REPORT

On the

2020 YMEP Target Evaluation Program 20-094

On the

Stu Copper Project

Near Carmacks, Yukon, CANADA

Located Within:
NTS Sheet: 115I07
Whitehorse Mining District
Latitude 62°24' North by Longitude 136°49' West

Current Operator:

Granite Creek Copper
409 – 904 Granville St
Vancouver, BC, Canada V6C 1T2

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PERIOD OF WORK: July 06-31, 2020

REPORT DATE: April 9, 2021

GRANITE CREEK COPPER

TRUEPOINT EXPLORATION

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1 Summary

The Stu Copper Property (now referred to as "Carmacks North") is located approximately 47 km directly northwest of Carmacks, Yukon and 210 km directly northwest of Whitehorse, the capital of the Yukon Territory. The Property consists of 562 contiguous claims which cover approximately 11,450 hectares. The centre of the property is located at latitude 62° 24' N and 136° 49' W longitude on NTS map sheet 115I07.

A 18-day program (conducted between July 6-31, 2020) of core relogging, resampling and a coincident 1-day multielement soil sampling program was completed on the Carmacks North (formerly, Stu) property. The program was carried out to conform with the COVID-19 regulations and guidelines set-out by the Government of Yukon.

The Carmacks North property lies within the Minto Copper Belt, a linear stretch of intrusion hosted Cu (+/- Au-Ag-Mo) mineralization in the Dawson Range, south-central Yukon Territory. Centered on the Minto Mine the belt extends from north of the Yukon and Pelly River confluence southeast to the community of Carmacks. The occurrences are hosted in, or close to the contacts of, intermediate to felsic intrusive and meta-intrusive rocks of the Early Jurassic Minto Suite. The Minto Copper Belt has been proven productive, with one operating copper-gold-silver mine (Minto – Minto Explorations) and one deposit advancing towards production (Carmacks deposit). The Carmacks North property lies on strike between the two deposits, displays the same style of mineralization, and has shown preliminary copper values of a similar calibre from the limited drilling results available.

Rigorous exploration in the Minto Copper Belt started in the late 1960s following discovery of the Casino porphyry copper deposit in the Dawson Range, 100 km northwest of the property. Prior to this time, copper showings had been staked and mined along the west side of the Yukon River in the late 1890s. After the Casino discovery, a staking rush in the area unearthed the Carmacks deposit and Minto mine properties in the early 1970s. The Carmacks North property was worked from 1971 to 1982 by United Keno Hill Mines (UKHM), and again from 1989-2013 by UKHM, Western Copper and other operators. In 2015, Bill Harris undertook a larger program of rehabilitation of old core and selected relogging and reassaying of core, excavator trenching, and systematic sampling, partly financed through a YMEP grant.

Granite Creek's 2020 exploration goal was to produce a maiden resource calculation at Zone A. In 2015, the historic core was rehabilitated so that it could be relogged and sampled to supplement new drilling The Phase 1 program focused on resampling of old core drilled in the 1980's to produce data that would supplement a 3D model and aid in future drill target evaluations at Zone A. The goal of phase 1 being to provide a valuable and cost-efficient method of progressing towards a maiden resource at Zone A. A Phase 2 drilling program at the Carmacks North project was carried out in late-Q3 to Q4 of 2020, but was not financed through a YMEP grant.

2 Introduction

2.1 Purpose

Between July 06-31st, 2020 True Point Exploration carried an exploration program on the Carmacks North property. The work was done in conjunction with a program on the Bonanza King Project, also funded by a YMEP grant. The work was carried out by True Point Exploration and contractors and funded by Granite Creek Copper with assistance from YMEP. The program consisted of predominantly relogging and resampling 1980s drill core and a small, 1-day, multi-element soil program was carried out over Zone A. A total of 9 drill holes were analyzed using handheld spectral and magnetic susceptibility instruments (TerraSpec Halo, GDD MPP Probe) and then relogged and resampled. The core was selectively sampled in the 1980s, in which only mineralized (or thought to be mineralized) zones were sampled. The very-high Au detection limits at the time of assays resulted in gold values being not accurately recorded. The purpose of resampling the 1980 core was to relog and resample all the core, not just selectively, and to determine previously unsampled mineralized zones and to determine precises Au values in the core. A total of 59 soil samples were collected and assayed from the 1-day soil sampling program over Zone A. Additionally, the purpose of the work was to better grasp alteration assemblages that would vector towards high-grade Cu-mineralization. Additionally, magnetic susceptibility, as well as relative and absolute EM conductivity readings, were recorded to better understand geophysical signatures of mineralized versus unmineralized zones. Single-element (Cu) soil sampling was previously done over Zone A in the 1970-1980s, but multi-element soil sampling was completed during the 1x day soil program.

The program took 18 days of field work and 89 person days. The average number of people in camp was 5 and the cost was $113,358.20 based on YMEP rate guidelines.

This report was prepared to satisfy requirements for the Final Technical Report as required by the Yukon Mineral Exploration Program. Digital files accompany the report.

2.2 Geographic Terms

Several geographic areas and features are briefly described for orientation with respect to the text, tables, and figures.

Dawson Range – a range of subdued mountains running northwest from Carmacks to Dawson City. The Dawson Range hosts numerous mineral deposits and occurrences and at times has been a mining district for promotional purposes.

Carmacks Deposit – originally called Williams Creek, previously called Carmacks Project or Carmacks Copper Deposit. The Carmacks deposit borders the Carmacks North property to the northwest. Both are owned by a common operator, Granite Creek Copper (GCX) as of November 2020.

Minto Copper Belt – a mining district trending northwest from Carmacks to past the Minto mine containing a cluster of copper (+/- gold, silver, molybdenum) mineral occurrences and deposits. Depending on the year and the user, the area is variable in size, but is anchored by the Minto and Carmacks Copper deposits. Variations on the name include Carmacks Copper Belt and Carmacks (Minto) Copper-Gold Belt.

2.3 Abbreviations and Units of Measurement

Metric units are used throughout this report, except when referring to historic exploration work that was originally reported in the imperial system (conversions are given). Dollar amounts are reported in Canadian Dollars (CAD$) unless otherwise stated. Coordinates within this report use UTM NAD83 UTM Zone 08N unless otherwise stated. The following is a list of abbreviations which may be used in this report:

Table 2-1: Abbreviations and Units of Measurement

Abbreviation	Description
%	percent
AA	atomic absorption
Ag	silver
AMSL	above mean sea level
Au	gold
AuEq	gold equivalent grade
Az	azimuth
b.y.	billion years
CAD$	Canadian dollar
cm	centimetre
cm^2	square centimetre
cm^3	cubic centimetre
Cu	copper
°C	degree Celsius
°F	degree Fahrenheit
DDH	diamond drill hole
ft or ‘	feet
ft^2	square feet
ft^3	cubic feet
g	gram
GMB	Granite Mountain Batholith
GPS	Global Positioning System
Gpt or g/t	grams per tonne
ha	hectare
in or “	inch
ICP	induced coupled plasma
kg	kilogram
km	kilometre
km^2	square kilometre
l	litre

Abbreviation	Description
li	limonite
m	metre
m^2	square metre
m^3	cubic metre
Ma	million years ago
mg	magnetite
mm	millimetre
mm^2	square millimetre
mm^3	cubic millimetre
Mo	Molybdenum
Moz	million troy ounces
Mt	million tonnes
m.y.	million years
NAD	North American Datum
NI 43-101	National Instrument 43-101
opt	ounces per short ton
oz	troy ounce (31.1035 grams)
Pb	lead
ppb	parts per billion
ppm	parts per million
PDH	Percussion drill hole
QA	Quality Assurance
QC	Quality Control
RC	reverse circulation drilling
RQD	rock quality description
Sedar	System for Electronic Document Analysis and Retrieval
SG	specific gravity
st	short ton (2,000 pounds)
t	tonne (1,000 kg or 2,204.6 lbs)
UKHM	United Keno Hill Mines
um	micron
US$	United States dollar
Zn	zinc

3 Project Description and Location

3.1 Location

Carmacks North is located approximately 47 km directly northwest of Carmacks, Yukon and 210 km directly northwest of Whitehorse, the capital of the Yukon Territory **(Figure 3-1).** The Property consists of 562 contiguous claims which cover approximately 11,450 hectares. The centre of the property is located at latitude 62° 24' N and 136° 49' W longitude on NTS map sheet 115I07.

The Yukon Government has settled land claims with First Nations in the area, Little Salmon-Carmacks and Selkirk. **Figure 3-2** shows the location of settlement lands closest to the Carmacks North (formerly, Stu) property.

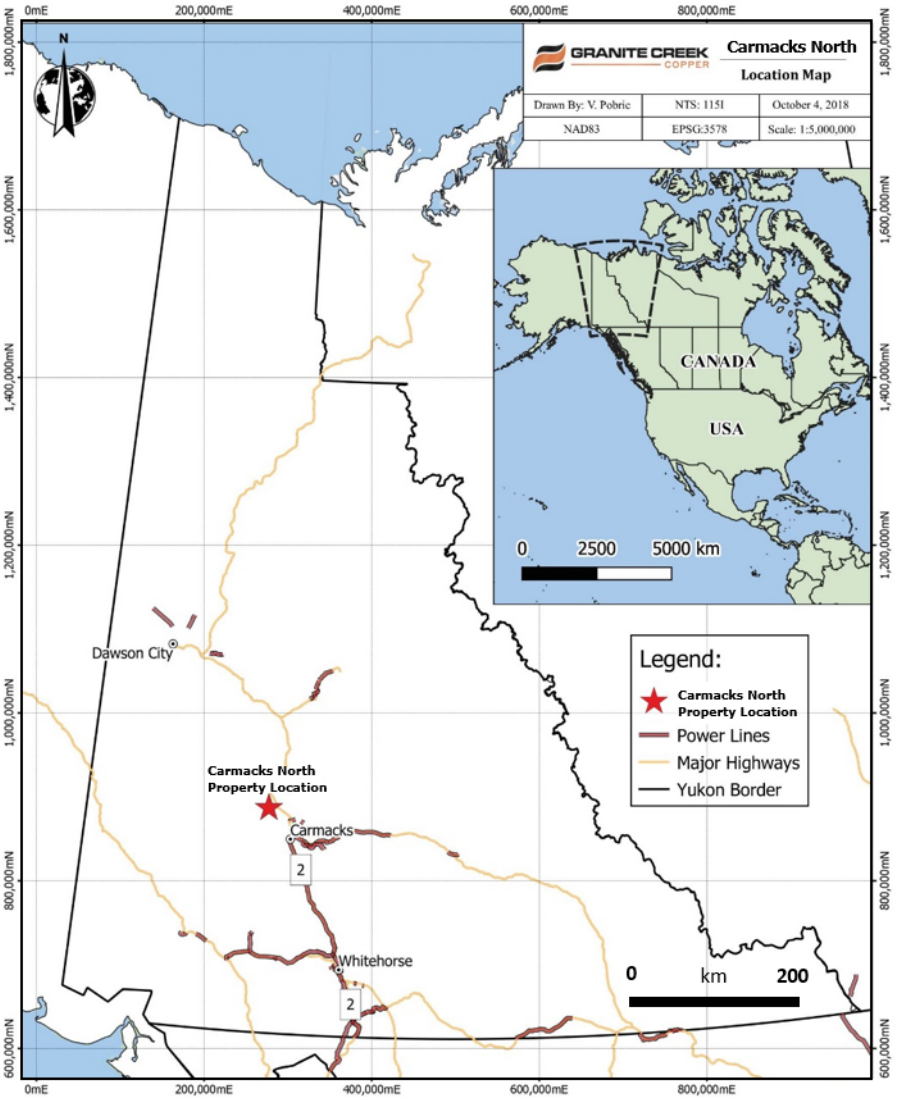


Figure 3-1: Carmacks North (formerly, Stu) property location map, Central Yukon

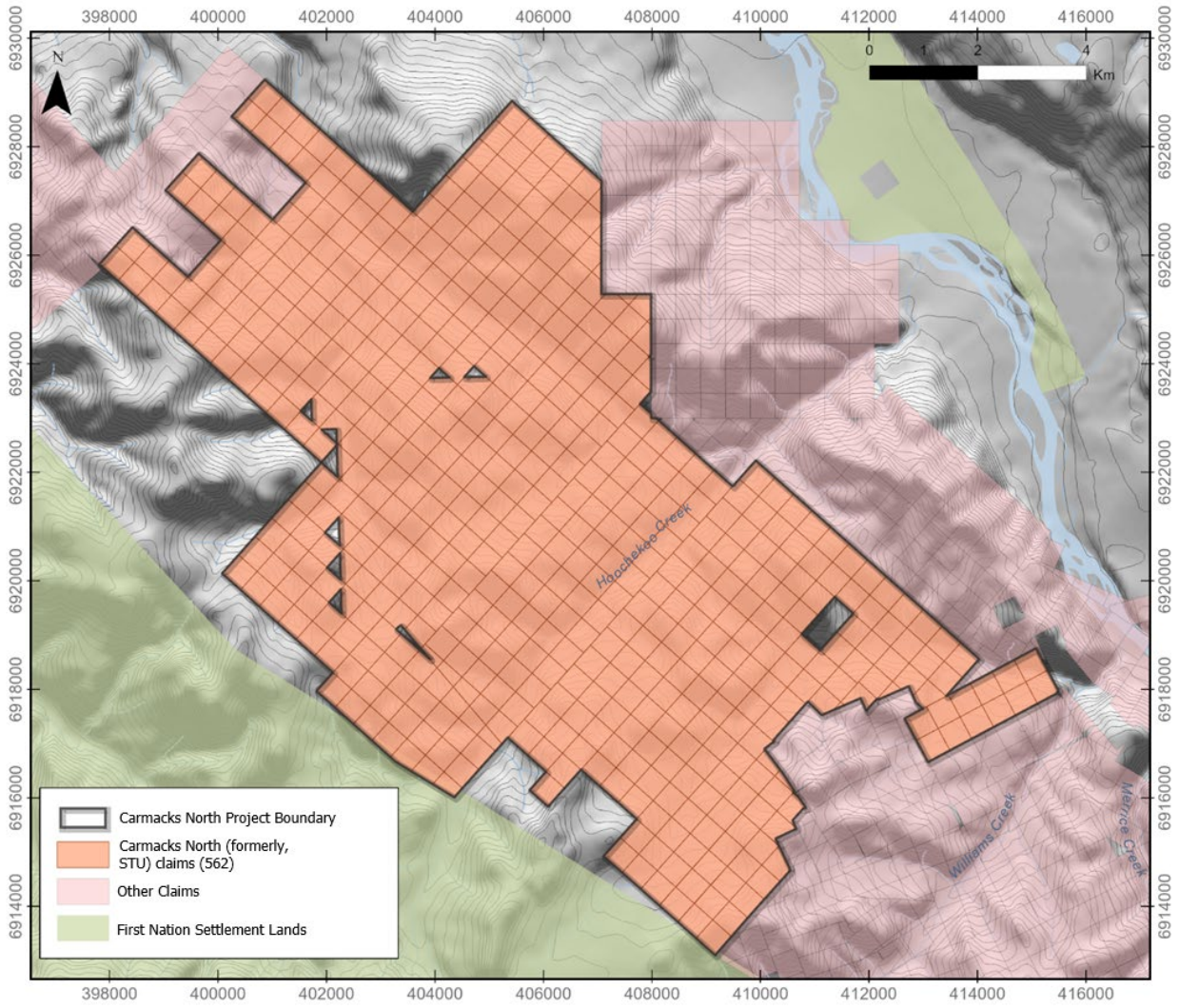


Figure 3-2: Carmacks North property claim map and neighbouring First Nation Settlement Lands

3.2 Ownership and Permits

A five-year, Class 3 Mining Land Use Permit (MLU LQ00433) from Mining Land Use, Government of Yukon for the southern part of the property, expires February 6, 2023. A ten-year permit (MLU LQ00530) covers the northern part of the property The permit allows all the activities laid out in this workplan to be carried out.

On September 13, 2018 Granite Creek entered into an agreement with the owner of the Carmacks North (formerly, Stu) property (William G. "Bill" Harris), under which the company acquired an undivided 100% interest in and to the Carmacks North project. The claims have been transferred from Bill Harris to Granite Creek Copper. See **Table 3-1** below for the list of claims. All claims are in good standing and none have expired.

