174572	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
194838	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
268944	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
276231	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
276232	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
295109	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
295110	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
324307	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
324308	-	Boundary Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
116640	-	Single Cell Mining Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
257716	-	Single Cell Mining Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
281007	-	Single Cell Mining Claim	ELMHIRST	2022-07-20	LAURION MINERAL EXPLORATION INC.
TB511429	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511428	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511428	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB31383	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB13640	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB13639	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB13396	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB13397	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB13398	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB13399	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511425	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511426	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511427	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.

Claim Number	Mining Land Tenure Number	Claim Type	Township	Anniversary date	Claim Holder
TB511428	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511429	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511430	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511431	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511432	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511433	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511434	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511435	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511436	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511437	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511438	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511439	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511440	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511441	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511442	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511443	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB511444	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512499	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512500	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512501	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512502	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512503	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512504	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512505	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512506	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512507	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB512508	LEA-108899	Mining Rights only	ELMHIRST	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB13639	LEA-108909	Mining Rights only	ELMHIRST	2032-12-31	LAURION MINERAL EXPLORATION INC.
TB13396	LEA-109435	Mining Rights only	ELMHIRST	2033-06-30	LAURION MINERAL EXPLORATION INC.
TB13397	LEA-109435	Mining Rights only	ELMHIRST	2033-06-30	LAURION MINERAL EXPLORATION INC.
TB13398	LEA-109435	Mining Rights only	ELMHIRST	2033-06-30	LAURION MINERAL EXPLORATION INC.
TB13399	LEA-109435	Mining Rights only	ELMHIRST	2033-06-30	LAURION MINERAL EXPLORATION INC.
TB31383	LEA-109668	Mining Rights only	ELMHIRST	2037-12-31	LAURION MINERAL EXPLORATION INC.
165566	-	Single Cell Mining Claim	ELMHIRST/WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
224987	-	Single Cell Mining Claim	ELMHIRST/WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
TB15056	LEA-108910	Mining Rights only	ELMHIRST/WALTERS	2032-12-31	LAURION MINERAL EXPLORATION INC.
TB13395	LEA-109435	Mining Rights only	ELMHIRST/WALTERS	2033-06-30	LAURION MINERAL EXPLORATION INC.
TB13400	LEA-109435	Mining Rights only	ELMHIRST/WALTERS	2033-06-30	LAURION MINERAL EXPLORATION INC.
TB13932	LEA-19755	Mining and Surface Rights	IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB16727	LEA-19750	Mining and Surface Rights	IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB16728	LEA-19749	Mining and Surface Rights	IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB16733	LEA-19756	Mining and Surface Rights	IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.

Claim Number	Mining Land Tenure Number	Claim Type	Township	Anniversary date	Claim Holder
TB16734	LEA-19757	Mining and Surface Rights	IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB16730	LEA-19753	Mining and Surface Rights	IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB16732	LEA-19752	Mining and Surface Rights	IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB25967	LEA-109653	Mining and Surface Rights	IRWIN	2037-05-31	LAURION MINERAL EXPLORATION INC.
TB25968	LEA-109653	Mining and Surface Rights	IRWIN	2037-05-31	LAURION MINERAL EXPLORATION INC.
TB25969	LEA-109653	Mining and Surface Rights	IRWIN	2037-05-31	LAURION MINERAL EXPLORATION INC.
TB25970	LEA-109653	Mining and Surface Rights	IRWIN	2037-05-31	LAURION MINERAL EXPLORATION INC.
TB25971	LEA-109653	Mining and Surface Rights	IRWIN	2037-05-31	LAURION MINERAL EXPLORATION INC.
TB25972	LEA-109653	Mining and Surface Rights	IRWIN	2037-05-31	LAURION MINERAL EXPLORATION INC.
LEA-109388	LEA-109388	Mining and Surface Rights	IRWIN	2037-05-31	LAURION MINERAL EXPLORATION INC.
TB13643	LEA-109763	Mining and Surface Rights	IRWIN	2039-03-30	LAURION MINERAL EXPLORATION INC.
TB13642	LEA-109763	Mining and Surface Rights	IRWIN	2039-03-30	LAURION MINERAL EXPLORATION INC.
TB13646	LEA-109763	Mining and Surface Rights	IRWIN	2039-03-30	LAURION MINERAL EXPLORATION INC.
TB13645	LEA-109763	Mining and Surface Rights	IRWIN	2039-03-30	LAURION MINERAL EXPLORATION INC.
116778	-	Boundary Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
101449	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
101450	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
121055	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
121056	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
121057	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
160201	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
194976	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
214155	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
225647	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
225648	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
232931	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
232932	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
281669	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
281670	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
281671	-	Single Cell Mining Claim	PIFHER	2022-02-10	LAURION MINERAL EXPLORATION INC.
191402	-	Boundary Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
214710	-	Boundary Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
233378	-	Boundary Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
251262	-	Boundary Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
270143	-	Boundary Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
332585	-	Boundary Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
101448	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
125298	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
121054	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
130473	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
131941	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
137269	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.

Claim Number	Mining Land Tenure Number	Claim Type	Township	Anniversary date	Claim Holder
148019	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
162067	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
169784	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
176312	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
183254	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
189282	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
189630	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
193701	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
214156	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
218613	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
218614	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
226571	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
225646	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
238708	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
241810	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
257862	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
299954	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
317272	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
328560	-	Single Cell Mining Claim	PIFHER	2022-02-17	LAURION MINERAL EXPLORATION INC.
100962	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
120402	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
147082	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
156843	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
165564	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
172193	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
176400	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
178421	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
193758	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
210230	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
213210	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
213478	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
222280	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
228312	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
247120	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
261909	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
261946	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
268940	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
268941	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
269173	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
329119	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
337322	-	Boundary Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
100694	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.

Claim Number	Mining Land Tenure Number	Claim Type	Township	Anniversary date	Claim Holder
111511	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
115057	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
114859	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
114860	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
116777	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
126301	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
127553	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
131057	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
144737	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
144738	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
155600	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
155601	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
161187	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
162860	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
176348	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
176349	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
182965	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
190409	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
190410	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
195217	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
195261	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
201430	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
209484	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
209485	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
221556	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
221557	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
222278	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
222279	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
228313	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
232930	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
239029	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
239030	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
242363	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
258241	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
257517	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
261910	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
261947	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
269174	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
275522	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
281668	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
288841	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
294867	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.

Claim Number	Mining Land Tenure Number	Claim Type	Township	Anniversary date	Claim Holder
294868	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
305329	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
309703	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
309704	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
313111	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
313112	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
311457	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
316464	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
316465	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
324173	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
344240	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
345103	-	Single Cell Mining Claim	PIFHER	2022-03-11	LAURION MINERAL EXPLORATION INC.
TB13932	LEA-19759	Mining and Surface Rights	PIFHER	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB13933	LEA-19760	Mining and Surface Rights	PIFHER	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB13931	LEA-19758	Mining and Surface Rights	PIFHER	2022-05-31	LAURION MINERAL EXPLORATION INC.
148608	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
162066	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
167476	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
251366	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
251367	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
270746	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
300582	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
317862	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
325811	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
332828	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
332829	-	Boundary Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
113682	-	Single Cell Mining Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
182964	-	Single Cell Mining Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
204749	-	Single Cell Mining Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
209888	-	Single Cell Mining Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
216860	-	Single Cell Mining Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
218612	-	Single Cell Mining Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
255948	-	Single Cell Mining Claim	PIFHER	2022-06-15	LAURION MINERAL EXPLORATION INC.
104789	-	Single Cell Mining Claim	PIFHER/ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
213156	-	Single Cell Mining Claim	PIFHER/ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
261855	-	Single Cell Mining Claim	PIFHER/ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
261856	-	Single Cell Mining Claim	PIFHER/ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
287224	-	Single Cell Mining Claim	PIFHER/ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
295861	-	Single Cell Mining Claim	PIFHER/ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
335579	-	Single Cell Mining Claim	PIFHER/ELMHIRST	2022-02-17	LAURION MINERAL EXPLORATION INC.
TB13392	LEA-109435	Mining Rights only	PIFHER/ELMHIRST	2033-06-30	LAURION MINERAL EXPLORATION INC.
TB13393	LEA-109435	Mining Rights only	PIFHER/ELMHIRST	2033-06-30	LAURION MINERAL EXPLORATION INC.

Claim Number	Mining Land Tenure Number	Claim Type	Township	Anniversary date	Claim Holder
TB16726	LEA-19751	Mining and Surface Rights	PIFHER/IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.
TB16729	LEA-19754	Mining and Surface Rights	PIFHER/IRWIN	2022-05-31	LAURION MINERAL EXPLORATION INC.
LEA-109813	LEA-109813	Mining and Surface Rights	PIFHER/IRWIN	2032-08-31	LAURION MINERAL EXPLORATION INC.
TB13644	LEA-109763	Mining and Surface Rights	PIFHER/IRWIN	2039-03-30	LAURION MINERAL EXPLORATION INC.
TB13641	LEA-109764	Mining and Surface Rights	PIFHER/IRWIN	2039-03-30	LAURION MINERAL EXPLORATION INC.
TB13394	LEA-109435	Mining Rights only	PIFHER/WALTERS/ELMHIRST/IRWIN	2033-06-30	LAURION MINERAL EXPLORATION INC.
194874	-	Boundary Claim	WALTERS	2022-06-13	LAURION MINERAL EXPLORATION INC.
194875	-	Boundary Claim	WALTERS	2022-06-13	LAURION MINERAL EXPLORATION INC.
225526	-	Boundary Claim	WALTERS	2022-06-13	LAURION MINERAL EXPLORATION INC.
225527	-	Boundary Claim	WALTERS	2022-06-13	LAURION MINERAL EXPLORATION INC.
232315	-	Boundary Claim	WALTERS	2022-06-13	LAURION MINERAL EXPLORATION INC.
128959	-	Boundary Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
164257	-	Boundary Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
204044	-	Boundary Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
296977	-	Boundary Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
115961	-	Single Cell Mining Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
223669	-	Single Cell Mining Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
259605	-	Single Cell Mining Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
278167	-	Single Cell Mining Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
296976	-	Single Cell Mining Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
312740	-	Single Cell Mining Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
326761	-	Single Cell Mining Claim	WALTERS	2022-07-20	LAURION MINERAL EXPLORATION INC.
TB13403	LEA-109435	Mining Rights only	WALTERS/IRWIN	2033-06-30	LAURION MINERAL EXPLORATION INC.
TB13647	LEA-109763	Mining and Surface Rights	WALTERS/IRWIN	2039-03-30	LAURION MINERAL EXPLORATION INC.

Invoices	Company	Purpose	Amount
485378	Eagle Mapping Ltd	Deposit on LiDAR Survey	$ 13,162.50
485422	Eagle Mapping Ltd	Balance on LiDAR Survey	$ 16,087.50
18912S	Aurora Geoscience	LiDAR Lineament Classification	$ 6,000.00
19111S	Aurora Geoscience	LiDAR Data Compilation	$ 5,500.00
			$ 40,750.00

2021 LiDAR Survey per Claim

Claim	Area (m2)	Amount Spent per Claim
TB511428	238,434	$ 212.41
TB511427	146,656	$ 130.65
TB25970	143,412	$ 127.76
TB16734	218,031	$ 194.23
TB16732	164,917	$ 146.91
TB16733	135,602	$ 120.80
TB25967	163,688	$ 145.82
TB25968	155,674	$ 138.68
TB25969	166,159	$ 148.02
TB25972	193,544	$ 172.42
TB25971	182,069	$ 162.19
TB13645	154,650	$ 137.77
TB13646	230,027	$ 204.92
TB16728	173,572	$ 154.62
TB13400	241,443	$ 215.09
TB512503	193,580	$ 172.45
TB511435	137,060	$ 122.10
TB512499	137,178	$ 122.20
TB512502	148,689	$ 132.46
TB512505	136,821	$ 121.89
TB13403	223,267	$ 198.90
TB13642	132,240	$ 117.80
TB511434	158,443	$ 141.15
TB511432	175,576	$ 156.41
TB511431	199,020	$ 177.30
TB13644	186,615	$ 166.24
TB16726	213,698	$ 190.37
TB511430	142,883	$ 127.29
TB512504	158,504	$ 141.20
TB511442	130,922	$ 116.63
TB13399	230,049	$ 204.94
TB13396	161,471	$ 143.84
TB13393	216,353	$ 192.74
TB13931	188,378	$ 167.81
TB13933	253,735	$ 226.04
TB511444	173,711	$ 154.75
TB511426	124,711	$ 111.10
TB511425	123,542	$ 110.06
TB511441	180,252	$ 160.58
TB512508	167,044	$ 148.81
TB512507	191,665	$ 170.74
TB13397	157,318	$ 140.15
TB511440	142,778	$ 127.19
TB512500	160,242	$ 142.75
TB511436	103,375	$ 92.09
TB512506	132,889	$ 118.38
TB16727	136,546	$ 121.64
TB16730	169,923	$ 151.37
TB13643	157,538	$ 140.34
TB16731	173,784	$ 154.81
TB511437	141,983	$ 126.48
TB511443	115,829	$ 103.19
TB13398	214,239	$ 190.85
TB13932	214,935	$ 191.47
TB511429	149,527	$ 133.20
TB511439	130,626	$ 116.37
TB13392	217,427	$ 193.69
TB13395	178,372	$ 158.90
TB13394	236,572	$ 210.75
TB16729	212,314	$ 189.14
TB511433	150,325	$ 133.92
TB511438	173,729	$ 154.76
TB512501	127,336	$ 113.44
TB13647	201,471	$ 179.48
TB13641	172,276	$ 153.47
204044	86,698	$ 77.23
165567	82,448	$ 73.45
194838	67,938	$ 60.52
164257	5,524	$ 4.92
194874	168,607	$ 150.20
225526	7,652	$ 6.82
194875	124,241	$ 110.68
225527	7,433	$ 6.62
128959	53,933	$ 48.05
296977	126,726	$ 112.89
232315	15,774	$ 14.05
295110	124,154	$ 110.60
324307	151,839	$ 135.26
295109	154,204	$ 137.37
174572	156,569	$ 139.48
276231	46,659	$ 41.57
268944	195,047	$ 173.76
102195	127,703	$ 113.76
324308	125,814	$ 112.08
276232	37,707	$ 33.59
120404	174,467	$ 155.42
270746	1,728	$ 1.54
275522	208,695	$ 185.91

