# **Geochemical Sampling Report Bear Hill Project**

Omineca Mining Division Tenure Numbers: 1039647,1045980, 1064216

NTS: 093M/08E Latitude 55° 22' N Longitude 126° 02'W

> UTM Zone 09 (NAD 83) Northing 6138901 Easting 688286

Work performed August 14-16, 2017 by Ken Galambos, Ralph Keefe, Brian Keefe

> For Ken Galambos 1535 Westall Ave. Victoria, British Columbia V8T 2G6

Ken Galambos, P.Eng. KDG Exploration Services 1535 Westall Ave. Victoria, British Columbia V8T 2G6

November 08, 2018

### **Table of Contents**

# TITLE

Item 1:	Summary	1
Item 2:	Introduction	
2.1	Qualified Person and Participating Personnel	2
2.2	Terms, Definitions and Units	
2.3	Source Documents	.3
2.4	Limitations, Restrictions and Assumptions	.3
2.5	Scope	.3
Item 3:	Reliance on Other Experts	. 3
Item 4:	Property Description and Location	.3
Item 5:	Accessibility, Climate, Local Resources, Infrastructure and Physiography	. 5
Item 6:	History	
Item 7:	Geological Setting and Mineralization	9
7.1	Regional Geology	9
7.2	Property Geology	13
7.2.1	Structure	14
7.2.2	Alteration	14
7.2.3	Mineralization	14
7.3	Property Geophysics	15
Item 8:	Deposit Types	
8.1	High and Low Sulphidation VMS Deposits	
8.1.1	Low Sulphidation VMS Deposits	
8.1.2	9 - 1	
8.2	Calc-Alkaline Porphyry Copper-Gold Deposits	
8.2.1	Babine Lake District Porphyry Copper-Gold Deposits	
Item 9:	Exploration	
Item 10:	Drilling	
Item 11:	Sample Preparation, Analyses and Security	
Item 12:	Data Verification	
Item 13:	Mineral Processing and Metallurgical Testing	
Item 14:	Mineral Resource Estimates	
Item 15:	Adjacent Properties	
15.1	Bell Copper Mine (Minfile 093M 01, rev. McMillan, 1991)	
15.2	Granisle Mine (Minfile 093L 146, rev. Duffett, 1987)	
15.3	Morrison-Hearne Hill Project (From Simpson, 2007)	
15.4	Wolf (Minfile 093M 008, rev. McMillan, 1991)	
15.5	Fireweed (Minfile 093M 151, rev. Payie, 2009)	
15.6	Equity Silver (Minfile 093L 001, rev. Robinson, 2009)	
Item 16:		
Item 17:	Interpretation and Conclusions	35
Item 18:	Recommendations	
Item 19:	References	
Item 20:	Date and Signature Page	
Item 21:	Statement of Expenditures	
Item 22:	Software used in the Program	
Appendic	ies	44

List of Illu	strations	
Figure 1:	Bear Hill Property Location Map	4
Figure 2:	Bear Hill Project Claim Map	
Figure 3:	Regional Geology map	.10
Figure 4:	Property Geology map	.13
Figure 5:	1 <sup>st</sup> Vertical Derivative Magnetics (Quest West)	
Figure 6:	1 <sup>st</sup> Vertical Derivative Magnetics (Search II)	16
Figure 7:	Development of high-sulphidation versus low-sulphidation hydrothermal	
	systems in a submarine setting in relation to the depth of emplacement	
	of associated sub-volcanic intrusions (from Dubé et al., 2007; after	
	Hannington et al., 1999)	18
Figure 8:	Geological setting of Au-rich high sulphidation VMS systems (from Dubé	
	et al., 2007)	
Figure 9:	Sample Location Map - Rock	
	Stacked RRs 2017 East Line	
	Stacked RRs 2017 Central Line	
	Stacked RRs 2017 West Line	
	Stacked RRs 2017 East Line-Intrusive Indicators	
	Stacked RRs 2017 Central Line-Intrusive Indicators	
Figure 15:	Stacked RRs 2017 West Line-Intrusive Indicators	27
List of Tal	bles	
Table 1:	Claim Data	. 4
Table 2:	Geology Legend	11
	Rock Sample Descriptions	
	Humus Sample Descriptions	
Table 5:	Resources and Production of Major Babine Porphyry Deposits	28
List of Ph	otographs	
Plate 1:	Satellite Image of Bear Hill Project showing future access	6
Plate 2:	Bear Hill Main zone trend (image looking to the northwest)	9
	Satellite Image Showing Sample Transects and Anomalous Sample Sites	

#### Item 1: Summary

The Bear Hill property consists of 3 claims (28 cells) covering an area of 514.77ha on the west side of Takla Lake in central British Columbia. The centre of the property lies approximately 14 km south of the community of Takla Landing on mapsheet 093M08E. A rail line is situated less than 12.5km from the property on the east-shore of Takla Lake and a major power line lies within 10km to the north. Recent logging has occurred on the western boundary of the property and the access road into the claims has been upgraded with the past 3 years. The property is currently accessed via a well maintained 2wd road from the barge landing on Babine Lake across from Topley Landing. The claims lie within the Omineca Mining Division and are administered out of Smithers, BC.

The project area lies on the northwest side of the Skeena Arch within the Intermontane tectonic belt of west-central B C. The Babine Lake area is underlain principally by Mesozoic layered rocks, the most widespread in this area being volcanic and sedimentary rocks of the Jurassic Hazelton and Bowser Lake Groups. These are intruded by plutonic rocks of various ages including lower Jurassic Topley intrusions, Omineca intrusions of early Cretaceous age, late Cretaceous rhyolite and granodiorite porphyrites and Babine intrusions of early Tertiary age. Deformation consists of moderate folding, transcurrent boundary faults, thrusting and normal faulting. Younger, early Cretaceous Skeena Group undivided sedimentary rocks and subvolcanic rhyolite domes are preserved in a large cauldera setting roughly 24km in diameter that sits between the West Arm and Fisheries Arm of Babine Lake to the west of the property.

The best known style of mineralization in the Babine Lake area is porphyry copper mineralization associated with small stocks and dyke swarms of biotite feldspar porphyry of the Babine intrusions. Eccene aged BFP hosts annular porphyry copper deposits such as the Bell Mine (296 mT of 0.46% Cu and 0.2 gpt Au), the Granisle Mine (119 mT of 0.41% Cu and 0.15 gpt Au) (Carter et al, 1995) and the Morrison Deposit (207 mT of 0.39% Cu and 0.20 gpt Au) (Simpson, 2007).

The Babine/Takla Lakes area has been explored since the discovery of copper mineralization on McDonald Island in 1913. Extensive exploration has occurred since the mid 1960's following the recognition of the potential of porphyry copper mineralization and the Granisle and Bell deposits. Exploration for Equity Silver type massive sulphides occurred through the 1980's following the decline in copper prices and the sharp rise in precious metal values during that time. It is believed that the Bear Hill property covers Equity Silver style of transition mineralization or possibly Eskay Creek precious metals rich VMS as both epithermal and porphyry characteristics can be found in the area. Little information exists in the public domain of exploration in the area over the past 30 years.

In 2016, the author completed humus-Ah transects over three lines on Bear Hill in hopes of determining strike and width potential to the known mineralization. Sampling returned anomalous Response Ratios to background for gold, silver, copper, arsenic, barium, bismuth, iron, lead, antimony, tungsten, molybdenum, lanthanum, and cerium

over several 100s of metres both in width and length. The anomalies remain open to the northwest and to the southeast.

In 2017, three additional geochemical survey lines were completed on strike of the suspected strike of the Bear Hill copper-silver mineralized zone. Anomalous Response Ratios have now been found in excess of 4000m to the west of the main showing.

The core of the Bear Hill property has been held by the author since 2008. The claims that are subject to this report are 100% owned by K. Galambos in partnership with Ralph Keefe of Francois Lake, B.C.

It is the author's belief that previous exploration programs on the property and surrounding area suggested a potential for significant precious and base metal mineralization. These programs also failed to adequately test this potential. Additional exploration, in the form of geological, geophysical and geochemical surveys, trenching and drilling, is warranted to determine if one or more economic mineralized bodies are present within the existing property boundaries.

#### Item 2: Introduction

This report is being prepared by the author for the purposes of filing assessment on the Bear Hill property and to create a base from which further exploration will be completed.

#### 2.1 Qualified Person and Participating Personnel

Mr. Kenneth D. Galambos P.Eng. conducted the current exploration program, and completed the evaluation and interpretation of data to focus further exploration and to make recommendations to test the economic potential of the area.

This report describes the property in accordance with the guidelines specified in National Instrument 43-101 and is based on historical information, a prospecting and geochemical sampling program conducted on the property area from August 14-16, 2017 and a review of data from the property by the author.

#### 2.2 Terms, Definitions and Units

- All costs contained in this report are denominated in Canadian dollars.
- Distances are primarily reported in metres (m) and kilometers (km) and in feet (ft) when reporting historical data.
- GPS refers to global positioning system.
- Minfile showing refers to documented mineral occurrences on file with the British Columbia Geological Survey.
- The term ppm refers to parts per million, equivalent to grams per metric tonne (q/t).
- ppb refers to parts per billion.
- The abbreviation oz/t refers to troy ounces per imperial short ton.
- The symbol % refers to weight percent unless otherwise stated. 1% is equivalent to 10,000ppm.

• Elemental and mineral abbreviations used in this report include: antimony (Sb), arsenic (As), barium (Ba), bismuth (Bi), cerium (Ce), copper (Cu), gold (Au), iron (Fe), lanthanum (La), lead (Pb), molybdenum (Mo), tungsten (W), zinc (Zn), chalcopyrite (Cpy), molybdenite (MoS<sub>2</sub>) and pyrite (Py).

#### 2.3 Source Documents

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

- Research of the Minfile data available for the area at http://www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Pages/default.aspx
- Research of mineral titles at https://www.mtonline.gov.bc.ca/mtov/home.do
- Review of company reports and annual assessment reports filed with the government at
  - http://www.empr.gov.bc.ca/Mining/Geoscience/ARIS/Pages/default.aspx
- Review of geological maps and reports completed by the British Columbia Geological Survey at http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/MainMaps/Pages/default.aspx.
- Published scientific papers on the geology and mineral deposits of the region and on mineral deposit types.

#### 2.4 Limitations, Restrictions and Assumptions

The author has assumed that the previous documented work in the area of the property is valid and has not encountered any information to discredit such work.

#### 2.5 Scope

This report describes the geology, previous exploration history, interpretation of regional geophysical, geochemical surveys including the Search II survey. Research included a review of the historical work that related to the immediate and surrounding areas. Regional geological data and current exploration information have been reviewed to determine the geological setting of the mineralization and to obtain an indication of the level of industry activity in the area.

#### Item 3: Reliance on Other Experts

Some data referenced in the preparation of this report was compiled by geologists employed by various companies in the mineral exploration field. These individuals would be classified as "qualified persons" today, although that designation did not exist when some of the historic work was done. The author believes the work completed and results reported historically to be accurate but assumes no responsibility for the interpretations and inferences made by these individuals prior to the inception of the "qualified person" designation.

#### **Item 4: Property Description and Location**

The Bear Hill property consists of 3 claims (28 cells) covering an area of 514.77ha, located between Babine and Takla Lakes, The centre of the property lies approximately 14 km south of the community of Takla Landing on mapsheet 093M08E. A rail line is

situated less than 12.5km from the property on the east shore of Takla Lake, a major power line lies within 10km to the north. Logging has occurred on the western boundary of the property. The property is currently accessed via rough 2wd road from the ferry landing at Nose Bay roughly 30km through to the centre of the property. The claims lie within the Omineca Mining Division and are administered out of Smithers, BC.

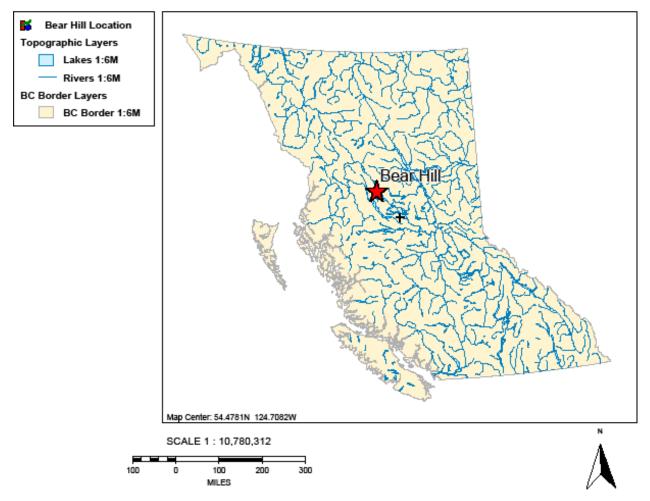


Figure 1: Bear Hill Property location map

Upon acceptance of this report, the highlighted mineral tenures will have their expiry dates moved to August 10, 2028 and December 04, 2021.

Table 1: Claim Data

	• · · · · · · · · • · · · · · ·				
Tenure #	Claim name	Issue date	Expiry date	Area (Ha)	Owner
1039647		2008/Dec/11	2028/Aug/10	18.39	GALAMBOS, KENNETH D 100%
1045980		2016/Aug/15	2028/Aug/10	55.16	GALAMBOS, KENNETH D 100%
1064216		2018/Nov/03	2021/Dec/04	441.22	GALAMBOS, KENNETH D 100%
			Total	514.77	

The Claims comprising the Bear Hill property as listed above are being held as an exploration target for possible hardrock mining activities which may or may not be profitable. Any exploration completed will be subject to the application and receipt of necessary Mining Land Use Permits for the activities recommended in this report. There is no guarantee that this application process will be successful.

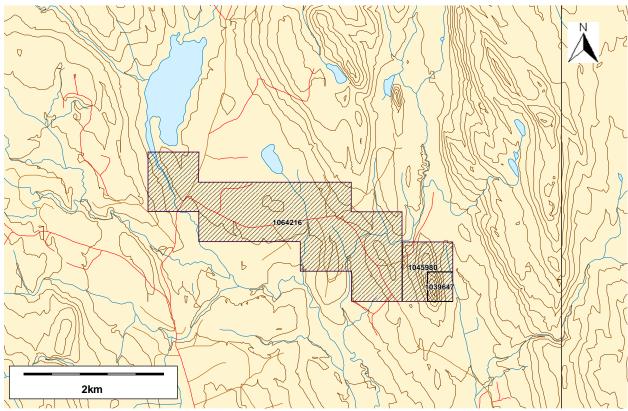


Fig. 2: Bear Hill Project Claim Map

The Claims lie in the Traditional territories of a number of local First Nations and to date no dialog has been initiated with these First Nations regarding the property. There is no guarantee that approval for the proposed exploration will be received.

Item 5: Accessibility, Climate, Local Resources, Infrastructure and Physiography Most parts of the Property are accessible by a network of private logging roads. These roads are usable during spring to fall, but are not reliably maintained when snow-covered. Connection from the provincial highway system can be obtained by private barge from Topley Landing to the east shore of Babine Lake. Alternatively, the Property is accessible year-round by helicopter from Smithers, Houston or Burns Lake.

Climate in the region is continental, periodically modified by maritime influences. Summers are cool and moist, and winters cold. Following climate statistics from Environment Canada are for Burns Lake, the town with climate most analogous to Babine Lake region. Mean January temperature is -10.5°C, and for July is 14.3°C. Extreme winter temperature may fall below -30°C for brief periods. Annual rainfall is 291.4mm and annual snowfall is 189.1mm, with mean snow accumulation of 45cm.

Anecdotal evidence indicates that the Babine Lake area can retain more than a metre of snow depth. Snow-free field operations season for exploration spans May through October, dependant on elevation and aspect relative to the sun.

The Property occupies the northern part of the Nechako Plateau, within the Intermontane Belt of north-central British Columbia. Topography consists of rolling to locally steep hills, with low-relief valleys, containing many lakes and wetlands. The property is adjacent to Babine Lake, which is the longest natural lake in British Columbia, at approximately 100km length. Vegetation is dominated by boreal mixed forest of coniferous (spruce and pine) and deciduous (alder, poplar and birch) trees, with understory of willow, berry bushes and devil's club. Wetland sedges and grasses

occupy parts of poorly-drained lowlands. Approximately 10% of the Property has been logged in the past two decades, and resultant clearcuts are in the early stage of regrowth. New roads and logging are planned for the near future in the immediate claim area.



Plate 1: Satellite Image of Bear Hill Project showing future access

Infrastructure adequate for mine development is present in the region. A residential capacity powerline connecting Fort Babine with Takla Lake exists 10km north of the Property. Also, power connection to the British Columbia grid exists at the village of Granisle, on the opposite shore of Babine Lake, 50km southwest of the Property. During operations of the Bell Copper and Granisle open pit mines, power was conducted from the Granisle substation via lake-bottom power cables. Similar infrastructure could be installed for mine development on the Bear Hill property. The Property hosts a network of private logging roads. These roads are connected to the provincial highway system by private barge from Topley Landing (near Granisle village). Numerous lakes in the area are able to supply any quantity of water needed for property development. The lower-relief areas near the property contain adequate space for concentrator site, tailing ponds or waste dumps required in any contemplated mine operation. The village of Granisle, originally constructed to serve the Granisle open-pit mine, contains adequate accommodation and basic services to support a mining operation. The communities of

Northwestern British Columbia contain industrial and consumer suppliers, and a pool of labour skilled in mining trades and professions.

#### Item 6: History

The Babine/Takla Lakes area has been explored since the discovery of copper mineralization on McDonald Island in 1913. Extensive exploration has occurred since the mid-1960's following the recognition of the potential of porphyry copper mineralization and the Granisle and Bell deposits. Various companies such as Granby Mining Company Ltd., Bethex Explorations Ltd., Canadian Superior Exploration Limited, Quintana Minerals Corporation and Noranda Exploration held claims in the area and conducted geochemical, geophysical surveys and drilled various targets without much success.

Exploration for Equity Silver type massive sulphides occurred through the 1980's following the decline in copper prices and the sharp rise in precious metal values during that time. The first documented exploration in the area around the Bear Hill property was by BP Minerals Limited in 1980. The copper/silver mineralization was apparently known to the local first nation people for many years prior to this "discovery". The company staked the Grunt 1-3 claims and in 1981 conducted extensive geological mapping and geochemical surveys involving both soil and rock sampling. A total of 263 soil and 167 rock chip samples were collected from a nine line-km grid established over the property. Values returned from the initial soil surveys were as high as 1210ppm Cu, 17ppm Ag, 2000ppm Zn, 1400ppm Pb and 4200ppm Ba. Previous interpretations suspecting a north-south trend to mineralization, parallel to the bounding graben faults, has led to the operators to contour the results using this bias, resulting in locally high but spotty and discontinuous anomalies.

