

**GEOLOGICAL, GEOCHEMICAL, PETROGRAPHIC
and COMPILATION ASSESSMENT REPORT
on the
STU PROPERTY**

(STU 1-72: YC37770-95, YC40249-76, YC 40201-18)
(STU 73-132: YC65256-315)

NTS: 115I/7

Latitude 62°25'N

Longitude 136°50'W

Whitehorse Mining District

Work performed between July 2 and 6, 2008
Compilation work performed January, 2009

For :

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SUMMARY:

The 2760 hectare STU property, NTS map sheet 115I/7, lies within the Carmacks Copper (-Gold) Belt and is located approximately 60 km by road northwest of Carmacks, which is 177 km by road from Whitehorse, Yukon Territory. The property is situated in the Whitehorse Mining District with a latitude and longitude of 62°25'N, 136°50'W. Mr. Bill Harris of Whitehorse, Yukon is the owner and funded the current program.

The Carmacks Copper (-Gold) Belt includes the Carmacks Copper deposit (Williams Creek) of Western Silver Corporation, containing 12.0 million tonnes of copper oxide ore grading 1.01% Cu (0.86% oxide Cu), and 0.5 g/t Au and 4.6 g/t Ag, using a cutoff grade of 0.25% Cu, and the Minto deposit of Capstone Mining Corporation, currently under production, with 19.3 million tonnes of sulphide ore grading 1.42% Cu, 0.5 g/t Au and 5.4 g/t Ag using a cutoff grade of 0.5% Cu.

The STU property is primarily underlain by Early Jurassic intrusive rocks of the Granite Mountain Batholith intruding the Paleozoic metamorphic basement rocks of the Yukon Tanana Terrane and overlain by younger volcanic rocks of the Late Cretaceous Carmacks Group. Exploration on the STU property has been hampered by lack of exposure, thick overburden cover, variable but generally poor soil profiles, local cover by magnetic Carmacks basaltic rocks and unavailability of results from previous programs.

Mineralization consists of chalcopyrite and bornite with minor pyrite and locally abundant magnetite as disseminations, irregular grains and aggregates, associated with more foliated sections trending 130° with magnetite-silica and biotite alteration. The highest gold and silver values are associated with bornite-rich sections. The host rocks, structures, mineralization and alteration at STU are similar to the Minto and Carmacks Copper deposits, which have been described as metamorphosed porphyry copper-gold deposits.

Previous results from the STU property include 3.51% Cu, 2.5 g/t Au and 18.4 g/t Ag across 13.5m from DDH 80-14 in Zone A, with three of the 1980 diamond drill holes returning intersections exceeding 2.5% Cu. The rotary drill program returned maximum results of 0.71% Cu over 1.5m in hole SB-6 from Zone B.

The 2008 program consisted of mapping, geochemical sampling and a petrographic study of mineralization from the three known showings on the property. In January, 2009 a compilation of recent work, and integration with known historical work and with new advances in research on the genesis of the Carmacks Copper (-Gold) Belt was undertaken.

In 2006 and 2008 mineralization was found to have a direct relationship with the presence of secondary biotite, the presence of magnetite and hematite, and the development of a foliated to gneissic texture, which trends 130° (commonly with 70°NE dips). Secondary copper minerals such as malachite and azurite are relatively uncommon and sulphide

minerals predominate within the mineralized zones. Possible gold was detected in the petrographic study from Zones B and C.

Zone A appears to be the main zone of interest on the property with results of >0.1% Cu to 0.67% Cu and a maximum of 470 ppb Au obtained in 2005 to 2008 from samples over a 400m strike extent and up to 95m width. Malachite has been noted an additional 400m to the southeast. This probably corresponds to the zone 914m long and up to 91m wide that was delineated by United Keno Hill Mines Limited in 1977-79. The zone does not appear to have been completely delineated. The zone was explored by 24 diamond drill holes in 1980 so results from the 1980 diamond drill program are critical in the evaluation of this area.

Mineralization in Zone B is often high grade over narrow widths suggesting a distal signature. Potential exists at depth in the area between Trench B3 to B6 area, which returned the best copper-gold-silver results (maximum 2.86% Cu and 2.56 g/t Au), and along strike to the northwest (northeast of the trenches to the north) and to the southeast, where little work has been completed. Diamond drilling may be necessary to trace the mineralization if it lies at depth. Rotary air blast drilling may be useful in tracing mineralization along strike in previously untested areas.

Similar mineralization to Zones A and B is exposed in Zone C. Mineralization was traced over a 110m strike and 25-30m width in 2005 to 2008 with significant maximum results of 1.59% Cu and 3.7 g/t Au associated with 130°/NE trending mineralized fractures. Little work has been done in this area but results from DDH 80-1 would be beneficial in the evaluation of this zone. Rotary air blast drilling may be useful in tracing mineralization in Trenches 11+50E and 14+50E along strike under basaltic cover rocks to the northwest and overburden to the southeast.

Results from the 1980 United Keno Hill Mines Limited drill program are not in the public record but the core is stored on the property and the collar locations were located and surveyed by GPS in 2006. The first priority in a Phase 1 program is to label, unstack and systematically sample the core on the STU property so that results can be correlated and interpreted. Magnetic susceptibility measurements over the entire core can be collected at this time and additional unsplit mineralized intervals assayed.

Systematic MMI soil and IP geophysics surveys may be useful in tracing mineralization along strike within the three zones, particularly where the drill results from the above core sampling program are inconclusive due to poor condition of the core, and if the zone is shown to remain open or the drill hole did not adequately test the target. The surveys should be tested over several trenches with mineralization to determine their usefulness and if positive completed along strike of the zones.

Phase 1 should be followed by diamond drilling to systematically test continuity and grade and possibly by shallow rotary air blast drilling to test lower priority areas. This latter type of drilling is relatively fast and less expensive and can be used to determine the strike and dip of structures and mineralized zones prior to diamond drilling.

TABLE OF CONTENTS

	Page
SUMMARY.....	i
1.0 LOCATION AND ACCESS.....	1
2.0 LEGAL DESCRIPTION	2
3.0 PHYSIOGRAPHY	3
4.0 HISTORY	3
5.0 CURRENT WORK PROGRAM	4
6.0 GEOLOGY	4
6.1 Regional.....	4
6.2 Property	6
6.3 Mineralization and Alteration	6
7.0 DEPOSIT MODEL	7
8.0 GEOCHEMISTRY.....	10
8.1 Procedure	10
8.2 Results and Interpretation	11
9.0 PETROGRAPHY	15
10.0 DRILLING	15
11.0 INTERPRETATION	17
12.0 CONCLUSIONS AND RECOMMENDATIONS.....	18

LIST OF FIGURES

		Page
Figure 1	Location Map.....	1
Figure 2	Claim Map	2
Figure 3	Regional Geology Map	5
Figure 4	Property Geology Map	8
Figure 5	Drill Hole, Trench and Sample Locations, Zones A and C back pocket	
Figure 6	Drill Hole, Trench and Sample Locations, Zone B.....back pocket	

TABLES

Table 1:	Claim data	2
Table 2:	Zone A sample results	11
Table 3:	Zone B sample results	13
Table 4:	Zone C sample results	13
Table 5:	Diamond drill hole locations.....	16
Table 6:	Rotary drill hole locations.....	17

APPENDICES

Appendix I	Selected References
Appendix II	Statement of Claims
Appendix III	Sample Descriptions
Appendix IV	Geochemical Procedure and Results
Appendix V	Petrographic Report
Appendix VI	Statement of Expenditures
Appendix VII	Statement of Qualifications

1.0 LOCATION AND ACCESS (Figure 1)

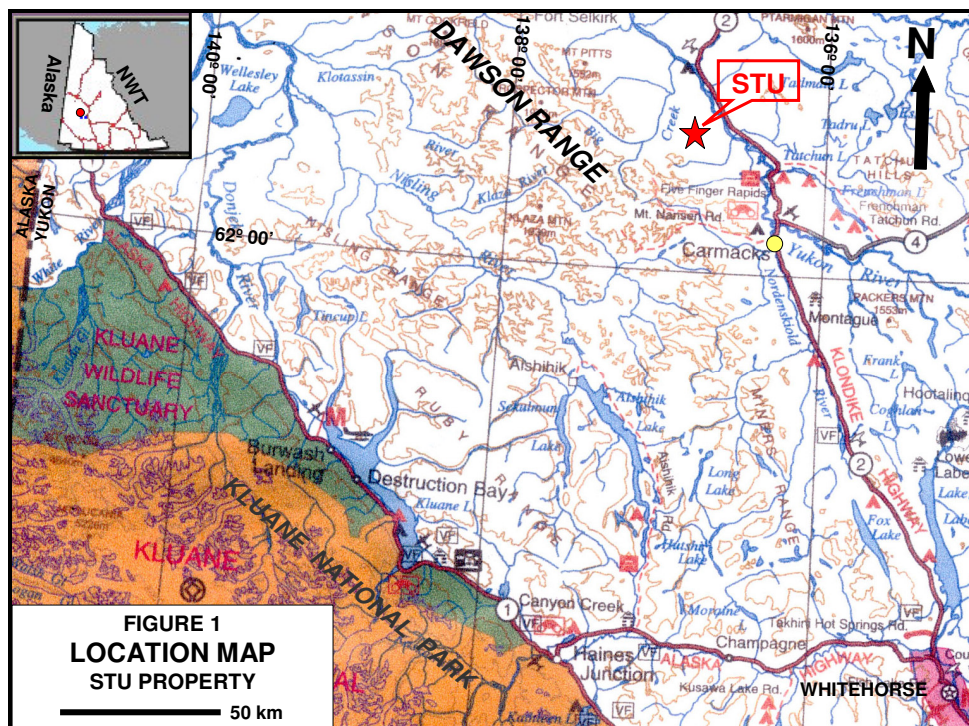
The STU property, NTS map sheet 115I/7, lies just northwest of Hoochekoo Creek approximately 60 km by road, northwest of Carmacks, approximately 200 km northwest of Whitehorse, Yukon Territory (Figure 1). The property is centered at a latitude of 62°25'N and a longitude of 136°50'W.

The property is accessible from Carmacks via the Freegold Road, a year round government maintained gravel road, which is followed for 35 km. At this point, the access road to the Carmacks Copper property (Williams Creek Copper) of Western Silver Corporation is followed for approximately 18 km northerly past Carmacks Copper. The last 7.5 km to the STU camp, in the central property area, are by ATV along an overgrown road. Several cat trails on the claims, variably overgrown, provide access to trenches and drill sites.

The claims can also be accessed by helicopter from Carmacks with a suitable landing site at the STU camp situated in the central property area at UTM coordinates 6921240m N, 0405015m E, Nad 83, Zone 8 projection. The entire property can be accessed from the STU camp and provides the best access to Zone A. Central Zone B can be accessed from a helipad at 6919288mN, 406124mE along Trench 74+00E and Zone C from a potential landing site at DDH 80-27 at UTM coordinates 692250mN, 406091mE.

The STU camp, utilized in the 2008 program, refers to the former United Keno Hill Mines Limited drill camp, consisting of a trailer suitable for accommodation for up to 4 people.

Carmacks is the closest town, with a population of approximately 450. Facilities include a grocery store, nursing station, two service stations, a restaurant and a café. Complete services are available in Whitehorse, less than two hours by road from Carmacks.



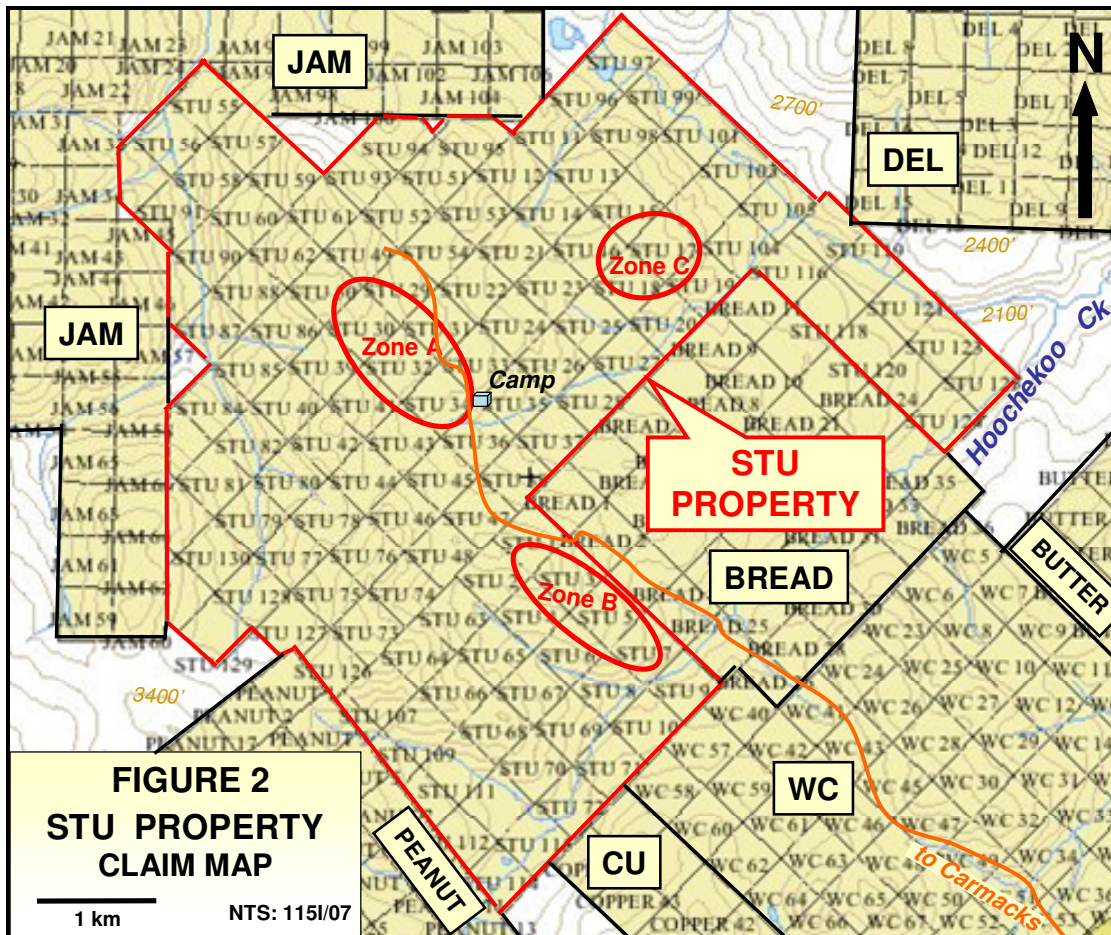
2.0 LEGAL DESCRIPTION (Figure 2)

The STU property consists of 132 contiguous claims covering an area of approximately 2760 hectares in the Whitehorse Mining District. The property is owned and the current program operated by Mr. Bill Harris of Whitehorse, Yukon. Some of the claims are still registered in the name of the stakers and will be transferred to Mr. Bill Harris. Work was completed between July 2 and 6, 2008. A table summarizing pertinent claim data follows and complete details are shown in Appendix II:

TABLE 1: Claim data

Claim Name	Grant No.	No. of Claims	Registered Owner	Expiry Date	New Expiry Date
STU 1-6	YC37770-75	6	Ron Stack	2010-12-13	2010-12-13
STU 7-10	YC37776-79	4	Calvin Delwisch	2010-12-13	2010-12-13
STU 11-20	YC40249-58	10	Bill Harris	2006-09-19	2010-09-19 *
STU 21-28	YC37788-95	8	Andrew Robinson	2010-12-21	2010-12-21
STU 29-30	YC40259-60	2	Bill Harris	2006-09-19	2010-09-19
STU 31-38	YC37780-87	8	Mike Power	2010-12-13	2010-12-13
STU 39-54	YC40261-76	16	Bill Harris	2006-09-19	2010-09-19
STU 55-62	YC40201-08	8	Bill Harris	2006-08-29	2010-08-29
STU 63-72	YC40209-18	10	Bill Harris	2011-08-29	2011-08-29
STU 73-84, 93-105	YC65256-67, 76-88	25	Bill Harris	2008-07-9	2010-07-9 *
STU 85-92, 106-132	YC65268-75, 289-315	35	Bill Harris	2008-07-9	2010-07-9 *
TOTAL		132			

* new expiry date based on acceptance of this report



First Nations have settled their land claims in the area with First Nations surveyed lands occurring 3 km south of the STU property and 15 km to the north (see *Figure 3*).

3.0 PHYSIOGRAPHY AND CLIMATE (Figures 1 and 2)

The property covers an area northwest of Hoochekoo Creek (*Figure 2*) within the northeastern edge of the unglaciated Dawson Range (*Figure 1*) of the Yukon Plateau.

Elevations range from a low of 640m in the eastern property area up to 1075m in the western portion of the claim block, a maximum relief of 435m. Most slopes are gentle except along the north bank of Hoochekoo 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. Areas in the northwest portion of the claim block, including part of Zone A were burned in the 2004 and 1995 seasons.

Several small streams are present on the property that occupy broad swampy valleys between 400 and 800m wide and drain to the northeast and southeast into Hoochekoo Creek and a southeast flowing tributary of Hoochekoo Creek. Northerly flowing tributaries of Big Creek drain the northwestern property area.

Outcrop exposure on the property is <1% with float covering approximately 8%. Large areas of the property are covered by thick overburden and all of the known showings occur on hill tops or along ridge slopes where the overburden is thin or absent (*Ouellette, 1990*).

The Carmacks area has a northern interior climate with warm summers (+20° C), long cold winters (-20° C) and moderate precipitation (25 cm), most of which is snow. The exploration season lasts from May until October.

4.0 HISTORY (Figure 3)

The STU property covers the STU Minfile occurrence, a drilled prospect, as documented by the Yukon Geological Survey (*Deklerk and Traynor, 2005*). A summary of the work completed by various operators is tabulated below:

1971-74	Program of grid soil sampling, magnetic and electromagnetic surveys in 1971 and an induced polarization survey in 1974, outlining four northwest trending anomalies, two with a strong EM response coincident with a weak IP and geochemical expression, by Hudson's Bay Oil & Gas Company Ltd.
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- 1976-89 Programs of prospecting (1976), mapping, deep (0.9m average) soil sampling, magnetic and VLF electromagnetic surveys (1977), an induced polarization survey (1978), 16 bulldozer trenches (1978 or 79), 4504m of diamond drilling in 28 holes and soil sampling (1980), mapping and geochemical surveys and an airborne magnetic and electromagnetic survey (1981), 13 bulldozer trenches (1982) and 1823m in 30 rotary air blast drill holes, primarily in Zone B (1989) by United Keno Hill Mines Ltd.
- The programs outlined three zones (A-C) up to 914m long and 91m wide with patchy malachite staining in foliated granodiorite, from which selected grab samples assayed up to 0.58% Cu. Three of the 1980 drill holes returned intersections exceeding 2.5% Cu, including 3.51% Cu, 2.5 g/t Au and 18.4 g/t Ag across 13.5m in DDH 80-14. The rotary drill program returned a maximum of 0.71% Cu over 1.5m in hole SB-6.
- 2005 Prospecting, reconnaissance rock and soil sampling, examination and select rock sampling of most trenches (*Robertson, 2005*).
- 2006 Program of limited magnetic susceptibility testing of drill core samples (suggesting the alteration zones associated with mineralization would be detected as a magnetic low), GPS surveying of old trenches and drill sites, an evaluation of showings and geochemical sampling.

5.0 CURRENT WORK PROGRAM

A total of 7 man-days were spent on the STU property, between July 2 and 6, 2008. The 2008 work program consisted of mapping, geochemical sampling and a petrographic study of mineralization from the three known showings on the property and was filed on July 9, 2008. Control was provided by property scale topographic maps, hipchain, compass and GPS. The mapping program is discussed under sections 6.2 "Property Geology" and 6.3 "Mineralization and Alteration" and the geochemistry under section 8.0 "Geochemistry". The petrographic study is detailed in Appendix V and discussed in section 9.0 "Petrography".

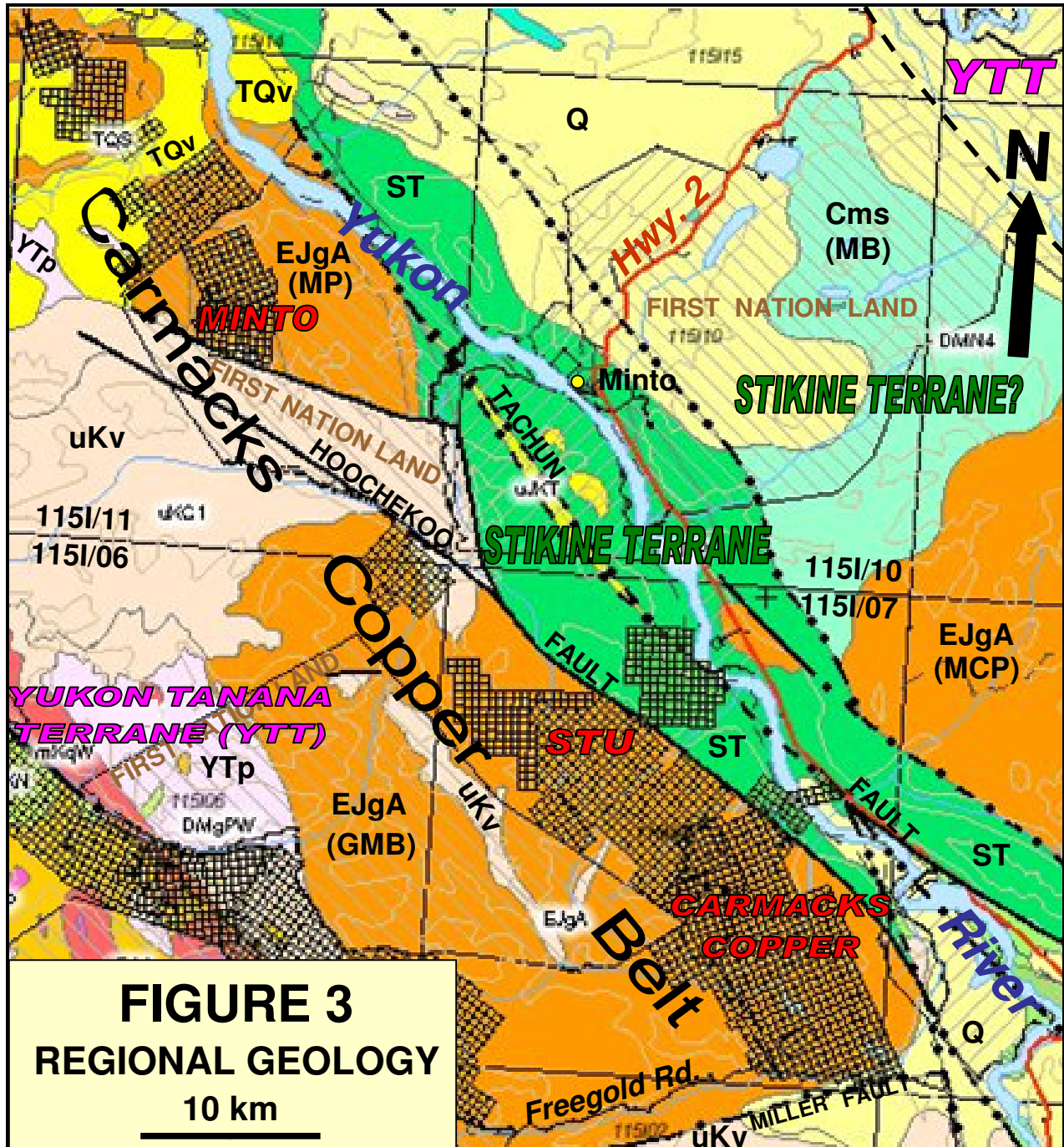
In January, 2009 a compilation of recent work, and integration with known historical work and with new advances in research on the genesis of the Carmacks Copper (-Gold) Belt was undertaken with approval of the Whitehorse Mining Recorder and filed on January 9, 2009.

6.0 GEOLOGY

6.1 Regional (Figure 3)

The regional geology of the area is primarily summarized from Gordey and Makepeace (2000), Mortensen and Tafti (2003) and Robertson (2005).

The STU property occurs within the Carmacks Copper Belt between the Carmacks Copper deposit (formerly Williams Creek Copper) of Western Silver Corporation, containing 12.0 million tonnes of copper oxide ore grading 1.01% Cu (0.86% oxide Cu), 0.5 g/t Au and 4.6 g/t Ag, using a cutoff grade of 0.25% Cu, and the Minto deposit of Capstone Mining Corporation (formerly Sherwood Copper Corp.), with 19.3 million tonnes of sulphide ore grading 1.42% Cu, 0.5 g/t Au and 5.4 g/t Ag using a cutoff grade of 0.5% Cu (based on drilling to end of 2006). The Minto deposit started production in October, 2007 and has greatly increased its resource. The Carmacks Copper deposit is currently in the permitting process.



The regional area of the Carmacks Copper Belt is underlain by intermediate to felsic intrusive and meta-intrusive rocks of the Early Jurassic Aishihik/Long Lake plutonic suite (**EJgA**) intruding Paleozoic metaplutonic rocks (**YTp**) and locally metavolcanic rocks (not in map area) of the Yukon Tanana Terrane, near the boundary with upper Triassic and/or older mafic volcanic rocks of the Stikine Terrane (**ST**) to the east. The above lithologies are overlain by younger basaltic volcanic rock units of the Late Cretaceous Carmacks Group (**uKv**) and the Quaternary Selkirk Group (**TQv**).

The northwest trending Hoochekoo Fault, which lies just to the northeast of the STU and Carmacks Copper properties, transects the Carmacks Copper Belt separating the Minto deposit, hosted by the Minto Pluton (**MP**), from the Carmacks Copper deposit and the STU property, both hosted by the Granite Mountain Batholith (**GMB**).

The area has been glaciated with overall northwesterly ice directions and local southeast ice directions, particularly in the west.

6.2 Property (Figure 4)

The STU property is primarily underlain by Early Jurassic intrusive rocks of the Granite Mountain Batholith (**GMB**). The intrusive rocks consist of several different phases that include potassium feldspar megacrystic granodiorite that grades to foliated biotite granodiorite, biotite gneiss and locally biotite schist, quartz-phyric granodiorite to quartz monzonite, and minor diorite to quartz diorite. Foliation of the granodiorite varies from weak to moderate to locally strong and trends northwest, dipping steeply.

Petrography on a suite of six samples collected from the three known mineralized zones on the STU property indicated a granodiorite composition for the host rock with 25-30% quartz, 35% plagioclase, 10% potassium feldspar, 15% biotite and 5% hornblende, with accessory epidote, apatite, sphene and zircon (*Fonseca, 2008 in Appendix V*).

The intrusive rocks are cut by locally numerous aplite and pegmatite dykes of variable widths and overlain and cut by mafic flow and tuff breccia volcanic rocks and related dykes of the Carmacks Group (**uKv**).

The northwest trending Hoochekoo Fault lies just to the northeast of the STU property and 130° trending, steeply dipping fractures and structural zones are evident across the property that appear to have a relationship to mineralization.

Metamorphism is of upper greenschist facies biotite zone as indicated by petrography and locally hornblende is partly converted to metamorphic prograde biotite (*Fonseca, 2008 in Appendix V*).

Trench 20+50E in Zone C was examined in 2008 since it had not been visited in recent work programs on the STU property. The only exposure was of coarse grained Kspar megacrystic granodiorite in the west end of the trench. Two trenches were reported during staking along the claim line at the northwest end of the property on the STU 57-62 claims, but have not been examined as yet (*see Figure 4*). Only one narrow (1m) zone of foliated biotite granodiorite, trending 120°/70°NE, was observed in the northwest property area.

6.3 Mineralization and Alteration

The property covers the STU Minfile drilled prospect as documented by the Yukon Geological Survey as Minfile Number 115I 011 (*Deklerk and Traynor, 2005*).