Claim	Area (m2)	Amount Spent per Claim
251366	10,541	$ 9.39
300582	9,101	$ 8.11
317862	43,973	$ 39.17
167476	154,071	$ 137.25
332828	11,738	$ 10.46
251367	156,361	$ 139.29
251262	104,993	$ 93.53
270143	140,240	$ 124.93
191402	142,017	$ 126.51
221189	138,900	$ 123.74
287223	126,813	$ 112.97
332829	6,001	$ 5.35
148608	158,650	$ 141.33
214710	1,300	$ 1.16
233378	157,100	$ 139.95
325136	198,449	$ 176.79
337322	1,967	$ 1.75
261946	4,399	$ 3.92
176400	6,615	$ 5.89
247120	8,832	$ 7.87
325811	14,590	$ 13.00
162066	208,144	$ 185.42
332585	207,948	$ 185.25
127926	200,171	$ 178.32
261909	13,708	$ 12.21
193758	203,945	$ 181.68
213210	206,537	$ 183.99
269173	208,559	$ 185.79
307964	201,575	$ 179.57
329119	30,531	$ 27.20
147082	47,196	$ 42.04
213478	60,058	$ 53.50
228312	105,237	$ 93.75
178421	203,224	$ 181.04
268940	208,673	$ 185.89
100962	185,912	$ 165.62
268941	183,562	$ 163.52
172193	190,000	$ 169.26
222280	187,301	$ 166.86
156843	185,071	$ 164.87
210230	182,888	$ 162.92
116778	186,347	$ 166.01
120402	153,224	$ 136.50
165564	140,385	$ 125.06
TB15056	162,269	$ 144.56
TB31383	202,965	$ 180.81
TB13640	173,068	$ 154.18
TB13639	197,703	$ 176.12
LEA-109388	649,158	$ 578.30
LEA-107113	1,883,723	$ 1,678.10
278167	88,264	$ 78.63
296976	105,471	$ 93.96
259605	114,944	$ 102.40
223669	179,166	$ 159.61
115961	208,748	$ 185.96
312740	208,748	$ 185.96
326761	208,766	$ 185.98
257716	102,199	$ 91.04
281007	202,905	$ 180.76
116640	208,712	$ 185.93
165566	208,730	$ 185.95
224987	206,324	$ 183.80
176313	24,139	$ 21.50
213157	29,827	$ 26.57
261856	148,302	$ 132.11
261855	208,659	$ 185.88
213156	208,642	$ 185.87
213155	19,687	$ 17.54
221190	112,701	$ 100.40
287225	93,901	$ 83.65
281670	12,930	$ 11.52
225648	16,077	$ 14.32
101450	202,262	$ 180.18
232932	204,337	$ 182.03
121057	723	$ 0.64
281671	22	$ 0.02
121056	201,718	$ 179.70
209485	208,713	$ 185.93
328560	123,528	$ 110.04
257862	137,311	$ 122.32
214156	158,788	$ 141.45
194976	208,695	$ 185.91
130473	202,662	$ 180.54
189630	208,677	$ 185.90
101448	208,677	$ 185.90
325137	208,606	$ 185.83
311457	208,712	$ 185.93
221557	208,695	$ 185.91

Claim	Area (m2)	Amount Spent per Claim
155601	208,677	$ 185.90
294868	208,677	$ 185.90
209484	208,695	$ 185.91
100694	208,677	$ 185.90
114859	208,677	$ 185.90
155600	208,677	$ 185.90
221556	208,659	$ 185.88
161187	208,642	$ 185.87
242363	208,641	$ 185.87
201430	208,659	$ 185.88
261190	208,642	$ 185.87
324173	208,659	$ 185.88
269174	208,642	$ 185.87
294867	208,659	$ 185.88
176349	208,624	$ 185.85
195217	208,624	$ 185.85
176348	208,624	$ 185.85
309703	208,606	$ 185.83
316464	208,606	$ 185.83
309704	208,624	$ 185.85
111511	208,624	$ 185.85
131057	208,606	$ 185.83
190410	208,606	$ 185.83
113682	208,535	$ 185.77
216860	208,553	$ 185.79
204749	208,571	$ 185.80
209888	208,588	$ 185.82
131941	208,588	$ 185.82
317272	208,588	$ 185.82
148019	208,571	$ 185.80
335579	208,570	$ 185.80
155930	208,571	$ 185.80
172414	208,588	$ 185.82
299954	208,588	$ 185.82
104789	208,588	$ 185.82
287224	208,606	$ 185.83
162067	208,606	$ 185.83
125298	208,606	$ 185.83
137269	208,606	$ 185.83
255948	208,606	$ 185.83
218612	208,606	$ 185.83
190409	208,606	$ 185.83
182964	208,606	$ 185.83
195261	208,642	$ 185.87
222278	208,659	$ 185.88
144737	208,677	$ 185.90
115057	208,695	$ 185.91
144738	208,695	$ 185.91
127553	208,695	$ 185.91
232931	208,695	$ 185.91
101449	208,695	$ 185.91
225647	208,695	$ 185.91
295861	208,624	$ 185.85
241810	208,624	$ 185.85
176312	208,642	$ 185.87
193701	208,659	$ 185.88
169784	208,624	$ 185.85
183254	208,642	$ 185.87
226571	208,659	$ 185.88
218613	208,624	$ 185.85
238708	208,642	$ 185.87
225646	208,659	$ 185.88
261947	208,624	$ 185.85
345103	208,624	$ 185.85
316465	208,642	$ 185.87
258241	208,659	$ 185.88
222279	208,677	$ 185.90
182965	208,642	$ 185.87
162860	208,659	$ 185.88
288841	208,677	$ 185.90
239029	208,624	$ 185.85
313112	208,642	$ 185.87
281668	208,659	$ 185.88
313111	208,624	$ 185.85
281669	208,677	$ 185.90
305329	208,624	$ 185.85
189282	208,624	$ 185.85
239030	208,642	$ 185.87
116777	208,659	$ 185.88
121055	208,677	$ 185.90
344240	208,642	$ 185.87
218614	208,642	$ 185.87
232930	208,659	$ 185.88
121054	208,659	$ 185.88
214155	208,677	$ 185.90
160201	208,677	$ 185.90
126301	208,695	$ 185.91

Total Area (m2):	45,743,328
Total Spent:	$ 40,750.00

LiDAR & Orthophoto Data Report

ISHKODAY PROJECT

Data collected and prepared for:

Laurion Mineral Exploration Inc.

Scotia Tower

40 King Street West, Suite 5800

Toronto, Ontario M5H 3S1

Eagle Mapping Ltd.

420 – 20178 96th Ave.

Langley City, BC

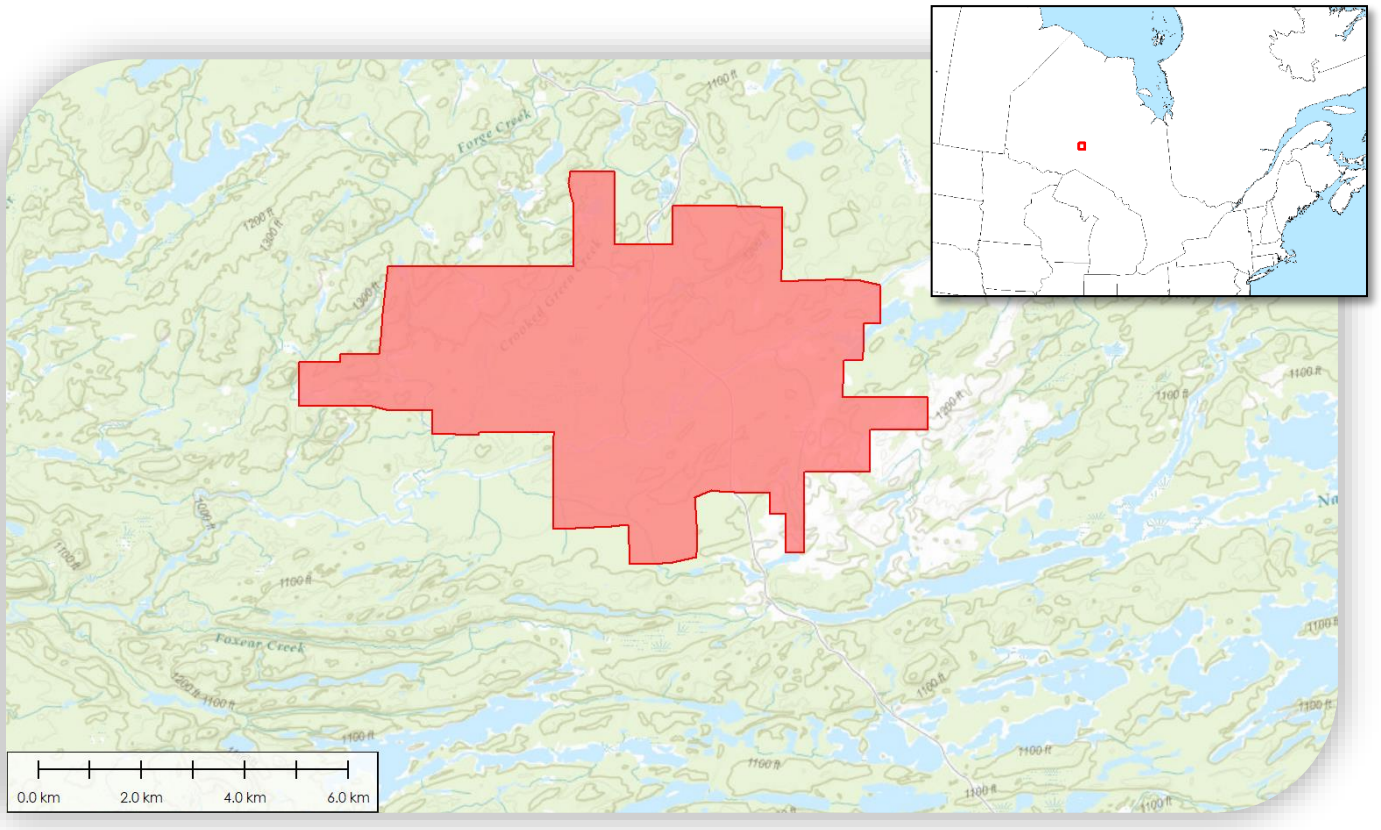
V1M 0B2

EML Project # 21-024

Report Contents

Project Overview

Eagle Mapping Ltd. collected aerial LiDAR and photography of the Ishkoday project for Laurion Mineral Exploration Inc. The project was located near Lake Nipigon in central Ontario and was flown on May 8th, 2021. The Area of Interest (AOI) for this project covers approximately 44 sq. km. A significant buffer was collected surrounding the AOI to ensure coverage and density with in the project boundary.



File Formats, Units, and Projection

Project deliverables include the following:

Point Cloud – Ground and Ground with Other

- LAS v1.4 file format (.las)
- Delivered as one file per project tile

Digital Elevation Model (DEM) & Digital Surface Model (DSM) – 1m Grid

- ArcASCII grid file format (.asc)
- Delivered as one file per project tile and as one project file

Digital Elevation Contours – 1m

- ESRI shapefile file format (.shp)
- Delivered as one project file

Digital Orthophoto – 0.15m

- GeoTiff image file format with world files (.tif & .tfw)
- Delivered as one file per project tile
- Delivered as mosaic file

Project Files

- ESRI Shapefile format
- 900m project tile layout
- Project boundary

LiDAR Data Report

- Overview of project specifications, methodology and accuracies achieved
- PDF format

Map Projection Information	
Projection	UTM zone 16N
Horizontal Datum	NAD83 (CSRS)
Vertical Datum	CGVD2013
Geoid	CGG2013
Units	Meters
EPSG Code	3160

LiDAR System

A Riegl Q1560 *dual-channel* LIDAR system was used for acquisition of this project. The system consists of two 400 kHz lasers and a Trimble IQ180 80MP camera contained within one housing. The laser operates in the near infrared wavelength at 1064nm with a laser beam divergence on 0.25 milliradians. The scan field of view for the Riegl LMS-Q1560 is 29˚either side of nadir, for a total scan field of view of 58˚. The maximum scan is 800 kHz. However, due to the nature of the 4-sided rotating mirror in Riegl scanners only 2/3 of pulses are recorded (533 kHz usable).

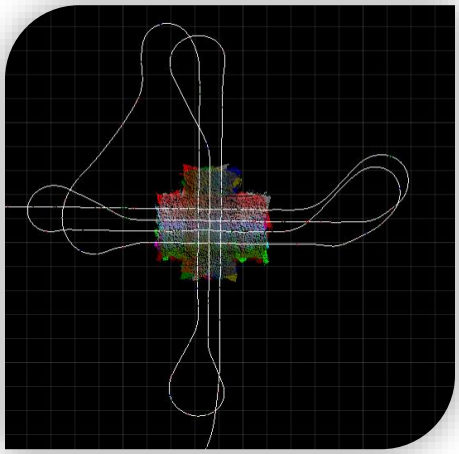
LMS-Q1560 Specifications	
System	Riegl LMS-Q1560
Camera	Trimble IQ180
Serial Number	2221114
Beam Divergence	≤ 0.25 mrad
Wavelength	1064nm
Maximum Scan Rate	800khz (533khz usable)
Scan Field of View	58°

Positional and orientation data is logged via an Applanix POS AV 610 multi- frequency GNSS system internally-mounted within the LMS-Q1560. Positional data is logged at 1Hz while orientation data is determined at 200Hz along the entire flight path.

POS AV 610 (IMU-57)	
Position (m)	<0.05 H <0.10 V
Velocity (m/s)	0.005
Roll & Pitch (deg)	0.002
True Heading (deg)	0.004

LiDAR Boresight

Prior to acquisition of the project a boresight calibration flight was conducted on March 11th, 2021 for the LMS-Q1560 (SN 2221114) and Cessna 206 installation. The mission was flown over an area with many buildings and other planar objects. The boresight consisted of 7 lines in 4 directions and was flown over downtown Chilliwack, BC.