The company collected numerous chip samples over the 30m wide by 60m tall Main Zone. Average metal values for the zone from oxidized bedrock are 0.1% Cu, 8.5 gm/t Ag and for the higher grade lowest line; 0.2% Cu, 19.9 gm/t Ag. BP suspected the true tenure of the mineralization to be similar to two composite rock chips of selected high grade, substantially un-weathered, sulphide material collected near the middle of the zone that returned 0.7% Cu, 70gm/t Ag.

Placer Development optioned the property and in 1982 conducted further geochemical surveys that expanded on the earlier grid. The company collected 1794 soil and silt samples on Bear Hill. A total of 35 rock chip samples were cut from several targets. Rock chip sampling at the Bear Hill main showing has confirmed the 30m wide x 60m high exposure of silver/copper mineralization. Average metal values near the top of the zone averaged 0.13% Cu and 17g/t Ag over a 30m width while sampling near the base of the showing averaged 0.52% Cu and 77gm/t Ag over 15m. Composite chip sampling at the West Showing of malachite stained rock with fine disseminated sulphide returned values of 2% Cu and 180 gm/t Ag. At the Galena showing, rock chip sampling reached maximum values of 2.3% Pb, 0.98% Zn, 0.12% Cu and 12.7 gm/t Ag.

Placer also completed 22 line-km of Magnetic and VLF-EM and 3.7 line km of Induced Polarity (IP) geophysical surveys over a select area of the grid. Two holes totaling

396.24m were drilled to test a weak IP anomaly near the base of eastern side of the hillside. Neither hole tested extensions of mineralization from the Main showing.

Little information exists in the public domain over the past 30 years despite the property being held by a number of individuals prior to being acquired by the author on December 11, 2008.

In 2010, the author completed a two day intensive evaluation of the property confirming the existence of significant grade potential over a number of areas. A two metre chip sample of weakly malachite stained volcanics near the base of the Main showing returned 1.06% Cu and 182g/t Ag. Grab samples collected near the top of the showing returned values up to 0.45% Cu, 35.1g/t Ag and 0.33% Ba. Sampling on the west side of Bear Hill, approximately 200m south of the West showing returned values up to 1.29% Cu, 389gm/t Ag and 0.2% Ba from grab samples of malachite stained maroon/grey volcanic rock. Neither the West Showing nor the Galena Showing was visited during the program

Copper Point Minerals staked a large block of claims in early 2012 surrounding the Bear Hill claims on three sides. The company conducted limited exploration in the area including sampling on the Bear Hill property owned by the author. Sampling of a small knoll roughly 1km west of the claims returned values up to 0.74% Cu, 36g/t Ag, 0.82% Pb, 0.254% Zn and 0.79% Ba. Sampling of the B-horizon soils over this knoll and elsewhere in the area did not produce any significant anomalies.

In 2016, the author supervised the collection of 39 Ah-humus geochemical samples and two rock samples on the property. Results of the 2016 sampling confirmed the grade potential at the top of the Main zone with sample 1043551 that returned 5880ppm Cu and 45.8g/t Ag. Mineralization was found over a wide area on the west side of Bear Hill in the vicinity of the West zone. Sample 1043552 returned 2.55% Cu and 334g/t Ag from a select sample of malachite stained volcanic subcrop. The humus sampling program was successful in outlining a number of precious and base metal anomalies on the property. Anomalous silver and copper concentrations on the eastern line have width of at least 175m with the Main showing situated on the northern edge. This anomaly narrows to 100m+ width on the western slope of Bear Hill and to a single station, well into the deeper glacial till suggesting a strike length of at least 400m to the mineralization. See image below for the location of geochemical sample lines and the suspected trend of the main zone Cu-Ag mineralization.

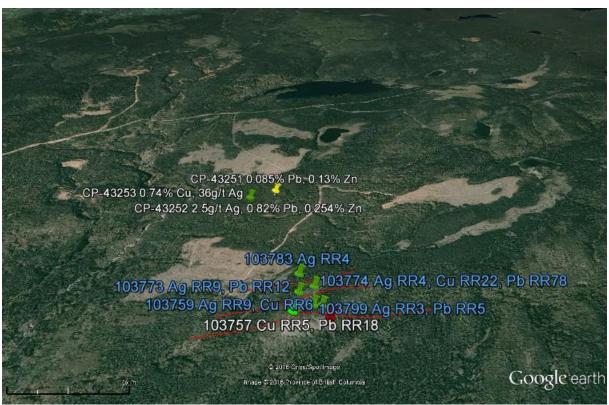


Plate 2: Bear Hill Main zone trend (image looking to the northwest)

A number of gold anomalies were also identified both north and south of the main zone anomaly. Response Ratios up to 358 x background for gold (179ppb) were returned from the southwest slope approximately 300m from the Main showing. A 300m wide anomaly with RR for gold to 40 x background exists 100m northeast of the Main showing while a second, 200m wide, anomaly with RRs for Au to 8 x background lie at the northern end of the eastern line. This anomaly remains open to the northeast. These gold anomalies generally have a strike length of at least 400m where samples were collected and an unknown strike length for the northernmost anomaly identified only on the eastern line.

#### Item 7: Geological Setting and Mineralization

#### 7.1 Regional Geology

The project area lies on the northwest side of the Skeena Arch within the Intermontane tectonic belt of west-central B C. The Babine Lake area is underlain principally by Mesozoic layered rocks, the most widespread in this area being volcanic and sedimentary rocks of the Jurassic Hazelton and Bowser Lake Groups. These are intruded by plutonic rocks of various ages including lower Jurassic Topley intrusions, Omineca intrusions of early Cretaceous age, late Cretaceous rhyolite and granodiorite porphyrites and Babine intrusions of early Tertiary age. Deformation consists of moderate folding, transcurrent boundary faults, thrusting and normal faulting. Younger early Cretaceous Skeena Group undivided sedimentary rocks and subvolcanic rhyolite

domes are preserved in a large cauldera setting roughly 24km in diameter that sits between the West Arm and Fisheries Arm of Babine Lake to the west of the property.

More locally in the Bear Hill valley, regional geology consists of Early Cretaceous Skeena Group volcanic rocks uplifted into Late Cretaceous Sustut conglomerate and sandstone. Small quartz diorite and feldspar porphyry plugs locally intrude the conglomerate. The more important volcanic rocks of the Bear Hill sequence are subaerial dacitic to basaltic porphyritic flow rocks and coarse to fine fragmental volcaniclastics. These volcanic rocks are exposed as a series of topographic knolls that are aligned along a 20 kilometer north-trending extensional structure. This structure is locally cross-cut by NW and possibly NE faults which further uplift middle Jurassic Hazelton Group - Smithers Formation marine sedimentary and volcanic rocks to the north.

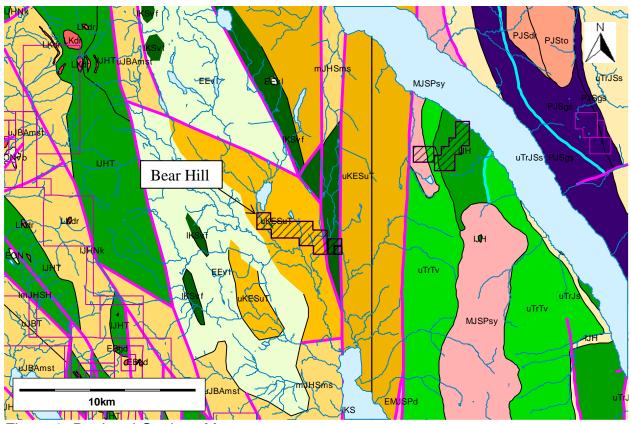


Figure 3: Regional Geology Map

#### Table 2

## **Geology Legend**

**Bounding Box:** North: 55.236 South: 54.903 West: -126.648 East: -125.878

NTS Mapsheets: 093L, 093K, 093N, 093M

_	_	_	_	n	_
	o	U	ᆮ	11	C

#### **Babine Plutonic Suite**

EBgd Biotite-Feldspar Porphyritic Phase: granodioritic intrusive rocks

EBgd Quartz Diorite to Granodiorite Phase: guartz dioritic intrusive rocks

#### Nechako Plateau Group

**EON** Newman Formation: andesitic volcanic rocks

EONva Newman Formation - Mafic Flows Member: andesitic volcanic rocks

**EONvb** Newman Formation - Porphyritic Flows Member: basaltic volcanic rocks

**EEvl Endako Formation:** coarse volcaniclastic and pyroclastic volcanic rocks

Newman Formation - Breccia Member: coarse volcaniclastic and

pyroclastic volcanic rocks

#### Late Cretaceous to Eocene

**EONvI** 

**LKdr** dioritic intrusive rocks

**Late Cretaceous** 

#### **Bulkley Plutonic Suite**

LKBdr Diorite Phase: dioritic intrusive rocks

#### **Early Cretaceous**

**EKqm** Wedge Mountain Stock: quartz monzonitic to monzogranitic intrusive

Skeena Group

IKSRvk Rocky Ridge Formation - Subvolcanic Rhyolite Domes: alkaline

volcanic rocks

IKSRvf Rocky Ridge Formation - Subvolcanic Rhyolite Domes: rhyolite, felsic

volcanic rocks

**IKS** undivided sedimentary rocks

IKSKC Kitsuns Creek Formation: undivided sedimentary rocks

**IKSRs** Red Rose Formation: undivided sedimentary rocks

Middle to Late Jurassic

#### **Bowser Lake Group**

uJBAmst Ashman Formation: argillite, greywacke, wacke, conglomerate turbidites

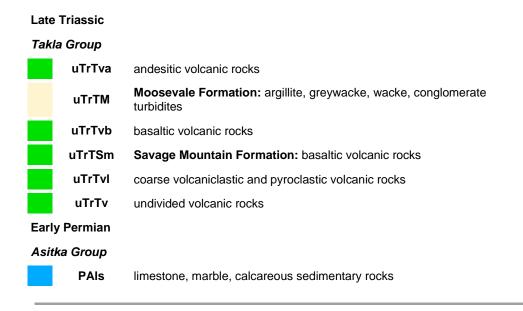
uJBT Trout Creek Formation: conglomerate, coarse clastic sedimentary rocks

Middle Jurassic

Haz	elton Group	
	mJHSms	Smithers Formation: marine sedimentary and volcanic rocks
Spil	ke Peak Intrus	sive Suite
	MJSPgd	Quartz Monzonite Phase: granodioritic intrusive rocks
	MJSPsy	syenitic to monzonitic intrusive rocks
Earl	y to Middle J	urassic
Haz	elton Group	
	ImJHSHva	<b>Saddle Hill Formation - Megacrystic Porphyry Member:</b> andesitic volcanic rocks
	ImJHSHvb	Saddle Hill Formation - Mafic Submarine Volcanic Member: basaltic volcanic rocks
	ImJHvI	coarse volcaniclastic and pyroclastic volcanic rocks
	ImJHSHcg	Saddle Hill Formation - Volcaniclastic-Sedimentary Member: conglomerate, coarse clastic sedimentary rocks
	ImJHSHvf	Saddle Hill Formation - Subvolcanic Rhyolite Domes: rhyolite, felsic volcanic rocks
	ImJHSH	Saddle Hill Formation: undivided volcanic rocks
	ImJHSHvc	Saddle Hill Formation - Intermediate Volcanic Member: volcaniclastic rocks
Spil	ke Peak Intrus	sive Suite
	EMJSPd	dioritic intrusive rocks
	<b>EMJSPgd</b>	granodioritic intrusive rocks
Earl	y Jurassic	
Haz	elton Group	
	IJH	andesitic volcanic rocks
	IJHT	<b>Telkwa Formation - Felsic to Intermediate Volcanic Member:</b> andesitic volcanic rocks
	IJHNk	Nilkitkwa Formation: argillite, greywacke, wacke, conglomerate turbidites
	IJHT	Telkwa Formation - Mafic Volcanic Member: basaltic volcanic rocks
Low	er Jurassic	
	IJHNk	Nilkitkwa Formation: undivided sedimentary rocks
Late	Triassic to E	Early Jurassic
	uTrJcg	conglomerate, coarse clastic sedimentary rocks
Тор	ley Intrusive	Suite
	LTrJTpT	Tochcha Lake Stock: dioritic intrusive rocks
	EJTpfp	Megacrystic Porphyry Dykes: feldspar porphyritic intrusive rocks

**LTrJTpgd Granodiorite to Monzonite Phase:** granodioritic intrusive rocks Porphyritic Phase: granodioritic intrusive rocks

**EJTpgd** 



#### 7.2 Property Geology

Bear Hill is underlain by late Cretaceous Skeena Group dacite and andesite flows and volcaniclastic rocks interbedded with limestone at the south end of the knoll. Volcaniclastic rocks include tuff and volcanic breccia, locally with clasts up to 30 cm across. Flows commonly contain feldspar phenocrysts up to several mm across and can form as much as 20% of the rock.

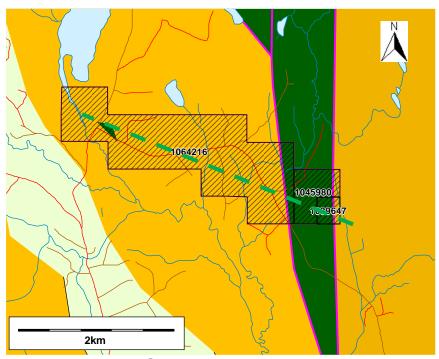


Figure 4: Property Geology Map

Outcrops of porphyritic volcanics with unusually abundant feldspar phenocrysts are exposed in the vicinity of the galena showings on the northwest end of Bear Hill and may represent small subvolcanic intrusions. Volcaniclastic rocks underlie most of the south end of Bear Hill and flows of generally more mafic composition, locally interbedded with volcaniclastics, form most of the remainder of the hill. These rocks are similar to those located between the West Arm and Fisheries Arm of Babine Lake and have been suggested by BCGS geologists to be correlative to the units associated with

the Eskay Creek deposit. At the Main showing, the volcanics are cut by abundant white barite-quartz lenses, pods and less regular bodies commonly a few cm thick which locally forms several percent of the rock. A small showing of similar rocks has been mapped at the junction of the Bear Hill access road and the Jinx Main road. This occurrence lies along the suspected trace of the Bear Hill Main zone trend as outlined by recent geochemical surveys (green dashed line).

#### 7.2.1 Structure

Flow banding in dacite in the vicinity of the Main Showing shows an east to southeast strike and variable, steeply northern to moderate southwest dips. The volcanics are typically cut by moderate to close spaced joints and fractures. Numerous small, <1m, shear zones were noted during the 2010 visit with trends from NW to NE. At the time of the initial programs, the Main zone did not appear to have any stratigraphic or structural association though higher grade mineralization was noted to be associated with pervasive small scale angular brecciation of secondary origin. The mineralization at the Main Showing forms a northwest trending, apparently steep dipping zone 30 m wide which is exposed over the full height of outcrop at the east side of Bear Hill, indicating a minimum vertical dimension of approximately 60 m. (Findlay and Hoffman, 1981)

#### 7.2.2 Alteration

The volcanic rocks show widespread weak clay alteration. Minor silicification was observed by BP personnel along the southeast crest of the hill, south of the Main Showing, where dacite contains abundant fine grained quartz in small veinlets and irregular patches. These veinlets are locally stained brick red with fine grained iron oxides. Fine grained carbonate is widespread and occurs both disseminated and in small irregular veinlets, patches and fracture coatings. In general, carbonate alteration is more abundant on the northern part of Bear Hill. Earthy manganese oxides are ubiquitous on Bear Hill, and are abundant within volcanics exposed along the northwestern flank of the hill, particularly in the vicinity of the galena occurrences. The apparent abundance of manganese oxides in bedrock shows a broad correlation with soil Mn values, which locally exceed 500 ppm along the northwest flank of Bear Hill. Rocks with unusually abundant Mn stain contain between 2,000 and 3,200 ppm Mn. Manganese oxides, where abundant, are often accompanied by earthy brick red hematite. (Findlay and Hoffman, 1981)

#### 7.2.3 Mineralization

Silver, copper mineralization occurs in malachite stained dacite in numerous locations on Bear Hill. At the Main zone, mineralization exists over a 30 m width and the full 60m height of the showing exposure. The volcanics are cut by abundant white barite-quartz lenses, pods and less regular bodies commonly a few cm thick which locally forms several percent of the rock. High silver and copper values in unweathered rock seem to occur as disseminated very fine grained chalcopyrite, bornite and possibly chalcocite. These sulphides typically form less than 2% of the rock and are often most abundant both within and immediately adjacent to the barite-quartz bodies. The highest grades of silver are associated with late pervasive small scale angular brecciation of the host volcanics. Weathered volcanics near the base of the Main showing returned 0.2% Cu

and 19.9g/t Ag while samples of fresh sulphide averaged 0.6% Cu and 70g/t Ag (Findlay and Hoffman, 1981). A two metre chip sample of weathered volcanics, collected by the author in 2010, near the base of the showing, returned 1.06% Cu and 182g/t Ag. Grab samples collected near the top of the Main showing returned values up to 0.59% Cu, 45.8g/t Ag and 0.33% Ba.

At the West showing, much higher grades of both copper and silver occur in rubble crop over approximately 30 m. A composite rock chip sample of malachite rich rock collected in 1980 returned values of 2% Cu and 180g/t Ag. Select samples of similar mineralization collected by the author returned 2.55% Cu and 334g/t Ag. Approximately 200m south of the West zone, a similar area of subcrop returned values up to 1.29% Cu, 389gm/t Ag and 0.2% Ba from grab samples of malachite stained maroon/grey volcanic rock. Minor galena, locally accompanied by sphalerite and malachite, occurs in altered andesite along the northwest flank of Bear Hill at the Galena showing.

