# **TECHNICAL REPORT**

describing

# **PROSPECTING, SAMPLING, AND DRILLING**

at the

# **STUMP PROPERTY**

# STUMP, STUMP2, STUMP3, WEST, WEST, WEST2, WEST3, and WEST6

NTS Map Sheets 0920I/08W Latitude 50°24'57" N; Longitude 120°24'22" W

Field work performed from Sept 18, 2018 to Feb 10, 2019

Located in the South Central Mining Division British Columbia

prepared by

by

JM Marlow CJ Chung, B.Sc. Geology, GIT

38,251

May 05, 2019

BRITISH COLUMBIA
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Ministry of Energy and Mines BC Geological Survey





Assessment Report Title Page and Summary

TYPE OF REPORT [type of survey(s)]: TECHNICAL

TOTAL	COST:	\$10290
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author(s): J. MARLOW	SIGNATURE(S):
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):	YEAR OF WORK: 2018
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):	
PROPERTY NAME: STUMP	
CLAIM NAME(S) (on which the work was done): STUMP WEST	
COMMODITIES SOUGHT: COPPER, GOLD, SILVER	
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:	
MINING DIVISION: KAMLOOPS	NTS/BCGS:
LATITUDE: <u>50</u> ° <u>24</u> ' <u>57</u> " LONGITUDE: <u>120</u>	
OWNER(S): 1) J. MARLOW	_ 2)
MAILING ADDRESS: PO BOX 1472 KAMLOOPS BC V2C6L8	
OPERATOR(S) [who paid for the work]: 1) SAME AS ABOVE	2)
MAILING ADDRESS:	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure COPPER, GOLD, GRANODIORITE, IGNIMBRITES,	, alteration, mineralization, size and attitude):

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 32753, 33180, 34214, 35326, 35950, 36605,

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo Interpretation			
GEOPHYSICAL (line-kilometres)			·
Ground			
Magnetic	· · · · · · · · · · · · · · · · · · ·		
Electromagnetic			
Induced Polarization		· · · · · · · · · · · · · · · · · · ·	
Radiometric			
Selsmic			
Airborne			
GEOCHEMICAL number of samples analysed for)			
Soil			
Silt			
Rock			
Other			
RILLING total metres; number of holes, size)			
Core 2 holes, AQ size			10290
Non-core			······
ELATED TECHNICAL			
Sampling/assaying		· · ·	
Petrographic	· · · · · · · · · · · · · · · · · · ·		
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
REPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			******
Legal surveys (scale, area)			
Road, local access (kilometres)/tr			·*************************************
Trench (metres)			
Underground dev. (metres)			<u></u>
Other		TOTAL COST:	10290

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# **INTRODUCTION**

The Stump Property is located on the northern end of Stump Lake, within the Southern Interior of British Columbia, Canada, on Highway 5A between Merritt and Kamloops.

This report summarizes exploration history, geology, mineralization, and work completed between Sept 18, 2018 and Feb 10, 2019 on the Stump property owned by Jeremy Marlow of Kamloops B.C.

The objective of the work was to prospector drill sample on new mineralization exposure from recent logging activity. The program had a short time frame to be completed and unfortunately, the rock was too broken and weathered to continue past a depth of 8 feet. Samples from drill cuttings returned values up to 0.22% copper. Core assay values will be reported at a later date.

Future work will be done in this area in next years work program due to high potential to expand the copper zone width and length.

# **PROPERTY LOCATION, CLAIM DATA, ACCESS**

The Stump Property comprises eight mineral claims, covering an area of approximately 1,935.5 ha (19.36 sq.km). It is located on the NTS mapsheet 0920I/08W, at latitude 50°24'59" N and longitude 120°25'23" W. The claims are registered with the British Columbia Mineral Titles and are 100% owned and operated by Jeremy Marlow of Kamloops, BC. Specifics concerning claim registration are tabulated below, while the locations of the individual claims are shown on Figures 1 and 2.

Tenure Number	Claim Name	Area (ha)	Date Recorded	Expiry Date	Work
836726	STUMP	411.82	2010-10-26	2019-07-28	\$2758.65
836914	STUMP2	247.04	2010-10-28	2019-07-28	\$1654.84
845115	STUMP3	493.99	2011-01-31	2019-07-28	\$3309.08
928689	WEST	20.59	2011-11-09	2019-07-28	\$183.90
928691	WEST	41.18	2011-11-08	2019-07-28	\$367.82
928692	WEST3	20.59	2011-11-09	2019-07-28	\$183.90
941419	WEST2	514.94	2012-01-19	2019-07-27	\$4571.02
1013965	WEST6	185.34	2012-10-24	2019-07-27	\$1233.88

Table 1 - Claim registration information

The Property is located northwest of Stump Lake, approximately 45 km south of the city of Kamloops and approximately 55 km north of the city of Merritt, in south-central British Columbia along Highway 5A. Access to the Property is via Long Lake Road (also known as Kullogh Road), located approximately 8 km west of Highway 5A. Within the Property, a network of logging roads and trails allows for easy access to most of the claim area. A north-south pipeline (owned by Kinder Morgan) passes along the east side of Anderson Lake and allows for access to the more remote areas of the Property. During the winter months, only the

