

**TECHNICAL REPORT**  
**on the**  
**WILLIAMS SOUTH PROJECT**  
**in the CARMACKS COPPER-GOLD BELT,**  
**Yukon Territory**

WS 1 – 82	YC53521 - 602
WS 83 – 156	YC53748 - 821
WS 157 – 196	YC53993 - 4032
WS 197 – 208	YC91789 - Y800
BC 35 – 50, 65 – 144	YC60218 - 233, 248 - 327
ICE 1 – 41	YC46784 - 87, YC54407 - 443
SLEEP 13 – 18	YC60134 - YC60139

**NTS: 115I/7**

**UTM NAD 83 Zone 8: 416500m E and 6912000m N**

**Latitude 62°19'N      Longitude 136°38'W**

**Whitehorse Mining District**

Site visits on September 27 and 29, 2015

**For**  
**BCGold Corp.**  
**Suite 520 - 800 West Pender St.**  
**Vancouver, British Columbia**  
**Canada V6C 2V6**

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

January 31, 2016

## 1.0 Executive Summary

The 7300 hectare Williams South Project, NTS map sheet 115I/7, is located within the Yukon Plateau, approximately 32 km northwest of Carmacks, which is 175 km by paved highway north of Whitehorse, Yukon Territory. The property is situated in the Whitehorse Mining District centered at a latitude of 62°19'N and a longitude of 136°38'W. Road access exists to the property via the Freegold and Williams Creek roads. The Williams South Project comprises 351 claims (the WS, BC, ICE, and SLEEP) registered to BCGold Corp., which owns 100% of the Project.

The Williams South Project lies within the southern portion of the Carmacks copper-gold belt, a 180 km by 60 km-wide north-northwest trending mineralized belt of similar intrusion-hosted copper-gold mineralization. The belt includes the Carmacks Copper deposit (Williams Creek) of Copper North Mining Corp. (3-10 km northwest of the Williams South Project), the Minto Mine of Capstone Mining Corporation (45 km to the northwest), and the STU drilled prospect (15 km northwest), all hosted by Minto suite plutonic rocks.

Copper North released a new updated Measured and Indicated mineral resource estimate for the Carmacks Copper deposit (to NI 43-101 standards) of 15.7 million tonnes of copper oxide and transition ore grading 0.94% Cu, 0.74% acid-soluble Cu, 0.379 g/t Au and 3.971 g/t Ag, with a Measured and Indicated sulphide mineral resource of 8.1 Mt grading 0.68% Cu, 0.178 g/t Au and 2.332 g/t Ag (using a 0.25% Cu cutoff grade except for the acid-soluble copper in the oxide and transition mineralization in Zones 2000S, 12 and 13, which use a 0.15% Cu cutoff grade) (*Copper North news release January 25, 2016*). Zone 12 lies 275m northwest along trend from the Williams South Project of BCGold Corp. Minto is a 3,850 tonne per day copper-gold-silver mine, in production since 2007 ([www.capstonemining.com](http://www.capstonemining.com)). The above reserve and resource information has not been verified by the author and is not necessarily indicative of the mineralization on the Williams South Project which is the subject of this report.

The Williams South Project is primarily underlain by Early Jurassic intrusive rocks of the eastern Granite Mountain Batholith (Minto suite) which are unconformably overlain by younger volcanic rocks, and intruded by related dykes, of the Late Cretaceous Carmacks Group. Foliated biotite ±hornblende granodiorite occurs in a 0.5 by 4 km northwest trending band across the WS grid from the north end of Merrice Lake to the northwest property boundary, and as a northeasterly (?) 150m by 1 km band at the BCIce showing; the latter particularly limited by poor exposure. Mineralization within the Carmacks copper-gold belt is associated with more foliated to gneissic zones within the batholith.

The deposit model for the Carmacks copper-gold belt is controversial and has ranged from digested red-bed copper, to aborted and deformed porphyry, to iron oxide copper gold. The author believes the deposit model to be consistent with that of a calc-alkaline porphyry copper-gold model such as at the Kemess Mine, which produced 3 million ounces of gold and 800 million pounds of copper from 1998-2011, and the Kemess North deposit (Kemess Underground Project of AuRico Metals Inc.) in central British Columbia, but formed at deeper crustal levels.

There are three Minfile occurrences within the Williams South Project; Bishi (now moved and renamed BCIce), Taslar (now moved and renamed WS), and Merrice, as documented by the Yukon Geological Survey (*Deklerk, 2009*). The Bishi and Taslar were staked in the early 1970's on aeromagnetic anomalies, but no mineralization was found. The Merrice showing covers copper bearing quartz veins of probable orogenic type. The BCIce showing was originally discovered by United Keno Hill Mines Ltd. in 1982, consisting of two zones of copper oxide mineralization in foliated granodiorite, but was not followed up. The WS showing covers significant mineralization intersected in drilling, and other showings and anomalies, discovered by BCGold Corp. on the WS grid, which covers the strike extension of mineralized zones on the adjoining Carmacks Copper Project.

Exploration by BCGold Corp. (amounting to more than 2.5 million dollars) since the granting of the option from Shawn Ryan in March, 2007 has involved a property wide airborne magnetic and radiometric geophysical survey, approximately 3,551 MMI and 317 conventional grid soil samples from 5 grids, 62.4 line km of induced polarization geophysics from 3 grid areas, a 1.26 km high resolution multi-array induced polarization survey, property wide geological mapping and prospecting with concurrent geochemical sampling, a structural analysis, a 660 sample biogeochemical survey, trenching on BCIce, WS and Copper Hill showings, 2,659m of diamond drilling in 14 holes (2 holes totaling 67.7m were lost and re-drilled), and infrared spectroscopy and petrography on the 2008 drill core.

BCGold's drill program intersected 0.17% Cu over 63.1m in drill hole WS08-09B, 1 km along strike from Copper North's Zone 14; Zone 14 returned 0.23% Cu over 79.7m in hole WC07-141 (*Western Copper news release November 22, 2007*). Trend appears to be northwest, dipping 25 to 45°NE. This intersection has not been followed up along strike or down dip. WS-08-08 intersected a copper anomalous interval of 0.04% Cu over 25m, including two narrow zones of mineralization (0.10% Cu over 3.9m and 0.12% Cu over 2.0m), which could reflect proximity to the strike extent of Copper North's Zone 12. An infrared spectrographic survey of WS-08-11 (500m southwest of WS-08-08 but drilled to the northeast, sub-parallel to the dip of most mineralization in the area) displays a continuous chlorite spectral signature at the bottom, suggesting it may represent a halo to mineralization (*Fonseca, 2009a*). Consequently there is good potential to intersect the extension of Copper North's Zone 12 between drill holes WS-08-08 and -11. In addition a coincident VLF-electromagnetic conductor and a strong copper-silver-nickel-tungsten biogeochemical anomaly occur between drill holes WS-08-08 and -11, with a proximal induced polarization chargeability high to the west.

WS-07-07 intersected a series of weakly mineralized zones of copper oxide mineralization throughout the entire hole length, with limited sampling returning 0.67% Cu over 1.0m, 0.38% Cu over 1.2m and 0.20% Cu over 4.0m. The presence of malachite throughout the hole suggests proximity to the possible strike extensionx of Copper North's Zone 12. Grab samples from a trench about 300m northwest of the collar of WS-07-07 returned 0.71, 1.87 and 2.83% Cu and coincide with a 700m long, northwest trending VLF-electromagnetic conductor, which is open to the north and coincident with a strong tungsten-antimony-cerium-chromium and weak copper-molybdenum-nickel-silver biogeochemical anomaly. These lie uphill and just west of a significant copper MMI soil anomaly and the three 2007 WS holes, including WS-07-07. To the north the VLF-electromagnetic conductor merges with an induced polarization chargeability trend which extends for a further 450 m to the northwest. The anomalies lie along the margins of a northwest trending aeromagnetic vertical gradient high anomaly, which is characteristic of mineralization within the Carmacks Copper camp.

Copper oxide mineralization is exposed at the BCIce showing, seven km southwest of mineralized zones at the Carmacks Copper deposit. The main zone (ICE) covers a discontinuously exposed 20m x 100m zone of moderately foliated granodiorite with malachite trending 294°/20°NE. Chip samples from the ICE zone returned 0.48% Cu over 0.8m, 0.45% Cu over 0.85m and 0.30% Cu over 2.0m. A similar zone occurs 200m south-southwest of the ICE with 0.39% Cu and 0.38 ppb Au in a grab sample. Anomalous soil samples (maximum 935 ppm Cu) occur 200m further to the southwest.

Drilling of the ICE zone encountered two narrow, relatively flat-lying mineralized horizons in ICE 07-2 and -4. The upper and lower horizons returned 0.48% Cu over 4.8m and 0.15% Cu over 3.7m in ICE 07-2 and 0.39% Cu over 5.5m and 0.25% Cu over 0.7m in ICE 07-4, respectively. This style of mineralization commonly occurs distal to larger zones so may have potential along strike or down dip to the northeast. ICE 07-1, 400m west-northwest of the ICE zone, intersected anomalous mineralization with 0.04% Cu over 24.4m despite being drilled along, as opposed to perpendicular to, the mineralized trend.

Mineralized intervals in drilling are commonly associated with enhanced gold with a maximum of 190 ppb Au from ICE-07-04. In a study of the 2008 core (*Fonseca, 2009a*) an enrichment in calcium, iron, molybdenum, thallium, tellurium, mafic-associated elements (magnesium, nickel, cobalt), tin, and sphalerite associated elements (zinc, selenium, cadmium, vanadium) was noted. The elements potassium, sodium, lanthanum, and cerium were found to be enriched in the footwall and hangingwall of mineralized zones, suggesting that the associated mineral alteration assemblage immediately outside ore zones may be propylitic, and possibly overprinting potassic.

Other untested copper showings occur on the Williams South Project, as well as numerous geophysical and geochemical anomalies. The 20m by 5m Copper Hill showing, on the southwestern WS grid approximately 4 km southeast generally along trend of Zones 5, 6 and 8 of the Carmacks Copper Project, consists of copper oxides and chalcocite mineralization with values of 0.85% Cu and 0.42 g/t Au from a grab sample, 0.19% Cu and 0.08 g/t Au across 1.5m and 0.4% Cu over 0.5m. A 600m by generally 100m wide copper MMI soil anomaly lies 150m upslope of the showing coincident with an induced polarization chargeability high – resistivity anomaly. The Copper Float showing consists of a malachite stained foliated granodiorite float boulder on the WS grid, which returned 0.94% Cu and 0.26 g/t Au. The float appears isolated but generally occurs within an area of poor exposure with some exposures of foliated granodiorite, approximately 2 km southeast along trend of Zones 12-13 of the Carmacks Copper Project.

The Williams South Project constitutes a property of merit based on significant drill intercepts from limited drilling, the presence of untested copper showings, northwest trending induced polarization chargeability, VLF-electromagnetic, ± proximal copper MMI soil anomalies, in part underlain by foliated to gneissic granodiorite, coincident with the margins of linear magnetic high features, similar to and directly along trend from the adjoining Carmacks Copper Project of Copper North Mining Corporation.

A seven hole, 2,400m diamond drill program is recommended on the Williams South Project to follow up on the significant drill intercept in DDH WS-08-9B and to test coincident geophysical and geochemical anomalies, with preliminary groundtruthing of proposed drill sites, examination of the WS trenches and about 40 line km of detailed magnetic surveying proposed prior to drilling. The program is expected to cost \$1,000,000.

# Table of Contents

## Page

<b>1.0</b>	<b>Executive Summary</b> .....	<b>i</b>
<b>2.0</b>	<b>Introduction And Terms of Reference</b> .....	<b>1</b>
2.1	Qualified Person and Participating Personnel.....	1
2.2	Terms, Definitions and Units .....	2
2.3	Source Documents.....	2
2.4	Limitations, Restrictions and Assumptions.....	3
<b>3.0</b>	<b>Reliance on Other Experts</b> .....	<b>3</b>
<b>4.0</b>	<b>Property Description And Location</b> .....	<b>4</b>
4.1	Location.....	4
4.2	Land Tenure .....	4
<b>5.0</b>	<b>Accessibility, Climate, Local Resources, Infrastructure &amp; Physiography</b> .....	<b>7</b>
5.1	Access, Local Resources and Infrastructure .....	7
5.2	Physiography, Climate and Infrastructure .....	7
<b>6.0</b>	<b>History</b> .....	<b>8</b>
<b>7.0</b>	<b>Geological Setting</b> .....	<b>10</b>
7.1	Regional Geology.....	10
7.2	Property Geology .....	13
7.3	Mineralization .....	14
<b>8.0</b>	<b>Deposit Type</b> .....	<b>21</b>
<b>9.0</b>	<b>Exploration</b> .....	<b>22</b>
9.1	Geochemistry.....	23
9.1.1	Grid Soil Geochemistry .....	23
9.1.2	Reconnaissance Geochemistry .....	26
9.1.3	Biogeochemistry .....	27
9.1.4	Trenching .....	28
9.2	Geophysics .....	28
<b>10.0</b>	<b>Drilling</b> .....	<b>34</b>
10.1	Drill Sampling Method and Approach .....	41
<b>11.0</b>	<b>Sample Preparation, Analyses And Security</b> .....	<b>41</b>
<b>12.0</b>	<b>Data Verification</b> .....	<b>43</b>
<b>13.0</b>	<b>Mineral Processing And Metallurgical Testing</b> .....	<b>43</b>
<b>14.0</b>	<b>Mineral Resource Estimates</b> .....	<b>43</b>
<b>15.0</b>	<b>Adjacent Properties</b> .....	<b>43</b>
<b>16.0</b>	<b>Other Relevant Data And Information</b> .....	<b>44</b>
<b>17.0</b>	<b>Interpretation And Conclusions</b> .....	<b>45</b>
<b>18.0</b>	<b>Recommendations</b> .....	<b>49</b>
18.1	Budget.....	50
<b>19.0</b>	<b>Signature Page</b> .....	<b>51</b>
<b>20.0</b>	<b>References</b> .....	<b>52</b>
<b>21.0</b>	<b>Certification, Date And Signature</b> .....	<b>56</b>

## List of Illustrations

	<b>Page</b>
Figure 1: Location Map.....	4
Figure 2: Claim Map .....	6
Figure 3: Geological Setting. ....	11
Figure 4: Property Geology Map .....	12
Figure 5: ICE Zone trenches.....	19
Figure 6: BCIce Showing .....	20
Figure 7: Copper MMI Soils.....	25
Figure 8: Compilation over Magnetic Map.....	31
Figure 9: eTh/K Map.....	32
Figure 10: WS Showing .....	33
Figure 11: Section through WS-08-08 to -11 .....	37
Figure 12: Section through WS-07-07 .....	38
Figure 13: Section through ICE-07-01 to -03.....	39
Figure 14: Section through ICE-07-04.....	40
Figure 15: Compilation over Geology .....	48

## List of Tables

Table 1: Claim data .....	5
Table 2: Drill hole specifications .....	34
Table 3: Significant drill hole intersections .....	35
Table 4: Proposed drill hole specifications .....	50

## List of Photographs

Photo 1: ICE Zone.....	15
Photo 2: Copper Hill showing.....	17
Photo 3: Mineralized “gneissic” zone at Minto .....	18

## **2.0 INTRODUCTION AND TERMS OF REFERENCE**

### **2.1 Qualified Person and Participating Personnel**

Ms. Jean M. Pautler, P.Geo. was commissioned by BCGold Corp. of Vancouver, British Columbia, a company duly incorporated under the laws of the Province of British Columbia, to examine and evaluate the geology and mineral potential of the Williams South Project, situated within the Carmacks copper-gold belt, in order to document and make recommendations for the next stage of exploration work in order to test the economic potential of the property. An estimate of costs has been made based on current rates for drilling, trenching, soil and geophysical surveys and professional fees in the Yukon Territory.

The report describes the property in accordance with the guidelines specified in National Instrument 43-101 and is based on historical information, a review of recent exploration in the area, and work conducted on behalf of BCGold Corp. since the initial granting of the option from Shawn Ryan in March, 2007. This work has involved a property wide airborne magnetic and radiometric geophysical survey (by Aeroquest Surveys, Toronto, Ontario), approximately 3,551 MMI and 317 conventional grid soil samples, 62.4 line km of induced polarization geophysics (by Aurora Geosciences Ltd. of Whitehorse Yukon Territory), a 1.26 km high resolution multi-array induced polarization survey, property wide geological mapping and prospecting with concurrent geochemical sampling, a structural analysis, with select detailed mapping by Fionnuala Devine, P.Geo., M.Sc., a 660 sample biogeochemical survey on WS by Kory Dumas B.Sc., trenching on BCIce, WS and Copper Hill showings, 2,659m of diamond drilling in 14 holes by Kluane Drilling Ltd. of Whitehorse, Yukon Territory, and infrared spectroscopy and petrography on the 2008 drill core by Anna Fonseca, P.Geo., M.Sc.

The 2007 drill program was completed under the management of Aurum Geological Consultants Inc., and in 2008 directly by BCGold Corp. All soil samples were collected in 2007 and 2008 by Ryanwood Exploration Inc. of Dawson City, Yukon (a company owned by the original vendor of the property, Shawn Ryan). GroundTruth Exploration Inc. conducted the 1.26 km high resolution multi-array induced polarization survey. Mapping and prospecting with concurrent geochemical sampling was completed by Don Coolidge, Adam Fage, B.Sc., Ann Doyle, B.Sc., Peter Ledwidge, B.Sc., and the author, and prospecting with concurrent geochemical sampling by Ken Galambos, P.Eng. (with extensive experience in the Yukon) and Ralph Keefe. Dan Cardinal, P.Geo., and Dave Heino completed a preliminary field examination in 2009. Don Coolidge, Ralph Keefe and Dave Heino are well known prospectors with extensive experience, and Ann Doyle and Peter Ledwidge are geologists with significant experience in the Yukon. Adam Fage completed his B.Sc. thesis on the ICE Zone on the Williams South property.

Site visits were completed by the author on September 27 and 29, 2015 and April 20, 2012, with work by the author on June 10-14, 2009 and June 2-11, 2008. The author

reviewed the entire 2007-2013 work programs. Work in 2016 consisted of a comprehensive compilation, integration and summary report completed by the author between January 2 and 20, 2016. The author has visited the Copper Hill, BC Ice and Merrice showings and many of the drill sites, and has examined select core intervals.

## 2.2 Terms, Definitions and Units

All costs contained in this report are denominated in Canadian dollars. Distances are reported in metres (m) and kilometres (km) with weight in grams (g). GPS refers to global positioning system with co-ordinates reported in UTM grid, Zone 8, Nad 83 projection. The annotation 060°/70°SE refers to an azimuth (Az.) of 060 degrees, dipping 70 degrees to the southeast, Ma refers to million years, and °C refers to temperature in degrees Celsius. Minfile showing refers to documented mineral occurrences on file with the Yukon Geological Survey. DDH refers to diamond drill hole. IP refers to an induced polarization type of geophysical survey useful in detecting the presence of conductive disseminated sulphides. VLF-EM refers to a very low frequency electromagnetic type of geophysical survey useful in detecting conductors, commonly related to structures. MMI soil sampling refers to soil samples collected in a specific manner and analyzed by a process that measures mobile metal ions, useful in detecting mineralization beneath younger cover rocks and thick glacial till.

The term ppm refers to parts per million, which is equivalent to grams per metric tonne (g/t) and ppb refers to parts per billion. The abbreviation oz/ton and oz/t refers to troy ounces per imperial short ton. The symbol % refers to weight percent unless otherwise stated.

Elemental abbreviations used in this report include: gold (Au), silver (Ag), copper (Cu), iron (Fe), arsenic (As), bismuth (Bi), manganese (Mn), sulphide (S) and oxide (O). K-spar refers to potassium feldspar. Minerals found in the Carmacks copper-gold belt include pyrite (iron sulphide), magnetite and hematite (iron oxides), malachite and azurite (both hydrous copper carbonates), and chalcopyrite, chalcocite and bornite (copper sulphides).

## 2.3 Source Documents

Sources of information are detailed below and include available public domain information and private company data.

- Research of the Minfile data available for the area at <http://data.geology.gov.yk.ca/> on January 4, 2016.
- Research of mineral titles at <http://apps.gov.yk.ca/pls/apex40p/f?p=116:1:2534937475277042> and <http://mapservices.gov.yk.ca/YGS/> on January 4, 2016.
- Review of company reports and annual assessment reports filed with the government at <http://199.247.132.58:8000/cgi-bin/gw/chameleon> on January 4, 2016.
- Review of geological maps and reports completed by the Yukon Geological Survey or its predecessors.



- Review of published scientific papers on the geology and mineral deposits of the region and on mineral deposit types.
- Company data and reports of BCGold Corp., including a review of the entire 2007 to 2013 exploration programs, and initial option agreement (discussed in Section 4.2, Land Tenure).
- Discussions with Dr. Maurice Colpron and Dr. Patrick Sack of the Yukon Geological Survey and Dr. Jim Mortenson of the University of British Columbia, all with considerable experience within the belt.
- The author has recent previous independent experience and knowledge of the Carmacks copper-gold belt having worked on the privately owned STU drilled prospect between 2006 and 2015, on the Carmacks copper-gold belt properties of Northern Tiger Resources in 2010 and 2011, and on the Carmacks Copper-Gold Project for BCGold Corp. in 2008 and 2009.
- Site visits by the author on September 27 and 29, 2015 and April 20, 2012, and work on the property by the author on June 10-14, 2009 and June 2-11, 2008 and a review of the entire 2007-2013 work programs. Work in 2016 consisted of a comprehensive compilation, integration and summary report completed by the author between January 2 and 20, 2016.
- A review of pertinent news releases of BCGold Corp. and of other companies conducting work in the regional area.