Table 3-1: List of Claims

Grant No	Claim Name	No. of claims	expiry date	Owner Name
YC37770 - 779	STU 1 - 10	10	2026-12-13	Granite Creek Copper Ltd
YC37780 - 787	STU 31 - 38	8	2026-12-13	Granite Creek Copper Ltd
YC37788 - 795	STU 21 - 28	8	2026-12-13	Granite Creek Copper Ltd
YC40201 - 218	STU 55 - 72	18	2026-12-13	Granite Creek Copper Ltd
YC40249 - 258	STU 11 - 20	10	2026-12-13	Granite Creek Copper Ltd
YC40259 - 260	STU 29 - 30	2	2026-12-13	Granite Creek Copper Ltd
YC40261 - 276	STU 39 - 54	16	2026-12-13	Granite Creek Copper Ltd
YC65256 - 298	STU 73 - 115	43	2026-12-13	Granite Creek Copper Ltd
YC65299 - 315	STU 116 - 132	17	2025-12-13	Granite Creek Copper Ltd
YE91341 - 347	STU 133 - 139	7	2024-12-13	Granite Creek Copper Ltd
YE91348	STU 140	1	2024-12-21	Granite Creek Copper Ltd
YE91349 - 367	STU 141 - 159	19	2024-12-13	Granite Creek Copper Ltd
YE91368	STU 160	1	2024-12-21	Granite Creek Copper Ltd
YE91369 - 390	STU 161 - 182	22	2024-12-13	Granite Creek Copper Ltd
YE91391 - 427	STU 183 - 219	37	2024-12-13	Granite Creek Copper Ltd
YE91434 - 466	STU 226 - 258	33	2024-12-13	Granite Creek Copper Ltd
YE91467 - 468	STU 259 - 260	2	2024-12-21	Granite Creek Copper Ltd
YE91469 - 480	STU 261 - 272	12	2024-12-13	Granite Creek Copper Ltd
YE91489 - 501	STU 281 - 293	13	2024-12-13	Granite Creek Copper Ltd
YE91502	STU 294	1	2024-12-21	Granite Creek Copper Ltd
YE91503 - 556	STU 295 - 348	54	2024-12-13	Granite Creek Copper Ltd
YF20701 - 772	WC 1 - 72	72	2025-12-13	Granite Creek Copper Ltd
YF20773 - 800	HOO 1 - 28	28	2025-12-13	Granite Creek Copper Ltd
YF29049 - 069	STU 349 - 369	21	2023-12-26	Granite Creek Copper Ltd
YF46357 - 380	CHE 1 - 24	24	2025-12-13	Granite Creek Copper Ltd
YF46387 - 398	HOO 35 - 46	12	2025-12-13	Granite Creek Copper Ltd
YF46399 - 400	KOO 57 - 58	2	2026-12-13	Granite Creek Copper Ltd
YF46401 - 406	CHE 25 - 30	6	2025-12-13	Granite Creek Copper Ltd
YF46407 - 417	WCF 1 - 11	11	2025-12-13	Granite Creek Copper Ltd
YF46501 - 512	KOO 1 - 12	12	2025-12-13	Granite Creek Copper Ltd
YF46515 - 544	KOO 15 - 44	30	2025-12-13	Granite Creek Copper Ltd
YF46547 - 552	KOO 47 - 52	6	2025-12-13	Granite Creek Copper Ltd
YF46553 - 556	KOO 53 - 56	4	2026-12-13	Granite Creek Copper Ltd
Totals		**562**		

4 Accessibility, Climate, Physiography, Infrastructure

4.1 Accessibility

The Carmacks North property is accessible by the Freegold Road that leads northwest into the Dawson Range from the community of Carmacks. The Freegold Road branches off Highway 2 at the village of Carmacks, which is a 1.75-hour drive along paved public highways from Whitehorse. Skagway, 180 km by road south of Whitehorse is the nearest year-round port with facilities for loading concentrate.

The Freegold Road is maintained by the Yukon Government and is open seasonally between April and October. At the 35 km mark, the access road to the Carmacks Project branches off for 13 km to the Carmacks Project trailer camp. The road is narrow, winding and steep in places, requiring 4X4 access under wet or snowy conditions. Beyond the Carmacks Project trailer camp, a user-maintained gravel road with four creek crossing leads for ~10 km to Hoocheekoo Creek in the middle of the Carmacks North property. Bulldozer and ATV trails on the property lead to the different zones on the property. Additionally, during the Phase 2 project on Carmacks and Carmacks North, the dirt road from the Carmacks trailer camp was upgraded and access to the Carmacks North property is now available using 4x4 UTV and truck access. The Carmacks North property can also be accessed by a 15-20-minute helicopter flight from the airport in Carmacks. Predominantly 4x4 truck and ATV access, but also helicopter access, was used from the Carmacks trailer camp to reach the Carmacks North project.

4.2 Climate

Carmacks and surrounding area has a northern interior climate with warm summers (+20º C), long cold winters (-20º C) and low to moderate precipitation (25-30 cm), most of which falls in summer. Mean annual temperatures are near -4ºC. The dry climate leads to frequent forest fires. Snow cover remains from mid-October to mid-April at lower elevations and a month longer at higher elevations. The typical exploration season is from April to October.

4.3 Physiography

The property is part of the Yukon Plateau-Central Ecoregion which is characterized by a dry climate and extensive grasslands on south aspect slopes. The west boundary of the ecoregion is the limit of Cordilleran Pleistocene glaciation and glacial deposits. Glacial cover was partial, valley glaciers extended along major valleys and tributaries depositing glacial drift on lower slopes and valley bottoms. Colluvium blankets steep slopes and uplands.

The Carmacks North property covers an area bisected by Hoocheekoo Creek within the northeastern edge of the Dawson Range of the Yukon Plateau. Elevations range from a low of 600m in the eastern part of the project up to 1075m in the western portion. Most slopes are gentle except along the north side of Hoocheekoo Creek. North-facing slopes are heavily timbered with black spruce and generally have a thick moss cover. Some north facing slopes and low-lying wet areas are covered by dense alder and willow. South facing slopes are better drained and have a cover of poplar or pine. Some parts of the claims have been burnt by recent forest fires.

Outcrop exposure on the property is <1% with float covering approximately 8%. Large areas of the property are covered by thick overburden and all the known mineralization is found on hill tops or along ridge slopes where the overburden is thin or absent.

Several small streams flow in broad swampy valleys between 400 m and 800m wide. The streams drain to the northeast and southeast into Hoocheekoo Creek and Nancy Lee Creek, a tributary of Williams Creek. Northerly flowing tributaries of Big Creek drain the northwestern property area.

4.4 Infrastructure

4.4.1 Regional Infrastructure

The nearest community to the project area is Carmacks, 60 km by road and trail or 47 km directly. Carmacks is incorporated as a village and covers 37 square kilometres. The economic base is government and services. There is seasonal work in mining and exploration, tourism, firefighting and construction. The population is not large enough to provide a workforce for mine construction and development, requiring workers to be brought from Whitehorse and further afield.

Services in the village include:

- Nursing station with doctors' consultations by appointment.
- Tantalus School offering classes for K-12. Yukon College provides GED, academic upgrading, computer training and occupational courses.
- Recreation Centre with attached, covered skating rink.
- Airport and helicopter pad within city limits, No scheduled flights.
- Landfill site at south end of town. Recycling services once a week at landfill.
- A community water system, although some residents have private wells, and there is a water delivery service.
- Electricity from the Yukon electrical grid.
- Cell service, internet and telephone available.
- RCMP station, volunteer ambulance and for protection
- Government of Yukon – Lands and Forestry
- Little Salmon Carmacks First Nation government offices

Commercial services are limited, but include:

- 2 service stations
- Restaurants
- Grocery store
- Hotel and rental cabins
- campground

Carmacks has a population of 493 people (Canada Census, 2016). The age group distribution is: ages 0-14, 120 people; ages 15-64, 325 people; age over 65, 50 people. There are 200 private households, 125 of them are married or common law families, and 30 are lone parent families. English is the dominant language with

a few aboriginal speakers and some French. *(All information from Census Profile, 2016 Census, Carmacks Yukon).*

The nearest electrical power supply is a Yukon Energy Corp. (YEC) transmission line 12 km to the northeast on the east side of the Yukon River. The Yukon power grid is a large hydro-based grid and is not connected to the rest of North America, so is required to be self-sufficient for power.

4.4.2 Local Infrastructure

The recent acquisition of Copper North Mining and its Carmacks Project (Q4, 2020) by Granite Creek Copper (GCX) has resulted in the consolidation of the Carmacks and Carmacks North properties. This land package is now operated and owned by Granite Creek Copper. The Phase 2 drill and road maintenance program (Q3, 2020) saw road upgrading between the Carmacks trailer camp (Carmacks Project) and the Carmacks North property. This upgrading of the road directly benefitted the Carmack North project, and now a truck/atv accessible, 14 km dirt-gravel road connects the two properties, both owned by Granite Creek Copper. The subdued topography on the Carmacks North property is suitable for construction of mining operations and there is enough water available on the property for nearby drilling and development, as per the Phase 2 program.

A historic camp is located close to Zone A (4km from the Hoocheekoo Creek crossing) on the Carmacks North property, consisting of an outdated kitchen trailer, outhouse, wooden tent platforms and core storage. The camp is truck/atv accessible along the 14km road between the Carmacks and Carmacks North properties. The camp would need upgrading to accommodate crews working on exploration and drill programs.

For this program, the project home-base was the well-equiped, Carmacks trailer camp. The camp facilities are owned by Kluane Drilling, and the Carmacks camp core-shack, office and trailers were used for the duration of the phase 1 field program.

5 History

Intensive exploration near the Carmacks North property started in the late 1960s following discovery of the Casino porphyry copper deposit in the Dawson Range, 100 km northwest of the property. Prior to this time, copper showings had been staked close to the Yukon River in the late 1890s. Following the Casino discovery, a staking rush in the area unearthed the Carmacks deposit and Minto mine properties in the early 1970s. The Stu property was worked from 1971 to 1982 by United Keno Hills Mines (UKHM), and again from 1989-2013 by UKHM, Western Copper and other operators. The amount of detailed information and geochemical results from UKHM's trenching and drilling programs is limited.

While under the ownership of Bill Harris, short programs consisting of examination and inspection of the property, rock sampling, surveying of trenches and drill holes, petrography, data compilation, collection of magnetic susceptibility measurements, claim staking and a limited amount of chip sampling of trenches were undertaken between 2005 and 2014. The information and results from these programs partially confirmed missing surface information from the UKHM work. In 2015, the vendor undertook a larger program of excavator trenching, systematic sampling, rehabilitation of old core and selected relogging and reassaying of core. Complete information on programs on the Carmacks North claims from 2005-2019 can be found in assessment reports by R. Robertson, J. Pautler and D. James, and is summarized in **Tables 5-1** and **5-2** with more detailed overview within this section.

5.1 Exploration History

Exploration history and ownership of the Carmacks North property and pertinent adjacent properties is summarized in the table below.

Table 5-1: Work history of mineral occurrences on the Carmacks North property

Timeframe	Occurrence	Performed By	Work	Reference
1971	Stu Property	Hudson's Bay Oil & Gas Company Ltd	Bay claims staked over part of what is now Stu property. Line cutting, grid soil sampling and magnetometer survey	*Burgan and Mitchell, 1971*
1974	Stu Property	Hudson's Bay Oil & Gas Company Ltd	IP and VLF-EM surveys over the Bay claims. Follow-up detailed soil sampling over geophysics anomalies. EM anomaly around Zone C and just to the north of the STU claims. Anomalies are oriented northwest	*Olson, 1975*
1993 – 1994	Stu Property, Carmacks Copper	Western Copper	First feasibility Study at Carmacks Copper deposit. Airborne and ground geophysics surveys delineates the 4000N zone and the Gran/Zone 3	*McNaughton, 1994*
2005 - 2017	Stu Property	B. Harris	Series of short programs including: staking, GPS surveying, magnetic susceptibility testing, geological mapping, rock and soil sampling, a petrographic study, upgrading access, hand and excavator trenching, overview archaeological survey, XRF test survey, rehabilitation of core, relogging and reassaying.	*Robertson, 2006; Pautler, 2007; Pautler, 2009; Pautler, 2011; Pautler 2012; James, 2014; Pautler, 2015; James, 2016*

Timeframe	Occurrence	Performed By	Work	Reference
2006-2008	Stu Property, district	S. Ryan, BC Gold	Claims staked around Stu Property. Claims optioned to BC Gold after limited soil sampling. BC gold flew a regional airborne magnetic and radiometric survey over their claims in the area. MMI soil sampling and IP surveys.	*Ryan, 2006; Newton, 2008; Sidhu, 2009*
2018	Stu Property	Granite Creek Gold	166 soil samples collected north of Gran Zone.	*James, 2018*
2019	Stu Copper	Granite Creek Copper	24 line km of ground IP, 265 soil samples, Zone D sampled, 24 rock samples.	*James, 2020*

Table 5-2: Work history of mineral occurrences adjacent to the Carmacks North (formerly, Stu) property

Timeframe	Occurrence	Performed By	Work	Reference
1880s to 1910s	Bonanza King	prospectors	Copper discoveries and eventual smelter shipment from v veins in the canyons of Merrice and Williams Creek	*YGS minfile 115I010*
1960s	regional		Staking rush in the Dawson Range following discovery of Casino deposit.	
1970	Carmacks	Dawson Range Joint Venture	Discovery of Carmacks deposit	*Archer, 1971*
1971	Carmacks	Dawson Range Joint Venture	Extensive exploration including drilling, trenching, road construction, ground geophysics surveys, mapping and sampling, adjacent to the south boundary of the STU Property.	*Archer, 1973*
1973	Minto		Main mineralized body found at Minto	
1976-1989	District	United Keno Hill Mines Ltd.	Work on the area between Minto and Carmacks Copper, including the present-day Stu property. Property mapping, extensive grid soil sampling, ground and airborne geophysics. Leads to bulldozer trenching, diamond and percussion drilling on zones A, B and C on Stu property.	*Watson and Joy, 1977; Smith, 1979 Newman and Joy, 1980; Leblanc and Joy, 1980; Coughlan and Joy, 1981; Joy 1981a,b; Davidson and Joy, 1981; Tempelman-Kluit, 1981; Ouellette, 1989; YGS minfile 115I126*
2004	Carmacks Copper		Carmacks Copper deposit enters permitting process.	
2007 - 2020	Minto		Commercial production at Minto mine.	

5.2 Mapping and Prospecting

Most of the current Carmacks North property was mapped between 1977 and 1981 at 1" = 400' (1:5000) scale using a cutline grid for survey control. Previous programs (2019 YMEP, Stu Copper Property) have checked mapping from this time period and found it to be reliable and accurate, other than displacement of outcrops due to scanning and georeferencing errors. The record of samples is sparse, but it appears that most of the samples were collected from Zones A, B and C in the central part of the property.

5.3 Soil Geochemistry

The bulk of soil sampling over Carmacks North was carried out in the 1970s and early 1980s along northeast cutlines spaced 100m apart with sample spacing at 30m. Zones A, B and C were outlined along with other northwest trending anomalies to the south and east. In the southern part of the Stu property sampling delineated five separate northwest trending, moderate to strong copper anomalies in what is now the Gran Zone. The other significant anomaly covers the South Butter showing and there are spot anomalies around the Butter showing.

In 2019, Granite Creek undertook a GIS compilation of historic soils from previous operators on the Stu property and neighbouring claims (figure 4-1). Over 40,500 points were digitized, but in over 90% of the samples, Copper was the only element analysed. The compilation highlighted northerly trends to the anomalies, which had not been so visible previously. A strong linear anomaly located along the NE side of the project around Zone D was investigated during the 2019 program. This anomaly was targeted for investigation during the 2019 Stu Copper (2019 YMEP, Stu Copper Property) and 2020 Bonanza King (2020 YMEP, Bonanza King Project) programs. This strong linear anomaly does seem to occur in the vicinity of the contact zone between Povoas Formation mafic volcanic rocks and the Minto Suite granodiorite

Past soil sampling on the property indicates that anomalies present as clusters of >30 ppm copper with occasional values exceeding >100 ppm that have an overall northwest to north trend. The lack of previous multi-element sample programs means that there is limited information to determine the characteristics of gold soil anomalies and which elements other than copper indicate anomalies. A soil survey in 2018 produced gold results from 1 to 109 ppb and one in 2019 from 0.5 to 68.6 ppb.

