BC Geological Survey Assessment Report 31555

## Coquihalla Gold Belt Project – Reconnaissance and Sampling

## Claim ID Number: 600070

New Westminster Mining Division NTS 092H06 Claim Location: UTM NAD 83: Zone 10, 629500 East 5477000 North

> Registered Owner: Doug Warkentin Operator: Crucible Resources Ltd.

Sowaqua Creek Area - Exploration and Silt Sampling Report

June 9, 2010

Prepared By: Doug Warkentin, P.Eng

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## Introduction

#### **Location and Access**

The Coquihalla Gold Belt property lies in the Cascade Range, 15 km east northeast of Hope, BC on the south side of the Coquihalla highway. The general project location is shown in Figure 1.

The northwest boundary of the property lies within two hundred meters of the Coquihalla highway and the lower slopes near the highway are directly accessed by a logging road of unknown condition. The northeast corner of the property is also accessed by a network of logging roads via the Dewdney Creek Forest Service Road (FSR). The conditions of these roads are also unknown. The south end of the property is accessed via the Sowaqua Creek FSR, although the road itself does not cross the claims, with the exception of the small isolated claim block to the southwest of the main group. The northeast corner of this block is on the Sowaqua Creek FSR in this area is in good condition and accessible by 2WD vehicles. A logging spur road crosses the southeast corner of the main property, but the condition of this road is unknown.

The principal access to the main part of the property is by foot off of the nearby forestry roads. At the north end of the property, there is an old trail that accesses the Serpentine Lake area, but most areas require traversing unmarked routes. Terrain consists mainly of steep, forestcovered slopes cut by deep drainage ravines. There are a few flatter plateaux at higher elevations, such as that around Serpentine Lake.

#### **Tenure Information**

The Coquihalla Gold Belt Project currently consists of eight Mineral Titles Online claims with a total area of 1281 hectares. This includes six claims (all with 'CGB' in the name) forming a contiguous block of 1155 hectares along with two smaller satellite claims. The claims are all owned by the author, and Crucible Resources Ltd. has an option to acquire 100% ownership of these claims. Claim details are shown in Table 1. Expiry dates shown in this table reflect the application the work described in this report.

Tenure	•		•			
Number	Claim Name	Good To Date	Area (ha)			
600070	CGB-1	145582 (100%)	2009/feb/26	2011/mar/31	462.25	
604796	SOWAQUA CREEK W	145582 (100%)	2009/may/21	2010/may/21	42.04	
622563	CGB-S	145582 (100%)	2009/aug/21	2010/aug/21	84.08	
705889	CGB-N	145582 (100%)	2010/feb/10	2011/feb/10	461.96	
705899	SERP LAKE	145582 (100%) 2010/feb/1		2011/feb/10	84.03	
706306	CGB-N1	145582 (100%)	2010/feb/15	2011/feb/15	41.99	
733822	CGB-5	145582 (100%)	2010/mar/24	2011/mar/24	63.04	
739202	CGB-N FR	145582 (100%)	2010/apr/02	2011/apr/02	41.99	
				Total	1281.37	

Table 1: Coquihall	a Gold Belt Pro	ject Mineral Titles
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Figure 2 outlines the tenures of the Coquihalla Gold Belt Project.



Figure 1 – Coquihalla Gold Belt Project Location Map

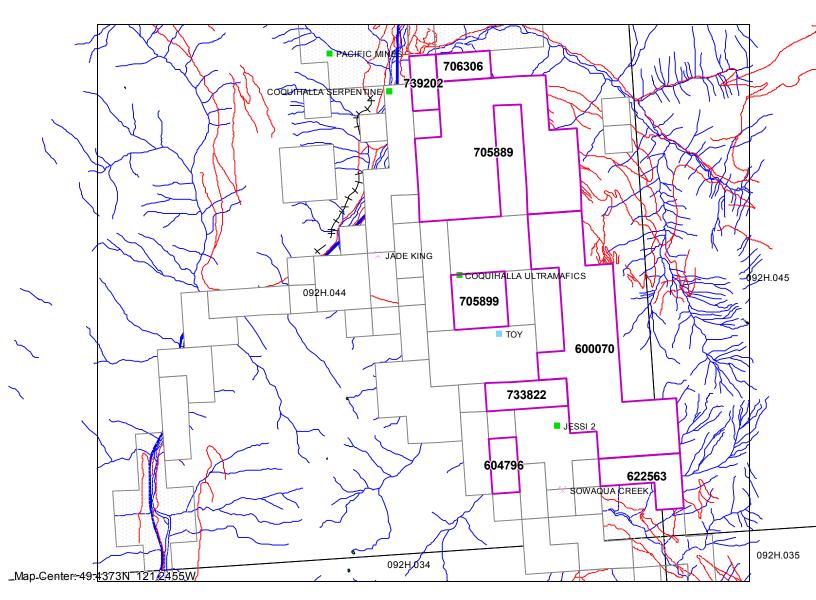


Figure 2 – Project Tenure Outline

## **Regional Geology**

The Coquihalla Gold Belt Project lies along the southern portion of the East Hozameen fault. This structure, together with the parallel West Hozameen fault, form a major north northwest trending regional fault system extending for more than 100 kilometers, reaching from the Fraser River south of Boston Bar southward into Washington State. The Hozameen fault system separates the Jurassic Ladner Creek sediments and the older underlying Spider Peak volcanic rocks to the east from the older Hozameen Complex sediments on the west side.

Along much of its length there is a single Hozameen fault is a single structure, but in places splits into eastern and western semi-parallel faults separated by up to 2 kilometers of ultramafic intrusive rocks. In the vicinity of the Coquihalla Gold Belt Project, this ultramafic body is at its

widest. The intrusive is a mix of serpentinite, gneiss and diorite that appears to be a fault emplacement of older altered crustal rocks occurring after the formation of the Spider Peak volcanic and Ladner Creek sediments lying on the east side. The entire area is also heavily cross-faulted with more recent faults that cut across both the Ladner Group rocks and the ultramafic intrusive. The regional geology of the area is shown in Figure 3.