Lever arm values from the GNSS to IMU converged to within ±0.005m and are shown below.

Lever Arm GNSS to IMU	
X	-0.085m
Y	0.078m
Z	-0.771m

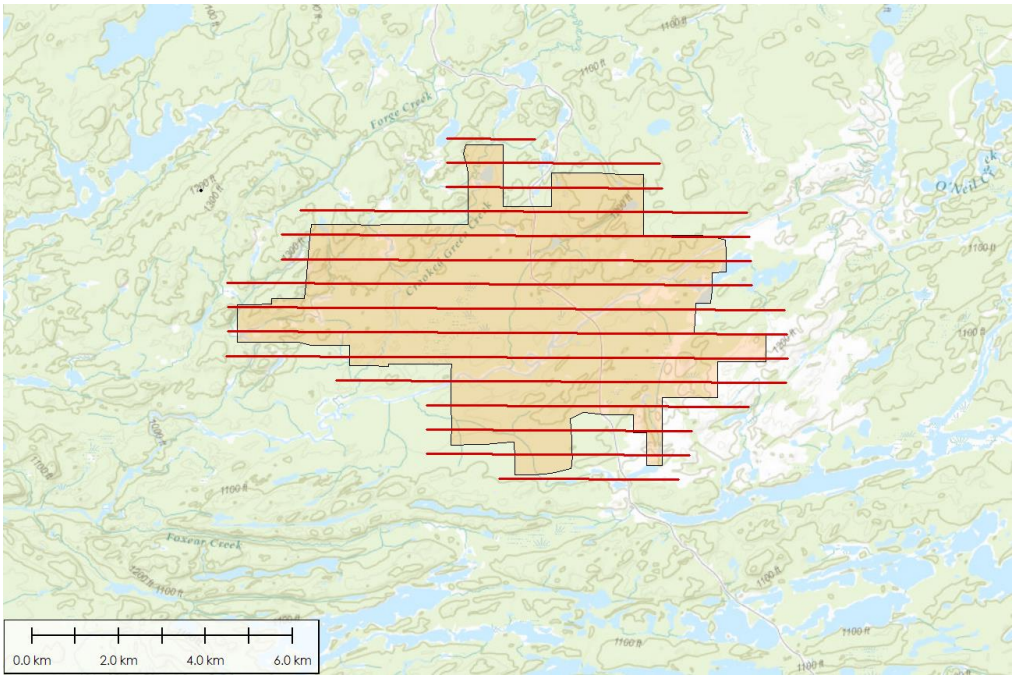
Laser calibration was performed using Riegl RiProcess software. Automatic tie planes were generated and analyzed via a least-squares adjustment on the orientation parameters of the scanner. Manual cross section checks were also performed to verify the automatic results. Internal accuracy of the LiDAR data was calculated at ±0.023m.

Calibration Results			
	Roll [deg]	Pitch [deg]	Yaw [deg]
Channel 1	-0.13950	-0.24415	-0.06874
Channel 2	0.00331	0.00536	-0.00160

Collection & Flight Planning

The Riegl LMS-Q1560 system was installed in Eagle Mapping's Cessna -206. The aircraft is operated by Peregrine Aerial Surveys, based out of Abbotsford, BC. Once on site, data collection was conducted from Geraldton Airport (CYGQ).

Track'Air software suite is used for flight planning and as an onboard flight management system. In total, 15 flight lines and 324 photos were planned in an East-West orientation over the extent of the project AOI.



Acquisition Settings

Nominal flying height was 1300m above ground level (AGL) and flying speed was approximately 120 knots. The planned scan field of view was 29˚either side of nadir, for a total scan field of view (FoV) of 58˚. The pulse rate used to plan this project was 800 kHz. However, due to the nature of the 4-sided rotating mirror in Riegl scanners only 2/3 of pulses are recorded (533 kHz useable). This yields an average pulse density of 2.5 pulses per channel per swath (5 pulses per dual-channel flight line). The project was flown with a minimum of 55% side overlap, providing double coverage of the entire AOI. The per-line densities mentioned above can thus be doubled to provide an estimate of Aggregated Nominal Pulse Density (ANPD) on the surface. Note, each pulse may result in one or more returned points as the pulse filters through vegetation, etc. Water or highly absorbent material may result in very few or no LiDAR returns as these materials poorly reflect the laser pulse or may absorb it entirely. Imagery was collected simultaneously using a Trimble IQ180 camera and consisted of 324 photos.

LiDAR Acquisition	
Planned Flight Altitude	1300 m AGL
Nominal Flying Speed	120 kts
Sensor Pulse Rate	800kHz (533kHz usable)
Scan Field of View	58 degrees
Line Spacing	550 m
Forward Overlap	60%
Side Overlap	55%
Photo Resolution	15 cm
Theoretical ANPD	10 ppm

Aircraft GNSS Trajectory Processing

GNSS post-processing determines the position and attitude of the aircraft along the entire flight path. Data is logged via an Applanix POS AV 610 multi-frequency GNSS system. GNSS positional data is logged at a rate of 1 measurement per second while the Inertial Measurement Unit (IMU) logs at a rate of 200 measurements a second. Trimble RTX correction services was used during acquisition and provided real-time corrections for GNSS solutions. This service is extremely useful where traditional base station coverage is limited.

Post-processing is done with Applanix POSPac MMS v 8.6. Here the aircraft GNSS / IMU data is coupled together to provide adjusted positions for the aircraft in latitude, longitude, and height, roll, pitch, and yaw / heading. The final trajectory is then smoothed, and exported in .pos format for use in RiProcess for LiDAR processing. The resulting flight path is commonly referred to as a Smoothed Best Estimate of Trajectory (SBET).

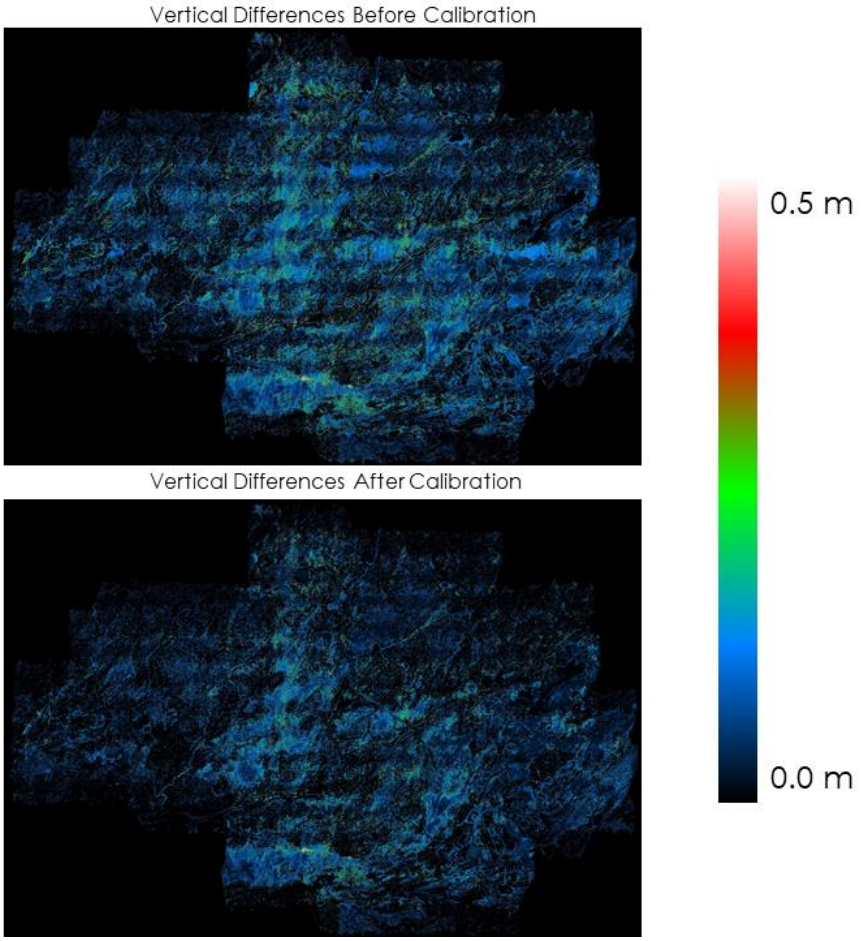
Trajectory Processing Results	
Min. # of Satellites	8
Max. # of Satellites	15
Minimum PDOP	1.2
Maximum PDOP	2.6
RMSE (X,Y)	0.014 m
RMSE (Z)	0.023 m

LiDAR Extraction

Riegl RiPROCESS v1.8.6 is used to extract and register point cloud data using calibrated scanner parameters calculated from the boresight mission. Full Waveform Analysis is performed by RiANALYZE v6.1.1.5 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 data-set where each point contains descriptors such as timestamp and intensity values. RiWORLD v6.1.1.6 transforms the point cloud data from the SOCS to a real world coordinate system and allows for data export in the desired project projection, in this case NAD83(CSRS) UTM16N with the CGG2013 geoid applied. Registered LAS data is then exported along with individual 'trajectories' for each scan line.

Swath Calibration

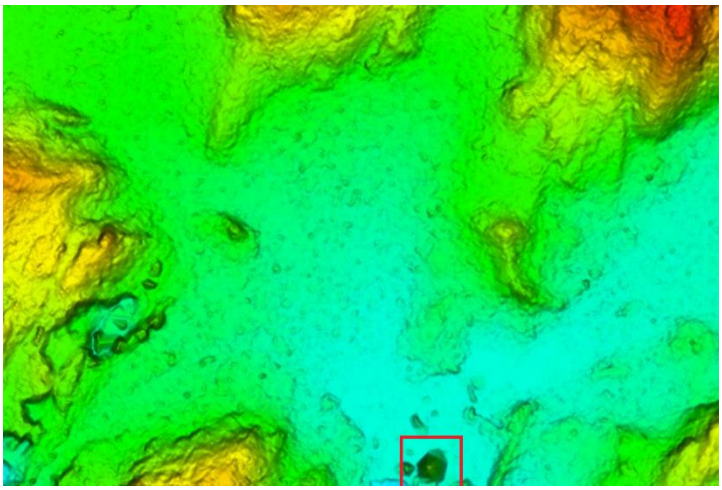
LiDAR data is calibrated using BayesStripAlign v2.17 software. This software registers overlapping LiDAR swaths and corrects both relative and absolute geometric errors. It uses a rigorous time–dependent approach to reduce discrepancies between strips due to IMU attitude and positional errors. Once aligned, results are inspected and manual cross section checks are performed to verify the automatic results.



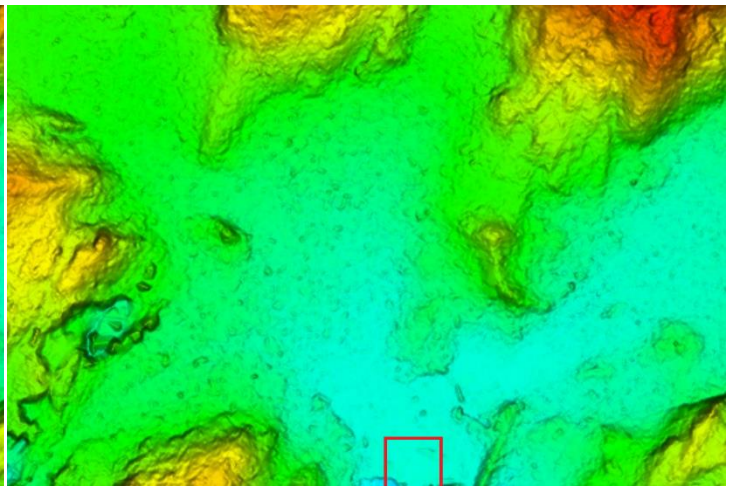
Calibration Statistics								
Corrections Applied (m)								
Mean			Std. Dev.			RMS		
+0.001	-0.002	+0.002	0.008	0.020	0.019	0.013	0.062	0.020
Elevation Differences (m)								
Dataset			Std Dev			RMS		
Input			0.033			0.041		
Registered			0.020			0.020		

LiDAR Classification

TerraScan v020.019 software is used for LiDAR classification. Calibrated LAS data is imported into 900 m tiles and run through proprietary classification macros. First, the data is cleaned by classifying any low or high noise using an isolated point algorithm and via manual cross-section cleaning. Once cleaned, Digital Elevation Models (DEMs) are generated and manually checked for inconsistences in the ground surface. Any outliers are flagged and then manually corrected in TerraScan.



DEM artifact from erroneous ground classified point.



