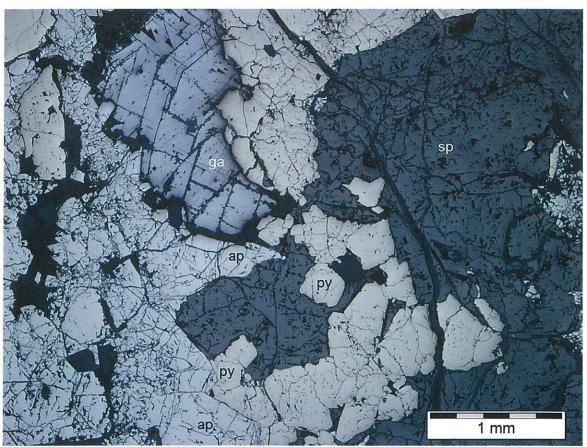
Event 5486279

Petrographic Observations on Four Rock Samples From The Quartz Zone, Crine Quartz Vein System, Teepee Peak, Atlin Mining Division, British Columbia, Canada Tenure 941734

At 59° 43' 53.2" North, 134° 40' 37" West Map sheet 104M/10

For

Blind Creek Resources Ltd, 610-1100 Melville Street Vancouver, BC. Canada, V6E 4A6 Tel: (604)-669-6463; Fax (604)-669-3041



Quartz Zone sample, field of view under reflected light, showing galena, (ga)sphalerite,(sp) pyrite, (py) arsenopyrite, (ap).

By

Nicholas Clive Aspinall, M.Sc., P.Eng Clive Aspinall Geological Services Inc., Pillman Hill, Atlin, B.C., V0W 1A0, Tel: 250-651-0001; Fax: 250-651-0002; E-mail: ncaspinall@gmail.com

<u>Petrographic Work: F. Colombo, Ph.d, P.Geo., Vancouver</u> <u>Petrographics Ltd.</u>

Field work: 27th July 2013, Report Date: 7th July 2014





ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Event 5486279. Petrographic observations on Four Rock Sample From Quartz Zone, Crine Quartz Vein System, Teepee Peak, Atlin Mining Division, British Columbia, Canada Tenure 941734 At 59° 43' 53.2" North, 134° 40' 37" West Map sheet 104M/10

TOTAL COST: \$3999.39

AUTHOR(S): Nicholas Clive Aspinall.P.Eng SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): N/A

YEAR OF WORK: 2013

PROPERTY NAME: Crine Quartz Vein System

CLAIM NAME(S) (on which work was done): Crine Out Loud, Tenure 941734

COMMODITIES SOUGHT: Au-Ag/Polymetallics

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Atlin

NTS / BCGS:

LATITUDE: _____59___° ___43.2____', _53.2_____"

LONGITUDE: ____134____° ___40____', ___37___" (at centre of work)

UTM Zone: EASTING: NORTHING:

OWNER(S): Blind Creek Resources Ltd

MAILING ADDRESS: 610-1100 Melville Street Vancouver, BC. Canada, V6E 4A6 Tel: (604)-669-6463; Fax (604)-669-3041

OPERATOR(S) [who paid for the work]: Blind Creek Resources Ltd

MAILING ADDRESS: 610-1100 Melville Street Vancouver, BC. Canada, V6E 4A6 Tel: (604)-669-6463; Fax (604)-669-3041

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)

Boundary Ranges Metamorphic complex, (Nisling Terrane):Devon Upper Triassic? Chlorite-actinolite schists; Biotite-plagioclase-quartz schists, rusty. Pelitic-Chlorite-

muscovite schists. Llewellyn Fault Zone, Crine Quartz System , Au-Ag-As-CuPb-Zn-Cd.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: Geological Bulletin 105, A/R 19438

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples	analysed for)		
Soil			
Silt			
Rock			
Other			
DRILLING (total metres, number of ho	oles, size, storage location)		
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			
Petrographic		941734	\$3999.39
Mineralographic			
Metallurgic			
ROSPECTING (scale/area)			
REPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale,	area)		
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (m	etres)		
Other			
		TOTAL COST	\$3999.39

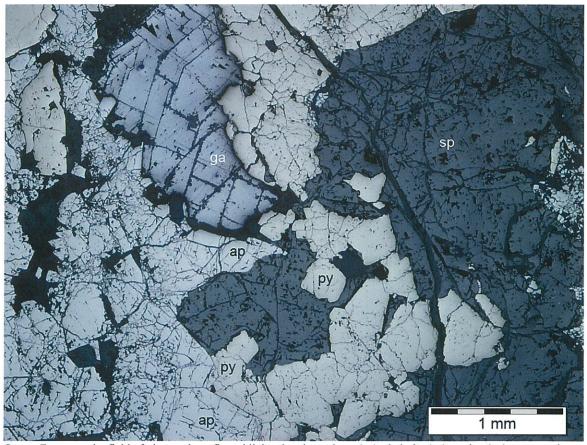
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Petrographic Observations on Four Rock Samples From The Quartz Zone,
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Tenure 941734

At 59° 43' 53.2" North, 134° 40' 37" West Map sheet 104M/10

For

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Quartz Zone sample, field of view under reflected light, showing galena, (ga)sphalerite,(sp) pyrite, (py) arsenopyrite, (ap).

By

Nicholas Clive Aspinall, M.Sc., P.Eng Clive Aspinall Geological Services Inc., Pillman Hill, Atlin, B.C., V0W 1A0, Tel: 250-651-0001; Fax: 250-651-0002; E-mail: ncaspinall@gmail.com

<u>Petrographic Work: F. Colombo, Ph.d, P.Geo., Vancouver Petrographics Ltd.</u>

Field work: 27th July 2013, Report Date: 7th July 2014

Summary

On 27th July 2013, the writer flew his private float plane 50 kilometres from Atlin to a small Lake near Tenure 941734, on the west side of Teepee Mountain, and collected 4 rock samples from the Quartz Zone, Crine Quartz Vein System, for Petographic observations.

All rock samples were submitted to F. Colombo Ph.d., P.Geo of Vancouver Petrographics who carried out a petrographic study. F.Colombo report is included in it's entirety in the appendices.

F. Colombo reported:

The samples consist of varying amounts of quartz, pyrite, arsenopyrite, sphalerite, and galena. The microstructural features indicate these samples represent a compositional variation of the same vein system.

An early precipitation of arsenopyrite was followed by pyrite, and then crosscut by a quartz-rich infill and was partially overprinted by sphalerite, galena and chalcopyrite.

The quartz infill was also fractured and partially filled in by clay, goethite, and limonite, and in some cases the cavities were coated by microcrystalline quartz (vuggy quartz).

The Crine Vein System and immediate surrounding area has yet to be explored fully.

It is recommended BCK hold keeps Tenure 941734 in good standing and continue to prospect the claim ands surrounding area. Further prospecting, vein investigations, and soil sampling is recommended for the 2015 season.

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Certificate of Authorship

Cost Statement

Introduction and Terms of Reference

On 27th July 2013, the writer flew his private float plane from Atlin to a small Lake near Tenure 941734, north easterly of Teepee Peak, and collected 4 rock samples from the Quartz Zone¹, a zone which is part of the so called Crine Quartz Vein system, for petographic observations.

This tenure is 100% mineral titled to Blind Creek Resources Ltd, referred to here as the Company or BCK, The tenure location and geology is included on figures 1,2,3, & 4.