Gold mineralization occurs mainly in the Ladner sediments or the Spider Peak volcanics in the vicinity of the East Hozameen fault, as well as within the ultramafic intrusive unit. The most common occurrences to the east of the fault consist of quartz carbonate veins and stockworks in the sediments or volcanics, carrying low levels of pyrite and arsenopyrite, with gold occurring as inclusions in the sulphide minerals or as ultra-fine particles in the quartz matrix. Along the fault contact zone and within shear zones in the ultramafic, smaller zones of high grade gold occur, hosted within the talcose fault gouge.

Other mineralization within, or close to, the ultramafic unit include talc and jade occurrences associated with the serpentinite, minor base metal sulphide occurrences hosted in mineralized shear zones as narrow, irregular quartz veins. There are also significant levels of nickel and cobalt in much of the serpentinite, and in some locations this can include a substantial fraction as very fine-grained disseminated sulphides. Chromite is also found in the serpentinite as fine disseminations and in some locations as larger blebs. Placer platinum has been recovered from Sowaqua Creek, but there are no recorded bedrock occurrences of platinum group metals in the area.

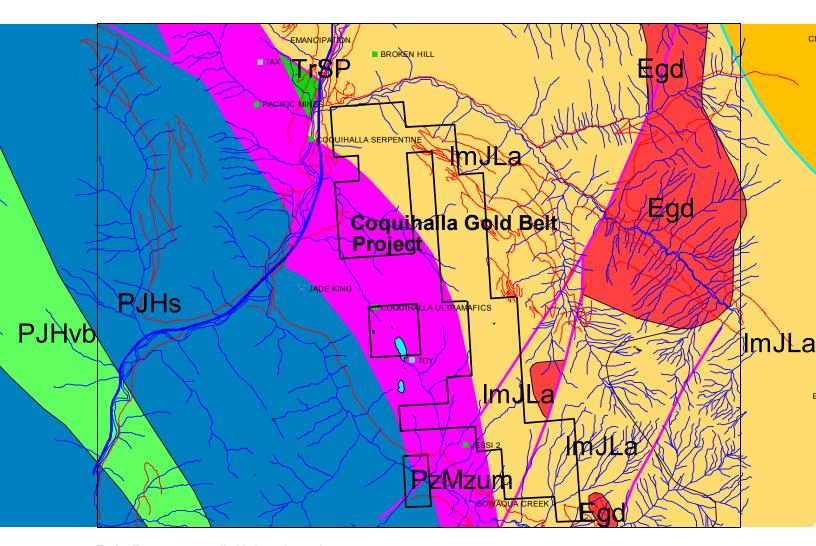
#### Local Geology

The Coquihalla Gold Belt project area extends for nearly eight kilometers along the east side of the Coquihalla ultramafic complex, including portions of the East Hozameen fault, Ladner Creek sedimentary rocks and intervening Spider Peak volcanic rocks. The largest part of the property is underlain by the Ladner Creek group, which in this area is predominantly argillites, but with substantial bands of siltstones, especially toward the north end of the property. In southern sections the Ladner Group argillites are in direct fault contact with the ultramafic suite, while to the north they are separated by a variable band of volcanic rocks of the Spider Peak formation. At least two small granodiorite intrusions occurs within the Ladner Group rocks, near the southeastern boundaries of the property.

The western parts of the property are underlain by ultramafic rocks of the Coquihalla Serpentine Belt. These rocks are a mixture of serpentinite, gneiss and diorite, with numerous shear zones along the contacts of these units, although gradational contacts also occur.

In addition to the East Hozameen fault, which traverses the property with a north northwest direction, there are numerous cross-faults, mainly with a northeast-southwest orientation. These include the southwest end of the Coquihalla fault, another major regional fault that cuts the ultramafic body and displaces is several hundred meters near the south end of the property.

There are no known bedrock mineral occurrences on the property, with the exception of poorly defined areas of disseminated nickel mineralization in the serpentinites. Significant amounts of placer gold and platinum have been recovered from Sowaqua Creek, however, where is crosses the ultramafic rocks near the southwest part of the property. Some placer gold was also recovered within the property boundaries near the shores of Serpentine Lake. No specific bedrock source for this gold has been identified.



Egd – Eocene – granodioritic intrusive rocks ImJLa – Lower Jurassic to Middle Jurassic Ladner Group – mudstone, siltstone, shale fine clastic sedimentary rocks PJHs – Permian to Jurassic Hozameen Complex – undivided sedimentary rocks PzMzum – Paleozoic to Mesozoic - ultramafic rocks TrSP – Triassic Spider Peak Formation – basaltic volcanic rocks

## Figure 3 – Regional Geology

A few minor quartz veins and breccia zones have been located in the area, but mineralization was not significant. As noted above, significant values of nickel have been identified in serpentinites, which include both a nickel silicate component, from the original peridotite and dunite source rocks, and a significant nickel sulphide component, apparently made up of very fine grained pentlandite or millerite. There is also a small cobalt component, which appears to occur primarily in the silicate matrix, along with finely disseminated chromite. No PGM values have been identified.

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#### **Property History**

Exploration of the Coquihalla Region began with placer small placer operations on the Coquihalla River, and at Siwash Creek at the north end of the trend, following the Fraser River rush in the late 1800's. A few small hard rock operations were developed in the Siwash Creek area in the 1890's, with an unknown quantity of production. Exploration in other parts of the belt was very limited prior to 1910, when the opening of the Kettle Valley Railway made the area accessible to prospectors. Shortly thereafter, numerous gold occurrences were discovered on the north side of the Coquihalla River, almost entirely in the volcanics and sediments within a few hundred meters of the east side of the Coquihalla Ultramafics. The first significant gold producer was the Emancipation Mine, which lies 1.5 kilometers north northwest of the property boundary.

