BRITISH COLUMBIA The Beet Plane on Lardy	T T T T T T T T T T T T T T T T T T T
Ministry of Energy and Mines BC Geological Survey	Assessment Report Title Page and Summary
TYPE OF REPORT [type of survey(s]]: Prospecting/Geochemistry	TOTAL COST: \$2049.40
AUTHOR(S): Lukasz Jarawka	SIGNATURE(S):
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): Not Required	YEAR OF WORK: 2012
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S)	1
PROPERTY NAME: Copper Belle	
CLAIM NAME(S) (on which the work was done): 734722, 852610, 966	289
COMMODITIES SOUGHT: Copper	
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092ISE121, 0	92ISE050
MINING DIVISION: Nicola Mining Division	NTS/BCGS: 921/02
LATITUDE: 50 ° 07 '05 " LONGITUDE: 120	° 10 '67 "
OWNER(S):	49 (at centre of work)
1) Christopher Delorme	_ 2)
MAILING ADDRESS: P.O. Box 1904 Voght Street Merritt, B.C. V1K 1B3	
OPERATOR(S) [who paid for the work]: 1) Christopher Delorme	2)
MAILING ADDRESS: P.O. Box 1904 Voght Street Merritt, B.C. V1K 1B3	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure Nicola Group, undivided volcanic rocks of the Nicola Group, Up	, atteration, mineralization, size and attitude): per Triassic, specular hematite, chalcopyrite, malachite,
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT R	EPORT NUMBERS: 402, 403, 415, 736, 9089, 25880
	Next Page

1

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
EOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
EOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Other			
Airborne			
EOCHEMICAL number of samples analysed for)			
Soil			
Silt			
Rock 9 samples for 34 element	nt ICP-ES	852610, 966289	149.40
Other			
RILLING otal metres; number of holes, size)			
Core Non-core			
ELATED TECHNICAL Sampling/assaying 10 samples	collected	852610, 966289	1000
Petrographic			1000
Mineralographic			
Metallurgic			
ROSPECTING (scale, area) 10 Ha		734722, 852610, 966289	850
REPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/tra	ail 1/4 day	734722, 852610, 966289	50
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	\$2049.40

# Rock Geochemistry Report on the Copper Belle Property

Nicola Mining Division – British Columbia

BC Geological Survey Assessment Report 33376

NTS Map: 92I/02

Mineral Tenures: 734722, 852610, 966289 Longitude: 120°49'57" W Latitude: 50° 07' 05" N

Event #5397082

Submitted October 28, 2012

Amended: May 17, 2013

For: Christopher Delorme, FMC #141575

Written by: Lukasz Jarawka B.Sc. Geology West Kelowna, British Columbia

# **Table of Contents**

Terms of Reference:	5
Introduction:	6
Claim Information:	6
Location and Access:	7
Physiography:	8
History:	9
Geology:	12
Regional:	
Property geology:	14
Geological notes on reported mineralization:	15
2012 Work Program:	16
Methodology:	17
Results:	17
Geochemistry:	
Conclusion:	
Recommendations:	
Statement of Costs:	20
References:	21
Statement Of Qualifications:	22
Appendix 1:	23

# **Terms of Reference:**

This assessment report is being written for Christopher Delorme who is the 100% registered and beneficial owner of the subject tenures. The assessment work described herein was completed by the owner. The author takes no responsibility for data collected and did not supervise the field program.

Information in this assessment report was in part gathered from public geoscience and mineral title records maintained by the B.C. Ministry of Mines, as referenced. Any such information is believed to be accurate, however there has, in general, been no attempt to verify reported historical results.

Information gathered from public records and provided in this report has generally been referenced in summary. That historical information should be assessed only in the context of the original source reports taken as a whole.

# Introduction:

Reported copper mineralization and favorable geology has provided the impetus for exploration in and around the present-day Copper Belle property since the early 1900s.

In 2012, the owner of the property conducted a preliminary "Phase I" rock geochemistry program. That small work program is described herein and forms the basis of this report.

The aim of the 2012 work program was to assess, in reconnaissance fashion, the historical workings reported on the property. Objectives of this work program were to:

- 1. Locate the old workings on the property.
- 2. Gather samples from the old workings along with the surrounding area and test them for copper mineralization.

The owner failed to locate the old workings and only identified minor mineralization in the sampled outcrops during the brief 2 man-day property visit.

However, certain old workings were located on a further visit by the author and the owner on October 23, 2012.

Additional work is required to survey (using G.P.S. control) and assess via geochemical sampling and geological mapping the historically reported showings. Success in that endeavour, and the identification of copper mineralization commensurate with historically reported results, would be a reasonable precondition for additional exploration efforts.

# **Claim Information:**

The Copper Belle property is owned and operated as to a 100% registered and beneficial interest by C. Delorme, of Merritt, British Columbia, without any option, royalty, joint venture or similar disposition or encumbrance.

Claim Name **Registered and** Tenure No. **Issue Date** Area (Ha) **Beneficial Owner** COPPER C. Delorme March 25, 2010 734722 20.72 BELLE C. Delorme 852610 ANACONDA April 27, 2011 82.88 C. Delorme ANACONDA 2 March 19, 2012 966289 248.66 Total area: 352.26

The Copper Belle property comprises the following three contiguous mineral tenures:

# **Location and Access:**





The Copper Belle property is centred on approximately 50° 07' 05" N by 120°49'57" W, located in south central British Columbia, near the town of Merritt, in the Nicola Mining Division. The property is located approximately 190 km northeast by air from Vancouver and 2.7 km by road west, northwest of the town of Merritt. Merritt is one of the larger communities nearby and provides all the necessary services to run an exploration program. Access to Merritt from the major population centers is via the Coquihalla Highway.