1

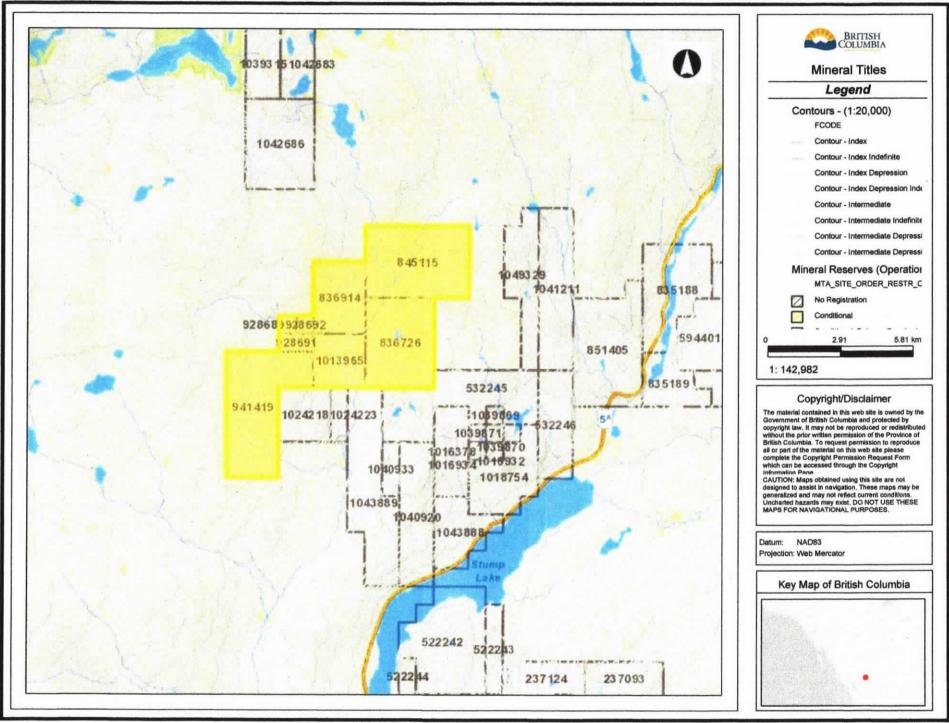


FIGURE 1.

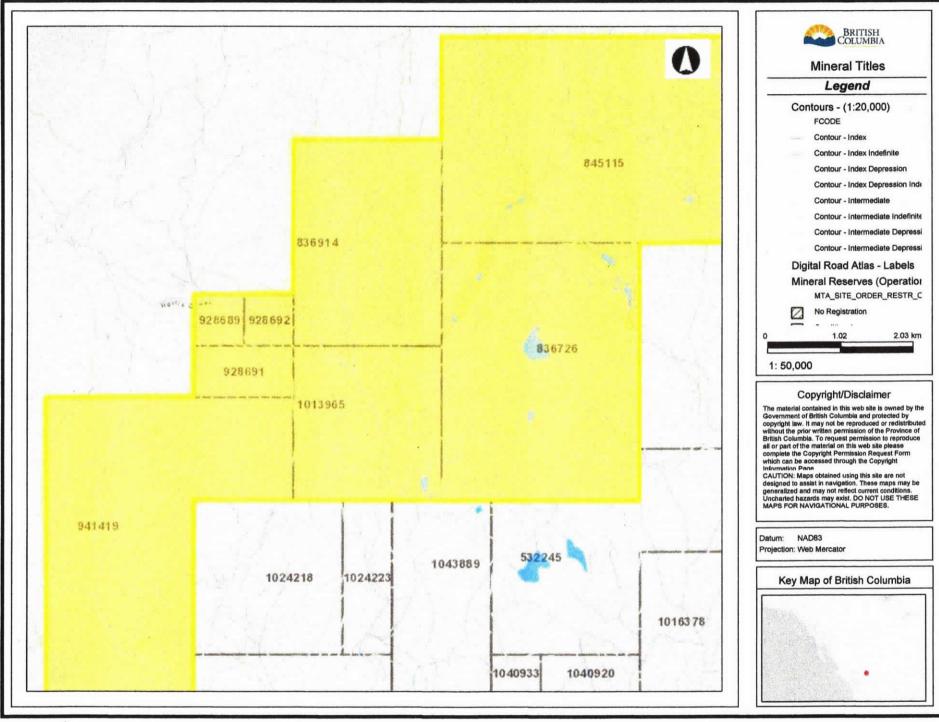


FIGURE 2.

first 2.5 kms of Long Lake Road is ploughed by the city. The remaining 4.5 kms into Anderson Lake are not maintained and are the responsibility of the claim ower/operator.

Kamloops is a full-service city located at the crossroads of several major highways and is a transportation hub in the region. It is serviced by two major railways (Canadian Pacific and Canadian National) as well as multiple airlines via the Kamloops Airport.

## **GEOMORPHOLOGY AND CLIMATE**

The Property is located within the Nicola Valley. The topography is relatively subdued and generally comprised of gently rolling hills. Local elevations range from 1050 m to 1200 m. Lower topographic regions are predominantly comprised of grasslands. Elevation increases to the west while vegetation transitions to a Douglas Fir and Ponderosa Pine dominated environment.

The climate around Stump Lake is characterized as being a semi-arid environment, with summer temperatures of generally 10-26°C and winter temperatures of -14 to -1°C. Annual rainfall averages about 25 mm, the majority of which occurs in the spring and fall months. Winter months can receive an average of 85 cm of snow. The property is mostly snow free from May to mid-October.

# **HISTORY AND PREVIOUS WORK**

The South-Central mining division is host to the prolific Iron Mask Belt and the Guichon Batholith and thus, has a rich history of mining and exploration. This belt is host to a variety of deposits such as the Highland Valley Copper Mine, the previously producing Ajax Copper-Gold Mine. Work at the Afton Mine, located approx. 27 km from the Property has restarted and has an expected annual production in 2018 of 77 thousand ounces of gold and 86 million pounds of copper.

Mining operations on the shores of Stump Lake began in the early 1900's with production continuing until the late 1940's. Since then, the region around Anderson Lake has seen only limited exploration activities over the last century. The following is a summary of previous work in the area as compiled by Norton (2011).

#### **Planet Mine**

Mining first began on the south end of Stump Lake in the 1890's after the discovery of narrow high-grade epithermal gold veins. These polymetallic veins contained pyrite, chalcopyrite, galena, sphalerite, tetrahedrite, and lesser bornite, scheelite, arsenopyrite, pyrrhotite, and native gold (Moore et al, 1990) with grades averaging 3.74 g/tonne gold, 111.75 g/tonne silver, 0.03% copper, 1.42% lead, and 0.24% zine (Shearer, 2009). In 1916, Donahue Mines Company constructed a mill on site and the first major work began on the Joshua and Tubal Cain veins. The Planet Mine and Construction Company later sunk the Enterprise and Planet shaft. Another mill was built at the Planet Mine and remained in operation from 1929 to 1931, when Nicola

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Mine took possession of the property. Nicola Mine continued operations at the Planet Mine until it was purchased by Goldfield in 1937. Goldfield rebuilt the mill and continued operations until the mine's final shutdown in 1948. By the time the Planet Mine shutdown, it had extracted a total of 8,494 oz gold, 252,939 oz silver, 40,822 lbs copper, 2,205,444 lbs lead, and 367,869 lbs zinc from 77,605 tonnes of ore (Sookochoff, 2010). Although the property has seen extensive exploration since the mine's closure, no company has successfully restarted operations in the Stump Lake Mining Camp.