## **2.4 Limitations, Restrictions and Assumptions**

The author has relied in part upon work and reports completed by others in previous years in the preparation of this report as identified under section 2.3, "Source Documents" and section 20.0, "References". Thorough checks to confirm the results of such work and reports have not been done, but the author has no reason to doubt the correctness of such work and reports. All exploration assessment reports, listed in Section 20.0, "References", were completed by competent professionals and have been accepted by the Mining Recorder. The work undertaken between 2007 and 2013 was completed by or under the direction of BCGold Corp. by reputable personnel and contractors.

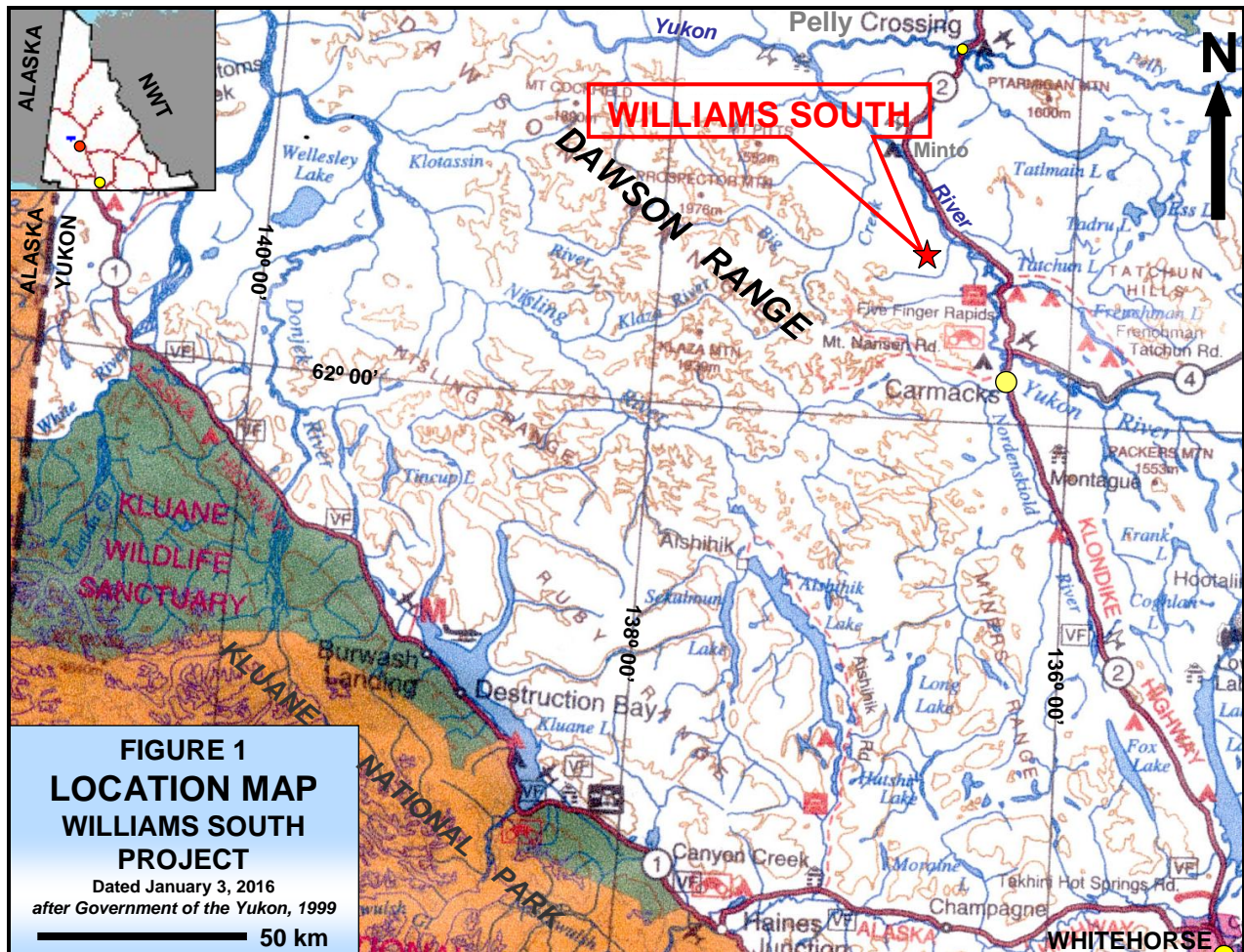
## **3.0 RELIANCE ON OTHER EXPERTS**

While title documents and option agreements were reviewed for this study as identified under section 2.3, "Source Documents", this report does not constitute nor is it intended to represent a legal, or any other, opinion as to the validity of the title. Data concerning the location and status of mineral claims was obtained from the Whitehorse District Mining Recorder. The title information was relied upon to describe the ownership of the property and claim summary in Section 4.2, "Land Tenure".

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location (Figures 1 and 2)

The Williams South Project, NTS map sheet 115I/7, lies within the southern Merrice Creek drainage, 5-10 km southwest of the Yukon River, approximately 32 km northwest of Carmacks, Yukon Territory. Carmacks is 175 km by paved highway north of Whitehorse, Yukon Territory (Figures 1 and 2). The property is centered at a latitude of 62°19'N and a longitude of 136°38'W (Figure 2).



### 4.2 Land Tenure (Figures 2 and 3)

The Williams South Project consists of 351 Yukon Quartz Mining claims covering an area of approximately 7300 hectares in the Whitehorse Mining District (Figure 2). The area is approximate since claim boundaries have not been legally surveyed. The mineral claims were located by GPS and compass and staked in accordance with the

Yukon Quartz Mining Act on claim sheet 115I/7, available for viewing in the Whitehorse Mining Recorder's Office. A table summarizing pertinent claim data follows.

**TABLE 1: Claim data**

<b>Claim Name</b>	<b>Grant No.</b>	<b>No. of Claims</b>	<b>Expiry Date</b>	<b>New Expiry Date</b>
WS 1 – 82	YC53521 - 602	82	4/2/2016	4/2/2017
WS 83 – 156	YC53748 - 821	74	4/2/2016	4/2/2017
WS 157 – 196	YC53993 - 4032	40	4/2/2016	4/2/2017
WS 197 – 208	YC91789 - Y800	12	4/2/2016	4/2/2017
BC 35 – 50, 65 – 144	YC60218 - 233, 248 - 327	96	4/2/2016	4/2/2017
ICE 1 – 4	YC46784 - 87	4	4/12/2016	4/12/2017
ICE 5 – 41	YC54407 - 443	37	4/2/2016	4/2/2017
SLEEP 13 – 18	YC60134 - YC60139	6	4/2/2016	4/2/2017
<b>TOTAL</b>		<b>351</b>		

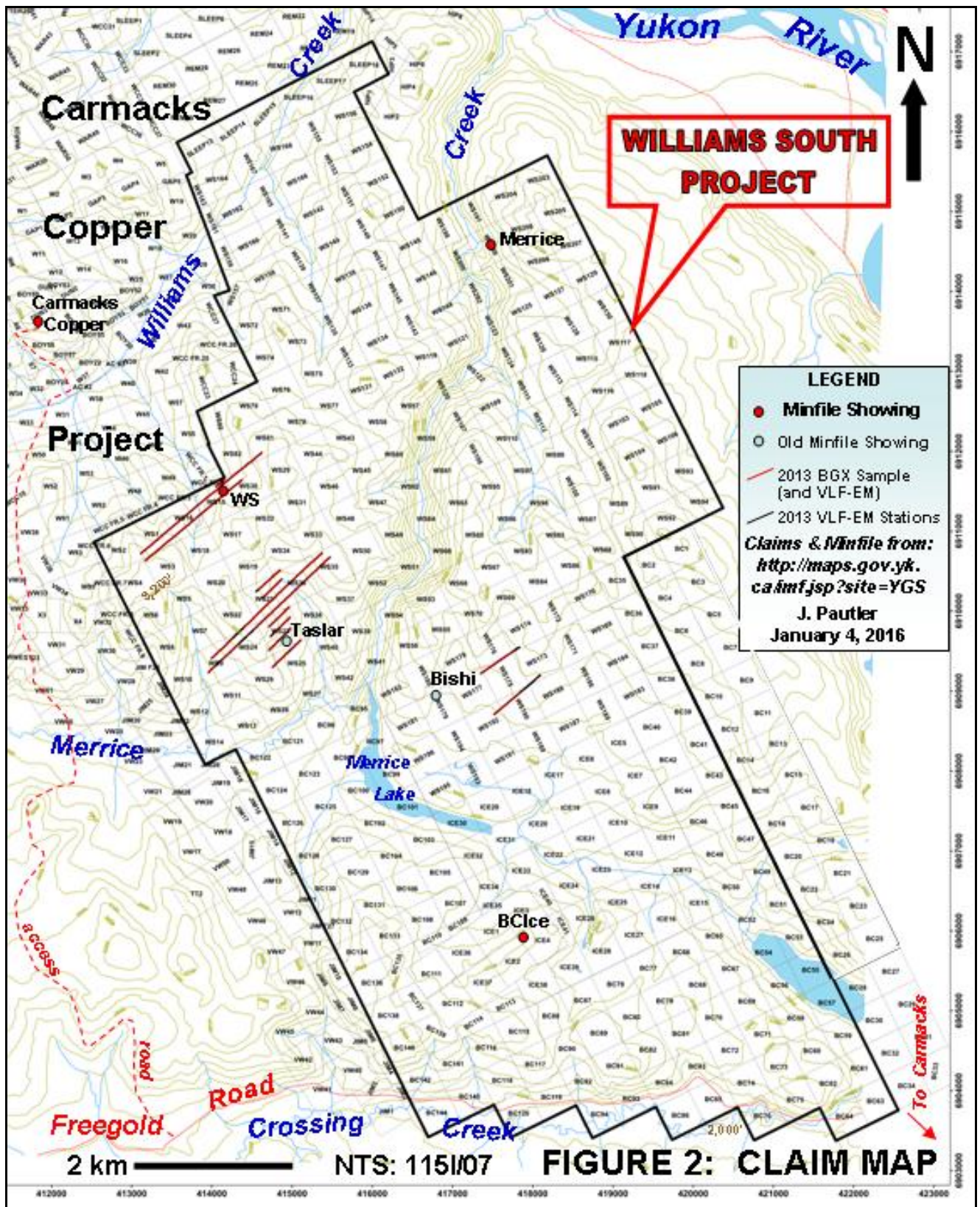
The registered owner of the claims is BCGold Corp. of Vancouver, British Columbia, which holds 100% interest, subject to a 1.75% underlying net smelter royalty (NSR), of which 1.25% may be purchased for \$1,500,000. BCGold Corp. was initially granted an option on the project area from Shawn Ryan in March, 2007 and acquired 100% ownership of the claims in July, 2010, subject to the NSR.

The claims are located within the Traditional Territories of the Selkirk First Nation and the Little Salmon/Carmacks First Nation, which have a land claim settlement agreement under the Yukon Umbrella Final Agreement. A Little Salmon/Carmacks land parcel (surface and subsurface rights) is located approximately 3 km northwest of the property and another (surface rights only) 2 km to the east. The land in which the mineral claims are situated is Crown Land and the mineral claims fall under the jurisdiction of the Yukon Government. Surface rights would have to be obtained from the government if the property were to go into development.

A mineral claim holder is required to perform assessment work and is required to document this work to maintain the title as outlined in the regulations of the Yukon Quartz Mining Act. The amount of work required is equivalent to \$100.00 of assessment work per quartz claim unit per year. Alternatively, the claim holder may pay the equivalent amount per claim unit per year to the Yukon Government as "Cash in Lieu" to maintain title to the claims.

Preliminary exploration activities do not require permitting, but significant drilling, trenching, blasting, cut lines, and excavating may require a Mining Land Use Permit that must be approved under the Yukon Environmental Socioeconomic Assessment Act (YESSA). To the author's knowledge, the Williams South Project area is not subject to any environmental liability.





## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY (Figures 1 and 2)**

### **5.1 Access, Local Resources and Infrastructure**

The Williams South Project is accessible from Carmacks via the Freegold Road (*Figure 2*), a year round government maintained gravel road, which traverses the southern property area from approximately 25 to 31 km. The western property area can be accessed by 4WD road and ATV trails heading east from the 12 km access road to the Carmacks Copper Project camp, located at 412013mE, 6912697mN, Zone 8, Nad 83 projection. The eastern property area is only accessible by foot or helicopter.

Carmacks is the closest town of significant size, with a population of approximately 500, a gravel airstrip, suitable for medium sized aircraft, and a seasonal helicopter base (Trans North Helicopters). Facilities include a grocery store, nursing station, police station, two service stations, accommodation, a restaurant and a café. Some heavy equipment is available for contract mining work. Complete services are available in Whitehorse, less than two hours by all-weather highway, 175 km south of Carmacks (*Figure 1*).

### **5.2 Physiography, Climate and Infrastructure**

The Williams South Project is located along the northeastern flank of the Dawson Range within the Yukon Plateau, covering moderate rolling hills, 5-10 km southwest of the Yukon River (*Figures 1 and 2*). Southern Merrice Creek transects the property, which is also drained by northerly flowing tributaries of Williams Creek to the north and southerly flowing tributaries of Crossing Creek in the south. Elevation ranges from about 1980 feet along Crossing Creek in the southeastern property area to 3240 feet along the northeast trending ridge in the northern property area (*Figure 2*).

Vegetation consists of pine occasionally broken by poplar stands. On north facing slopes black spruce predominates with permafrost. Muskeg, thick willow and alder cover low swampy ground in the eastern property area. Volcanic ash, which deadens and dilutes soil geochemical responses, was encountered in the property area.

The area has a northern interior climate characterized by a wide temperature range with warm summers, long cold winters and light precipitation. Summers are moderately cool to hot, with daily highs of 15°C to 30°C. Winters are cold, with temperatures of -30°C to -40°C common. The exploration season lasts from mid May until October.

Although there do not appear to be any topographic or physiographic impediments, and suitable lands appear to be available for a potential mine, including mill, tailings storage, heap leach and waste disposal sites, engineering studies have not been undertaken and there is no guarantee that such areas will be available within the subject property. The nearest source of power is the transmission line northwest of Carmacks, approximately 10-15 km away. If the Carmacks Copper deposit goes into production, power and processing facilities will be available within a few km.

## 6.0 HISTORY (Figure 2)

The first claims were staked in the Carmacks Copper area in 1898 to cover copper showings associated with quartz veins located in Williams Creek and Merrice Creek Canyons, east of the present Carmacks Copper deposit. The Merrice showing, which lies on the northeastern Williams South Project area, is one of these. In the late 1960's the discovery of the Casino porphyry copper deposit, 104 km to the northwest, sparked a staking rush that led to the staking of the Williams Creek (now Carmacks Copper) property in 1970.

The area covered by the Williams South Project saw some prior reconnaissance exploration work as part of the work around the Williams Creek deposit. Four old trenches were encountered on the northern WS claims in 2008 (*Pautler, 2008*) but no mineralization was observed, although exposure is limited. There are three Minfile occurrences within the Williams South Project; Bishi (Minfile Number 115I 006) (now moved and renamed BClce), Taslar (Minfile Number 115I 007) (now moved and renamed WS), and Merrice (Minfile Number 115I 009), as documented by the Yukon Geological Survey (*Deklerk, 2009*). The Bishi and Taslar were staked in the early 1970's on aeromagnetic anomalies, but no mineralization was discovered. Previous work by United Keno Hill Mines Ltd. in the ICE claim area resulted in the discovery of the Poon showing (*Canam, 1982*), now referred to as BClce. Old placer workings are evident at the north end of Merrice Lake.

The Williams South Project area of BCGold Corp's Carmacks Copper-Gold Project was staked by prospector Shawn Ryan in 2006, following up magnetic high anomalies on trend with known mineralization at the Carmacks Copper deposit, located 3-10 km northwest of the Williams South Project (*Figure 2*). BCGold Corp. was granted an option on the project area from Shawn Ryan in March, 2007 and acquired 100% ownership of the claims in July, 2010.

The following is a record of the known work history on the Williams South Project.

- 1902-8 Easterly trending quartz veins with chalcopyrite and bornite, 0.3-1.4m wide and dipping 50°N, were staked by prospectors (Merrice showing), who explored with a 47.2m adit (*Deklerk, 2009*).
- 1970 Geological mapping and soil sampling on the BF claims (WS property, northeast of Merrice Lake) by Mitsubishi Metal Mining Co. Ltd. did not uncover mineralization or significant soil anomalies (*Kikuchi, 1970*).
- 1971-3 Geochemical sampling, prospecting and road building was carried out on the Taslar (WS property, northwest of Merrice Lake) by Taseko Mining Ltd. and LaRonge Mining Ltd. The Wet claims were staked to the southwest (WS property, west of north end of Merrice Lake) and explored by grid soil sampling in 1972 and a ground magnetic survey in 1973 by Minto Mining Ltd., outlining a number of small but distinct copper anomalies and magnetic low anomalies (*Guardia, 1972 and Mullin, 1974*).
- 1974 Geological mapping and a small geochemical survey by Asarco on Merrice showing (*Deklerk, 2009*).

- 1982 Discovery of Poon (now called BCIce) showing, consisting of two zones of foliated granodiorite with malachite staining, by United Keno Hill Mines Ltd. Trenching was recommended but soil geochemistry suggested limited extent (*Canam, 1982*).
- 2006 Staked by Shawn Ryan to cover favourable geology and government regional airborne magnetic and stream sediment anomalies considered prospective for Carmacks copper-gold belt mineralization. Minor prospecting and geochemical sampling relocated the Poon (BCIce) showing (*Ryan, 2007*).
- 2007 A 3,295 line km airborne magnetic and radiometric geophysical survey was funded by BCGold Corp. over their Carmacks Copper-Gold Project, which included the Williams South Project, under option from Ryan (*Aeroquest International, 2008*). BCGold Corp. also completed MMI grid soil sampling on WS claims (1618 samples) and MMI and conventional grid soils on ICE claims (603 samples), mapping, prospecting and rock sampling (21 samples), trenching on ICE, and 1360m of diamond drilling in 7 holes on ICE and WS (*partially in Doherty, 2008a-d*).
- 2007-8 A winter 14 line km induced polarization geophysical survey was completed by Aurora Geosciences for BCGold Corp. on the ICE claims.
- 2008 A 22.1 line km induced polarization geophysical survey was completed by Aurora Geosciences for BCGold Corp. delineating several anomalies which suggest the extension of Zone 12 at Carmacks Copper onto the northern portion of the WS claims covered by geophysical lines L162N and L159N (*Barrios and Newton, 2009*). BCGold Corp. also conducted mapping, prospecting and sampling (*Pautler, 2008 and Galambos, 2008*), 1646 MMI soils, a 133 sample MMI/conventional soil geochemical orientation survey over the Carmacks Copper deposit, with permission (*Lustig, 2009*), 1,300m of diamond drilling in 7 holes on WS (2 holes totaling 67.7m were lost and re-drilled).
- 2009 BCGold Corp. completed mapping, prospecting and sampling (*Pautler, 2009 and Cardinal, 2009*), trenching on WS (7) and ICE (2-3), 26.3 line km of induced polarization geophysical surveys on the northeast WS claims and infill over the ICE-WS claim boundary (*Sidhu, 2010*), detailed mapping on western WS and structural interpretation (*Devine 2009a*), and infrared spectroscopy and petrography on WS (*Fonseca, 2009a and b*). The induced polarization survey outlined open ended high chargeability zones coincident with MMI soil anomalies (*Sidhu, 2010d*).
- 2012 BCGold Corp completed a biogeochemical orientation survey, consisting of 116 biogeochemical samples at 10m spacings on two lines along the drill trace of hole WS08-09B, which intersected Cu mineralization. The survey appeared to detect the mineralization encountered in the drill hole (*Dumas, 2013*).
- 2013 A small VLF survey, biogeochemistry (550 samples at 20m spacings on 12 lines) and a 1.26 km high resolution multi-array induced polarization survey was done on the WS claims for BCGold Corp. Proximal VLF-EM conductors and geochemical anomalies were obtained (*Dumas, 2014*).

Details and results of the work completed and funded by BCGold Corp., undertaken from 2007 to 2013, with complete results will be discussed under section 9.0, "Exploration". The locations of the above occurrences, known mineralized zones and important natural features are shown in Figure 2 in relation to the outside property boundaries.



## 7.0 GEOLOGICAL SETTING

### 7.1 Regional Geology (Figure 3)

The regional geology of the area is primarily summarized from Hood et. al. (2009), Gordey and Makepeace (2000), Mortensen and Tafti (2003) and Tafti (2005), and modified by Colpron et al. (2016).

The Williams South Project lies within the southern portion of the Carmacks copper-gold belt, a 180 km by 60 km-wide north-northwest trending mineralized belt of similar intrusion-hosted copper-gold mineralization. The belt includes the Minto Mine (Minfile 115I 021) of Capstone Mining Corporation (formerly Sherwood Copper Corp.), the Carmacks Copper (formerly Williams Creek) deposit (Minfile 115I 008) and the STU drilled prospect (Minfile 115I 011).