Mineralization consists of chalcopyrite and bornite with minor pyrite and locally abundant magnetite. It occurs as disseminations, irregular grains and aggregates hosted by weak to well foliated biotite granodiorite to gneiss. Chalcocite and digenite often rim bornite grains and tenorite occurs in fractures. Minor malachite and azurite occur in fractures, veinlets and occasionally rim chalcocite. The copper minerals appear to replace the mafic minerals within the granodiorite.

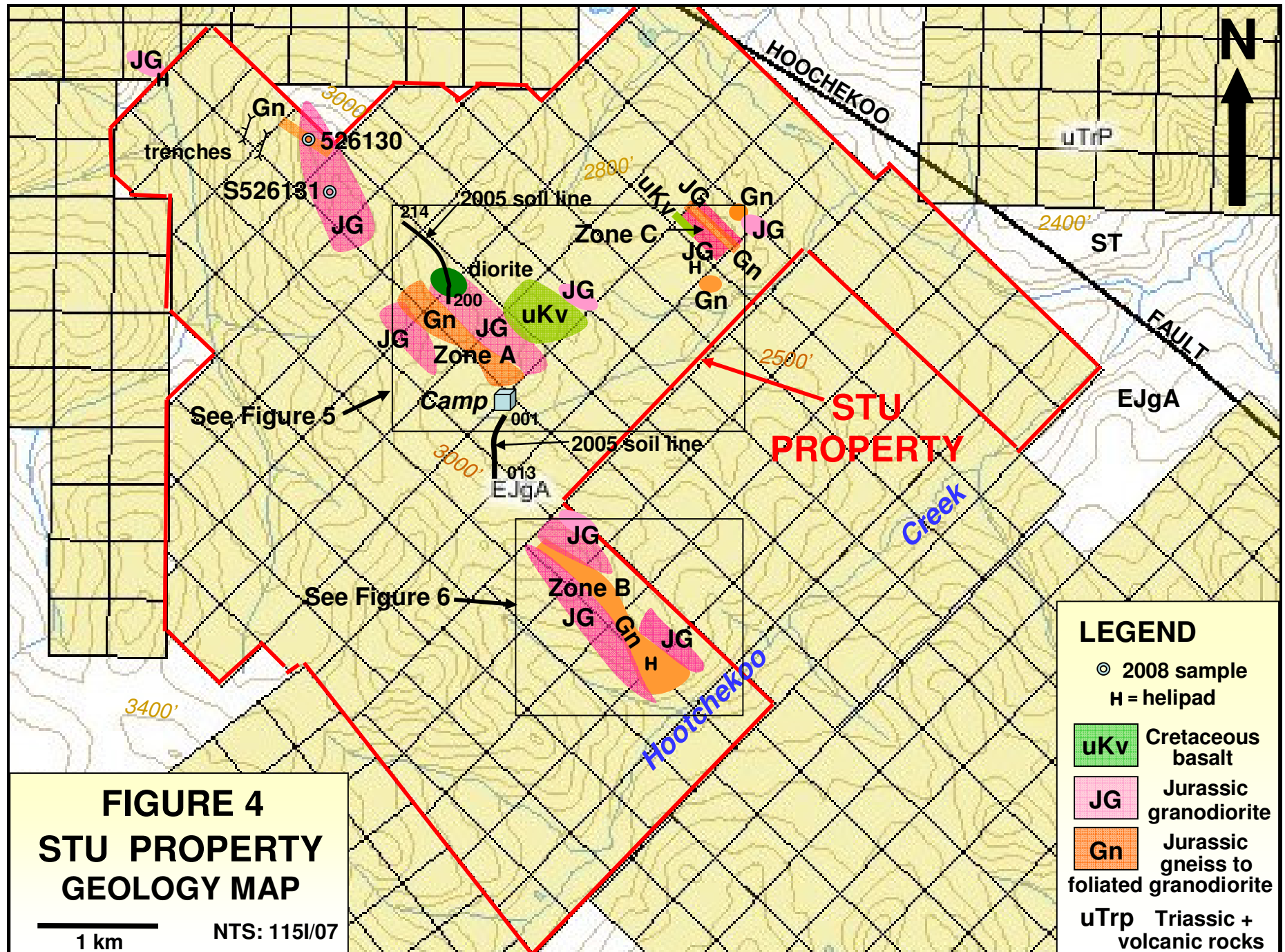
Mineralization appears to be associated with more foliated sections trending 130° with magnetite-silica alteration (observed as silicification with fine disseminated magnetite along foliation) and the presence of biotite, interpreted as potassic alteration. Small veinlets sometimes cut the mineralization. Alteration minerals include quartz, mica, carbonate, epidote and chlorite. The highest gold and silver values are associated with bornite-rich sections. A crude vertical zonation has been previously noted, from pyrite at the bottom of the zone to bornite and chalcocite at the top (*Deklerk and Traynor, 2005*).

The petrographic analysis of the granodiorite host from the three known mineralized zones on the property (*Fonseca, 2008 in Appendix V*) shows a penetrative foliation defined by melanocratic domains of biotite, with lesser hornblende-epidote-sphene-apatite-magnetite, and leucocratic domains of quartz and feldspars. Hydrothermal alteration minerals were poorly developed in the specimens but include fine grained clays and white mica partly replacing feldspars, and chlorite partly replacing biotite. Clay alteration was found to be most intense in the vicinity of intense supergene copper mineral deposition (*Fonseca, 2008 in Appendix V*).

Mineralization within the petrographic suite (*Fonseca, 2008 in Appendix V*) includes the supergene copper minerals malachite, with lesser chrysocolla and brochantite(?), generally with transport and open space fill textures, but low temperature replacement of pre-existing copper sulphides was noted in Sample 82527, which in turn replaced primary mafic grains (*Fonseca, 2008 in Appendix V*). Primary magnetite was found to be the most common opaque (2 to 4%), weakly converted to hematite, which also occurs as minor fracture and open space fillings. Chalcopyrite(?) forms very fine-grained (<0.5 micron) rare disseminations and isolated grains. Gold(?) grains <0.5 microns were observed in samples PTS-3 (Trench 1450E-C Zone) and PTS-4 (Trench 74+00E-B Zone) (*Fonseca, 2008 in Appendix V*).

7.0 DEPOSIT MODEL

Mineralization on the STU property, located between the Minto and Carmacks Copper deposits within the Carmacks Copper (-Gold) Belt, appears to fit the metamorphosed copper-gold porphyry deposit model proposed by Tafti and Mortensen (2004) for the two deposits.



The STU property has strong similarities to both deposits, hosted by the same rock units with similar alteration (secondary biotite, magnetite-silica) and mineralization (gold-bornite association). It has been documented that the Minto and Carmacks Copper deposits are hosted by variably deformed plutonic rocks that occur as pendants and schlieren within slightly younger less deformed intermediate intrusive rocks of the Granite Mountain Batholith (*Tafti and Mortensen, 2004*). Petrographic and field studies of the more gneissic host rocks from Minto and Carmacks Copper show that they represent strongly deformed and metamorphosed intrusive rocks (orthogneiss), with the excess amount of biotite representing secondary (hydrothermal) biotite associated with strong hypogene potassic alteration (*Tafti and Mortensen, 2004*).

Hornblende geochemical studies of plutonic and meta-plutonic host rocks at Minto and Carmacks Copper indicate that they formed in a continental magmatic arc setting (*Tafti and Mortensen, 2004*). The setting, timing of mineralization and petrographic and field observations of the host rocks, mineralization and alteration led Tafti and Mortensen (2004) to conclude that the two deposits represent variations on typical copper (-gold) porphyry deposits.

It should be noted that schlieren are fragile, usually elongate concentrations of mafic material within some intrusions. Genesis may be due to shearing of heterogeneities (enclaves or xenoliths), crystal sorting during convective or magmatic flow, or crystal settling.

Recent work at the Carmacks Copper deposit has suggested that the highly foliated rocks controlling economic mineralization are rafts and lenses (xenoliths) of augite-phyric volcanic rocks of the Povoas Formation within the Granite Mountain Batholith. The Povoas Formation occurs at the base of the Triassic aged Lewes River Group, part of Stikinia, and is exposed to the northeast of the Granite Mountain Batholith (see *Figure 3*). Similarly mineralization at the Minto deposit has been described as being hosted by zones of strongly developed penetrative foliation, interpreted as shears or as rafts of volcanic rock within the granodiorite host.

Calc-alkaline porphyry copper-gold mineralization at the Kemess Mine (Kemess South deposit) and the Kemess North deposit in central British Columbia is hosted by Jurassic granodiorite intrusions and adjacent Upper Triassic augite-phyric flows of the Takla Group, indicating similar chemistry, age and deposit characteristics to mineralization within the Carmacks Copper (-Gold) Belt. The main difference is the lack of foliated rocks associated with the mineralization.

The STU petrographic analysis completed in the 2008 program confirmed similarities between the STU and the Minto and Carmacks Copper deposits and recognized similarities to the recently discovered Tropicana gold deposit of AngloGold Ashanti Australia Ltd. in Western Australia which contains 62.8 million tonnes of 2.01 g/t Au, with no mineable copper reported (see *Fonseca, 2008 in Appendix V*). Tropicana has been described as a metamorphosed intrusion related gold deposit. Current work is focussing on whether the deposit is in fact a metamorphosed Archean deposit or formed during metamorphism in the Proterozoic.

Tropicana is hosted within high grade metamorphic gneissic rocks and associated with late biotite and pyrite alteration (*AngloGold Ashanti website*). STU is hosted within upper greenschist metamorphosed gneissic rocks, associated with late biotite alteration and pyrite alteration is documented at the bottom of the zone. Metamorphic prograde biotite was recognized in polished thin sections from the STU property (*Fonseca, 2008 in Appendix V*).

The STU petrographic analysis also indicated the presence of ubiquitous magmatic epidote, also reported at Minto, suggesting depths of formation of 18 to 20 km, which far exceeds typical depths of deposition for porphyry style deposits (*Fonseca, 2008 in Appendix V*).

Based on the above discussion, the author believes that mineralization within the Carmacks Copper (-Gold) Belt is hosted by schlieren zones (including some volcanic xenoliths) within Jurassic granodiorite and is consistent with a calc-alkaline porphyry copper-gold model (with similarities to the Kemess Mine and Kemess North deposit) which formed at a deep crustal level.

8.0 GEOCHEMISTRY (Figures 4 to 6)

8.1 Procedure

A total of 9 rock and fourteen soil samples were collected from the property during the 2008 program for geochemical analysis. All samples were located and recorded by GPS in the field using UTM coordinates, Nad 83 datum, Zone 8 projection. Sample descriptions, locations and select results (Cu, Au and Ag) are documented in Appendix III and locations are plotted on Figures 4 to 6. Complete results are outlined in Appendix IV.

The rock samples across the property primarily consisted of chip and grab samples of mineralized and altered zones, exposed as float, subcrop and outcrop. Due to limited exposure over the property, particularly in the known mineralized zones, samples were collected from the old trenches, dating from 1979 and 1982, to delineate the extent of mineralization. Trenches are largely sloughed with little exposure so that often the best exposure was rubble along the trench floor. Composite samples were collected from the rubble across specified intervals in such areas. One reconnaissance sample was collected from a foliated zone at the northwest end of the property (Sample S526130). The samples were placed in clear plastic sample bags, numbered and secured in the field.

Soil samples (denoted with an "S") were collected from the walls of three trenches with poor exposure to evaluate the trenches. Trenches sampled were Trench 20+50E at the southeast end of Zone C, and Trenches 0+00W and the east end of 4+00W at the southeast end of the main portion of Zone A. The samples were collected from the B horizon, below the ash layer with a rock hammer and placed in numbered waterproof kraft

bags. One reconnaissance soil sample was collected from a rusty zone at the northwest end of the property (Sample S526131).

Samples were delivered by the author to the sample preparation laboratory of Eco Tech Laboratory Ltd. (Alex Stewart Group) in Whitehorse for preparation and then internally sent directly to their facility in Kamloops, British Columbia for analysis. Samples were analyzed for Al, Sb, As, Ba, Bi, Cd, Ca, Cr, Co, Cu, Fe, La, Pb, Mg, Mn, Mo, Na, Ni, P, Ag, Sr, Ti, Sn, W, U, V, Y and Zn using a 28 element ICP package which involves a nitric-aqua regia digestion. Gold was analyzed by fire assay with an atomic absorption finish. Due to high values, one assay was completed for gold by fire assay and one for copper by acid digestion. Laboratory sample preparation and analysis procedures are outlined in Appendix III. Eco Tech is an ISO 9001 accredited facility, registration number CDN 52172-07.

Quality control procedures were implemented at the laboratory, involving the regular insertion of blanks and standards and repeat analyses of at least 25% of the samples, with re-analyses being performed for one sample in each batch on the original sample prior to splitting (resplit).

8.2 Results

8.2.1 Rocks

Only two rock samples were collected from Zone A in 2008 due to limited exposure and previous sampling having been completed in recent years. Historical work includes eight bulldozer trenches excavated in 1979 and 24 diamond drill holes completed in 1980. All recent sampling from Zone A is tabulated below, listed from north to south, in order to correlate anomalous results and attempt to delineate the mineralized zone.

TABLE 2: Zone A sample results

Sample Number	Year	Trench Number	Width (m)	Cu (ppm)	Au (ppb)	Ag (g/t)
22342	2006	11+50W	grab	6722	265	5.5
22343	2006	11+50W	grab	4016	285	1.9
82531	2005	cross 8+00W	grab	2470	95	
526142	2008	8+00W	15m *	6381	470	4.8
526143	2008	8+00W	20m *	2685	120	1.7
82532	2005	8+00W	10m *	5606	270	
22341	2006	6+00W	grab	3183	55	0.7
82533	2005	6+00W	grab	4040	85	
22344	2006	4+00W	grab	1243	30	0.3
22345	2006	0+00W	1.0m	1715	40	1.3
82534	2005	0+00W	0.15m	2246	55	
22346	2006	12+00E	grab	237	10	<0.2

* denotes composite samples collected from rubble along floor of trench

Trench 11+50W is heavily overgrown with only minor rubble consisting of medium grained leuco-granodiorite and well foliated biotite granodiorite with weak to moderate malachite staining and some chalcocite and chalcopyrite noted. Rubble

of malachite stained well foliated strongly biotite rich granodiorite was noted at the north end of the cross trench from Trench 8+00W. Rubble of well foliated biotite granodiorite is exposed in the west end of Trench 8+00W.

A composite grab of malachite stained foliated granodiorite rubble from the floor of Trench 8+00W from the cross trench intersection to the east returned 0.27% Cu, 120 ppb Au over a 20m width (Sample 526143). This is followed to the east by a 20m unsampled interval, a 15m interval of 0.64% Cu, 470 ppb Au of malachite stained magnetite-silica altered foliated granodiorite (Sample 526142) and 10m of malachite stained rubble between the collars of DDH 80-6 and 80-7 containing 0.56% Cu, 270 ppb Au (Sample 82532), with no exposure further to the east. This is suggestive of a 65m wide mineralized zone that may be open in both directions.

A 50m wide zone of moderate malachite stained foliated biotite granodiorite is exposed as subcrop and lesser outcrop in the centre of Trench 6+00W. Previous samples 22341 and 82533 were collected from this zone carrying 0.32 and 0.40% Cu, respectively. Weak malachite stained rubble extends another 45m to the west, with no exposure in the remaining 30m of the trench and no exposure for 20m east of the mineralized zone. This is suggestive of a 95m wide mineralized zone, open to the west and open 20m to the east.

Minor malachite staining was noted in biotite granodiorite in the centre of Trench 12+00E, but no significant results were obtained from a sample collected in 2006. The trench is deeply weathered and requires deepening.

Mineralization in Zone A was traced for 800m along strike in the 2005 to 2008 programs from Trench 11+50W at the north end to Trench 12+00E at the south end over a width of up to approximately 95m in Trench 6+00W. This probably corresponds to the zone 914m long and up to 91m wide that was delineated by United Keno Hill Mines Limited. The zone appears open to the northwest and may dissipate to the southwest in Trench 12+00E or may extend to the east of Trenches 12+00E and 14+00E. The best mineralization is exposed for 400m from Trench 11+50W to Trench 0+00W.

No samples were collected from Zone B in 2008 due to previous significant sampling in recent years and the overall narrow extent of the exposed mineralization. Fourteen historical bulldozer trenches from 1979 and 1982 have been located in the Zone B area, nine of which directly explore Zone B. All recent sampling from Zone B is tabulated on the following page, listed from north to south except for Trench B9 which is located to the northeast of the actual B Zone.

Mineralization in Zone B was traced for 400m along strike in the 2005 and 2006 programs from Trench B3 to Trench B6 with a maximum 2.86% Cu and 2.56 g/t Au. To the northwest the mineralization may trend to the east of Trenches B4 and B5.

TABLE 3: Zone B sample results

Sample Number	Year	Trench Number	Width (m)	Cu (ppm)	Au (ppb)	Ag (g/t)
22329	2006	TR B-3	grab	1.57%	1.86 g/t	9.8
82529	2005	TR B-3	grab	2.86%	2.56 g/t	
22330	2006	TR B-3	grab	2518	15	7.0
22331	2006	TR B-1	grab	62	5	0.3
22332	2006	TR B-1	grab	117	15	2.1
22333	2006	TR B-1	grab	161	10	<0.2
82530	2005	@ SB-7 in B1	grab	2.78%	1.07 g/t	444
22334	2006	@ SB-7 in B1	1.0m	5561	110	5.8
22335	2006	TR B-1	1.0m	168	5	0.3
22336	2006	TR B-0	grab	57	5	<0.2
22337	2006	TR B-0	grab	41	5	<0.2
22338	2006	TR B-6	grab	7247	320	4.3
22339	2006	TR B-8	grab	411	15	0.2
22340	2006	TR B-9	grab	245	5	<0.2

Six rock samples were collected from Zone C despite the small size of the zone due to limited sampling in recent years. The zone has seen limited historical exploration with only four short bulldozer trenches in 1979 and three diamond drill holes in 1980. All recent sampling from Zone C is tabulated below, listed from north to south.

TABLE 4: Zone C sample results

Sample Number	Year	Trench Number	Width (m)	Cu (ppm)	Au (ppb)	Ag (g/t)
526140	2008	11+50E E	1.0m	2613	3.7 g/t	1.6
22347	2006	11+50E W	grab	1.59%	165	7.5
526141	2008	below 11+50E	grab	9108	100	5.0
526136	2008	14+50E	5m	5064	80	7.9
526137	2008	14+50E	1.5m	3672	40	0.9
526138	2008	14+50E	grab	2327	30	1.8
526139	2008	14+50E	grab	1.57%	60	12.6
82526	2005	14+50E	≈ 1.25	2993	20	
82528	2005	14+50E	grab	4396	5	
82527	2005	below 14+50E	grab	1.07%	105	

Two zones of poorly exposed malachite staining occur in Trench 11+50E; the western one more biotite rich and foliated. The western zone returned 1.59% Cu and 165 ppb Au collected from rubble exposed over a 1-2m width in 2006 (Sample 22347) and the eastern zone 0.26 % Cu and 3.7 g/t Au over 1.0m of outcrop in 2008 (Sample 526140) from within a 5m wide malachite stained zone of rubble. A sample for a polished thin section (PTS) was not collected from this latter locality, but possible visible gold was noted in PTS-3, 65m along trend to the southeast of 526140 in Trench 14+50E.

Rubble exposed on the east side of a cat trail between Trenches 11+50E and 14+50E appears to be in place and along trend of the western zone exposed in Trench 11+50E. A grab sample collected in 2008 returned 0.91% Cu and 100 ppb Au (Sample 526141).

A 25-30m wide zone of malachite stained foliated biotite granodiorite rubble with some outcrop is exposed in the central portion of Trench 14+50E, which has now been fairly systematically sampled and appears to trend 130°. Starting from the trench trail cutting through the centre of the trench and heading to the east, a series of samples were collected in 2008 which returned 0.51% Cu and 80 ppb Au over 5m, 0.37% Cu and 40 ppb Au over 1.5m, a grab with 0.23% Cu and 30 ppb Au and 1.57% Cu and 60 ppb Au (Samples 526136-49). Sample 82526 collected in 2005 appears to correlate with Sample 526137, returning similar values of 0.30% Cu and 20 ppb Au over 1.25m. On the west side of a cat trail below Trench 14+50E results of 1.07% Cu and 105 ppb Au were obtained in 2005 from what appears to be local rubble.

Malachite stained outcrops also occur to the between Trenches 11+50E and 9+50E, resulting in a 110m strike extent for the zone with a 25-30m width in Trench 14+50E, open in both directions along strike.

The reconnaissance rock sample from the northwest property area was not anomalous (Sample S526130).

8.2.2 Soils

The best soil results were obtained from the east end of Trench 4+00W with all samples returning high to moderately anomalous values of 217 ppm, 2935 ppm and 73 ppm Cu (Samples S-09, S-07, S-08). The highest value was collected above a foliated zone in the granodiorite with minor malachite just east of 2006 sample 22344 which ran 0.12% Cu from fresh looking granodiorite with minor malachite. The anomaly covers a 45m width and remains open in all directions.

The above anomalous zone appears to continue to the southeast to the east end of Trench 0+00W where moderately anomalous values of 97 ppm, 93 ppm and 47 ppm Cu were obtained from east to west (Samples S-06, S-01, S-02). S-01 was collected above a reddish zone of malachite stained granodiorite that returned 0.22% Cu over 0.15m in 2005 (82534) adjacent to a foliated zone to the east that returned 0.17% Cu over 1.0m in 2006 (22345). The soil anomaly covers a 40m width and remains open to the east and southeast along strike. It may continue to the eastern portions of Trenches 12+00E and 14+00E, just north of the STU camp, where malachite was observed in Trench 12+00E and well foliated granodiorite in Trench 14+00E. A grab sample of malachite stained granodiorite collected from Trench 12+00E in 2006 did not contain anomalous values.

The four soil samples collected from Trench 20+50E did not return anomalous results, although half of the samples were of poor quality due to the poor development of the soil profile (Samples S526132-135). The low results are consistent with the fresh coarse grained Kspar megacrystic granodiorite observed in the western end of the trench and orientation of the mineralized zone in Trench 14+50E which trends off to the east of Trench 20+50E.

The reconnaissance soil sample from the northwest property area was not anomalous (Sample S526131). Two of the four reconnaissance soil samples collected from rusty zones in the B Zone area in 2006 (Samples S22328, 25) yielded moderately anomalous results of 78 ppm Cu from Trench B5 and 41 ppm Cu from Trench B11.

Two lines of reconnaissance soils on the property which were collected in 2005 to the north and south of Zone A, but not along trend, did not return anomalous values (*shown on Figure 4*).

9.0 PETROGRAPHY (Appendix V)

A petrographic study of mineralization on the STU property was undertaken to determine the nature of mineralization within the three known zones. Six samples of mineralized granodiorite (primarily consisting of malachite staining) were collected from each of the three known showings on the property. There may be some bias with oxide copper mineralization being preferentially collected despite the predominance of copper sulphide minerals on the property. Polished thin sections (PTS) were prepared and potassium feldspar stained by Vancouver GeoTech Labs and sent to Ms. Fonseca of Whitehorse, Yukon Territory for petrographic analysis. The petrographic report is enclosed as Appendix V and applicable details from the report have been discussed under sections 6.2 “Property Geology”, 6.3 “Mineralization and Alteration” and 7.0 “Deposit Model”.

The specimens are as follows:

- 1) Trench 400W A Zone –weakly malachite? stained and weakly magnetic, foliated biotite granodiorite (near 22344 – 0.12% Cu, 30 ppb Au) weak chrysocolla in PTS
- 2) Trench 1150E C Zone –malachite on fracture surfaces of magnetic foliated biotite granodiorite with tenorite? (at 22347 – 1.59% Cu, 165 ppb Au) malachite, chrysocolla in polished thin section (PTS)
- 3) Trench 1450E C Zone –moderately malachite stained, magnetic foliated biotite granodiorite (at 526138 – 0.23% Cu, 30 ppb Au) chalcopryrite, malachite, chrysocolla, gold in PTS? -3.7 g/t Au 65m to NW
- 4) 82527, below Trench 1450E C Zone –strongly malachite stained, magnetic foliated biotite granodiorite (1.07% Cu, 105 ppb Au) malachite, chalcopryrite, chrysocolla in PTS
- 5) Trench 7400E B Zone, A –well foliated, magnetic biotite granodiorite with dark fracture surface, possible tenorite? (near 22334 – 0.56% Cu, 110 ppb Au) malachite, chrysocolla, chalcopryrite, gold? in PTS
- 6) Trench 7400E B Zone, B –more massive magnetic biotite granodiorite with dark fracture surface, possible tenorite? (near 22335 – 168 ppm Cu, 5 ppb Au) trace chrysocolla in PTS.

10.0 DRILLING (Figures 5 and 6)

No drilling was conducted in the current program but a total of 4504m of diamond drilling in 28 holes and 1823m of rotary air blast drilling in 30 holes has been completed on the property by United Keno Hill Mines Ltd in 1980 and 1989, respectively. The BQ size core is stored on site in two racks in poor condition at UTM coordinates 6921220mN, 404960mE, Nad 83 datum, Zone 8 projection, just west of the United Keno Hill camp. One rack, leaning badly, holds approximately 1900m of core from holes DDH 80-17 to DDH 80-28. Only a few boxes appear to be missing, although many boxes are

deteriorating. The second rack holds approximately 2600m of core from holes DDH 80-01 to DDH 80-17, but is largely collapsed with many overturned boxes and missing core.

The results of the 1980 drill program are not in the public record except for four holes (DDH 80-17, -25, -27 to -28) filed for assessment. It is reported that the program returned significant results with three of the 1980 drill holes returning intersections exceeding 2.5% Cu, including 3.51% Cu, 2.5 g/t Au and 18.4 g/t Ag across 13.5m in DDH 80-14 (*Deklerk and Traynor, 2005*). Results for DDH 80-17, which appears to be a step out from DDH 80-14, are reported as 0.15% Cu, 0.18 oz/t Ag, trace Au over 25.4m (*see Fisher and Watson, 1981*).

From observations made in 2006 and 2008, it appears that the core in both core racks can be salvaged with some care and the core contains significant mineralized intervals, particularly tenorite bearing sections, which have not been sampled.

Diamond drill hole collars, trenches and significant reference locations were surveyed by GPS in the field in 2006 using UTM coordinates, Nad 83 datum, Zone 8 projection. Nineteen of the twenty-four drill holes from Zone A and three drill holes from Zone C were located and an additional two sites from Zone A are approximated. The data is plotted in Figures 5 and 6 and drill hole collars are documented in Table 5 below.

Table 5: Diamond drill hole locations

Drill Hole	UTM Northing	NAD83 Easting	Elev. (m)	Az. (°)	Dip (°)	Depth (m)
80-01	6922365.921	406541.015	785.144			
80-04	6921753.16	404474.297	909.176			
80-06	6921846.072	404392.073	912.891			
80-07	6921878.822	404447.686	912.34			
80-09	6921967.651	404356.099	915.353			
80-10	6921921.256	404267.452	921.995			
80-11	6921997.104	404410.764	910.648			
80-13	6922003.209	404285.099	918.304			
80-14	6921939.428	404369.969	914.801			
80-15	6921921.048	404432.934	910.502			
80-16	6921965.953	404418.051	910.27			
80-17	6921965.953	404418.051	910.27	242	-72	426.1
80-18	6922091.469	404329.235	911.475			
80-19	6922091.469	404329.235	911.475			
80-20	6922059.415	404266.536	917.87			
80-21	6922028.637	404212.854	924.374			
80-23	6922208.599	404290.905	911.298			
80-24	6922172.78	404223.412	918.483			153.0
80-25	6922409.49	404101.31	921.875	220	-50	161.8
80-26	6921515.716	404662.036	884.614		-50	195.7
80-27	6922513.116	406093.277	792.134	030	-50	187.8
80-28	6922363.293	406338.785	793.875	028	-50	183.5
TOTAL		TOTAL: 4504m		SUBTOTAL: 1307.9m		

The rotary drill sites from 1989, primarily drilled in Zone B with no rotary holes in Zones A and C, were identified by the presence of a mound of drill cuttings and a metal tag on the ground. Only a few of the tags could be read. The approximate hole collars were recorded by GPS in the field in 2006 using UTM coordinates, Nad 83 datum, Zone 8 projection in 2006 and are shown below in Table 6. The best hole from the rotary drill program was hole SB-6 from Trench 74+00E in the B Zone which returned 0.71% Cu over 5 feet.