From Merritt, access to the property can be gained as follows: Starting on British Columbia Highway 5A, drive south along Voight Street through the town of Merritt. Follow Voight Street south for approximately 1km at which point you will arrive at an intersection with Lindley Creek Road. Turn right on Lindley Creek Road. Continue along Lindley Creek Road west for approximately 2.7km to the property boundary. Lindley Creek Road bisects the property and therefore is the preferred access route.

Merritt, and the nearby metropolitan area of Kamloops (approximately 1 hour by road) have all services necessary for mineral exploration and mining.

# **Physiography:**

The property is located in the Cascade Forest District of British Columbia. Climate in the area is semi-arid with an average precipitation in the order of 320mm annually. Temperatures in the region can range from -30°C to +30°C (-22°F to 86°F), though extremes of -42°C and +41°C (-43°F to 106°F) have been recorded (*National Climate Data and Information Archives, Merritt STP station*).

The property is situated along the Nicola River within the Nicola Valley. The northeasterly portions of tenures 734722 and 852610 are cut by the river. The southern portion of the property lies on terrain that is steeply graded up to the south, southwest. The forested areas of the property predominantly consist of coniferous trees and to a lesser extent deciduous flora. The forests tend to be dense along drainages and sparse everywhere else with many small meadows scattered throughout.

The sections of the property that are confined by the main road and the river are used as agricultural land. The land along the hillside south, southwest of the main road is used by local farmers as grazing land for cattle.

#### History:

Since the early 1900s there has been an interest in mineral exploration in the immediate area.

Exploration and development on the property has been focused on two mineral occurrences recorded in the British Columbia "MINFILE" database – the Copper Belle workings, a small-scale past producer from the turn of the 20<sup>th</sup> century, and the Anaconda showing.

As recorded in the <u>1915 Annual Report of the Minister of Mines</u>, work on the Copper Belle occurrence was performed in 1908 by one Robert Wiltshire who shipped ore from the area to the Trail smelter. In 1913 under the new ownership of Robert Henderson and Partners, 47 tonnes of ore at 7.5% copper was shipped off the property.

During the same time period Robert Henderson and Partners also conducted work on the Anaconda claim group which was adjacent the Copper Belle workings. This work consisted of sinking a shallow shaft and driving in two adits on the property, the longest of which was 200 feet. This work resulted in findings of only micaceous iron mineralization (Annual Report of the Minister of Mines 1915, p. 230)

Following these accounts of early exploration and development, work in the area persisted. The following list, in chronological order, outlines some of the work that has occurred on or proximate to the subject tenures:

#### Lorimer, M.K. P. Eng. 1961. <u>Report on A Magnetometer Survey of The Mint 1-6 Mineral Claims</u>. Assessment Report No. 357.

The program consisted of a magnetometer survey. The survey resulted in two anomalous areas being recorded, one near the northern boundary of the claims and the other near the southern boundary. The northern anomaly appears to coincides with the old Copper Belle workings.

#### Kelly, S.F. 1962. <u>Report on Geophysical and Geochemical Surveys on The Mint Group of</u> <u>Claims.</u> For Canford Exploration Ltd. **Assessment Report No. 402.**

The work described in this report was carried out within and/or near the current tenures **852610** and **966289**.

The report describes a geophysical and geochemical survey on a portion of the former Mint claim group. Geophysics was done using the spontaneous polarization technique. Geochemical surveying consisted of soil sampling using the rubeanic acid method. The results of the geophysical survey in the area were poor - data collected showed little in the form of anomalous values indicative of mineralization. The geochemical survey results were also reported as lacking any significant recordings. It was reported that a weak easterly trend of increased geochemical intensity can be seen from the results.

#### Sirola, W.M. P. Eng. 1962. <u>Geophysical& Geochemical Investigation of 24 Claims of The Fault</u> <u>Group of Mineral Claims.</u> Assessment Report No. 415.

This work program consisted of geophysical surveying using a transistorized potentiometer which recorded D.C. earth potentials, and a geochemical survey in the form of soil sampling using the rubeanic acid method. It was reported that results showed very little potential for mineralization.

#### Hings, D.L. P. Eng. 1965. <u>Geomag Geophysical Report No.136 Bell, Bill and Keith Claims.</u> For Merritt Copper Syndicate. Assessment Report No. 736.

The work described in this report was carried out within and/or near the current tenure 852610.

A geophysical survey was conducted 4.8 km (3 miles) to the west of Merritt. Four anomalies were reported as showing some interest for further exploration, though it proved difficult to pinpoint with confidence either the locations of these anomalies or the project area.

#### Plicka, P. 1980. <u>Geological Report of the Jane Property.</u> For Hambro Resources Ltd. Assessment Report No. 9089.

The work described in this report was performed southeast of the present-day tenure 852610.

This work program consisted of geochemical sampling and geological mapping of the Jane claim, which was just southeast of the present-day Copper Belle property. 148 samples, mainly soil, were collected over the span of the program. Copper-in-soil enrichment was identified on the property, with one soil sample returning 60ppm, though 80% of the collected samples fell into the range of 10 to 29 ppm copper.