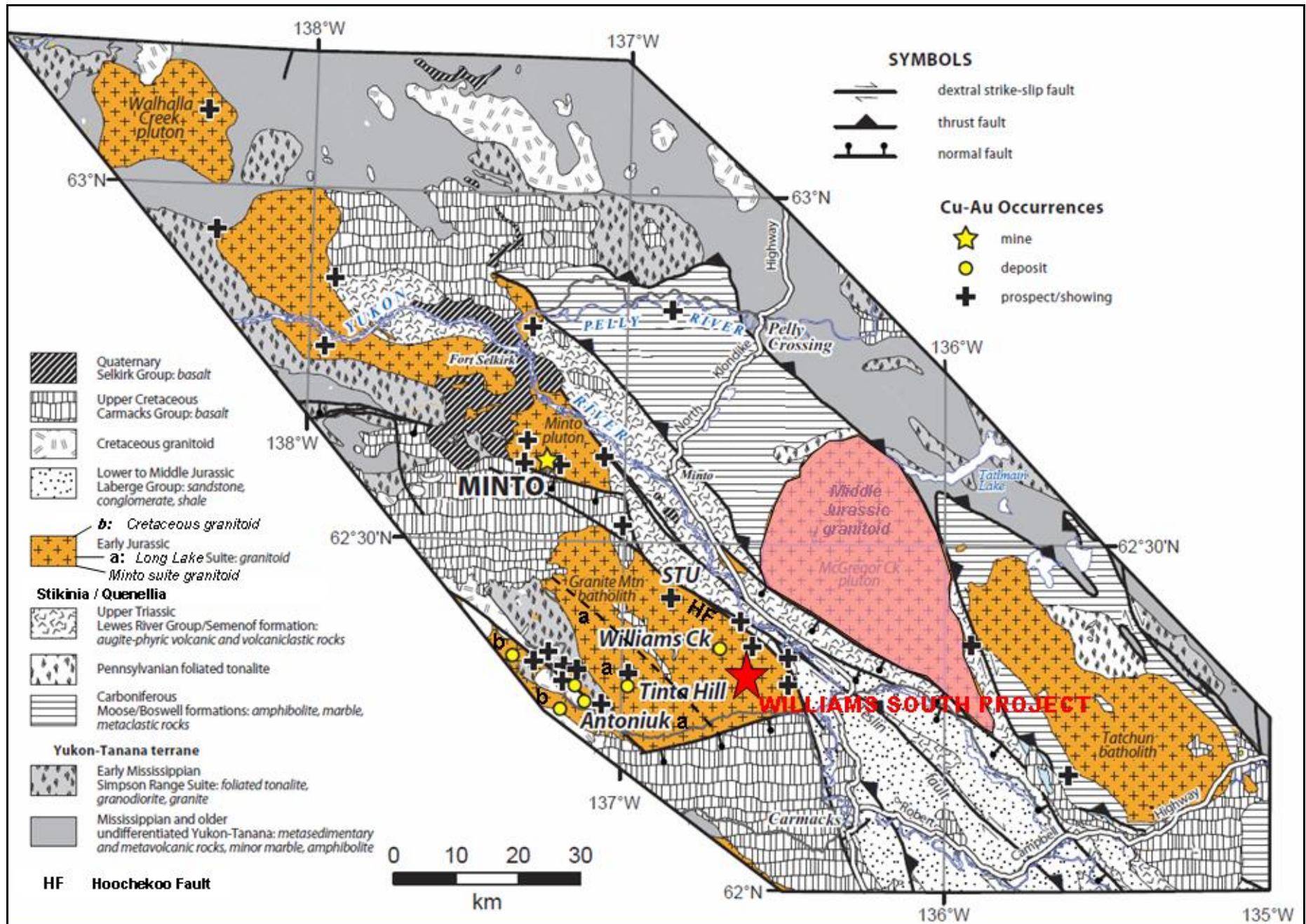
The regional area of the Carmacks copper-gold belt (*Figure 3*) is underlain by intermediate to felsic intrusive and meta-intrusive rocks of the Early Jurassic Minto plutonic suite intruding Paleozoic metaplutonic rocks and locally metavolcanic rocks of the Yukon-Tanana terrane, near the boundary with upper Triassic and/or older mafic volcanic rocks of Stikinia/Quesnellia terranes to the east. The above lithologies are unconformably overlain by younger basaltic volcanic rock units of the Late Cretaceous Carmacks Group and the Quaternary Selkirk Group.

The northwest trending Hoochekoo Fault, which trends along the northeast side of STU and Carmacks Copper, parallel to the regional strike slip Teslin Fault, separates the Granite Mountain Batholith (GMB) from Upper Triassic mafic volcanic rocks of the Lewes River Group (basal Povoas Formation) which are in turn overlain by Jurassic Laberge Group sedimentary rocks. The GMB has been divided into an older, 195-204 Ma, eastern portion (Minto suite), which hosts the Williams South Project, and a younger western portion (Long Lake suite), probably separated by a fault. At the south end of the belt the Granite Mountain Batholith is in normal fault contact with Carmacks Group basalts.

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

The Carmacks Copper (formerly Williams Creek) deposit of Copper North Mining Corporation (formerly Western Copper) is located approximately 3-10 km northwest of the Williams South Project. Copper North released a new updated Measured and Indicated mineral resource estimate for the Carmacks Copper deposit (to NI 43-101 standards) of 15.7 million tonnes of copper oxide and transition ore grading 0.94% Cu, 0.74% acid-soluble Cu, 0.379 g/t Au and 3.971 g/t Ag, with a Measured and Indicated sulphide mineral resource of 8.1 Mt grading 0.68% Cu, 0.178 g/t Au and 2.332 g/t Ag (using a 0.25% Cu cutoff grade except for the acid-soluble copper in the oxide and transition mineralization in Zones 2000S, 12 and 13, which use a 0.15% Cu cutoff grade) (*Copper North news release January 25, 2016*). Zone 12 lies 275m northwest along trend from the Williams South Project of BCGold Corp. The above reserve information has not been verified by the author and is not necessarily indicative of the mineralization on the Williams South Project which is the subject of this report. The 3,850 tonne per day producing Minto Mine, lies 45 km northwest of the Williams South Project ([www.capstonemining.com](http://www.capstonemining.com)).

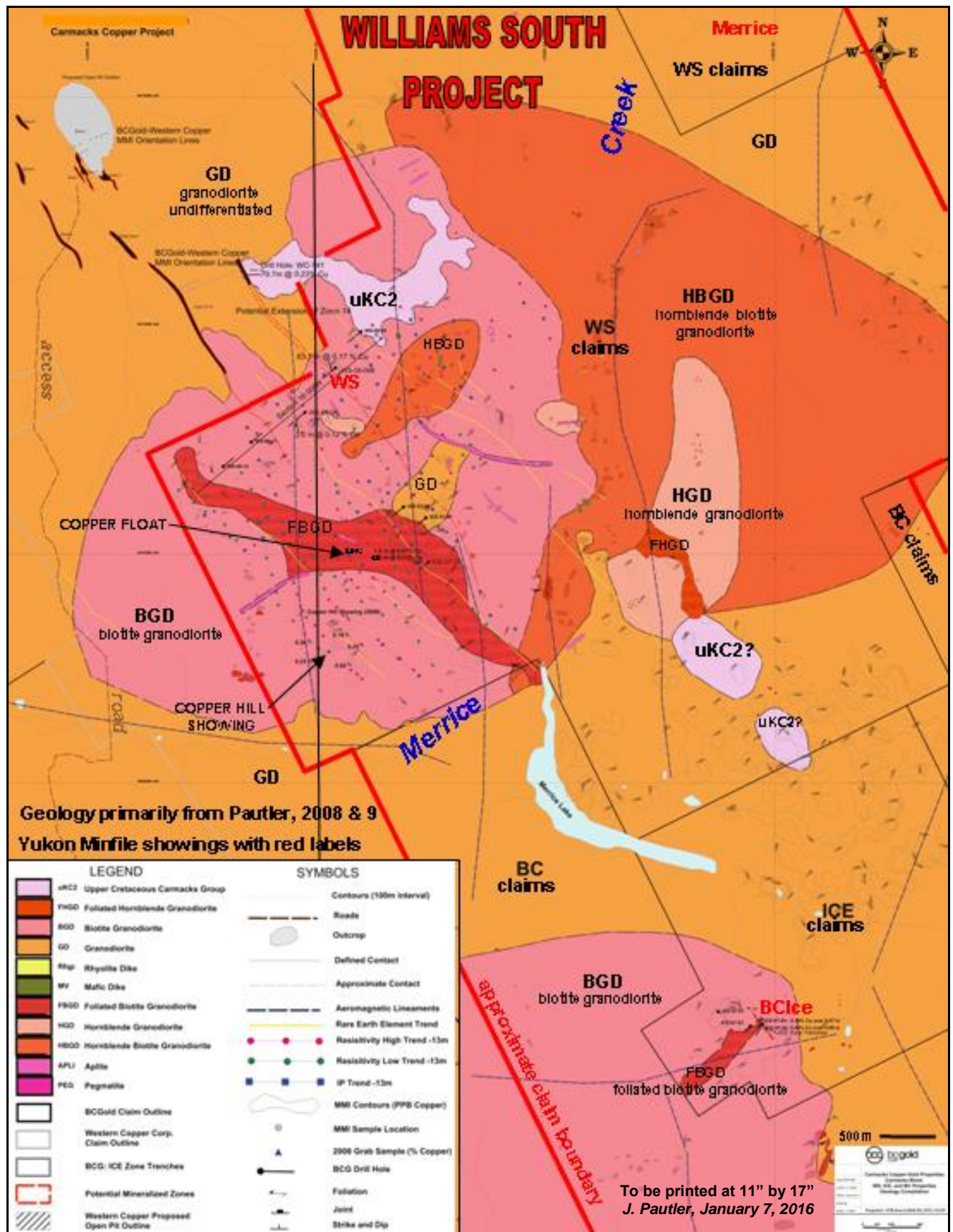




**FIGURE 3: GEOLOGICAL SETTING**

from Hood et al., 2009 and modified from Colpron et al., 2016





**Figure 4: Property Geology (by BCGold, 2009)**

## 7.2 Property Geology (Figure 4)

Property scale mapping was primarily completed by Don Coolidge and the author in 2008 and 2009, and Adam Fage as well in 2008, with some preliminary mapping by Ann Doyle, Peter Ledwidge and Adam Fage in 2007. Mapping, petrography, geochemical analysis and genesis of the ICE zone were the subject of a B.Sc. thesis by Adam Fage in 2007 (*Fage, 2007*). Infrared spectroscopy and petrography on the 2008 drill core was completed by Anna Fonseca in 2009 (*Fonseca, 2009a & b*). Later in 2009 a structural analysis with select detailed mapping was completed by Fionnuala Devine (*Devine, 2009a & b*), and Dan Cardinal, P.Geo. and Dave Heino (prospector) completed a preliminary field examination (*Cardinal, 2009*).

The Williams South Project is primarily underlain by Early Jurassic intrusive rocks of the eastern Granite Mountain Batholith (Minto suite), dated at 195-204 Ma, which are unconformably overlain by younger volcanic rocks, and intruded by related dykes, of the Late Cretaceous Carmacks Group (**uKC2**). Numerous aplite, felsite and pegmatite dykes, slightly younger than the main batholith, and Late Cretaceous felsic quartz feldspar porphyry dykes intrude the Granite Mountain Batholith (GMB). Outcrop is limited on the property, comprising less than 5%, and generally confined to ridge lines and the canyon of Merrice Creek. A Table of Formations follows.

Table of Formations:

### **Upper Cretaceous:**

<b>Carmacks Group:</b>	<b>volcanic rocks (uKC2)</b>	andesite-basalt flows and tuff breccia
	<b>mafic dykes</b>	diorite and gabbro
<b>Casino (?) suite:</b>	<b>felsic qfp dykes</b>	quartz feldspar porphyry (qfp)

### **Early Jurassic:**

<b>slightly post GMB:</b>	<b>felsic dykes</b>	aplite, felsite, pegmatite
<b>Minto suite:</b>	<b>GMB</b>	primarily Kspar megacrystic biotite ±hornblende granodiorite grading to gneiss

The intrusive rocks of the eastern Granite Mountain Batholith (GMB) consist of several different phases that include potassium feldspar megacrystic biotite ±hornblende granodiorite that grades to foliated biotite, ±hornblende gneiss and locally biotite ±hornblende schist, quartz-phyric granodiorite to monzogranite, and minor diorite to quartz diorite and hornblendite. Foliation of the granodiorite, where present, trends northwest and varies from very weak to moderate to locally strong to gneissic; the latter particularly in mineralized zones. It should be noted that within the Carmacks copper-gold belt (i.e. Minto, Carmacks Copper, STU) mineralization is typically associated with foliated to gneissic granodiorite, more mafic phases and often finer grained variants of the granodiorite.

Areas marked “GD” on Figure 4 are undifferentiated granodiorite, since they either lie outside of mapped areas and/or insufficient exposure is available to subdivide the phases. Much of the mapping is based on small outcrop exposures, subcrop and float. The main phase of the Granite Mountain Batholith, a massive coarse grained biotite-hornblende granodiorite with 5-15% mafic minerals and potassium feldspar megacrysts, is exposed throughout most of the property. Overall, more biotite dominant granodiorite

is exposed in the western and southern property areas and more hornblende rich biotite granodiorite in an area north of Merrice Lake and east of a line just west of the Merrice Creek canyon, wrapping further northwest in the northern property area (*Figure 4*). A 0.5 by 1.5 km pod of more hornblende rich biotite granodiorite is exposed in the northeastern WS grid area and was intersected in DDH WS-08-09B and -08. Localized more hornblende dominant granodiorite occurs within or proximal to the areas underlain by the more hornblende rich biotite granodiorite phase.

Foliated biotite  $\pm$ hornblende granodiorite occurs in a 0.5 by 4 km northwest trending band across the WS grid from the north end of Merrice Lake to the northwest property boundary, and as a northeasterly (?) 150m by 1 km band at the BClce showing; the latter particularly limited by poor exposure.

Aplite dykes, which trend northwesterly and easterly to northeasterly, are more abundant in the WS grid area and further north, possibly partly due to more detailed mapping and/or better exposure in the area.

Basalt flows of the Late Cretaceous Carmacks Group overlie the granodiorite in the area just north of the northeast WS grid area and have been interpreted from magnetic signature and geochemistry in the north-central ICE grid on the southern WS claims near the claim boundary. Minor northerly trending rhyolite quartz feldspar porphyry dykes, possibly of the Late Cretaceous Casino suite, were identified in the southern and western property areas. Similar dykes and related stocks are known to host gold  $\pm$ copper mineralization within the Freegold camp to the west.

A number of northerly trending lineaments, defined by airborne magnetic low anomalies, bisect the WS claims and are suggestive of structures (*Figure 4*). An easterly trending airborne magnetic low feature is evident through the BClce showing area (*Figure 4*).

### **7.3 MINERALIZATION (Figures 4-7)**

Mineralization within the Carmacks copper-gold belt consists of chalcopyrite and bornite with minor chalcocite as disseminations, irregular grains, aggregates and stringers, associated with more foliated to gneissic, finer grained and more mafic rich zones with biotite, silicification hematite, epidote, chlorite and locally sericite alteration. Supergene alteration has produced secondary copper minerals such as chalcocite, azurite and malachite. Mineralization at Minto is flat lying but mineralization at Carmacks Copper and alignment of mineralized zones within the entire belt generally trend 315-340°.

There are three Minfile occurrences within the Williams South Project; Bishi (115I 006) (now moved and renamed BClce), Taslar (115I 007) (now moved and renamed WS), and Merrice (115I 009), as documented by the Yukon Geological Survey (*Deklerk, 2009*). The Bishi and Taslar were staked in the early 1970's on aeromagnetic anomalies. Geological and geochemical surveys on the BF claims (WS property, northeast of Merrice Lake) by Mitsubishi Metal Mining Co. Ltd. outlined the presence of granodiorite and diorite, cut by aplite and pegmatite dykes, in an area of very poor exposure, and only a few spot copper soil anomalies up to 50 ppm (*Kikuchi, 1970*). No



mineralization was found on the Taslar, but grid soil sampling and a ground magnetic survey in 1972-73 to the southwest on the Wet claims (WS property, west of north end of Merrice Lake) by Minto Mining Ltd., outlined a number of small but distinct copper anomalies and magnetic low anomalies (*Guardia, 1972 and Mullin, 1974*).

The Merrice showing was located in 2009 at 417439mE, 6914656mN, Nad 83, Zone 8 projection. Several quartz veins with malachite, minor chalcopyrite and locally high concentrations of bornite hosted by hornblende rich diorite to hornblendite were found to trend 290°/55°N and 320°/85°NE. Malachite and trace chalcopyrite were observed within the host rock 3m into the footwall of the main vein, which was explored by an adit, now caved. The main vein explored by the adit returned 0.52% Cu over the 1.5m vein. The diorite footwall with malachite and trace chalcopyrite, 3m south of the vein carried 0.14% Cu. A grab sample from a bornite rich 0.5m vein south of the adit returned 2.52% Cu, 0.51 g/t Au and 42 g/t Ag (*Pautler, 2009*).

Previous work by United Keno Hill Mines Ltd. in the ICE claim area resulted in the discovery of the Poon showing, consisting of two zones of foliated granodiorite with malachite (*Canam, 1982*), now referred to as BCIce in Minfile. The main zone (now called ICE) was reported to cover a discontinuously exposed 20m x 100m zone of moderately foliated granodiorite with malachite trending 294°/20°NE (*Photo 1*) with a second 5 by 10m zone 300m to the west (*Canam, 1982*).



Photo 1: ICE zone, BCIce showing: shallowly dipping foliated granodiorite with malachite overlying massive granodiorite (0.48% Cu over 0.8m)

MMI and conventional soil sampling (614 samples), 60m of trenching in 3 trenches, 859m of diamond drilling in 4 holes and one north-northeast trending IP line was completed by BCGold Corp. in 2007 over the BCIce showing area (*Figure 5*). Both malachite bearing zones (*Figure 6*) are associated with a bulls-eye aeromagnetic high feature, measuring approximately 1,000 by 700m in size (*Ryan, 2007*). Grab samples from the showing in 2007 returned maximum values of 1.83% Cu and 0.41 g/t Au. Outcrop and trench chip samples returned, 0.48% Cu over 0.8m, 0.45% Cu over 0.85m and 0.30% Cu over 2.0m (*Figure 5*). Mineralization consists of malachite, associated with secondary biotite (potassic) alteration.

A prospecting sample, 200m south-southwest of the ICE zone returned 0.39% Cu with 0.38 ppb Au from foliated granodiorite in 2007 (*Figure 6*). A trench was excavated here in late 2009 with reported grab samples of 0.32 and 0.10% Cu. This may correspond to the second zone, described as being 300m west of the main (ICE) zone, in Canam (1982). Two conventional soil samples collected 200m further to the southwest in 2006 by Ryan returned 281 and 935 ppm Cu (*Figure 6*) (*Ryan, 2007*).

Mapping, petrography, geochemical analysis and genesis of the ICE zone were the subject of a B.Sc. thesis by Adam Fage in 2007, completed prior to drilling and the IP line. The following description of the ICE zone is summarized from Fage (2008) The ICE zone contains malachite and other copper oxides in pores and fractures, (previously occupied by sulphides) and small irregular particles of native silver hosted within variably sheared and altered hornblende-biotite granodiorite. Disseminated magnetite, partially oxidized to hematite (martite) accounts for the relatively high magnetic susceptibility of the rocks, but does not account for the magnetic high anomaly. Fabrics and recrystallized quartz veinlets suggest that hydrothermal mineralization preceded deformation.

Drilling of the ICE zone encountered two narrow, relatively flat-lying mineralized horizons in ICE 07-2 and -4. The upper and lower horizons returned 0.48% Cu over 4.8m and 0.15% Cu over 3.7m in ICE 07-2 and 0.39% Cu over 5.5m and 0.25% Cu over 0.7m in ICE 07-4, respectively. The upper horizon is described as foliated megacrystic biotite rich granodiorite with 5-10% malachite on fractures and along the foliation. The lower horizon is characterized by 5% malachite on fractures and along foliation planes. This style of mineralization commonly occurs distal to larger zones so may have potential along strike and/or down dip, further to the northeast. (*See BCGold News Release, November 22, 2007.*)

The most significant copper mineralization encountered on the Williams South Project was intersected in drill hole WS08-09B, targeting a weak copper MMI anomaly coincident with a pronounced 2 km long linear induced polarization geophysical anomaly, 1 km along strike from Copper North's Zone 14; Zone 14 returned 0.23% Cu over 79.7m in hole WC07-141 (*Western Copper news release November 22, 2007*).

Mineralization in WS08-09B occurs in two discrete and relatively homogenous intervals of foliated hornblende schist within a white megacrystic potassium feldspar granodiorite. Mineralization in the upper interval, which averages 0.13% Cu over 20.0m from 46.0 to 66.0m, consists primarily of pyrite and chalcopyrite intermixed in foliated schist. Massive



chalcopyrite occurs along the edges of carbonate stringers and malachite occurs along fractures. Chalcopyrite mineralization occurs in a similar fashion in the lower interval from 85.5 to 109.1m, averaging 0.34% copper over 23.6m. Chalcopyrite and fracture controlled malachite occur intermixed with pyrite in foliated hornblende schist. Massive chalcopyrite rims carbonate stringers and larger chalcopyrite grains display red oxidized rims. Propylitic (chlorite, epidote, carbonate, and sericite) alteration with secondary hematite and weak potassium feldspar alteration predominates. (See *BCGold News Release, January 13, 2009.*)

The Copper Hill showing (*Photo 2*) was discovered in 2008 on the southwestern WS grid at 6909150mN, 414100mE, Nad 83, Zone 8 projection on L144N at 10335E, approximately 2.5 km southeast generally along trend of Zones 5, 6 and 8 of the Carmacks Copper Project (*Figure 7*). The showing consists of malachite, lesser chrysocolla, minor azurite, and chalcocite mineralization, primarily hosted by more mafic zones of quartz diorite to diorite composition (varying from fine to very coarse grained and locally moderately foliated) within coarse grained granodiorite. Exposure consists of a small 1.5 by 3m outcrop, scattered subcrop and local float. Mineralization appears to follow the foliation, which trends 315°/80°E, and can be discontinuously traced for 20m along strike and 3-5m in width, limited only by exposure. A 330°/70°E trending joint set cuts the foliation. Alteration includes abundant epidote as fracture fillings and along foliation, local concentrations of limonite, and local magnetite-silica with clots of magnetite and quartz flooding and veinlets.



