

# ASSESSMENT REPORT ATEN PROPERTY

Prospecting and Sampling July 2012

**Claim Names and Numbers:** Aten 501473 Aten2 504735, Aten 3 527312, Aten 5 527318,  
Aten 6 527319, Aten 7 527321, Nell 59 544119, Nell 61 544159



N.T.S. 94C/3W 4E

Geographic Centre:

Latitude: 56°11'30"N      Longitude: 125°31'W

OMINECA MINING DIVISION  
British Columbia

Owner/Operator: Commander Resources Ltd.

J. McKenzie  
S. Potts P. Geo

**BC Geological Survey  
Assessment Report  
34131**

Vancouver, B.C.  
March 25<sup>th</sup> 2013

## Table of Contents

1.	Introduction .....	3
1.1.	Location and Access: .....	3
1.2.	Property Description: .....	4
1.3	Summary of History and Previous Results: .....	4
1.3	Property Geology .....	6
1.4	Economic Assessment: .....	6
2.	2012 Field Program.....	6
2.1	Sampling and assay analysis.....	7
3.	Results of the 2012 Field Program .....	9
4.	Discussion.....	12
5.	Conclusions.....	12
Appendix I .....		14
Appendix II .....		18
Appendix III .....		20
Appendix IV.....		28
Appendix V .....		30

## LIST OF TABLES

Table I	Claim Statistics	4
Table II	2012 Work Area, Type and Scale	7
Table III	2012 Soil Geochemical Results & Locations	9

## LIST OF FIGURES

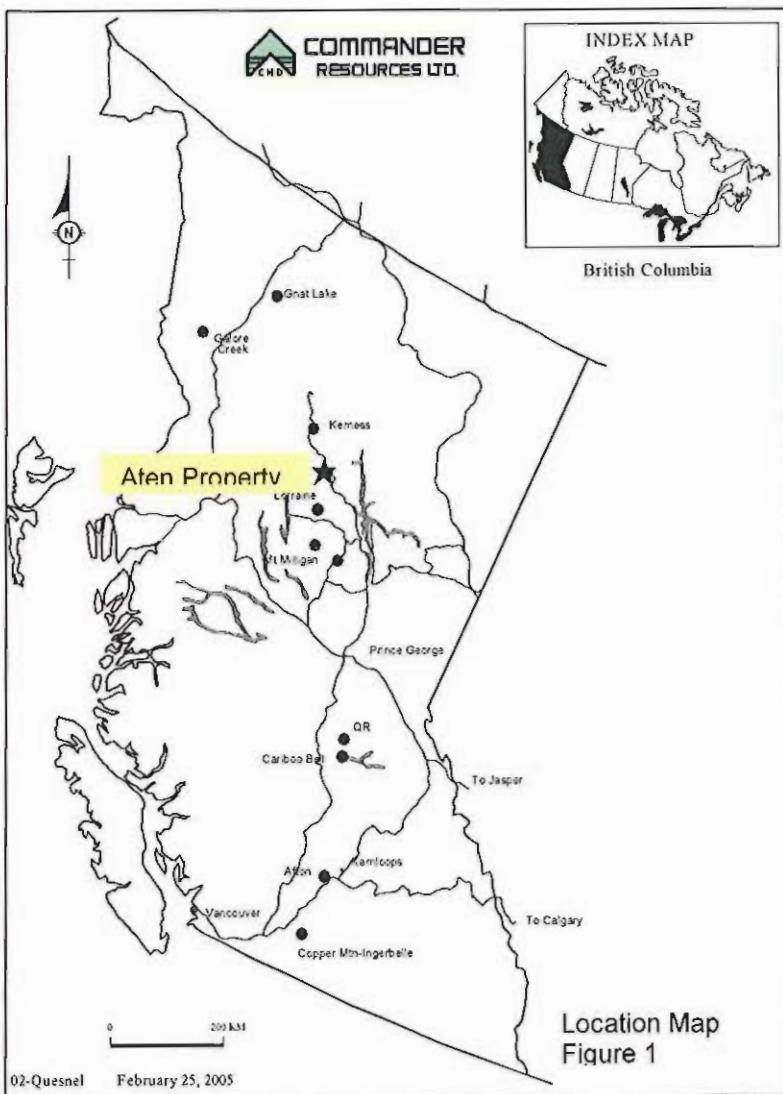
Figure 1	Location Map	3
Figure 2	Claim Map	4
Figure 3	Au Geochemical results for the 2012 work program	10
Figure 4	Cu Geochemical results for the 2012 work program	11
Figure 5	Combined Results of sampling and prospecting	attached as pdf

## 1. Introduction

### 1.1. Location and Access:

Northeast of the Osilinka River and centered on latitude  $56^{\circ}11'30''$  N and longitude  $125^{\circ}31'$  W, the Aten property is 220 km northwest of Fort St. James, B.C. on N.T.S. map sheet 94/C4E and 3W. The Omenica Resource Access Road from Fort St. James is less than 13 km northeast of Aten with decommissioned logging roads providing potential access to within 2 km of the current eastern property boundary. Logging roads along the Osilinka River pass within 5 km of the south boundary of the current claims. Airstrips are present at Johanson Lake 30 km to the north and the Osilinka logging camp 50 km to the south. Helicopter staging areas are also available along existing roads and at Aiken Lake. General property location is shown on Figure 1 below.

The property straddles a steep-sided northeast-southwest trending ridge bounded by Tenakihi Creek to the southeast and an unnamed creek to the northwest. Slopes are moderate to steep rising from about 1320 to 2074 metres a.m.s.l.