Table 6: Rotary drill hole locations

Drill	UTM	NAD83
Hole	Northing	Easting
A	6920049	405494
B	6919561	405803
C	6919505	405895
D	6919507	405871
E	6919469	405980
F	6919463	405976
G	6919395	406050
H	6919386	406051
I	6919205	406334
J	6919125	406246
SB-7	6919314	406127
SB-10	6919332	406142
SC-1	6919202	406363
SC-2	6919251	406242

11.0 INTERPRETATION

Zone A constitutes the Main Zone on the STU property and was the focus of the 1980 diamond drill program. Results from this program are not in the public record. There is extremely poor exposure even in the trenches here but a few chip samples were collected from the trenches. All except one of the samples collected in 2005 to 2008 from the area of drilling returned anomalous results.

Samples collected from the vicinity of the best drill intersection on the property, which was in Zone A (3.51% Cu, 2.5 g/t Au and 18.4 g/t Ag over 13.5m in DDH 80-14) returned maximum values of 0.67% Cu and 470 ppb Au. Historical selected grab samples reportedly returned up to 0.58% Cu.

In general the area between Trenches B3 to B6 returned the best copper-gold-silver results within Zone B in 2006 to 2008, based on limited exposure. The mineralization, alteration, degree of fracturing and development of foliation suggest a distal signature to this zone and may indicate potential for mineralization at depth or further along strike, possibly to the northwest. In general mineralization in Zone B is often high grade, but alteration occurs over narrow widths and fracture density and degree of foliation is low. The best hole from the rotary drill program in 1989 was hole SB-6 from Trench 74+00E (B1) in the B Zone which returned 0.71% Cu over 5 feet.

In 2006 high copper-gold grades in Zone B were found to be due to the presence of fine grained chalcocite and chalcopyrite replacing biotite with maximum values of 2.86% Cu and 2.56 g/t Au. Limonite, malachite, chalcocite, and silicification occur along 130°/70°NE fractures hosted by biotite rich granodiorite.

There is very little exposure in Zone C. Four trenches were previously excavated, exposing a 25-30m wide zone of mineralized biotite gneiss trending 130° in Trench 14+50E. To the southeast the mineralization appears to trend to the east of Trench 20+50E and to the northwest through the centre of Trench 11+50E and possibly under the basalt cover in the east end of Trench 9+50E.

The only foliation measured in Zone C, due to limited exposure, was found to dip 60°NE with all three drill holes within the zone located to the southwest of the mineralized horizon. The closest drill hole is DDH 80-1, located 45m southwest of the zone, so would not adequately test the zone unless the hole was deep and/or the zone steepened. Results from DDH 80-1 are unknown but the core is stored on site, though in poor condition.

12.0 CONCLUSIONS AND RECOMMENDATIONS

There is excellent exploration potential on the STU property to host copper-gold mineralization similar to that of the Minto and Carmacks Copper deposits, all located within the Carmacks Copper (-Gold) Belt. The host rocks, structures, mineralization and alteration at STU are similar to the Minto and Carmacks Copper deposits, which have been described as metamorphosed porphyry copper-gold deposits.

Exploration on the STU property has been hampered by lack of exposure, thick overburden cover, variable but generally poor soil profiles, local cover by magnetic Carmacks basaltic rocks and unavailability of results from previous programs.

Mineralization was found to have a direct relationship with the presence of secondary biotite, the presence of magnetite and hematite, and the development of a foliated to gneissic texture, which trends 130° (commonly with 70°NE dips). Secondary copper minerals such as malachite and azurite are relatively uncommon and sulphide minerals predominate within the mineralized zones. Malachite is more abundant in areas of more recent disturbance. Possible gold was detected in the petrographic study from Zones B and C.

Zone A appears to be the main zone of interest on the property with results of >0.1% Cu to 0.67% Cu and a maximum of 470 ppb Au obtained in 2005 to 2008 from samples over a 400m strike extent and up to 95m width. Malachite has been noted an additional 400m to the southeast. This probably corresponds to the zone 914m long and up to 91m wide that was delineated by United Keno Hill Mines Limited in 1977-79. The zone does not appear to have been completely delineated. It is known that the 1980 program returned significant results with three of the 1980 diamond drill holes returning intersections

exceeding 2.5% Cu, including 3.51% Cu, 2.5 g/t Au and 18.4 g/t Ag across 13.5m in DDH 80-14. Results for DDH 80-17, which appears to be a step out from DDH 80-14, are reported as 0.15% Cu, 0.18 oz/t Ag, trace Au over 25.4m. The results from the 1980 diamond drill program are critical in the evaluation of this area.

Mineralization in Zone B is often high grade over narrow widths suggesting a distal signature. Potential exists at depth in the area between Trenches B3 to B6, which returned the best copper-gold-silver results (maximum 2.86% Cu and 2.56 g/t Au), and along strike to the northwest (northeast of the trenches to the north) and to the southeast, where little work has been completed. Diamond drilling may be necessary to trace the mineralization if it lies at depth. Rotary air blast drilling may be useful in tracing mineralization along strike in previously untested areas.

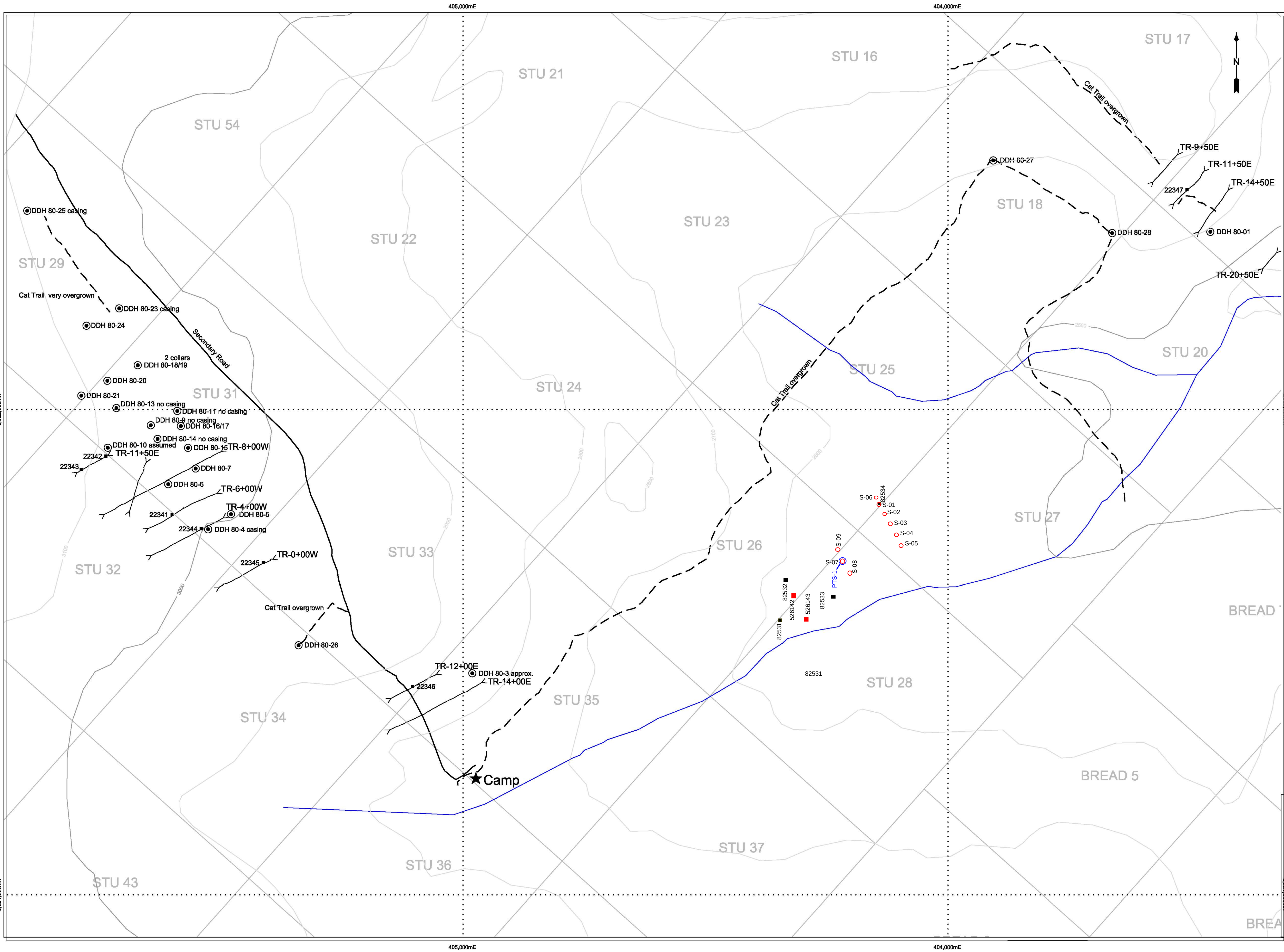
Similar mineralization to Zones A and B is exposed in Zone C. Mineralization was traced over a 110m strike and 25-30m width in 2005 to 2008 with significant maximum results of 1.59% Cu and 3.7 g/t Au associated with 130°/NE trending mineralized fractures. Little work has been done in this area but results from DDH 80-1 would be beneficial in the evaluation of this zone. Rotary air blast drilling may be useful in tracing mineralization in Trenches 11+50E and 14+50 E along strike under basaltic cover rocks to the northwest and overburden to the southeast.

Overall, the 2006 magnetic susceptibility survey suggested that a magnetic survey over the property should pick up the alteration zones associated with mineralization as a magnetic low.

If results from the 1980 diamond drill program cannot be obtained from United Keno Hill Mines Limited, the core racks on the STU property should be labelled, unstacked and systematically sampled. Magnetic susceptibility measurements over the entire core can be collected at this time. Even if assay results are obtained the existing core should be salvaged and magnetic susceptibility readings can be collected and additional unsplit mineralized intervals assayed. The collar locations are known and results can then be correlated and interpreted.

Systematic MMI soil and IP geophysics surveys may also be useful in tracing mineralization along strike within the three zones, particularly where the drill results are inconclusive due to poor condition of the core, and if the zone is shown to remain open or the drill hole did not adequately test the target. The surveys should be tested over several trenches with mineralization to determine their usefulness and if positive completed along strike of the zones.

This phase should be followed by diamond drilling to systematically test continuity and grade and possibly by shallow rotary air blast drilling to test lower priority areas. This latter type of drilling is relatively fast and less expensive and can be used to determine the strike and dip of structures and mineralized zones prior to diamond drilling.



LEGEND

- Trench
- Drill hole location
- Soil Sample
- Rock sample
- Secondary Road
- Cat trail

Scale 1:4,000

0 50 100 200

BILL HARRIS	
STU PROPERTY	
"A" & "C" Zone	
Compilation	
Mining District: Whitehorse	Datum: UTM NAD 83, ZONE 8
NTS: 115 I/07	Job: BIL-7503-YT
DATE: 22 Jan 07	FIGURE: 5
AURORA GEOSCIENCES LTD.	

APPENDIX I Selected References

Anglogold Ashanti at website www.anglogold.com .

Capstone Mining Corp. website at www.capstonemining.com .

Deklerk, R. and Traynor, S. (compilers), 2005. Yukon MINFILE 2005 - A database of mineral occurrences. Yukon Geological Survey, CD-ROM.

Fisher, J, 1981: United Keno Hill Mines Ltd., Hoochekoo Creek area, Yukon. Assessment report # 090729 on diamond drilling.

Gordey, S.P. and Makepeace, A.J., (compilers), 2000. Yukon Digital Geology; Exploration and Geological Services Division (EGSD), Yukon Region, Indian and Northern Affairs Canada (DIAND) EGSD Open File 1999-1(D).

Hart, C. J. R., 2002. The Geological Framework of the Yukon Territory. Yukon Geological Survey website.

Johnston, S.T. and Hachey, N., 1993. Preliminary results of 1:50,000 scale mapping in Wolverine Creek map area (115I/12), Dawson Range, southwest Yukon. In Yukon Exploration and Geology, 1992, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p 49-60.

Mortensen, J. K. and Tafti, R., 2003. Nature and origin of copper-gold mineralization at the Minto and Williams Creek deposits, west-central Yukon: Preliminary investigations. In Yukon Exploration and Geology 2002, D. S. Emond and L. L. Lewis (eds.), Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, p. 165-174.

Ouellette, D., 1989. Report on the 1989 percussion drilling of the STU property. Assessment report # 0902854.

Pautler, J.P., 2007. Geological, geochemical and geophysical assessment report on the STU property. Assessment report for Mr. Bill Harris.

Pearson, W. N. and Clark, A. H., 1979. The Minto copper deposit, Yukon Territory: a metamorphosed orebody in the Yukon Crystalline Terrane. Economic Geology, vol. 74, p.1577-1599.

Robertson, R.C.R., 2006. 2005 assessment report on the STU property. Assessment report for Midnight Mines Ltd.

Sherwood Copper Corp. at www.sherwoodcopper.com .

Tafti, R. and Mortensen, J. K. 2004. Early Jurassic porphyry (?) copper (-gold) deposits at Minto and Williams Creek, Carmacks Copper Belt, western Yukon. In Yukon Exploration and Geology 2003, Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, p. 289-303.

Tempelman-Kluit, D. J., 1984. Geology of the Laberge and Carmacks map sheets. Geological Survey of Canada Open File 1101.

Watson, K.W. and Joy, R.J., 1977. 1977 Geological, geochemical and geophysical report on the STU claim group, Hoochekoo Creek area, Whitehorse Mining District. Assessment report # 090248.

Western Silver Corp website at www.westerncoppercorp.com .

Appendix II: Statement of Claims

Grant	Claim	Claim	Claim	Record	Expiry
Number	Name	No.	Owner	Date	Date
YC37770	STU	1	Ron Stack - 100%.	12/13/2004	12/13/2010
YC37771	STU	2	Ron Stack - 100%.	12/13/2004	12/13/2010
YC37772	STU	3	Ron Stack - 100%.	12/13/2004	12/13/2010
YC37773	STU	4	Ron Stack - 100%.	12/13/2004	12/13/2010
YC37774	STU	5	Ron Stack - 100%.	12/13/2004	12/13/2010
YC37775	STU	6	Ron Stack - 100%.	12/13/2004	12/13/2010
YC37776	STU	7	Calvin Delwisch - 100%.	12/13/2004	12/13/2010
YC37777	STU	8	Calvin Delwisch - 100%.	12/13/2004	12/13/2010
YC37778	STU	9	Calvin Delwisch - 100%.	12/13/2004	12/13/2010
YC37779	STU	10	Calvin Delwisch - 100%.	12/13/2004	12/13/2010
YC40249	STU	11	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40250	STU	12	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40251	STU	13	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40252	STU	14	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40253	STU	15	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40254	STU	16	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40255	STU	17	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40256	STU	18	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40257	STU	19	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC40258	STU	20	Bill Harris - 100%.	9/19/2005	9/19/2009*
YC37788	STU	21	Andrew Robinson - 100%.	12/21/2004	12/21/2010
YC37789	STU	22	Andrew Robinson - 100%.	12/21/2004	12/21/2010
YC37790	STU	23	Andrew Robinson - 100%.	12/21/2004	12/21/2010
YC37791	STU	24	Andrew Robinson - 100%.	12/21/2004	12/21/2010
YC37792	STU	25	Andrew Robinson - 100%.	12/21/2004	12/21/2010
YC37793	STU	26	Andrew Robinson - 100%.	12/21/2004	12/21/2010
YC37794	STU	27	Andrew Robinson - 100%.	12/21/2004	12/21/2010
YC37795	STU	28	Andrew Robinson - 100%.	12/21/2004	12/21/2010
YC40259	STU	29	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40260	STU	30	Bill Harris - 100%.	9/19/2005	9/19/2010
YC37780	STU	31	Mike Power - 100%.	12/13/2004	12/13/2010
YC37781	STU	32	Mike Power - 100%.	12/13/2004	12/13/2010
YC37782	STU	33	Mike Power - 100%.	12/13/2004	12/13/2010
YC37783	STU	34	Mike Power - 100%.	12/13/2004	12/13/2010
YC37784	STU	35	Mike Power - 100%.	12/13/2004	12/13/2010
YC37785	STU	36	Mike Power - 100%.	12/13/2004	12/13/2010
YC37786	STU	37	Mike Power - 100%.	12/13/2004	12/13/2010
YC37787	STU	38	Mike Power - 100%.	12/13/2004	12/13/2010
YC40261	STU	39	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40262	STU	40	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40263	STU	41	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40264	STU	42	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40265	STU	43	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40266	STU	44	Bill Harris - 100%.	9/19/2005	9/19/2010

Grant	Claim	Claim	Claim	Record	Expiry
Number	Name	No.	Owner	Date	Date
YC40267	STU	45	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40268	STU	46	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40269	STU	47	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40270	STU	48	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40271	STU	49	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40272	STU	50	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40273	STU	51	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40274	STU	52	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40275	STU	53	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40276	STU	54	Bill Harris - 100%.	9/19/2005	9/19/2010
YC40201	STU	55	Bill Harris - 100%.	8/29/2005	8/29/2010
YC40202	STU	56	Bill Harris - 100%.	8/29/2005	8/29/2010
YC40203	STU	57	Bill Harris - 100%.	8/29/2005	8/29/2010
YC40204	STU	58	Bill Harris - 100%.	8/29/2005	8/29/2010
YC40205	STU	59	Bill Harris - 100%.	8/29/2005	8/29/2010
YC40206	STU	60	Bill Harris - 100%.	8/29/2005	8/29/2010
YC40207	STU	61	Bill Harris - 100%.	8/29/2005	8/29/2010
YC40208	STU	62	Bill Harris - 100%.	8/29/2005	8/29/2010
YC40209	STU	63	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40210	STU	64	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40211	STU	65	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40212	STU	66	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40213	STU	67	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40214	STU	68	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40215	STU	69	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40216	STU	70	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40217	STU	71	Bill Harris - 100%.	8/29/2005	8/29/2011
YC40218	STU	72	Bill Harris - 100%.	8/29/2005	8/29/2011
YC65256	STU	73	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65257	STU	74	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65258	STU	75	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65259	STU	76	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65260	STU	77	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65261	STU	78	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65262	STU	79	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65263	STU	80	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65264	STU	81	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65265	STU	82	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65266	STU	83	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65267	STU	84	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65268	STU	85	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65269	STU	86	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65270	STU	87	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65271	STU	88	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65272	STU	89	Bill Harris - 100%.	7/9/2007	7/9/2010

Grant	Claim	Claim	Claim	Record	Expiry
Number	Name	No.	Owner	Date	Date
YC65273	STU	90	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65274	STU	91	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65275	STU	92	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65276	STU	93	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65277	STU	94	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65278	STU	95	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65279	STU	96	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65280	STU	97	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65281	STU	98	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65282	STU	99	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65283	STU	100	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65284	STU	101	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65285	STU	102	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65286	STU	103	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65287	STU	104	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65288	STU	105	Bill Harris - 100%.	7/9/2007	7/9/2009*
YC65289	STU	106	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65290	STU	107	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65291	STU	108	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65292	STU	109	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65293	STU	110	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65294	STU	111	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65295	STU	112	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65296	STU	113	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65297	STU	114	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65298	STU	115	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65299	STU	116	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65300	STU	117	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65301	STU	118	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65302	STU	119	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65303	STU	120	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65304	STU	121	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65305	STU	122	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65306	STU	123	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65307	STU	124	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65308	STU	125	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65309	STU	126	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65310	STU	127	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65311	STU	128	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65312	STU	129	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65313	STU	130	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65314	STU	131	Bill Harris - 100%.	7/9/2007	7/9/2010
YC65315	STU	132	Bill Harris - 100%.	7/9/2007	7/9/2010
TOTAL	132	Claims			

* denotes one year additional work filed on January 9, 2009 to extend claims to 2010.

APPENDIX III

Sample Descriptions

STU PROJECT, Yukon Territory
2008 SAMPLE DESCRIPTIONS AND RESULTS

Cu in red in %

Au in red in g/t

SAMPLE		NAD 83	ZONE 8			Cu	Au	Ag
No.	LOCATION	EASTING	NORTHING	TYPE	GEOLOGY	ppm	ppb	ppm
526130	North end	403245	6923223	0.3m chip	30 cm wide more foliated and biotite rich zone at 130/70E within rusty outcrop of biotite granodiorite	5	<5	<0.2
S526131	North end	403440	6922844	soil	weak rusty, medium orange-brown B, from outcrop area of biotite granodiorite and aplite	20	<5	<0.2
S526132	C Zone	406658	6922256	soil	rusty B-C with decomposed granodiorite, below ash horizon, from Trench 2050E	13	<5	<0.2
S526133	C Zone	406670	6922262	soil	medium brown B, weak orange, below ash, good soil profile, Trench 2050E	22	<5	<0.2
S526134	C Zone	406680	6922270	soil	medium brown B, weak orange, below ash, Trench 2050E	10	10	<0.2
S526135	C Zone	406689	6922275	soil	medium brown B, poor soil development, below ash, east end of Trench 2050E	14	<5	<0.2
526136	C Zone	406551	6922421	5m chip	rough chip of foliated, silicified granodiorite with magnetite and malachite from Trench 1450E	5064	80	7.9
526137	C Zone	406563	6922433	1.5m chip	rough chip of foliated, silicified granodiorite with magnetite and malachite from Trench 1450E	3672	40	0.9
526138	C Zone	406563	6922434	grab	granodiorite with dark rusty Cu? mineral on fractures and minor malachite from Trench 1450E	2327	30	1.8
526139	C Zone	406563	6922436	grab	foliated granodiorite, variably silicified with magnetite, strong malachite, chalcocite, tenorite? on fractures from Trench 1450E	1.57	60	12.6
526140	C Zone	406511	6922472	1.0m chip	granodiorite, some epidote, minor malachite, from north wall, more biotite rich pieces along floor of Trench 1150E	2613	3.70	1.6
526141	C Zone	406522	6922423	grab	foliated granodiorite, silicified with secondary biotite, magnetite, strong malachite, chalcocite, below Trench 1150E	9108	100	5.0
526142	A Zone	404445	6921884	15m comp	composite grab of pieces in floor of Trench 8WV exposed over 15m of moderately foliated biotite granodiorite, silicified with secondary magnetite, moderate malachite, rusty soils at west end	6381	470	4.8
526143	A Zone	404398	6921873	20m comp	composite grab of pieces in floor of Trench 8WV exposed over 20m of weak to moderately foliated biotite rich granodiorite, moderate malachite	2685	120	1.7
S-01	A Zone	404596	6921686	soil	reddish brown B, above red zone in granodiorite containing 0.17%Cu/1m (22345), south wall of Trench 0+00W	93	<5	<0.2
S-02	A Zone	404574	6921676	soil	medium brown clayey B, 25m to west, Trench 0+00W	47	<5	<0.2
S-03	A Zone	404555	6921664	soil	medium brown B, 25m to west, Trench 0+00W	28	<5	<0.2
S-04	A Zone	404531	6921648	soil	medium brown B, 25m to west, Trench 0+00W	37	<5	<0.2
S-05	A Zone	404507	6921640	soil	medium brown sandy B, 25m to west, Trench 0+00W	30	<5	<0.2
S-06	A Zone	404608	6921690	soil	thin reddish brown B, below 1m of ash, above granodiorite outcrop, 15m to east of S-01, Trench 0+00W	97	<5	<0.2
S-07	A Zone	404464	6921752	soil	sandy medium brown B, above foliated zone in granodiorite with minor malachite just east of 22344, containing 0.12% Cu, north wall of Trench 4+00W, below ash layer	2935	<5	<0.2
S-08	A Zone	404446	6921741	soil	medium brown B, 25m to west of S-07, north wall of Trench 4+00W, below ash layer	73	<5	<0.2
S-09	A Zone	404489	6921765	soil	weak rusty medium brown B, 20m to east of S-07, north wall of Trench 4+00W, below ash layer	217	<5	<0.2

STU PROJECT, Yukon Territory 2006 SAMPLE DESCRIPTIONS AND RESULTS

Au in red in g/t
Cu, Pb, Zn in red in %
Anomalous results in blue

SAMPLE No.	LOCATION	NAD 83 EASTING	ZONE 8 NORTHING	TYPE	GEOLOGY	Cu ppm	Au ppb	Ag ppm
S22325	B Zone	405680	6920277	soil	red-brown C, above rusty fractures in Ksp megacrystic biotite granodiorite outcrop in Trench B-11	41	5	<0.2
S22326	B Zone	405685	6920286	soil	red-brown C, above rusty fractures in Ksp megacrystic biotite granodiorite outcrop in Trench B-11	18	5	<0.2
S22327	B Zone	405462	6919689	soil	rusty B, above rusty outcrop of Ksp megacrystic biotite granodiorite with dykes up to 40 cm of finer granodiorite trending 123-130/steep W	27	5	<0.2
S22328	B Zone	405743	6919484	soil	rusty B, above outcrop of Ksp megacrystic biotite granodiorite local pegmatite phases, Trench B-5	78	25	<0.2
22329	B Zone, TR B-3	405966	6919445	grab	fine grained biotite rich biotite granodiorite, weakly foliated, malachite with very fine specks of chalcopyrite and aggregates of chalcocite, replacing biotite Trench B-3; resample of 82529	1.57%	1.86g/t	9.8
82529	B Zone, TR B-3	405966	6919445	grab	2005 sample	2.86%	2.56 g/t	
22330	B Zone, TR B-3	405966	6919445	grab	strong limonite, moderate clay altered medium grained biotite granodiorite, rusty fractures with limonite, Mn, strong silicified envelopes, minor chalcocite? near start Trench B-3	2518	15	7.0
22331	B Zone, TR B-1	406085	6919268	grab	rusty medium grained biotite granodiorite, rusty fractures with limonite, near W end Trench B-1	62	5	0.3
22332	B Zone, TR B-2	406088	6919270	grab	medium grained biotite granodiorite, fractures with limonite, malachite, variably brecciated, fracture trend 130°, near 22331	117	15	2.1
22333	B Zone, TR B-3	406105	6919290	grab	moderate limonite, weak c ay-sericite altered medium grained biotite granodiorite, trace fine malachite staining	161	10	<0.2
22334	B Zone, @ SB-7	406121	6919312	1.0m chip	medium grained biotite granodiorite, with chalcopyrite, bonite, chalcocite in fractures and in weakly foliated magnetic biotite rich envelopes; fractures trend 130/70NE, malachite on fractures trending 010/85W	5561	110	5.8
22335	B Zone, TR B-1	406121	6919312	1.0m chip	hanging wall of 22334 with 010/85W fractures, trace malachite	168	5	0.3
22336	B Zone, TR B-0	406164	6919228	grab	limonitic subcrop with limonitic fractures, some with Mn, some brecciated across rusty 10m zone in centre of trench	57	5	<0.2
22337	B Zone, TR B-0	406164	6919228	grab	chlorite-epidote altered fractures in biotite coarse grained granodiorite, fractures at 010/85W and 130/70NE	41	5	<0.2
22338	B Zone, TR B-5	406232	6919191	grab	strong malachite stained biotite rich zone with chalcocite in biotite granodiorite with 130 fractures	7247	320	4.3
22339	B Zone, TR B-8	406314	6919111	grab	pegmatitic phase with trace malachite associated with more biotite rich zones associated with 130 fractures	411	15	0.2
22340	B Zone, TR B-9	405944	6919894	grab	foliated magnetic coarse grained-medium grained biotite granodiorite, foliation at 130- 147.1 Zn	245	5	<0.2
22341	A Zone, TR 600W	404310	6921692	grab	foliated magnetic medium grained biotite granodiorite, with apite veinlet, MR	3183	55	0.7
22342	A Zone, TR 1150W	404286	6921913	grab	weak-moderate clay altered, weak Mn coated medium grained biotite granodiorite-granodiorite, heavy with moderate malachite, moderate chalcocite, from E end of Trench, 2645 Zn	6722	265	5.5
22343	A Zone, TR 1150W	404285	6921906	grab	medium grained biotite granodiorite with weak malachite, trace disseminated chalcopyrite, Trench floor	4016	285	1.9
22344	A Zone, TR 400W	404458	6921754	grab	fresh looking medium grained biotite granodiorite-granodiorite, minor malachite	1243	30	0.3
22345	A Zone, TR 000W	404593	6921690	1.0m chip	5 cm rusty sheared zone ir centre of decomposed biotite granodiorite, trending 155/80E, East of 82534	1715	40	1.3
22346	A Zone, TR 1200E	404912	6921426	grab	malachite stained medium grained biotite granodiorite, with malachite in fractures and some limonite	237	10	<0.2
22347	C Zone, TR 1150E	406494	6922457	grab	moderate malachite stained weak-moderately foliated medium grained biotite granodiorite, with malachite in fractures and some limonite, secondary biotite, magnetite JB	1.59%	165	7.5

APPENDIX IV

Geochemical Procedure and Results

Analytical Procedure

GEOCHEMICAL GOLD ANALYSIS

Samples are catalogued and dried. Soils are prepared by sieving through an 80 mesh screen to obtain a minus 80 mesh fraction. Samples unable to produce adequate minus 80 mesh material are screened at a coarser fraction. These samples are flagged with the relevant mesh. Rock samples are 2 stage crushed to minus 10 mesh and a 250 gram subsample is pulverized on a ring mill pulverizer to -140 mesh. The subsample is rolled, homogenized and bagged in a pre-numbered bag.