Photo 2: Copper Hill showing

Samples from the Copper Hill showing in 2008 returned maximum values of 0.85% Cu and 0.42 g/t Au from a grab sample and 0.19% Cu and 0.08 g/t Au across 1.5m from the

same location. A 600m by generally 100m wide copper MMI soil anomaly lies 150m upslope of the showing coincident with an induced polarization chargeability high – resistivity anomaly.

A 30 by 25 cm rounded float boulder (Copper Float) of foliated biotite-hornblende granodiorite with malachite staining centred within a 2 cm more biotite rich, more foliated section with secondary magnetite and trace bornite, was discovered in 2007 on the WS grid at 414311mE, 6909970mN (*Figures 4 and 7*). It should be noted that the intrusive rock commonly weathers rounded. A grab sample of the float returned 0.94% Cu and 0.26 g/t Au. The float appears isolated but generally occurs within an area of poor exposure with some exposures of foliated granodiorite approximately 2 km southeast along trend of Zone 12-13 of the Carmacks Copper Project.

For comparison, at the Minto mine copper mineralization occurs within 13 horizontally stacked “gneissic” zones from 1-50m wide which vary in consistency and grade. At the Carmacks Copper deposit not all of the zones are near vertical nor are they all consistent at depth. Zone 4 is bowl-shaped and the southern half of the No. 1, No. 7 and 7A zones are interrupted and offset by faults. Generally the more gneissic material and number of gneissic zones in an area, the better the grade. In addition, contacts are sharp between mineralized and unmineralized rock with little obvious alteration (*Photo 3*). Consequently, there can be difficulty in correlating between wider spaced drill holes and in intersecting the irregular, discrete zones.



Photo 3: Mineralized “gneissic” zone at Minto within massive granodiorite





**Figure 6: BCIce Showing** (after BCGold Corp. website, November 22, 2007)

## 8.0 DEPOSIT TYPE

The Williams South Project lies within the southern portion of the Carmacks copper-gold belt, a 180 km by 60 km-wide north-northwest trending mineralized belt of similar intrusion-hosted copper-gold mineralization that includes the Minto Mine of Capstone Mining Corporation and the Carmacks Copper deposit of Western Copper Corporation (9 km southeast of the Williams South Project). Mineralization within the belt appears to fit a variant on the copper-gold porphyry deposit model as proposed by Tafti and Mortensen (2004) and Pearson and Clark (1979) for the two deposits. Several variations have been proposed including metamorphosed, deformed, and stalled porphyry models (*Tafti and Mortensen, 2004, Tafti, 2005 and Mortensen, 2014*). The deposit model for mineralization within the Carmacks copper-gold belt remains controversial and has ranged from digested red-bed copper, to aborted and deformed porphyry, to iron oxide copper gold (*Hood et. al, 2009*).

In the “stalled porphyry” model, Mortensen suggests that the porphyry style mineralization formed at a depth of less than 9 km with copper and gold exsolved from sulphide veins (*Mortensen, 2014*). This was followed by active faulting, crustal thickening (resulting in the formation of shears, and burial to depths of 20 km, which stalled the system), followed by rapid uplift. The system was short lived (from 203-195 Ma), which is similar in age to the porphyry deposits (e.g. Kemess) of the Quesnel Trough, British Columbia. The alkaline porphyry deposits within Quesnellia in British Columbia formed at 204 Ma.

Mineralization on the Williams South Project has strong similarities to both Minto and Carmacks Copper, 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 Minto suite (*Tafti and Mortensen, 2004*). 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. 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 has been suggested that the highly foliated rocks controlling economic mineralization at the Carmacks Copper deposit are rafts and lenses (xenoliths) of augite-phyric volcanic rocks of the Povoas Formation within the Granite Mountain Batholith (*Hood et. al, 2009*). 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, which produced 3 million ounces of gold and 800 million pounds of copper from 1998-2011, and the Kemess North deposit (Kemess Underground Project of AuRico Metals Inc.) 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.

Similarities exist between the Williams South Project and the Minto and Carmacks Copper deposits. The presence of ubiquitous magmatic epidote has been reported at Minto, Carmacks Copper and STU, suggesting depths of formation of 18 to 20 km, which far exceeds typical depths of formation for porphyry style deposits (*Hood et. al, 2009*).

Based on the above discussion, the author believes that mineralization within the Carmacks copper - gold belt is hosted by schlieren zones (probably formed by crystal sorting or settling during magmatic flow) within Jurassic granodiorite and is consistent with a calc-alkaline porphyry copper-gold model (with similarities to the Kemess Mine and Kemess North deposit), but formed (or was buried) at a deep crustal level.

## **9.0 EXPLORATION (Figures 4-15)**

Exploration by BCGold Corp. since the granting of the option from Shawn Ryan in March, 2007 has involved a property wide airborne magnetic and radiometric geophysical survey, approximately 3,551 MMI and 317 conventional grid soil samples from 5 grids, 62.4 line km of induced polarization geophysics from 3 grid areas, a 1.26 km high resolution multi-array induced polarization survey, property wide geological mapping and prospecting with concurrent geochemical sampling (33 rock, 10 soil and 6 stream sediment samples), a structural analysis, a 660 sample biogeochemical survey on WS, trenching on BCIce, WS and Copper Hill showings, 2,659m of diamond drilling in 14 holes (2 holes totaling 67.7m were lost and re-drilled), and infrared spectroscopy and petrography on the 2008 drill core. Work in 2016 consisted of a comprehensive compilation, integration and summary report completed by the author between January 2 and 20, 2016. Expenditures by BCGold Corp. on the Williams South Project are estimated at over \$2.5 million (*BCGold News Release, January 25, 2016*).

## **9.1 Geochemistry (Figures 5 to 8)**

### **9.1.1 Grid Soil Geochemistry (Figures 7 to 8)**

A total of 3,551 grid MMI soil samples (3,264 on the WS claims and 287 from the ICE claims) and 317 conventional grid soils for comparison purposes (316 on ICE and 1 on WS), including quality assurance and quality control samples, were collected from the Williams South Project by BCGold Corp. The samples were collected from 5 grids, a large grid (WS) in the western property area to cover a 7 km extent of the projected southeastern strike extension of mineralization on the adjoining Carmacks Copper Project of Copper North Mining Ltd., a small grid to cover the BCIce showing, and 3 small grids on the north to northeast WS claims (NEWS, NE and NW). Grid locations are shown on Figure 7. All samples were collected by Ryanwood Exploration Inc. of Dawson City, Yukon (a company owned by the original vendor of the property, Shawn Ryan) in 2007 and 2008. A total of 57 blank and 100 field duplicate samples were submitted for quality control in the soil surveys.

The MMI soil samples were collected at a 50m sample spacing, primarily along 050° trending lines, generally 100m apart with the 3 isolated grids in the north to northeast property area 200m apart and the central portion of the BCIce grid at a 50m line spacing, covering approximately 35% of the Williams South property. MMI sampling is an analytical process that measures mobile metal ions reported to be useful in detecting mineralization beneath younger cover rocks and thick glacial till. The samples were collected using 1m soil augers and mattocks, whichever was appropriate depending on vegetative cover and the thickness of the organic horizon. Generally samples were collected 10-25 cm below the base of the organic horizon, were placed in plastic zip-lock bags and then into pre-numbered Kraft soil bags. The auger or mattock was cleaned after each sample with a J-cloth to avoid contamination.

Conventional soil samples were collected from the B-C horizons, irrespective of depth, with one meter soil augers, or with a mattock where necessary, depending on vegetative cover and the thickness of the organic horizon. Approximately 400-500 grams of soil were collected and placed in well marked pre-numbered Kraft soil bags. Both MMI and conventional soils were collected over a 1 km by 1 km grid over the ICE showing for comparison purposes, along northwest trending lines.

At each soil sample location, a GPS reading was taken using the pre-numbered soil sample bag for reference. Sample sites were marked in the field with pink flagging and a three inch aluminum tag with sample number, and locations recorded by GPS using UTM coordinates, Nad 83 datum, Zone 8 projection.

The conventional soils were sent to, and processed at, Acme Analytical Laboratories Ltd., Vancouver, British Columbia. Acme was an ISO 9001 accredited facility. Soil preparation (SS80) involved drying at 60°C and sieving to -80 mesh. Samples were analyzed for Al, Sb, As, Ba, Bi, B, Cd, Ca, Cr, Co, Cu, Ga, Au, Fe, La, Pb, Mg, Mn, Hg,



Mo, Na, Ni, P, Ag, K, Sc, Sr, S, Ti, Th, Tl, Sn, W, U, V and Zn using Acme's Group 1DX-MS(15) analysis, a 36 element ICP package which involves a nitric-aqua regia digestion on a 15g sample.

MMI samples were sent to, and processed at, SGS Mineral Services in Toronto, an ISO/IEC 17025 accredited facility where they were analyzed using a weak acid leach. Response ratios were calculated by determining the average value of the sample population, then dividing each sample value by the sample average. Response ratios are then plotted using percentile ranges to indicate anomalous areas. Contoured copper MMI soil results are shown in Figure 7 and overlain on the airborne vertical magnetic gradient contours in Figure 8, with IP chargeability highs shown.

The 1 km by 1 km grid over the ICE showing, sampled by both methods, produced coincident anomalies with the conventional ICP anomaly slightly displaced down slope to the southeast, probably related to down slope dispersion. The coincident anomalies indicate the effectiveness of the MMI sampling method in detecting mineralized zones in this environment. The MMI survey outlined a copper MMI anomaly over the ICE zone and a 350 by 100m copper anomaly 400m to the west-southwest of the ICE zone (*Figure 6*).

A northwest trending MMI soil anomaly was outlined on the WS grid along the projected southeastern strike extension of Zone 12 from the adjoining Carmacks Copper Project of Copper North Mining Ltd. The anomaly appears to "blow out" in the central grid area on lines 144 to 149N, generally correlates with the exposure of a northwest trending band of foliated granodiorite, and was tested by drill holes WS-07-05 to -07 (*Figure 7*). Another discontinuous northwest trending anomaly occurs in the western WS grid on trend of Copper North's Zone 8. It consists of highs in the extreme northwest corner of the claims, and trends northwest from the western end of L139N through lines 141 and 144N, proximal to the Copper Hill showing (*Figure 7*).

An extensive area of anomalous copper in MMI soils occurs west of Merrice Lake in an area of limited exposure (*Figure 7*), and is thought to be related to swampy terrain, similar to the response of conventional soils in swamps. However, within this area there is an exposure of a more favourable mafic intrusion of hornblende to diorite along a low ridge in the old Bishi Minfile area, near the centre of L124N. The area of anomalous copper in MMI soils on the NEWS grid appears to be devoid of rock exposure and, although not swampy is poorly drained, which may explain the anomalies. However, more favourable mafic intrusive units have been mapped along trend of the anomalies.

Very little exposure is evident on the two grids on the northern WS claims. An old trench was found at 415200E, 6913600N, Nad 83, zone 8, but no mineralization, alteration or foliation was evident.

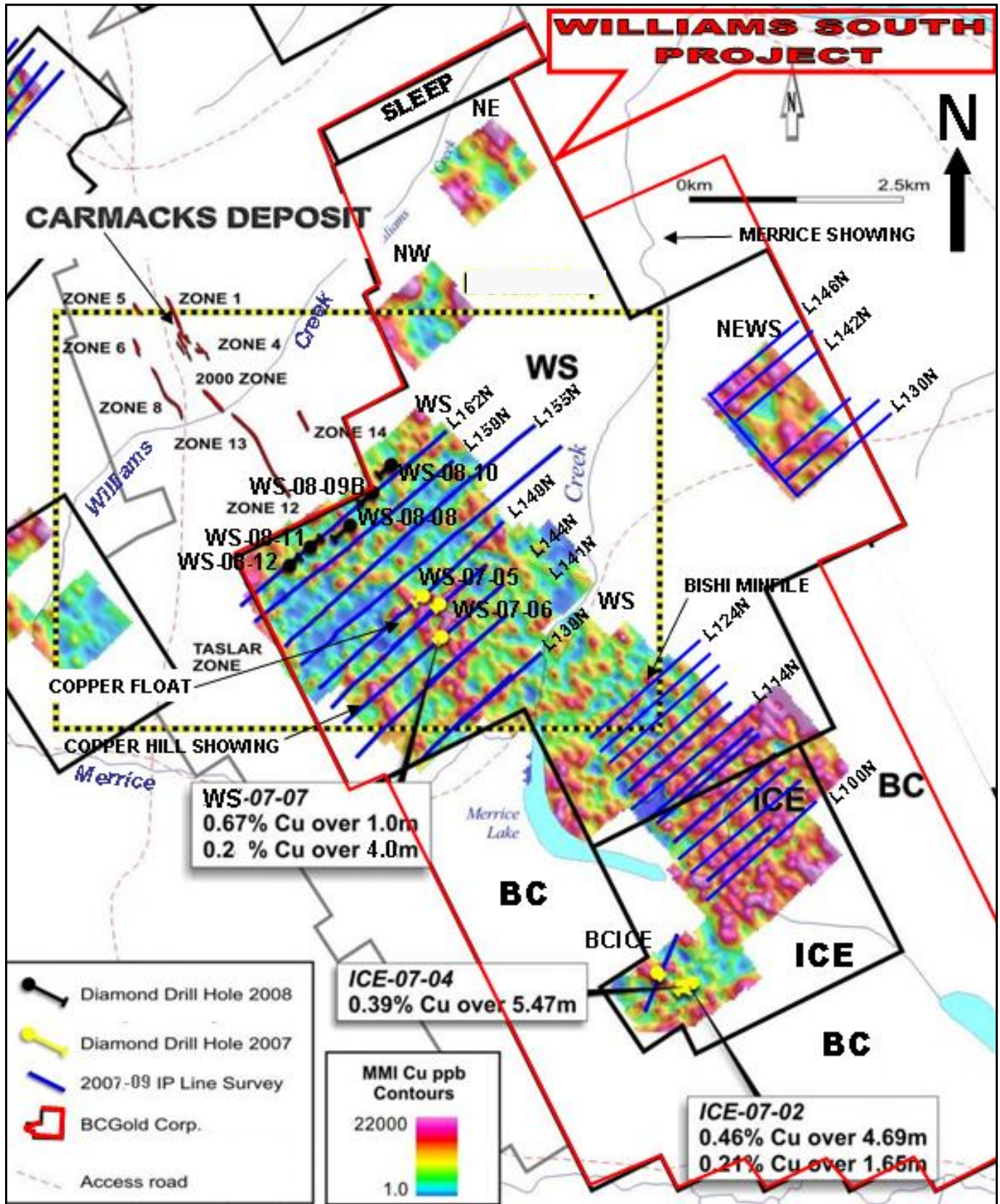


Figure 7: Copper MMI Soils (after BCGold Corp., October, 2009)

### 9.1.2 Reconnaissance Geochemistry (Figures 4 to 7)

During the process of geological mapping and prospecting on the Williams South Project in 2007 to 2009, 33 rock, 10 soil and 6 stream sediment samples were collected. Four days of mapping and prospecting, primarily in the BCIce showing, area were completed by Peter Ledwidge, Ann Doyle and Adam Fage in 2007, a 7 day prospecting program was conducted by Ken Galambos and Ralph Keefe in the fall of 2008, and 11 days of property scale mapping and prospecting were completed by Jean Pautler and Don Coolidge in the spring of 2008 and 2009, also with Adam Fage in 2008.

The rock samples primarily consisted of grab samples, and chip samples where possible, of rusty, foliated and or malachite stained granodiorite, with copper bearing quartz veins sampled at the Merrice showing. The soil samples were collected from rusty zones in areas of foliated granodiorite. Stream sediment samples consisted of silts and moss mats collected along Merrice Creek, with one sample collected from a small creek draining the BCIce showing. Rock samples were placed in clear plastic sample bags and soils and stream sediments in waterproof Kraft bags. All samples were located and recorded by GPS using UTM coordinates, Nad 83 datum, Zone 8 projection, numbered and secured in the field.

The 2008 and 2009 samples were sent to Eco Tech Laboratory Limited (Alex Stewart Geochemical, now ALS Minerals) for gold and ICP analysis. Details are discussed under section 11.0, "Sample Preparation, Analysis And Security". Select anomalous results are plotted on Figure 4. The 2007 samples were assayed for gold and copper only, the same as for trench samples. Reconnaissance grab samples (3) collected from the BCIce showing area in 2007 will be discussed under section 9.1.4, "Trenching".

Significant results were obtained from three areas, Copper Hill, Copper Float and the Merrice Minfile showing (*Figures 4 and 7*). The showings are discussed in detail under section 7.3, "Mineralization".

The Copper Hill showing discovered in 2008 (*Galambos, 2008*) on the southwestern WS grid at 6909150mN, 414100mE on L144N at 10335E, 2.5 km southeast generally along trend of Zones 5, 6 and 8 of the Carmacks Copper Project, consists of malachite, lesser chrysocolla, minor azurite, and chalcocite mineralization, primarily hosted by more mafic intrusive phases. Results of 0.85% Cu, 0.42 g/t Au and 5.3 g/t Ag from a grab sample and 0.19% Cu and 0.08 g/t Au across 1.5m from the same location were obtained. Mineralization appears to follow the foliation at 315°/80E, and was discontinuously traced for 20m along strike and 3-5m in width, limited only by exposure. Alteration consists of epidote, limonite, magnetite and quartz flooding and veinlets.

The Copper Float showing consists of a 30 by 25 cm rounded float boulder of malachite stained foliated biotite-hornblende granodiorite with secondary magnetite and trace bornite discovered in 2007 on the WS grid at 414311mE, 6909970mN. A grab sample of the float returned 0.94% Cu and 0.26 g/t Au. It occurs within an area of foliated



granodiorite along trend of Zones 12-13 of the Carmacks Copper Project. Mineralization at the Merrice showing (417439mE, 6914656mN) is confined to quartz veins and adjacent wallrock. The main vein, explored by the adit returned 0.52% Cu over the 1.5m vein. The diorite footwall with malachite and trace chalcopyrite, 3m south of the vein carried 0.14% Cu. A grab sample from a bornite rich 0.5m wide vein south of the now caved adit returned 2.52% Cu, 0.51 g/t Au and 42 g/t Ag.

A deep orange coloured soil exposed along an old cat trail in the northern WS grid area returned an anomalous value of 28 ppm Cu proximal to weakly foliated granodiorite. The sample is also proximal to exposures of the overlying Carmacks basalt unit, which could account for the elevated copper response.

One copper anomalous stream sediment sample, returning 23 ppm Cu, was obtained from Merrice Creek, just upstream of its intersection with the tributary draining Merrice Lake. This area corresponds to where the northwest trending band of foliated granodiorite crosses the creek. Fine gold has also been panned from this section of the creek and an old placer camp is situated at the north end of Merrice Lake.

### **9.1.3 Biogeochemistry (Figures 2, 8 and 15)**

In 2012 BCGold Corp completed a biogeochemical orientation survey, consisting of 116 black spruce bark/twig/needle and labrador tea samples at 10m spacings on two lines 20m apart, parallel to the drill trace of hole WS08-09B, which intersected significant copper mineralization. The survey, especially the spruce twig and labrador tea, appeared to detect the mineralization encountered in the drill hole (Dumas, 2013). In 2013 550 twig samples (including 28 duplicate samples) were collected from 12 lines at 20m spacings, primarily from the WS (WS West) grid, with 2 lines on the northern ICE grid (Dumas, 2014). A strong copper-silver-nickel-tungsten biogeochemical anomaly occurs between drill holes WS-08-08 and -11 and lies directly on trend of Zone 12 on the Carmacks Copper Project. Further south a strong tungsten-antimony-cerium-chromium and weak copper-molybdenum-nickel-silver anomaly occur just uphill of the area tested by the 2007 WS drilling. The anomalies are summarized in Figures 8 and 15 and lines surveyed are shown in Figure 2.

The following procedure is summarized from Dumas (2013 and 2014). In the orientation survey approximately 50g of outer bark for the bark samples was scraped around the entire trunk approximately 4 - 5 feet off the ground from a selection of about 2-3 similar sized trees using a plastic paint scraper into a large poly sample bag, then transferred to a paper bag. The twig and needle samples were collected by clipping the ends of small branches (approximately 200g) from about 2-3 similar sized trees approximately 6 inches in length. Labrador tea foliage was collected by plucking approximately 200g of leaves by hand from the bushes. All samples were collected from healthy specimens within 1 or 2m of the sample site and placed in labeled paper bags. In the 2013 survey the twig samples were collected by clipping approximately 15 cm off the ends of small branches) from similar sized trees showing new growth (with a target tree height of 5m) and placing approximately 250g in 5"x7" Hubco bags.

