

AMENDED AND RESTATED NI 43-101 TECHNICAL REPORT

Technical Report on the Northway Property, Alaska
Tanacross A-1, A-2, A-3 and Nabesna D-1, D-2, D-3 Quadrangles

Property Centre:
63°01' N 141° 51' W

prepared for:
Tectonic Metals Inc.

report prepared by:
Aurora Geosciences Ltd.



**AMENDED AND RESTATED NI 43-101 TECHNICAL REPORT
NORTHWAY PROPERTY, TANACROSS DISTRICT, ALASKA
UNITED STATES of AMERICA**

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1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

In May 2019, Tectonic Metals Inc. (Tectonic) of Vancouver, British Columbia, Canada, commissioned Aurora Geosciences Ltd. to complete a Technical Report conforming to regulations within National Instrument 43-101, of the Northway property, located at the Village of Northway, east-central Alaska, USA. This is a “Property of Merit” based on two geochemical anomalies, Areas 6 and 7, prospective for porphyry-style mineralization, and a third occurrence, the Road Metal prospect, comprising greisen-hosted gold-bearing mineralization.

The Northway property comprises a mining lease covering 74,780 hectares (Ha) granted to Tectonic by Doyon Ltd. (Doyon) on June 1, 2018. The lease is valid for 15 years from that date and may be extended for an additional 5 years subject to the release of a feasibility report. If commercial mineral production is achieved, the lease will continue for as long as commercial production continues. By March 1, 2024 Tectonic must release 50% of the leased lands to Doyon Ltd. unless geological justification for their retention can be provided.

The property is bisected by Highway 1 (the Alaska Highway), which extends SE-NW across it. Winter trails and minor roads provide some additional access for ATVs or tracked vehicles; otherwise, most of the property requires helicopter access. Terrain is moderate, with elevations ranging from 520 m to 945 m. The southwestern property area covers the Tanana River floodplain, not amenable to exploration. The climate is sub-arctic with short, warm summers and long, very cold winters.

No environmental liabilities are known on the property. As the Northway property is located wholly within lands owned by Doyon, approvals for various activities must be obtained from Doyon. Tectonic Metals Inc. has received all necessary permits required to undertake all exploration activities up to and including core drilling. These permit applications are currently being processed by the Department of Natural Resources, State of Alaska. Prior to the third lease year, Tectonic must obtain a performance bond or other security of an amount necessary to ensure the completion of remediation activities.

1.2 HISTORY

The Northway area was included in several regional mapping programs during the 1970s. In the early 1980s, the U.S. Department of Energy released the National Uranium Resource Evaluation (NURE) report and associated geochemical data set for the Tanacross and Nabesna quadrangle maps. That report attracted mineral exploration interest for base metals.

In 1997, Doyon entered into an option agreement with North Star Exploration, Inc. which granted North Star exclusive exploration and development rights to approximately 7,000,000 acres of Doyon lands. In 1998, North Star collected rock samples at road cuts, and obtained significant gold (Au) values at several sites. In 1999, the “Road Metal” prospect was identified near a “barrow pit” directly northeast of the village of Northway Junction. Stream sediment sampling was also done northeast of the Alaska Highway.

In 2000, North Star followed up with detailed geological mapping, detailed soil geochemical sampling, rock sampling, ground total field magnetic surveying, and a diamond drilling program consisting of 5 holes for 902 m at the Road Metal prospect. The magnetometer survey showed that magnetic lows correspond

to zones of strongly hydrothermally altered quartz porphyry and greisen development. Soil sampling identified a coincident gold (Au)-silver (Ag)- arsenic (As)- lead (Pb) anomaly covering a NE-SW trending elongate area northeast of the Road Metal prospect. Anomalous gold-polymetallic intercepts were returned from all drill holes, mainly from structurally controlled greisen-hosted veinlets and stockwork zones at various levels in each hole. Gold values ranged from background to 9.017 g/t Au across 5.4 m. Varying degrees of propylitic, argillic, and sericitic alteration zones range in thickness from 1.3 m to 90 m. This author has not confirmed whether these represent true widths.

The 2001 follow-up program comprised a ground magnetic survey, a 2,130 m diamond drilling program (8 holes), an Induced Polarization (IP) survey, a grid and reconnaissance soil sampling program, and a rock geochemical sampling program. These efforts extended the Road Metal alteration zone, identified a new geophysical anomaly adjacent to it, and identified an additional ten geochemical anomalies. Rock sampling results helped define the 44-metre wide Yarger Lake prospect along the Alaska Highway in the southeast property area, showing a similar metal assemblage to the Road Metal prospect.

Diamond drilling in 2001 intersected moderately pyritic porphyry-style alteration hosted by phyllically altered intrusive rocks with patchy and weakly anomalous Au and Ag values. The high gold grades reported in 2000 were not repeated; 2001 values ranged from background to 14.9 g/t Au and 78.5 g/t Ag over 0.5 m.

The 2001 auger soil sampling program focused on collecting "C"- horizon samples along hilltops and ridges surrounding the Road Metal prospect. These soil surveys identified three polymetallic anomalies, returning values from <5 ppb Au to 335 ppb Au, and 5 ppm Ag.

In 2002, IP surveying expanded on the 2001 IP survey at the Road Metal prospect and revealed a norther-plunging donut-shaped chargeability anomaly capped by resistive magnetic rocks. An additional 2,482 m of diamond drilling (9 holes) at the Road Metal prospect targeted this anomaly but failed to return significant Au values.

Exploration in 2002 at the Bitters Creek polymetallic prospect deemed it as limited in grade and aerial extent, not warranting follow-up work. Sampling at the Cheneathda Hill prospect returned no significant gold values, and no further work was recommended. The Yarger Lake prospect was delineated as a 44 m wide northeast-trending shear zone with "Road Metal"- style Au-Ag mineralization.

In 2002, NorthStar dropped its option agreement with Doyon due to bankruptcy of its parent company. Between 2014 and 2015, Doyon Ltd. conducted exploration activities in search of porphyry-style mineralization. In 2014, Peter E. Walcott and Associates Ltd. conducted 32 line-km of IP surveying over 7 prospects, labeled Areas 1 to 7. Areas 2, 5, 6, and 7 were recommended for follow-up work. The most prospective anomalies were Area 6 in the northwestern property area, where a well-defined chargeability anomaly was defined; and Area 7, where a discrete but narrow chargeability anomaly was identified north of the Yarger Lake prospect

In 2015, Doyon conducted soil sampling across the four prospects during exploration for Cu porphyry style mineralized rocks. Sampling at Area 2 returned anomalous molybdenum (Mo) results but failed to identify any Au anomalies. The soil geochemical grid at Area 5 identified an open-ended copper (Cu)- molybdenum (Mo) anomaly of limited aerial extent. At Area 6, considered the most prospective by Walcott, this survey identified a broad Cu-Mo anomaly with associated anomalous Au values centered east of a core IP chargeability anomaly. At Area 7, a linear Au-Cu soil geochemical anomaly was identified. Soil surveying at Areas 6 and 7 returned poly-metallic soil anomalies coincident with chargeability anomalies and with porphyry-style mineralization.

1.3 GEOLOGICAL SETTING AND MINERALIZATION

1.3.1 *Geological Setting*

The Northway property is located within the Yukon-Tanana terrane (YTT), an accreted terrane comprised mainly of Proterozoic to Triassic metaigneous and metasedimentary assemblages, and Jurassic to Early Tertiary metaigneous rocks. The YTT is an allochthonous terrane extending from east-central Alaska to south-central Yukon. It has been accreted on to the Ancient North American Continent and comprises numerous pulses of arc magmatism. The YTT is bounded to the north by the Tintina Fault Zone and to the south by the Denali Fault, both with a lateral dextral displacement of roughly 400 km.

Three major pulses of continental arc magmatism have been identified, occurring respectively during the Late Devonian to Early Mississippian, Permian, and lastly Late Triassic to Early Jurassic. Further subduction-related magmatism occurred into the mid-Cretaceous, resulting in emplacement of batholithic-scale intrusions such as the 112 – 105 Ma Dawson Range batholith, extending from the Northway area eastward to the Coffee Creek area of west-central Yukon. Related magmatism also resulted in the emplacement of a series of intrusive suites comprising the 110 – 70 Ma Tintina Gold Belt.

Three periods of Mesozoic and Cenozoic granitic intrusive rock emplacement are recognized in the YTT: Late Triassic-Early Jurassic, mid-Late Cretaceous, and Late Cretaceous to early Tertiary; the latter two comprise members of the Tintina Gold Belt. Post-metamorphic volcanism occurred during the Cretaceous, Tertiary, and Quaternary periods and comprise pyroclastic and flow volcanics, associated with small hypabyssal intrusions of rhyolitic to dacitic composition.

Basement stratigraphy in the Northway Junction area is composed of YTT metasedimentary and metavolcanic rocks. These have undergone intrusion by at least two plutonic suites that range in composition from granodiorite to granite. The older plutonic suite is represented by the western portion of the 112 – 105 Ma Dawson Range batholith, comprising medium to coarse-grained equigranular hornblende-biotite granite to granodiorite. The younger suite, comprising feldspar porphyritic monzonite, has been dated at 67-70 Ma. Host rocks for the Road Metal prospect consist of altered and unaltered variants of hornblende-biotite granite, quartz porphyry, and quartz monzonite.

The Road Metal prospect consists of porphyry-style Au-Cu-Bi mineralization hosted in argillic and phyllic-altered granites. Five plutonic phases have been recognized: (1) light gray coarse-grained hornblende-biotite granite; (2) medium gray sulfide-bearing granite; (3) bleached quartz porphyry; (4) medium to dark gray, unaltered monzonite or lamprophyre; and (5) altered fine-grained alaskite. Phases 1 and 2 likely represent pulses of batholithic emplacement. Phases 3, 4, and 5 likely represent the Late Cretaceous intrusive event. The texture of the Phase 4 dykes is reminiscent of outlying portions of “porphyry-style” systems.

1.3.2 *Mineralization*

The Northway property contains two auriferous mineralized showings, the Road Metal prospect and the Yarger Lake prospect, and an additional ten geochemical anomalies.

Discovered in 1998 by North Star geologists from road cut grab sampling, the Road Metal prospect consists of greisen-hosted polymetallic-Au mineralization within multi-phase granitic intrusions. Contact lithologies indicate that several phases of granite have been intruded by a dyke swarm of quartz monzonite. Diamond drill holes intercepted high-grade Au, Cu, and Ag within greisen zones to 48.8 m in width. This author has not confirmed whether these represent true widths. The mineralized greisens are

characterized by advanced argillic and phyllic alteration, semi-massive to-massive sulphide replacement of granite, granitic phases rich in sulfides, felsic dikes, and coarse-grained, secondary white micas. The lower contact of the mineralized greisen is sharp whereas the upper contact with the granite hanging wall is diffuse, possibly controlled by a high angle-vertical structure.

Near the footwall of the greisen, a 5.4m section graded 9.325 g/t Au, 502.6 g/t Ag, 0.85% Cu, 0.30% Bi, and 0.30% Sb. A composite 23.0 m interval graded 2.606 g/t Au, 468.7 g/t Ag, 0.22% Cu, 0.28% Bi and 2.11% Pb. It is not known to this author whether these represent true widths. The Road Metal prospect is therefore also prospective for high base metal content. Geological, geochemical, and magnetic features indicate that mineralization at the Road Metal prospect occurs along multiple, steeply to vertical-dipping, northeast-trending greisen zones at least 230 m wide and 1,280 m long. This author has not confirmed whether these represent true widths of the greisen zones.

The Yarger Lake prospect, located along the Alaska Highway about 10 km southeast of the Road Metal prospect, consists of northeast-trending, high-angle to vertical shear zones and greisen-like veins. These are hosted in iron-stained, coarse-grained biotite granite of the Dawson Range batholith. The most obvious mineralization, comprising the “north mineralized zone”, occurs as a series of thin northeast-trending quartz-sulphide-sericite veins accompanied by strong and conspicuous manganese staining. Disseminated pyrite, galena, and tetrahedrite occur in several veins, but most exposures are extensively oxidized. Six chip samples returned Au values from 0.098 g/t Au to 1.650 g/t Au.

One other mineralized zone is the VABM Ball SW showing, comprising copper sulphides, oxides, and hydroxides in a 60-cm wide shear zone exposed in an Alaska Highway roadcut. This represents remobilized copper-gold mineralization from an unknown source.

No in-situ mineralization has been found in Areas 6 and Areas 7, although the Cu-Mo-Au anomalies at both remain prospective for porphyry-style mineralization.

1.4 DEPOSIT SETTINGS

The main deposit setting targeted to date is porphyry-style Cu-Mo-Au mineralization. Porphyry deposits are large, low-to medium-grade Cu-Au±Mo deposits in which ore minerals are largely structurally controlled (veins, stockworks, crackle zones, breccias) and are spatially and genetically related to felsic to intermediate porphyritic intrusions. Porphyry deposits typically occur in subduction related, continental- and island-arc settings. Hydrothermal alteration is extensive and typically zoned, comprising a core potassic-altered zone (K-feldspar and/or biotite) and an outer propylitic zone (chlorite, quartz, epidote and calcite). Areas of phyllic and/or argillic alteration commonly form a zonal pattern between the potassic and propylitic zones, or can be irregular and/or superimposed over older alteration. Outbound from the propylitic zone, a radial pattern of vein-style lead-zinc-silver (Pb-Zn-Ag) mineralization may occur, grading progressively through high grade “Bonanza-style” quartz veining, and lastly into lower pressure-temperature epithermal mineralization.

Metals associated with porphyry deposits include Au, Cu, Mo, Ag, Zn, Pb, and tin (Sn). Sulphide mineralogy associated with porphyry deposits is varied, but typically includes pyrite, chalcopyrite, bornite, molybdenite and/or tennantite. Several multi-element anomalies that are consistent with porphyry metal assemblages have been identified at the Northway property, particularly at Areas 6 and 7.

The Northway property is located within the Interior Porphyry Belt that hosts the Mosquito, Paternie, Asarco, Bluff and Taurus porphyry occurrences. Interior Porphyry Belt deposits are interpreted to be

associated with Cretaceous and early-Tertiary porphyritic felsic subvolcanic stocks. The porphyritic felsic to intermediate dykes at the Northway property may be equivalent to these.

In Yukon, several porphyry-style systems occur within the 74 Ma Prospector Mountain Suite, including the Casino deposit near Coffee Creek. These occurrences may be equivalent to the Interior Porphyry Belt, although a younger, early Tertiary age for the Taurus intrusion suggests these may be separate belts.

1.5 CURRENT EXPLORATION (2018 – 2019)

Upon acquiring the lease on the Northway property in June, 2018, Tectonic Minerals Inc. completed a surface sampling and reconnaissance exploration program. The objective was to determine potential for intrusion related Au and/or porphyry Au-Cu or Cu-Mo-Au mineralized systems. Both reconnaissance and “targeted” grid sampling were conducted. Reconnaissance sampling included collection of ridge and spur soil samples, stream sediment samples, regional pan concentrate samples and rock grab-samples. Targeted soil samples were collected at the Area 6 and Area 7 grids and rock sampling included both chip and grab sampling from a trench at Area 7. Reconnaissance geologic mapping was completed peripheral to Target 6 and the “Road Warrior” prospect.

1.5.1 Reconnaissance Exploration

Reconnaissance sampling near Area 6, which occurs north of the VABM Ball SW anomaly and the Bitters Creek occurrence, returned weakly anomalous coincident Au-Cu soil geochemical anomalies. Similar sampling near Area 7 returned weakly elevated Au-Cu±Mo values from several short traverse lines along its northern margin. Both the Area 6 and Area 7 gold-in-soil anomalies coincide with larger, robust Zn anomalies. However, no distinct Mo anomalies were identified. Many samples elsewhere on the property returned isolated elevated Au values; however, no continuous anomalous zones were identified.

Stream silt and pan concentrate sampling in 2018 identified areas of interest west of VABM Ball Hill and in the watershed northwest of Cheneathda Hill. Stream sediment samples collected from creeks flowing northwest and south from VABM Ball Hill returned anomalous Au and Cu values. A moderately strong, consistent Au-in-silt anomaly, associated with highly anomalous Cu values, was identified in the creek north of the Cheneathda Hill anomaly. The creek is located downslope of a large, coherent moderately strong Cu-in-soil anomaly.

1.5.2 Targeted Exploration

In 2018, two detailed grid soil geochemical surveys were completed on Area 6 and Area 7, respectively. Sampling revealed a well-defined area of coincident anomalous Cu - Mo ± Au values in Area 6. At Area 6, the Mo anomaly is located within the core of the Cu anomaly, and the Au anomaly is centered to the north, overlapping the northern part of the Cu anomaly. At Area 7, results from 2015 soil sampling identified a patchy Au anomaly; the 2018 work provided greater resolution to the existing Au-Cu soil anomaly. Results delineated a core E-W trending Au anomaly more than 800 m long. Also, a new high-tenor Au-Cu soil anomaly was identified in the northeast corner of the soil grid.

A 127-metre long CanDig trench was completed at Area 7. Excavation revealed a 21 m corridor of anomalous Au, Ag, As, Bi, Cu, Pb, and Sb mineralization. Results ranged from <0.005 g/t Au to 0.253 g/t Au over 6 m. The entire 21-metre wide zone graded 0.154 g/t Au across 21 m.

A single grab sample collected in 2018 from the "north mineral zone" at Yarger Lake returned a value of 2.244 g/t Au. This validates earlier findings of anomalous gold associated with quartz-sulfide veining within a broad shear-controlled sericitic and argillic alteration footprint.

The Road Warrior prospect comprises a large roadcut exposing oxidized and fresh pyrite \pm chalcopyrite hosted in mid-Cretaceous diorite cut by Late Cretaceous monzonitic porphyritic dykes. Rock grab samples yielded very little in terms of base metal or precious metal values, although three samples contained anomalous Cu and Zn values.

1.5.3 2019 Due Diligence Visit

The 2019 due diligence visit focused on rock sampling and/or inspection of the Yarger Lake, Road Metal, VABM Ball SW and the Road Warrior prospects, as well as the Bitters Creek occurrence south of Area 6.

The visit confirmed that the Yarger Lake prospect comprises sheeted centimetre-scale quartz vein and adjacent fine stockwork zones and silicification within sericite-altered limonitic biotite granite of the Dawson Range batholith. The geological and mineralogical setting validates findings by Tectonic and earlier workers. Two grab samples taken from the north mineral zone returned values of 0.014 g/t Au and 0.031 g/t Au, respectively, the latter with elevated Ag, Bi, Pb and Zn.

The burrow pit near the Road Metal prospect has exposed mid-Cretaceous medium to coarse-grained biotite granite, which is locally porphyritic to megacrystic. Abundant late dykes, comprising fine to medium-grained melanocratic quartz-feldspar porphyritic monzonite, have intruded the biotite granite. Two composite grab samples of mid-Cretaceous granodiorite returned near-background values of 0.014 g/t Au and 0.010 g/t Au, respectively. No greisen zones or other areas of significant mineral potential are visible in the pit; therefore, no confirmation could be made between 2019 sampling and previous drill intercepts of greisen-hosted mineralization.

The VABM Ball SW occurrence comprises a 0.6-metre zone of copper sulphide and hydroxide mineralization within an E-W trending shear zone that dips moderately to the south. Sampling returned a value of 0.330 g/t Au with 31.222 g/t Ag, >1.0% Cu, and 7.52 ppm Bi, supporting the hypothesis that the zone may have resulted from remobilization of Cu-Ag-Au enriched fluids from an undiscovered proximal source.

The Road Warrior prospect was also visited, confirming geological and mineralogical findings by earlier workers. Although no samples were taken in 2019, field observations show a similar setting of late emplacement of quartz-feldspar porphyritic monzonitic dykes. These have a very similar fabric and mineralogy to those at the Road Metal prospect, suggesting a common origin.

Inspection of the Bitters Creek area revealed abundant rubblecrop and proximal float of megacrystic biotite granite with strongly developed interstitial chlorite and epidote. This may represent propylitic alteration outbound from the Area 6 target, which has a porphyry Cu-Mo-Au soil geochemical signature.

This author and Qualified Person can confirm that he has verified independently all data and reports prepared by Tectonic since the date of his visit and that no new material data has been received that would impact the analysis presented in his report since the date of his last visit. Although geoprobe and RAB drilling has occurred, the Geoprobe work constitutes C-horizon soil sampling, the results of which do

not represent a material change to the project. The Qualified Person does not consider the work as of the Effective Date to be material to the project.

The Qualified Person considers RAB drilling to be an early phase exploration tool. Due to the open-hole nature of RAB drilling, providing rock chip and powder samples, the method does not provide the same level of geological and structural information as does diamond drilling. Therefore, the Qualified Person does not believe the nature of this work to constitute material work requiring a second site visit.

1.5.4 2019 Geoprobe sampling

In 2019, Geoprobe sampling was conducted across Target 6 (Area 6), Target 7 (Area 7) and the Road Metal target. The Geoprobe is a track mounted, remote controlled, hydraulically powered direct-push drill designed by Ground Truth Exploration Inc. and operated by Ground Truth Americas, Ltd. This was designed to collect representative rock samples from the soil-bedrock interface along parallel grid lines at depths to 4.5 m, in order to determine lithology and mineral potential at the interface.

Exploration from 2015 – 2018 indicate that Target 6 potentially represents a Cu-Mo \pm Au porphyry system, centered on a northeast-striking, high-angle structural corridor. Exploration revealed a core Cu-Mo soil anomaly, surrounded by a distal base and precious metal signature (Pb-Zn-Ag+/-Au). Assay results from 2019 Geoprobe sampling also revealed a coincident Cu-Mo anomaly in the central area. The 2019 Geoprobe results confirm that bedrock mineralization is responsible for anomalous element values identified from earlier programs. Lithological analysis of rock chip samples indicates the presence of a fine-grained siliceous intrusion, possibly emplaced along an interpreted NE – SW-extending structural corridor exceeding 500 m in width. Several Geoprobe rock chip samples included quartz-pyrite-chalcopyrite vein material, confirming that bedrock mineralization is consistent with a porphyry system.

Exploration to 2018 at Target 7 determined this to be an Au-Cu bulk tonnage prospect, potentially related to a separate porphyry centre emplaced along an E-W extending structural zone. The geochemical zonation is more consistent with higher level alteration assemblages of porphyry systems than zonation observed at Target 6. The 2019 assay results validated previous soil geochemical results. The E-W trending corridor of anomalous 2018 gold-in-soil values is supported by values from bedrock Geoprobe sampling. Anomalous 2019 Au values occur both within moderately sericitized granodiorite and unaltered granodiorite with quartz vein material. Tectonic personnel determined that gold values may be associated mainly with the quartz vein material. The 2019 program also identified a Cu-Au \pm Mo \pm Zn target north of the main target area, indicating potential for a second E-W trending mineralized zone. The northern target overlies a coincident magnetic high and IP chargeability anomaly, and may be a viable exploration target.

The Road Metal target was the subject of more significant historic exploration, including diamond drilling in 2000. The two Geoprobe lines completed here were selected to test a coincident Cu-Mo-Au target west of the historic drilling. Assay results revealed a narrow zone of anomalous Cu values coincident with elevated Mo values. Sampling returned a weakly anomalous Mo value east of the anomalous zone. Whether these represent a continuous zone remains inconclusive. Sampling did not return any anomalous Au or Zn values.

1.5.5 2019 Rotary Air Blast (RAB) drilling

In 2019, eight Rotary Air Blast (RAB) boreholes for 856 metres were completed on the Northway Project. The purpose of the 2019 drilling program was to investigate mineralization observed in coincident gold

and copper-in-soil anomalies, supported by geophysical anomalies, at 2 main targets: Target 6 and Target 7. Six boreholes were completed at the Target 7 prospect, and two were completed at the Target 6 prospect.

No assay results have been received as of the Effective Date (October 31th, 2019) of this report.

1.6 CONCLUSIONS

The Northway property is underlain mainly by the western end of the mid-Cretaceous Dawson Range batholith, comprising multiple phases of biotite granodiorite to diorite. The batholith has intruded Paleozoic Yukon-Tanana terrane (YTT) metasedimentary and metaigneous rocks.

Past exploration led to delineation of the “Road Metal” prospect, comprising greisen-style mineralization slightly east of a “burrow pit” north of Northway Junction. The pit has exposed coarse-grained batholithic intrusive rocks, hosting fairly abundant Late Cretaceous quartz-feldspar porphyritic, biotite-enriched monzonitic dykes.

Greisen-style mineralization results from hydromagmatic-fluid derived endoskarn development within marginal areas of shallow S-type plutons, typically potassium-enriched. The dykes at the Road Metal prospect may represent outlying portions of such an S-type intrusion hosting the Road Metal greisen zones. Similar porphyritic monzonitic dykes occur at the Road Warrior occurrence. Mineralization is likely related to a buried Late Cretaceous monzonitic stock, rather than mid-Cretaceous granodiorites.

The Area 6, Area 7, and Road Metal prospects are the three prospective targets known to date. Soil geochemical sampling at Area 6 has revealed a Cu-Mo-Au signature typical of mineralized porphyry systems, suggesting an underlying intrusive core. Strongly developed chlorite-epidote alteration at Bitters Creek, two kilometres to the south, may represent propylitic-style alteration outbound from the core. At Area 7, grid soil geochemical sampling revealed a second Cu-Mo-Au anomaly in the southeastern property area. Although somewhat less definitive, this may represent a second porphyry centre. The Yarger Lake prospect to the south comprises distal quartz \pm Au \pm Ag mineralization, but has limited economic potential.

The 2019 Geoprobe sampling results at Targets 6 and 7 (Areas 6 and 7) support earlier surface soil sampling results, and indicate that bedrock mineralization is the source of surface geochemical anomalies. Results from Target 6 confirm soil anomalism identified to 2018, and further delineate the anomalous zones. Geoprobe exploration in 2019 at Target 7 revealed a second trend of anomalous values north of the main target. Geoprobe sampling at the Road Metal target revealed a coincident Cu-Mo anomaly of limited extent.

The Northway property occurs slightly northwest of, and along trend of, a suite of 74 Ma intrusions belonging to or equivalent to the Prospector Mountain suite in Yukon. A younger 57 ± 2 Ma Paleocene to Eocene intrusive suite, called the “Interior Porphyry Belt”, hosts the Taurus prospect north of the Northway property. The property may cover two porphyry-style centres represented by the Area 6 and Area 7 geochemical anomalies respectively, and a third coeval pluton hosting greisen-style mineralization of the Road Metal prospect. It remains undetermined whether the late porphyritic intrusive rocks are members of the Prospector Mountain Suite or the Interior Porphyry Belt.

1.7 RECOMMENDATIONS

At the Road Metal target, further data analysis is recommended prior to recommencing field work.

Recommendations for follow-up exploration in 2000, comprise a 2,000 m diamond drilling program focusing on Targets 6 and 7. This will be ground-supported by a D6-CAT or facsimile, as well as smaller ATV “side-by-side” vehicles. A 9-person road-accessible camp will perform the drilling program, with a duration of 40 days for actual drilling, and a further 8 days for mobilization and set-up, and tear-down and demobilization. The proposed program is recommended to be conducted at some point between June 15 and August 31, 2020, to maximize efficiency during the frost-free season.

All-in costs for the diamond drilling program are estimated at about CDN\$948,200.

2 INTRODUCTION

2.1 INTRODUCTION

In April, 2019 Tectonic Metals Inc (Tectonic), based in Vancouver, British Columbia, Canada, commissioned Aurora Geosciences Ltd. (Aurora) to summarize the geological and mineralogical settings of the Northway property, located in east-central Alaska, USA. Tectonic is a junior gold exploration company based in Vancouver, British Columbia, Canada, with exploration projects in Alaska, USA, Yukon, Canada. This Technical Report, prepared in compliance with regulations under National Instrument 43-101 (NI 43-101), has been duly prepared for Tectonic in due diligence to show that the Northway property is a “Property of Merit”, and to fulfill requirements for listing on the TSX-V exchange. This report documents the historic and recent exploration work completed by Tectonic at the Northway property.

The Northway property (the Property) mining lease was granted to Tectonic Metals Inc. by Doyon Ltd. (Doyon) on June 1, 2018. The property is considered an exploration property without mineral resources or reserves under NI 43-101 definitions.

The Northway property has been deemed a “Property of Merit” based on high exploration potential of several prospects and geochemical anomalies within property boundaries.

2.2 TERMS OF REFERENCE

The author has been requested to write this report using the following terms of reference:

- a) Review and compile all available data obtained by Tectonic and its predecessors,
- b) Provide a Technical Report to the standards of Form 43-101 F1,
- c) Verify and support technical disclosures by Tectonic.

2.3 PURPOSE OF REPORT

Acquisition of the Northway property represents a material change in the asset base of Tectonic, currently a private company based in Vancouver, British Columbia, Canada. This report is a Technical Report, written in compliance with the regulations under National Instrument 43-101, to facilitate the transformation of Tectonic to a public company.

2.4 SOURCES OF INFORMATION

This technical report is based on the following sources of information:

- Personal inspection of the Northway property area;
- Review of the exploration data collected by Tectonic;
- Discussion with Tectonic personnel; and
- Additional information from public domain sources.

Internal reports provided by Tectonic are listed in Section 20: “References”. This technical report is based on information that this author believes to be reliable. This author has no reason, other than any documented in this technical report, to doubt the reliability of the historical data contained herein.

2.5 EXTENT OF INVOLVEMENT BY QUALIFIED PERSON

Mr. Carl Schulze, Qualified Person for the Northway property, was on site on May 6, 2019, and is responsible for all sections of this report.

This author and Qualified Person can confirm that he has verified independently all data and reports prepared by Tectonic since the date of his visit and that no new material data has been received that would impact the analysis presented in his report since the date of his last visit. Although geoprobe and RAB drilling has occurred, the Geoprobe work constitutes C-horizon soil sampling, the results of which did not require an additional visit to the project.

The Qualified Person considers RAB drilling to be an early phase exploration tool. Due to the open-hole nature of RAB drilling, providing rock chip and powder samples, the method does not provide the same level of geological and structural information as does diamond drilling. The Qualified Person does not consider the work as of the Effective Date to require a second site visit.

2.6 TERMS, DEFINITIONS AND UNITS

All costs contained in this report are in Canadian dollars (CDN\$) unless stated in United States dollars (US\$). Distances are reported in millimetres (mm), centimetres (cm), metres (m) and kilometres (km). Weights are reported in grams (g) or kilograms (kg). Units of area are measured in hectares (ha), of which 1 hectare is 100 m², and equivalent to 2.47 acres (ac). Some historical distances are reported in feet (ft) or miles (mi), and historical weights in troy ounces (oz.) or pounds (lbs). Temperatures are reported in degrees Celsius (°C), whereby 0°C is the freezing point of water.

The term “GPS” refers to “Global Positioning System” with co-ordinates reported in UTM NAD 83 projection, Zone 07W.

“Mag” and “EM” refer to “Magnetic” and “Electromagnetic” methods referencing geophysical surveying. “IP” is short for “Induced Polarization” surveying. “Residual Magnetic Field” and “Calculated Vertical Gradient” are expressions of airborne magnetic surveying. “Apparent Resistivity” is an expression of airborne electromagnetic surveying.

A “standard sample” is a sample of known concentration of specific metals, in this case gold, with the Certified Value determined from an average of results from several independent laboratories. These are utilized to determine the accuracy of laboratory analysis. A “blank sample”, of known very low, normally sub-detection metal grades, tests for the degree of contamination, if any, occurring through the analytical process.

A “ton” refers to a short ton, or 2,000 lbs. A “tonne” refers to a metric tonne, which is 1,000 kg or 2,204 lbs. The term “ppm” refers to parts per million, which is equivalent to grams per metric tonne (g/t); the term “ppb” refers to parts per billion. Some historic grades are reported in “oz./ton” which is ounces per short ton. “Ma” refers to million years. The symbol “%” refers to weight percent unless otherwise stated.

For the purpose of reporting historical gold grades, one troy ounce (oz.) per short ton (T) is converted to grams (g) per tonne (t) using a factor of 34.2857.

ICP-AES stands for Inductively coupled plasma atomic emission spectroscopy. ICP-ES stands for “Inductively coupled plasma emission spectroscopy”, and AA stands for “atomic absorption”. “QA/QC” refers to “Quality Assurance/ Quality Control”.

“NI 43-101” stands for National Instrument 43-101. “IPO” stands for “Initial Public Offering”. “CIM” stands for Canadian Institute of Mining, Metallurgy and Petroleum”. “NSR” stands for “Net Smelter Royalty”. “PEA” stands for “Preliminary Economic Assessment”.

“BLM” stands for the Bureau of Land Management. The term “EA” stands for “Environmental Assessment”, and “EIS” stands for “Environmental Impact Statement”. “APMA” is short for “Application for Permits to Mine in Alaska”, and “MLUP” stands for “Miscellaneous Land Use Permit”. “TWUA” stands for “Temporary Water Use Authorization” issued by the Alaska Department of Natural Resources (DNR). “WPCP” stands for “Water Pollution Control Permit”.

Elemental abbreviations used in this report are:

Au: Gold	Mn: Manganese
Ag: Silver	Mo: Molybdenum
Al: Aluminum	Na: Sodium
As: Arsenic	Nb: Niobium
B: Boron	Ni: Nickel
Ba: Barium	P: Phosphorous
Be: Beryllium	Pb: Lead
Bi: Bismuth	Pd: Palladium
Ca: Calcium	Pt: Platinum
Cd: Cadmium	Rb: Rubidium
Ce: Cerium	Re: Rhenium
Co: Cobalt	S: Sulphur
Cr: Chromium	Sb: Antimony
Cs: Cesium	Sc: Scandium
Cu: Copper	Se: Selenium
Fe: Iron	Sn: Tin
Ga: Gallium	Sr: Strontium
Ge: Germanium	Ta: Tantalum
Hf: Hafnium	Te: Tellurium
Hg: Mercury	Th: Thorium
In: Indium	Ti: Titanium
K: Potassium	Tl: Thallium
La: Lanthanum	U: Uranium
Li: Lithium	V: Vanadium
Mg: Magnesium	W: Tungsten
Y: Yttrium	Zn: Zinc
Zr: Zirconium	

3 RELIANCE ON OTHER EXPERTS

This author has relied on a report titled “Mining Lease between Doyon, Limited and Tectonic Resources, LLC”, dated June 1, 2018. No specific authors are listed, although the signatories are Mr. James Mery, Senior Vice President, Land and Natural Resources for Doyon, Limited; and Mr. Tony Reba, President and CEO of Tectonic. The author has relied on the report for information on location and description of land tenure, for the considerations, length of term, mandatory expenditures, advance royalty and production royalty, among other tenets pertaining to the lease agreement. The sections of this Technical Report that this section applies to are: Section 4.1: “Location and Description”; Section 4.2: “Mineral Tenure and Underlying Agreements”; and Section 4.3: “Royalties and Encumbrances”.

The author has also independently reviewed legal title to the property on the website “Alaska Mapper Light” to view claim status for the Northway property area. This applies to Section 4.1: “Location and Description”.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION AND DESCRIPTION

The Northway property surrounds the village of Northway, Alaska on lands owned by Doyon Ltd., an Alaska Native Regional Corporation. The property is located within the Tanacross Mining District. The property centre is approximately 348 km southeast of Fairbanks and approximately 43 km west of the United States – Canada border. The property is found in the Tanacross and Nabesna 1:250000-scale quadrangles and centered at approximately 63° 01’ N 141° 51’ W (456,818 6,988,991 NAD 83 Zone 7V) (Figure 1).

4.2 MINERAL TENURE AND UNDERLYING AGREEMENTS

The Northway property is a mining lease comprising 74,780 ha of subsurface rights granted to Tectonic by Doyon Ltd. on June 1, 2018. The township numbers of this lease are described in Table 1. Doyon also holds the surface rights on roughly 35% of the mining lease, and the remaining 65% of surface rights are held by Northway Natives Inc. Numerous small parcels located along and southwest of the Alaska Highway are held as Alaska Native Allotments (Figure 2). A package of 72 State Mining Claims, the NW 21-92 claims covering 11,520 acres (4,664 ha), are also held by Tectonic but are exclusive of the Mining Lease. This block covers the southern half of township T15N, R20E.

Part of Township T15N, R19E, including a communications tower, are excluded from the Doyon mining lease. All areas of the lease along the southwest side of the Alaska Highway are located within the Tetlin National Wildlife Refuge.

The Doyon mining lease is valid for 15 years from that date and may be extended for an additional 5 years subject to the release of a feasibility report. Should commercial mineral production begin on the property, the lease will continue for as long as commercial production continues on the property. Subject to cessation of commercial production on the property Tectonic may extend the lease for a further seven years following completion of commercial production by making a payment of \$300,000 per annum. Tectonic may release portions of the leased property to Doyon Ltd. that Tectonic decides are no longer of value to the operation. Prior to or on March 1, 2024 Tectonic must release 50% of the leased lands to

Doyon Ltd. unless geological justification for their retention can be provided. Figure 2 displays a map of the Northway leases.

Table 1: Components of the Northway lease. All Townships and Ranges based on Fairbanks Meridian.

Township	Range	Sections
T. 2 N.	R. 26 E.	1-3, 10-15, 19-36, and portions of 4, 9, 16-18
T. 2 N.	R. 27 E.	1-36
T. 2 N.	R. 28 E.	7-10, 13-36
T. 2 N.	R. 29 E.	19-20, 27-36
T. 1 N.	R. 26 E.	1-24
T. 1 N.	R. 27 E.	1-24
T. 1 N.	R. 28 E.	1-26, 35-36
T. 1 N.	R. 29 E.	1-36
T. 1 S.	R. 29 E.	1-18

4.3 ROYALTIES AND ENCUMBRANCES

Tectonic Minerals Inc. will make the payments according to the schedule Table 2 to Doyon, Ltd. in order to maintain its mining lease. Any annual payment after the 7th lease year, or delivery of a feasibility report, whichever is later, will be considered an advanced royalty. The advanced royalty can cover up to 50% of any production royalty incurred.

Table 2: Lease Payment Schedule

Lease Year	Payment due date	Annual Payment Amount
Year 1	June 1 st , 2018	\$30,000
Year 2	January 1 st , 2019	\$30,000
Year 3	January 1 st , 2020	\$30,000
Year 4	January 1 st , 2021	\$30,000
Year 5	January 1 st , 2022	\$60,000
Year 6	January 1 st , 2023	\$60,000
Year 7	January 1 st , 2024	\$60,000
Year 8	January 1 st , 2025	\$60,000
Year 9	January 1 st , 2026	\$60,000
Year 10	January 1 st , 2027	\$60,000
Year 11	January 1 st , 2028	\$200,000
Year 12	January 1 st , 2029	\$200,000
Year 13	January 1 st , 2030	\$200,000
Year 14	January 1 st , 2031	\$200,000
Year 15	January 1 st , 2032	\$200,000
Years 16 - 20	January 1 st 2033 - 2037 (if lease is extended*)	\$300,000 (each year)

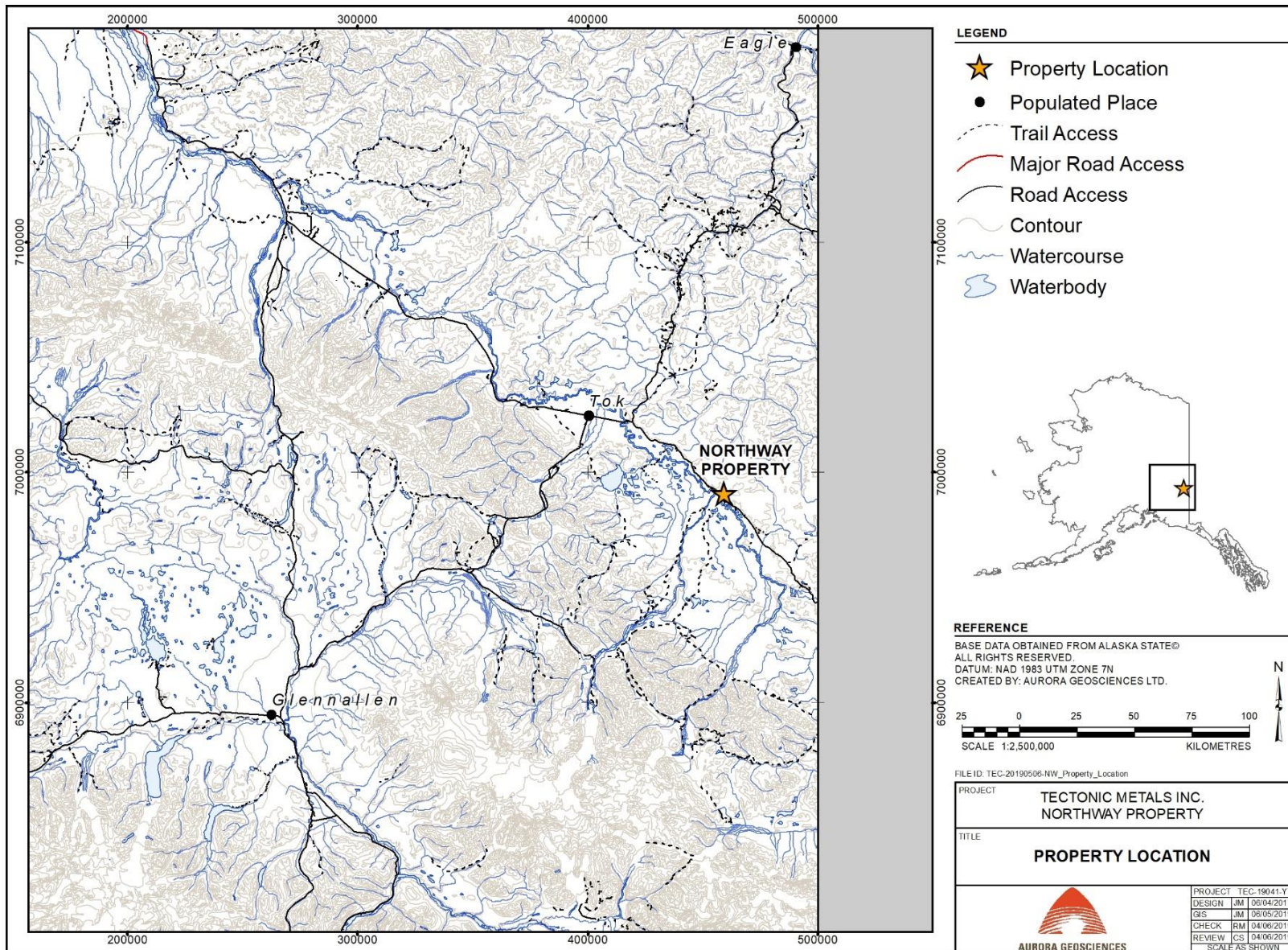


Figure 1. Property location map.

