

# **Technical Report on the Arthur Lake Property 2025**

Omineca Mining Division  
British Columbia, Canada

NTS Map Sheet: 093F/09  
BCGS Map Sheet: 093F.058, .059

53° 35.1' North Latitude  
124° 23.0' West Longitude

***Prepared for:***

J4 Ventures Inc.

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Effective Date: September 18, 2025

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## Units of Conversion and Abbreviations

### Abbreviations

ppb	parts per billion
ppm	parts per million
g	gram
g/t	gram per tonne
ha	hectares
Moz	Million Ounces
Mt	Million tonnes
t	metric tonne (1000kg)

### Conversions

1 gram	= 0.0322 troy ounces
1 troy ounce	= 31.104 grams
1 ton	= 2000 pounds
1 tonne	= 1000 kilograms
1 gram/tonne	= 1 ppm = 1000 ppb
1 troy ounces/ton	= 34.29 gram/tonne
1 gram/tonne	= 0.292 troy ounces/ton
1 kilogram	= 32.151 troy ounces = 2.205 pounds
1 pound	= 0.454 kilograms
1 inch	= 2.54 centimeters
1 foot	= 0.3048 metres
1 metre	= 39.37 inches = 3.281 feet
1 mile	= 1.609 kilometres
1 acre	= 0.4047 hectares
1 sq mile	= 2.59 square kilometers
1 hectare	= 10,000 square meters = 2.471 acres

# 1 SUMMARY

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The Arthur Lake Property ("**Arthur Lake**" or "**The Property**") is located in the Nechako Plateau region of central British Columbia, Canada; 52 km SW from the town of Vanderhoof. The Property falls within the Omineca Mining Division and is located on NTS Map Sheet 093F/09, centered at 53° 35.1' N and 124° 23' W.

The Property consists of two contiguous mineral tenures, Arthur One and Arthur Two, totaling 576.00 ha. J4 Ventures Inc. ("**J4 Ventures**" or "**The Company**") acquired the Arthur Lake Property through an Option Agreement with Primary Hydrogen Corp ("**Primary**"), previously named Millbank Mining Corp. ("**Millbank**"), via a purchase agreement dated August 5, 2025. The Property can be accessed using the many active and inactive gravel forest service roads (FSRs) that cover the region.

The Property is underlain by volcanic ( $\pm$  sedimentary) sequences of early Mesozoic and Tertiary arc volcanic rocks with localized intermediate-felsic intrusions. The overall geologic understanding of the Property is inhibited by low relief, gentle undulating terrain and widespread glacial overburden typical of the Nechako Plateau.

Historic exploration work has demonstrated the potential for magmatic-hydrothermal copper ("**Cu**") mineralization and alteration assemblages related to porphyry or epithermal type deposits. This potential was reaffirmed by analyses of soil, rock, and shallow backpack drill core samples collected during the 2025 exploration program, complemented by new detailed geologic mapping of key target areas. The highest Cu concentrations in rock samples from 2025 include 7.18% Cu in float, 0.68% Cu in outcrop, and 0.44% Cu in small-diameter backpack drill core (0.5 m length). Two main soil geochemical targets have emerged from the 2025 survey: one is coincident with known mineralization, and the other is located in an area without rock sampling.

Further exploration is warranted to build upon the success of the 2025 exploration program, especially following up on newly recognized bedrock mineralization.

There are no mineral resources or mineral reserves on the Arthur Lake Property.

Based on the results to date at the Arthur Lake Property, the author believes that continued exploration is warranted. It is recommended to complete exploration in two Phases. Phase 1 would involve ground geophysical surveys, an airborne LiDAR Survey, geological mapping, sampling and excavator trenching on the most promising targets. Phase 2 would include a minimum of 1,000 meters of diamond drilling on the highest priority targets.

## 2 INTRODUCTION

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This technical report has been prepared for J4 Ventures Inc. by Ken MacDonald P.Geo. ("**Author**", "**Qualified Person**" or "**QP**"). Ken MacDonald, P.Geo. is the Independent Qualified Person as defined by NI 43-101 and is responsible for all aspects of this report.

J4 Ventures Inc. is a privately held junior mineral exploration company based in Vancouver, British Columbia, Canada. J4 Ventures retained the author to prepare an NI 43-101 Technical Report for the Arthur Lake Property. The purpose of this Technical Report is in connection with J4's initial public offering and listing on the TSX Venture Exchange ("**TSXV**").

The Arthur Lake Property is located in the Omineca Mining Division in central British Columbia, Canada with its geographic center at UTM coordinates 408450E, 5938327N, in UTM Zone 10 in map datum NAD 83. Access to the Property is gained by a series of well-maintained, all-season gravel logging roads that reach and intersect the Property, allowing for good overall access from Vanderhoof, BC.

The Property consists of two contiguous mineral claims that cover an area totaling 576.00 hectares and are 100% owned by Millbank Mining Corp., which changed its name to Primary Hydrogen Corp in November 2024 (Millbank Mining Corp, 2024). J4 Ventures is acquiring 100% ownership of the Property via execution of a Purchase Agreement dated August 5, 2025 with Primary Hydrogen Corp., and within which this Technical Report is a condition (J4 Ventures Inc., 2025).

This technical report has been prepared in accordance with the Canadian Securities Administrators' National Instrument 43-101 ("**NI 43-101**") Standards of Disclosure for Mineral Projects. This Technical Report conforms to the format and content standards of NI 43-101, the Companion Policy to NI 43-101, and Form 43-101F1.

### 2.1 QUALIFICATIONS

This Report was prepared and overseen by a Qualified Person as defined by NI 43-101. The Qualified Person is a registered Professional Geoscientist ("**P.Geo.**") in the Province of British Columbia (Engineers and Geoscientists BC) and is considered a Qualified Person as per the requirements of NI 43-101.

The author is independent of J4, Millbank, and Primary Hydrogen and has no material interest in the Arthur Lake Property. The Qualified Person has sufficient experience in the exploration of epithermal gold deposits, including geology and interpretation of geophysical and geochemical

results, to act as a Qualified Person. To the best of the author's knowledge there is no subsequent new scientific or technical information that would be considered material as of the effective date of this report.

## **2.2 TERMS OF REFERENCE AND UNITS**

The author has been retained by J4 Ventures Inc. to prepare a NI 43-101 Technical Report (this "**Technical Report**") for the Arthur Lake Property.

The report has been prepared using the disclosure standards of NI 43-101 Standards of Disclosure for Mineral Projects and using the technical report format as set out in Form NI 43-101F1. The NI 43-101 reporting standards govern a company's public disclosure of scientific and technical information about its mineral projects. The author was also requested to provide recommendations and to propose an exploration program and budget for further exploration and development on the Property.

The information, conclusions and recommendations contained herein are made after consideration of relevance and reliability of historical and modern exploration reports of the Property and area, using Assessment Reports and Property Reports from the public domain that were filed with the BC Ministry of Energy and Mines for claim maintenance. Relevant government geological maps and scientific publications from the Geological Survey of British Columbia ("**BCGS**") were also reviewed. The various reports, documents, and files are cited where appropriate.

The coordinate system used in this report is Universal Transverse Mercator ("**UTM**") Zone 10N, and the datum used is North American Datum 1983 (NAD83). Throughout this report, an effort has been made to use plain language wherever possible. Some technical terms or abbreviations which may not be familiar to the reader have inevitably been included. In such cases, a reputable geological dictionary should be consulted.

The Metric System is the primary system of measurement and length used in this report. Length is generally expressed in kilometres (km), metres (m) and centimetres (cm); volume is expressed as cubic metres (m<sup>3</sup>); mass is expressed as metric tonnes (t); and area is expressed as hectares (ha). Gold and silver concentrations are generally expressed as parts per million (ppm) or, equivalently, grams per tonne (g/t). Conversion factors between metric and imperial units are listed after the Table of Contents and quoted where practical. Dollars are expressed in Canadian currency (CAD\$) unless otherwise noted.

## **2.3 RESPONSIBILITIES**

The Independent Qualified Person, Ken MacDonald P.Geo. takes responsibility for all portions included in this report. The Qualified Person completed a site inspection on the Arthur Lake Property on June 17, 2025 as detailed in section 12.2. The site inspection accessed the general site conditions including access roads, the local topography and focused on reviewing the drill core from the 2025 backpack drill program, and visiting the Big Bear and Little Bear mineral occurrences. The author was accompanied in the field by geologists employed by Tripoint Geological Services Ltd who were still active on the property at the time of site visit.

The author used a hand-held Garmin 60SCx GPS unit (accuracy:  $\pm 3.0\text{m}$ ) to record tracks and waypoints of interest for location and a digital camera to record photographs.

## **3 RELIANCE ON OTHER EXPERTS**

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The author has not relied on other experts for the purpose of this report.

## **4 PROPERTY DESCRIPTION AND LOCATION**

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### **4.1 PROPERTY DESCRIPTION**

The Arthur Lake property lies on BC TRIM map sheet 093F058 and 093F059, which covers portions of National Topographic System map sheet 093F in the Omineca Mining Division (Figure 1). The geographic center of the property is approximately 408450E 5938327N in UTM Zone 10 in map datum NAD 83. The Property consists of 2 contiguous mineral tenures, Arthur One and Arthur Two, totaling 576.00 ha.

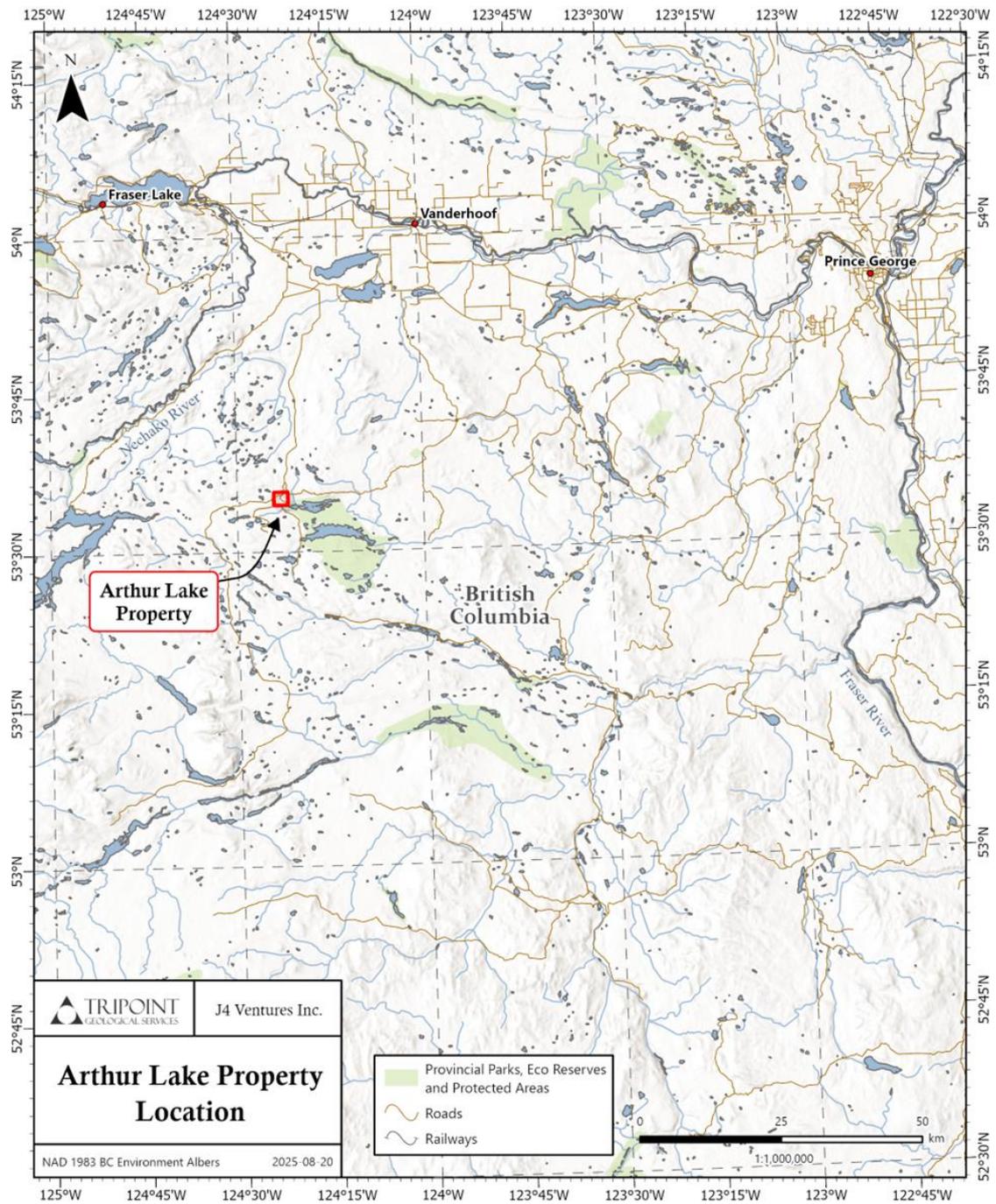


Figure 1: Arthur Lake Property Location Map

## 4.2 TENURE

The Arthur Lake Property consists of two mineral titles (Table 1; Figure 2). The claims are MTO “cell” type claims that were staked online through the BC Government MTO web portal and, as such, have no reference points or claim posts in the field. However, the claim corners can be referenced to UTM map coordinates which can be precisely measured in the field.

