# TECHNICAL REPORT FOR THE BC CLAIMS YMIP # 09-167

# TARGET EVALUATION PROGRAM CARMACKS AREA YUKON

**Whitehorse Mining District** 

Report for Period of Work: July 10<sup>th</sup> – September 18<sup>th</sup> 2009

Location:

1. 31 km NNW of Carmacks, Yukon

2. NTS Map Area 115 I-07

3. Easting: 419 500 Northing: 6 905 000

By:

**BCGOLD CORP** 

Suite 1400, 625 Howe Street

Vancouver, BC

V6C 2T6 Gary Sidhu

March 16<sup>th</sup>, 2010

no for this

# YUKON MINING INCENTIVES PROGRAM (YMIP)



### **FINAL SUBMISSION FORM**

# Submit completed form by March 31st to:

Yukon Mining Incentives Program

Energy, Mines and Resources

Government of the Yukon

102 - 300 Main Street

Box 2703 (K102), Whitehorse, Yukon, Y1A 2C6

E-mail: ymip@gov.yk.ca

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NAME AND ADDRESS	Please i	indicate any changes or omissions
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E-mail:	Correct e-mail if it has cha	anged:
SUMM	ARY OR TECHNICAL REPO	ORT CHECKLIST
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1. Description/implementation of work		
2. Location map(s) of completed work	x	
3. Colored maps at adequate scale showing		
- Geology	x	
- Geophysics		x
- Geochemistry		x
4. Results		<del></del>
- Drill core assays		x
- Geochemistry data		x
- Geophysical data		x
5. Drill collar location map(s)		x
6. Drill hole sections		x
7. Typewritten drill logs		x
8. Longitudinal Section(s)		x
9. Recommendations	x	
10. Future Plans	x	
11. Detailed list of project expenditures	x	
12. Copies of receipts	x	
13. Final submission form signed and dated	x	
14. Hardcopy of report with maps and data	x	
15. Electronic version of report, etc in <b>PDF</b> format	x	

## Access to Information and Protection of Privacy Act

The information requested on this form is collected under the authority of and used for the purpose of administering the Yukon Mining Incentives Program. Questions about the collection and use of this information can be directed to the Mineral Development Geologist, Department of Energy, Mines and Resources, Yukon Government, Box 2703 (K102), Whitehorse, Yukon Territory, Y1A 2C6 (867) 456-3828.

I certify	partment of Energy, Mines and Resources may v sly submitted reports, interim claims and in the St that;	erify all state ummary or T	echnic	s related to cal Report w	and made o hich accom	n this form, in any npanies it
1.	I am the person, or the representative of the confor Funding and in the Contribution Agreement u					
2.	I am a person who is nineteen years of age or of of the said program.	lder, and I ha	ave co	mplied with	all the requ	irements
4.	I hereby apply for the final payment of a contribution (YMIP) and declare the information contained with Summary Report to be true and accurate.					
Signatu	ure of Applicant	Date	_Ma	arch 17, 200	)9	
Name	print) Brian Fowler	<del> </del>		<del></del>		
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## 1.0 SUMMARY

The BC property, comprised of 144 contiguous claims, located approximately 8.5 km south of the Carmacks Copper deposit in the Whitehorse Mining District of central Yukon. The claims were originally staked by Shawn Ryan of Dawson City, Yukon and are currently optioned to BCGOLD Corporation ("BCG"). The history of exploration in the area stretches back to the turn of the century when copper mineralization was first discovered at Williams Creek some 40 km south of the Minto copper-gold deposit. Foliated and non-foliated granitic rocks of the Early Jurassic Aishihik Suite underlie most of the property although rock exposures are poor comprising less than 5% of the area. Work completed in 2009 included mapping, and prospecting. Initially BCG had purposed a MMI<sup>TM</sup> geochemical survey consisting of 10 lines for a total of 15km, however the program was reduced to mapping and prospecting due and priority was given to other properties.