#### **9.1.4 Trenching (Figures 5, 6, 8 and 15)**

In 2007 approximately 60m of trenching in 3 trenches was undertaken on the ICE zone, excavated intermittently over an 80m strike length. A total of 45 rock samples, including 2 gold standards for quality control, were collected from the trenches and outcrop exposures. Outcrop and trench chip samples returned 0.48% Cu over 0.8m, 0.45% Cu over 0.85m and 0.30% Cu over 2.0m (*Figure 5*). Copper and gold grades from grab samples ranged up to 1.83% Cu, 0.25 g/t Au and 1.28% Cu, 0.41 g/t Au. Mineralization consists of malachite which is primarily associated with discrete zones of weak to moderate foliation dipping 25-30°NE, with the foliation defined by secondary biotite (potassic) alteration. (*See BCGold Corp. website, November 22, 2007.*) Results are plotted on Figure 5. The samples were assayed for gold and copper only, as described under section 11.0, "Sample Preparation, Analysis And Security".

Three grab samples were also collected from the BCIce showing area in 2007 during reconnaissance mapping and prospecting. One sample, 200m south-southwest of the ICE zone returned 0.39% Cu with 0.38 ppb Au from foliated granodiorite (*Figure 6*). This may correspond to the second zone, about 300m west of the main (ICE) zone, in Canam (1982).

Seven trenches were apparently excavated on the WS in the fall of 2009 (*Figures 8 & 15*). A trench was excavated at the projected surface extent of mineralization intersected in DDH WS-08-09B. No samples were collected due to the predominance of permafrost. The Copper Hill showing was also trenched, with results of 0.40% Cu over 0.5m. Two additional trenches were excavated upslope of the showing over a copper MMI soil anomaly. The trenches may have intersected permafrost as no samples are plotted. Three trenches were excavated over an induced polarization chargeability anomaly between 147N and 151N, on trend of mineralization encountered in WS-07-07. Grab samples of 0.71, 1.87 and 2.83% Cu are reported from the southern trench at 414700E/6910100N. Two or three additional trenches appear to have been excavated on the BCIce showing. Grab samples of 0.32 and 0.10% Cu are reported 200m west of the main zone. This zone may correspond to the second zone from Canam (1982). No other data or information could be found regarding the trenching program.

#### **9.2 Geophysics (Figures 2 and 8 to 10)**

In 2007 a 3,295 line km airborne magnetic and radiometric geophysical survey, with a 200m line spacing was flown by Aeroquest Surveys, Mississauga, Ontario for BCGold Corp. over their Carmacks Copper-Gold Project which included the Williams South Project. The vertical gradient magnetic map is shown as a base in Figure 8. The airborne vertical gradient magnetic signature shows strong linear northwest magnetic high trends on strike of those related to mineralized zones on the adjoining Carmacks Copper Project (*Figure 8*). The airborne radiometric survey also shows that most of the Williams South Project is underlain by a similar thorium/potassium signature to that of

the Carmacks Copper deposit (*Figure 9*). The northeast trending thorium/potassium low through the central WS claims corresponds to Merrice Creek.

A total of 62.4 line km of pole-dipole induced polarization was conducted over the Williams South Project in 3 grids (WS West, ICE, and NEWS), with one line at the BCIce showing, between 2007 and 2009 by Aurora Geosciences Ltd. for BCGold Corp. The surveys were undertaken along northeast trending lines (primarily 050° with the BCIce line at 020°). The grid lines were cut by Coureur des Bois Ltd. of Whitehorse, Yukon Territory. A modified pole-dipole array was used with 100m dipole spacing, reading to the 6th dipole separation (*Figures 8 and 15*). Aurora Geosciences Ltd. performed 2D IP inversions and 3D IP inversions were performed by Mira Geosciences on the WS West grid. The data between the winter survey (modified due to extreme cold) and summer surveys were not consistent for either the resistivity or the chargeability suggesting significantly different current paths between the two geometries of the surveys (*Hildes, 2008*).

The WS West tested magnetic and linear copper MMI soil anomalies, and two new copper showings along trend of the Carmacks Copper deposit. The NEWS grid tests a strong copper MMI anomaly in an area of no exposure, and the ICE grid tests strong copper MMI anomalies in an area of poor exposure, with a more favourable mafic intrusion at the north end.

The following interpretation of the WS West survey is summarized from Hildes (2008). An orientation survey across L4400 on the adjoining Carmacks Copper Project of Copper North Mining Corp. (formerly Western Copper) showed reasonably good correlation between the elevated chargeability and intersected sulphides in Zones 13 and 12. There was not a strong resistivity signature. In the survey across BCGold's WS West grid open ended high chargeability zones were outlined coincident with copper MMI soil anomalies, suggesting the extension of Zone 12 onto the northern portion of the WS claims through the central sections of lines 162N and 159N, with the best signature on L159N. In addition a subtle resistivity low centered at approximately station 11500E corresponds with slightly elevated copper MMI soil results. A southwest directed hole from L159N/11550E was proposed (*Hildes, 2008*). A resistive feature continues from L62N/12000E 159N, passing through approximately L155N/11800E, with the most prominent feature the elevated chargeability coupled with reduced resistivity on the far eastern parts of the lines.

Elevated chargeabilities occur on Lines 149, 147, 144 and 141N around station 10600E (in the 2D but not 3D inversions), particularly distinct on lines 141N (stronger IP) and 144N (more consistent IP, stronger MMI) and coincident with elevated copper MMI values. A steeply east dipping hole is recommended at station 10650E on L144N (*Hildes, 2008*). A resistive feature (possibly continued from L152N) runs from about L149N/11200E through to L141N/11000E, with elevated MMI west of this feature.

Broadly elevated chargeability occurs on L135, strongest at 10800E, coincident with elevated copper MMI soil results, with significantly higher copper MMI results further to the east.

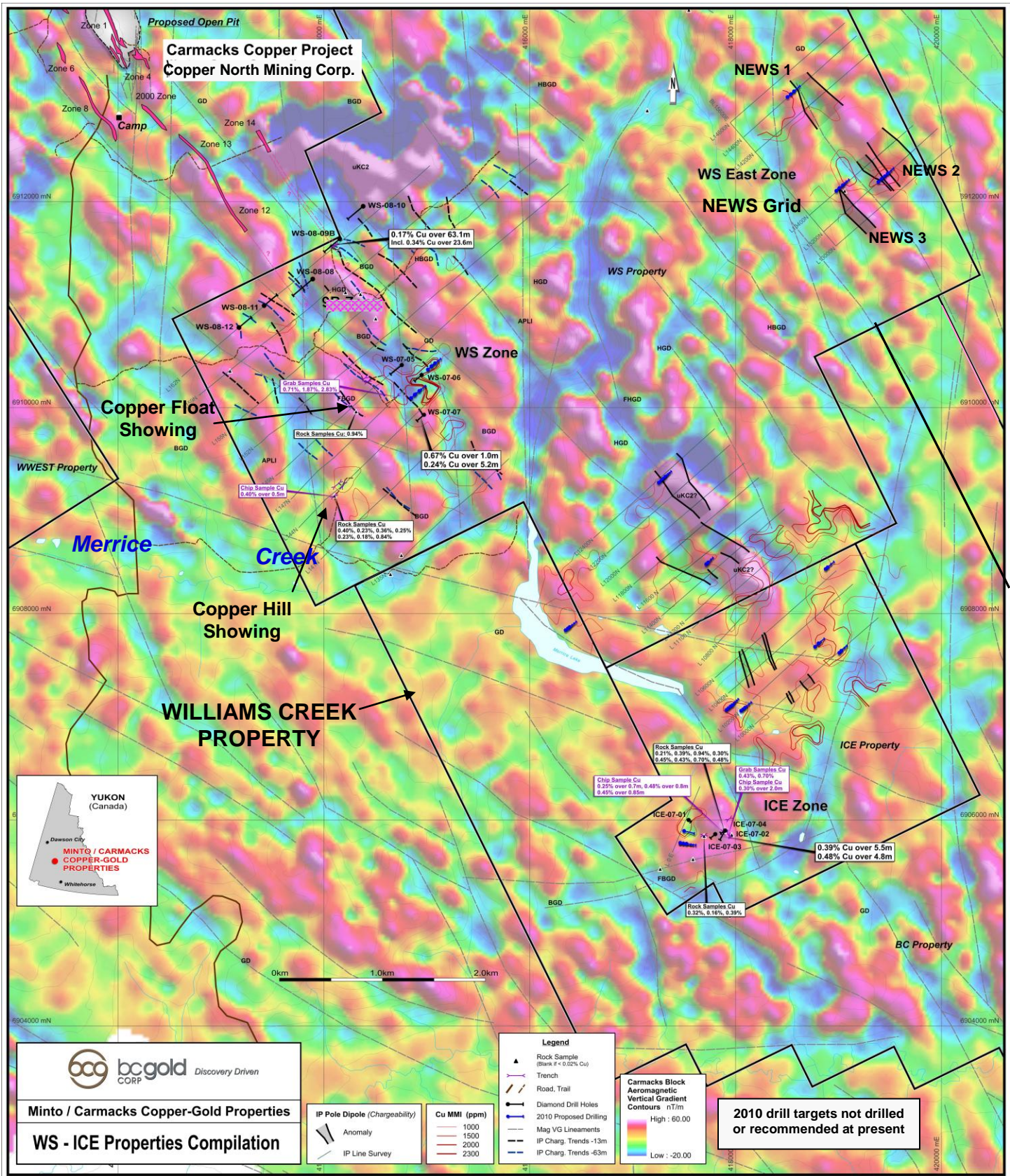
The following interpretation of the ICE and NEWS surveys (*Figure 8*) are summarized from Dziuba (2009). On the ICE grid two chargeability zones were outlined, one 300m wide from L124N to L120N, centered near station 13000E at an approximate 80 to 150m depth, coincident with a total magnetic field high, elevated copper soil, open to the north where foliated granodiorite is interpreted to occur. The second chargeable zone, which occurs on L118N at a depth of 130m is much broader, but has poorer resolution, and occurs proximal to a larger MMI anomaly and a total field magnetic high. The magnetic high is, however, interpreted as being underlain by basaltic volcanic rocks of the Upper Cretaceous Carmacks Group, based on magnetic signature and MMI soil geochemistry.

On the northwestern NEWS grid, a north-northwest trending vertical gradient magnetic lineament may explain the sharp contrast in resistivities and chargeabilities, generally with low resistivity and chargeability in the southwest and higher values in the northeast. There are three chargeability anomalies occurring at an approximate 80 to 120m depth and identified as NEWS 1, 2 and 3. NEWS 1, proximal to a total magnetic field high and elevated copper MMI, occurs on L142 and 144N at 16350E and 146N/16750E, NEWS 2 (lines 132 and 134N/16550E) is proximal to elevated copper MMI and a magnetic lineament and NEWS 3 (lines 132 and 130N/15900E) is coincident with a total magnetic field high. NEWS 2 has higher chargeability values than NEWS 1 and 3.

In 2013 a high resolution induced polarization survey, consisting of one long traverse 1260m in length, was run along standard IP L162N, which covers drill holes WS08-08, -09B and -11. Several arrays were tested with the optimum being inverse schlumberger (using 121 electrode, 600m Hz length) and extended dipole-dipole (using 252 electrode, 1260m Hz length). The survey shows mineralization in WS-08-09 to be related to a resistivity low feature below a resistivity high feature and just northeast of and above a chargeability high feature. Overall a dip of -45°NE is suggestive. (*Refer to Fage, 2013.*)

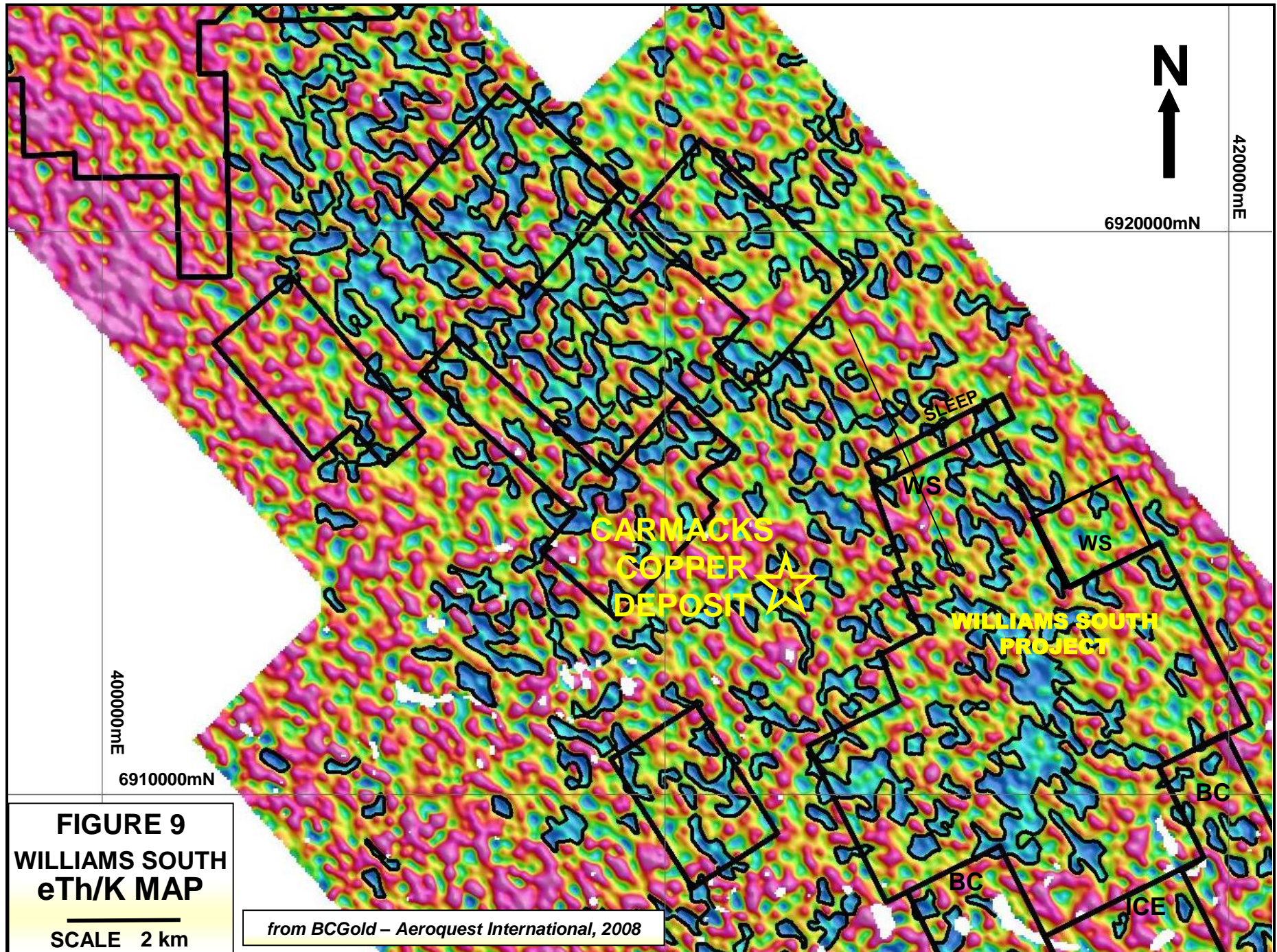
A small VLF electromagnetic survey (readings at 20m spacings on 12 lines) outlined VLF-EM conductors proximal to biogeochemical anomalies on the WS West grid (*Dumas, 2014*). The lines surveyed are shown in *Figure 2*. VLF-EM interpretation suggests that there is a northwest trending conductor approximately 100m west of the surface extent of known mineralization in WS-08-09, which is in fact coincident with a stronger geochemical signature than that shown over the known mineralization. This new target, defined by a strong copper-silver-nickel-tungsten biogeochemical anomaly, occurs between WS-08-08 and -11 and lies directly on trend of Zone 12 on the Carmacks Copper Project. Further south, in the vicinity of the 2007 drilling, VLF-EM interpretation shows a northwest trending conductor which can be traced for 700m and remains open to the north. This conductor, which lies uphill and just west of the 2007 WS holes, is coincident with a strong tungsten-antimony-cerium-chromium and weak copper-molybdenum-nickel-silver anomaly. (*Refer to Figures 8 and 15.*)



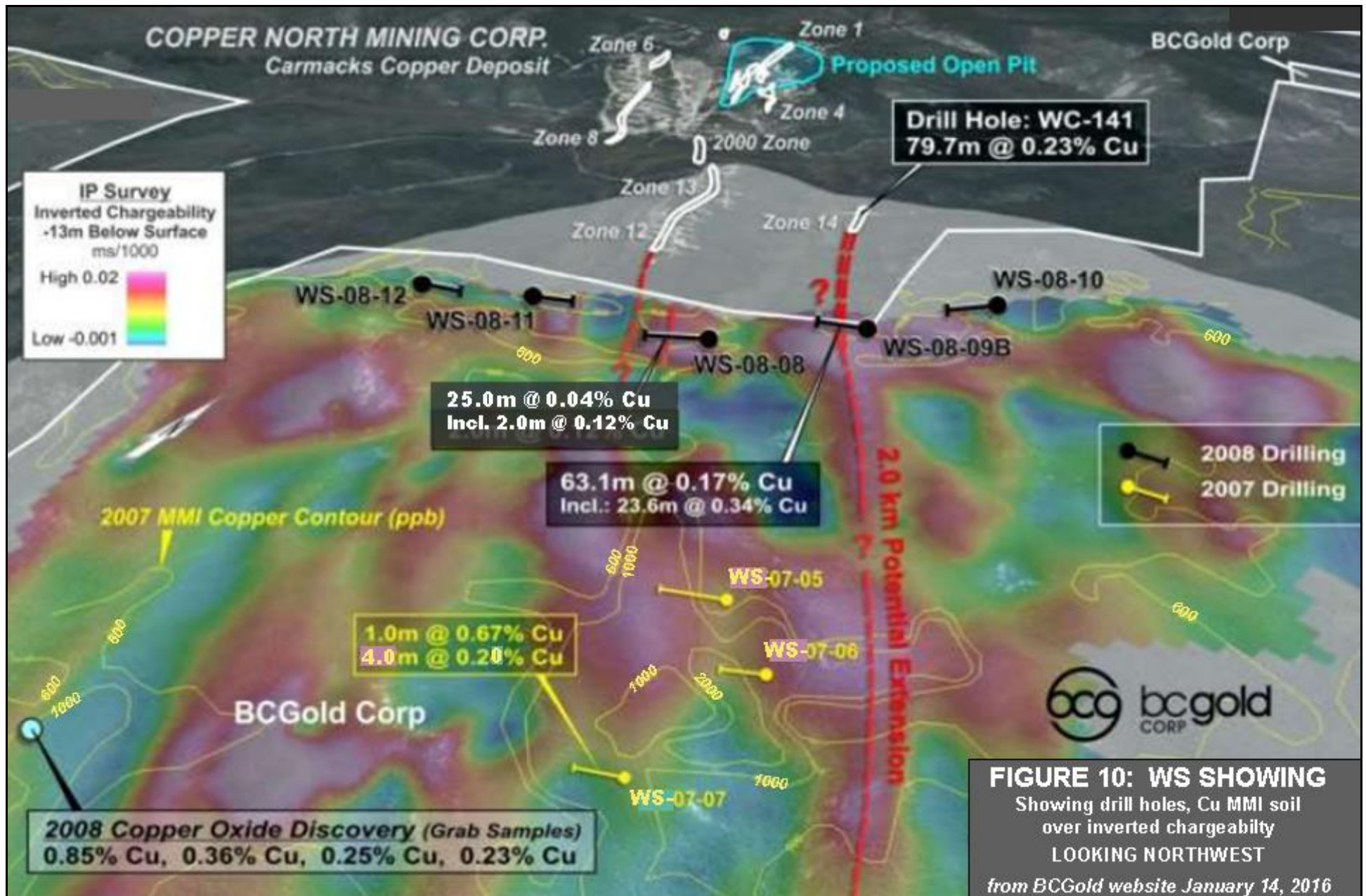


**Figure 8: Compilation Map over Vertical Gradient Magnetics (to be printed at 11" by 17")**  
(after Sidhu, 2010d)









## 10.0 DRILLING

### Figures 6-7 and 11-14

The only known drilling on the Williams South Project is 2,659.4m of diamond drilling in 14 holes, completed by BCGold Corp. in 2007 and 2008 (2 holes totaling 67.7m were lost and re-drilled). A total of 1360m in 7 holes were drilled in 2007 and 1299.4m in 7 holes in 2008. There is no record or evidence of any previous drilling in the project area. The diamond drilling was carried out by Kluane Drilling Ltd. of Whitehorse, Yukon Territory utilizing a KDHT 600 drill with NTW thin-walled wireline tools. The drilling was helicopter supported by Trans North Helicopters Ltd., from their seasonal base in Carmacks, Yukon. The 2007 program was completed under the management of Aurum Geological Consultants Inc., and in 2008 directly by BCGold Corp.

The drill holes were surveyed in using a hand held GPS unit and a Brunton compass. In the 2008 drilling a FlexIt MultiSmart survey tool was utilized for down hole surveys. Single Shot down hole surveys were completed after every shift and multi shot surveys were completed at the end of the hole.

The 2007 drill core is stored at the collars for ICE07-02 and -04 at 417890mE, 6908728mN beside a good helipad at 417883mE, 6905881mN, Nad 83, Zone 8 projection. The 2008 drill core is stored at Carmacks Core Storage (Mona Garvice), 108 Garvice road, Carmacks, Yukon on the northwest side of the warehouse. Select core boxes containing mineralized intercepts from the 2007 program are stored at the office of Aurum Geological Consultants Inc., Whitehorse and from the 2008 program at the office of BCGold. A number of the drill sites and select core intervals have been inspected by the author. Drill collars are shown in Figure 7, with a detail of the ICE drill holes in Figure 6 and a detail of the WS drill holes in Figure 10. Cross sections are shown in Figures 11 to 14. Diamond drill hole specifications are summarized in Table 2, below.