	Years of	Production	Gold Production	
Mine	Operation	(tonnes)	(ounces)	Historical Grades
Aurum	1930-1942	494	533	33.6 g/t Au, 35.1 g/t Ag
Emancipation	1916-1941	1,158	2,897	77.8 g/t Au, 17.0 g/t Ag, 0.7% Pb, 0.9% Zn
Ladner Creek	1982-88	1,018,425	47,010	1.44 g/t Au, 0.11 g/t Ag (Mill recoveries)
Pipestem	1935-37	1,498	272	5.65 g/t Au, 0.77 g/t Ag, 0.004% Cu
Sowaqua Creek	1920's	?	235	unknown (Placer operation, incl. Pt)
Ward	1905	1+	135	unknown

#### Table 2. Historical Production Along the Coquihalla Gold Trend

Table 2 summarizes the recorded past production from mining operations along the Coquihalla trend. In addition to these producers, numerous significant prospects have been developed along the same trend, almost entirely on the north side of the Coquihalla River.

The Aurum Mine differed from the others in that it was hosted in a talc-serpentine shear at the edge of the ultramafic belt, with narrow erratic quartz veins that included some spectacular grades. The discovery of this deposit in the 1920's sparked considerable exploration of the ultramafics, but only very minor occurrences were found. Around this time, however, significant placer gold occurrences were identified along Sowaqua Creek, and a small mining operation was established which included significant platinum recovery. Production was limited by difficult operating conditions, leaving most of the material in place. A small alluvial gold occurrence was also identified at this time near Serpentine Lake, which is part of the project area.

Renewed exploration in the 1970's and 80's led to the discovery of at least two significant gold deposits in the Vicinity of the old Aurum mine. The Ladner Creek Mine was put into production as a 1500 tpd operation in the early 1980's, and produced close to 50,000 ounces of gold before being shut down due a low gold price and operational issues, leaving much of the defined gold resource unmined. During this same period, and in the years following, additional resources have been defined at this mine, as well as at the neighbouring McMaster prospect.

Within the project area there has been considerable surface exploration, but minimal development beyond that. In the 1920's several companies staked claims over this area looking for ultramafic shear-hosted gold deposits similar to the Aurum Mine, but nothing of significance was reported. In the 1970's exploration included an airbourne magnetic survey and a few short drillholes near the current project boundaries. The target of this work was primarily nickel, which had been identified in the Serpentinites of the ultramafic belt. Substantial areas of nickel mineralization, with minor cobalt values, were identified, but no specific resource was defined. Later work, carried out by Border Resources Ltd., focused primarily on the metallurgy of recovering the nickel, part of which occurs as fine sulphide minerals, which can be concentrated by flotation with some difficulty.

In the 1980's Aquarius Resources Ltd. staked a large part of the trend on the south side of the Coquihalla River. The work carried out was principally soil geochemistry, looking for gold anomalies. Aquarius' soil grids defined a strong gold anomaly in the northwest part of the current project area, along the slope facing the River. This is an area with minimal bedrock outcrop, believed to be underlain by ultramafics, downslope from the East Hozameen fault. The anomaly is sporadic, but persistent over approximately one square kilometre, with additional outlying anomalous values. The results included numerous values above 100 ppb gold in soil. Soil grids in the southern part of the project area also produced anomalous gold values, but these were mainly individual sporadic high values, some reaching gram per tonne levels, which did not clearly define a specific anomalous zone. This area is also mainly covered in glacial till, with few outcrops.

Most of the soil samples taken on the property have only been analyzed for gold. A few of the later samples taken by Aquarius were analyzed for some base metals and for arsenic, producing a few anomalous results, but there was not enough coverage to clearly define anomalous areas, or to identify direct correlations with gold anomalies.

#### Summary of Work

Two days were spent in the Coquihalla Gold Belt project area in May and September of 2009 for sample collection and prospecting. All work was carried out in the southern part of the property, accessed via the Sowaqua Creek FSR. The primary objective was the collection of stream sediment samples to test drainages originating in, or crossing, the project area. Incidental to the collection of stream sediment samples, potentially mineralized float rock was also collected for analysis and the few bedrock outcrops found were prospected. A small number of soil samples were collected for background and comparison with past results.

#### Work Program

#### Sampling and Data Collection

Samples were collected on two separate site visits, the first on May 30<sup>th</sup>, 2009 and the second on September 12<sup>th</sup>, 2009. Relevant sample locations are identified on the map in Appendix 1. Assay results for rock samples are summarized in Table 3, while results for the soil and stream silt samples are shown on the accompanying map. Complete assay reports are included in Appendix 2. All rock chip and stream float rock samples were dried, crushed, split and pulverized before being analysed for gold by fire assay and for a 34 element scan by ICP-AES. Soil and stream silt samples were dried and screened at 80 mesh before also being analysed for gold by fire assay

and for 34 element scan using ICP-AES. Both rock and stream silt samples collected on the May 30<sup>th</sup> site visit were also analyzed for platinum and palladium by fire assay.

The locations visited and samples collected are described below.

#### Rock Chip and Float Samples

On May 30<sup>th</sup>, 2009 the south end of the property was visited, with access obtained via the Sowaqua Creek FSR. From the road, streams that drain the property were investigated and if appropriate, sampled. Many of the creeks form deep ravines in this area, mainly cutting through deep glacial deposits on the steep hillsides. A traverse was carried out following teh south side of a northeast trending creek until the property boundary was reached. Only a few outcrops were identified, in spots where the creek had cut through to bedrock. At around 900 meter elevation the creek formed a small valley on a relatively shallow part of the slope. Here several large boulders of dark sedimentary rock were exposed south of the creek, some iron staining was evident one some of these boulders, and a chip sample was collected from iron-stained sections (CR90530-1).