### **Anderson Lake**

Claims surrounding Anderson Lake have only seen minimal work over the past 40 years with the majority of exploration work carried on the Nicola Horst; a ridge immediately west of the Moore Creek Fault. A chronological synopsis of the companies involved and their exploration completed is given below:

### Newconex Canadian Exploration

Exploration around the Anderson Lake region reportedly began with Newconex Exploration in 1972, when an exploration campaign consisting of soil geochemistry and geophysical surveys (IP and Self Potential) were completed on the current Stump 2 claim. These surveys supposedly resulted with the discovery of up to 6 ppm silver being present within the soil, along with localized coincidental IP anomalies. There are no accounts of Newconex following up on these anomalies (Holland, 1981). In addition, no assessment work was filed by Newconex and all accounts of exploration done are anecdotal in nature.

#### Sumitomo Exploration

It is reported that following the identification of a silver geochemical anomaly by Newconex Ltd., Sumitomo Exploration took ownership of the property in 1973 and performed follow up geochemical and geophysical surveys. Following these surveys, Sumitomo drilled four percussion holes on the Anderson claim block (present day Stump 2 claim) west of the Moore Creek fault. Anecdotal accounts from a drilling contractor employed by the company suggested that Sumitomo intersected 2.0 oz/ton silver over 9 metres in their most northern drill hole. Mineralization was said to have been intersected at approximately 50-60 m depth (bottom of drill hole), contained within a graphitic schist unit. Similar to Newconex, no assessment work was filed and the results of the drill campaign remain anecdotal in nature (Holland, 1981). No follow up work was completed and the claims were allowed to lapse.

## Esperanza Exploration Ltd.

James McDonal staked the Anderson, Anderson 1, and Anderson 2 claims in May 1980 and subsequently optioned them to Experanza Exploration Ltd. One vertical drill hole (DDH 80 An-1) was completed on the property in hopes of intersecting copper porphyry style mineralization. This hole was drilled to a depth of 108.8 m and was designed to twin Sumitomo's drill hole which had reportedly intersected 2.0 oz/ton silver over 9 m. Despite reportedly encountering pyrrhotite, pyrite, and minor sphalerite, no significant economic mineralization was found. While pyrrhotite, pyrite, and minor sphalerite were reportedly encountered, no significant economic mineralization was found. The highest recorded assays were 385 ppm Zn, 4 ppm Pb, 480 ppm Cu, and 1.0 ppm Ag over 3 m. Esperanza did not assay the drill core for gold. The claims were returned to Mr. McDonal and subsequently allowed to lapse. (Holland, 1981)

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## Goldbrea Developments Ltd.

In 1982, Goldbrea Developments Limited took ownership of the claims and conducted a vector pulse electro-magnetometer survey over 43 km of grid on the Anderson, Anderson 1, 2, 3, and 4 claims. The work was concentrated primarily on the intrusive units located to the west of the Moore Creek fault. The survey identified a 4 km long conductor which was attributed to be part of a graphitic schist package. Four other conductors were also defined over lesser strike lengths and originally attributed to be part of the same graphitic schist unit. However, it was later thought that these lesser conductors may represent an unknown sulphide bearing package. A northern conductor was reported to correlate to a previously defined copper soil anomaly and further work was recommended on this conductor (Candy and White, 1983)

In 1984, Goldbrea staked the Anderson 5 and 6 claims and optioned the Bag 1 and 2 claims from Canadian Nickle Company Ltd. An extensive exploration program consisting of geological mapping and geophysical surveys were conducted on the Anderson 4 and the Bag claims. Mapping on the south end of these claims identified a healed epithermal vein breccia zone containing minor sulphides. A VLF-EM survey conducted over this same area showed evidence for a deeply buried conductive zone which is hypothesized to be indicative of fluid boiling and host to possible precious metals (White, 1985). Follow up drilling was recommended, but never completed.

In 1986, Goldbrea performed a Pulse Electromagnetic survey on the Anderson 1, 2, and 3 claims. A strong conductor was identified and was believed to underlie the graphitic schist unit. Goldbrea was unable to complete this survey due to nearby forest fires. No further work was performed despite a recommendation to drill on the conductor. (White, 1986).

### Post 2010 Work

The Stump Property was discovered in late 2010 by Chuck and Jeremy Marlow. It was initially thought to be an epithermal quartz-carbonate vein system but may represent the epithermal overprint of a possible nearby copper porphyry. A 3 km long quartz-carbonate vein system was discovered in 2010 with chip samples returning up to 5.3 g/t gold over 10 m and one grab sample returning 6.26 g/t gold. Following the discovery, the Marlows staked the Stump, Stump 2, 3, 4, and 5 claims.

In 2011, Commander Resources Ltd. staked 8 claims in the area and in June 2011, they entered a Letter of Intent to Option with the Marlows. Between 2011 and 2012, Commander conducted geochemical and geophysical surveys as well as mapping, prospecting and diamond drilling. An initial soil geochemistry survey was completed over the majority of the Anderson Lake grid. It was determined that the soil profiles surrounding Stump Lake are complex and vary dependant on location, hence making soil sampling difficult. This geochemical survey defined a 2.20 km long by up to 600 m wide north-northeast trending gold anomaly with results up to 317 ppb gold west of Anderson Lake. (Norton, 2011). Commander continued work on the property with magnetometer and IP surveys over 48 line-km and a 10-hole diamond drill program, totalling 2,073 m. Results from geological, geophysical, and drilling programs suggest that gold mineralization is hosed by multi-episodic chalcedonic quartz veins and quartz breccia.

Highlights from drilling include 4.5 g/t gold over 1 m and 0.3 g/t gold over 50 m in DDHSL-12-06. (Norton, 2012).

### **Discovery** Zone

In 2016, the Marlows, using a Prospector drill, completed 5 holes around Anderson Lake on the quartz-carbonate ledge system discovery area. Three holes were drilled in the spring on a previous "dead ledge" to check for nugget effects. Assays returned positive results of 0.8 g/t gold over 1 m. Two other holes were drilled in the vicinity of the discovery vein. Assays returned up to 2.16 g/t gold over 0.3 m and 0.52 g/t gold over 4 m. These holes did not reach target depth due to hole collapse and time constraints. In 2017, trenching and percussion drilling in the area of the discovery vein produced assays of up to 4.8 g/t gold over 4 m. A 50-tonne stockpile of carbonate material was created for later testing. (Marlow, 2018).