They are registered with 100% ownership to Millbank Mining. Millbank Mining Corp. changed its name to Primary Hydrogen Corp. on November 13, 2024 but the claims remain valid under the former name: BC Incorporation #: BC1258942; Free Miner Certificate #: 287557.

*Table 1: Mineral Claims of the Arthur Lake Property*

TENURE NUMBER	CLAIM NAME	OWNER NAME	ISSUED DATE	GOOD TO DATE	AREA (ha)
<b>1078795</b>	ARTHUR ONE	MILLBANK MINING CORP.	2020-09-21	2032-09-21	287.9988
<b>1078796</b>	ARTHUR TWO	MILLBANK MINING CORP.	2020-09-21	2032-09-21	288.0013
			<b>Total Area in Hectares</b>		<b>576.00</b>

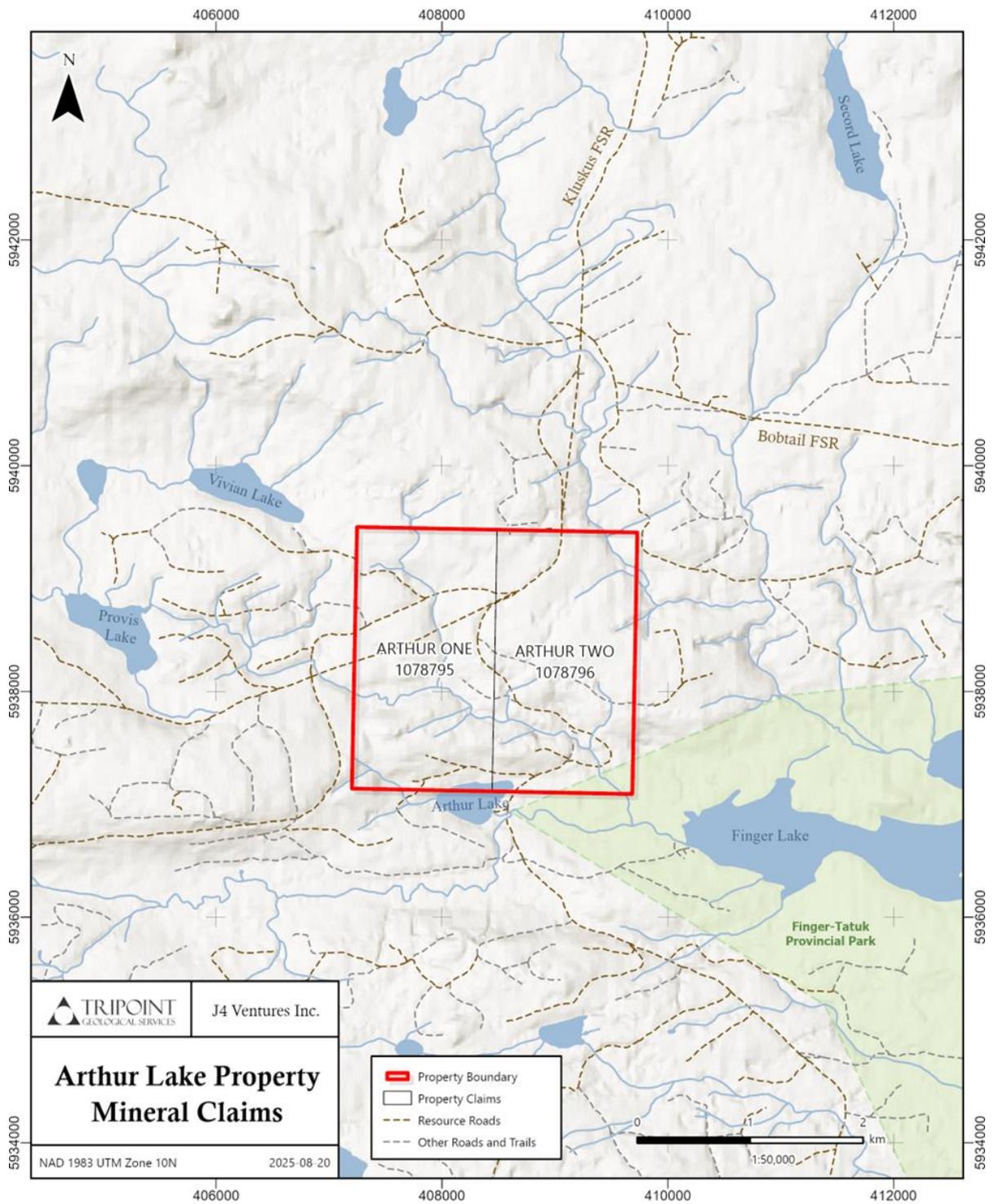


Figure 2: Arthur Lake Property Mineral Tenures

### 4.3 MINERAL TENURE INFORMATION AND MAINTENANCE

Mineral rights in the Province of British Columbia are managed by the Mineral Titles Branch which administers the legislation governing the acquisition, exploration, and development of mineral, placer mineral, and coal rights in BC through the online portal Mineral Titles Online (“**MTO**”). In order to keep the tenures in good standing a minimum required work value must be applied to the claims in an increasing amount as follows:

- First and Second Anniversary Years - \$5.00/hectare
- Third and Fourth Anniversary Years - \$10.00/hectare
- Fifth and Sixth Anniversary Years - \$15.00/hectare
- Subsequent Anniversary Years - \$20.00/hectare

A cash payment can be made instead of applying exploration and development work (“**Cash in Lieu**”) using the following rates (2X penalty):

- First and Second Anniversary Years - \$10.00/hectare
- Third and Fourth Anniversary Years - \$20.00/hectare
- Fifth and Sixth Anniversary Years - \$30.00/hectare
- Subsequent Anniversary Years - \$40.00/hectare

The mineral claims are valid and subsisting and remain in good standing until September 21, 2032 before which assessment work or cash-in-lieu will need to be filed in order to extend the anniversary date.

### 4.4 PROPERTY AGREEMENTS

The mineral tenures total 576 ha and are 100% owned by Millbank Mining. The claims were staked on September 21, 2020. On November 13, 2024 Millbank Mining Corp. changed its name to Primary Hydrogen Corp. (Millbank Mining Corp, 2024). J4 Ventures is acquiring 100% of the Property via execution of a Mineral Purchase Property Agreement (“**Purchase Agreement**”) dated August 5, 2025 (the “**Agreement Date**”) with Primary Hydrogen Corp., and within which this Technical Report is a condition (J4 Ventures Inc., 2025). The Company intends to list on the TSX Venture Exchange as a Tier 2 mining issuer.

The Purchase Agreement grants Primary Hydrogen Corp., at the time of closing, a 2% Net Smelter Return (“**NSR**”) on the Property, 500,000 common shares of the Company at a deemed price per share of \$0.03, and \$50,000 cash. The Company additionally has a minimum expenditure of

\$100,000 of expenditures on or before August 30, 2025 (met) and a \$600,000 minimum financing obligation. There are no other known encumbrances, rights, or conditions on the Property.

#### **4.5 PERMITS**

The BC Ministry of Mining and Critical Minerals (“**MCM**”) is the responsible provincial authority for exploration and mine permitting. Prior to conducting mechanized exploration, a Notice of Work, including a Plan for Reclamation, must be filed with the local office responsible for central BC (Prince George). The Notice of Work describes the proposed exploration activities and any remedial reclamation, and if approved, an MX Permit will be issued. A reclamation bond must be posted with the agency for any physical disturbance, with the amount of the bond set commensurate with the size of the proposed disturbance. A separate permit must be issued for any timber disturbance related to the MX Permit. Due to the early stage of this property, no MX permit has been applied for or has been issued. A permit is not required to complete surface exploration activities using hand tools; however, one will be required for any required exploration trail construction, mechanical trenching or diamond drilling.

#### **4.6 ENVIRONMENTAL LIABILITY**

The author is not aware of any environmental liability related to previous documented mineral exploration on the Arthur Lake Property.

#### **4.7 LAND USE**

The property is in an unpopulated area and located on provincial crown land with no known private land encumbrances. Logging rights are maintained under timber licenses granted to Canadian Forest Products (“Canfor”) and cut block roads and trail are under road permit to Canfor. Primary arterial roads are considered part of the provincial Forest Service Road network and thus not subject to closure by the licensee owner, except locally during logging operations for safety reasons. A small portion of the SE boundary of the property, approximately 88 hectares, falls within Finger Tatuk Provincial Park for which no activity could be permitted. The Arthur Lake Recreation Site is located 370 metres south of the property boundary but would not be expected to impede exploration. There is a 160-hectare parcel of private land located approximately 1 km south of the SW corner of the property. Access to the property from the south is not impeded. The area falls with the Nechako BC Timber sales area. Canfor has been the most prominent commercial logging

company in the area. The Company will have to engage with the local forest licensee to ensure access using the various existing road networks is consistent with the licensee's Road Permits.

#### **4.8 RISKS AND UNCERTAINTIES**

The risks and uncertainties for the Arthur Lake Property are those inherent in mineral exploration and the development of mineral properties in British Columbia, and at present are, aside from the normal risks of exploration (sampling and drilling results, metal prices, markets):

- Long periods for approval of Notices of Work and Permits;
- Potential conflicts with the First Nation land claims, some of which may overlap;
- Extended periods for approvals, Provincial and or Federal, for any major project; and
- The risk of closure of exploration areas for wildfires.

## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY**

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### **5.1 ACCESS**

The Arthur Lake property is located on the Nechako Plateau of central British Columbia approximately 54 kilometres southwest of the town of Vanderhoof. Access to the property is provided by the Kluskus Forest Service Road ("**FSR**") which branches from the Kenney Dam road originating in Vanderhoof. The eastern edge of the property lies at approximately kilometre 56 along the Kluskus FSR and the road cuts through the northwestern section of the property. Access to the property from the main arterial network is provided by skid trails and on-block forestry roads. The Kluskus FSR is the main access to the Blackwater Gold Mine (Artemis Gold Corp.) located about 55 km south of the Property.

### **5.2 CLIMATE**

The climate is typical of the Nechako Plateau with short warm to infrequent hot summers followed by cool and wet fall weather and cold snowy winters. The Vanderhoof average daily temperatures for summer months are around +15°C with annual rainfall averaging 30cm. Winter temperatures

are generally -10 to -15°C and snowfall averages about 190cm. Depending on the type of exploration, the field season generally runs from late April to early November although winter drilling is possible with properly winterized diamond drills and water pumps.