#### 7.3 Property Geophysics

The 1<sup>st</sup> derivative magnetic data collected from the Quest West survey shows a strong correlation with the older Skeena group volcanics fault bounded by the Sustut group sediments. The magnetic high anomaly associated with the volcanic rocks appears to be cut by a NE trending structure north of Bear Hill. A second possible fault is associated with a noticeable NW trending air photo linear and prominent, historic Bhorizon. Ag anomalies. . These possible faults

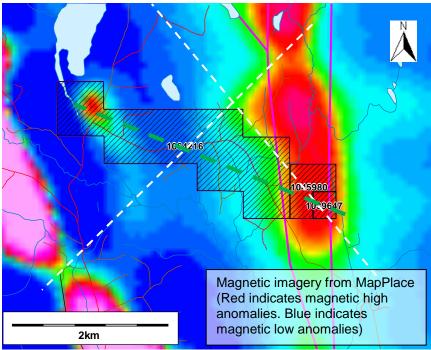


Figure 5: 1<sup>st</sup> Vertical Derivative Magnetics (Quest West)

would probably be Eocene or younger in age. The apparent trend of the Bear Hill Cu-Ag mineralization (shown in green) would cross-cut both of these faults indicating an even younger age.

Recent data from the Search II airborne magnetic survey presents a similar picture to the Quest West data with a more detailed resolution, especially over the small occurrence of Skeena Group dacite and andesite flows and volcaniclastic rocks mapped at the junction of the Bear Hill access road with the Jinx Main. The magnetic anomaly suggests a much larger occurrence to the northwest than indicated on the Quest West

geophysical and geology maps with a possible second body of similar magnetism located approximately 1km to the south.

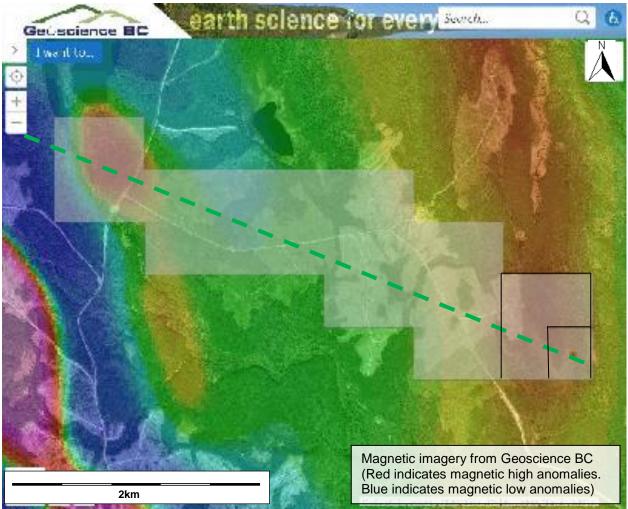


Figure 6: 1<sup>st</sup> Vertical Derivative Magnetics (Search II)

#### **Item 8: Deposit Types**

The most important mineral occurrences in the area of the Property are porphyry copper-molybdenite-gold deposits associated with the Late Cretaceous Bulkley intrusions and the Eocene Babine intrusions. There is also epithermal or high sulphidation VMS potential with silver-lead- zinc mineralization similar to that at the Fireweed prospect in Skeena Group rocks. Potential also exists for Besshi-type massive sulphides, volcanic redbed copper deposits, polymetallic veins with silver-lead-zinc and possibly gold, and intrusion related gold-pyrrhotite deposits. The primary focus for exploration on the Property is for precious metal enriched VMS with a secondary focus on calc-alkaline porphyry copper-molybdenum-gold/silver deposits.

#### 8.1 High and Low Sulphidation VMS Deposits

Analogous to epithermal precious metal deposits, volcanogenic massive sulphide

(VMS) deposits are recently recognized to occur in two associations: high- and low sulphidation. High sulphidation VMS have been only recently recognized in the geological record, and are notable for their exceptionally high grades of gold and silver, in addition to their base metal content.

#### 8.1.1 Low Sulphidation VMS Deposits

Based on the mineralogical classification used for epithermal deposits, the majority of volcanogenic massive sulphide (VMS) deposits, could be classified as low sulphidation. These VMS deposits formed from an ore fluid that was dominated by modified seawater, and as with low sulphidation epithermal deposits, evidence for magmatic contributions to these systems is limited.

#### 8.1.2 High Sulphidation VMS Deposits

Certain VMS deposits and seafloor occurrences contain mineralogy that suggests that a high sulphidation classification is appropriate. These high sulphidation VMS deposits probably formed from magmatic hydrothermal systems that were active in submarine settings. High sulphidation deposits form in magmatic-hydrothermal systems according to Thompson (2007). In a similar manner, Dubé et al. (2007) describe a class of deposits that are a subtype of both volcanogenic massive sulphide (VMS) and lode gold deposits, namely gold-rich VMS deposits. Like most VMS deposits, they consist of semi-massive to massive, concordant sulphide lenses underlain by discordant stockwork feeder zones. They have diverse geochemical signatures dominated by Au, Ag, Cu and Zn and often accompanied by elevated concentrations of As, Sb, Pb, Te and Hg.

Figures 7 and 8 demonstrate schematically the geological and spatial characteristics of these types of VMS deposits. High-sulphidation VMS deposits can also be described as shallow submarine hot spring deposits. They are represented by stratiform Au-Ag barite deposits, pyritic Cu-Au stockworks, and auriferous polymetallic sulfides.

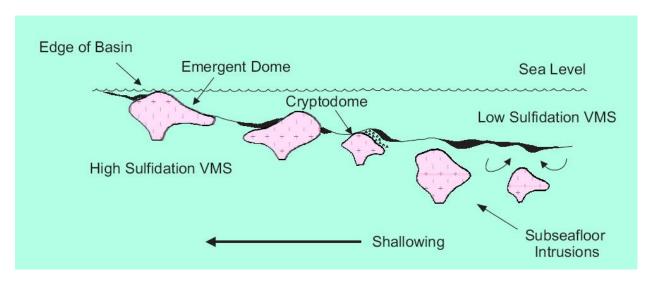


Figure 7: Development of high-sulphidation versus low-sulphidation hydrothermal systems in a submarine setting in relation to the depth of emplacement of associated sub-volcanic intrusions (from Dubé et al., 2007; after Hannington et al., 1999)

# Eskay Creek Gold-Silver-Rich VMS Deposit Classification and Mineralization Types

In British Columbia, perhaps the best example of production from this high sulphidation subclass of volcanogenic massive sulphide deposit is the Eskay Creek deposit located 75 kilometres northwest of Stewart. At Eskay Creek, mineralization is a stratabound assemblage of volcanogenic massive sulphide mineralization and stockwork vein systems with local high-grade gold-silver replacement mineralization. The Eskay Creek deposits are examples of shallow subaqueous hot spring deposits, an important new class of submarine mineral deposits that has only recently been recognized in modern geological environments. The deposit type is transitional between subaerial hot spring Au-Ag deposits and deeper water, volcanogenic massive sulphide exhalites (Kuroko or Besshi types) and shares the mineralogical, geochemical, and other characteristics, of both.

According to Roth (2002) and Roth et al. (1999), the mineralization is described as follows:

Stratiform mineralization is hosted in marine mudstone at the contact between underlying rhyolite and overlying basalt packages. This succession forms the upper part of the Lower to Middle Jurassic Hazelton Group. At the same stratigraphic horizon as the 21B zone are the 21A zone, characterized by As-Sb-Hg sulphides, and the bariterich 21C zone. Stratigraphically above the 21B zone, mudstones host a localized body of base-metal-rich, relatively precious metal poor, massive sulphide (the "hanging wall" zone). Stockwork vein mineralization is hosted in the rhyolite footwall in the Pumphouse, Pathfinder and 109 zones. The Pumphouse and Pathfinder zones are characterized by pyrite, sphalerite, galena and chalcopyrite rich veins and veinlets hosted in strongly sericitized and chloritized rhyolite. The 109 zone comprises gold-rich

quartz veins with sphalerite, galena, pyrite, and chalcopyrite associated with abundant carbonaceous material hosted mainly in siliceous rhyolite.

The 21B zone consists of stratiform clastic sulphide-sulphosalt beds. The ore minerals are dominantly sphalerite, tetrahedrite and Pb-sulphosalts with lesser freibergite, galena, pyrite, electrum, amalgam and minor arsenopyrite. Sphalerite in the 21B zone is typically Fe-poor. Stibnite occurs locally in late veins and as a replacement of clastic sulphides. Rare cinnabar is associated with the most abundant accumulations of stibnite. Barite occurs as isolated clasts and in the matrix of bedded sulphides and sulphosalts, or as rare clastic or massive accumulations, mainly in the northern portion of the deposit and in the 21C zone.

The clastic ore beds in the 21B zone show rapid lateral facies variations. Individual beds range from <1 mm to 1 m thick. The thickest beds occur at the core of the deposit and comprise sulphide cobbles and pebbles in a matrix of fine grained sulphides. These beds have an elongate trend, which approximately defines the long axis of the deposit, and which probably were deposited in a channel-like depression.

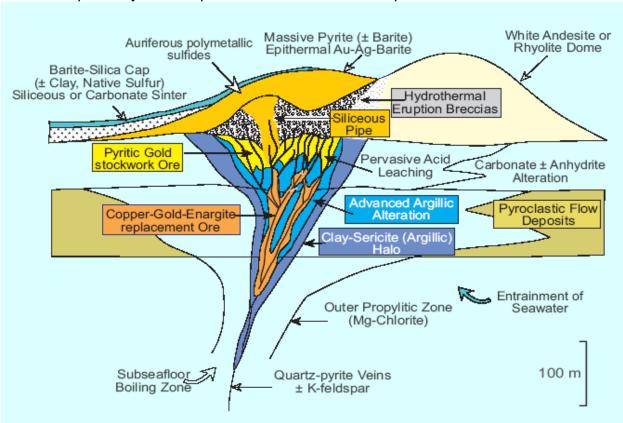


Figure 8: Geological setting of Au-rich high sulphidation VMS systems (from Dubé et al., 2007).

Lithic clasts within the beds are mainly chloritized rhyolite and black mudstone. Angular, laminated mudstone rip-up clasts have locally been entrained within the clastic sulphide-sulphosalt beds. Both laterally and vertically, the ore beds become

progressively thinner, finer grained and interbedded with increasing proportions of intervening black mudstone. Vertically successive clastic beds, either graded or ungraded, vary from well to poorly sorted. Bedded ore grades outwards from the core of the deposit into areas of very fine grained, disseminated sulphide mineralization.

#### **Cumulative Gold and Silver Production**

Based on data available from the BC Geological Survey Branch MINFILE and "Exploration and Mining" reports to the end of 2006, Barrick Gold Corporation websites for 2007, and R. Boyce, P. Geo. personal communication, the authors estimate that cumulative production at Eskay Creek until closure in early 2008, was 102.00 tonnes of gold and 4,995.24 tonnes of silver (3,279,415 oz gold, 160,597,110 oz silver) from 2,238,255 tonnes of production milled.

The grade of production was an exceptional 45.57 g/t gold and 2,231 g/t silver (1.33 oz/ton gold and 65.1 oz/ton silver) over the life of the mine. These cumulative estimates have not been audited by the authors and are subject to revision when the production for the final 14 months of mine operation is publically reported.

This clearly demonstrates the exceptionally high grade nature of this style of high sulphidation VMS mineralization. While Eskay Creek was considered primarily a gold deposit, it was the fifth largest silver producer in the world during its mine life (Massey, 1999).

#### Salmon River Formation Rift Setting

The Eskay Creek VMS mineralization is closely related to an assemblage of rift-related volcanic and sedimentary rocks and to controlling fault structures that bound and crosscut the local rift basins. Metallogenic studies by the Mineral Deposit Research Unit (MDRU), and federal and provincial government geological survey branches have determined the Eskay Creek mine sequence is a Lower to Middle Jurassic succession of bi-modal volcanism and clastic sedimentation, termed the Salmon River Formation, a sub-division of the regional Hazelton Group.

#### 8.2 Calc-Alkaline Porphyry Copper-Gold Deposits

According to Panteleyev (1995), Volcanic-type calc-alkaline porphyry copper-gold deposits are characterized by stockworks of quartz veinlets and veins, closely spaced fractures, disseminations and breccias, containing pyrite and chalcopyrite with lesser molybdenite, bornite and magnetite, occurring in large zones of economically bulk mineable mineralization, in or adjoining porphyritic stocks, dikes and related breccia bodies. Intrusions compositions range from calc-alkaline quartz diorite to granodiorite and quartz monzonite. Commonly there are multiple emplacements of successive intrusive phases and a wide variety of breccias.

The mineralization is spatially, temporally and genetically associated with hydrothermal alteration of the host rock intrusions and wallrocks. Propylitic alteration is widespread and generally flanks early, centrally located potassic alteration which is commonly well mineralized. Younger mineralized phyllic alteration commonly overprints the early

mineralization. Barren advanced argillic alteration is rarely present as a late, high-level hydrothermal carapace.

Ore controls include igneous contacts, both internal between intrusive phases, and external with wallrocks; dike swarms, breccias, and zones of most intense fracturing, notably where there are intersecting multiple mineralized fracture sets.

Porphyry Cu-Au deposits have been the major source of copper for British Columbia, and a significant source of gold. Median values for 40 B.C. deposits with reported reserves are: 115 Mt with 0.37 % Cu, 0.01 % Mo, 0.3g /t Au and 1.3 g/t Ag.

#### 8.2.1 Babine Lake District Porphyry Copper-Gold Deposits

Common features shared by porphyry copper-gold deposits in the Babine Lake district include (Carter et al, 1995) porphyritic host lithology, concentric alteration, pyrite halo, polymetallic peripheral veins and coincident north to northwest trending regional faults.

Associated biotite-feldspar, hornblende-feldspar, or feldspar porphyry plugs and dikes are commonly less than one square kilometre. They are ubiquitously mineralized with magnetite. The cores of the deposits show a potassic alteration that is dominated by biotite, and commonly contains magnetite. Annular phyllic (quartz-sericite-pyrite) alteration surrounds the core sections. Pyrite halos surrounding deposits are up to 300 metres wide.

Mineralization is principally chalcopyrite and pyrite, with lesser bornite, and possibly molybdenite, occurring as disseminations, fracture coatings and in fine stockworks of quartz.

Exploration guides (Carter et al. 1995) are summarized:

- 1. Ubiquitous magnetite in the host intrusive, and common magnetite in the central potassic alteration zone make an excellent target for magnetic surveys.
- 2. Pyrite halos provide a broad target for which induced polarization (IP) technique is very effective.
- Copper signature in soil samples ranges from 100ppm to 500ppm for individual deposits.
- 4. Zinc signature in soils is effective in detecting the outer margin of the pyrite halo.
- 5. Target grades for economic deposits are 0.45% Cu and 0.23 g/t Au.

Panteleyev (1995) indicates that central zones with Cu commonly have coincident Mo, Au and Ag with possibly Bi, W, B and Sr anomalies. Peripheral enrichment in Pb, Zn, Mn, V, Sb, As, Se, Te, Co, Ba, Rb and possibly Hg is documented.

#### Item 9: Exploration

The 2017 exploration program consisted of the collection of 39 Ah-humus samples on three transects across an area immediately west of the property, on strike of the Bear Hill Main zone trend identified from previous surveys. Samples were collected at 100m

intervals on lines spaced between 1000m and 2000m apart. Where sulphide or oxide mineralization was encountered as float or in outcrop, a representative sample was collected for analysis. Coordinates were recorded at each humus and rock sample site. Three rock samples were collected during the program.

**Table 3: Rock Sample Descriptions** 

Sample	UTM	UTM	Sample	Sample Description
#	easting	northing	type	
1043572	686284	6139866	float	Angular cobble of brecciated felsic volcanic flow with strong
			grab	clay alteration of feldspar, trace biotite, trace dk grey quartz
				veinlets. Rock is pale green on weathered surfaces.
1043573	686558	6139246	outcrop	Medium green andesite tuff with pale blue-green replacement
			grab	of some biotite. Near Copper Point minerals sample 43252
				(705ppm Cu, 3370ppm Ba, 2.5ppm Ag) and sample 43253
				(7390ppm Cu, 7670ppm Ba, 36ppm Ag). Neither sample
				location confirmed.
1043574	686572	6139264	outcrop	Medium green andesite tuff with trace Py
			grab	

Results of the 2017 rock sampling did not return any significant base or precious metal results. Two of the samples 1043573 and 1043574 contained anomalous values for Ti, up to 0.387% and P, up to 2120ppm. Assay certificates can be found in Appendix D.

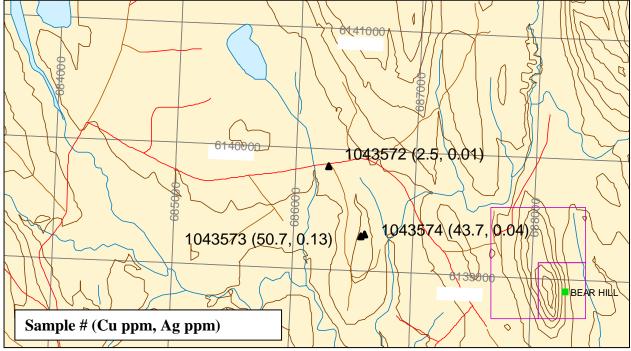


Figure 9: Sample Location Map - Rock

The humus sampling program was successful in further outlining a number of precious and base metal anomalies on trend with mineralization found on the property. Anomalous silver, copper and gold concentrations in Ah-humus have now extended the

strike potential to in excess of 4000m from the Bear Hill Main showing. The zone has an apparent width of approximately 200m on the 2017 western line and an apparent width of 300m on the 2017 central line. The zone again narrows to approximately 100m on the 2017 eastern line which lies 550m east of the 2016 sampling. As with the 2016 geochemical survey, a number of anomalous sample sites lie both north and south of the suspected Main zone trend. The survey returned maximum Response Ratios for Au of 26 x background in sample 1043680 which lies on the 2017 eastern sample line. The sample location map for the geochemical survey is located in Appendix A while maps showing the elemental results of the survey are located in Appendix B. Assay certificates for the humus sampling is located in Appendix C.

Certificates for the humus sampling is located in Appendix C.