#### Wells, R.C. P. Geo. 1998. <u>Geochemical Assessment Report for the Jesse Creek Property, Jean</u> <u>– Anaconda Grid.</u> For Conlon Copper Corporation. Vancouver, B.C. **Assessment Report No. 25403.**

The work described in this report was located within and/or near the current tenure 852610.

The report outlines a geochemical prospecting and sampling program that was conducted on the Jean grid. This grid overlaps the Copper Belle property. The program collected 301 soil samples in an effort to locate gold-in-soil enrichment in the area.

A small concentration of gold-in-soil values was observed near the old Anaconda workings (current claim 852610), with the maximal response being 15 ppb. This sample also constituted the largest gold anomaly recorded during this program. The majority of the samples collected showed values of less than 5 ppb.

Though the gold-in-soil values were found to be low, copper-in-soil values displayed anomalous areas. One sample returned a high of 353 ppm, and a selection of others displayed values in excess of 100 ppm. An east to southeast trending copper-in-soil anomaly was observed.

This work also found a correlation of two copper anomalies with known bedrock mineralization, leading to the hypothesis that mineralization in the area is greater than initially perceived. The collecting of eleven samples of mineralized bedrock lead to the observation that gold values in the soil differed significantly from those observed in the bedrock. Bedrock gold values were found to be as great as 1gram/tonne. The lack of correlation with soil results was hypothesized to be attributable to poor soil development in the area and the fact that samples were collected from the "C" horizon.

#### Wells, R.C. P. Geo. 1999. <u>Report on Geological Mapping Program for the Jesse Creek</u> <u>Property, Jean – Anaconda Grid.</u> For Conlon Copper Corporation. Vancouver, B.C. **Assessment Report No. 25880.**

The work described in this report was located within and/or near the current tenure 852610.

Mapping on a scale of 1:1500 was conducted on the property along with bedrock sampling and minor soil sampling. This work was conducted just south of the current Copper Belle claims. Within this location it was established that local mineralization was related to quartz-carbonate veins that are trending in an easterly direction. Sampling did not result in any significant deviation in values from the known copper-gold system in the area.

# Geology:

**Regional:** 



The Intermontane Belt in the Canadian cordillera has been subject to extensive exploration and hosts many mineral deposits, including Highland Valley, Afton, Copper Mountain and Brenda, among others.

The Copper Belle property lies within the central portion of the Nicola Belt, which is in the Intermontane Belt of the Canadian Cordillera. The Nicola Belt is comprised of volcanic, sedimentary, and intrusive units predominantly of the Upper Triassic. The extent of the Nicola group is the length of the Intermontane Belt into the Yukon Territory (where it is referred to as the Takla and Stuhini volcanic assemblages).

The central portion of this group extends from the United States border to Kamloops Lake and is approximately 180 km long by 40 km wide (Preto, 1991). Tertiary volcanic rocks overlay the Nicola belt in the north, whereas the eastern portion of the belt is intruded by granitic rocks of various plutons related to and including the Okanagan Batholith. The Eagle Complex comprising granitic rocks along with Jurassic age and younger strata are bound to the western part of Nicola Belt whereas the southern portion of the belt is intruded by granitic rocks of the Similkameen Batholith (Preto, 1991).

Between Merritt and Princeton the Central Nicola Belt can further be divided into three relatively parallel belts, the eastern belt (uTrNE), the central belt (uTrNC) and the western belt (uTrNW), with each belt being separated by major faults and containing dissimilar lithological assemblages (Preto, 1991). By using Nicola Lake as a reference point the boundaries of these

three belts can be geographically located very loosely as follows: 1. the eastern belt is to the east of Nicola Lake. 2. the central belt is in the centre with Nicola Lake. 3. the western belt is to the west of Nicola Lake. A brief description as described by Preto and Northcote of the three Nicola belts follows:

- Eastern Belt (uTrNE): North of Missezula Lake this belt contains few intrusive rocks. This Northern section consists predominantly of volcaniclastic rocks ranging from volcanic siltstone and sandstone to volcanic conglomerate and breccia. This volcaniclastic assemblage also tends to have a westerly dip. Sedimentary rocks occurring in this belt are observed as grading southward into a sequence of crystal and lapilli tuff, lahar deposits and clasts of syenite and monzonite and few analcite-bearing flows of trachybasalt and trachyandesite.
- 2. *Central Belt (uTrNC):* Rocks in this belt tend to be alkalic and calcalkalic in composition, and includes plagioclase-rich andesitic and basaltic flows containing abundant massive pyroxene. The belt also includes deposits of volcanic breccia, conglomerate and lahar. Also found in this belt are pyroclastic flows along with sedimentary units, though these are not widespread. Intrusive rocks in this belt consist of gabbro, diorite, syenite and monzonite compositions.
- 3. Western Belt (uTrNW): Predominantly calc-alkaline, the units in this belt dip easterly. Only minor occurrences of basalt are found in this belt with the dominating units being dacite and rhyolite. The lower succession consists of both flow and pyroclastic units of plagioclase andesite and dacite that are grey-green and grey in color along with red colored volcanic breccia and lapilli tuff. The upper part of this succession consists of greenish fine-grained flows, greenish-grey fine-grained volcaniclastic rocks typically calcareous, and fossiliferous limestone.