The sample is weighed to 10/15/30 grams and fused along with proper fluxing materials. The bead is digested in aqua regia and analyzed on an atomic absorption instrument. Over-range values for rocks are re-analyzed using gold assay methods.

Appropriate reference materials accompany the samples through the process allowing for quality control assessment. Results are entered and printed along with quality control data (repeats and standards). The data is faxed and/or mailed to the client.

GOLD ASSAY

Samples are sorted and dried (if necessary). The samples are crushed through a jaw crusher and cone or rolls crusher to -10 mesh. The sample is split through a Jones riffle until a -250 gram subsample is achieved. The subsample is pulverized in a ring & puck pulverizer to 95% - 140 mesh. The sample is rolled to homogenize.

A 1/2 or 1.0 A.T. sample size is fire assayed using appropriate fluxes. The resultant dore bead is parted and then digested with aqua regia and then analyzed on a Perkin Elmer AA instrument.

Appropriate standards and repeat sample (Quality Control components) accompany the samples on the data sheet.

METALLIC GOLD ASSAY

Samples are catalogued and dried. Rock samples are two stage crushed to minus 10 mesh, then split to achieve a 250 gram (approximate) sub sample. The sample is pulverized to 95% - 140 mesh. The sample is weighed, then rolled and homogenized and screened at 140 mesh.

The -140 mesh fraction is homogenized and 2 samples are fire assayed for Au. The +140 mesh material is assayed entirely. The resultant fire assay bead is digested with acid and after parting is analyzed on a Perkin Elmer atomic absorption machine using air-acetylene flame to .03 grams/t detection limit.

The entire set of samples is redone if the quality control standard is outside 2 standard deviations or if the blank is greater than .015 g/t.

The values are calculated back to the original sample weight providing a net gold value as well as 2-140 values and a single +140 mesh value.

MULTI ELEMENT ICP ANALYSIS

Samples are catalogued and dried. Soil samples are screened to obtain a -80 mesh sample. Samples unable to produce adequate -80 mesh material are screened at a coarser fraction. These samples are flagged with the relevant mesh. Rock samples are 2 stage crushed to minus 10 mesh and pulverized on a ring mill pulverizer to minus 140 mesh, rolled and homogenized.

A 0.5 gram sample is digested with aqua regia which contains beryllium which acts as an internal standard. The sample is analyzed on a Jarrell Ash ICP unit.

Results are collated by computer and are printed along with accompanying quality control data (repeats and standards). Results are printed on a laser printer and are faxed and/or mailed to the client.

BASE METAL ASSAYS (Ag, Cu, Pb, Zn)

Samples are catalogued and dried. Rock samples are 2 stage crushed followed by pulverizing a 250 gram subsample. The subsample is rolled and homogenized and bagged in a pre-numbered bag.

A suitable sample weight is digested with aqua regia. The sample is allowed to cool, bulked up to a suitable volume and analyzed by an atomic absorption instrument, to .01 % detection limit.

Appropriate certified reference materials accompany the samples through the process providing accurate quality control.

Result data is entered along with standards and repeat values and are faxed and/or mailed to the client.

K:Methods/methicp K:methods/methauas

CERTIFICATE OF ASSAY AK 2008-8101

Bill Harris
P.O Box 31293
Whitehorse, Yukon
Y1A 5P7

21-Jul-08

No. of samples received: 9

Sample Type: Rock

Project: STU

Submitted by: Jean Pautler

ET #.	Tag #	Au (g/t)	Au (oz/t)	Cu (%)
5	E526139			1.57
6	E526140	3.70	0.108	

QC DATA:

Standard:

Cu120			1.53
OxI67	1.87	0.055	

JJ/nw
XLS/07

ECO TECH LABORATORY LTD.

Jutta Jealouse
B.C. Certified Assayer

31-Jul-08

ECO TECH LABORATORY LTD.

10041 Dallas Drive

KAMLOOPS, B.C.

V2C 6T4

Phone: 250-573-5700

Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2008- 8101**Bill Harris**

P.O Box 31293

Whitehorse, Yukon

Y1A 5P7

*No. of samples received: 9**Sample Type: Rock**Project: STU**Submitted by: Jean Pautler***Values in ppm unless otherwise reported**

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	E526130	<5	<0.2	0.84	15	70	5	0.25	3	4	72	5	2.12	<10	0.28	158	<1	0.06	3	620	22	<5	<20	30	0.07	<10	39	<10	<1	15
2	E526136	80	7.9	0.90	<5	545	<5	0.34	2	16	68	5064	2.62	<10	0.44	627	2	0.05	3	560	28	<5	<20	32	0.10	<10	49	<10	<1	100
3	E526137	40	0.9	1.07	<5	85	<5	0.37	2	24	73	3672	2.99	<10	0.69	774	3	0.05	5	830	22	10	<20	21	0.09	<10	68	<10	5	95
4	E526138	30	1.8	1.10	<5	95	<5	0.44	2	16	77	2327	2.73	10	0.68	1002	1	0.07	5	900	22	<5	<20	22	0.13	<10	62	<10	1	122
5	E526139	60	12.6	0.91	<5	55	<5	0.65	3	18	57	>10000	3.80	<10	0.38	612	11	0.03	4	190	24	<5	<20	140	0.03	<10	58	<10	9	77
6	E526140	>1000	1.6	1.15	<5	250	<5	0.47	2	13	54	2613	4.24	<10	0.78	1028	2	0.05	4	920	24	<5	<20	61	0.09	<10	73	<10	2	89
7	E526141	100	5.0	1.15	<5	850	<5	0.29	2	9	80	9108	3.47	<10	0.70	933	11	0.04	5	530	26	<5	<20	56	0.10	<10	66	<10	<1	119
8	E526142	470	4.8	1.01	<5	160	<5	0.25	2	8	84	6381	2.36	<10	0.67	435	<1	0.05	4	630	22	<5	<20	27	0.08	<10	54	<10	4	57
9	E526143	120	1.7	1.36	<5	280	<5	0.40	2	11	81	2685	2.85	<10	0.95	490	1	0.06	5	1100	24	<5	<20	33	0.12	<10	71	<10	<1	67

QC DATA:**Repeat:**

1	E526130	<5	<0.2	0.82	5	75	5	0.24	2	5	71	9	2.03	<10	0.28	95	<1	0.06	4	620	20	<5	<20	36	0.07	<10	38	<10	4	12
8	E526142	490																												

Resplit:

1	E526130	<5	<0.2	0.82	<5	70	10	0.24	2	5	70	5	2.00	<10	0.28	94	1	0.06	5	610	20	<5	<20	34	0.06	10	38	<10	3	11
---	---------	----	------	------	----	----	----	------	---	---	----	---	------	-----	------	----	---	------	---	-----	----	----	-----	----	------	----	----	-----	---	----

Standard:

Pb129a			11.9	0.84	5	70	<5	0.47	62	6	11	1422	1.58	<10	0.70	372	5	0.03	4	420	6146	5	<20	33	0.04	<10	13	<10	<1	9893
SE29		595																												

JJ/nw

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XLS/07

ECO TECH LABORATORY LTD.

Jutta Jealous

B.C. Certified Assayer

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APPENDIX V

Petrographic Report

**PETROGRAPHIC SURVEY
OF THE
STU CU-AU PROJECT,
CARMACKS COPPER-GOLD BELT, DAWSON RANGE
YUKON, CANADA**

Petrographic report prepared for

Jean Pautler, P.Ge

Prepared by:

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December 17, 2008

EXECUTIVE SUMMARY

A suite of 6 polished thin sections selected from the 2008 summer exploration program at the Stu Property in the Carmacks Copper-Gold Belt of Dawson Range is described in this report.

Petrographic observations were logged into an Access database that can be used in conjunction with graphic striplog plotting software to visualize correlations between mineral abundance and geochemistry. The most significant observations are summarized below:

- The **host rock** is white and black, medium-grained, equigranular, variably magnetic granodiorite. Mode mineralogy consists of quartz, plagioclase>potassic feldspar, biotite>hornblende. Accessory minerals include sphene (titanite), magmatic epidote, apatite, and zircon. Magnetite is the dominant primary opaque.
- **Metamorphism** is upper greenschist facies (biotite zone). A **penetrative foliation** is defined by melanocratic domains of biotite>>hornblende-epidote-sphene-apatite and leucocratic domains of quartz and feldspars (plagioclase>kspar). Locally hornblende is partly converted to metamorphic prograde biotite.
- **Magmatic epidote** is described as an accessory phase in the host to the Minto and Carmacks Copper deposits. Magmatic epidote crystallizes at pressures of 6 kBar or greater, which is equivalent to a minimum of 18 km depth.
- Narrow zones of **grain boundary reduction** appear to control the location of supergene copper and iron minerals. Grain boundary reduction “corridors” overprint the pre-existing foliation, and are interpreted as permeable conduits for mineralizing fluids.
- In most cases, **supergene copper** and iron minerals occur as late fracture fill and open space fill minerals. Sample 82527 is an exception in which supergene Cu-carbonate occupies mafic sites, which is interpreted as a replacement after pre-existing Cu-sulphides, which in turn replaced primary mafic grains in the melanocratic foliation domains.
- Very small **gold(?)** grains under 0.5 microns were observed adjacent to late Cu-carbonate filled fissures in two samples.
- **Hydrothermal alteration minerals** are poorly developed and include fine grained clays (illite, kaolinite and/or smectite) partly replacing feldspars, and chlorite partly replacing biotite.
- A **deposit model** applicable to the Carmacks Cu-Au belt is not fully developed. Typical porphyry alteration assemblages are not present in this sample suite. Typical porphyry alteration assemblages are also absent at the Minto and Carmacks Copper deposits. The recently discovered Tropicana (4 million contained ounces Au) deposit in western Australia has similar ore controls, alteration assemblages, and orebody textures, but contrary to the deposits of the Carmacks Copper-Gold belt, no mineable copper is reported for the Tropicana deposit.

TABLE OF CONTENTS

Executive summary.....	i
Introduction, Scope, and Methodology.....	1
Lithologic Classification.....	1
Carmacks Cu-Au Belt.....	4
Petrography of sample suite.....	4
Interpretations and conclusions.....	7
References.....	8
Statement of qualifications.....	9

LIST OF TABLES

Table1. Graphic summary of petrographic observations.....	2
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LIST OF FIGURES

Figure 1. QAPF diagrams for classification of igneous rocks.....	3
Figure 2. Geological map of Aishihik Lake Suite and Cu-Au prospects.....	3

APPENDIX

Appendix I. Individual thin section reports.....	10
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INTRODUCTION, SCOPE AND METHODOLOGY

The petrographic survey of selected samples from J. Paultler, P.Geo's 2008 mapping and sampling program in the Stu property of a study of 6 polished thin sections. Jean Pautler, P.Geo. selected the samples and commissioned Anna Fonseca, P.Geo. to produce petrographic descriptions of the sample suite. The samples were prepared into polished and standard uncovered thin sections by Vancouver GeoTech Labs. The billots were stained with cobaltinitrate to assist in estimates of potassic feldspar content.

Petrographic observations were done using a Leitz Ortholux II Pol-BK microscope, and digital photographs were taken using a Canon PowerShot S51S connected directly to a laptop. A minimum of ten digital photographs were taken for each sample to illustrate the principal features and mineralogy. The first photograph was always taken at the lowest magnification in order to display the characteristic texture and mineralogy of the sample. Modal abundances were done as visual estimates, and reflect the total volume of each mineral in the thin section (including veins and fine-grained groundmass). Observations were input into an Access database that contains a combination of memo and lookup fields for descriptions of hand specimen, lithology, structure, texture, primary and alteration minerals, and opaques. The database includes hand specimen descriptions, which are brief descriptions of the thin section billots.

An alteration intensity was assigned for each secondary mineral on a scale of 1 (weak) to 4 (very strong). An alteration index (AI) was assigned for each secondary mineral in order to take into account the influence of primary mineralogy and metamorphic reactions on the alteration intensity recorded. For instance, a mafic rock with abundant secondary epidote may be assigned an absolute epidote intensity of 4, whereas epidote alteration index may be 2 or 3. Furthermore, a sample with abundant chlorite that formed as a devitrification product of volcanic glass may be assigned an absolute chlorite intensity of 4, whereas the chlorite alteration index would be 0. Mineral alteration indexes were summed to produce a rock alteration index. In most cases a rock alteration index of 10 or higher is indicative of significant alteration. Table 1 provides a graphic summary of quantitative and qualitative data from petrographic observations and infrared spectroscopy interpretations. Appendix III contains the individual thin section reports and photomicrographs.

LITHOLOGIC CLASSIFICATION

Visual estimates of modal mineralogy were used for rock classification. Additional comments on uncertainties or possible protoliths were recorded and are presented beneath the Lithology field in the individual thin section reports. The modal mineralogy fields describe the entire current rock composition (i.e., it includes secondary metamorphic and hydrothermal alteration minerals). Where pseudomorphism is recognized, the rock name was given based on the inferred original rock composition.

Classification of igneous rocks were based on IUGS (International Union of the Geological Sciences) standard classification system developed by the Subcommission on the Systematics of Igneous Rocks in 1973 for igneous rocks with colour index smaller than 90. Figure 1 shows QAPF diagrams used for plutonic (Streckeisen, 1976) and volcanic (Streckeisen, 1979) rock classification.

CARMACKS COPPER-GOLD BELT

The Stu Property is a Copper-Gold exploration target located within Granite Mountain Batholith of the Early Jurassic Aishik/Long Lake Plutonic Suite. Aishihik/Long Lake Plutonic Suite intrudes Whitehorse Trough sediments and Lewes River arc lithologies of Stikinia, and Finlayson metavolcanic assemblage and Simpson Range metaplutonic suite equivalents of Yukon Tanana Terrane. Figure 2 shows the location and regional geology of the Stu Property.

The Stu Property is located near the eastern margin of Granite Mountain Batholith, between the Minto (45 million tons of 1% Cu, 0.7 g/t Au, at 0.2% Cu cut-off grade) and Carmacks Copper (11.98 million tons of 0.86% Cu and 0.46 g/t Au) deposits. Granodiorite and quartz monzonite to quartz diorite are the dominant host lithologies in the Minto and Carmacks Copper deposits. Economic Cu-Au mineralization in the Minto deposit is restricted to zones of strongly developed penetrative foliation, which can be interpreted as shears or as volcanic rock rafts within the granodiorite host. At Carmacks Copper, similarly intensely foliated rocks controlling economic mineralization are reported as augite-phyric volcanic rocks of Povoas Formation, forming rafts and lenses within the predominantly granodiorite host. Coeval augite-phyric basaltic andesites of Stikinia and Quesnelia in British Columbia host important Cu-Au deposits such as Galore Creek, Mt. Milligan, Red Chris, and Lorraine.

Supergene processes in the Carmacks Copper deposit resulted in the oxidation of Cu-bearing sulphides to depths exceeding 250 m (Scott Castleman, pers. comm.), whereas in the Minto deposit oxidation is restricted to the upper meters.

PETROGRAPHY OF THE SAMPLE SUITE

Granodiorite

All samples consist of strongly foliated, medium-grained, white and black, equigranular granodiorite. The granodiorite contains well defined leucocratic domains (quartz and feldspars) and melanocratic domains (biotite-hornblende-epidote-apatite-zircon).

Mode minerals includes quartz, plagioclase, potassic feldspar, biotite, and hornblende. **Quartz** forms 25 to 35% of the rock, and occurs as anhedral, irregular grains elongated along the dominant foliation, with interfingering and locally severely reduced grain boundaries. **Plagioclase** forms on average 35% of the rock, and consists of subhedral to anhedral prismatic grains that reach up to 3 mm in length, and locally has severely reduced grain boundaries with intense development of granophyric textures. **Potassic feldspar** forms less than 10% of the rock, and occurs as smaller, anhedral to subhedral prismatic grains with locally well developed tartan twinning (microcline) and perthitic texture. **Biotite** typically forms up to 15% of the rock, and occurs as brown, elongate laths up to 3 mm that define the foliation. **Hornblende** forms up to 5% of the rock, as green subhedral to anhedral grains with very well developed amphibole cleavages. Hornblende is closely associated with biotite, and locally partly converted to metamorphic biotite. Hornblende is absent in samples containing the highest amounts of supergene copper minerals.

Accessory minerals are restricted to melanocratic foliation domains, and include sphene, apatite, epidote, and zircon. **Epidote** forms 2 to 3% of the rock as euhedral to subhedral prismatic grains <0.3 mm that are closely associated to, but do not replace biotite. **Sphene** (titanite) forms up to 2% of the rock as subhedral to euhedral grains up to 0.2 mm. **Apatite** forms up to 5% of the rock as unusually large (>0.3 mm) stubby prismatic grains with rounded terminations. Zircon forms very rare, small (<0.1 mm) tabular prismatic grains with rounded terminations.

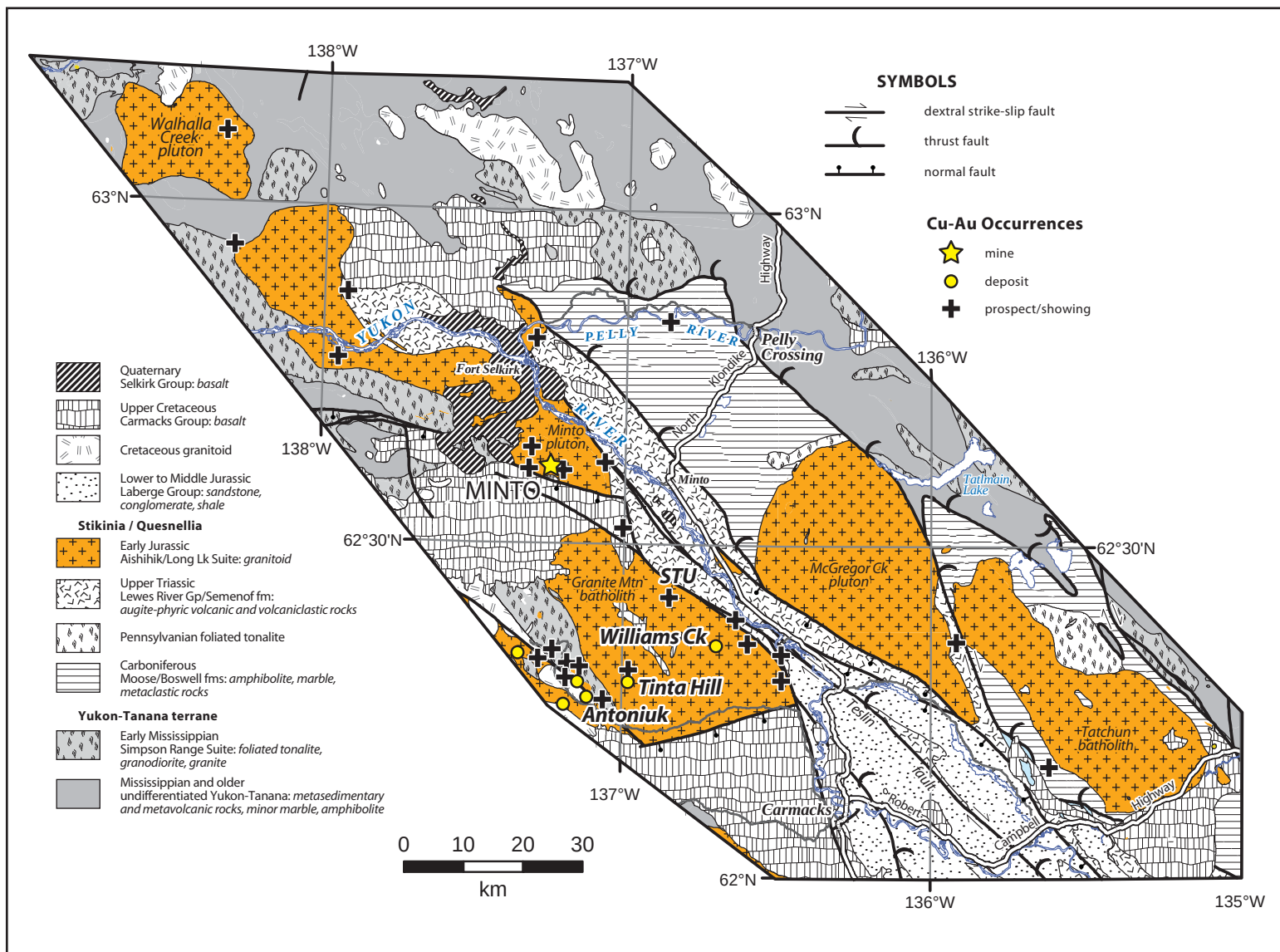


Figure 2. Regional geology of the Carmacks Copper-Gold belt, showing the location of the Stu, Minto, and Carmacks Copper (Willimas Creek). Modified by Hood et al. (2009, in press).

Magnetite is the most abundant opaque mineral and forms 2 to 4% of the rock in the melanocratic foliation domains as euhedral to subhedral octahedral grains <0.8 mm, that are weakly replaced by hematite along microfissures.

Deformation and metamorphism

Metamorphism is of upper **greenschist facies biotite zone**. Locally, metamorphic biotite partly replaces hornblende along grain boundaries and cleavage planes. Hornblende is interpreted as being igneous, therefore the conversion to biotite is interpreted as resulting from **prograde** metamorphism.

A very well developed **penetrative foliation** is defined by melanocratic domains consisting of biotite>hornblende-epidote-sphene-apatite-magnetite. A second, less developed foliation is present, and is defined mainly by biotite.

Tabular zones of severe **grain boundary reduction** up to 1 cm wide occur in samples 1150E C-Zone, 1450E C-Zone, and 82527. Grain boundary reduction predominantly affects leucocratic domains, and results in the formation of mosaics of quartz and feldspars with polygonal (foam or annealed) texture, and intensely developed granophyric texture. **Granophyric texture** consists of geometric (triangular, wedge-shaped, or hexagonal) solid state intergrowths of quartz and potassic feldspar and/or quartz and Na-plagioclase in larger grains, and myrmekitic (vermicular) textures in finer-grained colonies.

Hydrothermal Alteration

Hydrothermal alteration minerals are poorly developed and include clays and chlorite. Fine-grained **clays** (illite+/-kaolinite+/-smectite) form local, weak to moderate replacement after specific growth zones in plagioclase. Clay alteration is most intense in the vicinity of intense supergene copper mineral deposition. Weak **chlorite** locally forms partial replacement of biotite along cleavage planes. No carbonate, or hydrothermal potassic or albitic feldspars were observed.

Supergene Copper

Malachite is the dominant supergene copper mineral, with subordinate chrysocolla and brochantite(?). Malachite has radial acicular habit, and coats microfissures and fractures. Most of the copper minerals display textures indicative of transport and open space fill. Sample 82527 has malachite and yellow-brown Fe-oxihydroxides occupying a significant amount of mafic sites in the foliation, and in this case is interpreted as low temperature replacement of pre-existing Cu-sulphides, which in turn replaced primary mafic grains.

Opaque Mineralogy

Primary **magnetite** is the most common opaque, and forms 2 to 4% of the rock as euhedral to subhedral octahedra that are weakly converted to hematite along microfissures. **Chalcopyrite(?)** forms very fine-grained (<0.5 micron) rare disseminations and isolated grains. **Gold(?)** grains <0.5 microns were observed in samples 1450E-C Zone, and Stu B-Zone-A. **Hematite** occurs as sparse anhedral grains coating fractures and filling open spaces.

INTERPRETATIONS AND CONCLUSIONS

A shoshonitic rock (alkalic) associated porphyry Cu-Au deposit model is not adequate to the Stu, Minto, and Carmacks Copper deposits on the basis of depth of emplacement, hydrothermal alteration assemblages, control over mineralized horizons, and host rock type. Tafti (2005) provides detailed descriptions, photographs, and photomicrographs of a representative number of samples from the Minto and Williams Creek (now Carmacks Copper) Cu-Au deposits, which are very similar to this suite of samples from the Stu Property, but not similar to the alkalic porphyry deposits of British Columbia.

Magmatic epidote is ubiquitous in melanocratic foliation domains. Magmatic epidote indicates minimum crystallization pressures of 6 kBar, which is equivalent to depths of 18 to 20 km. Tafti (2005) reports ubiquitous magmatic epidote in similar plutonic host rocks of Minto Batholith. The depths required for crystallization of the Granite Mt. Batholith far exceed typical depths of deposition for porphyry style deposits. Additionally, unusually large subhedral apatite grains suggest slow cooling, which may have resulted from great depth.

Typical porphyry hydrothermal mineral assemblages are not reported for the Minto and Carmacks Copper deposits, and are completely absent in this suite of samples from the Stu Property. Tafti (2005) reports potassic alteration as being restricted to shreddy biotite replacing euhedral to subhedral hornblende grains. Potassic alteration in porphyry deposits typically involves substantial K metasomatism with production of massive orthoclase replacing all feldspars. K metasomatism is typically more pronounced in felsic than in mafic hosts, but even basaltic hosts display significantly higher degrees of hydrothermal orthoclase than what is reported for Minto and Carmacks Copper.

Whereas permeable volcanoclastic units can control the distribution of disseminated alkalic Cu-Au porphyry style mineralization in the deposits of British Columbia, the dominant control over mineralization in the Carmacks Copper-Gold belt appears to be zones of permeability that result from severe post-peak metamorphism grain boundary reduction. Moderately developed annealed textures in the fine-grained mosaics that develop interstitially to larger prismatic grains suggest heating by a nearby intrusive source.

An alternative, yet juvenile and uncertain model for controls and styles of mineralization in the Carmacks Copper-Gold belt may be found in the recently discovered Tropicana gold deposit of Anglo Ashanti in western Australia. The Tropicana deposit has 4 million ounces of gold hosted in felsic gneiss. Brecciation, veining, and widespread potassic alteration are absent. There appears to be a strong relationship between grain size and mineralization, with gold preferentially hosted in fine-grained feldspathic gneisses. The alteration is reported as consisting of shreddy biotite, minor white mica, and pyrite. Initially, the Tropicana deposit was explored as a potential IOCG target, but dramatic differences in alteration assemblages, textures, and ore controls led to the development of a Tropicana model.