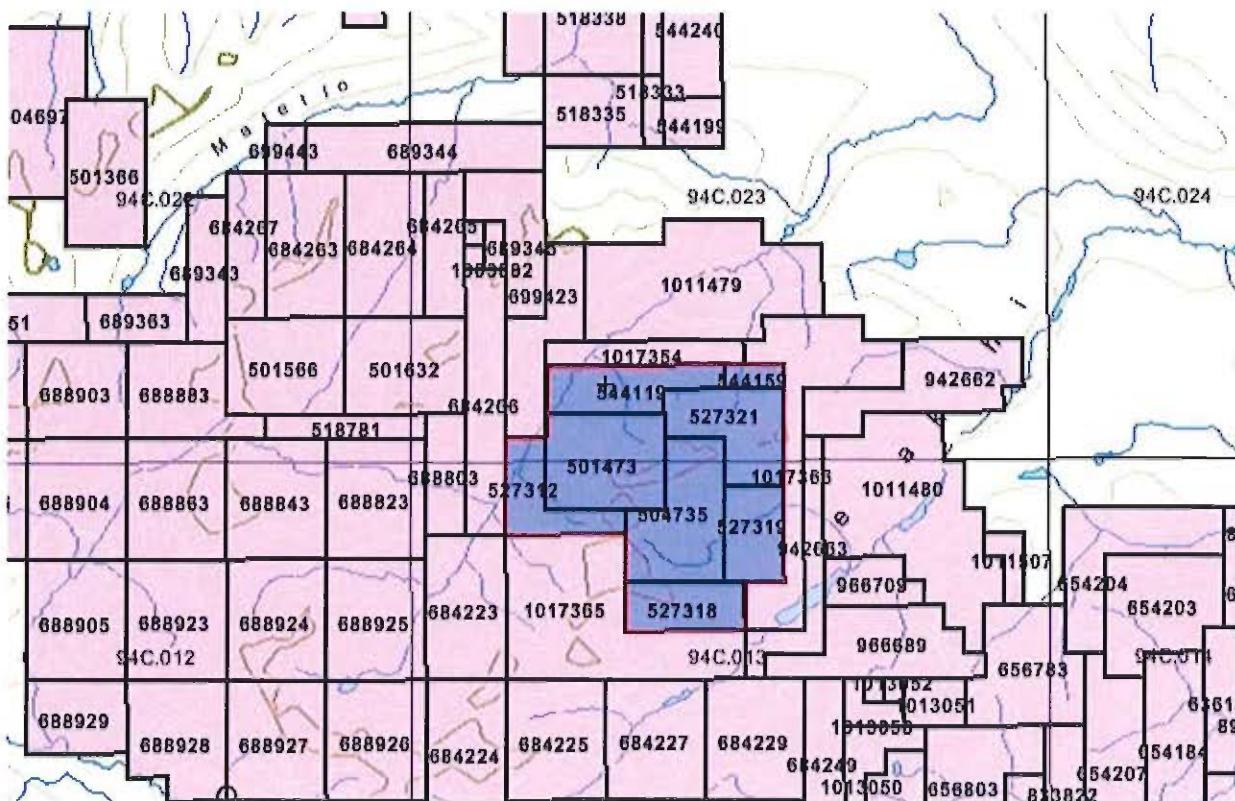


## 1.2. Property Description:

The Aten property totals 2,160 ha as a single block of 8 claims approximately 10 km southeast of Tutuzzi Lake. Claim details for the properties are tabulated below. Commander Resources is registered owner and holds 100% of the claims shown on Figure 2.

Table I Claim Details

ATEN PROPERTY				
Claim	Claim Number	SIZE-ha	Anniversary Date	Expiry date
ATEN	501473	432	12-Jan-05	4-Nov-13
ATEN2	504735	432	12-Jan-05	4-Nov-13
ATEN 3	527312	216	9-Feb-06	28-Feb-13
ATEN5	527318	216	9-Feb-06	28-Feb-13
ATEN6	527319	216	9-Feb-06	28-Feb-13
ATEN7	527321	324	9-Feb-06	28-Feb-13
NELL59	544119	270	24-Oct-06	28-Feb-13
NELL61	544159	54	24-Oct-06	28-Feb-13
TOTAL		2,160		



### **1.3 Summary of History and Previous Results:**

Placer gold was first discovered in the district in 1868. During the 1930's, Consolidated Mining and Smelting Ltd. explored the margins of the Hogem Batholith and conducted underground exploration on several properties for gold, silver, lead and mercury. Kennco Explorations Ltd. explored and staked portions of the Hogem Batholith near Duckling Creek in the 1940's. In the early 1970's, mineralization on the Lorraine property discovered by Kennco and subsequently held by Granby Mining Company, represented the only significant mineralization found to that date in the area. At the time it was estimated to contain a maximum of 10 million tons grading 0.70%Cu.

In the late 1960's and early 1970's Union Miniere Exploration and Mining Corp. Ltd. (UMEX) of Montreal conducted extensive regional exploration in north-central British Columbia. Work was carried out by Dolmage Campbell & Associates Ltd. and in the vicinity of the current Aten property included aeromagnetic surveying and silt sampling. This work delineated a small monzonitic stock surrounded by four magnetic anomalies. Anomalous copper was found in the silts from creeks draining the area. Two copper occurrences associated with quartz-carbonate veins in or proximal to the stock were found. Samples were not analyzed for gold.

Commander Resources (formerly Major General Resources Ltd.) acquired the extensive UMEX database when UMEX closed its Canadian operations. In 1991, the company utilized this data to select specific porphyry targets within the Hogem Batholith. A number of properties were staked including the original Aten claims.