#### Manto Zone

The Marlows discovered a manto type style zone in late 2011 on the west side of the Nicola Horst, approximately 3 km west of the discovery zone. Surface sampling over 40 m<sup>2</sup> area resulted in five chip samples averaging 0.35% copper with up to 0.154 g/t gold. In 2014, 19 percussion holes were drilled in this area and extended the surface exposure of the manto zone to 500 m<sup>2</sup>. Samples from this work were not assayed, but home chalcocite tests on the cuttings and XRF test showed evidence of anomalous copper. A "prospectors drill" was also used to complete two 15 m holes. These holes intersected 10 m of 0.26% copper, including 5 m of 0.412% copper. In 2017, new logging roadcuts in the area showed evidence of copper mineralization. Soils samples as well as limited grab samples were collected but not yet assayed. (Marlow, 2018).

#### Shaft Zone

In 2012, a 20 m deep shaft was discovered approximately 250 m north of the Manto Zone, situated on a high temperature quartz vein. No records of previous work have been found to date. Samples collected from this area returned up to 1.98% copper, 96 g/t silver, 63 g/t bismuth, and 27 g/t tellurium. In 2015, three "prospector drill" holes were done along strike, in close proximity to the shaft. Only one hole was assayed and it returned 0.19% copper over 6 m with anomalous gold and molybdenum. Logging activity in 2018 uncovered new areas approximately 200 m north of the shaft. Samples collected from this area returned up to 0.21% copper, while representative chip samples over 4 m length returned up to 0.10% copper. (Marlow, 2018).

#### <u>Fire Zone</u>

In 2016, a new quartz-carbonate zone was established after prospecting in a burn area from a 2015 forest fire. Representative chip samples returned 2.36 g/t gold over 20 m, while grab samples returned 0.68 g/t gold over 25 m<sup>2</sup>. (Marlow, 2018).

## **GEOLOGICAL SETTING**

#### **Regional Geology**

The Stump Property occurs within the Intermontane Belt, a low lying, north-northwest striking regions that lies between the rugged Coast Belt and the Omineca Belt. This former island arc

was accreted to present day North America about 180-175 million years ago, and is regionally comprised of weakly metamorphosed island arcs and ocean basin (Mathews and Monger, 2005). These three belts in part comprise the Quesnellia Terrain.

The region around Stump Lake is underlain by late Triassic arc-volcanics and sedimentary facies designated to the Nicola Group. Facies changes within these units are indicative of a depositional setting which rapidly fluctuated between a sub0areal and sub-aqueous environment.

Shortly after deposition, the Nicola Group was intruded by both coeval Triassic and Jurassic plutons (Moore et al, 1990). In the mid-Jurassic, the Nicola Group was obducted onto present day western North America resulting in moderate to steeply dipping fabric (Lindinger, 1996). Locally, this fabric is cut and displaced by west and south dipping thrust faults which metamorphosed the units to lower greenschist facies.

During the Tertiary, substantial faulting occurred creating the present day Nicola Horst, located on the west side of the property. This north trending horst contains faults bounded black schist which has been metamorphosed to amphibolite facies along with lesser altered metagabbros and granites. The Paleocene aged Rocky Gulch granodiorite is the only unit to have not undergone deformation (Moore et al, 1990).

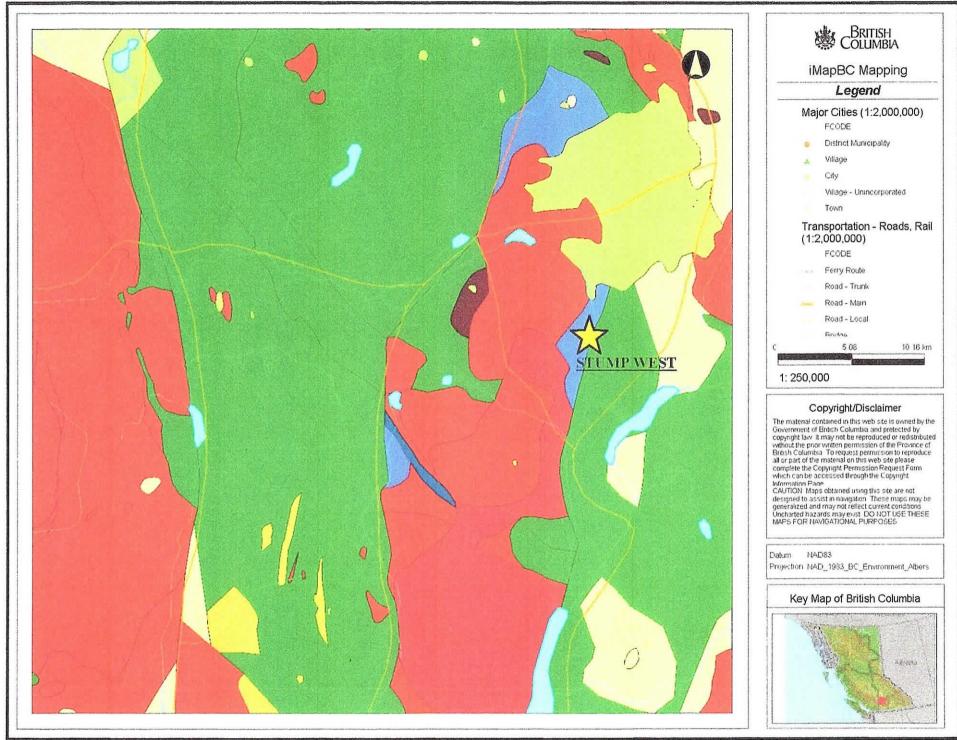
Much of the region is covered in glacial till dating back to the Pleistocene glaciation along post glacial sediments (Figure 3).