# **Property geology:**



The property is mostly located within the Western Belt of the Nicola Group assemblage (uTrNW). As described by Wells (1999), local geology comprises three main units.

Unit 1 consists of massive mafic Nicola volcanic flows. Unit 2 consists of plagioclase phyric flows with localized lenses and beds of monolithic lapilli tuff. Unit 3 consists of heat altered metamorphic assemblages of chlorite-epidote-magnetite hornfels.

Wells also notes in the report that some of the units of bedded tuff suggest that this sequence of the Nicola Group is striking northwards and dipping intermediately to steeply westwards. Feldspar porphyritic dykes along with small stocks that appear to be quartz diorite to

monzonites intrude the volcanic rocks in the area. The contact zones with the intrusive tend to display brecciated volcanics which are strongly magnetic, silicified and contain local potassium feldspar veins and lenses (Wells, 1999).

As was reported by Wells (1999) copper mineralization occurring in the hornfels/volcanics seems to be fracture controlled and is associated with carbonate and specular hematite.

#### Geological notes on reported mineralization:

The provincial MINFILE database provides the following summary of the two mineral occurrences within the Copper Belle property:

**Anaconda showing (MINFILE 092ISE050):** Mineralization in the form of specular hematite within quartz-calcite veins and minor chalcopyrite occurs in highly silicified and chloritized andesite. The Anaconda showings consist of andesitic, locally porphyritic flows, minor basaltic flows, volcaniclastics, interbeded sediments and granitic intrusions, all of which are located in the Upper Triassic Nicola Group.

**Copper Belle Mine (MINFILE 092ISE121):** Mineralization at this minor past producer was hosted in Upper Triassic Nicola Group rocks. Locally, the rocks have been reported as massive and porphyritic flows of andesitic and basaltic composition. Mineralization consists of quartz and calcite with specular hematite, chalcopyrite and copper carbonates. Mineralization in outcrops is reported as occurring in discontinuous lenses ranging in width from 7 to 60 centimetres and with lengths of 1 to 9 meters.

Within the project area, two additional minor mineral occurrences are reported in the literature. The so-called WATTS showing, is described in Assessment Report 25403 (p. 26) as follows: "*Mineralized fracture zones in the new "Watt Showing" area feature specular hematite with fine disseminated to coarse blebby chalcopyrite. Minor chalcedonic quartz is locally evident. One sample 136904 was taken from a 15cm wide quartz breccia with 2% coarse chalcopyrite and returned 3202ppm copper and low gold"* (Wells, 1998).

The so-called "Roof Pendant" occurrence is described as follows: "In the Roof Pendant zone, sampling in 1992 returned copper (low gold) values from easterly trending carbonate and specular hematite vein zones plus or minus quartz. Sample 136910 in 1997 was from a boulder of vuggy quartz with massive hematite and minor chalcopyrite. This sample returned 2184 Cu and anomalous gold at 60ppb" (Wells, 1998).

# 2012 Work Program:



A detailed map of sample locations along with results can be found in Appendix

In an effort to locate and sample the old workings on the Copper Belle property, the 2012 work program consisted of two field days of work.

The first day focused on traversing the terrain in an effort to find the old workings, along existing roads, trails and overland. Work was also incurred in clearing fallen timber from the roadways, to gain vehicle access to the project area.

The second day consisted of sampling near areas in which historic accounts have suggested the old workings were located.

The program consisted of collecting and assaying a total of nine rock grab samples, and traversing approximately 3 km of land.

1 additional man-day, consisting of 1/2 day of the author's time and 1/2 day of the operator's time, was incurred on the property on October 23, 2012, to orient the author with the property. The author carried out geological inspection of the certain 2012 sample sites, and examined the Copper Belle workings.

#### Methodology:

The operator, an experienced mineral exploration worker and prospector, conducted a foot traverse looking for evidence of the old workings.

Bedrock outcrop appearing visually prospective were tested by grab sampling. Approximately fist-sized samples were collected by rock hammer. By nature, it is highly unlikely that such samples would be representative of the constituent mineralogy of the entire outcrop. Sample locations were recorded by *Garmin* GPS and provided to the author. No detailed rock descriptions were provided, and the entire rock was submitted for assay.

Samples were placed in a poly bag, and submitted to Acme Analytical Laboratories (Vancouver) Ltd. ("Acme Analytical") for geochemical assay. At Acme Analytical, a rock sample was crushed, split and pulverized to 200 mesh, and a test sample of 0.5g was submitted for 1:1:1 Aqua Regia digestion ICP:ES analysis.

#### **Results:**

The 2012 work program did not succeed in finding the old workings on the property. However, a second property visit by the author and operator in October 2012 did locate the apparent Copper Belle working. Though the workings were located, they were not on the tenures for which this report is being written.

The prospecting traverse failed to encounter any mineralization at surface.

Rock sampling on the property resulted in two samples having anomalous (though subeconomic) copper responses in excess of 200ppm.

COPPER BELLE			
Sample	Easting	Northing	Notes
1	655128	5553330	Nicola Volcanic
2	655190	5553310	Nicola Volcanic
3	655190	5553312	Nicola Volcanic
4	655129	5553659	Nicola Volcanic
5	655240	5553422	Nicola Volcanic
6	654860	5553950	Nicola Volcanic
7	654860	5553950	Nicola Volcanic
8	654860	5553950	Nicola Volcanic
9	654860	5553950	Nicola Volcanic

The operator provided the following details on rock samples obtained:

The author's brief inspection of certain of the outcrops sampled in 2012 suggested the rocks were andesitic, consistent with the operator's description of the rock as belonging to the "Nicola Volcanic" group.