### **5.3 LOCAL RESOURCES AND INFRASTRUCTURE**

Central British Columbia has a history of open-pit and underground mining activity and sporadic exploration depending on market interest and commodity prices. Active metal mining in the Nechako region includes the recently commissioned open-pit Blackwater Gold Mine, owned and operated by Artemis Gold Corp, located approximately 55 km south of the property in a similar geological setting. Active exploration in the Nechako region includes Artemis Gold Corp. on their large Blackwater property, Independence Gold Corp. at their 3T's property, and Centerra Gold Inc. at their Copley Project.

Accommodation for field exploration crews is available at the Tatuk Lake Wilderness Resort some 12 km to the south. Proximity to Vanderhoof allows for easy access to services, including accommodation, food, field supplies, and rentals. General labor is available from the local towns of Fort St. James, Vanderhoof, Burns Lake, Houston, or Smithers. Diamond drilling equipment and contractors are available in Burns Lake, Prince George or Smithers. More specialized engineering and geological services are available in Prince George. The closest well-serviced airport is in Prince George and experienced labor can be brought in from other parts of the province.

Vanderhoof sits astride a major provincial corridor which includes the paved Yellowhead Highway (Hwy 16W), high voltage electric power, natural gas, and the main CN rail line to the Port of Prince Rupert. The BC Hydro Glenannan substation near Endako, B.C. supplies power to the Blackwater Gold Mine via a completed 135-km, 225kV transmission line that was energized in October 2024. Other services include internet, health facilities, general contractors, and a small airport suitable for small charter flights.

The claims and surrounding area have favorable topography for potential mine infrastructure including pit, waste dump, mill building, and tailings impoundment or dry stack tailings. Additional unencumbered mineral tenures can be added to the existing claim if the need arises. Should an economic discovery be made and development proceed, surface rights in the form of a Mining Lease for a mining operation would need to be obtained from the provincial government. Other

provincial and federal permits, licenses and authorizations would be required for construction and operation of a mine. Electric power required for a mining operation could either be sourced from the Blackwater Gold mine transmission line (if excess power available), connection to the BC Hydro grid at Glenannan with a dedicated new high voltage transmission line, or onsite power generation using diesel or LNG fired generators.

#### **5.4 PHYSIOGRAPHY**

The Property is located in the Interior Plateau physiographic province and within the watersheds of the Nechako River. This area is characterized by low relief, undulating, timber covered hills that are surrounded by broad, often poorly drained, valleys with many disorganized drainages, including creeks and small lakes. Local elevations range from about 1000 to 1250m above sea level. The area has been extensively glaciated with the main ice movement believed to be from west-southwest to east-northeast. Kames, eskers and morainal features are all evident in the local geomorphology of the region. Outcrop exposure is rare (i.e. creek or road cuts) and glacial till cover typically can range from 1 to more than 20m thick (Lane, 2021). The Property is well-vegetated and lies within or near areas of active logging. A high proportion of trees in this area have been infected by the Pine beetle infestation.

#### **5.5 VEGETATION**

The Property is mostly forested, predominantly by lodgepole pine with lesser spruce, fir, poplar and aspen. The southern edge of the Property encroaches into willow and fen bogs. Underbrush in the Nechako Plateau region is mainly composed of alder, dogwood, and devil's club, often found among the dominant lodgepole pine and subalpine fir forests. This composition contributes to the varied and sometimes dense vegetation of the plateau, which is characterized by a mix of coniferous trees and brush. Multiple patches of forestry clearcuts extend from the FSRs and dominate portions of the property.

## 6 HISTORY

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The Nechako Plateau in which the property sits has a long but intermittent exploration history dating back to the 1960's. Geological surveys completed in the late 1980's to early 90s by the BCGS determined the geology, structure and setting was prospective for epithermal gold and silver deposits similar to the past-producing Blackdome and Equity Silver mines of BC. Key to the gold prospectivity of the region was the recognition of key hydrothermal events in Triassic to Late Tertiary volcanism. More than 23 epithermal style gold prospects were identified by this effort. Extensive exploration was focused on highly prospective properties such as Tsacha, Wolf, Laidman Lake, Clisbako and Holy Cross. The bulk tonnage precious metal potential of this underexplored region was recognized by several major mining companies such as Noranda, Phelps Dodge, Minnova, Rio Algom and Teck, causing increased interest and expenditures for both epithermal gold-silver and porphyry copper-gold exploration.

A review of the British Columbia Ministry of Mining and Critical Minerals MINFILE database and the Assessment Report database ("**ARIS**") documents two exploration programs on the ground underlying the current Arthur Lake property. Strategic Metals Ltd. ("**Strategic**") in 2007 completed a property wide soil sampling program over their Finger Lake project (Wengzynowski, 2008) which included what is now the Arthur Lake Project. Strategic also undertook prospecting that included the collection of a number of rock samples, six of which lie within the present Arthur Lake property boundary. Out of those six samples, five returned values ranging from 2320 parts per million ("**ppm**") to 1.14% and 2.48% Copper ("**Cu**"). There were no rock descriptions given for the "B" series samples in the assessment report, and there is no description for sample G086862. Sample G086863 is described as a grab sample over four metres from the edge of road, showing silica-chrysocolla(?) + malachite. Sample G086864 is described as an orange-brown weathering intrusive with <4mm weakly laminated pyrite (Wengzynowski, 2008).

Experienced prospector Ron Bilquist collected eight samples during a prospecting program in 2012 on his Little Bear claim. Five of the eight samples returned copper values greater than 2000 ppm, ranging from 2211 ppm to greater than ("**>**")10,000 ppm Cu. All samples are assumed to be grab rock samples. A follow-up over limit analysis was not completed for the > 10,000 ppm copper sample. Sample LB004 was described as a rhyolite or tuff with black copper stain and quartz. Sample LB005 was described as a medium pink tuff with malachite and pyrite. Samples LB006,

LB007 and LB008 were described as maroon-coloured coarse-grained volcanoclastic rocks with malachite, chalcopyrite and chalcocite (Bilquist 2013).

The results from these two programs crudely defined a 500 metre by 1800 metre area of elevated copper values in bedrock and large boulders, as shown by the ellipse in Figure 3.

In 2020, Millbank Mining Corp. performed rock and soil geochemical sampling (Henneberry, 2021; Lane, 2021). The soil survey included 679 samples which outlined two targets: One target was located near the Little Bear MINFILE occurrence ("Granite Plug" anomaly; 450 by 370 m) and the other to the southwest ("Southwest" anomaly; 900 by 400 m). The five rock samples, mostly collected in the Little Bear area, were at or near background levels for Cu and similar other metals of interest. All available assays of historic rock samples are summarized in Table 2.

In 2021, Millbank Mining Corp. conducted an Induced Polarization ("**IP**") geophysical survey in the southern part of the property test to for chargeability and resistivity responses indicative of porphyry style mineralization (Henneberry, 2022). The surveying was carried out using the "pole-dipole" method of survey utilizing a pre-laid receiver array remaining stationary, the current C1 is moved along the survey lines at a spacing of "a" (the dipole) apart, while the second current electrode, C2, is kept constant at "infinity" The survey consisted of 3 north-south and 4 east-west orientated traverses, measuring the first to sixth separation using 100 m a-spacing. A total of some 9.6 kilometers was established and read. Millbank reported no anomalous zones were identified indicative of porphyry style mineralization. However, a number of linear, moderately- to steeply-dipping zones of high resistivity were identified in both the N-S and E-W lines which suggest quartz-vein type targets at depth may warrant further investigation. The author only has access to the published individual pseudo section plots of apparent resistivity and apparent chargeability at a scale of 1:10,000, and a clear resistivity anomaly high shows on Lines' 76+00N and 80+00N. Both the Little Bear and Big Bear sites are sandwiched between these two survey lines that are 400m apart. An attempt to acquire the data from Walcott should be invested in order to invert and prepare a voxel and level plans for improved interpretation and possible target definition.

There has been no production from the Arthur Lake Property.

*Table 2. Historic Rock Results*

<b>Sample ID</b>	<b>Au (ppb)</b>	<b>Cu (ppm)</b>	<b>Mo (ppm)</b>	<b>Pb (ppm)</b>	<b>Zn (ppm)</b>	<b>Ag (ppm)</b>
<b>B376212</b>	49	24800	1	450	9	2.9
<b>B376213</b>	9	2320	2	10	28	<0.2
<b>B376214</b>	50	87	1	5	11	2.1
<b>G086862</b>	13	3150	37	6	107	1.2
<b>G086863</b>	31	3280	1	2	18	1.1
<b>G086864</b>	41	11400	8	214	-2	1.1
<b>LB001</b>	4.8	42	5.1	12	17	1.9
<b>LB002</b>	8	8	22.9	28	34	4.6
<b>LB003</b>	5.5	222	1.7	9	15	0.7
<b>LB004</b>	6.3	3387	1.7	32	36	2.8
<b>LB005</b>	6.8	6481	1.5	30	41	4.8
<b>LB006</b>	1	2515	0.1	11	121	0.5
<b>LB007</b>	2.4	2211	0.3	18	156	0.9
<b>LB008</b>	0.5	>10000	1.1	4	78	0.7
<b>75859</b>	1	0.9	0.82	2.7	18	0.01
<b>75860</b>	1	0.5	0.68	2	28	0.01
<b>75861</b>	1	110.5	0.66	127.5	166	0.22
<b>75862</b>	1	0.5	0.12	1.3	85	<0.01
<b>75863</b>	<1	0.7	1.11	2.3	48	<0.01

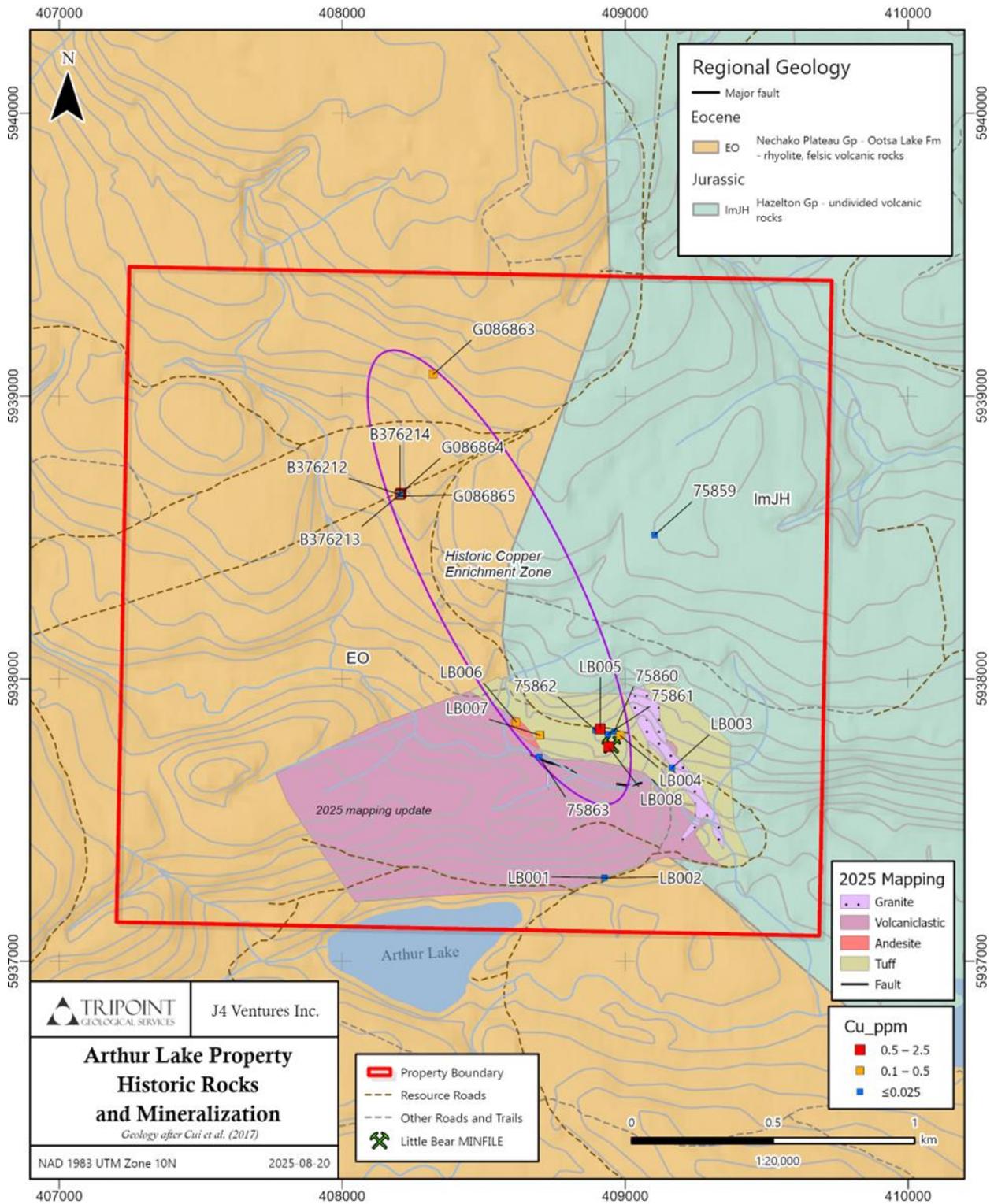


Figure 3. Historic Rocks and Mineralization

## **7 GEOLOGICAL SETTING AND MINERALIZATION**

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### **7.1 REGIONAL GEOLOGY AND DISTRICT GEOLOGY**

