

**BC Geological Survey  
Assessment Report  
37897**



Ministry of Energy and Mines  
BC Geological Survey

**ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY**

<b>TITLE OF REPORT [type of survey(s)]</b>		<b>TOTAL COST</b>
2018 Prospector Report on the AT Claims		\$29,064.46
AUTHOR(S) <u>Richard Stuart Simpson</u>	SIGNATURE(S) <u><i>Richard S. Simpson</i></u>	
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) <u>N/A</u>	YEAR OF WORK <u>2018</u>	
STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) <u>5715811</u>		
PROPERTY NAME <u>AT</u>		
CLAIM NAME(S) (on which work was done) <u>AT 2 (1055631), AT5 (1055922), AT 6 (1056238), AT 7 (1056240)</u>		
COMMODITIES SOUGHT <u>Cu, Ni, Co, Pt, Pd, Au, Ag</u>		
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN <u>092N 048, 092N 057</u>		
MINING DIVISION <u>Clinton</u>		NTS <u>092N10E</u>
LATITUDE <u>51</u> ° <u>29</u> ' <u>37</u> "	LONGITUDE <u>124</u> ° <u>37</u> ' <u>58</u> "	" (at centre of work)
OWNER(S)		
1) <u>FISHER, RONALD SIDNEY</u>	2) _____	
MAILING ADDRESS		
<u>601-1395 Ellis St</u>		_____
<u>Kelowna, B.C. V1Y 1Z9</u>		_____
OPERATOR(S) [who paid for the work]		
1) _____	2) _____	
MAILING ADDRESS		
_____		_____
_____		_____
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):		
<u>Ultramafic Intrusive, Mafic Diorite, Andesitic Breccia, Andesitic Tuff, Andesitic Flow, Shale,</u>		
<u>Limestone, Quartz Diorite: Late Cretaceous dioritic to ultramafic intrusion and</u>		
<u>Upper Triassic and/or Lower Cretaceous volcanics.</u>		
<u>Copper, Nickel, Cobalt, Mercury, Gold, Silver, Platinum, Palladium: Chalcopyrite, Pentlandite, Realgar</u>		
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS		<u>16,688 and 18,022</u>

(OVER)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping			
Photo interpretation			
<b>GEOPHYSICAL (line-kilometres)</b>		AT 2 (1055631), AT5 (1055922), AT 6 (1056238), AT 7 (1056240)	8178.56
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
<b>GEOCHEMICAL</b> (number of samples analysed for ...)			
Soil			
Silt			
Rock		AT 2, AT 5 , AT 6, AT 7	4050.00
Other			
<b>DRILLING</b> (total metres; number of holes, size)			
Core			
Non-core			
<b>RELATED TECHNICAL</b>			
Sampling/assaying	Wages, truck rental and helicopter	AT 2, AT 5 , AT 6, AT 7	14,836.24
Petrographic			
Mineralographic			
Metallurgic			
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY/PHYSICAL</b>			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
<b>TOTAL COST</b>			<b>24,904.40</b>

**2018**  
**PROSPECTING AND GEOPHYSICAL REPORT**  
**ON THE AT CLAIMS**

Clinton Mining Division

NTS 92N/07

51°29'37" Latitude

124°37'58" Longitude

(NAD83 Zone10) 386,650mE; 5,705,983mN

**On Behalf Of**

Ronald Sidney Fisher

601 – 1395 Ellis St.

Kelowna BC

**Report By**

Richard S. Simpson

13<sup>th</sup> Ave Burnaby B.C.,

Date Jan.28, 2019

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## INTRODUCTION

Ronald Fisher acquired the property in 2017 after investigations of minfiles, RGS data and historic assessment reports indicated significantly anomalous nickel and cobalt values within the property bounds. The AT claim group is located in the Clinton Mining Division of British Columbia. The center of the claims is located at 51°29'37" Latitude, 124°37'58" Longitude, or (NAD83 Zone10) 386,650mE; 5,705,983mN. The AT claims are located near Ottarasko Mountain, 270 kilometers north-northwest of Vancouver, B.C. within the Niut Range which in turn is part of the Coastal range. The property consists of four contiguous mineral claims covering 3440.735ha. Upon further investigations, the AT 3 and 4 claims were added to the north-northwest to cover three documented copper-gold occurrences.

The area is underlain by a complex of imbricated thrusts involving volcanic and sedimentary rocks of Late Triassic and/or Early Cretaceous age, belonging to the Stikinia Terrane and possibly to the Gambier overlap assemblage. Rocks present include andesitic breccia, tuff and flows, and minor shale and limestone. These rocks and the thrusts are cut by a quartz diorite intrusion of the Jurassic to Tertiary Coast Plutonic Complex, dated at 68 million years. Intrusive rocks occur mainly at lower elevations on the AT 2 claim and consist of mafic diorite and ultramafic rocks. Most pertinent to this occurrence are two zones of massive sulphide mineralization, each exposed over 5 to 10 square metres, comprising pyrite, pyrrhotite, chalcopyrite, pentlandite and unspecified associated cobalt minerals. These zones have been interpreted as magmatic segregations in the intrusive.

Near or at the contact with the volcanic rocks, there are zones or structures marked by pyritization, unspecified alteration and quartz or calcite veining. In particular, seven quartz-carbonate veins were located in the intrusive rocks, which are up to 150 by 40 metres, and which generally trend northwest and dip steeply

Initial prospecting of the property was undertaken on July 17-19, although the snow level was still low in elevation which limited access to many areas of interest. A second prospecting trip was then undertaken during the period of Sept 24-28, which saw the snow level had disappeared. A total of 81 rock samples were collected from outcrop and glacial float. 45 samples were sent to ALS Canada Ltd. in North Vancouver where they were analyzed for 46 element ICP-MS. The company also commissioned SJ Geophysics to conduct a review of existing regional geophysical studies covering the AT claims group. Two regional airborne datasets were found. Data gathered from the 1993 Geological Survey of Canada, BC 1: Area A survey provided the most detailed information, with residual magnetic field data grid to 200 metre cells. Digital elevation models for NTS map sheets 92N/07 and N92N/10 were downloaded from the Natural Resources of Canada (NRCAN) centre for topographic information, merged and output into geosoft formatted grid files for compilation with the geophysical data.

## LOCATION AND ACCESS

The AT claims are located near Ottarasko Mountain, 45 kilometers south of the small community of Tatla Lake which is midway between Williams Lake and Bella Coola on Highway 20 (figure 1). Mount Waddington, British Columbia's highest point with an elevation of 4,016 meters ASL, is located 48 kilometers to the west. The southern end of Tatlayoko Lake is located 11 kilometers to the southeast of the claim block. The AT claims are located 270 kilometers north-northwest of Vancouver, B.C.

Access to the property is by helicopter with the nearest base being White Saddle Air Services located on the south side of Bluff Lake with a flight distance of approximately 28 kilometers to the center of the property, or 15 minutes one way. Bluff Lake is accessible by a year round, gravel road approximately 30 minutes from Tatla Lake. Tatla Lake is accessed by Highway 20, or a three hour drive from Williams Lake.

The main supply center for the area is Williams Lake, but small supplies can be obtained at Tatla Lake, or at the other small communities along Highway 20.

Possible future vehicular access to the property might be from the south end of Tatlayoko Lake, a map distance of 14 kilometers, but will require a bridge across the Homathko River. Alternatively, future access may be obtained from the west side of Tatlayoko Lake, westerly up Jamieson Creek and a tributary to the headwaters of Ottarasko Creek and then southerly to the property, a distance of about 30 kilometers.

## CLAIM DESCRIPTION

The AT claim group is located in the Clinton Mining Division of British Columbia. The center of the claims is located at 51°29'37" Latitude, 124°37'58" Longitude, or (NAD83 Zone10) 386,650mE; 5,705,983mN (figure 2).

The property consists of four contiguous mineral claims covering 3440.735ha (table 1). An additional two claims were staked expanding the claim group to the northwest but will not be part of this report. The additional claim information is included in the table but isn't noted in the area applicable for assessment. The good to dates assume acceptance of assessment work that this report documents - Event #5715811.

Claim Name	Tenure#	Owner	Map #	Good To Date*	Area (ha)
AT 2	1055631	145954 (100%)	NTS 92N/10	2020/APR/15	724.1871
AT 5	1055922	145954 (100%)	NTS 92N/10	2020/APR/15	684.1185
AT 6	1056238	145683 (100%)	NTS 92N/10	2020/APR/15	1227.3548
AT 7	1056240	145683 (100%)	NTS 92N/10	2020/APR/15	805.0748
AT 3	1065611	145683 (100%)	NTS 92N/10	2020/JAN/07	140.80
AT 4	1064465	145683 (100%)	NTS 92N/10	2019/NOV/13	442.47
TOTAL AREA APPLICABLE FOR ASSESSMENT					3440.735

Table 1: Claim Description

## PHYSIOGRAPHY AND CLIMATE

The AT property is part of the eastern margin of the Pacific Ranges of Coastal mountains. The deep valleys, surrounded by large scree slopes and straight cliff faces with sharp peaks, depict the strong influence of the once highly active alpine glaciations that dominate this area. The highly jointed sedimentary rocks

along with the underground water seepage often activate rock avalanches along the steep cliff faces. Exposed bedrock occurs mainly above tree line where access is limited. A noteworthy observation from this exploration program is the amount of new ground being exposed due to glacial retreat within the property boundaries.

Timberline rarely exceeds 1,825m in elevation. Slightly older scree slopes are covered with a thick vegetation of alpine fir and alder while the more recent, or still active, scree slopes are bare except for the rare presence of highly dispersed white pine. Valley bottoms are still considerably forested with mixed fir, pine and spruce with the presence of large meadows and thick, impenetrable zones of slide alder.

The climate for the area is moderate. Snow comes to the area usually before November and remains until May. Summer temperatures in the mountains are characterized by warm days and cool nights. Frequent rains of short duration can be expected during the spring and fall months, but the annual recorded yearly precipitation is low.



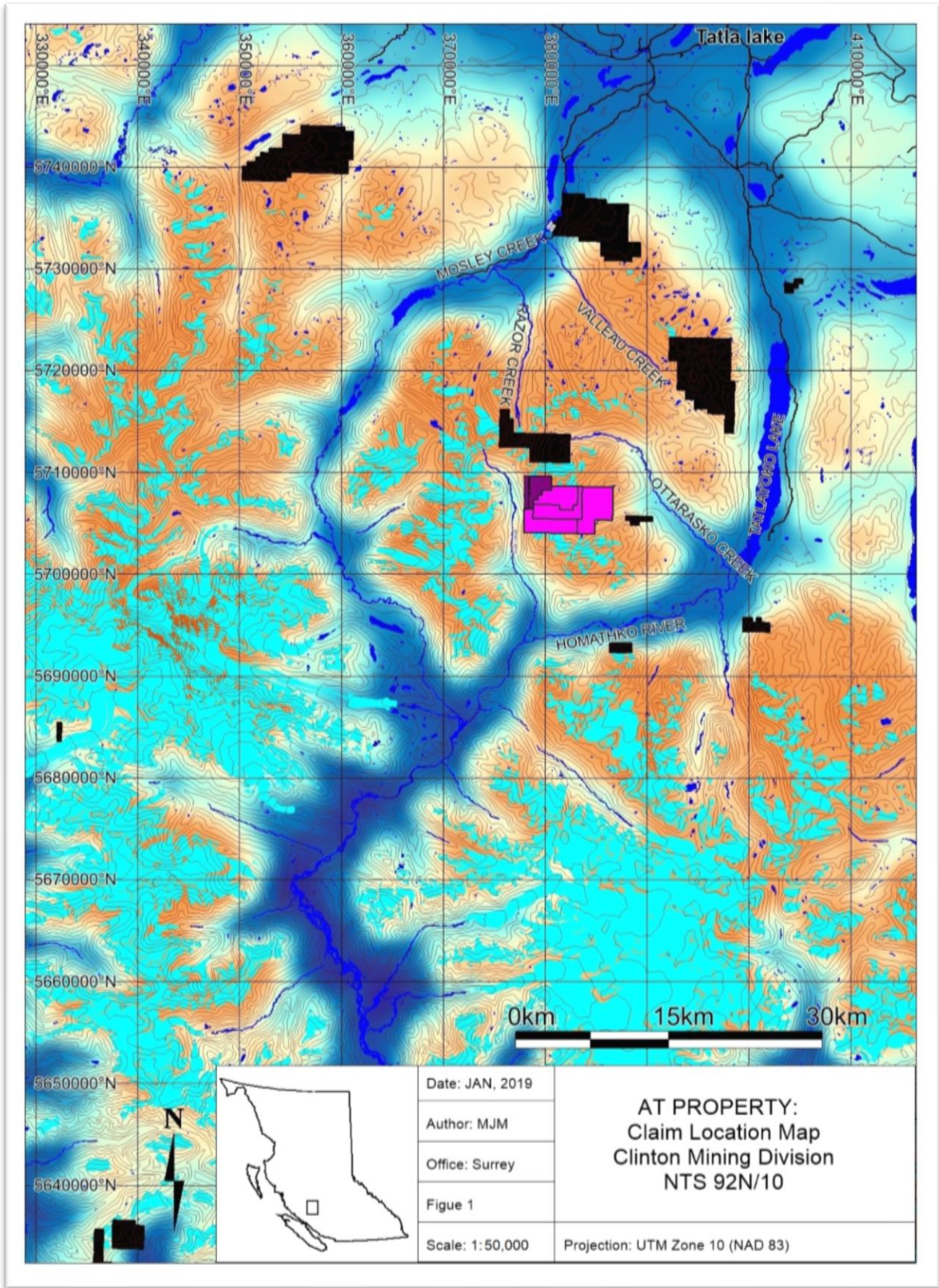


Figure 1: Claim Location Map



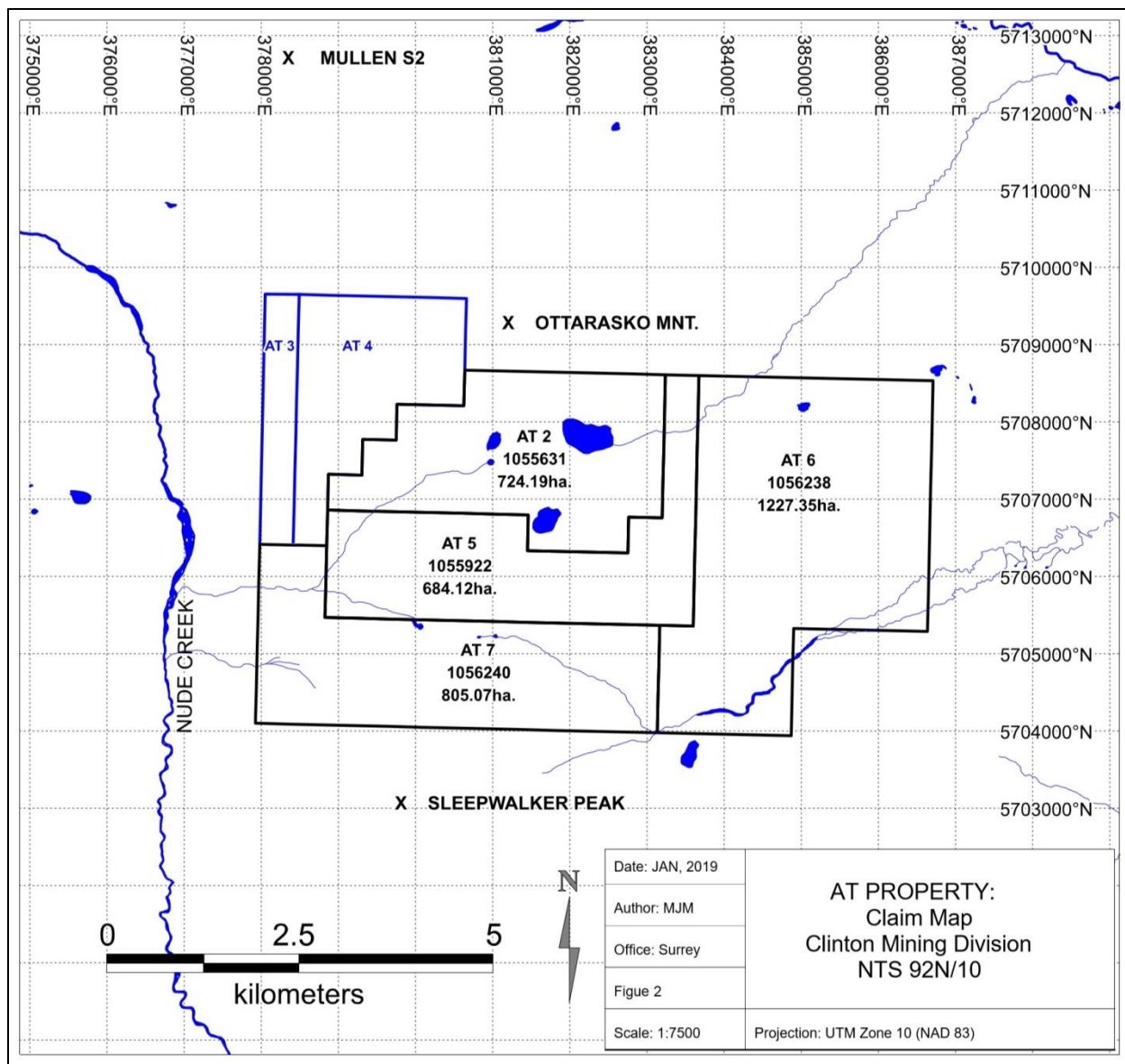


Figure 2: Claim Map

## PREVIOUS WORK

During the summer of 1983, Louis Berniolles found a mineralized boulder train trending west-south-West from the south-facing glacier of Mount Ottarasko. The mineralization was mostly disseminated chalcopyrite in a medium-to-dark grey igneous rock. The tenor was approximately 1.5% copper, with anomalous quantities of nickel and cobalt which presumably was the source of the boulder train

A portion of the current AT claim group was staked in 1984 by Louis Berniolles. During the 1987 exploration program conducted by Louis Berniolles, a three men team established a 1.3 kilometer baseline

and collected 18 rock samples including samples from outcrop and high grade float samples within the glacial debris (Assessment Report 16688). This program uncovered three types of mineralization:

- 1) Zones of magmatic segregations within the intrusive. Here the mineralization is of the copper-nickel-cobalt type. Values range to 1.0% Cu, 0.4% Ni and 0.1% Co. Ag-Pt-Pd where also present.
- 2) Veins or zones of pyritization and alteration situated at or near the intrusive contact. This includes all of the quartz carbonate veins which are rooted in the Batholith, as well as several quartz or calcite veins and pyritized structures situated very close to the contact. These are essentially barren, apart from their iron content.
- 3) Veins or structures within the intruded volcanic series, situated at same distance from the contact. These show some values in copper (up to 0.7%).

The original AT 3 and AT 4 claims were staked in July 1987 by Louis Berniolles as western and northwestern extensions of the historic AT 2 claim. The claims are located primarily on Triassic volcanics underlain by the Coast Batholith, at the southern end of the group the batholith has actually been uncovered glacial action. Exploration was concentrated in the northern sector which is now part of the newly acquired AT 3 and AT 4 claims. Minor prospecting was also conducted along the lower, western portion of the AT 2 claim block with a total of ten rock samples collected. Prospecting discovered two float samples that derived from the local cliff face with massive sulphides within an ultramafic unit and many large quartz-carbonate veins (Assessment Report 18022). A number of the float sample located show good mineralization and need to be followed to their source.

In 1998, Blackhorn Gold Mines Ltd. acquired the claims as part of their larger claim group collectively named the Niut Range Property (Assessment Report 25551). A total of 22 rock samples were collected in the AT 2 claim area. Of these, only samples collected from the sulphide-rich zones within the gabbroic to dioritic stock contain anomalous values of copper, nickel and cobalt. Samples of the mineralized ultramafic dykes or layers contain up to 1,988 ppm copper, 1,657 ppm nickel and 285 ppm cobalt. Samples from the gossanous, pyrite rich xenoliths have lower metal concentrations with values up to 335 ppm copper, 65 ppm nickel and 34 ppm cobalt. Gold results for all the samples were low and no assays were performed for palladium or platinum.

## RECENT WORK

The 2018 prospecting program concentrated on the center of the AT 2 claim directly above the two known zones of massive sulphide mineralization, each exposed over 5 to 10 square meters. Previous work indicated that the source for the boulder train, which was the original discovery, lay below the glacier which has retreated over 500m since last prospected. Eighty-one rock samples were collected from outcrop and float, with 45 samples being sent ALS Laboratories in North Vancouver to undergo analysis.

A regional geological and geophysical study was also conducted by SJ Geophysics and included as appendix C in this report. SJ Geophysics conducted a review of existing regional geophysical studies covering the AT claims group. Two regional airborne datasets were found. Data gathered from the 1993 Geological Survey of Canada, BC 1: Area A survey provided the most detailed information, with residual magnetic field data grid to 200 metre cells.