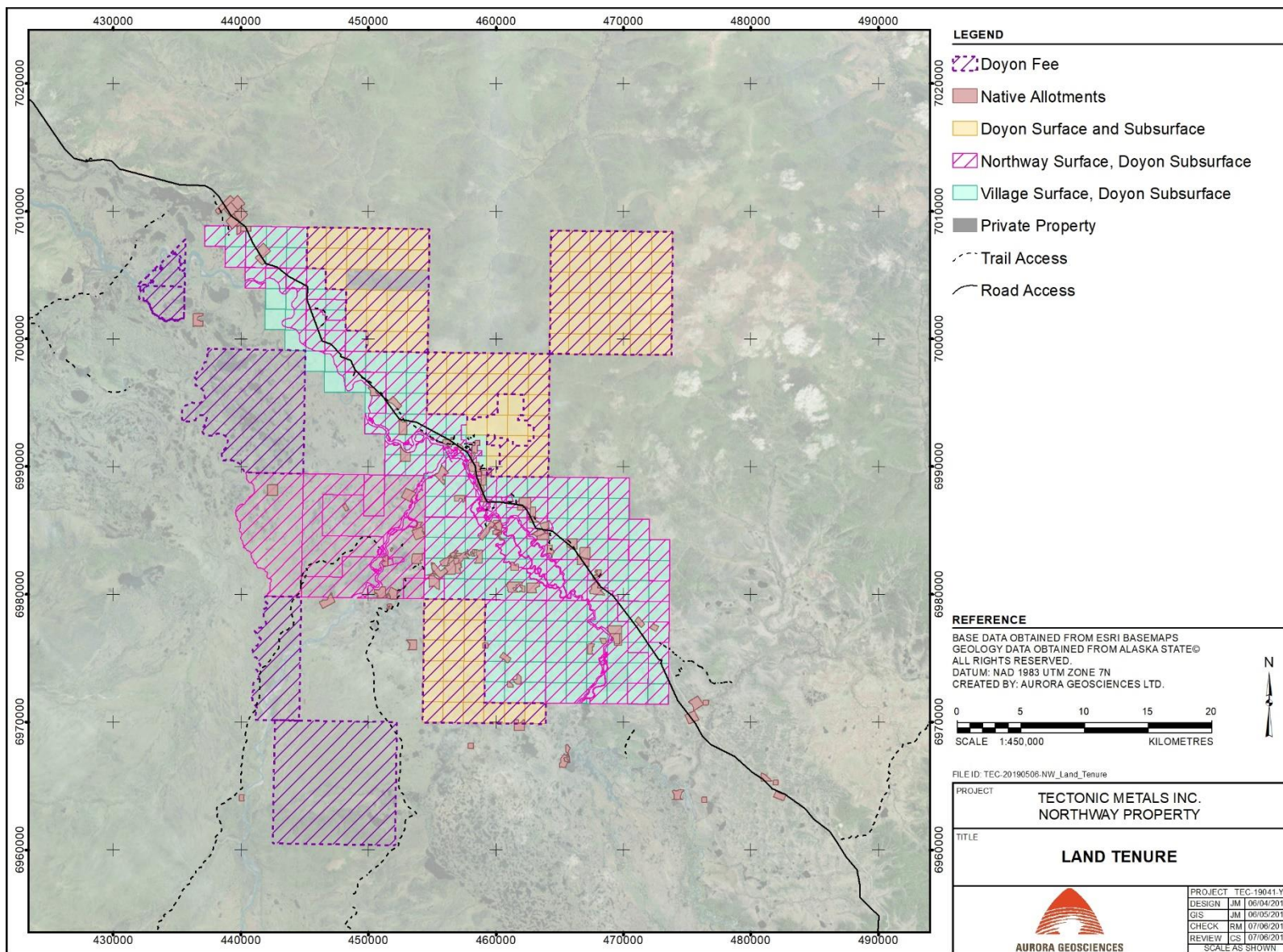


Figure 2. Northway land tenure map.

In addition to these payments Tectonic Minerals Inc. is required to incur exploration expenditures according to the schedule in Table 3 to maintain their lease.

Table 3: Exploration Work Commitment Schedule

Lease Years	Minimum Exploration Expenditures
2018	\$400,000
2019	\$600,000
2020 – 2023	\$750,000
2024 – 2027	\$1,500,000
2028 and each year thereafter	\$2,000,000

Tectonic will pay Doyon Ltd. US\$600,000 upon the completion of a feasibility report on any part of the leased properties. Prior to commercial production Tectonic will contribute US\$25,000 per year into the Doyon Foundation and, upon commencement of commercial production, Tectonic will contribute \$50,000 per year until the conclusion of the lease.

Should commercial production begin on the property, the royalty schedule in Table 4 will apply. Prior to January 1 of each year, Doyon Ltd. can choose to receive their royalty in the form of gold or silver, in amounts equivalent to the amount that could be purchased at fair market value with the royalty for those metals.

Table 4: Doyon Ltd. production royalty schedule

Production Year	Precious Minerals Production Royalty owed	Base Minerals Production Royalty owed
From the 1st year of production until the end of the 4th year	2% of “Net Smelter Returns” (as set out in the definition) from the precious minerals	1% of “Net Smelter Returns” from the base minerals
From the 5th year of production until the end of the 9th year	4% of “Net Smelter Returns” from the precious minerals	3% of “Net Smelter Returns” from the base minerals
From the 10th year of production onwards	Whichever is greater between 4% of “Net Smelter Returns” or 15% of “Net Proceeds” from the precious minerals	Whichever is greater between 3% of “Net Smelter Returns” or 15% of “Net Proceeds” from the base minerals

Additionally, Doyon Ltd. has the ability to compel Tectonic to purchase the absolute interest in all or part of the leased land should those lands be identified by an independent mining consultant as necessary for milling, processing, or waste storage. If Doyon Ltd. requires the purchase of said lands, Tectonic will pay 125% of their fair market value.

Upon completion of mining activities, Tectonic will deliver a written cessation notice to Doyon Ltd. Doyon will retain possession of these lands until remediation obligations are complete. During this period Tectonic will pay monthly rent of \$0.50 per acre of land held in possession of Tectonic until the entire lease is returned to Doyon Ltd. and remediation activities are completed (except for long term monitoring).

4.4 ENVIRONMENTAL LIABILITIES

There are no known pre-existing environmental liabilities associated with this lease.

Prior to preparing for mining operations, Tectonic will establish an environmental remediation and reclamation fund for the leased properties. This fund must be maintained at 120% of the estimated costs for remediation and reclamation. Money in this fund can be used only for remediation and reclamation. At least once every three years Tectonic must hire an environmental engineering firm to perform an on-the-ground audit of the property impacted by mining operations, the reclamation fund must be then adjusted accordingly.

4.5 PERMITS

As the Northway property is wholly located within Doyon Ltd. owned lands, approvals for various activities need to be obtained from Doyon Ltd., which has jurisdiction over activities conducted on the property. Prior to the harvest and storage of timber, Tectonic must obtain approval from Doyon Ltd. Additionally, prior to conducting ground disturbance activities, Tectonic must conduct an archaeological study on the area of proposed disturbance. In addition to approval from Doyon Ltd., the permits outlined in Table 5 may be required depending on the stage of the project.

Table 5: Permits required for exploration and mining operations on Doyon Ltd. lands.

Agency	Responsibility	Applicable During Exploration	Applicability During Production
Alaska Department of Fish & Game	Fish Habitat Permit or Special Area Permit	yes	yes
Alaska Department of Revenue	Tax Division Mining Licenses	no	yes
Department of Environmental Conservation	Wastewater Discharge, Compliance Inspections, & Technical Assistance	yes	yes
Department of Environmental Conservation	Alaska Pollution Discharge Elimination System permit	no	yes (maybe)
DNR, Division of Mining, Land & Water Mining Section	Miscellaneous Land Use Permit (On claim activity only, including surface use)	no	no
DNR, Division of Mining, Land & Water Mining Section	Miscellaneous Land Use Permit (Access across state land)	no, unless workplan includes access across state land	no, unless workplan includes access across state land
DNR, Division of Mining, Land & Water Mining Section	Temporary Water Use Authorizations, Permit to Appropriate Water, or a Certificate of Appropriation	yes	yes
DNR, Division of Mining, Land & Water Mining Section	APMA (Applications for Permits to Mine in Alaska)	yes	no, superseded by mine operations permits
DNR, Division of Parks	Special Park Use Permit or SHPO requirements	no	no

DNR, Division of Forestry	Timber Purchase may be required	no	yes, if mine access road is built
Bureau of Land Management	Approved Plan of Operation or Notice of Operation	no	no
U.S. Fish and Wildlife Service	Fish Habitat Permit or Special Area Permit	no	no
U.S. Forest Service	Approved Plan of Operation	no	no
U.S. Park Service	Approved Plan of Operation	no	no
U.S. Army Corps of Engineers (USACE)	Dredge and Fill Permit in Waters of the U.S.	yes	yes
U.S. Army Corps of Engineers (USACE)	Cultural Resource Assessment	yes	yes

Tectonic has received all permits required to undertake all exploration activities up to and including core drilling. Although the Northway property is on Doyon land, the State of Alaska’s Department of Natural Resources (DNR) retains management authority over the mining-related reclamation of all lands of Alaska, including Native Corporation lands, pursuant to Alaska Statute 27.19. To satisfy the requirements in AS 27.19, an operator must file an appropriate Reclamation Plan for approval at least 45 days prior to commencement of the activity (H. Chalup, Natural Resource Specialist III, DNR).

On June 17, 2019, Tectonic received an Approved Reclamation Plan (F192901) for activities specified in Application for Permits to Mine in Alaska #2901 for the Northway property. This approval is valid until December 31, 2023. The approved work includes only those within the application, and changes to the scope of work are required to be submitted to the State of Alaska, Division of Mining, Land & Water in advance of commencement of additional or modified work plans. A thorough review of any changes to proposed activities, both spatially and operationally, will be required annually to ensure the permit status is appropriate.

The activities and thresholds within the application and current approvals granted and requested for the Northway property include the following exploration activities in two primary areas:

- Fuel storage and transport of fewer than 1,100 gallons
- Trenching – 5 trenches, each 500 ft x 2ft x 5ft.
- Water intake for drill lubricant: 15 gallons/minute (gpm), 30 days/month
- Access development for seasonal access roads to and from the proposed trenching and drill sites.
- Rotary air-blast drilling using 5-foot wide track-mounted vehicles and/or diamond core drilling using skid-mounted drill rigs: 30 drill holes, maximum depth of 1,500 feet, maximum core diameter of 3.5 inches.

Exploration and reclamation projects involving less than five acres of disturbance on private lands do not require a specific reclamation permit or approval from the Division of Mining, Land & Water, nor any reclamation bonding. Instead, a requirement is in place to submit a “Letter of Intent to do Reclamation” and an “Annual Reclamation Statement”.

Tectonic has also received a Temporary Water Use Authorization (TWUA F2019-101) for the Northway project. This approval is valid until December 31, 2023. The permit allows for water use activities up to 24

hours per day (or otherwise limited by the maximum authorized gallons per day) from May 1st through October 31st of each authorized year (2019-2023). The TWUA allows for a combined maximum withdrawal of 21,600 gallons/day (gpd) at a maximum pump withdrawal rate of 15 gpm (0.03 cfs).

Prior to the 3rd lease year, Tectonic must obtain a performance bond or other security of an amount necessary to ensure the completion of necessary remediation activities on the site.

4.6 REPORTING AND NOTIFICATION REQUIREMENTS

Subject to the terms of the lease, Tectonic must meet with Doyon Ltd. to provide an update on the progress of planned activities including its reclamation and environmental protection activities.

4.7 OTHER SIGNIFICANT FACTORS AND RISKS

The author is not aware of any other significant factors and risks potentially affecting access, title, local environmental settings or the right to perform work on the Northway property.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 TOPOGRAPHY, ELEVATION AND VEGETATION

The northeastern part of the Northway property which is the subject of mineral exploration covers an area of moderate terrain with rolling hills and local stream valleys. Elevations range from about 520 m (1,760 feet) along the Tanana River to roughly 945 m (3,100 feet) at flat-topped hilltops. The Northway area is within “Beringia”, an unglaciated area covering most of central Alaska and west-central Yukon. The southwest portion comprises a flood plain of the Tanana River and several large tributaries draining the north flank of the Alaska Range to the south. This area is marked by abundant shallow lakes and ponds, is covered by deep stream sediments, and is not amenable to exploration.

Vegetation on south facing slopes is dominated by white spruce, birch and aspen. North facing slopes are covered mainly by black spruce. Stunted black spruce covers most of the Tanana River floodplain, with larger trees along river channels and willow in boggy areas.

5.2 ACCESS

The property is bisected by Highway 1 (the Alaska Highway), which extends SE-NW slightly inbound from the northeast boundary of the Tanana River floodplain. Winter trails and some minor roads provide additional access for ATVs or tracked vehicles. Apart from these minor trail networks, most of the property requires helicopter access.

5.3 LOCAL RESOURCES

Northway Junction (pop. 54, 2010 census) is a village located at the junction of the Alaska Highway and the Northway Village Road. Northway Village (Pop. 98, 2010 census) is an Alaskan native village situated in the SE part of the property and connected to the Alaska Highway by a secondary road, upgraded in 2000, extending for 7 miles from Northway Junction to the village. The two communities comprise much

of the population of the local “census-designated place” which includes numerous residences along the two roads. The community has an available work force for field labour.

A well-maintained, roughly 2,200 m long paved airstrip is located near Northway Village. Limited accommodations, fuel and minor groceries are available at Northway Junction, although most supplies are obtained at the Village of Tok, Alaska. Tok (pop. 1258, 2010 census) is located along the Alaska Highway 80 km to the northwest. Services available in Tok include lodging, restaurants, fuel, grocery and hardware. Tok also has a medical clinic, and an available workforce.

The Northway property is located about 400 road-km (240 miles) southeast of the City of Fairbanks in the Fairbanks North Star borough. The 2016 population of Fairbanks city proper stood at 32,751, and that of the North Star borough at 97,121 (Wikipedia, 2019). Fairbanks is a full-service city with highway access provided by the Steese, Richardson and George Parks highways, the Alaska Railroad, and a major international airport, as well as significant military installations. Groceries, hardware, bulk fuel and other supplies are readily available, and the city has abundant accommodations. Fairbanks has a large available trained workforce and service supply chain, and has abundant electrical power. The city is also the seat of local permitting facilities, and the North Star borough includes the University of Alaska Fairbanks campus.

The Villages of Northway and Northway Junction are serviced by diesel-generated electricity (Office of Indian Energy Policy and Programs, U.S. Department of Energy), insufficient for the requirements of a significant mining operation. The Village of Tok is also supplied by diesel-generated electricity, although plans were in place by 2016 to supplement this with liquified natural gas (LNG). Power generation capabilities there are also unlikely to meet the requirements of a significant mining operation at the Northway property.

5.4 CLIMATE

The Northway property lies within the Yukon-Tanana Uplands ecoregion. The climate is continental with warm summers and very cold winters. The region is covered by discontinuous permafrost which is more prominent on north-facing slopes and in valley bottoms (Nowacki, 2001). Climate data for Northway, Alaska indicates that the area receives approximately 255 mm of precipitation per year, of which 94 mm occur as snow. Average January daily maximum and minimum temperatures are -9.9°C and -32.6 °C respectively. Average July daily maximum and minimum temperatures are 20.8°C and 9.0°C, respectively. Thunderstorms are fairly common in summer, and the area is prone to forest fires.

The field season ranges from late May to late September, depending somewhat on duration of snow cover in spring and onset of winter conditions in autumn. Winter programs could also be supported, due to ease of access from the Alaska Highway. Diamond drilling may also continue until November, depending on temperature and snow conditions allowing for water lines to remain unfrozen. Diamond drilling may also commence in March, with increasing temperatures and snow cover to protect water lines.

5.5 SURFACE RIGHTS

Doyon Ltd. is the sole owner of subsurface rights for the Northway property. Approximately 65% of the surface rights are held by Northway Natives Inc, with the balance of surface rights held by Doyon. Numerous small land parcels, all within or along the border of the Northway Natives Inc. surface rights parcel, are held as Alaska Native Allotments (Figure 2).

Under the terms of the mining lease signed between Tectonic and Doyon Ltd. Tectonic has full, non-exclusive rights to use the surface of the land to conduct exploration and mining activities subject to the following conditions:

- Tectonic has the right to use and reconstruct all existing roads on the property and has the right to construct new roads. Tectonic is responsible for the maintenance of all roads they use within the property.
- Tectonic has the right to use Doyon Ltd.'s water rights in the leased properties for mining activities, provided Doyon Ltd. has no other firm plans for their use.
- Tectonic has the right to use timber, sand, gravel, rocks and other materials from the property to construct infrastructure subject to first notifying Doyon Ltd. and receiving approval of a reforestation or remediation plan as required.

5.6 INFRASTRUCTURE

The property is not host to any private, or company-specific infrastructure. The Alaska Highway and the road between this and the community of Northway Village provide road access to the property. There is a paved airstrip at the Northway Village to support air travel. There is a motel and gas station, supplying minor groceries, at Northway Junction.

The property is large enough to contain mining, milling, leaching, tailings and residential facilities. Sufficient water exists within property boundaries to service diamond drilling operations, although water may need to be transported across distances exceeding 1.0 km and may need to be elevated requiring multiple "lifts" between source streams and the drill sites. The Tanana River is not a viable option for water, as the Alaska Highway extends between it and prospective areas for drilling.

6 EXPLORATION HISTORY

The majority of historic data was generated by North Star Exploration Inc between 1997 and 2002. Doyon Ltd (Doyon) conducted some minor work between 2014 and 2015.

6.1 PRIOR TO 1997

The Northway land block was included in several regional mapping programs during the 1970s. In the early 1980s, the U.S. Department of Energy released the National Uranium Resource Evaluation (NURE) report and associated geochemical data set for the Tanacross and Nabesna quadrangle maps. That report, along with geochemical maps from Tripp et al., (1976) attracted mineral exploration interest for base metals.

6.2 NORTH STAR EXPLORATION INC, 1997 – 2002

North Star Exploration Inc. (North Star) explored the property between 1997 and 2002 for intrusion-related gold mineralization. In 1997, Doyon entered into an option agreement with North Star Exploration, Inc. This agreement granted North Star exclusive exploration and development rights to approximately 7,000,000 acres of Doyon lands (North Star 1998 Annual Report, 1999).

6.2.1 1998 and 1999 Exploration

In 1998, rock samples collected at road cuts returned significant Au values. North Star also conducted a benchtop analysis of Landsat and topographic data to identify lineaments, circular features, pattern changes and uplift that may suggest the presence of igneous intrusions. This focused on identifying a target area in the northeast of the property (North Star 1998 Annual Report, 1999).

In 1999, the “Road Metal” prospect was identified near a “barrow pit” directly northeast of the Alaska Highway-Northway Road junction, and the barrow pit was subsequently sampled. Stream sediment sampling was also done in the Northway Village block and areas northeast of the highway.

6.2.2 2000 Exploration

In 2000, North Star followed up with detailed geological mapping, detailed soil geochemical sampling (n=245), rock sampling, ground magnetic surveying, and drilling of five diamond drill holes for 902 m at the Road Metal Prospect.

Results from the total field ground magnetometer survey were interpreted to reflect the complex nature of multi-phased intrusive events and subsequent hydrothermal alteration. Local pit exposures on the grid showed that the magnetic lows correspond to zones of strongly hydrothermally altered quartz porphyry and greisen development. The relatively unaltered phaneritic granite units and a monzonite dike exhibit a higher magnetic background. One small circular magnetic high mapped in the north-central pit area corresponds to a zone of intense greisen formation accompanied by semi-massive to massive sulphides (Bundtzen, 2001).

A soil grid was established and sampled at the Road Metal prospect in order to delineate mineralized trends in bedrock beneath aeolian and vegetative cover. Results indicated a coincident Au-Ag-As-Pb anomaly covering a northeast-trending, elongate, 1,500 ft by 4,000 ft area northeast of the Road Metal prospect (Bundtzen, 2001).

The five-hole drilling program was designed to test interpreted geochemical, structural, and geophysical anomalies (Bundtzen, 2001). Anomalous gold-polymetallic intercepts were returned from all drill holes. Drill holes RM-00-01, RM-00-02, and RM-00-05 encountered structurally controlled weakly mineralized gold-polymetallic greisen-hosted veinlets and stockwork zones at various levels in each hole. Significant intercepts include: 73.8 feet (22.5 m) grading 0.045 opt (1.542 g/t) Au and 0.35 opt (12.0 g/t) Ag from DDH RM-00-3; and 17.8 feet (5.4 m) feet grading 0.263 opt (9.017 g/t) Au and 14.7 opt (504.0 g/t) Ag from DDH RM-00-04 (2004 Doyon report). Varying degrees of propylitic, argillic, and sericitic alteration occur as steeply dipping envelopes ranging from 4 to 300 feet (1.3 m to 90 m) thick (Bundtzen, 2001).

6.2.3 2001

The 2001 follow-up program comprised a 35 line-km - ground magnetic survey, a 2,130 m diamond drilling program (8 holes), an orientation Induced Polarization (IP) survey, a 700-unit soil sampling program, and collection of 425 rock chip samples. These efforts extended the alteration zone associated with the Road Metal prospect, identified a new geophysical anomaly adjacent to it, and identified an additional ten geochemical anomalies on the property (Bundtzen, 2002). The locations of all ten anomalies are indicated on Figure 3.

Ground magnetic data confirmed the presence of the northeast trend of the Road Metal deposit. Drill core magnetic susceptibility data collected in 2000 indicated that anomalous Au and Ag trends coincide with magnetic low readings. Depletion of magnetite is associated with the argillic alteration, greisen formation,

and sulphide mineralization occurring in the mineralized zone. Ground magnetic data confirms that the linear zone extends farther to the northeast (Bundtzen, 2002).

Diamond drilling in 2001 was intended to follow up on mineralized intercepts from the previous year. Drill intercepts from 2001 intersected porphyry-style alteration with 1-5% disseminated pyrite hosted by phyllic-altered intrusive rocks with patchy and weakly anomalous Au and Ag values (Doyon report, 2004). Drilling extended the alteration zone roughly 200 m along strike and 400 m vertically. The high gold grades reported from the 2000 drilling were not repeated in 2001. Drill hole RM-01-06 intersected a 1.7-foot (0.5 m) interval grading 5.41 g/t Au and 104.7 g/t Ag. Drill hole RM-01-08 returned a value of 5.41 g/t Au and 7.2 g/t Ag across 1.8 ft (0.6 m) (North Star 2001 Annual Report). Hole RM-01-13 returned values of 14.9 g/t Au with 78.5 g/t Ag over 0.5 m, and 2.1 g/t Au with 0.8 g/t Ag over 3.0 m (Bundtzen, 2002).

An Induced Polarization (IP) survey was conducted in the vicinity of the Road Metal prospect. Roughly 6 line-km of IP data were collected to test for viability of this survey type at Road Metal, and to test for additional exploration targets. A large, horseshoe-shaped multi-line IP chargeability anomaly was identified adjacent to the west of the drilled area. The anomaly extends NNE for 400 m and is open to the north, south, west and at depth. (Bundtzen, 2002).

The 2001 soil sampling program comprised 700 "C" horizon samples collected by Bombardier™ mounted mechanical soil augers. Samples were collected on hilltops and ridges surrounding the Road Metal prospect. These soil surveys identified three polymetallic anomalies, including the Pipe Line anomaly, which returned values up to 335 ppb Au and 5 ppm Ag.

An additional 402 surface geochemical samples (rock, stream and pan concentrate) were collected outbound of known anomalous zones. From this dataset, ten new geochemical anomalies were identified (Table 6). The most significant anomaly was the Yarger Lake prospect, a 44 m wide zone of Au-bearing quartz sulphide veins that has a similar metal assemblage to the Road Metal prospect (Bundtzen, 2002).

Table 6: Mineral occurrences discovered in 2001 (Bundtzen et al, North Star Exploration Ltd. 2002)

Occurrence Name	Metal Concentrations	Host Rock, Style of Mineralization
Yarger Lake	Au 219 ppb; Ag 4.5 ppm; As 198 ppm; Pb 184 ppm	Greisen like veins in altered granite
Midway East	Au 110 ppb; Bi 1.52 ppm; Cu 178 ppm	Thin stockwork in granitic intrusion
Bitters Creek	Au 229 ppb; Ag 91.0 ppm; Bi 223.0 ppm; Pb >1 %; Zn 2,898 ppm	Granitic-hosted greisen mineralization with large polymetallic soil anomaly
VABM Ball SW	Cu 3.43%; Au 835 ppb; Ag 28.8 ppm; Bi 338 ppm	Malachite-stained shear zones in mafic metamorphic rocks
Beaver Creek NE	Ni 1,960 ppm; Cr 2,430 ppm; Co 110 ppm Cu 541 ppm	Magnetite rich, serpentinized ultramafic rocks
Beaver Creek SE	As 820 ppm; Sb 103ppm; Cu 423 ppm; Zn2,097 ppm	Large area of ferricrete gossan along fractures in low grade meta-sedimentary rocks Large quartz-tourmaline greisen similar to Road Metal prospect
Emma's Bluff	As 816 ppm	
Cheneathda Hill NW	Ag 27.1 ppm; Bi 98 ppm; Zn 756 ppm	2 m wide sulfide-quartz veins in altered granite
Cheneathda Hill East	Au 33 ppb; Pb 591 ppm; Cu 321 ppm	Significant soil anomaly in granite terrane at summit
Silver Creek	Au 112 ppb	Very thick 100 m greisen system in altered granite

6.2.4 2002

In 2002, a 6.6 line-km IP survey expanded on the 2001 IP survey. This survey revealed a northerly plunging, 800 m by 1200 m, donut-shaped chargeability anomaly, indicating potential for a disseminated sulphide body capped by resistive rocks. An additional 2,482 m of diamond drilling (9 holes) at the Road Metal prospect targeted this IP anomaly and identified it as a quartz-sericite-pyrite alteration zone that did not carry significant Au values. Additional exploration work targeting the Road Metal prospect was not recommended.

Three of ten other road-accessible targets were explored in 2002. The Bitter Creek polymetallic prospect was delineated as a 200 m wide structurally controlled intrusion-hosted zone bearing weakly anomalous Pb-Zn-Ag-Au values. This prospect was deemed as limited in grade and aerial extent, not warranting follow-up work. The Cheneathda Hill prospect was determined to occur along the contact between granites and host schists. Sampling returned no significant gold values, and no further work was warranted. The Yarger Lake prospect was delineated as a 44 m wide northeast-trending shear zone with "Road Metal"- style Au-Ag mineralization (Millington, 2019).

Northstar described the Northway block and surrounding area as under-explored, and recommended a high-resolution aeromagnetic survey. Despite this, NorthStar dropped its option agreement with Doyon due to bankruptcy of its parent company in 2002 (Millington, 2019).

6.3 THE STATE OF ALASKA, DEPARTMENT OF GEOLOGICAL AND GEOPHYSICAL SURVEYS (DGGs), 2006 – 2007

In 2006, Fugro Airborne, on behalf of the DGGs, flew the Alaska Highway corridor with magnetic and EM surveys.

6.4 DOYON LTD, 2014 – 2015

Between 2014 and 2015, Doyon Ltd. conducted exploration activities searching for porphyry-style mineralization.

6.4.1 2014

In 2014, Peter E. Walcott and Associates Ltd conducted 32 line-km of IP surveying over 7 prospects, labeled Areas 1 to 7 (Figure 3). Target selection was based on pre-existing geochemical data and ground magnetic data. Of these, four targets (Targets 2, 5, 6, and 7) were recommended for follow-up work, based on the occurrence of chargeability anomalies. Area 2 is proximal to the Cheneathda Hill NW (2001) geochemical anomaly and yielded a weak but definable chargeability anomaly. Area 5 is proximal to the Cheneathda Hill East (2001) geochemical anomaly and yielded a chargeability response that is coincident with a pre-existing ground magnetic anomaly. A well-defined, 400 m chargeability anomaly was defined at Area 6 in the northwest property area. A discrete but narrow chargeability anomaly was identified at Area 7 north of the Yarger Lake prospect in the southeast property area. The Area 7 anomaly is open to the West and East (Welz, 2014).

6.4.2 2015

In 2015, 453 soil samples were collected by Doyon Ltd. at the four prospects mentioned above while exploring for Cu porphyry style mineralized rocks. Samples of “C” horizon material were collected using mechanical augers (Woodman, 2015).

The soil geochemical survey at Area 2 returned anomalous Mo results but failed to identify any Au anomalies. The soil geochemical grid at Area 5 consisted of five survey lines and identified a high-grade, open-ended copper and molybdenum anomaly of limited aerial extent. Values included >500 ppm Cu, 13 ppm Mo and 0.034 ppm Au. The largest soil geochemical grid comprising 261 samples covered Area 6, and was considered most prospective by Walcott. This survey identified a broad Cu-Mo anomaly centered east of the core IP chargeability anomaly. Anomalous sample sites containing >0.03 ppm Au occur along a NNW-trending zone which is distinct from the E-W to SW-NE trending Cu-Mo anomalies. A linear Au-Cu soil geochemical anomaly was identified at Area 7 where anomalous Au values formed a well-defined WNW-trending zone. This grid contained the highest quantity of samples returning greater than 0.1 ppm Au. The Cu anomaly is slightly more diffuse but also extends along the significant linear Au trend (Woodman, 2015).

Soil survey grids at Areas 6 and 7 returned promising poly-metallic soil anomalies that are coincident with chargeability anomalies and with porphyry-style mineralization.

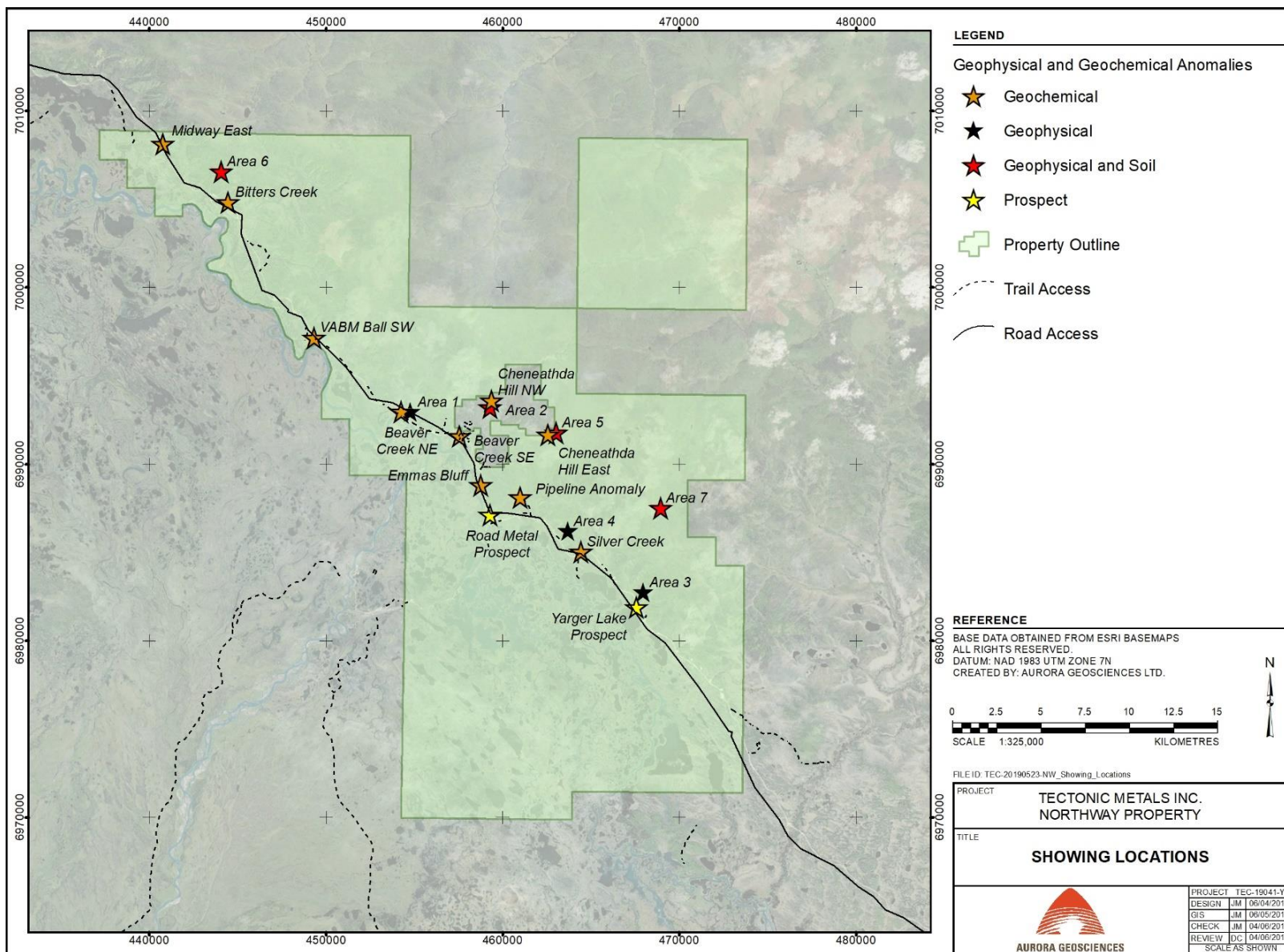


Figure 3. Location of showings and anomalies at Northway.

7 GEOLOGICAL SETTING

7.1 REGIONAL GEOLOGY

The Northway property is located within the Yukon-Tanana terrane (YTT), an accreted terrane comprised mainly of Proterozoic to Triassic metagneous and metasedimentary assemblages, and Jurassic to Early Tertiary metagneous rocks. The YTT is an allocthonous terrane extending from east-central Alaska to south-central Yukon. It comprises numerous pulses of arc magmatism (Mortensen, 1992), accreted on to the Ancient North American Continent. The YTT is bounded to the north by the Tintina Fault Zone and to the south by the Denali Fault. Both major fault zones have an Eocene lateral displacement of roughly 400 km (Nelson and Colpron, 2007).

Three major pulses of continental arc magmatism have been identified, occurring respectively during Late Devonian to Early Mississippian, Permian, and lastly Late Triassic to Early Jurassic time (Mortensen, 1992). The major, subhorizontal structural fabric marking much of the YTT was formed from mid-Permian to the onset of magmatism in Late Triassic time, and likely represents a major continent-continent collision (Mortenson, 1992). Further subduction-related magmatism occurred into the mid-Cretaceous, resulting in emplacement of batholithic-scale intrusions such as the 112 – 105 Ma Dawson Range batholith, extending from the Northway area eastward to the Coffee Creek area of west-central Yukon. Related magmatism also resulted in the emplacement of a series of intrusive suites comprising the 110 – 70 Ma Tintina Gold Belt.

Foster (1994) reports that the YTT comprises four sub-terrains and that the Northway property lies in the Y1 sub-terrain. Metamorphic rocks at Northway are of amphibolite facies and protoliths consist of quartzite and pelitic sedimentary rocks and felsic intrusive rocks with some intermediate and mafic intrusive and volcanic rocks. Three periods of Mesozoic and Cenozoic granitic intrusive rocks are recognized in the YTT: Late Triassic-Early Jurassic (215 to 188 Ma), mid-Late Cretaceous (95 to 90 Ma), and Late Cretaceous to early Tertiary (70 to 50 Ma). Post-metamorphic volcanism occurred during the Cretaceous, Tertiary, and Quaternary periods and comprise welded tuff, air-fall tuff, lava flows, and ash flow sheets. Small hypabyssal intrusions of rhyolite to dacite composition are associated with this (Foster, 1994). The Cretaceous intrusions are members of the Tintina Gold Belt.

Figure 4.a. displays and excerpt from the USGS Generalized Geologic Map of Alaska, Wilson, 2015.

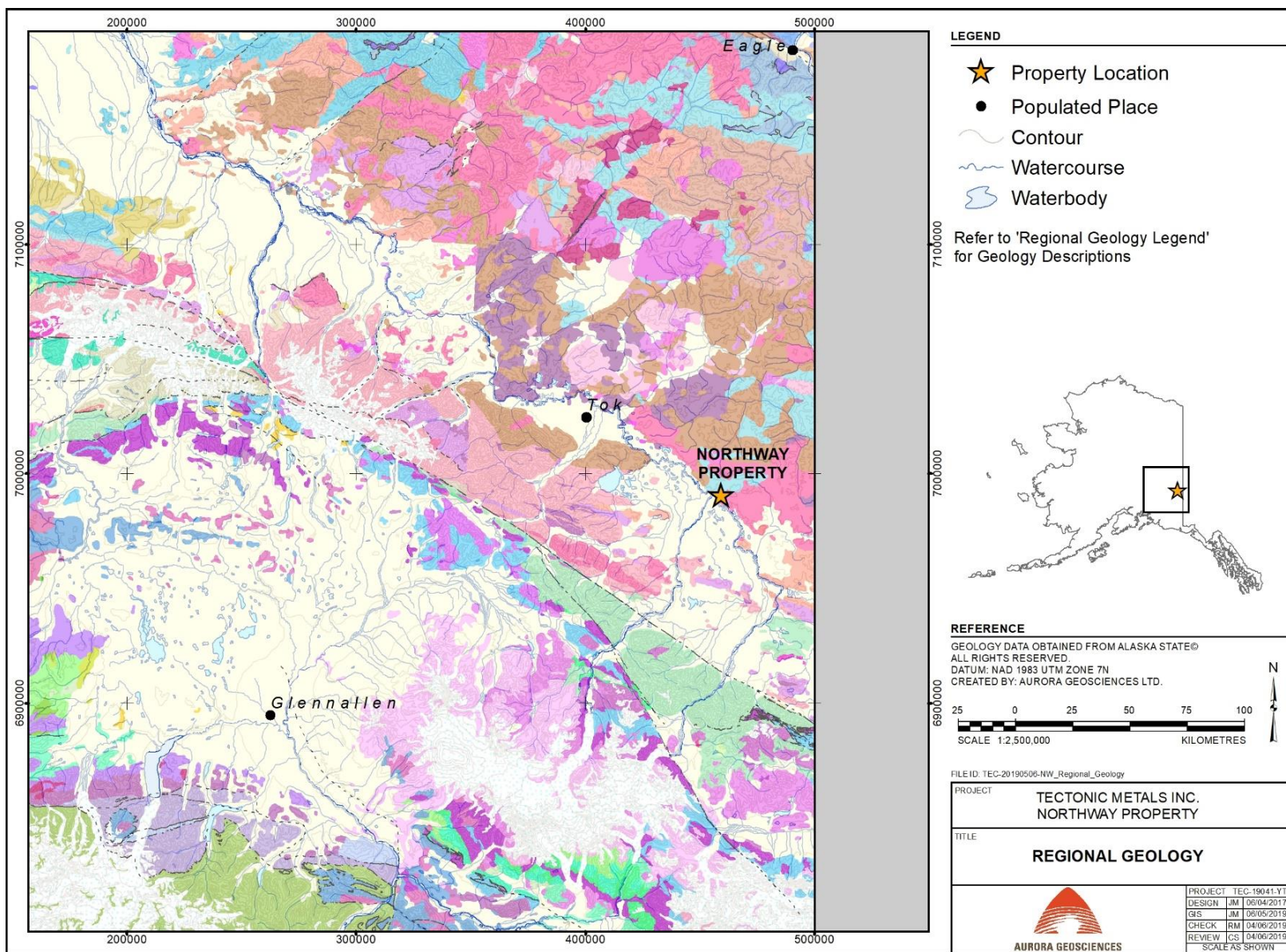


Figure 4a. Regional geology map after Wilson, 2015.

REGIONAL GEOLOGY LEGEND		
Linear Features		
		Normal Fault
		Thrust Fault
		High-Angle Reverse Fault
		Lateral Fault
		Fault; Uncertain Displacement
		Concealed Normal Fault
		Concealed Thrust Fault
		Concealed High Angle Reverse
		Concealed Lateral Fault
		Concealed Fault; Uncertain Displacement
		Glacier Overprint
Geology Unit		
	bu	Bedrock of unknown type or age or areas not mapped
	Ca	Adams Argillite
	DCsp	Schist and phyllite of the Alaska
	DOsc	Shale, chert, and argillite
	DPxga	Gneiss, amphibolite, schist, quartzite, and marble (Yukon-Tanana crystalline complex)
	DPxsq	Pelitic schist and quartzite and mafic interbeds (Yukon-Tanana crystalline complex)
	DSsm	Shallow-marine, carbonate-dominated rocks
	DZyf	Clastic and carbonate rocks of the Yukon Flats Basin
	IPDcf	Calico Bluff and Ford Lake Shale, undivided
	Jegr	Intermediate to mafic plutonic rocks
	Jlmg	Plutonic rocks
	JPK	Kakhonak Complex and Tlikakila complex of Carlson and Wallace (1983)
	Jsct	Shelikof and Chinitna Formations and Tuxedni Group
	Jtk	Talkeetna Formation
	JTrsch	Blueschist of southern Alaska
	JTrsr	Spiculitic rocks
	JZu	Mafic and ultramafic rocks in central, western, and northern Alaska
	Kcca	Coquina and calcarenite
	Kchf	Chugach accretionary complex
	Keg	Granodiorite and other plutonic rocks
	Kfy	Flysch
	KJgn	Gravina-Nuzotin unit
	KJgu	Plutonic rocks and dikes
	KJse	Saint Elias suite of Gordey and Makepeace (2003) and similar rocks
	KJsnk	Staniukovich and Naknek Formations, Kotsina Conglomerate, and similar rocks of southern Alaska
	Klgr	Intermediate granitic rocks
	Kmgr	Granitic rocks of central and southeast Alaska
	Kmuc	McHugh and Uyak Complexes and similar rocks
	Knmt	Nonmarine to shelf sedimentary rocks
	KPzum	Mafic and ultramafic rocks in southern Alaska
	Ksmd	Shallow to moderate depth sedimentary rocks
	Kvu	Volcanic rocks, undivided
	MDmg	Granitic rocks and orthogneiss
	MDts	Totatlanika Schist (Yukon-Tanana crystalline complex)
	MOKg	Kaskawulsh Group of Kindle (1953)
	MPxgs	Gneiss, schist, and amphibolite (Yukon-Tanana crystalline complex)
	Mzm	Melanges
	PIPgi	Granodiorite, syenite, and other granitic rocks
	PIPsm	Strelina Metamorphics and related rocks
	Pxv	Basalt and red beds member (Tindir Group) and Mount Copleston volcanic rocks of Moore (1987)
	Pzkn	Klondike Schist, Keevy Peak Formation, and similar rocks (Yukon-Tanana crystalline complex)
	QTS	Unconsolidated and poorly consolidated surficial deposits
	QTvi	Young volcanic and shallow intrusive rocks
	Tcb	Coal-bearing sedimentary rocks
	Tcc	Gneiss and amphibolite
	Tehi	Felsic dikes, sills, and small stocks in southern Alaska
	Thi	Hypabyssal intrusions
	TKgi	Granitic rocks of southern and interior Alaska
	TKm	Mafic intrusive rocks
	Tknt	Nearshore and nonmarine sedimentary rocks in southern Alaska
	TKpr	Flows and pyroclastic rocks
	TKs	Conglomerate, sandstone, and lignite
	Tmi	Younger granitic rocks
	TMzmb	MacLaren metamorphic belt of Smith and Lanphere (1971)
	Tng	Nenana Gravel
	Toeg	Granitic rocks in southern
	Trcs	Calcareous sedimentary rocks
	TriPms	Skolai and Mankomen Groups, undivided
	Trmb	Massive basalt and greenstone
	Trmls	Marble and limestone of Wrangellia
	TrMsm	Seventymile assemblage (Yukon-Tanana crystalline complex)
	Trqd	Quartz diorite and granodiorite
	Tsu	Sedimentary rocks, undivided
	Tv	Volcanic rocks, undivided

Figure 4b. Regional geology map legend.