#### 2.0 INTRODUCTION AND TERMS OF REFERENCE

The BC Claim group is owned 100 % by Shawn Ryan of Dawson City Yukon subject to an option agreement with BCG whereby BCG can earn a 100% interest in the BC Claims as part of a larger 845 claims located in the Carmacks copper-gold belt which hosts the Minto and Williams Creek deposits.

The purpose of this report is to summarize the work completed during the months of July to September which consisted of mapping, and prospecting done as a follow up to an airborne magnetic survey completed in 2007.

## 3.0 RELIANCE ON OTHER EXPERTS

This report is based upon the results of fieldwork partially supervised by the author, publicly-available assessment reports, and certain private reports prepared for and provided by BCG. There is no reason to believe that any of this information is incorrect.

The author has relied on information provided by the Yukon Mining Recorder to describe the mineral tenure status of the property and believes, to the best of his knowledge, that this information is correct.

#### 4.0 PROPERTY DESCRIPTION AND LOCATION

The BC mineral claims are located 25 kilometres NW of Carmacks and 8.5 km ESE of the Carmacks Copper deposit. The BC claims adjoin the WS and ICE claims, which are also under option by BCG (Figs. 1, 2). The property falls within the Whitehorse Mining District on NTS map sheets 115I/07 and is centred at an easting of 419 500 and a northing of 6 905 000. The claims cover favourable geology and regional airborne magnetic anomalies and regional stream sediment anomalies that are prospective for Minto-Williams Creek style copper-gold mineralization. The mineral claims are registered to Shawn Ryan of Dawson City, Yukon and are under an option agreement to BCG.

In accordance with the Yukon Quartz Mining Act, yearly extensions to the expiry

dates of quartz claims are dependent upon conducting \$100 of work per claim or paying the equivalent cash in lieu of work. Work must be filed in the year the work was completed. Excess work can be used to extend expiry dates up to maximum of four years. Assessment costs can be applied to adjoining claims through filing grouping certificates. Filing a statement of work and costs and submission of an assessment report to the Whitehorse Mining Recorder verifying completion of the work, are also required no later than six months after the anniversary date of the claim.

The claims are located within the Traditional Territory of the Little Salmon Carmacks First Nation, which has a land claim settlement Agreement under the Yukon Umbrella Final Agreement.

# 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the property is by helicopter from Carmacks. Low precipitation and a wide temperature range characterize the climate. Winters are cold, and temperatures of -30° C to -40° C are common. Summers are moderately cool to hot, with daily highs of 15° C to 30° C. The Town of Carmacks is the closest centre for obtaining groceries, fuel, accommodation and some limited rental and contracted exploration services. Trans North Helicopters maintains a summer helicopter base at Carmacks

## 6.0 HISTORY

The area covered by the BC claims has seen some prior reconnaissance exploration work as part of the property work around the Williams Creek deposit primarily by Hudson Bay Exploration, however there are no known historical showing.

In 2007 BCGold completed an airborne magnetic and radiometric survey with 200m spaced lines was flown over the entire belt claims.



Figure 1: Carmacks area location map.

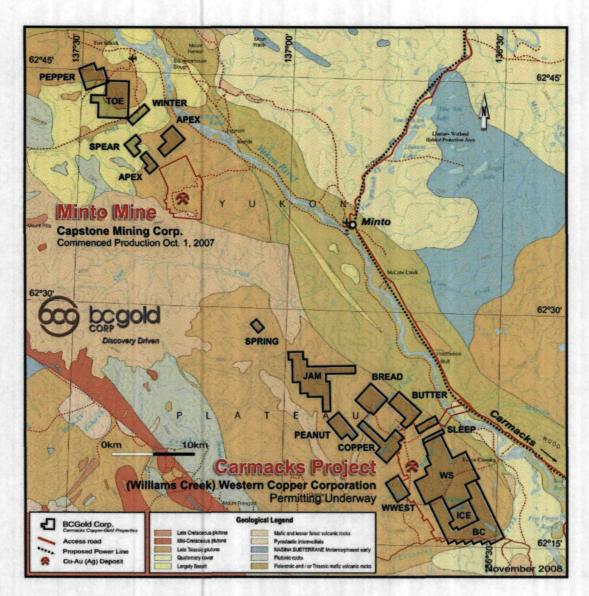


Figure 2: Carmacks regional geology and claim location map.