Digital elevation models for NTS map sheets 92N/07 and N92N/10 were downloaded from the Natural Resources of Canada (NRCAN) centre for topographic information, merged and output into geosoft formatted grid files for compilation with the geophysical data.

The outcome of this study indicates that the regional magnetic data is dominated by a strong magnetic high anomaly that closely coincides with the BC Geology defined, multi-compositional, tonalite-quartz diorite-granodiorite intrusion underlying the AT property. The magnetic anomaly is confined to the northeastern half of the geologically outline unit implying the intrusion is smaller than geological mapping indicates or that it is comprised of multiple zones with different magnetic characteristics. 3D modelling maps the intrusion as 3km in diameter with a northeasterly elongated high susceptibility core, buried at least 300 metres below surface. It also delineates a high susceptibility halo that wraps around the western and southern flanks of the core and extends northeasterly, forming a steep to vertically dipping plate like body. Low susceptibility, ring-like structures, most prominent along the northeastern and northerly flanks or the intrusion may reflect an alteration halo.

The regional magnetic data also reveals numerous north-northwesterly lineations. The most prominent of these are located northeast of the AT property and appear to coincide with the Ottarasko and Tchaikazan transcurrent faults. Similar orientated, short strike length lineations are evident across the area and likely reflect the dominant lithological contact orientation.

## GENERAL GEOLOGY

The AT project lies within the Nuiut Range, a subrange of the Pacific Ranges of the Coast Mountains of British Columbia. The Nuiut Range is located in the angle of the Homathko River and its main west fork Mosley Creek to the North, Tatlayoko to the east and the Homathko to the South. The Nuiut Range area straddles the boundary between the Intermontane superterrane on the east and the Coast Plutonic Complex on the West. In this area, Upper Triassic and Lower to Upper Cretaceous sedimentary and volcanic strata have been deformed by east-vergent thrusting to form the “eastern Waddington thrust belt” on the eastern margin of the Coast Plutonic Complex (Rusmore and Woodsworth, 1991b). Indications are that the thrust belt, as currently mapped, “strikes roughly northwest for at least 100 km and is more than 35 km wide”.

Rusmore and Woodsworth (1988) divided the Upper Triassic Rocks into four informal units of which three occur in the area of the Nuiut Range. The oldest rocks identified in the area were assigned to the Upper Carnian and(?) Lower Norian “Mt. Moore” formation (uTrMMvm). These rocks consist largely of augite-phyric basaltic to andesitic breccias with lesser volcanogenic sandstones and massive greenstone. This rock unit forms the upper flanks of Ottarasko Mountain in the southeastern part of the property.

Two unnamed units of Lower Norian age are overlain or thrustled between the “Mt. Moore” volcanics in the southeastern part of the property. These units consist of limestone to limy shales and maroon and green tuffaceous shales to lapilli tuffs. The same units are thrustled over each other and form the lower slopes along Razor Creek in the northern part of the property. Rusmore and Woodsworth (1988) indicate that these sedimentary rocks may be correlated with and a facies of the “Mt. Moore” Formation.

Tipper et al (1981) initially interpreted these Upper Triassic rocks as being part of the Wrangellia Terrane which represents a rift basin in a back-arc setting. Rusmore and Woodsworth (1991a) infer from basalt chemistry supported by field relations and rock types that the Upper Triassic rocks formed in an island-

arc setting and therefore, are actually correlative with the Upper Triassic Stikinia Terrane found further to the north.

Upper Jurassic to Lower Cretaceous volcanic and sedimentary rocks of the informally called "Ottarasko" (IKOca) and "Cloud Drifter" (IKCDsn) Formations are thought to stratigraphically overlie the Upper Triassic units. Rusmore and Woodsworth (1988) state that the volcanic rocks of the "Ottarasko" Formation are the structurally highest rocks on Blackhorn and Ottarasko mountains, forming the peaks and ridges. These volcanic rocks are described as consisting of poorly stratified, unsorted to poorly sorted, dacitic to andesitic volcanic breccias with few recognizable flows. In places, basalt and rhyolitic volcanics may be locally abundant. Minor interbeds of siltstone and shale occur within these volcanics.

Sedimentary rocks of the "Cloud Drifter" Formation mainly outcrop to the east of Nude Creek in the property area. Rusmore and Woodsworth (1988) describe these rocks as being "dominantly fine grained sandstone, siltstone and shale, but well stratified and locally crossbedded conglomerate is present". They believe that this unit formed in a shallow marine to deltaic setting. Ammonites found by them and Tipper (1969) indicate that the unit is Hauterivian in age.

A unit of black shale and siltstone of unknown age, has been mapped by Rusmore and Woodsworth (1993) as being structurally interweaved with the Hauterivian and older strata. This unit occurs along the eastern flank of Blackhorn Mountain and along the ridge line separating Nude and Ottarasko Creeks.

As mentioned above, the Upper Triassic and Lower Cretaceous sedimentary and volcanic strata were deformed by northeasterly verging thrust faults and recumbent folds. Rusmore and Woodsworth (1991b) state "radiometric dating . . . indicates that thrusts were active between 87 and 68 Ma and that deformation probably occurred in the earliest part of this period". They also note that "where exposed, the thrusts are marked by zones of highly strained phyllite, limestone, sandstone or conglomerate" (Rusmore and Woodsworth, 1988). Through rough restoration of folds and thrusts in this area, Rusmore and Woodsworth (1991b) estimated that about 40% shortening occurred. Along the head waters of Ottarasko and Nude Creeks, these thrust faults form thick imbricate zones of structurally interweaved slices of Upper Triassic and Lower Cretaceous age strata.

In the southwestern part of the area, a tonalitic orthogneiss is exposed along Nude Creek. This tonalitic orthogneiss is part of the Central Gneiss Complex described by Roddick and Tipper (1985) and which is part of the Coast Plutonic Complex located west of the property. Rusmore and Woodsworth (1991b) describe this rock as being the youngest involved in the thrusting and that the "orthogneiss is a prekinematic to synkinematic pluton". Roddick and Tipper (1985) suggest that the Central Gneiss Complex may be the parental material for the post tectonic plutons.

The youngest rocks in the area are Late Cretaceous to Early Tertiary post tectonic intrusives (LKPeBgd). These intrusives vary in composition from tonalite to quartz diorite to granodiorite. Radiometric dating of the pluton underlying the AT Property, gave a concordant U-Pb date of 68.2 ± 0.3 Ma and K-Ar date of 71.3 ± 1.6 Ma (Rusmore and Woodsworth, 1993).

The principal transcurrent faults are the northwest trending sub-parallel Yalakom, Tchaikazan and Ottarasko Faults. Right-lateral displacement of 175 km along the Yalakom Fault has been postulated, and similar right-lateral displacement of 32 km along the Tchaikazan Fault has likewise been inferred. There is much additional strong faulting in areas between these major faults.

The Tchaikazan Fault which runs along the front of the Coast Mountains, appears to be the northwest extension of the economically important fault system at the formerly producing Bralorne and Pioneer Mines which collectively produced 24.5 m grams (4,003,000 Oz.) of gold from 7.26 m tonnes (8,006,000 tons) of ore with Au-Ag ratio of 5.2. A strong range front fault such as the Tchaikazan can create permeable conduits for convecting water heated by nearby intrusive rocks, and if these waters contain dissolved metals, portions of such faults or areas nearby could become centres of deposition of sulphides and other minerals.

## PROPERTY GEOLOGY

The AT 2 occurrence comprises copper-nickel mineralization, and is located 2 kilometres south of Ottarasko Mountain, 44 kilometres south of the community of Tatla Lake. Interest in the area began in 1983 with the discovery, during a regional geochemical survey, of an igneous boulder train containing disseminated copper-nickel-cobalt mineralization; including values of up to 1.5 per cent copper (Assessment Report 16688).

The area is underlain by a complex of imbricated thrusts involving volcanic and sedimentary rocks of Late Triassic and/or Early Cretaceous age, belonging to the Stikinia Terrane and possibly to the Gambier overlap assemblage (Geological Survey of Canada Open File 1163, Papers 88-1E, 89-1E, Map 1713A; Geology 1991). Rocks present include andesitic breccia, tuff and flows, and minor shale and limestone. These rocks and the thrusts are cut by a quartz diorite intrusion of the Jurassic to Tertiary Coast Plutonic Complex, dated at 68 million years (Late Cretaceous) by the uranium-lead method on zircon (Geological Survey of Canada Paper 88-1E).

Intrusive rocks occur mainly at lower elevations on the AT 2 claim and consist of mafic diorite and ultramafic rocks (Assessment Report 16688). Most pertinent to this occurrence are two zones of massive sulphide mineralization, each exposed over 5 to 10 square metres, comprising pyrite, pyrrhotite, chalcopyrite, pentlandite and unspecified associated cobalt minerals. These zones have been interpreted as magmatic segregations in the intrusive. Samples were analysed at up to 0.5 per cent copper, 0.4 per cent nickel and 0.1 per cent cobalt (Assessment Report 16688). Minor amounts of gold, silver, platinum and palladium were also recorded. However, these outcrops were thought not to be the source of the original boulder train of interest.

Near or at the contact with the volcanic rocks, there are zones or structures marked by pyritization, unspecified alteration and quartz or calcite veining. In particular, seven quartz-carbonate veins were located in the intrusive rocks, which are up to 150 by 40 metres, and which generally trend northwest and dip steeply. Mineralization is present but is not significant.

Other veins were located in volcanic rocks, one containing small amounts of sulphides and realgar and calcite. Up to 0.73 per cent copper occurs in one subcrop sample (Assessment Report 16688).



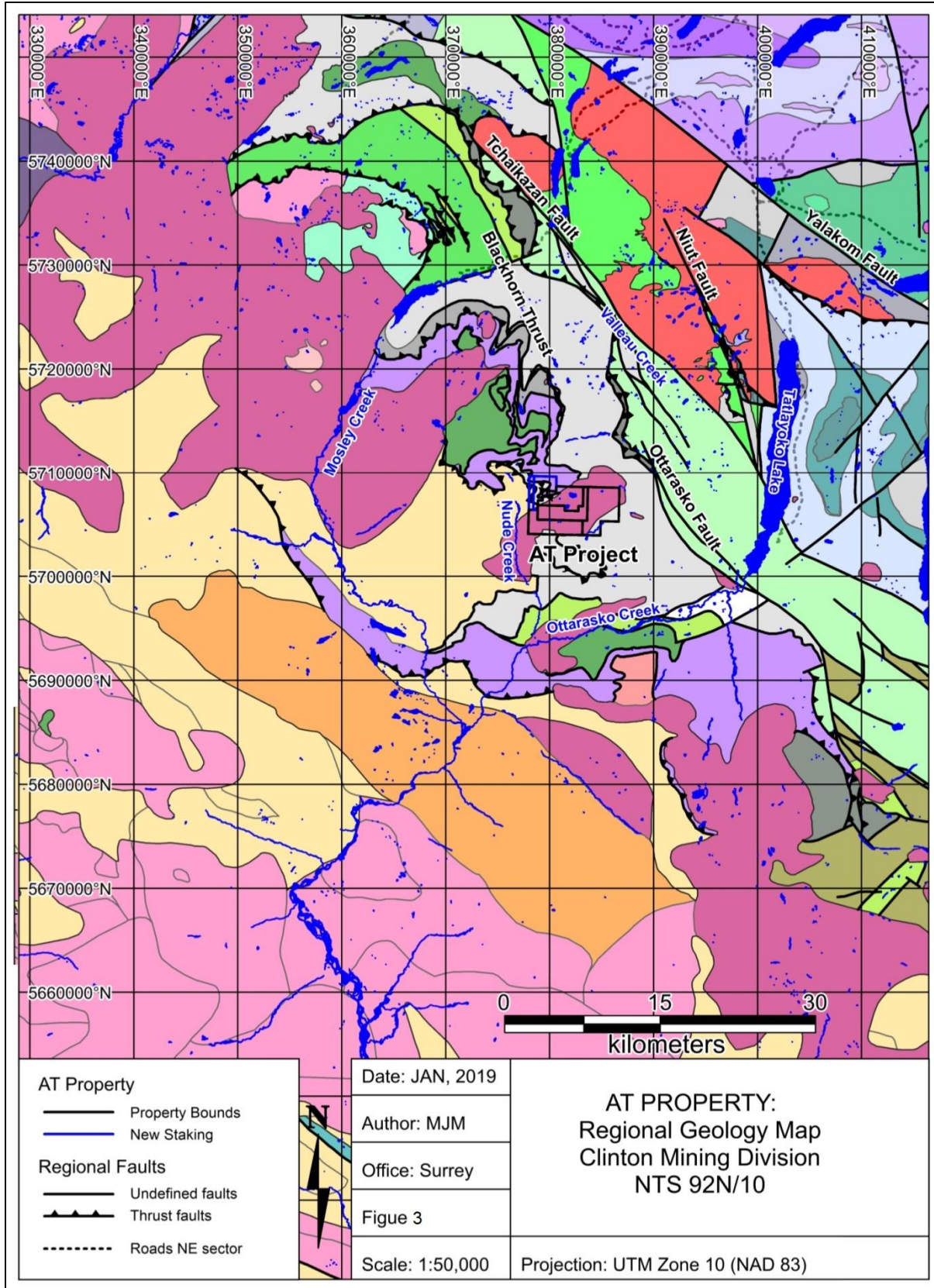




Figure 3: Regional Geology Map

**Regional Intrusive Rocks**  
Showing Stratigraphic Name

	Bendor suite - LKPeBgd
	Cadwallader plutonic suite - LTrCto
	Chilanko suite - LJCTo
	Homathko Peak tonalite - LJHPto
	Mission Ridge suite - EMRgd
	Tatla Lake metamorphic complex - LKTLOto
	Tiedemann pluton - PeTgd
	Wineglass assemblage - intrusive component - PTrWto

**Regional Metamorphic Rocks**

	Atnarko assemblage - PzMzAog
	Cleaver Gneiss, Resurrection Schist and Charon Amphibolite - uTrJCR
	Eastern Waddington thrust belt imbricate zone - TrKim
	Tatla Lake metamorphic complex - Eagle Lake tonalite - ETLELog
	Tatla Lake metamorphic complex - metasedimentary - EMJTLms
	Tatla Lake metamorphic complex - metavolcanic rocks - EMJTLms
	Tatla Lake metamorphic complex - orthogneiss - LJLKTLog
	Tatla Lake metamorphic complex - gneissic core - EKTLog

**Regional Volcanic Rocks**

	Cadwallader Group - muTrCVvb
	Chilcotin Group - MiPICvb
	Gambier Group - Mount Eurydice Formation - IKGM
	Hazelton Group - ImJHvs
	Mosley Formation - uTrMOvc
	Mount Moore Formation - uTrMMvm
	Ottarasko Formation - IKOca
	Powell Creek Formation - uKPCv
	Taylor Creek Group - IKTCca
	Tchaikazan River succession - volcanic facies - IKTRca

**Regional Sedimentary Rocks**

	Cadwallader Group - Hurley Formation - uTrCHsc
	Chilcotin Group - MiPICsc
	Cloud Drifter Formation - IKCDsn
	Gambier Group - IKGsv
	Gambier Group - Styx Formation - IKGS
	Hazelton Group - ImJHsf
	Jackass Mountain Group - IKJMs
	Ladner Group - ImJLs
	Relay Mountain Group - Potato Range Formation - IKRMPRsf
	Relay Mountain Group - Teepee Mountain Formation - JKRMTMs
	Relay Mountain Group - Tyoax Pass Formation
	Silverquick Formation - luKSQcg
	Taylor Creek Group - KTCs
	Twin Creek assemblage - PITrTCs
	Tyaughton Group - uTrTsc

**Table 2: Regional Geological Legend**



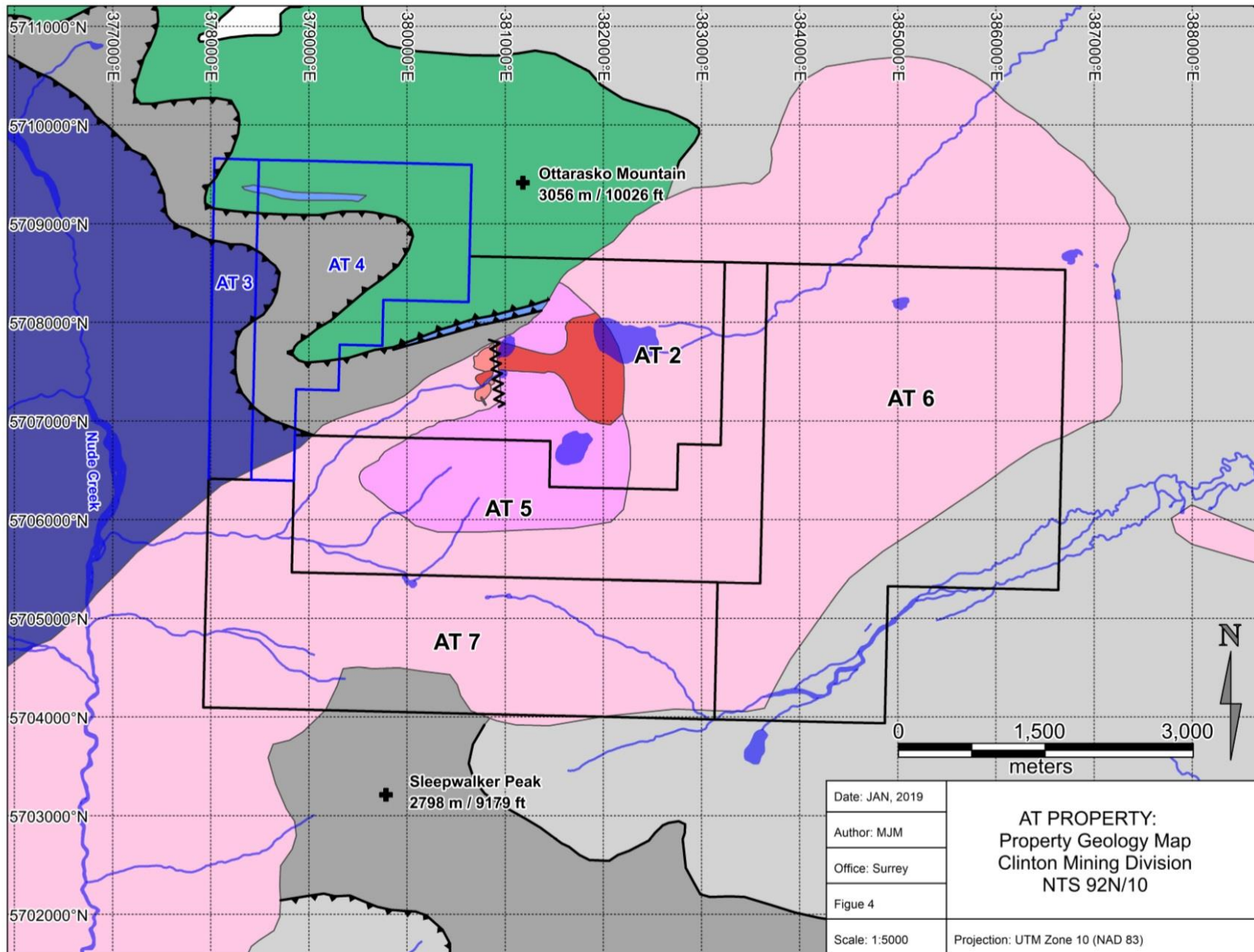


Figure 4: Property Geology Map

## AT Property Geology

	Hornblende Porphyry Dyke
	Undifferentiated Intrusive; Tonalite to Granodiorite
	Ultramafic to Gabbro
	Gabbro to Diorite
	Diorite
	Cloud Drifter Formation - Sediments
	Crystalline limestone and Limy Shales
	Mt. Moore Formation - Basaltic to Andesitic Volcanics
	Biotite-Hornblende Tonalitic Orthogneiss
	Undefined faults
	Thrust faults

Table 3: Property Geology Legend

## ROCK SAMPLING RESULTS

A total of 81 rock samples were collected during the 2018 exploration program, of these 45 samples were sent to ALS Laboratories for analysis including six for whole rock analysis. 36 of the collected samples were comparable with samples sent to the lab, it was determined that these samples would be redundant and the information achieved would be nominal and therefore they were stored in the writers office for further studies including thin sections if deemed feasible. Complete sample descriptions for the 81 collected samples are included in appendix B. The samples were sent to ALS Canada Ltd. In North Vancouver to be analyzed by 48 element four acid ICP-MS, LOI for ME-XRF06, Ore Grade Au 30g AA Finish and six samples were analyzed for Whole Rock Package –XRF. The samples underwent sample preparation including WEI-21 – received sample weight, LOG-22 – sample login, DISP-01 – disposal of all sample fractions, CRU-QC Crushing QC test, PUL-QC – pulverizing QC test, CRU-31 – fine crushing – 70%<2mm, SPL-21 – split sample (riffle splitter), PUL-31 – pulverize split to 85%<75um

All samples were collected using rock hammers to break the rocks into manageable sizes; the rocks were then placed in 12x20 poly sample bags, labelled with the appropriate field ID then tied off with flagging tape. The field location was flagged with the corresponding field ID. Samples were then placed into large rice bags and then secured with plastic locking ties. All the samples were then transported by helicopter to the nearest road where a truck was waiting to rush the samples to the laboratory; the samples never left the care of the writer on this report.