DEM after manual correction

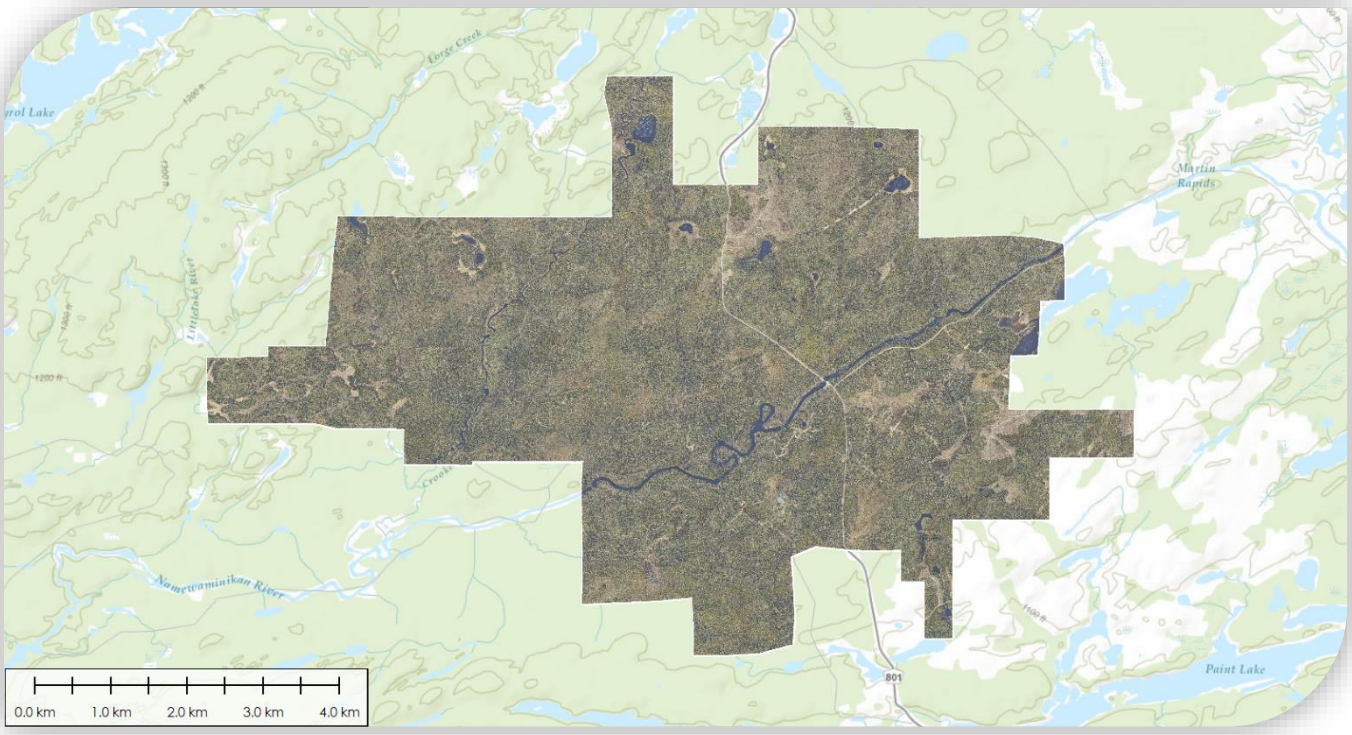
Deliverable Production

Once the point cloud has been classified and quality control checks have been satisfied, LiDAR data is exported in LAS v1.4. Deliverables are examined by LIDAR technicians to ensure each 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 range, and covered area. Finally, a file count is performed to ensure consistency between deliverable products. The data is then archived for shipping.

Photo Processing

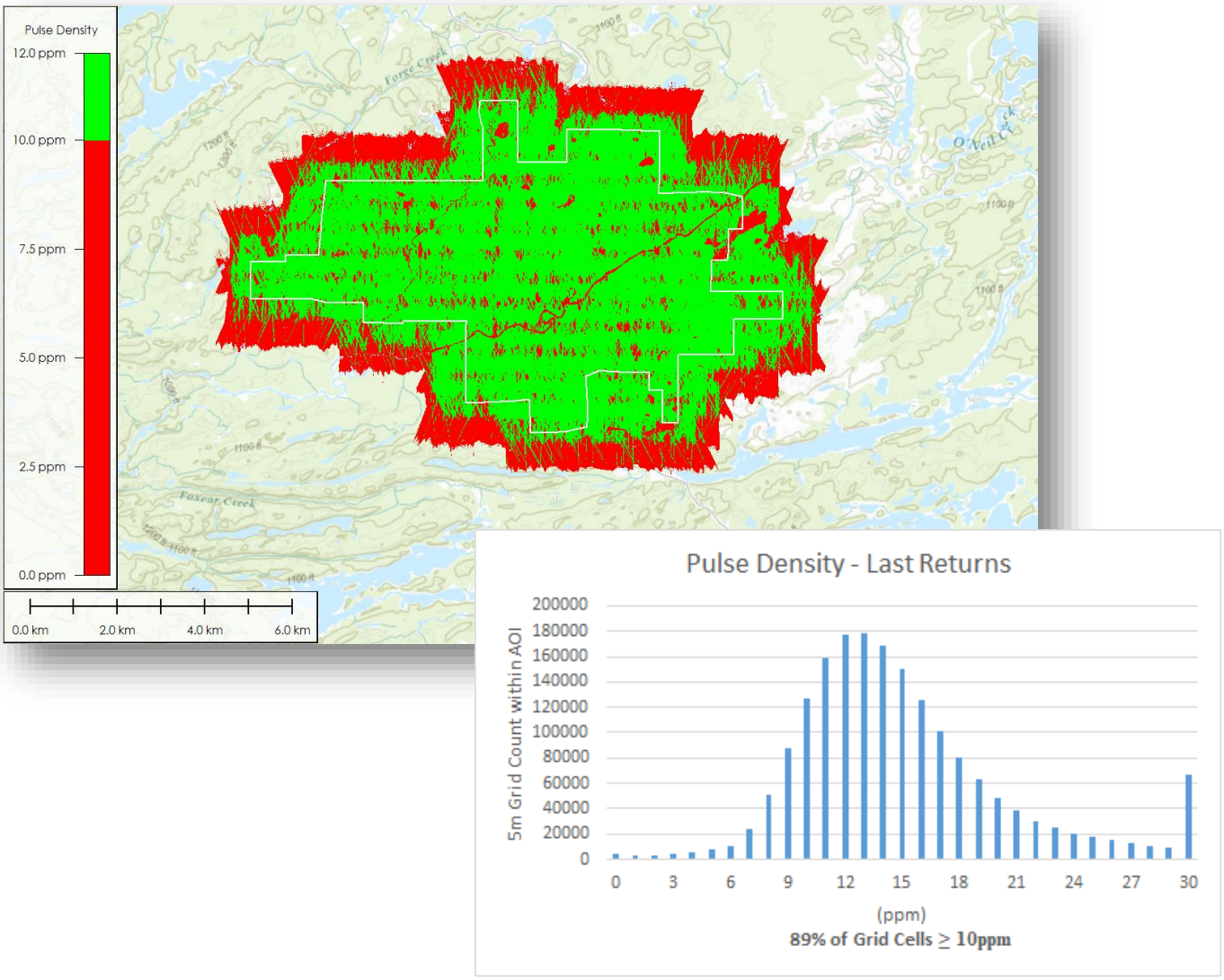
Imagery is first colour-balanced to adjust for lighting differences between lines. It is then exported as geotiffs for use in the orthorectification process. Ortho processing is performed with Trimble OrthoVista software. With this software, images are aligned geographically (mosaicked) using their time stamp and the position from the SBET which corresponds to this time. The software also references the attitude information from this time stamp in order to 'project' the image on the correct ground location depending on where the aircraft was pointing at that moment.

The overall mosaic of all images is then inspected for busts or other discrepancies and image seam lines are adjusted to have the least visual impact. Finally, the mosaic is cut into tiles and exported in the appropriate deliverable format.



Point Density and Coverage

Pulse Density verification is conducted using a 5m x 5m pulse density grid covering the entire project using last and only returns. The quality routine identifies cells containing the required ANPD of 10 pulses/m^2 and those cells which did not. A visual grid is output showing cells that pass as green and those that fail as red. Statistics are then generated to calculate the number of passing or failing cells and a histogram of pulse density distribution is generated.



Accuracy

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

Summary

Eagle Mapping collect aerial LiDAR and imagery of the Ishkoday project located in central Ontario. Collection occurred on May 18th, 2021 and consisted on 15 lines and 324 photos. A Riegl LMS-Q1560 with co-mounted Trimble IQ180 camera was used for acquisition. The Delivered LIDAR was positioned with an average pulse density of 15 ppm, where 89% of cells contained project requirements. Orthophoto resolution was 15cm. No ground control was available to verify the absolution accuracy of the dataset, but it is Eagle Mappings' conclusion that the LIDAR data is positioned with an accuracy of ± 0.30 m horizontally and ± 0.15 m vertically. Rectified orthophoto is accurate to within of ± 2 pixels.

TECHNICAL MEMORANDUM

To: Cynthia Le Sueur-Aquin, President and CEO
Laurion Mineral Exploration

Date: 02 March 2022

From: Dave White, P. Geol

Re: Classification of Digitized Lineaments for Ishkoday LiDAR Survey

1.0 INTRODUCTION

In 2011, Laurion Mineral Exploration (Laurion) contacted Aurora Geosciences to re-process and digitize topographic lineaments from a LiDAR survey that was completed at the Ishkoday Project. The purpose of that program was to identify lineaments mapped from the LiDAR survey; these linear features were inferred to represent geomorphological and bedrock sources.

This memo has been prepared in support of the initial digitizing work. At the request of Laurion, three areas of interest (AOI) were designated. These areas include the NW Block, Garvey Block, and the Sturgeon Block (Figure 1). The digitized lineaments have been classified by geology and geomorphology using data provided by Laurion and accessed from the Ontario Geological Survey (OGS).

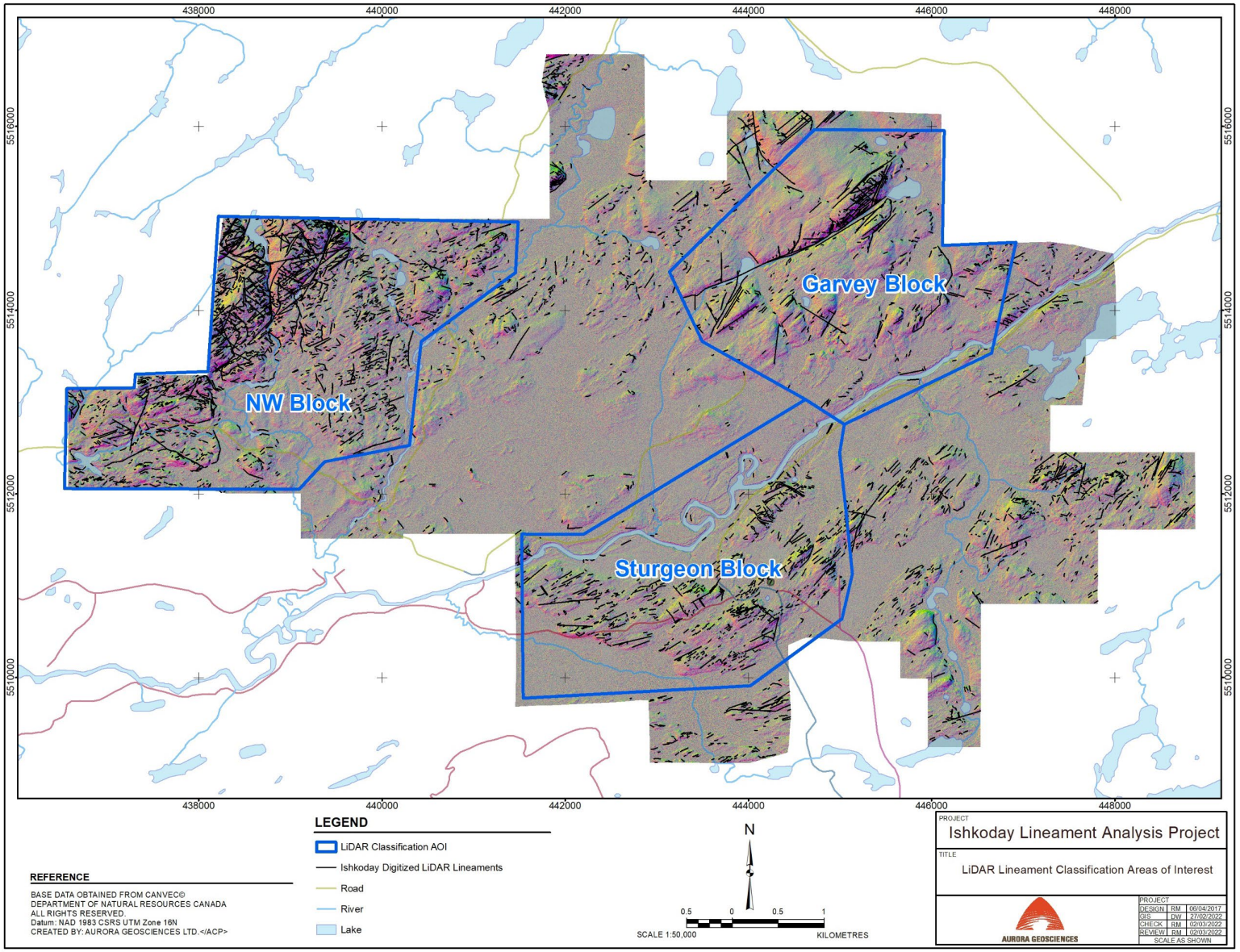
2.0 METHODOLOGY

The property scale lineament dataset was clipped into the three AOI and each area was considered individually.

LiDAR lineaments were classified using regional and property-scale geological, geophysical, and geomorphological data. Trends in geodetic orientation were identified for each attribute (e.g. foliation, glacial striae, structure) and the LiDAR lineaments of similar orientation were assigned the corresponding attribute. For example, if the dominant orientation of the metamorphic cleavage/foliation in an AOI is mapped to strike 100°/280°, then digitized lineaments of this orientation were assigned the attribute of 'Foliation'.

This method was applied to all digitized lineaments in each AOI.

This classification methodology is effective for pervasive or AOI-scale attributes such as metamorphic/structural fabrics, or glacial morphologies, but the generalized nature of this approach makes it less diagnostic of more isolated linear sources, such as specific structural occurrences (individual shears or faults). The case of the latter, all linears of an orientation that is consistent with a known specific structural orientation, or a structural orientation interpreted from geophysical data, are linked to this


438000
440000
442000
444000
446000
448000
5516000
5514000
5512000
5510000
NW Block
Garvey Block
Sturgeon Block
LEGEND
LiDAR Classification AOI
Ishkoday Digitized LiDAR Lineaments
Road
River
Lake
N
0.5 0 0.5 1
SCALE 1:50,000
KILOMETRES
REFERENCE
BASE DATA OBTAINED FROM CANVEC©
DEPARTMENT OF NATURAL RESOURCES CANADA
ALL RIGHTS RESERVED.
Datum: NAD 1983 CSRS UTM Zone 16N
CREATED BY: AURORA GEOSCIENCES LTD.</ACP>
PROJECT
Ishkoday Lineament Analysis Project
TITLE
LiDAR Lineament Classification Areas of Interest
AURORA GEOSCIENCES
PROJECT
DESIGN RM 06/04/2017
GIS DW 27/02/2022
CHECK RM 02/03/2022
REVIEW RM 02/03/2022
SCALE AS SHOWN

orientation. Each linear is not inferred to indicate the specific structure, but rather represent a linear that shares that orientation. Field investigation would be required to confirm the spatial relevance of the orientation correlation.