REFERENCES

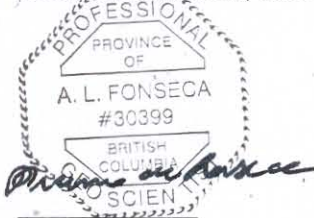
- Hood, S., Colpron, M. 2009 (in press): Map of the Carmacks Copper Belt.
- Streckeisen, A. L., 1974. Classification and Nomenclature of Plutonic Rocks. Recommendations of the IUGS Subcommittee on the Systematics of Igneous Rocks. *Geologische Rundschau. Internationale Zeitschrift für Geologie*. Stuttgart. Vol.63, p.773-785.
- Streckeisen, A. L., 1978. IUGS Subcommittee on the Systematics of Igneous Rocks. Classification and Nomenclature of Volcanic Rocks, Lamprophyres, Carbonatites and Melilitic Rocks. Recommendations and Suggestions. *Neues Jahrbuch für Mineralogie, Abhandlungen*, Vol. 141, 1-14.
- Tafti, R., 2005, Nature and Origin of the Early Jurassic Copper (-Gold) Deposits at Minto and Williams Creek, Carmacks Copper Belt, Western Yukon: Examples of Deformed Porphyry Deposits, Unpublished M.Sc. thesis, The University of British Columbia, 213 p.

STATEMENT OF QUALIFICATIONS

I, Anna Fonseca, P. Geo. certify that:

1. I have been involved in geological mapping and mineral exploration in British Columbia, Yukon, Alaska, Russia, and Mexico since 1994.
2. I am a graduate of the University of Alaska Fairbanks with a Degree in Geology (B.Sc., 1993) and I obtained a Masters of Science degree from the University of British Columbia in Mineral Exploration (M.Sc., 1998).
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
4. I have previous experience in petrographic descriptions of altered plutonic and volcanic rocks from the North and South American Cordillera (Canada, Mexico, U.S.A., and Peru).
5. I have previous field experience in the exploration and alteration mapping of porphyry deposits.
6. I am the author of all sections of this report on Petrographic Survey of the Stu Cu-Au Project, Carmacks Copper-Gold Belt, Dawson Range Yukon, Canada.
7. I did not participate in geological field work in the Stu Property or in its surrounding area.
8. I have no direct or indirect interest in the properties or securities of Bill Harris or his affiliated companies, nor do I expect to acquire such interest.

Dated December 17, 2008



Anna Fonseca, P. Geo.

APPENDIX I

INDIVIDUAL THIN SECTION REPORTS

epidote-sphene-biotite-meta-granodiorite

Hand Specimen Medium-grained, equigranular, white and black, moderately foliated quartzofeldspathic rock, strongly magnetic.

Mode Mineralogy		
%	Mineral	Source
25	Quartz	plutonic
40	Plagioclase	plutonic
8	Kspar	plutonic
0	White Mica	hydrothermal1
1	Clay	hydrothermal1
Carbonate		
10	Biotite	plutonic/metamorp
3	Epidote	plutonic
Chlorite		
3	Opaques	plutonic
1	Fe-oxyhydroxi	supergene
2	Cu-silicates	supergene
2	Cu-carbonates	supergene
2	apatite	plutonic
2	Sphene	plutonic
0		

Texture 1 annealed**Structure** penetrative foliation**Texture 2****Strength****Grain Size** medium grained (>0.25<2mm)**Ksp Stain** Weak Kspar in groundmass**Modal Mineralogy Comments**

Quartz forms irregular interfingering grains < 0.5 mm. Plagioclase forms subhedral to anhedral prismatic grains < 4 mm, with well developed polysynthetic twinning. Zones of intense grain boundary reduction have intensely developed myrmekite. Kspar forms narrow zones in plagioclase grains. Magmatic epidote forms subhedral grains associated with biotite and lesser sphene. No hornblende remains. Sphene forms subhedral grains associated with biotite and epidote. Biotite forms laths up to 1.5 mm long. Apatite forms small stubby prismatic grains with rounded terminations, associated with mafics.

Veins			
	Mineral 1	Mineral 2	Envelope
Vein 1			
Vein 2			
Vein 3			

Opaque Mineralogy

%	Opaque	How
---	--------	-----

0	Hema	anhedral
---	-------------	----------

3	Mag	euohedral
---	------------	-----------

Py**Po****Cpy****Moly****Asp****Sph****Gn**

<3% euohedral domainal (restricted to mafic foliation domains) magnetite grains, and local secondary anhedral hematite, also associated with mafic domains.

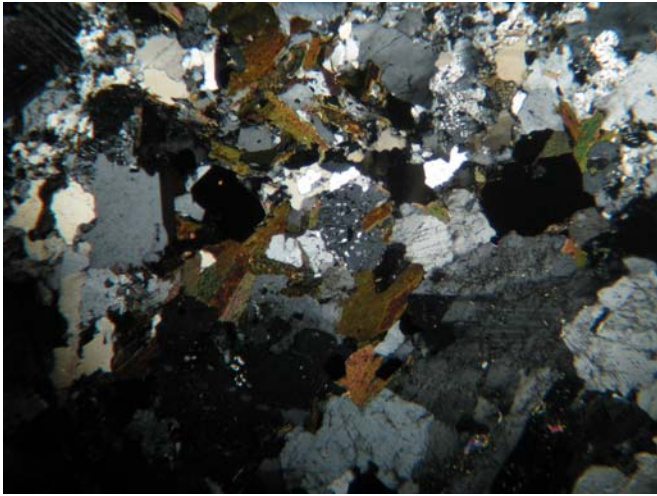
Secondary Mineralogy

	Mineral Intensity	How	How 2	AI
White Mica				
Carb.				
Clay	weak	domainal		1
Epidote				
Chlorite				
Biotite				
Kspar				
Quartz				
Fe-oxihydrox	moderate	pseudomorph		2
Cu-Silicate	moderate	pseudomorph		2
Cu-Carbonate	moderate	pseudomorph		2

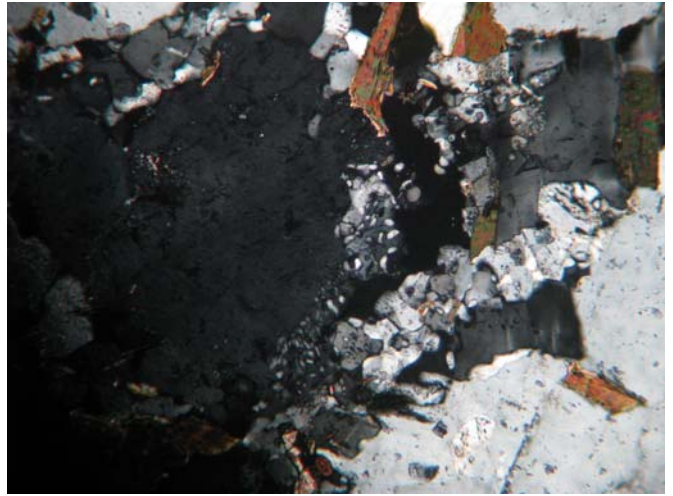
Alteration Comments

Moderate orange-brown Fe-oxihydroxide intergrown with malachite and lesser chrysocolla replacing mafic grains (hornblende and biotite). Chrysocolla locally fills dissolution vugs(?). Very weak fine-grained clay (smectite?) after feldspars.

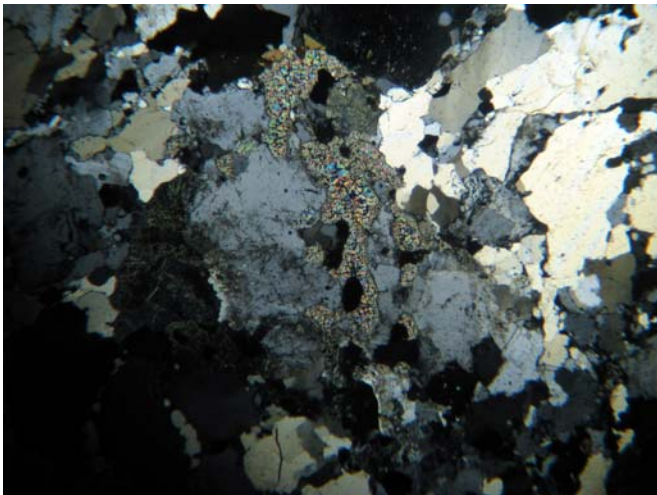
1150E-C-Zone



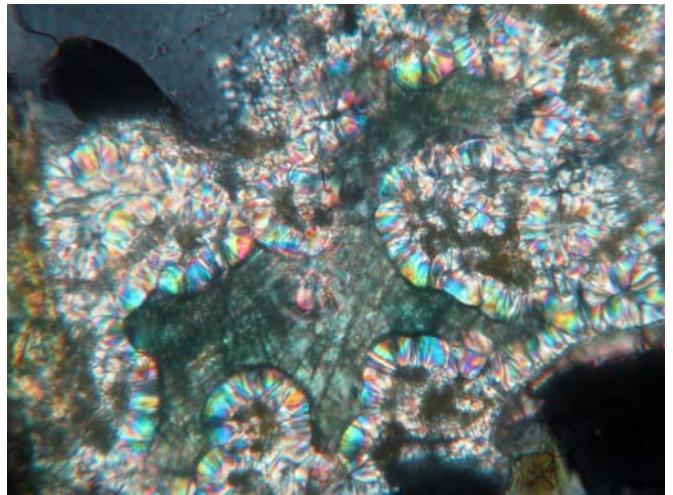
1150E-C-Zone_001 FOV (mm): 6 Crossed polars
Biotite-bearing quartzofeldspathic rock with well developed myrmekitic texture.



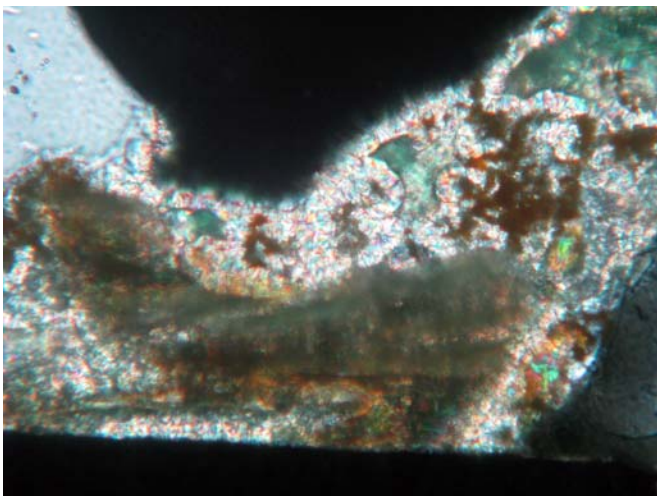
1150E-C-Zone_002 FOV (mm): 1.7 Crossed polars
Myrmekitic colonies are best developed along grains with reduced boundaries.



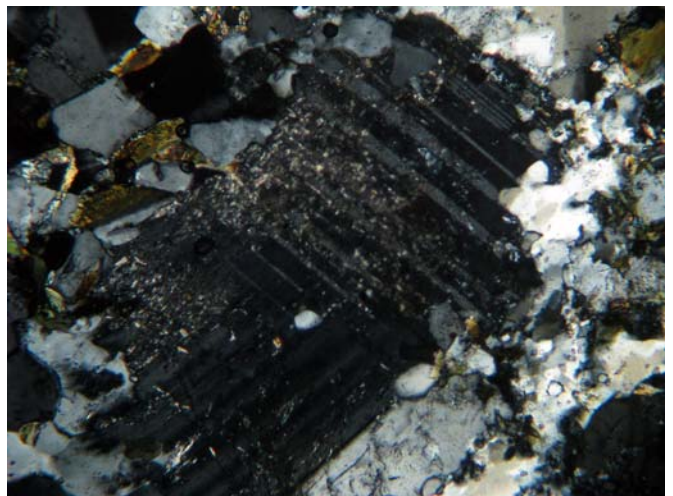
1150E-C-Zone_003 FOV (mm): 6 Crossed polars
Radial and concentric malachite (centre) and green brochantite(?) (left of centre) are most abundant in areas with greatest grain boundary reduction.



1150E-C-Zone_004 FOV (mm): 0.4 Crossed polars
Green brochantite(?) at core, and radial malachite.

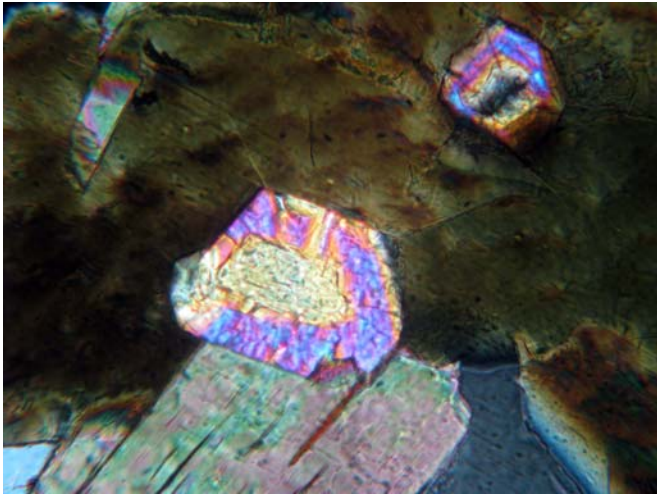


1150E-C-Zone_005 FOV (mm): 0.4 Crossed polars
Partly preserved biotite at centre, and supergene chrysocolla, malachite, and orange-brown Fe-oxihydroxides.

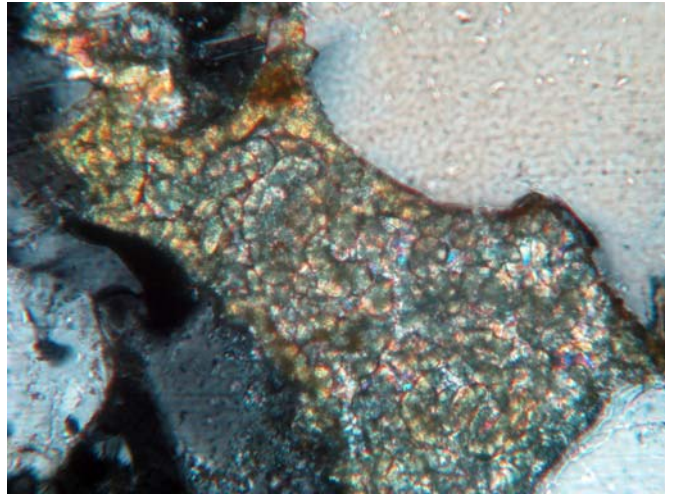


1150E-C-Zone_006 FOV (mm): 1.7 Crossed polars
Moderate fine-grained clay (smectite?) and white mica partly replacing plagioclase.

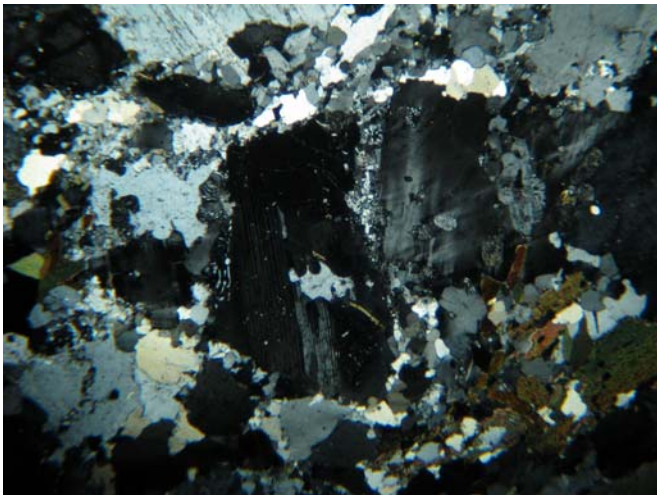
1150E-C-Zone



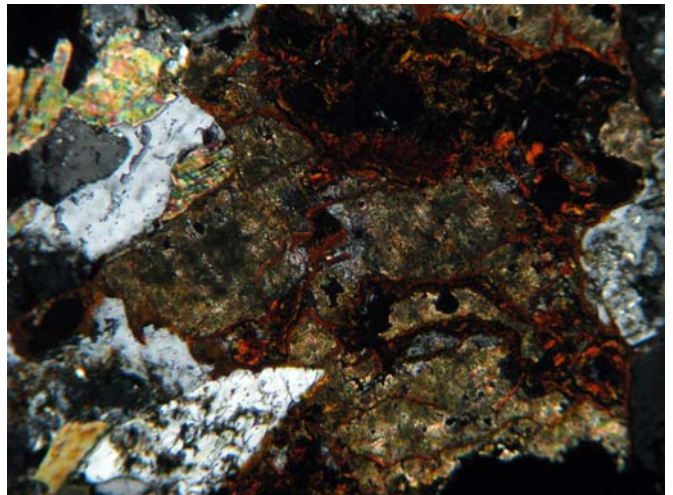
1150E-C-Zone_007 FOV (mm): 0.4 Crossed polars
Euhedral magmatic epidote intergrown with biotite.



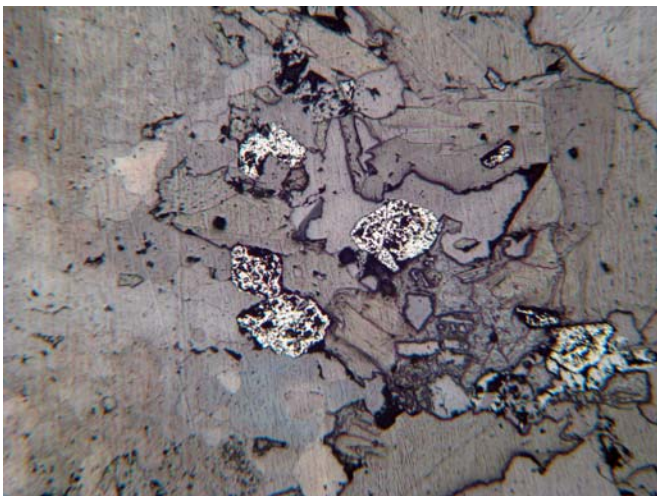
1150E-C-Zone_008 FOV (mm): 0.4 Crossed polars
Intergrown malachite and chrysocolla appear to fill a void left from the dissolution of mafic grains.



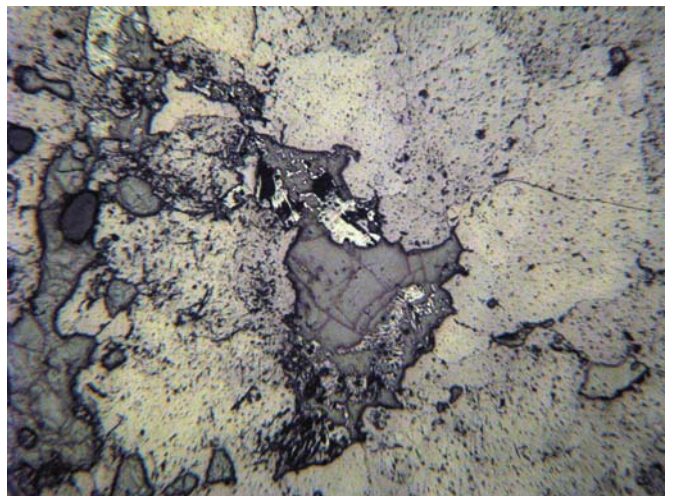
1150E-C-Zone_009 FOV (mm): 6 Crossed polars
Granophyric texture in reduced grain boundaries.



1150E-C-Zone_010 FOV (mm): 1.7 Crossed polars
Red-brown Fe-oxyhydroxide, greenish-brown very fine-grained malachite and opaques replacing feldspars and mafic grains (hornblende?).



1150E-C-Zone_011 FOV (mm): 4 Reflected light.
Euhedral (primary) magnetite grains associated with mafic domains.



1150E-C-Zone_012 FOV (mm): 4 Reflected light.
Hematite (grey, metallic) associated with malachite in a mafic domain.

epidote-sphene-hornblende-biotite-meta-granodiorite

Hand Specimen Medium-grained, equigranular, white and black, moderately foliated quartzofeldspathic rock, moderately magnetic.

Mode Mineralogy		
%	Mineral	Source
30	Quartz	plutonic
37	Plagioclase	plutonic
10	Kspar	plutonic/metamorp
1	White Mica	hydrothermal1
1	Clay	hydrothermal1
Carbonate		
15	Biotite	plutonic/metamorp
3	Epidote	plutonic
1	Chlorite	hydrothermal1/met
3	Opaques	plutonic
Fe-oxhydroxi		
4	Cu-silicates	supergene
Cu-carbonates		
5	Hornblende	plutonic/metamorp
0		
0		
0		

Texture 1 annealed**Structure** penetrative foliation**Texture 2****Strength****Grain Size** medium grained (>0.25<2mm)**Ksp Stain** Weak Kspar in groundmass**Modal Mineralogy Comments**

Quartz forms irregular interfingering and polygonal grains < 0.3 mm. Plagioclase forms subhedral to anhedral prismatic grains < 4 mm, with well developed polysynthetic twinning. Zones of intense grains boundary reduction have intensely developed myrmekite and foam texture. Kspar forms narrow zones in plagioclase grains. Magmatic epidote forms subhedral grains associated with biotite, hornblende, and lesser sphene. Hornblende forms green anhedral to subhedral grains with well developed cleavages, and unevenly distribution throughout the mafic domains. Sphene forms subhedral grains along mafic domains in the foliation. Biotite forms laths up to 1.5 mm long. Kspar(?) form subhedral prismatic grains <0.2 mm aligned along the mafic domains.

Veins

	Mineral 1	Mineral 2	Mineral 3	Envelope
Vein 1	Malachite			
Vein 2				
Vein 3				
	Malachite fills microfissures and voids left by dissolution of Ca-rich grains associated with hornblende.			

Opaque Mineralogy

%	Opaque	How
0	Hema	anhedral
3	Mag	euhedral
	Py	
	Po	
0	Cpy	disseminated
	Moly	
	Asp	
	Sph	
	Gn	

<3% subhedral to euhedral magnetite in mafic foliation domains is associated with minor hematite. Disseminated very fine grained trace chalcopyrite. Gold(?) grain adjacent to malachite fracture fill veinlet.

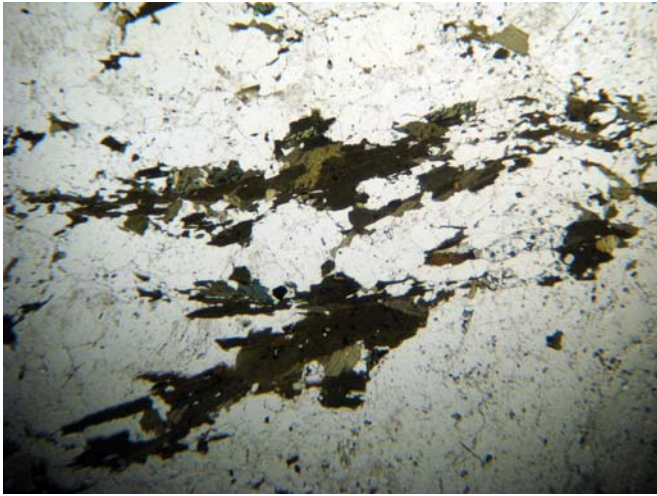
Secondary Mineralogy

	Mineral Intensity	How	How 2	AI
White Mica	very weak	domainal		1
Carb.				
Clay	very weak	domainal		0
Epidote				
Chlorite	very weak	pseudomorph		1
Biotite				
Kspar				
Quartz				
Fe-oxihydrox				
Cu-Silicate	moderate	fine grained		3
Cu-Carbonate				

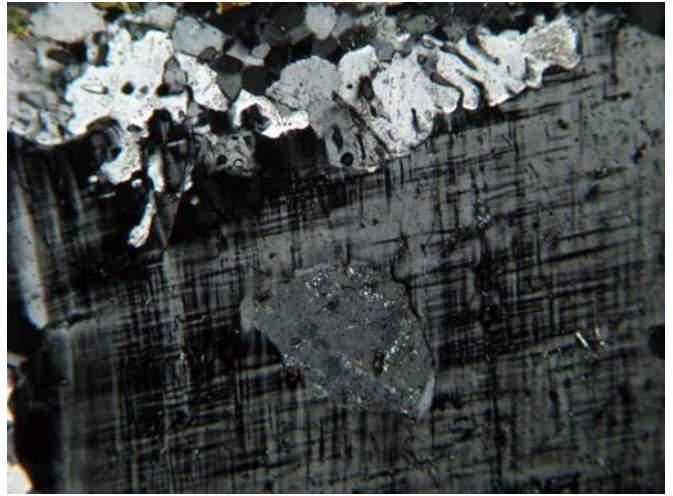
Alteration Comments

Moderate chrysocolla forming radial incrustations adjacent to well preserved green hornblende grains and filling microfissures. Very weak fine-grained white mica (illite)+/clay (smectite?) after feldspars becomes strongest near mafic foliation domains with abundant malachite.

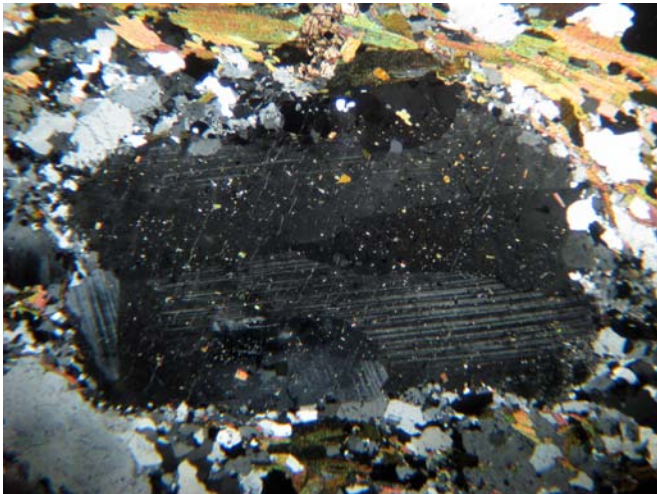
1450E-C-Zone



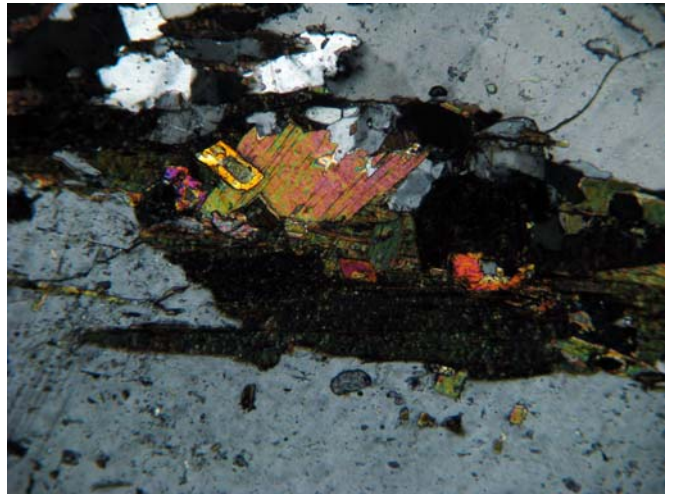
1450E-C-Zone_001 FOV (mm): 6 Plane polarized light
Brown-green biotite and lesser green hornblende define the foliation.



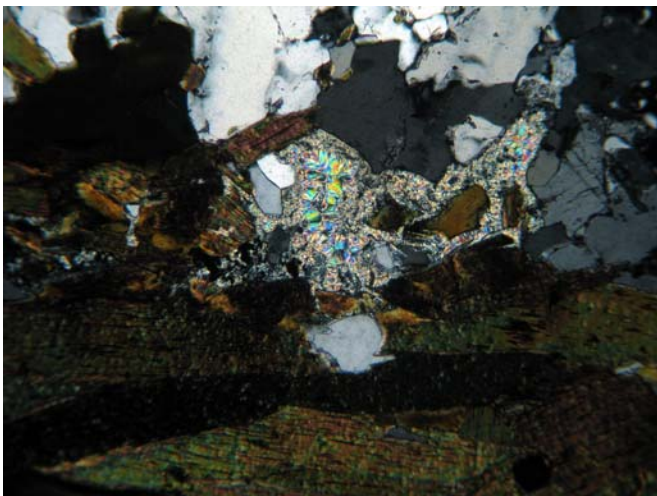
1450E-C-Zone_002 FOV (mm): 1.7 Crossed polars
Large microcline grain displaying characteristic tartan twinning, and with grain boundaries reduced, forming a mosaic of myrmekitic quartz-Na-plagioclase intergrowths.