7.2 PROPERTY GEOLOGY

A paucity of outcrop has obstructed geological understanding for much of the property. The Northway property is located in a periglacial terrain, and as such, thick aeolian, fluvial, and residual surficial deposits mask much of the bedrock. Geological information has been provided mainly from road cuts and drill core, mapped in the early 2000s by North Star.

The following is after Bundtzen, 2002, in the 2001 Annual Report by North Star Exploration, Inc.

Basement stratigraphy in the general Northway Junction area is composed of regionally metamorphosed sedimentary and volcanic rocks of the Precambrian-Paleozoic Yukon-Tanana assemblage (Wilson and others, 1998). The metamorphic basement has been intruded by at least two plutonic suites that range in composition from granodiorite to granite. The older plutonic suite ranges in age from 89 to 111 Ma (Wilson and others, 1985). This is the western portion of the 112 – 105 Ma Dawson Range batholith; this batholith comprises medium to coarse-grained equigranular hornblende-biotite granite to granodiorite. The younger suite, which includes the age of intrusive rocks and hydrothermal mineralization at the Road Metal prospect, has been dated by the UAF Geochronology Laboratory, at 67-70 Ma. Host rocks for the Road Metal prospect consist of altered and unaltered variants of hornblende biotite granite, quartz porphyry, and quartz monzonite. The younger intrusive rocks are peraluminous, mildly oxidized, and plot in an arc-related field of a Rb (Y+Nb) diagram.

Drilling at the Road Metal prospect has provided a valuable source of geological information. The following is after Bundtzen (2001), based on field observations from the 2000 field season. The Road Metal prospect consists of porphyry-style Au-Cu-Bi mineralization hosted in argillic and phyllic-altered granites. Five plutonic phases have been recognized: (1) light gray, coarse-grained, hornblende biotite granite (Kgr); (2) medium gray, sulfide-bearing granite (Kgrs); (3) bleached quartz porphyry (Kqp); (4) medium to dark gray, unaltered monzonite or lamprophyre (Km); and (5) altered fine grained alaskite (Ka). Contact relationships suggest that several phases of granite have been intruded by the monzonite-lamprophyre dike swarm. Granitic exposures 4 miles (6.4 km) east of the Road Metal prospect have yielded isotopic ages ranging from 95-103 Ma.

The 2019 due diligence visit included inspection and sampling of the burrow pit, confirming it has exposed coarse-grained equigranular biotite granite. Fairly abundant late quartz-feldspar porphyritic intermediate to mafic dykes with up to 5% fine-grained biotite and to 7% disseminated fine-grained pyrite have intruded the earlier biotite granites. The texture of the dykes is reminiscent of outlying portions of “porphyry-style” systems. These may be the “monzonite-lamprophyre” dykes described by Bundtzen. Plutonic phases 1 and 2, likely represent phases of emplacement of the main batholith, and phases 3, 4, and 5 likely represent the later district-scale intrusive event.

Figure 5 displays an excerpt from the USGS Detailed Geologic Map of Alaska, Wilson, 2015.

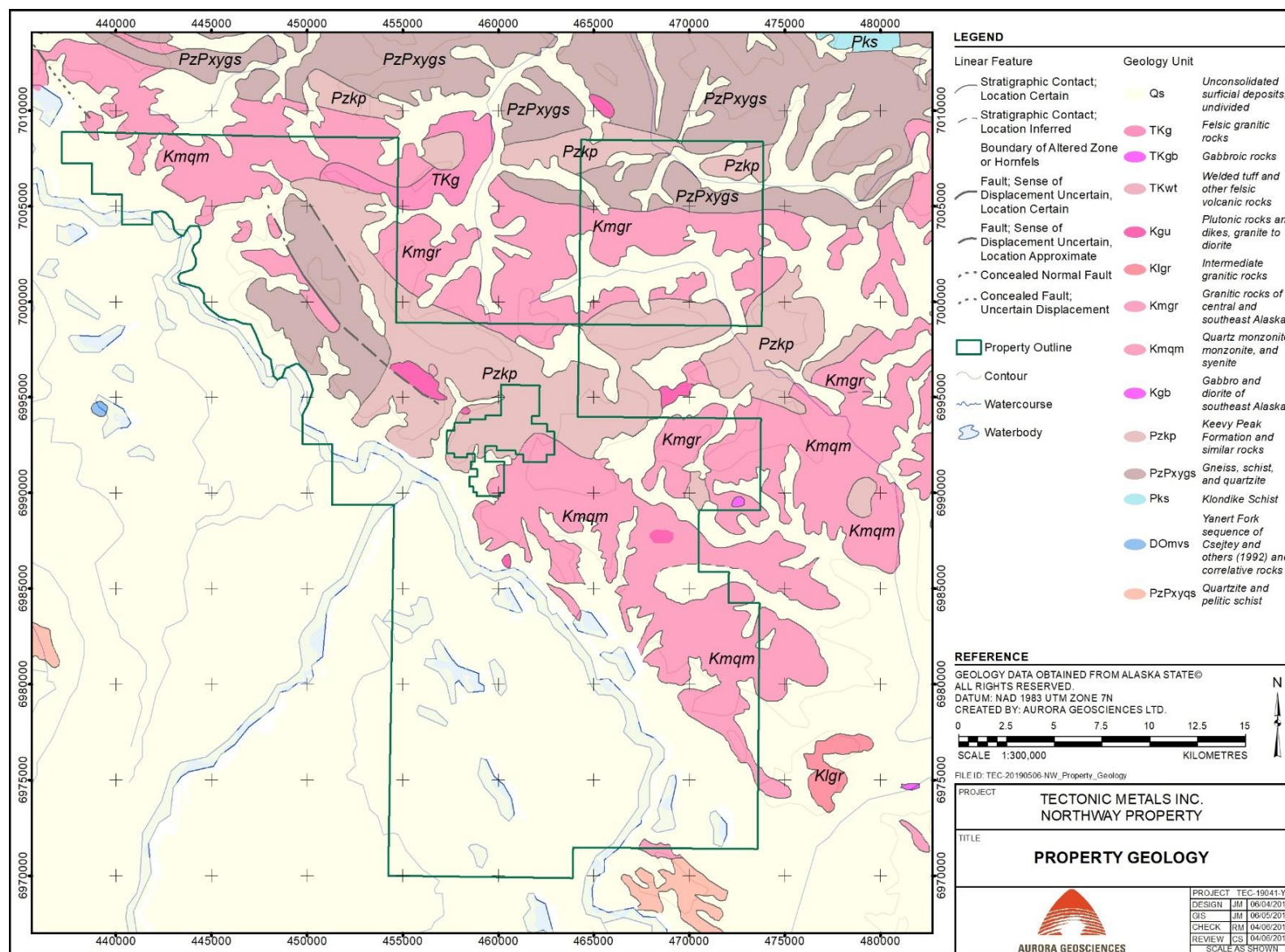


Figure 5. Property geology map, after Wilson, 2015.

7.3 MINERALIZATION

The Northway property contains two auriferous mineralized showings, the Road Metal prospect and the Yarger Lake prospect, and an additional ten geochemical anomalies. The Road Metal and Yarger Lake prospects were discovered by North Star while roadcut sampling between 1997 and 2001. Road Metal has seen significant diamond drilling, ground geophysics, and surface sampling.

7.3.1 Road Metal Prospect

Discovered in 1998 by North Star geologists by road cut grab sampling, the Road Metal prospect consists of greisen-hosted polymetallic-Au mineralization within multi-phase granitic intrusions. Contact lithologies indicate that several phases of granite have been intruded by a dike swarm of quartz monzonite. Diamond drill holes intercepted high-grade Au, Cu, and Ag within greisen zones.



Figure 6: Road Metal pit

The most significant gold-polymetallic mineralization was encountered in drill core acquired in 2000. Greisen zones encountered in drill hole RM-00-03 returned values to 87.73 g/t Au and 2,642 g/t Ag across 1.2 ft (0.4 m). Drill hole RM-00-04 intersected a thick greisen zone from 514.8 feet to 699.9 feet (156.9 m – 213.3 m). Assuming a dip of 75 degrees, based on structural measurement in road cuts and drill hole orientations, the intercepted greisen zone is estimated to have a true width of approximately 160 feet (48.8 m) (Bundtzen et al, 2002) No metal grades were reported for this interval. The mineralized greisen is characterized by semi-to-massive sulfide replacement of granite. These are also marked by advanced argillic and phyllic alteration, felsic dike swarms, and coarse-grained secondary white micas accompanied by large euhedral smoky quartz crystals. Microprobe studies from the mineralized interval identified sulphides and sulfosalts, including: kobellite (bismuth-antimony copper sulfosalt), boulangertite (lead-antimony sulfosalt), owyheeite (silver-lead-antimony sulfosalt), galena, chalcopyrite, pyrite, bouronite (silver sulfosalt), and tetrahedrite. The lower contact of the mineralized greisen with the granite footwall is sharp whereas the upper contact with the granite hanging wall is diffuse, which may indicate that the mineralization exposed in RM-00-04 is controlled by a high-angle vertical structure (Bundtzen, 2001).

Magnetic susceptibility studies of drill core from 2001 drill holes show a correlation between magnetic low signatures and polymetallic mineralization. This corroborates previous observations, based on the surface investigations, that hydrothermal mineralization is accompanied by the destruction of magnetic minerals in the host granitic rocks at the Road Metal prospect (Bundtzen, 2001).

Drill hole RM-00-04 intersected the most significant greisen-hosted mineralization. A 4.8 m interval of greisen from 193.6 – 198.4 m contained 1.029 g/t Au, 1,662.5 g/t Ag, 0.90% Bi, 2.80% Sb, and 3.23% Pb. Near the footwall of the greisen, a 5.4 m section from 205.7 – 211.1 m contained 9.325 g/t Au, 502.6 g/t Ag, 0.85% Cu, 0.30% Bi, and 0.30% Sb. Two higher-grade intervals from the same hole include: (1) 2.1 m from 193.6 – 195.7) of 0.583 g/t Au, 2,734.6 g/t Ag, 1.60% Bi, 5.20% Sb, and 5.44% Pb; and (2) 0.9 m from 209.3 – 210.2 m of 47.4 g/t Au, 2,838.5 g/t Ag, 3.00% Cu, 2.10% Bi, 0.90% Sb, and 2.11% Pb. A composite 23.0 m from 190.1 m – 213.1 m contained 2.606 g/t Au, 468.7 g/t Ag, 0.22% Cu, 0.28% Bi and 2.11% Pb. Hence, in addition to the high Au and Ag values, the Road Metal prospect is also prospective for high base metal content (Bundtzen, 2001). Note: This author has not verified whether these intercepts represent true widths. The author has also converted intervals from imperial to metric notation, and grades from oz/ton to g/tonne

Subsequent drilling in 2001 and 2002 extended the alteration zone considerably but did not encounter significant gold grades (Bundtzen 2002).

Log-transformed correlation coefficient matrices for Road Metal core samples indicate that gold is moderately correlated with silver (0.62), bismuth (0.58), arsenic (0.67), and lead (0.62). In contrast, silver has a strong correlation coefficient with bismuth (0.92), antimony (0.82), and lead (0.77). The silver is almost certainly associated with the bismuth-antimony-lead sulfosalts identified in core from RM-00-04, but the weak correlation coefficients between gold and the above-mentioned elements suggest that gold occurs in a separate metallogenic setting than silver (Bundtzen, 2001).

These data suggest the presence of metallic zoning in a large and complex hydrothermal system at the Road Metal prospect. Geological, geochemical, and magnetic features all indicate that mineralization occurs along multiple, steep to vertical-dipping, northeast-trending greisen zones at least 230 m (750 feet) wide and 1,280 m (4,200 feet) long. It is not known to the author whether these represent true widths. Overall style of mineralization and age of host plutonic rocks at the Road Metal prospect are consistent with several intrusion-hosted and/or intrusion-related deposit settings in the Tintina Gold Belt, such as the Fort Knox, Eagle (Dublin Gulch), East Divide, Casino, and Taurus gold ± copper ± polymetallic settings. The intrusion-related gold systems have been a focus of metal exploration in East-Central Alaska and Yukon, Canada (Bundtzen, 2001).



Figure 7: Feldspar porphyritic monzonite dyke, Road Metal pit

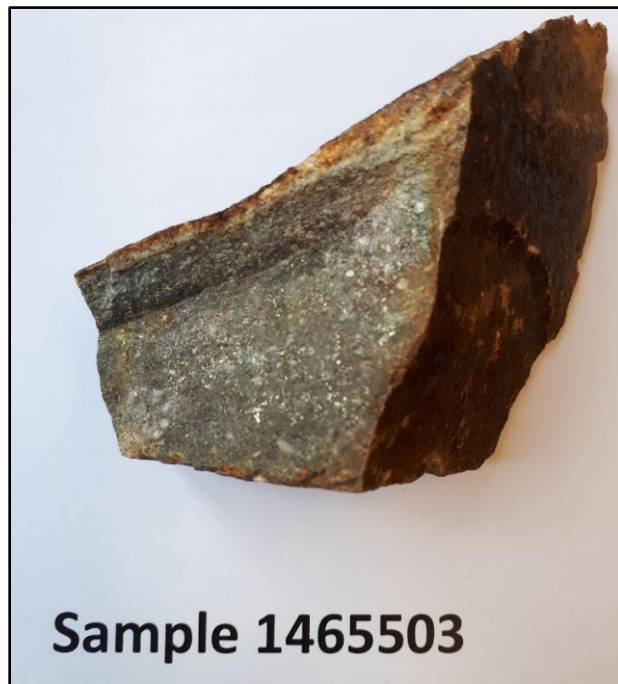


Figure 8: Sample 1465513, Feldspar Porphyritic Monzonite, Road Metal pit

7.3.2 Yarger Lake Prospect

The Yarger Lake prospect is located about 10 km southeast of the Road Metal prospect and is exposed in a barrow pit and in road cuts within 30 m of the Alaska Highway right-of-way. It consists of northeast-trending, high-angle to vertical shear zones and greisen-like veins hosted in iron-stained, medium to coarse-grained biotite granite interpreted as part of the Northway “Klotassin” plutonic suite (Harris, 2002). Inspection by Mr. Schulze in 2019 indicates this prospect is hosted by the Dawson Range batholith.



Figure 9: Roadcut exposure, Yarger Lake prospect

Shears and veins cut granitic rocks throughout the entire extent of the 70-meter wide Yarger Lake pit area. The most obvious mineralization occurs as a series of thin, northeast-trending, quartz-sulfide-sericite veins which are accompanied by strong and conspicuous manganese staining. Disseminated pyrite, galena, and tetrahedrite occur in several veins, but most exposures are extensively oxidized and sulfide minerals have been destroyed. A single sample collected by North Star geologists during the 2001 season contained 219 ppb Au, 4.5 g/t Ag, 198 ppm As, and 184 ppm Pb.

During 2002, North Star collected 45 rock chip samples at the Yarger Lake prospect (Harris 2002). This included sampling of narrow quartz-vein hosted gold-polymetallic mineralization at the “north mineralized zone”. At this zone, six of eight rock chip samples collected at specific locations contained, from north to south: 133 ppb, 98 ppb, 1,650 ppb, 586 ppb, 559 ppb, and 339 ppb Au. These six samples also contained 10 - 66 ppm Bi, 194 - 916 ppm Pb, 2.2 - 7.3 g/t Ag, and 1,320 - 5,170 ppm Mn (Figures 9, 10). The remaining two rock-chip samples collected in the “north mineral zone” did not return elevated gold values but contained anomalous Bi (17 - 163 ppm), Pb (278 - 378 ppm), and Ag (3.0 to 4.0 ppm) values. Mineralized quartz veins in the north mineral zone trend at N040°-070° E beyond the area shown in Figure 9. Samples collected south of the “north mineral zone” also contained elevated Pb, Ag, Bi and Zn, but no elevated Au values. All samples from the Yarger Lake prospect returned only slightly elevated As, suggesting that the zone is, in general, arsenic poor (Harris 2002).



Figure 10: Banded quartz vein, Yarger Lake prospect (Sample 1465502)

7.3.3 *Geochemical Anomalies*

In addition to the Road Metal and Yarger Lake prospects, nine geochemical anomalies were discovered by North Star between 1999 and 2002. Seven of these were bedrock anomalies and two were significant soil anomalies. Detailed descriptions of each of these anomalies are provided in Table 6 of the Exploration History section.

In 2014, seven areas were selected as being highly prospective and labeled Areas 1 through Area 7 (Table 7). Some of these prospective areas were discovered by North Star and the remainder were new prospects. Of these seven areas, Area 6 and Area 7 are prospective Au-Cu-Mo anomalies and are the focus of current exploration work by Tectonic. Detailed descriptions of these two areas are included in Section 9 below.

Table 7: Chart of occurrence names between 2002 and 2015

2015 Name	2002 Name
Area 1	Beaver Creek SE
Area 2	Cheneathda Hill NW
Area 3	Proximal to Yarger Lake Prospect
Area 4	New Prospect
Area 5	Cheneathda hill East
Area 6	New Prospect
Area 7	New Prospect

The VABM Ball SW showing comprises a 60-cm wide shear zone exposed in an Alaska Highway roadcut. It hosts chalcocite and chrysocolla with azurite and malachite staining. It is also associated with silicification, phyllic, and weak argillic alteration. This showing represents remobilized copper-gold mineralization from an unknown source.

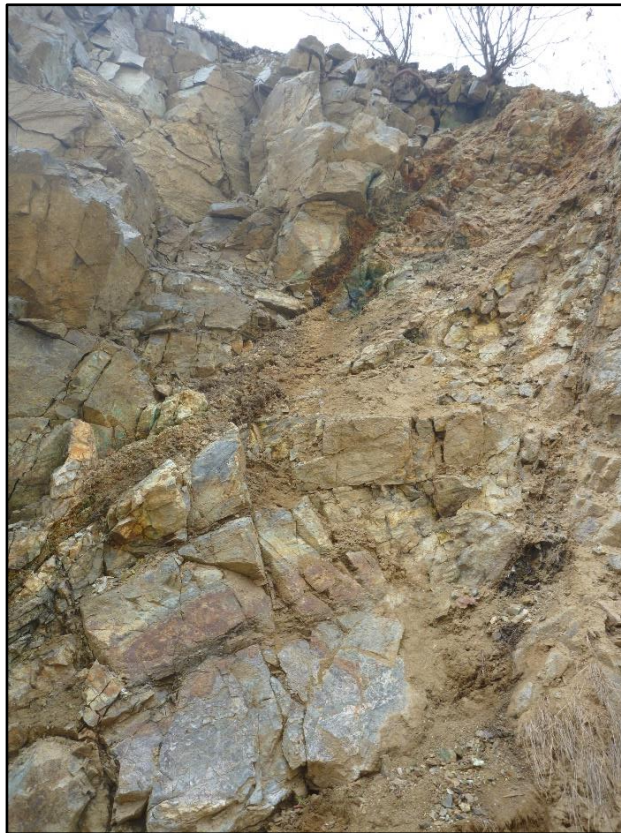


Figure 11: Copper staining at the VABM Ball occurrence.

The 2019 due-diligence property visit included inspection of the “Road Warrior” target northwest of the Road Metal pit. The prospect comprises moderately pyritic coarse-grained diorite, likely a phase of the Dawson Range batholith. Minor quartz-feldspar porphyritic dykes emplaced within the batholithic rocks show a porphyritic texture similar to mineralized copper-gold porphyry systems, and also similar to dykes at the Road Metal pit.



Figure 12: Quartz-feldspar porphyritic monzonite dykes, Road Warrior occurrence

8 DEPOSIT TYPES

The main deposit setting targeted to date is porphyry-style Cu-Mo-Au mineralization. Porphyry deposits are large, low-to medium-grade Cu-Au±Mo deposits in which ore minerals are largely structurally controlled (veins, stockworks, crackle zones, breccias) and are spatially and genetically related to felsic to intermediate porphyritic intrusions. Porphyry deposits range in age from Archean to Recent, but most are Jurassic or younger. Porphyry deposits typically occur in subduction related, continental-and island-arc settings. Hydrothermal alteration is extensive and typically zoned (Figure 13). Zones typically consist of a core potassic-altered zone (K-feldspar and/or biotite) and an outer propylitic zone (chlorite, quartz, epidote and calcite). Zones of phyllic alteration (quartz, sericite, pyrite) and argillic alteration (quartz, illite, pyrite, calcite plus clays and micas) commonly form a zonal pattern between the potassic and propylitic zones, or can be irregular and/or superimposed over older alteration. Metals associated with porphyry deposits include Au, Cu, Mo, Ag, Zn, Pb, and Sn. Sulphide mineralogy associated with porphyry deposits is varied, but typically includes pyrite, chalcopyrite, bornite, molybdenite and/or tennantite. A typical sulphide zonation includes a chalcopyrite ± bornite core surrounded by an Au-poor pyrite-rich halo, lending itself to the “Donut-shaped” chargeability signature commonly associated with Cu-Au porphyry deposits (Sinclair, 2007).

A common zonal pattern of sulphide mineralization associated with porphyry deposits comprises a core area of quartz stockwork-hosted and disseminated copper sulphide mineralization, surrounded by a pyrite halo typically deficient in economic metals. Vein stockwork and disseminated mineralization occurs within

the upper portion of the core intrusion and commonly within adjacent older host rock. Outbound from the pyrite halo, a radial pattern of vein-style lead-zinc-silver mineralization occurs, grading progressively through high grade “Bonanza-style” quartz veins, and lastly into lower pressure-temperature epithermal mineralization.

Several multi-element anomalies have been identified the Northway property that are consistent with porphyry metal assemblages. In the early 2000s the Yarger Lake, Midway East, Bitters Creek, VABM Ball SW, Cheneathda Hill NW, Cheneathda Hill East and Silver Creek anomalies were identified. The typical metal assemblage for these anomalies consists of $Au \pm Cu \pm Ag \pm Zn \pm Pb \pm Bi$. Multi-element geochemical and chargeability anomalies consistent with porphyry systems are seen at Areas 6 and 7.

The Northway property is located within the Interior Porphyry Belt that hosts the Mosquito, Paternie, Asarco, Bluff and Taurus porphyry occurrences. Interior Porphyry Belt porphyry occurrences are confined to the Y1 sub-terrain (see Regional Geology section) and are thought to be associated with Cretaceous and early-Tertiary porphyritic felsic subvolcanic stocks (Foster, 1994). The porphyritic felsic to intermediate dykes at the Northway property are of a similar age to these.

Within Yukon, several porphyry-style systems occur within the 74 Ma Prospector Mountain Suite. These include the Casino deposit near the Coffee Creek deposit in west-central Yukon, and the Sonora Gulch porphyry system somewhat to the east of this. These occurrences may be equivalent to the Interior Porphyry Belt. The late Cretaceous Prospector Mountain Suite intrusive host rocks of the Casino deposit are also hosted by the Dawson Range batholith.

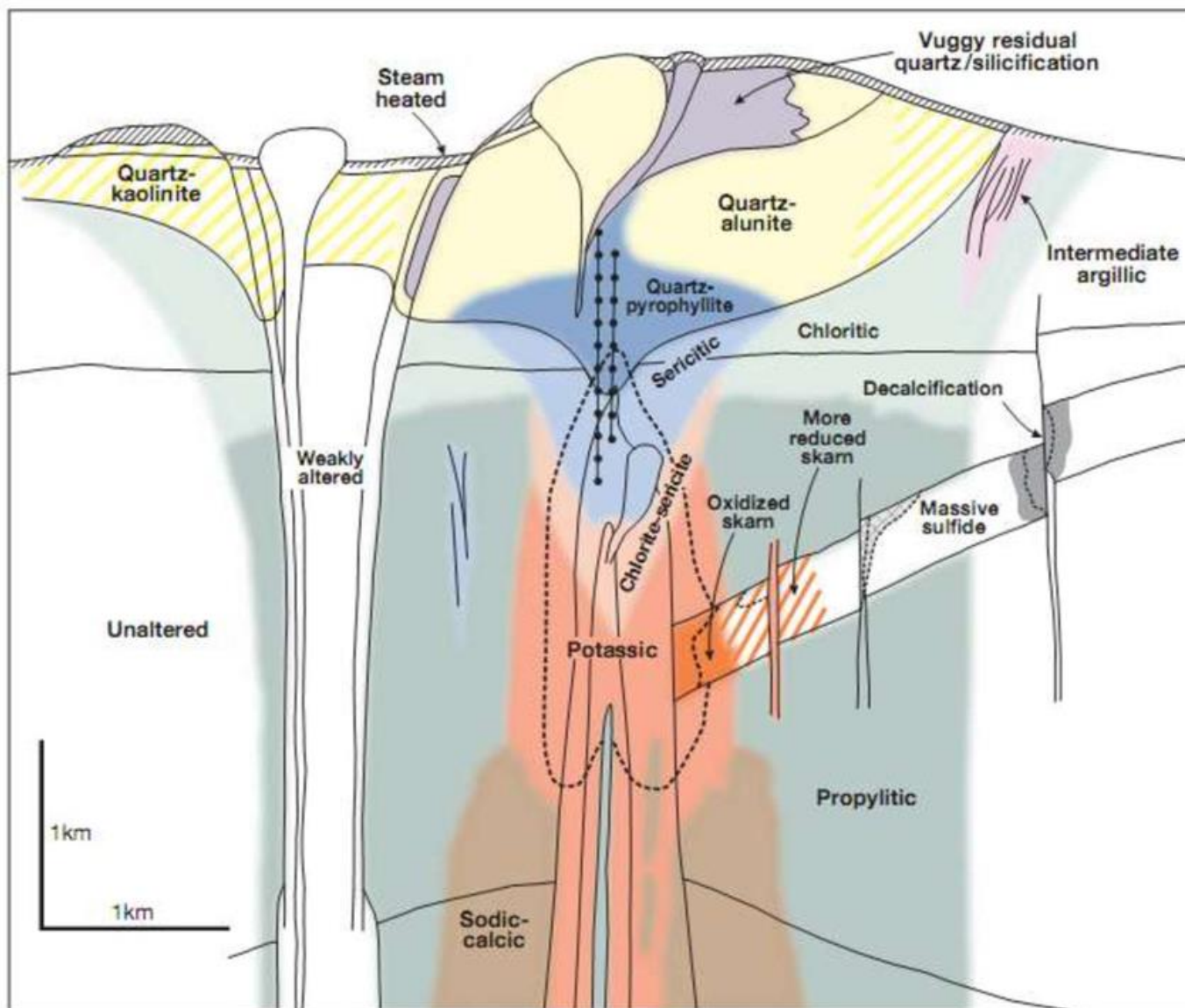


Figure 13. Generalized alteration-mineralization zoning pattern for a porphyry copper deposit (Sillitoe, 2010).

9 CURRENT EXPLORATION

Upon acquiring the lease on the Northway property in June, 2018, Tectonic Minerals Inc. completed a surface sampling and reconnaissance exploration program between July 19 and August 23, 2018. The objective of this work was to determine the potential for intrusion-related Au and/or porphyry Au-Cu or Cu-Mo-Au mineralized systems. Both reconnaissance and targeted sampling was conducted. Reconnaissance sampling included collection of ridge and spur soil samples at 400 m spacing, regional stream sediment samples, regional pan concentrate samples, and rock grab-samples. Reconnaissance geologic mapping was completed peripheral to Area 6 and the “Road Warrior” prospect. “Targeted” soil samples were collected at two grids on the Area 6 and Area 7 prospects, and rock sampling involved both chip and grab sampling from a single trench at Area 7.

9.1 RECONNAISSANCE SAMPLING

In 2018, a total of 626 ridge and spur soil samples, 282 regional stream sediment samples, 90 regional pan concentrate samples, and 30 regional rock grab samples were collected. Geologic contacts and breaks in airborne magnetic data were targeted. Previous areas of anomalous regional geochemical sampling were also targeted in this program. Stream sediment samples and pan concentrate samples were collected to augment historic soil sample results in areas of little to no bedrock exposure.

9.1.1 Ridge and Spur Soil Surveys

Four elements, Au, Cu, Mo and Zn, were chosen to illustrate the geochemical zonation seen in the regional geochemical dataset. Each element has a distinctive geochemical distribution relative to the other three elements, thus a single statistical operation to determine the anomalous threshold for all four elements is impractical. Of the 626 ridge and spur samples collected, 480 returned sub-detection gold values (<0.005 ppm Au) (histogram, Figure 14). A total of 137 samples returned Au values slightly above the detection limit, with values mainly below 0.25 ppb Au. Tectonic considered any Au values above the detection limit as anomalous. “Natural breaks” (Jenks) in the upper Au assay values are used to determine ranges of assay values (Figure 14). A total of 97% of Mo values are at 2 ppm Mo or less, resulting in a stepped data set (Figure 16), best visualized with natural breaks (Jenks). The more left skewed normal distribution seen in both copper and zinc values (Figure 15, Figure 17) is best visualized with the “progressive half” classification. The 75th percentile (≥ 41 ppm Cu, ≥ 90.25 ppm Zn) was chosen as the anomalous threshold. Sample results below detection limit values were replaced with a numerical figure of half the detection limit.

Area 6 lies to the north of the VABM Ball SW anomaly, identified in 2002 (Figure 18). Along its south margin, located on a hilltop adjacent and north of the VABM Ball SW anomaly, sampling returned weakly anomalous gold-in-soil geochemical values. These coincide with a Cu-in-soil anomaly returning values from 44 to 101 ppm Cu (Figure 19).

Area 7 lies to the north of the Yarger Lake prospect. Weakly elevated Au-Cu±Mo values were returned from several short traverse lines along its northern margin. Gold values ranged from <0.005 to 0.101 g/t Au, coincident with numerous anomalous copper values ranging from <25 to >200 ppm Cu.

Both the Area 6 and Area 7 gold-in-soil anomalies coincide with larger, robust Zn anomalies (Figure 21) returning values from 100 ppm to 350 ppm Zn. A distinct Mo anomaly was not identified (Figure 20); the

largest concentration of anomalous Mo samples occurs near the VABM Ball Hill and the VABM Ball SW anomaly.

Many samples elsewhere on the property returned isolated elevated Au values; however, no continuous anomalous zones were identified.

9.1.2 Stream Sediment

A total of 282 stream sediment and 90 pan concentrate samples were collected in 2018. New areas of interest were identified to the west of VABM Ball Hill and in the watershed to the northwest of Cheneathda Hill.

Two areas of anomalous Au-in-silt geochemical values, also returning anomalous Cu values were identified: one at the VABM Ball Hill area (Area 6) and one at the Cheneathda Hill area (Area 5). Insets A (Figures 24 and 25) and Insets B (Figures 26 and 27) provide greater resolution of these anomalies, shown in smaller scale in Figures 22 and 23.

Stream sediment samples collected from creeks flowing northwest and south from VABM Ball Hill returned anomalous Au and Cu values. Streams flowing west from VABM Ball hill did not yield anomalous Au values.

A moderately strong, consistent Au-in-silt anomaly was identified in the creek north of the Cheneathda Hill anomaly (Figure 26). Sampling along this creek also returned highly anomalous Cu values. The creek is located downslope of a large, coherent moderately strong Cu-in-soil anomaly (Figure 27). The Au-in-silt anomaly has not been adequately explained by the soil geochemical data in this area. Another patchy Au anomaly occurs in a creek that flows from the northwest. Isolated anomalous Au-in-soil values were returned from samples uphill of this stream; however, no continuous Au anomalies have been identified.

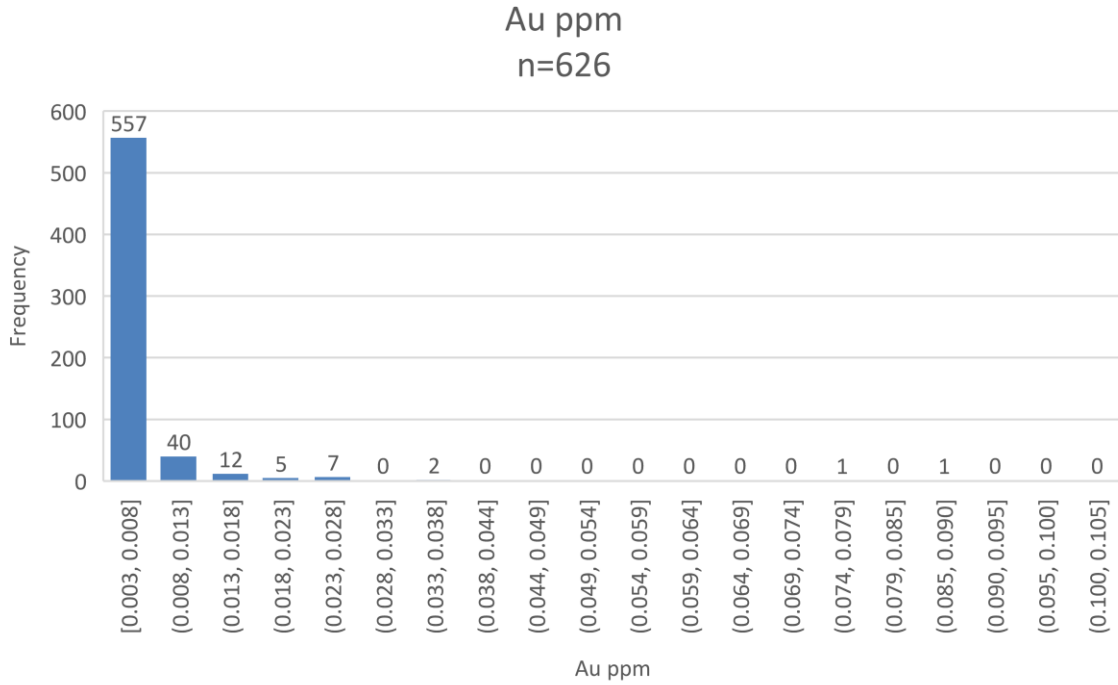


Figure 14. Histogram of Au concentrations in the Regional Soils dataset.

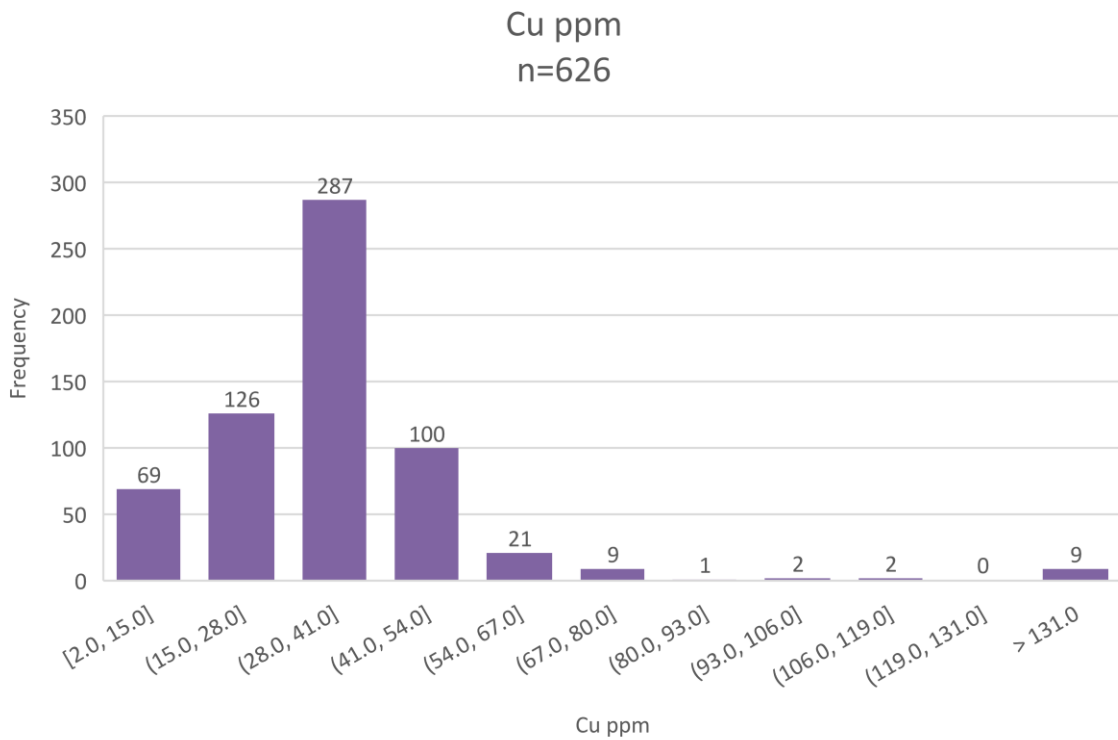


Figure 15. Histogram of Cu concentrations in the Regional Soils dataset.

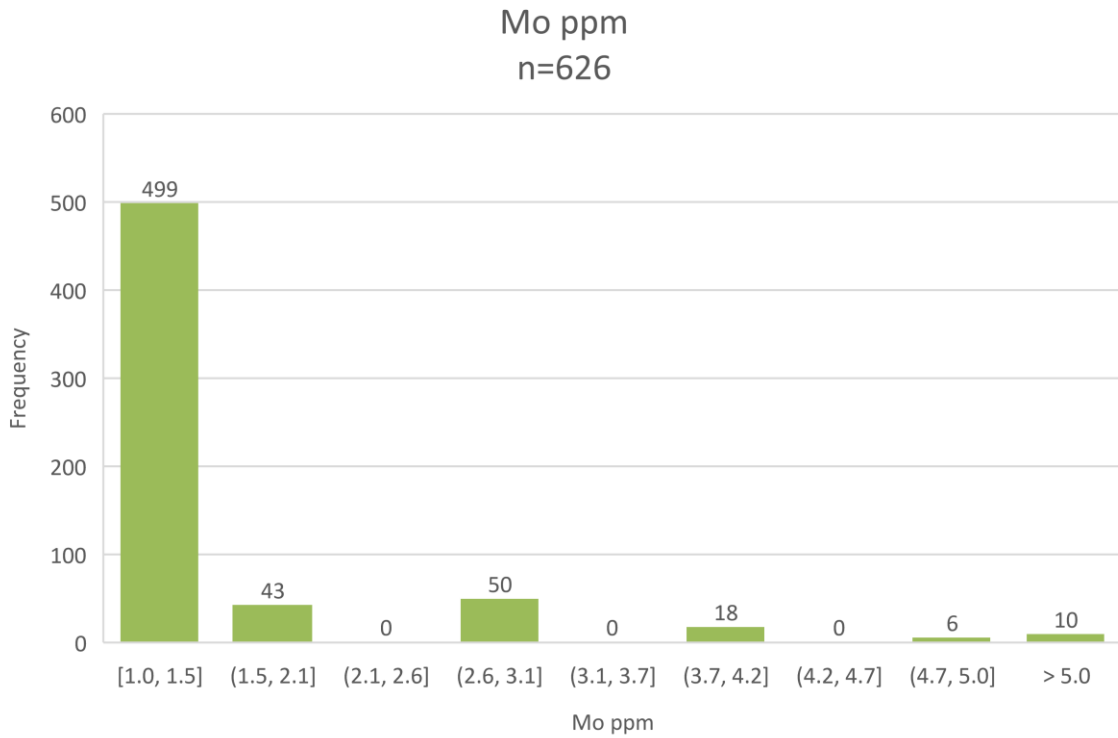


Figure 16. Histogram of Mo concentrations in the Regional Soils dataset.

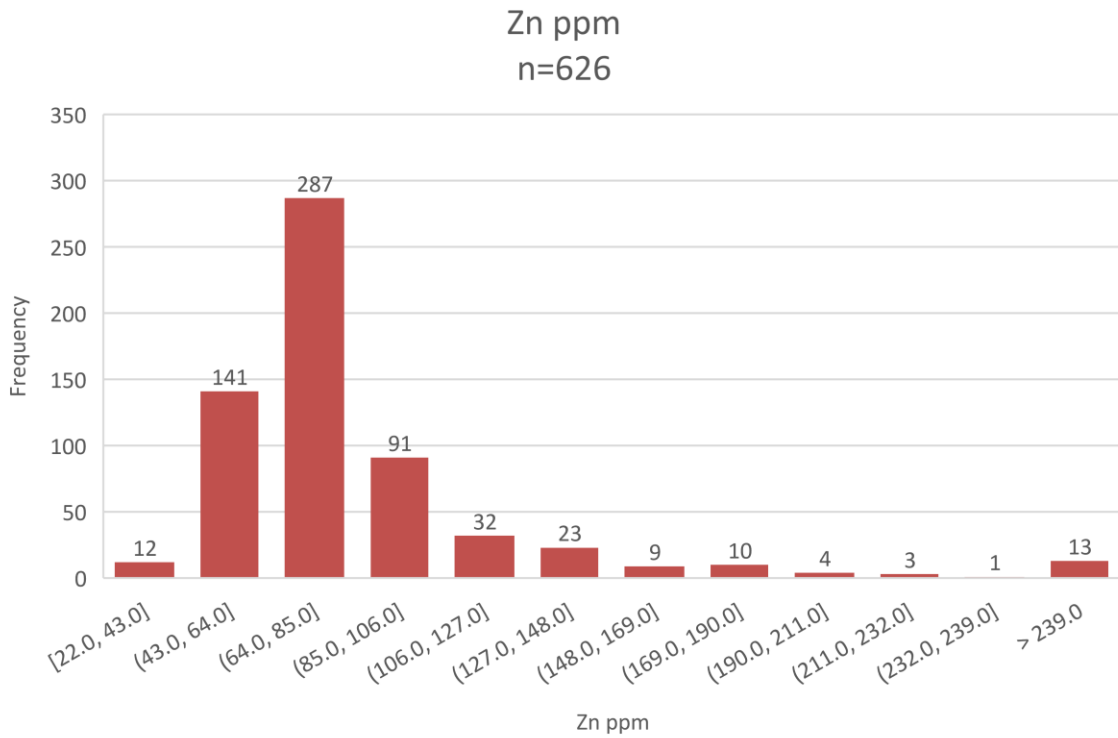


Figure 17. Histogram of Zn concentrations in the Regional Soils dataset.