The rock samples are divided into the West and East side of the lake depicted in figures 5-8. On the West side of the lake samples RB-01, 06, 10, 12, 15, 17, 19 and 20 from outcrop and float samples RS- 12,22, 23 and 24 are grey to dark grey volcanic, possibly **andesite**, with varying amounts of silica content and 1-5% sulphides. Minor amounts of quartz veining and quart-carbonate veining is present throughout the area and within the samples. The few anomalous values in the assay results include;

- sample RB-06 contains 43.6ppm cobalt and 183.5ppm copper
- sample RB-10 contains 39.3ppm arsenic
- sample RB-12 contains 60.0ppm tungsten
- sample RB-17 contains 32.3ppm nickel and 85.0ppm chromium

Samples RB-04, RB-08, RS-13 and RS-17 are similar samples of a micro to medium grained **quartz diorite**. Small amounts of fine disseminated sulphides were note in the field and mirrored in the assays with no anomalous values.

Samples RB-05, RB-07, RB-13, RB-16 and RB-18 are examples of the quartz and quartz carbonate veins that litter the area. The veins contain minor sulphides and minor malachite staining. Assays returned the following anomalous values;

- sample RB-05 contains 114.5ppm nickel, 37.6ppm cobalt, 169.5ppm copper and 15.8ppm stibnite
- sample RB-13 contains 168ppm molybdenum
- sample RB-16 contains 17.4ppm silver, 53.2ppm arsenic, 651.0ppm copper and 459ppm stibnite
- sample RB-18 contains 666.0ppm copper

The final rock type sampled on the West side of the lake is the mafic to ultramafic rock with minor to semi-massive sulphides. Sample RB-09 is from outcrop while RS-14 and RS-20 are float samples.

- Sample RB-09 contains 68.3ppm arsenic, 13.0% iron and 6.1% sulfur
- Sample RS-20 contains 511.0ppm nickel, 83.1ppm cobalt, 837.0ppm chromium and 12.1% magnesium

The East side of the lake is all float samples from the north facing scree slope. Samples GN-02, GN-15, GN-18, GN-19 and RS-05 are green to grey volcanic unit with minor disseminated sulphides and moderate FeOx. The assay values are below the anomalous threshold except sample GN-19 containing 207.0ppm copper.

Samples GN-01, GN-04, GN-05, GN-06, GN-31, GN-33 and GN-34 are all micro diorite to diorite. Some samples show minor banding and minor quartz vein. Minor, disseminated mineralization is represented in the assay results other than sample GN-31 containing 566.0ppm copper.

The remaining samples are mafic to ultramafic rocks, they include samples GN-03, GN-07, GN-16, GN-21, GN-26, GN-27 and GN-30. Samples include fine grained to coarse grained textures with weak to fine disseminated sulphides. Sample GN-26 and GN-27 contain up to 15% sulphides. Assay values are much higher in the ultramafics with the following values;

- sample GN-07 contains 272.0ppm nickel, 62.6ppm cobalt, 571ppm chromium and 8.4% magnesium
- sample GN-16 contains 352.0ppm nickel, 73.5ppm cobalt, 734.0ppm chromium and 10.1% magnesium
- Sample GN-21 contains 261.0ppm nickel, 74.0ppm cobalt, 275.0ppm chromium and 8.9% magnesium

Notable all three samples above are depleted in sulfur.

- sample GN-26 contains 583.0ppm copper and 3960ppm manganese
- sample GN-27 contains 413.0ppm copper and 3970ppm manganese



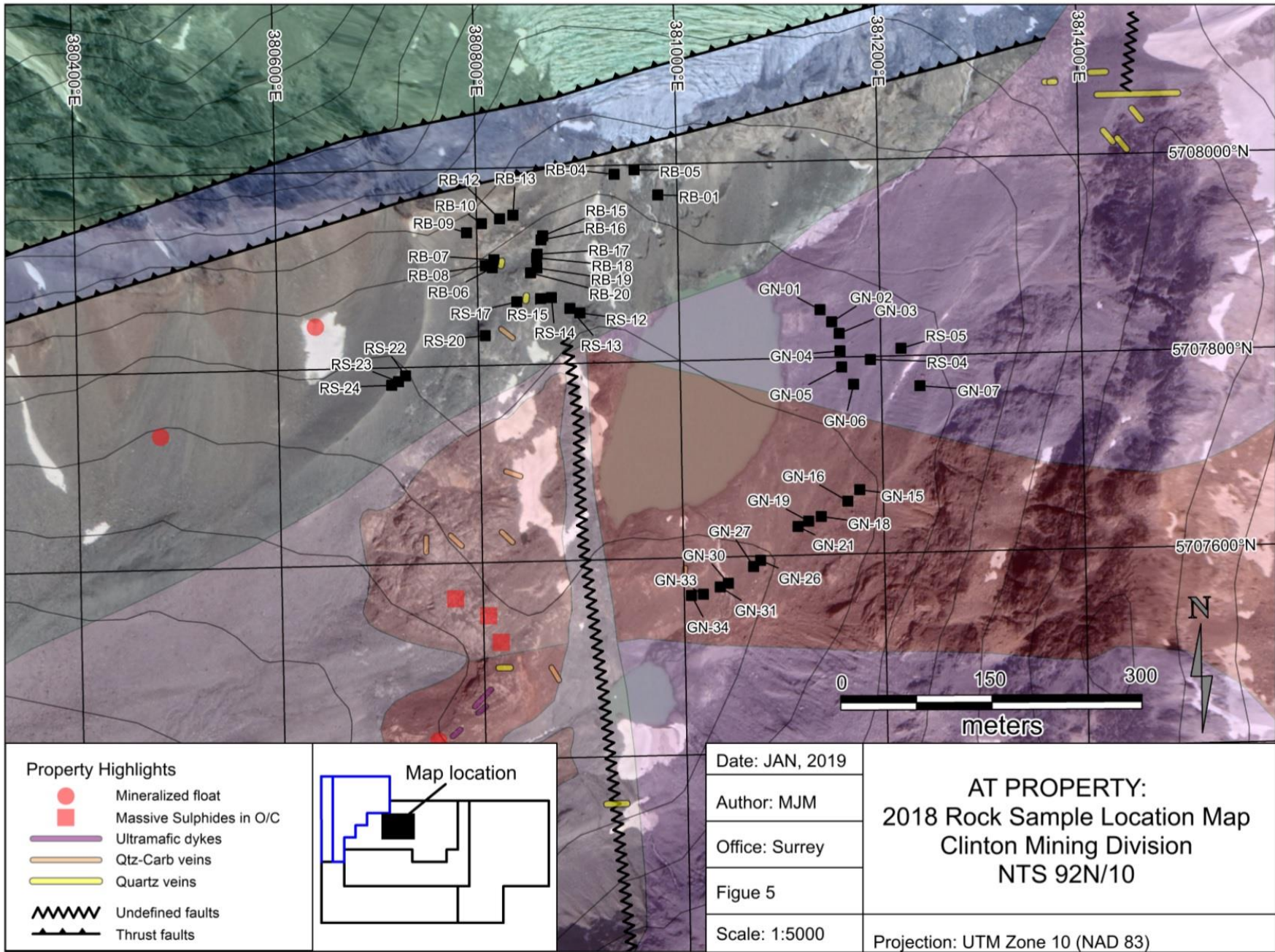


Figure 5: 2018 Rock Sample Location Map



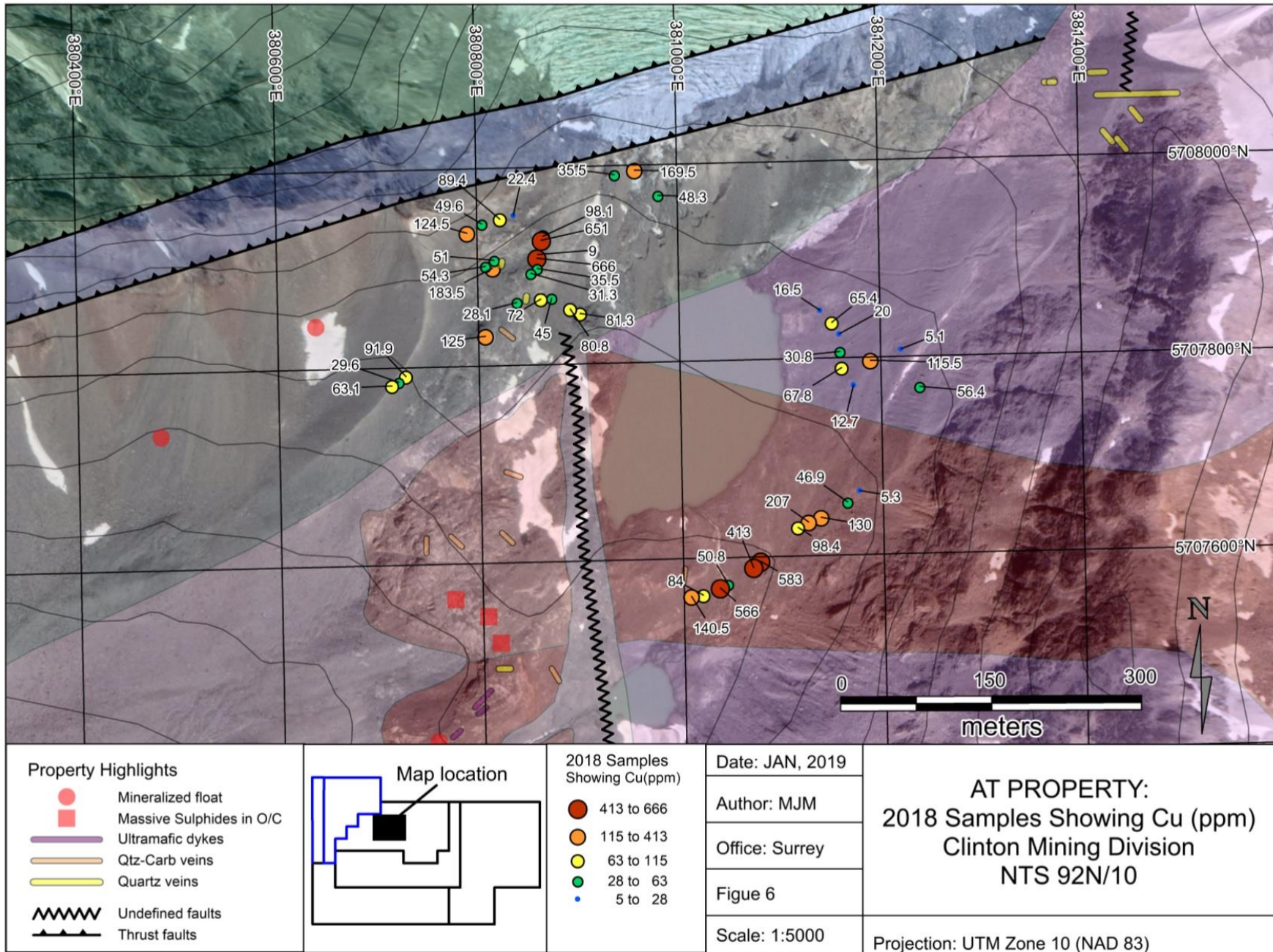


Figure 6: 2018 Rock Sample Location Map Showing Cu (ppm)



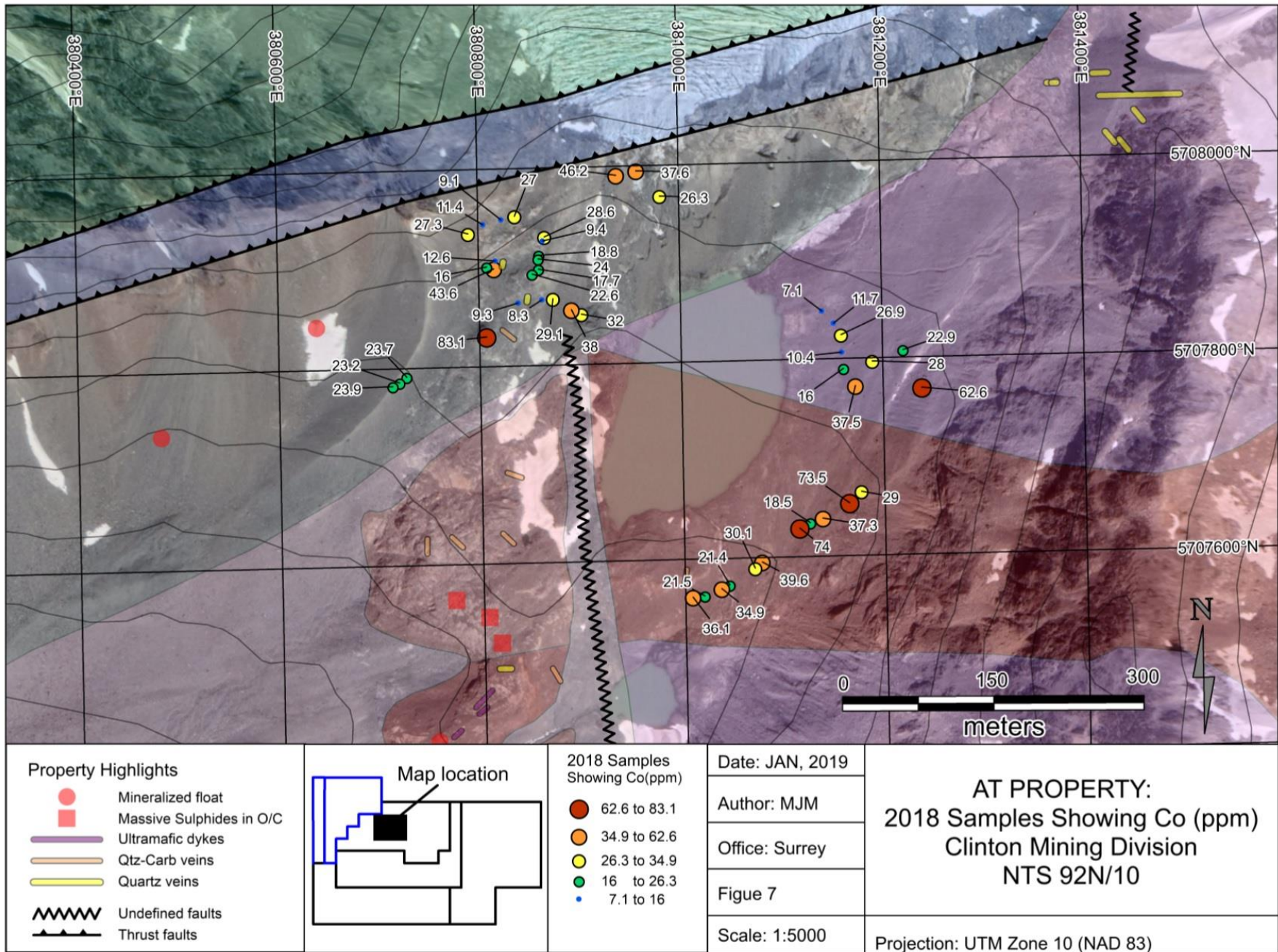


Figure 7: 2018 Rock Sample Location Map Showing Co (ppm)



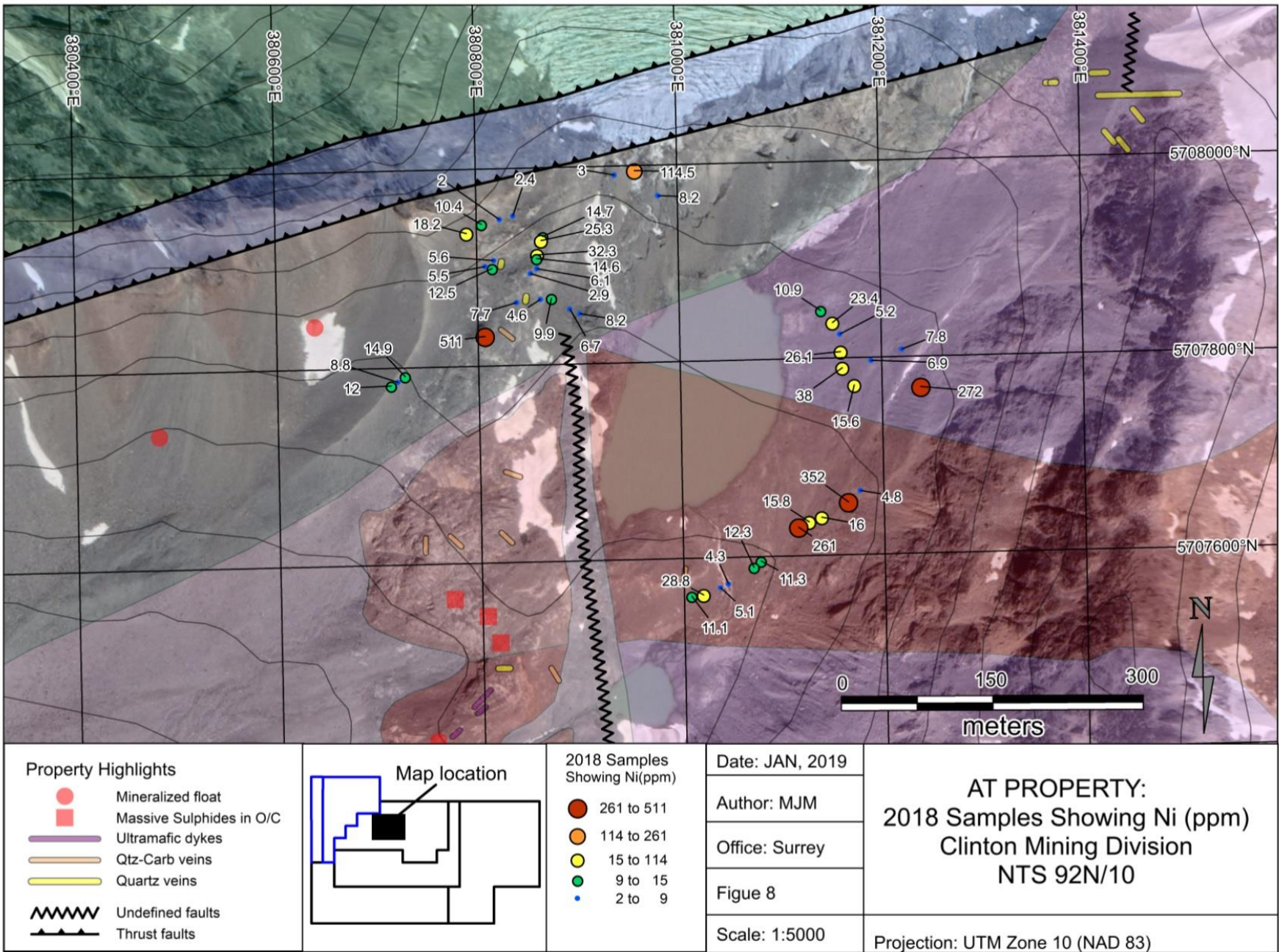


Figure 8: 2018 Rock Sample Location Map Showing Ni (ppm)

## DISCUSSIONS

In summary, the geological mapping, regional geochemical sampling surveys and historical exploration in the AT claims area have identified a geological setting that is deemed to have a high potential for a magmatic segregation or a sedimentary hosted Co-Cu-Au deposit. In addition to the mapped tonalite intrusion and the AT 2 minfile occurrence which reports Cu, Ni, Co, Hg, Au, Ag, Pt and Pd mineralization, prospecting has confirmed the presence of sulphide mineralization in the area. Polymetallic veining that includes Au, Ag, Cu, Zn and Pb, extending northwesterly from the intrusion, supports the interpretation of the presence of a large hydrothermal alteration system.

A high altitude, regional airborne magnetic survey covering the claims area maps a strong magnetic anomaly coincident with the tonalite intrusion. The magnetic response is significantly smaller than the geologically outlined body, implying the intrusion is either smaller or contains high magnetic susceptibility facies within it.

3D modelling of the regional airborne magnetic survey maps the tonalite intrusion as having a 3 km diameter, northeasterly elongated high susceptibility core, buried at least 300 metres below surface. It also delineates a high susceptibility halo that wraps around the western and southern flanks of the core and extends northeasterly, forming a steep to vertically dipping plate like body. Low susceptibility, ring-like structures, most prominent along the northeastern and northerly flanks of the intrusion may reflect an alteration halo.

In consideration of these observations, the AT claim group is deemed to have a high potential for a sedimentary hosted, Co-Cu-Au deposit. A systematic exploration program, designed to determine the extent and precise nature of sulphide mineralization is required. Due to the ruggedness of the terrain this is likely to require prospecting by qualified mountaineering personnel in some areas.