BCK is a junior public mineral exploration company searching for economic gold and silver deposits in British Columbia and Yukon, and affiliated to gold producer Barkerville Gold Mines of Wells, British Columbia. Head offices are located at 610-1100 Melville Street Vancouver, BC. Canada, V6E 4A6

Reliance on other Experts

The author, in carrying out this work and report has relied on the following support:

- Mr. Frank Callaghan, CEO of Blind Creek Resources Ltd for initiating mineral claim acquisition in this region, for funding exploration in these claims and for his persistence and unwavering belief in making a new gold-silver discovery in BC's historic gold camps.
- F. Colombo, Ph.d, P.Geo., Vancouver Petrographics Ltd, 8080 Glover Road, Langley, BC., V1M 3S3, completed all petrographic work
- Terracad GIS Services Ltd. Vancouver, for preparation of all figures accompanying this report.
- Assessment reports pertinent to the area were accessed via B.C. Mineral Titles
 Data assessment report system, (ARIS) notably on Cypress Gold (Canada) Ltd
 Assessment Report #19438.
- Reference to B.C. Geological Survey Bulletin 105.

Work Area Description and Location

The details of tenure sampled is listed in Table 1. Re Figures 1, 2, and 4.

Table 1. Details Mineral Tenure 941734 Sampled For Four Petrographic Samples, 27th July 2013

#	Tenure Number	Claim Name	Map Number	Issue Date	Good To Date	Status	Area (ha)	ha
1	941734	CRINE OUT LOUD	104M	2012/jan/21	2015/jan/21	GOOD	799.8777	799.8777
	Total Ha							799.8777

SUBJECT TO MTO APPROVALS

The above mineral tenure is located at At 59° 43' 53.2" North, 134° 40' 37" West Map sheet 104M/10.

1 .

¹ Ref: A/R 19438

Tenure 941734 is ideally located 12 kilometres from the Carcross-Skagway Highway, and railroad, with the USA-Canada border custom-immigration offices clearly visible from the summit of the tenure.

This tenure lies within the traditional territories of the Carcross/Tagish First Nation and the Taku River Tlingit First Nation, Figure 1. The author and Company appreciate the assistance, interest and cooperation of the Carcross-Tagish First Nation, (CT-FN) and Taku River Tlingit First Nation (TRT-FN) in these traditional territories.

Accessibility, Climate, Local Resources, Infrastructure and Physiography Mineral tenure 941734 is located in northwest British Columbia, 50 km air miles westerly of Atlin, B.C. and 140 km south of the Yukon Capital, Whitehorse.

Access on 27th July 2013 was made by the writers private float equipped aircraft to a small lake below the Quartz Zone, a name unofficially used by Cypress Gold geologists in 1989-1990.

Atlin is the most northerly community in British Columbia. The community of Atlin is accessible from Whitehorse, by the Alaska Highway and the Atlin road; a distance of distance of some 180 km. Atlin also lies east of the Coast Range Mountains and 140 kilometers of north east of Juneau, Alaska.

Whitehorse is modern Canadian northern city with daily jet flights to Vancouver and other Canadian cities, and has a wide range of modern hotels, supermarkets and shopping malls, mineral exploration expediting and fixed wing and helicopter charter services.

Atlin has a fixed wing base, two helicopter bases, two hotels and stores and several bed and breakfast facilities, as well as an exploration and a placer mining workforce. The region's climate is typical of northern British Columbia with winters averaging – $15\,^{\circ}$ C in January with moderate snowfall. Winter conditions arrive with a vengeance around the 15^{th} October and last until the middle of April, when longer spring days and spring thaw occur just as suddenly. Summers are pleasant with variable precipitation. Total annual precipitation averages 279.4 millimeters of moisture.

Broad valleys and large lakes characterize this region. Relief of the area ranges from 800 metres to 2,240 metres. Steep slopes lie on the eastern side of the tenure area, moderately steep on the south and gentle to the west. The Quartz Zone is above tree line and covered by alpine grasses.

Moose caribou, black bear, grizzly wolves and mountain goats and sheep are indigenous to the region.

History

The Quartz Zone lies within tenure 941734 and lies within the Tagish Lake region of Northwest British Columbia. The tenure area also covers other mineralized quartz veins, collectively known as the Crine Quartz Vein System.

The Tagish area has a recorded history of exploration dating back to 1898.

Discovery of rich goldfields in the Klondike in 1896 caused great influx of gold-seekers that peaked in 1897 and 1898. In July 1898, the first claims were staked in the Atlin Camp, and by the end of the year some 3,000 people had made their way to Atlin, most of them via the waterways of Tagish Lake and connecting lake arms. This great passage of people, about 30,000 a year travelling to the Yukon, spurred the search for a railroad route from tidewater across the Coast Range Mountains. In 1899³ engineers surveying the "southern" route for the White Pass and Yukon Railway are credited for the discovery of gold bearing quartz veins on the east shore of southern Tagish Lake, which later developed into the historic high grade Engineer Gold Mine.

Geologically, the Engineer Gold Mine is focused along tertiary splay faults on the east side of the Llewellyn Fault Zone, LFZ. Tenure 94172 lies some 30 km north west of the Engineer Mine, but gold-silver and polymetallic mineralization within the tenure and Crine Vein System is also adjacent to the LFZ.

The Crine vein system, was initially investigated by BCK during the 2012 season. The original Crine vein showing is reported as being discovered by a B.C. Geological Survey team during the 1980's while mapping the eastern flank of Teepee Peak⁴. Since there are other veins within the tenure 941734, the writer calls the veins a system.

Teepee Peak area received attention in 1981 when Du Pont of Canada Ltd initiated a large-scale stream sediment survey, under a project code named "Kulta". As the result of a gold stream anomaly detected on the northeast flank of Teepee Peak, Du Pont staked three mineral claims to cover the anomaly. No mineralization was found but recommended further detailed soil sampling⁵. Records do not show further work by Du Pont in the area, and it assumed the three claims were allowed to lapse.

During 1983 Texaco Canada Resources Ltd carried out geological mapping, prospecting trenching and sampling on the southwest slopes of Teepee Peak, on gold & cobalt showings in 1982. No further work was recommended from this program, but further exploration was recommended for the general area. Claims staked by Texaco were kept in good standing and optioned to Cypress Gold (Canada) Ltd under a joint venture agreement⁶.

³ Interpreted from sequence of historic records

² Ibid

⁴ Mihalynuk, Bulletin 105

⁵ A/R 10426

⁶ A/R 19438

Cypress Gold reports exploration was carried out in 1988, with a drilling program in 1989, (with on-site evidence of drill holes also drilled in 1990, but no written records presently available to the author). During 1988 Cypress Gold reports the company and the BC Geological Survey discovered a quartz vein hosting polymetallic and precious metals, on the northeast side of Teepee Peak, to which they gave the name, the Crine vein. Exploration work over the years has located other mineralized veins, thus the writer refers all as a vein system.

The 1989 Cypress Gold program headed by project manager Jim Cuttle. Cuttle completed a comprehensive exploration program including prospecting, soil sampling, ground magnetometer, CEM (Shoot Back), VLF-EM-16 and 13-diamond drill hole program, totaling 1371.69 metres⁸.

The 1989 diamond drill holes (size NQ) are coded as TP-89-1 to TP-89-13. Core is currently located on site at 59° 42' 58.7" and 134° 38' 47.0" (UTM coordinates 08V. 519892E/6619862N-NAD 83).

In 1996, Westmin Resources Ltd drilled a gold-cobalt zone on their Racine mineral claims. The zone of interest was a 150 m by 15 m north trending skarn. Drill results showed insignificant down dip extensions. Further work on the skarn was not recommended.

Since 1996, the Teepee Peak region continued to experience lapsing and re-staking of mineral claims to present times. In 2012 the writer, on BCK's behalf electronically staked around the known Crine vein held within tenure 941734. Shortly after, BCK purchased tenure 941734, along with others in the region, from De Coors Mining Ltd, a private company.