## 7.0 GEOLOGICAL SETTING

## 7.1 Regional Geology

The BC claims are located approximately 8.5 kilometres South of the Williams Creek (Carmacks Copper Corp) copper-gold deposits. This area of the Yukon is bounded by the Stikinia Terrane rocks to the east, Yukon Tanana Terrane rocks to the north and the Coast Plutonic Complex rocks to the west. The Minto and Williams Creek copper-gold deposits are hosted within foliated biotite rich granodiorite and granitic rocks of the early Jurassic Aishihik Suite.

# 7.2 Property Geology

The BC claims are located south of the Williams Creek deposit and north of the Freegold Road. Rocks underlying the property are primarily foliated to nonfoliated hornblende-biotite granodiorite with aplite dykes. Traces of malachite were noted in a few locations. Magnetite and 1-2% epidote were noted in a number of locations. Outcrop is scarce (< 5%) and normally confined to rounded ridge tops and stream cuts.

## 8.0 EXPLORATION PROGRAMS

# 8.1 Mapping and Prospecting

The mapping and prospecting program (Fig. 3) were in conducted as a follow up to an airborne magnetic survey done in 2007 (Fig. 4). Multiple traverses were done aimed at looking for mineralization in areas of magnetic highs and where magnetic lineaments intersected (Fig. 5). The Jurassic Granite Mountain batholith underlying the property consists of from youngest to oldest:

- Granitic Pegmatite Dikes which consist of quartz and feldspar with accessory micas and are commonly less than a meter in width.
- ii) Aplite Dikes which are fine grained and consist of quartz and feldspar with accessory micas and vary from less than a meter in width to a couple of meters in some cases.
- iii) Biotite-Hornblende Granodiorite is common. It is medium to coarse grained; equigranular with 5-10% porphyritic clear grey quartz.
- iv) Kspar Megacrystic Granodiorite: This unit was seen in drill core and rarely mapped in the field, however it's distinct characteristic is large K feldspar crystals that can be up to 3cm in length.
- V) Granular Mafic rich rock; fine to medium grained; consisting of 60% mafics with a variable foliated to gneissic texture.

No mineralization or outcrops worth sampling were found.

## 9.0 RESULTS AND CONCLUSIONS

The Jurassic Granite Mountain batholith underlying the property consists of the following descriptions which are ordered youngest to oldest:

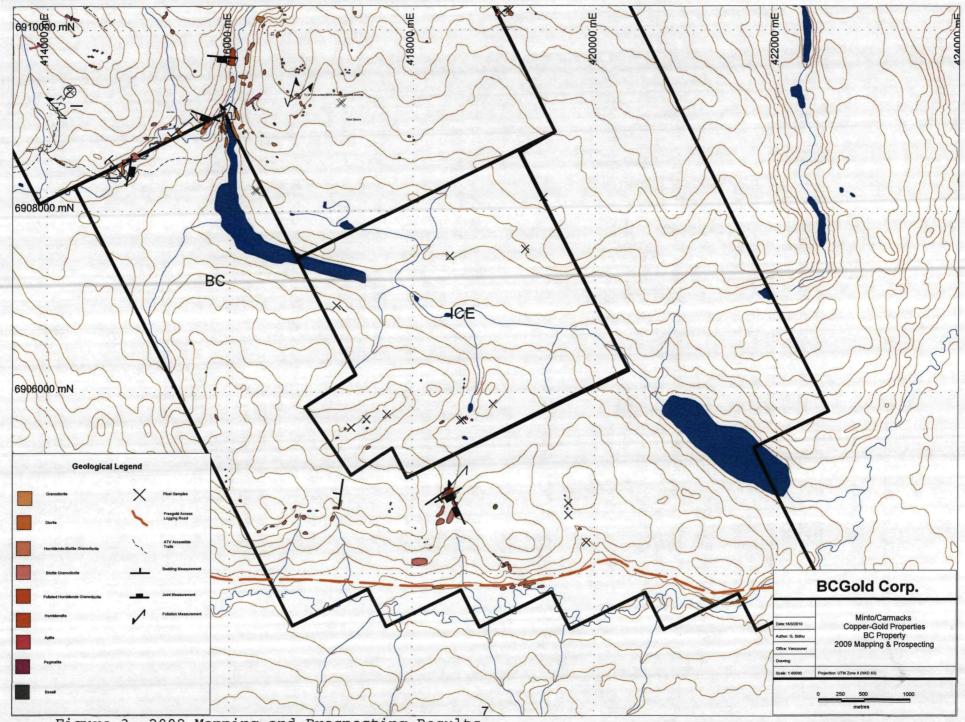


Figure 3: 2009 Mapping and Prospecting Results

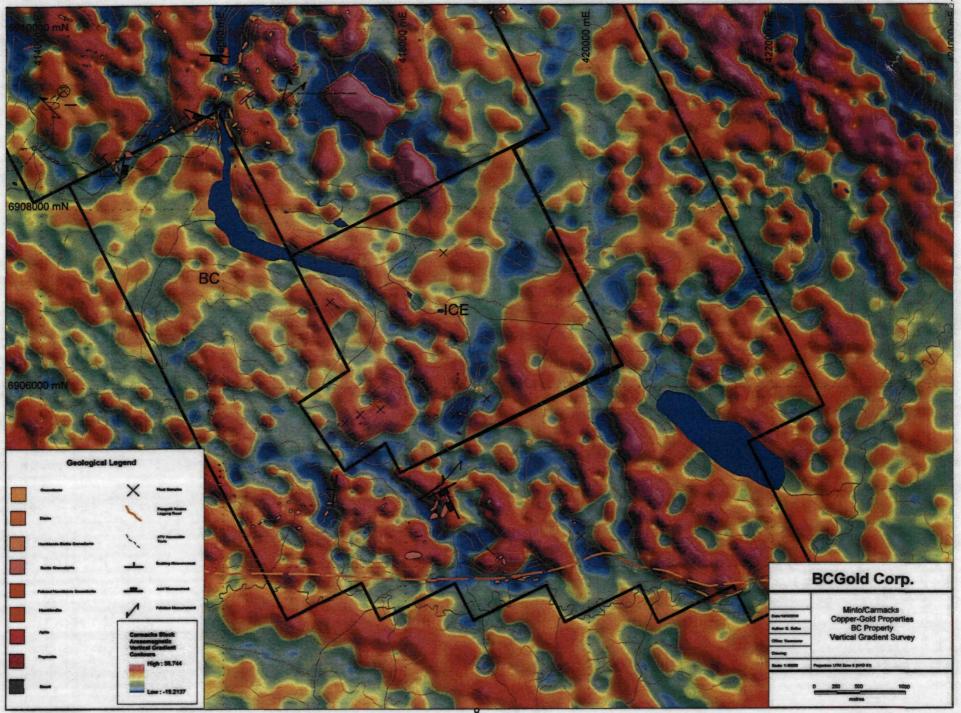
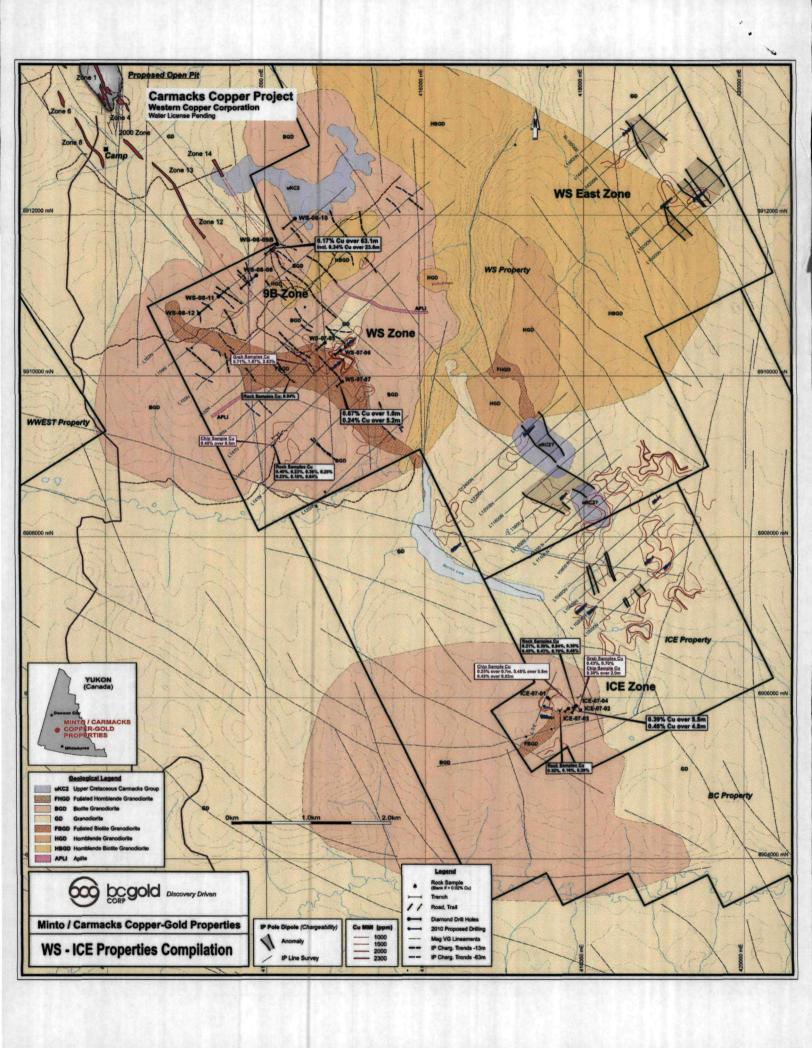