## CONCLUSION AND RECOMMENDATIONS

The various mineralized occurrences on the AT claims fall into three general categories, depending on their relative position to the contact- between the Batholithic rocks and the Triassic volcanic rocks which they intrude.

- 1) **Zones of magmatic segregations within the intrusive rocks.** Here the mineralization is of the copper-nickel-cobalt type. Values range to 1.0% Cu, 0.4% Ni and 0.1% Co. minor amounts of Ag-Pt-Pd are also present. This type of mineralization is the focus for future work on the property with the premise that the Pt-Pd values may increase with depth.
- 2) **Veins or zones of pyritization and alteration situated at or near the contact.** This includes all of the quartz carbonate veins which are rooted in the Batholith, as well as several quartz or calcite veins and pyritized structures situated very close to the contact. These are essentially barren, apart from their iron content.
- 3) **Veins or structures within the intruded volcanic series,** situated at some distance from the contact. These show some values in copper (up to .73%).



Prospecting should concentrate on the areas recently uncovered by the glacier on the AT 2,3 and 4 claims. With luck, a better geological understanding of the complex intrusive system may be exposed and therefore mapped in greater detail. Historic samples have uncovered numerous float samples that need to be followed up on. These float samples indicate further massive sulphide occurrences amongst the steep ridges.

From this interpretation of the data, it would seem that any future exploration on this property should take the form of ground geophysical surveys on the parts of the property where the intrusive rocks are exposed, or where they are under a moderate amount of overburden (that is, under glacial ice or under moraine). The presence of abundant pyrrhotite in association with Cu-Ni-Co sulphides should make a magnetometer survey particularly appropriate to find out if some degree of continuity can be established for this mineralization.

The possibility of significant copper occurrences to the north and northwest of this property exists, but the terrain is so rugged that specialized mountaineering personnel would have to be involved in that investigation.

Several geophysical techniques have proven useful in the exploration for these types of deposits. Owing to the presence of magnetite and sulphides in these deposits, magnetics, as evidenced by the results from the regional airborne survey studied here, and gravity can be useful in identifying potentially mineralized zones. These techniques are also effective for mapping intrusive zones which are often proximal to these deposits. Regional radiometric surveys can be useful in recognizing altered rocks associated with Co-Cu-Au mineralized zones in areas where un-weathered rocks are exposed at the surface. VLF-EM surveying is useful for mapping regional scale structural lineaments, faults and shear zones that may be important in localizing deposits. Transient electromagnetic methods (TEM) and DC resistivity/induced polarization (IP) have been generally successful in detecting these deposits because most are at least weak conductors. However, these methods also respond to both iron oxides and barren sulphides, which commonly are more laterally extensive than the target mineralization.

## REFERENCES

- Anonymous (1940): British Columbia Ministry of Mines Ann& Report, 1940; p. A72.
- Bemiolles, L. (1987): Prospecting Report, AT2 Claim, Clinton Mining Division; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #16,688.
- Berniolles, L. (1988): Prospecting Report, AT3, AT4 Claims, Clinton Mining Division; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #18,022.
- Berniolles, L. (1989): Prospecting Report, HW1, HW4, HW5 Claims, Clinton Mining Division; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #19,355.
- Berniolles, L. (1991b): Prospecting Report - HW9 Claim, Clinton Mining Division; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #21,861.
- Berniolles, L. (1994a): Statement of Work with Summary of Work Done and analytical results for the HW5 Claim, Clinton Mining District; Work filed for assessment.
- Berniolles, L. (1994b): Statement of Work with Summary of Work Done and analytical results for the Blackhorn and BLK 1 Claims, Clinton Mining District; Work filed for assessment.
- Copeland, J.J. (1981): Prospecting Report On McCope, McDon and McMull Claims; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #9,575.
- Copeland, J.J. (1988): Diamond Drill Sampling On The J.J.#1,Rec:2422 & J.J.#2,Rec2423; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #17,858.
- Culbert, R. (1988): Geochemical And Prospecting Report On The Loot 1 And Loot 2 Claims; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #18,250.
- Culbert, R., Heberlein, K. and Lammie, C.A.R. (1988): Geochemical, Prospecting And Au Photo Study Report For Assessment Purposes On The Loot 1-2 Claims; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #17,392.
- Jones, H.M. (1984): Assessment Report - Geological Report - McDuck, McCope, McDow, McMull No. 1 and McMull No. 2 Claims; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #12,691. . McConnell, G. (1982): Geological Report - McDuck, McDon, McCope and McMull Claim Group; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report #10,654.
- O'Grady, B.T. (1938): British Columbia Ministry of Mines Annual Report, 1937; p. F3-F6.
- Peatfield, G.R. (1996): Technical Report On The Niut Range Property, Tatlayoko Lake Area, British Columbia; Report submitted to the Vancouver Stock Exchange as a part of Black Horn Gold Mines company prospectus.
- Romring, P.A. (1984): Preliminary Geology And Geochemistry Of The Lori 1,2,3 And 4 Claims; British Columbia Ministry of Energy and Mines Geological Survey Branch Assessment Report#13,150.

Roddick, J.A. and Tipper, H.W. (1985): Geology, Mount Waddington (92N) map area; Geological Survey of Canada Open File 1163.

Rusmore, M.E. and Woodsworth, G.J. (1988): Eastern margin of the Coast Plutonic Complex, Mount Waddington map area, B.C.; Geological Survey of Canada Paper 88-IE, p. 185-190.

Rusmore, M.E. and Woodsworth, G.J. (1991a): Distribution and tectonic significance of Upper Triassic terranes in the eastern Coast Mountains and adjacent Intermontane Belt, British Columbia; Canadian Journal of Earth Sciences, v. 28, p. 532-541.

Rusmore, M.E. and Woodsworth, G.J. (1991b): Coast Plutonic Complex: A mid-Cretaceous contractional orogen; Geology, v. 19, p. 941-944.

Rusmore, M.E. and Woodsworth, G.J. (1993): Geological maps of the Mt. Queen Bess (92N/7) and Razorback Mountain (92N/IO) map areas, Coast Mountains, British Columbia; Geological Survey of Canada Open File 2586.

Sargent, H.. (1939): British Columbia Ministry of Mines Annual Report, 1938; p. F29-F38.

Stevenson, J.S. (1947): Lode Gold Deposits, Southwestern British Columbia (Exclusive of Vancouver Island); British Columbia Department of Mines Bulletin No. 20 - Part IV.

Tipper, H.W. (1969): Mesozoic And Cenozoic Geology Of The Northeast Part Of Mount Waddington Map-Area (92N), Coast District, British Columbia; Geological Survey of Canada Paper 68-33.

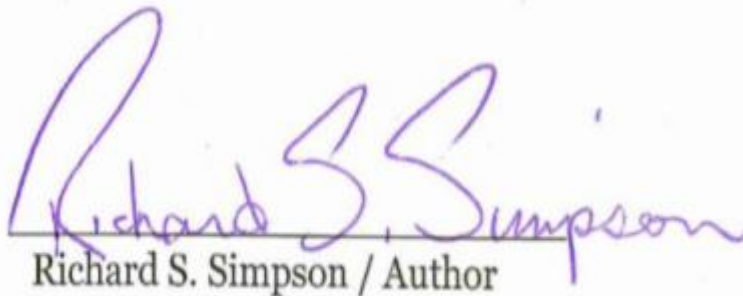
Tipper, H.W., Woodsworth, G.J. and Gabrielse, H. (1981): Tectonic Assemblage Map Of The Canadian Cordillera And Adjacent Parts Of The United States Of America; Geological Survey of Canada Map 1505A.

## STATEMENT OF QUALIFICATIONS

I, Richard S Simpson, of 13<sup>th</sup> Avenue, Burnaby, British Columbia, am a graduate of Centennial Senior High School, Coquitlam, British Columbia, 1967, and am a self taught, independent Prospector. I have provided exploration and consulting services to the mining industry for over 42 years.

- i. I have conducted exploration programs that included ground geophysical surveys, diamond drilling programs, regional prospecting campaigns and property evaluations. I have worked predominantly in the western Canadian Arctic, British Columbia, Idaho, Nevada and Arizona.
- ii. I personally collected and/or oversaw the collection of all rock samples gathered during the 2018 exploration program on the AT Property.

DATED at Vancouver, British Columbia, as of 28<sup>th</sup> day of January, 2019.



Richard S. Simpson / Author

## Appendix A: Cost Statement

<b>Exploration Work type</b>	<b>Comment</b>	<b>Days</b>			<b>Totals</b>
<b>Personnel (Name)* / Position</b>	<b>Field Days (list actual days)</b>	<b>Days</b>	<b>Rate</b>	<b>Subtotal*</b>	
Richard Simpson/Prospector	July 17-19 and Sept 24-28	8	\$400	\$3,200.00	
George Nicholson/Pgeo	July 17-19 and Sept 24-26	6	\$700	\$4,200.00	
Ryan Belanger/Prospector	Sept 24-26	3	\$400	\$1,200.00	
			\$0.00	\$0.00	
			\$0.00	\$0.00	
			\$0.00	\$0.00	
			\$8,600.00		<b>\$8,600.00</b>
<b>Office Studies</b>	<b>List Personnel (note - Office only, do not include field days)</b>				
Literature search			\$0.00	\$0.00	
Database compilation			\$0.00	\$0.00	
Computer modelling			\$0.00	\$0.00	
Reprocessing of data			\$0.00	\$0.00	
General research			\$0.00	\$0.00	
Report preparation	Richard Simpson		\$0.00	\$2,000.00	
Other (specify)				\$0.00	
			\$2,000.00		<b>\$2,000.00</b>
<b>Airborne Exploration Surveys</b>	<b>Line Kilometres / Enter total invoiced amount</b>				
Aeromagnetics			\$0.00	\$0.00	
Radiometrics			\$0.00	\$0.00	
Electromagnetics			\$0.00	\$0.00	
Gravity			\$0.00	\$0.00	
Digital terrain modelling			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
			\$0.00		<b>\$0.00</b>
<b>Remote Sensing</b>	<b>Area in Hectares / Enter total invoiced amount or list personnel</b>				
Aerial photography			\$0.00	\$0.00	
LANDSAT			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
			\$0.00		<b>\$0.00</b>
<b>Ground Exploration Surveys</b>	<b>Area in Hectares/List Personnel</b>				
Geological mapping					
Regional					
Reconnaissance					
Prospect					
Underground	Define by length and width				
Trenches	Define by length and width			\$0.00	<b>\$0.00</b>
<b>Ground geophysics</b>	<b>Line Kilometres / Enter total amount invoiced list personnel</b>				
Radiometrics					
Magnetics	SJ Geophysics, Inverse Mag Profile			\$8,178.56	
Gravity					
Digital terrain modelling					
Electromagnetics	<i>note: expenditures for your crew in the field</i>				



SP/AP/EP  
 IP  
 AMT/CSAMT  
 Resistivity  
 Complex resistivity  
 Seismic reflection  
 Seismic refraction  
 Well logging  
 Geophysical interpretation  
 Petrophysics  
 Other (specify)

*should be captured above in  
 Personnel  
 field expenditures above*

Define by total length

**\$8,178.56    \$8,178.56**

**Geochemical Surveying      Number of Samples      No.      Rate      Subtotal**

Drill (cuttings, core, etc.)      \$0.00      \$0.00  
 Stream sediment      \$0.00      \$0.00  
 Soil      \$0.00      \$0.00  
     \$50.0  
 Rock      81      81.0      0      \$4,050.00  
 Water      \$0.00      \$0.00  
 Biogeochemistry      \$0.00      \$0.00  
 Whole rock      \$0.00      \$0.00  
 Petrology      \$0.00      \$0.00  
 Other (specify)      \$0.00      \$0.00

**\$4,050.00    \$4,050.00**

**Drilling      No. of Holes, Size of Core and Metres      No.      Rate      Subtotal**

Diamond      \$0.00      \$0.00  
 Reverse circulation (RC)      \$0.00      \$0.00  
 Rotary air blast (RAB)      \$0.00      \$0.00  
 Other (specify)      \$0.00      \$0.00

**\$0.00**

**Other Operations      Clarify      No.      Rate      Subtotal**

Trenching      \$0.00      \$0.00  
 Bulk sampling      \$0.00      \$0.00  
 Underground development      \$0.00      \$0.00  
 Other (specify)      \$0.00      \$0.00

**\$0.00**

**Reclamation      Clarify      No.      Rate      Subtotal**

After drilling      \$0.00      \$0.00  
 Monitoring      \$0.00      \$0.00  
 Other (specify)      \$0.00      \$0.00

**Transportation      No.      Rate      Subtotal**

Airfare      \$0.00      \$0.00  
 Taxi      \$0.00      \$0.00  
     \$125.  
 truck rental      7.00      00      \$875.00  
 kilometers      \$0.00      \$0.00

ATV		\$0.00	\$0.00	
fuel		\$0.00	\$0.00	
Helicopter (hours)		\$0.00	\$5,360.90	
Fuel (litres/hour)		\$0.00	\$0.00	
Other				
			\$6,235.90	<b>\$6,235.90</b>
<b>Accommodation &amp; Food</b>	<b>Rates per day</b>			
Hotel		\$0.00	\$0.00	
Camp		\$0.00	\$0.00	
Meals	day rate or actual costs-specify	\$0.00	\$0.00	
			\$0.00	<b>\$0.00</b>
<b>Miscellaneous</b>				
Telephone		\$0.00	\$0.00	
Other (Specify)				
			\$0.00	<b>\$0.00</b>
<b>Equipment Rentals</b>				
Field Gear (Specify)		\$0.00	\$0.00	
Other (Specify)				
			\$0.00	<b>\$0.00</b>
<b>Freight, rock samples</b>				
		\$0.00	\$0.00	
		\$0.00	\$0.00	
			\$0.00	<b>\$0.00</b>
<b>TOTAL Expenditures</b>				<b>\$29,064.46</b>

## Appendix B: Rock Descriptions

Rocks collected between Sept 24-26/18

By: G. Nicholson / R. Belanger / R.S. Simpson

*Rock Descriptions by R. Simpson*

<b>SAMPLE ID</b>	<b>Easting (NAD83z10)</b>	<b>Northing (NAD83z10)</b>	<b>Type</b>	<b>Description</b>
AT/18 RS #1	381152	5707870	Float	Quartz-diorite med-grained
AT/18 RS #2	381188	5707836	Float	Fine to med grained igneous, v.v. weak FeOx . qtz stringer ~0.5 cm w/bleb of malachite, Light grey colour
AT/18 RS #3	381188	5707829	Float	Grey volcanic, fine grained, siliceous. v.v. weak FeOx, no visible sulphides (heavy rock)
AT/18 RS #4	381190	5707797	Float	Light grn tuff, v.v. weak FeOx, mottled
AT/18 RS #5	381220	5707807	Float	Light grey volc with qtz-carb stingers & epidote, 1 cm qtz vein, with vugs, no sulphide.
AT/18 RS #6	381263	5707857	Float	Coarse grained diorite
AT/18 RS #7	381282	5707890	Float	Grey volc, small blebs of epidote, v.v. weak. v.v. fine diss-sulphides.
AT/18 RS #8	381258	5707934	Float	Banded qtz-carb veining, FeOx, weak sulphides; very small, flakes of bright-silvery mineral (molybdenum?), very soft.
AT/18 RS #9	381249	5707934	Float	Fine to med grn, grey volc with <1% v.v. fine diss-sulphide, 2 mm qtz stringer with sulphides.
AT/18 RS #10	381206	5707921	Float	Grey volc. with 2 mm epidote stringer, also epidote blebs in the matrix, no visible sulphides.
AT/18 RS #11	380914	5707852	Float	Siliceous fine grained diorite <1% diss. sulphide very weak FeOx, one cluster of sulphides
AT/18 RS #12	380901	5707851	Float	Grey volc, some qtz-diorite stringers <1% sulphides in rock



<b>SAMPLE ID</b>	<b>Easting (NAD83z10)</b>	<b>Northing (NAD83z10)</b>	<b>Type</b>	<b>Description</b>
AT/18 RS #13	380892	5707856	Float	Igneous, minor diorite veining, weak epidote
AT/18 RS #14	380873	5707867	Float	Mafic qtz-carb stringers, epidote, 1% sulphide
AT/18 RS #15	380862	5707867	Float	Quartzite, strong epidote, very weak FeOx, v.v. weak sulphide content.
AT/18 RS #16	380859	5707867	Float	Dark grey mafic v.v. weak FeOx, qtz-diorite stringer, negligible sulphides.
AT/18 RS #17	380839	5707864	Float	Medium grained Qtz-diorite, very weak FeOx.
AT/18 RS #18	380831	5707859	Float	Grey volc, very fine diss. sulphides <1%, plus 3 mm seam edge of 1 rock sample with sulphides.
AT/18 RS #19	380822	5707850	Float	Fine grained mafic with 1-2% sulphides diss., moderate FeOx, 1-4 mm qtz stringer with minor sulphide.
AT/18 RS #20	380807	5707830	Float	Ultra mafic with weak diss. Sulphides
AT/18 RS #21	380758	5707809	Float	Dark grey mafic with <1% diss. sulphides.
AT/18 RS #22	380727	5707791	Float	Siliceous volc ~3% pyrites/sulphides
AT/18 RS #23	380720	5707786	Float	Siliceous volc ~5% sulphides/pyrite
AT/18 RS #24	380713	5707782	Float	Grey volc 7-10% sulphides w/chalco, diss. fine grain & in fractures, weak FeOx, also sulphide blebs & clusters.
AT/18 RB #1	380981	5707969	Outcrop	Dark grey andesite ~1% v.v. fine diss. Sulphide
AT/18 RB #2	380971	5707969	Outcrop	Qtz-carb vein material moderate FeOx v.v. weak occasional fine sulphides.
AT/18 RB #3	380938	5707993	Outcrop	Qtz-carb vein material 1% diss sulphides moderate FeOx
AT/18 RB #4	380938	5707991	Outcrop	Qtz-diorite with fine diss. sulphides w/occasional pyrite cluster 1 cm across. <1% sulph.
AT/18 RB #5	380958	5707995	Outcrop	Qtz-carb material with diss. & blebs of sulphide in qtz & grey banding 1-2% sulphides
AT/18 RB #6	380815	5707899	Outcrop	Dark grey andesite with ~3% to 5% sulphides in find disseminations, clusters & fractures, FeOx weakly magnetic.