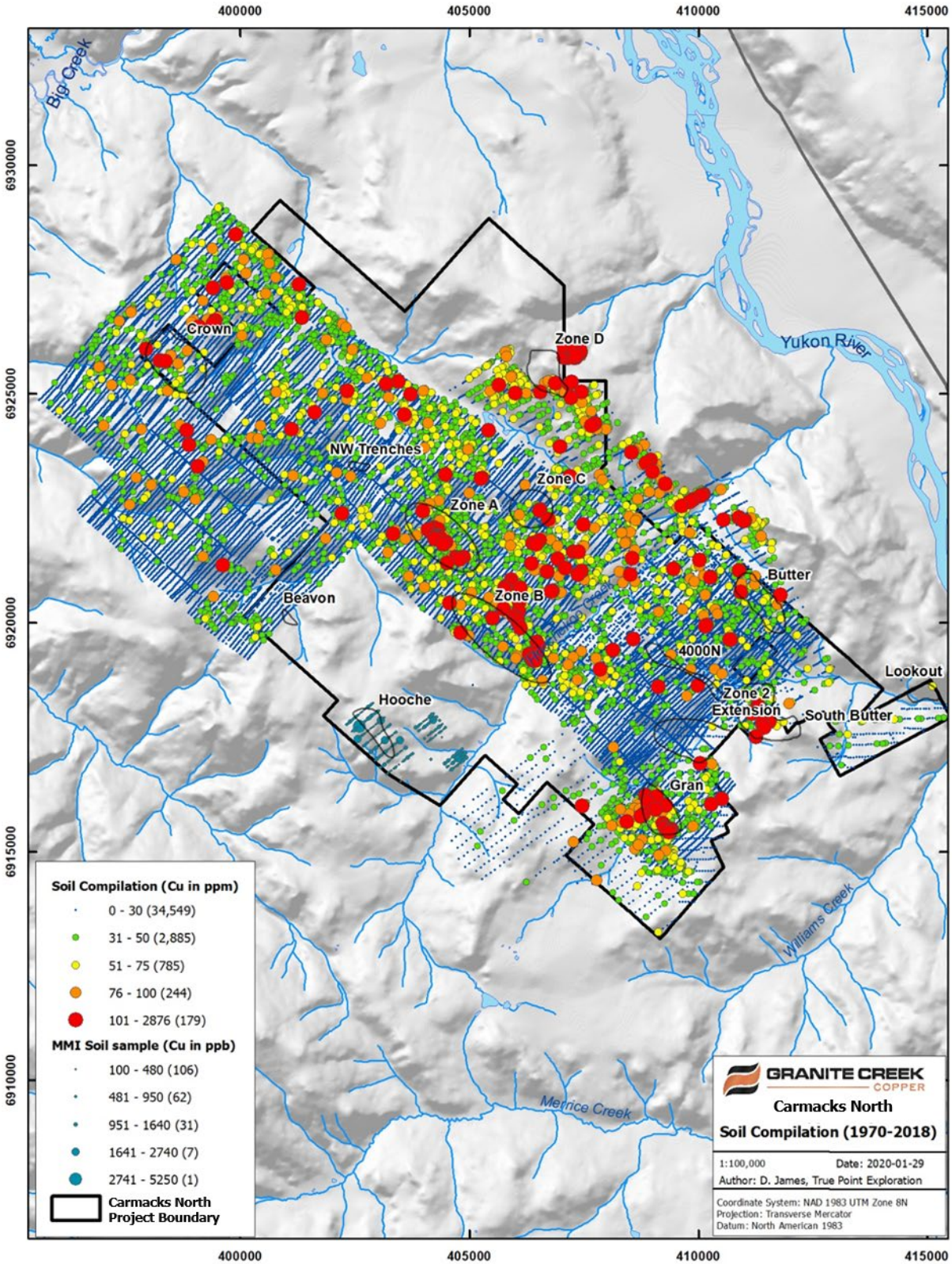


Figure 5-1: Compilation work of historic soil samples from 1970-2018 taken on the Carmacks North property

5.4 Trenching

UKHM carried out bulldozer trenching programs in 1979 and 1982 over four geochemical and/or geophysical anomalies in Zones A, B and C. Nine bulldozer trenches were dug in Zone A to expose 900m of strike length. No results are available, but the best trench intersection was 0.19% copper over 15m (Ouellette, 1989). Similar results were returned from the 2015 resampling program.

In 2014, systematic hand trenching was done over the Nic showing 200m along the eastern side of Zone A. Four 2-8m long northeast trending hand trenches were dug about 10m apart and 19 rock samples were collected. Significant results were obtained from 3 of the 4 trenches (Table 4-3). The northernmost trench (14-03) intersected a 5m zone of unmineralized granodiorite cut by a 1m wide diorite dyke.

In Zone B, 14 bulldozer trenches were excavated in 1979 and 1982 and up to 2% malachite over 0.5m in gneiss was observed (Joy, 1979, referenced in Ouellette, 1989). Recent trench work has revealed similar narrow zones of malachite.

Selected trenches in Zones A and B were deepened, extended and new trenches were dug with an excavator in 2015. Mineralized zones in trenches were chip sampled, and XRF readings were taken at 5m intervals along the length of the trench. In all, 97 samples were collected, 6 grab samples and 91 chip samples between 0.5-3m long, averaging 1.8 m long.

Three trenches over 350m of strike length were excavated in Zone C in 1979, and no further trenching has been done since. There are 3 short trenches in the Northwest Zone, exposing mostly glacial till

Table 5-3: Selected results from trench samples.

Zone	Trench	Type	Cu (%)	Ag (g/t)	Au (g/t)	Sample length	comments
A	2015A	New	0.11				4 other samples >100ppm Cu
A	1150W	Deepened	0.27			1.1	4 other samples >100ppm Cu
A	1150WExt	New	0.12			5.5	8 other samples >100ppm Cu
A	2015-800W	Deepened	0.14 0.33			9.0 10.8	3 other samples >100ppm Cu
A	600W	Deepened	0.18			29.0	5 other samples >100ppm Cu
A	14-01	New	0.55	1.9	0.27	6.0	
A	14-02	New	0.49	2.2	0.33	3.5	
A	14-04	New	0.36	1.3	0.16	4.0	
B	B1	Deepened	0.12			2.0	2 other samples >100ppm

5.5 Drilling

There were two programs of historic drilling on the Carmacks North property. The first was a diamond drilling program in 1980 on Zones A and C, and the second a RAB drill program in 1989 on Zone B. In 2020, during a phase 2 fall program, following up on information gathered during this phase 1 program, Granite Creek drilled 3 diamond holes at Zone A.

5.5.1 Diamond Drilling

Approximately 4500 metres of diamond drilling was done by UKHM in 1980 in Zones A and C. Core from the program is stored near the historic camp at Zone A and in 2015 the racks were disassembled and most of the core rehabilitated. Historical drill logs and assay results for the 1980 program are incomplete; the key reports describing the trenching and drilling program were not filed for assessment. Diamond drill sections with geology, alteration, assay results, mineralization and structure have been recovered from the UKHM archives. The information from these sections has been entered into a drill database and converted into metric and work is ongoing towards merging the 2020 relogging and reassaying work with the 1980 work.

There are three high grade composite intersections from Zone A which have been rehabilitated and during the 2020 phase 1 field program, the core was packaged and slung back to the Carmacks trailer camp core-shack. Holes 80-09, 80-18 and 80-14 (during phase 2 program) along with 7 other drill holes were relogged and resampled (**Section 8**).

- 80-09 3.44% Cu, 1.87 g/t Au, 13.37 g/t Ag over 13.5m
- 80-14 3.51% Cu, 2.49 g/t Au, 18.35 g/t Ag over 13.5 m
- 80-18 2.80% Cu, 4.04 g/t Au, 17.42 g/t Ag over 12.5m.

Drillhole 80-17 was a deep hole (426m), drilled behind and beneath hole 80-14, presumably as a follow-up beneath the high-grade intersection. From 376-401m the hole intersected 25m of 0.155% copper, 6.2 g/t silver and trace gold (UKHM, 1981), at 380m below surface.

In 2015, drillhole 80-6 was relogged and reassayed by geologists from the Yukon Geological Survey (Sack et al., 2015). Sampling from 11.58-35.66 m (24.08m sample length not true width) ranged from 0.03% to 0.34% Cu, averaging 0.18% Cu over the entire interval. A second interval from 52.43-55.78 m averaged 0.46% Cu over 3.35 m (sample width not true width).

Three holes were drilled in the C Zone but no mineralization was logged. There are 2-3 drill pads in Gran, either from the 1960s or the 1980s but no information has been found for these holes.

5.5.2 Percussion Drilling

In 1989, 30 percussion drill holes were drilled along trenches in Zone B. Most holes were oriented at 225° azimuth, with dips ranging from -49° to -63°. Three holes were oriented at 45°. Two to three holes were drilled 3 to 20m apart in each trench. Hole depths are 27 to 88m and the entire length of each hole was sampled in 5-foot (1.5m) intervals. Copper results were plotted onto sections, and copies of assay certificates are available. Most holes intersected multiple zones with anomalous copper values ranging from 100-500 ppm. The zones can be traced from hole to hole in about half of the sections, but they do not always coincide with malachite occurrences in the trenches. The best results are:

- Hole SB-4 in trench 7600E 10 feet (3m) of 0.135% Cu
- Hole SB-6 in trench 7400E 5 feet (1.5m) of 0.71% Cu
- Hole SB-8 in trench B-1 5 feet (1.5m) of 0.11% Cu
- Hole SB-9 in trench B-1 5 feet (1.5m) of 0.23% Cu
- Hole SB-10 in trench B-1 5 feet (1.5 m) of 0.16% Cu

All lengths in the list above are sample lengths. The relation to true width is unknown but all holes were drilled perpendicular to mineralization.

5.6 Geophysical Surveys

Geophysical surveys have been carried out over the Stu Copper property since 1970, both ground and airborne surveys. Magnetometer, VLF-EM, DIGHEM and IP surveys have all been tried over the years.

In 2007, BC Gold carried out a 3295 km airborne magnetic and radiometric survey over an area extending from south of the Carmacks Project to north of the Stu Property. Granite Creek has recently acquired all the digital data from this survey which was flown at 200m line spacing and 30m above the ground producing a

high-quality detailed result (figure 5-2). Exploration work at both Minto and Carmacks indicate that IP and Mag/VLF are effective exploration tools for identifying mineralization in the district, though results must be carefully interpreted because the oxide and sulphide mineralization has different geophysical signatures. Further testing of geophysics is required to determine suitable methods and assist in seeing through thicker areas of overburden in the southern part of the property.

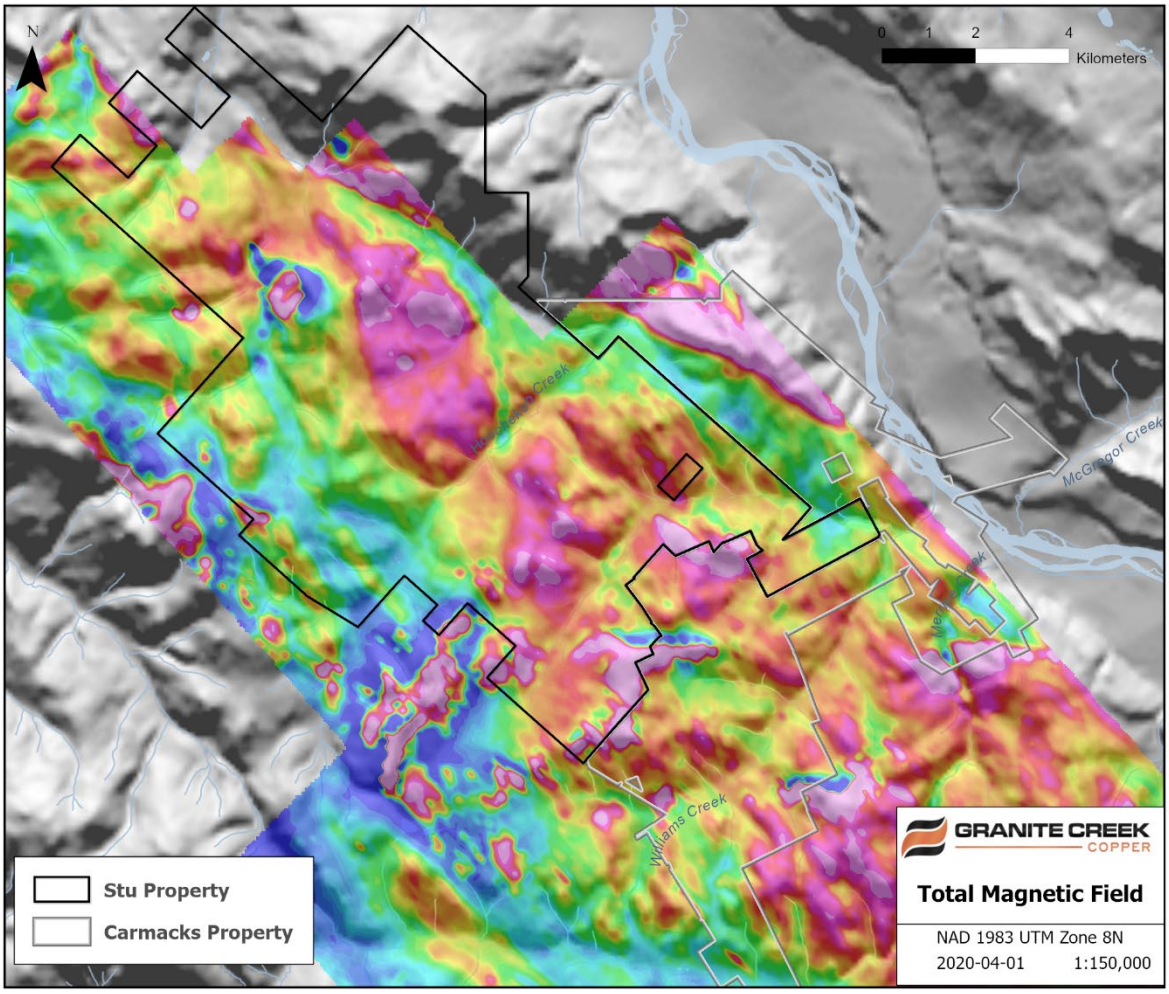


Figure 5-2: Total magnetic field survey data recently acquired by Granite Creek Copper.

6 Geological Setting and Mineralization

6.1 Regional Geology

The Carmacks North project lies within the northern cordillera of western North America, which was formed by accretion of terranes onto the western edge of ancestral North America. The Carmacks North property is located within the Intermontane terranes – a grouping of the Quesnellia, Stikinia and the older, mid-Paleozoic Yukon Tanana terranes (**Figure 6-1**). These terranes have been intruded by post-accretionary plutonic rocks and covered in part by younger volcanic rocks.

6.1.1 The Yukon Tanana Terrane (YTT)

The YTT is the oldest of the Intermontane terranes in Yukon. It is the largest terrane in Yukon and extends from northwest of the Yukon-Alaska border southeast to past the BC-Yukon border. In Yukon, it is bounded on the east side by the Tintina Fault, and on the west by the Denali Fault. The YTT forms a hinge zone around Stikinia and Quesnellia in the Carmacks Copper Belt. The YTT formed along the edge of the continental margin and rifted away from the continent during the mid-Paleozoic opening of the Slide Mountain ocean. In the early Mesozoic, a reversal in subduction closed the Slide Mountain ocean and moved YTT back onto the continental margin, partly covered by Stikinia and Quesnellia (Nelson et al., 2013).

6.1.2 Stikinia and Quesnellia Terranes

Stikinia and Quesnellia are two similar terranes that formed outbound of the ancestral North America, before being accreted onto the YTT and then onto the continent following the closing of the Slide Mountain ocean. They extend in a wide belt through the centre of B.C. from south of the US border up into the west central Yukon where they pinch out around the Carmacks North (formerly, Stu) property. Both are known for belts of Mesozoic intrusions cogenetic with thick volcano-sedimentary accumulations. Stikinia and Quesnellia are difficult to separate in the Yukon where they are not divided by the Slide Mountain terrane (Nelson et al, 2013).