Sample # Date		Description	Width	Au	Ag	As	Cu	Ni	Со
			m	oz/t	oz/t	ppm	%	%	ppm
CR90530-1	30/05/2009	Flt Boulders w Fe ox.		0.0003	<0.006	26	0.003	0.002	21
CR90530-2	30/05/2009	Exposure of sheared serpentine	2.0	0.0003	<0.006	8	0.000	0.216	100
CR90530-3	30/05/2009	0.5 m float in stream w qtz		< 0.0003	<0.006	16	0.000	0.003	3
CR90530-4	30/05/2009	10 cm mineralized qtz flt in stream		0.0041 < 0.006 3		31	0.006	0.006	17
CR90530-5	30/05/2009	15 cm talus rock w ith sulphides		< 0.0003	<0.006	15	0.005	0.002	9
CR90530-6	30/05/2009	Qtz carbonate float in trib. stream		0.0012	<0.006	14	0.004	0.012	46
CR90912-1	12/09/2009	Float from small stream		< 0.0003	<0.006	12	0.002	0.012	23
CR90912-2	12/09/2009	Chips across core of wider shear zone	3.0	0.0003	<0.006	26	0.016	0.003	37
CR90912-3	12/09/2009	Small qtz flt in dry stream bed		< 0.0003	<0.006	52	0.001	0.002	5
CR90912-4	12/09/2009	Small qtz flt in stream at roadside		0.0003	<0.006	6	0.002	0.004	10

Table 3 - Rock and Chip Sample Description and Analytical Results

At the upper end of this small valley, where the creek bed again rises steeply, a few meters of outcropping serpentinites were exposed on the north side of the creek. A chip sample across 2 meters of this rock was collected (CR90530-2). The shallower slope in this valley created conditions for smaller float rock to accumulate in the creek bed, and two samples of quartz float were collected here. The first sample (CR90530-3) was a chip sample from a half meter boulder i the creek bed showing a quartz breccia structure in argillite, with minor iron staining. The second sample was a collection of smaller pieces of massive quartz with more substantial iron staining and minor sulphide mineralization (CR90530-4).

A short distance down slope, on the north side of the creek, some of the rock in a talus/till slope showed sulphide mineralization. Chips from some of these rocks were collected (CR90530-5). Continuing back down slope to the north of this creek, a smaller tributary creek was encountered running parallel to the main creek. One larger piece of quartz carbonate float was sampled from this creek as well (CR90530-6).

On the second visit to the property, on September 12<sup>th</sup>, 2009, a similar traverse was run in the same area, beginning in a more northerly direction and ending at the same creek investigated in May. The traverse initially followed the fairly large creek that drains Serpentine Lake, heading upstream from Sowaqua Creek FSR. A short distance upstream a tributary was followed, which flowed down from a north northeast direction. This smaller stream was followed up to the property boundary and the traverse then followed an eastward direction upslope to flatter terrain near the top to the ridge. In this area a few outcrops of fine-grained sediments were exposed. Small slow-moving streams in this area showed some quartz float with minor mineralization. A sample of this material was collected from one of these streams (CR90912-1). A shear zone exposed on one of the outcrops was also sampled, with chips taken across approximately 3 meters (CR90912-2).

Further to the south, the upper part of the creek investigated in May was encountered. A sampling of small quartz float was collected from the creek bed at the foot of a large talus slope made up mainly of argillites (CR90912-3).

After completion of the traverse, additional creek crossings were visited to the south along the Sowaqua Creek FSR. At one of these crossings, for a creek that drains much of the south end of the property, a sampling of small quartz float was again collected (CR90912-4).

#### Stream Silt Samples

Collection of stream silt samples was the principal objective of both visits to the property. On each visit six samples were collected, covering much of the south end of the property. On the May 30<sup>th</sup> visit, the principal creeks draining the southwest part of the property were sampled at their road crossings (CR90530-S1 to –S3, and -S6). In addition, the creek followed upstream on the traverse was sampled again within the property boundary (CR90530-S4) and the tributary creek running parallel to the main one was also sampled (CR90530-S5).

On the September 12<sup>th</sup> visit, silt samples were collected along creeks followed or crossed during the traverse. The creek draining Serpentine Lake was re-sampled upstream from the road crossing (CR90912-S1), along with the north northeast tributary of this creek (CR90912-S2). Two small, slow-flowing higher elevation creeks were sampled near the top of the ridge (CR90912-S3 and –S4), and the same creek followed and sampled during the May visit was sampled again further upstream (CR90912-S5). Finally a silt sample was collected from the principal creek draining the south end of the property where it crosses the Sowaqua Creek FSR (CR90912-S6).

#### Soil Samples

During the second site visit on Sept  $12^{th}$ , four soil samples were collected along the traverse route. The first two (CR90912-G1 and -G2) were collected along the slope above the creek where silt sample CR90912-S5 was collected. The other two were taken within a few meters of each other on the south side of this same creek, but at a lower elevation. These were at the approximate location of a very high gold-in-soil value reported in past work. The first two were mainly to provide some initial background data for that part of the property, and the last two were an attempt to follow up on the previously reported data, and ideally to add a full range of geochemical values to the gold value.

#### Interpretation of Results

In general, the values obtained from the samples collected were low. One strongly anomalous gold value was seen in the stream sediments, from the creek that drains Serpentine Lake (CR90530-S1, 0.79 g/t Au), but a follow-up sample on this same creek had a much lower value (note that this creek currently follows a slightly different path than that shown on the map near the road crossing). The high value may reflect the known presence of placer gold in the Serpentine Lake area, which could produce erratic results in the drainage. A few other stream silt samples had slightly anomalous gold values, which may indicate upslope mineralization, but could also reflect high background gold levels on the glacial till in this area. No platinum or palladium values were found.

The other silt sample of interest for its gold content was CR90912-S4. This value was anomalous (0.036 g/t Au) and the sample location was at a considerably higher elevation, above much of the glacial till that covers the lower slopes, making it more likely to reflect some nearby bedrock mineralization. One quartz float sample (CR90530-4) was also anomalous for gold (0.14 g/t Au), indicating a possible upstream outcrop of gold-bearing quartz.

The only other metal values of significance for gold exploration were arsenic and antimony. Most of the gold along the Coquihalla trend is associated with arsenopyrite, making arsenic especially an important gold indicator. Some elevated values were found in stream silt sampling, in ceeks draining primarily Ladner Creek Group sediments. Of particular interest was the upstream increase in arsenic levels in the three silts collected from the southwest flowing creek followed i the May 30<sup>th</sup> traverse.