<b>SAMPLE ID</b>	<b>Easting (NAD83z10)</b>	<b>Northing (NAD83z10)</b>	<b>Type</b>	<b>Description</b>
<b>AT/18 RB #7</b>	380817	5707907	Outcrop	Carbonate with 2-3% diss. sulphides, moderate FeOx
<b>AT/18 RB #8</b>	380808	5707901	Outcrop	Micro-diorite with very weak, fine diss. sulphides, moderate FeOx
<b>AT/18 RB #9</b>	380790	5707935	Outcrop	Mafic (?) semi-massive sulphides with v.v. fine disseminations & sulphide banding & in fractures moderately magnetic; strong FeOx (goethite) ~15%+ sulphide
<b>AT/18 RB #10</b>	380805	5707944	Outcrop	Dark grey volc, ~10% sulphides in disseminations, fractures & in bands; moderately magnetic, strong FeOx & goethite
<b>AT/18 RB #11</b>	380819	5707947	Outcrop	Qtz-carb material w/~1% v.v. fine diss. sulphides, weak FeOx
<b>AT/18 RB #12</b>	380823	5707948	Outcrop	Grey volc/qtz-carb stockwork w/sulphides in blebs & v.v. fin diss. in grey (volc?) bands. 1-2% sulphide content
<b>AT/18 RB #13</b>	380836	5707952	Outcrop	Qtz-carb vein with clusters of sulphides in pockets & fractures; vein in cold contact with volc ~1-2% sulphides
<b>AT/18 RB #14</b>	380856	5707959	Outcrop	Andesite with v.v. fine diss. sulphides in matrix & along seams; ~>1% sulphides
<b>AT/18 RB #15</b>	380866	5707930	Outcrop	Grey volc. with ~1% sulphides in diss. & in a 3 mm Qtz stringer.
<b>AT/18 RB #16</b>	380864	5707926	Outcrop	Qtz. vein with ~1% diss. sulphides
<b>AT/18 RB #17</b>	380860	5707912	Outcrop	Dark grey volc. with diss. sulphides; also sulphides in fractures & stress-seams; ~2-3% sulphides weakly magnetic, weak FeOx.
<b>AT/18 RB #18</b>	380859	5707908	Outcrop	Andesite with minor qtz stringers, malachite noted with the qtz-stringers, no visible sulphides in the andesite
<b>AT/18 RB #19</b>	380859	5707898	Outcrop	Dark grey volc with ~1% v.v. fine diss. sulphides.
<b>AT/18 RB #20</b>	380853	5707893	Outcrop	Siliceous andesite with diss sulphides ~3% sulphides
<b>AT/GN #1</b>	381140	5707848	Float	Micro-diorite with 1 mm qtz-carb stringers, cross-cutting, 1 mm bands of FeOx, moderate to strong FeOx, sulphides not visible
<b>AT/GN #2</b>	381152	5707836	Float	Grey volc., moderate FeOx, weak diss-sulphide

<b>SAMPLE ID</b>	<b>Easting (NAD83z10)</b>	<b>Northing (NAD83z10)</b>	<b>Type</b>	<b>Description</b>
<b>AT/GN #3</b>	381159	5707824	Float	Mafic (?), dark-grey, ~1% diss, fine sulphide, strongly magnetic
<b>AT/GN #4</b>	381160	5707806	Float	Band of qtz-diorite & micro-diorite ~1%, diss-sulphide-mod-FeOx., >1% sulphides
<b>AT/GN #5</b>	381161	5707790	Float	Micro-diorite/gneiss, very weak fine diss-sulphide
<b>AT/GN #6</b>	381172	5707772	Float	Banded micro-diorite with 1 cm band or vein of epidote; min. FeOx, negligible sulphide
<b>AT/GN #7</b>	381238	5707769	Float	Coarse grained ultra-mafic, very weak diss sulphide content, very weakly magnetic
<b>AT/GN #8</b>	381233	5707757	Float	Micro-diorite with weak diss. sulphides, moderately magnetic
<b>AT/GN #9</b>	381225	5707741	Float	Micro-diorite (?), magnetic, heavy rock, >1% v.v. fine diss. Sulphides
<b>AT/GN #10</b>	381220	5707727	Float	Micro to medium grain diorite, >1% diss. sulphides, magnetic
<b>AT/GN #11</b>	381216	5707716	Float	Qtz diorite, medium to coarse, magnetic, sulphides very weak
<b>AT/GN #12</b>	381210	5707703	Float	Micro-diorite, occasional sulphide, epidote, mildly magnetic; 3 mm bleb of malachite
<b>AT/GN #13</b>	381201	5707689	Float	Mafic, weak diss. sulphides >1%, magnetic
<b>AT/GN #14</b>	381187	5707675	Float	Ultra-mafic, v.v.v. fine grain sulphides, 0.5 m qtz stringers crisscrossing rock, rock is moderately magnetic
<b>AT/GN #15</b>	381177	5707665	Float	Siliceous greenish volc., very weak diss. sulphides, not magnetic
<b>AT/GN #16</b>	381164	5707654	Float	ultra mafic, weak scattered sulphides, magnetic
<b>AT/ GN#17</b>	381153	5707645	Float	Grey volc. with medium grained qtz-diorite veining (banding?), v.v.v fine diss-sulphides in the volcanics, ~1% sulphides, weak FeOx, magnetic
<b>AT/ GN#18</b>	381138	5707639	Float	Grey volc with qtz-carb veining, v.v. fine diss-sulphide > 1%, chalco & malachite noted on broken face
<b>AT/ GN#19</b>	381125	5707634	Float	Dark volc, much FeOx, strong very fine sulphides, not magnetic, 5% sulphides
<b>AT/ GN#20</b>	381114	5707629	Float	Ultra-mafic, some visible sulphides (%?), strongly magnetic

<b>SAMPLE ID</b>	<b>Easting (NAD83z10)</b>	<b>Northing (NAD83z10)</b>	<b>Type</b>	<b>Description</b>
<b>AT/ GN#21</b>	381104	5707623	Float	Ultra-mafic, weakly magnetic, weak diss, fine sulphides (%)
<b>AT/ GN#22</b>	381098	5707616	Float	Micro-diorite, weak fine diss., sulphides, magnetic
<b>AT/ GN#23</b>	381091	5707610	Float	Grey volc. fine diss sulphides, also nn traces >1% sulphides
<b>AT/ GN#24</b>	381083	5707601	Float	Fine grain mafic (?), very weak diss sulphide
<b>AT/ GN#25</b>	381077	5707596	Float	Fine grain mafic (?), same as above
<b>AT/ GN#26</b>	381070	5707590	Float	Fine grain mafic (?), heavy fine gran diss., sulphides ~15%
<b>AT/ GN#27</b>	381063	5707585	Float	same as above
<b>AT/ GN#28</b>	381054	5707579	Float	Fine micro-diorite with weak diss-sulphides
<b>AT/ GN#29</b>	381044	5707573	Float	Ultra-mafic with 1% diss sulphides
<b>AT/ GN#30</b>	381036	5707570	Float	Mafic with 1% fine diss sulphides, magnetic
<b>AT/ GN#31</b>	381029	5707565	Float	Micro-diorite with weak diss. sulphides, magnetic
<b>AT/ GN#32</b>	381019	5707563	Float	Mafic, magnetic, weak diss. fine sulphides
<b>AT/ GN#33</b>	381007	5707562	Float	Micro-diorite with very weak fine diss. sulphides, not magnetic
<b>AT/ GN#34</b>	380995	5707562	Float	Coarse grained & fine grained diorite, weak diss. sulphides, moderate FeOx
<b>AT/ GN#35</b>	380984	5707562	Float	Ultra-mafic, no visible sulphides
<b>AT/ GN#36</b>	380976	5707559	Float	Mafic with very weak diss. sulphides
<b>AT/ GN#37</b>	380965	5707556	Float	Qtz diorite with >1% diss. fine sulphides, moderate FeOx

## Appendix C: Regional Geophysical Study



## MEMORANDUM

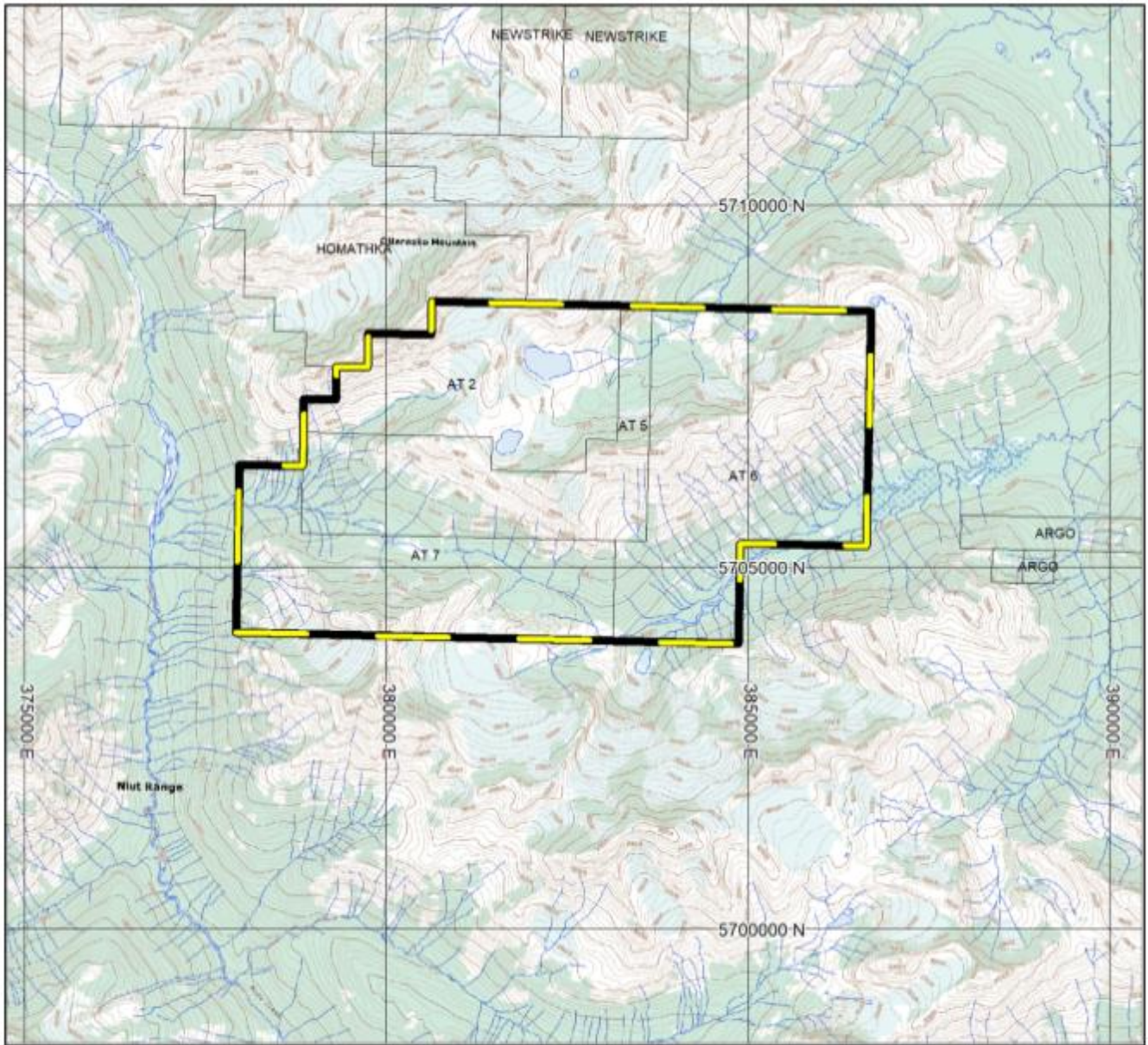
Date: February 13, 2018  
From: E. Trent Pezzot  
To: Conico Resources Ltd.  
SUBJECT: Regional Geophysical Study – AT Claims Project

At the request of George Nicholson, SJ Geophysics was directed to acquire regional geological and geophysical data across the 5 x 10 km AT claim block. This project area is located on the southern flank of Ottarasko Mountain, in the Niut Range of the Coast Mountain, some 45 kilometres south of Tatla Lake, on BC Highway #20 and 175 km west-southwest of the city of Williams Lake, BC. The approximate geographical coordinates of the centre of the claims are latitude 51° 31'N and longitude 124° 44'W. The claim block straddles NTS mapsheets 92N/07 and 92N/10 and lies within the Clinton Mining Division.



Figure 1: AT Claim Group outline – Google Earth Image





**Figure 2: AT Claim Group – Topographic base map image background – Black-Yellow line outlines AT claim group.**  
 UTM Grid (NAD83, zone 10N) at 5 km intervals

The claim group is comprised of the AT 2, 5, 6 and 7 claims that total approximately 3,427 hectares. Nicholson provided a package of two assessment reports (#16688 and #18022), dating from 1987 to 1988, that document prospecting exploration on portions of the current claim group. A search of the ARIS database uncovered the 1998 geological and geochemical assessment report #25551, which focused on a block of 14 contiguous claims that included an earlier version of the AT2 claim.

The BC Government geology map shows the area is underlain by a north-northwesterly striking sequence Cretaceous volcanic and sedimentary rocks. The AT claim group covers the northeastern half of a 15 x 4 km, northeasterly elongated ellipsoid of tonalite intrusive, one of several intrusive bodies mapped in the area.

The AT 2 minfile prospect lies with the AT claim group and reports Cu, Ni, Co, Hg, Au, Ag, Pt and Pd mineralization.

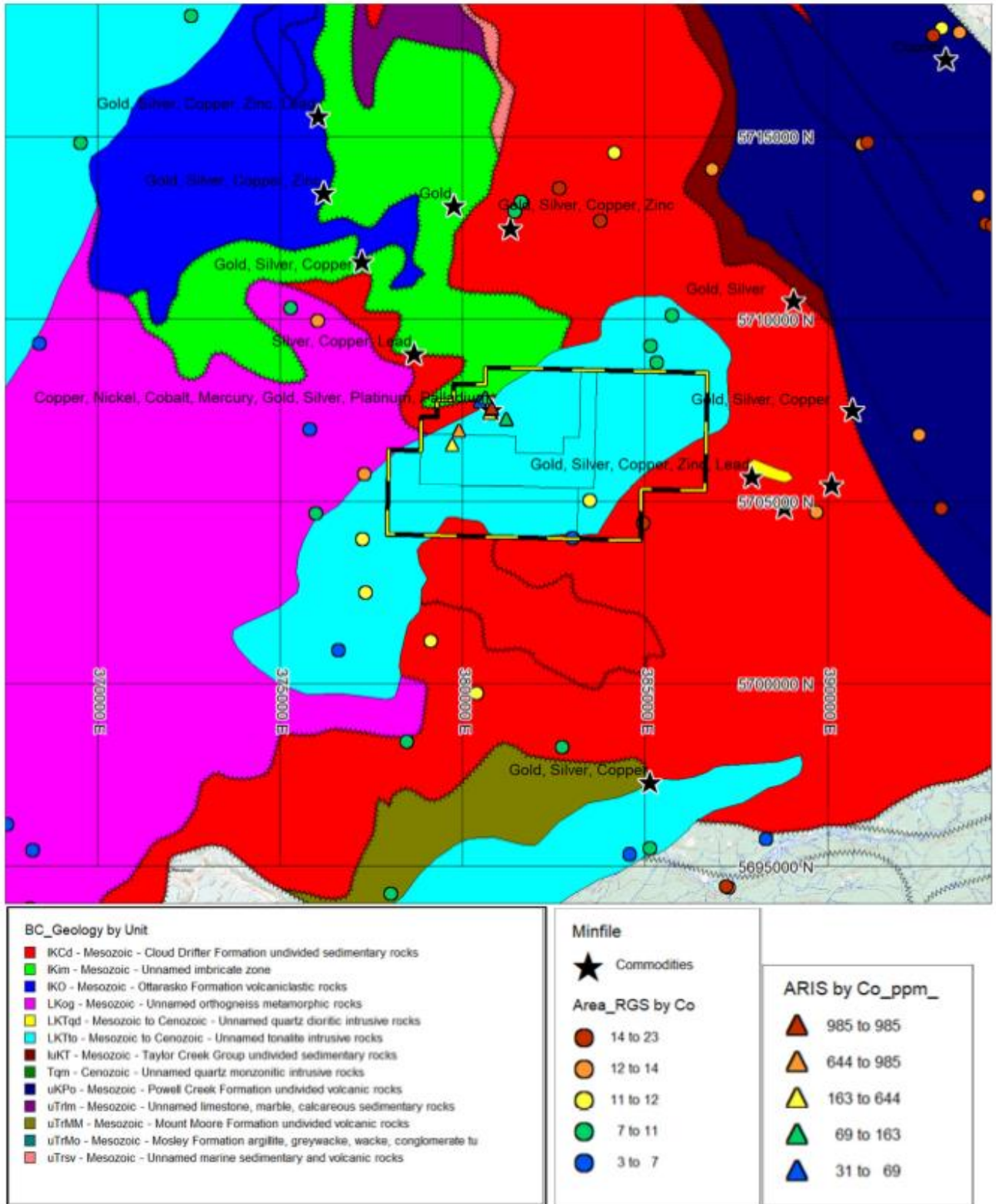
A cluster of 6 minfile showings to the north of the property report gold and/or copper and/or silver mineralization. Some also include zinc and/or lead. These all fall along the edge of an unnamed imbricate zone where it contacts either the Ottarasko Formation volcanoclastics or the Cloud Drifter Formation sedimentary rocks.

A cluster of 3 prospects to the east are intrusion related Au and pyrrhotite veins. These fall along a small NW elongated window mapped as quartz dioritic intrusive rocks.

The BC Geochemical Regional Soil Sampling for the area (RGS for 92N) was downloaded from the Ministry of Energy, Mines and Petroleum Resources website and thematic maps were created for some of the elements. In the AT claims area samples appear to have been acquired at lower elevations, following main drainages and points where minor drainages flow into them. Elevated gold values are most prominent to the north of the claim block. Elevated cobalt values are most prominent to the west and south of the claim block.

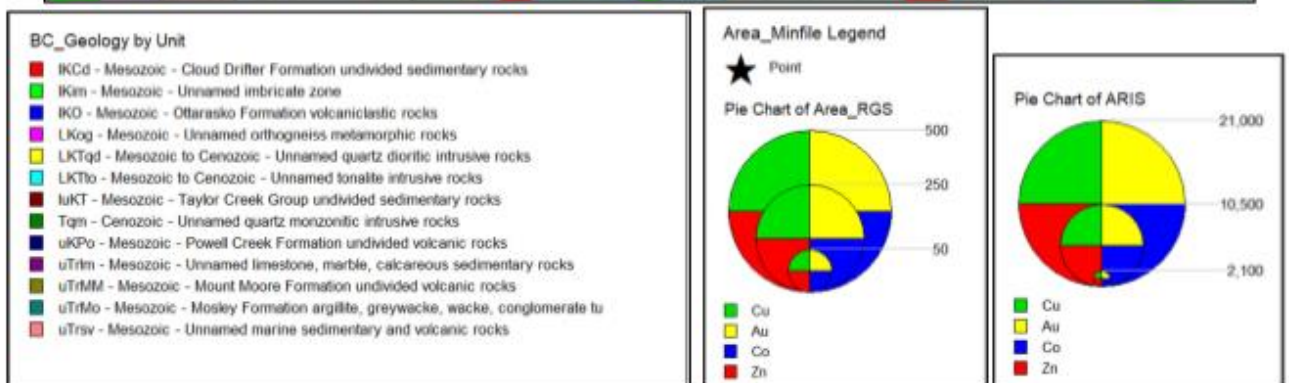
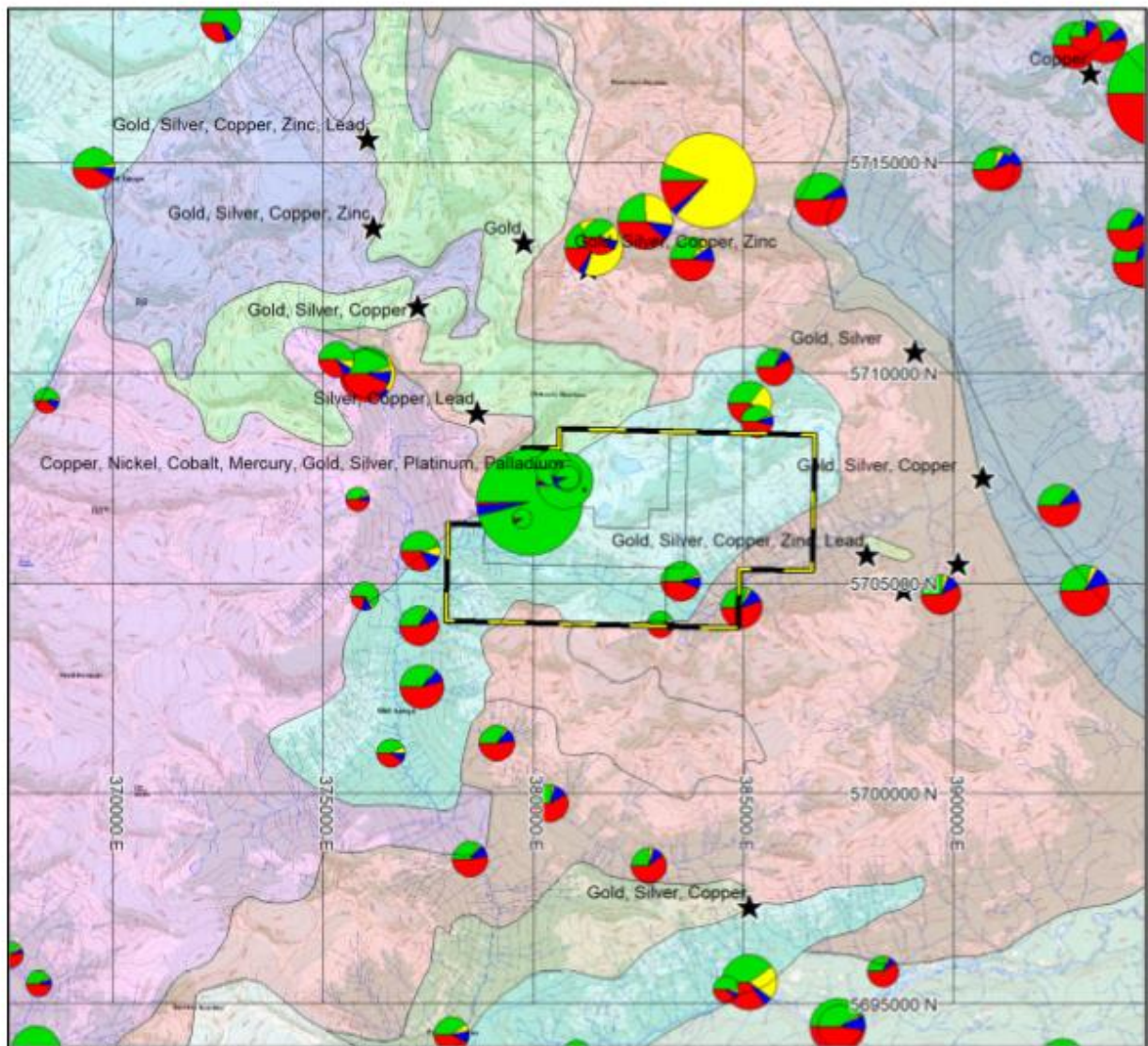
Assessment Reports 16688 and 18022 documented assay results from several outcrop and float rock samples. Compilation geology and geochemical maps in the reports were georeferenced by topographic features and sample locations digitized. Selected geochemical results are tabulated in Table 1 at the end of this memo and selected assays are presented as thematic maps along with the RGS data.