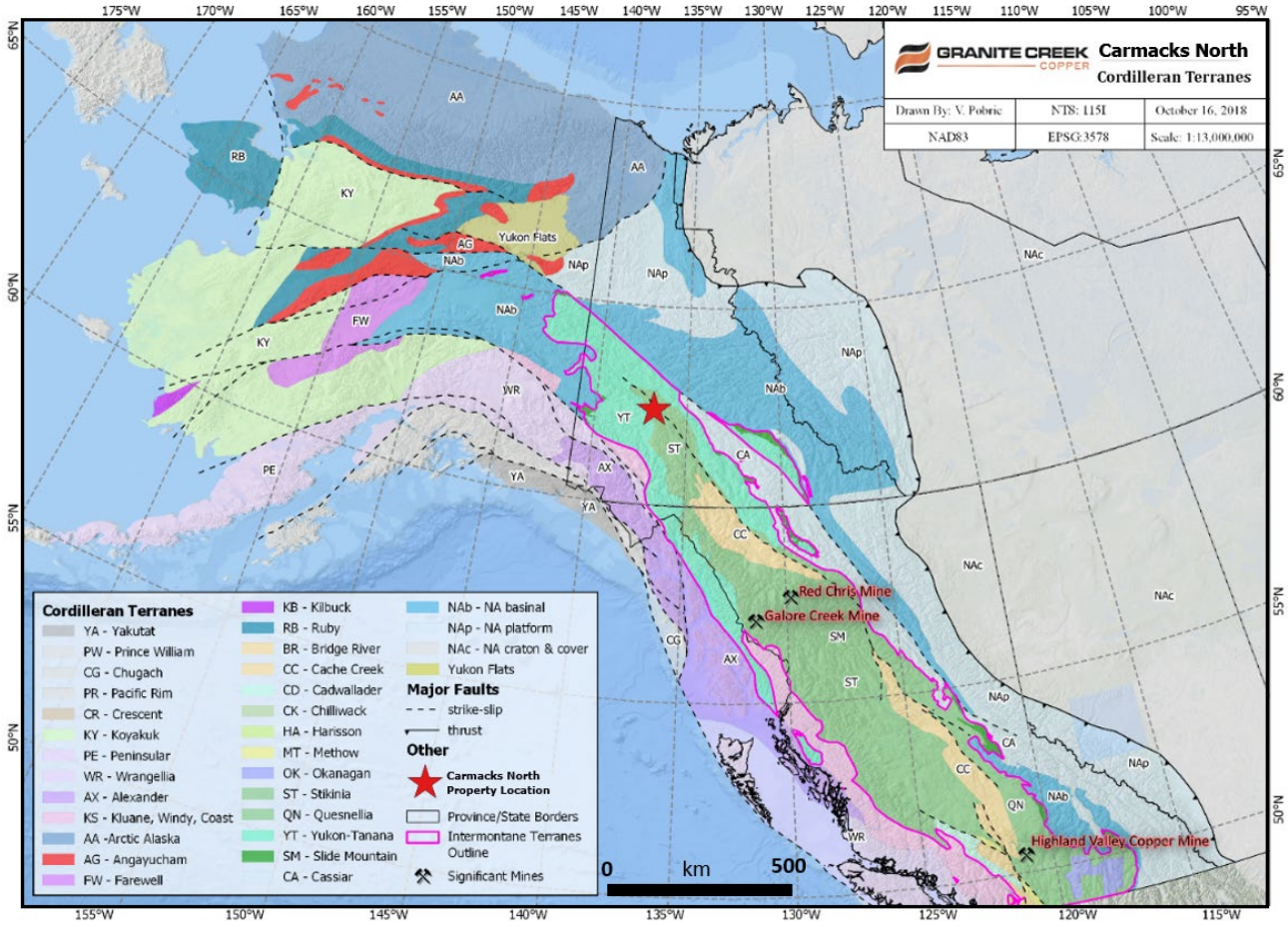


Figure 6-1: Terranes of Western North America. Location of the Carmacks North property

6.2 District Geology

The Carmacks North property lies within the Minto Copper Belt, a linear stretch of intrusion hosted Cu (+/- Au-Ag-Mo) mineralization in the Dawson Range, south-central Yukon Territory. Centered on the Minto Mine the belt extends from north of the Yukon/Pelly River confluence southeast to the community of Carmacks. The occurrences are hosted in, or close to the contacts of, intermediate to felsic intrusive and meta-intrusive rocks of the Early Jurassic Minto Suite. Minto Suite plutons are of biotite-hornblende granodiorite to quartz monzonite composition and intrude between Stikinia and the Yukon Tanana Terrane (YTT). The Hoocheekoo Fault runs northwest from near Minto to Carmacks North parallel to the regional strike slip Teslin Fault which forms the valley of the Yukon River. The Hoocheekoo Fault positions Minto Suite intrusive rocks against upper Triassic Povoas Formation (**Figure 6-2**).

Minto Suite members the Granite Mountain Batholith (GMB) and the Minto Pluton host the Minto and Carmacks deposits, and the Carmacks North (formerly, Stu) occurrences. The GMB is composed of two different igneous suites: The Early Jurassic Long Lake Suite (EJgL) on the western side and the late Triassic Minto Suite (LTrEJgM) on the east side, where the deposits occur. Younger volcanic rocks of the Carmacks Group and Selkirk Group overlie the GMB. The south end of the Minto pluton is separated from the GMB by an east-west normal fault, south of which lie Carmacks Group rocks.

On its west side the GMB intrudes Paleozoic metamorphic rocks of the Yukon Tanana Terrane. To the east the batholith is in fault contact with upper Triassic or older mafic volcanic rocks of Stikinia. South of Williams Creek the GMB is in normal fault contact with more Carmacks Group basalts along the Miller Fault.

There are two significant mineral properties in the Minto Copper Belt with the same style of mineralization as the Carmacks North project: The Minto mine (Minto Explorations) and the Carmacks deposit (Granite Creek Copper).

Recent work on the Minto and Carmacks deposits classifies the host rocks of the hypogene copper mineralization as metamorphic rocks. Kovacs' recent work on the Carmacks deposit suggests that mineralization is hosted in foliated, folded and variably migmatitic metamorphic inliers (Kovacs et al., 2017; 2018; 2020) derived from previously mineralized Povoas Formation slabs torn up during emplacement of the GMB (Kovacs, pers. comm). Hood et al., (2009) and Hood's 2012 study on the Minto deposit postulates that the host rocks were emplaced into an actively deforming environment, producing sheared host rocks separated by non-sheared barren granodiorites (Hood et al., 2009; Hood, 2012)

Adjoining the southern claims of the Carmacks North project is Granite Creek Copper's (formerly, Copper North Mining Corp's.) Carmacks deposit. The resources and reserves listed in the tables below are proof of the mineral endowment of the Minto Copper Belt.

Table 6-1: Mineral Resource Statement of the Carmacks deposit, as of January 25, 2016 (Table 14.15 from Arseneau, 2016)

Zone	Resource domain	Class	Tonnage (t)	Total Cu (%)	Acid-soluble Cu (%)	Au (g/t)	Ag (g/t)	Sulphide Cu (%)
Total Mineral Resource for zones 1, 4, 7, 7A, 12, 13 and 2000S	Oxide and Transition resources	Measured	6,484,040	0.86	0.69	0.414	4.235	0.17
		Indicated	9,206,343	0.97	0.77	0.357	3.796	0.20
		ME + IN	15,690,383	0.94	0.74	0.379	3.971	0.20
		Inferred	912,614	0.45	0.30	0.119	1.900	0.15
	Sulphide Mineral resources	Measured	1,381,329	0.64	0.05	0.185	2.166	0.59
		Indicated	6,686,922	0.69	0.04	0.172	2.344	0.65
		ME + IN	8,068,252	0.68	0.05	0.178	2.332	0.65
		Inferred	8,406,835	0.63	0.03	0.150	1.994	0.61

The Minto mine is located 30km north of the Carmacks North project The Minto deposit is spread over a series of high-grade areas interspersed with large deposits of low-grade material. The mine started development in February 2006 as an open pit operation and added underground development in September 2012. Production to date is approximately 471 million pounds of contained copper. Estimated mineral reserves and resources as of December 31, 2017 are listed in the tables below.

Table 6-2: Mineral Reserve Totals at Minto, as of May 31, 2019 (Table 9 - Schulze, 2019)

Classification	Tonnes (kt)	Cu grade (%)	Ag Grade (g/t)	Au Grade (g/t)	Contained Copper (kt)	Contained Silver (koz)	Contained gold (koz)
Proven	412	1.12	3.1	0.25	5	40	3
Probable	1,951	1.79	6	0.67	35	380	42
Total Mineral Reserves	**2,363**	**1.68**	**6**	**0.6**	**40**	**420**	**45**

Mineral resources have been estimated in conformity with generally accepted Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with Canadian Securities Administrators' National Instrument 43-101 and using CIM Definition Standards.

Table 6-3: Total Mineral Resources at Minto, as of May 31, 2019 (Table 7 – Schulze, 2019)

Classification	Tonnes (kt)	Copper (%)	Silver (g/t)	Gold (g/t)	Contained Copper (kt)	Contained Silver (koz)	Contained gold (koz)
Total Measured Resources	3,795	1.20	3.35	0.38	46	409	47
Total Indicated Resources	11,242	1.46	5.26	0.60	164	1,901	21
Total Measured + Indicated	**15,037**	**1.40**	**4.78**	**0.54**	**210**	**2,310**	**263**
Total Inferred Resources	**6,100**	**1.42**	**4.79**	**0.51**	**86**	**939**	**100**

Mineral resources have been estimated in conformity with generally accepted Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with Canadian Securities Administrators' National Instrument 43-101 and using CIM Definition Standards.

6.3 Property Geology

On the Carmacks North property, the Minto Suite granitoid is the dominant host-rock. The granitoid contains lenses of foliated-to-gneissic, quartz-feldspar-hornblende-biotite granodiorite, which host mineralization on the property. The Minto Suite granitoid host and the foliated-to-gneissic lenses are themselves cut by aplite, microgranite and pegmatite dykes. Locally, several pegmatitic dykes and veinlets did contain trace amounts of Galena – possibly a minor, late-stage mineralization event not well understood. Locally outcrops of Carmacks volcanics and mafic intrusions overlie and intrude the Minto Suite granitoid and foliated granodiorite rock types (**Figure 6-3**). Compilation of historic mapping for the claims is ongoing with the recent acquisition of Copper North Mining Corp's database.

The most common phase of the granodiorite is dark-grey to medium-grey on weathered surfaces and grey-white to light-grey on fresh surfaces. The granodiorite is medium-grained with lesser fine-grained to coarse-grained occurrences. The granodiorite is commonly porphyritic with 5-15% potassium feldspar phenocrysts (cm-scale), although granodiorite sections that lack cm-scale potassium feldspar phenocrysts have been observed. The foliated granodiorite lenses have a slightly higher mafic content, expressing a weak-to-strong foliation of mafic minerals with mineralization foliation-parallel. The gneissic phase is fine- to medium-grained with a moderate to strong foliation or banding. An extreme variation in mafic content has been observed. The genesis of the foliation or gneissic texture is unclear, but recent work by Kovacs suggests it is a mixture of migmatized, Povoas Formation inliers that are interweaved with the GMB host (Kovacs et al., 2017; 2018; 2020). Where this gneissic or banding texture is seen at Minto, it is classified as the assimilation zone (ASMZ) and is similar in appearance and copper grade.

6.3.1 Structural Geology

The dominant structural direction is northwest, parallel to the Teslin Fault. Foliation, fractures, structural zones and contacts tend to parallel this direction which appears to control mineralization. The exception is the diorite and gabbro intrusions that have north-easterly trending contacts with the granodiorite. In Zone C foliation trends northwest and dips steeply southwest, in Zones A and B it trends 130 and dip on average 70° northeast. The Hoocheekoo Fault runs northwest through the eastern claims, separating the GMB from the Povoas Formation (**Figure 6-2**). Smaller east-west cross structures are expressed as creeks such as; Camp, Nancy Lee and Hoocheekoo. Feldspar phenocrysts, mafic minerals and mafic schlieren in the GMB are aligned parallel to the dominant direction.

Easterly to north-easterly trending younger, post-mineralization brittle faults such as the DEF fault north of Minto, the unnamed normal fault south of Minto and the Miller Fault south of the Carmacks deposit have down dropped and rotated large blocks of ground. This block faulting may have caused the difference between flatter ore zones at Minto and steeper zones at the Carmacks deposit. Block faulting can cause large degrees of rotation within a short distance as shown by younger sedimentary units at Minto that have been tilted up to 60° (Tafti and Mortensen, 2004). At Carmacks North Hoocheekoo Creek and possibly Camp and Nancy Lee Creeks could be linear surface expressions of these structures.

6.3.2 Alteration

Alteration at Carmacks North is biotite-rich lenses and potassic flooding, similar to Minto. Airborne radiometric and residual total field maps (Shives et al., 2002) show zones of increased potassium values and higher magnetic field levels proximal to the Minto mine. A slightly weaker and dissected version of this

pattern is repeated at the Carmacks North property. The main alteration mineral is an increase in biotite abundance, followed by magnetite, quartz and secondary potassium feldspar overgrowths on plagioclase (Hood, 2012).

Alteration phases at Carmacks include local potassic alteration and hematization related to mineralization and epidote (propylitic) and local potassic related to the intrusion of post-mineralization pegmatite dykes (Milton, 2016). Alteration of mafic minerals to chlorite/micas and eventually clays, hornblende to biotite, rare garnets, carbonate and anhydrite appear related to assimilation and metasomatism of gneiss units (Casselman and Arseneau, 2011).

A north trending zone of intense alteration is mapped through Zone A. Two lineaments along aeromagnetic lows intersect at Zone A, one north trending and the other northwest trending. In lineaments. Whether the clay zones are caused by faulting or alteration is yet to be determined. No alteration studies have been carried out at Carmacks North. Grasping a better understanding of alteration of the Carmacks North rocks through systematic relogging, resampling of the 1980s drill core, and the use of a TerrasSpec Halo handheld spectrometer was the aim of the 2020 Phase 1 field campaign (**Section 7.3**).

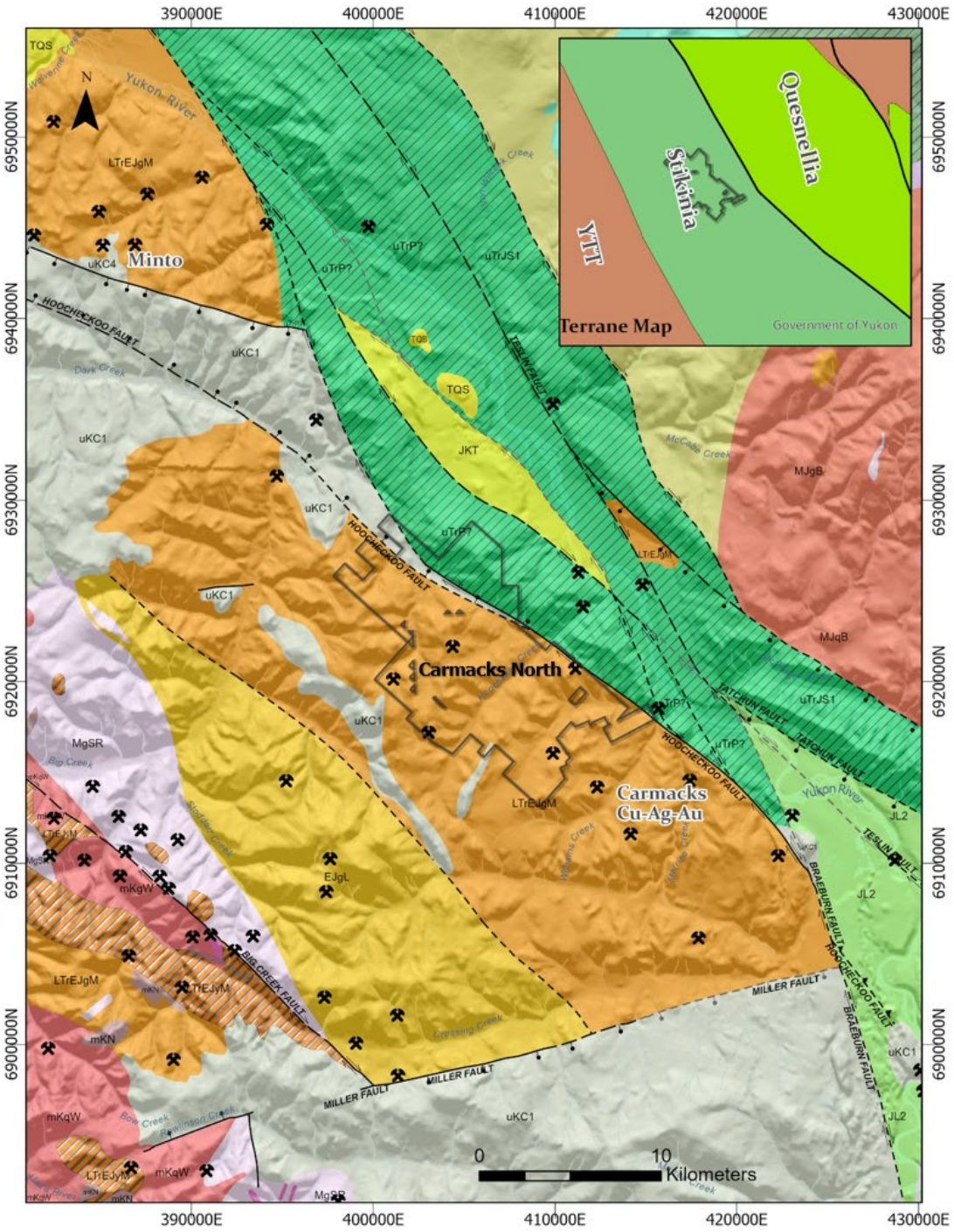


Figure 6-2: District Geology of the Minto Copper Belt from Yukon Geological Survey files. Location of Granite Creek Copper's, Carmacks North project (boundary outlined) and Carmacks deposit. Refer to legend on following page

Tenure

Carmacks North Claim Boundary

Geology

Minfile Occurence

Bedrock Polygons

TERTIARY(?) AND QUATERNARY

TQS: SELKIRK: columnar jointed, vesicular to massive basalt flows

LOWER TERTIARY, MOSTLY(?) EOCENE

ITR2: ROSS: rhyolite flows, tuff, ash-flow tuff and breccia

MID-CRETACEOUS

mKdW: WHITEHORSE SUITE: Hbl diorite, Bt-Hbl quartz diorite

UPPER CRETACEOUS

uKC1: CARMACKS: augite-olivine basalt and breccia

uKC5: CARMACKS: gabbro and monzonite bodies

UPPER JURASSIC AND LOWER CRETACEOUS

JKT: TANTALUS: chert pebble conglomerate and gritty quartz-chert-feldspar sandstone