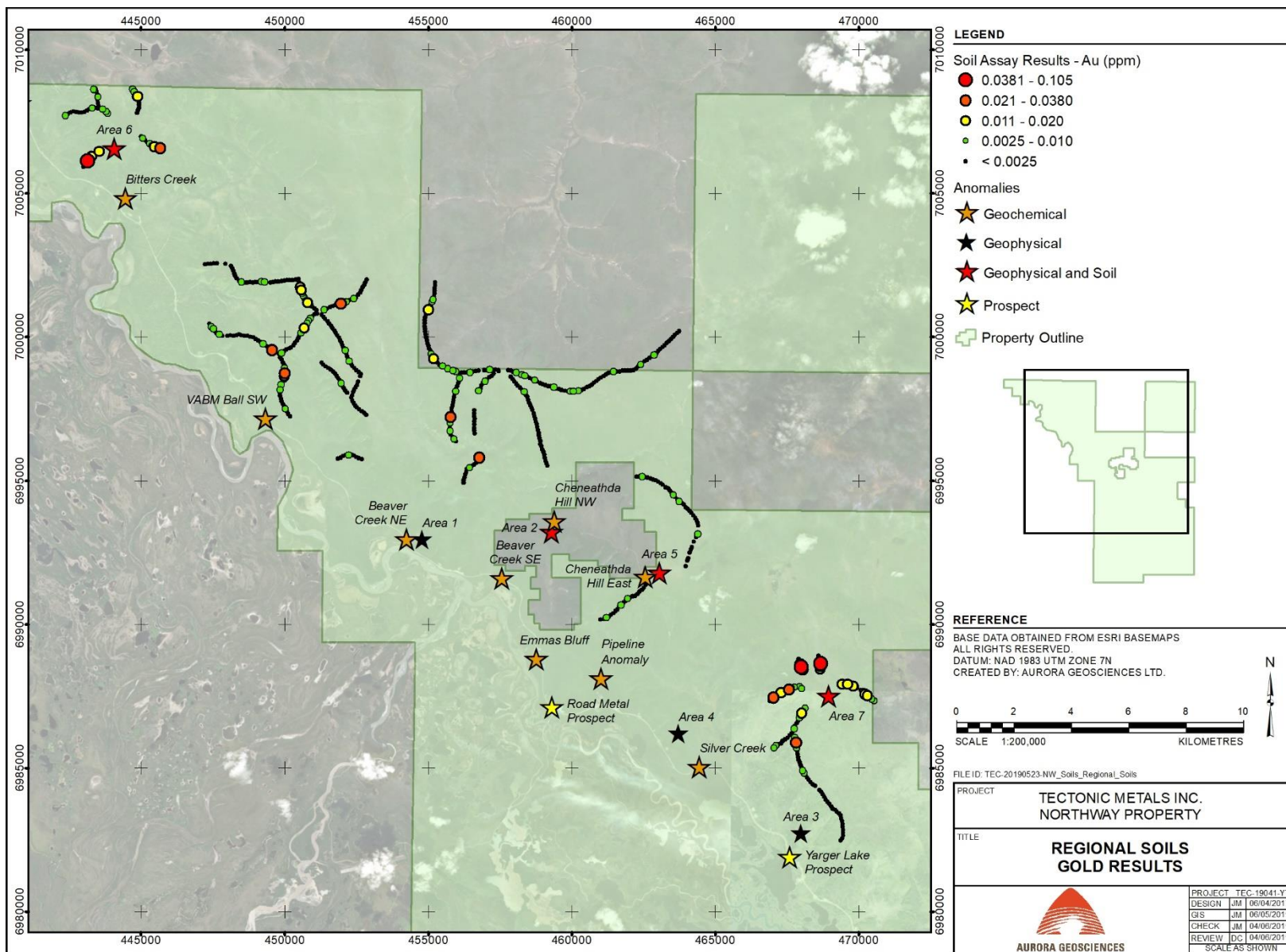


Figure 18: Gold values, regional soil sampling.

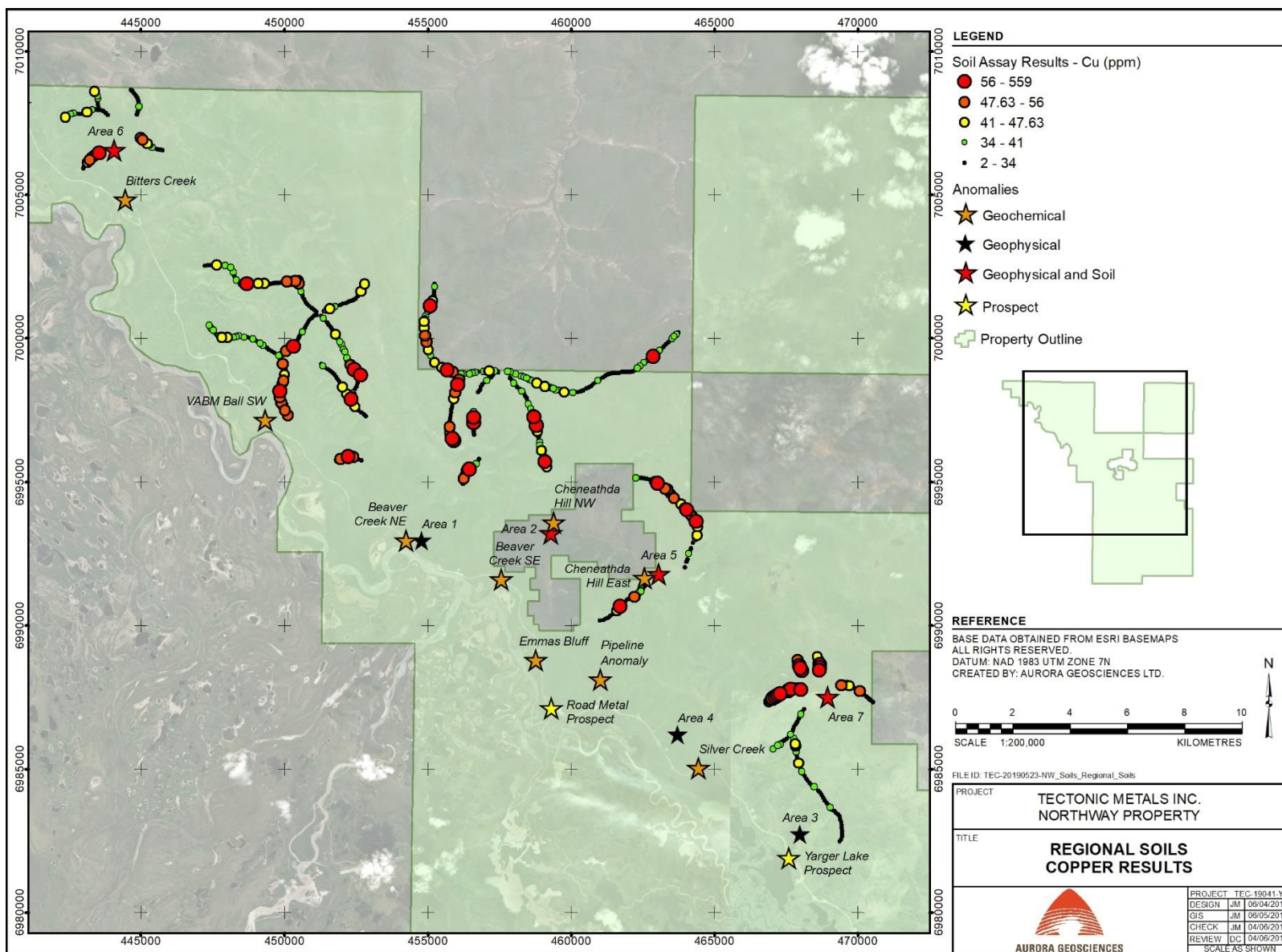


Figure 19: Copper values, regional soils.

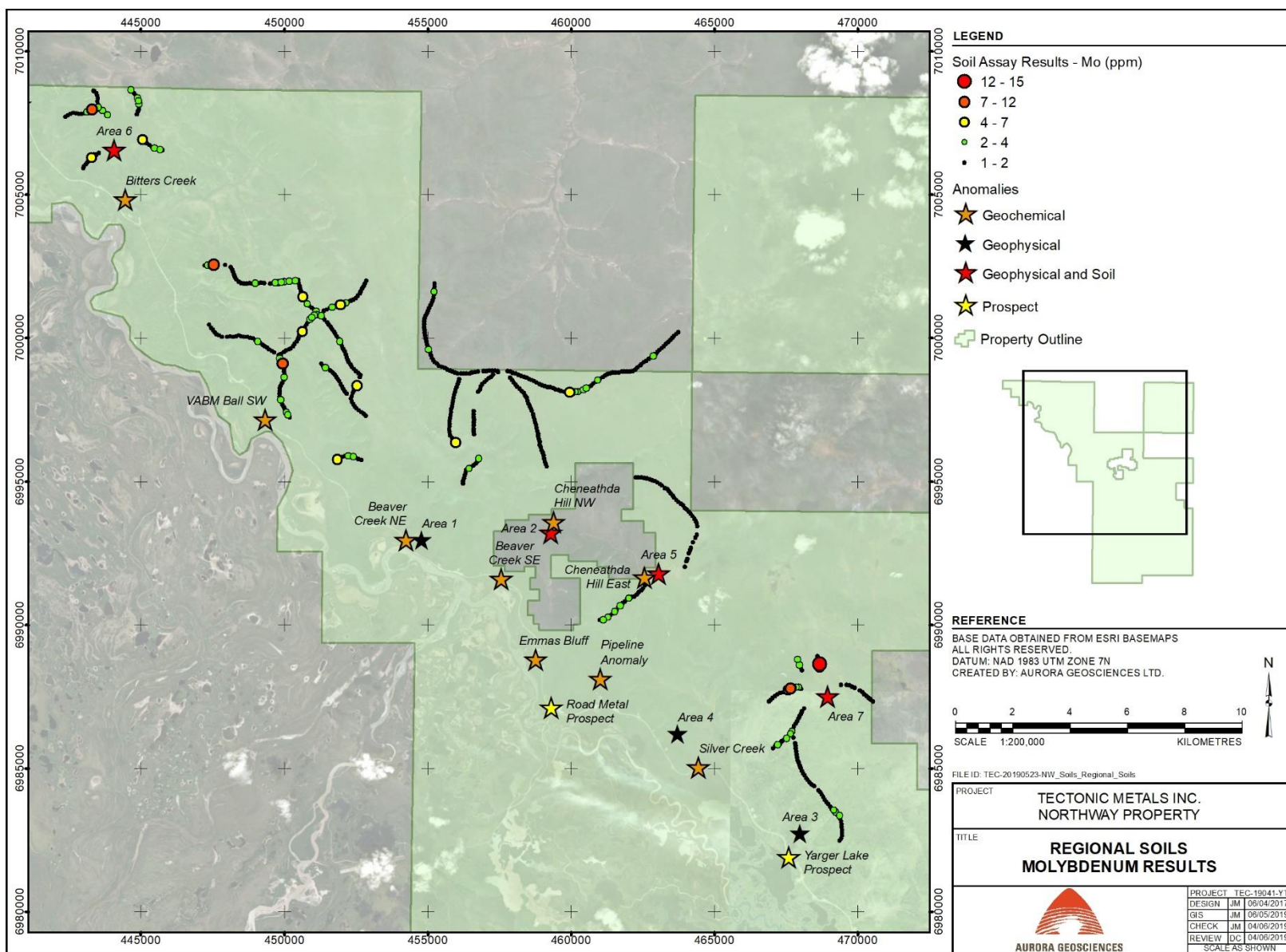


Figure 20: Molybdenum values. regional soils.

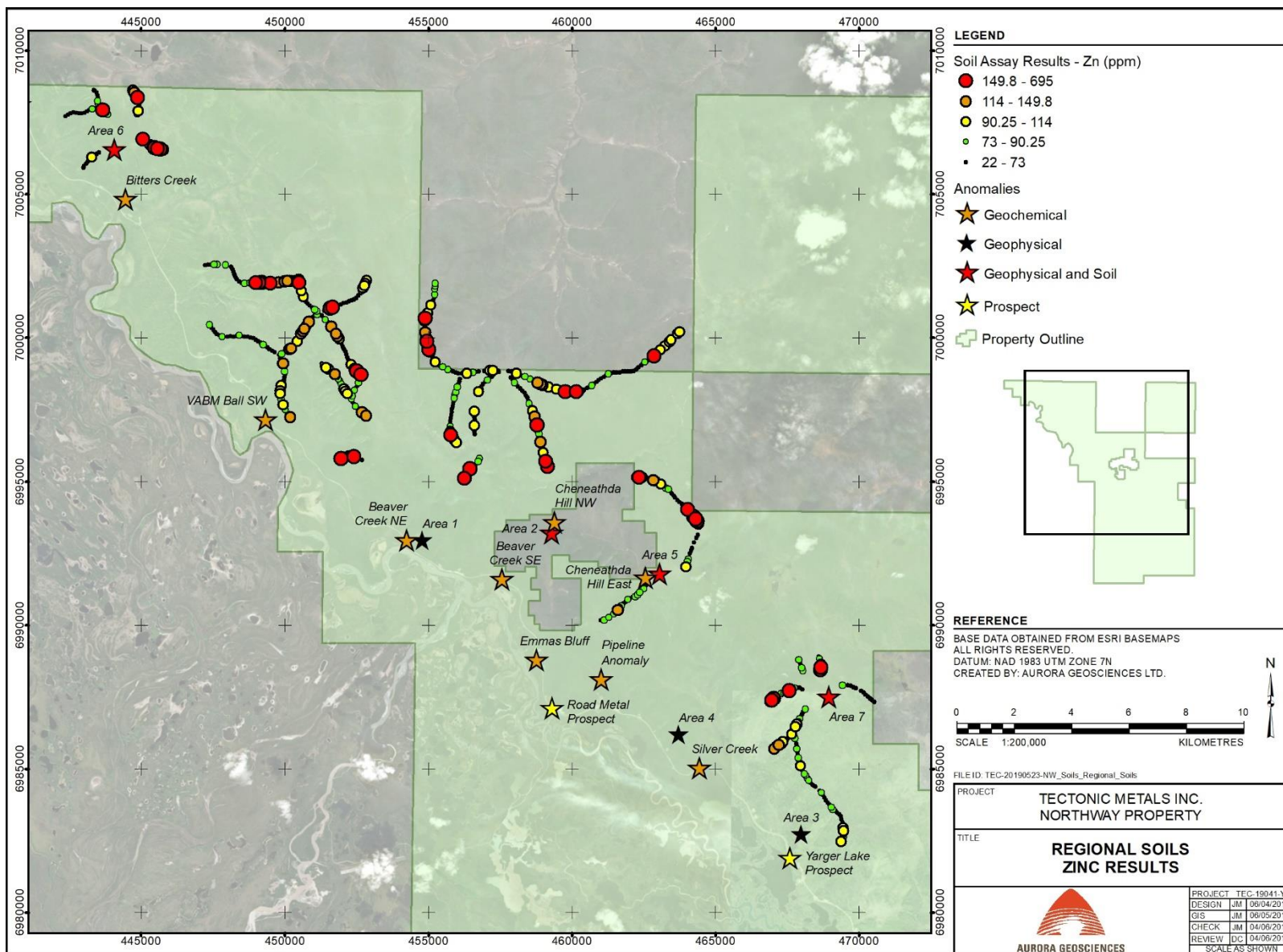


Figure 21 Zinc values, regional soils.

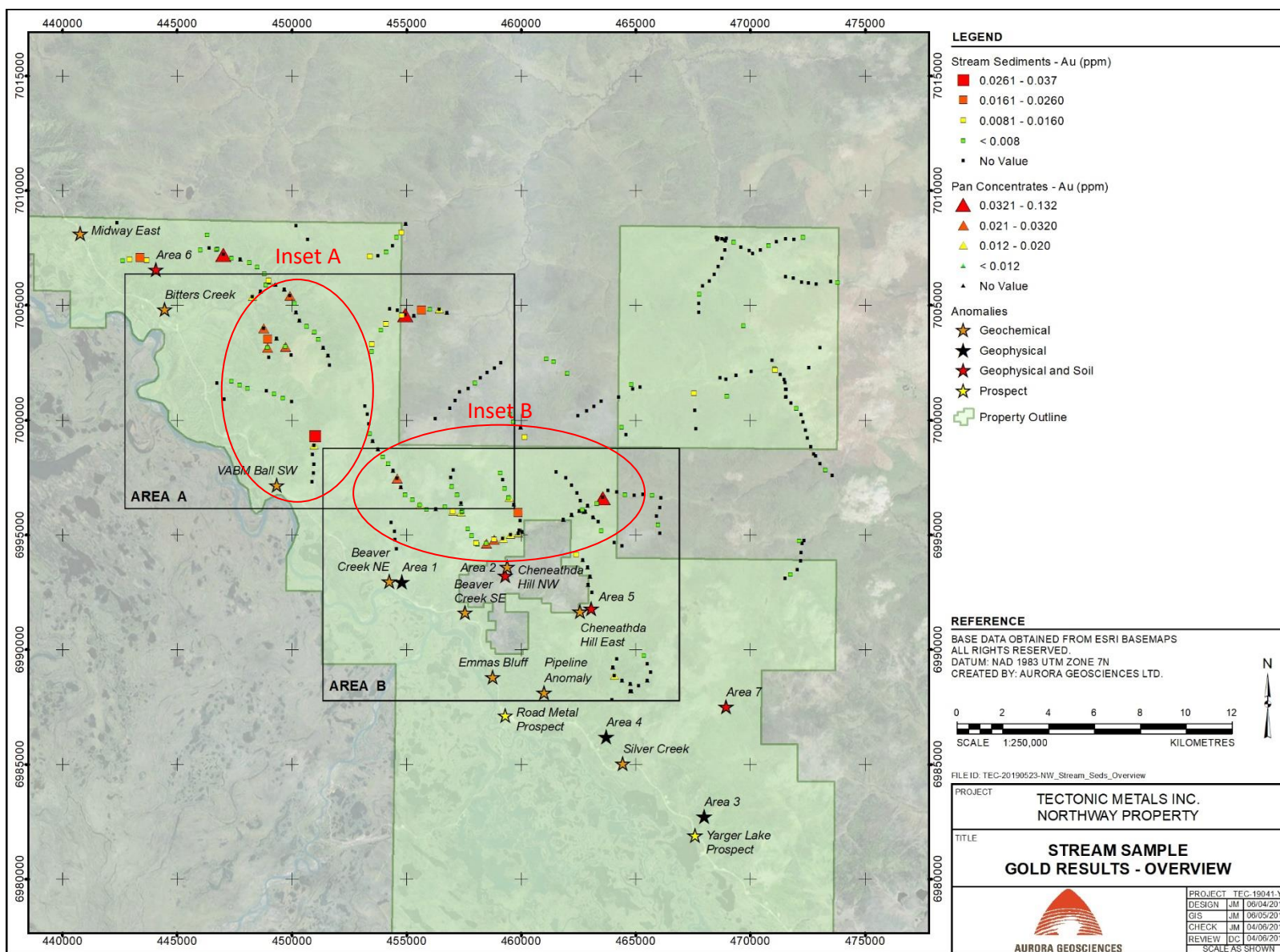


Figure 22. Gold results from Stream Sediment and Pan Concentrate sampling.

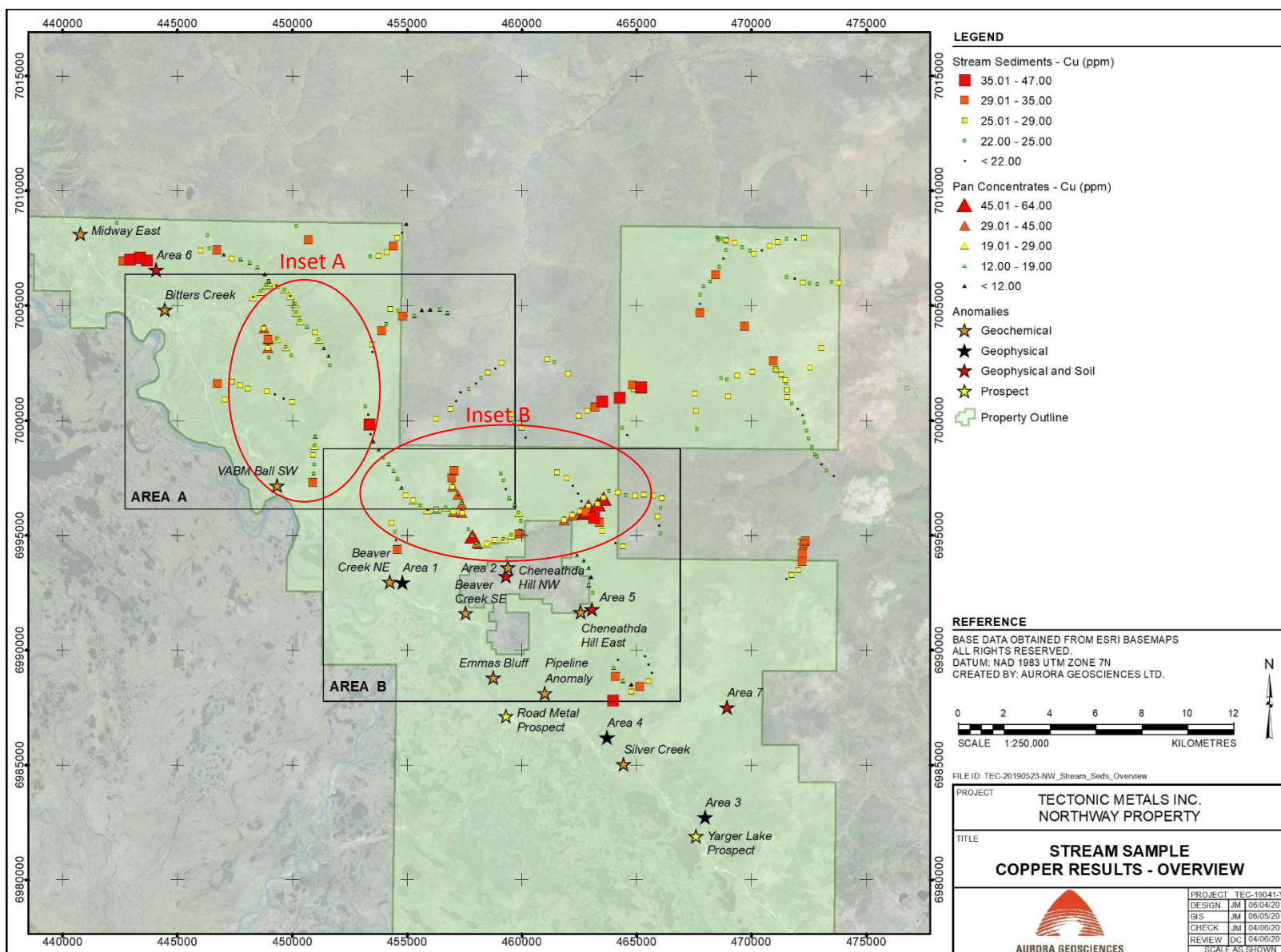


Figure 23. Copper results from Stream Sediment and Pan Concentrate sampling.

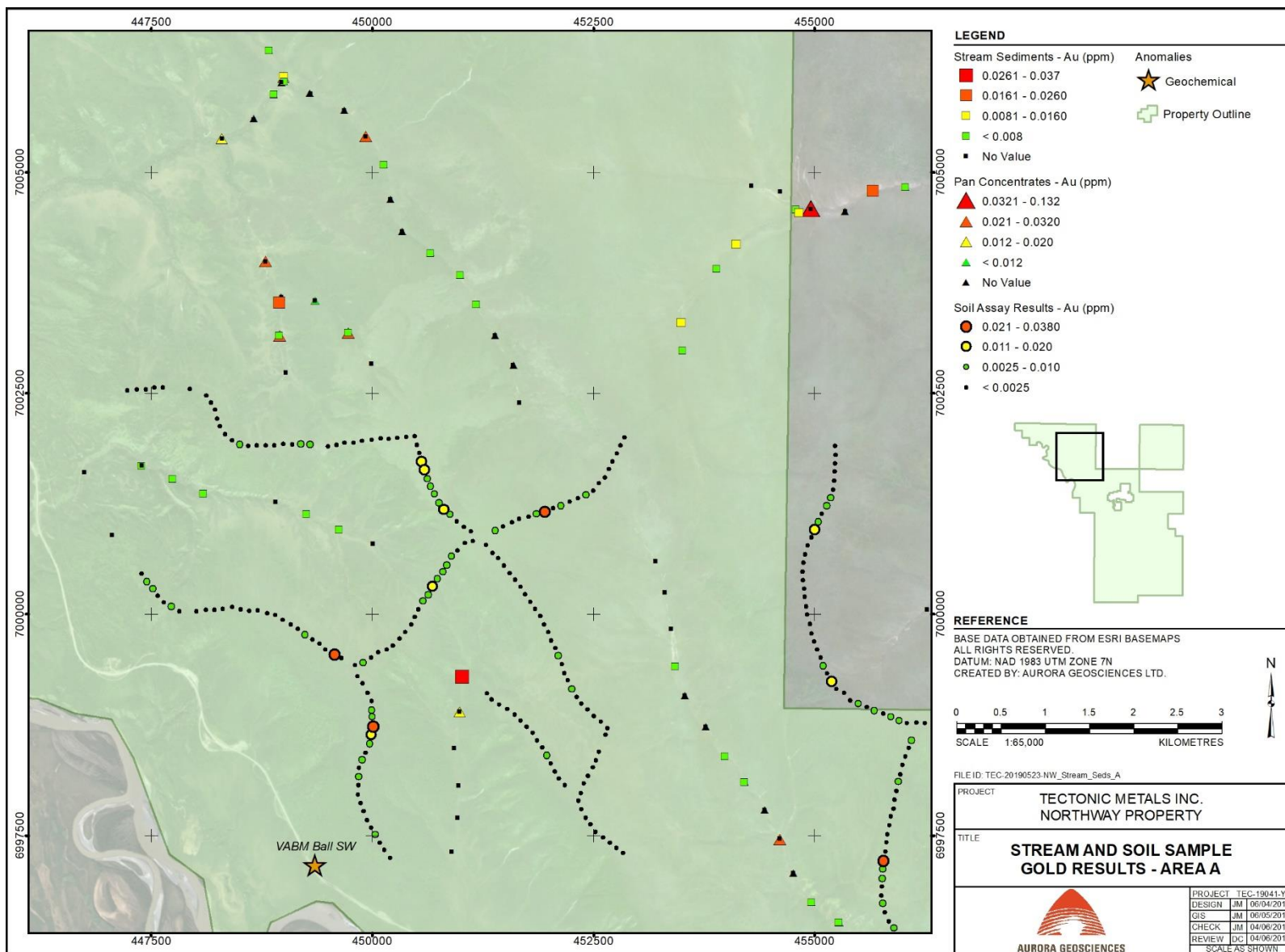


Figure 24: Inset A: Gold in stream sediments and reconnaissance soil sampling

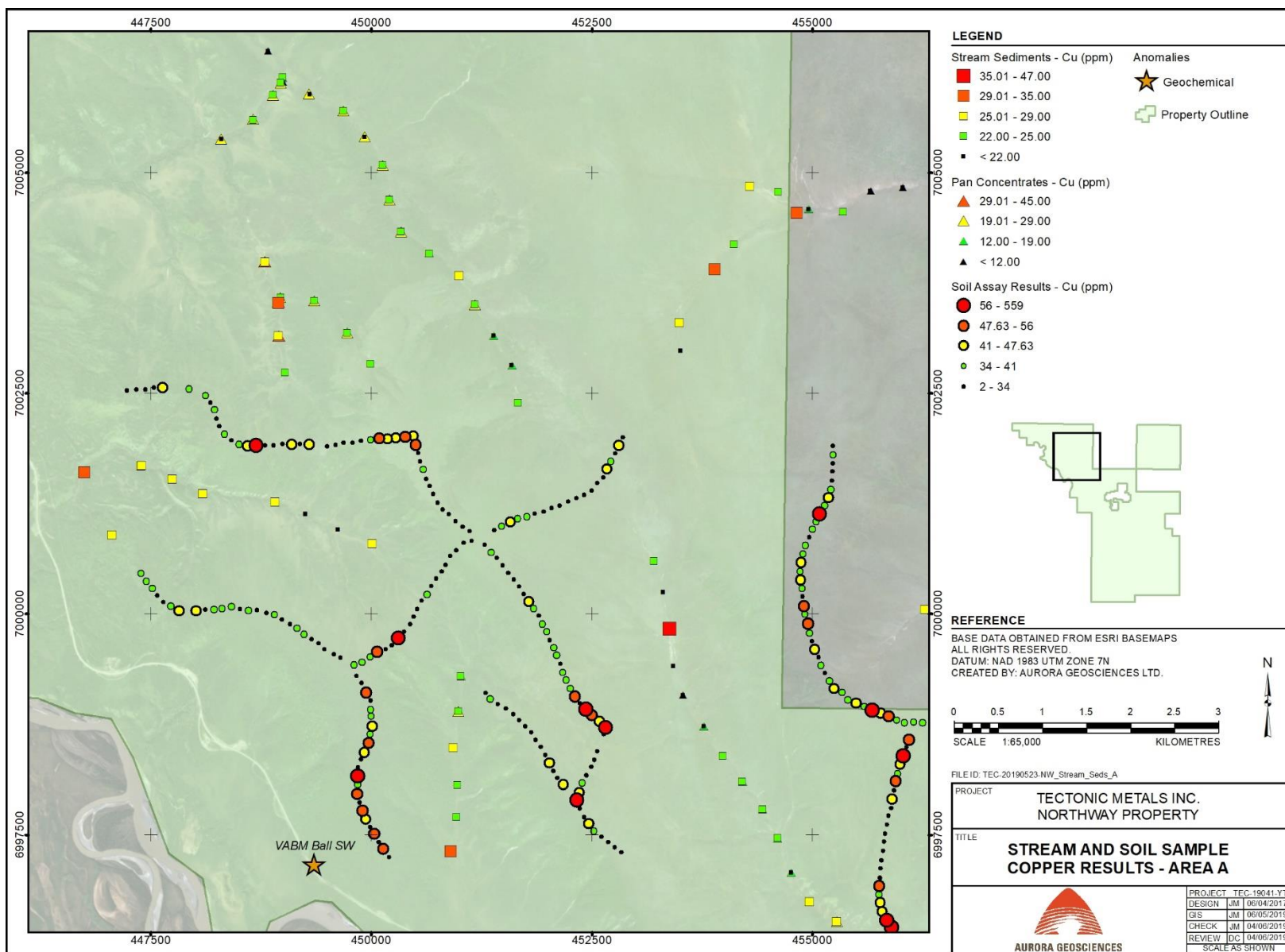


Figure 25: Inset A. Copper in stream sediments and reconnaissance soils

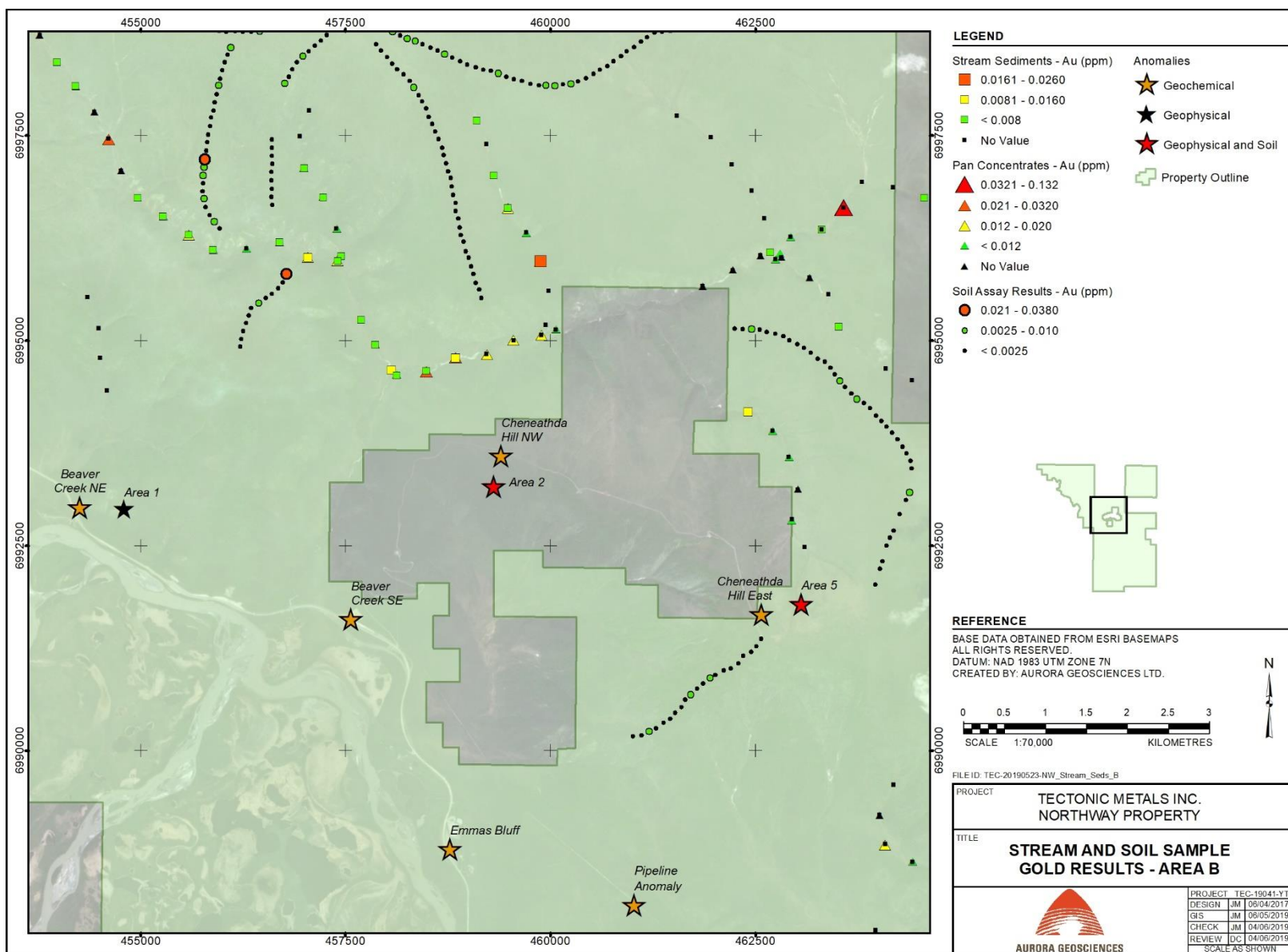


Figure 26: Inset B. Gold in stream sediments and reconnaissance soils

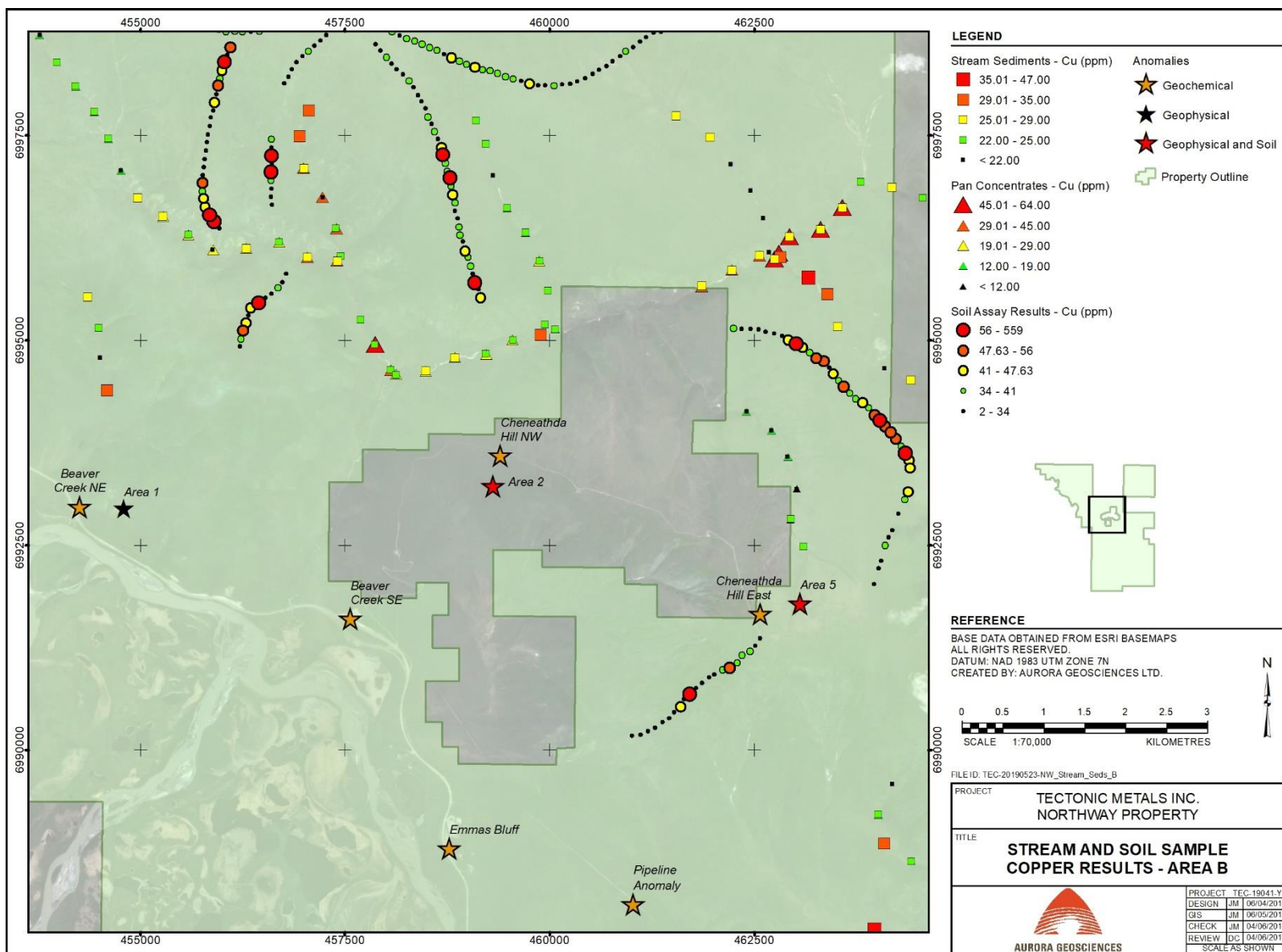


Figure 27: Inset B. Copper in stream sediments and reconnaissance soils

9.2 TARGETED SOILS

In 2018, two detailed grid soil geochemical surveys were completed on Area 6 and Area 7, respectively. Area 6 is situated at the headwaters of Bitters Creek and roughly 2.5 km from the Bitters Creek prospect identified in 2001.

At both sites, the intent was to follow up on coincident historic geophysical and geochemical anomalies.

9.2.1 Area 6

Area 6 was identified by Peter E. Walcott and Associates Ltd from an Induced Polarization survey in 2014 as prospective for porphyry-style mineralization. In 2015, Doyon completed a 261-unit soil sampling program and identified a broad Au-Cu-Mo anomaly.

In 2018, sample lines were spaced 100 m apart and orientated north-south. Samples were spaced at 50 m intervals along these lines. A total of 140 soil samples were collected by gasoline-powered soil auger at Area 6. The soil geochemical survey identified a 1,400 m-long east-west trending Cu anomaly, with values from background Cu to 597 ppm Cu (Figure 28). Anomalous Cu values show a strong correlation with Mo, and a weaker correlation with Au (Figures 29 and 30). The Mo anomaly is located within the core of the Cu anomaly, and the Au anomaly is centered to the north, overlapping the northern part of the Cu anomaly. The survey also revealed areas of anomalous zinc along the northern and southern areas of the grid. (Figure 31).

Additional ridge and spur samples were collected adjacent to Area 6 to the southwest of the anomaly. Results of these indicate Cu-Au potential extends 400 m beyond the current soil grid.