**Figure 3: BC Geology Map – Minfile Occurrences (stars) – Regional Geochemical Samples (circles) –Selected Aris samples (triangles) - Thematic color rendering based on cobalt assays.**

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**Figure 4: Minfile Occurrences (stars) – Regional Geochemical Samples and ARIS samples (pie charts)**  
 Thematic color rendering based on Copper, Gold, Cobalt and Zinc assays. Colors on BC Geology Map faded due to translucent topography overlay.



Based on a review of the applicable assessment reports, the original staking of the AT 2 claim in 1984 was intended to cover a possible source of a WSW trending mineralized boulder train found below the glacier on Ottarasko Mountain. Prospecting programs in 1987 and 1988 revealed four categories of mineralization, depending on their relative position to the tonalite intrusion/batholith. Starting at the batholith and extending to the northwest they are:

- Cu-Ni-Co sulphides in magmatic segregation zones within a batholith.
- Cu bearing quartz and sulphide veins and stockworks within andesitic strata on the main ridge of Mt Ottarasako.
- Auriferous quartz veins within a volcanic sequence
- Auriferous quartz and chalcopyrite in stratabound fracture fillings.

Based on the field observations two working hypotheses were considered:

- First, an overwhelming number of NW-SE structures were found on property. It is possible that these may be related to the major northwest trending Ottarasko and Tchaikazan transcurrent faults a few kilometres to the east of the claims. If so, one might reasonably expect mineralization to continue to the northwest from the northern border of the property.
- Secondly, it is noted that the sequence of elements found in the various mineralized sections, going from SE to NW, correspond roughly to the horizontal endogenic zonation of elements outward from a thermal centre. If this trend is valid to the north, one can expect further Au, Zn, Pb and Ag to north. This hypothesis is supported from results of regional soil sampling in streams draining this area and also by the Blackhorn Mountain gold occurrences 5 km NW of the claims.

At the current time, the main exploration model for the AT claims group is a sedimentary hosted cobalt – copper – gold deposit. Research suggests these deposits may form in conjunction with VMS or porphyry systems and in the presence of an intrusion which prepares the ground and provides a source of mineralizing fluids.

Deposits and districts are typically structurally controlled and are clustered along folds, shear zones, and breccia zones related to major, through-going, deep-crustal faults. Extension-related mafic to felsic igneous rocks may be temporally related with mineralization, although they are not generally spatially coincident. In addition to ore-bearing Co ± As ± Ni sulfides, accompanying minerals in the deposits can include pyrite, chalcopyrite, pyrrhotite, gold, magnetite, and (or) hematite in ores and

surrounding country rocks. Highly potassic (biotite or K-feldspar) and (or) sodic (albite) alteration zones commonly form haloes in country rocks surrounding deposits.

The distinct tectonic and geologic features of the Co-Cu-Au deposits make them amenable to various regional and property-scale geophysical exploration surveys, including magnetic, gravity, electromagnetic, and radiometric methods (Goad and others, 2000; Smith, 2002; Ford and others, 2007).

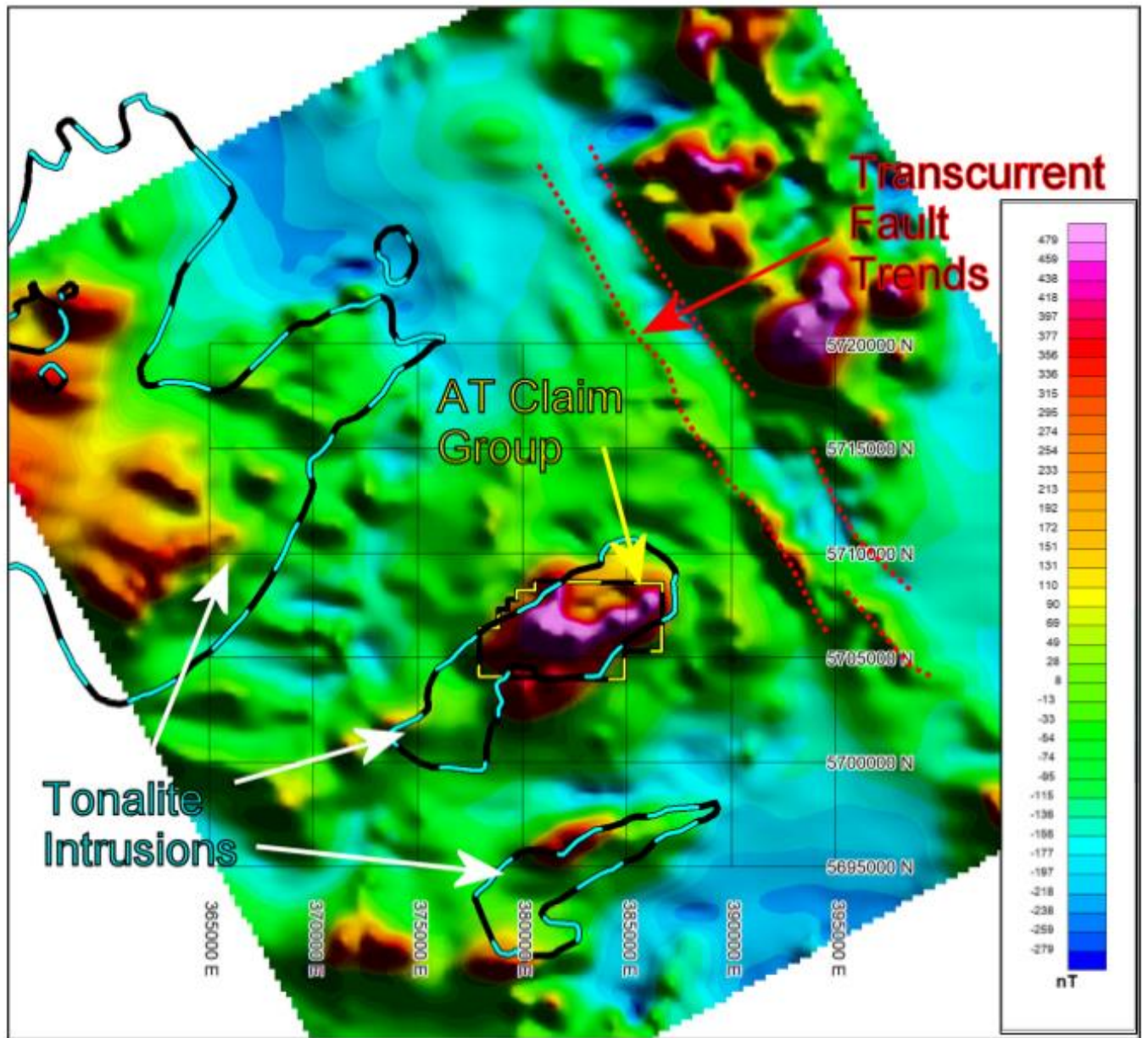
Based on these considerations, a review of existing regional geophysical studies covering the AT claims group was initiated. Two regional airborne datasets were found. Data gathered from the 1993 Geological Survey of Canada, BC 1: Area A survey provided the most detailed information, with residual magnetic field data grid to 200 metre cells. These data were downloaded as a geosoft formatted grid file, processed through Oasis Montaj and exported as georeferenced images for display and compilation in MapInfo.

Digital elevation models for NTS map sheets 92N/07 and N92N/10 were downloaded from the Natural Resources of Canada (NRCAN) centre for topographic information, merged and output into geosoft formatted grid files for compilation with the geophysical data.

The regional magnetic data (Figure 5) is dominated by a strong magnetic high anomaly that closely coincides with the BC Geology defined tonalite intrusion underlying the AT claim group. The magnetic anomaly is confined to the northeastern half of the geologically outlined unit, implying the intrusion is either smaller than geological mapping indicates or that it is comprised of multiple zones with different magnetic characteristics. Similar magnetic high anomalies are also associated with tonalite intrusions mapped to the south and north of the AT claims.

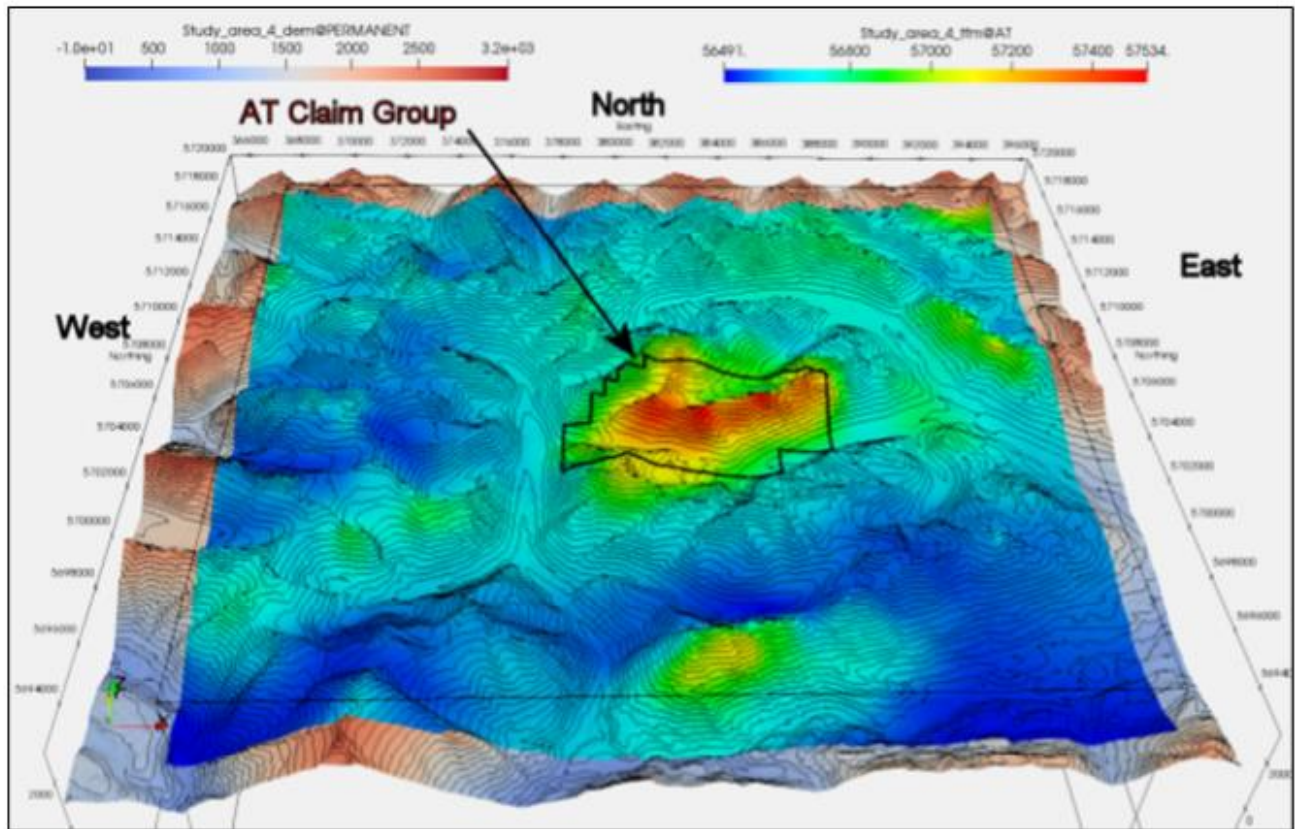
The regional magnetic data also reveals numerous north-northwesterly lineations. The most prominent of these are located to the northeast of the AT claim group and appear to coincide with the Ottarasko and Tchaikazan transcurrent faults. Similarly oriented, short strike-length lineations are evident across the area and likely reflect the dominant lithological contact orientation.

One concern with regional airborne magnetic studies, due to the common practice of flying at a constant elevation, is the correlation between elevation and total field magnetic intensity. Topographic highs are often associated with magnetic highs, due to the reduced distance between the ground surface and the sensors. Viewing the magnetic data draped over the topographic surface (Figure 6) reveals some of these artefacts, most notably in the northeastern portion of the study area, however the extreme amplitude of the magnetic signal underlying the AT claim group cannot be attributed to this effect. In this instance, the magnetic response is attributed to changes in the underlying geology.



**Figure 5: Regional Airborne Magnetic Survey – colour contour Map – Shadow enhanced with illumination from northeast.**  
 Blue-Black lines trace outlines of BC Geology defined tonalite intrusions. Red-dot lines trace magnetic linears believed associated with Ottarasko and Tchaikazan transcurrent faults.

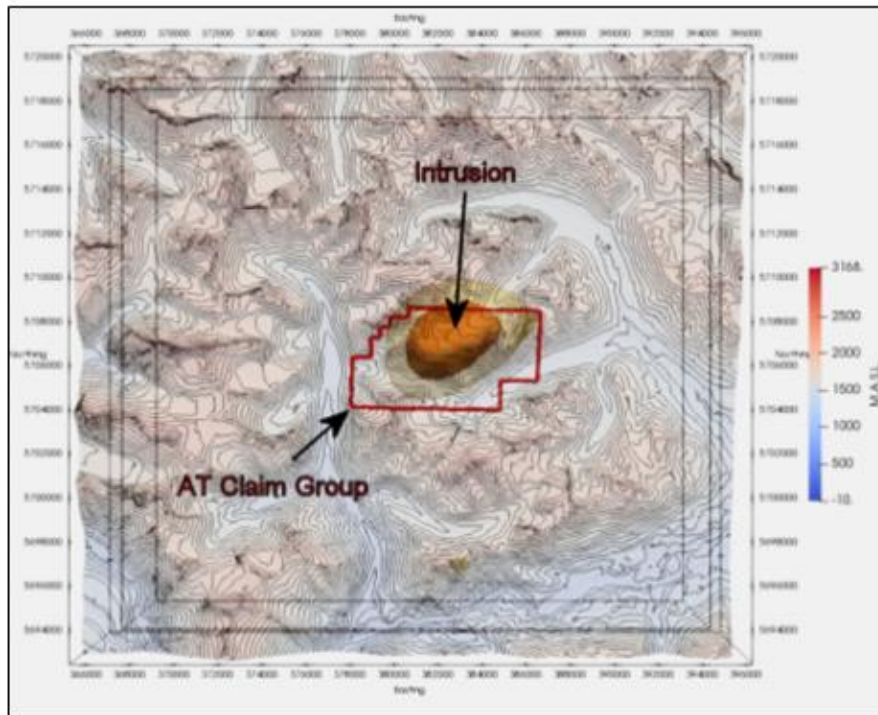




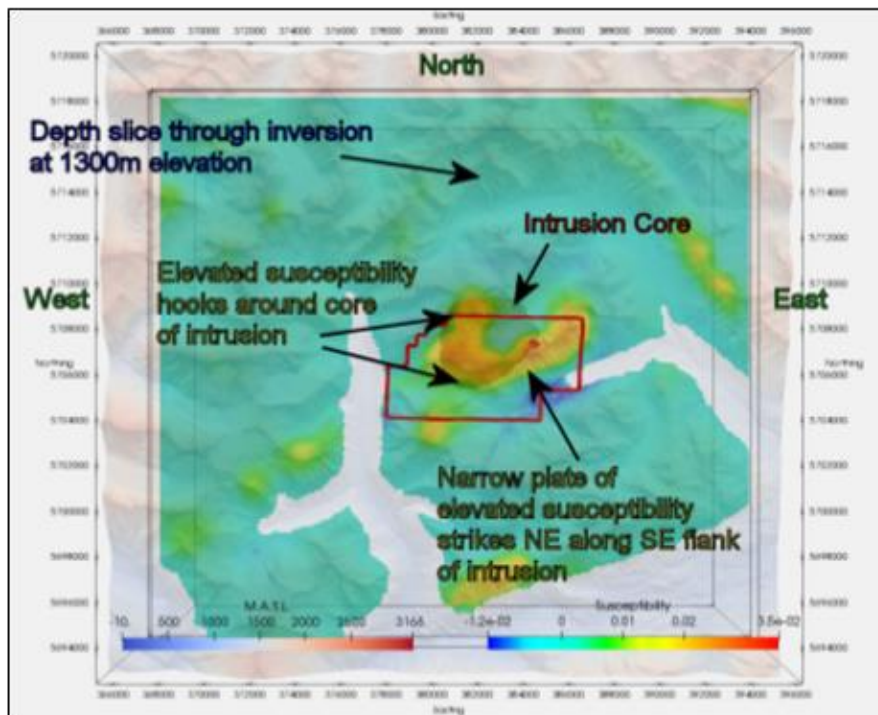
**Figure 6: Total Magnetic Field Intensity colour contour map draped over topography. Elevated View from South looking North.**

A 26.8 x 24.8 km subset of the magnetic data, centred over the AT claim group, was extracted from the regional database and processed to run through the UBCGIF 3D magnetic inversion algorithm. This process builds a voxel model showing one possible subsurface distribution of the magnetic susceptibility parameter that could produce the observed data. The resulting block model is best viewed in a 3D viewing program that allows the user to extract specific isosurfaces or cross-sectional slices and view the model from different angles.

The 3D inversion models the source of the high magnetic anomaly below the AT claim group as having a nearly cylindrical (slightly elongated NE-SW) core, approximately 3 km in diameter, centred near 382200E / 5706900N (Figure 7). This core approaches to within approximately 300 metres of the surface. A northeasterly striking finger of increased susceptibility extends as a narrow, vertical plate tangential to the southeastern edge of the core and forms a prominent topographic ridge line. This secondary feature likely outcrops along the southerly facing slope and is traced for ~ 6 kilometres strike length. A fishhook shaped structure at the southwestern end of the system swings the high susceptibility plate to the north, following the edge of the central core of the intrusion.



**Figure 7: Paraview image of isosurfaces from Mag3D inversion – Topographic Overlay - Top View looking down. Draped topography overlay – Isosurfaces: solid red (+0.03 SI), translucent gold (+0.02 SI).**



**Figure 8: Paraview image of shallow depth slice through Mag3D inversion model (1300m elevation). Draped topography overlay – Shadow image of high susceptibility core (+0.03 SI) from depth**

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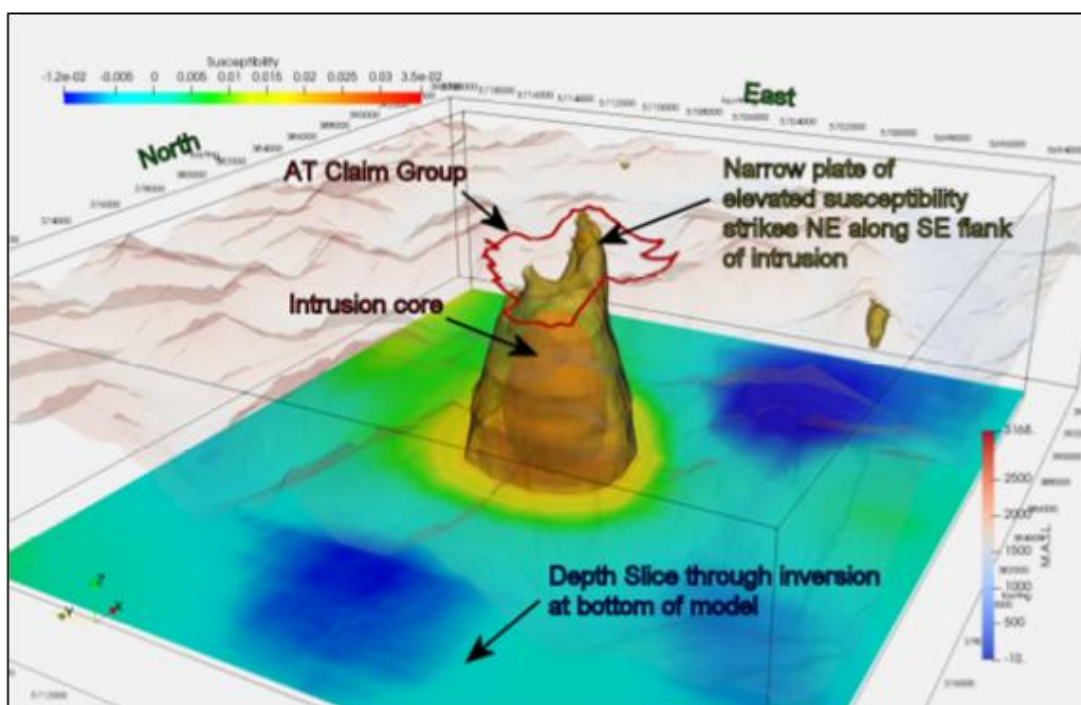


Figure 9: Paraview image of isosurfaces from Mag3D inversion – Elevated view from southwest  
 Draped topography overlay – Isosurfaces: solid red (+0.03 SI), translucent gold mesh (+0.02 SI).