The other potential economic interest in this property is the nickel value in serpentinites. Ample evidence of this mineralization was seen in many of the stream silt samples and two of the soil samples. The serpentinite outcrop sampled showed strong nickel values, and was significantly to the east of previously mapped ultramafic zones. Further work would be needed to determine the extent and recoverability of this nickel mineralization.

Overall the results of this work were encouraging, although only weak and/or suspect anomalies were identified. The most promising area identified for possible follow-up would be the arsenic in stream silts and gold in silts and float that all point to the ridges around the headwaters of the creek traversed on May 30<sup>th</sup>. Suitable follow-up could include prospecting, additional stream silt sampling and systematic soil sampling in areas with shallow ground cover.

Other areas of the property remain to be tested and some past work, especially near the north end of the property, requires further follow-up.

#### References

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## Author's Qualifications

I, Douglas Warkentin, P.Eng., a professional engineer with a business address at 745 East 30<sup>th</sup> Ave., Vancouver, B.C., certify that:

I have been a Registered Member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia since 1992.

I am a graduate of the University of British Columbia, Vancouver, B.C. and hold a degree of Bachelor of Applied Science in Mining and Mineral Process Engineering.

I have practiced my profession as a Metallurgist and Mineral Process Engineer for 22 years.

I am currently employed as a Metallurgical Engineer by Kemetco Research Inc., Vancouver B.C., and have previously been employed as a Mineral Process Engineer by Vista Mines Inc., Coastech Research Inc., NTBC Research Corp., Biomet Mining Ltd., Blue Sky Mines Ltd., and Vizon Scitec Inc. I also serve as a Director of Duncastle Gold Corp., a TSX-Venture listed company.

Since 2001 I have acted as an independent engineering consultant for a number of mining clients.

I am a qualified person for the purposes of National Instrument 43-101 in relation to metallurgical testing and evaluation programs.

I directly conducted or supervised all sampling, sample handling and preparation related to the Coquihalla Gold Belt Project that is described in this report.

I am the sole author of this report.

I am not aware of any material fact or material change with respect to the subject matter of this technical report that is not reflected in this report, the omission to disclose which would make this report misleading.

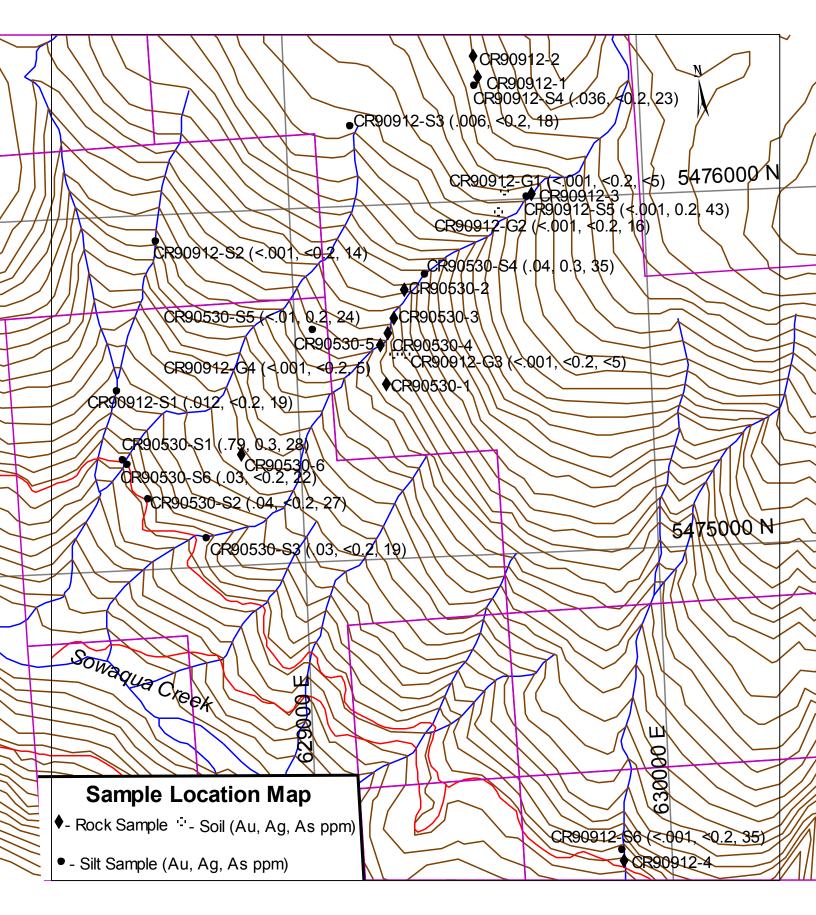
Dated at Vancouver, B.C., this 9<sup>th</sup> day of June 2010.

Doug Warkentin, PEng. Metallurgical Engineer

## **Statement of Costs**

Site Reconnaissance and Sampling											
Site Labour (24 hours @ \$45/hr)	\$1,080.00										
Transportation (1 day rental, plus fuel and mileage)	\$426.78										
Meals (3 days)	\$32.71										
Sample Analysis											
Sample Preparation (16 samples @ \$3.94/sample) (10 samples @ \$5.50/sample)	\$118.00										
Sample Assaying (8 samples @ \$25.78/sample) (18 samples @ \$20.82/sample)	\$581.01										
Report Preparation	\$450.00										
Total Cost	\$2,688.50										

Appendix 1 – Sample Location Map



Map Scale 1:10,000

Appendix 2 – Assay Reports



**Assayers Canada** 8282 Shedmarke SL Vancouver, BLC V6X 4R6 Tel: (304) 327-3435 Fox: (804) 327-3428

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Quality Assaying for over 25 Years

## Assay Certificate

Company:	Crucible Resources Ltd.
Project:	
Attac	Doug Warkentin

We *hereby certify* the following assay of 8 rocks & sodiments samples submitted Jun-11-09