#### Geochemistry:

All samples collected in the field were sent to Acme Analytical Laboratories (Vancouver) Ltd. at 1020 Cordova St. East Vancouver, B.C. Samples were assayed for 34 elements using the ICP-ES methods.

Listed in the table below are the assay results for select elements, Cu, Ag, Au and Mo. The 2012 Program high values are highlighted and in bold. The Entire table including all 34 element assay results can be found in Appendix.

Rock Sample#	Easting	Northing	Cu	Ag	Au	Мо
			ppm	ppm	ppm	ppm
1	655128	5553330	26	<0.3	<2	<1
2	655190	5553310	4	<0.3	<2	<1
3	655190	5553312	2	<0.3	<2	<1
4	655129	5553659	<1	<0.3	<2	<1
5	655240	5553422	231	<0.3	<2	<1
6	654860	5553950	382	<0.3	<2	<1
7	654860	5553950	4	<0.3	<2	<1
8	654860	5553950	32	<0.3	<2	<1
9	654860	5553950	16	<0.3	<2	11

UTM locations given are Zone 10, NAD83.

# **Conclusion:**

An effort to find the old workings on the property was not successful in the initial 2 man-day operation, nor was copper mineralization located. However, a further visit to the property by the author and the owner on October 23, 2012 was successful in locating the old Copper Belle workings, though they were not located on the tenures for which this report is being written (UTM Zone 10 653963 x 5554484, located on or near an adjacent tenure owned by the operator). No samples were taken on this date.

Copper mineralization was not located, and if future work is performed on the property, effort should be made to more systematically locate, survey and sample old workings for copper mineralization.

# **Recommendations:**

As the initial work program failed to identify copper mineralization on the property, additional work recommendations are limited and highly success contingent. Initially, work should be limited to compiling a comprehensive exploration library on the property, to extract maximum value from the relatively large historical dataset and reduce the chance of duplicating effort.

Subsequent to that, any first-phase exploration should be limited to locating the old workings, carrying out detailed geological examination and sampling of any mineralization encountered. Orientation work or prospecting of any historical anomalies/target areas noted in the aforementioned literature review, particularly the copper-in-soil zones described by Wells (1998 and 1999) may also be recommended. If the reported high-grade mineralization is encountered and is found to have encouraging areal extent, then limited grassroots geochemical and geophysical surveying may be considered.

The amenability of the property location to mineral development, given its location in respect of cultural geography and physiographic factors - such as its proximity to the Merritt townsite, agricultural land usage and Indian Reserve lands - should be given due consideration before proceeding with any exploration recommendations.

# **Statement of Costs:**

Personnel (Name)* / Position	Field Days (list actual days)	Days	Rate	Subtotal*	
Christopher Delorme, Owner	July 6-8, 2012	3	\$200.00	\$600.00	
					\$600.00
Office Studies	List Personnel		L		
Report preparation	Lukasz Jarawka	4.0	\$250.00	\$1,000.00	
					\$1,000.00
Transportation		No.	Rate	Subtotal	
Truck rental, including mileage and fuel		3	\$50.00	\$150.00	
					\$150.00
Accommodation & Food					
Hotel		2.00	\$75.00	\$150.00	
					\$150.00
Freight, rock samples					
Sample preparation, aquelement ICP-ES geoche	la regia digestion, and 34 mical analysis	9	\$16.60	\$149.40	
					\$149.40
TOTAL Expenditures					\$2,049.40

Expenditure amounts were provided by the operator.

#### **References:**

- B.C. Reports of the Minister of Mines for the years: 1915. p. 230.
- Hings, D.L. P. Eng. 1965. <u>Geomag Geophysical Report No.136 Bell, Bill and Keith Claims.</u> For Merritt Copper Syndicate. **Assessment Report No. 736.**
- Kelly, S.F. 1962. <u>Report on Geophysical and Geochemical Surveys on The Mint Group of</u> <u>Claims.</u> For Canford Exploration Ltd. **Assessment Report No. 402.**
- Plicka, P. 1980. <u>Geological Report of the Jane Property.</u> For Hambro Resources LTD. Assessment Report No. 9089.
- Preto, B.A. and Northcote, K.E. 1991. <u>Geology and regional setting of major mineral deposits in</u> <u>southern British Columbia (field trip 2).</u> Geological Survey of Canada open File 2167. Page 93-98.
- Sirola, W.M. P. Eng. 1962. <u>Geophysical & Geochemical Investigation of 24 Claims of The Fault</u> <u>Group of Mineral Claims</u>. Assessment Report No. 415.
- Wells, R.C. P. Geo. 1998. <u>Geochemical Assessment Report for the Jesse Creek Property, Jean</u> <u>– Anaconda Grid.</u> For Conlon Copper Corporation. Vancouver, B.C. **Assessment Report No. 25 403.**
- Wells, R.C. P. Geo. 1999. <u>Report on Geological Mapping Program for the Jesse Creek</u> <u>Property, Jean – Anaconda Grid.</u> For Conlon Copper Corporation. Vancouver, B.C. **Assessment Report No. 25880.**

# **Statement Of Qualifications:**

I, Lukasz Jarawka of West Kelowna, British Columbia, here by certify that:

- 1. I have received a Bachelor's Degree in Geology from Saint Mary's University in Halifax, Nova Scotia in 2010.
- 2. I have been actively involved in geology since 2010.