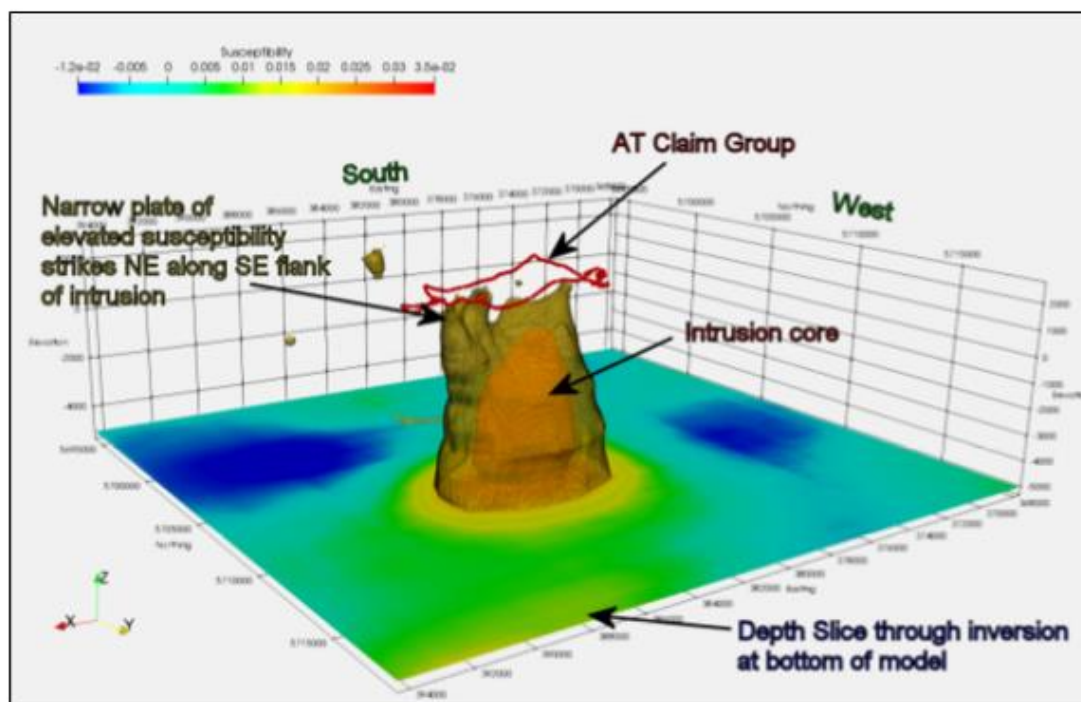
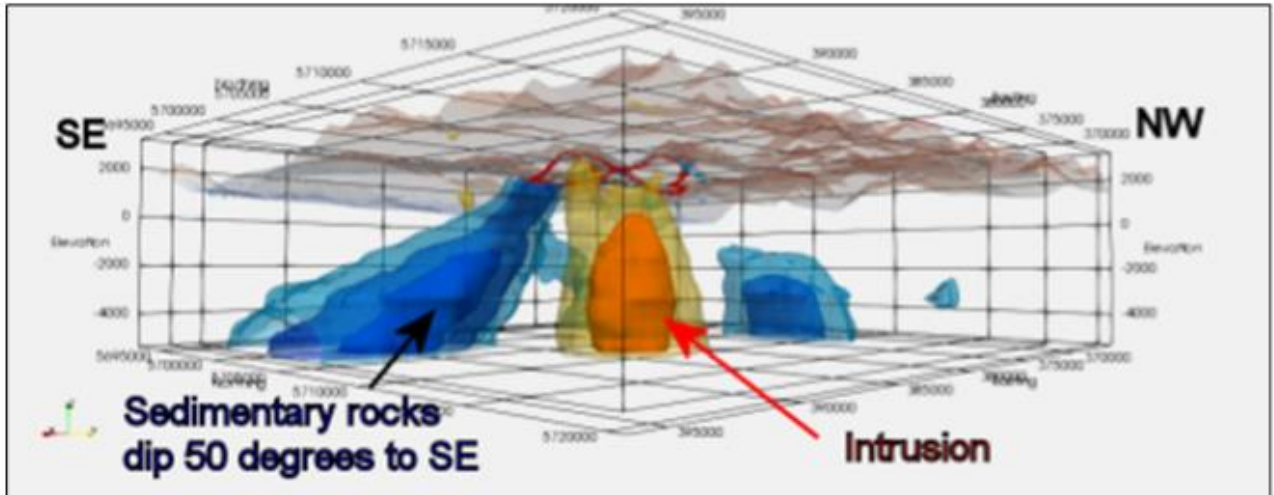


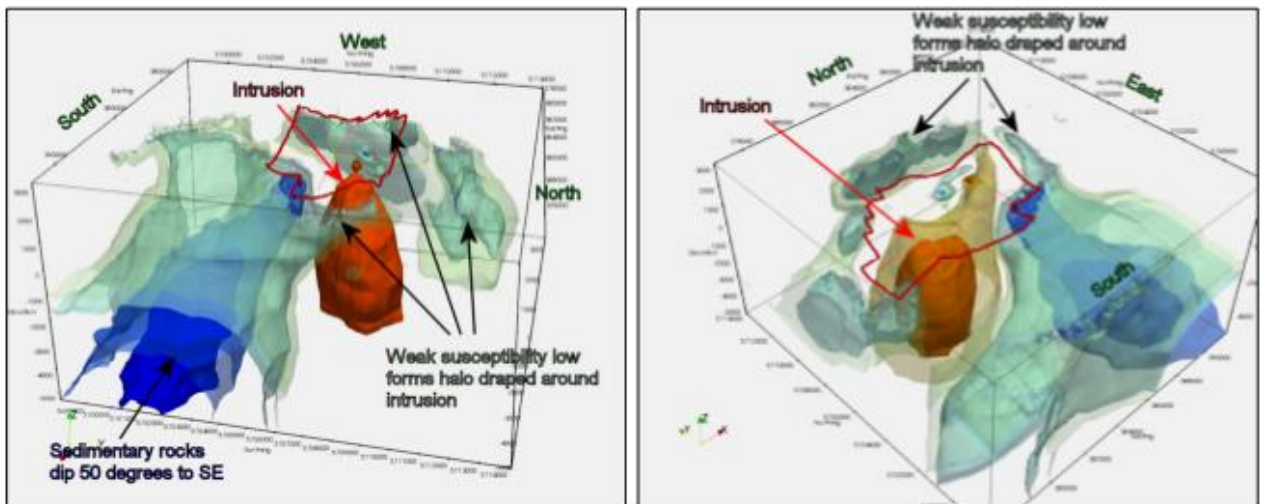
Figure 10: Paraview image of isosurfaces from Mag3D inversion – Elevated view from northeast  
 Isosurfaces: Solid red (+0.03 SI), Translucent gold mesh (+0.02 SI).

The inversion model shows the sedimentary rocks to the south as dipping at a moderate angle (~50°) to the southeast. The northwestern edge of this low susceptibility unit forms a distinct linear that closely follows the geological contacts on the BC geology mapping.



**Figure 11: Paraview image of isosurfaces from Mag3D inversion – Side View looking SW from NE.**  
 Draped topography overlay – Isosurfaces: solid red (+0.03 SI), translucent gold (+0.02 SI), light translucent blue mesh (-0.0075 SI), medium translucent blue (-0.010 SI), solid blue (-0.00125 SI)

A weak low susceptibility zone is mapped in the near surface forming a thin, conical shaped blanket that drapes around the intrusive body. The dips around this zone run contrary to the regional trends seen outside the influence of the intrusion. This weak zone may be reflecting an alteration halo.



**Figure 12: Paraview image of isosurfaces from Mag3D inversion – Elevated Views looking WSW (a) and NE (b).**  
 Isosurfaces: Solid orange (+0.03 SI), translucent gold (+0.02 SI), translucent light green (-0.0035 SI), light translucent blue (-0.005 SI), medium translucent blue (-0.010 SI), solid blue (-0.00125 SI)

In summary geological mapping, the regional geochemical sampling surveys and historical exploration in the AT claims area have identified a geological setting that is deemed to have a high potential for a magmatic segregation or a sedimentary hosted Co-Cu-Au deposit. In addition to the mapped tonalite intrusion and the AT 2 minfile occurrence which reports Cu, Ni, Co, Hg, Au, Ag, Pt and Pd mineralization, prospecting has confirmed the presence of sulphide mineralization in the area. Polymetallic veining that includes Au, Ag, Cu, Zn and Pb, extending northwesterly from the intrusion, supports the interpretation of the presence of a large hydrothermal alteration system.

A high altitude, regional airborne magnetic survey covering the claims area maps a strong magnetic anomaly coincident with the tonalite intrusion. The magnetic response is significantly smaller than the geologically outlined body, implying the intrusion is either smaller or contains high magnetic susceptibility facies within it.

3D modelling of the regional airborne magnetic survey maps the tonalite intrusion as having a 3 km diameter, northeasterly elongated high susceptibility core, buried at least 300 metres below surface. It also delineates a high susceptibility halo that wraps around the western and southern flanks of the core and extends northeasterly, forming a steep to vertically dipping plate like body. Low susceptibility, ring-like structures, most prominent along the northeastern and northerly flanks of the intrusion may reflect an alteration halo.

In consideration of these observations, the AT claim group is deemed to have a high potential for a sedimentary hosted, Co-Cu-Au deposit. A systematic exploration program, designed to determine the extent and precise nature of sulphide mineralization is required. Due to the ruggedness of the terrain this is likely to require prospecting by qualified mountaineering personnel in some areas.

Several geophysical techniques have proven useful in the exploration for these types of deposits. Owing to the presence of magnetite and sulphides in these deposits, magnetics, as evidenced by the results from the regional airborne survey studied here, and gravity can be useful in identifying potentially mineralized zones. These techniques are also effective for mapping intrusive zones which are often proximal to these deposits. Regional radiometric surveys can be useful in recognizing altered rocks associated with Co-Cu-Au mineralized zones in areas where un-weathered rocks are exposed at the surface. VLF-EM surveying is useful for mapping regional scale structural lineaments, faults and shear zones that may be important in localizing deposits. Transient electromagnetic methods (TEM) and DC resistivity/induced polarization (IP) have been generally successful in detecting these deposits because most are at least weak conductors. However, these methods also respond to both iron oxides and barren sulphides, which commonly are more laterally extensive than the target mineralization.

Standard electromagnetic geophysical methods (EM) have generally not been as successful, probably because massive, continuous mineralized zones are rare in these deposits.

Considering the extreme terrain in the area, a low-level helicopter-borne magnetic, VLF-EM and radiometric survey should be considered as a cost-effective exploration tool. If more evidence of massive sulphide mineralization is uncovered application of a more powerful time or frequency domain EM technique should also be considered.

Sample No.	easting	northing	Sample Description	Fe (pci)	V (ppm)	As (ppm)	Te (ppm)	U (ppm)	W (ppm)	Sb (ppm)
AT2-87-2	381222	5707234	Pyritized alteration zone next to ultrabasics – approx. 50m <sup>2</sup>	>10.00	323	61	<10	<10	<10	21
AT2-87-3	381206	5707250	Ultrabasic intrusive rock – several occurrences over extensive areas	8.09	194	17	<10	<10	<10	<5
AT2-87-4	380753	5707420	Boulder train material, with disseminated chalcopyrite; first indicator to property	>10.00	208	97	13	<10	<10	33
AT2-87-14	380817	5707519	Magmatic segregation zone – 5 to 10 m <sup>2</sup>	>10.00	168	119	<10	<10	<10	<5
AT2-87-15	380805	5707546	Magmatic segregation zone – 5 to 10 m <sup>2</sup>	>10.00	244	181	<10	<10	<10	45
AT2-87-16	380482	5707735	Quartz vein material – large boulder with azurite and cuprite mineralization	1.63	11	<5	<10	<10	<10	<5
AT2-87-17	380638	5707843	Massive sulphide float, northern boundary of claim	>10.00	88	73	12	<10	<10	3
AT34-87-19	379910	5706928	Composite sample of dark hornblende diorite with massive inclusions of sulphides: pyrite, chalcopyrite, pendlandite – the source boulders fall off a vertical cliff onto the scree	>10.00	275	31	<10	<10	<10	<5
AT34-87-26	379732	5706542	Float, ultramafic sample in major NW trending fault canyon – sulphide inclusions several centimetres across	>10.00	364	13	<10	<10	<10	<5

Sample No.	Se (ppm)	Sn (ppm)	Pt (ppb)	Pd (ppb)	Au (ppb)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Co (ppm)	Ni (ppm)	Cr (ppm)	Mn (ppm)	Cd (ppm)	Ag (ppm)	Bi (ppm)
AT2-87-2	<5	<10	<15	<2	6	646	37	236	11	113	95	256	947	<1	<0.5	5
AT2-87-3	<5	<10	<15	<2	<1	97	11	125	3	79	443	354	1217	<1	<0.5	<2
AT2-87-4	<5	<10	150	100	160	10847	57	173	7	220	1892	242	1066	<1	3.1	11
AT2-87-14	<5	<10	15	2	55	4348	15	41	7	248	67	103	670	<1	<0.5	<2
AT2-87-15	<5	<10	40	65	95	5024	45	129	9	985	4089	1478	738	<1	0.8	23
AT2-87-16	<5	<10			3	7345	5	41	7	31	101	296	121	<1	1.1	7
AT2-87-17	11	<10	<15	10	29	1211	45	51	5	69	163	73	961	<1	<0.5	<2
AT34-87-19	9	<10	110	60	60	<20000	13	212	7	644	1697	193	364	<1	9.9	<2
AT34-87-26	<5	<10				3653	15	276	3	163	1291	282	991	<1	0.7	7

Table 1: Assay results from selected samples from ARIS reports 16688 and 18022



## Appendix D: Analytical Results



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Page: 1  
Total # Pages: 3 (A - E)  
Plus Appendix Pages  
Finalized Date: 30-DEC-2018  
This copy reported on  
18-JAN-2019  
Account: GEOMINE

**CERTIFICATE VA18319858**

P.O. No.: AT

This report is for 45 Rock samples submitted to our lab in Vancouver, BC, Canada on 14-DEC-2018.

The following have access to data associated with this certificate:

JOHN WALTHER

**SAMPLE PREPARATION**

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
DISP-01	Disposal of all sample fractions
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

**ANALYTICAL PROCEDURES**

ALS CODE	DESCRIPTION	
ME-MS61	48 element four acid ICP-MS	
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
Au-AA25	Ore Grade Au 30g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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 Account: GEOMINE

**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg	Au-AA25 Au ppm	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm
		0.02	0.01	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
RB-01		1.54	<0.01	0.09	8.34	0.7	600	0.39	0.05	4.73	0.06	6.89	26.3	13	4.09	48.3
RB-04		2.60	<0.01	0.03	8.50	9.0	200	0.60	0.03	4.17	0.04	11.50	46.2	3	1.88	35.5
RB-05		1.86	<0.01	0.55	7.09	5.3	240	0.48	0.29	7.00	0.19	12.25	37.6	18	2.72	169.5
RB-06		1.64	<0.01	0.16	7.78	5.5	260	0.33	0.48	5.30	0.09	7.43	43.6	16	0.61	183.5
RB-07		1.78	<0.01	0.09	8.03	10.4	490	0.40	0.06	5.39	0.06	15.10	12.6	10	0.64	51.0
RB-08		1.42	<0.01	0.08	8.24	6.1	390	0.73	0.04	4.37	0.07	17.35	16.0	11	0.74	54.3
RB-09		1.42	<0.01	0.27	9.36	68.3	130	0.57	0.14	1.16	0.25	19.30	27.3	19	7.17	124.5
RB-10		3.12	0.01	0.13	6.28	39.3	150	0.43	0.07	3.81	0.17	13.00	11.4	27	1.92	49.6
RB-12		2.32	<0.01	0.10	8.42	1.7	360	0.68	0.07	7.02	0.11	6.90	9.1	5	1.37	89.4
RB-13		2.58	0.01	0.09	3.85	5.3	380	0.19	0.25	1.12	0.03	3.45	27.0	20	0.77	22.4
RB-15		1.38	<0.01	0.11	8.47	10.3	280	0.43	0.10	5.37	0.11	8.37	28.6	25	1.69	98.1
RB-16		1.22	0.02	17.40	2.39	53.2	100	0.18	0.32	1.49	0.80	5.87	9.4	22	1.93	651
RB-17		1.74	<0.01	0.19	8.87	1.6	350	0.39	0.04	2.10	0.04	10.25	18.8	85	0.84	9.0
RB-18		3.06	0.07	0.31	8.15	1.5	270	0.51	0.07	4.72	0.09	9.55	24.0	29	0.51	666
RB-19		1.60	<0.01	0.04	8.86	14.9	140	0.42	0.07	2.17	0.02	11.40	17.7	8	0.87	35.5
RB-20		0.90	0.07	0.13	10.15	4.4	240	0.48	0.05	1.39	0.06	9.12	22.6	2	0.95	31.3
GN-01		1.24	<0.01	0.04	8.25	5.1	510	0.81	0.07	3.06	0.02	27.9	7.1	41	2.19	16.5
GN-02		0.54	<0.01	0.10	9.29	1.8	370	1.16	0.05	2.88	0.03	23.9	11.7	57	1.79	65.4
GN-03		0.80	<0.01	0.04	9.21	0.8	100	0.37	0.02	6.75	0.09	6.94	26.9	6	0.13	20.0
GN-04		0.56	0.01	0.06	8.51	3.1	160	1.12	0.03	5.58	0.06	24.2	10.4	40	0.12	30.8
GN-05		0.54	<0.01	0.10	8.56	3.0	470	1.11	0.02	4.37	0.04	26.1	16.0	49	0.27	67.8
GN-06		1.00	<0.01	0.02	9.20	3.1	190	0.35	0.05	7.78	0.11	6.23	37.5	22	0.51	12.7
GN-07		0.52	<0.01	0.04	6.70	1.5	120	0.27	0.03	7.23	0.07	8.30	62.6	571	0.61	56.4
GN-15		1.62	<0.01	0.01	8.60	2.1	170	0.24	0.03	8.49	0.07	5.14	29.0	7	0.06	5.3
GN-16		2.06	<0.01	0.03	5.72	0.4	120	0.23	0.03	6.42	0.07	6.62	73.5	734	0.32	46.9
GN-18		1.18	<0.01	0.04	8.53	2.2	530	0.41	0.02	6.27	0.07	5.74	37.3	21	0.25	130.0
GN-19		0.20	0.03	0.08	8.45	7.5	290	0.41	0.10	4.73	0.14	20.9	18.5	32	0.79	207
GN-21		0.86	0.01	0.10	5.46	0.5	30	0.13	0.09	6.62	0.08	5.14	74.0	275	<0.05	98.4
GN-26		1.56	<0.01	0.34	6.31	7.6	10	0.18	0.13	14.35	0.10	22.0	39.6	14	0.12	583
GN-27		0.80	<0.01	0.26	6.52	4.8	10	0.20	0.13	13.05	0.09	22.2	30.1	19	0.13	413
GN-30		1.86	<0.01	0.03	8.84	4.5	90	0.34	0.02	5.52	0.11	8.37	21.4	5	0.14	50.8
GN-31		0.36	0.02	0.10	9.41	1.2	210	0.42	0.03	6.52	0.13	9.91	34.9	6	0.14	566
GN-33		2.76	<0.01	0.09	9.22	2.4	840	0.76	0.05	4.41	0.09	17.55	21.5	51	0.77	84.0
GN-34		1.34	<0.01	0.06	9.06	0.6	250	0.43	0.02	5.50	0.07	7.01	36.1	16	0.33	140.5
RS-04		0.96	<0.01	0.04	8.24	1.6	30	0.27	0.01	10.05	0.13	5.01	28.0	9	0.09	115.5
RS-05		0.92	0.03	0.01	8.19	0.8	90	0.56	0.05	8.29	0.08	9.40	22.9	17	0.28	5.1
RS-12		1.14	<0.01	0.04	8.43	1.0	150	0.42	0.03	6.50	0.10	10.60	32.0	8	0.51	81.3
RS-13		0.48	<0.01	0.06	9.69	0.9	190	0.49	0.03	7.09	0.08	10.80	38.0	5	0.43	80.8
RS-14		1.68	<0.01	0.04	8.34	3.6	130	0.28	0.05	6.98	0.11	8.62	29.1	17	0.24	45.0
RS-15		1.34	<0.01	0.03	8.33	5.4	20	0.70	0.04	10.65	0.10	23.6	8.3	8	0.10	72.0