Sample Name	Au g/toure	Pt g/tonne	РЧ эшо)\д	
CR90530-1 CR90530-2 CR90530-s1 CR90530-s2 CR90530-s3	0.01 0.0 0.79 0.04 0.03	<0.01 <0.01 <0.01 <0.01 <0.01 <0.01	<0.01 <0.01 <0.01 <0.01 <0.01 <0.01	
CF90530-94 CR90530-95 CR90530-95 *D07 CR90530-1 *Pt2d3 *BLANK	0.04 <0.01 0.03 0.01 1.10 <0.01	$< 0.01 \\ < 0.01 \\ < 0.01 \\ < 0.01 \\ < 0.01 \\ 1.25 \\ < 0.01 \\ < 0.01 $	$<0.01 \\ <0.01 \\ <0.01 \\ <0.01 \\ <0.01 \\ <0.01 \\ 1.39 \\ <0.01$	

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9V-0745-RA1

Jun-29-09

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Au,Pt,Pd by F.A.

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Certified by

#### Assayers Canada

8252 Sherbrooke St., Vancauver, R.C., VSX 4R6 Tel: (694) 327-3436 Fax: (604) 327-3433

Report No	:	9Y0745RJ
Date	:	Jun-29-09

Project:

Sample type: Rocks

Crucible Resources Ltd. Attention: Doug Warkentin

#### Multi-Element ICP-AES Analysis

Acta Regla Digestion

Sample Number	Ag gp.m	Al 양	As Prm	Ba Plun	Ba ppm	Bı Mगт	Ce %	Gri pipm	Ca ppm	Cr ppm	Gu opm	Fig 化	Hg pgrn	К 55	La ppr⊨i	Mg %	мг ррт	Ма ррт	Na 55	N орт	P pem	РЬ рагл	S %	\$Ь ₽Р″	Sç ppri		TF. PPT	Ті %	וד יחקק	₽₽ PPPP	V PPm	W RPF1	Zn PPro j	_
CTREESED 1	¢0.2	:	26	<b>41</b> 0	C.6	-65	2.33	<1	21	65	.90		1	0.08	~10	8.97	708	2	9.23	25	615	11	0.02	• 5	5	14	~5	3.26	×10	+ 10	244	<10	+4	,
136903/00-2	<0.2	0.16	e	<10	<0.S	~5	9.35	L	103	:457	×12	5.95	1	< 5.6t	<10	23.03	744	- 22	0.91	Z150	109	10	0.02	24	19	L	~5	~0.01	<10	11	35	<b>SL</b> Û	28	2
ER\$0530-61	0.0	79	20	29	< <b>6</b> ,5	~5	9.55	L	32	626	22	5.75	1	0.06	~10	8.35	26H	14	0.34	1.00	474	15	IKPS	- 11	4	11	ده	9.17	<111	×10	85	<l0< td=""><td>70</td><td></td></l0<>	70	
E05053E 52	<0.2	2.57	- 27	~ ~	40.5		a. s i	1		111	- 22	+ 97	1	0.03	~10	4.39	633	< 2	0.32	430	559	10	0.02	é	s	10	-:5	3.06	<30	4.10	60	<10	85	1
CR90320-s0	<0.2	3,45	19	29	40.5	<5	0.55	ĩ	38	413	:8	4.KN	ı	14.134	<10	<b>N.</b> 84	PP3	- 42	a'na	545	- 547	6	0.05	,	7	-4	<5	3.0B	<10	410	GT	×10	77	3
CRCC320 54	0.2	2.04	35	55	40.5	<5	2.92	:		242	44	1.21	1	A 04	~10	2.72	1014	<2	D.32	487	775	10	0.CE	5	7	32	≺5	0.04	- 60	-10	55	< 10	134	а
13650000-50	02	2.13	24	53	<0.5	<5	0.75		63	ECB	27	5.52	1	3.04	~10	6.15	544	-17	0.37	1221	500.	4	0.02	10		20	-35	0.09	<10	~10	69	<10	72	3
C1600 50 C-66	<n.p< td=""><td>1.42</td><td>27</td><td>20</td><td><p.5< td=""><td>-57</td><td>5.15</td><td></td><td>- 27</td><td>660</td><td>15</td><td>5.35</td><td>1</td><td>0.02</td><td>~10</td><td>9.93</td><td>766</td><td></td><td>0.02</td><td>141</td><td>25</td><td>ь</td><td>BLC2</td><td>32</td><td>н</td><td>- 14</td><td>-55</td><td>0.06</td><td>4.60</td><td>~10</td><td>63</td><td><l0< td=""><td>59</td><td>1</td></l0<></td></p.5<></td></n.p<>	1.42	27	20	<p.5< td=""><td>-57</td><td>5.15</td><td></td><td>- 27</td><td>660</td><td>15</td><td>5.35</td><td>1</td><td>0.02</td><td>~10</td><td>9.93</td><td>766</td><td></td><td>0.02</td><td>141</td><td>25</td><td>ь</td><td>BLC2</td><td>32</td><td>н</td><td>- 14</td><td>-55</td><td>0.06</td><td>4.60</td><td>~10</td><td>63</td><td><l0< td=""><td>59</td><td>1</td></l0<></td></p.5<>	-57	5.15		- 27	660	15	5.35	1	0.02	~10	9.93	766		0.02	141	25	ь	BLC2	32	н	- 14	-55	0.06	4.60	~10	63	<l0< td=""><td>59</td><td>1</td></l0<>	59	1
CR5C52C-3	×0.2	0.15	16	(19	ಳಬ್ಬಕ	1.5	U.31	1.2	э	209	-	0.95	~L	-20.	~10	6.20	51	5	D.32	20	125	1	0.01	5	2	-	~5	<0.03	<10	810	26	< LŰ	22	
FR90530-4	<0.2	1,93	71	49	<0.5	~5	9.52	-	17	317	56	5.35	<1	owii	<lo< td=""><td>1.60</td><td>ft.s</td><td>•</td><td>0.23</td><td>55</td><td>2334</td><td>&gt;9</td><td>B (%</td><td>2</td><td>٩</td><td>15</td><td>≤5</td><td>0.02</td><td>&lt;10</td><td>&lt;10</td><td>05</td><td>&lt; LO</td><td>72</td><td>4</td></lo<>	1.60	ft.s	•	0.23	55	2334	>9	B (%	2	٩	15	≤5	0.02	<10	<10	05	< LO	72	4
CR90520-5	¢0.2	1.62	15	14	0.6	<5	1.22	<c.< td=""><td>9</td><td>159</td><td>÷.</td><td><b>H</b>/</td><td>1</td><td>.01:</td><td>&lt;10</td><td>с.ач</td><td>447</td><td>10</td><td>0.314</td><td>17</td><td>640</td><td>ч</td><td>039</td><td>7</td><td>q</td><td>52</td><td>~5</td><td>0.19</td><td>&lt;10</td><td>¢10</td><td>74</td><td>×10</td><td>52</td><td>e</td></c.<>	9	159	÷.	<b>H</b> /	1	.01:	<10	с.ач	447	10	0.314	17	640	ч	039	7	q	52	~5	0.19	<10	¢10	74	×10	52	e
130votdish	6110	5.10	· 4	22	1.9	45	2,77	<1	46	140	25	6.15	1	3.06	< LO	2.13	64C	71	0.23	11)	60 1	16	0.02		11	$\odot$	$\sim 5$	11.1.11	< 10	-119	579	a'0	25	ĿI