1043697 Au RR20

1043697 Au RR30

1043697 Au RR20

1043697 Au RR30

1043697 Au RR20

1043697 Au RR30

1043697 Au RR20

1043697 Au RR20

1043697 Au RR30

1043697 Au RR20

1043697 Au

Plate 3: Satellite Image Showing Sample Transects and Anomalous Sample Sites

**Table 4: Humus Sample Descriptions** 

Sample #	UTM easting	UTM northing	Sample type
1043674	687387	6139689	Ah
1043675	687379	6139623	Ah
1043676	687328	6139523	Ah
1043677	687301	6139428	Ah
1043678	687209	6139329	Ah
1043679	687259	6139237	Ah
1043680	687225	6139137	Ah
1043681	687183	6139044	Ah

1043682	687149	6138951	Ah
1043683	687134	6138850	Ah
1043684	686249	6140095	Ah
1043685	686271	6139991	Ah
1043686	686285	6139894	Ah
1043687	686323	6139804	Ah
1043688	686378	6139707	Ah
1043689	686420	6139619	Ah
1043690	686458	6139525	Ah
1043691	686509	6139438	Ah
1043692	686565	6139353	Ah
1043693	686593	6139258	Ah
1043694	686611	6139161	Ah
1043695	686631	6139058	Ah
1043696	686692	6138981	Ah
1043697	686742	6138885	Ah
1043698	686773	6138790	Ah
1043699	686788	6138691	Ah
1043700	684066	6139755	Ah
1043701	684084	6139854	Ah
1043702	684119	6139948	Ah
1043703	684155	6140047	Ah
1043704	684215	6140126	Ah
1043705	684267	6140212	Ah
1043706	684321	6140298	Ah
1043707	684350	6140390	Ah
1043708	684396	6140499	Ah
1043709	684428	6140580	Ah
1043710	684456	6140680	Ah
1043711	684481	6140772	Ah
1043712	684502	6140872	Ah

Response Ratios (RRs) are an efficient method of handling trace and ultra-trace data where absolute values are often meaningless. Stacked profiles offer a visual picture of areas that are considered anomalous compared to background values. The following charts offer transects across the property at three locations. The data is presented from

the east transect to the west transect with all charts having south to the left and north to the right. (ie. looking west-northwest).

The eastern line shows the suspected Main zone Cu/Ag zone trend over 100m between samples 1043680 and 1043681 with weak to moderate Ag, Cu, As and Ba RRs. Flanking Au anomalies are present at 1043683 to the south and 1043675 and 1043676 to the north

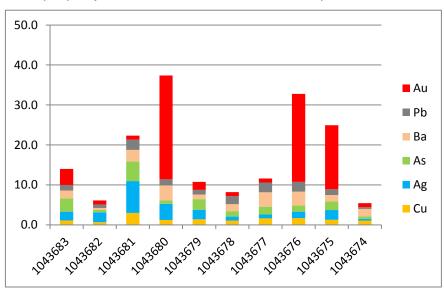


Figure 10: Stacked RRs 2017 East line

with RRs up to 22 x background.

The 2017 central line has the Main zone trend over 300m between samples 1043687

and 1043690 with moderate Ag and As RRs and strongly anomalous Au RRs up to 14 x background. A second area of weakly anomalous Ba between samples 1043696 and the south end of the line at sample 1043699 surrounds a moderate Aq and Au anomaly at sample 1043698. The sample returned RRs of 5.9 for Ag and 8 x background for Au.

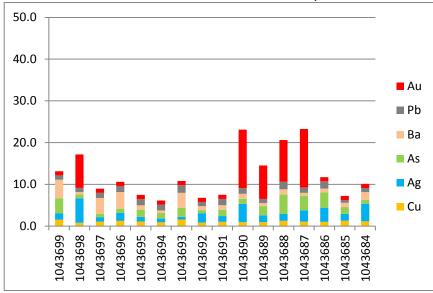


Figure 11: Stacked RRs 2017 Central Line

The 2017 west transect shows a 200m wide zone of moderately anomalous Ba and As with weak Pb and Ag anomalies north (right) of sample 1043703. Sample 1043705 is also strongly anomalous in Au with a RR of 20 x background. The north end of the transect suggests an open ended 100m wide moderate Aq+/- Au anomaly between at samples 1043711 and 1043712.

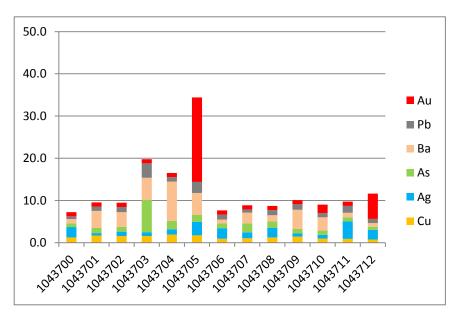


Figure 12: Stacked RRs 2017 West Line

Plots of certain indicator elements support the base and precious metals RR plots above and can be used to sometimes map underlying geology in that cerium (Ce) and Lanthanum (La) are often found in anomalous concentrations in soils above acid intrusions. Concentration of Fe in soils is often an indication of oxidizing sulphides below.

On the eastern transect at sample 1043681, a mineralized acid intrusion is suggested with anomalous Fe, Ce and La as well as Aq. As. Co. U and weakly anomalous Cu, Pb, Bi, Cd and Sb. A weak Fe anomaly is present at the southern end of the line at sample 1043683 and between samples 1043675 and 1043677 which were also strongly anomalous in Au over a width of 100m.

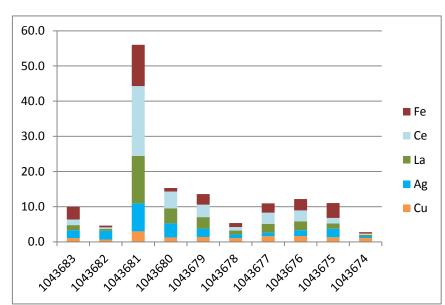


Figure 13: Stacked RRs 2017 East Line-Intrusive Indicators

The 2017 central transect is fairly subdued with weak Fe anomalies at samples 1043699, 1043695 and 1943693 with no supporting precious metals anomalies. A weak Fe anomaly between samples 1043685 and 1043688 corresponds with a partially overlapping strong Au anomaly with RRs up to 14 x background.

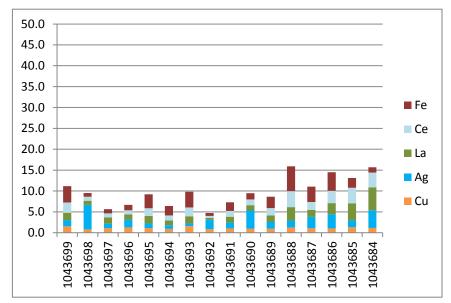


Figure 14: Stacked RRs 2017 Central Line-Intrusive Indicators

The western transect sampled as part of this program shows two anomalies. A 200m wide moderate to strong anomaly of Fe, Ce, La is present between samples 1043703 and 1043705 with RRs for Fe to 14, Ce to 8 and La up to 5.6 x background. This area

corresponds to the strong Au, moderate Ba and As with weak Pb and Ag anomalies mentioned above and is believed to represent the westernmost indication of mineralization similar to the Bear Hill Main zone. A second weak to moderate anomaly for Ce and La exists between samples 1043707 and 1043709. This area does not show any precious metal enrichment and is likely a barren intrusive.

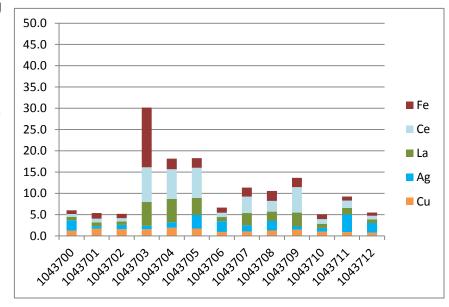


Figure 15: Stacked RRs 2017 West Line-Intrusive Indicators

#### Item 10: Drilling

No drilling was completed as part of the exploration program.

#### Item 11: Sample Preparation, Analyses and Security

All rock samples collected were placed in clean 12x20 poly bags with a sample tag and tied closed with flagging tape. Ah-humus samples were collected in clean 9x12 poly

bags, labeled with a sample tag and tied closed with flagging tape. The samples were transported to Francois Lake where they were placed into a woven rice bag and sealed with a zip tie. Samples were then transported to Prince George and then shipped to the ALS Minerals laboratory in North Vancouver.

Rocks were initially crushed to 70% passing 2mm. A 250g sub-sample was then split and pulverized to 85% passing 75 microns. Rock samples were analyzed for 33 elements plus gold. 30g splits were subjected to a four acid digestion prior to elemental determination using ICP-AES (ME-ICP61). Gold determinations were completed using a Fire Assay of a 30g split (ICP21).

Humus samples were screened to -180micron (-80 mesh). A 0.5g sub-sample was split and leached in hot aqua regia digestion prior to using Super Trace analytical procedures (ME-MS41L). Humus samples were analyzed for 52 elements plus gold. Gold determinations were also completed using a Fire Assay of a 25g split (ICP21).

#### Item 12: Data Verification

No data verification was completed as part of the exploration program.

#### Item 13: Mineral Processing and Metallurgical Testing

No mineral processing or metallurgical testing was completed as part of the exploration program.

#### **Item 14: Mineral Resource Estimates**

No mineral resource estimates were completed as part of the exploration program

#### **Item 15: Adjacent Properties**

Porphyry copper-gold deposits and occurrences in the Babine district, located approximately 9km to the southwest, described below, serve as analogues to the exploration model applied to the Property. The table below lists resources and production from major deposits in the district. The values from Bell and Granisle predate NI 43-101 reporting standards and should not be considered reliable. They are included as geological information only.

Table 5: Resources and Production of major Babine Porphyry Deposits

Property	Mineral F	neral Resource Mined			Reference	Category		
	Million Tonnes	Cu %	Au g/t	Million Tonnes	Cu %	Au g/t		
Bell	296	0.46	0.20	77.2	0.47	0.26	Carter et al, 1995	non NI 43-101 compliant
Granisle	119	0.41	0.15	52.7	0.47	0.20	Carter et al, 1995	non NI 43-101 compliant
Morrison	207	0.39	0.2				Simpson, 2007	measured+ indicated
Hearne Hill	0.14	1.73	8.0				Simpson, 2008	indicated

The author has been unable to verify the information on mineral occurrences and deposits detailed below. Mineralization style and metal grades described are not

necessarily representative of mineralization that may exist on the subject Property, and are included for geological illustration only. The mine and mineral occurrence descriptions described as follows are modified after the BC MINFILE occurrence descriptions and BC ARIS assessment report files.

#### 15.1 Bell Copper Mine (Minfile 093M 01, rev. McMillan, 1991)

The Bell mine is a porphyry copper deposit hosted primarily in a biotite-feldspar porphyry (BFP) stock of the Eocene Babine Intrusions. The stock is crosscut by the northwest trending Newman fault which juxtaposes the two groups that host the intrusion. These groups are the Lower Jurassic Telkwa Formation (Hazelton Group) and the Lower Cretaceous Skeena Group. Telkwa Formation rocks are primarily fine grained tuffs and andesites and the younger Skeena Group rocks are mostly fine grained greywackes. The deposit overlaps onto both of these assemblages. The mineralization has been dated at 51.0 million years (Bulletin 64).

Chalcopyrite and lesser bornite occur as disseminations in the rock matrix, in irregular quartz lenses and in a stockwork of 3 to 6- millimetre quartz veinlets which cut the feldspar porphyries and the siltstones. Molybdenite is rare, and occurs in the feldspar porphyry in the northern part of the mineralized zone. Gold occurs as electrum associated with the copper mineralization. Specular hematite and magnetite are common in quartz veinlets and hairline fractures. There is also significant supergene enrichment with chalcocite coating chalcopyrite. A supergene chalcocite zone capped the deposit and extended to depths of 50 to 70 metres. Some gypsum together with copper-iron sulphate minerals and iron oxides were also present (Open File 1991-15).

The ore zone has pervasive potassic (mainly biotitization) alteration with a surrounding concentric halo of chlorite and sericite-carbonate alteration (propylitic and argillic) which corresponds to the two kilometre pyrite halo which surrounds the deposit. A late quartz-sericite-pyrite-chalcopyrite alteration has been superimposed on part of the earlier biotite-chalcopyrite ore at the western part of the ore body. A number of late-stage breccia pipes cut the central part of the ore zone near the Newman fault and alteration associated with their intrusion has apparently depleted the copper grades in the area of the pipes. Veinlets of gypsum are present in the upper part of the ore body. Anhydrite is a significant component in the biotite chalcopyrite zone but is not present in other alteration facies. Monominerallic veinlets of anhydrite are rare (Open File 1991-15).

The copper mineralization occurs in a crescent-shaped zone along the western contact of the porphyry plug. Better grades of copper mineralization are contained in a 60 by 90-metre thick flat-lying, blanket-like deposit which is connected to a central pipe-like zone, centred on the western contact of the intrusive. The pipe-like zone of copper mineralization is 150 metres in diameter and extends to a depth of at least 750 metres.

Reserves in the open pit and in the Extension zone were (in 1990) 71,752,960 tonnes grading 0.23 gram per tonne gold, 0.46 per cent copper and 0.48 gram per tonne silver (Noranda Inc. Annual Report 1990).

#### 15.2 Granisle Mine (Minfile 093L 146, rev. Duffett, 1987)

MacDonald Island is underlain by Lower-Middle Jurassic Telkwa Formation (Hazelton Group) volcanics comprised of green to purple waterlain andesite tuffs and breccias with minor intercalated chert pebble conglomerates in the central and eastern part of the island. These rocks strike northerly and dip at moderate angles to the west and are overlain in the western part of the island by massive and amygdaloidal andesitic flows and thin bedded shales.

Copper mineralization at the Granisle mine is associated with a series of Eocene Babine Intrusions which occur in the central part of the island. The oldest is an elliptical plug of dark grey quartz diorite approximately 300 by 500 metres in plan. The most important intrusions are biotite-feldspar porphyries of several distinct phases which overlap the period of mineralization. The largest and oldest is a wide north easterly trending dike which is intrusive into the western edge of the quartz diorite pluton. The contact is near vertical and several small porphyry dikes radiate from the main dike. Several of the phases of the porphyry intrusions are recognized within the pit area. Potassium-argon age determinations on four biotite samples collected in and near the Granisle ore body yielded the mean age of 51.2 Ma plus or minus 2 Ma (Minister of Mines Annual Report 1971).

The wide porphyry dike which strikes northeast is bounded by two parallel northwest striking block faults. The westernmost crosses the island south of the mine and the eastern fault extends along the channel separating the island from the east shore of Babine Lake.

An oval zone of potassic alteration is coincident with the ore zone. The main alteration product is secondary biotite. This potassic alteration zone is gradational outward to a quartz-sericite- carbonate-pyrite zone which is roughly coaxial with the ore zone. Within this zone, the intrusive and volcanic rocks are weathered to a uniform buff colour with abundant fine-grained quartz. Mafic minerals are altered to sericite and carbonate with plagioclase clouded by sericite. Pyrite occurs as disseminations or as fracture-fillings. Beyond the pyrite halo, varying degrees of propylitic alteration occurs in the volcanics with chlorite, carbonate and epidote in the matrix and carbonate-pyrite in fractured zones. Clay mineral alteration is confined to narrow gouge in the fault zones.

The principal minerals within the ore zone are chalcopyrite, bornite and pyrite. Coarse-grained chalcopyrite is widespread, occurring principally in quartz-filled fractures with preferred orientations of 035 to 060 degrees and 300 to 330 degrees with near vertical dips. Bornite is widespread in the southern half of the ore zone with veins up to 0.3 metres wide hosting coarse-grained bornite, chalcopyrite, quartz, biotite and apatite.

Gold and silver are recovered from the copper concentrates. Molybdenite occurs within the ore zone, most commonly in drusy quartz veinlets which appear to be later than the main stage of mineralization. Magnetite and specularite are common in the north half of the ore zone where they occur in fractures with chalcopyrite and pyrite. Pyrite occurs in

greatest concentrations peripheral to the orebody as blebs, stringers and disseminations.

Mining at Granisle was suspended in mid-1982. Production from 1966 to 1982 totalled 52,273,151 tonnes yielding 69,752,525 grams of silver, 6,832,716 grams of gold, 214,299,455 kilograms of copper and 6,582 kilograms molybdenum.

Unclassified reserves are 14,163,459 tonnes grading 0.442 per cent copper (Noranda Mines Ltd. Annual Report 1984).

Remaining in situ reserves, as modelled in 1992 using a 0.30 per cent copper cutoff, are estimated to be 119 million tonnes grading 0.41 per cent copper and 0.15 grams per tonne gold (CIM Special Volume 46, page 254).

#### 15.3 Morrison-Hearne Hill Project (From Simpson, 2007)

The Morrison deposit is a calc-alkaline copper-gold porphyry hosted by a multi-phase Eocene intrusive body intruding Middle to Upper Jurassic Ashman Formation siltstones and greywackes. Copper-gold mineralization consists primarily of chalcopyrite and minor bornite concentrated in a central zone of potassic alteration. A pyrite halo is developed in the chlorite-carbonate altered wall rock surrounding the copper zone.

Sulphide mineralization at Morrison shows strong spatial relationships with the underlying biotite-feldspar porphyry (BFP) plug and associated alteration zones. The central copper-rich core is hosted mainly within a potassically altered BFP plug with intercalations of older siltstone. This plug was initially intruded into the siltstone unit as a near-vertical sub-circular intrusion approximately 700 m in diameter. It was subsequently disrupted by the East and West faults and now forms an elongated body extending some 1500 metres in the northwest direction.

Chalcopyrite is the primary copper-bearing mineral and is distributed as fine grained disseminations in the BFP and siltstone, as fracture coatings or in stockworks of quartz. Minor bornite occurs within the higher grade copper zones as disseminations and associated with the quartz-sulphide stockwork style of mineralization.

Alteration is concentrically zoned with a central biotite (potassic) alteration core surrounded by a chlorite-carbonate zone. No well-developed phyllic zone has been identified.

Hearne Hill deposit lies two kilometres southeast of Morrison. The Hearne Hill Property has been extensively explored, and a comparatively small but high grade copper-gold resource has been defined in two breccia pipes within a larger porphyry system.

#### 15.4 Wolf (Minfile 093M 008, rev. McMillan, 1991)

The Wolf prospect is located on the west side of Morrison Lake, The Wolf area has been explored since 1965 when it was staked as the Bee claims.

A granodiorite stock containing phases of quartz monzonite and hornblende biotite feldspar porphyry of the Eocene Babine Intrusions cuts grey, locally graphitic siltstones of the Middle to Upper Jurassic Ashman Formation (Bowser Lake Group). A north-northwest trending block fault separates Ashman Formation rocks from volcaniclastic sandstones and tuffs of the Jurassic Smithers Formation (Hazelton Group) on the east side of the property. The Newman fault, associated with mineralization in the area, occurs just to the northeast of the claims parallel to the baseline.

At least nine copper occurrences, hosted in quartz monzonite, have been documented. Chalcopyrite occurs as disseminations and as grains and films on fracture surfaces and is occasionally accompanied by molybdenite. Minor malachite and iron-oxides have been noted.

A drill hole in biotite feldspar porphyry intersected 1.2 metres grading 4.2 per cent copper (Assessment Report 8779).