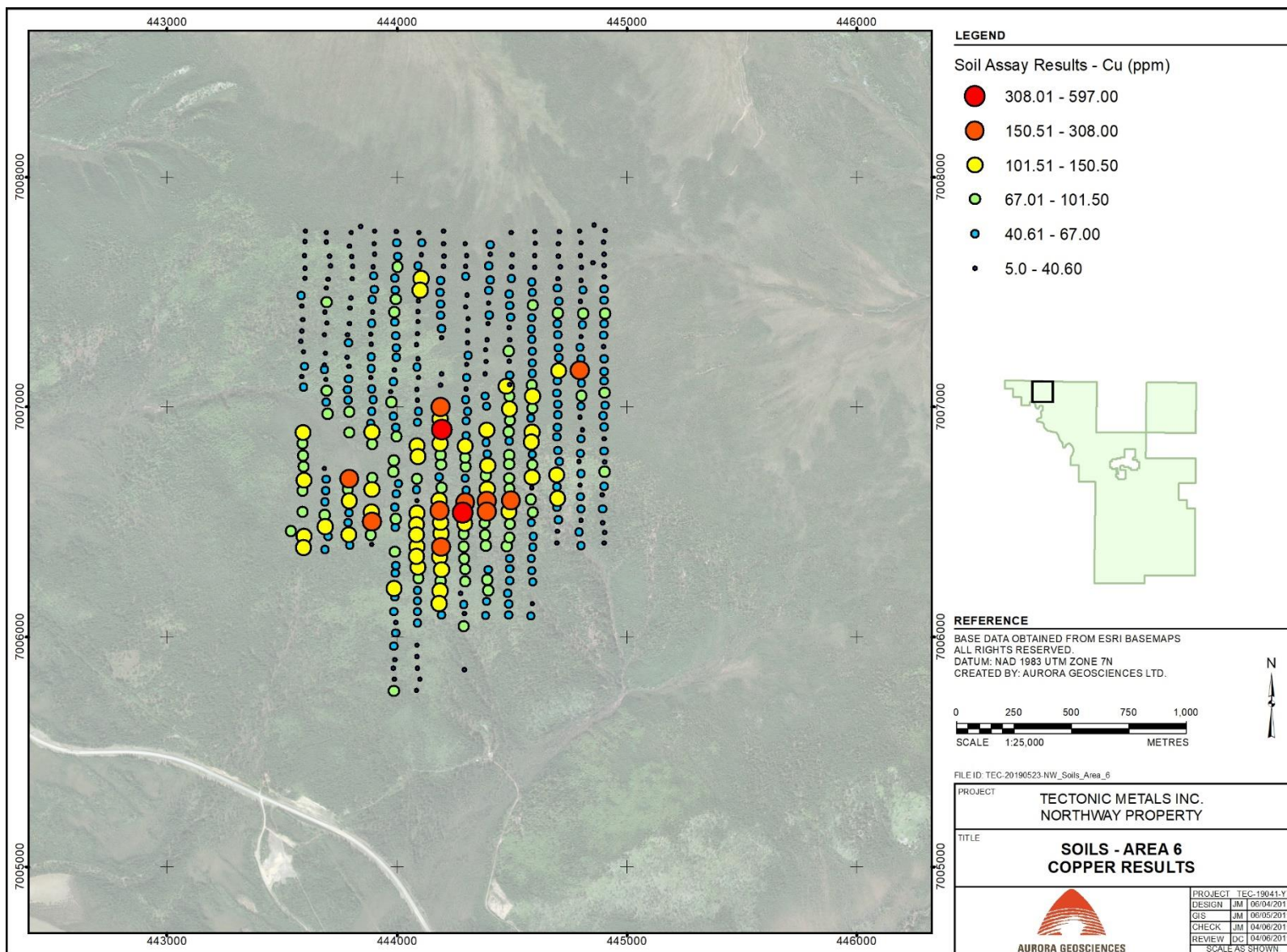


Figure 28: Copper-in-soil ranges, Area 6

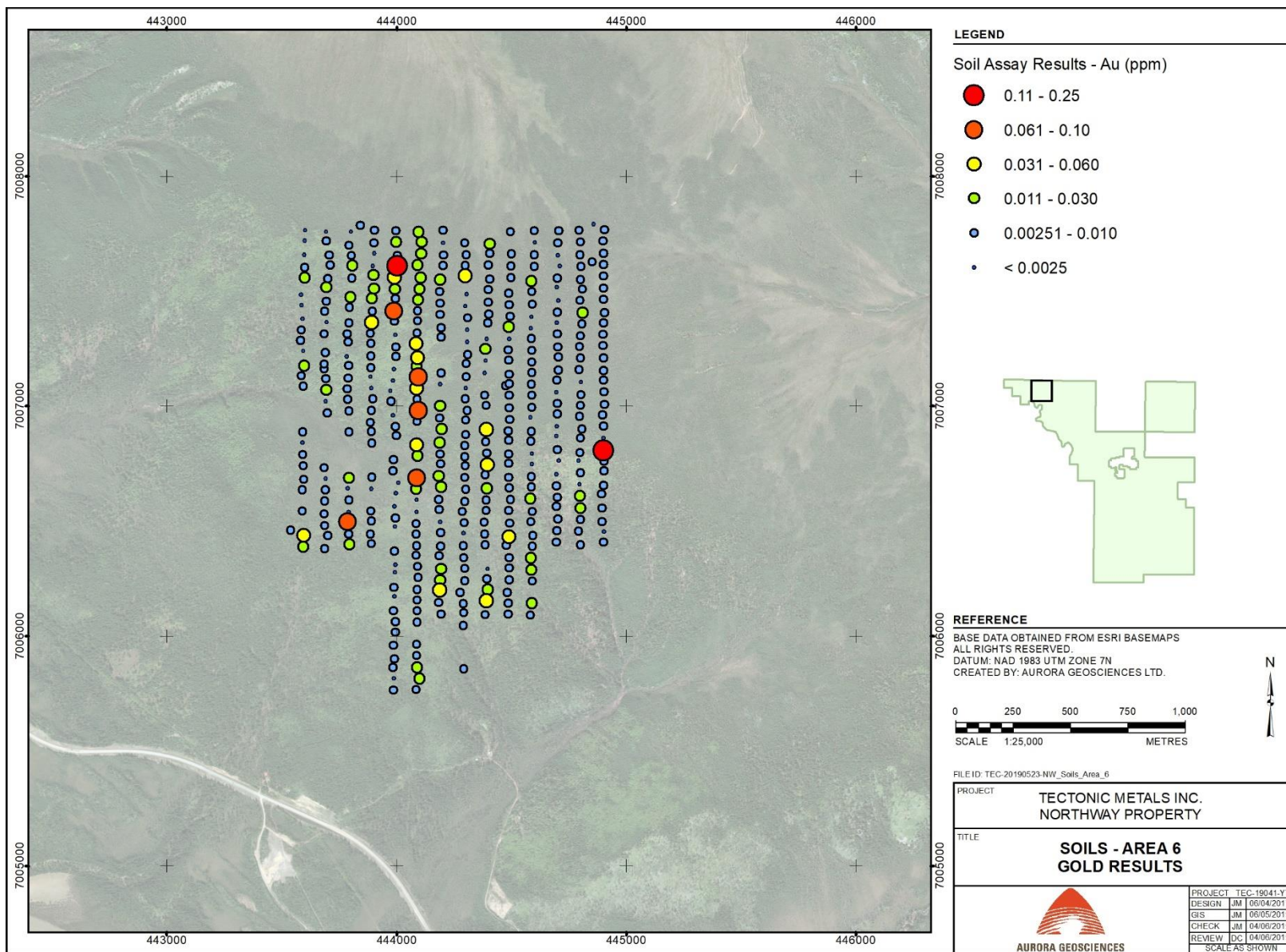


Figure 29: Gold-in-soil ranges, Area 6

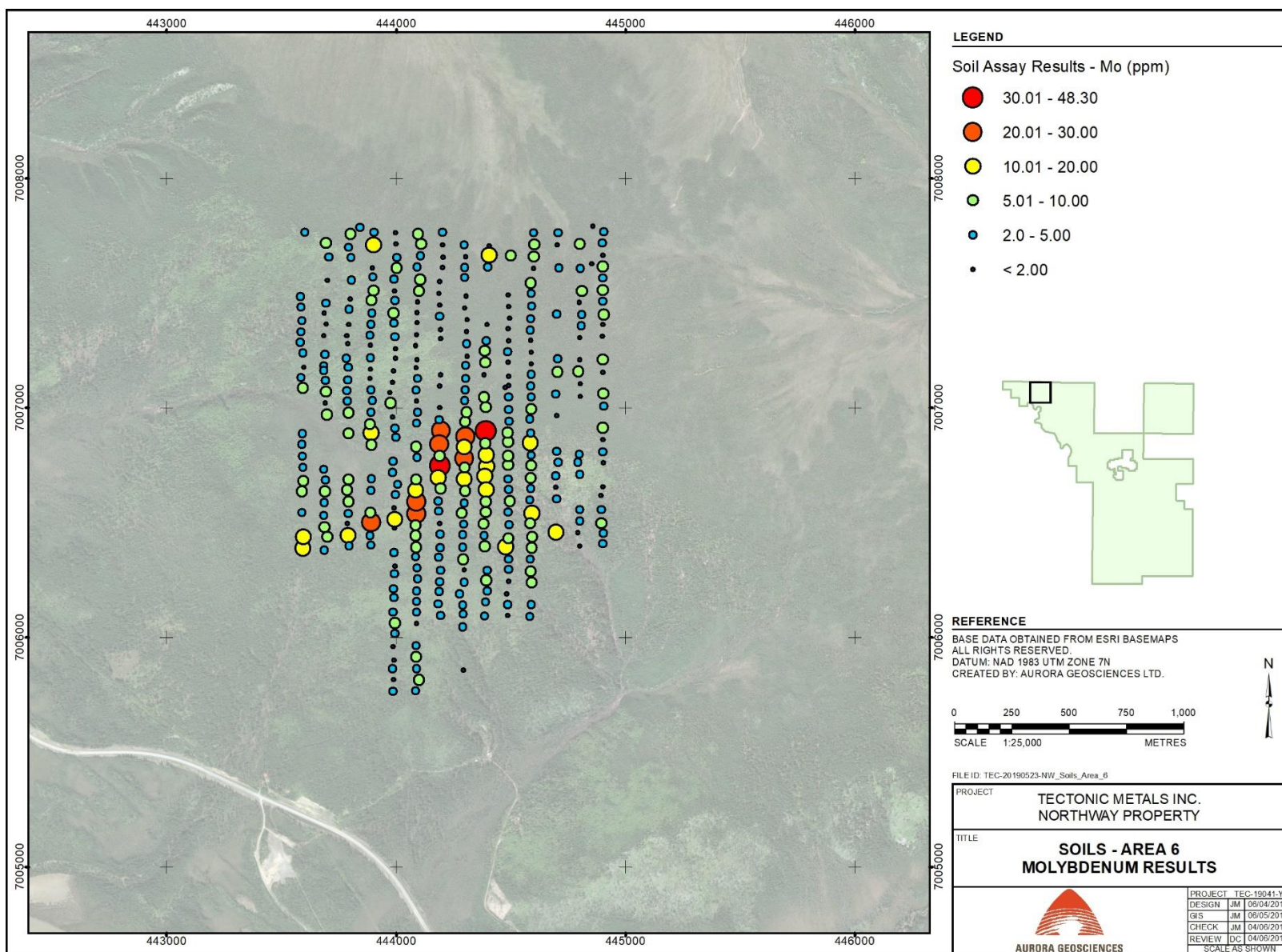


Figure 30: Molybdenum ranges in soil, Area 6

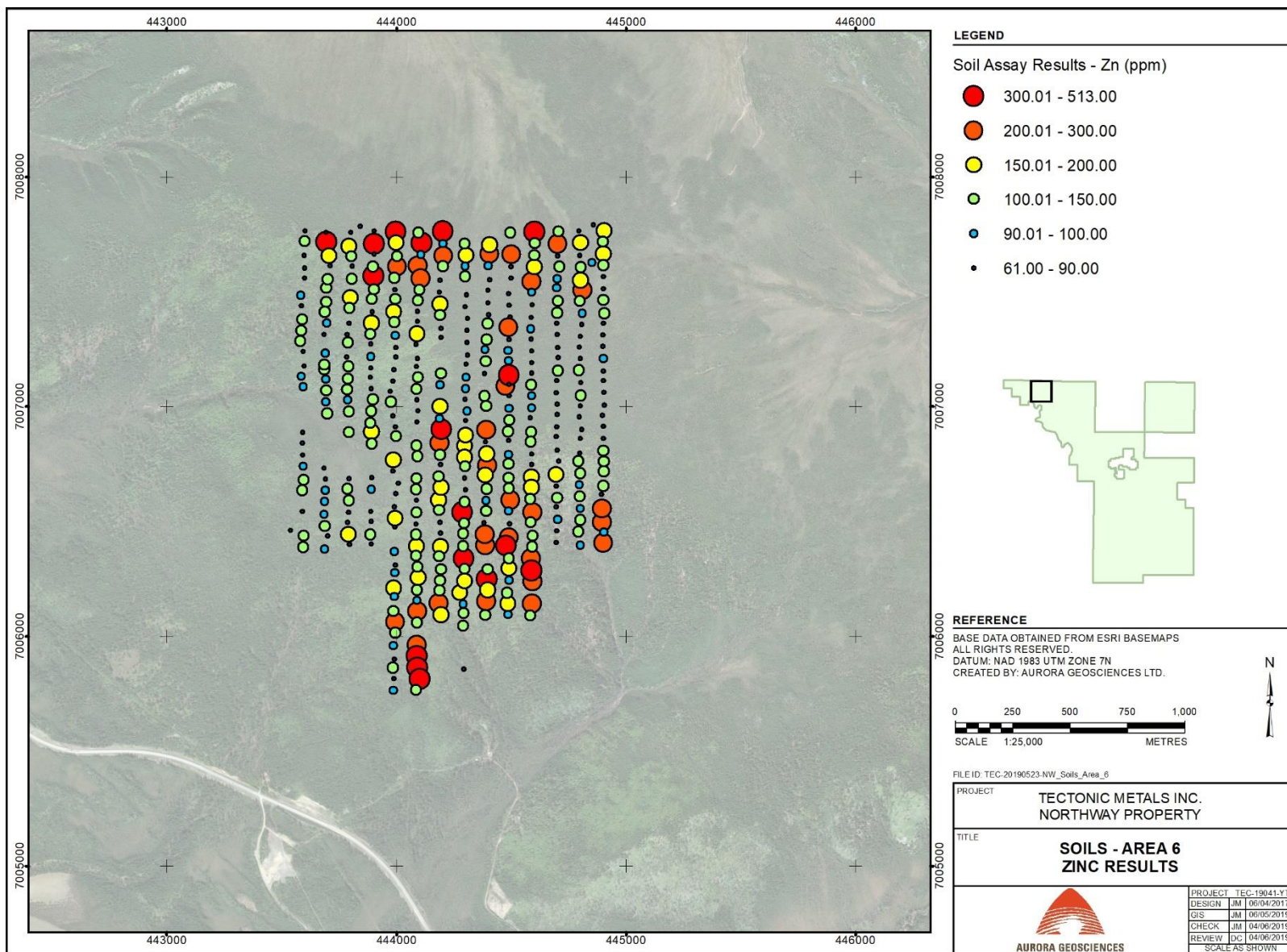


Figure 31: Zinc-in-soil ranges, Area 6

9.2.2 Area 7

A total of 186 soil samples were collected by gas-powered soil auger at Area 7, designed to extend the previously defined anomaly identified from the 2015 Doyon Ltd power auger soil survey. The 2015 soil grid consisted of 72 samples collected in north-south oriented lines spaced 200 m apart, with a 50 m sample spacing. In 2018, Tectonic infilled the existing soil lines, reducing line spacing to 100 m. Samples were collected at a 50 m spacing along the lines.

Area 7 is located on a rounded hilltop 5 km northeast of the Yarger Lake prospect along the Alaska Highway in the southeast portion of the Northway property. This area was affected by a recent (pre-2015) forest fire. No outcrop has been identified at the target, though rare exposures of subcrop and frost-heaved boulders are visible from the air.

Results from 2015 identified a patchy Au anomaly; the 2018 work provided greater resolution to the existing Au-Cu soil anomaly. Results delineated a core Au anomaly more than 800 m long and trending roughly E-W. Au values consistently exceed 100 ppb Au, to a maximum of 2,120 ppb (2.12 g/t) Au. In addition, a new, high-tenor Au-Cu soil anomaly was identified in the northeast corner of the soil grid. Soil geochemical results for Au, Cu, Mo and Zn are displayed in Figures 32 to 35. The core Au anomaly and the newly discovered northeastern anomaly are open along strike.

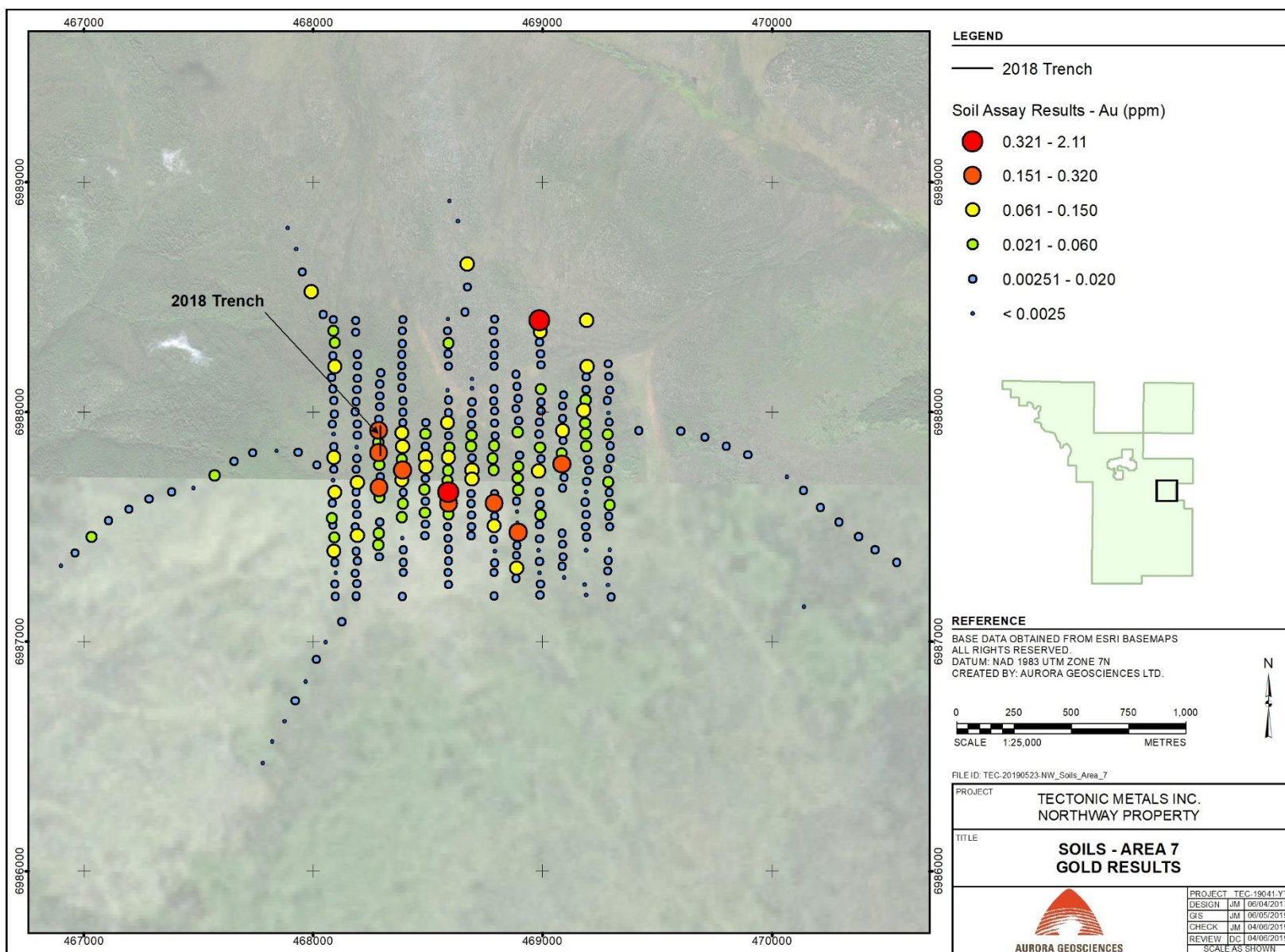


Figure 32: Gold-in-soil ranges, Area 7

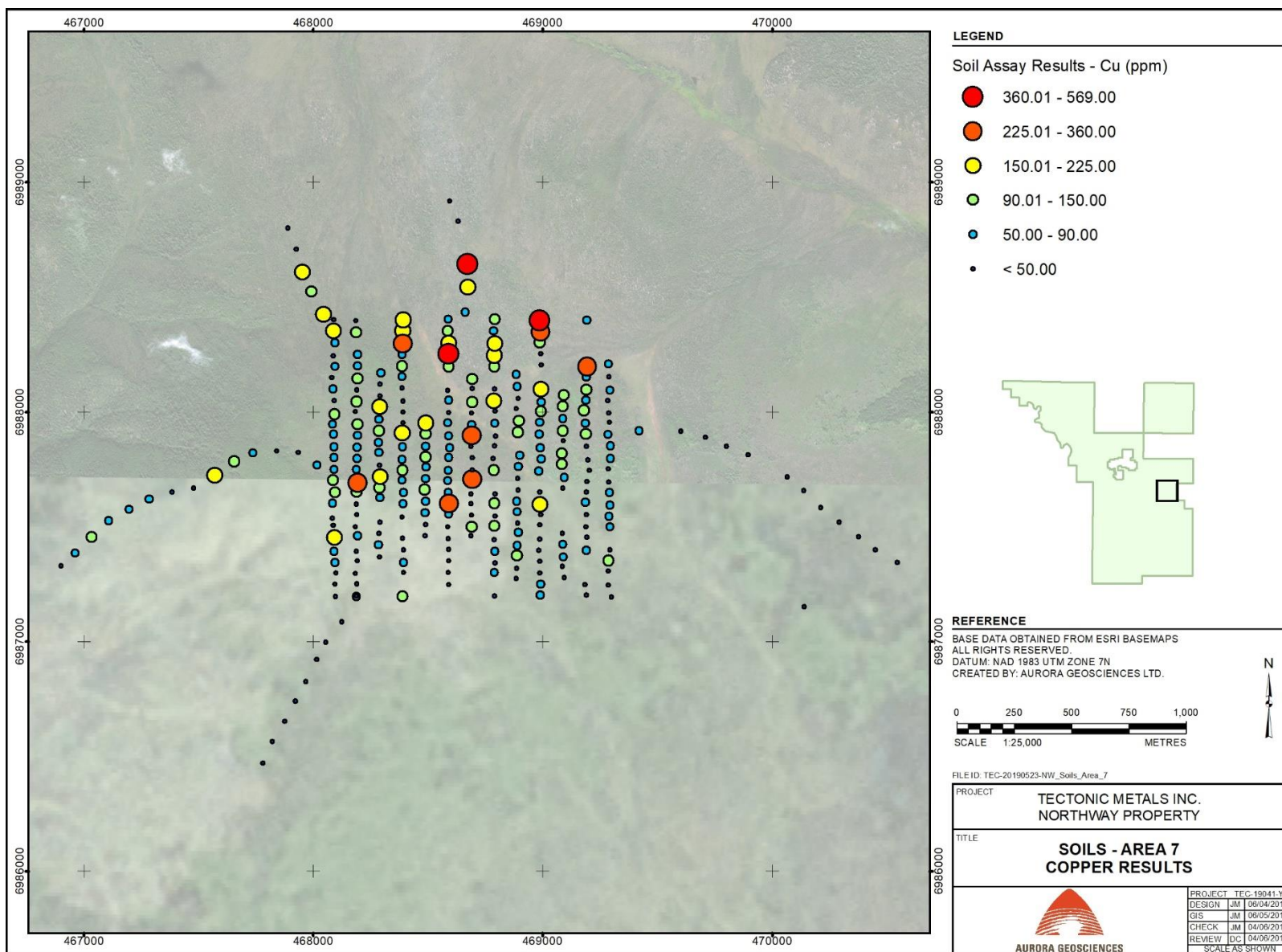


Figure 33: Copper-in-soil ranges, Area 7

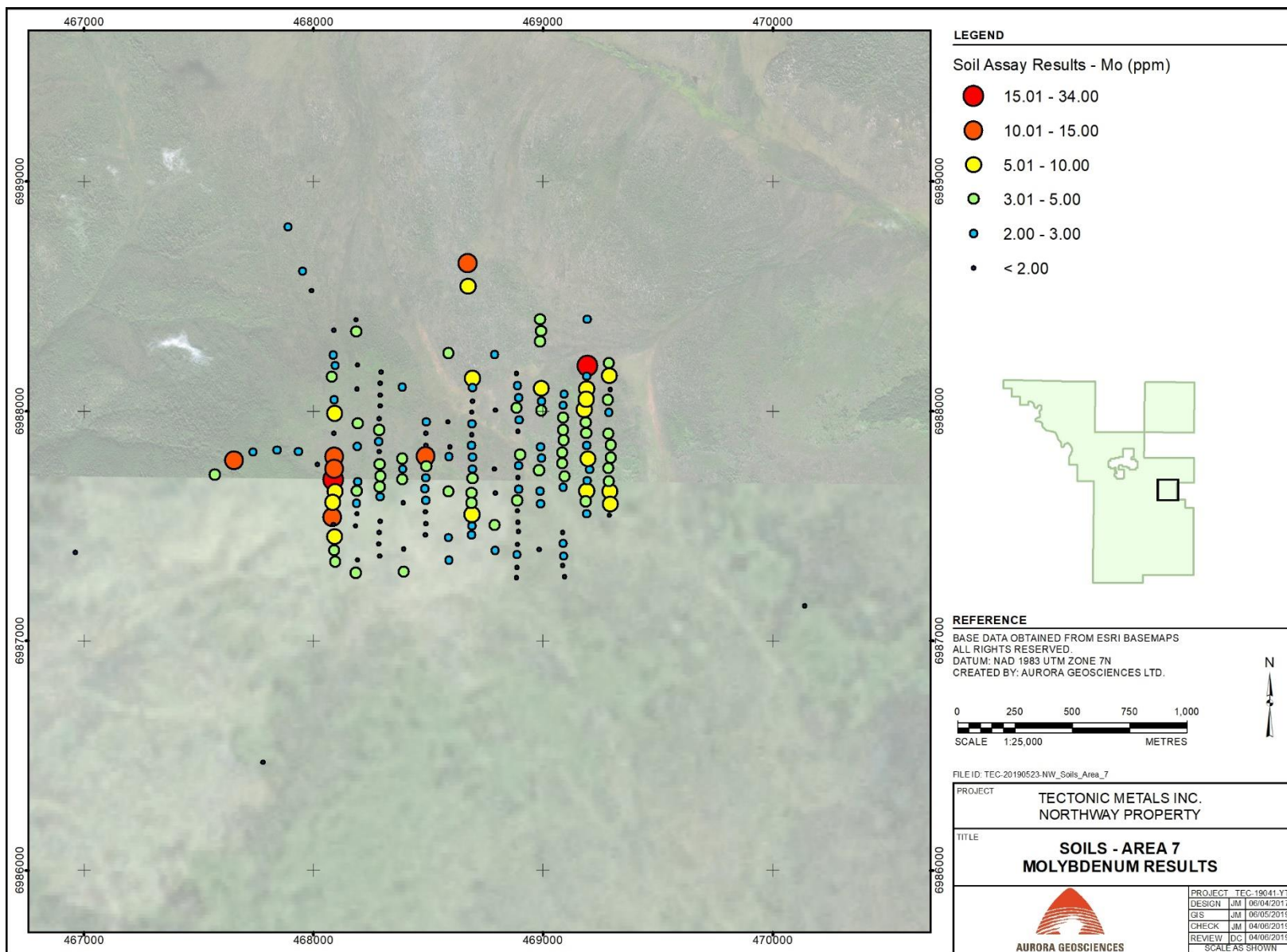


Figure 34: Molybdenum-in-soil values, Area 7

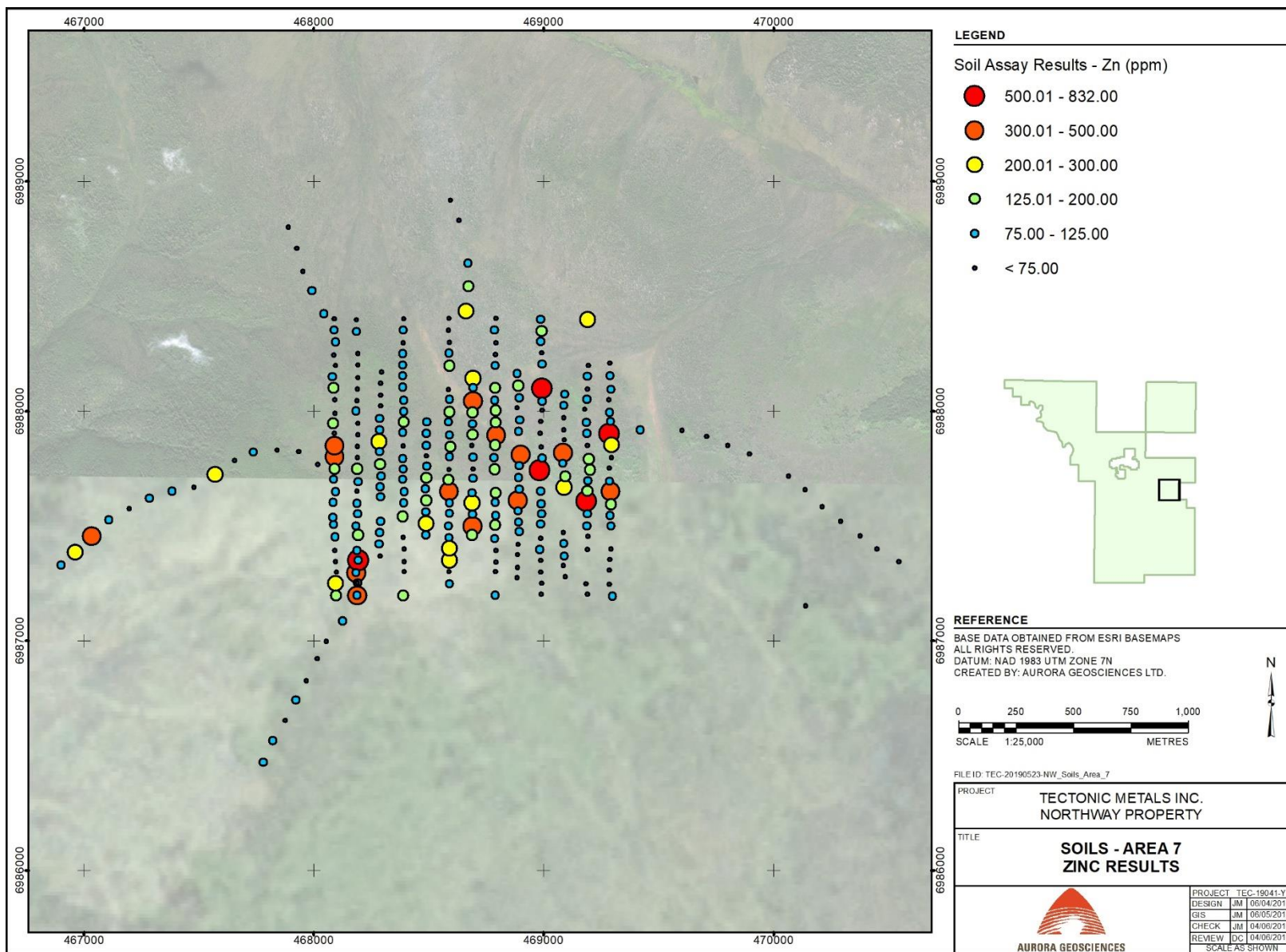


Figure 35: Zinc-in-soil ranges, Area 7

9.3 CANDIG TRENCH AT TARGET 7

9.3.1 Survey Design

A 127-metre long CanDig trench was completed at Target 7. The trench was aligned north-south and is centered at 468291, 6987814 NAD 83 UTM Zone 7

Excavation of the southern portion of the trench failed in permafrost. The trench did not test the core of the Area 7 anomaly, as 2018 soil sample results were not available prior to identifying the trench location.



Figure 36. Trenching at Area 7.

9.3.2 Results

A 21-metre wide zone of mineralization and alteration is highlighted in Table 8, where an interval grading 0.154 g/t Au across 21 m was returned. Trench grab sample descriptions and results, with Au values ranging from 0.006 to 0.257 g/t Au, are presented in Table 9, with the highest-grade sample highlighted. Figure 37 illustrates the clay alteration (A) and quartz-sulfide veining (B) representative of mineralized zones in the trench.

Table 8: Geochemical results from systematic sampling of trench at Area 7

Sample Number	From (m)	To (m)	Int. (m)	Au ppm	Ag ppm	As ppm	Bi ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	W ppm	Zn ppm
3186371	0	5	5	0.023	1.1	16	-	33	-	17	-	-	44
3186372	5	10	5	0.062	1.2	15	-	26	-	17	-	-	32
3186373	10	15	5	0.046	1.5	29	-	55	-	12	-	5	41
3186374	15	20	5	0.057	1.3	18	-	48	-	18	-	-	33
3186375	20	25	5	0.114	1.6	18	-	53	-	15	-	-	42
3186376	25	30	5	0.014	1.4	13	-	40	-	20	-	-	57
3186377	30	35	5	0.014	1.1	13	-	25	-	19	-	-	42
3186378	35	40	5	0.065	1.5	6	-	54	-	23	-	-	49
3186379	40	45	5	0.043	1.3	6	-	34	-	22	-	-	58
3186381	45	50	5	0.021	1.3	17	-	30	-	18	-	-	28
3186382	50	55	5	0.014	1.1	10	-	27	-	18	-	-	34
3186383	55	60	5	0.010	1.2	13	-	61	-	15	-	-	33
3186384	60	65	5	0.009	1.5	12	-	59	-	20	-	-	39
3186385	65	70	5	-	1.4	25	-	46	-	19	-	-	54
3186386	70	75	5	0.013	1.3	32	-	42	-	13	11	-	45
3186387	75	80	5	0.037	1.4	47	-	51	-	17	34	-	41
3186388	80	85	5	0.036	1.5	31	-	51	-	21	27	-	37
3186389	85	90	5	0.111	2.8	128	6	71	-	42	50	7	36
3186391	90	95	5	0.101	2.5	147	-	78	-	93	65	-	44
3186392	95	100	5	0.133	4.3	149	9	94	-	173	95	-	91
3186393	100	103	3	0.245	5.2	133	-	124	-	160	25	-	55
3186394	103	106	3	0.260	7.0	241	6	91	-	233	48	8	95
3186395	106	109	3	0.098	2.9	42	-	21	-	23	12	-	43
3186396	109	112	3	0.029	1.1	44	-	47	4	19	15	-	36
3186397	112	117	5	0.016	1.1	57	-	38	2	19	10	-	30
3186398	117	122	5	0.051	1.1	190	-	84	-	23	33	-	36
3186399	122	127	5	0.023	1.0	44	-	30	-	35	6	-	48

Table 9: Geochemical results from grab samples of trench at Area 7

Sample Number	Description	Au ppm	Ag ppm	As ppm	Bi ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	W ppm	Zn ppm
564694	fg andesite porphyry, <5% 2-3mm qtz eyes, biotite sulphidized	0.007	-	16	-	64	6	17	-	-	38

Sample Number	Description	Au ppm	Ag ppm	As ppm	Bi ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	W ppm	Zn ppm
564697	pervasively alt mg qtz monz - weak clay, limonitic and thin wispy qtz vn (0.25mm max). cg wht mica	0.023	-	21	-	50	-	-5	-	-	32
564698	Fg egg intrusive. Weakly silicified, fg white mica throughout.	0.024	0.7	27	-	55	-	-5	-	-	41
564699	ox intrusive, biotite alt to white mica, weak clay alt. Pervasively ox	0.011	-	25	-	50	-	14	-	-	25
564854	pervasive white clay alt of felds within qtz monz, mg to cg, limonite on fracture surfaces, weak white mica alt of bt?	0.006	-	27	-	57	-	13	-	-	71
564855	qtz monz with deep red ox, almost boxwork limonite, strong cg wht mica alt throughout.	0.012	0.6	17	-	48	-	7	-	-	111
564856	pervasive white clay alt of felds within mg to cg qtz monz. 1mm white mica flakes, no bt preserved.	0.094	2.7	101	6	45	2	63	58	-	27
564857	qtz monz with weak wht clay alt of felds, completely ox. No bt preserved.	0.043	0.9	24	-	64	-	10	5	5	19
564858	strongly silicified qtz monz, bt sulphidized and ox, fine wht mica throughout.	0.085	2.2	107	-	114	-	92	20	-	75
564859	cg qtz monz cut by polyphase qtz vn, chalcedonic, contains 1mm py/aspy? Vein has bx margins (qtz vn bx) and open space textures - houndstooth qtz, banding - epithermal textures	0.257	8.7	31	9	116	-	180	68	10	70

*fg = fine grained, mg = medium grained, cg = coarse grained, eqg = equigranular, alt = alteration/altered,

ox = oxidation/oxidized, qtz = quartz, felds = feldspar, bt = biotite, py = pyrite, aspy = arsenopyrite, monz=monzonite, wht = white, vn = vein

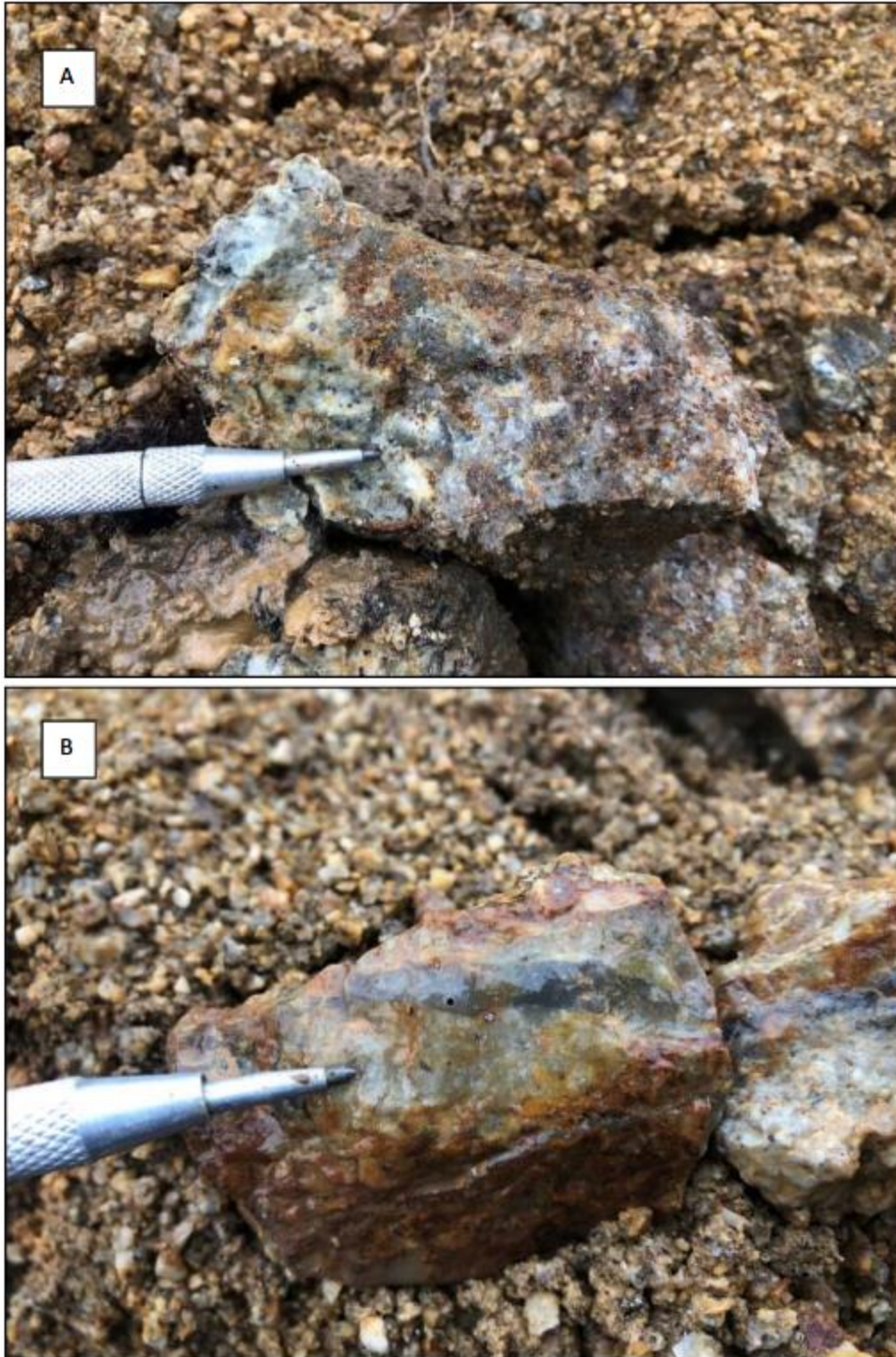


Figure 37. Altered quartz-monzonite (A) with quartz-sulfide veining (B); representative of mineralization encountered in trench at Area 7.

9.4 PROSPECTING

Minor reconnaissance-scale prospecting and rock sampling were completed near Target 6, with the objective of finding bedrock mineralization in outcrop or float. No bedrock exposure was found in the immediate vicinity of the soil grid. Road-side prospecting was conducted to validate historic prospects, as well as to determine new target potential in accessible places.

Validation of historic prospects was carried out during the first few days of the Northway exploration program. These prospects were all accessed along the Alaska Highway. Most of the showings were determined to be limited in size and extent. A consistent orientation of NE-trending shear-hosted mineralization and alteration occurs throughout the property. Two prospects, the Yarger Lake and Road Warrior prospects, were deemed as the most prospective.

9.4.1 Yarger Lake Prospect

The Yarger Lake prospect, identified by North Star Exploration, has undergone no significant work following the company's bankruptcy in 2002. A single grab sample collected in 2018 from the "north mineral zone" returned a value of 2.244 g/t Au, validating the presence of anomalous gold associated with quartz-sulfide veining within a broad, shear-controlled sericitic and argillic alteration footprint.

9.4.2 Road Warrior Prospect

Identified by Tectonic in 2018 as an intrusive related occurrence, a large roadcut exposes oxidized and fresh sulphides (pyrite ± chalcopyrite) hosted in mid-Cretaceous diorite and Late Cretaceous monzonitic porphyritic dykes (Figure 12) and metasedimentary country rock (Figure 38). Rock grab samples in this zone yielded very little in terms of base metal or precious metal mineralization. Three samples contained anomalous Cu (>150 ppm) and Zn (>300 ppm), with little to no additional indicators of other base or precious metal content. Chalcopyrite associated with quartz-pyrite veining was noted in a sample that assayed 300 ppm Cu. Select results from the Road Warrior prospect are presented below.

Table 10: Select rock geochemical results, Road Warrior prospect

Sample Number	Description	Au ppm	Ag ppm	As ppm	Bi ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	W ppm	Zn ppm
564668	amphibolite hosting Qtz-py+/-cpy veining as well as 3mm chloritized dark mica veins	-	-	8	46	319	9	50	13	200	345
564669	augen gneiss with dark green actinolite veinlets (1-3mm), roughly 10/m. Abundant limonites coating fracture surfaces	-	-	-	-	145	-	21	7	163	545
564692	QSP altered metamorphic rocks at contact with diorite porphyry. Rocks are silicified, and disseminated and blebby sulfides are abundant (py+/-po+/-cpy?)	-	-	-	15	143	-	8	6	200	1230

9.5 2019 DUE DILIGENCE VISIT

The 2019 due diligence visit focused on rock sampling and/or inspection of the Yarger Lake, Road Metal, VABM Ball SW, and the Road Warrior prospects, and the Bitters Creek occurrence south of Area 6.