Lineaments were deleted and added to the 2021 lineament dataset. These modifications have been updated in the property-scale lineament data that supports this memo.

3.0 RESULTS

NW BLOCK

The NW block lineaments cover two principal lithologic classifications (Kresz and Zayachivsky, 1989). Felsic to intermediate metavolcanic and metavolcaniclastic rocks underlie the majority of the AOI; gabbroic and mafic metavolcanic rocks are mapped along the northwestern margin of the study area. These lithologies show two distinct domains in the LiDAR data. The gabbroic rocks are less recessive than the metavolcanic rocks. This topographic response enhances the unit's detail in the LiDAR data, and therefore the density of lineaments that can be recognized (Figure 2).

A total of six classes of linears are recognized in the NW Block AOI (Figure 3). These include

Feature	Count	Mean (deg)	Median (deg)	SD (deg)
Foliation	830	104	104	015
Glacial	1048	062	062	011
Historic Veins	210	026	027	008
Intrusive Linears (N/S)	175	183	181	010
Intrusive Linears (other)	251	145	144	011
Structure - unclassified	interpretative			

The linears classified as 'Foliation' are consistent with regionally mapped foliation mapped by Kresz and Zayachivsky (1989). These lineaments generally trend NW/SE. Local variations in orientation are consistent with the range of measurements reported for the map sheet. The foliation is consistent across all rock types in the AOI.

The impact of glaciation can be directly observed in the lineaments that are oriented NE/SW. This azimuth is consistent with glacial striae that are reported by Kresz and Zayachivsky (1989). The outcrop and till morphology is constant with NE to SW ice advancement. This erosion orientation has opportunistically scoured the outcrop and underlying rock fabric and enhanced NW and NNW trending linears classified to foliation, intrusion, and structure.

The 'Historic Veins' classification is based on the N to NNE orientation of quartz veins and sheeted veins that are mapped in the historic data. These quartz vein occurrences are spatially associated with the mineralized showings and mapped trenches. The 025° orientation has been classified to identify similar linears that may be associated with related structures or zones of silicification.

The 'Intrusive Linear' classification is correlated with two dyke sets mapped in the AOI. The N/S orientation is consistent with the mafic dyke (diabase) orientation and is consistent with the regional magnetic data for the AOI. The 145° linears are consistent with the mapped felsic dykes.

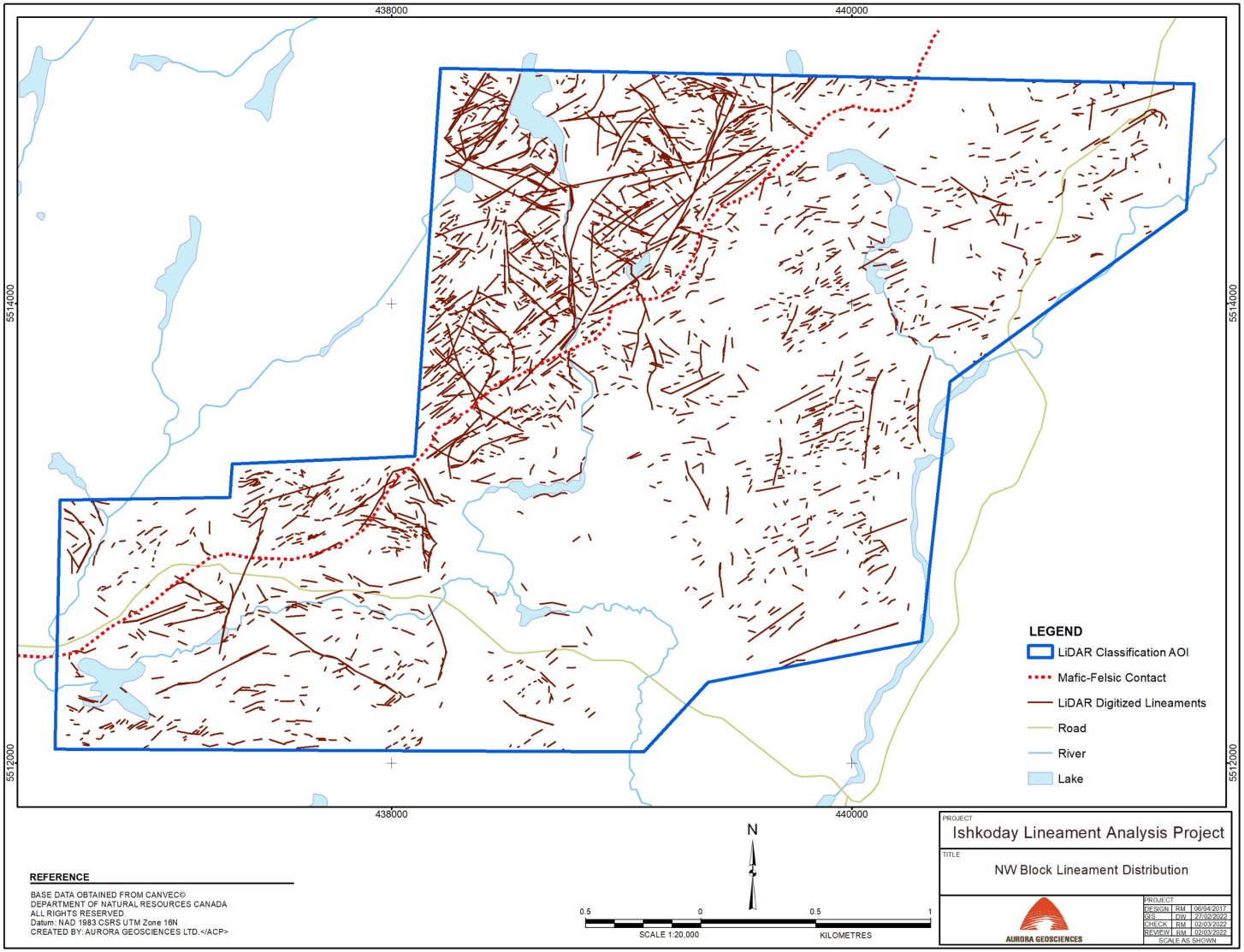


Figure 2. The number of lineaments and the length of the lineaments increases where the mafic intrusive and volcanic rocks are located. The red dashed line designates this contact.

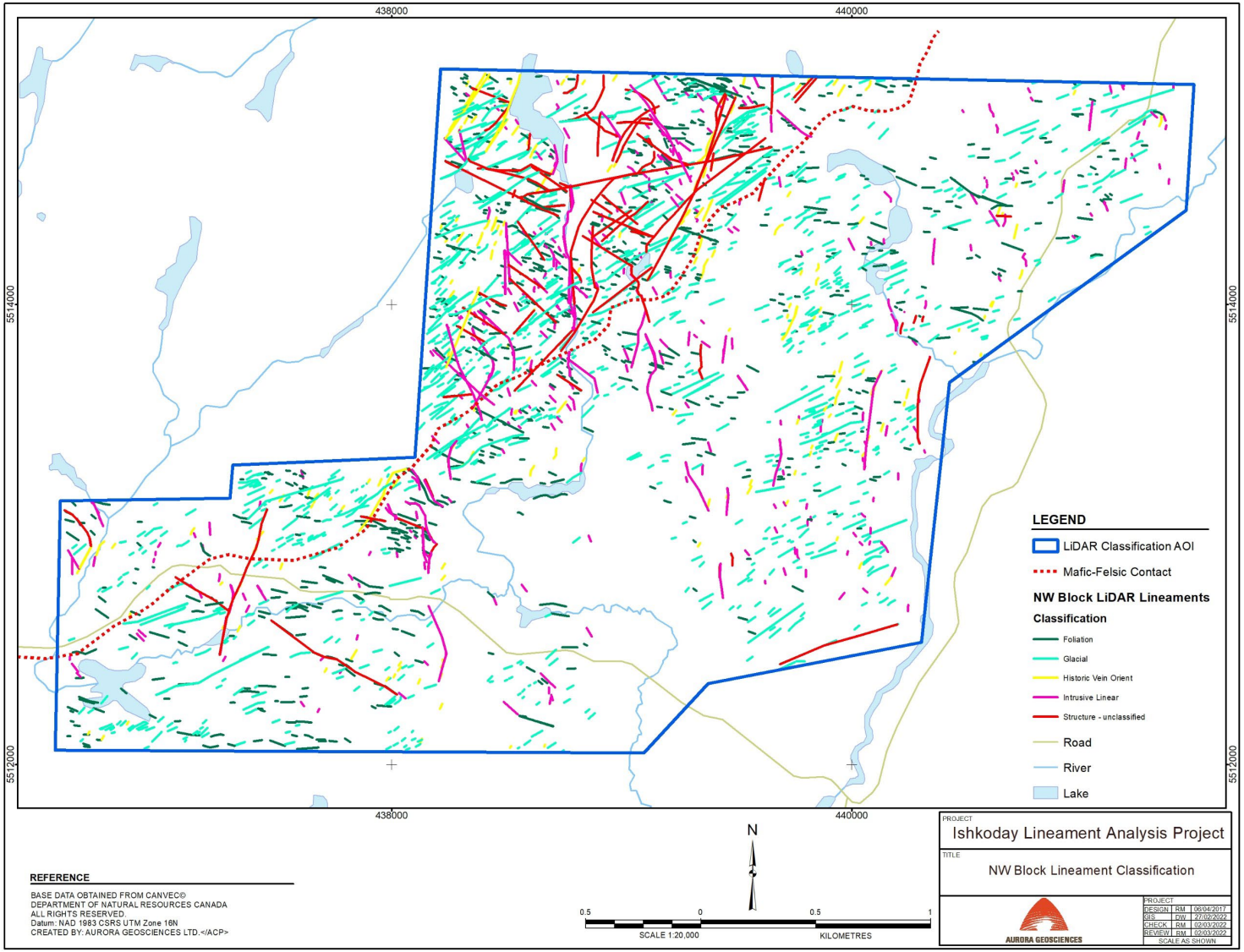
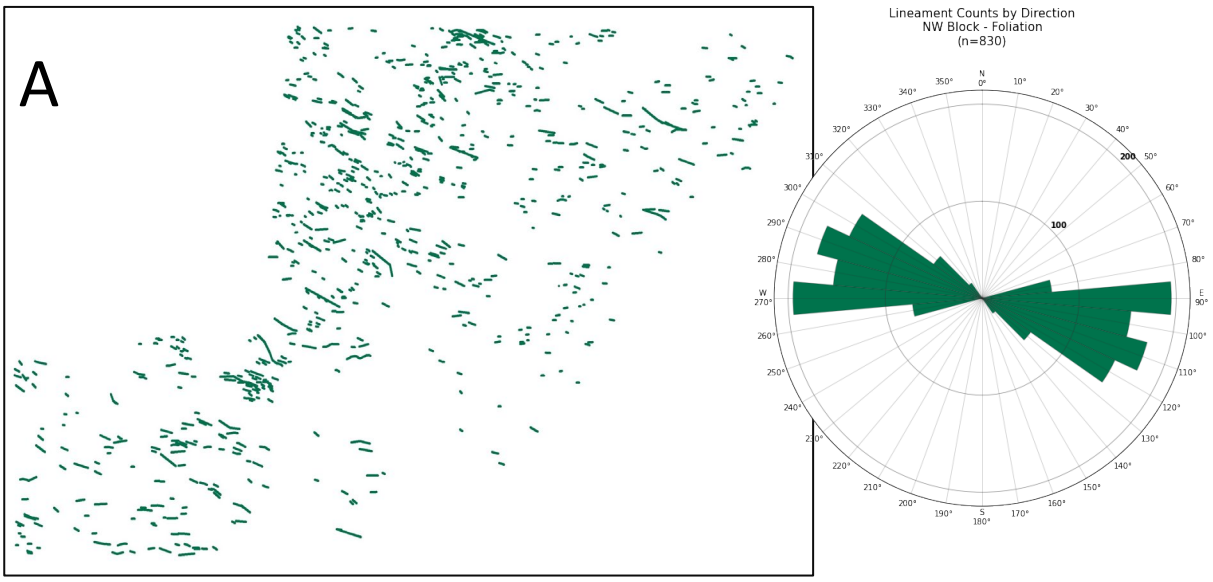
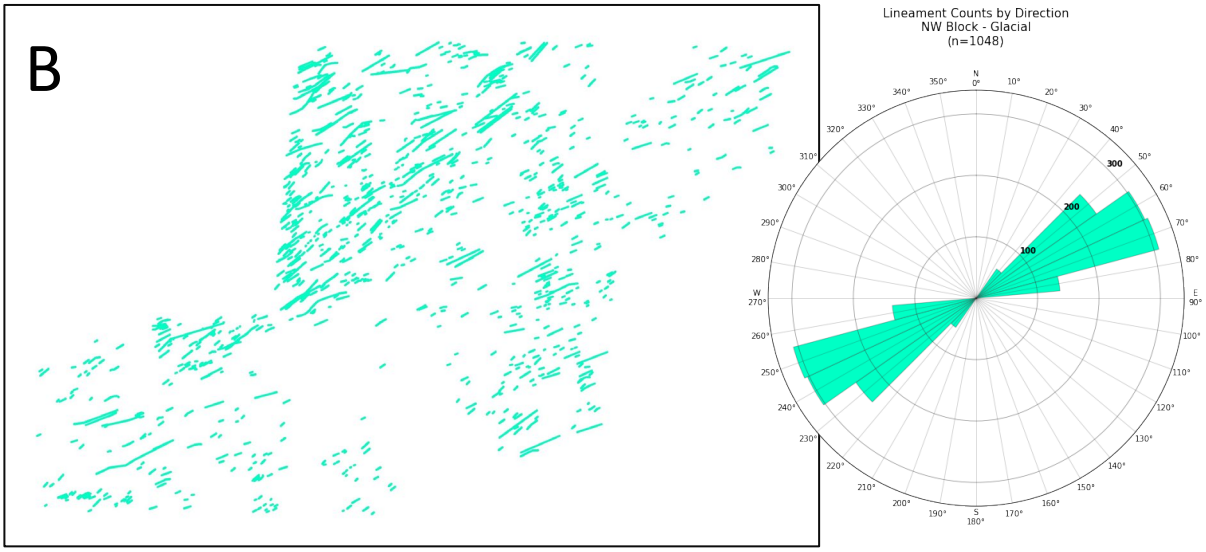
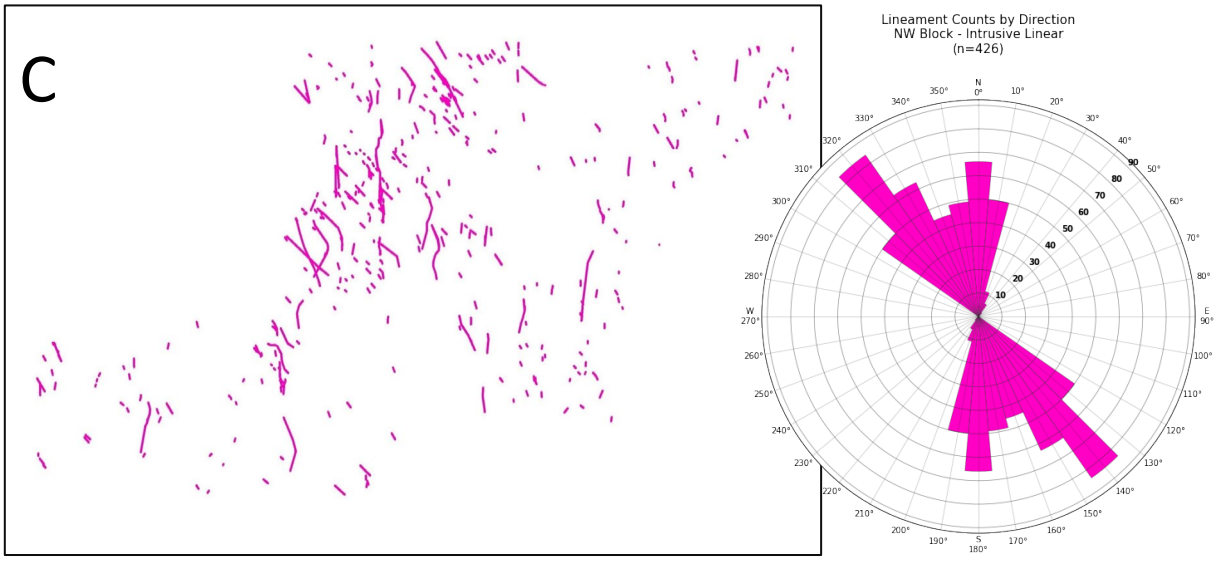


