# **Ches Property Evaluation Report**

Omineca Mining Division Tenure Numbers: 600320, 600398-600409, 600750, 600751

NTS: 093F/05E

UTM Zone 10 319945 E, 5921625 N (NAD 83) BC Geological Survey Assessment Report 32256

Work performed July 25, 2010 By Karen-Jane Weir (Teck Resources), Gabe Jutras (Teck Resources), Ralph Keefe and Shawn Turford

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### **1.0 EXECUTIVE SUMMARY**

The Ches/Tet property is comprised of 15 contiguous mineral claims with a total area of 5320.86ha, situated in the Omineca Mining Division, in the Tetachuck Lake map area (NTS 93F/05E) of central British Columbia. (UTM Zone 10-U, UTM 319945 E, 5921625 N, NAD 83). The property lies approximately 80km south of Burns Lake and is accessible via an all-weather paved highway south from Burns Lake to Ootsa Lake crossing Francois Lake using the Francois Lake ferry. A private barge operated by the Ron Vantine can be used to access the network of logging roads south of Ootsa Lake and the Ches/Tet property.

The Ches showing was discovered following the construction of the Tetachuck Main logging road in 1985. The showing consists of pyrrhotite-scheelite replacement style mineralization in calcareous sediments and a quartz chalcopyrite-molybdenite-scheelite stockwork zone in fine grained siltstones. A nearby intrusion is suspected to underlie the area and be the source of copper-silver-tungsten-molybdenite mineralization Leask (1987a). Grades of the main showing average 0.26% WO<sub>3</sub> over 22m with high grade zones of 0.56% WO<sub>3</sub> and 0.45% Cu over 2m. The stockwork zone is reported to average 0.62% Cu, 0.07% WO<sub>3</sub>, 0.06% MoS<sub>2</sub> and 5.14g/t Ag/350m in the original discovery report (ARIS 15129) and 0.52% Cu, 0.07% WO<sub>3</sub>, 0.008% MoS<sub>2</sub> and 5.14g/t Ag/350m in a follow up report (ARIS 17679). Geophysical and soil geochemical surveys identified anomalies up to 350m wide and at least 800m and possibly 1500m long and open along strike.

Scarlet Resources Ltd. used the property as a listing property in 2008 but other than a brief property visit by Gerald Ray Ph.D., P.Geo. in May, 2008, as part of the requirements to complete an NI43-101 report on the property, no work programs were completed under the agreement.

Teck Resources Ltd. personnel completed a one day property visit during the summer of 2010 with the claim owners Ralph Keefe and Shawn Turford. Access was gained via a helicopter under charter from Interior Helicopters in Fort St. James. The party collected a total of 5 rock samples from both the Main and stockwork zones. Results confirmed the presence of significant copper mineralization in both zones.

A reinterpretation of the previous work and current government information implies that there may exist significant potential for both skarn and stockwork mineralization over an area south of the Exo showing to the shores of Tetachuck Lake a distance of approximately 6000m. This is suggested by a 1<sup>st</sup> derivative magnetic high anomaly up to 2km wide and in excess of 6km long. This anomaly is along trend to geophysical and geochemical anomalies identified in previous work programs at the Exo showing.

## **Table of Contents**

Pa	ge
1.0 Executive Summary	-
2.0 Introduction and Terms of Reference	1
2.1 Qualified Person and Participating Personnel	1
2.2 Terms, Definitions and Units	1
2.3 Source Documents	
2.4 Limitations, Restrictions and Assumptions	2
2.5 Scope	
3.0 Reliance on Other Experts	
4.0 Property Description and Location	
4.1 Location and Access	
4.2 Physiography and Vegetation	
4.3 Land Tenure	
5.0 History.	
6.0 Geological Setting	
6.1 Regional Geology	
6.2 Property Geology	
6.2.1 Naglico Formation (Hazelton Group)1	1
6.2.2 Intrusive rocks	1
6.2.3 Structures on the Property	
7.0 Property Geophysics	
8.0 Deposit Models	
8.1 Porphyry copper/molybdenum13	
8.2 Cu-dominant skarn	
9.0 Mineralization	
9.1 Mineralization at the Exo Cu-Mo-W skarn (BC Minfile 093F 017)	
9.2 Mineralization at the Tet Cu-Mo showing (BC Minfile 093 002)	
9.3 Mineralization at the Godot Cu-Mo showing (BC Minfile 093F 035)17	
9.4 Mineralization occurring elsewhere on the CHES property	
10.0 Previous Exploration	
10.1 Geological Mapping	
10.3 Trenching	
10.4 Geophysical Surveys	
10.5 Geochemical Surveys	
11.0 Drilling	
12.0 Current Exploration Program	n
12.1 Prospecting Results	
13.0 Geophysical Survey Method and Approach	
14.0 Data Verification	
15.0 Adjacent Properties	
15.1 Huckleberry	
15.2 Poplar	
15.3 Ox Lake	
15.4 Equity Silver	

	Page
15.5 Endako	22
15.6 Blackwater-Davidson	23
16.0 Mineral Processing and Metallurgical Testing	23
17.0 Mineral Resource and Mineral Reserve Estimates	23
18.0 Other Relevant Data and Information	23
19.0 Interpretation and Conclusions	23
20.0 Recommendations and Budget	
21.0 References	25
22.0 Certification, Date and Signature	27
23.0 Statement of Expenditures	
24.0 Software used in the Program	
25.0 Appendices	
Appendix A - Assay Certificates	
Appendix B - Analytical Procedures and Detection Limits	

Appendix C - Teck Resources Field Notes

### List of Illustrations

Figure 1:	Property Location map	3
Figure 2:	Claim Map	6
	Regional Geology Map	
Figure 4:	Property Geology Map	9
Figure 5:	1 <sup>st</sup> Derivative Magnetics from MapPlace	13
	Sample Location map	
-		

## List of Tables

Table 1:	Claim Data4	
Table 2:	Geology Legend10	

### 2.0 INTRODUCTION AND TERMS OF REFERENCE

### 2.1 Qualified Person and Participating Personnel

Mr. Kenneth D. Galambos, P.Eng. was commissioned by Ralph Keefe and Shawn Turford of British Columbia to complete the assessment report for the Project and to make recommendations for the next phase of exploration work in order to test the economic potential of the area. The author of this report did not participate in the work program. Participating personnel included Ralph Keefe, Shawn Turford, claim owners and Teck employees Karen Weir and Gabe Jutras.

### 2.2 Terms, Definitions and Units

- All costs contained in this report are denominated in Canadian dollars.
- Distances are primarily reported in meters (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 (g/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: arsenic (As), gold (Au), lead (Pb), molybdenum (Mo), silver (Ag), tungsten (W); chalcopyrite (Cpy), galena (PbS), molybdenite (MoS<sub>2</sub>) and pyrrhotite (Po), 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 <u>http://www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Pages/default.as</u> <u>px</u>
- Research of mineral titles at <u>https://www.mtonline.gov.bc.ca/mtov/home.do</u>
- 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 <u>http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/MainMaps/Page</u> <u>s/default.aspx</u>.
- Published scientific papers on the geology and mineral deposits of the region and on mineral deposit types.

• Private reports received from Teck Resources Ltd. regarding their 2010 property visit.

### 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. The only discrepancy noted is in the historical results reported for the Exo showing. ARIS 15129 reports that the sampling of the stockwork zone average **0.62% Cu**, 0.07% WO<sub>3</sub>, **0.06% MoS**<sub>2</sub> and 5.14g/t Ag/350m, while a subsequent report ARIS 17679 reports the same interval as grading **0.52% Cu**, 0.07% WO<sub>3</sub>, **0.008% MoS**<sub>2</sub> and 5.14g/t Ag/350m. Assay certificates are not provided in either report so an independent grade calculation of the zone is not possible.

### 2.5 Scope

This report describes the 2010 evaluation program, geology, previous exploration history and mineral potential of the Ches/Tet Project. Research included a review of the historical work that related to the immediate and surrounding area of the property. 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. The property was examined and evaluated by the Ralph Keefe, Shawn Turford and Teck personnel Karen Weir and Gabe Jutras July 25, 2010. Work consisted of prospecting, limited mapping and sample collection.

### **3.0 RELIANCE ON OTHER EXPERTS**

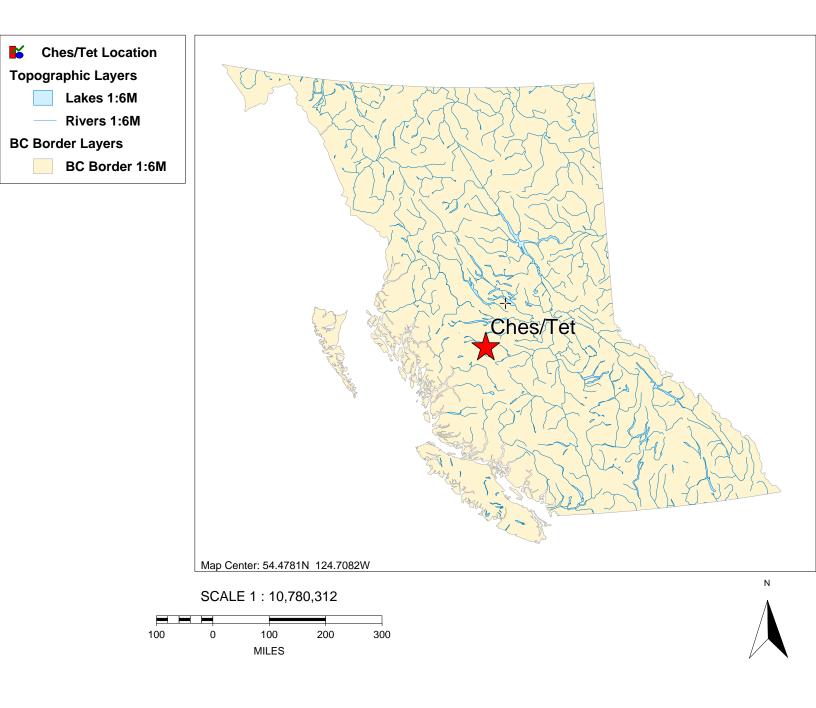
Some data referenced in the preparation of this report was compiled by geologists employed by various companies in the mineral exploration field. These individuals would be classified as "qualified persons" today, although that designation did not exist when some of the historic work was done. The author 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.

### 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location and Access

The Ches/Tet property is comprised of 15 contiguous mineral claims with a total area of 5320.86ha, situated in the Omineca Mining Division, in the Tetachuck Lake map area (NTS 93F/05E) of central British Columbia. (UTM Zone 10-U, UTM 319945 E, 5921625 N, NAD 83). The property lies approximately 80km south of Burns Lake and is accessible via an all-weather paved highway south from Burns Lake to Ootsa Lake crossing Francois Lake using the Francois Lake ferry. A private barge operated by the Ron Vantine can be used to access the network of logging roads south of Ootsa Lake and the Ches/Tet property.

# **Ches/Tet Location Map**



### 4.2 Physiography, Vegetation and Climate

### Excerpt from Ray (2009)

The CHES property ranges between 900 and 1400 meters in height above sea level and topographically comprises low, hummocky, rolling hills interspersed with muskeg. The vegetation includes jack pine, balsam and spruce forest, although extensive areas have been clear-cut and re-planted with conifer samplings.

The annual precipitation is approximately 60 centimeters; in winter the temperatures can fall below -20 degrees Celsius and up to 1 meter of snow can accumulate. Summers are generally cool and wet, although in July, August and September there can be dry periods with temperatures exceeding 20 degrees Celsius.

### 4.3 Land Tenure

The Ches/Tet property is comprised of 15 contiguous mineral claims with a total area of 5320.86ha. Upon acceptance of this report, the claims will have their anniversary dates advanced as indicated in the following table.