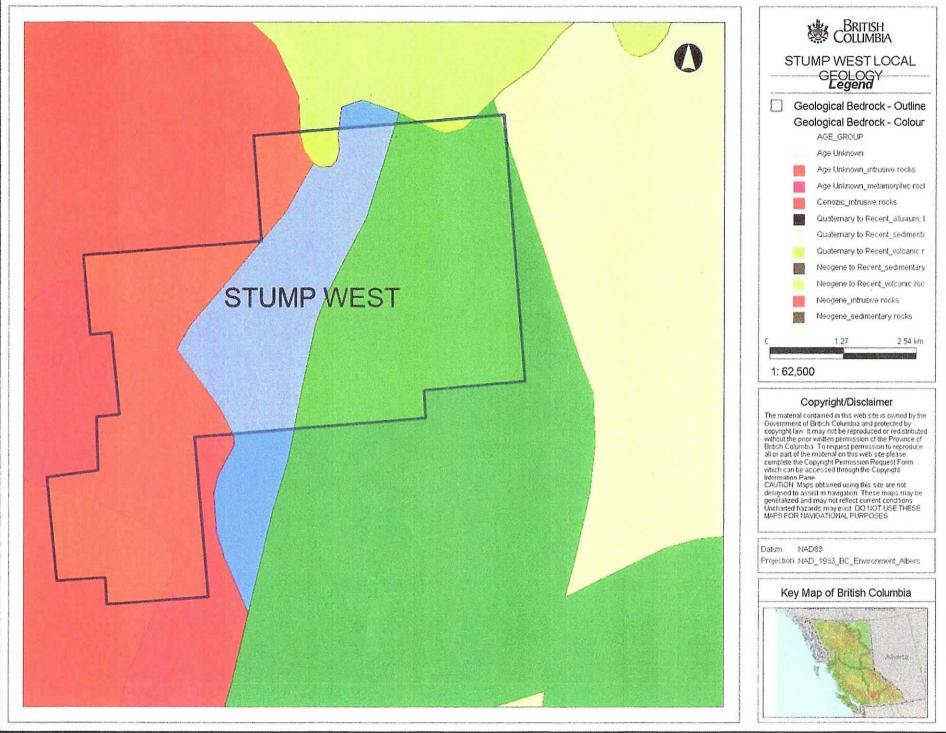
## **Property Geology**

Mapping by Commander in 2011 identified five dominant rock types within the Property (Figures 4). These rocks are assigned to the Triassic Nicola Group volcanics and volcaniclastics to the east, and the Tertiary Nicola Horst group to the west. The Tertiary aged, north striking Moore Creek fault separates these two units.

The Nicola Group volcanics can be further subdivided into coevally deposited, intercalated andesites, ignimbrites (volcaniclastics), and basalts. Volcaniclastics dominate the Nicola group in this area and are characterized as very coarse grained, generally unaltered, moderately magnetic, and often containing plagioclase and hornblende phenocrysts up to 3 mm wide. On surface, it is strongly weathered with a finer grained appearance and often mislabelled as andesite. Basalts are dark grey-green, non-magnetic, often vesicular, and exhibit very fine micro-granular texture. Ignimbrites are present on a knoll ("Repeater Hill"), located 1.5 m northeast of Anderson Lake. (Norton, 2012).

The Nicola Horst is represented predominantly by unaltered monzonite with lesser, intensely altered schist. The monzonite unit is light grey in colour, medium grained, equigranular, unaltered, and contains trace disseminated pyrite. A local gneissic foliation within the mozonite may indicate later metamorphic deformation. East of the monzonite, a 500-800 m wide, north trending, fine grained and strongly altered Tertiary amphibolite schist is present. (Norton, 2012). Strong mineralization is found within the amphibolite schist.





# 2018/2019 WORK

Table 2 below details work that was completed in 2018 and 2019, while Figures 5 and 6 show the locations of where the work was conducted.

Date	Work Done
Sept 30	Chuck and Jeremy Marlow went out to look for water options for drilling on the west side of the property. Seeing that recent logging was done in prospected, uncovering copper showings along both of the new roads. Priority was moved to this new area for exploration.
Oct 01	Chuck and Jeremy went out to prospect the new log slash area.
Oct 02	Chuck and Jeremy trenched at end of a new road for a drill setup.
Oct 03	Chuck and Jeremy took "pionjar 120 drill" out to drill new copper zone; they got water and anchor holes drilled. They used truck bed for drill base. Water is scarce but workable.
Oct 04	Chuck and Jeremy loaded pickup with "prospector drill" and went to property. Drill was anchored and started coring; rock is very broken and weather with recovery under 50%. Hole was abandoned due to poor recovery and hole conditions.
Oct 05	Chuck and Jeremy went out to property to try second hole, hoping to get better recovery. Second hole was collared near intrusive with copper mineralization. Rock is badly weathered and recovery is poor again. Drilling was stopped after 8 feet due to conditions.
Nov 19	Chuck and Jeremy split and sampled core.
Nov 20	Chuck and Jeremy split and sampled core from previous years.

Table 2 - Days covered in this report

# **INTERPRETATION AND CONCLUSIONS**

The work in this report adds to the previous eight years of exploration on the Stump Property by the Marlow family. The main focus of this year's work was the west side of the Nicola Horst, concentrating on the newly exposed copper mineralization. Samples from drill cuttings returned up to 0.22% copper. Core sample values will be reported at a later date.

It is still in the opinion of the author this property is in a sub-volcanic setting with multiple deposit types and formations. It is also possible that this property is an Intrusion Related Gold System due to several factors including strongly a reduced aeromagnetic signature, high fluorine, continental sedimentary assemblage, bismuth, molybdenum, gold, and tellurium anomalies, sulphides typically under 0.5%, and the metallogenic signature is favourable.

Low arsenic or antimony values, along with higher bismuth and tellurium is usually indicative of being lower in the zoning or closer to the source magma fluids.