During the 1991 and 1992 field seasons, the property was explored under an option agreement with Swannell Minerals Corporation. Reliance Geological Services Inc. was contracted to complete geological mapping and prospecting followed by limited soil gridding over the property. This work located structurally controlled copper mineralization as malachite, azurite, chalcopyrite and native copper primarily as fracture-fillings and in quartz-carbonate veining. The 1991 work returned 5 anomalous silt samples with values greater than 20 ppb Au, with the highest value of 70 ppb Au accompanied by 204 ppm Cu. One other site had 463 ppm Cu with 15 ppb Au. Lithogeochemical highs include 2.82% Cu with 33.5 ppm Ag and 2.83 % Cu; and one sample of 2030 ppm Zn with 797 ppm Cu.

Lithogeochemistry from the 1993 work included 9 samples greater than 1,000 ppm Cu with a maximum value of 3.2% Cu. Gold response was lower and erratic with 4 samples recording >100ppb with a maximum of 205 ppm Au with 3,599 ppm Cu. Gold response from the 88 soil samples collected was generally below the 5 ppb detection limit, and only two high values of 28 and 32 ppb Au. For Cu, 19 stations returned values of >200 ppm Cu with the highest value of 410 ppm Cu. Additional work including detailed mapping, grid soil sampling and IP surveying to test three target areas identified by the 1992 work.

In 2005, renewed interest in porphyry copper-molybdenum occurrences inspired by increased metal prices prompted Commander Resources to review the in-house data and former projects for the entire area. The Aten property and five other areas were re-acquired by the newly implemented online staking method. A brief field program in August resulted in the discovery of a new high grade copper prospect (CJL) comprising boulders with up to 30% massive chalcopyrite within highly altered, foliated syenite. The boulders are up to 30 cm in diameter and traced for over 150 metres at the base of talus. Time and budget limitations precluded follow-up work in 2005.

In 2007, Commander's Omineca properties were optioned by Geoinformatics Exploration Canada Ltd. (Geoinformatics). On Aten, detailed mapping focused on a zone of intense fracturing in the vicinity of the CJL prospect. The area is characterized by relatively unaltered quartz monzodiorite intrusive rocks and variably

mylonitized andesites cut by fine-grained to porphyritic diorite and syenite dykes. Magnetite ( $\pm$  epidote  $\pm$  K-feldspar  $\pm$  malachite  $\pm$  pyrite  $\pm$  hematite  $\pm$  quartz) veins trend north-south and dip steeply west. Specular hematite (chlorite  $\pm$  malachite  $\pm$  chalcopyrite) dominant veins and fractures strike north-northwest and dip steeply to the west and east. Calcite ( $\pm$  Fe-carbonate  $\pm$  Fe-oxide) dominant veins strike northeast and dip steeply. Copper oxides (malachite, azurite and brochantite) are associated with magnetite-bearing veins and magnetite-cemented breccias. Two diamond drill holes tested the area to depths of 414 m and 471 m. A very minor amount of copper mineralization was encountered. Holes were collared with azimuths at 240° and 250° respectively and at -50° inclination.

### **1.3 Property Geology**

The area on and proximal to the property is underlain by Upper Triassic to Lower Jurassic Takla Group consisting of intermediate to mafic volcanic rocks intruded by younger Jurassic age monzonite and syenite of the Hogem Batholith (figure 3). The Takla Group rocks include augite andesite porphyry flows and dykes and andesite tuff. Both fine and coarse grained monzonite is present. Poorly exposed dyke-like bodies of syenite occur within areas of monzonite. Orthogonal jointing is present within the coarse grained monzonite.

Previous work found alteration to comprise localized zones of moderate chloritization up to one metre wide adjacent to some hematitic veins. Rusty brown quartz-ankerite veins are common within shear zones of the volcanics. Shallow-dipping (30°) fault planes are present in east-facing cliffs in the northern part of the property were partly ankerized. The steeply dipping bedding planes within andesite tuff are cut by faults dipping steeply south. All strike north-south and are subvertical. Weak propylitic hornfelsing of the volcanics occurs in association with local potassium feldspar veins. Variable amounts of epidote along joints and fractures are present within the coarse grained monzonite.

Structurally controlled magnetite, azurite, malachite and chalcopyrite occur along joint planes and tension gashes. Specular hematite with minor chalcopyrite and native copper occurs as 1 to 3 cm wide sub-vertical veinlets in the fine grained monzonite and are flanked by a chloritic alteration halo upto 1.0 m in width. Weakly disseminated pyrite-chalcopyrite and malachite-azurite was found in fractures within syenitic dykes.

Reports by Leriche (1993), Leriche & Luckman (1991) and Mair & Bidwell (2008) provide detailed descriptions of property geology, alteration and mineralization.

### **1.4 Economic Assessment:**

The extensive groundwork by Geoinformatics in the immediate area has confirmed the excellent Cu-Au porphyry potential of this region. Previous work on the Aten property has identified locally spectacular mineralization, alteration and rock type's characteristic of porphyry style deposits in the Quesnel Belt. Geoinformatics' work on Aten was restricted to the immediate area around the CJL prospect. An evaluation and understanding of the larger scale structural setting has not been completed, consequently there remains excellent potential for a mineralized system of economic tenor at Aten.