**Table 2: Diamond drill hole specifications**

Drill Hole Number	Easting Nad 83	Northing Zone 8	Elev (m)	Az. (°)	Dip (°)	Length (m)	Samples	
							No.	QAQC
ICE-07-01	417505	6905999	770	130	-80	181.36	25	1S, 1B
ICE-07-02	417892	6905887	825	210	-65	267.61	23	1S, 1B
ICE-07-03	417787	6905849	826	230	-70	192.33	13	1S, 1B
ICE-07-04	417893	6905887	825	240	-75	217.93	22	1S, 1B
WS-07-05	414753	6910415	857	230	-50	217.93	4	0
WS-07-06	414947	6910319	833	230	-50	141.12	0	0
WS-07-07	414970	6909932	846	230	-50	141.73	16	?
WS-08-08	413890	6911242	855	230	-50	292.60	132	8S,8B,7D
WS-08-09	414156	6911632	850	230	-50	33.86	0	lost hole
WS-08-09A	414156	6911632	850	230	-53	33.86	0	lost hole
WS-08-09B	414156	6911632	850	230	-60	294.13	84	5S,5B,5D
WS-08-10	414378	6911949	892	230	-60	224.94	14	1D, 1B
WS-08-11	413419	6910982	921	50	-50	188.98	4	1S
WS-08-12	413174	6910768	952	50	-50	231.04	0	0
TOTAL						2659.42	337	49

Drill holes ICE-07-01 to -04 (859.23m) targeted the BCICE showing and copper MMI soil anomalies in the area, with 83 samples submitted for analysis. An additional 500.78m in 3 holes were drilled in 2007 as ICE-07-05 to -07 and are marked as such on



earlier maps, but are now referred to as WS-07-05 to -07. These holes targeted copper MMI soil anomalies on the WS grid, approximately 2 to 2.5 km along trend of Copper North's Zone 12, with 20 samples submitted for analysis. The 1300m in 7 holes drilled in 2008 (WS-08-09 and -09A were lost near surface), with 234 samples submitted for analysis, targeted five discrete induced polarization geophysical and/or copper MMI soil anomalies along or proximal to L162N near the northern WS claim boundary, approximately 0.5 to 1 km along strike from Copper North's Zones 12 and 14. A total of 337 samples of drill core were submitted for analysis in the 2007 and 2008 drill programs with an additional 49 samples submitted for quality assurance and quality control. Significant intersections are tabulated below.

**TABLE 3: Significant drill hole results**

<b>DDH No.</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>Cu (%)</b>
ICE-07-01	16.13	39.11	24.4	0.04
ICE-07-02	3.25	8.08	4.8	0.48
and	107.80	111.48	3.68	0.15
ICE-07-04	2.78	8.25	5.47	0.39
and	103.82	104.47	0.65	0.26
WS-07-07	51.75	52.75	1.0	0.67
and	104.0	105.2	1.2	0.38
and	107.8	111.8	4.0	0.20
WS-08-8	238.0	263.0	25.0	0.04*
incl.	246.5	250.0	3.5	0.10
and	261.0	263.0	2.0	0.12
WS08-09B	<b>46.0</b>	<b>109.1</b>	<b>63.1</b>	<b>0.17*</b>
incl.	46.0	66.0	20.0	0.13
and	<b>85.5</b>	<b>109.1</b>	<b>23.6</b>	<b>0.34</b>

\* using value of 0 for 3 unsampled intervals

NB lengths are thought to approximate true widths (except for in ICE-07-01 where true width is not known), but due to limited drilling have not been determined.

The most significant copper mineralization was intersected in drill hole WS08-09B, targeting a weak copper MMI anomaly coincident with a pronounced 2 km long linear induced polarization chargeability high geophysical anomaly (*Figure 10*), 1 km along strike from Copper North's Zone 14; Zone 14 returned 0.23% Cu over 79.7m in hole WC07-141 (*Western Copper news release November 22, 2007*).

Mineralization in WS08-09B (*Figure 11*) occurs in two discrete and relatively homogenous intervals of foliated hornblende granodiorite (hornblende schist) within a white megacrystic alkali feldspar granodiorite. Mineralization in the upper interval, which averages 0.13% Cu over 20.0m from 46.0 to 66.0m, consists primarily of pyrite and chalcopyrite intermixed in foliated schist. Massive chalcopyrite occurs along the edges of carbonate stringers and malachite occurs along fractures. Chalcopyrite mineralization occurs in a similar fashion in the lower interval from 85.5 to 109.1m, averaging 0.34% copper over 23.6m. Chalcopyrite and fracture controlled malachite occur intermixed with pyrite in foliated hornblende schist. Massive chalcopyrite rims carbonate stringers and larger chalcopyrite grains display red oxidized rims. Propylitic (chlorite, epidote, carbonate, and sericite) alteration with secondary hematite and weak alkali feldspar alteration predominates. (See *BCGold News Release, January 13, 2009*.)

Drill holes WS-08-10 to -12 did not intersect significant mineralization (*Figure 11*). Holes WS-08-11 and -12 were drilled northeasterly, generally sub-parallel to the dip direction

of mineralization in the area. WS-08-10 would not have been drilled deep enough to intersect the mineralized horizons in WS08-09B, which appears to have a dip of 25 to 45°NE based on induced polarization geophysics, and the proximal Zone 13 on the adjoining Copper North's Carmacks Copper property tends to steepen with depth (*Copper North's website at [www.coppernorthmining.com](http://www.coppernorthmining.com)*).

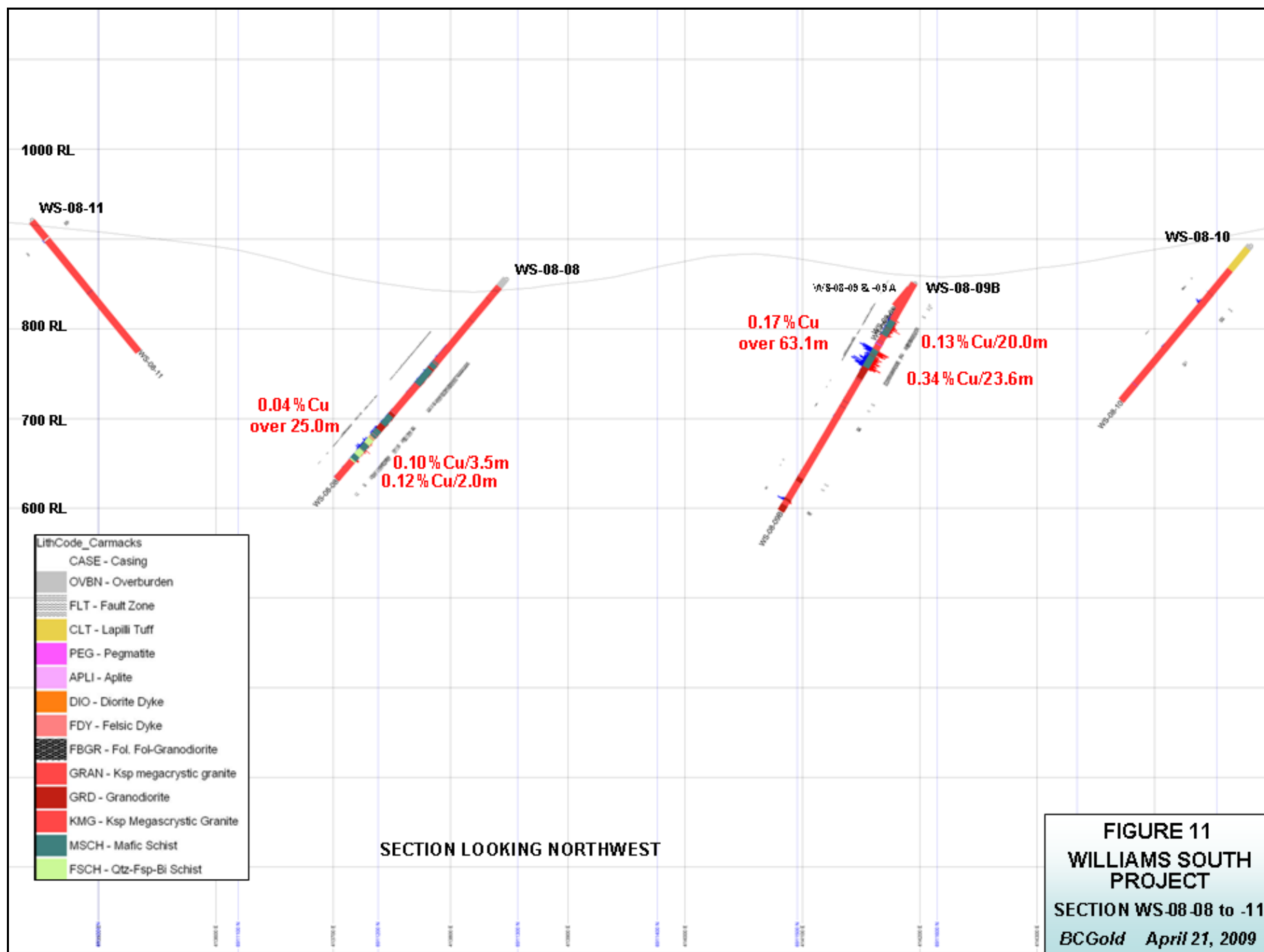
It is highly possible that Zone 12 extends between holes WS-08-08 and -11 (*Figure 10*). A copper anomalous interval was intersected in WS-08-08 returning 0.04% Cu over 25m from 238 to 263m, including two narrow zones of mineralization (0.10% Cu over 3.9m and 0.12% Cu over 2.0m), which could reflect proximity to the strike extent of Zone 12. An infrared spectrographic survey of WS-08-11 (500m southwest of WS-08-08 but drilled to the northeast, sub-parallel to the dip of most mineralization in the area) displays a continuous chlorite spectral signature at the bottom, suggesting it may represent a halo to mineralization (*Fonseca, 2009a*). Consequently there is good potential to intersect the extension of Copper North's Zone 12 between drill holes WS-08-08 and -11. In addition a coincident VLF-electromagnetic conductor and a strong copper-silver-nickel-tungsten biogeochemical anomaly occur between drill holes WS-08-08 and -11, with a proximal induced polarization chargeability high to the west.

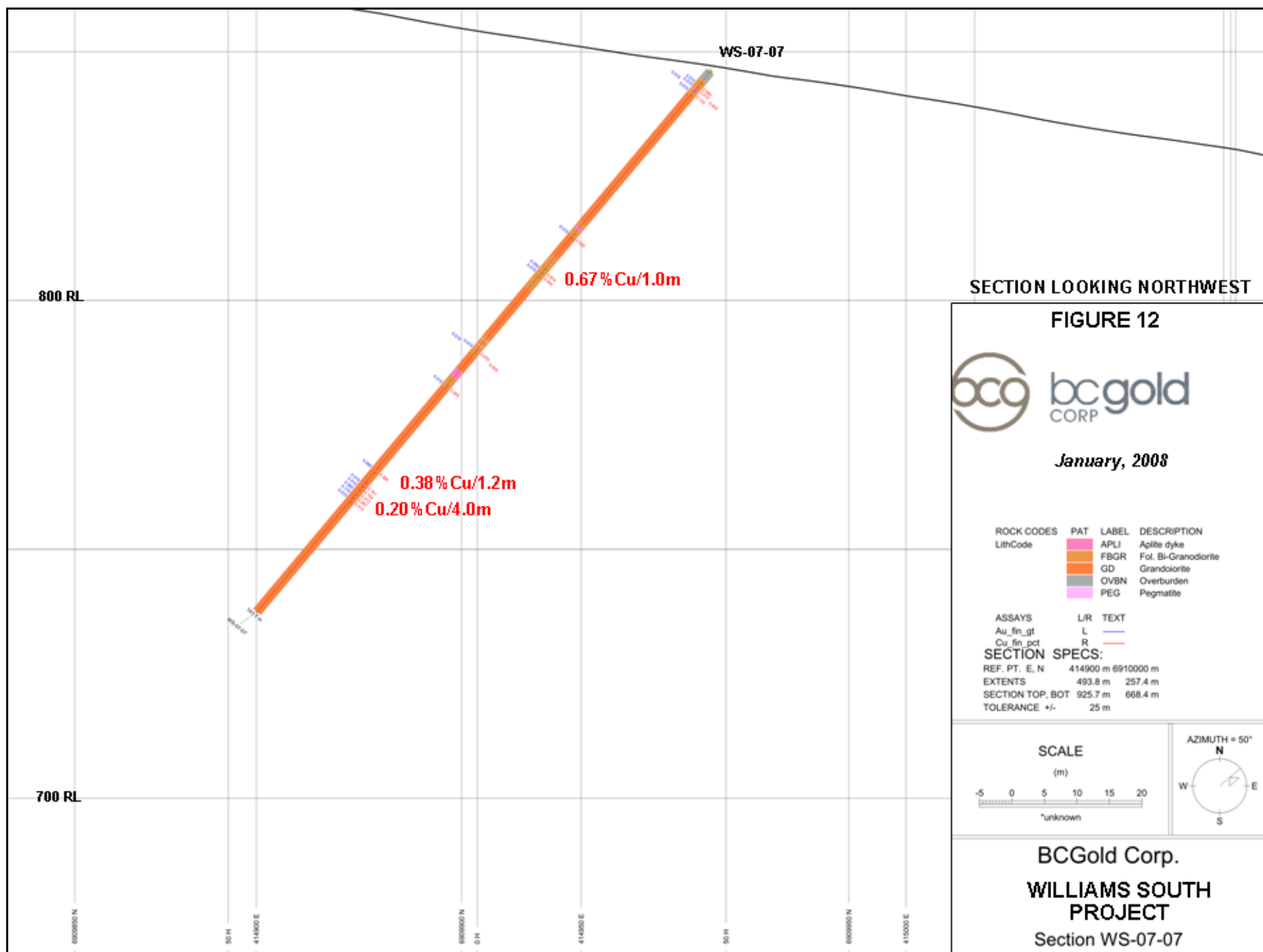
WS-07-07 targeted a >5000 ppb Cu MMI soil anomaly and intersected a series of weakly mineralized zones of copper oxide (malachite) mineralization throughout the entire hole length, with 5-10% malachite on fractures and foliation planes (*Figure 12*). Only 16 samples were collected from the hole, with mineralized intervals listed in Table 3 limited by sampling. The presence of malachite throughout the hole suggests proximity to the possible strike extensions of Zones 12 and/or 14.

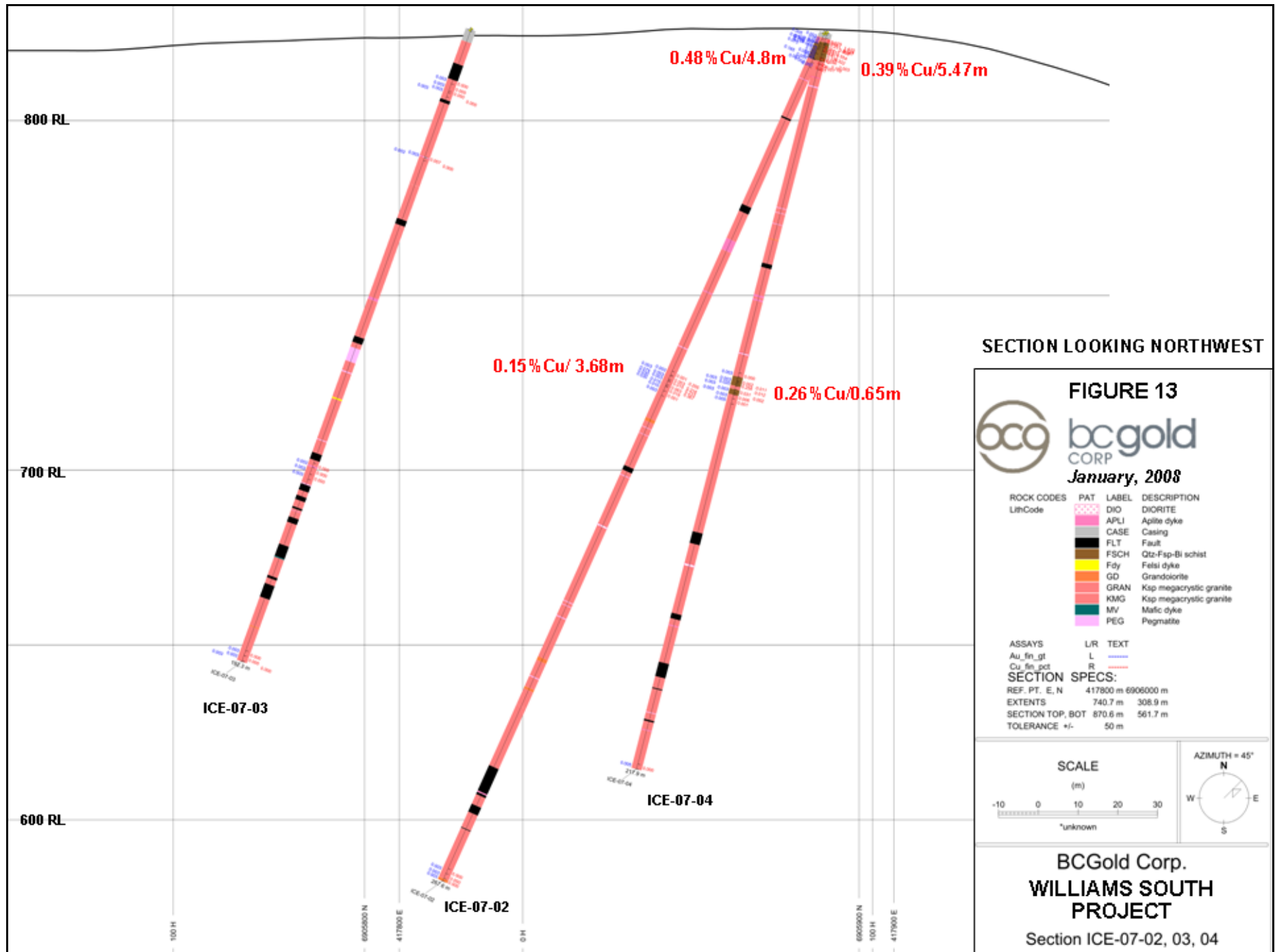
Drilling of the main (ICE) zone at the BCIce showing (chip samples include 0.48% Cu over 0.8m, and 0.30% Cu over 2.0m) encountered two narrow, relatively flat-lying mineralized horizons in ICE 07-2 and -4 (*Figure 13*). The upper and lower horizons returned 0.48% Cu over 4.8m and 0.15% Cu over 3.7m in ICE 07-2 and 0.39% Cu over 5.5m and 0.25% Cu over 0.7m in ICE 07-4, respectively. The upper horizon is described as foliated megacrystic biotite rich granodiorite with 5-10% malachite on fractures and along the foliation. The lower horizon is characterized by 5% malachite on fractures and along foliation planes. Both of the mineralized zones in Hole ICE-07-02 contain discrete grains of magnetite. This style of commonly occurs distal to larger zones so may have potential along strike or down dip to the northeast. (*See BCGold News Release, Nov. 22, 2007.*)

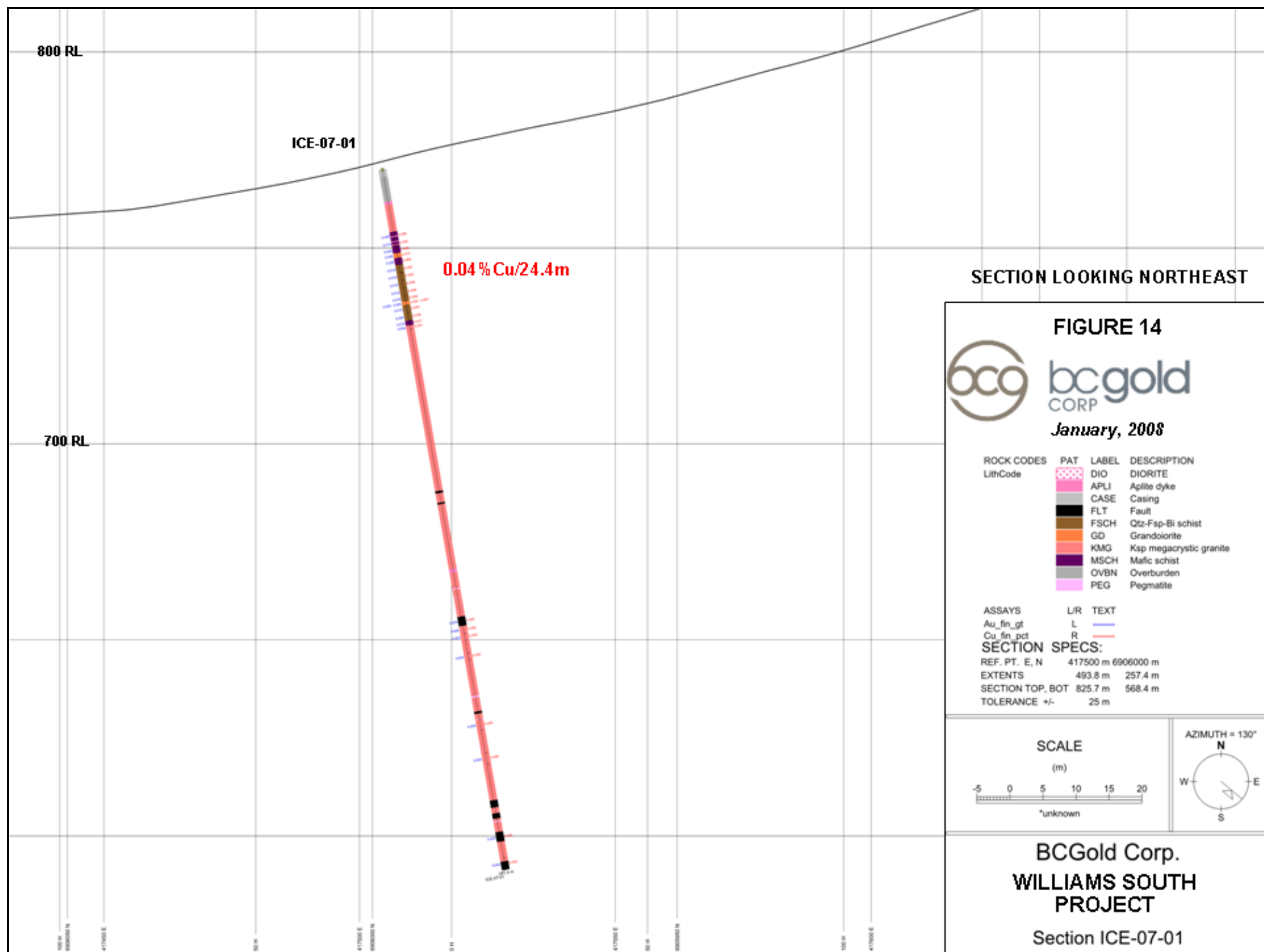
ICE 07-1, 400m west-northwest of the ICE zone (*Figure 6*), intersected anomalous mineralization, with 0.04% Cu over 24.4m, despite being drilled along, as opposed to perpendicular to, the mineralized trend (*Figure 14*).