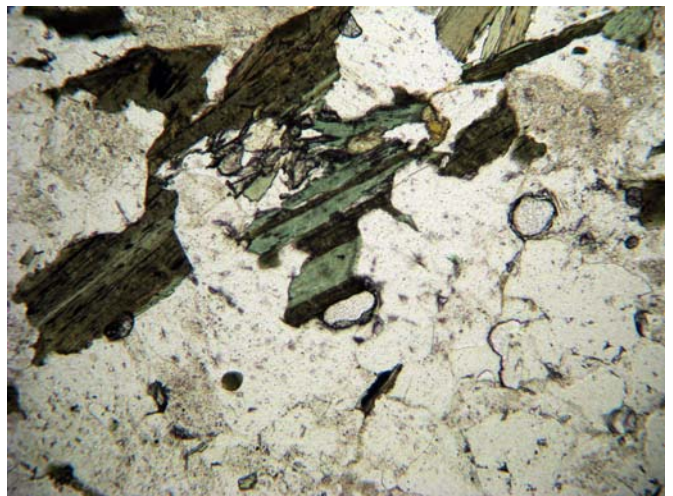
1450E-C-Zone_003 FOV (mm): 6 Crossed polars
Grain boundary reduction affecting prismatic plagioclase.



1450E-C-Zone_004 FOV (mm): 1.7 Crossed polars
Four subhedral to euhedral magmatic epidote grains intergrown with (not replacing) biotite.



1450E-C-Zone_005 FOV (mm): 1.7 Crossed polars
Malachite filling mafic sites

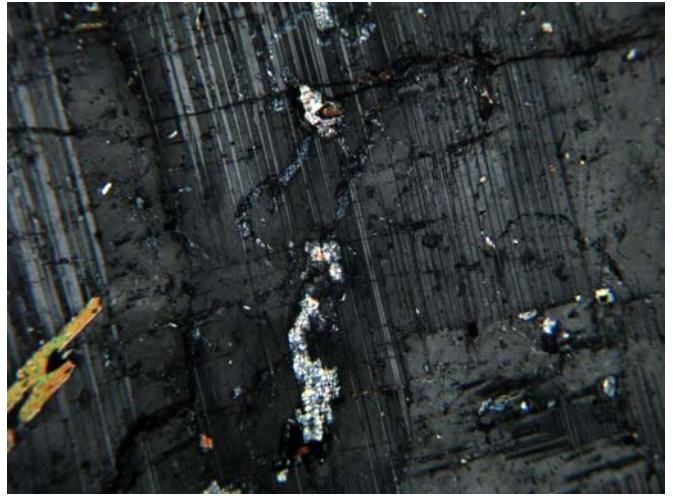


1450E-C-Zone_006 FOV (mm): 1.7 Plane polarized light
Local green chlorite partly replacing biotite along cleavage planes and grain boundaries.

1450E-C-Zone



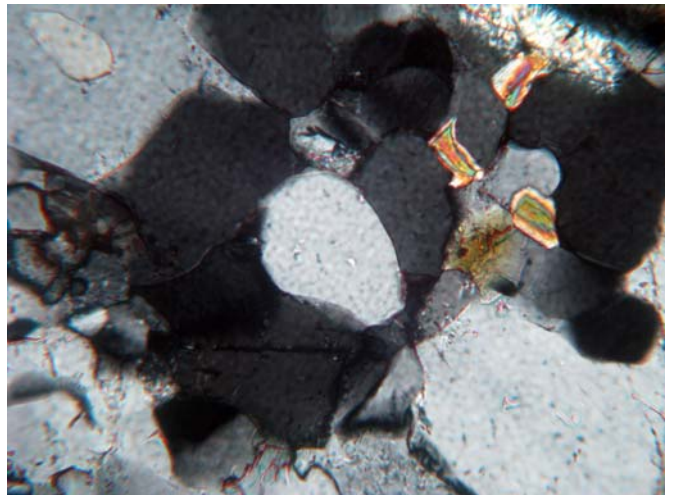
1450E-C-Zone_007 FOV (mm): 6 Crossed polars
Moderate white mica (illite)+/-clay partly replacing specific growth zones plagioclase grains.



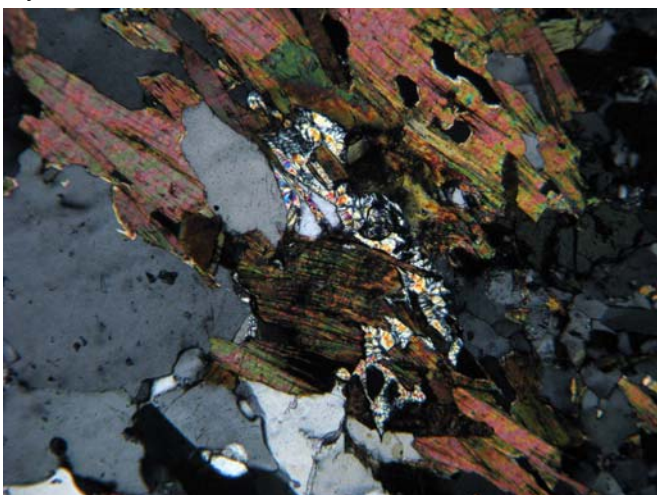
1450E-C-Zone_008 FOV (mm): 1.7 Crossed polars
Malachite fills minute fractures in a plagioclase grain.



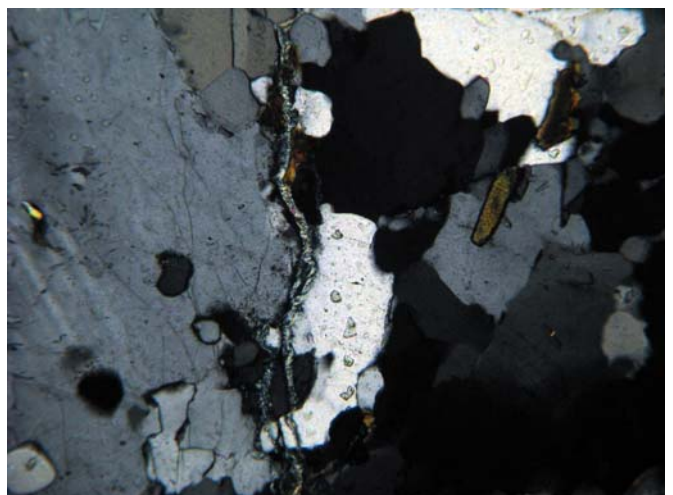
1450E-C-Zone_009 FOV (mm): 1.7 Crossed polars
Malachite replaces (calcic?) portions of plagioclase grains adjacent to hornblende.



1450E-C-Zone_010 FOV (mm): 0.4 Crossed polars
Grain boundary reduction resulted in a variably developed foam or annealed texture.

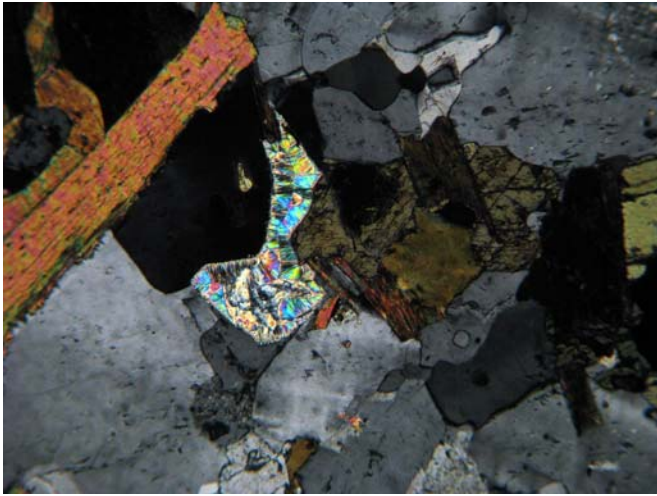


1450E-C-Zone_011 FOV (mm): 1.7 Crossed polars
Malachite associated with mafic sites, and deposited adjacent to primary biotite and hornblende.

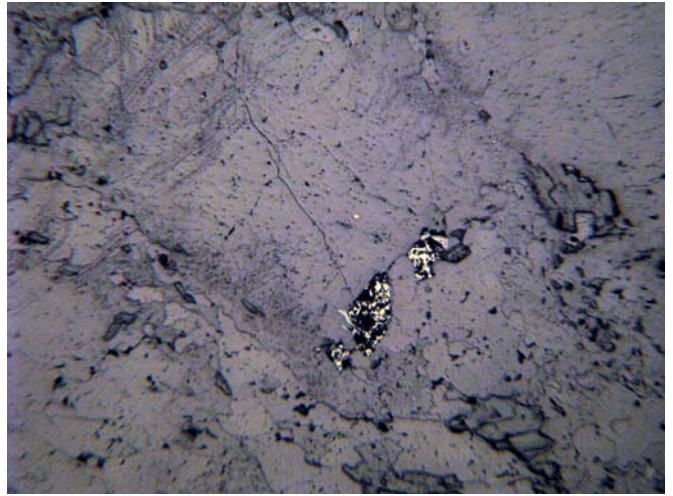


1450E-C-Zone_012 FOV (mm): 1.7 Crossed polars
Chrysocolla and malachite filling discontinuous and irregular fissures.

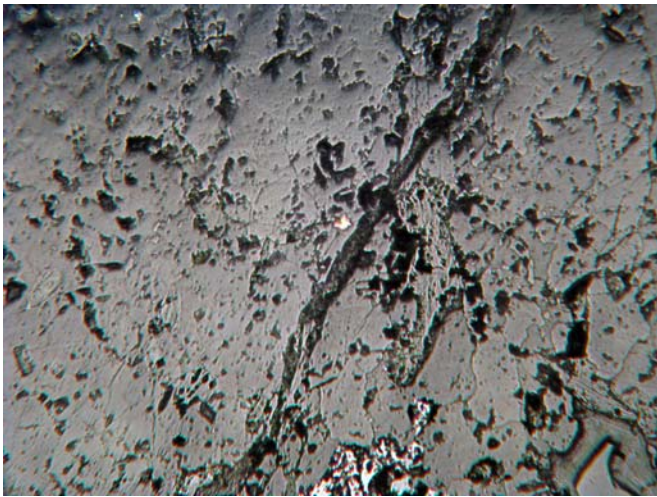
1450E-C-Zone



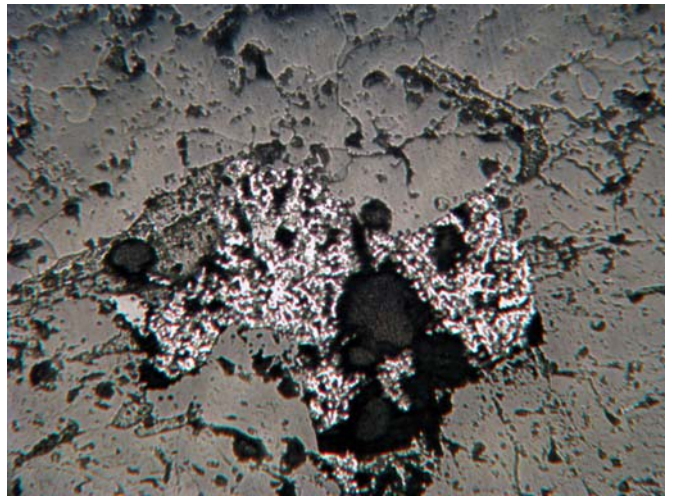
1450E-C-Zone_013 FOV (mm): 1.7 Crossed polars
Malachite most commonly appears closely associated with green hornblende.



1450E-C-Zone_014 FOV (mm): 4 Reflected light.
Subhedral magnetite, minor hematite (lighter grey, adjacent to magnetite), and chalcopyrite (centre, yellow, very small).



1450E-C-Zone_015 FOV (mm): 2 Reflected light.
Gold(?) grain adjacent to a malachite fracture fill veinlet.



1450E-C-Zone_016 FOV (mm): 2 Reflected light.
Subhedral to euhedral magnetite.

hornblende-epidote-sphene-biotite-meta-granodiorite

Hand Specimen Medium-grained, white and black, strongly foliated quartzofeldspathic rock, weakly magnetic.

Mode Mineralogy		
%	Mineral	Source
25	Quartz	plutonic
38	Plagioclase	plutonic
5	Kspar	plutonic
1	White Mica	hydrothermal1
1	Clay	hydrothermal1
Carbonate		
15	Biotite	plutonic/metamorp
3	Epidote	plutonic
Chlorite		
0	Opagues	plutonic
2	Fe-oxyhydroxi	supergene
0	Cu-silicates	supergene
Cu-carbonates		
5	Hornblende	plutonic
2	Sphene	plutonic
3	apatite	plutonic
0		

Opaque Mineralogy		
%	Opaque	How
0	Hema	anhedral
Mag		
Py		
Po		
Cpy		
Moly		
Asp		
Sph		
Gn		
Trace hematite.		

Texture 1 granophyric

Structure penetrative foliation

Texture 2

Strength

Grain Size medium grained (>0.25<2mm)

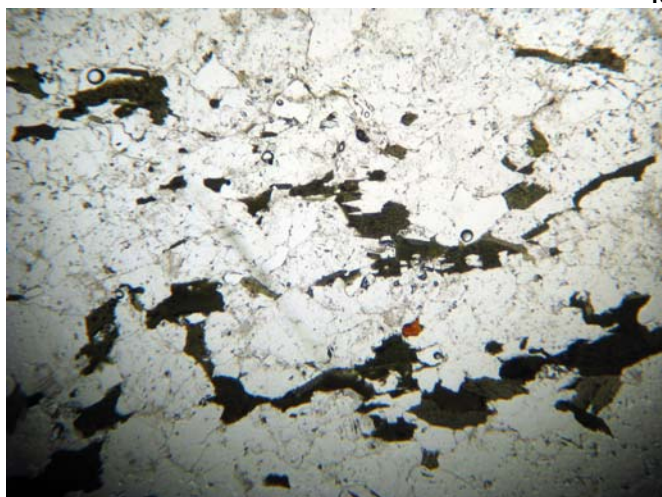
Ksp Stain Weak Kspar in groundmass

Modal Mineralogy Comments
Quartz forms irregular interfingering grains < 0.3 mm. Plagioclase form subhedral to anhedral prismatic grains < 3 mm, with well developed polysynthetic twinning. Kspar forms narrow zones in plagioclase grains. Granophyric texture occurs locally. Magmatic epidote forms subhedral grains associated with biotite and sphene. Green hornblende is distributed unevenly, and locally is weakly converted to metamorphic biotite. Sphene forms anhedral grains associated with biotite and epidote. Biotite forms laths up to 2.5 mm long, that are associated with hornblende and epidote, and define the foliation. Apatite forms small stubby prismatic grains with rounded terminations, associated with mafics.

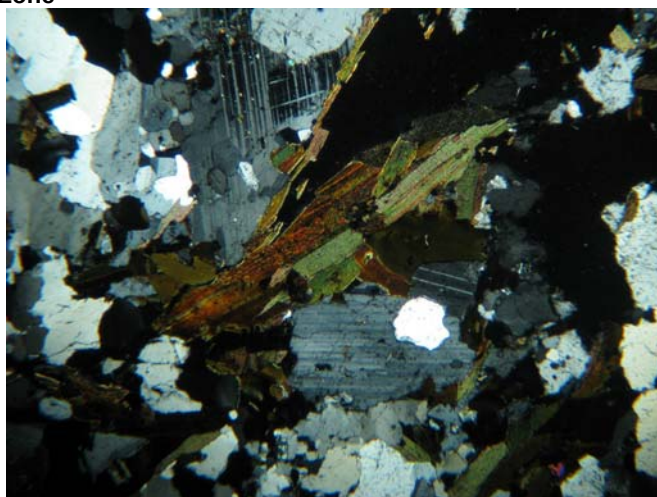
Veins					
Mineral 1		Mineral 2		Mineral 3	Envelope
Vein 1					
Vein 2					
Vein 3					

Secondary Mineralogy				
Mineral	Intensity	How	How 2	AI
White Mica	very weak	domainal		0
Carb.				
Clay	very weak	domainal		0
Epidote				
Chlorite				
Biotite	weak	pseudomorph		0
Kspar				
Quartz				
Fe-oxihydrox	weak	pseudomorph		1
Cu-Silicate	very weak	domainal		1
Cu-Carbonate				
Alteration Comments				
Weak orange-brown Fe-oxihydroxide replacing mafic grains (hornblende), and rare radial concentric chrysocolla. Very weak fine-grained white mica (illite)+/-kaolinite after feldspars.				

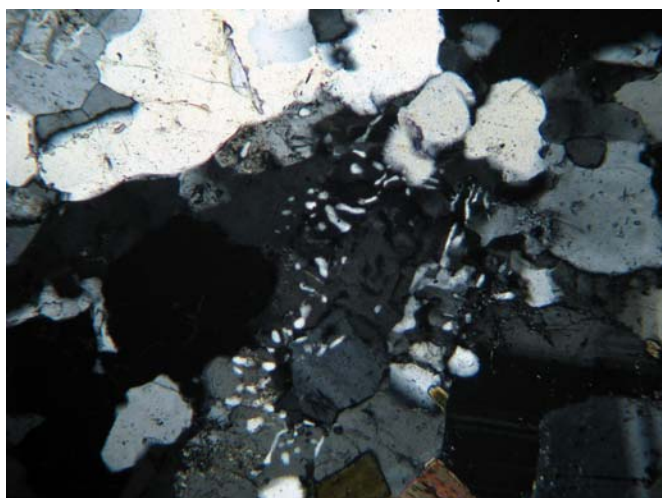
400W-A-Zone



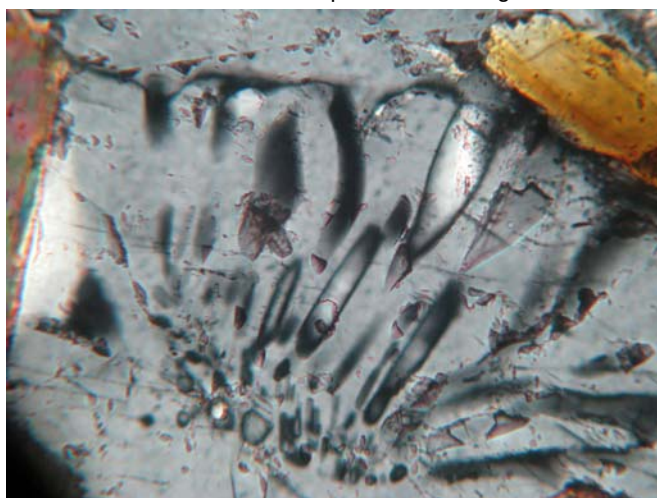
400W-A-Zone_001 FOV (mm): 6 Plane polarized light
Biotite and other mafics define the well developed foliation.



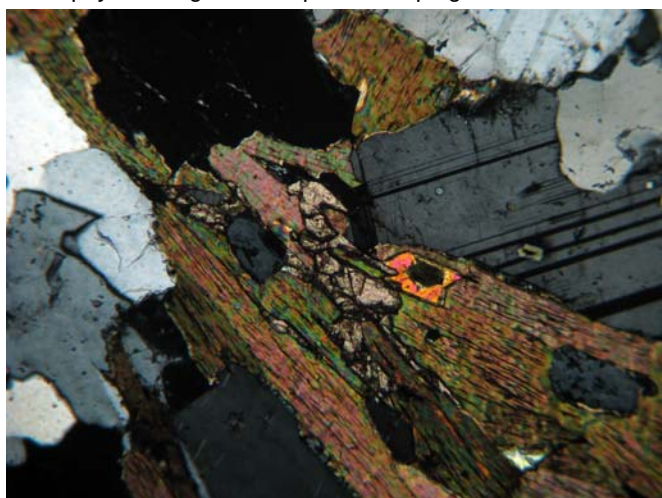
400W-A-Zone_002 FOV (mm): 6 Crossed polars
Biotite forms subhedral laths up to 2.5 mm long.



400W-A-Zone_003 FOV (mm): 1.7 Crossed polars
Granophyric intergrowth of quartz and plagioclase.



400W-A-Zone_004 FOV (mm): 0.4 Crossed polars
Granophyric intergrowth.

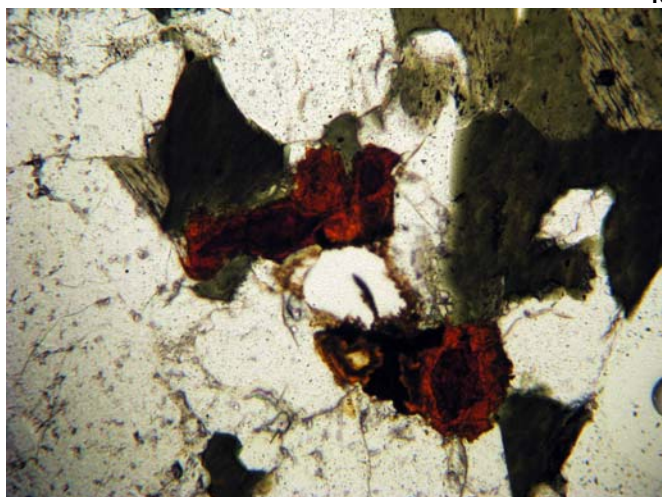


400W-A-Zone_005 FOV (mm): 1.7 Crossed polars
Magmatic epidote (right of centre, euhedral, high birefringence colours), sphene (centre, beige, subhedral), biotite, and apatite (dark grey birefringence).

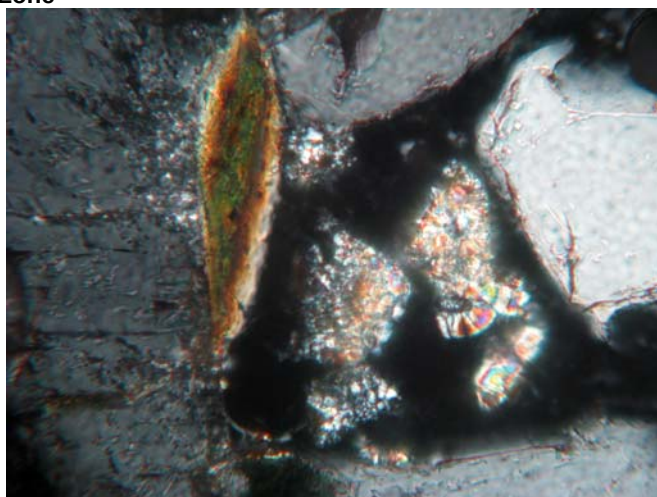


400W-A-Zone_006 FOV (mm): 1.7 Plane polarized light
Green hornblende is preserved locally, but partly converted to metamorphic biotite.

400W-A-Zone



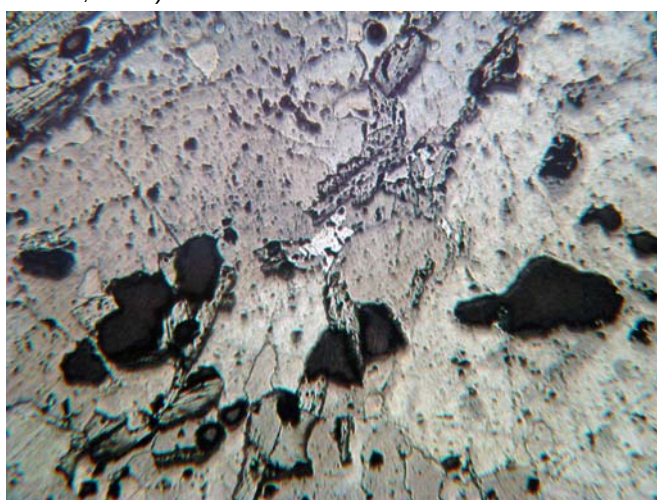
400W-A-Zone_007 FOV (mm): 1.7 Plane polarized light
Red-brown Fe-oxihydroxides replacing hornblende.



400W-A-Zone_008 FOV (mm): 0.4 Crossed polars
Rare malachite (centre, white and bright birrefringence colours, radial) after mafics.



400W-A-Zone_009 FOV (mm): 0.4 Plane polarized light
Orange-brown Fe-oxihydroxides partly replacing green hornblende.



400W-A-Zone_010 FOV (mm): 4 Reflected light.
Anhedral hematite (centre, small).

Hand Specimen Medium-grained, equigranular, white and black, moderately foliated quartzofeldspathic rock, strongly magnetic, local malachite forming small patches <0.5 mm, associated with orange-brown Fe-oxihydroxides.

Mode Mineralogy		
%	Mineral	Source
40	Quartz	plutonic
28	Plagioclase	
8	Kspar	plutonic/metamorp
1	White Mica	hydrothermal1
1	Clay	hydrothermal1
	Carbonate	
8	Biotite	plutonic/metamorp
2	Epidote	plutonic
	Chlorite	
5	Opagues	plutonic+hydrother
2	Fe-oxhydroxi	supergene
4	Cu-silicates	supergene
2	Cu-carbonates	supergene
2	Sphene	plutonic
0		
0		
0		

Texture 1 annealed

Structure penetrative foliation

Texture 2

Strength

Grain Size medium grained (>0.25<2mm)

Ksp Stain Weak Kspar in groundmass

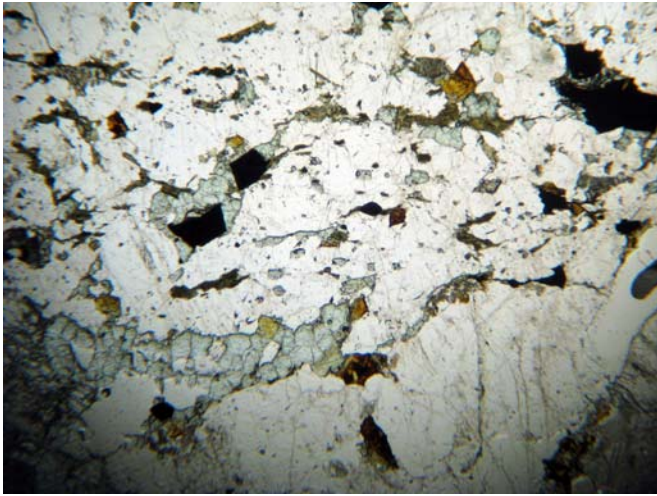
Modal Mineralogy Comments

Quartz forms irregular interfingering and polygonal grains < 0.2 mm, that are concentrated in certain regions of the thin section. Plagioclase forms subhedral to anhedral prismatic grains < 4 mm, with well developed polysynthetic twinning. Zones of intense grains boundary reduction have moderately developed myrmekite and foam texture. Magmatic epidote forms sparse subhedral grains associated with biotite, hornblende, and lesser sphene. Sphene forms subhedral grains along mafic domains in the foliation. Biotite forms laths up to 2 mm long.

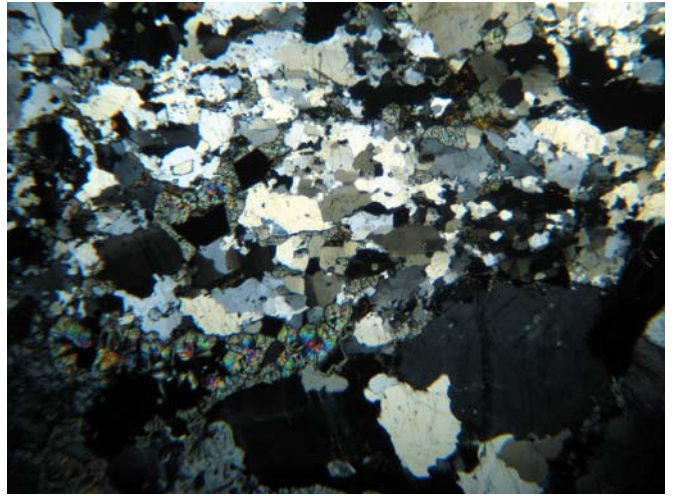
Veins			
	Mineral 1	Mineral 2	Envelope
Vein 1	chrysocolla		
Vein 2			
Vein 3			
Chrysocolla fills discontinuous fissures.			