During the period of 9th August to 18th August 2012, a 3 man BCK team explored tenure 941734, Figure 4. A total of 94 soil/talus fines, in addition to rock samples were collected.

Despite work being focused on locating all vein systems differentiated by Cypress Gold. the BCK team, after referring to A/R 19438, was only successful to differentiated within the Crine Quartz Vein system, the

- 1. Crine 1 vein,
- 2. Quartz zone, and the
- 3. BX Zone., in addition to numerous other short veins not showing any mineralization.

Regional Geological Setting

The following summary is taken from Bulletin 105 by Mihalynuk.

⁷ ibid

⁸ ibid

According to Mihalynuk's mapping, rocks that underlie tenure 941734 fall within the Boundary Ranges Metamorphic Suite.

These ranges consist of low-grade metamorphic rocks, previously assigned to the Yukon Group, (Christie, 1957). Mihalynuk and Reese (1988a) termed these rocks "Boundary Ranges Metamorphic Suite" because these rocks mainly underlie the Boundary Ranges. Wheeler and McFeely (1991) include these rocks in the Nisling Terrane. It is considered part of the Yukon-Tanana Terrane after Mortensen, (1992?).

The Boundary Ranges metamorphic rocks form a belt of poly-deformed rocks bounded on the east by Llewellyn Fault Zone, (LFZ) and on the west by predominant intrusive rocks of the Coast Belt. Locally preserved relict textures display a wide range range of protolithic rocks. Such rock textures can consist of carbonaceous and calcareous sediments, volcanic tuffs (or flows) to large bodies of gabbroic, dioritic, granodiorite and granitic intrusives and ultramafite.

Local Geology

As a result of BCK investigations in August 2012, predominant rock types in tenure 941734 were categorized as cholorite-muscovite-biotite schist. These rocks have a NNW striking schistosity, while showing tight local chevron folding. Locally, rocks exhibit a rusty weathered surface, with fresh surfaces showing disseminated pyrrhotite.

Intrusive rocks, as observed by BCK 2012 work, include but are not limited to:

- Fleshy quartz rhyolite, with scattered cubes of pyite, trending northeast at 70°/dipping vertical and cutting the schistosity. One dikes observed up to 5 metres thick.
- Composite dike or sill? of cream fine grained rhyolite overlying biotite-felspar porphyry bearing 315° NW/dipping 25° SW. One composite dike/sill has an estimated thickness of 25 metres.
- Andesitic dikes., (andesite seen by BCK crews as talus on east side of Work Area)

Mineral Deposit Type

Polymetallic NNW trending quartz vein systems noted above feature high arsenic with associated gold, silver, copper, lead and zinc, with variable grades in selected systems. Anomalous cadmium also present.

Most quartz veins systems predominantly represent non-mineralized events. Both mineralized and non-mineralized quartz veins are considered by the writer either related to the proximal LFZ or/and Eocene intrusive events (Sloko) associated with Teepee Peak, situated immediately to the southwest.

Mineralization

In general as seen on surface, 95% of quartz veins and sub-crop quartz are milky white bull quartz, and exhibiting no visible sulphide or precious metals.

The remaining 5% quartz veins constitute the Crine, BX Zone and and the Quartz Zone, which either visibly or analytically mineralized with galena, sphalerte, arsenopyrite, occasional chalcopyrite, and random analytical grades of gold-silver.

2013 Exploration

On 27th July 2013, the writer flew his private float plane 50 kilometres from Atlin to a small Lake near Tenure 941734, northeast of Teepee Peak, and collected 4 rock samples from the Quartz Zone, Crine Quarz Vein System, for Petographic observations. These rocks samples, all grab, were collected at specific CR826 site (a location after season 2012 work), and listed as:

C13 1,

C13 02,

C13 03, and

C13 04.

Location of where these four four grab samples were collected, is given in Table 2, and within the Quartz Zone.

F. Colombo Ph.d, P.Geo completed a petrographic report on these samples, and located within the Appendices.

Table 2: Location of where 2013 Four Grab Samples collected at Quartz Zone, and analyzed collectively

analyzed concent.	-					
Blind Creek Resources Ltd Samples Quartz Vein						
Zone 27 July 2013 Datum NAD83						
					10.000	
sample ID		Easting	Northing	Date	Elev. M	
C13-1 to C13-4.,				27 July 2013		
site CR826	8V	518835	6621045	12:34:48PM	1665.1	
Ag	As	Au	Cu	Pb	Zn	
ppm	ppm	ppm	ppm	ppm	ppm	
0.01	0.1	0.01	0.1	0.1	0.5	
>100	>10000	>25	2,030.00	>10000	>10000	

^{*} Ref: Event 5408627

Drilling

No drilling took place within the 2013 work area.

Sampling Method

Four Grab rock samples were collected at one site, all are grab, in polyethylene bags and pre-numbered, as per:

C13 1,

C13 02,

C13 03, and

C13 04.

Sample Security

On return to the writer's base in Atlin, all samples were re-bagged and tagged, and mailed to Vancouver Petrographics Ltd, 8080 Glover Road, Langley, BC., V1M 3S3, for petrographic study

Data Verification

Samples were petrographically studied and reported on by a Canadian Industry recognized petrographic laboratory and the writer is satisfied work was done professionally.

Adjacent Properties

Some 30 Km to the southeast along the east shores of Tagish Lake are two important properties in the region. These properties are proximal to the Llewellyn Fault System.

- The Engineer Gold Mine, a past gold-silver producer
- The 25 Fault Zone gold-silver prospect, (Tag Property).

A third property, also mineral titled to BCK, is the UM⁹ listwantite system hosting traces of gold, located 13 km to the south east of the Crine Quartz Vein System. The UM property was also investigated by BCK during the 2012 season

Mineral Processing and Metallurgical Testing

During 2013 there was no metallurgical work done on Company Crine Quarz Vein System samples.

Mineral Resource and Mineral Reserve Estimates

Tenure 941734 is not at mineral reserve estimate stage.

Other Relevant Data

To the best of my knowledge there are no other recognized mineral showings or records of relevant geological/analytical data/other data than those already mentioned.

Other Relevant Data

To the best of my knowledge all relevant data is already noted.

Interpretation and Conclusions

F. Colombo reported:

The samples consist of varying amounts of quartz, pyrite, arsenopyrite, sphalerite, and galena. The microstructural features indicate these samples represent a compositional variation of the same vein system. An early precipitation of arsenopyrite was followed by pyrite, and then crosscut by a quartz-rich infill and was partially overprinted by sphalerite, galena and chalcopyrite.

⁹ A/R 23,149.

The quartz infill was also fractured and partially filled in by clay, goethite, and limonite, and in some cases the cavities were coated by microcrystalline quartz (vuggy quartz).

The Crine Quarz Vein System and immediate surrounding area has yet to be explored fully.

Recommendations

The mineralized Crine Quartz vein system could be related to Eocene intrusive units proximal regions of Teepee Peak and and/or the adjacent LFZ.

It is recommended BCK hold keeps Tenure 941734 in good standing and continue to prospect the claim ands surrounding area. Further prospecting, vein investigations, and soil sampling is recommended for the 2015 season.

Table 3.