Figure 3. LiDAR lineament classification for the NW Block AOI.


A
Lineament Counts by Direction
NW Block - Foliation
(n=830)
100
200


B
Lineament Counts by Direction
NW Block - Glacial
(n=1048)
100
200
300


C
Lineament Counts by Direction
NW Block - Intrusive Linear
(n=426)
10
20
30
40
50
60
70
80
90

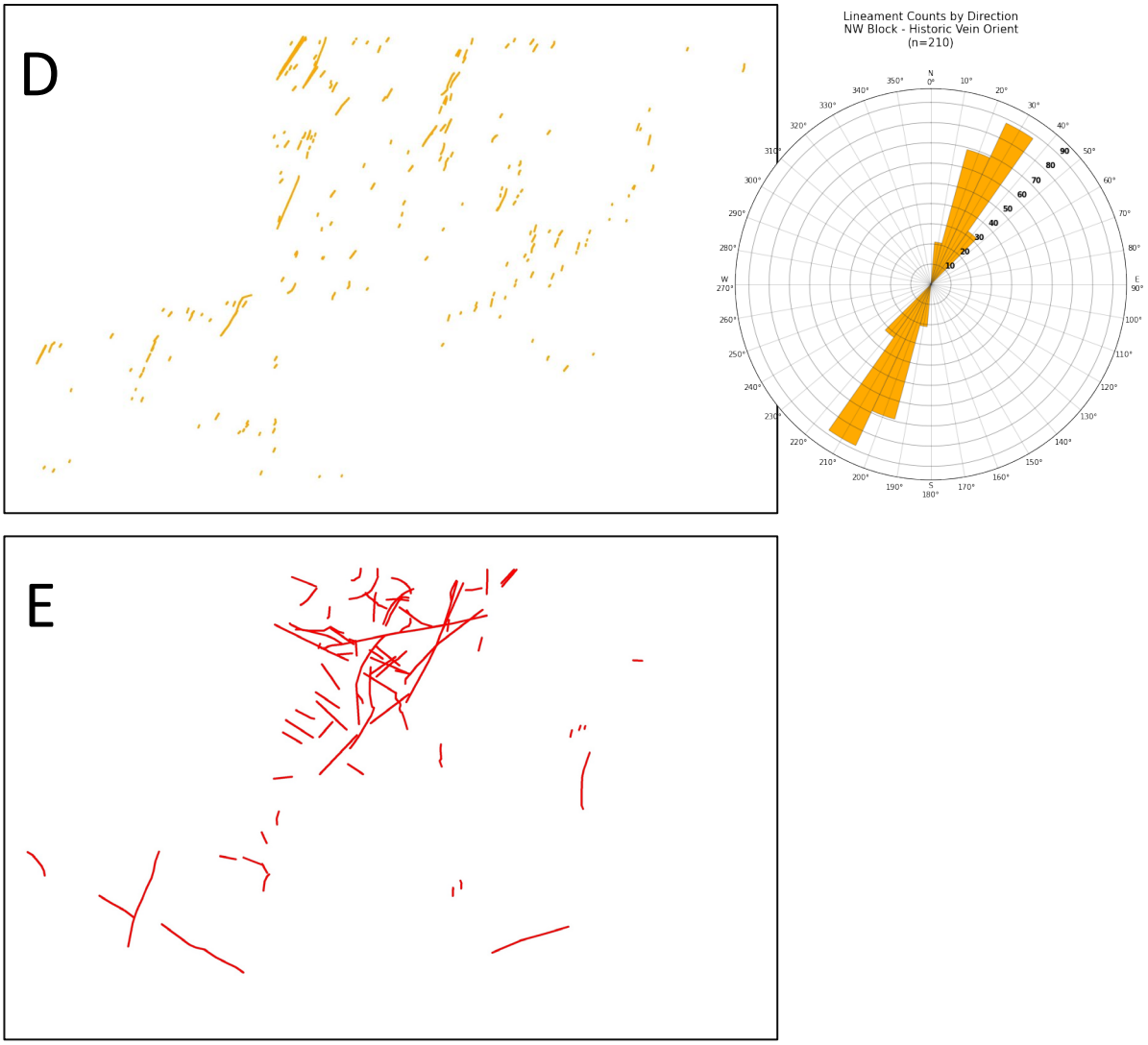


Figure 4. Lineaments and orientation are plotted by class. The corresponding Rose diagram shows the dominant and accessory azimuth distribution. Plate A shows the Foliation classification and a corresponding WNW distribution. The Glacial classification shows a consistent NE azimuth with minimal deviation. Plate C shows the Intrusive class. Two significant azimuths are observed; the N/S orientation is associated with mafic intrusive rocks, while the NW/SE orientation is associated with felsic to intermediate dykes. Plate D represents the lineaments that correlate with historic NNE vein distributions in the AOI. Plate E does not include a Rose diagram as the Structure class lineaments are interpretive in nature.

Lineaments classified to 'Structure – unclassified' do not constantly fit into the one of the other bins. They are also longer in length, more variable in orientation, and more subjective. These lineaments remain unclassified until their accuracy and relevance can be confirmed in the field.

GARVEY BLOCK

The Garvey block is located north of the Namewaminikan River and NE of the Sturgeon Block AOI. This AOI is host to the Garvey showing. The AOI crosses two geologic map sheets. Like many regional map sheets of different generations, the geology doesn't correlate across the map edges. Historically, the exploration effort and drilling were concentrated in the felsic to intermediate volcanic rocks (Unit 2; Kresz and Zayachivsky, 1989 and Mackasey and Wallace, 1978) and at the contact of Unit 2 and the intrusive

rocks (Units 5 and 6). The inconsistency of the mapping and the potential correlation of mineralization with lithology warrants a detailed mapping program in the Garvey AOI.

The lineament classification has separated the pervasive linears spatially associated with the intrusive rocks and the metavolcanic rocks to be associated with jointing and foliation, respectively. The metavolcanic rocks have been inferred from the topographic/linear density shown in the LiDAR data. The metavolcanic rocks are interpreted to be less recessive than then intrusive rocks, and therefore have a greater density of digitized lineaments.

A total of seven classes of lineaments are recognized in the Garvey Block AOI (Figure 5). These include

Feature	Count	Mean (deg)	Median (deg)	SD (deg)
Foliation	37	108	106	015
Glacial	206	047	047	008
Historic Veins	108	006	005	007
Intrusive Linear	17	166	166	003
Joints (1)	106	139	139	014
Joints (2)	175	084	081	016
Structure - unclassified	interpretative			

Foliation is digitized where the metavolcanics are mapped in outcrop by Kresz and Zayachivsky, (1989). The fabric is inferred to be consistent with the foliation measured elsewhere in the map sheet to the west.

The 'Glacial' linears are most pronounced in the Garvey Block. Long and consistent till features are mapped in areas of perched glacial till of sufficient thickness. The glacial erosion has also enhanced the development of N and NE structure lineaments.

The lineaments classified as 'Joints' are consistent with the joint measurements in the intrusive rocks mapped by Mackasey and Wallace, (1978). The Joint (1) and (2) may be conjugate; however, there is a lot of variability, particularly in the Joint (2) class, and the Joint classification may represent multiple Joint set orientations. A foliation is not measured in the felsic intrusive rocks mapped in the Garvey Block AOI (Mackasey and Wallace, 1978).

The 'Historic Vein' lineament orientation is consistent with those classified in the NW Block AOI and are N to NNE in orientation. This classification is inferred from the orientation of historic drilling and trenches mapped by Kresz and Zayachivsky, (1989).

The 'Intrusive Linear' class shares an orientation with the same linear classification at the NW block AOI. This orientation may be better classified as Jointing in the Garvey Block AOI.

The Garvey block has a significant number of potential structure-related lineaments. The AOI is more complicated by uncertain geology and a lack of distinctive geophysics response (specifically the regional magnetic data). The 'Structure – unclassified' lineaments generally show a NNE and NE trend.

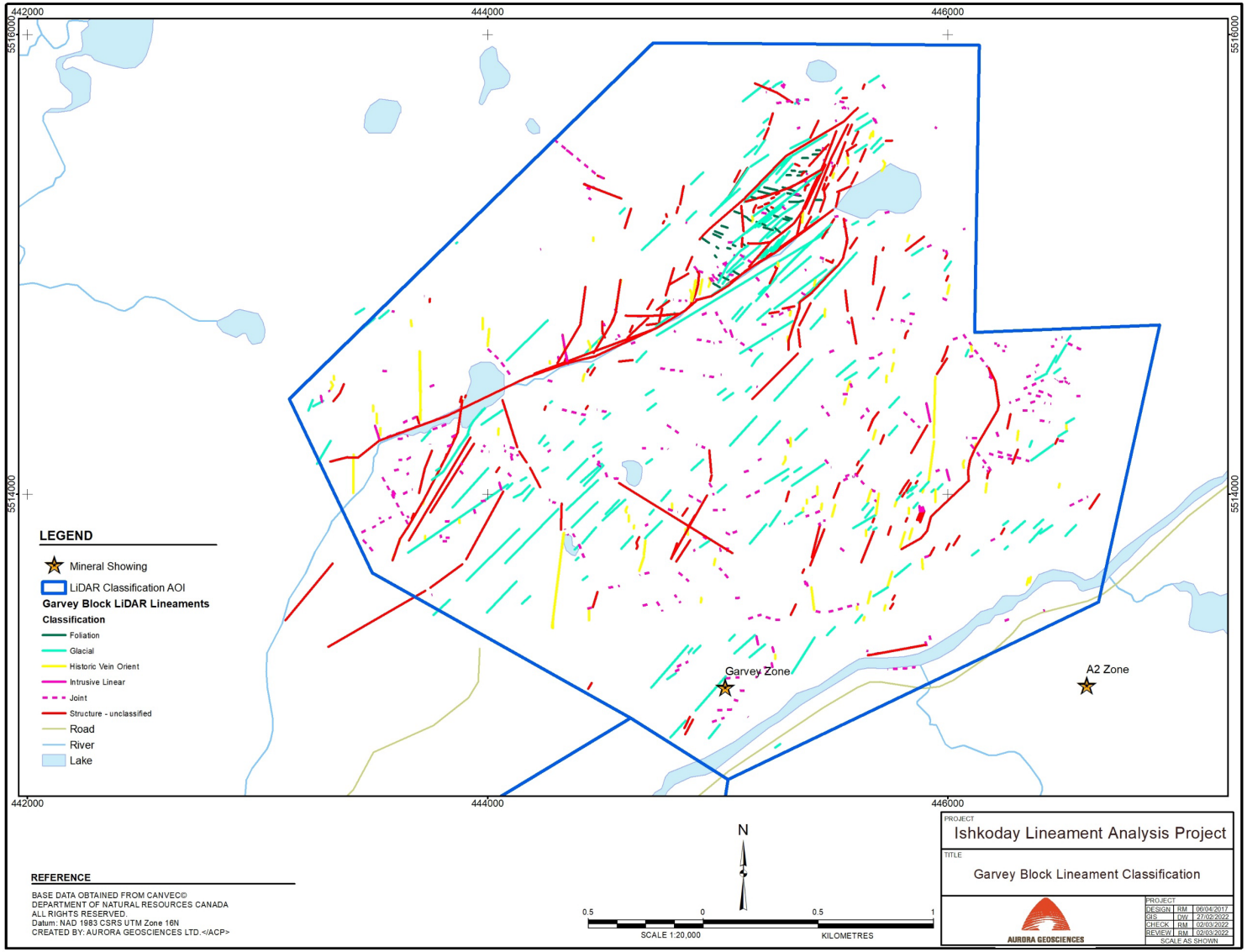
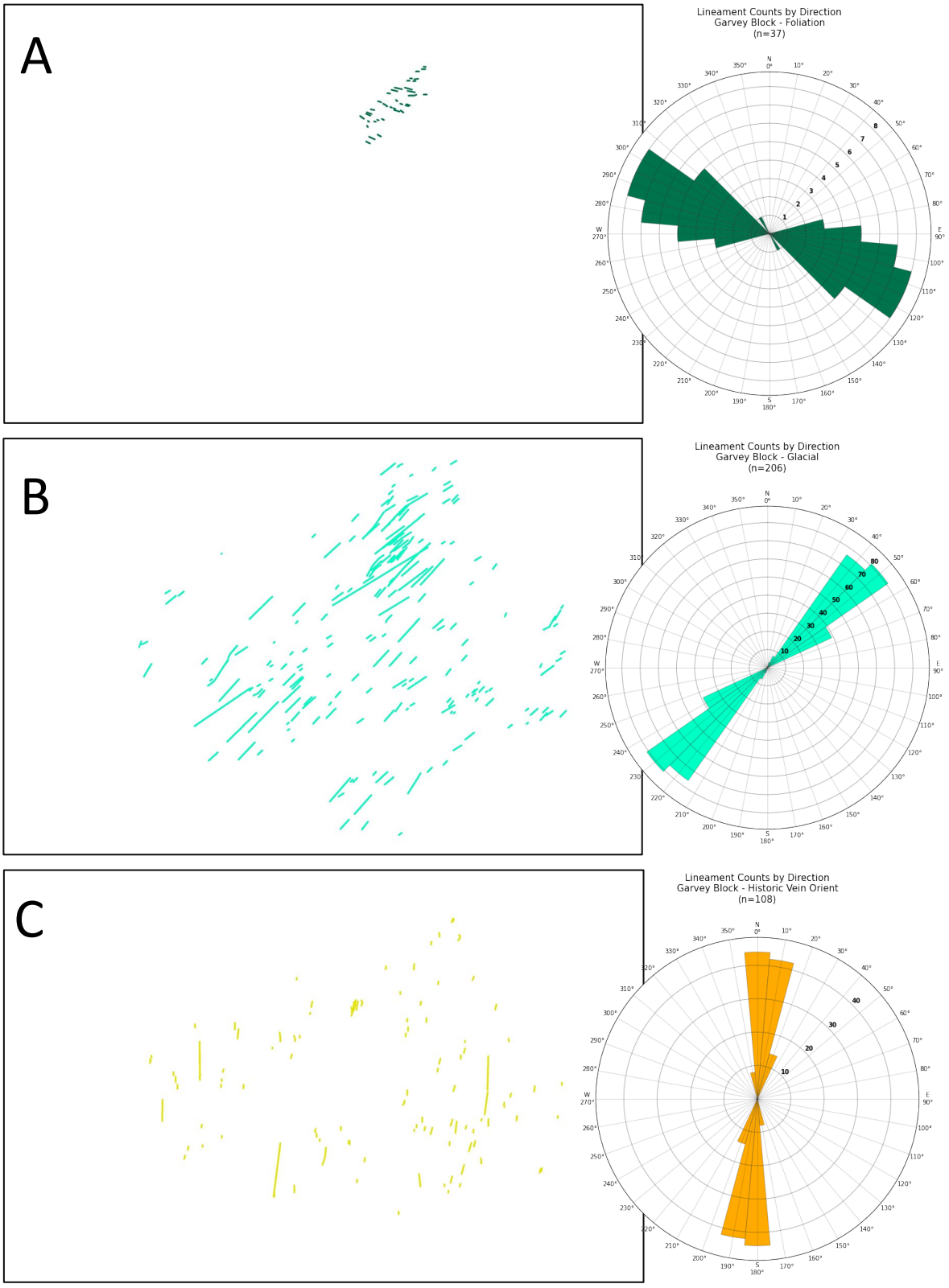