Lukasz Jarawka B.Sc. Geology

# Appendix 1:

1020 C	CATE OF ANALYSIS	alytical Laboratories (Va www.acmelab.o		Client: Submitted By: Receiving Lab: Received: Report Date: Page:	Blue Rivers Resout 501 - 525 Seymour Street Vancouver BC V6B 3H7 CAN Christopher Delorme Canada-Vancouver September 24, 2012 October 12, 2012 1 of 2 VAN1			
CLIENT JOB IN	FORMATION	SAMPLE	PREPARATION	NAND ANALYTICA	L PROCEDURES			
Project: Shipment ID: P.O. Number Number of Samples:	COPPER BLUE	Method Code R200-250 1D01	Number of Samples 9 9	Code Description Crush, split and pulverize 1:1:1 Aqua Regia digeste	-	Test Wgt (g) 0.5	Report Status Completed	Lab VAN VAN
SAMPLE DISP	OSAL	ADDITION	IAL COMMENT	s				
Acme does not accept	Client to Pickup Rejects t responsibility for samples left at the laboratory after 90 ten instructions for sample storage or return.							
Invoice To:	Blue Rivers Resources Ltd. 501 - 525 Seymour Street Vancouver BC V6B 3H7 CANADA				O HM	or other	CERTIFICO PAGE	)
VI results are considered	I previous preliminary and final reports with this file number dated prio the confidential property of the client. Acme assumes the liabilities for an analytical result could not be provided due to unusually high levels	actual cost of analysis only. Resu	its apply to samples as :	proval; preliminary reports are u submitted.	insigned and should be used for ref	CLARENCE I GENERAL MA Ference only.	LEONG AND	

Л	<b>cme</b> L	əł	hc									Clien	it:	501 -	525 Seyr	nour Stre	~~~~~	es Lto A	1.		
1020	Cordova St. East Vance (604) 253-3158 Fax (6	ouver BC	: V6A 4			tical Lat	boratori	es (Var	ncouver	) Ltd.		Projec Report			ER BLU er 12, 20	-					
		-				ww	w.acme	lab.co	m			Page:		2 of 2					Pa	rt: 1	of 1
CERTIF	ICATE OF AN	VALY	′SIS													VA	N12	2004	511	.1	
	Method	WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	N	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	BI	v	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	0.001
G1	Prep Blank	<0.01	<1	<1	<3	43	<0.3	3	4	605	2.04	<2	<2	5	60	<0.5	<3	3	39	0.43	0.082
G1	Prep Blank	<0.01	<1	<1	<3	42	<0.3	3	4	581	1.97	<2	<2	4	58	<0.5	<3	<3	38	0.46	0.081
1	Rock	1.04	<1	26	<3	73	<0.3	6	20	1213	4.08	<2	<2	<2	14	<0.5	<3	4	106	0.52	0.066
2	Rock	1.70	<1	4	<3	34	<0.3	3	10	1044	4.27	<2	<2	<2	9	<0.5	<3	4	65	0.60	0.072
3	Rock	1.17	<1	2	<3	18	<0.3	<1	11	890	6.14	2	<2	<2	11	<0.5	<3	<3	80	0.27	0.165
4	Rock	0.55	<1	<1 231	ব ব	47	<0.3	8	22	1119 753	3.74	<2	<2 <2	<2 <	57 23	<0.5 <0.5	- 3 - 3	3	96 76	1.87	0.047
5	Rock	1.61 L.N.R.	<1 L.N.R.	231 L.N.R.	<3 L.N.R.	33 L.N.R.	<0.3 L.N.R.	LNR.		/53		<2 L.N.R.	<2 L.N.R.	-		<0.5 L.N.R.	-	-	LN.R.		0.072
7	Rock	2.23	<1	382	<3	24	<0.3	6	20	700	3.72	<2	<2	<2	13	<0.5	<3	L.N.R. 7	86	0.63	0.050
8	Rock	0.96	<1	4	2	71	<0.3	14	13	1606	4.96	~	~	~	25	<0.5	<3	4	129	1.30	0.030
9	Rock	1.07	<1	32	- 3	33	<0.3	5	14	663	3.75	2	<2	<2	13	<0.5	<3	<3	88	0.71	0.050
-	Rock	1.39	11	16	- 3	15	<0.3	1	4	509	3.75	~	<2	<2	15	<0.5	<3	3	47	0.41	0.089
10					-							-	-	-			-	-			

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.