### Table 1: Claim Data

Tenure #	Claim name	Issue date	Expiry date	<b>Registered Owner</b>
600320	Exo1	4-mar-09	21-aug-2013	Keefe, Ralph R
600398	Exo 2	5-mar-09	6-mar-2011	Keefe, Ralph R
600399	Exo 3	5-mar-09	5-mar-2011	Keefe, Ralph R
600400	Tet 1	5-mar-09	21-aug-2013	Keefe, Ralph R
600401	Tet 2	5-mar-09	5-mar-2011	Keefe, Ralph R
600402	Tet 3	5-mar-09	10-mar-2011	Keefe, Ralph R
600403	Tet 4	5-mar-09	10-mar-2011	Keefe, Ralph R
600404	Ches 1	5-mar-09	5-mar-2011	Keefe, Ralph R
600405	Ches 2	5-mar-09	5-mar-2011	Keefe, Ralph R
600406	Ches 3	5-mar-09	5-mar-2011	Keefe, Ralph R
600407	Ches 4	5-mar-09	5-mar-2011	Keefe, Ralph R
600408	Ches 5	5-mar-09	5-mar-2011	Keefe, Ralph R
600409	Ches 6	5-mar-09	5-mar-2011	Keefe, Ralph R
600750	Ches 7	9-mar-09	10-mar-2011	Keefe, Ralph R
600751	Ches 8	9-mar-09	21-aug-2013	Keefe, Ralph R

### 5.0 HISTORY

### Excerpt from Ray (2009)

The limited exploration has focused on the Tet and Godot Cu-Mo porphyry showings in the eastern and central parts of the property, and the area around the Exo Cu-Mo-W skarn stockwork prospect situated further west. The earliest known exploration occurred in the early 1970's with trenching and the drilling of at least seven short (<200 feet or 61 meters) diamond drill holes at the Tet Cu-Mo showing. It is not certain what company did this work, although indirect evidence via Richards (1981) suggests that Noranda Exploration Company performed the drilling. In 1972 Noranda also completed a geophysical

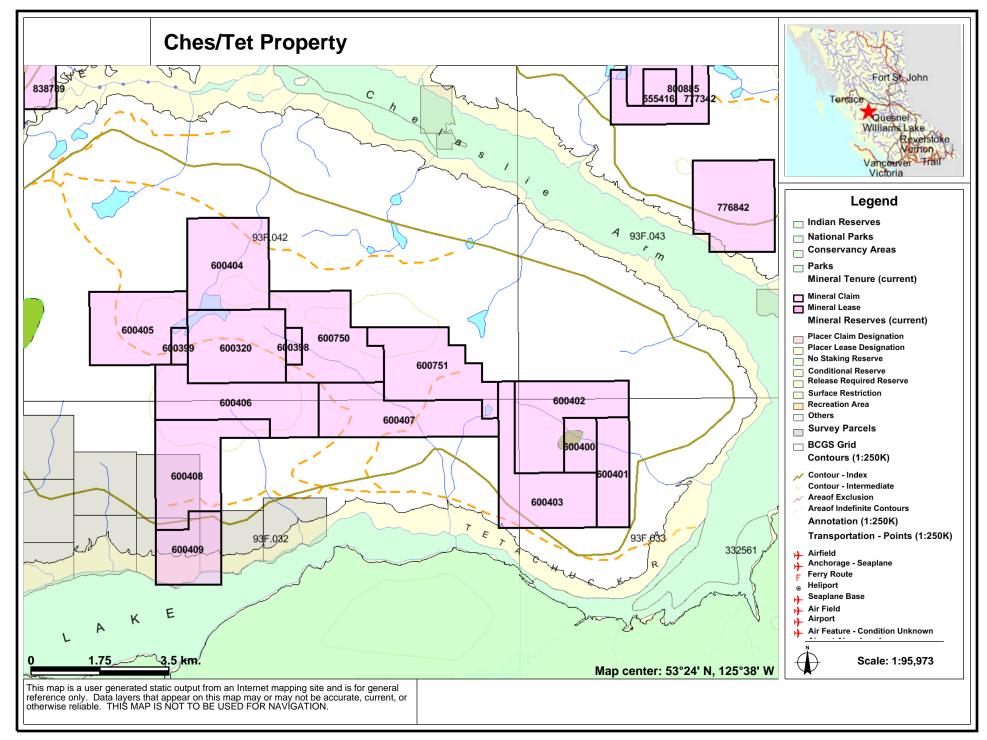
reconnaissance program of induced polarization and resistivity surveys over the Godot Cu-Mo showing (Fountain, 1972).

Further exploration in this area took place a decade later, with a soil-sampling program conducted by Colossal Energy Inc. (Keyser, 1984). In 1980, JMT Services and Prism Resources Ltd conducted a small program of soil and rock chip sampling at the Tet Cu-Mo showing, as well as some 1:6000 scale geological mapping (Richards, 1981). During this program the old drill-pads and trenches from the (presumed) Noranda work were discovered, as well as some of the old drill-core. Richards (1981) reports that sixty-three rock-chip samples, twelve soil samples and some silt samples were collected. In addition, pyritic Cu-Mo mineralization hosted by hornfels, quartz diorite and aplite was discovered in float and outcrop. One hornfels sample assayed 16 parts per million (ppm) molybdenum (Mo), and soils in the vicinity of an aplite body contained between 22 to 88 ppm Mo.

The first known exploration at the Exo Cu-Mo-W skarn-stockwork prospect took place after Esso Minerals Ltd staked the ground in response to high copper-zinc values in lake sediment samples (Leask, 1987a and 1987b). Follow-up work by Esso included 15 kilometers of cut line with soil sampling and magnetometer and VLF-EM geophysical surveys. In 1985, road construction uncovered several new mineralized skarn and stockwork zones at the Exo prospect that were then staked (Leask, 1987b). Prospecting and 1:10 000 scale geological mapping in 1986 discovered more skarn outcrops. In 1987, 26 kilometers of grid-line were cut. Magnetometer and VLF-EM readings and soil samples were taken at 25 meters along the cut-lines. A total of 848 soil samples were collected. The range of soil assays were as follows: 7 ppm to 512 ppm for copper (Cu), 1 ppm to 39 ppm for molybdenum (Mo), 1 ppm to 124 ppm for tungsten (W), 33 ppm to 4306 ppm for zinc (Zn), 0.1ppm to 2.4 ppm for silver (Ag), 1 ppb to 310 ppb for gold (Au). The geological mapping outlined a hornfels-skarn envelope, at least 1 kilometer wide, adjacent to the western margin of the Tetachuck North Stock. Within this envelope, a wide Mo-Cu skarn and stockwork zone was discovered that averaged 0.52% Cu, 0.07% tungsten oxide (WO3), 0.008% molybdenite (MoS2), and 0.15 oz/ton Ag over a distance of 350 meters (Leask, 1987b).

Keefe (2000) conducted the last known exploration on the property in the vicinity of the Exo Cu- o-W skarn-stockwork zone. This work involved the collection of 18 bedrock samples, 1 silt sample and 39 soil samples.

During the Ray's visit on the 13th of May 2008, 20 grab or rock-chip samples were collected. Eighteen of these were taken from the Exo skarn-stockwork zone, and the remaining two from a gossanous road quarry lying approximately 3 kilometers further west.



### 6.0 GEOLOGICAL SETTING

### 6.1 Regional Geology

### Excerpt from Ray (2009)

Geologically, the region lies in the Stikine Terrane (Stikinia) that began amalgamation and convergence with the other terranes of the Intermontane Belt during the Triassic period. Rocks in the Tetachuck Lake map area are separable into four stratified units that range in age from Early Jurassic to the Miocene, as well as four intrusive suites of Jurassic to Eocene age. The four stratified units are the Early to Middle Jurassic Hazelton Group, the Eocene Ootsa Lake and Endako groups and Miocene basaltic flow cover rocks.

The Hazelton Group rocks are economically important in British Columbia because they host many mineral occurrences and deposits, including the deposit worked at the Eskay Creek Mine. Other important deposits hosted by the group include Core Mountain and Chikamin Mountain in the Chikamin Mountain (93E/06) map area, and the Premier, Kerr and Inel deposits in the Iskut River map area.

The Hazelton Group comprises arc-volcanics and related sediments formed in response to subduction of the Wrangellia and/or Cache Creek terranes under Stikinia during Early and Middle Jurassic times (Gabrielse, 1991; Marsden and Thorkelson, 1992). It ranges in age from Toarcian (late Early Jurassic) to Bajocian (early Middle Jurassic) and the succession consists of sub-aerial and submarine volcanic rocks interbedded with marine sediments. The group is divided into two formations, the older Entiako and the younger Naglico (Diakow et al., 1997; Quat and Struik (1999), and the contact between these units is mostly para-conformable. The two formations represent a silica-bimodal volcanic and sedimentary succession deposited in an arc-back-arc complex of the Stikine Terrane (Quat and Struik, 1999). Volcanic-sedimentary rocks of the Naglico Formation mostly occupy the CHES property. Regionally, the Hazelton Group is overlain by Eocene Ootsa Lake Group rhyolites, Endako Group basalts and Miocene age basalts.

In the Tetachuck Lake map area Struik et al. (1999) sub-divides the Naglico Formation into the following three lithologic units:

- 1. Unit 1: a feldspar-phyric andesite flow and lapilli tuff.
- 2. Unit 2: andesite agglomerate and breccia.

3. Unit 3: a sedimentary sequence containing sandstone interbedded with limey ash tuff and limestone with zones of densely packed gastropod and clam shell debris.

The Naglico Formation in the Tetachuck Lake map area correlates with the Smithers Formation in the Whitesail Reach map area and the Salmon River Formation in the Iskut River-Telegraph Creek map areas (Struik et al., 1999).

Small intrusive stocks and plugs are scattered throughout the district where they intrude the Hazelton Group rocks; Billesberger et al. (1999) describe some of these bodies. They represent at least three plutonic suites of Jurassic, Late Cretaceous and Eocene age (Friedman et al., 2000). They have a wide range of compositions and include diorite, granodiorite, alaskite, aplite, monzonite and granite. Many are fine to medium-grained, equigranular to moderately porphyritic, and contain biotite and hornblende. Some are slightly foliated and they may be cut by andesite and rhyolite dykes. Several of these small intrusive bodies occur on, and nearby, the CHES property, and some are spatially associated with Cu mineralization as present at the Exo prospect and Tet showing.

The Eocene Ootsa Lake Group includes rhyolites that are characterized by light coloured flows; in the Tetachuck Lake area these are sometimes banded but are more usually massive. The rhyolites contain phenocrysts of quartz, plagioclase and minor biotite. The Eocene-age Endako Group basalt is found in small patches throughout the district. It forms massive, dark aphanitic flows with a few phenocrysts of pyroxene and trace olivine.

The Miocene basalt forms the youngest rocks in the district. The flows are dark grey to black, flat-lying and locally contain mantle xenoliths up to 10 cm in diameter. The xenoliths comprise crystals of olivine, pyroxene, diopside and augite within a massive aphanitic groundmass. This basalt correlates with the Chilcotin Group of south-central British Columbia (Struik et al., 1999).

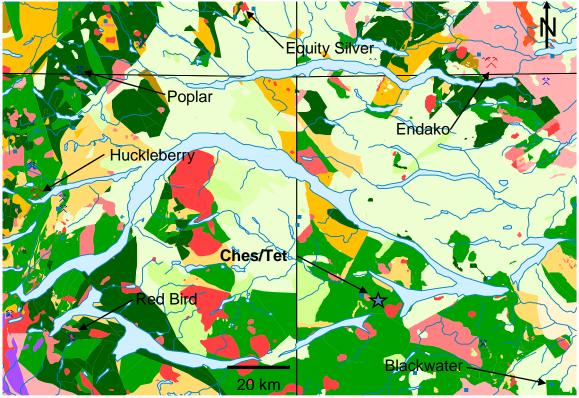


Figure 3: Regional Geology Map

### 6.2 Property Geology

### Excerpt from Ray (2009)

The CHES property is mostly underlain by a folded sedimentary and volcanic sequence belonging to the Middle Jurassic, arc-related Naglico Formation; this formation forms part of the Hazelton Group. These rocks are intruded by several small stocks and plugs that were emplaced during Jurassic, Late Cretaceous and Eocene magmatic events. The Cretaceous event resulted in the Tetachuck North Stock, which lies in the western part of the property. This body is probably genetically related to the Exo polymetallic Cu-Mo-W skarn (BC Minfile 093F 017). It yielded a U-Pb zircon age of 76 to 79 Ma, suggesting it is part of the metallogenically important Bulkley plutonic suite (Friedman et al., 2000). Another somewhat larger granodiorite-alaskite body, named for this report the "Tet Stock", lies in the eastern part of the property. It is believed to be either Eocene or Cretaceous in age and appears to host the Tet Cu-Mo showing (BC Minfile 093F 002).