Opaque Mineralogy		
%	Opaque	How
1	Hema	anhedral
4	Mag	euohedral
	Py	
	Po	
0	Cpy	fine grained
	Moly	
	Asp	
	Sph	
	Gn	
<4% euohedral to subhedral (plutonic) magnetite with <1% anhedral hematite (hydrothermal/supergene). Trace very fine-grained chalcopyrite(?)		

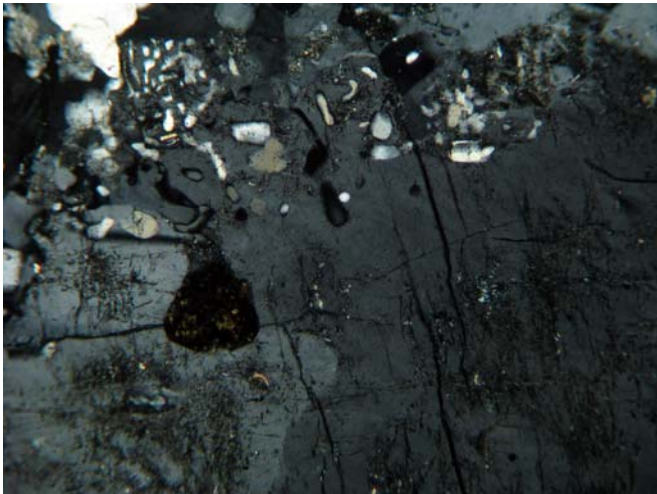
Secondary Mineralogy				
	Mineral Intensity	How	How 2	AI
White Mica	very weak	domainal		0
Carb.				
Clay	very weak	domainal		0
Epidote				
Chlorite				
Biotite				
Kspar				
Quartz				
Fe-oxihydrox	weak	domainal		2
Cu-Silicate	strong	fracture filled	disseminated	4
Cu-Carbonate	moderate	disseminated		3
Alteration Comments				
Strong malachite forming radial replacements after minerals in the mafic domains of the foliation. Local orange-brown Fe-oxihydroxide along mafic domains of the foliation. Very weak fine-grained white mica (illite)+/clay (smectite?) after feldspars becomes strongest near mafic foliation domains with abundant malachite.				



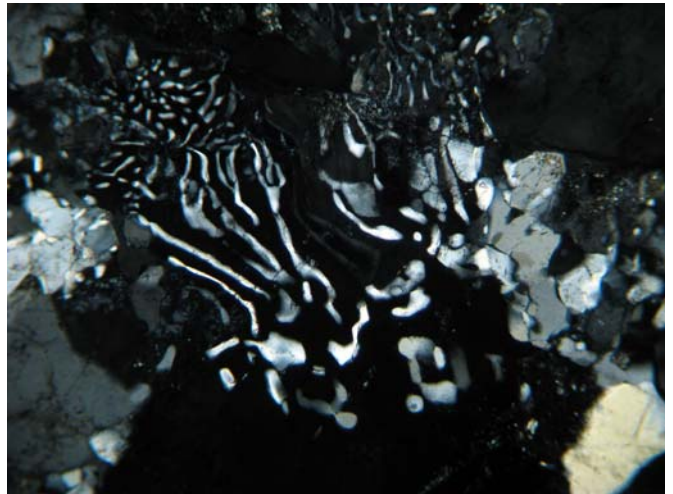
82527_001 FOV (mm): 6 Plane polarized light
Foliated rock in which mafic foliation domains are strongly replaced by light green malachite yellow-brown Fe-oxihydroxides, and opaques.



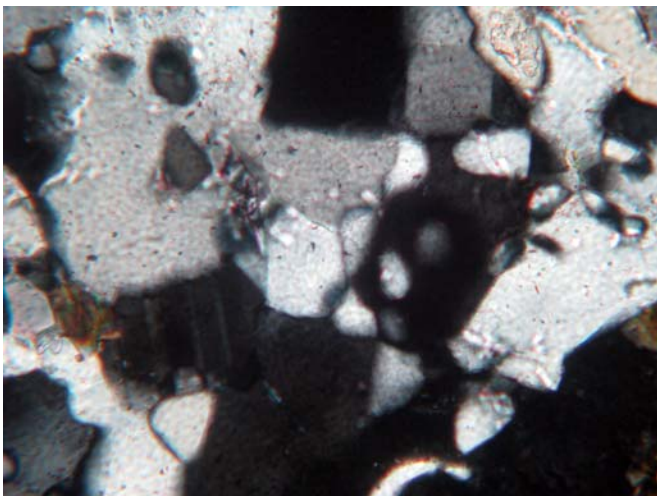
82527_002 FOV (mm): 6 Crossed polars
Same, under crossed polars.



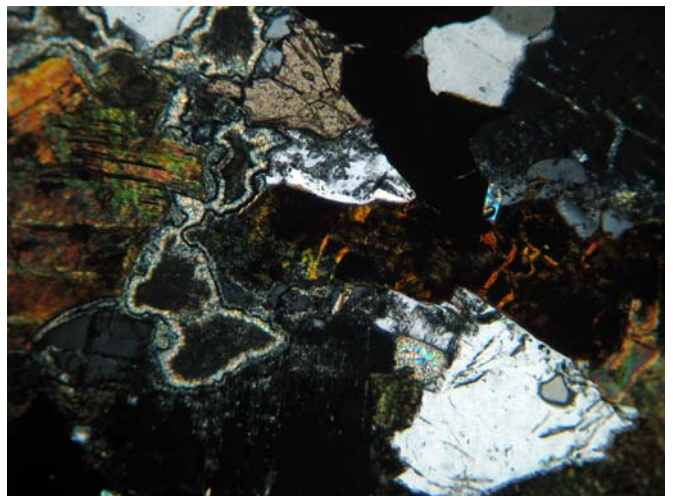
82527_003 FOV (mm): 1.7 Crossed polars
Grain boundary reduction in a large plagioclase grains includes development of myrmekitic colonies.



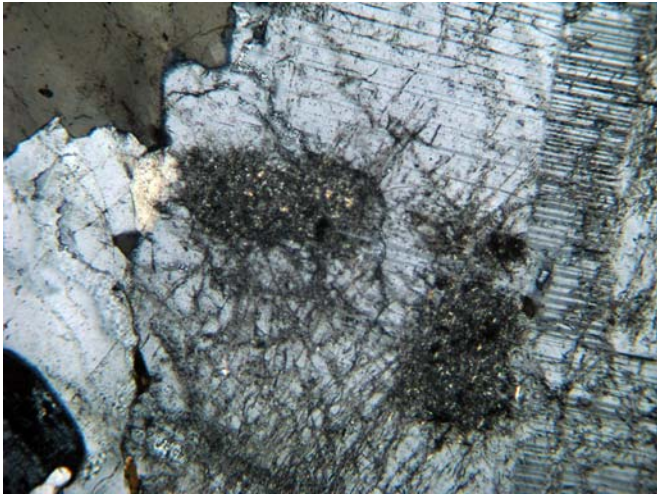
82527_004 FOV (mm): 1.7 Crossed polars
Myrmekitic intergrowth of quartz and sodic plagioclase.



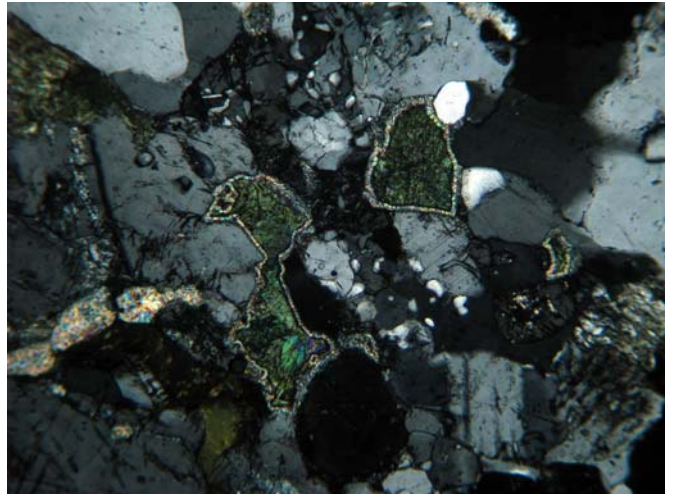
82527_005 FOV (mm): 0.4 Crossed polars
Foam (annealing) texture produced in fine-grained products of plagioclase and quartz grain boundary reduction.



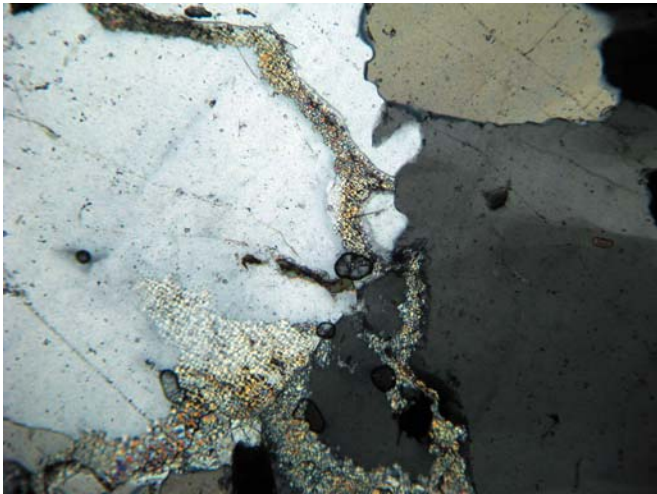
82527_006 FOV (mm): 1.7 Crossed polars
Brown Fe-oxihydroxide, malachite, and very fine-grained malachite deposited along a mafic foliation domain.



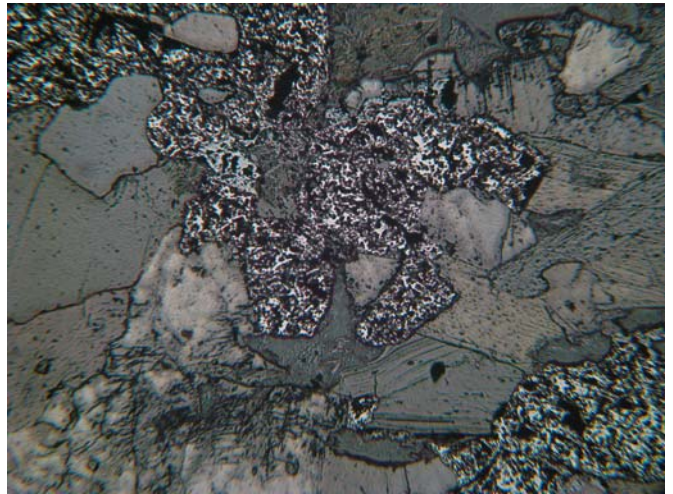
82527_007 FOV (mm): 1.7 Crossed polars
Weak clay partly replacing a plagioclase grain.



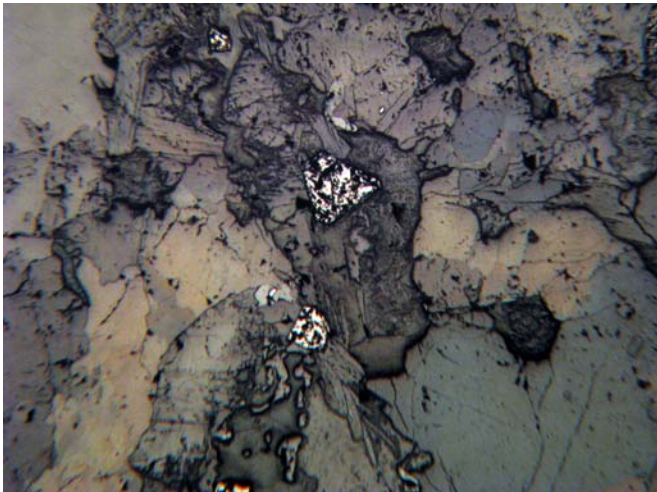
82527_008 FOV (mm): 1.7 Crossed polars
Green malachite and chrysocolla.



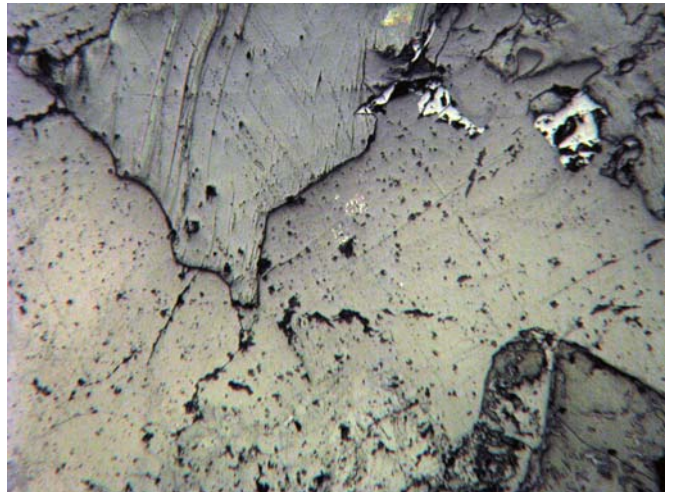
82527_009 FOV (mm): 1.7 Crossed polars
Fine-grained chrysocolla filling fractures.



82527_010 FOV (mm): 4 Reflected light.
Euhedral to subhedral magnetite associated with mafic foliation domains.



82527_011 FOV (mm): 4 Reflected light.
Euhedral to subhedral magnetite.



82527_012 FOV (mm): 2 Reflected light.
Trace, very fine-grained chalcopyrite? (centre) and hematite (upper right).

hornblende-epidote-biotite-meta-granodiorite

Hand Specimen Fine-grained, strongly foliated quartzofeldspathic rock with local malachite, moderately to strongly magnetic.

Mode Mineralogy		
%	Mineral	Source
30	Quartz	plutonic
22	Plagioclase	plutonic
8	Kspar	plutonic
3	White Mica	hydrothermal1
2	Clay	hydrothermal1
Carbonate		
15	Biotite	plutonic/metamorp
1	Epidote	plutonic
5	Chlorite	metamorphic?
3	Opaques	plutonic
3	Fe-oxyhydroxi	supergene
2	Cu-silicates	supergene
3	Cu-carbonates	supergene
3	Hornblende	plutonic
1	apatite	plutonic
0		
0		

Texture 1 myrmekitic**Structure** penetrative foliation**Texture 2****Strength****Grain Size** medium grained (>0.25<2mm)**Ksp Stain** Weak Kspar in groundmass**Modal Mineralogy Comments**

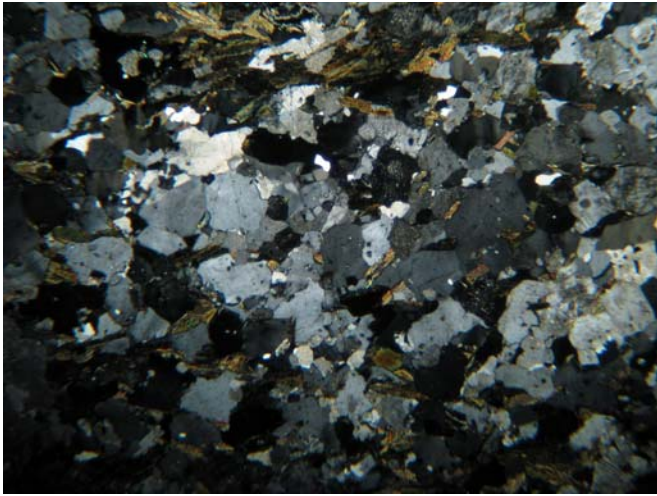
Quartz forms irregular interfingering grains < 1 mm. Plagioclase and lesser kspar form anhedral irregular grains < 0.6 mm. Myrmekitic colonies occur locally. Magmatic epidote forms rare (<1%), subhedral grains associated with mafics. Green hornblende is strongly converted to metamorphic biotite, and locally partly retrograded to chlorite. Biotite forms laths up to 0.6 mm long, that are associated with hornblende and epidote, and define the foliation.

Veins			
	Mineral 1	Mineral 2	Envelope
Vein 1	chrysocolla		chrysocolla-Fe-
Vein 2			oxihydrox
Vein 3			
Chrysocolla-opaques veinlets contain minor malachite, and have a halo of moderate to intense Fe-oxihydroxide-chrysocolla.			

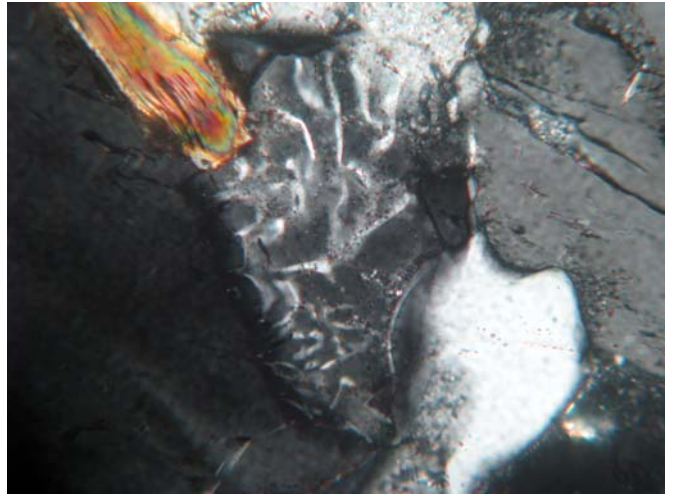
Opaque Mineralogy		
%	Opaque	How
1	Hema	anhedral
2	Mag	euohedral
	Py	
	Po	
0	Cpy	disseminated
	Moly	
	Asp	
	Sph	
	Gn	
<2.5% euohedral primary biotite is weakly replaced by hematite along fractures and grain boundaries. Trace very fine-grained chalcopyrite(?). Trace, very fine-grained gold(?) adjacent to fracture fill malachite veinlet.		

Secondary Mineralogy				
	Mineral Intensity	How	How 2	AI
White Mica	moderate	domainal		2
Carb.				
Clay	weak	domainal		1
Epidote				
Chlorite	moderate	pseudomorph		1
Biotite	moderate	pseudomorph		0
Kspar				
Quartz				
Fe-oxihydrox	moderate	vein associated		1
Cu-Silicate	moderate	vein associated	vein hosted	1
Cu-Carbonate	weak	vein associated	vein hosted	2
Alteration Comments				
Moderate white mica (illite) and lesser clay (kaolinite) partly replace feldspars. Moderate to weak chlorite partly replaces biotite along cleavage planes. Moderate metamorphic biotite replaces hornblende, and is subsequently replaced by chlorite. Moderate orange-brown Fe-oxihydroxide (likely goethite), chrysocolla, and lesser malachite form halos to fracture fill veinlets healed by chrysocolla-opaques and rare malachite.				

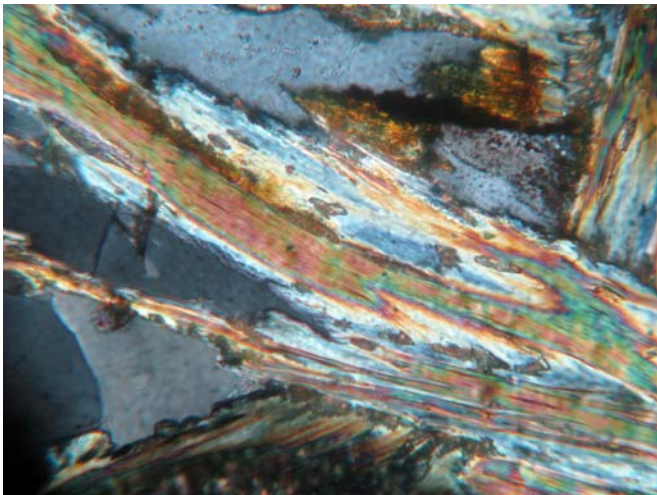
StuB-Zone-A



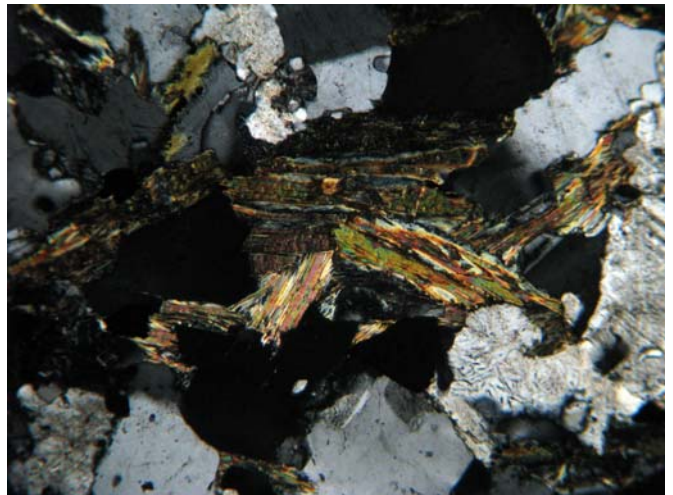
StuB-Zone-A_001 FOV (mm): 6 Crossed polars
Mafic and quartzofeldspathic domains define two well developed foliations.



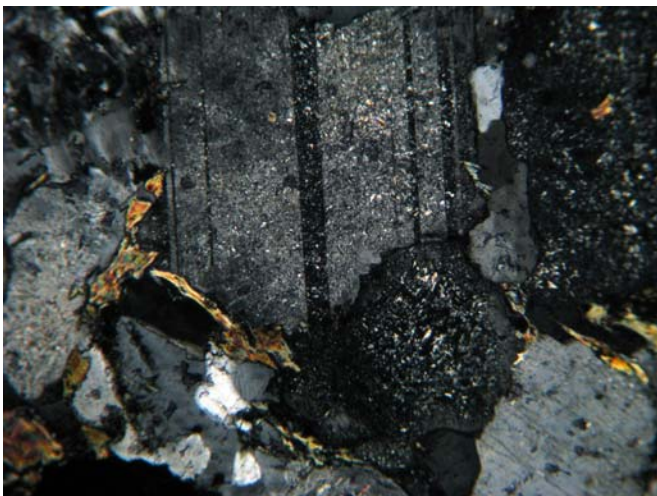
StuB-Zone-A_002 FOV (mm): 0.4 Crossed polars
Myrmekite - symplectitic (vermicular, simultaneous) intergrowth of quartz and Na-plagioclase.



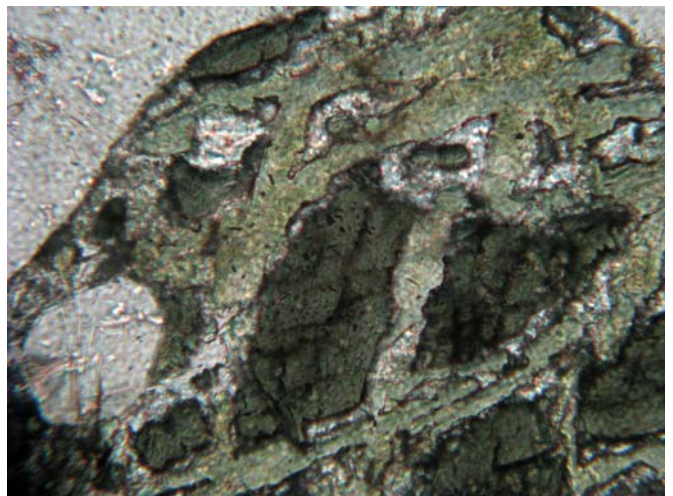
StuB-Zone-A_003 FOV (mm): 0.4 Crossed polars
Weak chlorite (blue-grey birrefringence) partly replacing biotite along cleavage planes.



StuB-Zone-A_004 FOV (mm): 1.7 Crossed polars
Weak chlorite (blue-grey birrefringence) partly replacing biotite along cleavage planes, near an opaque grain (top right).



StuB-Zone-A_005 FOV (mm): 1.7 Crossed polars
Fine-grained illite+/-kaolinite moderately replace plagioclase grains.

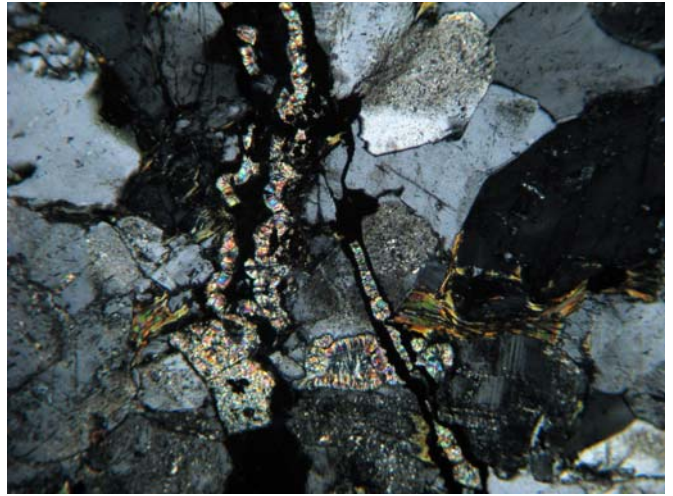


StuB-Zone-A_006 FOV (mm): 0.4 Plane polarized light
Dark green hornblende is strongly replaced by light green chlorite.

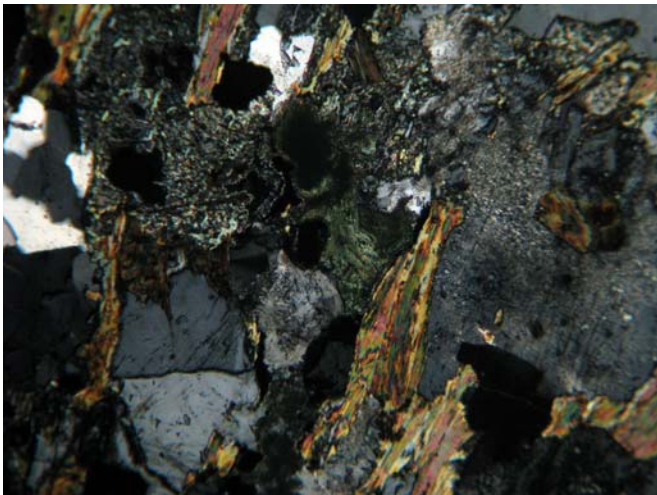
StuB-Zone-A



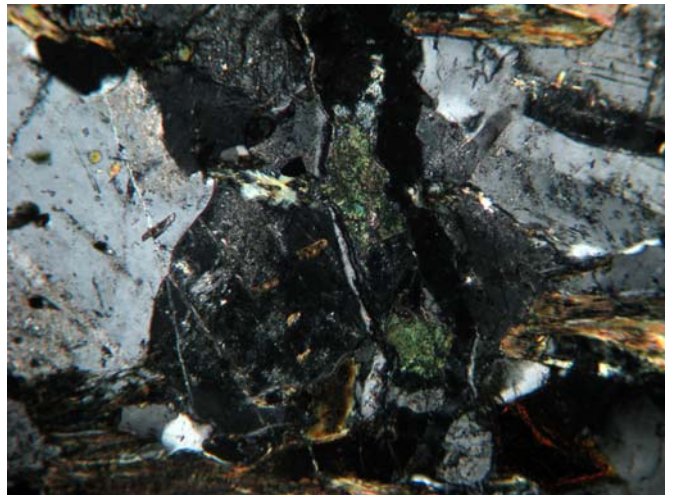
StuB-Zone-A_007 FOV (mm): 6 Plane polarized light
Orange-brown Fe-oxyhydroxide along the margins of a malachite-opaque veinlet.



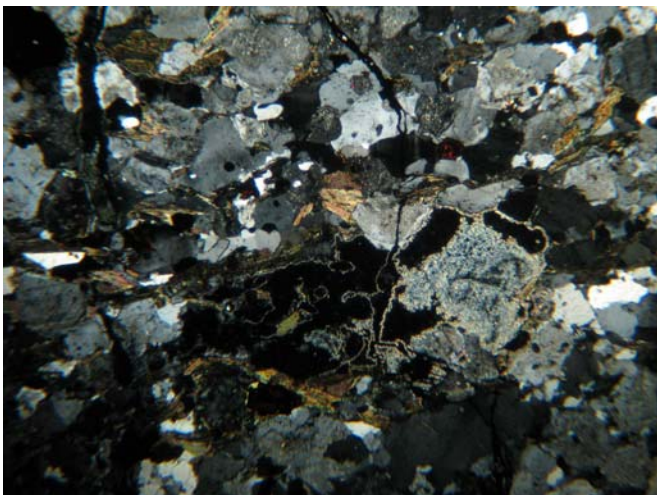
StuB-Zone-A_008 FOV (mm): 1.7 Crossed polars
Malachite displays an intra-vein radial growth pattern, and also forms radial replacements along the vein halo.