The central and northern part of BC is largely underlain by rocks associated with Stikinia (Stikine terrane), a large intraoceanic volcanic arc terrane that accreted to the continental margin of North America during the Jurassic period. Stikinia is recognized by the BCGS as a long-lived, multi-episodic Paleozoic to Mesozoic arc terrane comprised of three unconformity-bounded volcano-sedimentary successions: the upper Paleozoic Stikine assemblage, the Middle to Upper Triassic Stuhini, Takla, and Lewes River groups, and the uppermost Triassic to Middle Jurassic Hazelton Group. Mesozoic arc-related intrusive suites include the Late Triassic Stikine and Galore suites (coeval and comagmatic with the Stuhini Group) and the latest Triassic Tatogga and Early Jurassic Texas Creek suites (coeval and comagmatic with the Hazelton Group). (Nelson et al., 2018). Post accretionary overlap assemblages of younger rocks cover the Stikine rocks in several basinal areas, including the Nechako Basin.

In the Nechako Plateau region the Stikine terrane is represented by Triassic black shale and siltstone which are overlain unconformably by pyroxene-phyric basalt flows, volcanic sandstone, conglomerate and tuffaceous conglomerate of the Jurassic Hazelton Group. The Hazelton Group also includes subaerial facies consisting of rhyolite tuff, flows and variegated red-green airfall tuff (Diakow et al., 1997).

The Hazelton Group is unconformably overlain by the Bowser Lake Group, a sequence of sedimentary rocks that were deposited in the middle Jurassic following the collision of the Stikine and Cache Creek terranes. The Cache Creek terrane, which is composed of primitive oceanic rocks, formed a highland during the orogeny and shed detritus into the adjacent Bowser Basin. An intrusive event at ~150 Ma included the emplacement of the Capoose batholith and rare biotite-phyric dacite flows (Diakow et al., 1997).

A regional contractural deformation event during the mid to late Cretaceous signaled a transition from a dominantly sedimentary deposition to continental margin arc volcanism in the southern Stikine terrane. In the Nechako Plateau, this change is marked by the deposition of rare black mudstone of the Skeena Group and an overlying sequence of andesitic to rhyolitic flows, vitric and crystal-lithic tuff and red polymictic conglomerate of the Kasalka Group (Angen et al., 2017).

Continental arc volcanism persisted into the Eocene with the deposition of the Nechako Plateau Group (Ootsa Lake Formation) and the Endako Group. The Ootsa Lake rocks are compositionally similar to those of the Kasalka Group, whereas Endako Group rocks consist primarily of massive andesite flows characterized by vesicular flow tops and columnar jointing. Intrusive units of similar age and composition include the Late Cretaceous Blackwater plutonic suite and the Eocene Quanchus plutonic rocks including the Frank Lake Pluton. Flood basalts of the Miocene Chilcotin Group, present in low-lying areas within the region, appear to be thin and not extensive.

The Nechako Plateau shows evidence of several periods of glaciation which left glacial landforms including thin, veneers of basal till, ablation till, and glaciofluvial and glaciolacustrine deposits. Striae on bedrock surfaces record east-northeast and northeast ice movement throughout most of the region.

## **7.2 PROPERTY GEOLOGY**

Poor relief and near-complete glacially-derived overburden has made bedrock mapping challenging on the property. Outcrop is typically exposed in deep creek or road cuts. Despite this the southeast corner of the Property (in the general area of historic mineralization) has yielded the best property-scale mapping results. Previously, the best-available mapping was that of Bilquist (2013) however the 2025 exploration program remapped this area and provided additional detail (Brinton, 2025).

The BCGS regional geology compilation (Cui et al., 2017) suggests that the Property's bedrock is sub-equally divided into Ootsa Lake Formation (west) and Hazelton Group (east).

## **7.3 MINERALIZATION**

The Property contains one recorded MINFILE occurrence (the Little Bear showing, MINFILE 092F 102). Previous exploration summarized by Lane (2021) notes two mineralization areas, of which the southern corresponds to Little Bear:

- a northern area consisting of showings of silica-chrysocolla(?)±malachite, and an orange-brown weathering intrusive with <4mm weakly laminated pyrite (Wengzynowski, 2008), and

- a southern area consisting of rhyolite or tuff with black copper stain and quartz, a medium-pink tuff with malachite and pyrite, and maroon-coloured coarse-grained volcanoclastic rocks with malachite, chalcopyrite and chalcocite (Bilquist, 2013).

Together these targets have historically been treated as one northwest-trending, ~1 km-wide Cu enrichment zone (Figure 3). The early stage understanding of this Property suggests a magmatic-hydrothermal setting and potential mineralization style reminiscent of porphyry-epithermal deposits, however further work is required to confirm this.

The 2025 exploration program demonstrated by shallow backpack drilling that the Little Bear showing is actually a partially buried boulder. However, bedrock mineralization ~330 m to the west near historic rock sample LB006 is considered a plausible bedrock source of the Little Bear material; this source area is now called Big Bear by Brinton (2025).

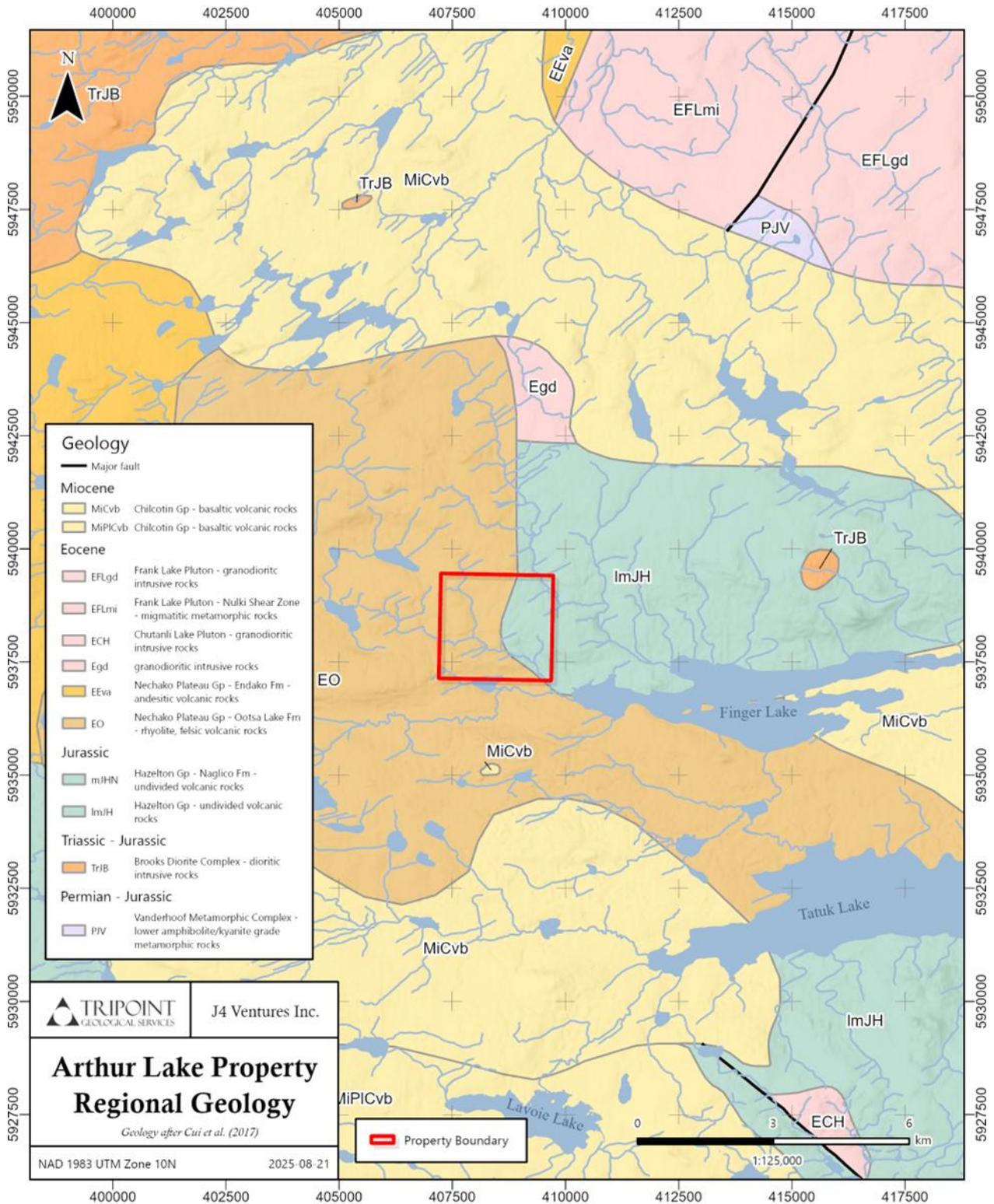


Figure 4: Regional Geology, after Cui et al 2017.