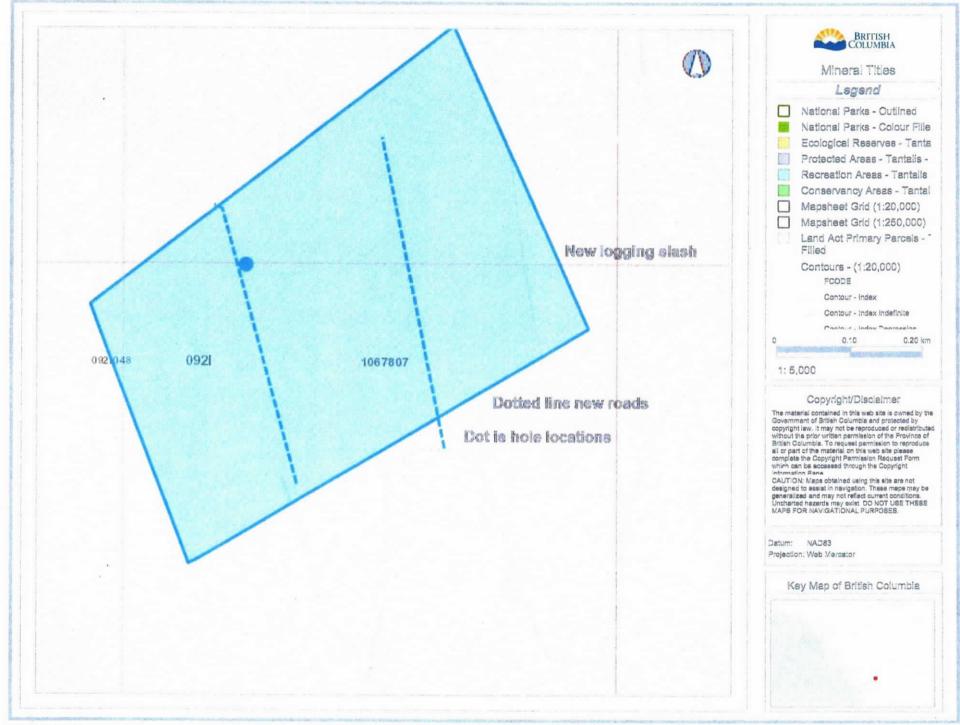
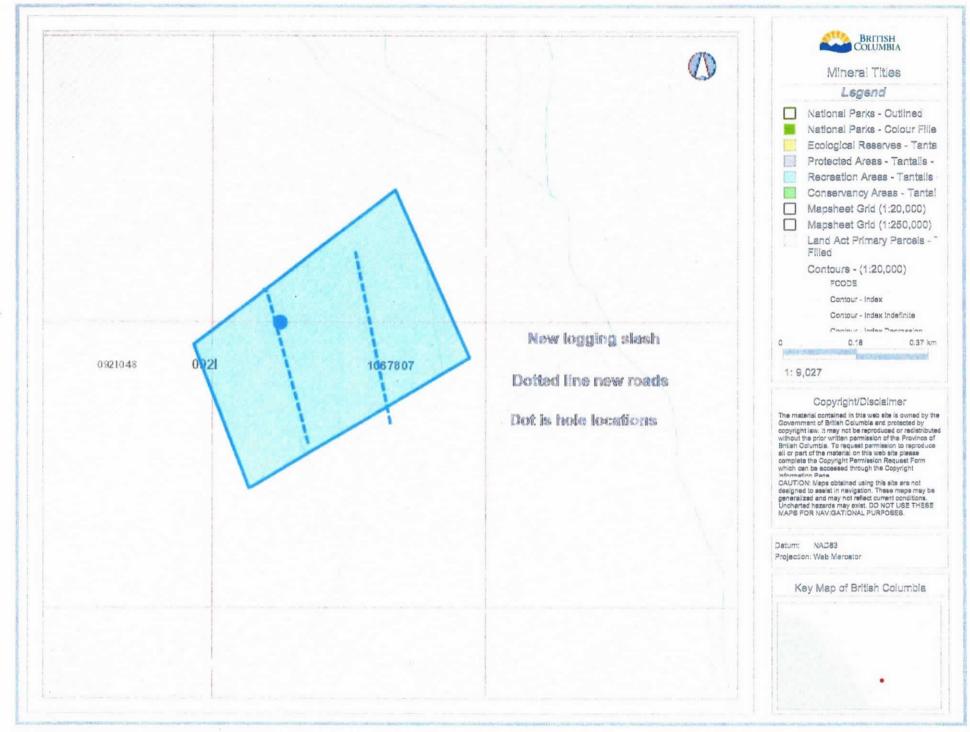


FIGURE 5.



# STATEMENT OF COSTS

DATE	# MEN	LIVEOUT	WAGES	VEHICLE	DRILL
2018-09-30	2	120	800	120	
2018-10-01	2	120	800	120	100
2018-10-02	2	120	800	120	100
2018-10-03	2	120	800	120	100
2018-10-04	2	120	800	120	100
2018-10-05	2	120	800	120	100
2018-11-19	2	120	800	120	
2018-11-20	2	120	800	120	
Report Prep			1470		

TOTAL

\$10,290

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# STATEMENT OF QUALIFICATIONS

I, Jeremy Marlow, prospector, with business and residential addresses in Kamloops, British Columbia do hereby certify that:

- 1. I am a third generation Metis prospector.
- 2. I have worked in the mining industry since the age of 14, and have been involved in almost all aspects of the mining industry.
- 3. I am the owner of the property and have personally overseen and conducted all work included in this report
- 4. I have personally reviewed all data resulting from this work.
- 5. I acted as the Level 1 First Aid person in the field.

Jeremy M. Marlow

# **STATEMENT OF QUALIFICATIONS**

I, Crystal J. Chung, geologist, with business and residential address in Burnaby, British Columbia do hereby certify that:

- 1. I graduated from the University of British Columbia in 2005 with a B.Sc. majoring in Earth and Ocean Sciences (Geology)
- 2. From 2004 to present, I have been actively engaged in mineral exploration in British Columbia, Alaska, the Yukon Territory, and Manitoba.
- 3. I am a Geoscientist in Training (GIT) with the Association of Professional Engineers and Geoscientists of British Columbia (Member Number 138321).
- 4. I have reviewed all data resulting from this work.

Crystal. J. Chung, B.Sc., GIT

#### Sheet1

# 2018 Stump Drill holes CC-001 and CC-002

CC-18-001 Azi: 330° Dip -30° Location: 10U 682363E /5587678N 0 meters to 1.7 meters recovery was 30% so cuttings were included in sample Metamorphic hornblend schist Copper mineralization was seen in cuttings and all core was sent in for assay Sample number CC-001 CC-18-002 Azi: 330° Dip-40° Location: 10U 682363E /5587678N 0 meters to 0.6 meters Metamorphic hornblend schist **Recovery 30%** Sample number CC-002 Cuttings included with sample 0.6 meters to 1.2 meters Felsic guartz vien with copper mineralization Sample number CC-003 **Recovery 50%** Cuttings included with sample Rock was split for sample (approx 1 foot) 1.2 meters to 1.8 meters Metamorphic hornblend schist **Recovery 20%** Sample number CC-004 Cuttings included with sample 1.8 meters to 2.4 meters Metamorphic hornblend schist Recovery 10% Sample number CC-005 Cuttings included with sample

All core except sample CC-003 was included in samples sent to lab. November 19th was splitting approx. 1 foot and mixing cuttings and core pieces together to make a full sample for assay.