## **2. 2012 Field Program**

As a precursor to an extensive project-wide exploration campaign anticipated for the Omineca Project in 2013-2014, Commander Resources Ltd. (Commander) conducted a brief field program on all 6 properties in August

2012. Work included prospecting, rock sampling, soil grid sampling and stream sediment sampling. A crew of four spent twelve man days between 10<sup>th</sup> and 13<sup>th</sup> on the Aten property. Interior Helicopters based out of Fort St. James was contracted to move the crew from the base camp to a fly camp location at UTM 342611E and 6231202 N. The aim of this year's work program was to expand the company's knowledge of the area, and put historic results in perspective for future exploration activities. Figure 3 (overleaf) shows results of previous work on the property and the area examined in 2012.

**Table II 2012 Work Area, Type and Scale**

Claim	Claim Number	Work Type	Prospecting line km	Rock	Soil	Silt
ATEN	501473	432.057	1		52	
ATEN2	504735	432.167	4	4	30	1
ATEN5	527318	432.380				
ATEN6	527319	396.191				
ATEN7	527321	395.981				
NELL59	544119	431.886				
NELL61	544159	449.823				

## 2.1 Sampling and assay analysis

The procedure for collecting soil samples were as follows: Augurs were used to collect samples at every 50m along pre-determined grid, with line spacings of 200m. All GPS readings were collected in NAD 83 format. The targeted soil horizon was B though on the steeper scree covered slopes, the soil horizons were poorly developed or non-existent. At every 20<sup>th</sup> sample station a duplicate sample was collected as part of the QC protocol. The samples were collected in kraft bags and placed in plastic bags. These were then placed in rice bags and secured with zap straps. The strap was encased in duct tape to prevent it sliding off and would also demonstrate any tampering activity during transportation. The assay procedure requested was as follows:

- For soils and silts, the sample is dried, and sieved through -180 micron (80 mesh), and split. An aliquot of 25g was partially digested through aqua regia solution and tested for gold, followed by an ICP-MS 41 (0.5 g aliquot), 51 element analysis (ST43L-PKG)
- For rocks, the sample is crushed to 70% passing 2mm, then 250g is split off and pulverized to 85% passing 75 micron (200 mesh). A 30 g nominal sample is analyzed for gold with a fire assay technique (PGM-MS23). If > 1 ppm Au is recorded, the technique is upgraded to an atomic absorption finish. A total 4 acid digestion is then used to prepare the sample for an ICP-AES 33 element package (ME-ICP61).

In addition, a heavy metal concentrate sample was collected to test for porphyry indicator minerals. This involves collecting a bulk sample and submitting the sample to the laboratory, in this case, Overburden Drilling Management (ODM) based out of Ottawa. The procedure is as follows:

1. The material is put across a shaking table and sieved through -2mm screen
2. The table concentrate is then panned to isolate any gold grains.

3. The gold grains are then returned to the concentrate and the concentrate separated through the use of heavy liquid resulting in; lights <2.8 S.G., non ferromagnetic fractions 2.8 <3.2, and non ferromagnetic fractions >3.2 S.G.
  4. The magnetic material is initially separated out before the heavy liquid separation.
  5. The material is then sub-divided into fraction sizes, and analyzed for indicator minerals, which include sulphides and arsenides, Mg/Mn/AL/CR minerals, sulphates and phosphates. The fraction sizes are: <0.125mm, 0.125-0.25mm, 0.25-0.5mm, 0.5-1.0mm and 1.0-2.0mm.
  6. The results will specify each fraction size and S.G of the sample.