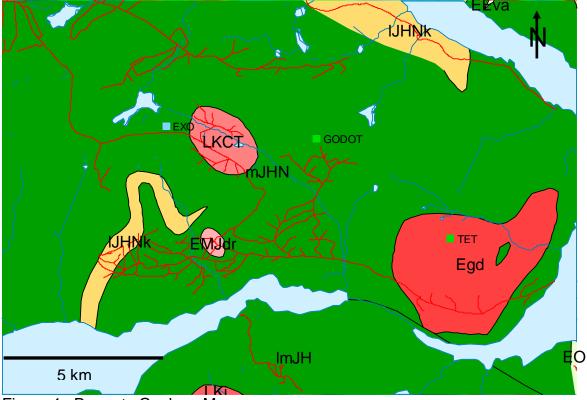


Figure 4: Property Geology Map

# **Geology Legend**

Bounding Box: *North:* 53.452 *South:* 53.334 *West:* -125.808 *East:* -125.488 NTS Mapsheet: 093F

Eocene to	Oligocene
Nechako P	Plateau Group
EO	Ootsa Lake Formation: rhyolite, felsic volcanic rocks
Eocene	
Egd	granodioritic intrusive rocks
EEva	Endako Formation: andesitic volcanic rocks
Late Creta	ceous to Pliocene
LKi	intrusive rocks, undivided
Late Creta	ceous
Chelaslie F	River-Tetachuck Lake Plutonic Suite
LKCT	dioritic intrusive rocks
Middle Jur	assic
Hazelton G	Group
mJHNs	Naglico Formation: undivided sedimentary rocks
mJHN	Naglico Formation: undivided volcanic rocks
Early to Mi	ddle Jurassic
EMJdr	dioritic intrusive rocks
ImJH	undivided volcanic rocks
Early Juras	ssic
IJHNk	Nechako Formation: marine sedimentary and volcanic rocks
	Ministry of Energy and Mines BC Geological Survey

Table 2: Geology Legend

### 6.2.1 Naglico Formation (Hazelton Group)

Struik et al. (1999) note that the Naglico Formation in the CHES property area records a subaerial volcanic explosive and eruptive event that was associated with marine sedimentation. These workers identified three units in the formation, all of which are believed to be present in the CHES property area. They are as follows:

**Unit 1:** feldspar-phyric andesite flows and tuffs, which are found in the Chelaslie River and Tetachuck Lake areas. The flow rocks are generally maroon to dark grey and contain plagioclase phenocrysts, acicular hornblende, and minor pyroxene phenocrysts. The lapilli tuff contains fragments of the flow unit in a groundmass of the same composition.

**Unit 2:** andesite agglomerate and breccia that is found at the Chelaslie-Main and Chelaslie River areas. It occurs stratigraphically under Unit 1 rocks in this area.

**Unit 3:** this is found on the CHES property, although differences between the sedimentary rocks in Chelaslie-Main and Chelaslie River areas suggest a facies change across the district (Struik et al., 1999). Unit 3 includes fossiliferous limestone and mudstone with interbedded sandstone and limey ash tuff. The mudstone is dark grey, weathers brown and its bedding is interrupted by local bioturbation. The limey sandstone package is cream to yellow and has interbeds, up to 45 cm thick, of limey ash. It is overlain with angular unconformity by Ootsa Lake Group rhyolite. Unit 3 calcareous siltstones and mudstones are believed to host the Exo skarn stockwork mineralization.

### 6.2.2 Intrusive Rocks

At least two intrusive stocks are known to be present on the CHES property, and both are associated with copper mineralization. The oldest and smallest of these, the Tetachuck North Stock, lies in the western part of the property and has been described by Billesberger et al., (1999) and Friedman et al. (2000). This economically important intrusion is sub-circular and covers a 3.5 km2 area. It consists of a pale, medium-grained quartz monzodiorite that contains hornblende, biotite, plagioclase, K-feldspar, and lesser titanite, apatite and zircon. U-Pb dating by Friedman et al. (2000) on zircons and titanite fractions gave ages ranging between 76.6 and 79.3 Ma (Late Cretaceous) for the Tetachuk North Pluton. The wide hornfels envelope on the western margin of the pluton hosts the Exo polymetallic Cu-Mo-W skarn (BC Minfile 093F 017). The other larger pluton, the Tet Stock, underlies part of the eastern portion of the CHES property. It consists of a medium to coarse-grained biotite-hornblende granodiorite and alaskite and is possibly Cretaceous or Eocene in age. The alaskite phase appears to host Cu-Mo mineralization (Richards, 1981), encountered by past drilling at the Tet showing (BC Minfile 093F 002).

# The author believes that an older intrusive located SSE of the Exo showing and mapped as an Early-Middle Jurassic diorite may be responsible for the

skarn and stockwork mineralization present at the Exo showing. This interpretation is based on airborne 1<sup>st</sup> derivative magnetics from MapPlace and is discussed below.

### 6.2.3 Structures on the Property

The structural history of the CHES property area and its relationship to the hydrothermal alteration and copper mineralization present in the Exo, Godot and Tet areas are poorly understood. Mapping by Leask (1987a) in the area around the Exo skarn prospect shows that the bedded fine-grained sedimentary rocks were folded and now strike north-northeast to northeast with a steep northwesterly dip. This trend is seen in the Exo road quarry where the layered-bedded hornfels rocks show evidence of open folding. The emplacement of the Late Cretaceous Tetachuck North Stock possibly post-dates the folding event.

Leask (1987a) believed that the western margin of the stock dipped westerly, sub-parallel to, or at a shallower angle to the bedded hornfels. His work also indicates the presence of late brittle faulting with at least three different trends. The most common strikes northeast and dips westerly, sub-parallel to the bedding. Another set trends north-south while a third set strikes east-southeast. At least two faults belonging to the east-southeast set are present in the Exo skarn area. The most southerly of these, as postulated by Leask (1987a), may cut and displace the southern margin of the Tetachuck North Stock. The other presumed parallel structure further north passes under the north end of Gunn Lake, and continues east-southeast under a linear zone of muskeg and creek. This latter structure may cut the northern margin of the Tetachuck North Stock.

### 7.0 Property Geophysics

The 1<sup>st</sup> derivative magnetic layer, from MapPlace, shows a magnetically complex area that for the most part does not correlate with the mapped geology. The exception appears to be the oldest intrusive on the property, south of the Exo showing, that exhibits a magnetic high halo surrounding a magnetic low core. This type of feature is often found with a porphyry center intruding into fine grained sediments and developing a pyrrhotite halo. This would also suggest that mineralization at the Exo showing may be related to this older intrusive body and not the Tetachuck North Stock as suggested by Leask (1987a). If this theory is valid, there would be a large (2000m x 6000m) area west of the Jurassic intrusion that would be highly prospective for skarn mineralization and stockwork mineralization. There has been little exploration south of the Exo near Tetachuck Lake over this area (pers comm. Ralph Keefe). The later Cretaceous and Eocene intrusive rocks do not appear to influence the magnetic characteristics of the surrounding rocks. Of interest is that all of the known mineralization found to date, namely the Exo, Godot and Tet showings are all located on the northern (and western) margin of the large magnetic anomaly that trends northwesterly through the property.

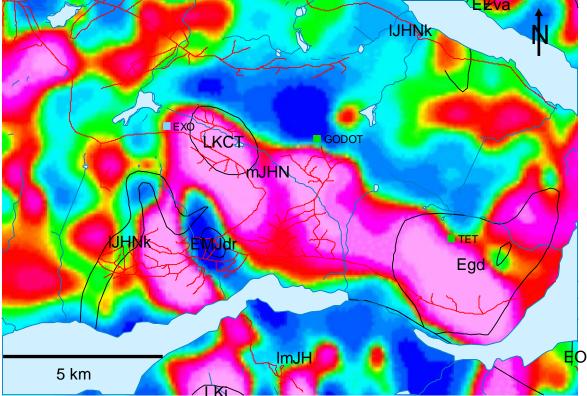


Figure 5: 1<sup>st</sup> Derivative Magnetics from MapPlace.

### 8.0 Deposit Models

The Ches/Tet property contains at least two types of copper-bearing mineralization, namely (1) Cu-dominant polymetallic Cu-Mo-W skarn, as seen at the Exo prospect (<u>093F 017</u>), and (2) Cu-Mo porphyry mineralization, as present at the Tet (<u>093F 002</u>) and Godot (<u>093F 035</u>) occurrences. The main exploration model at each of the showings would be the Cu-Mo porphyry target.

### 8.1 Porphyry copper/molybdenum

The porphyry Copper/Molybdenum target is the main deposit type thought to be responsible for mineralization at each of the known showings on the Ches/Tet property. Panteleyev, (1995) describes the Porphyry Cu+/-Mo+/-Au model in Selected British Columbia Mineral Deposit Profiles, Volume 1 - Metallics and Coal, Open File 1995-20, pages 87-92 as a Calcalkaline porphyry Cu, Cu-Mo, Cu-Au deposit type. Classic British Columbia examples include: Brenda (092HNE047), Berg (093E 046), Huckleberry (093E 037) and Schaft Creek (104G 015); while others include Casino (Yukon, Canada), Inspiration, Morenci, Ray, Sierrita-Experanza, Twin Buttes, Kalamazoo and Santa Rita (Arizona, USA), Bingham (Utah, USA), El Salvador, (Chile), Bajo de la Alumbrera (Argentina).

Host intrusions vary from coarse-grained phaneritic to porphyritic stocks, batholiths and dike swarms, with compositions that range from quartz diorite to

granodiorite and quartz monzonite. There are commonly multiple emplacements of intrusive phases and a wide variety of breccias that modify the stock geometry. The deposits usually exhibit a lateral outward zoning of alteration and sulphide minerals from a potassic (K-feldspar and biotite) altered core through phyllic (quartz-sericite-pyrite) alteration to propylitic (chlorite-epidote-calcite). Less commonly argillic and in the uppermost parts of some ore deposits, advanced argillic (kaolinite-pyrophyllite) alteration occur.

Characteristics of this deposit type have large zones, up to 10 km<sup>2</sup> in size, of hydrothermally altered rock containing stockworks of quartz veins and veinlets, closely spaced fractures and breccia zones containing pyrite and chalcopyrite +/-molybdenite, bornite and magnetite. Disseminated sulphide minerals are present but in minor amounts. Deposit boundaries are determined by economic factors that outline ore zones within larger areas of low-grade, concentrically zoned mineralization.

Ore controls include igneous contacts with the surrounding wallrocks and internal contacts between intrusive phases; cupolas and the uppermost, bifurcating parts of stocks, dike swarms, early formed intrusive breccias and hydrothermal breccias. Ore minerals are chalcopyrite; molybdenite, lesser bornite and rare (primary) chalcocite. Subordinate minerals are tetrahedrite/tennantite, enargite and minor gold, electrum and arsenopyrite. In many deposits late veins commonly contain galena and sphalerite in a gangue of quartz, calcite and barite.

Two main periods of deposit formation occurred in the Canadian Cordillera during the Triassic/Jurassic (210-180 Ma) and Cretaceous/Tertiary (85-45 Ma). Elsewhere deposits are mainly Tertiary, but range from Archean to Quaternary.

British Columbia porphyry Cu/Mo  $\pm$  Au deposits range from <50 to >900 Mt with 0.2 to 0.5% Cu, 0.0 to 0.04% Mo, <0.1 to 0.6 g/t Au, and 1 to 3 g/t Ag. 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.

Porphyry deposits contain the largest reserves of Cu, significant Mo resources and close to 50% of Au reserves in British Columbia.

### 8.2 Cu-dominant skarn deposits

Excerpt from Ray (2009)

Worldwide, Copper skarns are important primary producers of Cu with some byproduct production of Au, Ag, Mo, W, and (rarely) magnetite. Examples in British Columbia are the Craigmont (BC Minfile 092ISE 035), Phoenix (082ESE 020), Old Sport (092L 035) and Queen Victoria (082FSW 082) deposits. Examples elsewhere include the Mines Gaspé deposits (Québec), Ruth, Mason Valley and Copper Canyon (Nevada, USA), Carr Fork (Utah, USA), Ok Tedi (Papua New Guinea) and Rosita in Nicaragua. Worldwide they average 1 to 2 % copper and range in tonnage from 1 to 100 Mt, although some exceptional deposits exceed 300 Mt. The Craigmont deposit is British Columbia's largest Cu skarn; it contained approximately 34 Mt grading 1.3 % Cu.

These deposits are characterized by Cu-dominant mineralization (generally chalcopyrite) genetically associated with a garnet-pyroxene-dominant skarn gangue. They are most commonly developed where Andean-type plutons intrude older continental-margin carbonate sequences. To a lesser extent (but important in British Columbia), they can be associated with oceanic island arc plutonism. Worldwide they are mainly Mesozoic, although they may be any age. In British Columbia they are mostly Early to Mid-Jurassic in age.

The associated host rocks include porphyritic stocks, dikes and breccia pipes of quartz diorite, granodiorite, monzo-granite and tonalite composition, that intrude carbonate rocks, calcareous siltstones or calcareous volcanics and tuffs. Copper skarns in oceanic island arcs tend to be associated with more mafic intrusions (quartz diorite to granodiorite), while those formed in continental margin environments are associated with more felsic material. The morphology of the deposits can be highly varied, including stratiform and tabular orebodies, vertical pipes, narrow lenses, and irregular ore zones that were controlled by intrusive contacts.

The skarn alteration often overprints the related intrusion (called endoskarn) as well as the adjacent country rocks (called exoskarn). Worldwide, virtually all economic skarn deposits are hosted by exoskarn.

The exoskarn mineralogies include abundant garnet and lesser clinopyroxene. The garnet tends to be andradite, being high in Fe, and low in AI and Mn. The pyroxene is diopsidic. A mineral zoning from the stock out to the marble is commonly as follows: (1) andradite + diopside (proximal); (2) wollastonite  $\pm$  tremolite  $\pm$  garnet  $\pm$  diopside  $\pm$  vesuvianite (distal). Retrograde alteration to actinolite, chlorite and montmorillonite is common. Endoskarn alteration of the intrusion is marked by potassic alteration with K-feldspar, epidote and sericite  $\pm$  pyroxene  $\pm$  garnet. Retrograde alteration generates actinolite, chlorite and clay minerals.