MID-JURASSIC

MJqB: BRYDE SUITE: leucocratic monzonite, syenite and granite

MJgB: BRYDE SUITE: Hbl monzodiorite, Hbl-Bt quartz monzodiorite, minor hornblendite

LOWER AND MIDDLE JURASSIC, HETTANGIAN TO BAJOCIAN

JL2: TANGLEFOOT: arkosic sandstone and minor shale, pebble and boulder conglomerate

EARLY JURASSIC

EJgL: LONG LAKE SUITE: massive to weakly foliated Bt-Hbl granodiorite

EJqL2: LONG LAKE SUITE: Bt, Bt-Ms and Bt-Hbl quartz monzonite to granite

LATE TRIASSIC TO EARLY JURASSIC

LTrEJgM: MINTO SUITE: foliated Bt-Hbl granodiorite; Bt-rich screens and gneissic schlieren

LTrEJgbM: MINTO SUITE: Hbl gabbro

UPPER TRIASSIC, CARNIAN TO NORIAN

uTrAK2: HANCOCK: massive to thick-bedded limestone

UPPER TRIASSIC, CARNIAN AND OLDER (?)

uTrP?: POVOAS: augite or feldspar-phyric andesitic basalt flows, breccia, tuff, sandstone, argillite

UPPER TRIASSIC TO LOWER JURASSIC

uTrJS1: SEMENOF: augite-phyric basalt flow and agglomerate, andesite

UPPER CARBONIFEROUS, LOWER AND MIDDLE PENNSYLVANIAN

uCB1: BOSWELL: siliceous argillite, siltstone, sandstone, chert conglomerate, volcanic breccia

uCB3: BOSWELL: micritic limestone, bioclastic limestone, marble

PngK: KELLY SUITE: strongly foliated Hbl ± Bt tonalite, Hbl diorite to granodiorite

CARBONIFEROUS TO PERMIAN

CPSM4: SLIDE MOUNTAIN: brown weathering, variably serpentinized ultramafic rocks

MISSISSIPPIAN

MgSR: SIMPSON RANGE SUITE: Hbl-bearing metagranodiorite, metadiorite and metatonalite

DEVONIAN, MISSISSIPPIAN AND(?) OLDER

uDMM1: MOOSE: massive and pillow basalt, amphibolite and greenstone

NEOPROTEROZOIC AND PALEOZOIC

PDS1: SNOWCAP: quartzite, psammite, pelite and marble; minor greenstone and amphibolite

PDS2: SNOWCAP: light grey to buff weathering marble

<all other values>

Yukon Faults

normal, , approximate

normal, , covered

normal, , defined

normal, , inferred

strike slip, dextral, approximate

strike slip, dextral, covered

strike slip, dextral, defined

strike slip, dextral, inferred

thrust, , approximate

thrust, , inferred

unknown, , approximate

unknown, , inferred

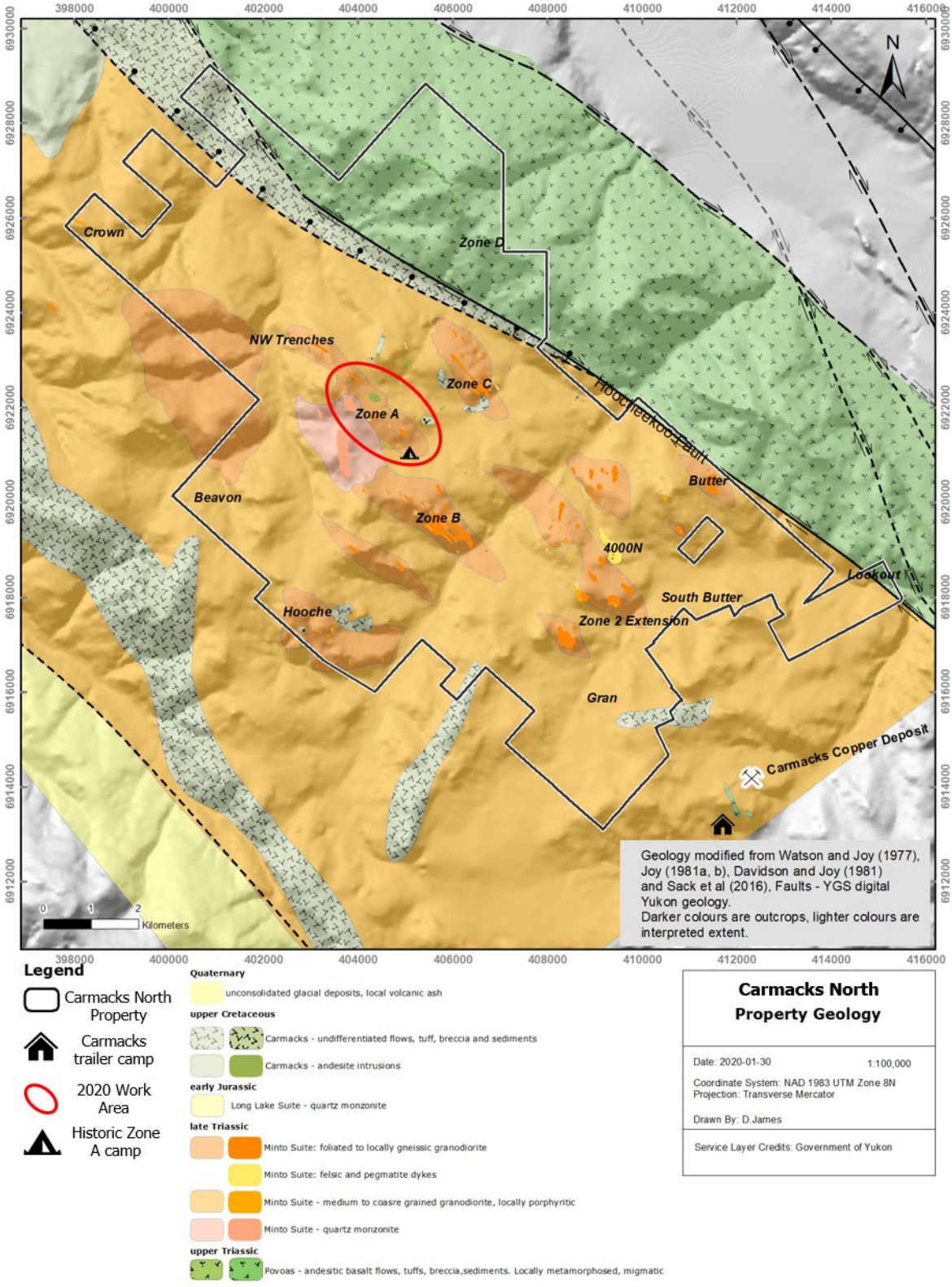


Figure 6-3: Carmacks North Property Geology Map

6.4 Mineralization and Showings

The deposit type at Carmacks North is a variation of that seen at Minto mine (Minto Explorations) and the Carmacks deposit (Granite Creek Copper), although there is no broad agreement on the classification for those deposits. Over its history, the Minto deposit has been classified as a metamorphosed or digested redbed copper deposit, metamorphosed volcanogenic massive sulphide deposit, deformed copper-gold porphyry, magnetite skarn, iron-oxide copper gold (IOCG) and a shear-hosted deep porphyry. Regardless of the label, there is a consensus that the deposits formed at crustal levels deeper than 20 km, within the ductile deformation realm, and that a strong structural control on mineralization is present. The Minto deposit is considered a variant of the porphyry model (**Figure 6-4**).

Nelson et al. (2013) describes the Minto and Carmacks deposits as probably representing the deeper levels of the British Columbian porphyries or an IOCG system. Recent thesis work by Nikolett Kovacs on the Carmacks deposit assigns the deposit to the same deep-seated B.C. alkalic porphyry model, although migmatized and enriched by ingestion of a previously mineralized protolith at high-temperatures (Kovacs, 2018).

Copper mineralization (with lesser Au, Ag or Mo) is contained in foliated- to gneissic-granodiorite, formed either as shear zones like at Minto mine (Hood et al., 2009; Hood, 2012), or as assimilation zones (ASMZ) where migmatites and granodiorites were mixed and interweaved, according to Kovac's interpretation at the Carmacks deposit (Kovacs et al., 2017; 2018).

There are 10 named mineralized zones or occurrences within the current Carmacks North property (**Figure 6-3**). In all zones with exposed bedrock, foliation of the granodiorite host strikes northwest. In Zones A and B, the dip is moderately to steeply northeast and in Zone C steeply southwest. Copper sulphides occur within the foliated and gneissic granodiorite where they replace or align along foliation to mafic minerals. Copper oxides have in turn replaced the copper sulphides where the mineralization has been exposed to oxidation (supergene phase). Copper-bearing sulfide and oxide minerals; malachite, azurite, chrysocolla, chalcopyrite, bornite, chalcocite and tenorite (copper wad), have been observed in hand samples and drill core. Magnetite is locally abundant in both mineralized and unmineralized host granodiorite. The highest gold and silver values are associated with bornite-rich sections.

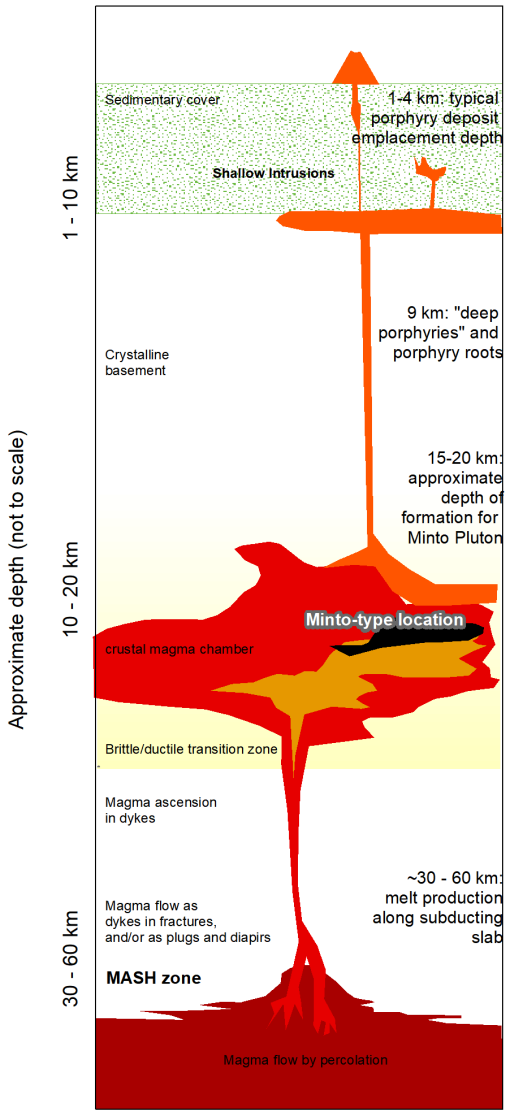


Figure 6-4: Simplified diagram of a deep-seated Minto-type porphyry model (Revised from Hood, 2012)

Both the foliated- and gneissic-phases host copper mineralization, the latter interpreted as being a more extreme version of the former. In trenches and outcrop, resistant reefs of silicified gneiss or foliated granodiorite occur which have more chalcopyrite and bornite compared to non-siliceous sections. These reefs are resistant to weathering and form outcropping ridges in Zones A, B and C and low ridges along trench floors.

Additionally, much of the exposed portion of the Carmacks deposit to the South is oxidized from 30-100m below surface, and the rock is weathered and permeable. A few primary sulphides are found in the oxide zone and form disseminations or narrow massive bands. Secondary mineralization is not restricted to a single rock type and has migrated from its source in the supergene layer. (Casselman and Arseneau, 2011). Migration of supergene mineralization has not been observed as frequently at Carmacks North, where mineralization occurs almost exclusively in foliated or gneissic granodiorite. Although, exposed faults in trenches show percolation and concentration of copper oxides in faults adjacent to mineralized, foliated granodiorite lenses.

6.4.1 Zone A

Zone A in the centre of the Carmacks North property is the largest zone and has the most extensive exploration history. Most work was done by bulldozer trenching and diamond drilling. Historically Zone A extended for 1 km based on trench and drillhole locations, though incomplete historic assay results cannot confirm if there was mineralization in all trenches and drillholes. The intersection of two north-northwest trending magnetic lineaments are coincident with Zone A.

In 2015, three old trenches were deepened, and two new trenches were dug over a 350m area at the north end of the zone. Surface work has confirmed 350m of mineralization from trench 400W to trench 2015A. Mineralization is open ended and further trenching (infill trenches, deepening old trenches and extending old trenches) is required to extend the mineralization to the 1 km extent reported in historic reports.

Copper grades of 2.8 to 3.5% were returned over 12 to 14m widths in drill core (widths are reported sample lengths from composite samples and the true thickness is unknow). On surface, Cu grades over similar widths are less than 0.4%. A similar relationship is seen with Ag and Au. Increased amounts of bornite and chalcopyrite below the oxidized layer may account for the higher subsurface grades when compared to surface grades.

6.4.2 Zone B

Zone B has the most rock exposure and the largest mapped extent of assimilation zone (ASMZ) rocks. Mineralization in Zone B is locally high-grade over narrow widths and limited percussion drilling did not show consistency below surface. A sample collected from Trench B1 in 2013 ran >1% Cu, 14.8 g/t Ag and 0.553 g/t Au over 0.5m (the sample was overlimit for Cu, but not assayed), and a sample from Trench B3 ran 0.55% Cu and 4.4 g/t Ag over 2m. In 2015 selected trenches were deepened and 2 new trenches were dug. Zone B may be down dropped and potentially rotated from Zones A and C, exposing a higher level of the mineralized system, prone to more oxidation and migration of copper minerals like Carmacks Copper.

6.4.3 Zone C

Zone C was first discovered by Hudson's Bay in 1971 as a copper in soil anomaly coincident with electromagnetic anomalies. It shows 110m of mineralization between trenches 9+50E and 14+50E reaching

a width of 25-30m in trench 14+50E. The zone is open at both ends. Mineralization is significant with values up to 1.59% Cu and 3.7 g/t Au along northwest trending fractures.

Three trenches over 350m of strike length were excavated in 1979 over the northwest showing, but none over the southeast showing. No results are available and no new trenching has been done in this zone. Three holes were drilled in 1980 but did not intersect mineralization. All holes were drilled to the southeast, which may be parallel to the orientation of the foliated zones.

This zone has received the least work of the three; there are only 4 trenches and the second outcrop showing near Camp Creek does not appear to have been trenched. Although small the zone has high copper values along with gold up to 3.7 g/t (sample 526140) and silver up to 15.09 g/t (historic sample 2512). Repeated rock sampling in trenches 11+50E and 14+50E has returned samples in the 0.3-1.6% copper range. UKHM mapping shows that foliated granodiorite continues either side of the trenched area.

6.4.4 Zone D

Zone D was discovered in 2011 by Northern Tiger Resources during a soil sampling and mapping program on the DEL claims (Pollries and Ouellette, 2013). Zone D is located 350 southwest of an anomalous soil grid (As, Bi and Mo) and is described as a 25cm malachite-bearing fracture zone oriented 160/70 NW hosted in an andesite augite-feldspar porphyry outcrop (**Figure 6-5**). A 30 cm chip sample across the fracture zone ran 0.972% Cu and 0.741 g/t Au. Following compilation work in 2019 which highlighted a significant soil anomaly in the area, the Zone was visited, sampled and 54 soil samples were collected. The location, description and tenor of mineralization was confirmed with the best rock sample running 0.737% Cu and 0.407 g/t Au.

Figure 6-5: Andesite porphyry from Zone D with malachite and hematite staining. Sample 148709 ran 0.74% Cu and 0.406 g/t Au

6.4.5 Gran/Zone 3

The Gran occurrence is a weak magnetic anomaly associated with moderate to highly anomalous copper in soil values. It covers a loosely defined area approximately 1000m long by 600m wide. Two to three drill pads and nine trenches are in the general area, most likely from work by UKHM in 1982. In 2018 a soil sample grid delineated a weak copper in soil anomaly northwest of Gran (James, 2019).

6.4.6 Butter

The Butter showing is a 450m long MMI copper in soil anomaly on the east side of the Property. It is in the same location as a set of historic copper in soil anomalies that correlated with a northwest trending magnetic anomaly attributed to the presence of amphibolite (Coughlan and Joy, 1981).

6.4.7 South Butter

The South Butter zone is located along the southern claim boundary against the Carmacks Property. It overlaps with northwest trending anomalous copper in soil values from UKHM's soil programs. In 2009, BC Gold found malachite bearing aplite with weak epidote and muscovite alteration trending 315°. A grab sample from a 0.5m subcrop exposure assayed 0.33% Cu (Pautler, 2015).