Mineralized intervals in drilling are commonly associated with enhanced gold with a maximum of 190 ppb Au from ICE-07-04. In a study of the 2008 core (*Fonseca, 2009a*) an enrichment in calcium, iron, molybdenum, thallium, tellurium, mafic-associated elements (magnesium, nickel, cobalt), tin, and sphalerite associated elements (zinc, selenium, cadmium, vanadium) was noted. The elements potassium, sodium, lanthanum, and cerium were found to be enriched in the footwall and hangingwall of mineralized zones, suggesting that ore associated mineral alteration assemblage immediately outside ore zones may be propylitic, and possibly overprinting potassic.











## **10.1 Drill Sampling Method and Approach**

The core was delivered to the core processing site. Block markers in imperial units were first converted into metric units and the core was then metered with a black marker or yellow grease pencil. Interval lengths and descriptions of lithology, alteration, structure, mineralization, and sample intervals were all entered. Lithological units less than 0.3m were generally not noted unless of specific interest. The 2007 core logging and sampling was completed by R. Al Doherty and Joanna Ettlinger (Hodge) of Aurum Geological Consultants Inc., and in 2008 by Geoff Newton and Gary Sidhu of BCGold Corp. Core boxes were labeled with aluminum tags and core was photographed.

After logging, intervals for geochemical analysis were selected for sampling, primarily chosen for their potential to contain copper and gold, but also based on alteration, lithology, and to characterize background values for some rock units (for example dykes). The selected core samples were marked both on the core and on the core box in red grease pencil. Sample lengths varied between 0.14 and 3.05m and were generally 1.0m in length. A total of 337 samples of drill core were submitted for analysis with 49 additional QAQC samples. Drill core samples were split, and one half of the core replaced in the core box for future reference, and the other half bagged in numbered plastic bags, placed in rice bags and sealed for shipping. The field duplicates consisted of quartering the remaining half core. Core samples were tracked by three-part sample tag books. One part was placed in the core box at the end of the assay interval, one tag went with the sample for assay and the last tag was kept as a record.

## **11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY**

All 2007 to 2009 core and rock, stream sediment and reconnaissance soil samples were placed in rice bags in the field, secured and delivered to the sample preparation laboratory of Eco Tech Laboratory Limited (now bought out by ALS Minerals) in Whitehorse for preparation. Samples were then internally sent directly to Eco Tech's facility in Kamloops, British Columbia for analysis. Eco Tech was an ISO 9001:2000 accredited facility, acquired by the global Alex Stewart Group in 2008 which was also ISO 9001-2000 certified.

All 2008 and 2009 rock samples were analyzed by Eco Tech Laboratory Limited for a multi-element ICP package which involves a nitric-aqua regia digestion. Gold was analyzed by fire assay with an atomic absorption finish on a 30 gram split. A multi-element ICP-MS package, including gold, was utilized for soil and stream sediment samples on a 15 gram split.

All 2008 drill core was also analyzed by Eco Tech Laboratories Limited in Kamloops (then a subsidiary of the global Alex Stewart Group). All samples were analyzed for 45 elements including copper by induction coupled plasma mass spectroscopy (ICP-MS) and for gold by fire assay on a 30g sample with atomic absorption spectroscopy (AAS) determination. Samples returning greater than 1 g/t gold were re-assayed by fire assay with a gravimetric measurement.

The 2007 drill core, trench and reconnaissance rock samples were analyzed for gold by fire assay with an atomic absorption finish ("FA-AA") on a 30 gram split, and for copper by induction coupled plasma emission spectroscopy (ICP-AES) following an aqua-regia digestion. Copper values over 1% were assayed by atomic absorption spectroscopy (AAS) following an aqua regia digestion. The 2008 drill core was analyzed for gold by fire assay with an atomic absorption finish ("FA-AA") on a 30 gram split, and for 46 elements by ICP which involves a nitric-aqua regia digestion.

At least 49 samples from the 2007 and 2008 drill programs were submitted by BCGold for quality assurance and quality control, consisting of 18 standards, 18 blanks and 13 field duplicates. Standards used were CGS-15 and CM-1. All standards returned results within acceptable limits for copper and gold. The duplicates and blanks indicated that the analytical results had an acceptable degree of precision and were free from contamination during sample preparation. In addition 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).

MMI samples were sent to, and processed at, SGS Mineral Services in Toronto, an ISO/IEC 17025 accredited facility. Samples are subjected to a weak leach resulting in dissolution of only the mobile metal ions in the soil, allowing the detection of deeply buried mineralization. A total of 57 blank and 100 field duplicate samples were submitted for quality control in the soil surveys. The conventional soils were sent to, and processed at, Acme Analytical Laboratories Ltd., Vancouver, British Columbia. Acme was an ISO 9001 accredited facility. Soil preparation (SS80) involved drying at 60°C and sieving to -80 mesh. Samples were analyzed for Al, Sb, As, Ba, Bi, B, Cd, Ca, Cr, Co, Cu, Ga, Au, Fe, La, Pb, Mg, Mn, Hg, Mo, Na, Ni, P, Ag, K, Sc, Sr, S, Tl, Th, Ti, Sn, W, U, V and Zn using Acme's Group 1DX-MS(15) analysis, a 36 element ICP package which involves a nitric-aqua regia digestion on a 15g sample.

The following procedure is summarized from Dumas (2013 and 2014). All 2012 biogeochemical samples were sent to Acme Laboratories in Vancouver. Samples were dried (the twig and needle samples were separated at this point), and macerated to a -100 mesh prior to analysis. Samples were then digested using a 1g split, digested first in HNO<sub>3</sub> followed by aqua-regia. This was then analyzed using Acme's Group 1VE-MS ultratrace analysis, which is an ICP-mass spectrometry analysis which returns results for 53 elements: Au, Ag, Al, As, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sr, Te, Th, Ti, Tl, U, V, W, Zn, Be, Ce, Cs, Ge, Hf, In, Li, Nb, Rb, Re, Sn, Ta, Y, Zr, Pt, Pd. The 2013 samples were analyzed at Activation Laboratories' Kamloops lab. Twig samples were dried, after which the needles were separated and discarded. The remaining twig material was then macerated and digested in an acid mixture composed of HCl with trace HF. Following digestion, a 250 mg sample was analyzed using a high resolution ICP-MS, with assay results returned for 63 elements. (Activation Lab codes: Prep – B2; Analysis – 2F).

There is no evidence of any tampering with the samples during collection, shipping, analytical preparation or analysis. All sample preparation was conducted by the laboratories. Sample preparation, security and analytical procedures appear to be adequate.

A sampling protocol should be implemented, involving the routine and regular insertion of blanks, standards and duplicates sent to the primary laboratory, and re-assaying of selected mineralized pulps at a second independent laboratory in the recommended drill program on the project.

## **12.0 DATA VERIFICATION**

The geochemical data was verified by sourcing original analytical certificates and digital data. Analytical data quality assurance and quality control was indicated by the favourable reproducibility obtained in company and laboratory inserted standards, blanks and duplicates, and in field blanks and duplicates for the MMI survey. Quality control procedures are documented in section 11.0, "Sample Preparation, Analysis And Security".

There does not appear to have been any tampering with or contamination of the samples during collection, shipping, analytical preparation or analysis. In the author's opinion, the data provided in this technical report is adequately reliable for its purposes.

## **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

The Williams South Project is at an early exploration stage and no mineral processing or metallurgical testing has been carried out. However, mineralization would be expected to be similar to that at the Carmacks Copper deposit to the northwest.

## **14.0 RESOURCE AND MINERAL RESERVE ESTIMATES**

There has not been sufficient work on the Williams South Project to undertake a resource calculation.

## **15.0 ADJACENT PROPERTIES (Figures 2 and 7-8)**

The Williams South Project adjoins the Carmacks Copper (Minfile 115I 008) Project of Copper North Mining Corporation (formerly Western Copper) to the northwest (*Figure*

2). The Carmacks Copper Project covers the Carmacks Copper (formerly Williams Creek) deposit (Minfile 115I 008), approximately 3-10 km northwest of the Williams South Project, which contains a new updated Measured and Indicated mineral resource estimate (from Zones 1, 4 and 7, and Zones 2000S, 12 and 13) of 15.7 million tonnes of copper oxide and transition ore grading 0.94% Cu, 0.74% acid-soluble Cu, 0.379 g/t Au and 3.971 g/t Ag, with a Measured and Indicated sulphide mineral resource of 8.1 Mt grading 0.68% Cu, 0.178 g/t Au and 2.332 g/t Ag (using a 0.25% Cu cutoff grade except for the acid-soluble copper in the oxide and transition mineralization in Zones 2000S, 12 and 13, which use a 0.15% Cu cutoff grade) (*Copper North news release January 25, 2016*). The above resource information has not been verified by the author and is not necessarily indicative of the mineralization on the Williams South Project which is the subject of this report.

The deposit is being developed as an agitated tank solvent extraction and electrowinning (SX-EW) cathode copper producer. Gold and silver will be recovered using a standard cyanide and mercuric recovery circuit following SX-EW treatment. A new Preliminary Economic Assessment is in progress, which will be based on the mineral resources in Zones 1, 4 and 7 with an approximate 7 year mine life indicated. (website at [www.capstonemining.com](http://www.capstonemining.com)). The website continues with “The expansion of the measured and indicated mineral resources in the new oxide and transition mineral resources provides an opportunity for extension of mine life. Additional drilling is warranted for zones 2000S, 12 and 13 for inclusion in subsequent development plans. Furthermore, the substantial increase in sulphide mineral resources, at shallow depth, warrants additional metallurgical testwork for the processing of sulphides to produce either concentrate or cathode copper, the latter utilizing the same leach and SX-EW facilities used to process the oxide material.” Zone 12 lies 275m northwest along trend from the Williams South Project of BCGold Corp.

The mineral resource estimate for zones 1, 4 and 7 was prepared in 2007 by Dr. Gilles Arseneau, P. Geo., a qualified person within the meaning of NI 43-101, while employed at Wardrop (now as Arseneau Consulting Services) (*Hester et al., 2007*) and is disclosed in the 2014 PEA (*Kent et al., 2014*). The mineral resource estimate for zones 12, 13, and 2000S was also prepared by Dr. Arseneau in 2015-2016 (*Copper North news release January 25, 2016*).

The author is not able to verify the above information pertaining to the adjacent property, and the information is not necessarily indicative of the mineralization on the Williams South Project.

## 16.0 OTHER RELEVANT DATA AND INFORMATION

To the author's knowledge, there is no additional information or explanation necessary to make this technical report understandable and not misleading.



## 17.0 INTERPRETATION AND CONCLUSIONS

The Williams South Project constitutes a property of merit based on significant drill intercepts from limited drilling, the presence of untested copper showings, northwest trending induced polarization chargeability, VLF-electromagnetic,  $\pm$  proximal copper MMI soil anomalies, in part underlain by foliated to gneissic granodiorite, coincident with the margins of linear magnetic high features, similar to and directly along trend from mineralization on the adjoining Carmacks Copper Project of Copper North Mining Corporation, which includes the Carmacks Copper deposit (*Figures 8 and 15*).

Copper North released a new updated Measured and Indicated mineral resource estimate of 15.7 million tonnes of copper oxide and transition ore grading 0.94% Cu, 0.74% acid-soluble Cu, 0.379 g/t Au and 3.971 g/t Ag, with a Measured and Indicated sulphide mineral resource of 8.1 Mt grading 0.68% Cu, 0.178 g/t Au and 2.332 g/t Ag (using a 0.25% Cu cutoff grade except for the acid-soluble copper in the oxide and transition mineralization in Zones 2000S, 12 and 13, which use a 0.15% Cu cutoff grade) (*Copper North news release January 25, 2016*). This resource information has not been verified by the author and is not necessarily indicative of the mineralization on the Williams South Project which is the subject of this report. Zone 12 lies 275m northwest along trend from the Williams South Project of BCGold Corp.

Only 2,659.4m of diamond drilling in 14 holes (including 67.7m in 2 holes that were lost in drilling) has been completed by BCGold Corp. on the Williams South Project. The most significant copper mineralization, 0.17% Cu over 63.1m, was intersected from 46 to 109.1m in drill hole WS08-09B, targeting a weak copper MMI soil anomaly coincident with a pronounced 2 km long linear induced polarization geophysical anomaly, 1 km along strike from Copper North's Zone 14; Zone 14 returned 0.23% Cu over 79.7m in hole WC07-141 (*Western Copper news release November 22, 2007*). Mineralization in WS08-09B occurs in two discrete and relatively homogenous intervals of foliated hornblende granodiorite (hornblende schist) with chalcopyrite, pyrite and malachite and an apparent dip of 25 to 45°NE. Alteration consist of propylitic (chlorite, epidote, carbonate, and sericite) with secondary hematite and weak alkali feldspar. This intersection has not been followed up along strike or down dip.

WS-08-08 intersected a copper anomalous interval of 0.04% Cu over 25m from 238 to 263m, including two narrow zones of mineralization (0.10% Cu over 3.9m and 0.12% Cu over 2.0m), which could reflect proximity to the strike extent of Copper North's Zone 12. WS-08-08 lies almost 600m southeast along trend of Zone 12, which is 275m northwest of the Williams South Project boundary. An infrared spectrographic survey of WS-08-11 (500m southwest of WS-08-08 but drilled to the northeast, sub-parallel to the dip of most mineralization in the area) displays a continuous chlorite spectral signature at the bottom, suggesting it may represent a halo to mineralization (*Fonseca, 2009a*). Consequently there is good potential to intersect the extension of Copper North's Zone 12 between drill holes WS-08-08 and -11. In addition a coincident VLF-electromagnetic conductor and a strong copper-silver-nickel-tungsten biogeochemical anomaly occur between drill holes WS-08-08 and -11, with a proximal induced polarization chargeability high to the west (*Figures 8 and 15*).

WS-07-07 targeted a >5000 ppb Cu MMI soil anomaly and intersected a series of weakly mineralized zones of copper oxide (malachite) mineralization throughout the entire hole length, with 5-10% malachite on fractures and foliation planes. Only 16 samples were collected from the hole, with mineralized intervals of 0.67% Cu over 1.0m, 0.38% Cu over 1.2m and 0.20% Cu over 4.0m limited by sampling. The presence of malachite throughout the hole suggests proximity to the possible strike extension of Copper North's Zone 12. Grab samples from a trench about 300m northwest of the collar of WS-07-07 returned 0.71, 1.87 and 2.83% Cu, and coincide with a 700m long, northwest trending VLF-electromagnetic conductor, which is open to the north and coincident with a strong tungsten-antimony-cerium-chromium and weak copper-molybdenum-nickel-silver biogeochemical anomaly. These lie uphill and just west of a significant copper MMI soil anomaly and the three 2007 WS holes, including WS-07-07. To the north the VLF-electromagnetic conductor merges with an induced polarization chargeability trend which extends for a further 450m to the northwest. The anomalies lie along the margins of a northwest trending aeromagnetic vertical gradient high anomaly, which is characteristic of mineralization within the Carmacks Copper camp. (*Refer to Figures 8 and 15.*)

Copper oxide mineralization is exposed at the BClce showing, seven km southwest of mineralized zones at the Carmacks Copper deposit. The main zone (now called ICE) was reported to cover a discontinuously exposed 20m x 100m zone of moderately foliated granodiorite with malachite trending 294°/20°NE with a second 5 by 10m zone 300m to the west (*Canam, 1982*). Chip samples from the ICE zone, which is associated with a 1045.1 ppm Cu soil anomaly, returned 0.48% Cu over 0.8m, 0.45% Cu over 0.85m and 0.30% Cu over 2.0m. A prospecting sample, 200m south-southwest of the ICE zone returned 0.39% Cu with 0.38 ppb Au from foliated granodiorite in 2007 (*Figure 6*). A trench was excavated here in late 2009 with reported grab samples of 0.32 and 0.10% Cu. This may correspond to the second zone, described as being 300m west of the main (ICE) zone, in *Canam (1982)*. Two conventional soil samples collected 200m further to the southwest in 2006 by Ryan returned 281 and 935 ppm Cu (*Figure 6*) (*Ryan, 2007*).

Drilling of the ICE zone encountered two narrow, relatively flat-lying mineralized horizons in ICE 07-2 and -4. The upper and lower horizons returned 0.48% Cu over 4.8m and 0.15% Cu over 3.7m in ICE 07-2 and 0.39% Cu over 5.5m and 0.25% Cu over 0.7m in ICE 07-4, respectively. This style of commonly occurs distal to larger zones so may have potential along strike or down dip to the northeast. ICE 07-1, 400m west-northwest of the ICE zone, intersected anomalous mineralization, with 0.04% Cu over 24.4m, despite being drilled along, as opposed to perpendicular to, the mineralized trend.

Mineralized intervals in drilling are commonly associated with enhanced gold with a maximum of 190 ppb Au from ICE-07-04. In a study of the 2008 core (*Fonseca, 2009a*) an enrichment in calcium, iron, molybdenum, thallium, tellurium, mafic-associated elements (magnesium, nickel, cobalt), tin, and sphalerite associated elements (zinc, selenium, cadmium, vanadium) was noted. The elements potassium, sodium, lanthanum, and cerium were found to be enriched in the footwall and hangingwall of mineralized zones, suggesting that the associated mineral alteration assemblage immediately outside ore zones may be propylitic, and possibly overprinting potassic.

Other untested copper showings occur on the Williams South Project. The 20m by 5m Copper Hill showing, on the southwestern WS grid approximately 4 km southeast generally along trend of Zones 5, 6 and 8 of the Carmacks Copper Project, consists of copper oxides and chalcocite mineralization, primarily hosted by more mafic and foliated zones within the granodiorite. Alteration includes abundant epidote as fracture fillings and along foliation, local concentrations of limonite, and local magnetite-silica with clots of magnetite and quartz flooding and veinlets. Samples returned values of 0.85% Cu and 0.42 g/t Au from a grab sample, 0.19% Cu and 0.08 g/t Au across 1.5m and 0.4% Cu over 0.5m. A 600m by generally 100m wide copper MMI soil anomaly lies 150m upslope of the showing coincident with an induced polarization chargeability high – resistivity anomaly. The Copper Float showing consists of a malachite stained foliated granodiorite 30 by 25 cm float boulder on the WS grid, which returned 0.94% Cu and 0.26 g/t Au. The float appears isolated but generally occurs within an area of poor exposure with some exposures of foliated granodiorite approximately 2 km southeast along trend of Zones 12-13 of the Carmacks Copper Project (*Figure 15*).

Foliated biotite  $\pm$ hornblende granodiorite occurs in a 0.5 by 4 km northwest trending band across the WS grid from the north end of Merrice Lake to the northwest property boundary, and as a northeasterly (?) 150m by 1 km band at the BCIce showing; the latter particularly limited by poor exposure (*Figure 15*). It should be noted that within the Carmacks copper-gold belt (i.e. Minto, Carmacks Copper, STU) mineralization is typically associated with foliated to gneissic granodiorite, more mafic phases and often finer grained variants of the granodiorite. Exploration in the Williams South Project area has been hampered by lack of exposure, overburden cover, and presence of a locally thick ash layer.

In conclusion the Williams South Project has potential to host mineralization similar to that within the Carmacks copper-gold belt such as at the Minto and Carmacks Copper deposits. The 2007 to 2013 programs were successful in intersecting significant copper mineralization from limited drilling, discovering surface copper showings despite limited exposure and delineating northwest trending induced polarization chargeability, VLF-electromagnetic,  $\pm$  proximal copper MMI soil anomalies, in part underlain by foliated to gneissic granodiorite, coincident with the margins of linear magnetic high features, similar to and directly along trend from mineralization on the adjoining Carmacks Copper Project of Copper North Mining Corporation.

The Williams South Project is at an early stage of exploration, and as such considered a high risk. The above interpretations and the following recommendations for work are based on the results of geochemical and geophysical surveys, which are subject to a wide range of interpretation, with limited drilling. There are no specific risks that the author foresees that would impact continued exploration and development of the property. Although the author believes that the surveys on the property are scientifically valid, evaluating the geological controls on mineralization is hampered by a lack of rock exposure. At the present time and for the foreseeable future, the project is not generating any cash flow.