The principal ore mineralogies include chalcopyrite  $\pm$  pyrite  $\pm$  magnetite, commonly developed in an exoskarn garnet-pyroxene zone that generally lies proximal, or relatively close, to the related intrusive margin. A more distal zone close to the outlying carbonate country rocks is often dominated by bornite  $\pm$ chalcopyrite  $\pm$  sphalerite  $\pm$  tennantite, together with wollastonite. Hematite, pyrrhotite or magnetite may predominate (depending on the oxidation state). Scheelite, molybdenite, bismuthinite, galena, cosalite, arsenopyrite, enargite, tennantite, loellingite, cobaltite and tetrahedrite may be present. The ore bodies tend to occur as irregular or tabular orebodies that form in carbonate rocks and/or calcareous volcanics or tuffs near igneous contacts. Pendants within igneous stocks can be important host rocks. Copper mineralization is present as stockwork veining and disseminations in both endo and exoskarn, although exoskarn generally hosts the more economic deposits. Magnetic, electromagnetic and IP surveys are useful tools to locate these deposits.

Copper skarns are often related to, and may occur in the same geological regime as copper porphyries. Copper skarn deposits related to mineralized Cu porphyry intrusions tend to be larger, lower grade, and emplaced at higher structural levels associated with barren stocks. Most copper skarns contain oxidized mineral assemblages, and mineral zoning is common in the skarn envelope. Those with reduced assemblages can be enriched in W, Mo, Bi, Zn, As and Au. One third of the 340 copper skarn occurrences in British Columbia lie in the Quesnellia and Stikinia terranes.

### 9.0 MINERALIZATION

At least two type of mineralization exist on the CHES property. The best known is represented by the copper-dominant polymetallic skarn and stockwork system present at the Exo prospect (BC Minfile 093F 017). The stockwork target would be analogous to mineralization mined at the Huckleberry porphyry deposit with the host rock being a limy sediment rather than volcanics. The other type of mineralization present on the property is the intrusive-hosted Cu-Mo porphyry-style mineralization as seen at the Tet and Godot showings (BC Minfile 093F 002 and 035) located further east.

### 9.1 Mineralization at the Exo Cu-Mo-W skarn (BC Minfile 093F 017)

### Excerpt from Ray (2009)

The intrusion of the Tetachuck North Stock resulted in an extensive zone of thermal and hydrothermal alteration in the surrounding sedimentary country rocks. On the western margin of the stock this altered zone is at least 1 km wide; it is marked by green calc-silicate hornfels containing abundant silica-quartz, epidote and chlorite, with lesser amounts of purple-brown coloured biotite hornfels. These rocks are siliceous, fine-grained and vary from massive to layered; the layering represents remnant sedimentary bedding. Locally, the hornfels is overprinted by garnet-pyroxene-epidote skarn-alteration that is commonly quartz-rich and siliceous.

At least two types of skarn-hornfels-hosted mineralization are seen at the Exo Cu-Mo-W prospect, namely:

1. Thin (< 1.5 m) units of massive and semi-massive sulphide that are mostly concordant with bedding. These contain abundant pyrite and magnetic pyrrhotite with lesser amounts of chalcopyrite. Trace bornite, molybdenite and magnetite may also be present.

2. Quartz-pyrite stockwork veins are present, up to 0.6 cm thick, which contain variable amounts of pyrite, molybdenite, chalcopyrite and brown sphalerite. Blebs and masses of (apparently barren) coarsely crystalline pyrite are also spatially associated with the stockworks. Scheelite is reported at the Exo skarn (Leask, 1987b).

The **Type 1** massive to semi-massive sulphide mineralization is best seen in a 35-40 meter-long road-side open-cut that was excavated for road-building material (Photo 1). This cut, situated at UTM 319946 m E and 5921625 m N, lies more than 1 km west of the western margin of the Tetachuck North Stock. The steeply northwest-dipping, north-northeast to northeast-striking host rocks show evidence of open folding. Most of the hornfelsic rocks in the open-cut contain between 1 to 5% fine-grained, disseminated pyrite, but at certain localities there are thin (<1.5m) steeply-dipping zones of siliceous brown-garnet exoskarn containing > 25% pyrite-pyrrhotite and lesser chalcopyrite. These mineralized zones are orientated sub-parallel to the remnant bedding, and some are spatially associated with late faulting, oxidation and abundant black Mn-oxide alteration.

The **Type 2** vein-stockwork mineralization occurs immediately east of the roadside open-cut where it is seen in float and sub-crop for > 300 m along the logging road. This mineralization is hosted by hornfels and garnet-exoskarn; the latter is characterized by pink garnet with epidote and abundant quartz. Molybdenite tends to (but not always) occur along the margins of the quartz-pyrite  $\pm$ chalcopyrite veinlets.

### 9.2 Mineralization at the Tet Cu-Mo showing (BC Minfile 093 002)

The BC Minfile and a report by Richards (1981) briefly describe the mineralization at the Tet showing. There are a variety of intrusive rocks of uncertain age, including older and larger diorite bodies that are cut by smaller dikes or plugs of alaskite, aplite and quartz porphyry. Several styles of Cu-Mo mineralization are reported including:

1. Chalcopyrite and molybdenite hosted by quartz veinlets containing variable quantities of pyrite.

2. Molybdenite along fractures, commonly with quartz veinlets, less than 1 cm wide, that are hosted by diorite and hornfelsed country rocks.

3. Disseminated molybdenite hosted by an aplite plug.

Of note is that the alteration and Cu mineralization is reported to be increasing to the north and to depth in the shallow historic drilling. No assays are reported.

### 9.3 Mineralization at the Godot Cu-Mo showing (BC Minfile 093F 035)

There is little known about either the detailed geology or mineralization at the Godot Cu-Mo showing, apart from data in the BC Minfile and in reports by Dirom and Knauer (1971), Fountain (1972) and Keyser (1984). The geology includes

Hazelton Group sedimentary and volcanic rocks with younger granodioritic intrusives. Disseminated pyrite, chalcopyrite and molybdenite are spatially associated with the margins of the granodiorite.

### 9.4 Mineralization occurring elsewhere on the CHES property

From the results of their district-wide geological mapping, Struik et al. (1999) note that the flows and tuffs in the Tetachuck Lake map area are distinct in having abundant quartz veining and epidote alteration. These workers report that local sulphide mineralization is found in quartz veins and disseminations throughout the andesite tuffs and consists of pyrite and minor chalcopyrite and bornite. The quartz veins are up to 3 mm wide, 2-3% by volume and occur in two episodes. The first episode contains minor sulphides and is sub-horizontal while the second episode is sulphide-rich and cross-cuts the first set of veins. It is possible that this style of mineralization is present on the CHES property.

## **10.0 PREVIOUS EXPLORATION**

## 10.1 Geological Mapping

### Excerpt from Ray (2009)

Apart from the immediate vicinities of the Exo, Tet and Godot mineralized occurrences, it is believed that most of the property has not been geologically mapped or explored in much detail.

In 1980, JMT Services Corp staked and explored the Tet Cu-Mo showing area and produced a 1:6000 scale geology map of this small area (Richards, 1981). This showed the existence of various mafic to intermediate intrusive rocks as well as several north-trending dikes of quartz-feldspar porphyry. This work also revealed the existence of several old trenches and drill sites that are presumed to have been completed by Noranda Exploration Company in the early 1970's. There is no mention in the BC Minfile of this early trenching-drilling exploration at the Tet, which was presumably done while Noranda was exploring ground further south around Tetachuck Lake (Dirom and Knauer, 1971).

Keyser (1984) reports that some reconnaissance 1:5,000 scale geological mapping was completed at the Godot Cu-Mo showing. Reconnaissance 1:10,000 scale geological mapping was completed by Leask (1987b) at the Exo skarn. This work outlined a hornfels-skarn envelope, as least 1 km wide, adjacent to the western margin of the Tetachuck North Stock (Figure 3), as well as Mo-Cu mineralization over a distance of 350 m.

### 10.2 Surface Rock Chip and Grab Sampling

Some rock chip sampling has been undertaken in the Exo, Godot and Tet areas, as reported by Richards (1981), Keyser (1984), Leask (1987a and 1987b), and Keefe (2000). These have returned some anomalous Cu, Pb, Zn, W, Mo and Ag assay values.

During the May 13th 2008 visit, prospector Bruce Anderson and Ray collected a total of twenty rock grab and rock chi samples from the CHES property. Ten of these were taken from the Exo skarn road open cut where sulphide-rich garnet skarn is exposed. Another eight samples were collected nearby along the logging road that passed over the wide Mo-Cu-bearing quartz stockwork zone. The remaining two grab samples were taken from another smaller roadside quarry located at UTM 317152E, 5922541N.

The assay results of the 20 samples, showed that fourteen of the samples contained > 2000 ppm Cu (maximum 10500 ppm), and ten samples assayed > 598 ppm W (maximum 3031 ppm). In addition, there were sporadic anomalous values in Mo (maximum 219 ppm), Zn (maximum 1862 ppm), and Ag (maximum 16 ppm). There were also sporadic enhanced values in Co (up to 155 ppm), Mn (up to 7343 ppm), Bi (up to 16 ppm) and Se (up to 43 ppm). Assays in Au and As were very low (maximum 0.02 g/t Au and 9 ppm As).

### **10.3 Trenching**

Richards (1981) reports discovering some old trenches at the Tet showing. These were presumably dug by the Noranda Exploration Company during the early 1970's when at least seven short drill holes were completed. There is no record or data available for this work. There is a road quarry at the Exo skarn prospect, which exposes some sulphide mineralization. This was excavated for road building material. No other trenches are known on the property.

### **10.4 Geophysical Surveys**

In May 1972, Noranda completed a reconnaissance IP and Resistivity survey over parts of the Godot Cu-Mo showing (Fountain, 1972). Eight lines, 400 ft (122m) apart, were surveyed using a McPhar variable IP unit utilizing a dipoledipole electrode configuration and 400 ft spaced dipoles. Magnetometer and VLF-EM surveys were also completed over parts of the Exo skarn prospect (Leask 1987a and 1987b). These surveys outlined several anomalies that are 800m and possibly 1500m in length and remain open along strike to the northeast and southwest.

### **10.5 Geochemical Surveys**

Keyser (1984) describes a soil sampling program conducted for Colossal Energy Inc. in the vicinity of the Godot showing. A total of 41 soil samples were taken and these outlined low-order anomalies for silver, copper and lead.

In 1980, JMT Services and Prism Resources Ltd conducted a small program of soil and rock-chip sampling at the Tet Cu-Mo showing, as well as some 1:6000 scale geological mapping (Richards, 1981). During this work 63 rock-chip samples, 12 soil samples and some silt samples were collected. In addition, pyritic Cu-Mo mineralization hosted by hornfels, quartz diorite and aplite was seen in float and outcrop at the Tet showing. One hornfels sample assayed 16 ppm Mo, and soils in the vicinity of the aplite body contained between 22 to 88

ppm Mo. Leask (1987a and 1987b) notes that the first known exploration around the Exo Cu-Mo-W skarn-stockwork prospect took place after Esso Minerals Ltd staked the ground based on high copper-zinc values in lake sediments. Followup work by Esso included 15 km of cut line with soil sampling and magnetometer and VLF-EM geophysical surveys. In 1987, 26 kilometers of grid-line were cut. Magnetometer and VLF-EM readings and soil samples were taken at 25 meters along the cut-lines. A total of 848 soil samples were collected. The range of soil assays were as follows: 7 ppm to 512 ppm for Cu, 1 ppm to 39 ppm for Mo, 1 ppm to 124 ppm for W, 33 ppm to 4306 ppm for Zn, 0.1ppm to 2.4 ppm for Ag, 1 ppb to 310 ppb for Au. The last known exploration at the Exo skarn involved the collection of 18 bedrock samples, 1 silt sample and 39 soil samples (Keefe, 2000).

### 11.0 DRILLING

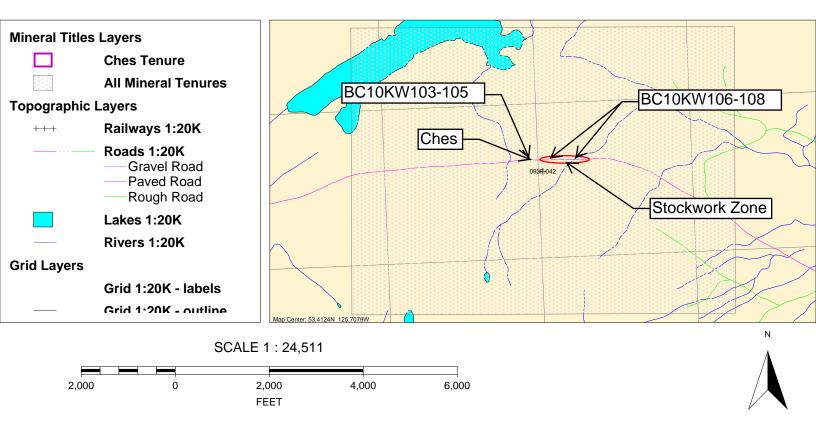
The only known drilling activity on the property took place at the Tet Cu-Mo showing, although virtually nothing is known about which company completed the work, the mineralization intersected or the assay results. There is indirect evidence (Richards, 1981) that at least seven diamond drill holes were completed, possibly by Noranda Exploration during the early 1970's, when that company was exploring the Godot showing and an area immediately south of the CHES property (Dirom and Knauer, 1971).