#### 15.5 Fireweed (Minfile 093M 151, rev. Payie, 2009)

The Fireweed occurrence is located on the south side of Babine Lake, approximately 54 kilometres northeast of Smithers. In the occurrence area, Upper Cretaceous marine to non-marine clastic sediments, of Skeena group are found adjacent to volcanic rocks of the Rocky Ridge Formation. Interbedded mudstones, siltstones and sandstones of a thick deltaic sequence, appear to underlie much of the area and were originally thought to belong to the Kisum Formation of the Lower Cretaceous Skeena Group. They are now assigned to the Red Rose Formation. The sediments commonly strike 070 to 080 degrees and dip sub-vertically. Locally the strike varies to 020-030 degrees at the discovery outcrop, the MN showing. Several diamond-drill holes have intersected sills of strongly altered feldspar porphyritic latite.

Skeena Group sediments are dominantly encountered in diamond drilling. The sediments are dark and medium to light grey and vary from mudstone and siltstone to fine and coarse-grained sandstone. Bedding can be massive, of variable thickness, changing gradually or abruptly to finely laminated. Bedding features such as rip-up clasts, load casts and cross-bedding are common. The beds are cut by numerous faults, many of them strongly graphitic. Drilling indicates Skeena Group sediments are in fault contact with Hazelton Group volcanic rocks. Strongly sericitized and carbonatized latite dikes cut the sediments.

Mineralization generally occurs in one of three forms: 1) breccia zones are fractured or brecciated sediments infilled with fine to coarse-grained massive pyrite-pyrrhotite and lesser amounts of sphalerite, chalcopyrite and galena 2) disseminated sulphides occur as fine to very fine grains which are lithologically controlled within coarser grained sandstones, pyrite, marcasite, sphalerite, galena and minor tetrahedrite are usually found interstitial to the sand grains and 3) massive sulphides, which are finegrained, commonly banded, containing rounded quartz-eyes and fine sedimentary fragments, occur as distinct bands within fine-grained sediments. The massive sulphides generally contain alternating bands of pyrite/pyrrhotite and sphalerite/galena. They are

associated with the breccia zones and are commonly sandwiched between altered quartz latite dikes.

Alteration in the sediments occurs in the groundmass and appears associated with the porous, coarse sandstones. Common secondary minerals are quartz, ankerite, sericite, chlorite and kaolinite.

Three main zones have been identified by geophysics (magnetics, induced polarization) and are named the West, East and South zones. Three other zones identified are the 1600, 3200 and Jan zones.

#### 15.6 Equity Silver (Minfile 093L 001, rev. Robinson, 2009)

Silver, copper and gold were produced from the Equity Silver deposit, located 150km to the southeast of the Property.

The mineral deposits are located within an erosional window of uplifted Cretaceous age sedimentary, pyroclastic and volcanic rocks near the midpoint of the Buck Creek Basin. Strata within the inlier strike 015 degrees with 45 degree west dips and are in part correlative with the Lower-Upper Skeena(?) Group. Three major stratigraphic units have been recognized. A lower clastic division is composed of basal conglomerate, chert pebble conglomerate and argillite. A middle pyroclastic division consists of a heterogeneous sequence of tuff, breccia and reworked pyroclastic debris. This division hosts the main mineral deposits. An upper sedimentary-volcanic division consists of tuff, sandstone and conglomerate. The inlier is flanked by flat-lying to shallow dipping Eocene andesitic to basaltic flows and flow breccias of the Francois Lake Group (Goosly Lake and Buck Creek formations).

Intruding the inlier is a small granitic intrusive (57.2 Ma) on the west side, and Eocene Goosly Intrusions gabbro-monzonite (48 Ma) on the east side.

The chief sulphides at the Equity Silver mine are pyrite, chalcopyrite, pyrrhotite and tetrahedrite with minor amounts of galena, sphalerite, argentite, minor pyrargyrite and other silver sulphosalts. These are accompanied by advanced argillic alteration clay minerals, chlorite, specularite and locally sericite, pyrophyllite, and alusite, tourmaline and minor amounts of scorzalite, corundum and dumortierite. The three known zones of significant mineralization are referred to as the Main zone, the Southern Tail zone and the more recently discovered Waterline zone. The ore mineralization is generally restricted to tabular fracture zones roughly paralleling stratigraphy and occurs predominantly as veins and disseminations with massive, coarse-grained sulphide replacement bodies present as local patches in the Main zone. Main zone ores are finegrained and generally occur as disseminations with a lesser abundance of veins. Southern Tail ores are coarse-grained and occur predominantly as veins with only local disseminated sulphides. The Main zone has a thickness of 60 to 120 metres while the Southern Tail zone is approximately 30 metres thick. An advanced argillic alteration suite includes andalusite, corundum, pyrite, quartz, tourmaline and scorzalite. Other zones of mineralization include a zone of copper-molybdenum mineralization in a quartz stockwork in and adjacent to the quartz monzonite stock and a large zone of tourmalinepyrite breccia located to the west and northwest of the Main zone.

Alteration assemblages in the Goosly sequence are characterized by minerals rich in alumina, boron and phosphorous, and show a systematic spatial relationship to areas of mineral deposits. Aluminous alteration is characterized by a suite of aluminous minerals including andalusite, corundum, pyrophyllite and scorzalite. Boron-bearing minerals consisting of tourmaline and dumortierite occur within the ore zones in the hanging wall section of the Goosly sequence. Phosphorous-bearing minerals including scorzalite, apatite, augelite and svanbergite occur in the hanging wall zone, immediately above and intimately associated with sulphide minerals in the Main and Waterline zones. Argillic alteration is characterized by weak to pervasive sericite-quartz replacement. It appears to envelope zones of intense fracturing, with or without chalcopyrite/tetrahedrite mineralization.

The copper-silver-gold mineralization is epigenetic in origin. Intrusive activity resulted in the introduction of hydrothermal metal-rich solutions into the pyroclastic division of the Goosly sequence. Sulphides introduced into the permeable tuffs of the Main and Waterline zones formed stringers and disseminations which grade randomly into zones of massive sulphide. In the Southern Tail zone, sulphides formed as veins, fracture-fillings and breccia zones in brittle, less permeable tuff. Emplacement of post-mineral dikes into the sulphide-rich pyroclastic rocks has resulted in remobilization and concentration of sulphides adjacent to the intrusive contacts. Remobilization, concentration and contact metamorphism of sulphides occurs in the Main and Waterline zones at the contact with the postmineral gabbro-monzonite complex.

The Southern Tail deposit has been mined out to the economic limit of an open pit. With its operation winding down, Equity Silver Mines does not expect to continue as an operating mine after current reserves are depleted. Formerly an open pit, Equity is mined from underground at a scaled-down rate of 1180 tonnes-per-day. Proven and probable ore reserves at the end of 1992 were about 286,643 tonnes grading 147.7 grams per tonne silver, 4.2 grams per tonne gold and 0.46 per cent copper, based on a 300 grams per tonne silver-equivalent grade. Equity has also identified a small open-pit resource at the bottom of the Waterline pit which, when combined with underground reserves, should provide mill feed through the first two months of 1994 (Northern Miner - May 10, 1993).

Equity Silver Mines Ltd. was British Columbia's largest producing silver mine and ceased milling in January 1994, after thirteen years of open pit and underground production. Production totaled 2,219,480 kilograms of silver, 15,802 kilograms of gold and 84,086 kilograms of copper, from over 33.8 Million tonnes mined at an average grade of 0.4 per cent copper, 64.9 grams per tonne silver and 0.46 gram per tonne gold.

## Item 16: Other Relevant Data and Information

There is no other relevant data or information other than that included in this report.

## **Item 17: Interpretation and Conclusions**

Bear Hill represents an intriguing mineralized target exhibiting significant copper and silver grades in rocks thought to be correlative to those hosting the Eskay Creek Deposit. Humus sampling over the Main showing and along strike of this mineralization to the west has identified a Cu/Ag +/- Au anomaly up to 300m in width and at least 4000m long which remains open in both directions along strike. A number of linear Au anomalies have been identified with strike lengths of at least 400m and up to 300 m in width and with Response Ratios of up to 358 x background for Au. Many of the targets have anomalous Ce, La and Fe suggesting the presence of mineralized acid intrusive rocks underlying the area.

The area off of the Bear Hill knoll is predominantly till covered and previous attempts at exploration have proven difficult. Despite this, historical B-horizon, silver and copper geochemical anomalies have been identified with strike lengths in excess of 3500m and widths of up to 400m. These anomalies are seen to cut across late Cretaceous to Tertiary faulting indicating that mineralization at Bear Hill is related to a younger geological event than the rocks that are present on the property. The trend of the Main Showing and the fact that higher grades of copper and silver mineralization are characterized by micro-breccia zones and "tension gash" barite mineralization supports this theory. The presence of weak pervasive clay alteration and locally moderate silica alteration along with the mineral associations present, Cu, Ag, Ba, Mn, Fe (Pb, Zn) suggests that mineralization is related to an intermediate environment with only minor As or Sb in the system.

Regionally, government lake and stream sediment sampling returned anomalous values for both epithermal (Ag, Sb, As, Ba, Fl, Hg) and porphyry (Cu, Fe, Mo) elements as well as Au, suggesting that there may be an overlap of deposit types present in the area. Mineralization at Bear Hill does not fit comfortably with either model but, in the author's opinion, is clearly structurally controlled.

Geophysical 1<sup>st</sup> derivative magnetic data (Quest West and Search II) from MapPlace and the Geoscience BC websites suggest that a number of late northeast and northwest structures are offsetting the magnetically high Skeena Group volcanics and may represent mineralized structures or may potentially disrupt the mineralized structures present at Bear Hill. The faulting is believed to be Eocene or younger in age. The size of the magnetic anomaly present at the junction of the Bear Hill access road and the Jinx Main, 1000m x 600m, is much larger than the small exposure of Skeena Group rocks mapped at this location and represents a target in itself with Au anomalies in Ah-humus of up to 20 x background with supporting Ag, Ba, Fe and As values.

On review of the historical exploration data in conjunction with the interpretations of RGS, regional magnetic, and the results of the 2010, 2016 and 2017 exploration programs, the Bear Hill property presents as an intriguing exploration project with multiple target areas worthy of further exploration. The author believes that the property is a property of merit and has the potential of hosting one or more significant mineral deposits.

## Item 18: Recommendations

The property hosts a number of significant exploration targets, some of which have received preliminary evaluation in the past. While none of the data is believed to be erroneous, most of it would be regarded as dated. As a result, a two phase program of exploration is proposed. Phase 1 would include expanding the property and to establish a GPS grid initially over the Bear Hill knoll focusing on the Main showing target area. This grid should use 100m line spacing and 50m sample spacing on lines 2500m long to better define suspected trends. Mineralization is believed to strike west-northwest at approximately 290°, so lines should be adjusted to an orientation of north/south for ease of grid placement. Lines should be expanded to 200m line spacing off of Bear Hill proper, to infill the possible strike extension of the Main Zone trend to both the east and the west. Sampling should be completed at least 1000m to the east to determine if the anomaly continues in this direction. The grid should be used to complete geochemical and geophysical (magnetic and Induced Potential) surveys. Geochemical surveys should sample Ah-horizon humus as well as the appropriate material for in-the-field Ph measurements.

Phase 2 would be dependent on the results obtained in the geochemical and geophysical surveys and would include mechanical trenching and or the drilling of 1000m of NQ core in 5 holes over the property. Samples should be assayed in 2m intervals from surface with the entire hole being analysed.

## Proposed budget:

Phase 1		
Project Geologist (30 days @ \$600/day)		18,000
Geologist (30 days @ \$500/day)		15,000
Prospector/sampler x 2 (30 days @ \$300/day)		18,000
Grid layout (65 line km @ \$100/km)		6,500
Assaying (1400 samples @ \$55/sample)		77,000
Geophysical surveys mag/IP (35 line km @ 2500/l	km)	87,500
Room and Board (240 person days @ \$130/day)		31,200
Mob/demob		5,000
Reporting		10,000
Contingency (15%)		<u>45,000</u>
	Phase 1 Total	\$344,400
Phase 2		
Project Geologist (35 days @ \$600/day)		21,000
Geologist (35 days @ \$500/day)		17,500
Core cutter (35 days @ \$200/day)		7,000
Drilling NQ (1000m @ \$220/m)		220,000
Excavator (100hrs @ \$120/hr)		12,000
Assaying (700 samples @ \$55/sample)		38,500
Assaying (700 samples @ \$55/sample) Room and Board (255 person days @\$130/day)		38,500 34,580

Geochemical Sampling Report - Bear Hill Project	Geochemical	Sampling	Report -	Bear Hill	<b>Project</b>
---	-------------	----------	----------	-----------	----------------

November 08, 2018

Reporting		20,000
Contingency (15%)		<u>58,000</u>
	Phase 2 Total	443.580

Respectfully submitted this 8th day of November, 2018.

Ken Galambos P. Eng. Victoria, British Columbia

## Item 19: References

Alldrick, D.J., 1995, Subaqueous Hot Spring Au-Ag, in Selected British Columbia Mineral Deposit Profiles, Volume 1 - Metallics and Coal, Lefebure, D.V. and Ray, G.E., Editors, British Columbia Ministry of Energy of Employment and Investment, Open File 1995-20, pages 55-58.

Carter, N. C., G. E. Dirom and P. L. Ogryzlo, 1995; Babine Overview, in CIM Special Volume 46, Porphyry Deposits of the Northwestern Cordillera of North America, ed T. G. Schroeter.

Cox, D.P., Singer, D.A. Editors, 1986, Mineral Deposit Models, U.S. Geological Survey Bulletin 1693

Dirom, G. E., M.P. Dittrick, D.R. McArthur, P. L. Ogryzlo, A.J. Pardoe, and P. G. Stothart, 1995, Bell and Granisle, in CIM Special Volume 46, Porphyry Deposits of the Northwestern Cordillera of North America, ed T. G. Schroeter.

Dubé, B., Gosselin, P., Mercier-Langevin, P., Hannington, M.D., and Galley, A.G., 2007, Gold-rich volcanogenic massive sulphide deposits, in Goodfellow, W.D.,ed., Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, p. 75-94.

Findlay, A.R. and Hoffman, A.J., 1981, Geological and Geochemical Report on the Takla Lake Property, BP Minerals Limited, Omineca Mining Division, British Columbia, Assessment report 09892.

Galambos, K., 2011, Prospecting Report Bear Hill Project, Omineca Mining Division, British Columbia, Assessment report 32026.

Galambos, K., 2017, Geochemical Sampling Report Bear Hill Project, Omineca Mining Division, British Columbia, Assessment report 36496.

Gareau, M.B. and Kimura, E.T., 1982, Diamond Drilling report on the Bear Hill Property, Placer Development Limited, Omineca Mining Division, British Columbia, Assessment report 10790.

Kimura, E.T., Cannon, R.W. and Gareau, M.B., 1982, Geochemical and Geophysical reports on the Bear Hill Property, Placer Development Limited, Omineca Mining Division, British Columbia, Assessment report 10791.

Levson, V., 2002, Quaternary Geology and Till Geochemistry of the Babine Porphyry Copper Belt, British Columbia (NTS 93 L/9, 16, M/1, 2, 7, 8), BCGS Bulletin 110.

MacIntyre, D.G. and M. E. Villeneuve, 2001, Geochronology of mid-Cretaceous to Eocene magmatism, Babine porphyry copper district, central British Columbia, Can. J. Earth Sci. 38(4): 639–655 (2001).

MacIntyre, D.G., Villeneuve, M.E. and Schiarizza, P., 2001, Timing and tectonic setting of Stikine Terrane magmatism, Babine-Takla lakes area, central British Columbia, Can. J. Earth Sci. 38(4): 579–601 (2001).

MacIntyre, D., 2001a, Geological Compilation Map Babine Porphyry Copper District Central British Columbia (NTS93L/9, 93M/1, 2E, 7E, 8), BC Geological Survey Open File 2001-03.

MacIntyre, D., 2001b, The Mid-Cretaceous Rocky Ridge Formation – A New Target for Subaqueous Hot Spring Deposits (Eskay Creek type) in Central British Columbia in BC Geological Survey Paper 2001-1: Geological Fieldwork 2000, pages 253-268.

Massey, N.W.D, Alldrick, D.J. and Lefebure, D.V., 1999, Potential for Subaqueous Hot-Spring (Eskay Creek) Deposits in British Columbia, BC Geological Survey Branch, Open File 1999-14, 2 colour maps at 1:2 000 000-scale, plus report.

Panteleyev, A. 1995, Porphyry Cu-Au: Alkalic, in Selected British Columbia Mineral Deposit Profiles, Volume 1 - Metallics and Coal, Lefebure, D.V. and Ray, G.E., Editors, British Columbia Ministry of Energy of Employment and Investment, Open File 1995-20, pages 83-86.

Panteleyev, A., 1995, Porphyry Cu+/-Mo+/-Au, in Selected British Columbia Mineral Deposit Profiles, Volume 1 - Metallics and Coal, Lefebure, D.V. and Ray, G.E., Editors, British Columbia Ministry of Energy of Employment and Investment, Open File 1995-20, pages 87-92.

Raven, W., 2013, Geochemical Suvey on the Tacla Property, Copper Point Mining Corp., Omineca Mining Division, British Columbia, Assessment Report 34072.

Roth, T., 2002, Physical and chemical constraints on mineralization in the Eskay Creek deposit, northwestern British Columbia: Evidence from petrography, mineral chemistry, and sulfur isotopes: Vancouver, University of British Columbia, Ph.D. thesis, 401 p.

Roth, T., Thompson, J.F.H. and Barrett, T.J., 1999, The precious metal-rich Eskay Creek deposit, northwestern British Columbia; in Volcanic-associated massive sulphide deposits: process and examples in modern and ancient settings, Society of Economic Geologists, Inc., Reviews in Economic Geology, Volume 8, pages 357-372.

Schiarizza, P., MacIntyre, D. 1998, Geology of the Babine Lake-Takla Lake Area, Central British Columbia (93K/11, 12, 13, 14; 93N/3, 4, 5, 6), British Columbia Geological Survey, Geological Fieldwork 1998.

Simpson, R. G, 2007, Mineral Resource Update, Morrison Project, Omineca Mining Division, British Columbia.

Stix, J., Kennedy, B., Hannington, M., Gibson, H., Fiske, R., Mueller, W., and Franklin, J., 2003, Caldera-forming processes and the origin of submarine volcanogenic massive sulfide deposits, Geology (Boulder) (April 2003), 31(4):375-378.