Table 5.	Table 5.						
Recommended Budget for 2015 Season: Crine Qtz Vn System							
<u>Personnel</u>	Days/hours/#	Rate \$	\$				
Cody Broda, Student Geo	logist 20 days	300.00	6,000.00				
Roger Gallagher, Logistics	20 Days	300.00	6,000.00				
Proj: Mgr and geologist	20 Days	500.00	10,000.00				
Room&Board							
3 men meals	60 man days	80.00	4,800.00				
3 alpine tents	3 units/60 man days	30.00	1,800.00				
<u>Transportation</u>							
Helicopter	20 hrs/50%	1,400.00	14,000.00				
1 Vehicle Plus Fuel	20 days	120.00	2,400.00				
<u>Communication</u>							
Satellite phones	3 units/60 man days	90.00	2,430.00				
Hand held radios gps	6 units/60 man days	10.00	600.00				
<u>Analytical</u>							
Rocks and Soils	250	22.50	5,625.00				
Soil and Rock bags	250 Samples	1.00	250.00				
Report& compilation							
<u>data</u>							
Geologist	15	500.00	7,500.00				
Drafting	4 days	500.00	2,000.00				
<u>Subtotal</u>			63,405.00				
Head Office	16666						
administration	10% FESSION		6,340.50				
Total	POVING		69,745.50				

N. Clive Aspinall, M.Sc., P. Eng.
Geologist

7th July 2014

References

Ashton, A. S., (1982) Assessment Report 10511. Report on Prospecting of the Happy 1 & 2 & Silgo #2 Claims & Contained Reverted Crown Grants, Tagish Lake, Atlin Mining Division, Latitude 59° 31 AND Longitude 134° 13' W, NTS 104M/9E

Aspinall, Clive. (2006). Geochemical Reconnaissance of the Engineer Mine and Surrounding Area in Tagish Lake, Northwest British Columbia, Atlin Mining Division, Covering Blind Creek Resources Ltd Fractional Mineral Tenures 411090, 411091, 411092, 411093, 411094, and 503984, centered at 59°20′15.0″North, 134°14′00 ″West., for Blind Creek Resources Ltd, 15th floor-675 W. Hastings Street, Vancouver, BC, Canada, V6B 1N2.

Aspinall, N. Clive, (2008). Event Number 4248758._Blind Creek Resources Ltd Engineer-Mt Switzer Project, Tagish Lake Area, Atlin Mining Division, British Columbia. Assessment Work Covering Tenures 411090, 411091, 411092, 411093, 411094, 503984, 521228, 525258, 525419, 525445, 525536, 526505, 526506,526885, 541829, 542086: Centered at Latitude 59⁰ 25′ 18.0" North, Longitude 134⁰ 16′ 38.5" West. For Blind Creek Resources Ltd, 15th Floor, 675 W. Hastings Street, Vancouver, BC, Canada, V6B 1N2.

Aspinall, N. Clive., (2009) Event Number 4259958. Blind Creek Resources Ltd Orientation Magnetometer Survey on Tagish Lake Adjacent to Engineer Mine, Atlin Mining Division, British Columbia. Assessment Work Covering Tenures 411090, 411091, 411092, 411093, 411094, 503984, 521228, 525419
Centered at Latitude 59° 29′ 26.7" North, Longitude 134° 14′ 44.0" West, For Blind Creek Resources Ltd, 15th Floor, 675 W. Hastings Street, Vancouver, BC, Canada, V6B 1N2.

Aspinall, N, Clive. (2011) EVENT 4811324 Wann River Project Within Blind Creek Resources Ltd Tagish Lake Group Claims Atlin Mining Division, British Columbia.TENURES:411090,411091,411092,411093,411094,503984,521228, 525258,525419,525445,525536,526505,526506,526885,541829,542086,597524,597540, 597560,597566,598495,598504,598513,598517,598520 NTS 104M/8 N 59° 26′ 58.5″ Latitude W 134 ° 15′ 32.8″ Longitude For Blind Creek Resources Ltd, 15th Floor, 675 W. Hastings Street, Vancouver, BC, Canada, V6B 1N2.

Aspinall, Nicholas Clive, (2011). EVENTS 4862397-4862406 Stage 1 Helicopter Supported Drill Program March-April 2011 Wann River Project Within Blind Creek Resources Ltd Tagish Lake Group Claims (With Assessments Also Applied to Adjacent and Contiguous Atlin Project Mineral Claims) Atlin Mining Division, British Columbia. WORK DONE ON TENURES: 597524-525258-526505 NTS 104M/8 N 59° 26′ 50.6″ Latitude W 134 ° 15′ 06.9″ Longitude For Blind Creek Resources Ltd, 15th Floor, 675 W. Hastings Street, Vancouver, BC, Canada, V6B 1N2.

Aspinall, Nicholas Clive, (2011) Event 5086567
Blind Creek Resources Ltd Geochemical Survey near Racine Lake and Llewellyn Fault Zone, Tagish Lake Region, Atlin Mining Division, British Columbia, Canada Tenures 836379, 836380, 852598,853144,853149,853155,853159,854180
At 59° 42' 30.04" North, 134° 31' 07.9" West Map sheet 104M/10 For Blind Creek Resources Ltd, 15th Floor-675 West Hastings Street, Vancouver, BC. Canada, V6B 1N2. Tel: (604)-669-6463; Fax (604)-669-3041

Aspinall, Nicholas Clive, (2012) Event 5408627 .Blind Creek Resources Ltd Tagish Lake Project Geochemical-Geological Survey on Crine Quartz Vein System, Teepee Peak, Atlin Mining Division, British Columbia, Canada Tenures, 941734, 1002082, 1011794, At 59° 43' 53.2" North, 134° 40' 37" West, Map sheet 104M/10 For Blind Creek Resources Ltd, 15th Floor-675 West Hastings Street, Vancouver, BC. Canada, V6B 1N2. Tel: (604)-669-6463; Fax (604)-669-3041

Bidwell G., Duke, J (1993). Geochemical Assessment Report on the Teepee Work Area, NTS 104M/10. 59 deg. 38' 30" N, 134 deg. 32' W. Assessment Report 23,149