Richards (1981), while mapping the Tet area, found some of the old drill pads and examined the scattered drill core. The holes were reported all less than 200 ft long (<60 m). They intersected a variety of intrusive rocks, including alaskite and aplite, that hosted some pyrite-chalcopyrite-molybdenite mineralization. Richards notes that the grade of mineralization and alteration was increasing with depth in the holes and in general the grades were also increasing to the north towards a small circular shallow lake/swampy area.

### **12.0 CURRENT EXPLORATION**

The current program consisted of a one day visit to the property by Teck personnel and the owners of the claim group. Basic mapping of the rock units and selective sampling of mineralization was performed during the visit. Mineralized samples were collected and placed in a clean poly bag with a unique sample tag supplied by the assay company. The samples were described and any important features noted. The bags were sealed and shipped to the ACME Analytical laboratory in Vancouver for analysis of whole rock and trace multielement chemistry by ICP and ICP-MS methods. Five rock samples were collected during the visit and labeled A10055003A – A10055007A. See Appendix D for a copy of the field notes.

# Sample Location Map



### 12.1 Prospecting Results

Samples collected confirmed the presence of mineralization in both the Main showing and stockwork zones. Analyses returned values of up to 5239ppm Cu, 953.1ppm W, 916.8ppm Zn, 7840ppb Ag.

### 13.0 GEOPHYSICAL SURVEY METHOD AND APPROACH

No geophysical surveys were performed on the property during the current program.

### **14.0 DATA VERIFICATION**

No data verification was completed during the program.

### **15.0 ADJACENT PROPERTIES**

### 15.1 Huckleberry

The Huckleberry mine (<u>093E 037</u>) has been in production since October, 1997. Published reserves for the deposit in 2010 were Proven and Probable reserves totaling 14.01 million tonnes grading 0.362% Cu, 0.005% Mo, Measured and Indicated reserves of 182.9M tonnes grading 0.321% Cu and Inferred reserves of 45.4M tonnes grading 0.288% Cu. Reserves were calculated with 0.20% Cu cutoff grade.

### 15.2 Poplar

The Poplar deposit (<u>093L 239</u>) contains a non 43-101 compliant Measured resource of 75M tonnes grading 0.35% Cu, 0.06% Mo and 2.8g/t Ag within a global (unclassified) resource of 144.12M tonnes grading 0.368% Cu and 0.011% Mo. The deposit occurs in a Middle-Late Cretaceous Bulkley intrusion intruding into Lower-Middle Hazelton Group volcanics.

### 15.3 Ox Lake

The Ox Lake deposit (<u>093E 004</u>)hosts a historical Inferred resource of 17.235M tonnes grading 0.33% Cu and 0.035% Mo in the contact zone between a Cretaceous granodiorite and overlying volcanic tuffs of the Lower-Middle Jurassic Hazelton Group

### 15.4 Equity Silver

The Equity Silver mine (<u>093L 001</u>) operated from 1981-1994 and mined 33.8M tonnes with an average grade of 0.4% Cu, 64.9g/t Ag and 0.46g/t Au. The open pit and underground operation mined tabular fracture zones 30-100m thick comprised of primarily veins and with only minor disseminations of sulphides.

### 15.5 Endako

Since 1965, the Endako mine (<u>093K 006</u>) has produced 234,416,569kg of molybdenum from 359,063,162 tonnes milled. In February, 2011 Proven reserves were reported as 131,916,000 tonnes grading 0.047% Mo, with Probable reserves of 150,258,000 tonnes grading 0.046% Mo, combined (Measured and Indicated) resources of 80,184,000 tonnes grading 0.034% Mo

and Inferred resources of 55,781,000 tonnes grading 0.037% Mo. The deposit is an elongate stockwork of quartz-molybdenite veins hosted in the Late Jurassic Francois Lake batholith.

### 15.6 Blackwater-Davidson

The Blackwater deposit (<u>93F 037</u>) is a new discovery by Richfield Ventures Corp. The deposit hosts Indicated resources of 53,460,000 tonnes grading 5.6g/t Au and 1.06g/t Ag with a further 75,452,000 tonnes grading 4.0g/t Au and 0.96g/t Ag using a 0.4g/t Au cut-off. The mineralization is interpreted structurally controlled, steeply dipping zone up to 70m wide and 300m long in felsic lapilli tuffs, breccias and flows.

### 16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

There was no mineral processing or metallurgical testing completed during the present program.

### **17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES**

There was no mineral resource or mineral reserve estimates completed during the present program.

### **18.0 OTHER RELEVANT DATA AND INFORMATION**

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

### **19.0 INTERPRETATION AND CONCLUSIONS**

All of the showings on the property, the Exo, Godot and Tet, occur on the northern and western margin of a magnetic high feature that trends northwesterly through the property. The Exo Main showing is associated with pyrrhotite in replacement style mineralization in limy sediments and silty-limestones. Sampling by Teck Resources personnel during their one day visit confirmed the presence of significant copper, tungsten, zinc and silver mineralization in both the skarn and stockwork showings. A reinterpretation of the historical surveys, combined with government airborne data has identified a large area south of the Exo showing that could host similar styles of mineralization as that found at the Exo. This area measures approximately 2000m wide and in excess of 6000m in length and occurs on the western margin of a small Early to Middle Jurassic diorite plug. The intrusion exhibits a magnetic low core surrounded by a magnetic high aureole. This pattern is typical of an intrusion into fine grained sediments where the hornfels zone is anomalous in pyrrhotite.

The known mineralization at Exo and the new interpretation of airborne geophysics for the area present excellent exploration targets. The property is considered by the author a property of merit that is worthy of additional exploration expenditures.

### 20.0 RECOMMENDATIONS AND BUDGET

Resampling and mapping of the known showings to confirm the reported historical grades is an obvious first step in the recommended program. This will involve the re-trenching of road ditches to uncover fresh bedrock material for sampling. This should be followed by a program to re-establish the original grid, if possible, and to conduct an up-to-date magnetic survey to map the pyrrhotite hornfels zone and an Ah geochemical survey in an attempt to "see through" the glacial till present on the property and identified areas of anomalous mineralization. This initial program should be followed by an IP survey to locate the relative abundance of sulphide material and map silica alteration over magnetic and geochemically anomalous areas. Once geophysical and geochemical anomalies have been identified, a minimum of 2000m of HQ or NTW core drilling should be completed in approximately 10 holes over the apparent 1500m of strike length of the replacement and stockwork zones that has been identified to date and over any extensions to these zones identified in the present programs.

### Proposed budget for 2011

Project Geologist (60 days @ 600/day)		36,000
Geologist (60 days @ \$500/day)		30,000
Prospector/sampler x 2 (30 days @ \$400/day)		24,000
Line-cutting (30km @\$1500/km)		45,000
Geophysical surveys mag/IP (30km @ \$2500/km)		75,000
Mob/demob		5,000
Drilling NTW (2000m @ \$120/m)		240,000
Assaying (2300 samples @ \$55/ea)		126,500
Camp costs (500 person days @ \$100/day)		50,000
Reporting		20,000
Contingency (15%)		<u>97,725</u>
	Total	\$749,225

Contingent on the results of the program, additional diamond drilling should target favorable anomalies and/or extensions to mineralization.

Respectfully submitted this 30th day of May, 2011.

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**Ray, G. (2008):** The Geology and Mineralization at the CHES Cu-Mo-W Property, Central British Columbia, Tetachuck Lake map area, (NTS 093F/05E) Canada, A National Instruments 43-101 Technical Report for: Scarlet Resources Ltd.

**Ray, G. (2009):** The Geology and Mineralization at the CHES Cu-Mo-W Property, Central British Columbia, Tetachuck Lake map area, (NTS 093F/05E) Canada, A National Instruments 43-101 Technical Report for: Scarlet Resources Ltd.

**Richards, G.G. (1981):** Geological – Geochemical report. Q.P. #1 -#3 Mineral Claims, Tetachuck Lake, Fraser Plateau, NTS 93F/5E. Ministry of Energy and Mines, Assessment Report 9580

Schroeter, T., Pardy, J and Cathro, M. (2004): Significant British Columbia Porphyry Cu-Au Resources. Geofile 2004-11, BC Ministry of Energy and Mines. <u>http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/GeoFiles/</u> <u>Documents/2004/Geofile2004-11.pdf</u>

#### 22.0 CERTIFICATION, DATE AND SIGNATURE

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 "Ches Property Evaluation Report", dated May 30, 2011.

2) I am a graduate of the University of Saskatchewan in Saskatoon, Saskatchewan with a Bachelors Degree in Geological Engineering (1982). I began working in the mining field in 1974 and have more than 26 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 December, 2010.

4) This report is based upon a site visit to the property from July 25, 2010 by the Ralph Keefe, Shawn Turford and Teck Resources personnel, the author's personal knowledge of the region and a review of additional pertinent data.

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 Shawn Turford and Ralph Keefe on the Ches/Tet 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 30<sup>th</sup> day of May, 2011. "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

5/30/2011

# **23.0 Statement of Expenditures** For the period July 24-26, 2010

<u>Personnel</u> Ralph Keefe (2 days @ \$325/day) Shawn Turford (2 days @ \$325/day) Karen Weir (1 day @ \$600/day) Gabe Jutras (1 day @ \$400/day)		650.00 650.00 600.00 400.00
Hotel (3 rooms for 2 nights) Meals (\$50/day/person)		600.00 400.00
Helicopter 4x4 truck Mileage		\$2886.91 100.00 176.00
<u>Analysis</u> Rocks (5 @ \$48.72/ea)		\$243.60
Report Misc. supplies	Total	1800.00 <u>\$50.00</u> <b>\$8556.51</b>

### 24.0 Software used in support of this exploration program

Microsoft Windows 7-Professional Microsoft Office Professional 2010 Adobe Reader X Adobe Acrobat 9 Internet Explorer Google Earth 25.0 Appendices

Appendix A

Assay Certificates



CERTIFICATE OF ANALYSIS

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Teck Resources Ltd.

Suite 3300, 550 Burrard St. Vancouver BC V6C 0B3 Canada

Submitted By:Karen WeirReceiving Lab:Canada-VancouverReceived:July 28, 2010Report Date:August 20, 2010Page:1 of 2

# VAN10003543.1

#### CLIENT JOB INFORMATION

Project:	2010 Recce
Shipment ID:	
P.O. Number	
Number of Samples:	19

#### SAMPLE DISPOSAL

STOR-PLP	Store After 90 days Invoice for Storage
STOR-RJT	Store After 90 days Invoice for Storage

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To:	Teck Resources Ltd.
	Suite 3300, 550 Burrard St.
	Vancouver BC V6C 0B3
	Canada

CC:

Randy Farmer Kevin Byrne

#### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Client:

momou	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-1000	18	Crush, split and pulverize 1kg rock to 200 mesh			VAN
4A4B -	19	Whole Rock Analysis Majors and Trace Elements	0.2	Completed	VAN
1F06	19	1:1:1 Agua Regia Digestion - ICP-MS Ultratrace finish	30	Completed	VAN

#### ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. \*\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

Page:

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Acme Analytical Laboratories (Vancouver) Ltd.