A 15 gm sample is digasted with 5 mil2:1 HCVHNO3 at 95°C for 2 hours and diuled to 25mil.

dr\_

Page 1 of 1

Бирлес:



Assayera Canada 8282 Shafirocke St. Vancauver, B.C. VSX 4R6 Tel: (604) 327 3436 Fax: (604) 327-3423

Quality Assoying for over 35 years

Assay Certificate

9V-1304-RA1

Oct-09-09

Computy: Cracible Resources Ltd Project Aut. Doug Warkentin

We hereby certify the following assay of 4 rock samples submitted Sep-29-09

Somple Name	Au g/ton <u>ne</u>	 	
СК90912-1 СК90912-3 СК90912-3 СК90912-4 *ППР СР90910-1 *0211 *БДАНК	<0.01 6.01 <0.01 0.01 0.01 2.32 <0.01	 	

\_ ..

- -

Au F.A. AA finish

\_ Å

Certified by\_\_\_\_



Assayers Canada 5257 Sheibreeke St. Vancouver, B.C. V5X 4R6 Tel: (604) 527-3436 Fax: (804) 327 3423

\_...

# Quality Assaying for rear 35 years

9V-1304-SGL

## Geochemical Analysis Certificate

Oct-09-(19

Company: Project:	Crucible Resources Ltd
Aabo	Doug Warkentin

....

We hereby certify the following goodhechical analysis of 10 pulps samples submitted Sep-29-09

Sample	Au			
Name	րեթ			···· <b>-</b> ····
CR90912-81	12			
CR90912-S2	<1			
CR90912-33	6			
CR90912-54	ەت			
CR9U912-35	<1	 		
CR9U912-36	<1			
CR90912+G1	<1			
CR90912-02	<1			
CK9C912-G3	<1			
CR90012 G4				
10211	2265			
<sup>A</sup> BLANK	<1			

Au F.A. AA finish

N Certified by \_\_\_\_\_.

#### Assayers Canada

8282 Sherbrucke St., Vancouver, B.C., V5X 4R6 Te1: (604) 327-3436 | Fax: (604) 327-3423

Report No	:	9V1304RJ
Date	:	Oct-09-09

Attention: Doug Warkentin

Crucible Resources Ltd

Project:

Sample type: Reck

#### Multi-Element ICP-AES Analysis

Aqua Regia Digestion

Sample Number	Ag ppm	AI 35	As prim	Ra PPM	एषम हिन्द्		Ga %	Сп Сп	Сь рргл			Ге %	Бу ралт	к %	La ppan	Mg 74		Ма иртг			la Fatul	Pb ppin		ՅԵ քեա	Sc pam	Sr µøm	Դի շթող	11 %	T ppm	ር የቦጥ ፡	V Sprn		Zn ppm	-
CR90612-2	<0.2 <0.2		; 12 1 20		0.6 <05	: J 17	1.71 0.10	-	25 97		20 •25	2.09 9 79	1		<20 470			_	3.11 3.14		107 631	5	9.04 9.57		-	é	s.a ≤⊒		~10 ~10		64 302			11
0690912-3 0-90412-4	<0.2 <0.2	Ų.49	52	n	<ul><li><li><li><li><li><li><li><li><li><l< td=""><td>:1</td><td>0.13</td><td>)</td><td></td><td>14K 133</td><td></td><td></td><td>-:1</td><td>Luc</td><td>&lt;10</td><td>L.28</td><td>591</td><td>2</td><td>3.03 3.04</td><td>19</td><td>406</td><td></td><td>+0.01</td><td></td><td>•</td><td>:</td><td>&lt; 5</td><td>&lt; 0.0J</td><td>&lt;10</td><td>&lt;.C</td><td>20</td><td>&lt;10</td><td>32</td><td>1</td></l<></li></li></li></li></li></li></li></li></li></ul>	:1	0.13	)		14K 133			-:1	Luc	<10	L.28	591	2	3.03 3.04	19	406		+0.01		•	:	< 5	< 0.0J	<10	<.C	20	<10	32	1
Duplicates:					-0.5		2	•					-	2.22	-10								,											
C190012 1 Sinndards;	≪0.2	1.47	, 12	51	75	.,	1 -11		.u	1:0	.15	2.84	ı	:1.:IP	5 III	100	557	U,	Ĥ.11	111	179	5	3.33	a	-	ġ	-1	û.13	<10	~30	35	<lo< th=""><th>33</th><th>15</th></lo<>	33	15
Nank CH 4	40.2 1.8	чист 1.79		4:1:) 259	•:3.5 3.7	•:5 22	<001 003		41 21	а 113	21) - 21) -	<0.01 -0.52	•:1 1	<0.01 1.95	≤10 13		45 (16	_	0.01 11.115	-	<10 704	-72 17	< 9.01 II.61			*1	44 45	cII.I:1 0.19		415 410		×:0 ≺:0		۰.1 و