Thompson, JFH, Sillitoe, R.H., and Hannigton, M., 2007, Magmatic Contributions to Sea-Floor Deposits: Exploration Implications of a High Sulphidation VMS Environment, from BC Geological Survey Branch http://www.empr.gov.bc.ca/mining/geolsurv/MetallicMinerals/depmodel/3-vmsepi.HTM

Urqueta, E., Kyser, T.K., Clark, A.H., Stanley, C.R., Oates C.J. (2009): Lithogeochemistry of the Collahuasi porphyry Cu–Mo and epithermal Cu–Ag (–Au) cluster, northern Chile: Pearce element ratio vectors to ore, *Geochemistry: Exploration, Environment Analysis*, Vol. 9 2009, pp. 9–17, 2009 AAG/Geological Society of London

## Item 20: Date and Signature Page

- 1) I, Kenneth Daryl Galambos of 1535 Westall Avenue, Victoria, British Columbia am self-employed as a consultant geological engineer, authored and am responsible for this report entitled "Geochemical Sampling Report Bear Hill Project", dated November 08, 2018.
- 2) I am a graduate of the University of Saskatchewan in Saskatoon, Saskatchewan with a Bachelor's Degree in Geological Engineering (1982). I began working in the mining field in 1974 and have more than 30 years mineral exploration and production experience, primarily in the North American Cordillera. Highlights of this experience include the discovery and delineation of the Brewery Creek gold deposit, near Dawson City, Yukon for Noranda Exploration Ltd.
- 3) I am a registered member of the Association of Professional Engineers of Yukon, registration number 0916 and have been a member in good standing since 1988. I am a registered Professional Engineer with APEGBC, license 35364, since 2010.
- 4) This report is based upon the author's personal knowledge of the region, a review of additional pertinent data and the 2017 Ah sampling program.
- 5) As stated in this report, in my professional opinion the property is of potential merit and further exploration work is justified.
- 6) To the best of my knowledge this report contains all scientific and technical information required to be disclosed so as not to be misleading.
- 7) I am partners with Ralph Keefe on the Bear Hill property and a number of other properties in British Columbia. My professional relationship is as a non-arm's length consultant, and I have no expectation that this relationship will change.
- 8) I consent to the use of this report by Ralph Keefe for such assessment and/or regulatory and financing purposes deemed necessary, but if any part shall be taken as an excerpt, it shall be done only with my approval.

Dated at Victoria, British Columbia this 08th day of November, 2018. "Signed and Sealed"

Ken Galambos, P.Eng. (APEY Reg. No. 0916, APEGBC license 35364) KDG Exploration Services 1535 Westall Ave. Victoria, British Columbia V8T 2G6

## Item 21: Statement of Expenditures

Personnel August 14 - 16, 2017 Ken Galambos 3 days @ \$600/day Ralph Keefe 3 days @ \$350/day Brian Keefe 3 days @ \$200/day		\$1800.00 \$1050.00 \$600.00
Transportation and Camp costs Truck 3 days @ \$100/day Trailer 3 days @ \$50/day Food 9 person days @ \$35/day Mileage 100km @ \$0.50/km		\$300.00 \$150.00 \$315.00 \$50.00
Analyses 3 Rock samples @ \$55.00/sample 39 humus samples @ \$55.00/sample Shipping		\$165.00 \$2145.00 \$30.00
Report 4 days @ \$600/day	subtotal	\$2400.00 \$9035.00
Management fee @ 10%		\$903.50 \$9938.50

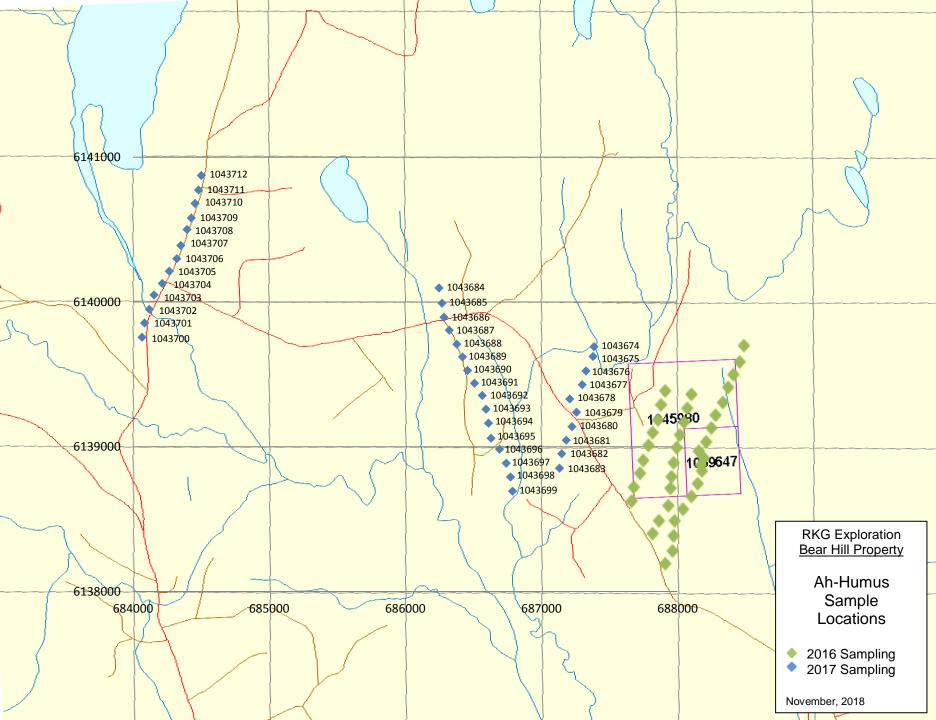
## Item 22: Software used in the Program

Adobe Acrobat 9
Adobe Photoshop Elements 8.0
Adobe Reader 8.1.3
Google Earth Pro
Internet Explorer
Microsoft Windows 7
Microsoft Office Professional 2010



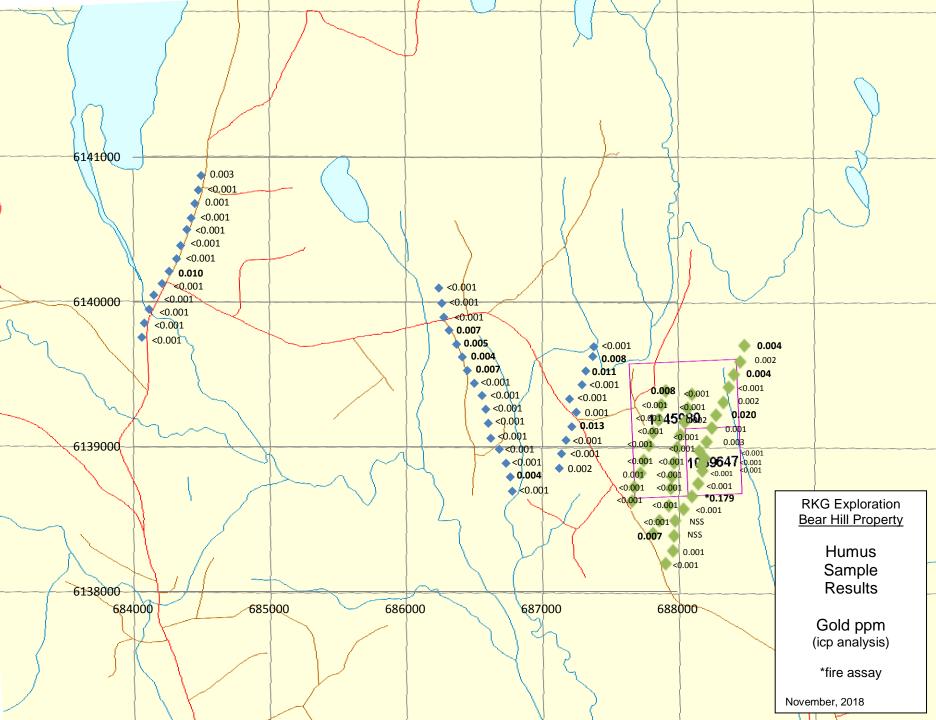
# Appendix A

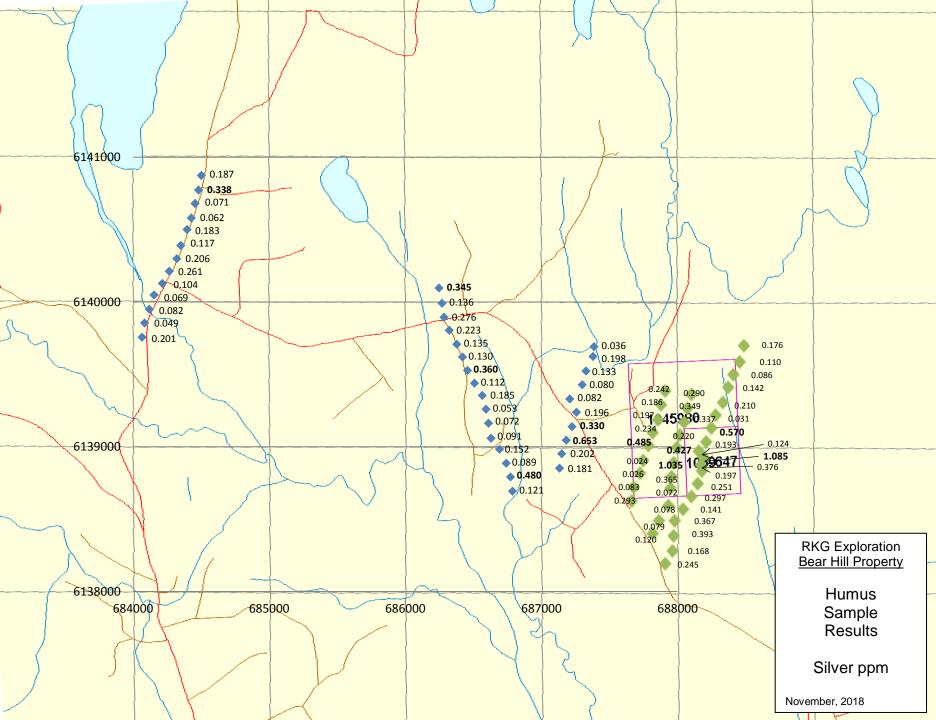
Sample Location Map Humus

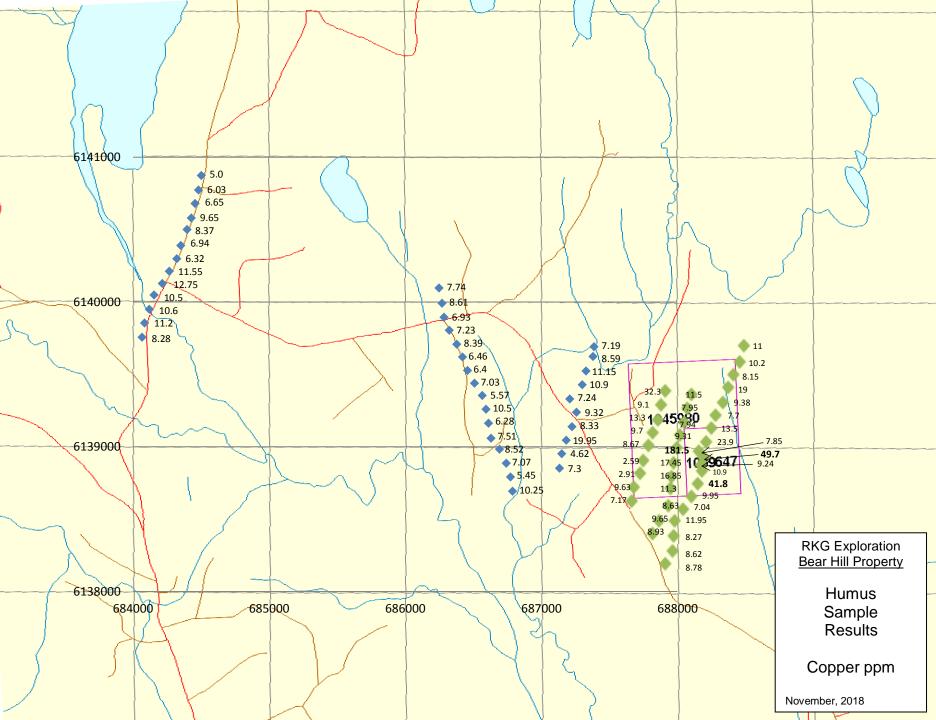


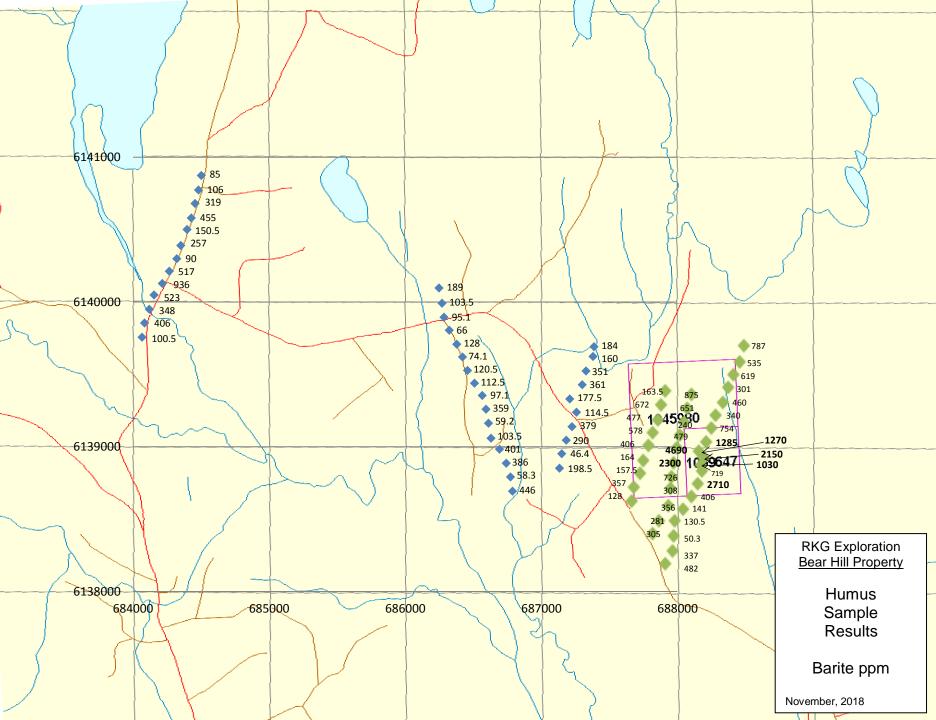
Appendix B

Sample Results Humus









Appendix C

Assay Certificates Humus



ALS Canada Ltd.

2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218 www.alsglobal.com/geochemistry

To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 1 Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

## CERTIFICATE VA17184292

Project: BC Project Generations This report is for 148 Soil samples submitted to our lab in Vancouver, BC, Canada on 30- AUG- 2017. The following have access to data associated with this certificate: ROD CHURCHILL JEFF MORGAN ALTIUS RESOURCES WEBTRIEVE LAWRENCE WINTER

	SAMPLE PREPARATION	
ALS CODE	DESCRIPTION	
WEI- 21	Received Sample Weight	
LOG- 22	Sample login - Rcd w/o BarCode	
SCR-41	Screen to - 180um and save both	

	ANALYTICAL PROCEDURE	S
ALS CODE	DESCRIPTION	INSTRUMENT
Au-ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- MS41L	Super Trace Lowest DL AR by ICP- MS	

To: ALTIUS RESOURCES INC. ATTN: ROD CHURCHILL PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 2 - A Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

Project: BC Project Generations

	Method Analyte	WEI- 21 Recvd Wt.	Au-ICP21 Au	ME- MS41L Au	ME- MS41L Ag	ME- MS41L AI	ME- MS41L As	ME- MS41L B	ME- MS41L Ba	ME- MS41L Be	ME- MS41L Bi	ME-MS41L Ca	ME- MS41L Cd	ME- MS41L Ce	ME- MS41L Co	ME- MS41L Cr
	Units	kg	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
Sample Description	LOR	0.02	0.001	0.0002	0.001	0.01	0.01	10	0.5	0.01	0.001	0.01	0.001	0.003	0.001	0.01



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4 Page: 2 - B Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

Project: BC Project Generations

	Method	ME- MS41L	ME-MS41L	ME- MS41L	ME-MS41L	ME-MS41L	ME-MS41L	ME- MS41L	ME-MS41L	ME- MS41L	ME- MS41L	ME- MS41L				
	Analyte	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	LI	Mg	Mn	Mo	Na
	Units	ppm	ppm	96	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
Sample Description	LOR	0.005	0.01	0.001	0.004	0.005	0.002	0.004	0.005	0.01	0.002	0.1	0.01	0.1	0.01	0.001



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 2 - C Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

Project: BC Project Generations

Sample Description	Method	ME- MS41L	ME-MS41L	ME- MS41L												
	Analyte	Nb	Ni	P	Pb	Pd	Pt	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.002	0.04	0.001	0.005	0.001	0.002	0.005	0.001	0.01	0.005	0.005	0.1	0.01	0.01	0.005



ALS Canada Ltd.