The Yarger Lake prospect comprises sheeted centimetre-scale quartz vein and adjacent fine stockwork zones and silicification within sericite-altered limonitic biotite granite of the Dawson Range batholith. Shear-hosted veins are oriented NNE, cross-cutting earlier NE-SW oriented shearing. The geological and mineralogical setting validates findings by Tectonic and earlier workers. Two samples taken from the north mineral zone returned values of 0.014 g/t Au and 0.031 g/t Au respectively, the latter with 4.555 g/t Ag, 30.77 ppm Bi, 345.29 ppm Pb and 199.4 ppm Zn. Assaying failed to confirm the high 2018 gold value, although did confirm elevated base metal and silver values.

The burrow pit near the Road Metal prospect has exposed medium to coarse-grained biotite granite which is locally porphyritic to megacrystic. Disseminated and locally clotty pyrite occur within the coarse-grained intrusive rocks. Fairly abundant late dykes at irregular orientations, comprising fine to medium-grained melanocratic quartz-feldspar porphyritic monzonite, occur in the Road Metal pit. Two composite grab samples of mid-Cretaceous granodiorite returned near-background values of 0.014 g/t Au and 0.010 g/t Au, respectively. No greisen zones or other areas of significant mineral potential are visible in the pit; therefore, no confirmation could be made between 2019 sampling and previous drill intercepts of greisen-hosted mineralization.

The VABM Ball SW occurrence comprises a 0.6-metre zone of chalcocite, chrysocolla and associated malachite and azurite within an east-west trending shear zone, dipping moderately to the south. Sampling returned a value of 0.330 g/t Au with 31.222 g/t Ag, >1.0% Cu and 7.52 ppm Bi. This confirms metal tenor and grades from sampling by earlier workers, and supports their hypothesis that the zone may have resulted from remobilization of Cu-Ag-Au enriched fluids from an undiscovered proximal source.

The Road Warrior prospect was also visited, confirming geological and mineralogical findings by earlier workers. The prospect is located towards the north-western end of a coarse-grained intrusion, likely representing a phase of the Dawson Range batholith. Slightly to the northwest, the roadcut exposes Paleozoic metasediments of the Yukon-Tanana terrane (Figure 38). Although no samples were taken in 2019, field observations show a similar setting of late emplacement of quartz-feldspar porphyritic monzonitic dykes. These have a very similar fabric and mineralogy to those at the Road Metal prospect, suggesting a common origin.

Inspection of the Bitters Creek area revealed abundant rubblecrop and proximal float of megacrystic biotite granite with strongly developed interstitial chlorite and epidote (Figure 39). This is consistent with interpreted propylitic alteration outbound from the Area 6 target, which has a porphyry Cu-Mo-Au soil geochemical signature.

An un-named burrow pit exposure of sparse sheeted veining in equigranular biotite granite towards the northwest end of the property was also viewed in 2019. The setting is similar to the Yarger Lake prospect, although vein density is significantly lower. A single composite grab sample returned 0.004 g/t Au, 1.185 g/t Ag, 104.97 ppm Cu, and low to background values of other elements.



Figure 38: Metasediments of the Yukon-Tanana terrane (YTT), Road Warrior prospect



Figure 39: Epidote-chlorite alteration, proximal float, Bitter Creek area south of Area 6

9.6 2019 GEOPROBE SURVEY

In 2019, a Geoprobe survey was conducted across Target 6 (Area 6), Target 7 (Area 7) and, to a more limited extent, the Road Metal prospect (Figure 40). These were designed to collect representative rock

samples from the soil-bedrock interface along parallel grid lines at depths ranging from near-surface to 4.5 m, in order to determine lithology and mineral potential at the interface. The program was conducted over a 32-day period from May 30 to June 30, with the Geoprobe operating 12 hours/day. A total of 689 samples was collected across 9,540 m of grid lines. These comprise a total of 55 samples over 1,200 m along two Geoprobe lines at the Road Metal prospect; a total of 164 samples over 4,000 m along four grid lines at Target 6; and 470 samples at Target 7 over 4,340 m along nine grid lines. Sample spacing was mainly set at 25 m, although was variable across Target 7. All rock samples obtained were analyzed in the field utilizing a portable XRF instrument (Section 11.1.9), and later analyzed for Au and 35-element Inductively Coupled Plasma Emission Spectrometer (ICP-ES) analysis (Section 12.1.3).

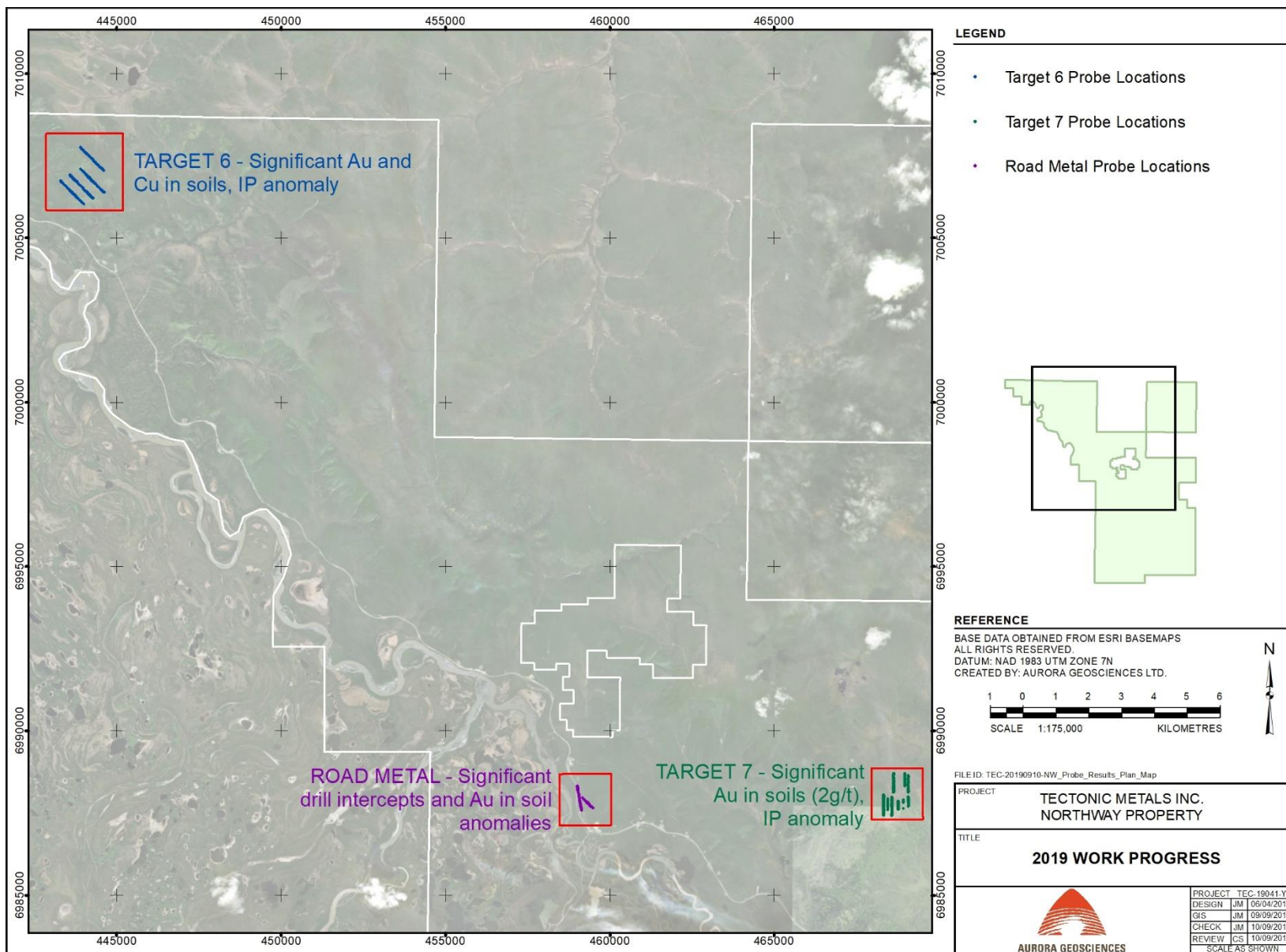


Figure 40: Location of 2019 Geoprobe targets

9.6.1 Target 6

Target 6 is considered as a potential Cu-Mo ± Au porphyry system, centered on a northeast-striking, high-angle structural corridor. Exploration to 2018 revealed a core Cu-Mo soil anomaly, surrounded by a distal base and precious metal signature (Pb-Zn-Ag+/-Au). The porphyry model is supported by a large IP chargeability anomaly with a northeast-striking component that is coincident with a magnetic high signature and low resistivity lineament. Figures 41 through 44 show geochemical value ranges for Cu, Mo, Zn and Au, respectively.

Assay results revealed a coincident Cu-Mo anomaly in central areas, particularly along Line NWYGPT19-013 (Figures 41 and 42). Although anomalous Cu values are slightly offset from anomalous Mo values; these results support the hypothesis for a porphyry-style target. Anomalous zinc values were returned from line NWYGPT19-013, somewhat north of the anomalous Cu-Mo values (Figure 43). Sporadic anomalous Au values were returned, including a high value outside of the central Cu-Mo anomalous area (Figure 44).

The 2019 Geoprobe results confirm that bedrock mineralization is responsible for anomalous element values identified from the 2015 through 2018 programs. Lithological analysis of rock chip samples indicates the presence of a fine-grained siliceous intrusion possibly emplaced along an interpreted NE – SW-extending structural corridor exceeding 500 m in width. Although argillic (clay) and phyllic alteration are characterized as weak to moderate, alteration intensity is expected to increase with depth, where the IP chargeability anomaly is most intense. Several Geoprobe top-of-bedrock samples contain chips of quartz-pyrite-chalcopyrite vein material, confirming that bedrock mineralization is consistent with a porphyry system. These results support and firm up the hypothesis that Target 6 represents a potential porphyry-style target.

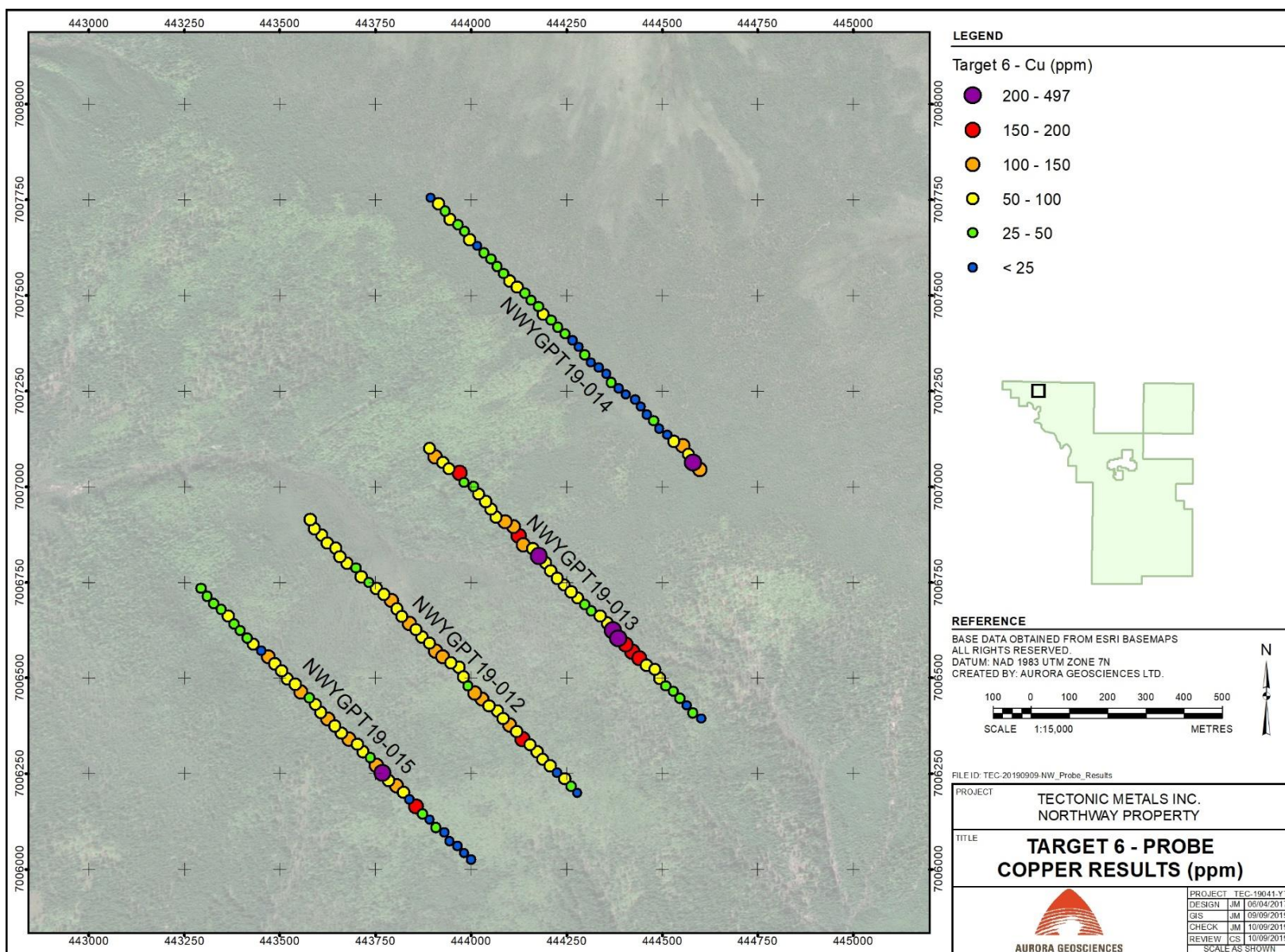


Figure 41: Cu ranges, Target 6, Northway property

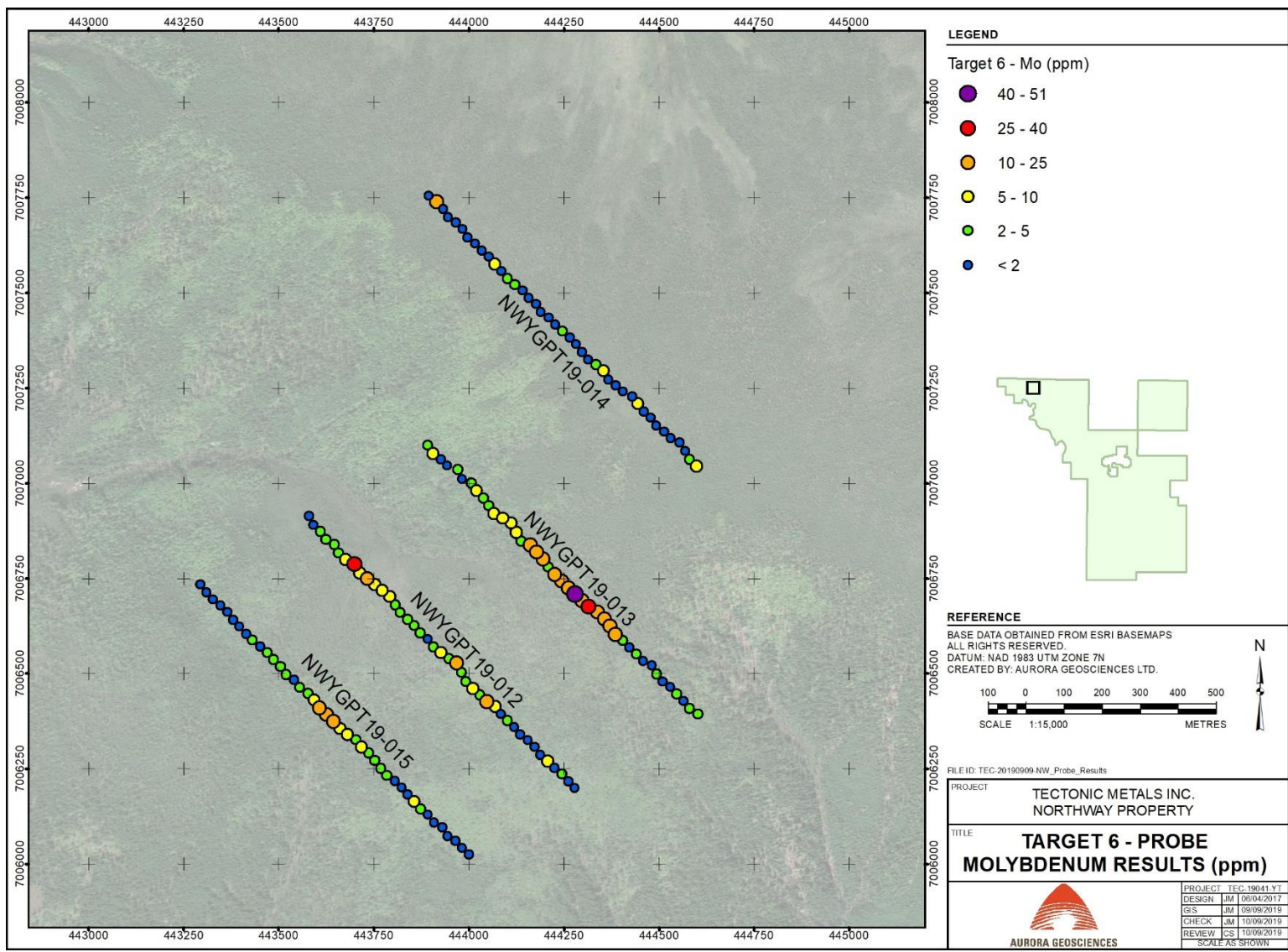


Figure 42: Mo ranges, Target 6, Northway property

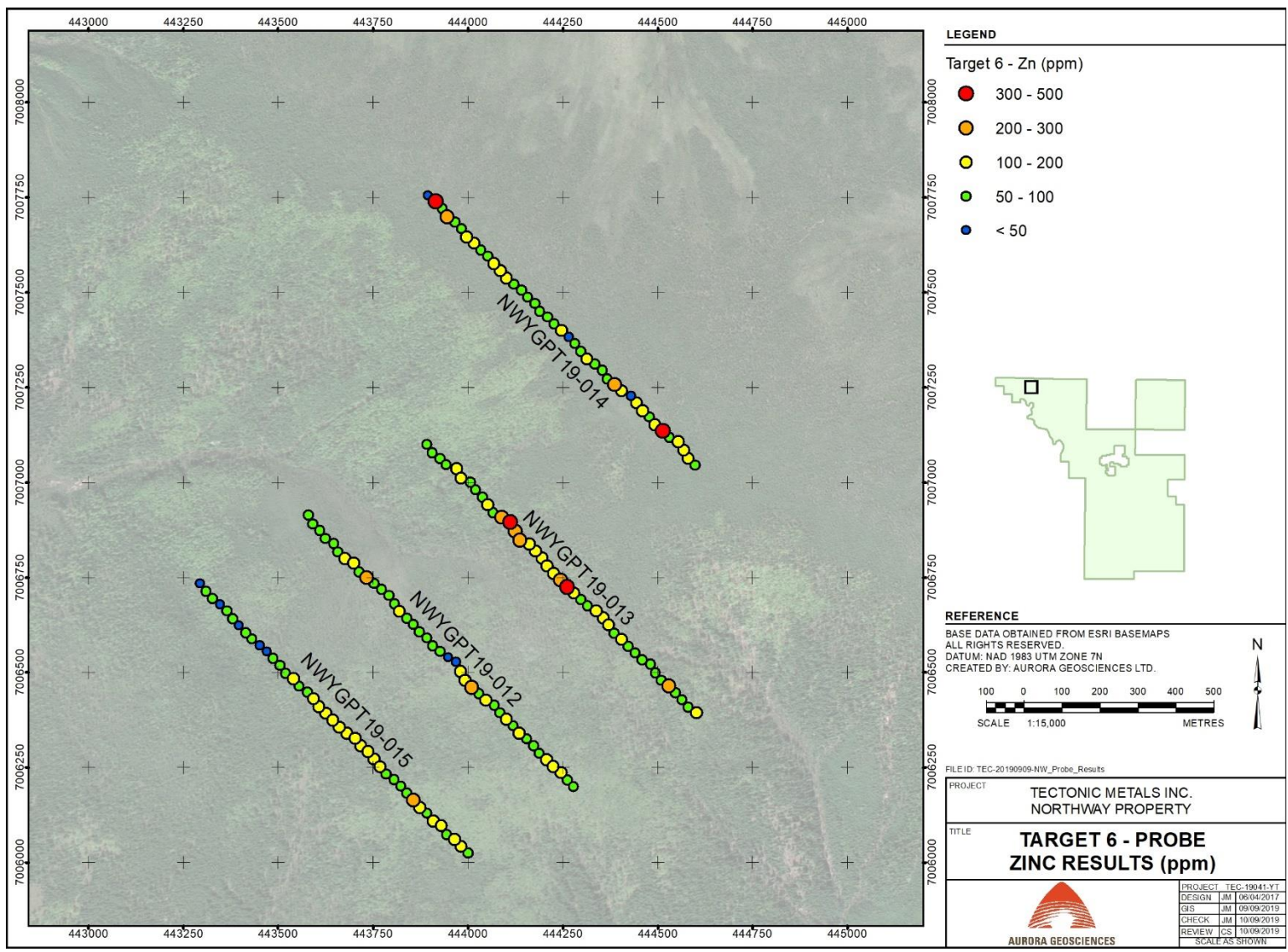


Figure 43: Zn ranges, Target 6, Northway property

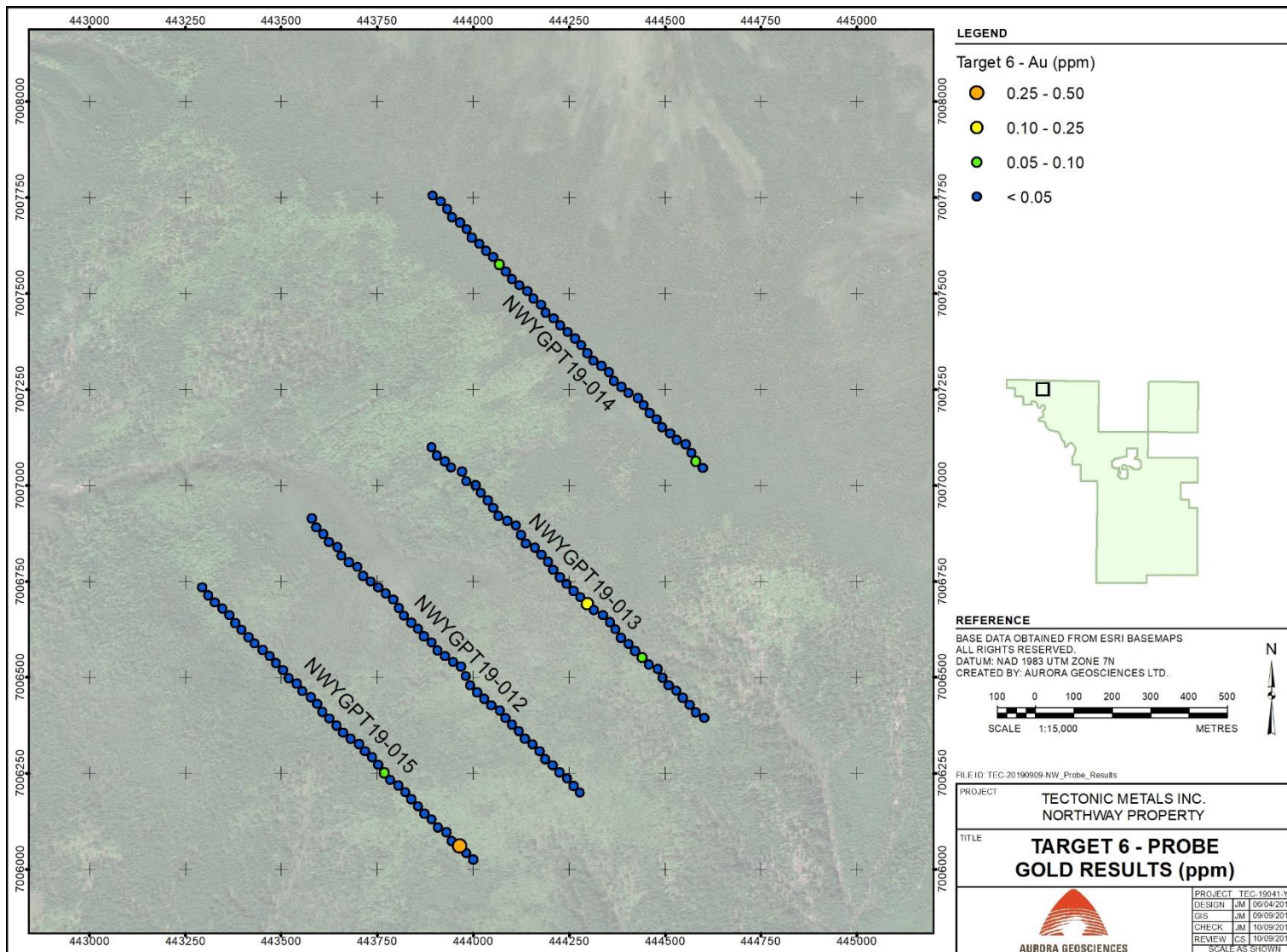


Figure 44: Au ranges, Target 6, Northway property

9.6.2 Target 7

Target 7 is also considered an Au-Cu bulk tonnage prospect, potentially related to a separate porphyry centre. Again, previous work interpreted this target to be emplaced along an E-W extending structural corridor, supported by evidence from magnetic and electromagnetic data. A gold-in-soil geochemical anomaly exceeding 800 m in length is associated with anomalous As, Sb and Bi values. The geochemical zonation is more consistent with higher level alteration assemblages (upper phyllic – argillic) of porphyry systems than zonation observed at Target 6.

Assay results revealed an east-west trending zone of elevated to anomalous Cu and Zn values roughly coincident with anomalous gold values to 1.7 g/t Au in the southern part of the target area (Figures 45, 46, and 47, respectively). However, only rare elevated Mo values were returned, mainly from line NWYGPT19-011 (Figure 48).

The 2019 assay results have validated previous soil geochemical results across Target 7. The E-W trending corridor of anomalous gold-in-soil values is supported by values from bedrock Geoprobe sampling. Geoprobe sampling has delineated an E-W trending zone at least 700 m long, with a minimum N-S width of 250 m. However, anomalous 2019 Au values occur both within moderately sericitized granodiorite and unaltered granodiorite with quartz vein material. Gold values may not be associated with the alteration event resulting in argillic (clay) alteration of the granodiorite, and may instead be associated with quartz vein material only.

The 2019 program also identified a Cu-Au ± Mo ± Zn target north of the main Target 7 area. This is particularly evident along lines NWYGPT19-006 and 007, indicating potential for a second east-west trending mineralized zone. The northern end of line NWYGPT19-005 is also marked by a narrow zone of coincident Cu-Mo values. The northern target overlies a coincident magnetic high and IP chargeability anomaly, and may be a viable exploration target.

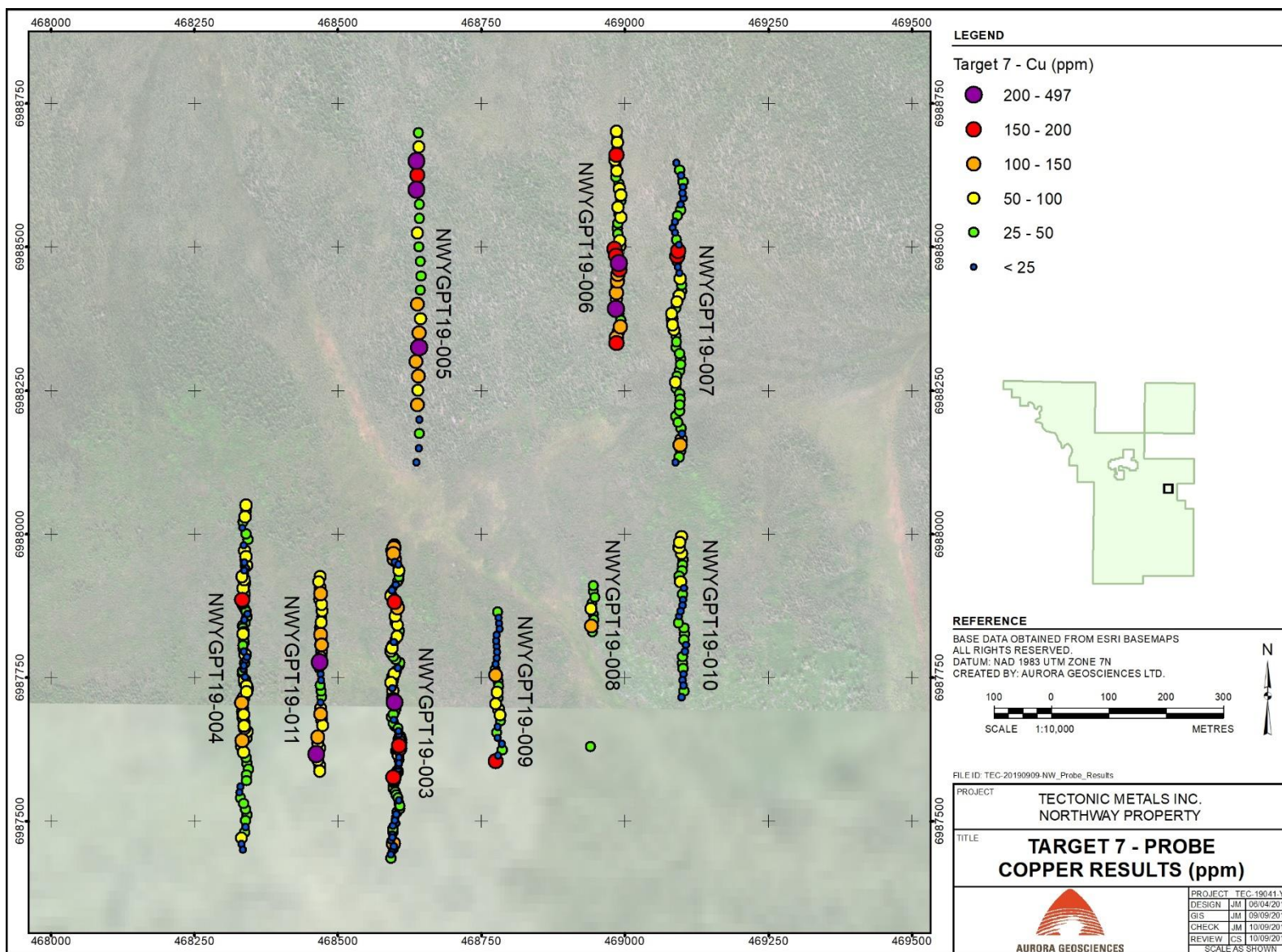


Figure 45: Cu ranges, Target 7, Northway property

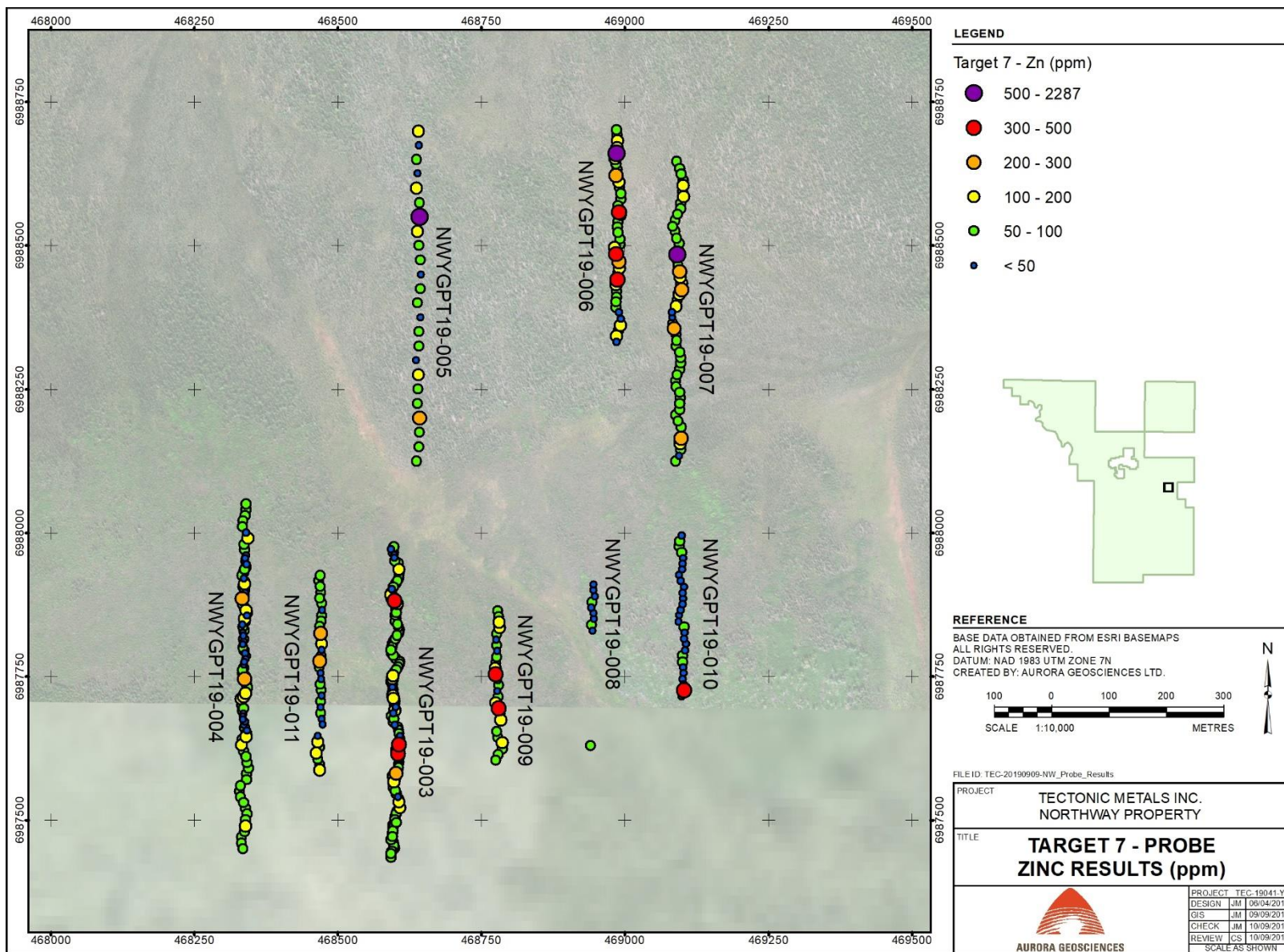


Figure 46: Zn ranges, Target 7, Northway property

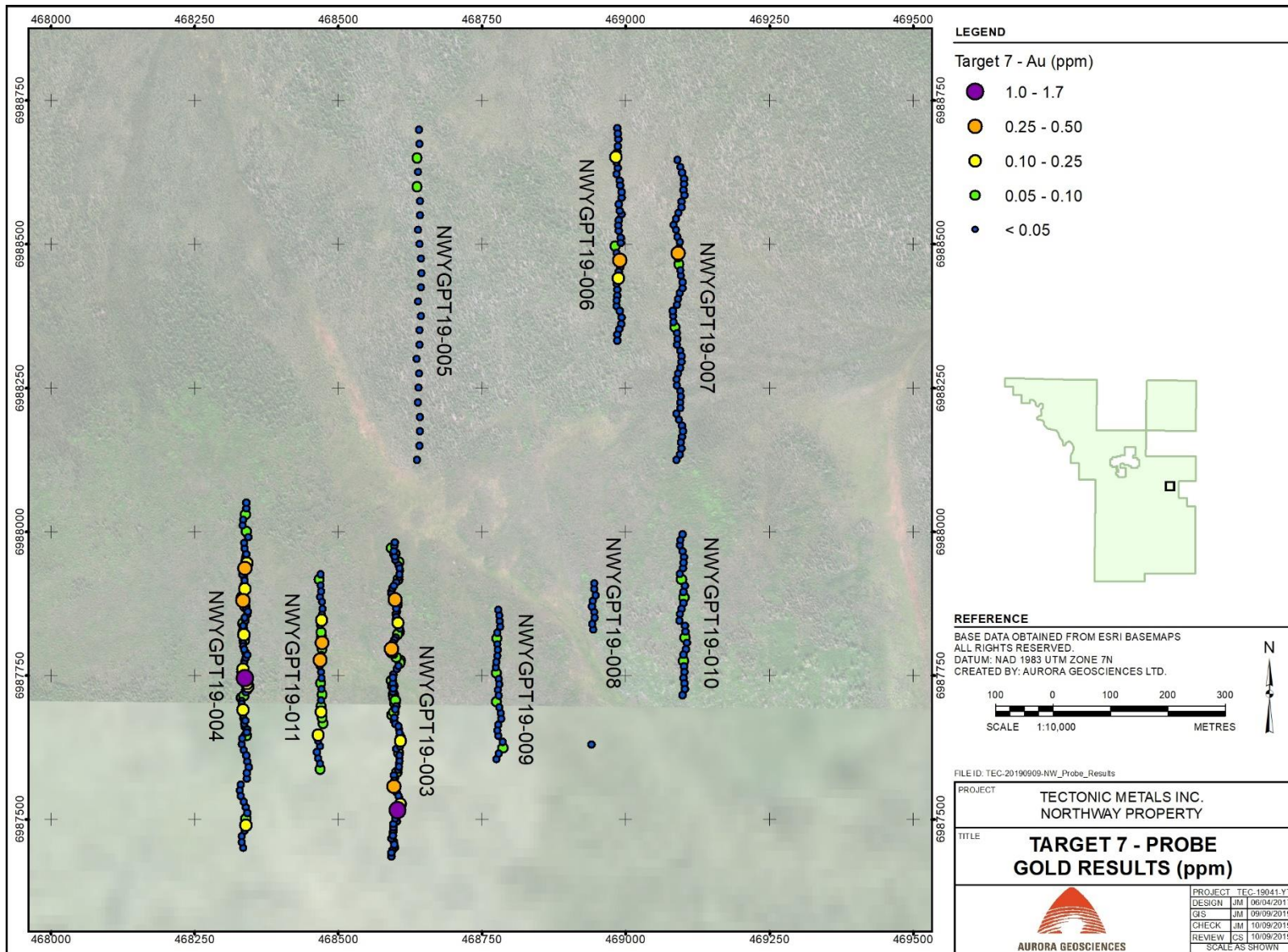


Figure 47: Au ranges, Target 7, Northway property

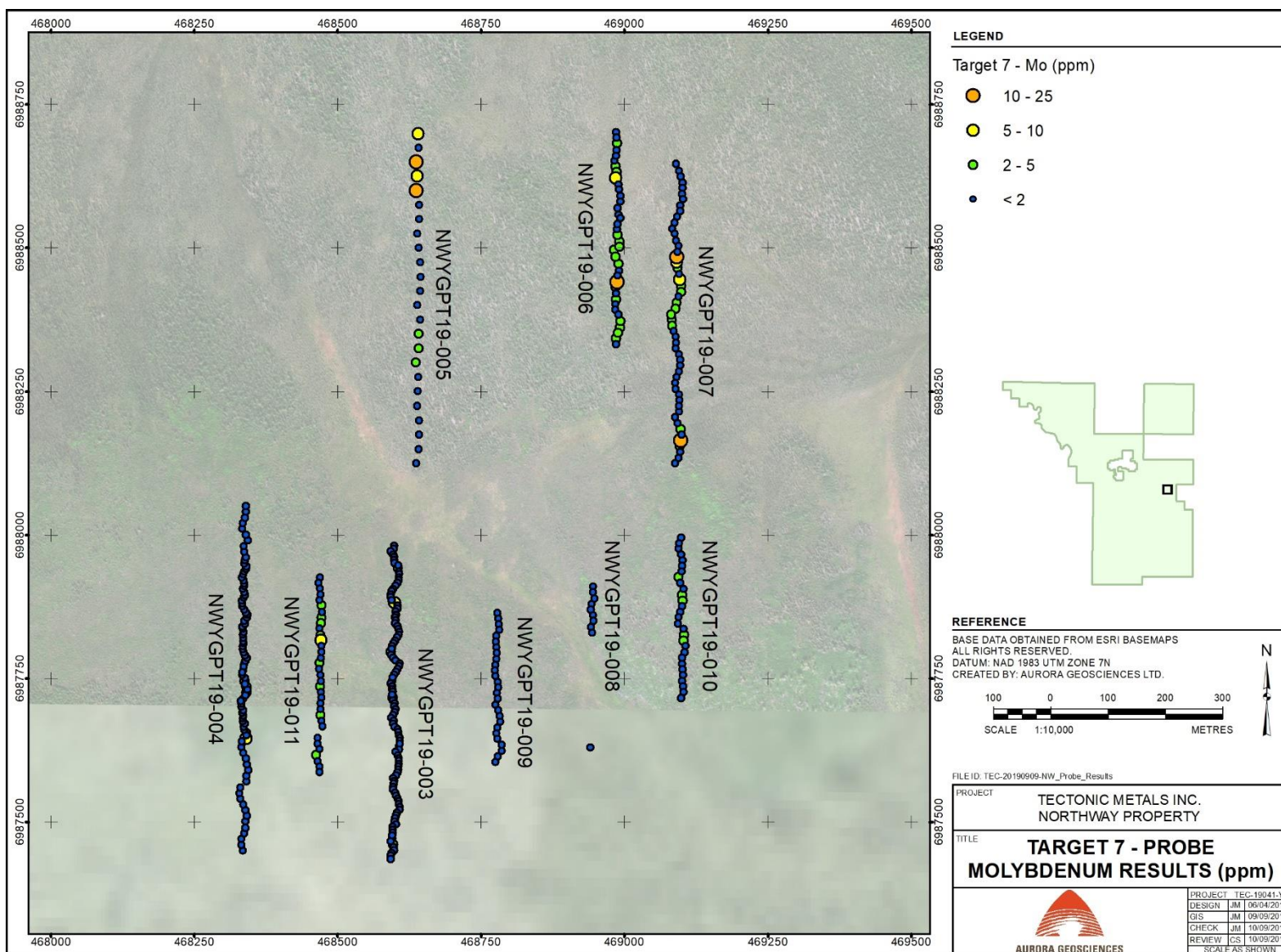


Figure 48: Mo ranges, target 7, Northway property

9.6.3 Road Metal Target

The Road Metal target was the subject of more significant historic exploration, including diamond drilling in 2000. The two Geoprobe lines were selected to test a coincident Cu-Mo-Au target west of the historic drilling. Assay results revealed a narrow zone of anomalous Cu values to 897 ppm, coincident with Mo values to 11 ppm, towards the southern end of line NWYGPT19-001 (Figures 49 and 50). Sampling along line NWYGPT19-002 returned a weakly anomalous Mo value of 13 ppm located east of the anomalous zone in line NWYGPT19-001. Whether these represent a continuous zone remains inconclusive. Sampling did not return any anomalous Au or Zn values.