\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*



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 Plus Appendix Pages  
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**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Fe % 0.01	Ga ppm 0.05	Ge ppm 0.05	Hf ppm 0.1	In ppm 0.005	K % 0.01	La ppm 0.5	Li ppm 0.2	Mg % 0.01	Mn ppm 5	Mo ppm 0.05	Na % 0.01	Nb ppm 0.1	Ni ppm 0.2	P ppm 10
RB-01		6.71	17.50	0.06	0.2	0.089	1.17	2.3	14.9	2.56	1620	3.81	2.32	1.7	8.2	540
RB-04		5.09	21.0	0.05	0.7	0.030	0.77	4.7	9.5	1.46	489	0.56	3.41	1.9	3.0	700
RB-05		6.51	18.30	0.05	0.2	0.020	1.42	5.3	14.2	1.31	760	6.30	1.88	1.3	114.5	690
RB-06		6.76	14.95	<0.05	0.4	0.040	0.39	2.7	13.5	1.57	673	6.07	2.21	1.3	12.5	320
RB-07		3.69	16.00	0.07	0.7	0.048	1.06	6.4	14.1	2.14	536	5.23	3.15	2.0	5.6	650
RB-08		4.26	18.35	0.05	0.6	0.048	0.94	7.5	11.6	1.81	830	8.40	3.27	2.3	5.5	610
RB-09		12.95	18.70	0.06	0.4	0.050	0.66	8.1	77.5	1.69	1880	8.51	0.75	1.8	18.2	230
RB-10		11.20	13.95	0.07	0.3	0.051	0.54	6.2	32.9	1.38	1920	10.75	0.20	1.5	10.4	8210
RB-12		3.44	16.25	0.05	0.2	0.050	1.58	2.3	12.4	1.12	935	4.00	2.36	2.1	2.0	750
RB-13		3.67	6.61	<0.05	0.1	0.022	0.97	1.3	4.7	0.47	292	168.0	0.48	0.7	2.4	220
RB-15		6.80	18.80	0.06	0.2	0.063	0.90	3.0	25.6	2.50	1210	0.77	1.29	1.5	14.7	560
RB-16		1.64	6.04	<0.05	0.1	0.014	0.83	3.0	14.7	0.40	253	2.55	0.09	0.3	25.3	60
RB-17		5.93	18.40	<0.05	0.2	0.063	0.75	4.4	21.1	2.05	579	0.48	3.30	1.6	32.3	580
RB-18		5.20	16.70	<0.05	0.2	0.073	0.41	3.6	9.6	2.08	1140	0.60	0.86	0.9	14.6	360
RB-19		5.41	17.90	0.05	2.4	0.055	0.71	4.3	20.1	2.06	526	0.49	3.55	2.4	6.1	580
RB-20		6.32	18.50	0.05	0.1	0.043	1.55	3.2	30.0	1.98	618	0.14	2.59	1.3	2.9	980
GN-01		3.58	20.3	<0.05	0.1	0.025	1.41	11.3	19.8	1.23	288	1.65	2.02	3.6	10.9	750
GN-02		4.25	21.4	<0.05	0.1	0.016	0.99	9.9	25.6	1.35	351	2.12	2.23	4.5	23.4	680
GN-03		7.68	23.7	<0.05	0.4	0.091	0.13	2.3	6.6	2.23	1660	0.33	1.78	1.6	5.2	610
GN-04		4.74	19.85	0.07	0.7	0.149	0.22	9.3	4.3	1.59	774	1.07	2.77	4.3	26.1	830
GN-05		4.73	20.5	0.08	0.4	0.058	0.51	10.5	12.6	1.57	569	1.84	2.92	4.6	38.0	970
GN-06		8.04	17.45	0.07	0.7	0.062	0.49	2.2	23.1	3.28	1540	0.42	1.38	0.9	15.6	450
GN-07		6.45	13.90	0.06	0.9	0.047	0.31	3.2	8.3	8.39	992	0.32	1.29	1.0	272	390
GN-15		7.22	15.70	0.05	0.6	0.059	0.16	1.7	7.8	2.29	1320	0.38	0.63	0.8	4.8	380
GN-16		7.39	12.70	0.07	0.8	0.043	0.31	2.5	5.6	10.10	1080	0.21	1.09	0.9	352	350
GN-18		7.00	18.55	0.07	0.6	0.064	0.32	1.8	18.3	3.19	1400	0.28	1.73	1.1	16.0	420
GN-19		4.86	16.60	0.08	0.4	0.050	0.37	9.1	16.3	1.21	1680	1.13	1.74	3.1	15.8	1130
GN-21		8.56	14.35	0.06	0.9	0.086	0.17	1.5	10.6	8.88	994	0.17	1.14	1.0	261	150
GN-26		15.90	13.30	0.07	3.0	0.271	0.01	9.9	2.3	1.36	3960	1.38	0.02	2.0	11.3	3140
GN-27		14.20	14.65	0.07	2.7	0.223	0.02	10.2	3.6	1.39	3970	1.19	0.09	1.8	12.3	5040
GN-30		5.69	19.05	<0.05	0.3	0.057	0.11	2.9	5.7	2.14	1060	0.46	2.58	1.4	4.3	680
GN-31		7.79	19.45	0.06	0.8	0.086	0.20	3.3	6.1	2.67	1520	0.41	2.62	1.3	5.1	760
GN-33		6.08	21.0	0.06	0.2	0.048	1.46	7.2	20.5	1.74	1010	2.30	2.79	3.9	28.8	850
GN-34		8.15	20.5	0.05	0.4	0.045	0.32	2.7	6.1	2.90	1430	1.00	2.52	1.3	11.1	430
RS-04		7.41	15.95	<0.05	0.8	0.056	0.01	1.9	5.5	1.67	1170	0.45	0.17	0.8	6.9	340
RS-05		5.64	22.5	0.05	0.6	0.057	0.16	3.3	9.2	2.15	1280	0.80	1.19	1.5	7.8	590
RS-12		7.54	18.30	0.05	0.7	0.058	0.16	3.8	8.0	2.85	1160	0.38	2.20	1.2	8.2	530
RS-13		7.81	23.5	0.07	1.1	0.083	0.42	4.0	7.5	3.26	842	0.35	2.29	1.5	6.7	740
RS-14		7.14	15.50	<0.05	0.6	0.053	0.21	3.3	13.5	2.81	1380	0.81	2.18	1.1	9.9	510
RS-15		6.30	21.7	0.05	2.3	0.086	0.02	9.1	7.5	0.66	1160	1.77	0.52	4.2	4.6	290

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Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Pb ppm	Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm
		0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.02	0.1
RB-01		3.3	15.5	0.007	0.21	0.40	29.2	<1	1.1	359	0.09	0.07	0.17	0.508	0.28	0.1
RB-04		4.8	15.3	0.004	1.13	2.34	13.0	1	0.5	712	0.12	<0.05	0.82	0.537	0.16	0.5
RB-05		9.3	41.3	0.011	2.77	15.75	4.6	2	0.3	432	0.08	0.11	0.45	0.321	0.29	0.3
RB-06		3.0	5.1	0.005	3.46	0.68	23.7	1	0.6	180.5	0.08	0.29	0.19	0.423	0.11	0.2
RB-07		4.2	21.0	0.005	1.00	0.89	18.4	2	0.4	595	0.13	0.07	1.00	0.301	0.19	0.6
RB-08		4.6	17.5	0.034	0.99	0.23	18.3	<1	0.5	495	0.15	0.07	1.09	0.352	0.16	0.6
RB-09		7.4	13.7	0.014	6.08	0.98	22.8	2	0.4	174.5	0.12	0.32	0.39	0.361	0.40	1.4
RB-10		4.0	15.0	0.024	4.57	0.62	14.7	1	0.6	191.5	0.10	0.14	0.53	0.265	0.19	1.9
RB-12		2.2	17.3	0.007	0.27	0.46	16.3	1	0.5	418	0.10	0.14	0.12	0.423	0.17	0.1
RB-13		1.1	20.7	0.169	2.62	0.20	7.0	2	0.4	78.1	<0.05	0.65	0.08	0.158	0.08	0.1
RB-15		2.6	12.0	<0.002	0.61	0.95	28.7	1	0.7	186.5	0.10	0.28	0.20	0.490	0.14	0.1
RB-16		3.5	22.7	0.003	0.63	459	4.4	<1	0.2	66.7	<0.05	0.05	0.09	0.081	0.18	0.1
RB-17		2.4	10.2	<0.002	1.96	1.60	27.9	<1	0.5	549	0.12	<0.05	0.39	0.310	0.19	0.3
RB-18		2.7	7.7	<0.002	0.03	2.28	25.0	<1	0.6	292	0.07	0.29	0.40	0.320	0.08	0.2
RB-19		2.4	11.6	<0.002	0.44	0.53	20.8	<1	0.8	408	0.16	0.06	0.57	0.512	0.14	6.5
RB-20		2.9	20.5	<0.002	1.46	0.63	18.2	1	0.5	245	0.10	0.51	0.22	0.310	0.22	0.2
GN-01		4.2	37.9	0.004	0.17	0.18	19.0	1	0.4	349	0.22	0.26	2.68	0.396	0.41	0.7
GN-02		5.8	21.8	0.018	0.56	0.35	21.4	1	0.5	344	0.27	0.20	1.98	0.476	0.24	0.6
GN-03		2.0	0.5	<0.002	0.03	0.64	30.1	<1	0.8	527	0.10	<0.05	0.11	0.643	0.02	0.1
GN-04		3.0	0.9	0.002	0.16	0.21	18.4	1	2.8	577	0.30	0.07	1.98	0.404	0.03	0.7
GN-05		3.4	4.7	0.006	0.40	0.20	21.2	1	1.2	446	0.30	0.10	3.12	0.434	0.09	0.6
GN-06		2.9	5.2	<0.002	0.01	1.04	32.8	<1	0.6	810	0.06	<0.05	0.21	0.521	0.10	0.2
GN-07		1.4	4.5	<0.002	0.06	0.20	35.0	<1	0.5	595	0.07	<0.05	0.26	0.383	0.05	0.1
GN-15		1.5	0.7	<0.002	<0.01	0.64	30.2	<1	0.5	612	0.06	<0.05	0.15	0.604	<0.02	0.1
GN-16		1.1	5.0	<0.002	0.08	0.12	36.7	<1	0.5	456	0.06	<0.05	0.19	0.409	0.06	0.1
GN-18		1.2	1.4	<0.002	0.01	0.64	31.5	<1	0.6	386	0.07	<0.05	0.14	0.561	0.05	0.1
GN-19		5.1	6.5	<0.002	0.28	0.19	16.0	2	0.3	291	0.22	0.21	2.18	0.410	0.09	0.9
GN-21		1.0	0.5	0.002	0.09	0.09	33.2	<1	0.8	332	0.06	0.06	0.16	0.950	<0.02	0.1
GN-26		5.9	0.2	<0.002	5.86	0.58	11.3	3	2.1	90.4	0.20	1.10	2.57	0.275	0.03	1.3
GN-27		4.6	0.2	<0.002	4.61	0.54	10.8	2	2.1	110.5	0.16	0.76	2.39	0.296	0.02	1.2
GN-30		1.4	0.5	<0.002	0.90	0.66	17.3	<1	0.6	133.5	0.08	<0.05	0.24	0.433	0.03	0.1
GN-31		1.7	0.9	<0.002	0.35	0.20	34.0	1	0.8	479	0.08	0.06	0.21	0.613	0.04	0.1
GN-33		7.2	17.8	0.004	0.69	0.16	22.9	1	0.4	650	0.22	0.14	0.76	0.556	0.24	0.3
GN-34		2.5	1.5	0.003	0.31	0.10	26.8	1	0.5	581	0.08	0.11	0.17	0.588	0.08	0.2
RS-04		1.6	0.1	<0.002	0.01	0.25	22.9	<1	0.4	461	0.05	<0.05	0.13	0.565	<0.02	0.2
RS-05		2.2	1.2	<0.002	<0.01	0.45	18.4	<1	0.6	370	0.10	<0.05	0.25	0.383	0.04	0.1
RS-12		2.1	0.7	<0.002	0.02	0.26	26.0	<1	0.6	482	0.07	<0.05	0.34	0.415	0.03	0.2
RS-13		3.0	2.5	<0.002	0.13	0.14	18.7	1	0.8	1110	0.10	<0.05	0.54	0.735	0.06	0.2
RS-14		2.3	2.9	<0.002	0.07	0.60	25.8	<1	0.5	557	0.06	<0.05	0.18	0.520	0.03	0.1
RS-15		2.8	0.4	<0.002	0.03	4.13	11.9	<1	1.4	912	0.38	<0.05	1.99	0.367	<0.02	0.9

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**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	
		V ppm 1	W ppm 0.1	Y ppm 0.1	Zn ppm 2	Zr ppm 0.5	SiO2 % 0.01	Al2O3 % 0.01	Fe2O3 % 0.01	CaO % 0.01	MgO % 0.01	Na2O % 0.01	K2O % 0.01	Cr2O3 % 0.01	TiO2 % 0.01	MnO % 0.01
RB-01		207	0.7	16.2	108	4.5										
RB-04		202	1.2	6.8	70	13.1	50.16	17.93	8.26	6.41	2.95	5.09	1.05	<0.01	1.14	0.07
RB-05		169	2.0	5.5	86	3.8										
RB-06		161	23.1	13.3	54	9.1										
RB-07		207	0.5	16.5	55	17.9										
RB-08		212	0.3	16.5	65	12.2										
RB-09		135	0.9	15.8	196	20.5										
RB-10		100	0.8	22.2	99	14.5										
RB-12		106	60.0	13.7	52	4.1										
RB-13		52	2.8	5.5	17	9.2										
RB-15		216	6.1	16.9	93	5.0										
RB-16		41	1.4	1.9	137	1.6										
RB-17		156	0.4	13.5	58	6.4										
RB-18		176	0.2	14.2	76	3.7										
RB-19		139	0.3	14.8	74	85.8										
RB-20		163	26.7	10.9	91	2.2										
GN-01		147	1.1	8.7	48	2.4										
GN-02		179	0.5	7.7	34	3.4										
GN-03		276	0.3	17.4	102	7.7										
GN-04		153	0.3	18.9	67	12.7										
GN-05		175	0.2	16.2	49	7.7										
GN-06		305	0.2	14.9	78	16.5										
GN-07		178	0.1	8.0	74	25.1	45.84	13.88	9.80	10.99	14.14	1.77	0.38	0.14	0.67	0.14
GN-15		314	0.1	15.9	59	13.7										
GN-16		186	0.1	7.6	85	24.1	44.17	12.34	11.46	9.90	17.02	1.50	0.36	0.17	0.71	0.15
GN-18		257	0.1	16.4	88	12.9										
GN-19		120	2.0	20.1	147	8.3										
GN-21		397	0.2	9.6	99	22.0	42.01	11.89	13.58	10.52	15.82	1.62	0.21	0.06	1.77	0.14
GN-26		92	1.3	14.9	101	95.5										
GN-27		99	2.5	17.8	98	81.8										
GN-30		192	0.2	13.7	84	6.5										
GN-31		240	0.1	24.3	97	19.5										
GN-33		219	0.2	11.4	116	4.5										
GN-34		273	0.8	9.9	109	8.1										
RS-04		371	<0.1	13.3	50	22.2										
RS-05		205	0.4	18.4	75	9.9										
RS-12		262	0.1	16.6	87	13.4										
RS-13		285	0.1	10.7	89	25.3	46.44	19.56	11.56	10.20	5.71	3.01	0.54	<0.01	1.30	0.11
RS-14		234	0.2	18.0	91	14.8										
RS-15		226	0.7	21.6	48	48.2										

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**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06
		P2O5 %	SrO %	BaO %	LOI %	Total %
RB-01 RB-04 RB-05 RB-06 RB-07		0.001	0.01	0.01	0.01	0.01
RB-08 RB-09 RB-10 RB-12 RB-13		0.174	0.08	0.03	5.94	99.28
RB-15 RB-16 RB-17 RB-18 RB-19						
RB-20 GN-01 GN-02 GN-03 GN-04						
GN-05 GN-06 GN-07 GN-15 GN-16		0.088	0.07	0.02	1.86	99.79
GN-18 GN-19 GN-21 GN-26 GN-27		0.081	0.05	0.02	2.00	99.93
GN-30 GN-31 GN-33 GN-34 RS-04		0.036	0.04	0.02	2.36	100.10
RS-05 RS-12 RS-13 RS-14 RS-15		0.166	0.12	0.03	1.35	100.10

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**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA25	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.01	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
RS-17		0.92	0.01	0.06	9.28	0.9	360	0.87	0.03	4.16	0.04	23.1	9.3	10	0.80	28.1
RS-20		0.48	<0.01	0.08	5.06	3.0	80	0.19	0.04	5.78	0.08	7.93	83.1	837	0.24	125.0
RS-22		2.22	<0.01	0.08	6.94	6.2	240	0.56	0.09	6.18	0.10	8.82	23.7	32	0.91	91.9
RS-23		1.22	<0.01	0.06	7.01	5.4	270	0.45	0.07	5.68	0.09	7.05	23.2	20	0.71	29.6
RS-24		4.52	<0.01	0.08	8.17	12.2	260	0.56	0.13	4.21	0.11	9.72	23.9	22	1.82	63.1

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**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Fe % 0.01	Ga ppm 0.05	Ge ppm 0.05	Hf ppm 0.1	In ppm 0.005	K % 0.01	La ppm 0.5	Li ppm 0.2	Mg % 0.01	Mn ppm 5	Mo ppm 0.05	Na % 0.01	Nb ppm 0.1	Ni ppm 0.2	P ppm 10
RS-17		5.25	24.2	0.07	0.3	0.039	0.65	8.8	11.3	1.72	870	0.42	3.30	2.9	7.7	1860
RS-20		7.28	10.70	0.05	0.9	0.040	0.27	3.0	5.4	12.05	1070	0.38	0.84	0.9	511	380
RS-22		5.53	14.55	<0.05	0.4	0.046	0.99	3.3	12.9	1.13	616	12.25	0.89	1.1	14.9	770
RS-23		5.67	14.20	0.05	0.3	0.057	0.51	2.3	6.3	1.06	691	3.66	1.47	1.1	8.8	540
RS-24		7.22	17.05	0.05	0.2	0.060	0.95	3.4	41.3	2.58	1140	3.68	1.75	1.6	12.0	590

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**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	
		Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U
		ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
RS-17		3.6	8.7	<0.002	0.08	0.16	5.6	<1	0.8	1180	0.17	<0.05	0.96	0.504	0.13	0.5
RS-20		1.1	3.7	<0.002	0.17	0.19	24.3	<1	0.4	251	0.06	<0.05	0.29	0.254	0.03	0.1
RS-22		2.7	18.8	0.008	3.22	0.80	16.8	1	0.5	111.5	0.07	0.10	0.25	0.361	0.15	0.4
RS-23		1.7	7.4	<0.002	3.48	0.71	20.8	2	0.6	185.0	0.07	0.08	0.18	0.359	0.08	0.1
RS-24		3.9	8.1	0.002	2.60	0.35	22.1	1	0.7	322	0.11	0.06	0.25	0.456	0.23	0.1

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**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06	
		V ppm 1	W ppm 0.1	Y ppm 0.1	Zn ppm 2	Zr ppm 0.5	SiO2 % 0.01	Al2O3 % 0.01	Fe2O3 % 0.01	CaO % 0.01	MgO % 0.01	Na2O % 0.01	K2O % 0.01	Cr2O3 % 0.01	TiO2 % 0.01	MnO % 0.01
RS-17		134	0.1	8.1	87	5.0	56.08	18.83	7.89	6.04	3.10	4.50	0.80	<0.01	0.89	0.11
RS-20		119	0.2	5.4	89	27.1										
RS-22		155	0.3	12.6	35	8.9										
RS-23		304	0.3	14.2	43	5.8										
RS-24		208	0.3	12.4	96	3.2										

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**CERTIFICATE OF ANALYSIS VA18319858**

Sample Description	Method Analyte Units LOD	ME-XRF06 P2O5 %	ME-XRF06 SrO %	ME-XRF06 BaO %	ME-XRF06 LOI %	ME-XRF06 Total %
RS-17 RS-20 RS-22 RS-23 RS-24		0.422	0.14	0.05	1.29	100.15

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**CERTIFICATE OF ANALYSIS VA18319858**

<b>CERTIFICATE COMMENTS</b>													
Applies to Method:	<p style="text-align: center;"><b>ANALYTICAL COMMENTS</b></p> <p>REE's may not be totally soluble in this method.          ME-MS61</p>												
Applies to Method:	<p style="text-align: center;"><b>LABORATORY ADDRESSES</b></p> <p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Au-AA25</td> <td style="width: 33%;">CRU-31</td> <td style="width: 33%;">CRU-QC</td> <td style="width: 33%;">DISP-01</td> </tr> <tr> <td>LOG-22</td> <td>ME-MS61</td> <td>ME-XRF06</td> <td>OA-GRA06</td> </tr> <tr> <td>PUL-31</td> <td>PUL-QC</td> <td>SPL-21</td> <td>WEI-21</td> </tr> </table>	Au-AA25	CRU-31	CRU-QC	DISP-01	LOG-22	ME-MS61	ME-XRF06	OA-GRA06	PUL-31	PUL-QC	SPL-21	WEI-21
Au-AA25	CRU-31	CRU-QC	DISP-01										
LOG-22	ME-MS61	ME-XRF06	OA-GRA06										
PUL-31	PUL-QC	SPL-21	WEI-21										