A	<b>cme</b> L	ak	)S	Acme	Analvt	ical Lab	oratori	es (Va	ncouver	r) Ltd.		Clien		501 - Vanco	525 Sey	mour Str V6B 3H	esources Ltd eet 7 CANADA	L	
1020 C	ordova St. East Vancou (604) 253-3158 Fax (60	uver BC	V6A 4/							,		Report			er 12, 20				
PEDTIEI	CATE OF AN		2010			www	v.acme	elab.co	m			Page:		2 of 2	:		N12004		2 of 1
	Method	10	10	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D			10	1112004	511.1	
	Analyte	La	Cr	Mg	Ba	п	в	A	Na	ĸ	w	т	Hg	Ga	S	Sc			
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm			
C1	MDL Drop Black	9	10	0.01	250	0.001	20	0.01	0.01	0.01	2	5	1	5	0.05 <0.05	5 <5			
G1 G1	Prep Blank Prep Blank	9	10	0.60	250	0.130	<20 <20	1.05	0.08	0.52	<2 <2	 ⊲	<1	6	<0.05	< 4			
1	Rock	3	17	2.04	204	0.125	<20	1.87	0.06	0.49	<2	~	<1	6	<0.05	<5			
2	Rock	8	10	1.87	90	0.005	<20	2.33	0.05	0.14	<2		<1	11	0.06	9			
3	Rock	3	1	1.26	23	0.008	<20	2.43	0.06	0.07	<2	<5	<1	10	0.77	10			
1	Rock	2	20	1.96	1226	0.106	<20	1.58	0.05	0.03	<2	<5	<1	8	0.14	10			
5	Rock	3	15	1.04	33	0.103	<20	0.98	0.09	0.04	<2	<5	<1	<5	<0.05	7			
5	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.			
7	Rock	3	23	1.32	24	0.149	<20	1.41	0.07	0.06	<2	<5	<1	<5	0.55	8			
8	Rock	2	25	3.49	21	0.239	<20	3.59	0.02	0.08	<2	4	<1	8	<0.05	7			
9	Rock	3	17	1.28	26	0.140	<20	1.34	0.06	0.08	<2	<5	<1	6	0.26	8			
10	Rock	3	6	1.03	42	0.187	<20	1.42	0.05	0.16	<2	-5	<1	8	0.95	8			
report supersedes all pr	revious preliminary and final reports with	h this file num	iber dated pr	rior to the de	ate on this c	ertificate. Sig	nature indi	cates final s	epproval pre	liminery rep	orta ere unsi	aned and si	hould be use	d for referer	tce only.				

Acn	no	ah	)C									Client	E	501 - 5	25 Seym	our Stree	t				
	Standard 12 108 130 333 1.7 40 7 592 2.35 27 <2																				
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r none (004) 23	0-5150 Pax (0	04) 200-						Jah ee	-												
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QUALITY CO	NTROL	REP	ORT													VAI	N12	0045	511.	.1	
	Method	WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	10
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	NI	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	BI	v	Ca	P
	Unit	kg	ppm	DDM	DDM	DOM	0000			0.000	9/	0000									
	1000					P.P.I.I.	Ppin	ppm	ppm	ppm	/0	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MUL	0.01	<u> </u>	1		1		ppm 1	ppm 1										ppm 1		% 0.001
Reference Materials	MUL	0.01	1	1		1		ppm 1	ppm 1										ppm 1		% 0.001
Reference Materials STD DS9		0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	
	Standard	0.01		108	3	1 333	0.3		1 7	2 592	0.01 2.35	2	2	2	71	0.5 2.3	3 5	3 9	1 41	0.01	0.084
STD DS9	Standard Standard	0.01	<1	1 108 529	3 130 21	1 333 59	0.3 1.7 0.5	1 40 252	1 7 94	2 592 1007	0.01 2.35 15.86	2 27 5	2 <2 <2	2 6 6	1 71 16	0.5 2.3 <0.5	3 5 <3	3 9 <3	1 41 221	0.01	0.084
STD DS9 STD OREAS45CA	Standard Standard	0.01	<1 <1	1 108 529 692	3 130 21 23	1 333 59 28	0.3 1.7 0.5 0.3	40 252 375	1 7 94 51	2 592 1007 409	0.01 2.35 15.86 22.25	2 27 5 12	2 <2 <2 <2	2 6 6 10	1 71 16 4	0.5 2.3 <0.5 <0.5	3 5 3 5	े 3 9 २३ २३	1 41 221 295	0.01 0.72 0.46 0.03	0.084
STD DS9 STD OREAS45CA STD OREAS45EA	Standard Standard Standard	0.01	<1 <1	1 108 529 692 108	3 130 21 23 125	1 333 59 28 317	0.3 1.7 0.5 0.3 1.83	1 40 252 375 40.3	1 7 94 51 7.6	2 592 1007 409 575	0.01 2.35 15.86 22.25 2.33	2 27 5 12 25.5	2 <2 <2 <2 0.118	2 6 6 10 6.38	1 71 16 4 69.6	0.5 2.3 <0.5 <0.5 2.4	3 5 <3 5 4.94	9 -3 -3 6.32	1 41 221 295 40	0.01 0.72 0.46 0.03 0.7201	0.084 0.039 0.027 0.0819
STD DS9 STD OREAS45CA STD OREAS45EA STD DS9 Expected	Standard Standard Standard	0.01	<1 <1	1 108 529 692 108 494	3 130 21 23 126 20	1 333 59 28 317 60	0.3 1.7 0.5 0.3 1.83 0.275	1 40 252 375 40.3 240	1 7 94 51 7.6 92	2 592 1007 409 575 943	0.01 2.35 15.86 22.25 2.33 15.69	2 27 5 12 25.5 3.8	2 <2 <2 0.118 0.043	2 6 6 10 6.38 7	1 71 16 4 69.6 15	0.5 2.3 <0.5 <0.5 2.4	3 5 <3 5 4.94	9 -3 -3 6.32	1 41 221 295 40 215	0.01 0.72 0.46 0.03 0.7201 0.4265	0.084 0.039 0.027 0.0819 0.0385
STD DS9 STD OREAS45CA STD OREAS45EA STD DS9 Expected STD OREAS45CA Expected	Standard Standard Standard	0.01	<1 <1 12.84 1	1 108 529 692 108 494 709	3 130 21 23 126 20 14.3	1 333 59 28 317 60 30.6	0.3 1.7 0.5 0.3 1.83 0.275 0	1 40 252 375 40.3 240 357	1 7 94 51 7.6 92 52	2 592 1007 409 575 943 400	0.01 2.35 15.86 22.25 2.33 15.69 22.65	2 27 5 12 25.5 3.8 11.4	2 <2 <2 0.118 0.043 0.05	2 6 10 6.38 7 10.7	1 71 16 4 69.6 15 4.05	0.5 2.3 <0.5 <0.5 2.4 0.1	3 <3 <3 5 4.94 0.13	9 <3 <3 6.32 0.19	1 41 221 295 40 215 295	0.01 0.72 0.46 0.03 0.7201 0.4265 0.032	0.084 0.039 0.027 0.0819 0.0385 0.029
STD DS9 STD OREAS45CA STD OREAS45EA STD DS9 Expected STD OREAS45CA Expected STD OREAS45EA Expected	Standard Standard Standard	0.01	<1 <1 12.84 1	1 108 529 692 108 494 709	3 130 21 23 126 20 14.3	1 333 59 28 317 60 30.6	0.3 1.7 0.5 0.3 1.83 0.275 0	1 40 252 375 40.3 240 357	1 7 94 51 7.6 92 52	2 592 1007 409 575 943 400	0.01 2.35 15.86 22.25 2.33 15.69 22.65	2 27 5 12 25.5 3.8 11.4	2 <2 <2 0.118 0.043 0.05	2 6 10 6.38 7 10.7	1 71 16 4 69.6 15 4.05	0.5 2.3 <0.5 <0.5 2.4 0.1	3 <3 <3 5 4.94 0.13	9 <3 <3 6.32 0.19	1 41 221 295 40 215 295	0.01 0.72 0.46 0.03 0.7201 0.4265 0.032	0.084 0.039 0.027 0.0819 0.0385 0.029
STD DS9 STD OREAS45CA STD OREAS45EA STD DS9 Expected STD OREAS45CA Expected STD OREAS45CA Expected BLK	Standard Standard Standard Blank		<1 <1 12.84 1 <1	1 108 529 692 108 494 709 <1	3 130 21 23 126 20 14.3 <3	1 333 59 28 317 60 30.6 3	0.3 1.7 0.5 0.3 1.83 0.275 0 <0.3	1 40 252 375 40.3 240 357 <1	1 7 94 51 7.6 92 52 <1	2 592 1007 409 575 943 400 <2	0.01 2.35 15.86 22.25 2.33 15.69 22.65 <0.01	2 27 5 12 25.5 3.8 11.4 <2	2 <2 <2 0.118 0.043 0.05 <2	2 6 6 10 6.38 7 10.7 <2	1 71 16 4 69.6 15 4.05 <1	0.5 2.3 <0.5 2.4 0.1 <0.5	3 5 3 5 4.94 0.13 <3	9 <3 <3 6.32 0.19 <3	1 41 221 295 40 215 295 <1	0.01 0.72 0.46 0.03 0.7201 0.4265 0.032 <0.032	0.084 0.039 0.027 0.0819 0.0385 0.029 <0.001