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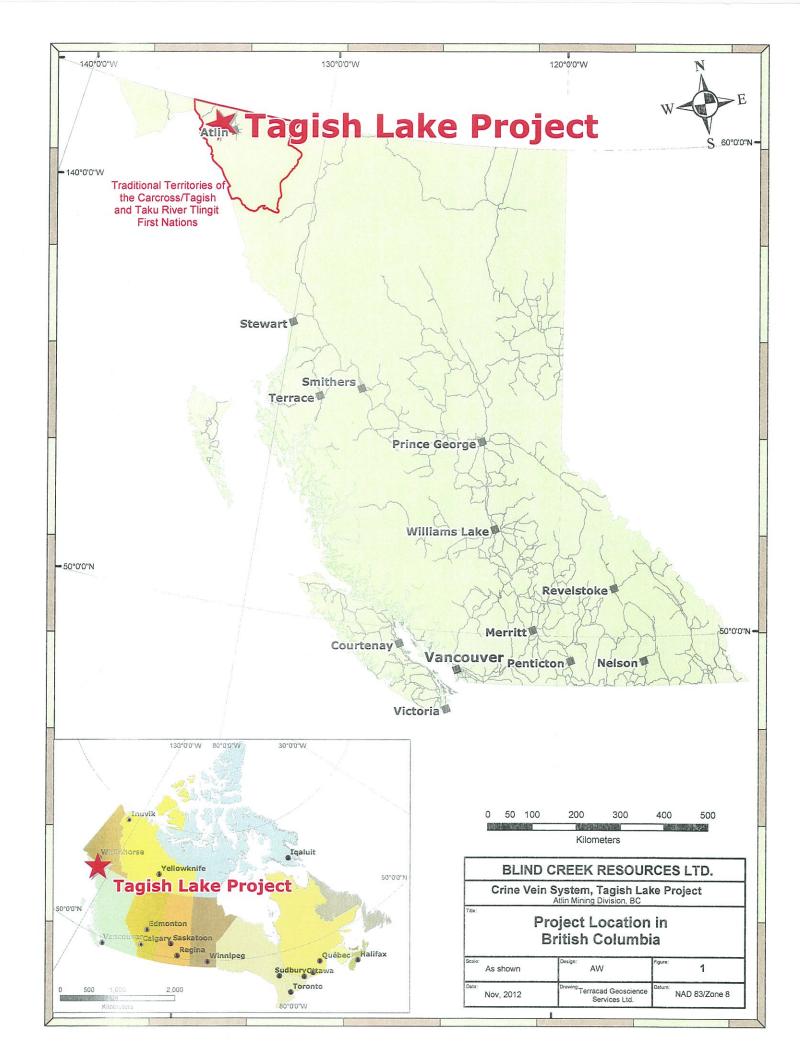
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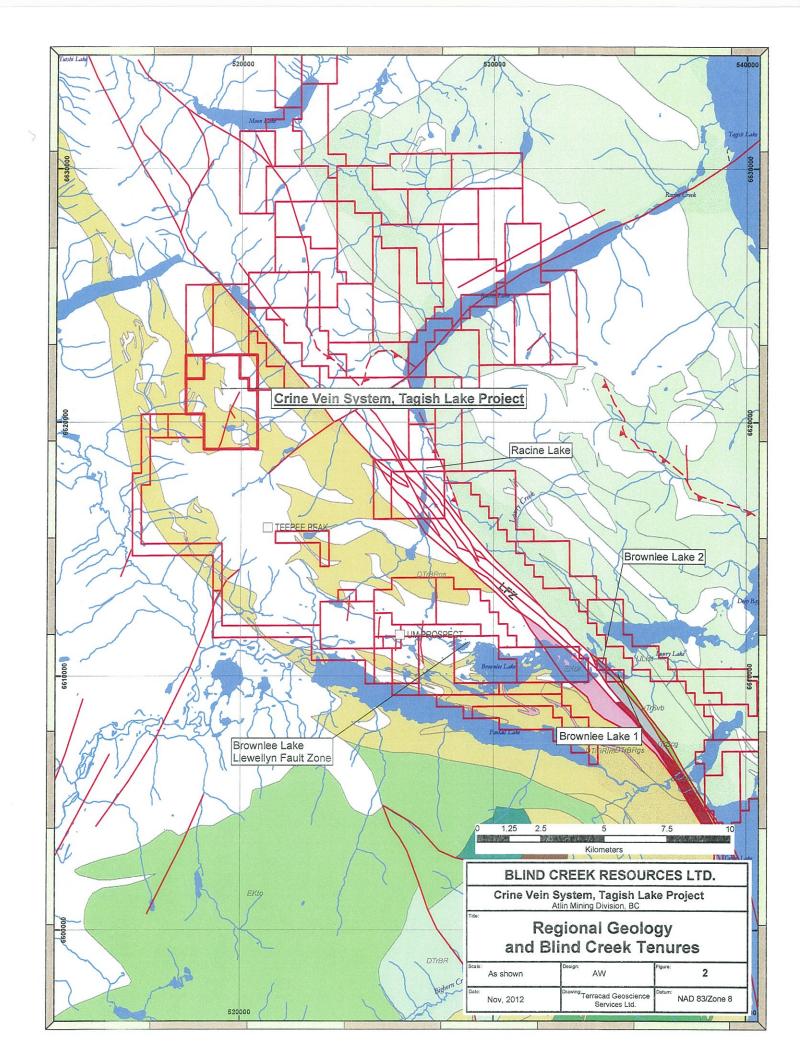
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Appendices

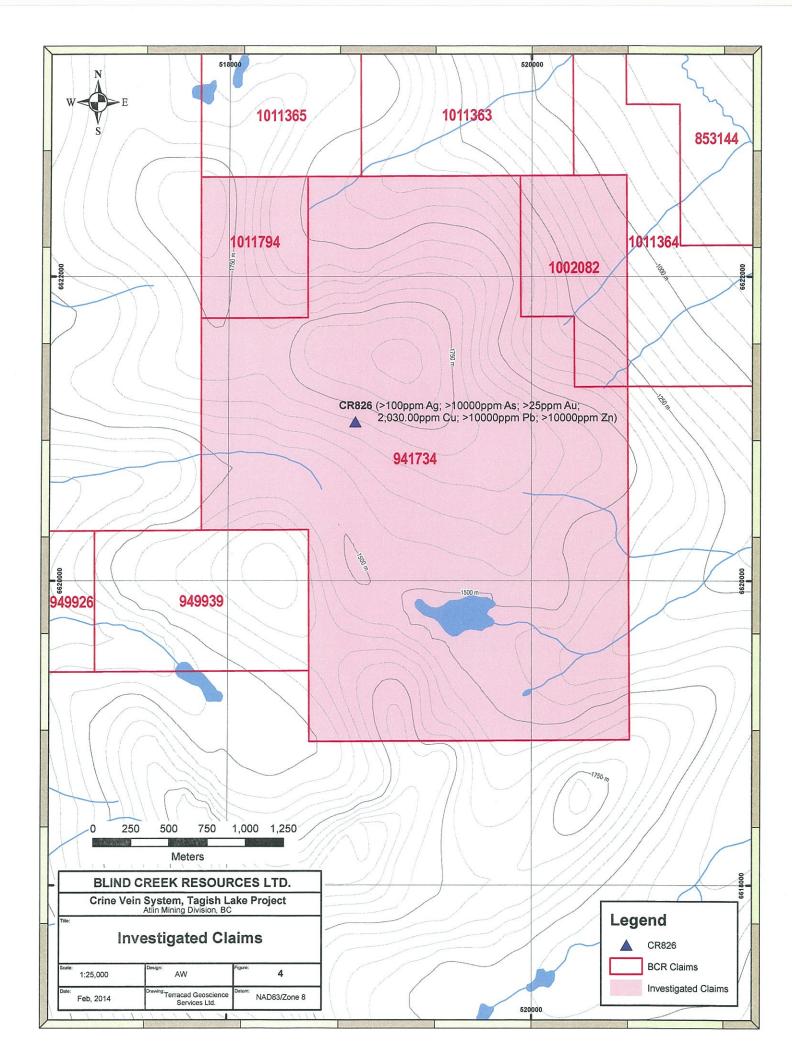
Figures





Legend Claim Boundary Prospect **Fault Type** Fault - - Normal Fault Eocene: Sloko Group (Hyder Group) **Plutonic Suite** _ _ Thrust PeEShqd - Sloko-Hyder Plutonic Suite quartz dioritic intrusive rocks Quaternary Unit PeEShgr - Sloko-Hyder Plutonic Suite granite, alkali feldspar granite intrusive rocks Eocene ESv - Sloko Group undivided volcanic rocks Sloko Group ESvb - Sloko Group basaltic volcanic rocks EScg - Sloko Group conglomerate, coarse clastic sedimentary rocks ESvf - Sloko Group rhyolite, felsic volcanic rocks Lower Jurassic Late Cretaceous to Tertiary Laberge Group IJLIsf - Inklin Formation mudstone, siltstone, shale fine clastic Coast Intrusions Windy Table Complex sedimentary rocks LKWqd - Windy Table Complex quartz dioritic intrusive rocks IJLIst - Inklin Formation argillite, greywacke, wacke, conglomerate turbidites Cretaceous (Mesozoic?) Devonian-Triassic? (Mesozoic) EKgr - Unnamed granite, alkali feldspar granite intrusive rocks **Boundary Ranges Metamorphic Suite** DTrBR - Boundary Ranges Metamorphic Suite metamorphic rocks, undivided EKdr - Unnamed dioritic intrusive rocks DTrBRgs -Boundary Ranges Metamorphic Suite greenstone, EKto - Unnamed tonalite intrusive rocks greenschist metamorphic rocks DTrBRIm - Boundary Ranges Metamorphic Suite limestone, marble, calcareous sedimentary rocks Early Jurassic EJum - Unnamed ultramafic rocks **Late Triassic** EJAlgd - Aishihik Plutonic Suite granodioritic intrusive rocks Stuhini Group uTrScg - Stuhini Group conglomerate, coarse clastic sedimentary rocks **Late Triassic** uTrSst -Stuhini Group argillite, greywacke, wacke, conglomerate turbidites Stuhini Group uTrSv - Stuhini Group undivided volcanic rocks uTrSIm - Stuhini Group limestone, marble, calcareous sedimentary rocks LTrStdg - Mesozoic - Stikine Plutonic Suite monzodioritic to gabbroic intrusive rocks uTrSs - Stuhini Group undivided sedimentary rocks uTrSva - Stuhini Group andesitic volcanic rocks **Paleozoic** uTrSvb - Stuhini Group basaltic volcanic rocks Florence Range Metamorphic Suite mDIm - Unnamed limestone, marble, calcareous sedimentary rocks **Paleozoic** mDpg - Unnamed paragneiss metamorphic rocks Devonian-Mississippian EMgr - Unnamed granite, alkali feldspar granite intrusive rocks Wann River Gneiss PBRog - Boundary Ranges Metamorphic Suite orthogneiss metamorphic rocks DCqm - Unnamed quartz monzonitic intrusive rocks