6.4.8 4000N

The 4000N zone is a 2 km long coincident copper in soil and geophysics anomaly that was detected by airborne geophysics in 1993 and followed up in 1994. The highest copper in soil value was 323 ppm (MacNaughton, 1994). Prospecting in 1994 did not locate any outcrop, but the area has been burnt since that time which may expose some outcrop. There is no record of further surface work on the zone, but an overgrown road/trail leads to within 1 km of the zone.

6.4.9 Zone 2 Extension

Zone 2 is the discovery outcrop located on Granite Creeks Carmacks deposit claims, about 200m south of the Carmacks North property boundary. Samples over the zone in the trench averaged 1.0% Cu over 45.7m. In 2014 Copper North returned to Zone 2 and expanded the strike length to 500m to the southeast through trenching and drilling on IP chargeability anomalies. Trenching on the north extension uncovered a cross fault which truncates the zone 20m northeast of the discovery outcrop.

The Carmacks deposit and claims, including Zone 2, are now owned by a common operator (Granite Creek Copper). Zone 2 Extension appears to be a truncated, offset extension of Zone 2. At the Carmacks deposit, some of the mineralized zones are offset by cross faults and that pattern may continue north of Zone 2. In 2019, 150 soil samples were collected along 4 lines, 1500m long and spaced 100 m apart along the southern border of the Carmacks North claims, where they adjoin to Granite Creek Coppers Carmacks deposit. Overall copper results were low, ranging from 12 to 47 ppm, with no obvious clustering or pattern of higher values. Gold results ranged from 0.5 to 68.6 ppb. Silver and molybdenum values were mostly below detection.

6.4.10 Hooche, Crown and Beavon

These three occurrences were added to the Carmacks North property in 2018. Foliated- to gneissic-granodiorite is mapped in the area. Additionally, soil coverage from UKHM and BC Gold, plus a minor amount of ground geophysics work by BC Gold has been done.

Three rock samples of foliated granodiorite and limonite, and 10 soil samples were collected from the Hooche Zone. None of the sample were anomalous, despite the relative abundance of foliated granodiorite. Hooche was not sampled during the large soil surveys from the 1970s but was lightly tested with MMI soil sampling by BC Gold.

The Crown Zone at the northwest end of the property was chosen as a target following compilation of historic soil samples and a review of historic mapping. Historic mapping south of Crown and overlapping onto unstaked ground, showed a large area underlain by quart-feldspar gneiss, the favourable host rocks for Minto style mineralization. Twelve rock samples and 51 soil samples were collected. Two previously unknown trenches were found during the traverse. All rock samples collected in the area were low in copper and gold and no mineralization was seen in the trenches or in outcrop. Two samples, preliminarily mapped as amphibolites, ran anomalously in Ni, Mn, Fe, (+/- Zn, Ca, Cr, Mg) suggesting a mafic origin. Whether they are of Povoas origin is still to be determined.

The location of Beavon is uncertain. It is located south of a large area historically mapped as quartz feldspar gneiss but associated with only scattered soil anomalies. The showing was not visited in 2019.

7 2020 Program

7.1 Overview

Between July 06 and 31, 2020 True Point Exploration carried out a work program on the Stu Copper Project (now known as Carmacks North) in conjunction with the YMEP funded 2020 Bonanza King Project (July 25-31, 2020). The work outlined in this YMEP application is regarding the Phase 1 relogging and soil sampling program done at the Carmacks North. As alluded to earlier, a Phase 2 drilling, trenching and road maintenance program also took place at the Carmacks and Carmacks North projects, however this was done during the fall and early-winter of 2020 and not funded by YMEP.

The program was conducted during the COVID 19 pandemic and at the time, this included a mandatory 2-week quarantine for all workers mobilizing into camp, with no thru-traffic allowed in/out of camp during that 2-week period. The number of passengers in helicopters and trucks were adjusted to conform with COVID-19 regulation set-out by the Government of Yukon. No cases of sickness and/or COVID-19 related symptoms were reported by any workers at camp during the 2-week mandatory quarantine and throughout the timeline of the program.

During Phase 1, the work was carried out by True Point Exploration staff and contractors, while being funded by Granite Creek Copper with assistance from YMEP. The program consisted of relogging and resampling 1980s drill core and a small, 1-day, multi-element soil program over Zone A. Nine (9) drill holes were analyzed using handheld spectral and magnetic susceptibility instruments (TerraSpec Halo, GDD MPP Probe) and then relogged and resampled. The core was selectively sampled in the 1980s, in which only mineralized (or thought to be mineralized) zones were sampled. The very-high Au detection limits at the time of assays resulted in gold values being not accurately recorded. The purpose of resampling the 1980 core was to relog and resample all the core, not just selectively, and to determine previously unsampled mineralized zones and to determine precises Au values in the core. Additionally, the purpose of the work was to better grasp alteration assemblages that would vector towards high-grade Cu—Au mineralization. Additionally, magnetic susceptibility, as well as relative and absolute EM conductivity readings, were recorded to better understand geophysical signatures of mineralized versus unmineralized zones. Single-element (Cu) soil sampling was previously done over Zone A in the 1970-1980s, but multi-element soil sampling was completed during the 1x day soil program.

A total of 9 drill holes were relogged and resampled, totalling 712 drill core samples sent out for assays. Additionally, a total of 59 soil samples were collected and assayed from the 1-day soil sampling program over Zone A. The program consisted of 18 days of field work and 89 person days. A Bell Jet Ranger 206 helicopter was used to sling core from the historic Stu camp to the Carmacks trailer camp (Carmacks deposit). The core was logged in the core shack at the Carmacks trailer camp. The helicopter was also used to mobilize soil sampling crews to/from the Zone A field area. The average number of people in camp was 5 and the cost was $113,358.2 based on YMEP rate guidelines**.** **Figure 6-3** shows the 2020 work area (Zone A) and location of the Historic Zone A and Carmacks trailer camps.

7.2 Relogging and resampling 1980s core

Drill core was slung from the Historic Zone A camp (where it was originally logged and racked) to the Carmacks trailer camp (2020 base of operations) (**Figure 7-1**). The distance between the two camps is ~11km (straight

line) and a Bell Jet Ranger 206 helicopter was used to sling all core to the Carmacks trailer camp, where it was relogged and resampled (**Figure 7-2**).

A total of 9 drill holes were relogged and entirely resampled, resulting in 712 total drill core samples collected and assayed. A basic 3D deposit model was created using historic data and this model was used to choose which holes to relog. Because the core was left out in the elements for ~40-year period a lot of the core had degraded to rubble and or very fine-grained, silt/clay-rich sections, especially the original fault/gouge zones. It was agreed early-on by geological and management staff, that the entirety of the remaining core would be 'completely' resampled. No physical core from the 9 relogged and resampled drill holes remains, except for the great number of detailed digital photos taken. Since the core was all resampled, it was necessary to extract as much information and data as possible. Detailed logging (lithology, structures, alteration, veins, mineralization) and geological observations were recorded in the drill logs. Note that hole 80-14 was resampled and relogged in phase 2 of the program and results are not included in this report.

Complete drill logs for all nine holes and accompanying assay data for all drill core samples (712) can be found in **Appendix B.** Strip logs comparing the 1980 and 2020 results are in **Appendix C.** Additionally, XRF, spectral and magnetic susceptibility handheld instruments (Portable XRF, TerraSpec Halo and GDD MPP Probe, respectively) were used to record analytical measurements on the core, and this data is provided in **Appendices D and E.**

7.2.1 Comparison of 1980 and 2020 Analysis Results

1980 core samples were analysed for Cu, Au and Ag at the United Keno Hill Mines mine lab near Keno, YT. The lower detection limit for gold and silver was 0.01 oz/t or 0.343 g/t which is high by modern standards and is within the range of economic values for gold. See table below for lower detection limits (LDL). The inaccuracy of the lower detection limit for silver and gold was one of the factors driving the reassay program.

Year	LDL Cu (ppm)	LDL Au (ppm)	LDL Ag (ppm)
1980	10	343	343
2020	2	0.0005	0.5 ppm

Strip logs in Appendix G provide a visual comparison of the 2 sets of analyses. In each element pair, the 1980 values are shown on the left and the 2020 values on the right. On the copper plots, 1980 sample intervals are shown with black lines and 2020 sample intervals with red lines. Holes were sampled in their entirety in 2020 except for 80-22 and where there were missing boxes. Missing boxes are denoted in the strip log as NR (no recovery) and show no sample interval.

For gold, the 1980 values are inflated by the high detection limit of 0.343 g/t. This is readily apparent in holes with gold values below 0.3 g/t. Hole 80-15 is a good example.

For silver, the 2020 analyses show a wider range of values and an overall increase when compared to the 1980 results. Hole 80-13 and 80-18 are good examples.

For copper, the results for the 2 years are similar. The issue of high detection limits is not a concern as the detection limits are not close to economic values of copper.

There were few mineralized zones missed in the 1980 sampling and those that were (80-08) were short and of lower grade. An increase in silver values was observed and the strong increase in accuracy of gold analysis below 0.4 g/t will be vital in producing an accurate maiden resource.

Figure 7-1: Senior Geologist, Debbie James awaits shipment of core. Jet Ranger 206 helicopter slings core from the Historic Zone A camp to the Carmacks trailer camp, where it was relogged and resampled

Figure 7-2: Geologists relogging a historic drill hole from Zone A

7.3 TerraSpec Evaluation of drill core

The TerraSpec Halo mineral ID data was integrated within the 10-foot assay composites for the drill holes tested with the TerraSpec. This was done in an attempt to identify broad correlation's between grades and TerraSpec mineral ID. This was done to evaluate the efficacy of using the TerraSpec as a prospecting tool.

Ten-foot composites of Cu and Au assay interval integrated with the main mineral identified in the TerraSpec library. The results were evaluated in terms of relationships to main mineralized intercepts for all data available. The data was spliced to evaluate zones with higher Cu grade (i.e. Cu>0.5%).

7.3.1 Grade versus Mineral ID

It appears as though the mineral identified as "K-illite" has higher Au and Cu grades, but the frequency of this mineral ID is extremely low, with only two positive ID's for K-illite, one of which was a "false positive" (**Figures 7-6, 7-7**). Average Cu grade (%) and Au grade (g/t) versus mineral IDs are plotted in **Figures 7-3** and **7-4** respectively, with total number of TerraSpec mineral IDs from all drill holes in **Figure 7-5.**