2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218 www.alsglobal.com/geochemistry

To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 2 - D Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

Project: BC Project Generations

	Method	ME- MS41L	ME-MS41L	ME- MS41L	ME- MS41L							
	Analyte	Te	Th	Ti	TI	Ü	V	w	Y	Zn	Zr	
		ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Sample Description	Units LOR	0.01	0.002	0.001	0.002	0.005	0.1	0.001	0.003	0.1	0.01	



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 3 - A Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

ALS	,								CI		CATE O	FANAL	YSIS	VA171	84292	
ample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt, kg 0.02	Au-ICP21 Au ppm 0.001	ME- MS41L Au ppm 0.0002	ME- MS41L Ag ppm 0.001	ME- MS41L Al % 0.01	ME- MS41L As ppm 0.01	ME- MS41L B ppm 10	ME- MS41L Ba ppm 0.5	ME- MS41L Be ppm 0.01	ME- MS41L Bi ppm 0.001	ME- MS41L Ca % 0.01	ME- MS41L Cd ppm 0.001	ME- MS41L Ce ppm 0.003	ME- MS41L Co ppm 0.001	ME- MS41 Cr ppm 0.01
	LOK	0.02	0.001	0.0002	0.001	0.01	0.01		0.3	0.01		3.0.				
)43674 )43675		0.44 0.56	<0.001 0.008	<0.0002 <0.0002	0.036 0.198	0.04 0.36	0.19 0.65	30 10	184.0 160.0	0.01 0.05	0.007 0.041	3.81 1.34	0.276 1.330	0.517 2.17	0.206 1.765	1.02 3.40
)43676 )43677		0,42 0.28	0.011 <0.001	<0.0002 0.0002	0.133 0.080	0.29 0.22	0.46 0.58	10 20 10	351 361 177.5	0.05 0.07 0.02	0.049 0.049 0.030	2.37 2.92 1.39	4.90 3.23 1.500	4.27 4.41 1.375	3.23 2.20 1.550	5.47 3.42
043678		0.18	< 0.001	0.0002	0.082	0.16	0.40									2.74



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 3 - B Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

(ALS	,								CI		CATE O	FANAL	YSIS	VA171	84292	
ample Description	Method Analyte Units LOR	ME- MS41L Cs ppm 0.005	ME- MS41L Cu ppm 0.01	ME- MS41L Fe % 0.001	ME- MS41L Ga ppm 0.004	ME- MS41L Ge ppm 0.005	ME- MS41L Hf ppm 0.002	ME- MS41L Hg ppm 0.004	ME- MS41L In ppm 0.005	ME- MS41L K % 0.01	ME- MS41L La ppm 0.002	ME- MS41L Li ppm 0.1	ME- MS41L Mg % 0.01	ME- MS41L Mn ppm 0.1	ME- MS41L Mo ppm 0.01	ME- MS411 Na % 0.001
043674		0.143	7.19	0.054	0.114	0.008	0.008	0,319	<0.005	0.10	0.351	0.2	0,18	358	0.36	0.008
043675		0.268	8.59	0.560	1.805	0.019	0.005	0.243	<0.005	0.12	1.180	1.0	0.10	2830	0.67	0.007
043676		0.229 0.292	11.15 10.90	0.430 0.350	1.185 0.945	0.018 0.017	0.005 0.011	0.315	<0.005 <0.005	0.18 0.19	1.960 1.920	0.6 0.6	0.16 0.12	4370 7850	1.36 1.37	0.007
043677 043678		0.292	7.24	0.350	0.369	0.022	0.009	0.382	< 0.005	0.16	0.882	0.4	0.11	3110	1.89	0.005
1043679		0.207	9.32	0.400	0.798	0.019	0.005	0.281	<0.005	0.12	2.51	0.9	0.11	1790	0.69	0.008
1043680		0.352	8.33	0.131	0.404	0.021	0.005	0.410	<0.005	0.14	3.29	0.3	0.12	4330	0.94	0.005



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 3 - C Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

Project: BC Project Generations

											ATL					
	Analyte	ME- MS41L Nb	Ni	ME- MS41L P	Pb	Pd	ME- MS41L Pt	Rb	Re	ME- MS41L S	ME- MS41L Sb	ME- MS41L Sc	ME- MS41L Se	ME- MS41L Sn	ME- MS41L Sr	ME- MS411 Ta
Sample Description	Units LOR	0.002	ppm 0.04	0.001	0.005	0.001	0.002	0.005	0,001	0.01	0.005	0.005	0.1	0.01	0.01	0.005

1043674	0.015	1.59	0.080	1.105	<0.001	<0.002	2.11	<0.001	0.22	0.036	0.147	0.2	0.06	150.5 66.6	<0.005
1043675	0.346	3.01	0.105	3.47	<0.001	<0.002	4.04	<0.001	0.14	0.101	0.598	0.3	0.31	0.00	<0.005
1043676	0.224	5.29	0.131	5.84	<0.001	<0.002	3.27	< 0.001	0.15	0.114	0.432	0.4	0.21	123.0	<0.005
1043677	0.148	6.16	0.152	5.86	< 0.001	< 0.002	5.58	0.001	0.18	0.104	0.194	0.1	0.24	127.5	< 0.005
1043678	0.061	4.44	0.125	4.82	< 0.001	< 0.002	2.29	< 0.001	0.19	0.122	0.273	0.4	0.14	69.8	< 0.005
1043679	0.128	6.15	0.099	2.82	< 0.001	< 0.002	3.16	< 0.001	0.14	0.061	0,456	0.2	0.09	35.9	< 0.005
1043680	0.039	6.19	0.140	3.61	< 0.001	< 0.002	4.18	< 0.001	0.17	0.087	0.588	0.4	0.14	117.0	< 0.005



ALS Canada Ltd.

2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218 www.alsglobal.com/geochemistry

To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 3 - D Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017 Account: TDP

(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,								CI	ERTIFIC	CATE OF	ANALYSIS	VA17184292	
ample Description	Method Analyte Units LOR	ME- MS41L Te ppm 0.01	ME- MS41L Th ppm 0.002	ME- MS41L TI % 0.001	ME- MS41L TI ppm 0.002	ME- MS41L U ppm 0.005	ME- MS41L V ppm 0.1	ME-MS41L W ppm 0.001	ME-MS41L Y ppm 0.003	ME- MS41L Zn ppm 0.1	ME- MS41L Zr ppm 0.01			
043674		0.01	0,010	0.001	0.014	0.011	1.0	0.007	0.535	145.0	0.16			
1043675		0.01	0.019	0.024	0.037	0.068	12.1	0.036	0.696	158.5	0.22			
1043676		0.01	0.028	0.013	0.029	0.082	10.5	0.038	0.900	283	0.19			
1043677 1043678		0.01 0.02	0.012	0.008	0.048 0.041	0.052 0.028	6.8 3.4	0.045 0.026	1.050 0.521	465 131.5	0.08			
043679		<0.01	0.023	0.009	0.059	0.075	9.0	0.021	2.21	77.4	0.22			
1043680		0.02	0.027	0.003	0.076	0.055	2.3	0.011	3.66	230	0.18			



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 4 - A Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

Project: BC Project Generations

										KIIFIC	AILU	FANAL	.1313	VAI/I	84292	
Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt, kg 0.02	Au- ICP21 Au ppm 0.001	ME- MS41L Au ppm 0.0002	ME- MS41L Ag ppm 0.001	ME- MS41L AI % 0.01	ME- MS41L As ppm 0.01	ME- MS41L B ppm 10	ME-MS41L Ba ppm 0.5	ME- MS41L Be ppm 0.01	ME- MS41L Bi ppm 0.001	ME- MS41L Ca % 0.01	ME- MS41L Cd ppm 0.001	ME- MS41L Ce ppm 0.003	ME- MS41L Co ppm 0.001	ME- MS41L Cr ppm 0.01
1043681		0.38	<0.001	0.0003	0.653	1.48	1.47	<10	290	0.48	0.073	0.93	2.55	27.2	9.84	14.80
1043682		0.22	< 0.001	< 0.0002	0.202	0.16	0.18	10	46.4	0.01	0.023	0.67	1.085	0.623	0.529	1.55
1043683		0.30	0.002	0.0003	0.181	0.27	1.00	10	198.5	0.06	0.027	1.69	0.824	2.23	1.565	4.34
1043684		0.46	< 0.001	< 0.0002	0.345	0.17	0.28	10	189.0	0.06	0.019	1.00	1.345	4.81	0.680	1.72
1043685		0.20	<0.001	0.0007	0.136	0.31	0.49	10	103.5	0.10	0.021	1.44	0.594	5.09	1.850	5.03
1043686		0.42	<0.001	0.0002	0.276	0.31	1.10	<10	95.1	0.07	0.039	0.46	0.534	4.05	1.370	5.98
1043687		0.14	0.007	0.0003	0.223	0.30	1.05	<10	66.0	0.07	0.028	0.50	0.521	2.57	1.490	5.13
1043688		0.26	0.005	< 0.0002	0.135	0.40	1.39	<10	128.0	0.11	0.036	0.73	0.737	5.21	2.80	9.42
1043689		0.30	0.004	< 0.0002	0.130	0.22	0.67	<10	74.1	0.07	0.019	0.56	0.820	2.39	1.355	3.52
1043690		0.26	0.007	< 0.0002	0.360	0.16	0.36	10	120.5	0.03	0.024	0.93	0.551	1.890	1.235	3.17
1043691		0.20	<0.001	<0.0002	0.112	0.19	0.45	<10	112.5	0.05	0.028	0.74	0.468	1.860	1.045	3.47
1043692		0.18	< 0.001	0.0002	0.185	0.15	0.22	<10	97.1	0.01	0.019	0.59	0.637	0.627	0.768	2.34
1043693		0.34	< 0.001	< 0.0002	0.053	0.36	0.65	20	359	0.07	0.037	1.58	2.05	2.90	2.96	8.37
1043694		0.20	< 0.001	< 0.0002	0.072	0.23	0.41	10	59.2	0.02	0.026	0.79	0.707	1.620	1.105	7.42
1043695		0.16	< 0.001	<0.0002	0.091	0.22	0.52	<10	103.5	0.03	0.024	0.79	0.692	2.52	1.685	6.82
1043696		0.22	<0.001	<0.0002	0.152	0.16	0.31	10	401	0.03	0.029	2.65	1.410	1.375	1.270	3,33
1043697		0.18	< 0.001	< 0.0002	0.089	0.09	0.23	10	386	0.02	0.020	2.84	1.445	1.320	1.455	1.90
1043698		0.20	0.004	< 0.0002	0.480	0.15	0.28	10	58.3	0.02	0.024	0.52	0.826	1.295	0.623	3.07
1043699		0.30	< 0.001	0.0003	0.121	0.24	1.10	20	446	0.07	0.019	2.96	0.601	3,36	2.44	5.28
1043700		0.28	< 0.001	< 0.0002	0.201	0.12	0.27	10	100.5	0.02	0.012	1.67	1.790	0.961	0.773	1.72
1043701		0.30	<0.001	0.0003	0.049	0.09	0.37	10	406	0.03	0.011	3.21	0.734	1.220	0.971	1.36
1043702		0.36	< 0.001	0.0003	0.082	0.20	0.35	20	348	0.04	0.016	3.13	0.816	1.120	1.315	1.40
1043703		0.52	< 0.001	< 0.0002	0.069	1.07	2.33	10	523	0.32	0.052	1.73	1.905	11.15	8.90	10.25
1043704		0.32	< 0.001	0.0010	0.104	0.31	0.59	20	936	0.11	0.022	4.57	0.595	9.60	1.540	3.41
1043705		0.28	0.010	< 0.0002	0.261	0.28	0.51	20	517	0.14	0.022	2,87	0.971	9.71	2.04	2.68
1043706		0.22	<0.001	<0.0002	0.206	0.18	0.34	10	90.0	0.03	0.017	0.92	0.996	1.370	0.927	2.28
1043707		0.22	< 0.001	< 0.0002	0.117	0.20	0.63	10	257	0.07	0.016	1.88	0.674	5.32	1.580	2.95
1043708		0.32	< 0.001	< 0.0002	0.183	0.29	0.46	<10	150.5	0.07	0.027	0.96	0.577	3.45	1.195	3.63
1043709	â	0.26	< 0.001	< 0.0002	0.062	0.25	0.32	20	455	0.12	0.021	2.77	1.655	8.21	2.26	2.89
1043710		0.22	0.001	0.0003	0.071	0.17	0.30	20	319	0.05	0.014	2.20	1.230	1.515	1.335	1.71
1043711		0.24	< 0.001	<0.0002	0.338	0.24	0.30	10	106.0	0.06	0.020	0.57	0,696	2.36	0.726	1.89
1043712	- 1	0.32	0.003	0.0002	0.187	0.18	0.23	10	85.0	0.02	0.013	0.99	0.734	1,170	0.776	0.92

<sup>\*\*\*\*\*</sup> See Appendix Page for comments regarding this certificate \*\*\*\*\*



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 4 - B Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

Project: BC Project Generations

										-1711111	MILO	MINAL	. 1 0 10	V/\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	01111111	
Sample Description	Method	ME- MS41L	ME- MS41L	ME- MS41L												
	Analyte	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
	LOR	0.005	0.01	0.001	0.004	0.005	0,002	0,004	0.005	0.01	0.002	0.1	0.01	0.1	0.01	0.001
1043681		0.687	19.95	1.560	4.33	0.043	0.004	0.238	0.028	0.14	10.35	4.0	0.23	4030	1.22	0.008
1043682		0.092	4.62	0.069	0.171	0.013	<0.002	0.241	<0.005	0.11	0.386	0.1	0.06	1585	0.54	0.005
1043683		0.190	7.30	0.480	0.809	0.014	0.003	0.220	<0.005	0.11	1.110	0.9	0.10	3390	1.03	0.006
1043684		0.224	7.74	0.170	0.378	0.019	0.005	0.325	<0.005	0.13	4.24	0.2	0.10	550	0.63	0.008
1043685		0.360	8.61	0.310	0.767	0.029	0.018	0.192	<0.005	0.08	3.16	0.8	0.18	588	0.76	0.006
1043686		0.211	6.93	0.590	1.355	0.020	0.005	0.164	<0.005	0.11	2.07	0.7	0.07	1050	0.65	0.007
1043687		0.183	7.23	0.490	0.886	0.024	0.006	0.229	<0.005	0.10	1.280	1.0	0.08	779	0.65	0.006
1043688		0.330	8.39	0.790	1.605	0.023	0.011	0.150	<0.005	0.10	2.49	1.7	0.12	2260	1.41	0.007
1043689		0.132	6.46	0.360	0.734	0.019	0.006	0.152	<0.005	0.09	1.230	0.8	0.09	1305	1.02	0.004
1043690		0.117	6.40	0.198	0.457	0.016	0.007	0.270	<0.005	0.09	0.947	0.3	0.07	1780	1.72	0.005
1043691		0.138	7.03	0.280	0.515	0.014	0.006	0.225	<0.005	0.09	1.090	0.4	0.12	898	3.20	0.006
1043692		0.062	5.57	0.091	0.206	0.011	0.005	0.224	<0.005	0.09	0.373	0.1	0.06	1680	1.40	0.006
1043693		0.256	10.50	0.500	1.160	0.019	0.003	0.265	<0.005	0.20	1.325	1.4	0.25	7290	2.25	0.007
1043694		0.261	6.28	0.300	0.693	0.016	0.003	0.290	<0.005	0.10	0.873	0.4	0.08	1300	2.36	0.007
1043695		0.145	7.51	0.440	0.844	0.019	0.002	0.216	<0.005	0.10	1.385	0.6	0.11	2970	1.48	0.009
1043696		0.359	8.52	0.173	0.428	0.013	0,004	0.234	<0.005	0.26	0.949	0.2	0.14	3330	1.99	0.006
1043697		0.092	7.07	0.133	0.360	0.016	0,006	0.174	<0.005	0.25	1.175	0.3	0.16	2680	1.40	0.005
1043698		0.124	5.45	0.120	0.429	0.012	0,004	0.197	<0.005	0.12	0.767	0.2	0.07	1690	1.21	0.004
1043699		0.163	10.25	0.520	0.730	0.020	0,012	0.299	0.007	0.21	1.355	1.2	0.14	1080	0.42	0.003
1043700		0.173	8.28	0.114	0.198	0.011	0,007	0.202	<0.005	0.25	0.582	0.2	0.19	1145	0.81	0.002
1043701		0.162	11.20	0.175	0.355	<0.005	0.006	0.427	<0.005	0.17	0.686	0.5	0.11	3100	0.38	0.004
1043702		0.173	10.60	0.131	0.346	<0.005	0.007	0.277	<0.005	0.15	0.597	0.5	0.14	4110	0.36	0.005
1043703		0.442	10.50	1.870	3.20	0.019	0.013	0.088	0.022	0.12	4.26	3.1	0.25	3020	0.95	0.005
1043704		0.198	12.75	0.330	0.704	0.022	0.005	0.341	0.005	0.30	4.21	1.2	0.24	2970	0.37	0.007
1043705		0.292	11.55	0.300	0.737	0.012	0.010	0.174	0.005	0.17	3.08	0.8	0.19	2930	0.42	0.006
1043706		0.127	6.32	0.160	0.362	0.007	0.005	0.156	<0.005	0.17	0.745	0.3	0.09	1305	0.42	0.006
1043707		0.208	6.94	0.280	0.544	0.013	0.007	0.130	<0.005	0.12	2.23	0.7	0.14	2180	0.31	0.005
1043708		0.162	8.37	0.310	0.696	0.012	0.009	0.156	0.005	0.12	1.715	0.7	0.11	1140	0.51	0.005
1043709		0.392	9.65	0.290	0.740	0.011	0.008	0.147	0.005	0.21	2.52	0.8	0.19	2500	0.68	0.003
1043710		0.143	6.65	0.149	0.363	0.005	0.006	0.147	<0.005	0.18	0.753	0.5	0.25	2640	0.54	0.005
1043711		0.122	6.03	0.129	0.358	0.007	0.002	0.206	<0.005	0.13	1.185	0.2	0.07	874	0.40	0.007
1043712		0.130	5.00	0.100	0.236	<0.005	0.004	0.233	<0.005	0.15	0.657	0.2	0.10	1215	0.46	0.007



TO: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4 Page: 4 - C Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017 Account: TDP