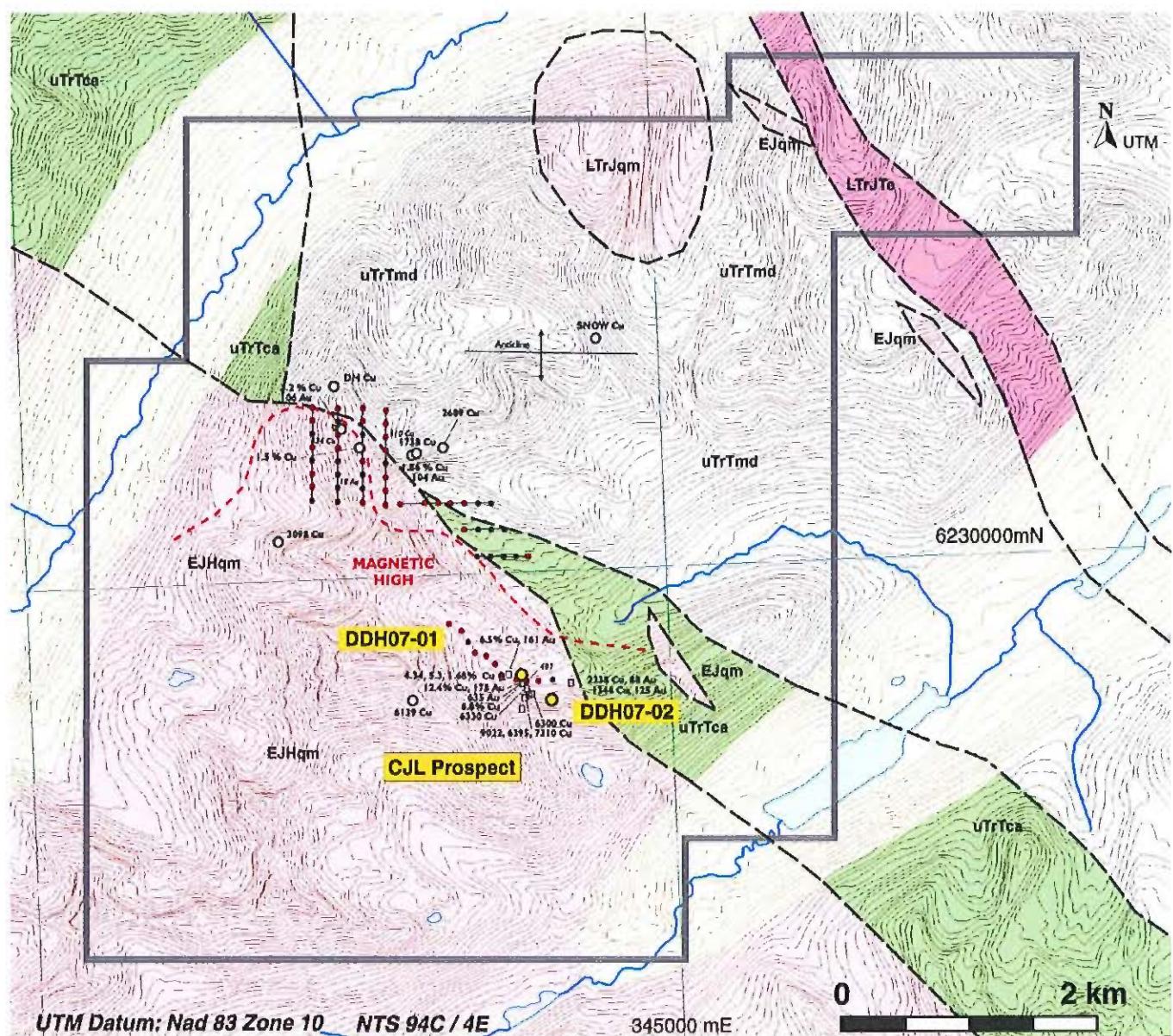


Figure 3 Summary Map

### 3. Results of the 2012 Field Program

The results of the sampling program yielded mostly background levels of copper and trace amounts of gold in soils (figure 3 and 4). Prospecting and sampling of grab rock samples produced better results with upto 1.48 % Cu in sample 23998. The two days of prospecting exposed the contact between the hogem batholith and Takla volcanics, as well as some structural history of the area. The following table summarizes the results of the grab rock samples:

Sample	UTM Easting	Northing	Field ID	Au-pgm-MS23 ppm	Ag_ppm	Cu_ppm	Fe_%	K_%	Ni_ppm	Pb_ppm	Cu-OG62_%
Q023501	342208	6231521	Cc-34	0.002	<0.5	79	7.81	0.22	14	8	
Q023997	342523	6231539	JRM19	0.002	<0.5	5510	7.86	1.8	110	<2	
Q023998	343699	6229176	SP-37	0.003	0.7	>10000	6.52	4.54	37	5	1.48
Q023999	342983	6230645	SP-25	0.009	79.8	8090	4.38	0.6	1	6	

Table III: Grab rock sample results

The bulk silt sample processed by Overburden Drilling Management failed to detect any porphyry indicator minerals.