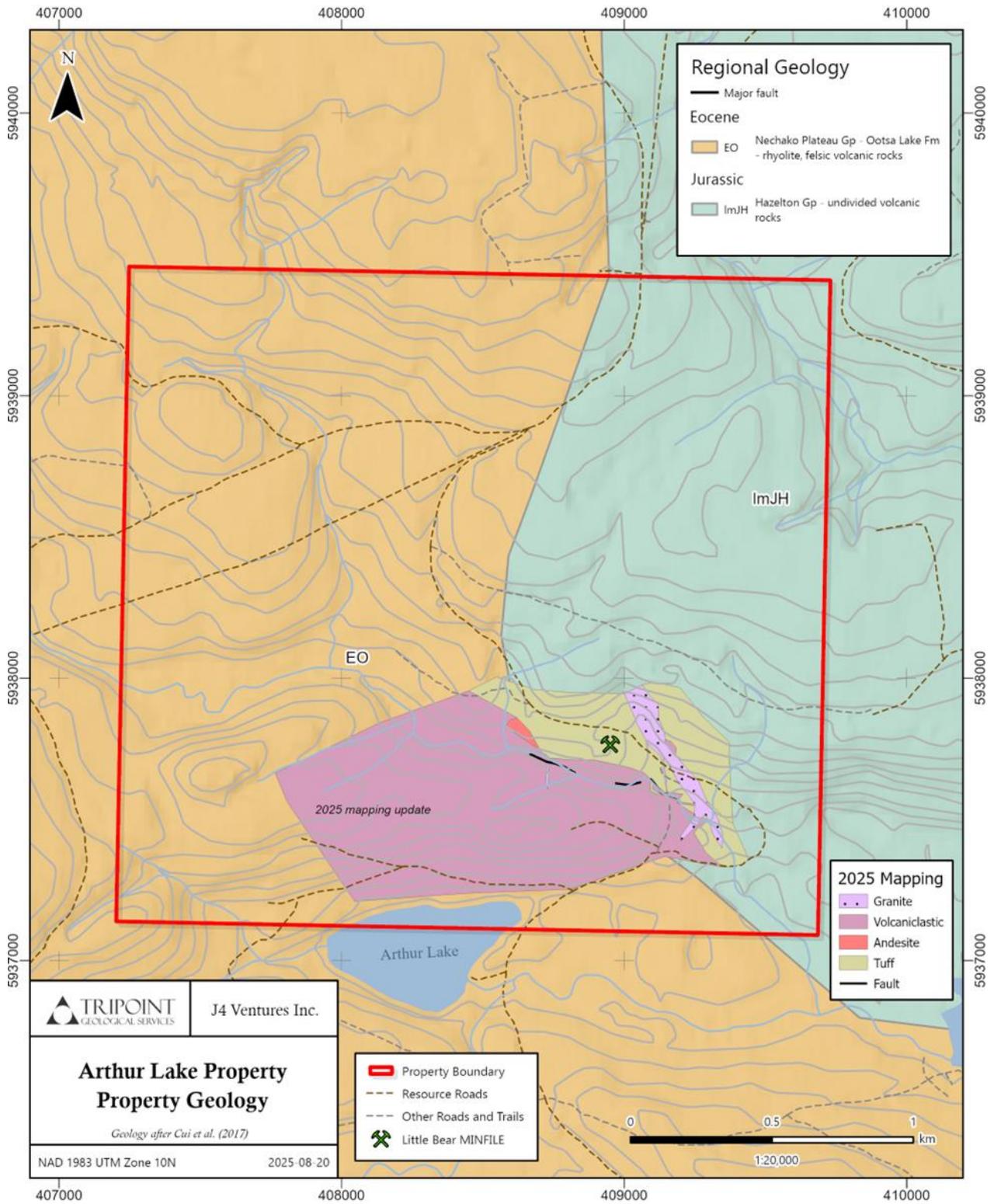


Figure 5: Property Geology, after Cui et al. 2017.

## 8 DEPOSIT TYPE

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The Arthur Lake Property is being explored for porphyry copper deposits and epithermal gold-silver ± base metal deposits. The following description is summarized from the British Columbia Ore Deposit Models (Panteleyev, 1995).

Porphyry copper deposits are typically characterized by pyrite and chalcopyrite minerals with lesser molybdenite, bornite and magnetite hosted in a complex web of stockworks of veinlets, fractures and breccia zones hosted in quartz-carbonate rich intrusive porphyritic rocks that have intruded older hosts rocks, typically volcanic andesites or basalts. Disseminated sulphide minerals are also present but generally in subordinate amounts within the matrix of the intrusive rock or the volcanic wall rocks. The mineralization is spatially, temporally and genetically associated with hydrothermal alteration of the host rock intrusions and wallrocks, in some cases producing large and impressive gossans zones well exposed in mountainous regions that stretch for kms. But in other cases the diagnostic proximal and distal alteration zones and related leach cap and/or supergene enrichment zones can be buried and only imaged by indirect means like IP surveys. In British Columbia, porphyry deposits are either Triassic-Jurassic or Cretaceous-Tertiary in age.

Porphyry copper deposits are often hosted in mountain-building orogenic belts at convergent plate boundaries (e.g. the accredited Stikinia terrane). Magmatism related to tectonic plate subduction or convergence can give rise to ascending mineralizing fluids. Fluid development may also occur in association with the emplacement of high-level intrusive stocks during extensional tectonism related to strike-slip faulting or back-arc spreading following continent margin accretion. Any type of country rock can be mineralized but commonly the high-level intrusive stocks and related dike swarms intrude their coeval and cogenetic volcanic pile. These intrusions range from coarse-grained phaneritic to porphyritic rocks associated with massive batholithic provinces or small stocks and dike swarms. Compositions range from calc-alkaline quartz diorite to granodiorite and quartz monzonite. Episodic emplacement of successive intrusive phases can cause overprinting and a wide variety of breccias and vein types.

Deposit boundaries are determined by economic factors that outline higher-grade mineralized zones within larger areas of low-grade, concentrically zoned mineralization. Alteration is often also concentrically zoned and is often used to vector explorers toward the higher-grade porphyry centers.

High-grade copper in porphyry deposits is generally located in the supergene enrichment blanket that develops beneath the oxidized and leached cap due to weathering processes. The leach cap is the uppermost zone where copper has been removed by oxidation and leaching, while the deeper supergene zone contains secondary copper minerals that have been re-concentrated, resulting in significantly higher grades than the primary hypogene ore.

The main zones of a typical porphyry copper deposit and their respective character and position in a geological model are key to exploration success:

**Leach Cap/Oxidized Zone:** This is the uppermost part of a porphyry deposit that has been exposed to surface weathering. Oxidization and leaching remove sulfide minerals and Copper is removed and leached away, leaving behind lower-grade material, sometimes with gold. This zone can be a target for heap-leach methods if gold is present, but it is depleted in copper.

**Supergene Enrichment Blanket:** Located directly beneath the leach cap, this is the zone where copper has been re-concentrated. Weathering solutions transport copper down from the oxidized zone and deposit it as secondary sulfide minerals (like chalcocite) in the supergene zone. This zone has high-grade copper, sometimes significantly higher (e.g., by a factor of 1.25 or more) than the primary hypogene (primary) ore. The supergene blanket is a major target for economic exploitation due to its high copper grades.

**Hypogene Zone:** This is the deeper part of the deposit that is not affected by surface weathering and contains the primary copper mineralization. It is the source from which the supergene blanket is formed.

Figure 6 shows a schematic diagram of a porphyry copper system in the roots of stratovolcano illustrating generalized metal zonation and possible relationships with peripheral skarn deposits and more distal intermediate level polymetallic veins and near surface precious metal mineralization (Kirkham and Sinclair, 1995).

Alteration mineralogy typically consists of quartz, sericite, biotite, K-feldspar, albite, anhydrite /gypsum, magnetite, actinolite, chlorite, epidote, calcite, clay minerals, and tourmaline. Early formed alteration can be overprinted by younger assemblages. Central and early formed potassic zones (K-feldspar and biotite) commonly coincide with mineralization. This alteration can be flanked in volcanic host rocks by biotite-rich rocks that grade outward into propylitic rocks. These older alteration assemblages can be partially to completely overprinted by later biotite and K-

feldspar and then phyllic (quartz-sericite-pyrite) alteration, less commonly argillic, and rarely, in the uppermost parts of some ore deposits, advanced argillic alteration (kaolinite-pyrophyllite).

Calc-alkalic systems can be zoned with a copper ore zone having a 'barren', low-grade pyritic core and surrounded by a pyritic halo with peripheral base and precious metal-bearing veins. Central zones with copper commonly have coincident molybdenum, gold and silver with possibly elevated bismuth, tungsten, boron and strontium. Peripheral enrichment in lead, zinc, manganese, vanadium, antimony, arsenic, selenium, tellurium, cobalt, barite, rubidium and possibly mercury is documented. Overall, the deposits are large-scale repositories of sulphur, mainly in the form of metal sulphides, chiefly pyrite. Geophysically, ore zones, particularly those with higher gold content, can be associated with magnetite-rich rocks and are indicated by magnetic surveys. Alternatively, the more intensely hydrothermally altered rocks, particularly those with quartz-pyrite-sericite (phyllic) alteration produce magnetic and resistivity lows. Pyritic haloes surrounding cupriferous rocks respond well to induced polarization (I.P.) surveys but in sulphide-poor systems the ore itself provides the only significant I.P. response.

Porphyry copper deposits are typically high tonnage (greater than 100 million tonnes) and low to medium grade (0.3–2.0% Cu). They are the world's most important source of copper, accounting for more than 60% of the annual world copper production and about 65% of known copper resources. Porphyry copper deposits are an important source of other metals, most notably molybdenum, gold and silver.

Porphyry copper deposits are responsible for British Columbia's largest reserves of copper, close to 50% of its gold reserves, as well as significant molybdenum resources.

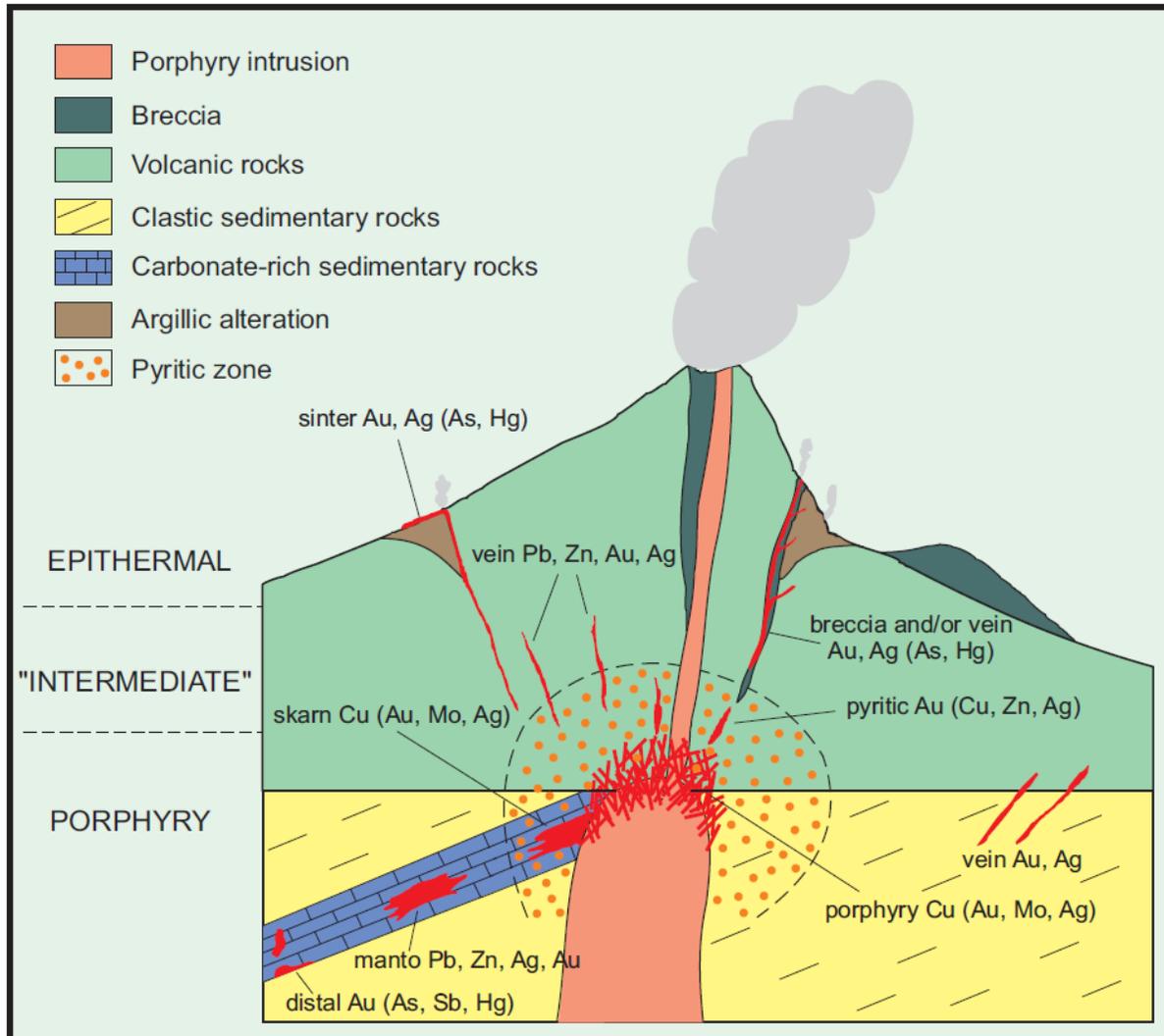


Figure 6. Schematic Diagram of a Porphyry Copper System. From Sinclair 2007 citing Kirkham and Sinclair 1995.