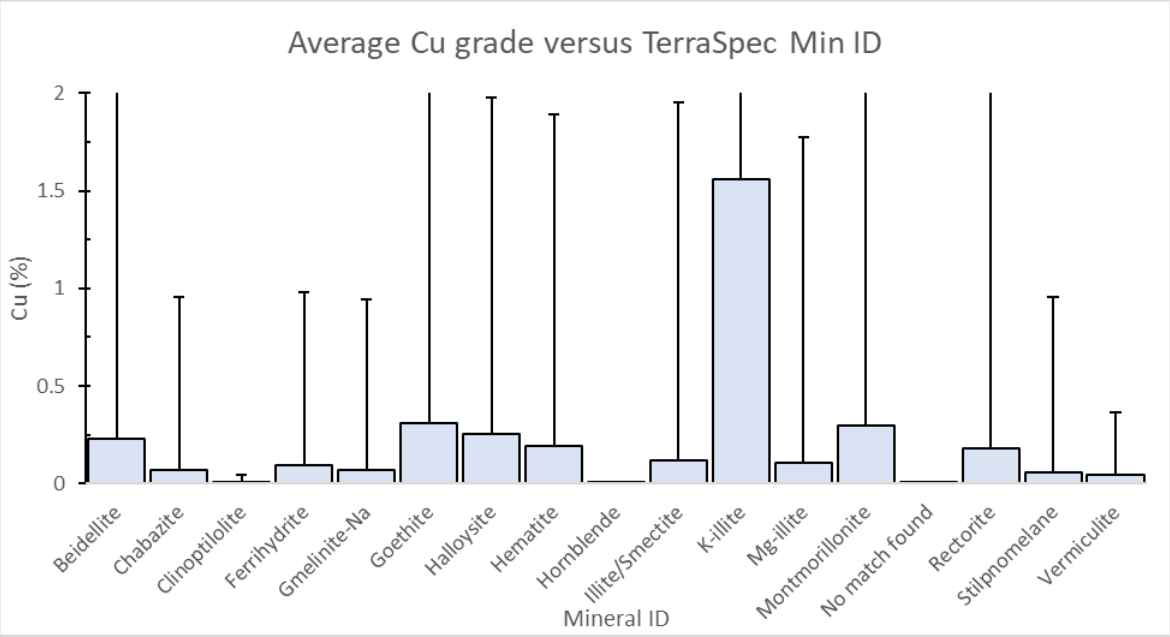


Figure 7-3: Average Cu grade (%) versus TerraSpec Min ID

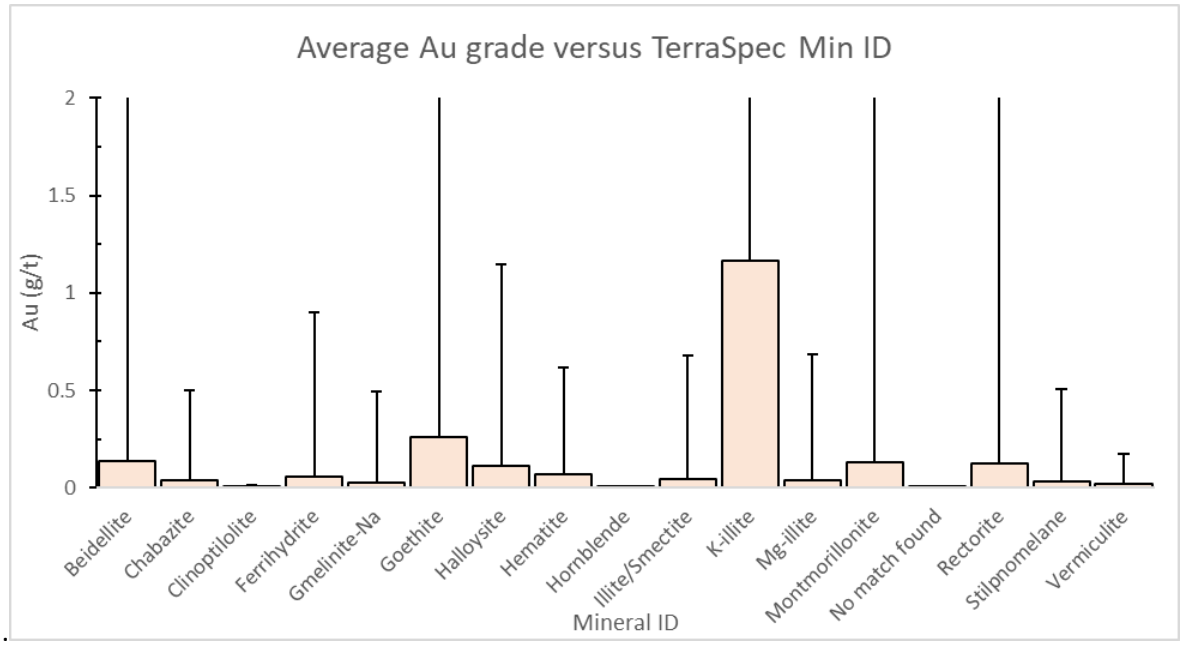


Figure 7-4: Average Au grade (g/t) versus TerraSpec Min ID

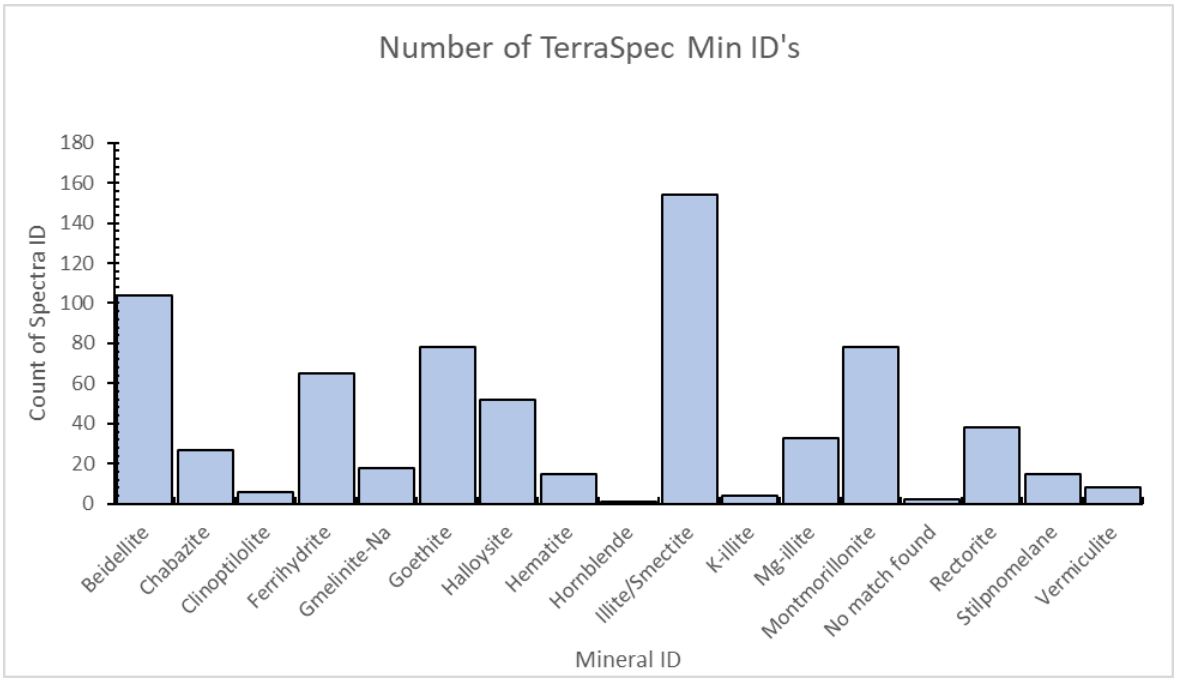
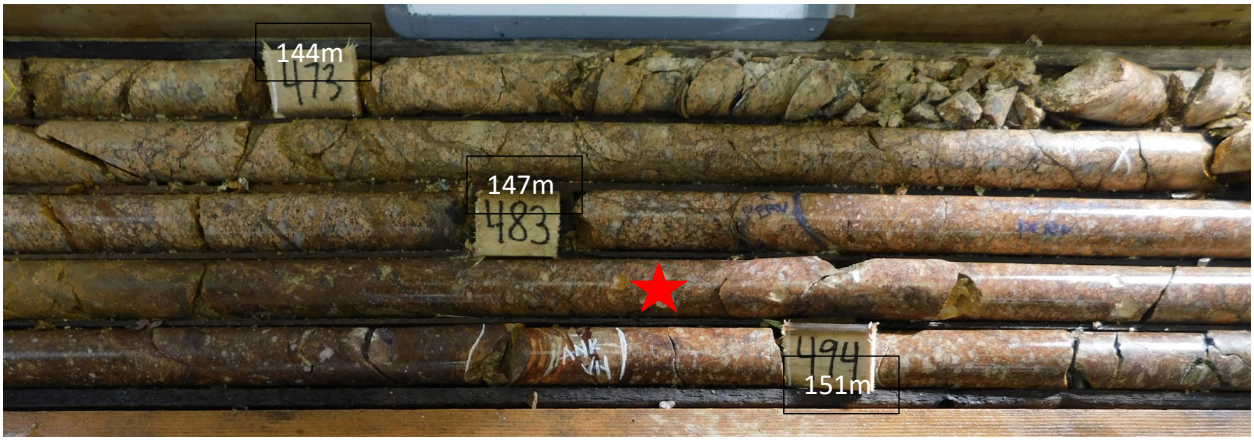


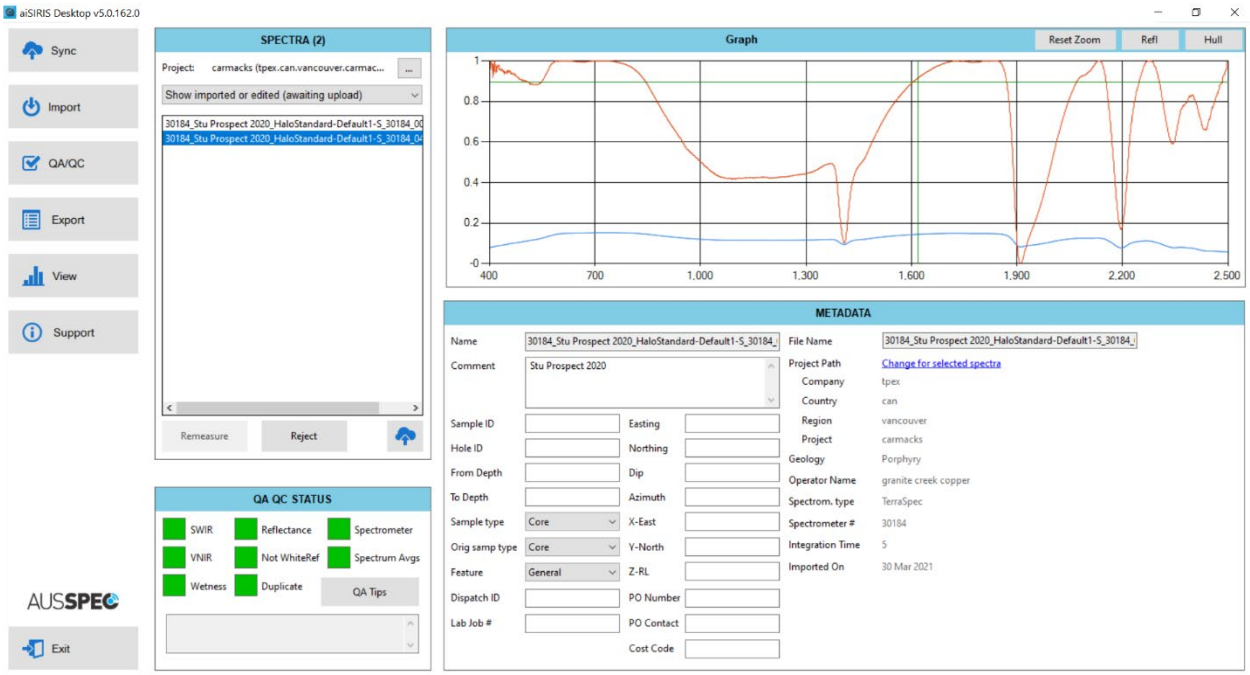
Figure 7-5: Number of TerraSpec Min IDs

7.3.2 K-illite Examples

DDH 80-22



TerraSpec reading @ 490ft.

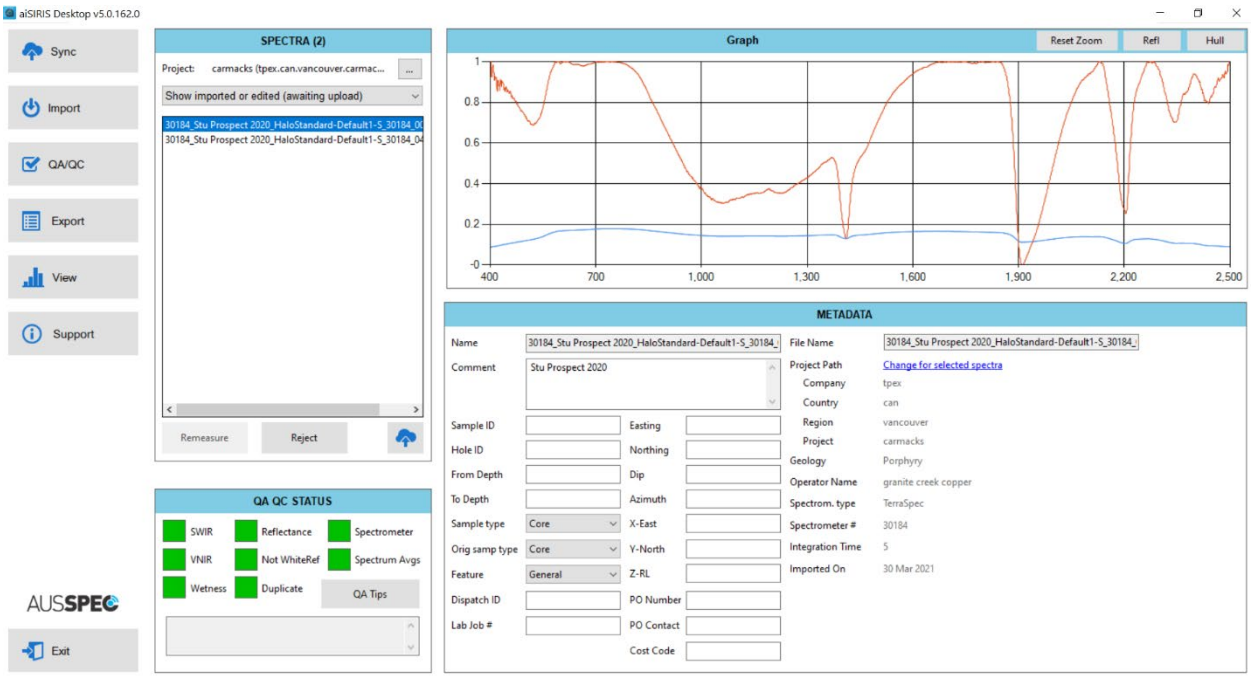


Grade	Mineral ID
Au (g/t): 0.00025, Cu(%): 0.0001.	K-illite, Beidellite, Vermiculite.

Figure 7-6: Location of TerraSpec reading on DDH 80-22 (490 ft.) and corresponding spectra plot (K-illite signature)

DDH 80-18

TerraSpec reading @ 218ft.



Grade	Mineral ID
Au (g/t) 2.4; Cu (%): 3.2	K-illite & Iron Saponite

Figure 7-7: Location of TerraSpec reading on DDH 80-18 (218 ft.) and corresponding spectra plot (K-illite signature)

7.3.3 Higher-grade Mineral IDs

The dataset was spliced to evaluate higher copper grades and minerals identified within these higher-grade zones. Minerals within the composite that were >0.5% copper are plotted in **Figure 7-8** below. Note on mineral groups; smectite group (beidellite, montmorillonite, rectorite); Zeolite group (chabazite, gmelinite-Na); Iron oxides (goethite, hematite); Kaolinite group (halloysite).

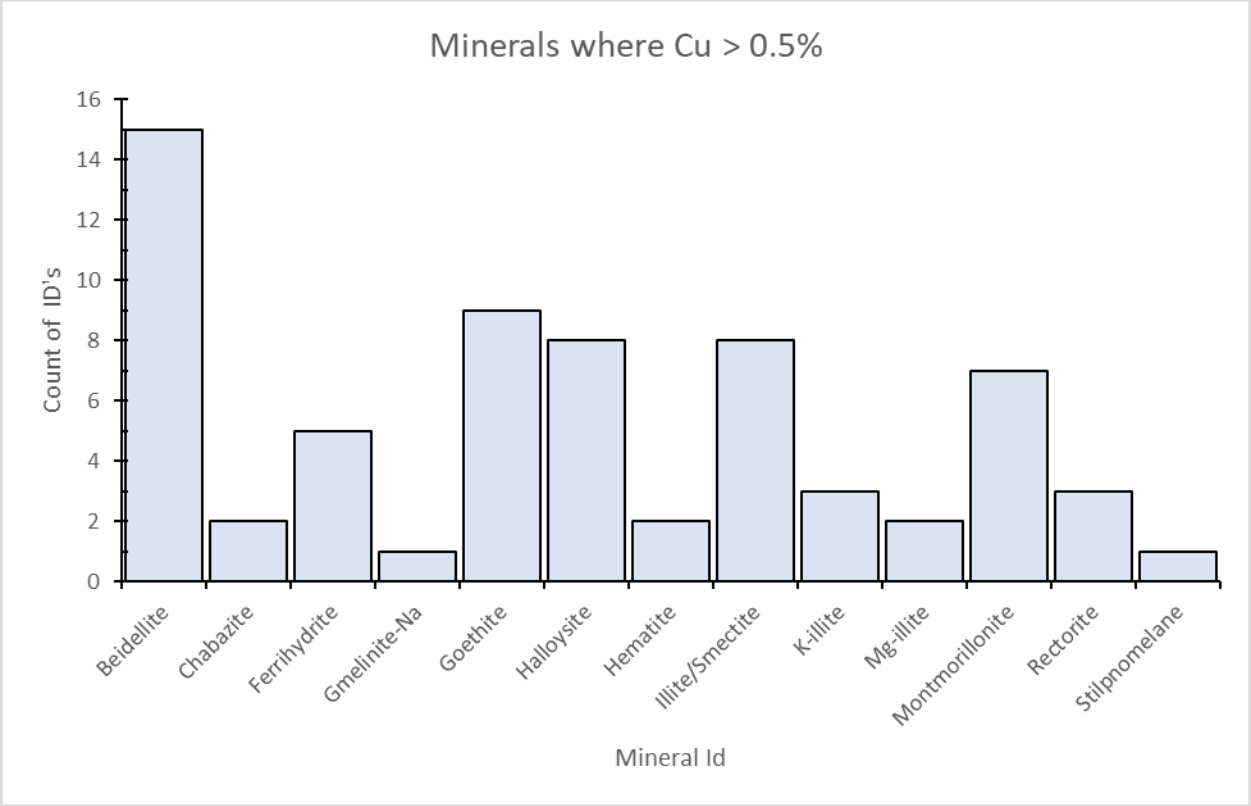


Figure 7-8: Minerals present in drill core with values >0.5% Cu

7.3.4 Interpretations and Conclusions

The abundance of iron oxides and illites/smectites can occur with/without a magmatic component fluid. Difficult to tell if occurred from a magmatic hydrothermal fluid since the core was drilled in 1980s and was exposed to the natural elements over the years. These above-mentioned minerals are typically formed during weathering processes and are most likely unrelated to the formational temperatures of sulfide deposition.

The major minerals identified in the TerraSpec library correspond with weathering and are unlikely to be related to main mineralization event which is interpreted to be near magmatic conditions. Greater abundances of k-illite and mg-illite would be expected in epithermal environments for vectoring. Although only ~5% (37/700) of analyses confidently detected k-illite and mg-illite.

It is concluded that the TerraSpec may not assist in vectoring toward higher grade mineralized intercepts, but rather identifies the oxidation and weathering of the drill core. The TerraSpec data may be effective in future metallurgical studies.

See **Appendix D** for assays and TerraSpec composite data of the 9 drill holes analyzed, with pivot chart data also in associated sheets.

7.4 Magnetic Susceptibility of drill core

Magnetic susceptibility, as well as relative and absolute EM conductivity readings, were recorded to better understand geophysical signatures of mineralized versus unmineralized zones. A Multi Parameter Probe (MPP) was used to collect reading at 5' (1.5m) intervals along the core. The core was originally logged in imperial so it was more efficient to continue working in feet and convert to metres once the data was collected.

Magnetic susceptibility data for the 9 drill holes can found in Appendix E and strip logs displaying magnetic susceptibility values, lithology and a comparison of gold, silver and copper results are in Appendix G.

7.5 Zone A soil sampling

A full-day was spent soil sampling across Zone A, where a total of fifty-nine (59) soil samples were collected at 100m intervals along 6 lines spaced 200m apart. Thick forest, wet conditions, and intersections of permafrost in the lower lying areas, made working in this area difficult. Results from the sampling were promising with 20/59 samples running between 30 – 84 ppm Cu which is indicative of mineralization at the Zone A target (**Figure 7-9**). All 59 soil samples returned below MDL (method detection limit – acid digest) concentrations of silver (<0.5 ppm Ag) and molybdenum (<2 ppm Mo). Additionally, around half of the soil samples returned below MDL (method detection limit – acid digest) concentrations of gold (<0.5 ppb Au), while the other half returned values between 1 – 6 ppb Au and one sample returning 15 ppb Au. Interestingly, a single soil sample returned a highly-anomalous gold value of 594 ppb Au (0.59 g/t Au) (**Figure 7-10**). Further multi-element soil sampling to the S-SE of this anomalous gold target is recommended.

A list of locations and soil-assay data (Au ppb, Cu ppm, Zn ppm) for all 59 soil samples is shown in **Table 7-1**. The raw soil-assay data for all 59 soil samples can be found in **Appendix F**.