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F. Colombo Ph.d Petrographic Report.



Vancouver Petrographics Ltd.

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Report 140052

February 14, 2014

Petrographic Report on Four Rock Samples

Fabrizio Colombo, Ph.D., P.Geo.

F. Colombo Ph.d Petrographic Report.



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1. Introduction

Mr. Clive Aspinall submitted four rock samples to Vancouver Petrographics for petrographic analysis. The client indicated that the samples were collected over a 10 m² area from the same sub-outcrop.

The attached "Petrographic Descriptions" section provides the following for each sample: (i) the petrographic rock classification; (ii) a brief microstructural description; (iii) a table with the modal percentage and average grain size for each mineral; and (iv) a detailed description of the minerals in decreasing order of abundance.

Samples 1–4 (see Table 1) were cut and prepared as \sim 20 × 40 mm polished thin sections (see the image on the first page of each description).

The petrographic classification follows the recommendations of Gillespie et al. (2011).

The microstructural terminology used in this report follows the recommendations and definitions of Vernon (2004), Passchier and Trouw (1998), and Ramdohr (1980).

The magnetic susceptibility (see Table 1) was measured with a hand-held KT Magnetic Susceptibility Meter, and is intended to provide only an approximate estimate of the relative content of magnetic minerals within each sample.

2. Results and Discussion

The samples consist of varying amounts of quartz, pyrite, arsenopyrite, sphalerite, and galena. The microstructural features, in agreement with the note submitted by the client, indicate these samples represent a compositional variation of the same vein system. An early precipitation of arsenopyrite was followed by pyrite, and then crosscut by a quartz-rich infill and was partially overprinted by sphalerite, galena and chalcopyrite. The quartz infill was also fractured and partially filled in by clay, goethite, and limonite, and in some cases the cavities were coated by microcrystalline quartz (vuggy quartz).

The presence of vuggy quartz indicates that the fluids circulating in the late stages of the infill had a low pH. I recommend spectroscopic analysis (SWIR spectroscopy) on quartz and possibly clay-rich samples; however, the magmatic origin of the fluids could only be confirmed by a fluid inclusion study done on the fluid inclusion-rich quartz infill.

Sample No.	Sample ID	Magnetic Susceptibility (·10 ⁻³)	Rock Type	
1	C 13 01	0.155	Arsenopyrite-pyrite-quartz infill	
2	C 13 02	0.056	Pyrite-galena-arsenopyrite-sphalerite infill	
3	C 13 03	0.092	Quartz-pyrite-arsenopyrite-white mica infill	
4	C 13 04	0.098	Quartz-pyrite-arsenopyrite-sphalerite infill	

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4. Petrographic Descriptions

Sample 1: C 13 01

Arsenopyrite-pyrite-quartz vein

This sample consists of medium-grained and fractured aggregates of arsenopyrite, pyrite, quartz, and white mica. The arsenopyrite and the pyrite are subhedral and in some cases are immersed within a fractured aggregate of quartz. Arsenopyrite, pyrite, and quartz are fractured and filled in by very fine-grained clay.

Mineral	Modal %	Main Size Range (mm)
arsenopyrite	37 - 40	up to 8 × 4
clay	27 - 30	~0.02
pyrite	18 – 20	up to 1.2
quartz	10 - 12	up to 1.2
white mica	2 - 3	up to 0.1
iron oxides	1	cryptocrystalline
titanite	tr	up to 0.05

Arsenopyrite occurs as fractured crystals (up to 8 × 4 mm) intergrown with less fractured pyrite. Despite the strong fracturing, the arsenopyrite shows some straight crystal faces rimmed by quartz. The arsenopyrite is distinguished by its white colour and reflectance slightly lower than the pyrite, which shows creamy tints (see Photomicrograph 1a).

Pyrite is subordinate to the arsenopyrite and is less fractured than the arsenopyrite. The pyrite is anhedral and, together with the arsenopyrite, forms a fractured sulphide-rich zone within the polished thin section.

Quartz forms anhedral to blocky crystals that are fractured and filled in by clay. Some of the quartz aggregates are intergrown with the arsenopyrite and pyrite; these intergrowths indicate a possible co-precipitation of the quartz and the arsenopyrite as infill minerals.

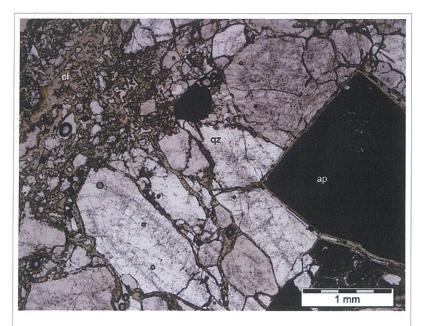
Clay forms a very fine-grained aggregate concentrated on the right side of the polished thin section. The clay filled in the fractures between the arsenopyrite, the pyrite, and the quartz fragments; therefore, I tentatively interpret the clay crystallization as a syn- to post-

deformation event. The clay aggregate hosts fine-grained flakes of **white mica**, which is distinguished by its lamellar shape and high birefringence. In some cases, the clay aggregate replaces prismatic crystals of an unknown mineral, which was also overprinted by amoeboid arsenopyrite.

Iron oxides are heterogeneously dispersed within the clay and white mica aggregate.



Photomicrograph 1a: Arsenopyrite (ap) and pyrite (py) are fractured and filled in by very fine-grained clay. The fracture pattern indicates the brittle deformation occurred after the crystallization of both the sulphides. Plane-polarized reflected light.



Photomicrograph 1b: Subhedral arsenopyrite (ap) is intergrown with quartz (qz), and they are fractured and filled in by very finegrained clay (cl). Plane-polarized transmitted light.

Sample 2: C 13 02

Pyrite-galena-arsenopyrite-sphalerite infill

Massive pyrite dominates the composition of this polished thin section and is intergrown with subordinate galena, quartz, arsenopyrite, clay, sphalerite, and chalcopyrite. The sulphide-rich infill is fractured and partially replaced by limonite, clay, and iron oxides.