## 9 EXPLORATION

The 2025 exploration program was conducted by a 4-person team from Tripoint Geological Services Ltd. on behalf of the Primary Hydrogen Corp. (formerly known as Millbank Mining Corp.), and took place between June 4 and 19, 2025.

The focus of this program was on locating and testing historic mineralized rock samples and improving the state of geological mapping. 12 rock samples, 291 soil samples, and 7 drill core samples were collected for assay, complemented by 22 mapping note locations and a total of 96 mapped outcrops. A compilation of publicly available geochemical data from previous assessment reports was completed prior to fieldwork.

A total of 22 mapping notes were taken and 96 outcrops were mapped. Mapping notes were taken where geological qualities of interest were observed during mapping, but mineralization sufficient for sampling was not encountered. Outcrop polygons include a lithology code and comment where applicable, whereas mapping notes include a full rock descriptions and suite of metadata including but not limited to lithology code and attributes (e.g., grain size, colour, texture, structure, etc.), alteration (e.g., alteration minerals, alteration intensity, etc.), and mineralization.

A total of 12 rock samples were collected from outcrop, subcrop, and float. Rocks were placed in poly ore bags with lab provided Sample Tags and secured with flagging tape for transport back to camp. Rock sample notes including descriptions, UTM locations, and SampleID were recorded into field tablets. One blank (CDN-BL-10) and 1 standard (CDN-CM-42) were inserted into the sample sequence. Due to limited outcrop exposure caused by significant glacial overburden these samples are not considered to be fully representative.

A total of 291 soil samples were collected. These were collected at 50-100 x 50 m spacing (line x sample) and were designed to infill lines completed by the 2020 soil program (Henneberry, 2021). Soils were placed in kraft bags with lab provided Sample Tags and secured with flagging tape for transport back to camp. Soil sample notes including descriptions, UTM locations, and SampleID were recorded into field tablets. Additionally, 6 field duplicates were collected and 7 blanks were inserted into the sample sequence. It should be noted that much of the property is covered by a variably thick glacial till sediment, and thus many of the soil samples past and present will likely only represent the geochemistry of glacially derived material.

Highlighted rock results are summarized in Table 3 and shown in Figure 7.

*Table 3. Highlighted Rock sample results from 2025.*

<b>Sample ID</b>	<b>Area</b>	<b>Easting* (m)</b>	<b>Northing* (m)</b>	<b>Cu (ppm)</b>	<b>Ag (ppm)</b>
<b>D700064</b>	Little Bear	408911	5937750	71,800	11.15
<b>D700065</b>	Little Bear	408910	5937749	14,900	0.64

<b>C114341</b>	Big Bear	408603	5937841	6,780	2.78
<b>C114340</b>	Big Bear	408597	5937838	4,130	1.89

\* Coordinates are within NAD83 Zone 10.

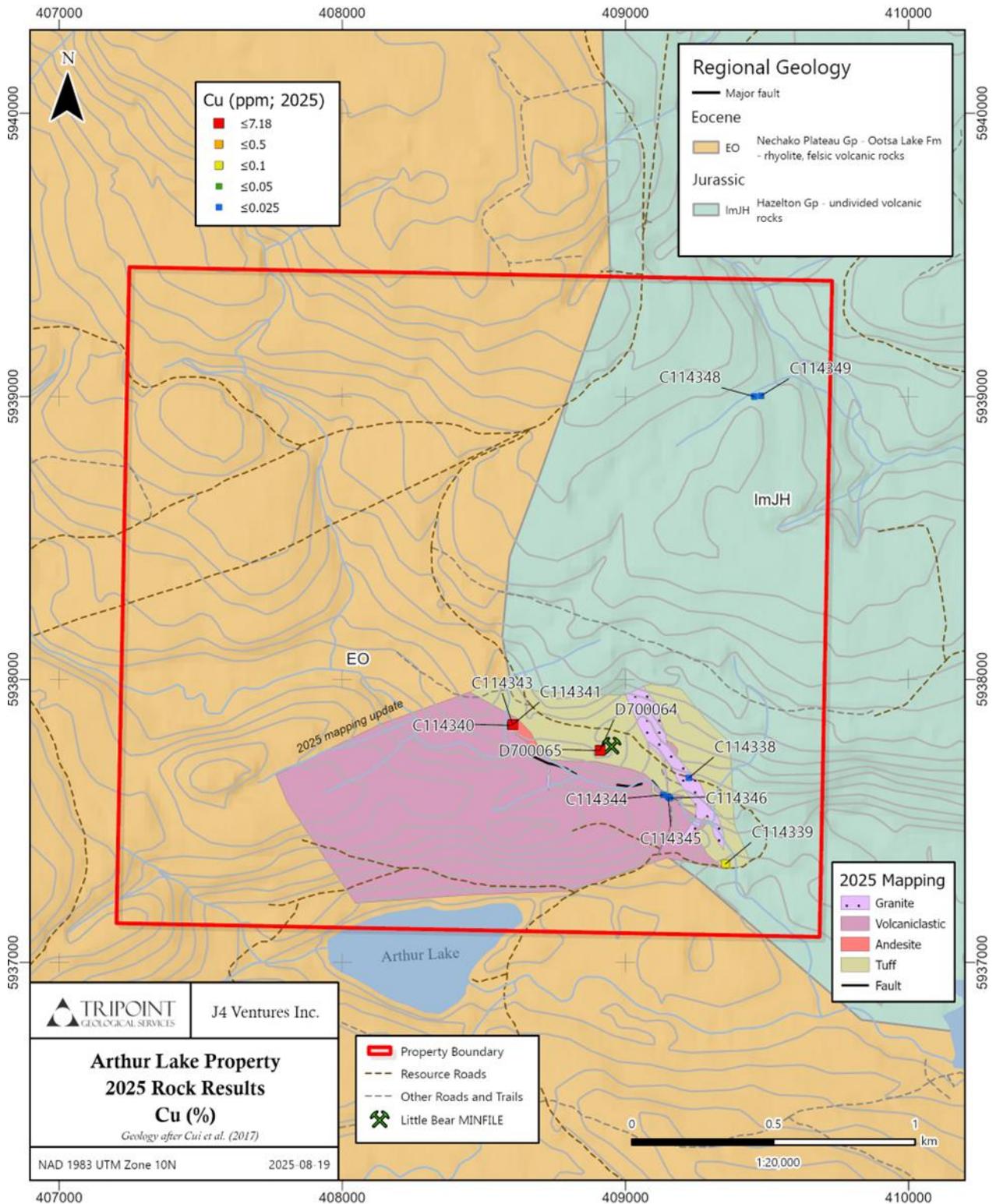


Figure 7: Rock sampling results (Cu ppm) from the 2025 exploration program.

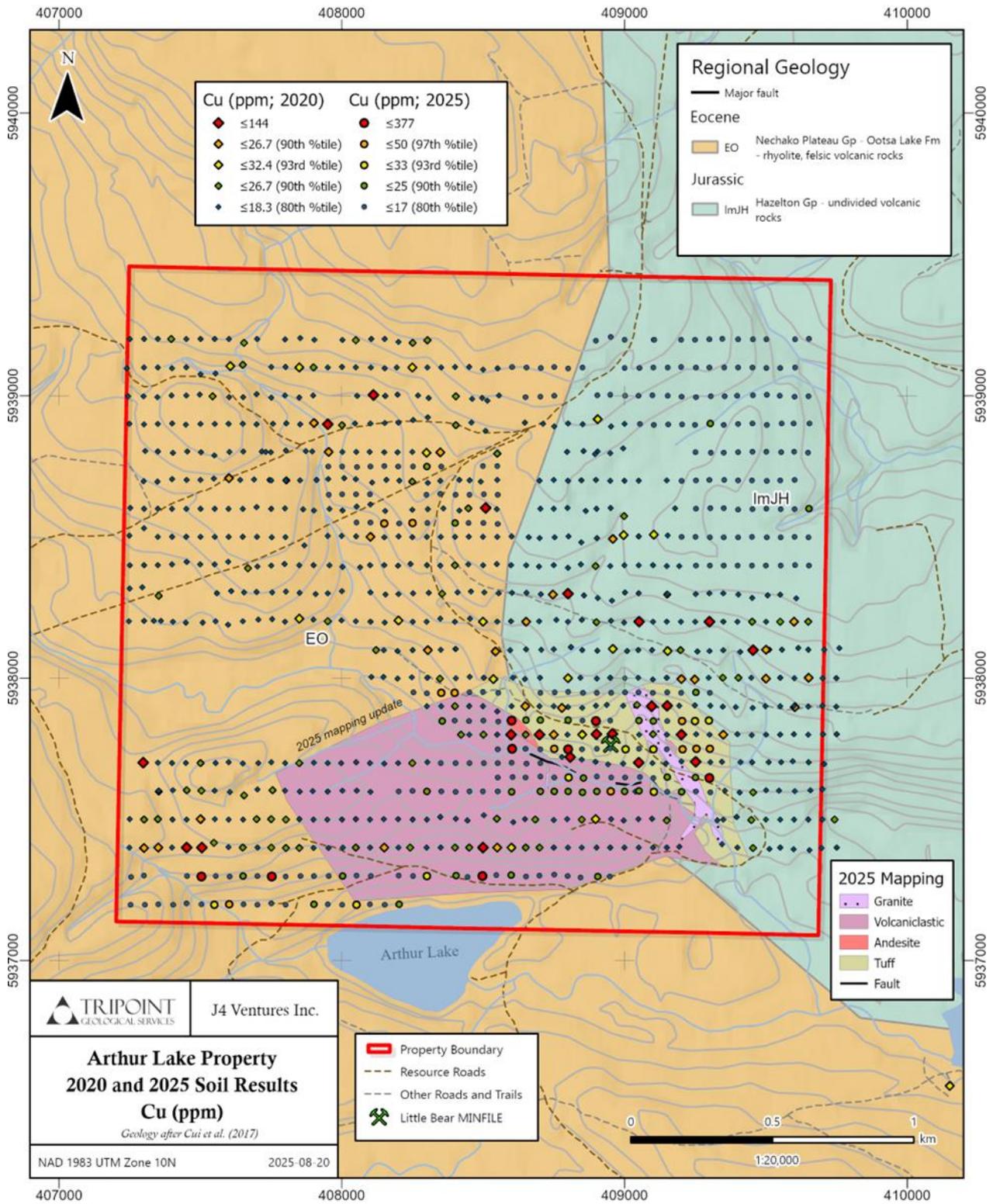


Figure 8: Rock and soil sampling results (Cu ppm) from all historic and 2025 samples.

## 10 DRILLING

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The only drilling activity is the backpack drilling work performed during the 2025 exploration program (Brinton, 2025). A Shaw backpack drill yielded BQ-diameter core from the Little Bear (1 hole, 0.5 m total) and Big Bear (3 holes, 5 m total) areas (Figure 9). Following drill core description, 7 samples of whole-core between 0.4–1.2 m length were sent for geochemical analysis. This work confirmed that the Little Bear showing was in fact a float boulder (transported an unknown distance by glacial dispersion), and that surface bedrock mineralization at Big Bear continued to at least the shallow bedrock subsurface.