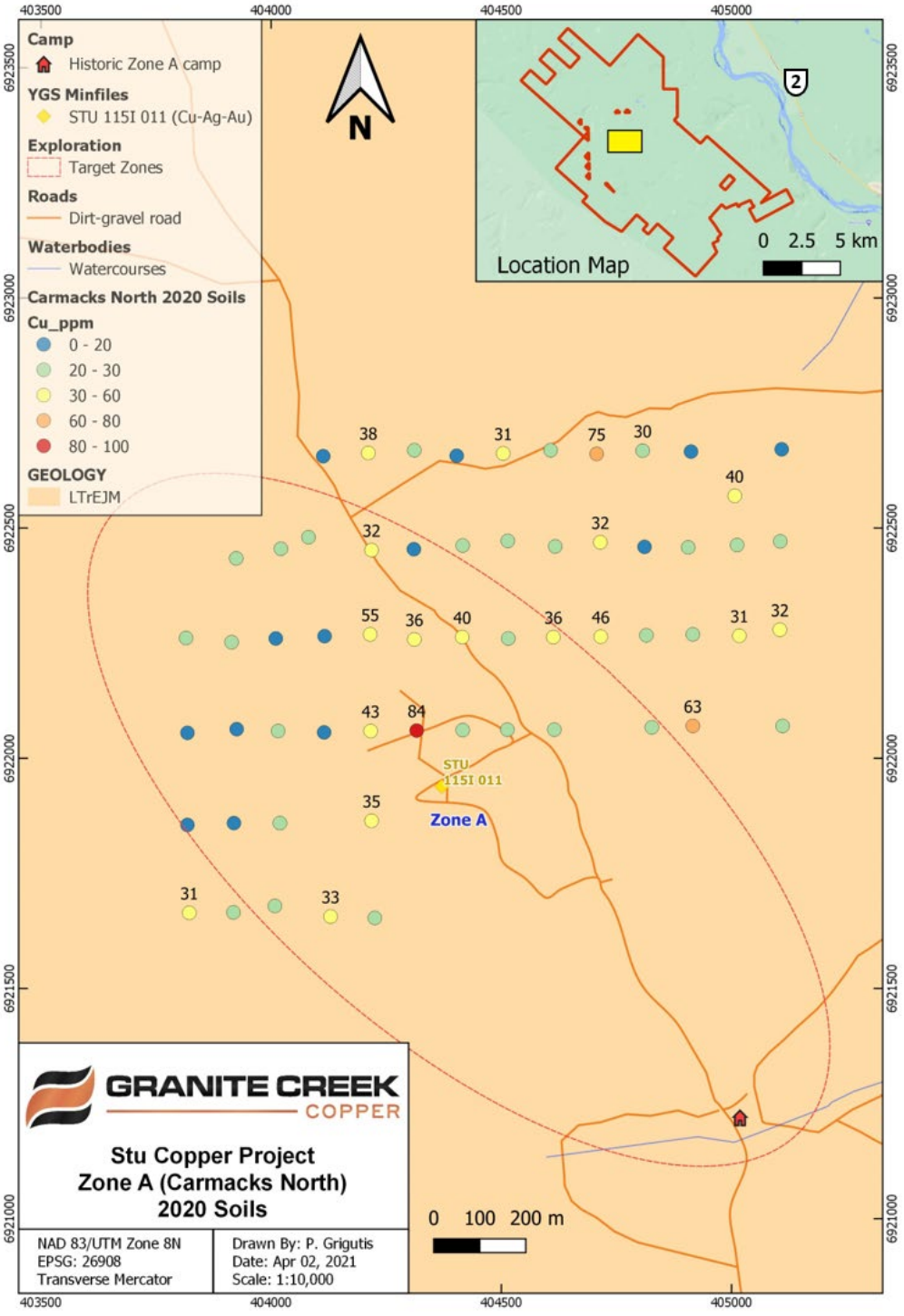


Figure 7-9: Results from the 2020 soil sampling program over Zone A at the Carmacks North (formerly, Stu) property. Values >30 ppm Cu are labelled

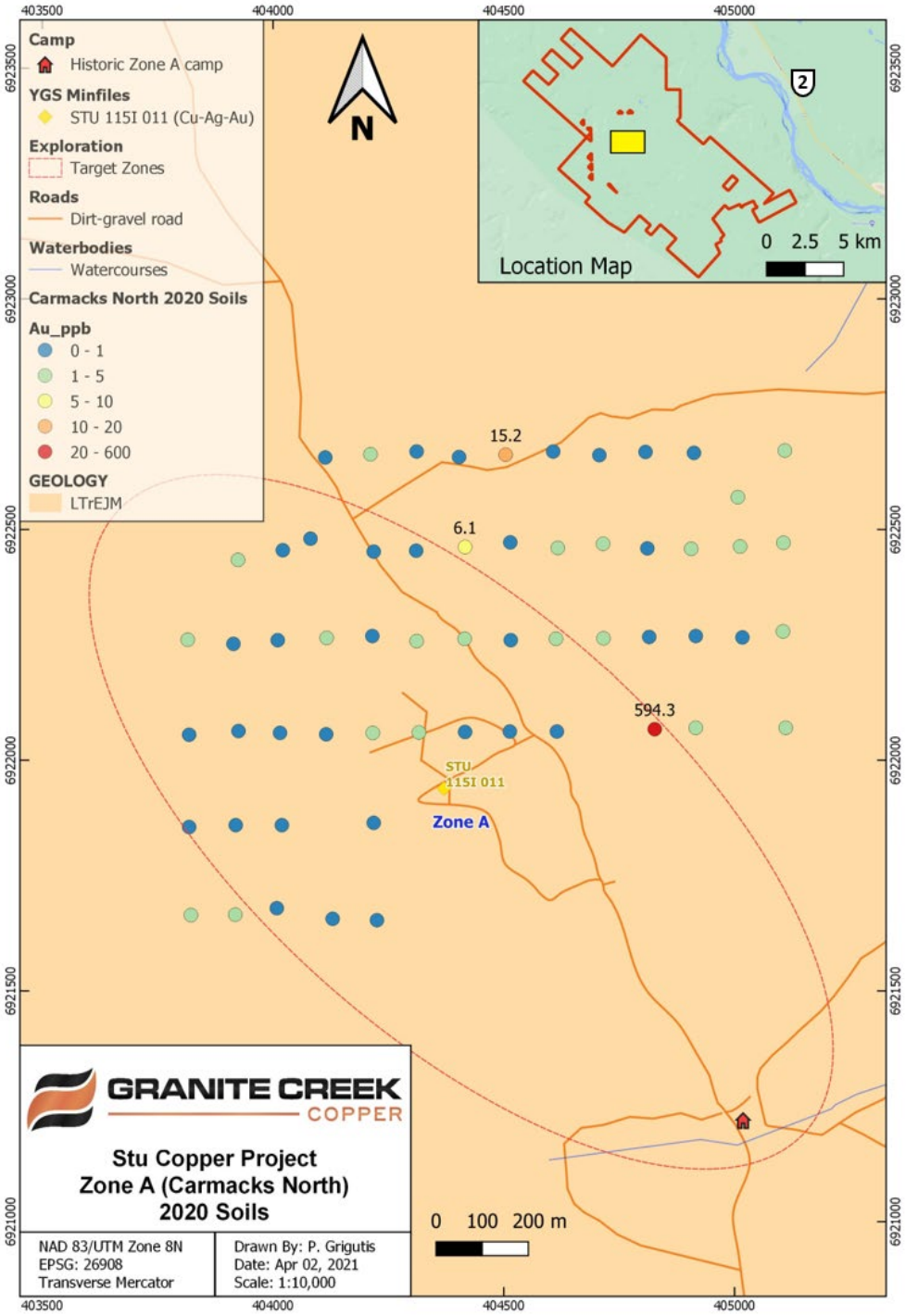


Figure 7-10: Results from the 2020 soil sampling program over Zone A at the Carmacks North (formerly, Stu) property. Values >6 ppb Au are labelled

Table 7-1: Sample locations and assay data for the 59 soil samples collected

Soil Sample ID	Zone	UTM East	UTM North	UTM Elev.	Au ppb	Cu ppm	Zn ppm
494813	8N	405109	6922671	822	3.5	17	77
494814	8N	405007	6922570	844	1.9	40	84
494815	8N	404912	6922666	842	0.7	19	90
494816	8N	404807	6922668	861	<0.5	30	71
494817	8N	404707	6922661	871	<0.5	75	92
494818	8N	404607	6922669	889	1.0	28	59
494819	8N	404504	6922662	903	15.2	31	87
494820	8N	404403	6922657	904	<0.5	18	111
494821	8N	404311	6922669	907	<0.5	26	50
494822	8N	404211	6922663	911	2.1	38	64
494823	8N	404113	6922656	916	<0.5	15	98
494827	8N	405106	6922471	816	2.2	28	61
494828	8N	405012	6922463	822	3.6	25	54
494829	8N	404906	6922458	829	1.6	21	58
494830	8N	404811	6922459	838	1.0	20	54
494831	8N	404715	6922469	843	1.3	32	48
494832	8N	404617	6922460	861	1.2	21	56
494833	8N	404514	6922472	873	0.9	27	57
494834	8N	404416	6922462	889	6.1	23	60
494835	8N	404310	6922454	900	<0.5	19	60
494836	8N	404218	6922452	911	0.8	32	59
494837	8N	404081	6922480	922	<0.5	25	49
494838	8N	404021	6922455	933	<0.5	23	52
494839	8N	403924	6922434	962	2.0	22	60
494841	8N	405105	6922279	858	1.2	32	55
494842	8N	405017	6922266	862	<0.5	31	51
494843	8N	404916	6922269	870	<0.5	21	49
494844	8N	404815	6922267	883	<0.5	21	49
494845	8N	404716	6922264	895	1.2	46	47
494846	8N	404613	6922263	908	2.1	36	56
494847	8N	404515	6922260	913	<0.5	23	55
494848	8N	404415	6922263	916	1.2	40	72
494849	8N	404311	6922258	919	2.4	36	66
494850	8N	404215	6922269	923	0.5	55	52
494851	8N	404116	6922265	927	1.3	20	53
494852	8N	404010	6922260	930	<0.5	8	82
494853	8N	403914	6922252	933	<0.5	22	92
494854	8N	403815	6922261	935	1.7	25	84
494855	8N	405111	6922070	830	2.1	25	66
494857	8N	404916	6922070	847	1.5	63	49
494858	8N	404827	6922067	860	594.3	22	87
494860	8N	404615	6922062	888	1.0	21	55
494861	8N	404513	6922062	876	<0.5	28	43
494862	8N	404416	6922061	903	<0.5	24	53
494863	8N	404316	6922060	913	4.7	84	65
494864	8N	404216	6922059	920	1.3	43	61
494865	8N	404115	6922056	935	1.0	20	155
494866	8N	404015	6922059	956	0.9	24	68
494867	8N	403925	6922063	982	0.7	14	125
494868	8N	403818	6922055	1001	0.8	13	117
494878	8N	404218	6921864	923	<0.5	35	127
494880	8N	404019	6921859	957	<0.5	21	94
494881	8N	403919	6921859	965	<0.5	9	98
494882	8N	403818	6921855	959	<0.5	18	101
494892	8N	404225	6921653	926	<0.5	24	94
494893	8N	404129	6921656	935	<0.5	33	111
494894	8N	404008	6921679	949	0.6	25	94
494895	8N	403918	6921665	954	1.4	22	105
494896	8N	403822	6921664	956	1.4	31	62

8 Interpretation and Conclusions

The Minto Copper Belt has been proven fertile, with one operating copper mine (Minto Mine – Pembridge Resources) and one advanced deposit (Carmacks deposit – Granite Creek Copper), with the latter working towards resource definition and future production. The Carmacks Northproperty lies on strike between the two deposits. The host-rocks are similar in age and lithology, show complementary styles of mineralization, and copper values from limited drilling results are of comparable calibre.

Over the last decade, exploration of Triassic-Jurassic porphyry targets in the northern Cordillera has taken significant new directions. The discovery of deep, structurally controlled porphyry roots at the New Afton mine near Kamloops and at Red Chris in northern B.C. and expansion of reserves at Minto, has created new mining opportunities and a shift in focus from broad, low-grade, shallow targets to much higher grade, albeit less accessible resources (Nelson et al, 2013).

The Carmacks North property is along a continuum of mineralization from the flat-lying, sulfide-dominant deposit at Minto mine, to the near vertical, oxide-dominated deposit at Carmacks. Since the last drilling program at Stu in 1989, work at the Minto mine and Carmacks deposit has added considerably more understanding of deposit characteristics and geometry, and these insights can be applied to exploration on the Carmacks North property.

The systematic 2020 Phase 1 remediation and relogging program saw 9 drill holes from the 1980s relogged and reassayed. Geological characteristics, structures, mineralization styles and alteration envelopes were studied in detail. Spectral analysis (TerraSpec Halo) and magnetic susceptibility (GDD MPP Probe) data was also recorded for all drill holes. Work from this program will aid in future drill targeting and exploration programs. The Phase 2 drill program at Zone A (Q3-Q4, 2020) produced exceptional results, in part due to the robust understanding of the geology, structures and mineralization from the Phase 1 relogging and reassaying program of historic Carmacks North drill core.

The reassaying program produced an increase in silver content, increased the accuracy of gold analysis and confirmed the accuracy of the 1980 copper analysis. New short sections of low to moderate grade were found.

The lack of outcrop raises the importance of soils as a consistent layer of information over the Carmacks North. Historically, the property has been well covered by soil sampling although, historic sampling programs focused on single-element (Cu) analyses – which at the time, proved to be an effective tool for exploration. The aim of the Zona A sampling program was to cover the central and northern sections, with multi-element soil analyses. Originally, a multi-day sampling program was planned, but due to the very wet year and COVID-19 regulations, the helicopter activity was focused on slinging the 1980s core from the historic Zone A camp. The 1-day multi-element, soil sampling program produced robust results. Of 59 total soil samples taken, 20 of them returned copper values >30 ppm Cu which is indicative of an anomaly in this area. Furthermore, one soil sample returned a highly-anomalous gold value of 594 ppb Au (0.59 g/t Au). Further soil sampling to the S-SE of this anomalous gold target is recommended. These results warrant further infill and overlap multi-element geochemical soil programs to be planned in the targeted zones.

9 Exploration Recommendations

Robust results from the Phase 1 relogging and reassaying program of historic core, as well as the multi-element soil sampling campaign over Zone A warrants future soil and drill programs on the Carmacks North property. The Phase 2 (Q3-Q4, 2020) drilling program, independently funded by Granite Creek Copper, was successful partially due to results gathered from the Phase 1 program.

Early-stage targets include potential extensions of Zones A and C and the named zones on the rest of the property. During the Phase 2 program, one trench (TRSTU20-001) was successfully dug (E-W) on the eastern-side of Zone A, intersecting foliated granodiorite (trending NW-SE) with both oxide ± sulfide mineralization. Future work at Zone A should follow up with continued mechanized trenching on the eastern-side of Zone A, to determine if possible mineralized lenses run parallel to, or feed into, the already known mineralized lenses at Zone A. Several existing trenches at Zone A should be extended further eastward, as possible intersections with mineralized lenses are speculated. There are soil anomalies north of Zone A coincident with two magnetic lineaments and soil anomalies east of Zone A extending past the Nic showing. These areas are candidates for possible ground geophysics and trenching. Additionally, there is an outcrop at the southern end of Zone C that has not been trenched and further south there are soil anomalies between Camp Creek and Hoocheekoo Creek that could cover an extension of Zone C. Mapping shows foliated granodiorite in this area. South of Zone C, a soil anomaly extends towards Zone B.

There are multiple exploration targets at Carmacks North and depending on the budget available they can be advanced separately or simultaneously. Zones A, B and C are advanced targets ready for drilling and mechanized trenching.

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Websites

Pembridge Resources https://www.pembridgeresources.com/

Granite Creek Copper https://www.gcxcopper.com/

APPENDIX A: Date, Signature and Certificate of Author

I, Deborah Ann Rachel James of 11-3194 Gibbins Road, Duncan, British Columbia, do hereby certify the following:

- I am a Professional Geoscientist in good standing with the Association of Professional Engineers and Geoscientists of B.C.
- I graduated from the University of British Columbia with a B.Sc. degree in Geological Sciences in 1988
- I have been employed continuously in the mineral exploration and mining industry since 2006 and have been practising my profession as a geologist continuously since 2006.
- I have worked in the Yukon Territory in 1988-1989 and from 2006-present. During that time I have worked in the field on the Mt. Skukum Au-Ag vein deposit near Carcross, YT, the Nucleus and Revenue Cu-Au Porphyry deposits at the Freegold Mountain Property in the Dawson Range, Ni-Cu-PGE occurrences in the Kluane Ranges in southwest YT, Ag-Pb veins in the Keno Hill District, and the Cu-Au-Ag Carmacks deposit. I have participated in technical fieldtrips at the Minto mine.
- I supervised the Carmacks North (formerly Stu) work described herein;
- I wrote a Technical Report for Granite Creek Copper on the Stu Copper Property (November 15, 2018).

Debbie James

Deborah James

I, Povilas G. Grigutis, of the City of Mississauga, in the Province of Ontario, do hereby certify the following:

- That I am hired as a contract geologist by TruePoint Exploration, currently fulfilling requirements towards a professional geologist designation. I worked on the Carmacks and Carmacks North properties during the 2020 field season.

- I am a graduate of Western University; B.Sc. Geology, 2017; M.Sc. Economic Geology, *April 2021.*

- I have worked in the field of geology and mineral exploration in Canada (ON, QC, MB, YT) part-time since 2015, including roles as; geological assistant/intern, production and exploration geologist.

- That I am a contract employee of TruePoint Exploration – which is the exploration arm for the Metallic Group of Companies (which includes Granite Creek Copper), to whom I have been employed since 2020.

- I consent to the use of this report by Granite Creek Copper for such assessment and/or regulatory and financing purposes deemed necessary.

Dated at Mississauga, Ontario this 4th day of April 2021.

Povilas. Grigutis

Povilas. Grigutis B.Sc. M.Sc.
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APPENDIX B: Drill logs-assay data

See digital appendices.

APPENDIX C: Strip Logs

APPENDIX D: TerraSpec assay and composite data

See digital appendices.

APPENDIX E: Magnetic susceptibility data

See digital appendices.

APPENDIX F: 2020 Zone A Soil-Assay composite data

See digital appendices.