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.

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1020 Cordova S Phone (604) 25	St. East Vanco	uver BC	V6A 4A			ical Lab	oratorie	es (Van	couver;	) Ltd.		Project: Report [	Date:		ER BLUE r 12, 201				
						ww	w.acm	elab.co	m			Page:		1 of 1				Part:	2 of 1
QUALITY CO	NTROL	REP	ORT	Г												VA	N12004	4511.1	
	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D			1D			
	Analyte	La	Cr	Mg	Ba	т	в	A	Na	к	w	т	Hg	Ga	S	Sc			
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm			
	MDL	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	5	1	5	0.05	5			
Reference Materials																			
TD DS9	Standard	12	119	0.63	335	0.106	<20	0.98	0.09	0.41	2	7	<1	5	0.17	<5			
STD OREAS45CA	Standard	16	766	0.13	175	0.135	<20	3.64	0.01	0.07	<2	6	<1	18	<0.05	48			
TD OREAS45EA	Standard	6	875	0.09	152	0.088	<20	3.02	0.02	0.05	<2	7	2	12	<0.05	82			
STD DS9 Expected		13.3		0.6165		0.1108		0.9577		0.395	2.89	5.3	0.2	4.59	0.1615	2.5			
STD OREAS45CA Expected		15.9		0.1358	164	0.128				0.0717		0.07	0.03		0.021				
TD OREAS45EA Expected			849	0.095	139			3.32	0.027	0.053	-	0.072		11.7	0.044	78			
SLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	-5	<1	<5	<0.05	<5			
Prep Wash 31	Prep Blank	9	10	0.63	250	0.130	<20	1.05	0.08	0.52	<2	4	<1	-	<0.05	5			
31	Prep Blank	9	10	0.60	230	0.130	<20	1.00	0.08	0.32	<2	4	<1	6	<0.05	<5 <5			

# **SAMPLE LOCATION MAP COPPER BELLE PROPERTY**