Mineral	Modal %	Main Size Range (mm)
pyrite	80 - 82	up to 8
galena	10 - 12	up to 4
arsenopyrite	4 - 5	up to 1.5
sphalerite	0.5 - 1	up to 3
quartz	0.5 - 1	up to 1
limonite	tr	~0.01
clay(?)	tr	up to 0.02
iron oxides	tr	cryptocrystalline
chalcopyrite	tr	up to 0.04

Pyrite forms massive infill domains, which are fractured and host subordinate anhedral to subhedral crystals of arsenopyrite. The pyrite reaches 8 mm in some areas of the polished thin section and is intergrown with subordinate amounts of amoeboid galena and sphalerite.

Galena forms amoeboid crystals, which are intergrown with the pyrite. The galena is distinguished by its lead-grey colour and its reflectance, which is lower than that of the pyrite. A number of things indicate that the galena partially replaced the pyrite: the irregular boundaries between the galena and the pyrite, the absence of galena inclusions within the massive pyrite, the angular fragments of pyrite within the galena (see Photomicrograph 2a), and the sub-rounded relicts of pyrite within the galena.

Arsenopyrite forms dispersed inclusions within the pyrite and irregular polycrystalline domains intergrown with the pyrite. The arsenopyrite is strongly fractured and within some of the fractures pyrite, chalcopyrite and sphalerite were precipitated, thus suggesting the arsenopyrite crystallization pre-dated the other sulphides (see Photomicrograph 2e). I interpret this sample as a pyrite-rich, galena-sphalerite-bearing variation of Sample 1.

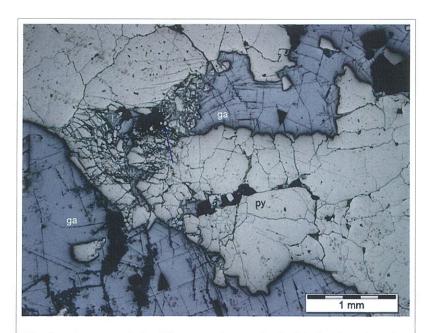
Sphalerite occurs as anhedral crystals intergrown with the pyrite. The sphalerite also occurs

as fine-grained inclusions within the pyrite, and in these cases the sphalerite is intergrown with rare finer-grained **chalcopyrite**.

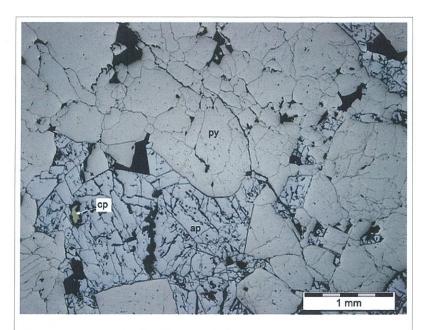
Quartz forms inequigranular (up to 1 mm) crystals. These are enclosed within the pyrite, within the interstices between the pyrite and the sphalerite, and within the pyrite and the limonitic aggregate that partially replaces the sulphides. The quartz shows a moderate to strong undulose extinction. In one case, the quartz forms a 1.5 mm blade-like crystal mostly enclosed within the limonitic aggregate. Very fine-grained crystals of quartz coated the partially filled cavities within the limonitic replacements (see Photomicrographs 2c and 2d).

Limonitic aggregates partially filled in some of the interstices between the pyrite. Some of the cavities are coated by microcrystalline quartz (Photomicrographs 2c and 2d). The limonite includes iron oxides and probable **clay**.

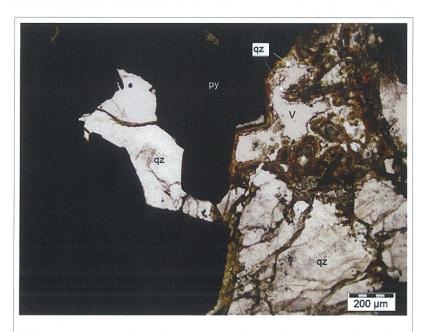
Chalcopyrite is rare and forms anhedral inclusions within the arsenopyrite (Photomicrograph 2b) and the sphalerite.



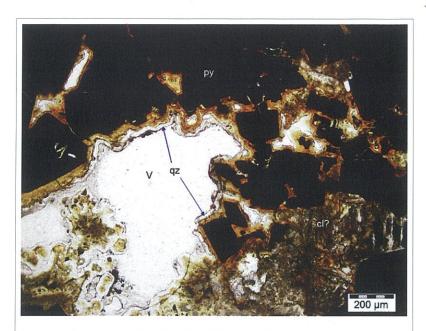
Photomicrograph 2a: The massive pyrite (py) is fractured and partially replaced by galena (ga). Plane-polarized reflected light.



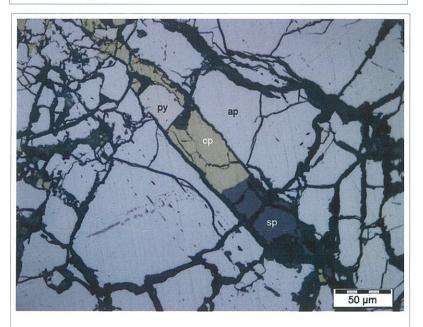
Photomicrograph 2b: The pyrite (py) hosts inclusions of arsenopyrite (ap), in which very rare chalcopyrite (cp) is enclosed. Plane-polarized reflected light.



Photomicrograph 2c: The pyrite (py) hosts inclusions of quartz (qz). The interstices between the pyrite are filled in by quartz, which is fractured and is partially filled in by an unresolved and probably limonitic aggregate (brown to earthy colours), which is coated by very fine-grained quartz. "V" indicates the cavities. Plane-polarized transmitted light.



Photomicrograph 2d: Partially filled cavities (V) between the pyrite crystals (py) are coated by limonite (brown to reddish colours) and microcrystalline quartz (qz). Probable clay (cl?) occurs within the interstitial replacement. Plane-polarized transmitted light.



Photomicrograph 2e: Pyrite (py), chalcopyrite (cp) and sphalerite (sp) filled in the fractures within the arsenopyrite (ap). Plane-polarized reflected light.

Sample 3: C 13 03

Quartz-pyrite-arsenopyrite-white mica infill



A quartz-white mica-arsenopyrite-sphalerite-pyrite vein crosscut a fractured domain of pyrite, arsenopyrite, and subordinate galena and sphalerite. Limonite partially replaced the sulphide-rich domain and the interstices between the quartz within the vein.

Mineral	Modal %	Main Size Range (mm)
quartz	45 - 40	up to 2.5 × 0.8
pyrite	30 - 32	up to 1
arsenopyrite	15 – 17	up to 0.7
white mica	2.5 - 3	up to 0.25
limonite	1.5 – 2	cryptocrystalline
goethite	1 – 2	up to 0.02
clay(?)	0.5 - 1	up to 0.02
galena	0.5 - 0.8	up to 1
sphalerite	0.3 - 0.5	up to 0.25

Pyrite occurs as fractured and inequigranular crystals within the sulphide-rich part of this polished thin section. As in the previous two samples, the pyrite is intergrown with the more fractured **arsenopyrite** (Photomicrograph 3a) and includes anhedral to subhedral arsenopyrite. Subhedral arsenopyrite is the prevailing sulphide within the quartz vein, and in this case it forms subhedral and poikilitic crystals up to 0.7 mm.

Quartz dominates the composition of the vein as elongated prisms (up to 2.5×0.8 mm), which are oriented at high angles to the vein walls and show a moderate to strong undulose extinction. The quartz hosts abundant fluid inclusions, which in some cases define euhedral growth zoning.

Microcrystalline **goethite**, quartz, and probable **clay** (kaolinite?) form irregular ribs within the fractured sulphide-rich domain (see Photomicrographs 3b). Goethite is more abundant as infill within the quartz-rich vein.