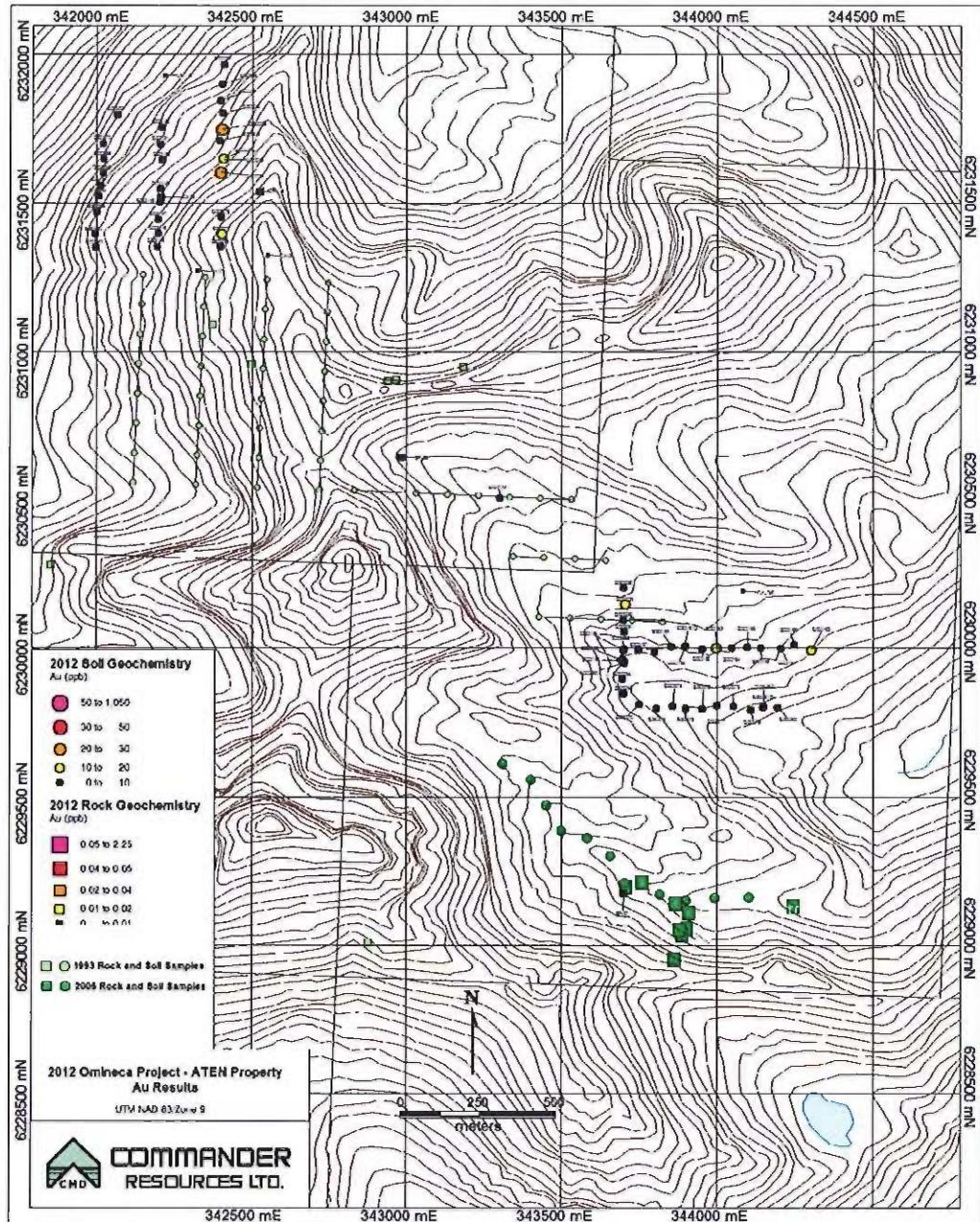


Figure 3: Au geochemical results

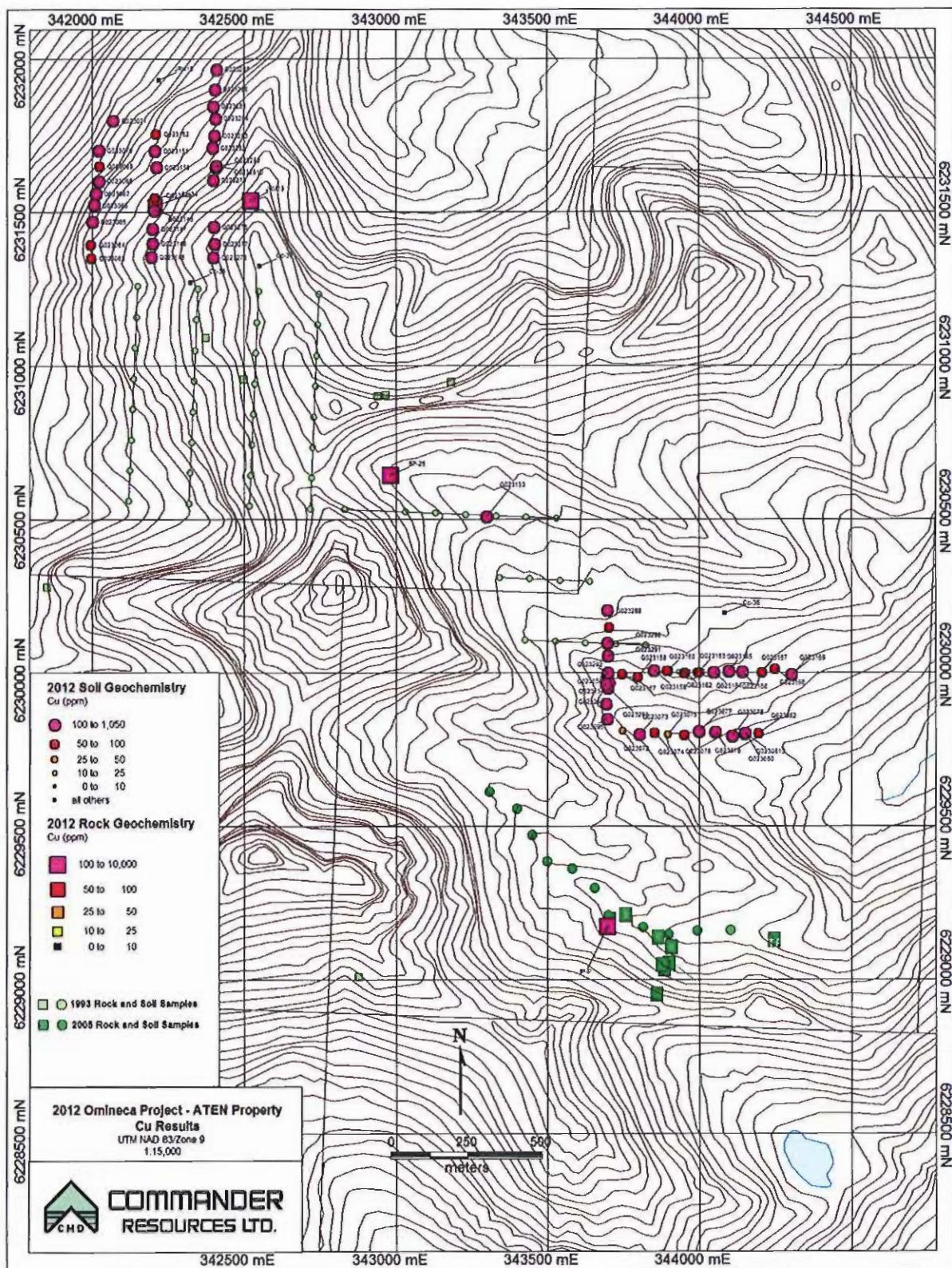


Figure 4: Cu geochemical results

#### **4. Discussion**

The area is highly prospective for a porphyry style mineralized deposit. The combination of Triassic aged volcanics adjacent to granitic and monzonitic intrusions of the Hogem Batholith are characteristics similar to that of the Mt. Milligan deposit located to the south. The results of this field program did not pick up any indicators from a geochemical vectoring approach, however sampling of the rocks did find anomalous levels of copper. Observations in the field suggest these mineralized samples have come from an extensional fault system which is striking in a north easterly direction and which has been documented as a deformation event on a regional scale. Figure 5 notes the location and measurements of contacts and structural information discovered whilst prospecting in the area. The details of the prospecting activity are found in Appendix II. The depth of moraine in the valleys and amount of talus on the hillsides could be masking signs of a porphyry system. It was also observed that the monzonite contained a substantial amount of hornblende which suggests a possible hydrothermal secondary enrichment event; though the area needs more intense mapping to verify the possibility of a hydrothermally altered system exists.