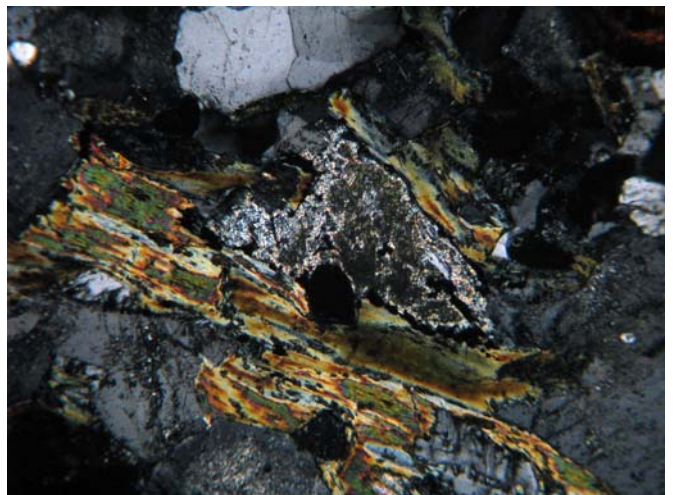
StuB-Zone-A_009 FOV (mm): 1.7 Crossed polars
Green brochantite? (centre) associated with chrysocolla along veinlet halo.



StuB-Zone-A_010 FOV (mm): 1.7 Crossed polars
Locally brochantite? (green, centre) fills the veinlets, along with opaques, clay, and chrysocolla.



StuB-Zone-A_011 FOV (mm): 6 Crossed polars
Chrysocolla (fine-grained, white, right of centre), red Fe-oxyhydroxides, and voids (black) lined by malachite along a veinlet zone.

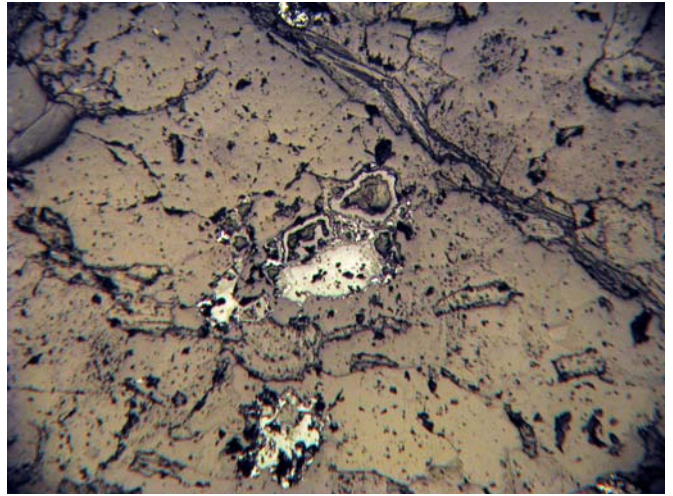


StuB-Zone-A_012 FOV (mm): 1.7 Crossed polars
Biotite is weakly converted to chlorite (blue-grey birefringence) along cleavage planes, whereas a hornblende(?) grain at the centre is completely converted to brochantite(?) - malachite.

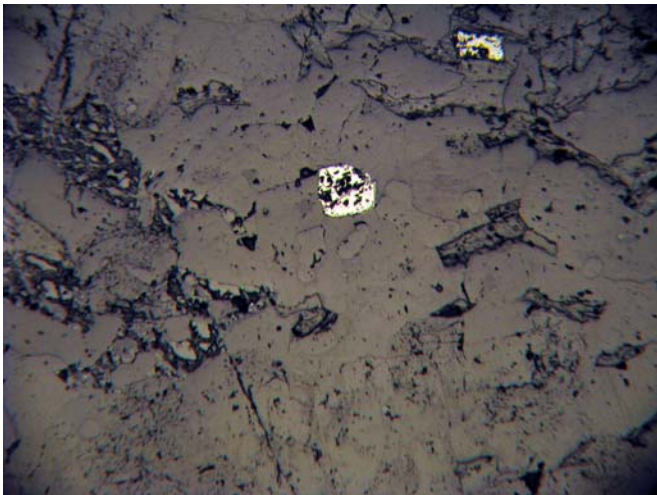
StuB-Zone-A



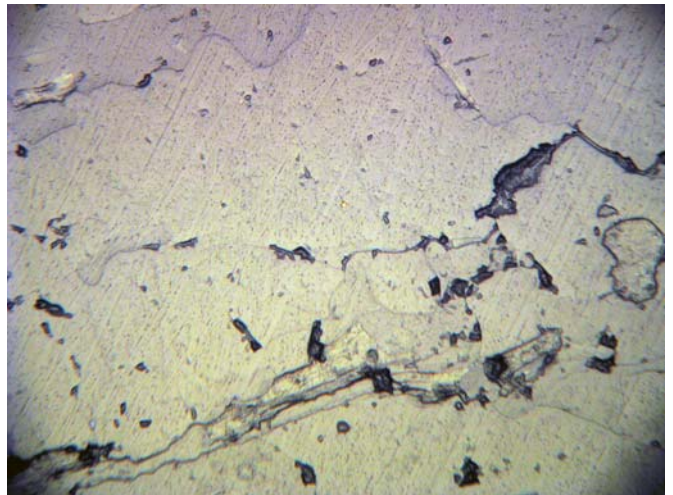
StuB-Zone-A_013 FOV (mm): 2 Reflected light.
Gold(?) grain adjacent to malachite-brochantite fracture-fill veinlet.



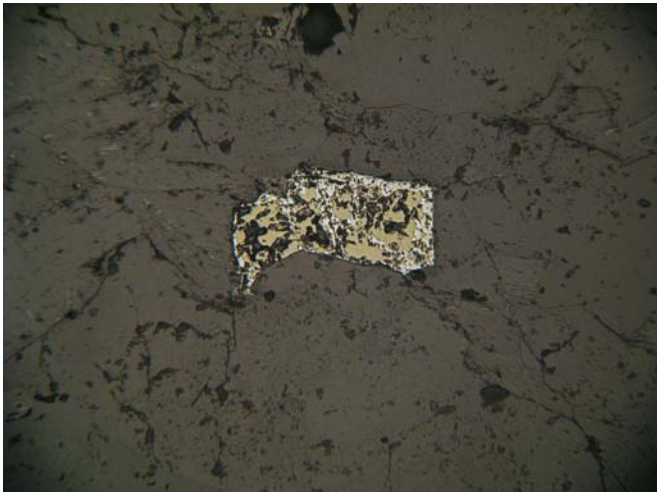
StuB-Zone-A_014 FOV (mm): 2 Reflected light.
Hematite with open-space fill texture.



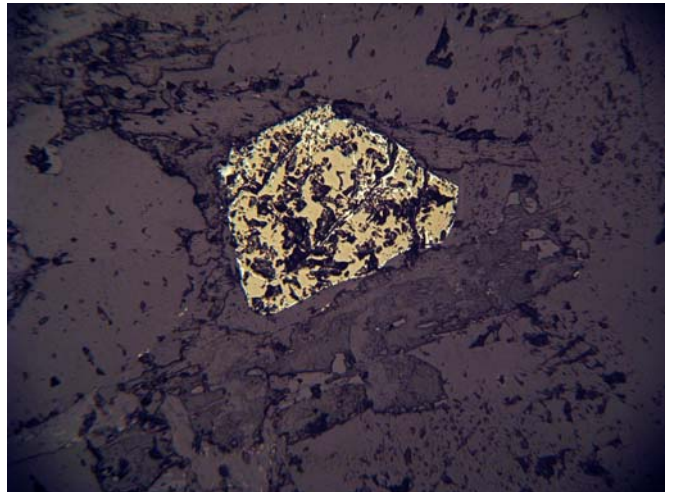
StuB-Zone-A_015 FOV (mm): 2 Reflected light.
Euhedral to subhedral magnetite grains.



StuB-Zone-A_016 FOV (mm): 1 Reflected light.
Chalcopyrite(?) grain, up from centre.v



StuB-Zone-A_017 FOV (mm): 1 Reflected light.
Hematite (light coloured) replacing magnetite along fractures.



StuB-Zone-A_018 FOV (mm): 1 Reflected light.
Hematite (light coloured) replacing magnetite along fractures and grain boundaries.

hornblende-epidote-sphene-biotite-meta-granodiorite

Hand Specimen Medium-grained, white and black, strongly foliated quartzofeldspathic rock, moderately magnetic.

Mode Mineralogy		
%	Mineral	Source
25	Quartz	plutonic
35	Plagioclase	plutonic
5	Kspar	plutonic
3	White Mica	hydrothermal1
2	Clay	hydrothermal1
Carbonate		
15	Biotite	plutonic/metamorp
3	Epidote	plutonic
Chlorite		
2	Opaques	plutonic
Fe-oxyhydroxi		
0	Cu-silicates	supergene
Cu-carbonates		
5	Hornblende	plutonic
2	Sphene	plutonic
5	apatite	plutonic
0		

Texture 1 granophyric**Structure** penetrative foliation**Texture 2****Strength****Grain Size** medium grained (>0.25<2mm)**Ksp Stain** Weak Kspar in groundmass**Modal Mineralogy Comments**

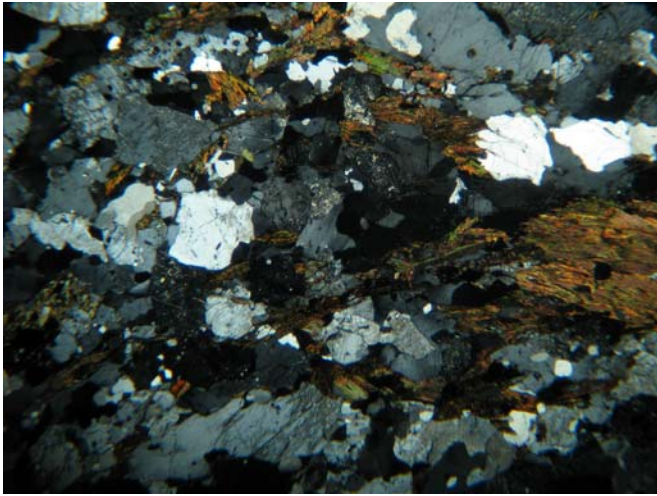
Quartz forms irregular interfingering grains < 0.3 mm. Plagioclase form subhedral prismatic grains < 2.5 mm, with well developed polysynthetic twinning. Granophyric texture is rare. Magmatic epidote forms subhedral grains associated with mafics. Green hornblende is strongly converted to metamorphic biotite. Sphene forms subhedral to anhedral grains associated with biotite and epidote. Biotite forms laths up to 1.5 mm long, that are associated with hornblende and epidote, and define the foliation.

Veins			
	Mineral 1	Mineral 2	Envelope
Vein 1			
Vein 2			
Vein 3			

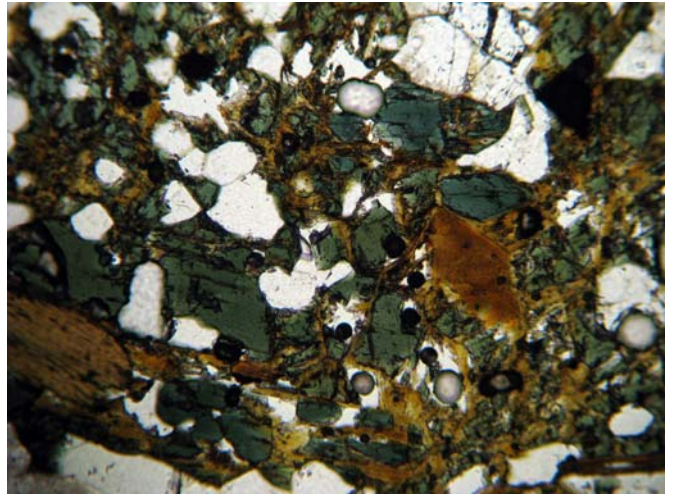
Secondary Mineralogy				
	Mineral Intensity	How	How 2	AI
White Mica	moderate	domainal		2
Carb.				
Clay	weak	domainal		1
Epidote				
Chlorite				
Biotite	very strong	pseudomorph		0
Kspar				
Quartz				
Fe-oxihydrox				
Cu-Silicate	very weak	disseminated		1
Cu-Carbonate				
Alteration Comments				
Moderate white mica (illite) and lesser clay (kaolinite) partly replace feldspars. Chlorite is absent. Moderate to strong metamorphic biotite partly replaces hornblende. Very weak chrysocolla associated with opaques replacing hornblende.				

Opaque Mineralogy		
%	Opaque	How
0	Hema	anhedral
2	Mag	euhedral
	Py	
	Po	
	Cpy	
	Moly	
	Asp	
	Sph	
	Gn	
<2% euhedral (primary) magnetite partly replaced by hematite along grain boundaries and fractures.		

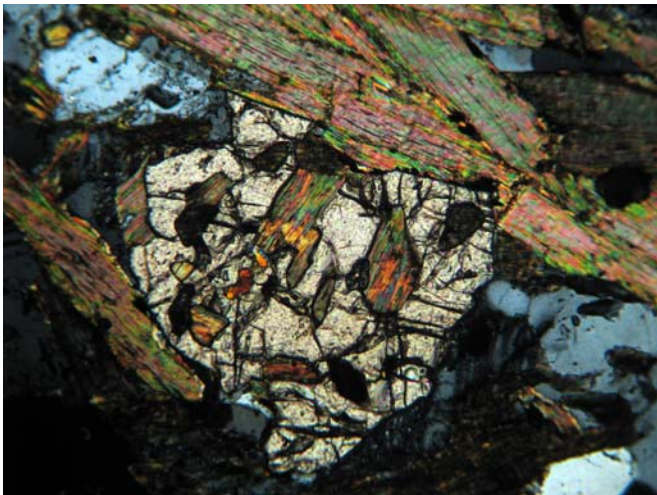
StuB-Zone-B



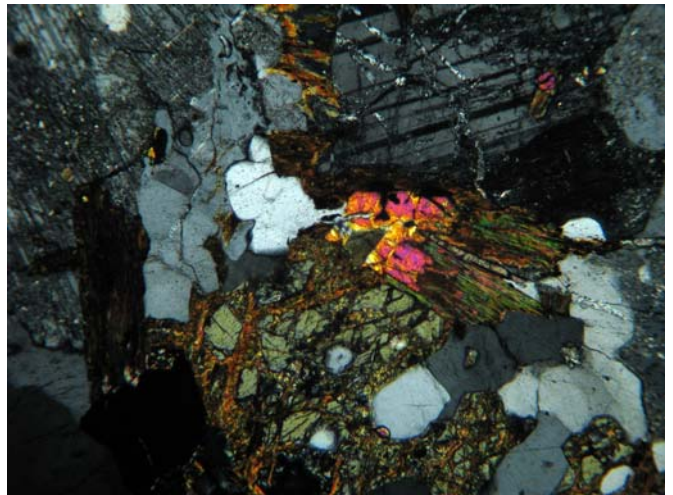
StuB-Zone-B_001 FOV (mm): 6 Crossed polars
Biotite and lesser hornblende+/-epidote-sphene define two penetrative foliations.



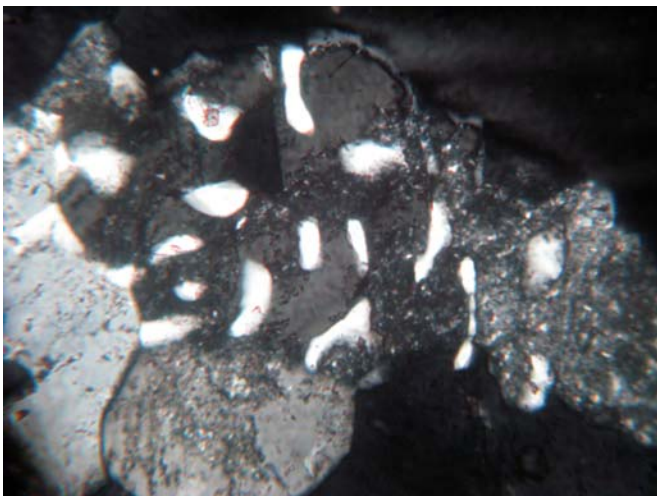
StuB-Zone-B_002 FOV (mm): 1.7 Plane polarized light
Green hornblende is strongly converted to metamorphic biotite.



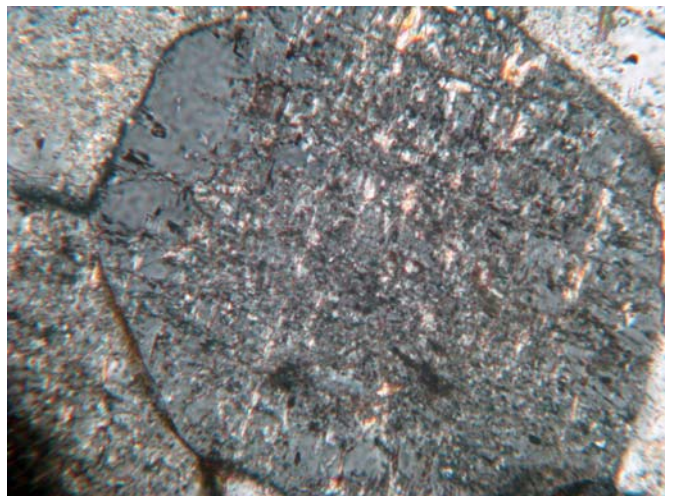
StuB-Zone-B_003 FOV (mm): 1.7 Crossed polars
Subhedral sphene is intergrown with biotite and epidote.



StuB-Zone-B_004 FOV (mm): 1.7 Crossed polars
Subhedral magmatic epidote intergrown with magmatic biotite. Brownish metamorphic biotite partly replaces hornblende along cleavage planes and grain boundaries.

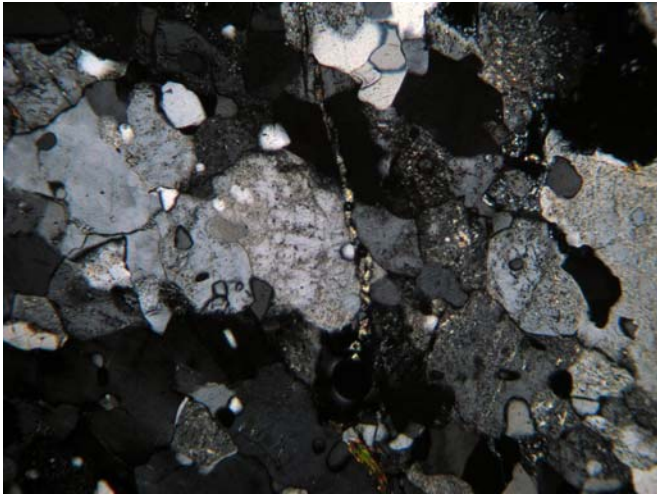


StuB-Zone-B_005 FOV (mm): 0.4 Crossed polars
Granophyric texture produced by quartz exsolution from plagioclase.

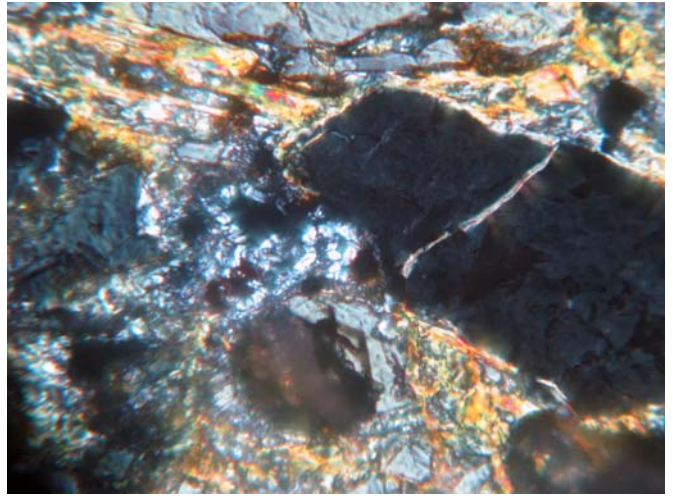


StuB-Zone-B_006 FOV (mm): 0.4 Crossed polars
Moderate fine-grained illite+/-kaolinite partly replacing plagioclase grains.

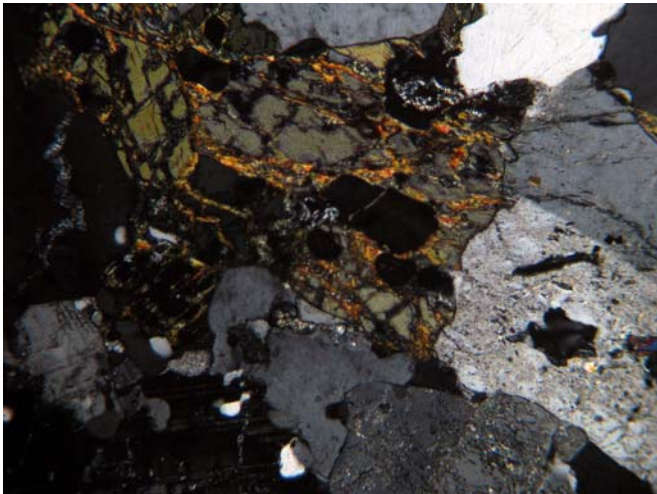
StuB-Zone-B



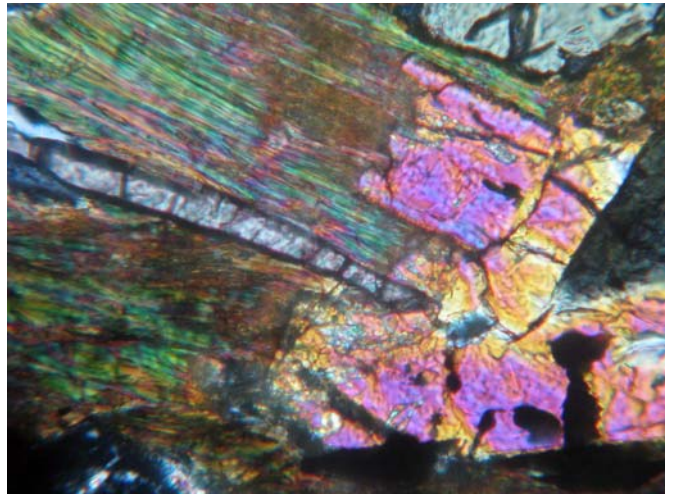
StuB-Zone-B_007 FOV (mm): 1.7 Crossed polars
Discontinuous malachite veinlet.



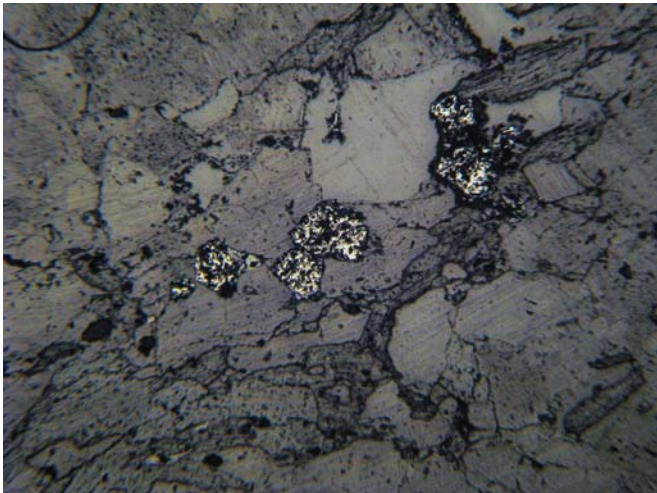
StuB-Zone-B_008 FOV (mm): 0.4 Crossed polars
Malachite (centre, white, fine-grained) and opaques partly replace a hornblende grain that is strongly replaced by metamorphic biotite.



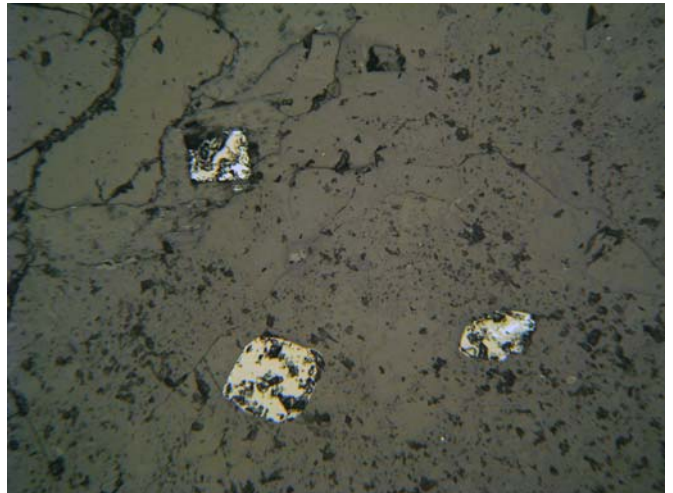
StuB-Zone-B_009 FOV (mm): 1.7 Crossed polars
Same, under lower magnification. The green hornblende grain is replaced by metamorphic yellowish-brown biotite along cleavage planes, and locally by opaques-malachite.



StuB-Zone-B_010 FOV (mm): 0.4 Crossed polars
Magmatic epidote intergrown with biotite.



StuB-Zone-B_011 FOV (mm): 4 Reflected light.
Euhedral to subhedral magnetite and minor hematite.



StuB-Zone-B_012 FOV (mm): 2 Reflected light.
Euhedral magnetite octahedra are partly replaced by hematite along grain boundaries.

APPENDIX VI
Statement of Expenditures
STU Property - July, 2008

Wages:	J. Pautler	4 days @ 750.00/day	\$3,000.00
	Bill Harris	3 days @ 450.00/day	<u>1,350.00</u>
	Total: 7 man-days		\$4,350.00
Geochemistry:	9 rock samples @ 30 ea. Au, ICP		270.00
	14 soil samples @ 30 ea. Au, ICP		420.00
	2 rock assays @ 10 ea. Au, Cu		<u>20.00</u>
	Total:		710.00
Petrography:	6 samples @ 187.50 each		1,125.00
Equipment Rental:	Truck (BH):	4 days @ 100./day	400.00
	ATV (BH):	4 days @ 100./day	300.00
	ATV (JP):	4 days @ 75./day	400.00
	Radios:	2x3days @ 10/day	60.00
	Satellite Phone:	4 days @ 20/day	<u>80.00</u>
	Total:		1,240.00
Fuel:			400.00
Camp cost:	(propane, supplies)		
	7 man-days @ 15./md		105.00
Groceries:	7 man-days @ 35./md		245.00
Field Supplies:	(flagging tape, batteries, sample bags)		
	7 man-days @ 15./md		105.00
Copying, Printing:			50.00
Report & Drafting:			<u>2,250.00</u>
GRAND TOTAL:			\$10,580.00
Total Applied for Assessment July 9, 2008			\$10,400.00
Compilation Jan. 9, 2009			\$3,500.00
Total Applied for Assessment Jan. 9, 2009			\$3,500.00

APPENDIX VII
STATEMENT OF QUALIFICATION

I, Jean Marie Pautler, do hereby certify that:

- 1) I, Jean Marie Pautler of 103-108 Elliott Street, Whitehorse, Yukon Territory am self-employed as a consultant geologist and authored this report.
- 2) I am a graduate of Laurentian University, Sudbury, Ontario with an Honours B.Sc. degree in geology (May, 1980).
- 3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia, Registration Number 19804.
- 4) I am a geologist with more than twenty-five years of experience in the Canadian Cordillera.
- 5) I participated in the 2008 program on the STU property between July 2 and 6, 2008 and compiled and integrated the data in January, 2009.
- 6) I have no direct or indirect interest in the STU property, which is the subject of this report.

Jean Pautler, P.Geo.
JP Exploration Services Inc.
#103-108 Elliott St
Whitehorse, Yukon
Y1A 6C4