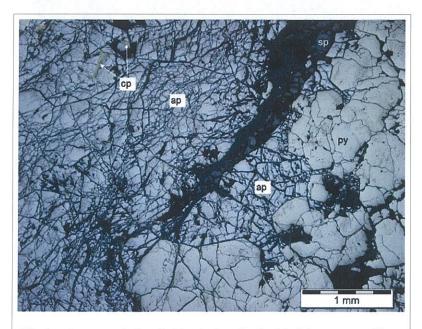
Partially filled cavities coated by quartz (vuggy quartz) indicate relatively low pH and may indicate the magmatic origin of the fluids (Thompson and Thompson, 1996). More analysis, namely SWIR spectroscopy on vuggy silica-rich veins, and possibly a fluid inclusion study, is required to prove the magmatic origin of the fluids and the potential for a high-sulphidation

system.

White mica forms lenticular domains within the quartz-rich vein. The fine-grained lamellae are deformed, show undulose extinction, and define a rough foliation, which was probably produced before the emplacement of the prismatic quartz. I tentatively interpret the white mica as a relict of the host rock. Alternatively, the white mica could have precipitated in the earliest phases of the quartz-rich infill, and in this case would indicate a relatively acidic system.

Sphalerite forms anhedral crystals dispersed within the quartz vein and within the quartz-filled fractures of the pyrite-arsenopyrite intergrowths. Sphalerite hosts very rare, very fine-grained droplets of chalcopyrite.

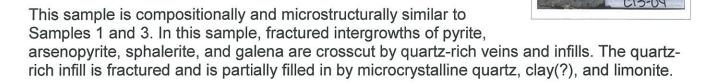
Rare amoeboid **galena** fills the interstices and partially replaces the fractured pyrite. Rare **chalcopyrite** fills in the fractures within the arsenopyrite.



Photomicrograph 3a: Subhedral pyrite (py) is intergrown with arsenopyrite (ap). Both the sulphides are fractured and filled in by sphalerite (sp) and microcrystalline quartz. Rare chalcopyrite (cp) is preferentially precipitated within the fractured arsenopyrite. Plane-polarized transmitted light.

Sample 4: C 13 04

Quartz-pyrite-arsenopyrite-sphalerite infill



Mineral	Modal %	Main Size Range (mm)	
quartz	48 - 50	up to 0.5	
pyrite	20 – 22	up to 1	
arsenopyrite	15 – 17	up to 1 up to 3 up to 0.002 up to 0.1 cryptocrystalline up to 1	
sphalerite	4 - 5		
clay	3 - 4		
white mica	2 - 3.5		
limonite	1.5 – 2		
galena	1		
chalcopyrite	tr	up to 0.01	

Quartz forms an inequigranular (up to 0.5 mm) aggregate of anhedral crystals, which filled in the fractured sulphide-rich intergrowths. In rare instances, the quartz forms randomly oriented blade-like crystals up to 2.5 mm long. The quartz crystals show moderate to strong undulose extinction, are fractured and partially filled in by limonite, and are coated by microcrystalline quartz (see Photomicrograph 4b).

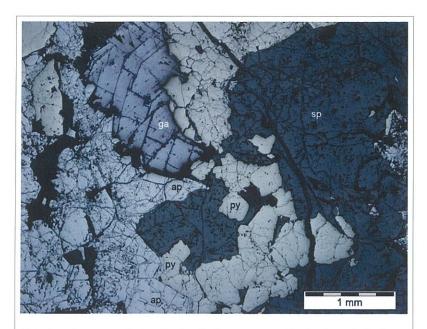
Pyrite forms anhedral crystals intergrown with **arsenopyrite**. This intergrowth is recurrent in this group of samples, and as in Samples 1 and 3, it is fractured and filled in by quartz and sphalerite and is partially replaced by galena.

Sphalerite forms a fractured domain (up to 10 × 3 mm) intergrown with the pyrite and arsenopyrite. As in Sample 3, I tentatively interpret the sphalerite as having crystallized after the pyrite and arsenopyrite because in some cases the sphalerite filled in the fractured pyrite. Very rare, very fine-grained **chalcopyrite** droplets are dispersed within the sphalerite.

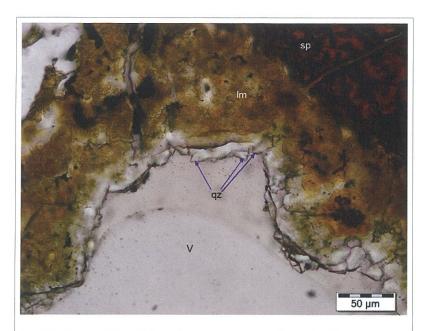
Galena is subordinate to the other sulphides (pyrite, arsenopyrite, and sphalerite) and partially replaced the pyrite as amoeboid crystals.

Unresolved aggregates, probably consisting of clay and in some cases limonite, partially replaced the interstices between the fractured quartz and the sulphides.

Fine-grained replacement aggregates of **white mica** are heterogeneously dispersed within the quartz-rich infill. In some cases, the white mica-rich domain maintains an internal foliation, and the lamellae are iso-oriented and define a continuous internal foliation. In some of these domains, the white mica is partially replaced by clay.



Photomicrograph 4a: Pyrite (py), arsenopyrite (ap), sphalerite (sp), and galena (ga) form anhedral intergrowths within the sulphide-rich domains. Plane-polarized reflected light.



Photomicrograph 4b: Sphalerite (sp) is rimmed by an unresolved aggregate of limonite (lm), which is partially filled in by microcrystalline quartz (qz). Plane-polarized transmitted light.

COST STATEMENT. Table 3

Quartz Zone, Crine Property, Teepee Peak area. Cost of Petrographic study .	27 th July 2013		
Personnel	Days/hours/#	Rate \$	\$
Clive Aspinall, Geologist	1 Day	1500	1500
Private Aircraft	1 .3 hrs	750	750.00
Drafting	4 hrs	100	400
Vancouver Petro			1,100.00
Report	1 day		1,500.00
Subtotal			4,500.00
Head Office administration 10%			450.00
Total			\$4,950.00

Certificate of Authorship

I, Nicholas Clive ASPINALL, P.Eng of Pillman Hill, the community of Atlin British Columbia, and 3A Diamond Way, Whitehorse, Yukon do hereby certify that:

I am an independent consulting geologist with offices at the above addresses

I am a graduate of McGill University, Montreal, Quebec, with B.Sc degree in Geology (1964), and a Masters degree (1987) from the Camborne School of Mines, Cornwall, England, in Mining Geology.

I am registered member in good standing of the Associations of Professional Engineers and Geoscientists in the province of British Columbia.

I have practiced mineral exploration for 48 years since graduation from McGill University. I am familiar with the regional geology of the Atlin Mining Division and 1 have had an office based in Atlin since 1968.

I have worked in the following provinces of Canada and internationally; Newfoundland, Ontario, Quebec, British Columbia & Yukon; Libya, Morocco, Saudi Arabia, Yemen, Indonesia, Mexico, Peru, Argentina & USA.

I have no material interest in Blind Creek Resources Ltd mineral claim area tenures covered by this report.

I completed Report of:

Event 5486279 Petrographic observations on Four Rock Samples From The Quartz Zone, Crine Quartz Vein System, Teepee Peak, Atlin Mining Division, British Columbia, Canada. Tenure 941734. Located at 59° 43' 53.2" North, 134° 40' 37" West Map sheet 104M/10 For Blind Creek Resources Ltd, 610-1100 Melville Street Vancouver, BC. Canada, V6E 4A6 Vancouver, BC. Canada, Tel: (604)-669-6463; Fax (604)-669-3041

With: <u>Petrographic Work: F. Colombo, Ph.d, P.Geo., Vancouver Petrographics Ltd.</u>

7th July 2014 Originally Signed by

N. CLIVE ASPINALL M.Sc. P.Eng

Geologist