Figure 4: 2007 Airborne Vertical Gradient Magnetic Survey



- vi) Granitic Pegmatite Dikes which consist of quartz and feldspar with accessory micas and are commonly less than a meter in width.
- vii) Aplite Dikes which are fine grained and consist of quartz and feldspar with accessory micas and vary from less than a meter in width to a couple of meters in some cases.
- viii) Biotite-Hornblende Granodiorite is common. It is medium to coarse grained; equigranular with 5-10% porphyritic clear grey quartz.
- ix) Kspar Megacrystic Granodiorite: This unit was seen in drill core and rarely mapped in the field; however its distinct characteristic is large K feldspar crystals that can be up to 3cm in length.
- x) Granular Mafic rich rock; fine to medium grained; consisting of 60% mafics with a variable foliated to gneissic texture.

No mineralization or outcrops worth sampling were found.

## 10.0 RECOMMENDATIONS

The following recommendations should be considered based on the recent and past exploration work:

i) Two MMI grids, locations "A" and "B" should be the next step on this property. Grid "A" should be setup to establish a possible continuation of copper geochemical anomalies from the ICE property to BC where we also have multiple aeromagnetic lineaments intersecting and mineralization favouring foliated granodiorite mapped in (Fig. 5).
Grid "B" should be conducted over the airborne magnetic survey done in 2007 (Fig. 4) shows a large total field magnetic high in the SE corner of the property. Work in the area has shown that magnetic highs are related to mineralization.