CERTIF	ICATE	OF.	ANALY:	SIS '	VA17	7184292
The Part of the Pa						

											.,				01252	
Sample Description	Method Analyte Units LOR	ME- MS41L Nb ppm 0.002	ME- MS41L Ni ppm 0.04	ME- MS41L P % 0.001	ME- MS41L Pb ppm 0.005	ME- MS41L Pd ppm 0.001	ME- MS41L Pt ppm 0.002	ME- MS41L Rb ppm 0.005	ME-MS41L Re ppm 0.001	ME- MS41L S % 0.01	ME- MS41L Sb ppm 0.005	ME- MS41L Sc ppm 0.005	ME- MS41L Se ppm 0.1	ME- MS41L Sn ppm 0.01	ME- MS41L Sr ppm 0.01	ME- MS41 Ta ppm 0.005
1043681		0.400	18.75	0.164	6.15	<0.001	<0.002	9.35	0.001	0.12	0.210	1.825	0.4	0.41	68.7	<0.005
1043682		0.033	2.71	0.120	2.19	0.001	< 0.002	1.400	< 0.001	0.15	0.069	0.127	0.3	0.07	16.80	< 0.005
1043683		0.200	5.77	0.111	3.30	0.002	< 0.002	2.57	< 0.001	0.13	0.079	0.328	0.2	0.19	55.6	< 0.005
1043684		0.063	3.20	0.097	2.22	< 0.001	< 0.002	2.14	< 0.001	0.15	0.112	0.987	0.4	0.24	77.5	< 0.005
1043685		0.111	6.09	0.095	1.530	< 0.001	< 0.002	2.86	< 0.001	0.21	0.102	1.015	0.2	0.11	107.0	< 0.005
1043686		0.267	4.66	0.069	4.08	<0.001	<0.002	3.59	<0.001	0.09	0.128	0.722	0.2	0.23	22.4	<0.005
1043687		0.205	4.52	0.091	3.15	< 0.001	< 0.002	4.43	< 0.001	0.12	0.108	0.633	0.3	0.13	17.60	< 0.005
1043688		0.311	7.59	0.092	4.32	<0.001	< 0.002	5.16	0.001	0.11	0.121	1.205	0.1	0.20	35.3	<0.005
1043689		0.157	3.58	0.087	2.42	< 0.001	< 0.002	2.30	< 0.001	0.11	0.093	0.628	0.1	0.11	23.3	< 0.005
1043690		0.110	3.21	0.083	3.23	< 0.001	< 0.002	1.940	< 0.001	0.12	0.098	0.389	0.2	0.16	40.6	< 0.008
1043691		0.164	3.88	0.098	3.53	<0.001	<0.002	1.730	< 0.001	0.15	0.072	0.408	0.2	0.14	55.3	<0.008
1043692		0.029	3.00	0.105	2.42	< 0.001	< 0.002	1.035	< 0.001	0.14	0.054	0.149	0.3	0.11	38.7	< 0.008
1043693		0.224	8.07	0.128	4.39	< 0.001	< 0.002	5.41	< 0.001	0.16	0.093	0.384	0.6	0.17	90.5	< 0.005
1043694		0.121	4.63	0.097	3.24	< 0.001	< 0.002	2.05	< 0.001	0.15	0.062	0.281	0.3	0.16	48.3	< 0.008
1043695		0.131	4.36	0.101	3.52	<0.001	< 0.002	2.91	< 0.001	0.14	0.100	0.403	0.4	0.13	38.9	< 0.005
1043696		0.066	4.47	0.157	3.49	<0.001	<0.002	6.18	<0.001	0.16	0.072	0,206	0.2	0.13	147.0	< 0.005
1043697		0.088	4.97	0.153	2.91	< 0.001	<0.002	2.31	< 0.001	0.18	0.044	0.139	0.2	0.07	181.0	<0.005
1043698		0.073	2.76	0.132	2.37	<0.001	<0.002	2.21	<0.001	0.10	0.065	0.318	0.3	0.16	17.95	<0.005
1043699		0.133	6.82	0.106	2.43	<0.001	<0.002	3.99	< 0.001	0.13	0.087	0.823	0.3	0.12	183.0	< 0.005
1043700		0.041	3.18	0.121	1.555	< 0.001	<0.002	3.66	< 0.001	0.14	0.035	0.300	0.4	0.07	76.7	< 0.005
1043701		0.070	2.12	0.154	2.39	0.002	< 0.002	2.67	< 0.001	0.14	0.040	0.434	0.3	0.06	153.5	<0.00
1043702		0.040	2.79	0.140	2.94	<0.001	<0.002	2.51	< 0.001	0.16	0.052	0.347	0.3	0.08	135.5	<0.00
1043703		0.921	9.35	0.257	8.10	<0.001	<0.002	4.45	<0.001	0.10	0.133	1.510	0.3	0.37	106.5	<0.00
1043704		0.091	11.10	0.143	2.54	<0.001	<0.002	3.15	< 0.001	0.13	0.071	0.382	0.4	0.10	268	<0.005
1043705	8.6	0.091	5.84	0.158	6.32	<0.001	<0.002	4.62	<0.001	0.15	0.188	0.648	0.3	0.16	186.0	<0.00
1043706		0.066	2.79	0.115	2.76	<0.001	<0.002	1.405	<0.001	0.11	0.058	0.448	0.2	0.11	32.0	<0.00
1043707		0.099	5.25	0.123	1.775	0.001	<0.002	2.50	< 0.001	0.12	0.051	0.679	0.2	0.07	82.3	<0.00
1043708		0.118	7.84	0.139	2.89	< 0.001	<0.002	1.910	< 0.001	0.13	0.080	0.739	0.2	0.17	45.1	<0.00
1043709		0.115	6.35	0.184	3.09	0.001	<0.002	4.21	< 0.001	0.14	0.071	0.572	0.4	0.11	164.5	< 0.00
1043710		0.067	3.86	0.143	2.31	0.001	<0.002	2.49	<0.001	0.15	0.052	0.305	0.3	0.06	95.3	<0.00
1043711		0.066	2.58	0.118	3.92	<0.001	<0.002	1.575	<0.001	0.10	0.069	0.374	0.3	0.11	16.95	<0.00
1043712		0.037	2.91	0.115	2.38	< 0.001	< 0.002	2.43	< 0.001	0.11	0.044	0.210	0.3	0.06	33.2	< 0.005

<sup>\*\*\*\*\*</sup> See Appendix Page for comments regarding this certificate \*\*\*\*\*



ALS Canada Ltd.

2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218

www.alsglobal.com/geochemistry

To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 4 - D Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017 Account: TDP

Project: BC Project Generations

Sample Description	Method Analyte Units LOR	ME- MS41L Te ppm 0.01	ME- MS41L Th ppm 0.002	ME- MS41L Ti % 0.001	ME- MS41L TI ppm 0.002	ME- MS41L U ppm 0.005	ME- MS41L V ppm 0.1	ME-MS41L W ppm 0.001	ME-MS41L Y ppm 0.003	ME- MS41L Zn ppm 0.1	ME- MS41L Zr ppm 0.01		
1043681		0.01	0.042	0.011	0.186	0.318	27.5	0.041	10.80	149.0	0.22		
1043682		0.04	0.018	0.002	0.043	0.017	1.8	0.012	0.158	61.0	0.09		
1043683		<0.01	0.014	0.012	0.034	0.049	10.8	0.023	0.605	118.5	0.10		
1043684		0.02	0.041	0.003	0.043	0.147	3.0	0.020	5.75	39.3	0.26		
1043685		<0.01	0.071	0.004	0.109	0.097	6.9	0.020	7.43	66.0	0.69		
1043686		0.01	0.043	0.020	0.052	0.098	17.8	0.028	1.000	51.7	0.21	 	
1043687		0.03	0.037	0.016	0.041	0.067	12.7	0.034	0.716	54.1	0.34		
1043688		< 0.01	0.073	0.024	0.058	0.117	21.1	0.041	1.485	81.5	0.34		
1043689		0.01	0.057	0.012	0.034	0.056	9.8	0.027	0.710	183.5	0.35		
1043690		<0.01	0.042	0.009	0.034	0.038	5.6	0.023	0,527	71.4	0.25		
1043691		0.03	0.051	0.011	0.023	0.050	7.0	0.030	0.465	62.8	0.31		
1043692		0.01	0.012	0.003	0.026	0.020	2.5	0.020	0.166	66.2	0.09		
1043693		< 0.01	0.019	0.017	0.032	0.070	13.4	0.036	0.611	465	0.09		
1043694		0.01	0.016	0.012	0.027	0.043	8.5	0.032	0.305	88.5	0.17		
1043695		0.01	0.016	0.015	0.036	0.060	13.1	0.027	0.583	73.7	0.16		
1043696		0.01	0.018	0.006	0.036	0.031	4.8	0.021	0.503	232	0.13		
1043697		0.01	0.017	0.006	0.018	0.019	3.6	0.024	0.908	247	0.14		
1043698		< 0.01	0.023	0.007	0.041	0.033	3,9	0.022	0.265	108.0	0.14		
1043699		0.01	0.049	0.013	0.023	0.070	13.4	0.023	1.050	167.0	0.41		
1043700		0.01	0.021	0.004	0.017	0.019	2.8	0.032	0.521	175.0	0.22		
1043701		0.01	0.016	0.005	0.029	0.022	3.9	0.017	0.599	289	0.20	 	
1043702		< 0.01	0.019	0.004	0.028	0.020	3.0	0.015	0.478	347	0.17		
1043703		0.02	0.063	0.045	0.052	0.167	35.3	0.071	3.37	270	0.45		
1043704		0.01	0.010	0.004	0.021	0.056	6.2	0.018	5.10	430	0.14		
1043705		0.01	0.033	0.006	0.040	0.078	5.3	0.018	3.25	268	0.32		
1043706		<0.01	0.030	0.006	0.046	0.037	4.2	0.013	0.436	60.6	0.17	 	
1043707		0.01	0.052	0.007	0.036	0.064	6.3	0.018	2.13	167.0	0.25		
1043708		<0.01	0.053	0.007	0.028	0.079	5.7	0.022	0.970	61.1	0.27		
1043709		<0.01	0.034	0.007	0.030	0.068	5.3	0.059	1.770	367	0.18		
1043710		<0.01	0.030	0.005	0.033	0.031	3.5	0.015	0.477 .	248	0.19		
1043711		0.01	0.030	0.005	0.043	0.056	3,0	0.017	0.611	82.4	0.13		
1043712		<0.01	0.030	0.003	0.023	0.025	2.3	0.010	0.383	91.3	0.13		



ALS Canada Ltd.

2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218

www.alsglobal.com/geochemistry

To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 5 - A Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

Project: BC Project Generations CERTIFICATE OF ANIALYCIC

,									C	ERTIFIC	CATE O	F ANAL	YSIS	VA171	84292	
ample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au-ICP21 Au ppm 0.001	ME- MS41L Au ppm 0.0002	ME- MS41L Ag ppm 0.001	ME- MS41L AI % 0.01	ME- MS41L As ppm 0.01	ME-MS41L B ppm 10	ME- MS41L Ba ppm 0.5	ME- MS41L Be ppm 0.01	ME- MS41L Bi ppm 0.001	ME- MS41L Ca % 0.01	ME- MS41L Cd ppm 0.001	ME- MS41L Ce ppm 0.003	ME- MS41L Co ppm 0.001	ME- MS41L Cr ppm 0.01



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 5 - B Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

ALS	,								CI			F ANAL	YSIS	VA171	84292	
ample Description	Method Analyte Units LOR	ME- MS41L Cs ppm 0.005	ME- MS41L Cu ppm 0.01	ME- MS41L Fe % 0.001	ME- MS41L Ga ppm 0.004	ME- MS41L Ge ppm 0.005	ME- MS41L Hf ppm 0.002	ME- MS41L Hg ppm 0.004	ME- MS41L In ppm 0.005	ME- MS41L K % 0.01	ME- MS41L La ppm 0.002	ME- MS41L Li ppm 0.1	ME- MS41L Mg % 0.01	ME- MS41L Mn ppm 0.1	ME- MS41L Mo ppm 0.01	ME- MS41 Na % 0.001
inple Description	LOR	0.005	0.01	0.001	0.004	0.005	0.002	0.004	0.005	0.01	0.002	0.1	0.01	0.1	0.01	0.001



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 5 - C Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017

Account: TDP

			CERTIFICATE OF ANALYSIS	VA17184292
10	= 8			
		-	=	



ALS Canada Ltd.

2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218 www.alsglobal.com/geochemistry

To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 5 - D Total # Pages: 5 (A - D) Plus Appendix Pages Finalized Date: 7- OCT- 2017 Account: TDP

CERT	<b>IFICAT</b>	E OF	ANALYSIS	VA17	84292

Sample Description	Method Analyte Units LOR	ME- MS41L Te ppm 0.01	ME- MS41L Th ppm 0,002	ME- MS41L Ti % 0.001	ME- MS41L TI ppm 0,002	ME- MS41L U ppm 0.005	ME- MS41L V ppm 0.1	ME- MS41L W ppm 0.001	ME- MS41L Y ppm 0.003	ME- MS41L Zn ppm 0.1	ME- MS41L Zr ppm 0.01		



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4 Page: Appendix 1 Total # Appendix Pages: 1 Finalized Date: 7- OCT- 2017 Account: TDP

Project: BC Project Generations

	IFICATE COMMENT	3	
	ANALYTICAL O	COMMENTS	
NSS is non- sufficient sample. ALL METHODS			
Gold determinations by this method are semi ME- MS41L	- quantitative due to the sn	nall sample weight used (0.5g).	
	LABORATORY	ADDRESSES	
Processed at ALS Vancouver located at 2103 Au- ICP21 LOG- 2 WEI- 21	Dollarton Hwy, North Vanco		SCR- 41
	la de la companya de		
	ALL METHODS  Gold determinations by this method are semi ME- MS41L  Processed at ALS Vancouver located at 2103 Au- ICP21 LOG- 2	ALL METHODS  Gold determinations by this method are semi- quantitative due to the sn ME- MS41L  LABORATORY  Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver ICP21  LOG- 22	ALL METHODS  Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).  ME- MS41L  LABORATORY ADDRESSES  Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.  Au- ICP21  LOG- 22  ME- MS41L

Appendix D

Assay Certificates Rocks



ALS Canada Ltd.

2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218

www.alsglobal.com/geochemistry

To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 1 Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18-SEP-2017

Account: TDP

## CERTIFICATE VA17184293

Project: BC Project Gen. Galambos

This report is for 30 Rock samples submitted to our lab in Vancouver, BC, Canada on 30- AUG- 2017.

The following have access to data associated with this certificate:

ROD CHURCHILL ALTIUS RESOURCES WEBTRIEVE

SHANE EBERT LAWRENCE WINTER JEFF MORGAN

ALS CODE	DESCRIPTION	
WEI- 21	Received Sample Weight	
LOG-22	Sample login - Rcd w/o BarCode	
PUL- QC	Pulverizing QC Test	
CRU- 31	Fine crushing - 70% < 2mm	
SPL- 21	Split sample - riffle splitter	
PUL- 31	Pulverize split to 85% < 75 um	

CAMDIE DDEDADATION

	ANALYTICAL PROCEDURE	ES
ALS CODE	DESCRIPTION	
ME- MS41	Ultra Trace Aqua Regia ICP- MS	
Ag- OG46	Ore Grade Ag - Aqua Regia	ICP- AES
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Pb- OG46	Ore Grade Pb - Aqua Regia	ICP- AES
Zn- OG46	Ore Grade Zn - Aqua Regia	ICP- AES
Au-ICP21	Au 30g FA ICP- AES Finish	ICP- AES

To: ALTIUS RESOURCES INC. ATTN: ROD CHURCHILL PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4 Page: 2 - A Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18- SEP- 2017 Account: TDP

(ALS)									C	ERTIFIC	CATE O	F ANAL	YSIS.	VA171	84293	~~
Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- ICP21 Au ppm 0.001	ME- MS41 Ag ppm 0.01	ME- MS41 AI % 0.01	ME- MS41 As ppm 0.1	ME- MS41 Au ppm 0.02	ME- MS41 B ppm 10	ME- MS41 Ba ppm 10	ME- MS41 Be ppm 0.05	ME- MS41 Bi ppm 0.01	ME- MS41 Ca % 0.01	ME- MS41 Cd ppm 0.01	ME- MS41 Ce ppm 0.02	ME- MS41 Co ppm 0,1	ME- MS41 Cr ppm 1
1043572		0.78	<0.001	0.01	0.35	0.7	<0.02	<10	100	0.17	0.06	0.10	0,11	56.8	1.1	3

<sup>\*\*\*\*\*</sup> See Appendix Page for comments regarding this certificate \*\*\*\*\*



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 2 - B Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18- SEP- 2017

Account: TDP

(, , , , ,									CI	ERTIFIC	CATE O	F ANAL	YSIS	VA171	84293	
Sample Description	Method Analyte Units LOR	ME- MS41 Cs ppm 0.05	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05	ME- MS41 Na % 0.01
1043572 1043573		0.24 1.20	2.5 50.7	0.43 4.71	1.44 13.45	0.07 0.17	0.32 0.38	<0.01 <0.01	0.029 0.018	0.24 0.29	24.2 31.2	2.5 15.1	0.04 2.63	468 575	0.49	0.12 1.17



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4

Page: 2 - C Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18- SEP- 2017

Account: TDP

ME- MS41 Nb ppm	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41			THE RESERVE THE PARTY OF THE PA						
0.05	Ni ppm 0.2	p ppm 10	Pb ppm 0.2	Rb ppm 0,1	Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01	ME- MS4 Th ppm 0,2
0.35	1.8	70 2120	3.6 9.5	6.6 11.9	<0.001 0.001	<0.01 <0.01	0.96 0.11	1.1	0.3	0.6	3.8	<0.01	<0.01 <0.01	4.7 5.5 4.9
_		0.40 85.2	0.40 85.2 2120	0.40 85.2 2120 9.5	0.40 85.2 2120 9.5 11.9	0.40 85.2 2120 9.5 11.9 0.001	0.40 85.2 2120 9.5 11.9 0.001 <0.01	0.40 85.2 2120 9.5 11.9 0.001 <0.01 0.11	0.40 85.2 2120 9.5 11.9 0.001 <0.01 0.11 3.7	0.40 85.2 2120 9.5 11.9 0.001 <0.01 0.11 3.7 0.5	0.40 85.2 2120 9.5 11.9 0.001 <0.01 0.11 3.7 0.5 0.7	0.40 85.2 2120 9.5 11.9 0.001 <0.01 0.11 3.7 0.5 0.7 113.0	0.40 85.2 2120 9.5 11.9 0.001 <0.01 0.11 3.7 0.5 0.7 113.0 0.01	0.40 85.2 2120 9.5 11.9 0.001 <0.01 0.11 3.7 0.5 0.7 113.0 0.01 <0.01



To: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4 Page: 2 - D Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18- SEP- 2017

Account: TDP

	,								С	ERTIFIC	CATE O	F ANALYSIS	VA17184293
ample Description	Method Analyte Units LOR	ME- MS41 TI % 0.005	ME- MS41 TI ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5	Ag- OG46 Ag ppm 1	Pb- OG46 Pb % 0.001	Zn- OG46 Zn % 0.001	
043572		0.013	0.06	0.81	3	<0.05	8.86	43	10.5		0, 3)		
043573 043574		0,387 0.354	0.05 0.06	1.57 1.25	149 144	0.29 0.27	9.19 8.73	78 59	18.2 18.6				



TO: ALTIUS RESOURCES INC. PO BOX 8263 STN. A ST JOHNS NL A1B 3N4 Page: Appendix 1 Total # Appendix Pages: 1 Finalized Date: 18- SEP- 2017 Account: TDP

Project: BC Project Gen. Galambos

		CERTIFICATE COM	MENTS	
Applies to Method:	Gold determinations by this ME- MS41		TICAL COMMENTS to the small sample weight used (0.5g).	
			ATORY ADDRESSES	
Applies to Method:	Ag- OG46 ME- MS41 PUL- QC	r located at 2103 Dollarton Hwy, No Au- ICP21 ME- OG46 SPL- 21	CRU- 31 Pb- OG46 WEI- 21	LOG- 22 PUL- 31 Zn- OG46
-				