#### **5. Conclusions**

The present field program was not able to add significant detail the results from previous operators though the area still remains prospective. It was successful in that the Company has re-established its presence in the area and can formalize a more detailed exploration program for the coming years.

It can be concluded that;

- The only visible source of mineralization is found within north easterly striking extensional quartz filled faults with chalcopyrite and pyrite sulphidation.
- The overburden can be a potential problem for masking sub surface mineralization
- Ground based surveys such as I.P. will be difficult to carry out due to the lack of ground contact due to the moraine overburden, and therefore
- Any future exploration program will require the use of an airborne survey to delineate a potential porphyry system.

## REFERENCES

Adamson, R.S., (1968-72)  
Dolmage Campbell & Associates Ltd.  
Werner-Gren Joint Venture, Union Miniere Explorations & Mining Corporation Limited  
Private Reports

AuRico Gold  
<http://www.auricogold.com/exploration/kemess-underground.html>  
Website November 16, 2012

British Columbia Geological Survey,  
Ministry of Energy, Mines and Natural Gas  
Bedrock Geology of BC, GeoFile 2005

Ferri, F., Duduka, S., Rees, C., Meldrum, D. and Wilson, M (2001)  
Geology of the Uslika Lake Area, North Central British Columbia;  
B.C. Ministry of ENergy and Mines, Geoscience Map 2001-4

Kahlert, B.H., 2005  
Commander Resources Ltd.  
ASSESSMENT REPORT  
ATEN PROPERTY (501473, 504735)  
Prospecting and Sampling July 2005  
N.T.S. 94C/5E,5W OMINeca MINING DIVISION,British Columbia

Leriche, P., 1993  
Reliance Geological Services Lt.  
Geological and Geochemical Report on the Aten Property,  
For Swannel Minerals Corp.

Leriche, P., Luckman, N., 1991  
Reliance Geological Services Lt.  
Geological and Geochemical Report on the Aten Property,  
For Swannel Minerals Corp.

Mair J., Bidwell G., 2008  
Geoinformatics Exploration Canada Ltd,  
Report on Geolgocial Mapping and Diamond Drill Programs on Prospects in the Mesilinka Project,  
Omineca Mining Division

Rebagliati, C.M., 1991  
Summary Report, Takla Joint Venture, Porphyry Copper Gold Project

Thompson Creek Metals  
<http://www.thompsoncreekmetals.com/s/MtMilligan.asp>; November 16, 2012

## **Appendix I**

### **Sample Locations and Descriptions**

**Sample Locations: UTM Datum Nad 83 Zone 10**

YEAR	PROJECT	PROPERTY	Lab_Sample_ID	Field_SampleID	UTM Easting (m)	UTM Northing (m)	Sampler
2012	Omineca	Aten	Q023153	Q023153	343299	6230508	
2012	Omineca	Aten	Q023154	Q023154	343694	6229960	
2012	Omineca	Aten	Q023063	Q023063	341997	6231352	
2012	Omineca	Aten	Q023064	Q023064	341996	6231396	
2012	Omineca	Aten	Q023065	Q023065	342001	6231470	
2012	Omineca	Aten	Q023066	Q023066	342007	6231524	
2012	Omineca	Aten	Q023067	Q023067	342012	6231561	
2012	Omineca	Aten	Q023068	Q023068	342022	6231602	
2012	Omineca	Aten	Q023069	Q023069	342024	6231650	
2012	Omineca	Aten	Q023070	Q023070	342022	6231702	
2012	Omineca	Aten	Q023071	Q023071	342068	6231799	
2012	Omineca	Aten	Q023072	Q023072	343751	6229812	
2012	Omineca	Aten	Q023073	Q023073	343806	6229799	
2012	Omineca	Aten	Q023074	Q023074	343857	6229806	
2012	Omineca	Aten	Q023075	Q023075	343899	6229799	
2012	Omineca	Aten	Q023076	Q023076	343953	6229797	
2012	Omineca	Aten	Q023077	Q023077	344001	6229809	
2012	Omineca	Aten	Q023078	Q023078	344054	6229807	
2012	Omineca	Aten	Q023079	Q023079	344109	6229793	
2012	Omineca	Aten	Q023080	Q023080	344151	6229804	
2012	Omineca	Aten	Q023081	Q023081	344150	6229802	
2012	Omineca	Aten	Q023082	Q023082	344196	6229803	
2012	Omineca	Aten	Q023145	Q023145	342195	6231355	
2012	Omineca	Aten	Q023146	Q023146	342200	6231399	
2012	Omineca	Aten	Q023147	Q023147	342200	6231446	
2012	Omineca	Aten	Q023148	Q023148	342206	6231505	
2012	Omineca	Aten	Q023149	Q023149	342207	6231548	
2012	Omineca	Aten	Q023150	Q023150	342212	6231647	
2012	Omineca	Aten	Q023151	Q023151	342207	6231700	
2012	Omineca	Aten	Q023152	Q023152	342210	6231756	
2012	Omineca	Aten	Q023156	Q023156	343699	6229995	
2012	Omineca	Aten	Q023157	Q023157	343750	6229996	
2012	Omineca	Aten	Q023158	Q023158	343800	6229987	
2012	Omineca	Aten	Q023159	Q023159	343854	6230007	
2012	Omineca	Aten	Q023160	Q023160	343899	6230008	
2012	Omineca	Aten	Q023161	Q023161	343897	6230007	
2012	Omineca	Aten	Q023162	Q023162	343953	6229999	
2012	Omineca	Aten	Q023163	Q023163	343999	6230002	
2012	Omineca	Aten	Q023164	Q023164	344049	6230002	
2012	Omineca	Aten	Q023165	Q023165	344098	6230005	
2012	Omineca	Aten	Q023166	Q023166	344142	6230003	
2012	Omineca	Aten	Q023167	Q023167	344206	6230001	
2012	Omineca	Aten	Q023168	Q023168	344249	6230013	
2012	Omineca	Aten	Q023169	Q023169	344304	6229995	
2012	Omineca	Aten	Q023276	Q023276	342400	6231354	JH
2012	Omineca	Aten	Q023277	Q023277	342404	6231397	JH
2012	Omineca	Aten	Q023278	Q023278	342402	6231453	JH
2012	Omineca	Aten	Q023279	Q023279	342399	6231604	JH
2012	Omineca	Aten	Q023280	Q023280	342407	6231647	JH
2012	Omineca	Aten	Q023281	Q023281D	342410	6231651	JH
2012	Omineca	Aten	Q023282	Q023282	342397	6231710	JH