Project:	2010 R
Report Date:	August

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20, 2010

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#### 2 of 2 Part 1

VAN10003543.1

## CERTIFICATE OF ANALYSIS

	Method	WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B										
	Analyte	Wgt	SiO2	AI2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Sc	LOI	Sum	Ва	Cs	Ga	Hf	Nb
	Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	1	-5.1	0.01	1	0.1	0.5	0.1	0.1
A10054890A	Rock Pulp	0.05	51.64	14.85	8.66	3.68	7.31	2.58	2.63	0.76	0.32	0.12	0.008	18	7.0	99.56	1156	3.7	16.1	1.6	4.9
A10054891A	Rock	2.20	51.21	17.83	7.51	3.51	6.96	4.46	1.85	0.66	0.27	0.14	0.002	20	5.4	99.76	334	1.5	17.9	1.3	4.2
A10054892A	Rock	1.71	51.18	15.95	8.27	2.89	8.83	4.29	2.98	0.66	0.34	0.12	0.005	19	4.2	99.69	1275	0.4	17.6	1.6	4.1
A10054893A	Rock	1.53	50.98	15.25	7.80	3.22	9.51	4.08	2.85	0.66	0.34	0.13	0.006	21	4.9	99.68	1301	0.5	15.8	1.4	3.9
A10054894A	Rock	1.97	51.30	16.42	9.81	4.10	7.36	3.49	3.99	0.80	0.44	0.18	0.007	22	1.7	99.65	971	3.7	17.7	2.6	5.6
A10054895A	Rock	2.00	46.16	13.17	13.14	8.07	11.83	2.02	1.35	0.98	0.46	0.26	0.020	42	2.2	99.63	674	1.3	17.7	1.6	3.7
A10054896A	Rock	1.56	68.22	15.17	3.08	1.14	2.39	3.87	3.85	0.35	0.21	0.06	0.002	6	1.4	99.72	1513	2.2	16.3	4.2	14.2
A10054897A	Rock	1.44	66.49	15.35	2.98	1.29	1.82	3.54	4.42	0.43	0.21	0.06	0.004	5	3.1	99.70	1824	1.5	19.1	3.6	7.3
A10054898A	Rock	1.47	66.96	15.66	3.39	0.36	1.27	4.01	4.63	0.37	0.20	0.05	<0.002	3	2.7	99.58	2524	4.0	19.3	3.6	10.7
A10054899A	Rock	1.73	69.85	15.36	2.57	0.22	0.30	4.14	4.38	0.38	0.09	<0.01	<0.002	3	2.4	99.68	2156	3.0	19.0	3.6	11.2
A10054900A	Rock	1.99	61.66	15.71	5.41	1.78	2.13	3.09	5.42	0.62	0.36	0.03	0.004	6	3.2	99.46	3392	1.9	20.6	4.2	11.9
A10055001A	Rock	1.79	60.48	15.60	5.61	1.60	2.33	2.67	6.17	0.63	0.36	0.05	0.003	6	3.9	99.43	3691	2.4	18.6	4.3	11.2
A10055002A	Rock	1.75	54.11	17.64	8.60	3.39	4.80	5.62	2.46	0.85	0.32	0.22	0.002	25	1.7	99.69	1273	0.5	16.5	3.5	4.4
A10055003A	Rock	2.28	59.78	8.83	12.08	0.41	11.44	1.20	0.73	0.31	0.13	0.86	0.004	11	3.5	99.25	210	0.5	14.6	1.9	2.0
A10055004A	Rock	1.76	74.34	12.53	2.65	0.96	1.83	3.83	2.08	0.24	0.06	0.02	0.002	11	1.3	99.89	442	2.2	12.4	3.7	3.4
A10055005A	Rock	2.32	48.38	10.57	17.81	1.17	11.80	0.97	1.23	0.34	0.14	0.93	0.005	12	5.8	99.15	234	0.9	16.6	3.1	3.0
A10055006A	Rock	2.47	72.89	13.17	2.56	0.79	1.98	5.56	1.00	0.23	0.07	0.06	0.004	11	1.6	99.89	352	0.4	12.0	4.2	3.4
A10055007A	Rock	3.07	59.43	13.39	8.03	1.38	10.13	2.97	0.59	0.46	0.24	0.46	0.003	16	2.6	99.70	248	0.5	16.2	2.3	2.3
A10055008A	Rock	2.70	0.38	0.05	0.05	2.77	53.06	<0.01	<0.01	<0.01	0.01	<0.01	<0.002	<1	43.5	99.83	276	0.5	17.8	2.8	2.5

Page:

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Project: 2010 Recce Report Date:

August 20, 2010

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2 of 2 Part 2

VAN10003543.1

# CERTIFICATE OF ANALYSIS

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	Method	4A-4B																			
	Analyte	Rb	Sn	Sr	Та	Th	U	v	w	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Но
	Unit	ppm																			
	MDL	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05	0.01	0.05	0.02
A10054890A	Rock Pulp	78.3	4	363.8	0.3	2.0	1.7	230	2.2	65.0	18.0	11.0	23.1	3.03	13.4	3.08	0.96	3.22	0.55	2.98	0.66
A10054891A	Rock	43.5	<1	371.8	0.3	1.5	0.6	232	1.4	47.8	13.3	7.0	13.4	1.75	7.7	1.91	0.64	2.17	0.41	2.29	0.53
A10054892A	Rock	53.5	1	568.5	0.2	2.0	1.6	259	<0.5	56.9	17.3	9.5	18.6	2.60	11.2	2.66	0.96	2.84	0.50	2.77	0.61
A10054893A	Rock	52.0	1	596.2	0.3	1.9	1.4	264	<0.5	51.9	14.9	8.6	17.2	2.37	10.4	2.45	0.82	2.65	0.46	2.61	0.57
A10054894A	Rock	112.4	<1	535.8	0.4	3.6	1.6	249	0.7	76.1	18.4	10.8	22.3	2.79	13.4	2.81	0.90	3.16	0.53	2.88	0.63
A10054895A	Rock	39.2	<1	493.9	0.2	1.4	0.6	377	0.5	50.4	20.1	8.6	19.0	2.61	12.0	3.02	0.90	3.43	0.61	3.50	0.77
A10054896A	Rock	97.1	1	510.7	1.1	16.6	4.5	52	<0.5	149.0	13.3	39.5	72.0	7.02	23.5	3.73	0.87	3.19	0.44	2.21	0.46
A10054897A	Rock	94.3	2	466.1	0.6	14.1	3.8	59	1.0	133.0	7.3	17.5	35.1	4.31	17.5	3.23	1.01	2.55	0.33	1.42	0.27
A10054898A	Rock	120.3	<1	440.4	0.8	11.3	6.1	50	3.3	125.9	10.2	32.1	55.0	6.28	23.6	3.73	1.19	3.10	0.39	1.84	0.36
A10054899A	Rock	108.2	<1	487.3	0.8	6.7	5.2	47	11.0	124.4	4.1	33.7	58.3	6.00	21.0	3.15	0.69	2.29	0.24	0.91	0.16
A10054900A	Rock	126.4	1	778.1	0.7	13.5	5.2	82	2.4	153.5	11.3	42.1	78.5	8.74	32.9	5.46	1.54	4.30	0.51	2.26	0.39
A10055001A	Rock	130.5	1	665.7	0.7	12.1	5.4	79	2.1	148.5	10.4	38.1	71.5	8.00	31.0	4.89	1.37	3.92	0.46	2.03	0.37
A10055002A	Rock	54.6	<1	514.4	0.2	3.7	1.7	196	<0.5	112.1	23.4	14.2	31.8	3.99	17.8	4.07	1.06	4.11	0.68	3.77	0.82
A10055003A	Rock	19.3	8	88.8	0.2	1.3	3.2	53	676.3	63.7	23.2	9.8	20.3	2.56	11.7	2.90	0.81	3.36	0.60	3.70	0.81
A10055004A	Rock	58.9	1	171.4	0.3	2.2	1.1	17	2.2	129.1	30.3	15.1	34.9	4.52	19.5	4.32	0.86	4.57	0.78	4.80	1.08
A10055005A	Rock	34.4	8	117.7	0.2	2.0	5.7	84	953.1	93.7	27.2	10.0	21.3	2.87	12.4	3.23	0.95	3.80	0.69	4.28	0.92
A10055006A	Rock	25.1	<1	105.9	0.2	1.6	0.9	20	3.1	133.8	30.6	14.9	35.5	4.62	21.3	5.02	1.06	5.06	0.81	4.88	1.08
A10055007A	Rock	19.2	4	220.2	0.2	1.8	2.2	83	54.5	89.5	29.7	15.7	30.2	3.78	16.5	4.11	1.20	4.69	0.79	4.57	1.00
A10055008A	Rock	20.5	5	240.8	0.2	1.7	2.4	92	61.1	98.8	33.0	17.4	33.6	4.22	18.5	4.54	1.32	5.22	0.87	5.15	1.13

Page:

**Teck Resources Ltd.** 

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Project: 2010 Recce

Report Date:

August 20, 2010

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#### 2 of 2 Part 3

VAN10003543.1

AcmeLabs

	Method	4A-4B	4A-4B	4A-4B	4A-4B 2	A Leco 2	A Leco	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30
	Analyte	Er	Tm	Yb	Lu	TOT/C	TOT/S	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Cd	Sb	Bi
	Unit	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm
	MDL	0.03	0.01	0.05	0.01	0.02	0.02	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.2	0.01	0.02	0.02
A10054890A	Rock Pulp	1.78	0.30	1.81	0.31	1.60	1.33	15.09	1088	14.66	101.9	1033	27.6	22.9	851	4.92	47.1	108.7	1.38	4.24	0.33
A10054891A	Rock	1.45	0.24	1.44	0.26	1.19	1.18	0.73	89.18	9.27	481.3	194	9.5	22.3	1072	4.64	6.7	6.4	1.83	0.30	0.06
A10054892A	Rock	1.72	0.27	1.69	0.29	0.92	1.19	5.84	82.10	2.89	22.5	21	28.2	17.7	625	4.26	0.3	4.4	0.07	2.26	0.17
A10054893A	Rock	1.57	0.25	1.59	0.27	1.13	1.04	6.93	77.54	2.30	26.0	25	30.8	16.8	675	3.91	0.7	3.2	0.06	4.63	0.15
A10054894A	Rock	1.97	0.29	1.81	0.30	<0.02	<0.02	1.56	118.2	5.01	54.5	111	14.0	17.9	505	4.42	3.7	3.3	0.05	0.12	<0.02
A10054895A	Rock	2.13	0.33	2.05	0.32	0.03	<0.02	0.54	198.4	1.64	43.9	55	29.1	23.4	525	5.10	1.0	2.6	0.05	0.21	0.03
A10054896A	Rock	1.27	0.23	1.37	0.24	0.14	<0.02	0.27	8.24	3.90	46.8	11	6.1	5.1	422	1.91	0.3	1.0	0.03	0.06	0.05
A10054897A	Rock	0.73	0.12	0.64	0.12	0.34	<0.02	0.29	5.12	3.71	61.4	18	16.4	6.3	526	1.95	0.4	1.3	0.24	0.17	0.02
A10054898A	Rock	0.86	0.15	0.89	0.15	0.18	0.23	1.05	459.0	2.36	35.5	189	6.4	1.3	374	2.03	2.7	51.2	0.11	0.92	0.77
A10054899A	Rock	0.37	0.08	0.43	0.09	0.03	0.42	4.27	5.05	4.11	11.4	415	2.8	4.1	48	1.62	31.8	207.1	0.04	0.39	4.34
A10054900A	Rock	0.94	0.15	0.88	0.15	0.27	0.95	1.11	15.00	5.48	59.3	122	16.1	9.9	253	3.36	24.8	11.7	0.05	0.20	1.01
A10055001A	Rock	0.88	0.15	0.85	0.14	0.49	1.23	1.35	65.98	6.22	58.8	132	15.6	9.8	352	3.33	23.5	17.0	0.06	0.54	1.37
A10055002A	Rock	2.37	0.36	2.43	0.37	0.05	<0.02	0.63	10.45	4.74	51.1	20	6.0	13.8	621	4.21	3.8	2.8	0.08	0.27	0.03
A10055003A	Rock	2.34	0.36	2.45	0.39	0.22	3.53	7.50	5239	6.18	493.9	6988	7.8	7.8	2431	6.29	0.6	6.1	5.33	0.29	2.46
A10055004A	Rock	3.35	0.50	3.55	0.56	<0.02	0.51	0.66	153.0	2.95	40.2	273	1.3	2.6	160	1.81	1.2	1.2	0.26	0.16	0.84
A10055005A	Rock	2.92	0.43	3.01	0.47	0.27	6.56	5.01	4842	34.67	1321	7840	20.0	21.0	2556	10.45	7.9	12.1	13.46	0.25	3.39
A10055006A	Rock	3.38	0.53	3.76	0.59	<0.02	0.57	4.33	208.6	2.08	139.9	252	1.4	2.7	206	1.53	0.7	2.6	1.59	0.11	0.91
A10055007A	Rock	2.98	0.44	3.05	0.48	<0.02	2.38	4.65	652.4	2.79	916.8	671	9.7	9.0	1067	4.23	1.6	2.0	10.76	0.09	1.55
A10055008A	Rock	3.36	0.49	3.43	0.52	12.28	0.06	0.07	1.19	0.07	0.7	3	<0.1	0.2	35	0.02	1.1	0.7	<0.01	<0.02	<0.02

Page:

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Project: 2010 Recce

Report Date: August 20, 2010

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2 of 2 Part 4

# CERTIFICATE OF ANALYSIS

	Method	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30
	Analyte	Р	Cr	В	ті	Hg	Se	Те	Ge	In	Re	Be	Li	Pd	Pt
	Unit	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.001	0.5	1	0.02	5	0.1	0.02	0.1	0.02	1	0.1	0.1	10	2
A10054890A	Rock Pulp	0.134	33.8	4	0.16	167	3.4	0.18	0.1	0.07	22	0.5	15.4	<10	3
A10054891A	Rock	0.118	6.8	2	<0.02	<5	0.8	0.05	<0.1	0.03	<1	0.2	9.3	<10	2
A10054892A	Rock	0.153	22.5	5	<0.02	<5	4.1	0.05	0.2	0.02	33	0.5	10.7	<10	6
A10054893A	Rock	0.149	27.0	4	<0.02	<5	3.7	0.04	0.2	<0.02	32	0.4	11.2	12	8
A10054894A	Rock	0.199	24.9	7	<0.02	<5	0.2	<0.02	0.1	<0.02	2	0.4	12.6	<10	4
A10054895A	Rock	0.200	86.3	4	<0.02	<5	0.1	0.02	<0.1	<0.02	<1	0.2	8.9	12	8
A10054896A	Rock	0.097	15.1	<1	0.34	<5	<0.1	<0.02	<0.1	<0.02	<1	0.1	40.1	<10	<2
A10054897A	Rock	0.099	24.4	1	0.04	<5	<0.1	<0.02	<0.1	0.02	<1	0.2	6.5	<10	<2
A10054898A	Rock	0.096	3.4	2	0.09	20	<0.1	0.46	<0.1	0.06	<1	0.5	0.7	<10	<2
A10054899A	Rock	0.040	2.7	2	0.07	11	0.2	2.69	<0.1	<0.02	<1	0.2	0.6	<10	<2
A10054900A	Rock	0.160	19.0	<1	0.07	<5	<0.1	0.92	<0.1	0.03	<1	0.1	9.2	<10	<2
A10055001A	Rock	0.163	13.5	1	0.08	<5	<0.1	1.04	<0.1	0.04	<1	0.2	5.9	<10	<2
A10055002A	Rock	0.147	10.5	2	<0.02	<5	<0.1	<0.02	0.1	<0.02	<1	0.2	8.3	<10	2
A10055003A	Rock	0.053	14.6	<1	<0.02	*	5.4	0.26	1.0	0.74	7	0.2	5.1	<10	<2
A10055004A	Rock	0.024	13.1	<1	0.18	<5	0.2	0.32	<0.1	0.03	1	0.1	12.1	<10	<2
A10055005A	Rock	0.058	7.2	<1	<0.02	*	9.8	0.66	0.6	0.58	6	0.5	9.5	<10	<2
A10055006A	Rock	0.029	17.6	<1	<0.02	<5	0.3	0.29	<0.1	0.04	1	<0.1	6.9	<10	<2
A10055007A	Rock	0.112	9.0	<1	<0.02	9	1.0	0.28	0.3	0.34	8	0.2	7.4	<10	<2
A10055008A	Rock	0.004	0.8	<1	<0.02	<5	<0.1	0.35	<0.1	<0.02	<1	<0.1	0.3	<10	<2

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Vancouver BC V6C 0B3 Canada

Part 1

AcmeLabs

QUALITY CONTROL REPORT

Acme Analytical Laboratories (Vancouver) Ltd.

Project:	2010 Rec
Report Date:	August 20

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1 of 1

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## VAN10003543.1

	Method	WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B										
	Analyte	Wat	SiO2	AI2O3	Fe2O3	MgO	CaO	Na2O	K20	TiO2	P2O5	MnO	Cr2O3	Sc	LOI	Sum	Ba	Cs	Ga	Hf	Nb
	Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	1	-5.1	0.01	1	0.1	0.5	0.1	0.1
Pulp Duplicates																					
A10054891A	Rock	2.20	51.21	17.83	7.51	3.51	6.96	4.46	1.85	0.66	0.27	0.14	0.002	20	5.4	99.76	334	1.5	17.9	1.3	4.2
REP A10054891A	QC		51.02	17.90	7.47	3.57	7.01	4.49	1.85	0.66	0.27	0.14	<0.002	20	5.4	99.76	341	1.4	17.8	1.5	4.2
A10054900A	Rock	1.99	61.66	15.71	5.41	1.78	2.13	3.09	5.42	0.62	0.36	0.03	0.004	6	3.2	99.46	3392	1.9	20.6	4.2	11.9
REP A10054900A	QC																				
A10055007A	Rock	3.07	59.43	13.39	8.03	1.38	10.13	2.97	0.59	0.46	0.24	0.46	0.003	16	2.6	99.70	248	0.5	16.2	2.3	2.3
REP A10055007A	QC																				
Reference Materials																					
STD CSC	Standard																				
STD DS7	Standard																				
STD OREAS76A	Standard																				
STD SO-18	Standard		58.15	14.11	7.57	3.36	6.31	3.72	2.16	0.69	0.82	0.40	0.553	24	1.9	99.75	501	6.9	17.0	9.1	20.1
STD SO-18	Standard		58.31	14.07	7.50	3.34	6.33	3.70	2.14	0.70	0.81	0.39	0.545	25	1.9	99.75	487	6.6	17.4	9.1	19.8
STD SO-18	Standard		58.01	14.04	7.73	3.35	6.30	3.79	2.14	0.69	0.82	0.40	0.551	25	1.9	99.73	484	6.7	17.1	9.0	20.2
STD SO-18	Standard		58.15	14.03	7.71	3.32	6.33	3.74	2.12	0.69	0.80	0.39	0.544	25	1.9	99.73	479	6.6	17.1	9.2	19.0
STD CSC Expected																					
STD OREAS76A Expected																					
STD DS7 Expected																					
STD SO-18 Expected			58.47	14.23	7.67	3.35	6.42	3.71	2.17	0.69	0.83	0.39	0.55	25			514	7.1	17.6	9.8	21.3
BLK	Blank																				
BLK	Blank		<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<1	0.0	<0.01	<1	<0.1	<0.5	<0.1	<0.1
BLK	Blank																				
BLK	Blank		<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<1	0.0	<0.01	<1	<0.1	<0.5	<0.1	<0.1
Prep Wash																					
G1	Prep Blank	<0.01	66.93	15.81	3.56	1.15	3.58	3.65	3.84	0.41	0.20	0.10	0.002	6	0.5	99.75	1061	4.4	19.5	4.3	24.0
G1	Prep Blank	<0.01	66.60	15.92	3.80	1.12	3.63	3.63	3.82	0.41	0.20	0.10	<0.002	6	0.5	99.75	1060	4.3	19.4	4.1	23.6

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Acme Analytical Laboratories (Vancouver) Ltd.

Project:	2010 R
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1 of 1

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### Part 2

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## QUALITY CONTROL REPORT

	Method	4A-4B																			
	Analyte	Rb	Sn	Sr	Та	Th	U	v	w	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Но
	Unit	ppm																			
	MDL	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05	0.01	0.05	0.02
Pulp Duplicates																					
A10054891A	Rock	43.5	<1	371.8	0.3	1.5	0.6	232	1.4	47.8	13.3	7.0	13.4	1.75	7.7	1.91	0.64	2.17	0.41	2.29	0.53
REP A10054891A	QC	42.3	1	364.1	0.2	1.6	0.6	226	1.6	46.3	13.0	6.8	13.1	1.75	8.0	1.95	0.61	2.17	0.40	2.28	0.51
A10054900A	Rock	126.4	1	778.1	0.7	13.5	5.2	82	2.4	153.5	11.3	42.1	78.5	8.74	32.9	5.46	1.54	4.30	0.51	2.26	0.39
REP A10054900A	QC																				
A10055007A	Rock	19.2	4	220.2	0.2	1.8	2.2	83	54.5	89.5	29.7	15.7	30.2	3.78	16.5	4.11	1.20	4.69	0.79	4.57	1.00
REP A10055007A	QC																				
Reference Materials																					
STD CSC	Standard																				
STD DS7	Standard																				
STD OREAS76A	Standard																				
STD SO-18	Standard	27.8	14	384.5	7.0	9.9	15.8	191	14.2	279.3	30.5	11.7	26.1	3.27	13.4	2.78	0.85	2.86	0.49	2.80	0.60
STD SO-18	Standard	27.9	14	382.6	6.9	10.0	15.7	187	14.1	278.8	30.2	11.6	26.4	3.20	13.2	2.72	0.81	2.83	0.47	2.75	0.58
STD SO-18	Standard	27.9	15	391.8	6.6	9.8	15.2	202	13.7	277.5	30.0	11.3	25.5	3.15	13.2	2.74	0.82	2.77	0.48	2.80	0.57
STD SO-18	Standard	27.7	14	390.1	6.5	9.1	15.3	201	13.8	272.9	29.9	11.3	25.5	3.13	12.7	2.69	0.82	2.77	0.47	2.75	0.57
STD CSC Expected																					
STD OREAS76A Expected																					
STD DS7 Expected																					
STD SO-18 Expected		28.7	15	407.4	7.4	9.9	16.4	200	14.8	280	31	12.3	27.1	3.45	14	3	0.89	2.93	0.53	3	0.62
BLK	Blank																				
BLK	Blank	<0.1	<1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	<0.1	<0.1	<0.1	<0.1	<0.02	<0.3	<0.05	<0.02	<0.05	<0.01	<0.05	<0.02
BLK	Blank																				
BLK	Blank	<0.1	<1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	<0.1	<0.1	<0.1	<0.1	<0.02	<0.3	<0.05	<0.02	<0.05	<0.01	<0.05	<0.02
Prep Wash													-			-					
G1	Prep Blank	133.0	2	708.1	1.5	9.1	3.5	67	<0.5	145.9	16.5	29.5	58.7	6.57	24.0	4.08	1.07	3.59	0.54	2.78	0.60
G1	Prep Blank	130.7	2	720.3	1.4	9.2	4.0	64	<0.5	139.3	16.3	30.3	59.5	6.64	24.5	4.08	1.09	3.54	0.53	2.64	0.58

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IALITY CONTROL REPORT

Acme Analytical Laboratories (Vancouver) Ltd.

Project:	2010 Recce
Report Date:	August 20, 20

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#### 1 of 1 Part 3

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	Method	4A-4B	4A-4B	4A-4B	4A-4B	2A Leco	2A Leco	1F30	1F30	
	Analyte	Er	Tm	Yb	Lu	TOT/C	TOT/S	Мо	Cu	
	Unit	ppm	ppm	ppm	ppm	%	%	ppm	ppm	
	MDL	0.03	0.01	0.05	0.01	0.02	0.02	0.01	0.01	
Pulp Duplicates										
A10054891A	Rock	1.45	0.24	1.44	0.26	1.19	1.18	0.73	89.18	
REP A10054891A	QC	1.41	0.24	1.47	0.25					
A10054900A	Rock	0.94	0.15	0.88	0.15	0.27	0.95	1.11	15.00	

	Analyte	Er	Tm	Yb	Lu	TOT/C	TOT/S	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Cd	Sb	Bi
	Unit	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm
	MDL	0.03	0.01	0.05	0.01	0.02	0.02	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.2	0.01	0.02	0.02
Pulp Duplicates																					
A10054891A	Rock	1.45	0.24	1.44	0.26	1.19	1.18	0.73	89.18	9.27	481.3	194	9.5	22.3	1072	4.64	6.7	6.4	1.83	0.30	0.06
REP A10054891A	QC	1.41	0.24	1.47	0.25																
A10054900A	Rock	0.94	0.15	0.88	0.15	0.27	0.95	1.11	15.00	5.48	59.3	122	16.1	9.9	253	3.36	24.8	11.7	0.05	0.20	1.01
REP A10054900A	QC							1.12	15.25	5.36	60.6	117	16.3	10.3	254	3.41	24.7	12.8	0.05	0.20	0.99
A10055007A	Rock	2.98	0.44	3.05	0.48	<0.02	2.38	4.65	652.4	2.79	916.8	671	9.7	9.0	1067	4.23	1.6	2.0	10.76	0.09	1.55
REP A10055007A	QC					0.02	2.33														
Reference Materials																					
STD CSC	Standard					3.02	4.30														
STD DS7	Standard							21.34	107.4	69.33	405.1	1067	57.2	10.0	646	2.43	54.2	79.4	6.58	6.27	4.92
STD OREAS76A	Standard					0.16	17.46														
STD SO-18	Standard	1.75	0.27	1.66	0.27																
STD SO-18	Standard	1.71	0.23	1.71	0.25																
STD SO-18	Standard	1.69	0.26	1.67	0.26																
STD SO-18	Standard	1.68	0.26	1.64	0.25																
STD CSC Expected						2.94	4.25														
STD OREAS76A Expected						0.16	18														
STD DS7 Expected								20.5	109	70.6	411	890	56	9.7	627	2.39	48.2	70	6.38	4.6	4.51
STD SO-18 Expected		1.84	0.27	1.79	0.27																
BLK	Blank					<0.02	<0.02														
BLK	Blank	<0.03	<0.01	<0.05	<0.01																
BLK	Blank							<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.2	<0.01	<0.02	<0.02
BLK	Blank	<0.03	<0.01	<0.05	<0.01																
Prep Wash																					
G1	Prep Blank	1.70	0.30	1.97	0.34	0.03	<0.02	0.16	4.74	8.06	49.7	22	3.3	4.7	582	2.02	0.3	1.4	0.02	0.07	0.08
G1	Prep Blank	1.63	0.30	1.82	0.33	0.03	<0.02	0.23	5.02	3.53	48.1	15	3.9	4.5	587	2.19	0.6	0.3	0.02	0.05	0.09

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Acme Analytical Laboratories (Vancouver) Ltd.