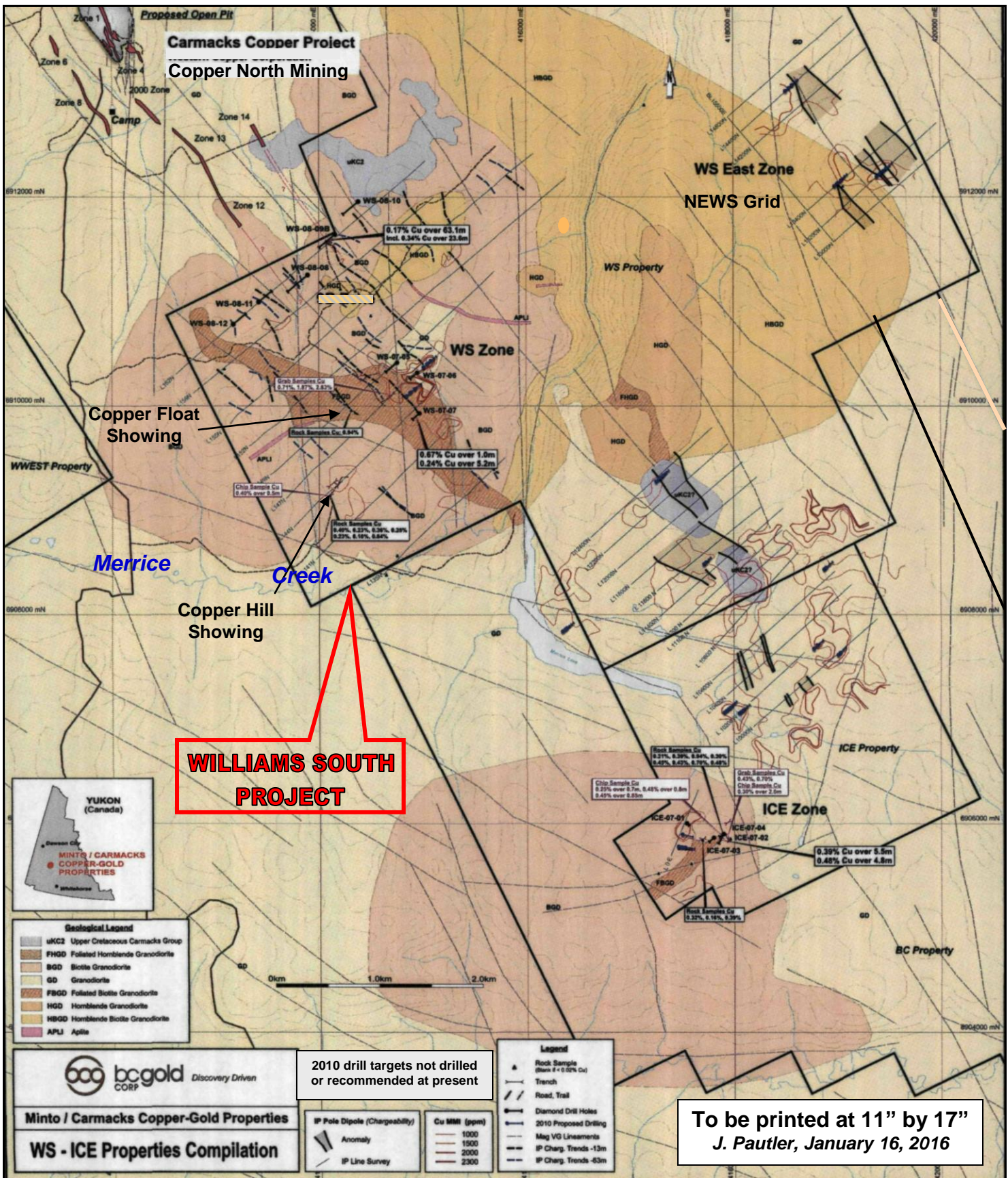


Figure 15: Compilation Map over Geology (after Sidhu, 2010d)



## 18.0 RECOMMENDATIONS AND BUDGET

Based, on significant drill intercepts from limited drilling, the presence of untested copper showings, northwest trending induced polarization chargeability, VLF-electromagnetic,  $\pm$  proximal copper MMI soil anomalies, in part underlain by foliated to gneissic granodiorite, coincident with the margins of linear magnetic high features, similar to and directly along trend from mineralization on the adjoining Carmacks Copper Project of Copper North Mining Corporation further work is recommended on the Williams South Project.

A seven hole, 2,400m diamond drill program is recommended to follow up on the significant drill intercept in DDH WS-08-9B and to test coincident geophysical and geochemical anomalies for Carmacks Copper belt type copper and gold mineralization. Proposed drill specifications, based on the integration of the geological information with the airborne magnetic, VLF-electromagnetic, and induced polarization geophysics surveys, copper MMI soil and biogeochemical anomalies, are outlined in Table 4. Groundtruthing of proposed drill sites and examination of the WS trenches is recommended prior to drilling. A detailed ground magnetic survey could be done at this time to aid in final determination of the drill sites. This has been a useful targeting method on the adjoining Carmacks Copper Project. Examination of additional anomalies that exist across the property can be done during the recommended drill program.

Top priority for drilling are the strike extensions of Zones 12-14 onto the northern WS grid from the adjacent Carmacks Copper Project of Copper North Mining Corp. WS-A and-B are proposed to test the southeastern strike and down dip extent of mineralization intersected in WS-08-9B. The southeastern strike extent coincides with a chargeability anomaly along the margins of a vertical gradient magnetic anomaly. WS-C targets the southeastern strike extent of Copper North's Zone 12 between WS-08-08 and -11, coincident with a chargeability anomaly, a VLF-electromagnetic conductor and a biogeochemical anomaly along the margins of a vertical gradient magnetic anomaly. WS-08-08 intersected a copper anomalous interval of 0.04% Cu over 25m from 238 to 263m, including two narrow zones of mineralization (0.10% Cu over 3.9m and 0.12% Cu over 2.0m), which could reflect proximity to mineralization. An infrared spectrographic survey of WS-08-11 (500m southwest of WS-08-08 but drilled to the northeast, sub-parallel to the dip of most mineralization in the area) displays a continuous chlorite spectral signature at the bottom, suggesting it may represent a halo to mineralization (*Fonseca, 2009a*).

Also of high priority are the uphill, probable source areas, of the highest copper MMI soil anomalies on the grid, just west and uphill of WS-07-06 and -07. Proposed DDH WS-D targets a VLF-electromagnetic conductor and biogeochemical anomaly along the margins of a vertical gradient magnetic anomaly, still within a copper MMI soil anomaly, uphill of anomalous intersections in WS-07-07. WS-E targets a copper showing with grab sample results of up to 2.83% Cu, coincident with a VLF-electromagnetic conductor and biogeochemical anomaly along the margins of a vertical gradient

magnetic anomaly, and still within a copper MMI soil anomaly. If results are favourable another hole (WS-F) should be drilled 200m to the northeast.

WS-G targets the Copper Hill showing (results of 0.85% Cu, 0.42 g/t Au and 5.3 g/t Ag from a grab sample and 0.19% Cu and 0.08 g/t Au across 1.5m) and a copper MMI soil anomaly, uphill, along the margins of a vertical gradient magnetic anomaly.

Tentative proposed drill hole specifications are tabulated below in Table 4, but should be modified based on field locations and ground conditions, and preliminary drill results during the program. Southwesterly directed holes are preferred since mineralization within the region trends northwest with moderate to steep dips to the northeast, with locally shallower dips in near surface oxide mineralization.

**TABLE 4: Proposed drill hole specifications**

DDH No.	Nad 83 Zone 8		Az. (°)	Dip (°)	Depth (m)	Target
Easting	Northing					
WS-A	414470	6911460	230	-55	350	SE strike extent of WS-08-09B intercept, chg high, mag high margin
WS-B	414340	6911760	230	-55	300	down dip extent of WS-08-09B
WS-C	413680	6911200	230	-55	350	Strike extent of Zone 12 between WS-08-08 & -11, chg high, VLF-EM, mag margin
WS-D	414870	6909910	230	-55	350	VLF-EM, biogc, chg high, Cu MMI
WS-E	414820	6910210	230	-55	350	Cu in trench, VLF-EM conductor, biogc, chg high, Cu MMI
WS-F	414600	6910290	230	-55	350	If hit in E drill 200m NW along strike
WS-G	414230	6909320	230	-55	350	Cu Hill showing, Cu MMI
<b>TOTAL</b>					<b>2400</b>	

chg = chargeability; mag = vertical gradient magnetic; biogc = biogeochemical anomaly

### 18.1 Budget:

Based on the above recommendations, the following exploration program with corresponding budget is proposed:

• detailed magnetic survey (40-45 line km)	25,000
• diamond drilling (2,400m @ \$300/m all in)	720,000
• wages (geologist, core splitter, supervision)	50,000
• helicopter	50,000
• accommodation/camp	10,000
• groceries and meals	5,000
• field supplies, communication	5,000
• geochemistry (625 rocks @ \$40/ea)	25,000
• preparation, report and drafting	10,000
• contingency	<u>100,000</u>
<b>TOTAL:</b>	<b>\$1,000,000</b>

**19.0 SIGNATURE PAGE**

Respectfully submitted,  
"Signed and Sealed"

Effective Date: January 31, 2016

"Jean Pautler"  
Jean Pautler, P.Geo.

Signing Date: January 31, 2016

The signed and sealed copy of this Signature page has been delivered to BCGold Corp.

## 20.0 REFERENCES

- Aeroquest International, 2008. Report on a helicopter-borne magnetic gradiometer and gamma ray spectrometer survey, Aeroquest Job # 08010, Minto and Williams Creek properties, Minto Area, Yukon, NTS 115101, 02, 06, 07, 08, 11, 12, 14, For: BCGold Corp.
- Arsenault, G. and Casselman, S., December, 2007. Resource estimate of the No. 1, No. 4, and No. 7 zones Carmacks deposit, Yukon Territory. Prepared For Western Copper Corporation by Waldrop Engineering Inc.
- Barrios, A. and Newton, G., 2009. 2008 geophysical report on the WS claim group. Report for BCGold Corporation. Yukon assessment report # 095221.
- BCGold Corp., January, 2016, Website at [www.bcgoldcorp.com](http://www.bcgoldcorp.com).
- Canam, T. W., 1982 and Geochemical report on the Poon Claim Group for United Keno Hill Mines Limited. Assessment report # 091087.
- Capstone Mining Corp., 2010. Website at [www.capstonemining.com](http://www.capstonemining.com).
- Cardinal, D., 2009. A preliminary field examination, observations and interpretation of the South Block claims – Carmacks Copper Project. Interoffice Memorandum for BCGold Corp.
- Casselman, S. and Arseneau, G., 2011. 2011 Qualifying report for the Carmacks Copper Deposit, Yukon Territory. Report for Copper North Mining Corp. and Carmacks Mining Corp. available at [www.sedar.com](http://www.sedar.com).
- Colpron, M., Israel, S., Murphy, D.C., Pigage, L.C. and Moynihan, D., 2016. Yukon Bedrock Geology Map 2016. Yukon Geological Survey, Open File 2016-1, scale 1:1 000 000.
- Copper North Mining Corp. Website at <http://www.coppernorthmining.com>.
- Deklerk, R., 2009. The MINFILE Manual. Yukon Geological Survey, CD-ROM.
- Devine, F. 2009b. WS property area geology. Interoffice Memorandum for BCGold Corp.
- 2009a. Carmacks Copper Project: Preliminary structural interpretation on the South Block of claims with detail on the WS property. Interoffice Memorandum for BCGold Corp.
- Doherty, R.A. 2008d. Assessment report on the ICE claims, Carmacks area, Yukon. Report by Aurum Geological Consultants Inc. for BCGold Corp. Yukon assessment report #095008.
- 2008c. Report on the ICE claims: target evaluation program, Carmacks area, Yukon. Report by Aurum Geological Consultants Inc. for BCGold Corp. Report YEIP 2007-026.
- 2008b. Assessment report on the WS TOTAL claims, target evaluation program, Carmacks area, Yukon. Report by Aurum Geological Consultants Inc. for BCGold Corp. Yukon assessment report #094984.



- 2008a. Yukon mining incentive program report on the WS TOTAL claims, target evaluation program, Carmacks area, Yukon. Report by Aurum Geological Consultants Inc. for BCGold Corp. Report YEIP 2007-027.
- Drury, I. and Kramar, S., 2008. Induced polarization survey preliminary field report. Report by Aurora Geosciences Ltd. for BCGold Corp.
- Dumas, K. 2014. 2013 geochemical and geophysical report on the WS property, Yukon. Yukon assessment report # 096561.
2013. Geochemical report on the WS property. Report for BCGold Corp.
- Dzuibia, Frank. 2009. Memorandum: Carmacks 2009 IP Surveys. December 15, 2009. Report by Aurora Geosciences Ltd. for BCGold Corp. *In* Sidhu, 2010d, Yukon assessment report #095185.
- Fage, A. 2008. Geology of the ICE copper-gold deposit, Yukon. Unpublished Bachelor of Sciences Thesis for Department of Earth Sciences, Dalhousie University, Halifax, Nova Scotia.
- Fage, I. 2013. Geophysical survey report: high resolution resistivity and induced polarization Williams South Project. Report by GroundTruth Exploration Inc. for BCGold Corp. *In* Dumas, 2014, Yukon assessment report # 096561.
- Fisher, J, 1981: Diamond drilling, STU property, United Keno Hill Mines Ltd., Hoochekoo Creek area, Yukon. Yukon assessment report # 090729.
- Fonseca, A., 2009b. Summary report on the petrographic survey of drill core samples from the Carmacks Copper Project, Yukon Territory. Prepared for BCGold Corp.
- 2009a. Infrared spectroscopy survey of diamond drill core from the Carmacks Copper-Gold Project, Yukon, Canada. Prepared for BCGold Corp.
- Guardia, F., 1972. Report on a geochemical survey on the Wet claims, Carmacks, Yukon Territory. For Minto Mining Limited. Yukon Assessment Report #060137.
- Galambos, K., 2008. Geological report on the Carmacks Project, WS, ICE and WWest claims. Report for BCGold Corp.
- 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).
- Government of the Yukon, 1999. Yukon Official Road Map. Tourism Yukon, Whitehorse, Yukon Territory.
- Government of Yukon, 2015. Minfile. Yukon Geological Survey. Website at <http://data.geology.gov.yk.ca/>.
- Hester, M.G., Oliver, T.S., Hanks, J.T., Arsenault, G., Cornett, D.D., Hull, J.A., May, 2007. Carmacks Copper Project copper mine and process plant N1 43-101 technical report feasibility study Volume 1 executive summary near Carmacks, Yukon Territory

Canada. Prepared For Western Copper Corporation by M3 Engineering & Technology Corporation.

- Hildes, Dave, 2008. Memorandum: BCG 2008 IP survey - Interpretation supplement. Report by Aurora Geosciences Ltd. for BCGold Corp. *In* Barrios, A. and Newton, G., 2009, Yukon assessment report # 095221.
- Hood, S., Hickey, K., Colpron, M. and Mercer, B., 2009. High-grade hydrothermal copper-gold mineralization in foliated granitoids at the Minto mine, central Yukon. *In*: Yukon Exploration and Geology 2008, L.H. Weston, L.R. Blackburn and L.L. Lewis (eds.), Yukon Geological Survey, p. 137-146.
- Huss, C. Drielick, T.L., Roth D., Hull, J., Hester, M.G., and Arseneau, G., 2012. Carmacks Copper Project, NI 43-101 technical report, feasibility study, Vol. 1, Yukon Territory, Canada. Report for Copper North. Available at [www.sedar.com](http://www.sedar.com).
- Kent, A., Arseneau, G., Hester, M., Beattie, M., Hull, J., 2014. Carmacks Project Yukon Territory, Canada Preliminary Economic Assessment of copper, gold, and silver recovery. Effective Date July 10, 2014. Report for Copper North by Merit Consultants International Inc. Available at [www.sedar.com](http://www.sedar.com).
- Kikuchi, T., 1970. Geological and geochemical report on the BF mineral claims group, Merrice Lake area, Yukon Territory. Report for Mitsubishi Metal Mining Co. Ltd. Yukon assessment report # 060204.
- Lustig, G. N., 2009. Carmacks Copper deposit geochemical orientation survey, Yukon. Report for BCGold Corp.
- McNaughton, K. 1994. Carmacks Copper Project 1994 Exploration Program. Report for Western Copper Holdings Limited. Report YMIP 94-029.
- Mortensen, J. K., 2014. Minto and Williams Creek (Carmacks Copper) as examples of "stalled" Early Jurassic Cu-Au porphyry deposits. Talk presented at Technical Meeting of the Yukon - Alaska Metallogeny Project, Mineral Deposit Research Unit, University of British Columbia, Dawson City, Yukon, August 5, 2014.
- 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.
- Mullin, A.W., 1974. Report on the magnetometer survey of the Wet claim group Whitehorse Mining Division, Yukon Territory. For Minto Mining Limited. Yukon assessment report #060927.
- Pautler, J.M., 2016. Compilation report on the Williams South Project, within the Carmacks copper-gold belt. Report for BCGold Corp. Yukon assessment report.
2009. Carmacks Copper-Gold Project evaluation and recommendations. Interoffice Memorandum for BCGold Corp.

2008. Carmacks Copper-Gold Project evaluation and recommendations. Interoffice Memorandum for BCGold Corp.
- 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.
- Ryan, S., 2007. Geochemical report ICE 1-4. Yukon Assessment Report #094841.
- Sherwood Copper Corp., June, 2009. Minto mine project, Yukon. Website at [www.sherwoodcopper.com](http://www.sherwoodcopper.com).
- Sidhu, Gary., 2010d. 2009 geophysical report on the WS property. Report by BCGold Corp. Yukon assessment report #095185.
- 2010c. Technical report for ICE claims: target evaluation program, Carmacks area, Yukon. Report by BCGold Corp. Yukon Mining Incentives Program, YEIP 2009-168.
- 2010b. Technical report for BC claims: target evaluation program, Carmacks area, Yukon. Report by BCGold Corp. Yukon Mining Incentives Program, YEIP 2009-167
- 2010a. Technical report for WS claims: target evaluation program, Carmacks area, Yukon. Report by BCGold Corp. Yukon Mining Incentives Program, YEIP 2009-163.
2009. Technical report for WS claims: target evaluation program, Carmacks area, Yukon. Report by BCGold Corp. Yukon Mining Incentives Program, YEIP 2008-035.
- Sinclair, W.D., 1977. Geology and mineral deposits of the Minto area, Yukon Territory. In: Yukon Mineral Industry Report 1977, Geology Section, Yukon Region, Indian and Northern Affairs, Canada, pp 68-82.
- 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 Master of Sciences Thesis for Department of Earth Sciences, University of British Columbia, Vancouver, British Columbia.
- 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.
- Verweerd, A. and Killin, K., 2010. Report on a Quantec Titan-24 geophysical survey over the Minto Mine, central Yukon. Quantec Geoscience Ltd. Preface by M. Colpron (Yukon Geological Survey) and B. Mercer (Capstone Mining Corp.). YGS OF 2010-19 Minto Titan 24.
- Western Copper Corporation, April, 2010. Carmacks Copper project, Yukon. Website at [www.westerncoppercorp.com](http://www.westerncoppercorp.com). Now posted on sedar.

## 21.0 CERTIFICATE, DATE AND SIGNATURE

- 1) I, Jean Marie Pautler of 103-108 Elliott Street, Whitehorse, Yukon Territory am self-employed as a consultant geologist, authored and am responsible for all sections of this report entitled "Technical report on the Williams South Project, within the Carmacks copper-gold belt", dated January 31, 2016.
- 2) I am a graduate of Laurentian University, Sudbury, Ontario with an Honours B.Sc. degree in geology (May, 1980) with 30 years mineral exploration experience in the North American Cordillera. Pertinent experience includes the acquisition and delineation of the Tsacha epithermal gold deposit, British Columbia and the evaluation of various deposit types including porphyry for Teck Exploration Limited, drilling the Brenda gold-copper porphyry property in the Kemess Camp for Northgate Exploration Limited, work throughout the Dawson Range and White Gold District including the Freegold Project of Northern Freegold Resources Limited and work on the STU prospect and properties of Northern Tiger Resources Inc. within the Carmacks copper-gold belt.
- 3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia, registration number 19804.
- 4) I have visited the subject mining property of this report and am a "Qualified Person" in the context of and have read and understand National Instrument 43-101 and the Companion Policy to NI 43-101. This report was prepared in compliance with NI 43-101.
- 5) This report is based upon work on the property by the author for BCGold Corp. in 2008 and 2009, a property examination on April 20, 2012, a review of the entire 2007 to 2013 work programs, the author's personal knowledge of the region, and a review of pertinent data.
- 6) As stated in this report, in my professional opinion the property is of potential merit and further exploration work is justified.
- 7) At the effective date of the technical report, to the best of my knowledge, information, and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- 8) I am entirely independent, as defined in section 1.5 of National Instrument 43-101, of BCGold Corp. any associated companies, Shawn Ryan and the Williams South property. I do not have any agreement, arrangement or understanding with BCGold Corp. and any affiliated company to be or become an insider, associate or employee. I do not own securities in BCGold Corp. or any affiliated companies and my professional relationship is at arm's length as an independent consultant, and I have no expectation that the relationship will change.

Dated at Carcross, Yukon Territory this 31<sup>st</sup> day of January, 2016,

"Signed and Sealed"

"Jean Pautler"

Jean Pautler, P.Geo. (APEGBC Reg. No. 19804)  
JP Exploration Services Inc.  
#103-108 Elliott St.  
Whitehorse, Yukon Y1A 6C4

The signed and sealed copy of this Certificate, Date and Signature page has been delivered to BCGold Corp.