All 5 gm sample is digested with 6 mill3:114C /HNC0 at 95°C for 2 hours and dilutes to 25%

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Page 1 of 1

Signed:

	Assayers Canada			
Crucible Resources L4d	\$2\$2 Sherbrooke St., Vancouver, B.C., V5X 4R6	Report No	;	9V1304SJ
Attention: Doug Warkentin	Tel: (604) 327-3436 Fax: (604) 327-3423	Date	:	0.4-09-09
Projects				
Sample type: Pulps	Multi-Element ICP-AJ/S Analysis			

Aqua Regia Digestion

Sample Number	Ад ppт	A1 76	As ppro	Ва ролг	Ве ррт	B ppin	Cs %	Co ppm	Со ррл	Or pom	Са рргч	Fc %	Hg ppm	К %	l a ppm	Mg %		Ма ррт	Na %	N³ pp∙n	ाः इष्ट्रान	РЬ раш	s %a	Sb spm	Se PPT	Sr sprn	Th օբեր	Ti %	דו FPT	U ₽₽₩	v pç <b>m</b>	W ppm	2n ppro	Zr spm
DE9-012-91	400.2	3.42	: 19	21	8 <0.5	23	0 45	4	57	652	15	5.95	1	15.04	<10	2.0%	810	<2	0.03	a.o	397	5	0.0%	36	- 2	12	×5	0.07	< 10	- 14	- 73	-: 10	6.4	
0.90912 52	×D.2	1.63	: 14	21	0.00.5	21	12.34	- 4	44	473	47	5.17	1	0.03	<10	0.25	733	¢Ζ	0 pa	597	441	18	6.06	- 17		- BO	~5	0.01	~39	11	61	×30	78	3
CR00912-53	-50.7	1.00			<ul> <li>&lt;0.5</li> </ul>	21	C.80	4	72	655	25	5.01	,	DC4	510	1.78	1135	11	0.64	1701	355	7	0.00	- 10	7	- 30	45	0.07	×3+3	1.2	62	<10	72	1
CR91917-54	40.2	2.26	23	5	- ~D.5	26	C -7	• •	э.	244	49	5.64	1	Lun	<10	2.51	799	<2	0.01	433	189	9	15.04	14	•	30	<5	0.03	~10	<c< td=""><td>GØ</td><td>&lt; 10</td><td>205</td><td>- 3</td></c<>	GØ	< 10	205	- 3
CR00012-55		1.92	: 47	7:	> .=0.5	19	1.44		20	62	44	4.43	1	0.08	< 60	9.37	332.9	7	13 618	15.	1.125	11	0.12	12		47	45	0.02	<10	<b>٦</b> ٢	- Nh	×10	164	+
CR90912-055	807	1.4	.35	S	×	21	5.99	, s	32	- 60	40	4.09	1	0.55	- 10	1.20	946	~2	500	105	776	10	5.12	12	5	22	-5	0.04	~13	< 10	- 56	~10	155	
C.R93411-61	40.2	: 60	i ~5		7 -0.5	24	10.75	+	άz	455	10	5.61	1	0.02	: 10	4.09	411	-⇒Z	axa	6.3h	283	5	<ul> <li>0.00</li> </ul>	16	<	1	5	a.an	~13	15	- 65	~13	75	3
CR00012-G2	40.2	1.61	1.6	.1.	a (0.5	16	40.05	3	- 7	3e	22	0.91	L	- 0 an	< 10	0.42	163	<ul> <li></li> </ul>	0.01	24	1162	7	<0.01	9	2	- 3	- 5	6.94	-13	+ 30	52	<10	- 55	1
CRUSHINGS	40.2	: 60	2 × 5	5	5 < <b>0</b> .5	23	0.51	- 4	- 64	144		1.55	<1	0.93	- 10	5.59	663	<2	0.07	C67	200	1	C9.31	17	6	•	×5	6.05	~13	12	- 92	~13	55	2
CR000912 C4	-10.2	1.33		6	ь вл	14	2.03	: 1	24	197	5	3 55	~1	0.02	< 10	0.67	1.67	الريان	3.01	205	532	G	<0.3i	5	T	3	- 65	6.12	510	<10 <	54	<13	43	3
Duplicateur																																		
CRCC512 51	<0.2	1.50	/ 19	,	4 603	- 71	0.44	I 4	55	663	- 33	5.51		0.03	- <b>41</b> 0	9.91	461	1.0	0.03	8.93	-438	5	0.02	- 20	7	- 20	<. h	- 10 B	<ul> <li>&lt;10</li> </ul>	1.5	- 73	<16	66	2
CR90512-64	×C.2	3.55	S 5	5	7 07	:7	0.07	3	27	200		4715	۱	0.02	- ×10	0.80	-91	×2	C.01	240	577	•	<0.01	υ,	,	4	<5	0.54	4LC	÷10	55	<.C	50	
Stendarde:																																		
Blank	-315.9	-:0.01	sa	-=1	a <3	<5	<0.01	<1	<1	×1	<li>&lt;1</li>	¢D.31	<1	<0.05	- 670	<0.00	65	12	ain		<10	~2	40.01	⊴5	<1	e L		< 97.0.		- NU				- 1 B
G I-N	1.A	1.75	\$ 12	29	9 9.3	Z2	0.56	, s	- 71	11.1	200	7.42	۱	: 36	÷ 13	1.27	333	2	0.05	52	204	17	υм	15			<3	0.13	< 10	×10	01	<10	707	<u>^</u>

A 15 gm sample to digested with 5 ml 0:1 HC/HNO3 at 95°C for 2 hours and diluted to 20ml.

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Signed:	

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