# Innovative Technologies

Date Submitted:17-Oct-18Invoice No.:A18-15359Invoice Date:07-Nov-18Your Reference:Stump

Jeremy Marlow P.O. Box 1472 Kamloops B.C. Canada

Quality Analysis ...

ATTN: Jeremy Marlow

# CERTIFICATE OF ANALYSIS

11 Crushed Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Kamloops Au - Fire Assay AA Code 1E3-Kamloops Aqua Regia ICP(AQUAGEO)

REPORT A18-15359

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Emmanuel Eseme , Ph.D. Quality Control

ACTIVATION LABORATORIES LTD. 9989 Dallas Drive, Kamloops, British Columbia, Canada, V2C 6T4 TELEPHONE +250 573-4484 or +1.888.228.5227 FAX +1.905.648.9613 E-MAIL Kamloops@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com Results

Activation Laboratories Ltd.

Report: A18-15359

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Мо	Ni	Pb	Zn	AI	As	в	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	к	La
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm							
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP																					
DZPH001	4810																						
DZPH002	238																						
DZPH003	1420																						
DZPH004	660																						
SPH17-001	9	1.2	< 0.5	64	37	2	2	53	16	0.16	< 2	< 10	17	< 0.5	6	0.05	8	5	0.46	< 10	< 1	0.04	< 10
SPH17-002	5	11.6	5.8	3310	481	7	26	8	192	1.61	< 2	< 10	14	< 0.5	65	0.22	96	47	7.46	< 10	. 1	1.05	< 10
CC18-001	57	0.7	< 0.5	757	228	9	15	48	34	0.99	< 2	< 10	87	< 0.5	< 2	1.12	18	63	2.91	< 10	< 1	0.30	< 10
CC18-002	60	1.8	< 0.5	998	208	56	14	16	20	1.84	< 2	< 10	107	< 0.5	< 2	2.22	22	94	5.40	< 10	2	0.44	< 10
CC18-003	23	1.5	0.6	2160	362	4	4	43	42	0.34	< 2	< 10	48	< 0.5	3	0.16	4	66	1.13	< 10	< 1	0.14	< 10
CC18-004	8	0.3	< 0.5	538	436	4	31	6	33	2.11	< 2	< 10	143	< 0.5	< 2	2.07	29	73	4.59	< 10	< 1	0.56	< 10
CC18-005	60	0.8	< 0.5	1660	275	4	29	9	46	2.31	< 2	< 10	108	< 0.5	< 2	2.40	32	93	6.18	< 10	< 1	0.59	< 10

Results

Activation Laboratories Ltd.

Analyte Symbol	Mg	Na	Р	S	Sb	Sc	Sr	Ti	Th	Te	TI	U	V	w	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm							
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP															
DZPH001																
DZPH002			Γ													
DZPH003	1													1		
DZPH004		[														
SPH17-001	0.04	0.072	0.004	0.01	< 2	< 1	5	< 0.01	< 20	2	< 2	< 10	6	60	2	< 1
SPH17-002	1.22	0.057	0.072	4.29	3	11	11	0.10	< 20	23	< 2	< 10	112	159	7	2
CC18-001	0.87	0.143	0.109	0.08	< 2	7	25	0.16	< 20	3	< 2	< 10	81	< 10	10	3
CC18-002	1.61	0.248	0.130	0.22	3	15	27	0.18	< 20	3	< 2	< 10	126	< 10	8	2
CC18-003	0.15	0.120	0.013	0.26	< 2	4	6	0.04	< 20	3	< 2	43	15	< 10	30	4
CC18-004	1.96	0.254	0.109	0.05	4	15	26	0.22	< 20	< 1	< 2	< 10	151	15	9	3
CC18-005	1.93	0.274	0.104	0.20	3	16	24	0.22	< 20	< 1	< 2	< 10	150	17	8	3

Activation Laboratories Ltd.

Report: A18-15359

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Мо	Ni	Pb	Zn	Al	As	В	Ва	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	к	La
	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	- ppm		ppm	ppm	%	ppm		%	ppm		%	ppm
	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10		0.5	2	0.01	1	P.P	0.01	10	i i anno an	0.01	10
	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP			AR-ICP	AR-ICP	AR-ICP		AR-ICP	AR-ICP		AR-ICP	
GXR-6 Meas		0.3	< 0.5	64	946	2	22	90		6.42	191	< 10	817	0.8	< 2	0.15	12	75	5.00	20	< 1	1.02	
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
OREAS 904		0.4	< 0.5	6150	433	2	35	8		1.79	89	0.00	74	7.0	10	0.04	89	25	6.01	< 10	0.0000	0.86	
(Aqua Regia)		0.1		0.00		-		Ů					, ,	7.0		0.04			0.01			0.00	
Meas																							
OREAS 904		0.366	0.0580	6300	410	2.02	36.6	8.49	22.4	1.25	91.0		68.0	6.54	3.74	0.0404	82.0	17.5	6.40	3.40		0.603	33.9
(Aqua Regia) Cert									ļ													e	
OREAS 45e				749	387		396	12	30	3.81	21		114			0.03	44	848	20.9	10		0.06	
(Aqua Regia) Meas							,																1
OREAS 45e				709.0			357.0	14.3	30.6	3.32	11,4		139			0.032	52	849.0	22.650	11.7		0.053	
(Aqua Regia) Cert				700.0	400.000		007.0	14.0	00.0	0.02	''		133			0.052	52	049.0	22.000	1		0.000	
SE68 Meas	581								†	1													
SE68 Cert	599								†														1
SE68 Meas	576								<b> </b>														
SE68 Cert	599								<u> </u>													1	1
OREAS 922		1.1	< 0.5	2200	741	< 1	32	63	251	2.82	7		76	0.7	13	0.40	19	45	4.96	< 10		0.47	37
(AQUA REGIA)														•									
Meas																							
OREAS 922		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
(AQUA REGIA) Cert																							
OREAS 923		1.8	< 0.5	4140	820	< 1	31	81	318	2,74	10		58	0.6	18	0.39	21	43	5.49	< 10		0.38	33
(AQUA REGIA)		1.0	< 0.5	4140	020	`'	31		310	2.74	10		50	0.6	10	0.39	21	43	5,49			0.30	33
Meas																							
OREAS 923		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
(AQUA REGIA)																							
Cert																						L	
OREAS 907 (Aqua Regia)		1.4	0.6	6230	325	5	6	35	141	1.21	34		215	1.0	21	0.28	45	8	7.67	20		0.37	39
Meas									1										[				
OREAS 907		1.30	0.540	6370	330	5.64	4.74	34.1	139	0.945	37.0		225	0.870	22.3	0.280	43.7	8.59	8,18	14.7		0.286	36.1
(Aqua Regia) Cert																0.200							
OREAS 214 Meas	3010								[														
OREAS 214 Cert	3030								[														
OREAS 214 Meas	3000																						
OREAS 214 Cert	3030																						
Oreas 621 (Aqua		71.5	272	3540	523	13	22	> 5000	> 10000	1.67	73			0.5	4	1.51	29	29	3.16	< 10	4	0.35	18
Regia) Meas																							
Oreas 621 (Aqua		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
Regia) Cert									ļ		L		L		ļ		ļ				ļ		l
DZPH001 Orig	4840									ļ	L				ļ			ļ		ļ	L	ļ	
DZPH001 Dup	4780								L						L							ļ	
SPH17-001 Orig		1.2	< 0.5	65	38	2	1	53	16	0.16	< 2	< 10	17	< 0.5	7	0.05	8			< 10	< 1	0.04	-
SPH17-001 Dup		1.3	< 0.5	62	37	2	2	52	16	0.16	< 2	< 10	16	< 0.5	6	0.05	8	5	0.45	< 10	< 1	0.04	< 10
CC18-002 Orig	60																						