The drill core sampling and recovery are accurate however, due to the extremely short nature of the drillholes there is no relationship between sample length and true thickness. The orientation of mineralization is unknown.

Drill core assays are shown in Table 5. Certified reference materials (“**CRM**”) were used for QA/QC purposes, with one commercially prepared standard (CDN-CGS-30) and one commercially prepared blank (CDN-BL-10) inserted into the sample sequence. CRMs with well-established, known properties are routinely used to ensure the accuracy and precision of laboratory analyses in QA/QC programs. Regular insertion of CRMs alongside exploration field samples helps to monitor the quality of the lab data, identify contamination or calibration issues, and ensure data integrity for public disclosure.

*Table 4. Backpack Drill Collar Information*

Hole ID	Datum	Easting (m)	Northing (m)	Elevation (m)	Azimuth (°)	Dip (°)
<b>AL25-001</b>	NAD83 Zone 10	408911	5937749	1027.8	0	-90
<b>AL25-002</b>	NAD83 Zone 10	408602	5937841	1022.7	0	-90
<b>AL25-003</b>	NAD83 Zone 10	408604	5937840	1022.7	0	-90
<b>AL25-004</b>	NAD83 Zone 10	408603	5937841	1020.5	0	-90

*Table 5. Backpack Drill Core Assay Results*

<b>Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>Sample ID</b>	<b>Cu (ppm)</b>	<b>Ag (ppm)</b>	<b>Au (ppm)</b>	<b>Pb (ppm)</b>	<b>Zn (ppm)</b>	<b>W (ppm)</b>
<b>AL25-001</b>	0	0.5	0.5	D700066	4360	11.75	0.005	8	82	14.6
<b>AL25-002</b>	0	1.1	1.1	D700067	2900	1.14	0.006	12.9	132	7.4
<b>AL25-003</b>	0	0.8	0.8	D700068	1040	1.21	0.006	21.3	149	17.5
<b>AL25-003</b>	0.8	1.7	0.9	D700070	494	0.59	<0.005	13.5	163	12.9
<b>AL25-003</b>	1.7	2.3	0.6	D700071	404	0.98	0.005	13.8	169	19.6
<b>AL25-004</b>	0	1.2	1.2	D700073	3000	1.14	0.005	14.3	137	17.6
<b>AL25-004</b>	1.2	1.6	0.4	D700074	117.5	0.21	0.005	17.9	342	4.4

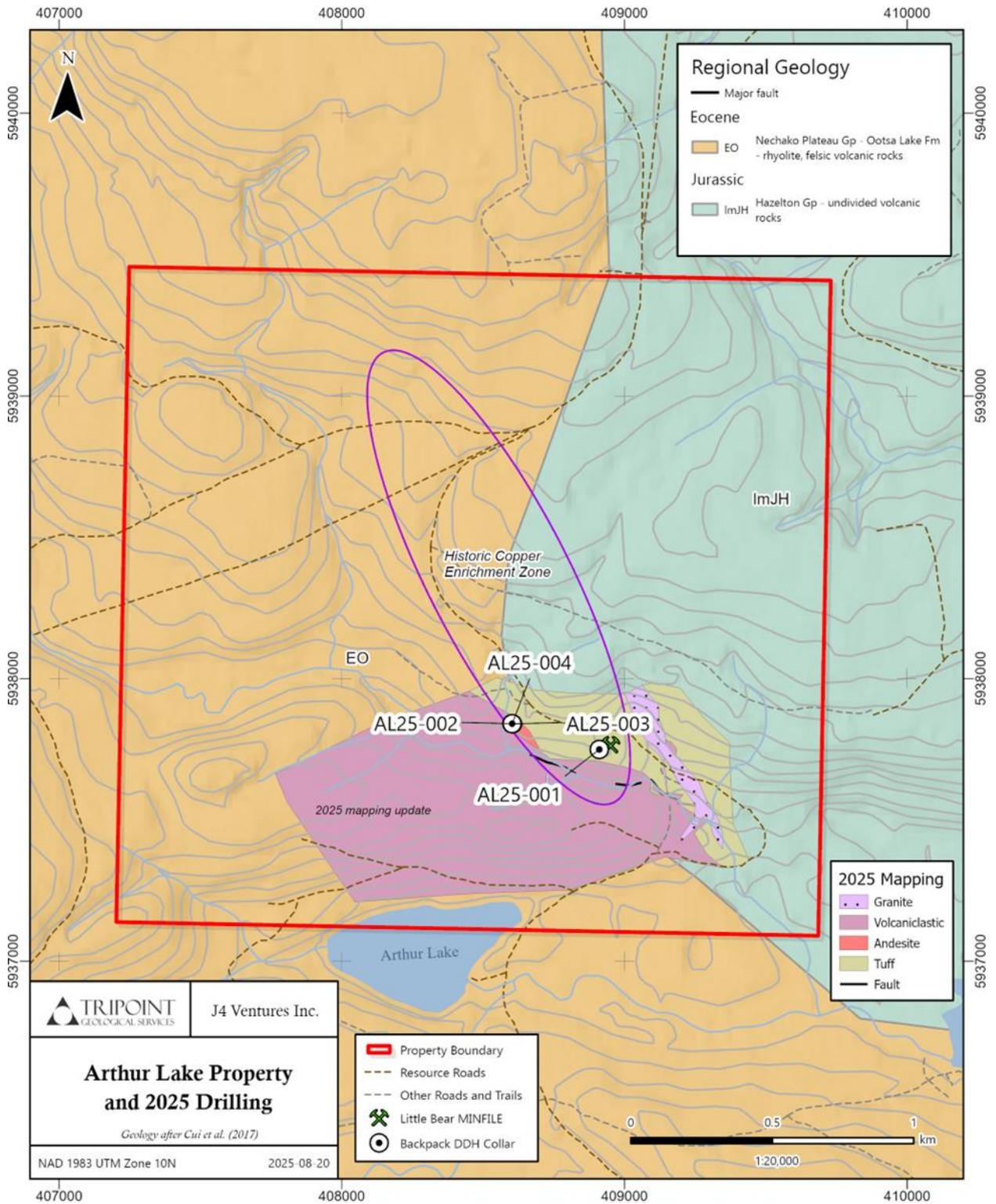


Figure 9. 2025 Drill Collar Locations

# **11 SAMPLE PREPARATION, ANALYSIS, AND SECURITY**

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## **11.1 2006 EXPLORATION PROGRAM**

The following details are from Wengzynowski (2008) which represents historic work of an issuer not affiliated with J4 Ventures, and as such the details are described as reported and to the best of the Author's knowledge as this data was informative for the acquisition of The Property. All rock, soil, and silt samples were prepared and analyzed by ALS Chemex in North Vancouver, British Columbia (now ALS Global an ISO/IEC 17025 accredited testing and calibration laboratory and ISO 9001:2015 certification for quality management). A total of 17 rock samples were collected and given a sample number before being sent to the lab. At ALS Chemex rock samples were crushed to 70% <2mm, riffle split to 250g and pulverized to 85% passing <75um. The samples were then analyzed using ME-ICP41, and Au-AA23, and over limits were analyzed using ME-OG46 and Cu-OG46.

Soil sample locations were marked with orange flagging tape that had the sample number written on the flagging tape that was also with the soil sample. No further descriptions about the collection of soil samples are available from this exploration work. At ALS Chemex soil samples were screened to a -180um and analyzed using the ME-ICP41 method which included Aqua Regia digestion and analyzed for 34 elements by inductively coupled plasma ("ICP").

Due to the early nature of the program no field QAQC samples were inserted, however the geochemistry lab completed its own internal Standard, Blank, and Duplicate insertion and no failures were identified.

## **11.2 2013 EXPLORATION PROGRAM**

The following details are from Bilquist (2013) which represent historical work performed by a prospector that is not affiliated with J4 Ventures, as such the details are described as reported and to the best of the Author's knowledge as this data was informative for the acquisition of The Property. All rock, soil, and silt samples were prepared and analyzed by Acme Labs in Vancouver, BC (an ISO/IEC 17025 accredited testing and calibration laboratory and ISO 9001:2015 certification for quality management). A total of 8 rock samples were collected and assigned a sample number in the field, no other information about the collection of samples is known although the locations are published on a publicly available map. At Acme Labs, rock samples were crushed to 70%

<2mm, riffle split to 250g and pulverized to 85% passing 200 mesh. The samples were then analyzed using 1DX2 which was an Aqua Regia digestion with ICP-MS analysis.

Due to the early nature of the program no field QAQC samples were inserted, however the geochemistry lab completed its own internal Standard, Blank, and Duplicate insertion and no failures were identified.

### **11.3 2020 EXPLORATION PROGRAM**

The following details are from Lane (2021) which represents work performed by Millbank an issuer that is independent of J4 Ventures. Each sample location was recorded with a handheld Garmin GPS unit as a numbered waypoint. A Kraft soil bag was numbered with the sampler's initials and the waypoint number of the location then filled with soil from the "B" soil horizon which was typically 10-20 centimeters deep. Each sample location was marked with flagging tape that had the corresponding sample number written on it and was hung from nearby vegetation. At the completion of each field day, all soil and rock samples were brought back to town. Soil samples were put in sequence and placed 12 to 15 into 12" by 20" poly bags. Following that two to three of the poly bags were placed in a woven rice bag. One standard, sealed in a Ziploc bag, was also placed in each of the rice bags. The bag was then zap strapped (i.e. nylon zip ties) and stored in the project manager's motel room. Rock samples were collected into a poly sample bag with the sample number written on the bag and sealed with a zap strap. A GPS waypoint was collected and recorded in a field notebook with the corresponding sample number. Each sample location was marked with flagging tape that had the sample number written on it. After being returned to the motel rock samples were put in sequence and placed in a rice bag. The bag was then closed with a zap-strap and stored in the project manager's secured cabin room. Since these were preliminary surveys, no sample splitting or reduction was necessary.

The samples were delivered by the field manager directly to ALS Canada Ltd. (ALS) in Kamloops, British Columbia. ALS is an ISO/IEC 17025:2005 certified facility and is independent of J4 Ventures and the issuer of this exploration work, Millbank Mining Corp. At ALS, all samples are logged into a tracking system, weighed and dried. Silt and soil samples are first dried at 60°C and then dry-sieved using a 180 micron (Tyler 80 mesh) screen. Rock samples are finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen after which a split of up to 250g is taken and pulverized to better than 85 % passing a 75- micron (Tyler 200 mesh, US Std. No. 200) screen. A 30g sub-sample of the pulverized rock sample pulp is leached with 4-acid digestion solution and read on an ICP-MS unit for 42 elements (AuME-TL43), while a 0.5g sample of the soil is

digested by aqua regia and read on an ICP-MS unit for 42 elements (ME-MS41). A total of 15 blank standards (CDN-BL-10) manufactured by CDN Resource Laboratories Ltd. were inserted into the sample stream. All of the standard blanks performed as expected, returning copper values of close to or less than 50 ppm Cu.

#### **11.4 2025 EXPLORATION PROGRAM**

The following details are provided from work performed by Millbank Mining and issuer that is independent from J4 Ventures. Rock samples were collected from outcrop and float boulders found at showings and various locations on The Property. Drill core samples were collected using a portable backpack drill that was used to drill 4 very short holes and collect a total of 5.5 m of drill core across those holes, all of the core collected was sampled for a total of 7 samples. Rock and drill core samples collected in the field were placed in polyethylene "ore" bags and secured with flagging tape for transport back to camp. Soil samples were collected in kraft paper bags, and similarly secured with flagging tape and allowed to dry at camp. At the conclusion of the program, samples were shipped to ALS Geochemistry in Kamloops (an ALS Global ISO/IEC 17025 accredited testing and calibration laboratory and ISO 9001:2015 certification for quality management) that is independent of J4 Ventures, for preparation and subsequent analysis.