Figure 5. The LiDAR lineament classification for the Garvey Block AOI.


A
Lineament Counts by Direction
Garvey Block - Foliation
(n=37)
B
Lineament Counts by Direction
Garvey Block - Glacial
(n=206)
C
Lineament Counts by Direction
Garvey Block - Historic Vein Orient
(n=108)

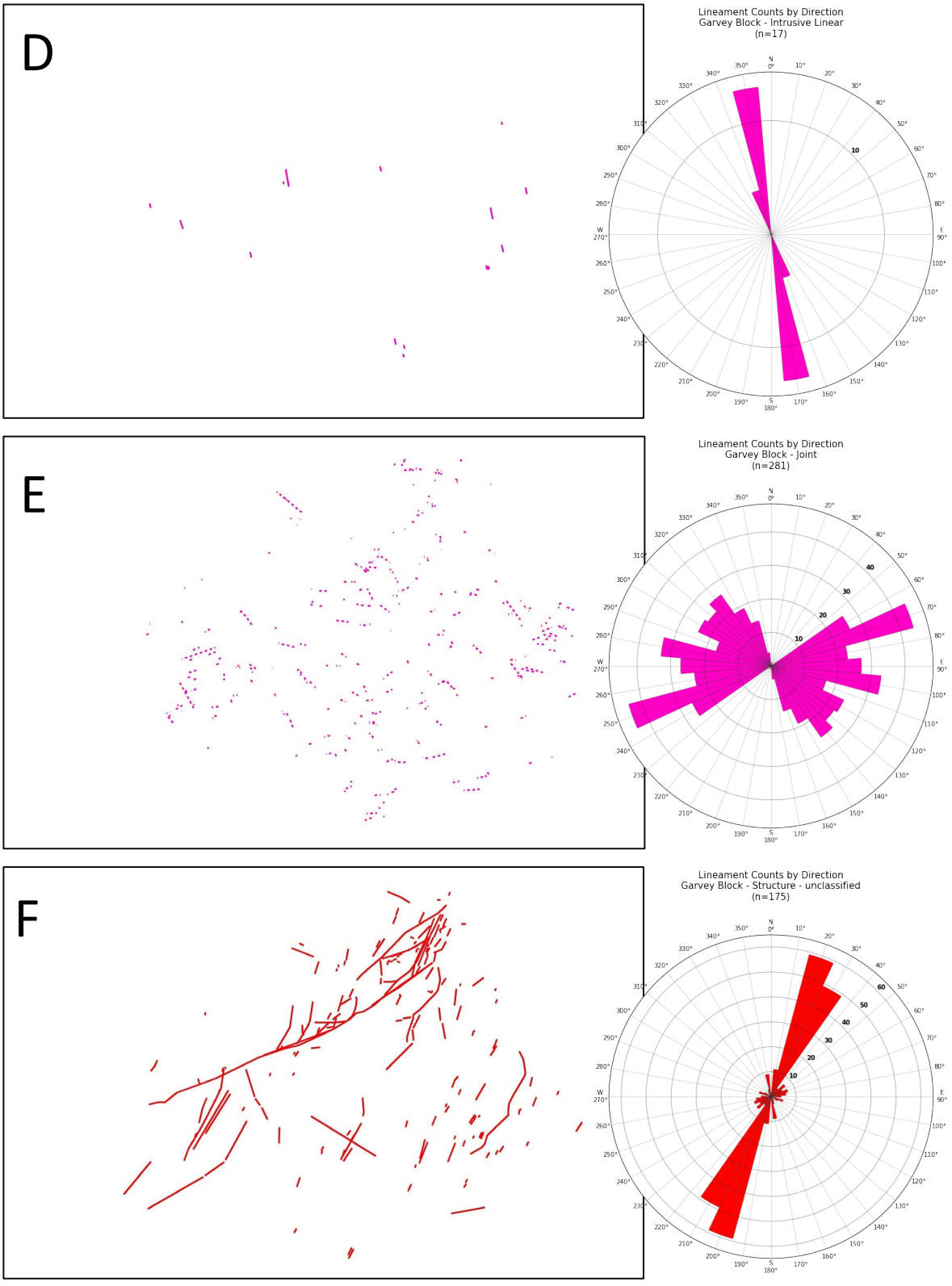


Figure 6. Lineaments and orientation are plotted by class. The corresponding Rose diagram shows the dominant and accessory azimuth distribution. Plate A shows the foliation inferred to be hosted in the metavolcanic rocks. The Glacial class trends NE/SW

and is well represented in the AOI. Plate C shows the Historic Vein class. This class orientation correlates with mapped veins in the AOI as well as those mapped in the NW Block. The NNE azimuth is consistent with mineralized structures in the Sturgeon Block as well. The Intrusive lineaments are shown in Plate D. This orientation is consistent with mafic dykes that transect the property. Lineaments shown in Plate E represent the Joint class. These orientations are consistent with joints mapped to the east and west of the AOI. The structural class is shown in Plate F. These lines are interpretive; however, they represent a strong affinity to a NNE azimuth. This azimuth is consistent with the 3rd order Riedel structures in the Sturgeon Block. These structures are proposed to be the most prospective for economic mineralization (Lewis, 2021).

STURGEON BLOCK

The geology of the Sturgeon block AOI and the showings hosted therein have been described by Mackasey (1971) and Kresz and Zayachivsky (1989), as well as Lewis (2021) and Terrane Geoscience.

A total of six classes of lineaments are recognized in the Sturgeon Block AOI (Figure 7). These include

Feature	Count	Mean (deg)	Median (deg)	SD (deg)
Foliation and Vein (D0)	237	081	080	011
Foliation sub Glacial	355	052	053	011
Glacial	224	052	054	013
Mechanical - unclassified	161	138	139	020
Riedel Structure (3rd)	212	018	019	010
Structure - unclassified	76	113	110	011

The lineaments classified to the 'Foliation and Vein' and 'Foliation sub Glacial' are consistent with foliation (D0, D1 and D2 of Lewis, 2021; Mackasey, 1971; and Kresz and Zayachivsky, 1989) and associated fabric parallel veins, as the orientation of the fabric records local variations in strike. The 'Foliation sub Glacial' classification has been isolated as a unique classification of the foliation because of the NE strike locally, an orientation that is subparallel to the glacial lineaments.

'Glacial' classified lineaments are consistent with glacial striations measured during regional mapping programs. As with the other AOI in this report, the outcrop shapes and till-related landforms support NE-SW glacial movement.

Lineaments classified as 'Mechanical – unclassified' include lineaments assigned to active exploration, e.g. trenching and roads. For the most part these lineaments are nearly perpendicular to the local vein/foliation orientation.

The 'Riedel Structure' classification is selected to match the N to NE orientation of Lewis (2021) D2-related mineralization. This orientation is consistent with the #3 Zone at the Sturgeon mine, the proposed prospective orientation of mineralized veins at Brenbar, as well as other zones east of the Sturgeon mine.

The 'Structure – unclassified' classification has a consistent orientation in this AOI. This is likely a function of the amount of exploration effort that has been focused in the Sturgeon Block and detail of classification that can be applied. This classification shows a mean orientation of 113°. The linears are commonly spatially associated with the down-ice side of outcrops. The observation so most consistent south of the #3 Zone. The consistency of this observation would be consistent with a structural control, perhaps a spaced cleavage or fabric related to the WNW VLF conductor south of Brenbar (Lewis, 2021).