Project:	
110,000.	2010 Recce
Report Date:	August 20, 2010

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1 of 1 Part 4

## QUALITY CONTROL REPORT

	Method	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30	1F30
	Analyte	Р	Cr	в	ті	Hg	Se	Те	Ge	In	Re	Be	Li	Pd	Pt
	Unit	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.001	0.5	1	0.02	5	0.1	0.02	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates															
A10054891A	Rock	0.118	6.8	2	<0.02	<5	0.8	0.05	<0.1	0.03	<1	0.2	9.3	<10	2
REP A10054891A	QC														
A10054900A	Rock	0.160	19.0	<1	0.07	<5	<0.1	0.92	<0.1	0.03	<1	0.1	9.2	<10	<2
REP A10054900A	QC	0.161	19.0	<1	0.09	<5	<0.1	1.03	<0.1	0.03	<1	0.4	9.0	<10	2
A10055007A	Rock	0.112	9.0	<1	<0.02	9	1.0	0.28	0.3	0.34	8	0.2	7.4	<10	<2
REP A10055007A	QC														
Reference Materials															
STD CSC	Standard														
STD DS7	Standard	0.082	216.0	45	4.14	227	3.3	1.40	0.1	1.57	7	1.9	31.0	77	42
STD OREAS76A	Standard														
STD SO-18	Standard														
STD SO-18	Standard														
STD SO-18	Standard														
STD SO-18	Standard														
STD CSC Expected															
STD OREAS76A Expected															
STD DS7 Expected		0.08	179	38.6	4.19	200	3.5	1.08	0.1	1.57	4	1.6	29.3	58	37
STD SO-18 Expected															
BLK	Blank														
BLK	Blank														
BLK	Blank	<0.001	<0.5	<1	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
BLK	Blank														
Prep Wash															
G1	Prep Blank	0.093	9.4	<1	0.32	7	<0.1	<0.02	<0.1	<0.02	<1	0.3	35.6	<10	<2
G1	Prep Blank	0.091	10.2	1	0.30	<5	<0.1	<0.02	0.1	<0.02	<1	0.3	33.5	<10	<2

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Appendix B

Analytical Procedures and Detection Limits



# METHOD SPECIFICATIONS GROUP 4A & 4B – LITHOGEOCHEMICAL WHOLE ROCK FUSION

Package Codes:	4A, 4B
Sample Digestion:	Lithium metaborate/tetraborate fusion
Instrumentation Method:	ICP-ES (4A, 4B), ICP-MS (4B)
Applicability:	Sediment, Soil, Vegetation, Moss-mat, Non-mineralized Rock
	and Drill Core

### Method Description:

Prepared sample is mixed with  $LiBO_2/Li_2B_4O_7$  flux. Crucibles are fused in a furnace. The cooled bead is dissolved in ACS grade nitric acid. Loss on ignition (LOI) is determined by igniting a sample split then measuring the weight loss. Total Carbon and Sulphur are determined by the Leco method (Group 2A).

Element	Group 4A Detection	Upper Limit
SiO2	0.01 %	100 %
Al <sub>2</sub> O <sub>3</sub>	0.01 %	100 %
Fe <sub>2</sub> O <sub>3</sub>	0.04 %	100 %
CaO	0.01 %	100 %
MgO	0.01 %	100 %
Na <sub>2</sub> O	0.01 %	100 %
K <sub>2</sub> O	0.04 %	100 %
MnO	0.01 %	100 %
TiO <sub>2</sub>	0.01 %	100 %
$P_2O_5$	0.01 %	100 %
Cr <sub>2</sub> O <sub>3</sub>	0.002%	100 %
LOI	0.1 %	100 %
С	0.01 %	100 %
S	0.01 %	100 %

Element	Group 4A Detection	Group 4B Detection	Upper Limit
Au	-	0.5 ppb	100 ppm
Ag	-	0.1ppm	100 ppm
As	-	1 ppm	10000 ppm
Ва	5 ppm	1 ppm	50000 ppm
Ве	-	1 ppm	10000 ppm
Bi	-	0.1 ppm	2000 ppm
Cd	-	0.2 ppm	2000 ppm
Со	20 ppm	0.2 ppm	10000 ppm
Cs	-	0.1 ppm	10000 ppm
Cu	5 ppm	0.1 ppm	10000 ppm
Ga	-	0.5 ppm	10000 ppm
Hf		0.1 ppm	10000 ppm
Hg		0.1 ppm	100 ppm
Мо		0.1 ppm	2000 ppm
Nb	5 ppm	0.1 ppm	50000 ppm
Ni	20 ppm	0.1 ppm	10000 ppm
Pb		0.1 ppm	10000 ppm
Rb		0.1 ppm	10000 ppm
Sb		0.1 ppm	2000 ppm
Sc	1 ppm	-	10000 ppm
Se		0.5 ppm	100 ppm

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Revision Date: July 30, 2010 Page 1 of 2



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Element	Group 4A Detection	Group 4B Detection	Upper Limit
Sn	-	1 ppm	10000 ppm
Sr	2 ppm	0.5 ppm	50000 ppm
Та	-	0.1 ppm	50000 ppm
Th	-	0.2 ppm	10000 ppm
TI	-	0.1 ppm	1000 ppm
U	-	0.1 ppm	10000 ppm
v	-	8 ppm	10000 ppm
w	-	0.5 ppm	10000 ppm
Y	3 ppm	0.1 ppm	50000 ppm
Zn	5 ppm	1 ppm	10000 ppm
Zr	5 ppm	0.1 ppm	50000 ppm
La	-	0.1 ppm	50000 ppm
Ce	30 ppm	0.1 ppm	50000 ppm
Pr	-	0.02 ppm	10000 ppm
Nd	-	0.3 ppm	10000 ppm
Sm	-	0.05 ppm	10000 ppm
Eu	-	0.02 ppm	10000 ppm
Gd	-	0.05 ppm	10000 ppm
Tb	-	0.01 ppm	10000 ppm
Dy	-	0.05 ppm	10000 ppm
Но	-	0.02 ppm	10000 ppm
Er	-	0.03 ppm	10000 ppm
Tm	-	0.01 ppm	10000 ppm
Yb	-	0.05 ppm	10000 ppm
Lu	-	0.01 ppm	10000 ppm

Note: Highlighted elements by 1DX Aqua Regia – ICP-MS analysis





# METHOD SPECIFICATIONS GROUP 3B AND G6 – PRECIOUS METALS BY FIRE ASSAY FUSION

Package Codes:
Sample Digestion:
Instrumentation Method:

3B01 to 3B04, G601 to G614 Lead-collection fire assay fusion ICP-ES (3B, G6), ICP-MS (3B-MS), AA (3B, G6), Gravimetric (G6) Rock, Drill Core

Applicability:

### **Method Description:**

Prepared sample is custom-blended with fire-assay fluxes, PbO litharge and a Ag inquart. Firing the charge at 1050 °C liberates Ag  $\pm$  Au  $\pm$  PGEs that report to the molten Pb-metal phase. After cooling the Pb button is recovered, placed in a cupel and fired at 950 °C to render a Ag  $\pm$  Au  $\pm$  PGEs dore bead. The bead is digested for ICP analysis or weighed and parted in ACS grade HNO<sub>3</sub> to dissolve Ag leaving a Au sponge. Au is weighed for Gravimetric determination; ACS grade HCl is added dissolving the Au  $\pm$  PGE sponge for Instrument determination.

Element	3B Detection	3B Upper Limit	3B-MS Detection	3B-MS Upper Limit
Au	2 ppb	10 ppm	1 ppb	10 ppm
Pt	3 ppb	10 ppm	0.1 ppb	10 ppm
Pd	2 ppb	10 ppm	0.5 ppb	10 ppm

Element	G6 (Inst) Detection	G6 (Inst) Upper Limit	G6 (Grav) Detection	G6 (Grav) Upper Limit
Ag			5 g/t	1 ton
Au	0.005 g/t	10 ppm	0.17 g/t	1 ton
Pt	0.01 g/t	100 ppm		
Pd	0.01 g/t	100 ppm		

### Note:

\*Sulphide-rich samples require a 15g or smaller sample for proper fusion.



Appendix C

Teck Resources Field Notes

Starm Zone; linney sittstor Planal up Planal up Pla			alan katago katago katag	n ann e papla a' thairt fhigh				
CHESS PROPERTY 25504. C BCIOKWIOL I get co.ords of the ding S of the ding O C I 2m & af BCIOK Stockwark looking S of the ding 1 2m, Cu C Skarn Zone, linney sills for bandwag t/o w gnt / Starn Zone, linney sills for Starn Zone, linney sills for Starn Zone, linney sills for Starn Zone, linney sills for bandwag t/o w gnt / Starn Zone, linney sills for Starn Zone, li	C <sup>aracter</sup> terreneration and the second secon			COOLINA CONSTRUCTION				) 319.89UT / 5
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greyed) within 2-15 cm of of py and octahedrons up to 3mm across planes. 1 \* A10055006A \* WR + 1 ant 7-Typically see an associ w **C** qt'2 for these entedral grains. (2.1.) General Pit Considerates \*A10055005 AX WR + assay. abundant blars of <u>S4</u> Strang homfelsing a patelly coarse ce + med. ep (2mm Vn'a clots noted in Huy of the sampled -> note msv py/po hand gossanous (mst sx) weathered out and py locally. BCIOKWIOG -> chip; cp.ords w. Brad 319, 915 / 5, 921, 623 BCIOKW10-7 CO-Ords W Brad 319, 9-31 / 5.921 py » cpy. overall As go W to A ·o/c at E end of trench. Note dradua · note vant/9tz Vin se content and A intensity silicif as go eastwards in the V Cpy pig (overall silic (generally, in trench 0/0 -essentially challcedonic here Upto Note 2 1 4% py along sub // Fracture ~ \_ \_ \_ 4 Han y giving a somewhat BC10 KW108 (210) 320,32 "Stockwork" oppdarance. 4ton 1 đ., K. = o/c exposure ~ 200m along road of gossin lime/sittstone · also note v fine <0.25mm dissem · upto '8-10'/ dissem p in diffuse haloes ( slightly PU

s up to 3mm across ssoc w ant 1/tral grainp. - assay. red. ep (2mm) Ethe sandel band 2rds to Brad 15,921,623 Brad 319 931 / 5,921 h. Note madual intensity. in trench rds\_ Note upto 20.50 frachie tots q\_a SovenMat work apparause. C C C 25mm dissim is ( slightly

Within 2-15 cm of fracture arened) planes \*A10055006A - WR + alsay. General Pit Comments -> abundant bldrs of seds with Strang homfelsing and 17 ant/of2 Vna -> note msv py/po pods - very weathered out. Upto 20% po and pro locally Overall py >>> cpy 45 go W to A: not vant/9tz ( generally absent by E end) pin (overall %) Silic BCIOKWIOS (210) 320,329 / 5,921, 623 / 1190 · o/c exposure ~ 200m Eastwards along road of gossanous silicipied lime/sittston upto 8-101% dissem py t/o.ds LEVEL

CT	
	Descriptions for Cirque Jampley:
	3
«0.25-0.5mm x+1/s (aubes).	BC10 KW095 *A100 54897A *
	2. grab sample from below grossan noar
* A10055007 A * WR+assay.	
· · · · · · · · · · · · · · · · · · ·	bise of ridge (monz)
·min? Style is similar to E end of	<ul> <li>plag porphyry, mody magnetic</li> <li>wt-pervasive clay alt?, eunedral plag</li> </ul>
Til - stock work with py and	WE pervasive day and rearranged
	Xtis apto 4mm (crowded)
The and the I NARCIMA I MEY -	2 ~ 10% biotife - duil brown - locally shredd
	. WK pen. ser alt: Ho - werall Eucrosic
	duil known look to "thesh" surfaces
- and lat anot (brave of chairent.	. minor Tocal patchy op 11th of plag:
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· hb-bio dz nanzonta	2 Auben upto 2mm pavosst likely rada
· bio is fresh and enhodral plates pto	after py - upto 2-3%. 1 monito
20 Junor Lib and a dull averat	
i al i attente the to the love "the sty"	
- ~121/ matics weren bioxhb.	BCIDKW097 * A 10054898A *
	and have all from to la restar from all
- ab - chib - abar	3 ridge Inter the Wiginal Mart An
= pix = chip - taken.	2 grab nock sample from the TIP property
	- upto 5% dissen sx predom ds
7 A 100 5500 8 A X BLANK	Py = cpy Note glassy liponite.
	The local pry in corres. Pa perus
	2 as sub-enhedral octahedra with
	2 limbride chiming a popular of 1/ 120
	Evel