Rock and drill core samples were processed according to ALS method code PREP-31, involving crushing until 70% of the sample to finer than 2 mm and then pulverizing until 85% of up to 250g of crushed sample is finer than 75 microns. Gold concentrations were determined following ALS method Au-AA23, involving a mixed flux fire assay followed by nitric and hydrochloric acid digestion and atomic absorption spectroscopy analysis. The remaining element concentrations were determined following ALS method ME-MS61, involving a four-acid digestion (hydrofluoric, nitric, hydrochloric, and perchloric acids) followed by inductively-coupled plasma atomic emission spectroscopy and inductively-coupled plasma mass spectroscopy analysis. Overlimit analyses were re-analyzed by the corresponding ME-OG62 method.

Soil samples were processed according to ALS methods code PREP-41, involving drying the sample and then sieving to greater ('plus') and lesser ('minus') than 180-micron grain size. The 25g fraction of minus material was analyzed according to ALS method code AuME-TL43, involving aqua regia digestion (cold digestion in HNO<sub>3</sub>, after which HCl is added and the sample is heated

to 130 °C for 40 minutes). The resulting solution is analyzed by inductively-coupled plasma atomic emission spectroscopy and inductively-coupled plasma mass spectroscopy.

A total of 1 blank and one certified reference material were inserted into the rock and drill core sample sequence, whereas 7 blanks and 6 field duplicates were inserted into the soil sample sequence and analyzed blindly by the lab. All of the standards, blanks and duplicates performed as expected.

It is the author's opinion that the sample preparation, analyses and security was adequate and is in line with industry standards. Although the 2006 and 2013 programs failed to utilize field-inserted CRMs for QA/QC, the relevant geochemistry lab of that period completed its own internal Standard, Blank, and Duplicate insertion and no failures were identified.

## **12 DATA VERIFICATION**

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### **12.1 DATA VERIFICATION PROCEDURES**

As part of the verification process, the author has reviewed prior assessment and private property reports and relevance by:

- Reading and reviewing the available assessment and property reports covering the Arthur Lake Property;
- Reviewing the sampling methods utilized in the historic reports;
- Reviewing the laboratory and field QA/QC results in the historic assay certificates, where available;
- Reviewing the laboratory and field QA/QC results from the 2006, 2013, 2020, and 2025 geochemical sampling (note: no field CRMS were inserted in 2006 or 2013);
- And inspecting several 2025 sample sites during the site visit on June 17, 2025.

It is the author's opinion that the data is adequate for the purposes of this technical report.

### **12.2 QUALIFIED PERSON SITE VISIT**

The author completed a site visit on June 17<sup>th</sup> to the Arthur Lake Property accompanied by Micheal Brinton from Tripoint Geological Services Ltd. The author initially examined the backpack drill core stored at camp and drilled at the Little and Big Bear occurrences. The core was laid out in wooden core boxes and examined at the Tatuk Lake resort where the crew was lodged. The first hole drilled (at Little Bear) collared into a plagioclase andesite boulder with abundant malachite on open fracture surfaces and trace disseminated pyrite. The drill core from three holes drilled at Big Bear revealed the same host plagioclase andesite with variable brecciation textures and alteration types. Minor specularite (after magnetite?) was present along with disseminated to clotted chalcopyrite associated with quartz infilling; with malachite on fracture surfaces. Weak sericite and chlorite alteration are noted indicating likely a hydrothermal source of fluids giving rise to sericite-chlorite alteration (phyllic?) that may be overprinted by a later oxidizing hematite event. Hole 4 appears to have bottomed in a fine ash andesite tuff with moderate to strong hematite alteration.

Examination of the drill logs and the resultant lab analysis reveal some important vectors for follow-up. In holes' 2,3 and 4 the bedrock interface appears to have been drilled so unlikely Big Bear occurrence is a boulder, like its counterpart at Little Bear. Trenching would be required to confirm. It's probable that the Big Bear showing represents the bedrock source of the boulder found at the Little Bear, due to close proximity and very obvious similarities in drill core. Host rocks are permissive andesite to andesitic tuffs with obvious copper oxide and trace copper sulphide present, later confirm by analysis with anomalous Cu up to 2900 ppm in hole 2 and up to 3000 ppm in hole 4, with Ag ranging from 0.21 to 1.88 ppm. The site visit continued from camp onto the property and examined several road side outcrops sampled by Tripoint. The visit continued with a close examination of the Little Bear boulder, and the close-spaced Big bear drill sites.

### **12.3 QUALIFIED PERSON COMMENTS**

The most current work completed by Tripoint in June of 2025 included industry-standard and rigorous field procedures to ensure QA/QC measures, including well-documented procedures for taking and describing rock and soil samples, flagging of rock sample sites, photography of all rock samples submitted for assay, daily verification of recorded GPS and sample data, insertion of Certified Reference Material (CRM) into the sample stream, and secure on-site sample storage until delivery to the ALS laboratory in North Vancouver, BC. ALS Labs also prepared their own QA/QC methods by systematically inserting CRM standards, blanks and replicates into sample batches at the lab level that returned expected results with no notable fails.

The author has reviewed the sampling and handling procedures, the analytical lab results, and the quality assurance and quality control measures from the 2025 Tripoint field program. Original

laboratory certificates and details regarding sample preparation, analytical methods and security are available and well-documented in the public domain covering the 2007-2020 exploration field programs. The author confirms that the documented work programs accurately reflect data presented in this Technical Report.

In the Author's opinion verification procedures carried out, including QA/QC sampling are adequate for the purposes of this report and that data is reliable for the purposes of inclusion in this Technical Report.

## **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

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As this is not considered an "advanced property" by CIM definitions, this section is not required.

## **14 MINERAL RESOURCE ESTIMATE**

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There are no known mineral resources or mineral reserves on the Property.

## **15 ADJACENT PROPERTIES**

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There are no Adjacent Properties to the Arthur Lake Property.

## **16 OTHER RELEVANT DATA AND INFORMATION**

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The author is not aware of any additional data or information related to the Property, the lack of which would make this Technical Report incomplete or misleading or materially change the conclusions presented herein.

## **17 INTERPRETATIONS AND CONCLUSIONS**

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The 2025 exploration program successfully tested historic targets derived from rock and soil sampling and provided the most detailed geological mapping available so far. Based on this recent work, the following interpretations regarding exploration on the Property are proposed.

Bedrock hosted Cu-Ag mineralization appears to have been found at the new Big Bear area, and this is considered a plausible source for the Little Bear MINFILE occurrence (now recognized as boulder float). In this scenario, Little Bear material was transported ~300 m east-southeast. The coincident soil geochemical anomaly (the historic "Granite Plug" area) is currently thought to be an expression of this mineralization system. The soil target spatial characteristics suggest a strong clustering of anomalous Ag concentrations immediately east of the mapped intrusive) are currently unexplained. The "Southwest" soil anomaly has a relatively well-defined Lead and Zinc anomaly but little to no bedrock exposure to permit rock sampling, and its origin is therefore unknown.

Mineralization and soil anomalies occur in the context of intrusive units which cut volcanic arc assemblages. Based on regional mapping, these assemblages include the lower to middle Jurassic Hazelton Group and the Eocene Nechako Plateau Group (Ootsa Lake Formation). The local granitic intrusion mapped on the Property is of unconfirmed age and origin, but likely Eocene or younger because it cuts presumed Eocene volcanics. All dykes observed in 2025 are tentatively assigned to the same intrusive event. Near the Property, named Eocene granitic intrusions include the Frank Lake Pluton (~10 km north) and the Chutanli Lake Pluton (~10 km south).

The current state of knowledge is permissive of magmatic-hydrothermal mineralization systems of the porphyry-epithermal class. Overburden obscuring bedrock access is the main inhibitor of exploration efforts. Other risks and uncertainties include long periods from approval for Notices of Work and Permits, potentially overlapping First Nations interests, and wildfire closure risk.

The author concludes that additional exploration work is warranted in a phased approach, including LiDAR survey, additional geological mapping, prospecting, trenching, ground geophysical surveys and diamond drilling to test the highest priority targets.

## 18 RECOMMENDATIONS

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Specific exploration recommendations include:

- 1) Acquire the 2021 IP survey data from Walcott Geophysical in order to invert and prepare a voxel and level plans for improved interpretation and possible target definition
- 2) Complete a ground magnetic and electromagnetic survey over the Property;
- 3) Complete a LiDAR survey over the Property to locate areas of topographic and elevation changes to better define surface structures and potential resistive zones;
- 4) Complete mechanical trenching at the most prospective areas identified, then map and sample the trenches;
- 5) Complete diamond drilling and core logging over the best areas as identified by the mapping and sampling results.

These recommendations would require a total budget of \$700,000 and would be divided into 2 successive phases, each phase being dependent on success in the previous phase. Phase 1 would involve additional data compilation (e.g. 2021 IP survey), a geophysical survey, LiDAR Survey, and trenching and sampling. Phase 2 would entail 1000m of diamond drilling on the highest priority coincident targets. The trenching portion of Phase 1 and the diamond drilling of Phase 2 is contingent on a successful permit issuance through a Notice of Work application from the Ministry of Mining and Critical Minerals.

*Table 6: Recommended Exploration Budget*

Phase 1 Recommended Exploration Budget		
Phase	Description	Estimated Budget
1	Mag-EM Survey	\$60,000
1	LiDAR Survey	\$40,000
1	Trenching and Sampling	\$100,000
	<b>TOTAL PHASE ONE</b>	<b>\$200,000</b>

Phase 2 Recommended Exploration Budget		
Phase	Description	Estimated Budget
2	Diamond Drilling (1000m)	\$500,000
	<b>TOTAL PHASE TWO</b>	<b>\$500,000</b>

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## **20 DATE AND SIGNATURE PAGE**

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The effective date of this Technical Report, entitled *Technical Report on the Arthur Lake Property 2025*, is September 18, 2025

Signed,

"Ken MacDonald"

Ken MacDonald, P.Geol.

11/28/2025

Date: (mm/dd/yy)

## 21 STATEMENT OF QUALIFICATIONS

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I, F. Kenneth (Ken) MacDonald, P. Geo., as the author of the technical report entitled "*Technical Report on the Arthur Lake Property 2025*", with an effective date of September 18, 2025, as prepared for J4 Ventures Inc. (the "**Technical Report**"), do hereby certify that:

1. I am currently employed as an independent consulting geologist at Ridgeview Resources Ltd., residing at 2665 Carlisle Way, Prince George, British Columbia, Canada, V2H 4B5.
2. I graduated with a Bachelor of Science degree with Specialization in Geology from the University of Alberta in 1987.
3. I am a member in good standing of the Professional Engineers and Geoscientists of British Columbia with Professional Geoscientist status since 1997.
4. I have worked continuously as a geologist since 1987. I have assisted on and directed mineral exploration projects in British Columbia and elsewhere, as an employee and as an independent geological consultant. I have worked on properties of all stages of exploration, from grass roots to early-stage exploration through to advance stage exploration and development and production. Relevant experience includes underground geologist at Lupin Gold Mine and Seabee Gold Mine, and surface mapping, sampling supervision, and management of exploration on numerous epithermal and mesothermal gold projects in British Columbia and the Yukon.
5. I have read the definition of "qualified person" as set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects and certify that by reason of my education, affiliation with a professional organization and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of National Instrument 43-101.
6. I conducted a site visit on the Arthur Lake Property on June 17, 2025.
7. I am responsible for all sections of the Technical Report.
8. I am independent of Millbank Mining Corp, Primary Hydrogen Corp,, and J4 Ventures Inc. applying all of the tests in section 1.5 of National Instrument 43- 101 and have had no prior involvement with the Arthur Lake Property.
9. I have read National Instrument 43-101 Standards of Disclosure for Mineral Projects and Companion Policy 43-101CP and Form 43-101F1 – Technical Report (collectively, "NI 43-101"); and certify that this Technical Report has been prepared in compliance with these instruments and forms.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.