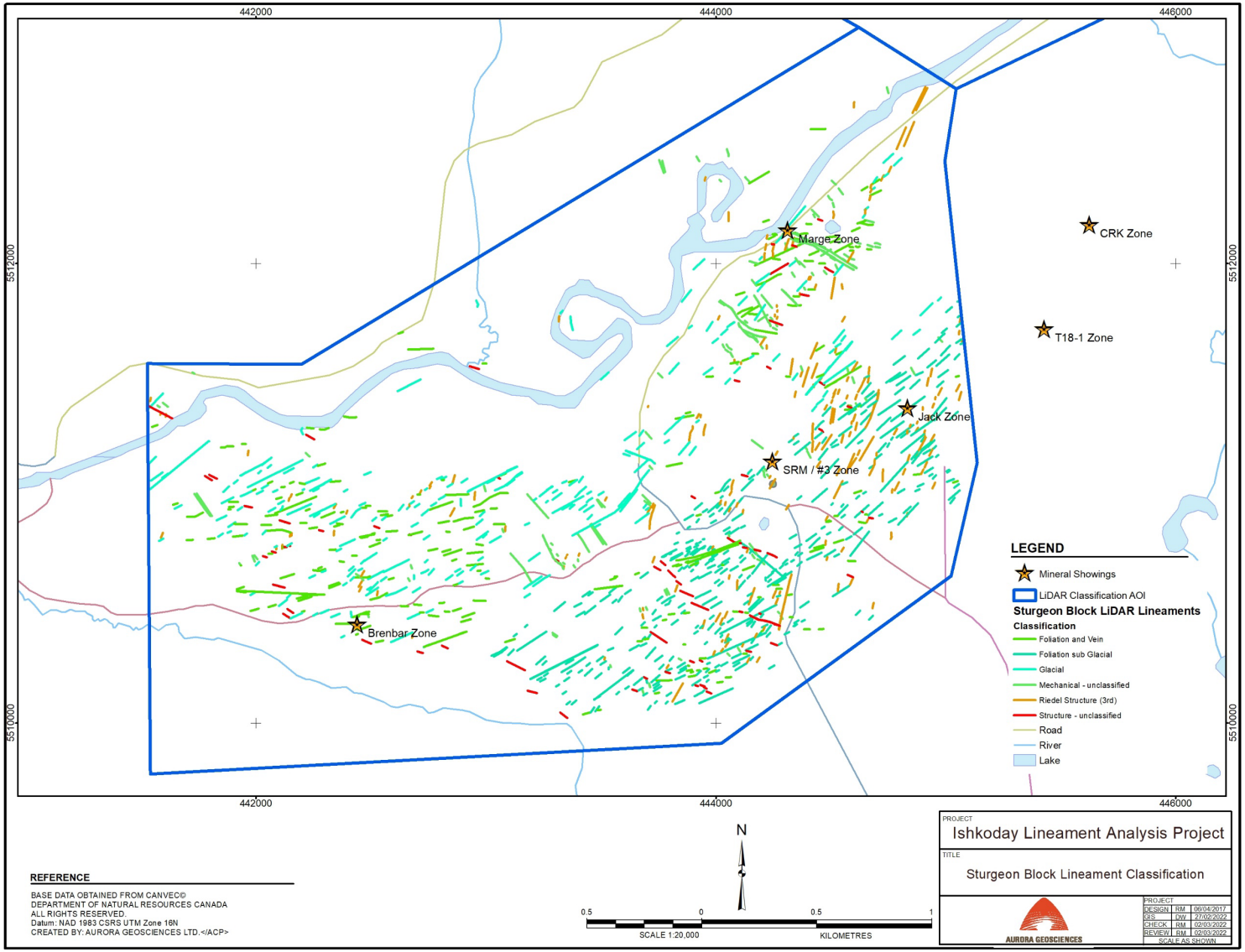
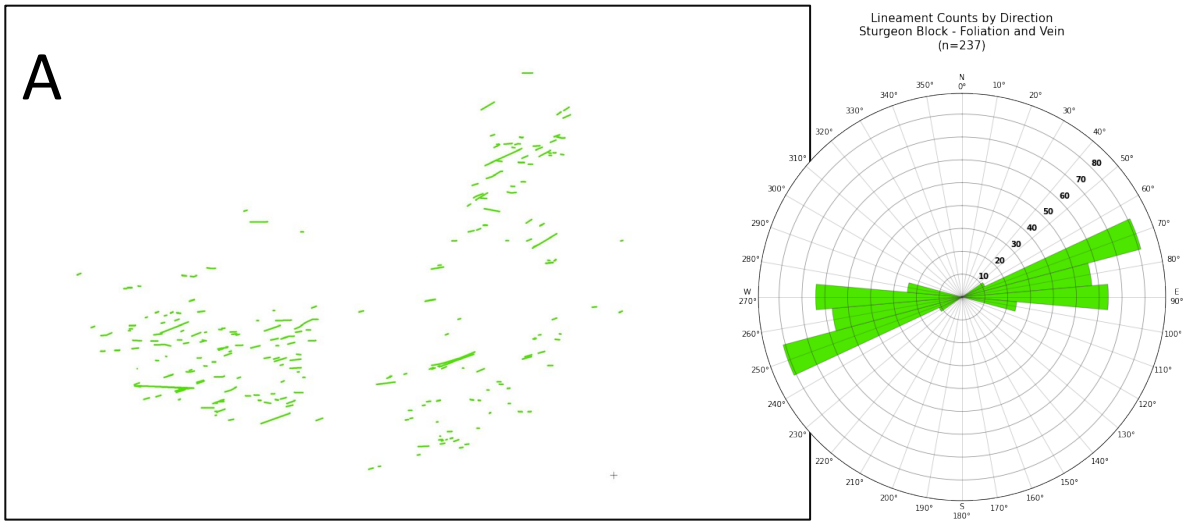
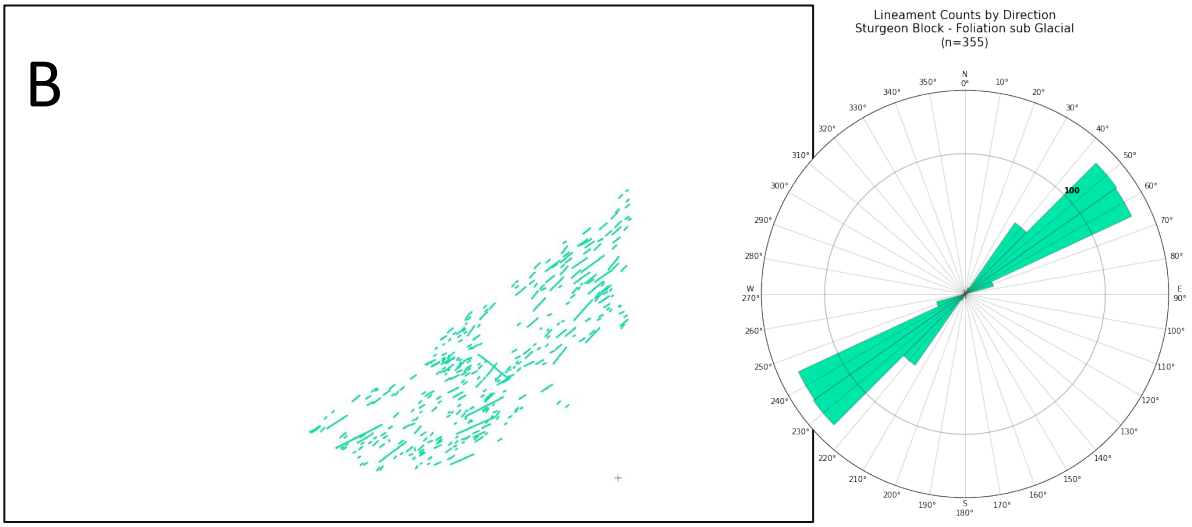
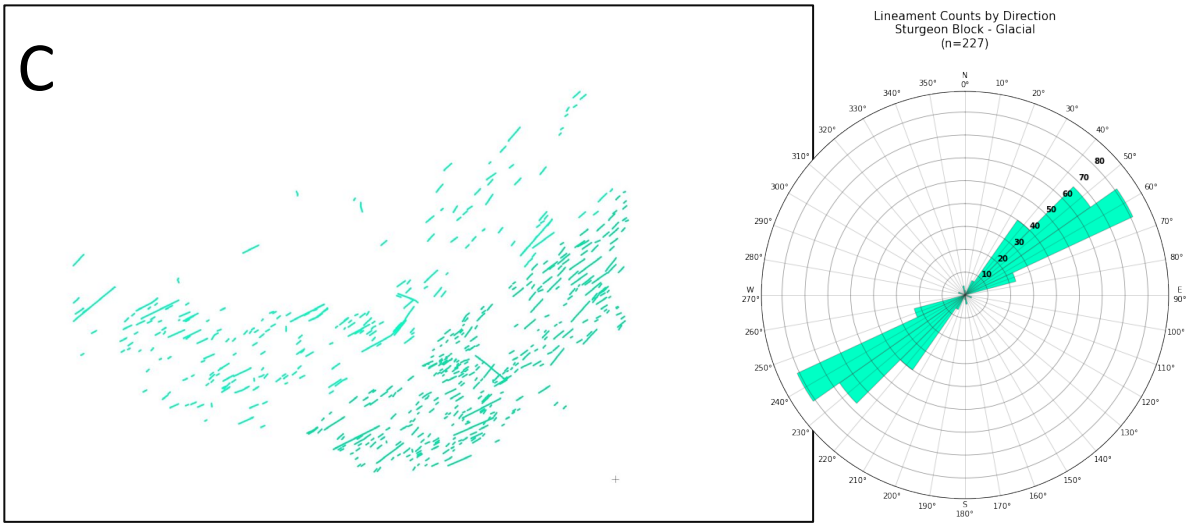


Figure 7. The LiDAR lineament classification for the Sturgeon Block AOI.


A
Lineament Counts by Direction
Sturgeon Block - Foliation and Vein
(n=237)
N
0°
10°
20°
30°
40°
50°
60°
70°
80°
E
90°
100°
110°
120°
130°
140°
150°
160°
170°
S
180°
190°
200°
210°
220°
230°
240°
250°
260°
W
270°
280°
290°
300°
310°
320°
330°
340°
350°
10
20
30
40
50
60
70
80


B
Lineament Counts by Direction
Sturgeon Block - Foliation sub Glacial
(n=355)
N
0°
10°
20°
30°
40°
50°
60°
70°
80°
E
90°
100°
110°
120°
130°
140°
150°
160°
170°
S
180°
190°
200°
210°
220°
230°
240°
250°
260°
W
270°
280°
290°
300°
310°
320°
330°
340°
350°
100


C
Lineament Counts by Direction
Sturgeon Block - Glacial
(n=227)
N
0°
10°
20°
30°
40°
50°
60°
70°
80°
E
90°
100°
110°
120°
130°
140°
150°
160°
170°
S
180°
190°
200°
210°
220°
230°
240°
250°
260°
W
270°
280°
290°
300°
310°
320°
330°
340°
350°
10
20
30
40
50
60
70
80

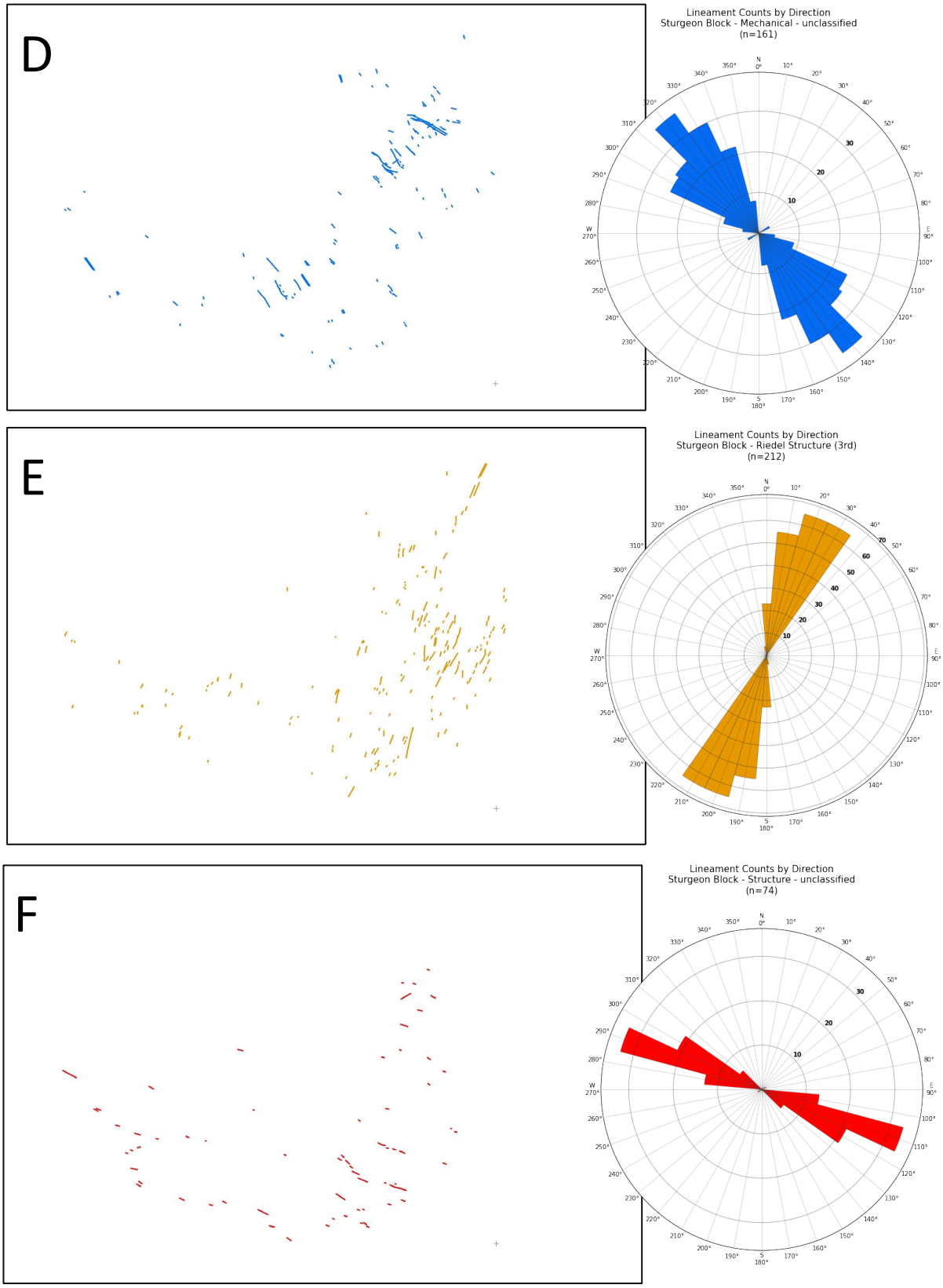


Figure 8. Lineaments and orientation are plotted by class. The corresponding Rose diagram shows the dominant and accessory azimuth distribution. Plate A shows the E/W foliation class. A second foliation class is shown in Plate B. This class is oriented

NE/SW and is semi-parallel to the glacial lineaments in the AOI. Plate C shows the Glacial class, Plate C shows the Glacial and the 'Foliation sub Glacial' classes to show the similarity in azimuth between these two classes. The mechanical class is shown in Plate D. These lineaments are interpreted to be related to exploration disturbances. Plate E shows lineaments with an orientation consistent with 3rd order Riedel structures that are interpreted to be prospective for economic gold mineralization (Lewis, 2021). The Structure – unclassified lineaments are shown in Plate F. These linears are consistently oriented WNW/ESE and are commonly recognized on the down ice limit of outcrop exposures.

4.0 CONCLUSIONS

A total of 4686 LiDAR lineaments are classified. The lineament classification was based on mapped geology, airborne and ground geophysics, and geomorphology data associated with the three AOI. Each AOI was individually assessed for common lineament associations in the context of the available geoscience data. Classes such as Foliation, Glacial, Intrusive linear and Jointing are identified in the AOIs and are consistent with regional and property scale investigations. Lineament classifications such as Historical Vein and Riedel Structure are based on more AOI specific observations or interpretations and reflect the level of study that has been applied to a specific area. The Structure – unclassified class is assigned to all AOI and is a more interpretation-based layer to the dataset. This classification may represent specific structures from which a kinetic sense may be inferred, or specific relevance to a geophysical or geologic observation.

5.0 REFERENCES

Kresz, D. and Zayachivsky, B., 1989, Precambrian geology, Barbara and Meander townships; Ontario Geological Survey, Map 2536; scale 1:15,840.

Lewis, D., 2021, 2020 mineral exploration interpretations on the Ishkoday Project, with implications for 2021 exploration targeting, p. 10; internal report.

Mackasey, W. O, 1975, Geology of Dorothea, Sandra, and Irwin Townships, District of Thunder Bay: Ontario Dov. Mines; Map 2294, scale 1 inch to ½ mile.

Mackasey, W.O, and Wallace, H., 1978, Geology of Elmhurst and Rickaby Townships, District of Thunder Bay; Ontario Geological Survey; Mao 2373, scale 1:31,690

Respectfully,

Aurora Geosciences Ltd.

-- signed --

Dave White, P. Geol