Activation Laboratories Ltd.

Report: A18-15359

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Analyte Symbol	Au	Ag	Cd	Cu	Mn	Мо	Ni	Pb	Zn	Al	As	В	Ва	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	к	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm,	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP																					
CC18-002 Dup	60																						
Method Blank	< 5														I								
Method Blank	< 5					[								Γ									
Method Blank	< 5													Γ									
Method Blank	I	< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	<1	< 0.01	< 10	< 1	< 0.01	< 10

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Analyte Symbol	Mg			S	Sb	Sc	Sr	Ti	Th	Te	TI	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001		0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	_	_	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP		AR-ICP	AR-ICP	AR-ICP		AR-ICP	
GXR-6 Meas	0.37	0.092	0.029	0.01	3	18	33		< 20	1	< 2	< 10	164	< 10	5	6
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
OREAS 904 (Aqua Regia) Meas	0.19		0.090	0.04	5	5	20		< 20		< 2	< 10	34		21	
OREAS 904 (Aqua Regia) Cert	0.143		0.0950	0.0340	0.780	3.83	16.5		7.56		0.150	5.20	21.7		17.2	
OREAS 45e (Aqua Regia) Meas	0.10	0.036	0.027	0.04		78	4		< 20		< 2	< 10	294		5	
OREAS 45e (Aqua Regia) Cert	0.095	0.027	0.029	0.044		78	4.05		10.70		0.072	1.73	295.0		5.74	
SE68 Meas								L			L		L	ļ	L	
SE68 Cert												L		L		
SE68 Meas																
SE68 Cert																
OREAS 922 (AQUA REGIA) Meas	1.34	0.032	0.060	0.36	4	4	17		< 20		< 2	< 10	39	< 10	23	22
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 923 (AQUA REGIA) Meas	1.36		0.056	0.63	3	4	15		< 20		< 2	< 10	37	< 10	20	27
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
OREAS 907 (Aqua Regia) Meas	0.22	0.104	0.021	0.06	6	3	14	0.02	< 20	< 1	< 2	< 10	7	< 10	9	15
OREAS 907 (Aqua Regia) Cert	0.221	0.0860	0.0240	0.0660	2.28	2.16	11.7	0.0170	8.04	0.230	0.120	2.15	5.12	0.980	6.52	43.7
OREAS 214 Meas																
OREAS 214 Cert																
OREAS 214 Meas																
OREAS 214 Cert																
Oreas 621 (Aqua Regia) Meas	0.42	0.176	0.031	4.37	118	2	17		< 20		< 2	< 10	14	< 10	8	57
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91		0.770	1.63	10.9	1.00	6.87	55.0
DZPH001 Orig																
DZPH001 Dup																
SPH17-001 Orig	0.04	0.072	0.004	0.01	< 2	< 1	5	0.01	< 20	2	< 2	< 10	6	60	2	< 1
SPH17-001 Dup CC18-002 Orig	0.04	0.072	0.004	0.01	< 2	< 1	5	< 0.01	< 20	3	< 2	< 10	6	60	2	< 1

# Activation Laboratories Ltd.

Analyte Symbol	Mg	Na	Р	S	Sb	Sc	Sr	Ti	Th	Te	TI	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm							
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
CC18-002 Dup																
Method Blank																
Method Blank																
Method Blank	1															
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1

# Quality Analysis ...



# Innovative Technologies

This is your final copy. If you require an original to be mailed by post please advise, otherwise this email will be deemed sufficient. Invoice No.: A18-15359 Purchase Order: Invoice Date: 13-Nov-18 Date submitted: 17-Oct-18 Your Reference: Stump GST # : R121979355

Jeremy Marlow P.O. Box 1472 Kamloops B.C. Canada

#### ATTN Jeremy Marlow

# INVOICE

No. samples	Description	Unit Price	1	Total
8	RX4(KAMLOOPS)	\$ 7.25		\$ 58.00
3	RX1-T (Kamloops)	\$ 11.50	T.	\$ 34.50
7	1E3-Kamloops	\$ 14.25	ł.	\$ 99.75
11	1A2-Kamloops	\$ 17.00	ţ.	\$ 187.00
		Subtotal:	:	\$ 379.25
		GST-BC-5%	:	\$ 18.96
		AMOUNT DUE: (CAD)	:	\$ 398.21

Net 30 days. 1 1/2 % per month charged on overdue accounts.

HST#121979355RT0001 Bank Transfer details: ACTIVATION LABORATORIES LTD at ROYAL BANK OF CANADA 59 WILSON STREET WEST ANCASTER, ON CANADA L9G 1N1 ance TRANSIT #: 00102 003 ACCOUNT\* #: 1000116 SWIFT CODE#: ROYCCAT2 (\*account number changed)

Please reference the invoice number when making a payment by Bank/Wire transfer. Intermediary Bank Fees are the responsibility of the client. If payment is made by direct/wire transfer, please

send payment notifications to ancaster@actlabs.com Thank you!



ACTIVATION LABORATORIES LTD.

41 Bittern Street, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613 E-MAIL ancaster@actlabs.com ACTLABS GROUP WEBSITE http://www.actlabs.com