9.7 2019 SOIL SAMPLING PROGRAM

In 2019, a total of 22 B-horizon soil samples were taken with the Geoprobe, utilizing B-Horizon soil directly overlying the rock chip interface. The locations are identical to those of corresponding rock chip samples. A single probe line (NWYGTP-003) was selected for this. Assay data from probe soil samples have been plotted with power auger soil sampling for comparison and validation (Figure 51). The intention was to test the probe as both a bedrock and soil sampling tool, as this methodology could be applied to future programs. B-horizon soils collected from the probe demonstrate consistency with power auger soil sampling in identifying precious and base metal anomalies. Comparative analysis highlights metal anomalism resulting from both sampling methods.

When compared to assay results from top of bedrock rock samples, soil samples obtained by the probe method generally identify the same anomalous zones (Figure 52). Results indicate values for Pb-Zn-Ag are spatially consistent within both surveys. Although anomalous Au values are more variable, the main anomalous trends are indicated in results from both surveys. Cu appears to demonstrate some migration from its bedrock source, and appears to demonstrate higher mobility than other base metals in this environment. Values for Mo are almost all below detection level, so no meaningful comparison can be made between the survey types.

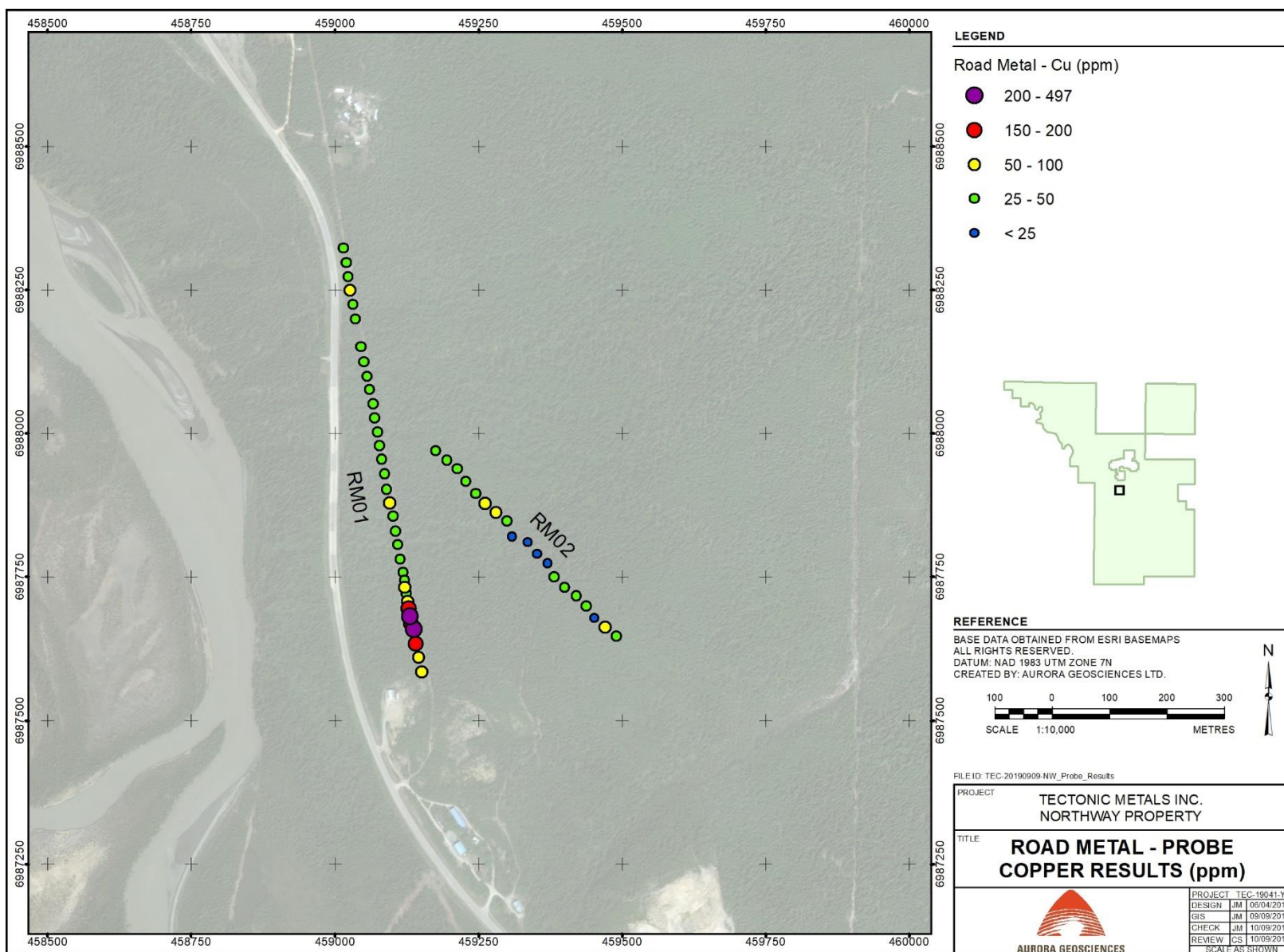


Figure 49: Cu ranges, Road Metal target, Northway property

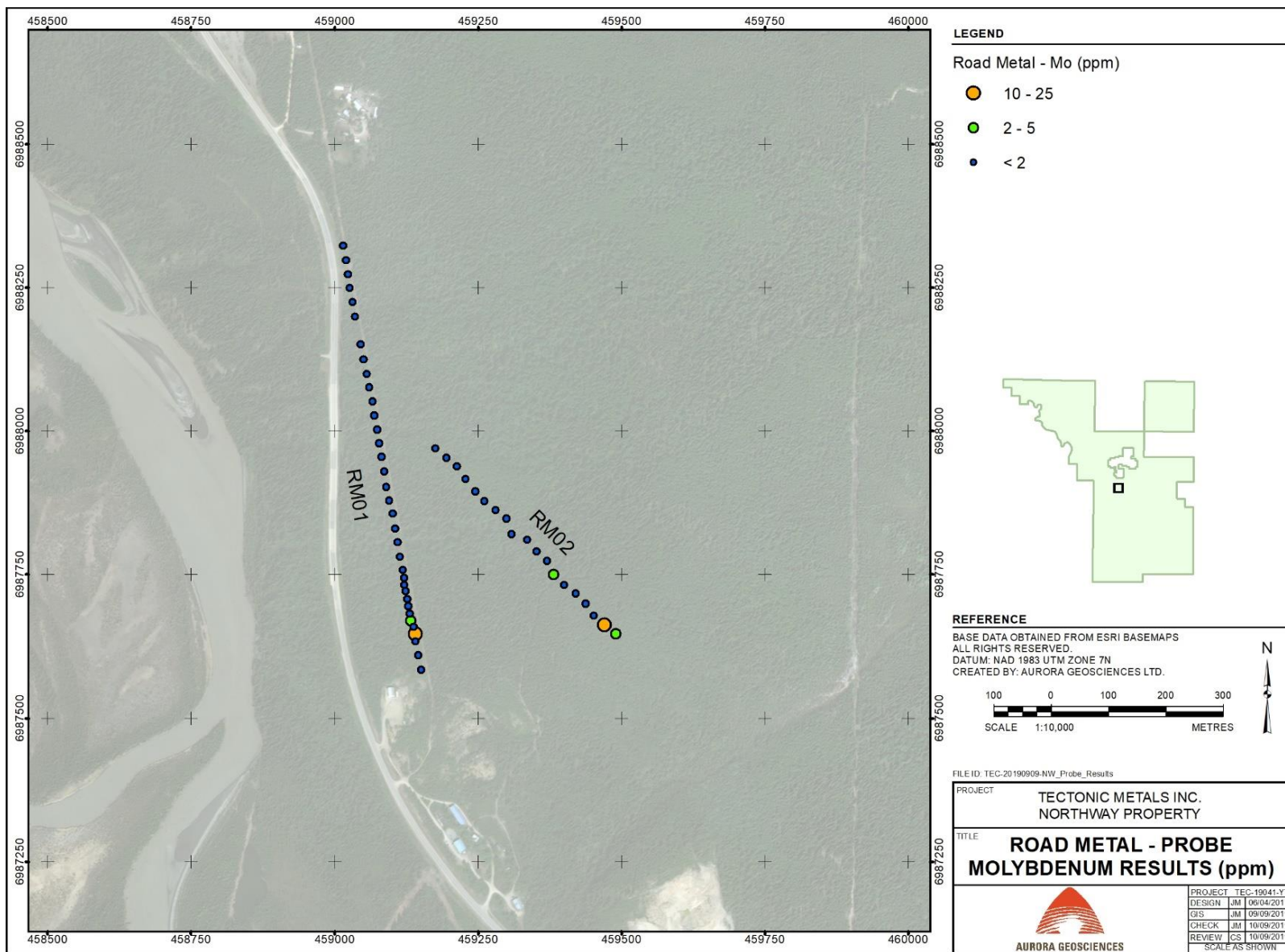


Figure 50: Mo ranges, Road Metal target, Northway property

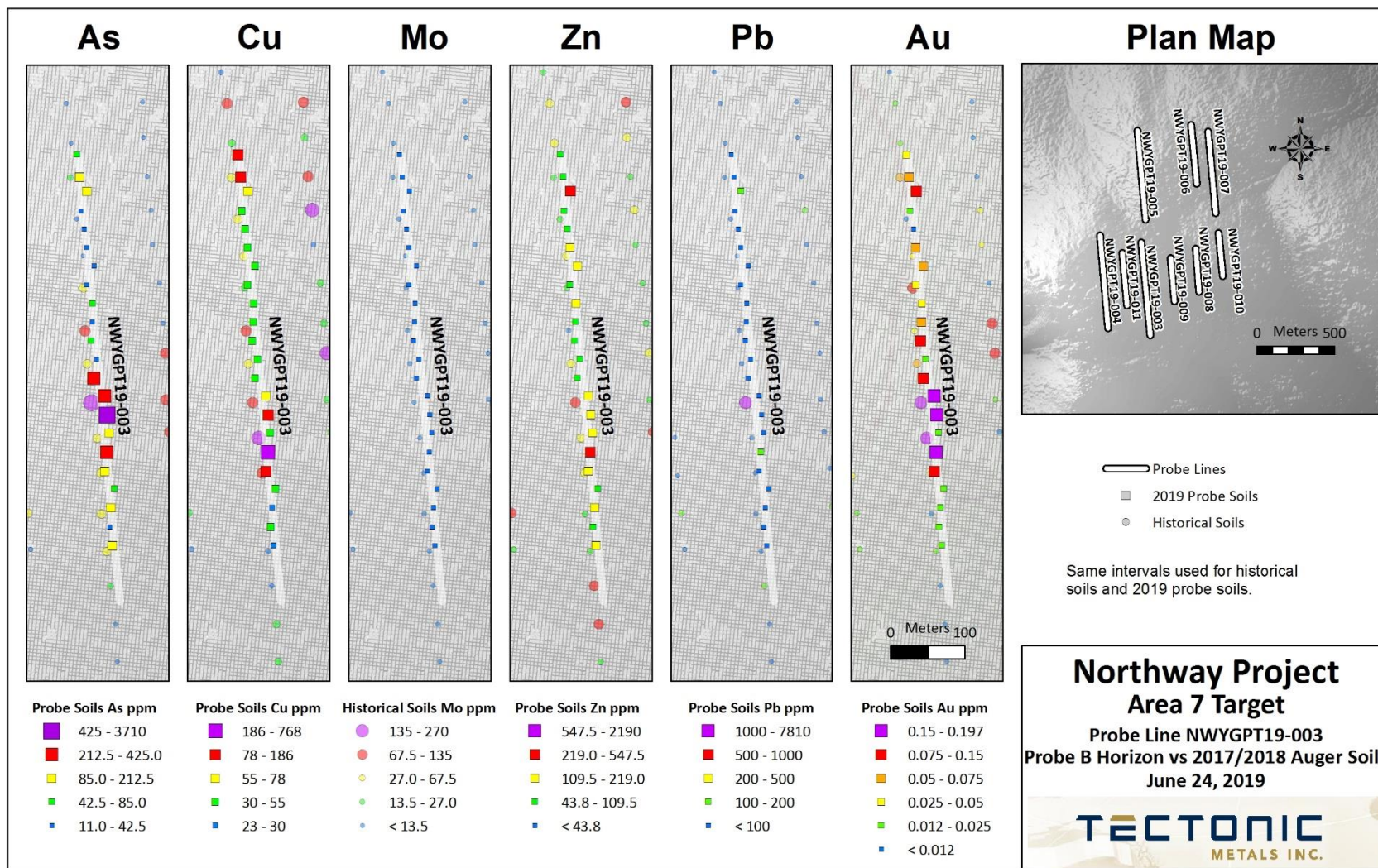


Figure 51: Comparison of B-Horizon probe (bold) metal values versus surface power auger values (faded), Line NWYGTP19-003 (Figure by Tectonic Metals Inc.)

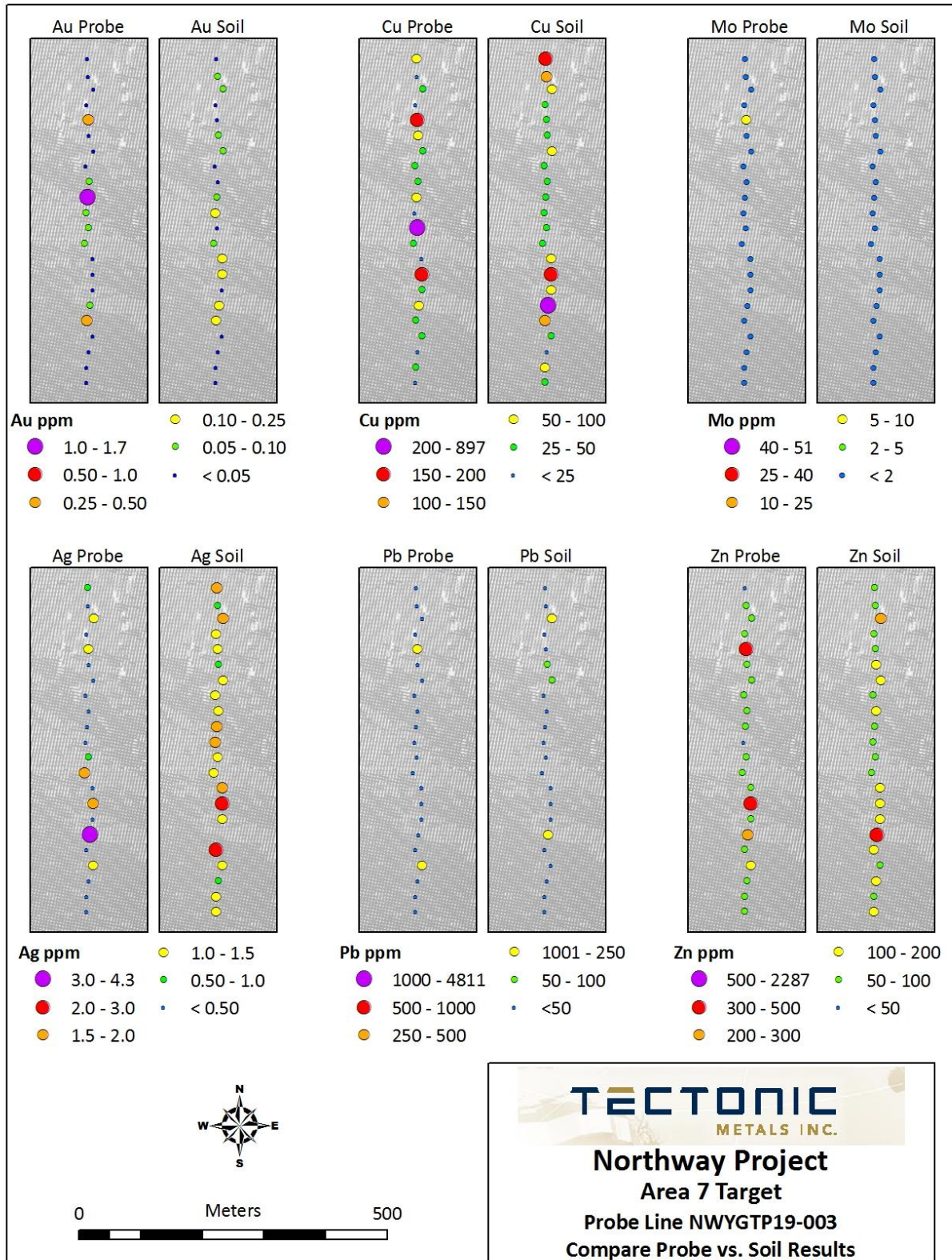


Figure 52: Comparison of probe rock samples (left) with B-horizon probe soil values (Figure by Tectonic Metals Inc.)

10 DRILLING

In 2019, 8 Rotary Air Blast (“RAB”) boreholes for 856 metres were completed on the Northway Project. Drilling took place between September and October, was contracted to Ground Truth Americas Inc and was completed with a single GT RAB drill rig. The GT RAB drill is a rubber tracked drill platform controlled by wireless remote control with a hydraulic tilting mast assembly and rotary drill head. The GT RAB drill delivers compressed air through the centre of 66.6 mm drill rods to activate the drill bit, recovers powdered rock chips from the cutting face and returns the sample along the outside of the rods to a conventional cyclone. Borehole diameter was typically 92 mm. The drill rig either drove from site to site, or was moved by helicopter.

The purpose of the 2019 drilling program was to investigate mineralization observed in coincident gold and copper-in-soil anomalies and geophysical anomalies at two main targets: Target 6 and Target 7. Six boreholes were completed at the Target 7 prospect, and two were completed at the Target 6 prospect. Boreholes ranged in depth from 60 – 173 m, with an average hole depth of 100 m.

Borehole locations were planned and marked by Tectonic geologists using a handheld GPS. A compass was used to determine borehole azimuth and inclination. Following the arrival of the drill at the drill site a geologist would then confirm drill alignment and inclination with the compass. Following completion of a drill hole by reaching target depth, or termination due to poor ground conditions, the collar location was located using a differential global position system (DGPS) collecting an average point location, refining the location to within 1 m. No downhole surveys were completed due to the short hole lengths.

RAB chips were logged on site by a Ground Truth Americas geologist before being transported back to camp in Tok, Alaska, by helicopter. Samples were then analyzed by XRF prior to being shipped to the Bureau Veritas facility in Fairbanks for preparation. The XRF analysis was undertaken in an attempt to establish a future relationship between in-field XRF results and Fire Assay data to determine the XRF’s effectiveness and reliability in future exploration programs. Due to the early-stage nature of the Northway property and the fact that no previous drilling has been completed on the property, no relationship between XRF data and drill assay data has been established. As data was collected in-field and not at an accredited laboratory, no standardized methodology was employed and no Quality Control procedures could be implemented. For the reasons mentioned above, the Qualified Person has determined the XRF data to be unreliable and not significant at this time. See section 11.1.9 for further discussion.

Due to the open-hole nature of RAB drilling providing rock chip and powder samples, the method does not provide the same level of geological and structural information as does diamond drilling. Accordingly, RAB drilling is used as an early to intermediate stage exploration tool and results cannot be used for the purposes of NI 43-101 mineral resource estimates.

The physical characteristics of the RAB boreholes are presented in Table 11. No assay results have been received as of the Effective Date (October 31th, 2019) of this report.

Table 11: Drill collar data, 2019 RAB drilling, Northway property

Borehole ID	Easting (metre)	Northing (metre)	Elevation (metre)	Length (metre)	Azimuth (degree)	Dip (degree)	Prospect	Interval Sampled
NWRB19-001	468595	6987733	894	92.96	360	-55	Target 7	0 – 92.96m

NWRB19-002	468605	6987600	890	100.58	360	-55	Target 7	0 – 100.58m
NWRB19-003	468331	6987709	919	79.25	360	-55	Target 7	0 – 79.25m
NWRB19-004	468661	6988308	894	60.96	315	-55	Target 7	0 – 60.96 m
NWRB19-005	468671	6988587	882	150.88	315	-55	Target 7	0 – 150.88 m
NWRB19-006	469011	6988443	868	94.49	315	-55	Target 7	0 - 94.49 m
NWRB19-007	443806	7006624	775	173.74	135	-80	Target 6	0 – 173.74 m
NWRB19-008	444247	7006740	818	103.63	135	-55	Target 6	0 – 103.63 m

NOTE – NAD83, Zone 07W

At the Northway project, the entire drill hole was sampled from collar to end-of-hole, on 5-foot (1.52 m) intervals as governed by the length of each RAB drill rod. As of the Effective Date, no assay results have been provided to Tectonic or the Qualified Person. Therefore, there is no relationship between the sample intervals defined in Table 11 and the orientation or true thickness of mineralization. Accordingly, the presence of any significantly higher-grade intervals within a lower grade intersection remains unknown at this time.

11 SAMPLING METHOD AND APPROACH

The author has not accessed information on Quality Assurance/ Quality Control (QA/QC) practices for geochemical sampling by past workers, prior to acquisition by Tectonic. Therefore, the author cannot confirm that past Quality Assurance/Quality Control protocols regarding rock, soil and drill core sampling procedures conformed to industry best practices at the time.

11.1 ROCK SAMPLING

11.1.1 Tectonic Rock Sampling, 2018

All personnel in 2018 were employed either by Tectonic Metals Inc. or Avalon Development Corp. Rock samples were described in the field, with the location recorded in hand-held GPS units in UTM Datum NAD 83, Zone 6W. The samples were categorized based on their provenance (float, outcrop, or trench grab samples), and were described in detail as to lithology, and mineralization. Rock samples were characterized as float when not specifically sampled from outcrop, and were collected whenever metallic mineralization, quartz veining, or significant alteration were observed. Trench grab samples were selected from prospective intervals of mineralization or alteration noted within larger trench channel samples. Rock samples typically weigh 2 to 6 pounds (0.9 – 2.7 kg) and consist of two or three fist-sized pieces of rock, and are considered to be grab or composite grab samples.

Rock samples were placed into cloth sample bags which were labelled, provided with a unique sample ID and assay tag, and tied with attached strings for shipment. Samples were placed either in rice bags with the sample numbers written on the bag, and also sealed with a cable tie, or in sealed “Super Sacks” closed with wire ties. All samples were driven from the property to Fairbanks, Alaska. All samples remained in the custody of the field personnel (Avalon and/or Tectonic) and were transported by Avalon's expediter either directly to the Bureau Veritas prep lab in Fairbanks, Alaska, USA, or to secure facilities at the Avalon warehouse prior to submission.

11.1.2 Tectonic Trench Sampling, 2018

Trenching was accomplished by a heli-portable CanDig excavator. The trench was dug as deep as possible, to attempt to reach bedrock, although permafrost or overburden commonly limited depths to less than 1.0 m. Overburden was placed on the left side of the trench, and material from the bedrock-overburden interface was placed on the right side, directly beside from where it was removed (Figure 36, taken at Area 7). Samples were collected on geologically-informed sample spacings, typically 5 m in unaltered or mineralized rock, and 3 m where alteration or mineralization were encountered. Samples were collected from rubblecrop or subcrop at the bottom of the trench, with equal representation across the entire interval to ensure no sampling bias.

A rock sample bag was placed at the start of each interval; care was taken to ensure these were in sequence. A profile of trench samples was drawn in large “Rite in the Rain” trench mapping books. The sample sequence was checked to ensure accuracy, and a photograph was taken of each interval, including the sample bag with the sample number. “High-grading” of mineralized portions was avoided in the main sample, although specific samples of mineralized or altered material were taken, utilizing a separate sample sequence.

The lithology, alteration, and mineralization for each sample were recorded in the field. The detail of logging was governed by quality of excavation, with well exposed sections potentially logged at intervals of <0.5 m, and more poorly excavated sections logged at intervals of 0.5 – 1.0 m. All changes, including subtle changes in lithology or alteration were also recorded. All pages within the log notebook were scanned and recorded on field computers in camp.

Samples also typically but not always underwent XRF/Niton analysis (Section 11.1.9). For each sample interval, the most prospective rock, containing the strongest and/or obvious mineralization, was removed to reduce potential bias. A single spot of the remaining material was analyzed, and the sample was then returned to the bag and sealed for shipment. The resulting XRF was downloaded and saved on the field computer nightly.

The chain of custody to Bureau Veritas was identical to that for rock samples.

11.1.3 Soil and Stream Sediment Sampling, 2018

Soil samples were collected by two-person crews employed by Avalon Development Corp, utilizing gasoline-powered ice augers capable of reaching depths of up to eight feet (2.4 m). Sampling crews targeted the soil ‘C’ horizon to most closely approximate bedrock values. Samples collected by auger were placed on clean mats to ensure sufficient soil material was collected; sample size was approximately 600 grams. While collecting the soil samples, representative rock fragments from the ‘C’ horizon were also collected and reserved as a lithologic record to form a bedrock geologic map of the sampled area. Soil samples were collected in breathable cloth sample bags and dried before shipment to the laboratory.

Parameters recorded comprise UTM co-ordinates (NAD 83, Zone 6W) including elevation, sample depth, colour, moisture, lithology, texture, and condition of the site at surface. Samples were typically but not always analyzed with a Niton hand-held XRF unit prior to shipment (Section 11.1.9). In situations where collecting a soil sample was impossible, (e.g. talus slopes) a rock grab sample was collected in its place and recorded separately.

Soil samples collected in 2018 underwent the same chain of custody to the Fairbanks prep lab of Bureau Veritas as the 2018 rock samples.

Stream sediment sampling involved collection of an approximately 2 kg sample collected from as close to the active channel as possible. Sediment samples were not screened in the field. Following collection, the drying, sample preparation and chain of custody was identical to that of soil sampling. The same preparation and analysis procedures as for soil samples were employed.

11.1.4 Pan Concentrate Sampling, 2018

Pan Concentrate samples were initially screened through a 1/2 in. (1.27 cm) “Grizzly screen” to remove large fragments. The remaining material was then hand-panned, with each sample comprising five pans of material per site. Sampled material was collected from natural traps that concentrate dense material. Pan concentrate samples were crushed and analyzed utilizing the same preparation and analysis procedures as for rock samples.

The preparation and chain of custody to the Bureau Veritas prep lab in Fairbanks is identical to that for rock samples.

11.1.5 Due Diligence Rock Sampling, 2019

In 2019, a total of six rock samples were taken from the Northway property. All samples have a minimum weight of 0.25 kg and were placed in 8” x 13” clear poly bags. Each sample was placed in a bag with a unique sample tag. The corresponding sample number was also written in indelible ink on the outside of the bag. The sample bag was then wrapped tightly and bound using a “Zap Strap” cable tie. The rock samples were placed within a “rice bag”, with the sample numbers written on the outside of the bag, and sealed with a cable tie. All sample locations were recorded by using a Global Positioning System (GPS), utilizing Universal Transverse Mercator (UTM) 1983 North American Datum (NAD-83), at the location of the sample. All samples were marked in the field, using a combination of blue and orange flagging tape, with the sample number written on the flagging tape and then wrapped numerous times around the sample to protect the identification of the sample. Notes on sample type, UTM locations, including elevation, sample type, sample description, geological formation, lithology, modifiers, colour, various types and intensity of alteration, types and amount of mineralization, date, sampler and comments were recorded in a field book. These were then transferred to an Excel spreadsheet, where they were digitized with the analytical results.

The samples were transported by the Qualified Person and delivered directly to the Whitehorse, Yukon, Canada prep lab of Bureau Veritas. Bureau Veritas is independent of Tectonic, Avalon Development Corp, Aurora Geosciences Ltd. and the author.

11.1.6 Geoprobe Sampling, 2019

The Geoprobe is a track mounted, remote controlled, hydraulically powered direct-push drill designed by Ground Truth Exploration Inc. and operated by Ground Truth Americas, Ltd (Figure 53). The Geoprobe is designed to collect representative rock samples from the soil bedrock interface using a 2-inch internal diameter sampling rod. The sample spacing at Northway is mainly 25 m along pre-set lines or “corridors” at depths ranging from near surface to 4.5 m depending on ground conditions. Sampling intervals at Target 7 are more variable than elsewhere.

At each sample site approximately 30 cm of material from the bottom of each hole, at the “top of bedrock” level, is collected. Representative rock chips are collected from the sampled material and each sample

site is logged in a handheld Samsung smartphone. Each site is flagged, labelled, and surveyed using a differential GPS. Parameters logged comprise: UTM co-ordinates including elevation, sample depth, rock content, content of frozen material, oxidation level, amount of weathering, rock fragment angularity, lithology, alteration, whether bedrock was successfully reached, and any additional comments pertaining to the sample. All samples were analyzed with a Niton hand-held XRF unit prior to shipment (Section 11.1.9).

Geoprobe samples were placed into 12" x 18" 8 mil clear poly sample bags, each labelled with a unique sample identification and an assay tag, and sealed with a cable tie for shipment to the lab. Samples were placed in rice bags with the sample numbers written on the bag and sealed with a cable tie and individually numbered yellow security tags. All samples were either flown from the property by helicopter or transported by all-terrain vehicle (ATV) to a staging area near Northway Junction, Alaska. Samples were then transported by Horst Expediting (Horst) and Remote Operations, Inc. or Tectonic personnel to Horst's secure facilities in Fairbanks, or submitted directly to the prep lab of Bureau Veritas in Fairbanks, Alaska, USA by Avalon personnel. Samples stored at Horst's were then delivered to the Bureau Veritas lab by Horst personnel.

Bureau Veritas is independent of Tectonic, Avalon Development Corp, Aurora Geosciences Ltd. and the author.



Figure 53: Geoprobe in operation (Tectonic Metals Inc. after Ground Truth Exploration Inc.)

11.1.7 2019 Soil Sampling program

A total of 22 “B” horizon soil samples were also collected by the Geoprobe crew during Geoprobe operation. Approximately 600 g (0.600 kg) of “B” horizon soil material was collected from a 30-50 cm interval located directly above the bottom 30 cm interval which was sampled for the Geoprobe program. Sample material was placed into cloth bags which allowed for air circulation and drying capability. Samples were located by referencing the correlated Geoprobe sample interval. All samples were analyzed with a Niton hand-held XRF unit prior to shipment (Section 11.1.9).

Soil samples were placed into cloth sample bags which were labelled and assigned a unique sample ID and assay tag. The attached strings were tied prior to shipment. Samples were placed in rice bags with the sample numbers written on the bag, and sealed with a cable tie and individually numbered yellow security tags. All samples were either flown from the property by helicopter or transported by ATV to a staging area near Northway Junction, Alaska. Samples were then transported by personnel of Horst Expediting (Horst) and Remote Operations, Inc., or Tectonic/ Avalon personnel to Horst’s secure facilities in Fairbanks, or submitted directly to the prep lab of Bureau Veritas in Fairbanks. Samples stored at Horst’s were then delivered to the Bureau Veritas lab by Horst personnel.

11.1.8 RAB Drilling, 2019

The RAB drill works by channeling compressed air through 5-foot (1.52 m) single-wall drill rods to a pneumatic hammer attached to a semi-permeable bit, which acts as a jackhammer. The air forces rock chips and dust (the sample) through openings at the edge of the bit, where it then travels to surface along the sides of the rod string and is transferred from the borehole to a cyclone module by a sample hose. The sample is separated from the air in the cyclone and drops out of the bottom into a clean 5-gallon pail. Each sample comprises one 5-foot run. The sample is then tipped out of the pail into a 1:7 riffle splitter, with material to be assayed entering a 12" x 18" 8 mil clear poly sample bag, and the remaining material forming a separate tote. The sample bag is retained for analysis, while reference sample chips are sieved from a spear sample of the material in the tote and logged by the geologist directly on site into a Samsung handheld smartphone. The excess material in the tote is emptied at site for later reclamation.

Sample bags are labelled with a unique sample identification and assay tag and sealed with a cable tie for shipment to the lab. Samples were placed in rice bags with the sample numbers written on the bag and sealed with a cable tie and individually numbered yellow security tags. All samples were either flown from the property by helicopter or transported by all-terrain vehicle (ATV) to a staging area near Northway Junction, Alaska. Samples were then transported by truck to Tectonic's secure staging area in Tok, Alaska, before being transported by truck directly to the prep lab of Bureau Veritas in Fairbanks by Tectonic personnel.

11.1.9 XRF Data Collection, 2018 and 2019

XRF data was selectively collected during exploration campaigns from 2018 to 2019 as part of a comprehensive service package. The XRF analysis was undertaken in an attempt to establish a relationship between in-field XRF results and Fire Assay data to determine the XRF's effectiveness and reliability in future exploration programs.

No standardized methodology, calibration, nor Quality Control procedures were implemented during the collection of the XRF data. Varying models of XRF analyzers, specifications of analysis, and analytical procedures and methodologies have been employed by the differing exploration service providers rendering direct comparison difficult. Soil samples, if analyzed, may not have been consistently dried prior to analysis in the field, and rock and geoprobe samples, if analyzed, received only surficial point analysis. Due to the early-stage nature of the Northway property and the fact that no previous drilling has been completed on the property, no relationship between XRF data and drill assay data has been established.

For the reasons mentioned above, the Qualified Person believes any XRF data to be unreliable and not significant at this time.

12 SAMPLE PREPARATION, ANALYSES AND SECURITY

12.1 ANALYTICAL METHODS

12.1.1 Rock, Pan Concentrate and Trench Sampling, 2018

At the Bureau Veritas Fairbanks prep lab, all samples underwent crushing, splitting and pulverization to achieve a 250-gram pulp capable of passing through a 200-mesh screen (prep code PRP70-250). All

samples were then sent to Reno, Nevada, where they underwent analysis by gold by 30-gram fire assay fusion with an atomic absorption finish (AAS) (analysis code FA430). Following this, a 0.25-gram pulp was sent to the Vancouver, British Columbia, Canada lab for four-acid digestion “Inductively Coupled Plasma Emission Spectrometer” (ICP-ES) analysis (prep code MA300) for Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Th, Ti, U, V, W, Y, Zn, Zr.

Analytical results were continually checked to ensure the sample numbers in the results match those in the descriptions.

Bureau Veritas Commodities is an analytical laboratory with ISO 14001 environmental certification and ISO 45001 certification for safety. Bureau Veritas is independent of Tectonic, Avalon Development Corp, Aurora Geosciences Ltd. and the author.

12.1.2 Soil and Stream Sediment Sampling, 2018

At the Fairbanks Bureau Veritas prep facility, all soils underwent drying to 60°C (prep code DY060), then sieved to -180 micron (80 mesh) size (prep code SS80). All samples were then sent to Reno, Nevada, where they underwent analysis for gold by 30-gram fire assay fusion with an atomic absorption finish (AAS) (prep code FA430). Following this, the 0.25-gram pulps were sent to the Vancouver, British Columbia, Canada lab for four-acid digestion “Inductively Coupled Plasma Emission Spectrometer” (ICP-ES) analysis (prep code MA300) for Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Th, Ti, U, V, W, Y, Zn, Zr.

Analytical results were continually checked to ensure the sample numbers in the results match those in the descriptions.

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12.1.3 2019 Geoprobe Sampling

Geoprobe samples, mainly comprising rock chips, were treated as rock samples. At the Bureau Veritas Fairbanks prep lab, all samples underwent crushing, splitting and pulverization to achieve a 250-gram pulp capable of passing through a 200-mesh screen (prep code PRP70-250). All samples were then sent to Reno, Nevada, where they underwent analysis by gold by 30-gram fire assay fusion with an atomic absorption finish (AAS) (analysis code FA430). Following this, a 0.25-gram pulp was sent to the Vancouver, British Columbia, Canada lab for four-acid digestion “Inductively Coupled Plasma Emission Spectrometer” (ICP-ES) analysis (prep code MA300) for Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Th, Ti, U, V, W, Y, Zn, Zr.

Analytical results were continually checked to ensure the sample numbers in the results match those in the descriptions.

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12.1.4 2019 Soil Sampling

The sample preparation for the 2019 soils was identical to that for the 2018 soil sampling program. At the Fairbanks Bureau Veritas prep facility, all soils underwent drying to 60°C (prep code DY060), then sieved to -180 micron (80 mesh) size (prep code SS80). All samples were then sent to Reno, Nevada, where they underwent analysis for gold by 30-gram fire assay fusion with an atomic absorption finish (AAS) (prep code FA430). Following this, the 0.25-gram pulps were sent to the Vancouver, British Columbia, Canada lab for four-acid digestion “Inductively Coupled Plasma Emission Spectrometer” (ICP-ES) analysis (prep code MA300) for Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Th, Ti, U, V, W, Y, Zn, Zr.

Analytical results were continually checked to ensure the sample numbers in the results match those in the descriptions.

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12.1.5 2019 RAB Drilling

RAB samples, mainly comprising rock chips and dust, were treated as rock samples. At the Bureau Veritas Fairbanks prep lab, all samples underwent crushing, splitting and pulverization to achieve a 250-gram pulp capable of passing through a 200-mesh screen (prep code PRP70-250). All samples were then sent to Reno, Nevada, where they underwent analysis by gold by 30-gram fire assay fusion with an atomic absorption finish (AAS) (analysis code FA430). Following this, a 0.25-gram pulp was sent to the Vancouver, British Columbia, Canada lab for four-acid digestion “Inductively Coupled Plasma Emission Spectrometer” (ICP-ES) analysis (prep code MA300) for Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Th, Ti, U, V, W, Y, Zn, Zr.

No assay results have been received for the 2019 program as of the Effective Date of October 31st of this report.

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12.2 QUALITY ASSURANCE AND QUALITY CONTROL

Avalon and Tectonic incorporated several types of Quality Control (QC) “Standard” samples into the rock and soil sample streams, reflecting varying known gold grades per standard type. Standard samples were supplied by “OREAS” (Ore Research and Exploration P/L) of Australia, and Rocklabs (Rocklabs Reference Materials) of Auckland, New Zealand. Eleven different commercially available standards were utilized, with values ranging from 0.012 ppm gold to 3.03 ppm gold.

Avalon and Tectonic also inserted blank samples of Quaternary basaltic flow rocks taken from a local Fairbanks, Alaska quarry called the Browns Hill Quarry. Avalon Development has an extensive data base of assay values for this material providing a reliable baseline for determining expected Au values. Avalon has utilized the same basaltic rocks for quality control sampling for more than 20 years and can confirm samples consistently return <0.005 g/t Au.

Standard samples test for the accuracy of gold geochemical analysis, whereas blank samples test for contamination, if any, within the sample stream. Individual samples falling outside of 2 standard deviations (2SD) of the known value do not necessarily indicate inaccurate values for the particular batch; however, numerous values outside of 2SD may indicate systematic inaccuracies in fire assay analysis.

QC samples were inserted into the sample submittals at a rate of approximately 1 QC sample per 10 assay samples (approximately 10%). Standards were inserted at a rate of approximately 8 standard samples per 100 assay samples (8%), blanks were inserted at a rate of approximately 2 blank samples per 100 assay samples (2%).

In addition to the quality control program administered by Avalon Development, Bureau Veritas has rigorous internal quality control standards, which utilize the use of their own standard, blanks and duplicates within the sample stream.

Table 12 below lists certified values and 2SD ranges for standard samples utilized by Avalon and Tectonic.

Table 12: Certified Au values and 2SD ranges, 2018 Standard samples

Reference Material	Certified Au Value (ppm)	1SD	2SD Low	2SD High
OREAS 214	3.030	0.082	2.870	3.200
OREAS 218	0.531	0.017	0.497	0.565
OREAS 220	0.866	0.020	0.826	0.907
OREAS 224	2.150	0.053	2.050	2.260
OREAS 250	0.309	0.013	0.283	0.335
OREAS 251	0.504	0.015	0.474	0.534
OREAS 260	0.016	0.0018	0.0124	0.0197
OREAS H1	0.012	0.001	0.010	0.014
OxA89	0.0836	0.0079	0.0678	0.0994
OxA131	0.077	0.007	0.063	0.091
OxB130	0.125	0.006	0.113	0.137
Browns Hill Quarry basalt	<0.005			

12.2.1 Quality Control, 2018 Rock Sampling

Five standard samples of three different types, and three blank samples were inserted into the 2018 rock sampling stream. The Au value for sample #564820, of Standard OREAS 218, is just above the upper 2SD limit. The others all fell within the 2SD range.

One of the blank samples returned an anomalous Au values of 0.023 g/t Au, indicating some contamination has occurred. Gold assay values from the associated batch may be slightly elevated, although this is more applicable to low values in the 0.025 g/t Au range. Higher-grade gold values returned from rock sampling adequately represent true values.

Table 13: Comparison of achieved versus certified Au values, 2018 rock sampling

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
OREAS	OREAS 218	0.531	0.017	0.497	0.565	564820	0.568	No
OREAS	OREAS 220	0.866	0.020	0.826	0.907	216287	0.875	Yes
OREAS	OREAS 220	0.866	0.020	0.826	0.907	564670	0.886	Yes
OREAS	OREAS 220	0.866	0.020	0.826	0.907	564830	0.855	Yes
OREAS	OREAS 224	2.150	0.053	2.050	2.260	564840	2.179	Yes
Browns Quarry						564680	0.006	
Browns Quarry						216286	0.023	
Browns Quarry						564690	-0.005	

12.2.2 Quality Control, 2018 Trench Sampling

Two standard samples of different types and one blank sample were inserted into the trench sample stream. Both standard samples returned values within 2SD. The blank sample returned a weakly elevated value of 0.016 g/t Au, indicating slight gold contamination may have occurred for that particular batch. This is more applicable to samples returning very low values. Higher-grade gold values returned from rock sampling adequately represent true values.

Table 14: Comparison of achieved versus certified Au values, 2018 rock trench sampling

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
OREAS	OREAS 214	3.030	0.082	2.870	3.200	3181420	2.947	Yes
OREAS	OREAS 224	2.150	0.053	2.050	2.260	564840	2.166	Yes
Browns Quarry						3181400	0.016	

12.2.3 Quality Control, 2018 Pan Concentrates

Seven standard samples of four different types were inserted into the 2018 pan concentrate sampling stream. Of these, two, both of standard OREAS 220, returned values considerably below the lower 2SD limit. Of the remaining five, four returned values below the certified Au value but within the lower 2SD threshold. Gold values from the pan concentrate samples within the batches containing the OREAS 220 values may be underestimating true values, and the batches should be re-run.

All three blank samples returned <0.005 g/t Au, indicating the procedure was free of contamination.

Table 15: Comparison of achieved versus certified Au values, 2018 pan concentrate sampling

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
OREAS	OREAS 214	3.030	0.082	2.870	3.200	3180520	2.926	Yes
OREAS	OREAS 218	0.531	0.017	0.497	0.565	3180510	0.535	Yes
OREAS	OREAS 220	0.866	0.020	0.826	0.907	3180530	0.871	Yes
OREAS	OREAS 220	0.866	0.020	0.826	0.907	3180540	0.775	No

OREAS	OREAS 220	0.866	0.020	0.826	0.907	3180560	0.766	No
OREAS	OREAS 251	0.504	0.015	0.474	0.534	3180570	0.491	Yes
OREAS	OREAS 251	0.504	0.015	0.474	0.534	3180600	0.490	Yes
Browns Quarry						3180590	-0.005	
Browns Quarry						30141	-0.005	
Browns Quarry						102397	-0.005	

12.2.4 Quality Control, 2018 Soil Samples

A total of 81 standard samples of 7 different compositions was inserted into the 2018 soil sample stream. Of these, 9 of 17 samples of OREAS H1 (Certified value: 0.012 g/t Au) and 9 of 20 samples of OREAS 260 (Certified value: 0.016 g/t Au) returned Au values outside of the 2SD limits. This is partially an effect of the very low certificate value of both standard sets, where a very small deviation from true Au values translates to a high percentage variation, commonly outside of the 2SD limits. Low values from soil sampling may vary from true values by a similar amount.

Analysis of standards having higher certified values returned values within the 2SD limits, except for one sample of OREAS 250, which was somewhat above the upper limit. This indicates the possibility of an over-estimation of Au values in the affected sample batch. The remaining results indicate the achieved values adequately represent true values.

Blank sample Au analysis returned background to near-background values for all samples except for two, which are slightly elevated. This indicates an absence of significant contamination for most of the sample procedure, but potential for very slight contamination for the batches containing the two aforementioned samples.

Table 16: Comparison of achieved versus certified values, 2018 soil sampling

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
OREAS	OREAS H1	0.012	0.001	0.010	0.014	216950	0.011	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181650	0.011	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181740	0.015	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181760	0.016	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181840	0.010	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180040	0.015	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180150	0.012	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180190	0.010	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181850	0.018	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181950	0.015	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180260	0.011	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180300	0.015	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180360	0.010	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180400	0.015	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180440	0.040	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3180480	0.015	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3186440	0.017	No

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
OREAS	OREAS 250	0.309	0.013	0.283	0.335	3180130	0.324	Yes
OREAS	OREAS 250	0.309	0.013	0.283	0.335	3181820	0.330	Yes
OREAS	OREAS 250	0.309	0.013	0.283	0.335	3180200	0.314	Yes
OREAS	OREAS 250	0.309	0.013	0.283	0.335	3180070	0.351	No
OREAS	OREAS 250	0.309	0.013	0.283	0.335	3180450	0.317	Yes
OREAS	OREAS 251	0.504	0.015	0.474	0.534	3186460	0.491	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3180160	0.013	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181930	0.022	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181980	0.022	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181570	0.022	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181580	0.020	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181620	0.020	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3180250	0.016	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3180270	0.014	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3180340	0.014	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3180470	0.017	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3186430	0.014	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	216970	0.026	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3180020	0.011	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181710	0.010	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181720	0.019	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181860	0.012	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181940	0.017	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3180030	0.017	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3180080	0.016	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181670	0.077	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181730	0.083	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181770	0.073	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181780	0.073	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181830	0.075	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3180010	0.081	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3180060	0.080	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3180090	0.084	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181810	0.085	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181910	0.083	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181540	0.078	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181550	0.083	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181600	0.086	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3181970	0.076	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3181990	0.075	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3180240	0.077	Yes

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3180290	0.070	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3180350	0.070	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3180410	0.075	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3180420	0.074	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	216980	0.133	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	216990	0.133	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181680	0.121	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181690	0.124	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181790	0.123	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181870	0.116	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181900	0.123	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3180110	0.121	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3180140	0.124	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3180180	0.119	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3180210	0.118	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181860	0.126	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181920	0.121	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181520	0.117	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181640	0.127	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3180310	0.119	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3180320	0.123	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3180370	0.129	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3180390	0.129	Yes
Browns Quarry						102399	-0.005	
Browns Quarry						217000	0.006	
Browns Quarry						102400	-0.005	
Browns Quarry						3181700	0.006	
Browns Quarry						3181750	-0.005	
Browns Quarry						3181800	-0.005	
Browns Quarry						3181880	-0.005	
Browns Quarry						3180000	-0.005	
Browns Quarry						3180050	-0.005	
Browns Quarry						3180100	-0.005	
Browns Quarry						3180120	-0.005	
Browns Quarry						3180170	-0.005	
Browns Quarry						3180230	0.007	
Browns Quarry						3181890	0.005	
Browns Quarry						3181960	-0.005	
Browns Quarry						3181510	-0.005	
Browns Quarry						3181560	-0.005	
Browns Quarry						3181630	-0.005	

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
Browns Quarry						102226	-0.005	
Browns Quarry						3180280	-0.005	
Browns Quarry						3180330	-0.005	
Browns Quarry						3180380	-0.005	
Browns Quarry						3180430	0.012	
Browns Quarry						3180490	0.010	

12.2.5 Quality Control, 2018 stream silt sampling

A total of 25 standard samples of 6 varieties was inserted into the stream silt samples. Of these, 5 fell outside of the 2SD limits, all of OREAS H1 (certified value of 0.012 g/t Au) and OREAS 260 (Certified value of 0.016 g/t Au). This is partially an effect of the very low certificate value of both standard sets, where a very small deviation from true Au values translates to a high percentage variation, commonly outside of the 2SD limits. Low values from soil sampling may vary from true values by a similar amount. All standards having higher certified values of Au returned assays within their respective 2SD ranges.

Blank samples all returned values of or near <0.005 g/t Au, indicating the analytical procedure was free of contamination.

Table 17: Comparison of achieved versus certified values, 2018 stream sediment sampling

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181010	0.013	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181040	0.015	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181220	0.014	Yes
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181230	0.018	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181250	0.015	No
OREAS	OREAS H1	0.012	0.001	0.010	0.014	3181290	0.013	Yes
OREAS	OREAS 250	0.309	0.013	0.283	0.335	3181190	0.327	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	30143	0.020	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181080	0.021	No
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181140	0.019	Yes
OREAS	OREAS 260	0.016	0.0018	0.0124	0.0197	3181200	0.018	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181060	0.091	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181100	0.081	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181130	0.079	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181210	0.076	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	3181260	0.086	Yes
Rocklabs	OxA89	0.0836	0.0079	0.0678	0.0994	102211	0.084	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3181020	0.081	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3181100	0.081	Yes
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3181030	0.080	Yes

Supplier	Reference Material	Certified Au value (ppm)	1SD	2SD Low	2SD High	Sample No	Au (ppm)	Within 2SD?
Rocklabs	OxA131	0.077	0.007	0.063	0.091	3181240	0.072	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181070	0.135	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181110	0.125	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181150	0.119	Yes
Rocklabs	OxB130	0.125	0.006	0.113	0.137	3181170	0.123	Yes
Browns Quarry						102398	-0.005	
Browns Quarry						3181050	-0.005	
Browns Quarry						30142	-0.005	
Browns Quarry						3181090	0.006	
Browns Quarry						3181120	-0.005	
Browns Quarry						3181180	-0.005	
Browns Quarry						3181160	-0.005	
Browns Quarry						102210	-0.005	
Browns Quarry						102242	-0.005	

12.2.6 Quality Control, 2019 Geoprobe Samples

During 2019, quality control (QC) “Standard” and “Blank” samples were inserted at a rate of about 1 QC sample per 10 rock chip Geoprobe samples, although at the onset of the program the insertion rate was about 1 QC sample per 30 rock samples.

Two types of reference materials (standard samples) were employed by Tectonic in 2019, both provided by CDN Resource Laboratories Ltd. of Langley, British Columbia, Canada. One is Reference Material CDN-CM-38, which employs known values for gold, silver, copper and molybdenum, designed to test for porphyry-style mineralization. The other is Reference Material CDN-ME-1205, employing known values of Au, Ag, Cu, Pb and Zn, and designed to test for polymetallic mineralization. Table 18 below lists the known values as well as the range of two standard deviations (2SD) for CDN-CM-38, and Table 19 sets out the same parameters for CDN-ME-1205. For both Cu and Mo, the “4-acid / ICP or AA” reference material was utilized. A total of 17 standard samples of CDN-CM-38, 13 standard samples of CDN-ME-1205, and 13 blank samples, again from Brown’s Quarry, were inserted into the sample stream.

Table 18: Certified values and 2SD ranges for CDN-CM-38*

Element	Certified Value		2SD range	Analytical Procedure Used
Gold (Au)	0.942 g/t	±	0.072 g/t	30g FA/ICP or AA
Silver (Ag)	6.0 g/t	±	0.4 g/t	4-acid / ICP or AA
Silver (Ag)	6.0 g/t	±	0.4 g/t	Aqua Regia / ICP or AA
Copper (Cu)	0.686%	±	0.032%	4-acid / ICP or AA
Copper (Cu)	0.681%	±	0.032%	Aqua Regia / ICP or AA
Molybdenum (Mo)	0.0181%	±	0.0011%	4-acid / ICP or AA
Molybdenum (Mo)	0.0174%	±	0.0016%	Aqua Regia / ICP or AA

Table 19: Certified values and 2SD ranges for CDN-ME-1205*

Element	Certified Value		2SD range	
Gold (Au)	2.20 g/t	±	0.28 g/t	Certified Value
Silver (Ag)	25.6 g/t	±	2.4 g/t	Certified Value
Copper (Cu)	0.218%	±	0.01%	Certified Value
Lead (Pb)	0.130%	±	0.004%	Certified Value
Zinc (Zn)	0.37%	±	0.030%	Certified Value

* taken from official Certificates by CDN Resource Laboratories Ltd.

Table 20 lists the returned versus estimated values for reference material for the 2019 Northway Geoprobe program.

Analysis of standard reference material CDN-CM-38 revealed a “failure rate” (outside of the 2SD limits) of 17.6% (3 out of 17) for Au, 11.8% (2 out of 17) for Ag and Mo, and 5.9% (1 out of 17) for Cu. Of three Au values outside of the 2SD range, two are above the upper limit, indicating actual geochem values may be less than returned values for their respective sample “batches”; and one is below the lower threshold, indicating actual gold grades may exceed returned values. Both Ag values outside the 2SD range were above the upper threshold, indicating rock values returned within respective batches may exceed true Ag values. Both of the Mo “fail” values exceeded the upper 2SD threshold by a slight amount, indicating likelihood that rock values returned exceeded true values. The single Cu “fail” value fell below the lower 2SD threshold, indicating true Cu values likely exceeded returned values for the respective batch.

Analysis of standard reference material CDN-ME-1205 returned a 0.0% failure rate for Au, Ag, Cu and Zn. However, a failure rate of 41.6% (5 out of 12) was returned for Pb, comprising two values exceeding the upper threshold and three below the lower threshold. This indicates an over-estimation of Pb values for the former, and under-estimation of these for the latter.

Blank sample analysis returned sub-detection Au values for all samples, indicating the procedure was free of Au contamination. Several samples returned Ag values above detection, to 2.0 g/t Ag, indicating some contamination occurred. Sub-detection Mo values were returned from all samples. Values for Pb and Zn were at or near estimated background values for each. No background estimate was provided for Pb, although background Pb values were returned for all blank samples.

Table 20: Comparison of returned versus expected reference material values

Sample ID	Description	Au exp (ppm)	Ag exp (ppm)	Cu exp (ppm)	Mo exp (ppm)	Pb exp (ppm)	Zn exp (ppm)	Au returned	Ag (ppm)	Cu (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
1691026	CDN-CM-38	0.942	6.0	6860	181			0.904	5.7	6665	180		
1691051	CDN-CM-38	0.942	6.0	6860	181			0.900	6.5	6645	188		
1691076	CDN-CM-38	0.942	6.0	6860	181			0.874	6.1	7078	186		
1691101	CDN-CM-38	0.942	6.0	6860	181			0.997	5.9	6802	171		
1691126	CDN-CM-38	0.942	6.0	6860	181			0.914	5.7	6723	179		
1691151	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.295	25.8	2169		1295	3590
1690776	CDN-CM-38	0.942	6.0	6860	181			0.959	5.9	6751	183		
1690801	CDN-CM-38	0.942	6.0	6860	181			1.056	5.8	6775	181		
1690826	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.176	25.6	2178		1283	3662
1690851	CDN-CM-38	0.942	6.0	6860	181			0.991	6.2	6799	182		
1691201	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.11	25.8	2144		1302	3678
1690876	CDN-CM-38	0.942	6.0	6860	181			0.976	6.1	6778	189		
1690901	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.132	25.9	2127		1254	3559
1691226	CDN-CM-38	0.942	6.0	6860	181			0.816	6.3	6998	187		
1690926	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.136	26.8	2149		1305	3712
1690952	CDN-CM-38	0.942	6.0	6860	181			0.906	6.3	6709	193		
1690972	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.139	24.8	2154		1280	3666
1690992	CDN-CM-38	0.942	6.0	6860	181			0.935	5.6	6614	173		
1691183	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.426	25.2	2156		1184	3613
1603012	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.047	25.5	2225	81	1263	3696
1691192	CDN-CM-38	0.942	6.0	6860	181			0.886	5.9	6727	186		
1603032	CDN-CM-38	0.942	6.0	6860	181			1.06	6.2	6845	185		
1603052	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.293	24.1	2072		1250	3490
1603072	CDN-CM-38	0.942	6.0	6860	181			0.962	6.2	6766	184		
1603092	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.462	28	2220		1361	3796
1603112	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.238	25.8	2205		1308	3690
1603122	CDN-CM-38	0.942	6.0	6860	181			0.989	6.1	6699	178		
1603142	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.169	26.5	2111		1261	3647

Sample ID	Description	Au exp (ppm)	Ag exp (ppm)	Cu exp (ppm)	Mo exp (ppm)	Pb exp (ppm)	Zn exp (ppm)	Au returned	Ag (ppm)	Cu (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
1603167	CDN-CM-38	0.942	6.0	6860	181			0.95	6.7	6521	193		
1603187	CDN-ME-1205	2.2	25.6	2180		1300	3690	2.235	27.9	2126		1341	3691
1690962	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	25	-2	6	97
1690982	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	31	-2	-5	92
1691173	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	24	-2	-5	96
1603002	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	24	-2	5	97
1603022	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	24	-2	-5	97
1603042	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	28	-2	12	105
1603062	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	33	-2	8	97
1603082	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	2	24	-2	9	138
1603102	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	27	-2	-5	128
1603132	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	0.9	23	-2	5	97
1603152	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	1.4	24	-2	-5	100
1603177	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	-0.5	22	-2	13	118
1603197	Basalt blank	-0.005	-0.5	25.4	-2		101	-0.005	1.1	26	-2	-5	105

12.2.7 Quality Control, 2019 RAB Drilling

During the 2019 RAB drilling program, quality control (QC) “Standard” and “Blank” reference material samples were inserted at a rate of about 1 QC sample per 10 RAB drill samples. In addition, field duplicate samples were collected at a rate of 1 duplicate sample per 33 RAB drill samples on regular intervals. RAB field duplicates were collected by running the excess sample material in the retention tote from the original sample through the riffle splitter, splitting a second sample from the original sample at the drill site. The field duplicate is then prepared for shipment as part of the main sample stream.

Five types of reference materials (standard samples) were employed by Tectonic in 2019, all provided by ORE Research & Exploration (OREAS) of Bayswater North, Australia. Standards were chosen to reflect a mixture of both the gold-dominant and typical porphyry polymetallic signatures exhibited at the Northway property. Table 21 lists a summary of the standards utilized as well as their certified values and the range of two standard deviations (2SD) for each standard. For both Cu and Mo, the “4-acid / ICP or AA” reference material was utilized. A total of 7 standard samples of OREAS 226, 11 standard samples of OREAS 503b, 6 standard samples of OREAS 252, 4 standard samples of OREAS 217, and 5 standard samples of OREAS 209, and 33 blank samples of basalt from Brown’s Quarry were inserted into the sample stream.

Table 21: Reference Material "Standards" utilized in the 2019 RAB drilling program

Standard	Element	Certified Value		2SD Range	Analytical Procedure Used
OREAS 252	Gold (Au)	0.674 g/t	±	0.044 g/t	25-40g FA/ICP or AA
	Copper (Cu)	49.4 ppm	±	5.66 ppm	Aqua Regia/ ICP or AA
OREAS 503b	Gold (Au)	0.695 g/t	±	0.042 g/t	25-40g FA/ICP or AA
	Copper (Cu)	0.531 %	±	0.046 %	4-acid/ ICP or AA
	Copper (Cu)	0.523 %	±	0.03 %	Aqua Regia/ ICP or AA
	Molybdenum (Mo)	319 ppm	±	32.8 ppm	4-acid/ ICP or AA
	Molybdenum (Mo)	308 ppm	±	34.4 ppm	Aqua Regia/ ICP or AA
OREAS 226	Gold (Au)	5.45 g/t	±	0.2052 g/t	25-50g FA/ICP or AA
	Copper (Cu)	138 ppm	±	10 ppm	Aqua Regia/ ICP
OREAS 217	Gold (Au)	0.338 g/t	±	0.02 g/t	25-50g FA/ ICP or AA
OREAS 209	Gold (Au)	1.58 g/t	±	0.088 g/t	25-40g FA/ICP or AA

12.3 STATEMENT OF OPINION

12.3.1 *Quality Assurance*

The rock sampling methodology is adequate for the conditions encountered, comprising grab sampling mainly of float boulders. Grab sampling tends to return the least representative results, and commonly shows a bias towards “high grading” of the mineralized portions. However, grab sampling is likely the only option for most sample location at Northway, due to lack of outcrop. Composite grab sampling, involving collection of several pieces of similar material, may be possible in some locations where rubblecrop or felsenmeer is encountered, and typically provide more representative gold values. Where feasible, composite grab sampling should be done. Chip sampling, involving an even amount of sampling across a known width, is recommended where mineralization occurs in situ.

The trench sampling methodology, comprising representative sampling across known widths, is also suitable for the conditions encountered. Trenching did not typically reach bedrock, requiring evenly distributed “chip-grab” sampling of rubblecrop or subcrop instead. The collection of representative grab samples of mineralized material to test for higher grade gold values also assists understanding of the mineralogy, provided they are not confused with trench values over width. The results are likely to be as representative of true values as possible.

The routine and repetitive methodology of soil sampling in 2018 should eliminate any chance of bias. Due to greater depth penetration, auger sampling tends to return more representative gold values because the material sampled was taken at greater depths and is thus more representative of true values. Variability in results of soil sampling may be caused by depth of overburden, slope angle, vegetative cover, if any, and outcrop exposure, with lower values expected in flat areas with thick overburden. Soil anomalies may be transported, depending on slope and groundwater conditions; detailed records of slope, vegetation, soil conditions are used to determine probability of transportation.

The methodology of silt sampling and density of sampling along streams should mitigate potential for inherent bias, provided material is taken at several locations per sample site. Similarly, the methodology of pan concentrate sampling, involving five “pans” of material per sample, should also remove any inherent bias in the process. Gold values from pan sampling tend to be higher than for soil sampling, due to the concentration of heavy fragments from the initial sample. This can be mitigated by usage of higher thresholds for anomalous values during data compilation; otherwise delineation of anomalous values is similar to that of stream silt sampling.

The routine and repetitive methodology of 2019 Geoprobe sampling should also eliminate any chance of bias, and is more definitive than that for power auger sampling. The sampled material is treated as rock, comprising mainly rock chips, thus representing lithological rather than deep soil metal content. The material is also much less prone to downslope movement, and more accurately represents bedrock geochemistry. The 2019 power auger soil geochemical sampling has the same level of accuracy and underwent the same level of quality assurance as the 2018 auger sampling.

12.3.2 *Quality Control (QC)*

A high standard of quality control was utilized by Avalon and Tectonic during the 2018 program. The insertion of 11 different types of standards, with varying known concentrations, was done to determine levels of accuracy from near-background values (OREAS 200, 0.012 ppm Au) to moderate ore grade values (OREAS 214, 3.030 ppm Au). Avalon and Tectonic also utilized low Au-value standards in soil geochemical streams, and higher Au-value standards for rock and trench sample streams, in anticipation of expected

values. The source of blank samples is well-chosen; actual rock samples are preferable to the usage of prepared blanks, assuming adequate additional testing of blank material. The basalt samples from the Browns Hill Quarry basalt are adequate for the QC process here.

All standard samples within the 2018 rock and trench geochemical streams returned Au values within the respective 2SD ranges, indicating Au values from actual sampling closely approximate true values. One blank sample from the rock stream and the only blank from the trench stream returned elevated Au values, indicating some contamination may have occurred in their respective batches. This will be a factor mainly at very low grades, where contamination raising the obtained value by a few ppb Au may exceed the 2SD limits. However, the importance of this deviation at very low grades from rock sampling is limited.

The 2018 pan concentrate sample geochemical stream returned two values from Standard Sample OREAS 220 (0.866 ppm Au) well below the lower 2SD limit, although no significant deviation occurs elsewhere in the sample stream. This indicates that achieved values may have underestimated true values in their respective sample batches, and that these batches may need to be re-analyzed. It is unlikely that original multi-lab analysis of the standard material is sufficiently imprecise to cause this variation. Blank sample values indicate a lack of contamination.

Within the 2018 soil sample stream, almost half of the inserted samples of OREAS H1 and OREAS 260 returned Au values outside of the 2SD range. This is partially a function of very low initial Au values, where a very small deviation from true values translates to a high percentage variation. This may affect delineation of Au anomaly boundaries if a very low anomalous threshold is determined. The effect at higher Au values is subdued to negligible. Almost all higher-grade standard samples returned Au values within 2SD. Blank sample results indicate the analytical process was essentially free of contamination.

The 2018 silt sample stream revealed a similar pattern of variation from certified values from samples of standards OREAS H1 and OREAS 260. Higher-grade standard samples all returned Au values within the 2SD range. This would have the same result as for soil sampling, if low anomalous thresholds are established, but will have a subdued percentage variance at higher grades. With one exception, blank sample analysis indicates the sampling process is essentially free of contamination.

No duplicate samples were submitted during the 2018 programs. Duplicate sampling, designed to test for distribution of metal values within a sample rather than for analytical accuracy, is not necessarily standard practice for non-drilling sample streams.

The ratio of insertion of standard samples to obtained samples is typically about 1:20. Although the 1:10 ratio employed here is certainly beneficial, it is not necessary for confirming accuracy of elemental analysis. A minimum insertion rate is one standard sample per sample batch. However, the ratio of 1:50 for blank sample insertion may be inadequate to ensure at least one blank sample per batch. The insertion rate should be increased to a minimum of one per batch to guarantee this.

A high standard of quality control was again utilized by Avalon and Tectonic during the 2019 Geoprobe program. Two sets of standard reference material with known base and precious metal values were utilized, as well as blanks from the same source (Brown's Quarry) as that utilized for previous programs. Of the two types of standard reference material, CDN-ME-1205 was shown to be more reliable for Au, largely due to the higher known values resulting in a 2SD range with a lesser percentage variance from the known value. Reference material CDN-ME-1205 also proved more reliable for Ag analysis than CDN-CM-38, again due to the former's higher known or "expected" value. For both of the CDN-CM-38 reference material, fail values for Ag exceeded the upper 2SD limit. Avalon stated that Ag values returned from Bureau Veritas Labs commonly over-estimate true values for low Ag concentrations, a statement

supported by analytical results of standard samples. Blank samples also commonly return elevated to anomalous Ag values, indicating imprecision in the analytical technique, and over-estimation of actual values.

Values returned for Cu and Mo within reference material CDN-CM-38 typically fall within the 2SD range, with only occasional “fail” results. This indicates a high degree of reliability for these elements. Again, fail values indicate the respective batches may have either over-estimated or under-estimated values for the respective elements, and care should be used when compiling results from these batches. Analysis for Zn has been shown to be highly reliable for both sets of standard reference material. However, Pb values in both sets of reference material showed the highest variance from expected values, with the greatest number of “fail” values. Fortunately, Pb is of secondary importance at the Northway property, useful mainly as a pathfinder element for Au and Ag mineralization.

“Blank” sampling returned sub-detection values for Au for all samples, indicating gold analysis throughout the program was free of contamination. However, several blank samples returned elevated to anomalous values for Ag, indicating contamination. This has been reported as a consistent issue with the Bureau Veritas lab employed for analysis, and should be investigated. Blanks sample values for Mo were all at sub-detection levels, free of contamination, and values for Cu, Pb and Zn were all at roughly crustal abundance, indicating no contamination issues for these elements.

The insertion rate for standard reference material was about 1:21, adequate for the program. The insertion rate for blanks is 1:49, insufficient to ensure one blank per sample batch. This is applicable to the onset of the program only when the insertion rate for blanks was about 1:60. The blank sample insertion rate increased to about 1:20 partway through the program. An alternating standard and blank insertion pattern at a 1:20 ratio for each of a standard and blank QC reference sample ensures one sample of each will be enclosed in each sample batch.

It is this author’s opinion that the data provided by Tectonic is adequate for the purposes of this report, and that the QC regimen employed is adequate for all but the onset of the project.

This author is of the opinion that the security procedures employed during the chain of custody of samples from the property to the analytical laboratory are adequate.

13 DATA VERIFICATION

The 2019 due-diligence rock sampling by Carl Schulze, Qualified Person for this Technical Report, did not return significantly anomalous gold values, except from the VABM Ball SW occurrence. This is not surprising, as no highly anomalous gold values were returned from previous sampling at the burrow pit near the Road Metal prospect. High grade gold values were returned from diamond drilling in an area lacking surface exposure.

At the Yarger Lake prospect, a 2019 rock sample, #1465501, taken from the site of 2018 sample #564662, returned a value of value of 0.014 g/t Au, compared to the 2018 value of 2.244 g/t Au. A nearby 2019 sample, #1465502, returned a value of 0.031 g/t Au. Both samples were of cm-scale quartz-sulphide veining within silicified alteration selvages in biotite granodiorite. The disparity of results may reflect a coarse gold effect, as the anomalous value in #564662 is the only higher-grade value known to Tectonic at that site.

Outside of the Road Metal prospect, the main prospects are the soil and stream silt/pan concentrate geochemical anomalies at the Area 6 and Area 7 targets. These were not visited in 2019, although the Bitters Creek area roughly 2 km south of Area 6 was visited. Strong chlorite and epidote alteration of abundant biotite granodiorite rubblecrop and proximal float was interpreted by Tectonic and Avalon geologists as representing the potential propylitic alteration halo outbound from a porphyry centre. This alteration was confirmed during the 2019 visit (Figure 39).

Sample #1465505, taken from shear-hosted remobilized copper mineralization at the VABM Ball SW showing, returned 0.330 g/t Au, 31.222 g/t Ag and >1.0% Cu. The showing has very limited economic potential, but validates high Cu and anomalous Au values obtained by earlier workers. Remobilized material of these metal grades indicates a fairly local source, potentially from the Area 6 target roughly 10 km to the northwest.

Sample 1465506, returning 0.004 g/t Au, was taken from a previously unsampled site.

This author has reviewed the 2018 rock, soil, pan concentrate and stream sediment geochemical data, combined with results, and has found them to be adequately tabulated. The author has compared numerous rock and soil, pan concentrate and stream sediment element values in the compiled 2018 data with those from the original certificates from Bureau Veritas and has found that, in all cases, results were tabulated accurately in the databases supplied. The author also feels the geochemical databases supplied, combined with drill collar data and all other information supplied by Tectonic to be accurate and complete. It is this author's opinion that the 2018 data provided by Tectonic is adequate for the purposes of this report.

The 2019 Geoprobe rock chip sampling programs at Targets 6 and 7 were conducted at a tighter sample spacing than the 2018 work, improving resolution of anomalous trends. At Target 6, Cu, Mo and Zn values from 2019 Geoprobe sampling supported and further delineated the values from 2018 soil sampling. Values for Au obtained from 2019 Geoprobe sampling did not support those from 2018 soil sampling. However, the 2019 program indicates anomalous Cu, Mo and Zn values in 2018 soils originated from underlying bedrock.

Sample results for Cu, Mo, Au and Zn at Target 7 also support those from 2018 surface soil sampling, indicating the 2018 soil anomalies were derived from the underlying bedrock. Sampling at the Road Metal prospect did not cover areas previously sampled; therefore data verification is not applicable here.

The limited soil sampling program along Probe Line NWYGTP19-013 was a due-diligence exercise to test two parameters: to compare Geoprobe B-horizon soil geochemical values with those from surface power auger soil sampling (Figure 51); and to compare Geoprobe top-of-bedrock sampling with overlying Geoprobe B-horizon soil samples. For the former parameter, B-horizon soils collected with the probe demonstrate consistency with auger soil sampling in identifying precious and base metal anomalies. The same zones were highlighted by both methods.

When compared to assay results from top of bedrock samples (figure 52), soil samples obtained by the probe method generally identify the same anomalous zones. Pb-Zn-Ag anomalies are spatially consistent. Au values are somewhat less consistent, possibly attributable to a coarse gold "nugget effect". Values for Cu appear to demonstrate some migration from bedrock source, indicating potentially higher mobility than other base metals in this environment. Several factors may contribute to this anomaly migration, including, but not limited to:

- Pressure, temperature and pH conditions

- Ground water abundance within the surficial horizon
- Groundwater flow and topographic controls

This test survey was very limited in extent, but indicate soil anomalies obtained by power auger are spatially consistent with those from probe sampling. While soil anomalies provide excellent proxies for mineralization, the probe-derived bedrock sample appears to produce a more discrete spatial representation of the anomalies. The comparison of bedrock vs soil demonstrates that limited spatial shift in geochemical anomaly extents have occurred.

This author did not perform any resampling of 2019 Geoprobe samples in the field, as the program post-dated the May 2019 property visit. No direct sample assay verification has therefore been done. The author has compared numerous 2019 Geoprobe element values in the compiled 2019 database with those from the original certificates from Bureau Veritas and has found that, in all cases, results were tabulated accurately in the databases supplied. The author also feels the geochemical databases supplied, combined with drill collar data and all other information supplied by Tectonic to be accurate and complete. It is this author's opinion that the 2019 data provided by Tectonic is adequate for the purposes of this report.

14 ADJACENT PROPERTIES

There are no adjacent properties to the Northway property.

15 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing has taken place on the Northway property.

16 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

No mineral resource estimates have been done on any of the prospects within the Northway property.

17 OTHER RELEVANT DATA AND INFORMATION

As of the date of this report, the author is not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented in this report, which the omission to disclose would make this report misleading.

18 INTERPRETATION AND CONCLUSIONS

18.1 INTERPRETATIONS

The Northway property is located within and along the margins of the western extension of the Dawson Range granodiorite batholith, emplaced into Paleozoic Yukon-Tanana terrane (YTT) metagneous and metasedimentary rocks. Exploration of the district began in 1997 by North Star Explorations Inc., which sampled weakly auriferous mineralization from roadcuts along the Alaska Highway. This led to discovery of the Road Metal polymetallic prospect and the identification of other targets from soil, silt and rock geochemical sampling. Exploration in 2018 by Tectonic and Avalon delineated seven targets, called Areas 1 through 7 of which Areas 6 and 7 were prioritized.

The core from the 2000 through 2002 diamond drilling programs targeting the Road Metal prospect was not available during the 2019 visit. Reports by earlier workers state that high-grade drill results were returned from “greisen” zones within granodiorite. Greisen zones are a form of endoskarn resulting from alteration of S-type granitic intrusions by hydromagmatic and pneumatolytic fluids (Strekeisen, 2019, website). These tend to be enriched in incompatible elements, including base and precious metal ions. Griesens occur within potassic igneous intrusions emplaced at shallow depths from 0.5 to 5 km, and result from boiling of the last magmatic fluids in an environment where the upper aureoles are sealed to prevent fluid escape (Wikipedia, 2019).

Although no significant values were returned from 2019 sampling of the burrow pit, inspection revealed fairly abundant feldspar porphyritic biotite monzonitic dykes within the host granodiorite. These represent outlying intrusive bodies from younger plutons, which may host the greisen zones near their margins. The dykes exposed at the Road Metal and Road Warrior prospects post-date the coarse granodiorite. Dykes share a similar mineralogy, including their porphyritic fabric and biotite enrichment, indicating a common source. The dykes likely emanate from shallowly-emplaced potassic granitic to monzonitic intrusions within the batholith. Lithological compositions are consistent with plutons associated with greisen deposits.

The Northway area is located along a regional-scale trend of 74 Ma Late Cretaceous porphyry style intrusions equivalent to the Prospector Mountain suite in Yukon. Mineralized prospects within this suite include the Casino porphyry-style deposit and the Sonora Gulch porphyry-style prospect, both in west-central Yukon. The dykes exposed at the Northway prospect may represent shallowly emplaced intrusive members of this suite. An alternate setting may be the 57 ± 2 Ma Paleocene to Eocene “Interior Porphyry belt” intrusive suite hosting the Taurus Cu-Mo-Au deposit north of Northway.

The Area 6 target has a geochemical signature strongly indicative of a porphyry Cu-Mo-Au system. Further evidence of this is provided by the propylitic-style chlorite-epidote alteration at the Bitters Creek occurrence to the south. The Area 7 target shares a similar mineralogical signature, although somewhat less definitive in elemental distribution. At both targets, the 2019 Geoprobe results support those from 2018 soil sampling, and indicate the soil anomalies were derived from underlying bedrock. The 2019 values delineate further the extent of the anomalous zones at both targets. The Yarger Lake prospect may represent outbound vein-style mineralization outbound from the Area 7 target, although the Yarger prospect itself has limited economic mineral potential.

A single line of Geoprobe sampling of B-horizon soil across Target 7 was conducted to compare results with those from Geoprobe “top-of-bedrock” sampling and surface power auger sampling. Results indicate consistency between Geoprobe B-horizon soil and surface sampling for Cu, Pb, Zn, Au and As. A strong

correlation can also be made for samples of probe B-horizon soil and top-of-bedrock sampling for Pb, Zn and Ag. Au values are somewhat less consistent, possibly attributable to a coarse gold “nugget effect”. Values for Cu appear to demonstrate some migration from bedrock source, indicating potentially higher mobility than other base metals.

The porphyry-style signatures at Areas 6 and 7 may represent intrusive cores of the same plutonic suite, and the greisen-hosted mineralization at the Road Metal prospect may represent mineralization centered on a third coeval intrusion. The Northway property is large enough to cover three separate porphyry centres. Although limited in extent, the 2019 Geoprobe results revealed a constrained Cu-Mo anomaly which may extend east-west. The property remains a lower-priority target, with no further field work recommended until further review of results is completed.

Despite low gold values from the 2019 due diligence visit, the Northway property is considered a “Property of Merit”. This is based on the porphyry-style geochemical signatures of Areas 6 and 7, results from the Road Metal prospect, and the presence of porphyritic, potassic-enriched monzonitic dykes at the burrow pit and Road Warrior occurrence.

18.2 CONCLUSIONS

The following conclusions can be made from results of the 2018 program, the 2019 property visit and earlier programs:

- The Northway property is underlain by, or proximal to, the western end of the mid-Cretaceous Dawson Range batholith, comprising multiple phases of biotite granodiorite to diorite. The batholith has been emplaced into Paleozoic Yukon-Tanana terrane (YTT) metasedimentary and metaigneous rocks.
- The Northway prospect lies along trend of a suite of 74 Ma intrusions belonging to or equivalent to the Prospector Mountain suite in Yukon. Mineralized prospects of this suite include the Casino Cu-Mo-Au porphyry-style deposit and the Sonora Gulch Cu-Au porphyry-style occurrence. A younger 57 ± 2 Ma Paleocene to Eocene intrusive suite, called the “Interior Porphyry Belt”, hosts the Taurus prospect north of the Northway property.
- The Northway property may cover two porphyry-style centres represented by the Area 6 and Area 7 geochemical anomalies respectively, and a third coeval pluton hosting greisen-style mineralization of the Road Metal prospect.
- The Road Metal prospect comprises greisen-style mineralization slightly east of a “burrow pit” north of Northway Junction. Greisen-style mineralization results from hydromagmatic fluid-derived endoskarn development within marginal areas of shallow S-type plutons.
- The “burrow pit” has exposed coarse-grained batholithic intrusive rocks, hosting fairly abundant late quartz-feldspar porphyritic, biotite-enriched monzonitic dykes. The dykes may represent outlying portions of an S-type intrusion that is host to the Road Metal greisen zones. Similar porphyritic monzonitic dykes occur at the Road Warrior occurrence.
- Soil geochemical sampling at Area 6 has revealed a Cu-Mo-Au signature typical of mineralized porphyry systems, suggesting an underlying intrusive core. Strongly developed chlorite-epidote

alteration at Bitters Creek, two kilometres to the south, may represent propylitic-style alteration outbound from the core.

- At Area 7, soil geochemical sampling revealed a second Cu-Mo-Au anomaly north of the Yarger Lake prospect. Although somewhat less definitive, this may represent a second porphyry centre. The Yarger Lake prospect may comprise distal quartz \pm Au \pm Ag mineralization, but has limited economic potential.
- Geoprobe sampling results across Targets 6 and 7 further delineated anomalous trends identified from 2018 soil sampling. Results also indicated the anomalous soil values were derived from underlying bedrock sources.
- A comparison of the results from B-horizon Geoprobe samples with those of surface power auger samples shows a high correlation of values. Comparison of B-horizon probe soils with top-of-bedrock probe sample results also indicates good correlation, showing that B-horizon probe soil sampling, in conjunction with top-of-bedrock sampling, is a viable exploration tool.
- The VABM Ball SW occurrence may represent remobilized Cu-Ag-Au mineralization from a local source, potentially the Area 6 prospect. The VABM Ball SW prospect itself has little economic potential.
- The Area 6, Area 7 and Road Metal prospects are the three prospective targets known to date. The Northway property is a “Property of Merit” based on mineralogical potential of these targets.

19 RECOMMENDATIONS

19.1 DIAMOND DRILLING RECOMMENDATIONS

Recommendations for follow-up exploration in 2019 comprise a 2,000 m diamond drilling program focusing on Targets 6 and 7. This will be ground-supported by a D6-CAT or facsimile, as well as smaller ATV “side-by-side” vehicles. A 9-person road-accessible camp will perform the drilling program, with a duration of 40 days for actual drilling, and a further 8 days for mobilization and set-up, and tear-down and demobilization. The proposed program is recommended to be conducted at some point between June 15 and August 31, 2020, to maximize efficiency during the frost-free season.

All-in costs for the diamond drilling program are estimated at about CDN\$948,200.

19.2 RECOMMENDED DIAMOND DRILLING BUDGET

Expense Type	No. of units	Type of unit	Cost/unit (US\$)	Cost
Drilling	2,000	metres	\$ 202.00	\$ 404,000.00
Assaying	1,450	samples	\$ 47.00	\$ 68,150.00
D6 bulldozer and operator, trail improvement	15	days	\$ 1,750.00	\$ 26,250.00
D6 dozer: ongoing use	40	days	\$ 550.00	\$ 22,000.00
D6 fuel costs (total):	1,800	gallons	\$ 5.00	\$ 9,000.00
Side by Side (ATV) rental:	48	days	\$ 360.00	\$ 17,280.00
Personnel*	48	days	\$ 2,400.00	\$ 115,200.00
Groceries/day	400	Person-days	\$ 40.00	\$ 16,000.00
Report writing	1		\$ 12,000.00	\$ 12,000.00
			Sub-total	\$ 689,880.00
			5% Contingency	\$ 34,494.00
			Total:	\$ 724,374.00
			Total (CDN\$):**	\$ 948,134.00

* Personnel excludes drillers and CAT operator: wages are incorporated into unit costs.

** Exchange rate of \$1.00 CDN = \$0.764 US as of Oct 21, 2019,

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Effective Date: October 31, 2019

Respectfully submitted,
Aurora Geosciences Ltd.

Carl Schulze

Carl Schulze, BSc, P.Geol
Project Manager, Aurora Geosciences Ltd.

Reviewed by

Dave White

David White, P.Geol

Appendix I

CERTIFICATE OF QUALIFICATIONS, CONSENT, DATE AND SIGNATURES

I, Carl Schulze, with a business address at 34A Laberge Rd, Whitehorse, Yukon Y1A 5Y9, hereby certify that:

a) I am a Project Manager employed by:

Aurora Geosciences Ltd.
34A Laberge Rd, Whitehorse, Yukon Y1A 5Y9

b) This certificate applies to the technical report entitled: "Amended and Restated NI 43-101 Technical Report, Northway Property, Tanacross District, Alaska, United States of America." dated October 31, 2019 (the "Technical Report").

c) I am a graduate of Lakehead University, Bachelor of Science Degree in Geology, 1984. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (EGBC), Lic No. 25393. I have worked as a geologist for a total of 35 years since my graduation from Lakehead University. I have worked extensively and specifically on copper – gold porphyry style deposits and mineralized zones in Yukon, Alaska and British Columbia for a minimum aggregate time of 7 years, and on intrusion-related systems for the majority of my career. I also served as the Resident Geologist for the Government of Nunavut from 2000 - 2002.

d) I was present for one day on May 6 on the Northway property that is the subject of this report;

e) I am responsible for all sections of the technical report.

f) I have had no involvement with Tectonic Metals Inc., its predecessors or subsidiaries. nor in the Northway Property, and I am independent of the issuer applying the test in section 1.5 of National Instrument 43-101;

g) I have not received nor expect to receive any interest, direct or indirect, in Tectonic Metals Inc., its subsidiaries, affiliates and associates;

h) I have read "Standards of Disclosure for Mineral Projects", National Instrument 43-101 and Form 43-101F1, and the Report has been prepared in compliance with this Instrument and that Form;

i) As of the date of this certificate, to the best of my knowledge, information and belief, I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission or addition of which would make the Report misleading, and;

j) This certificate applies to the NI 43-101 compliant technical report titled "Amended and Restated NI 43-101 Technical Report, Northway Property, Tanacross District, United States of America." dated October 31, 2019.

Dated at Whitehorse this 31 day of October, 2019.

Carl Schulze

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