YEAR	PROJECT	PROPERTY	Lab_Sample_ID	Field_SampleID	UTM Easting (m)	UTM Northing (m)	Sampler
2012	Omineca	Aten	Q023283	Q023283	342404	6231749	JH
2012	Omineca	Aten	Q023284	Q023284	342407	6231805	JH
2012	Omineca	Aten	Q023285	Q023285	342399	6231846	JH
2012	Omineca	Aten	Q023286	Q023286	342405	6231901	JH
2012	Omineca	Aten	Q023287	Q023287	342411	6231966	JH
2012	Omineca	Aten	Q023288	Q023288	343700	6230204	JH
2012	Omineca	Aten	Q023289	Q023289	343705	6230149	JH
2012	Omineca	Aten	Q023290	Q023290	343700	6230097	JH
2012	Omineca	Aten	Q023291	Q023291	343702	6230056	JH
2012	Omineca	Aten	Q023292	Q023292	343702	6229999	JH
2012	Omineca	Aten	Q023293	Q023293	343701	6229951	JH
2012	Omineca	Aten	Q023294	Q023294	343696	6229898	JH
2012	Omineca	Aten	Q023295	Q023295	343700	6229849	JH
2012	Omineca	Aten	Q023997	Q023997	342523	6231539	JRM19
2012	Omineca	Aten	Q023998	Q023998	343699	6229176	SP-37
2012	Omineca	Aten	Q023999	Q023999	342983	6230645	SP-25
2012	Omineca	Aten	Q023501	Q023501	342208	6231521	Cc-34

### Sample Descriptions:

Field_SampleID	Sampler	Type	Date	Sampler	Horizon	Colour	Depth	Comments
Q023153		silt	11-Aug-12	CC				
Q023154		silt	11-Aug-12	SP				
Q023063		soil	11-Aug-12	JM	B	light brown	30	scree slope
Q023064		soil	11-Aug-12	JM	B	light brown	30	scree slope
Q023065		soil	11-Aug-12	JM	B	light brown	30	scree slope
Q023066		soil	11-Aug-12	JM	B	light brown	30	scree slope
Q023067		soil	11-Aug-12	JM	A	light brown	10	scree slope
Q023068		soil	11-Aug-12	JM	B	light brown	30	
Q023069		soil	11-Aug-12	JM	B	light brown	30	scree slope
Q023070		soil	11-Aug-12	JM	B	light brown	20	scree
Q023071		soil	11-Aug-12	JM	B	light brown	30	scree
Q023072		soil	12-Aug-12	JM	B	light brown	30	vegetated slope
Q023073		soil	12-Aug-12	JM	B	light brown	30	vegetated
Q023074		soil	12-Aug-12	JM	B	orange brown	30	
Q023075		soil	12-Aug-12	JM	B	light brown	30	near creek, vegetated slope
Q023076		soil	12-Aug-12	JM	B	brown	30	
Q023077		soil	12-Aug-12	JM	B	light brown	30	
Q023078		soil	12-Aug-12	JM	B	brown/grey	30	coarse clasts, rocky
Q023079		soil	12-Aug-12	JM	B	light brown	20	light A horizon (leachate)
Q023080		soil	12-Aug-12	JM	B	light brown orange	30	good soil development
Q023081		soil	12-Aug-12	JM	B	light brown orange	30	good soil development
Q023082		soil	12-Aug-12	JM	B	light brown/grey	25	not well developed soil
Q023145		soil	7-Aug-12	CC	B	Brown	40	Vegetated Slope
Q023146		soil	11-Aug-12	CC	B	Brown	30	Vegetated Slope
Q023147		soil	11-Aug-12	CC	B	Dark Brown	45	Vegetated Slope
Q023148		soil	11-Aug-12	CC	B	Brown	45	Vegetated Slope
Q023149		soil	11-Aug-12	CC	B	Brown	40	Vegetated Slope
Q023150		soil	11-Aug-12	CC	B	Brown	45	Vegetated Slope
Q023151		soil	11-Aug-12	CC	B	Light Brown	45	Vegetated Slope
Q023152		soil	11-Aug-12	CC	B	Dark Brown	15	Vegetated Slope

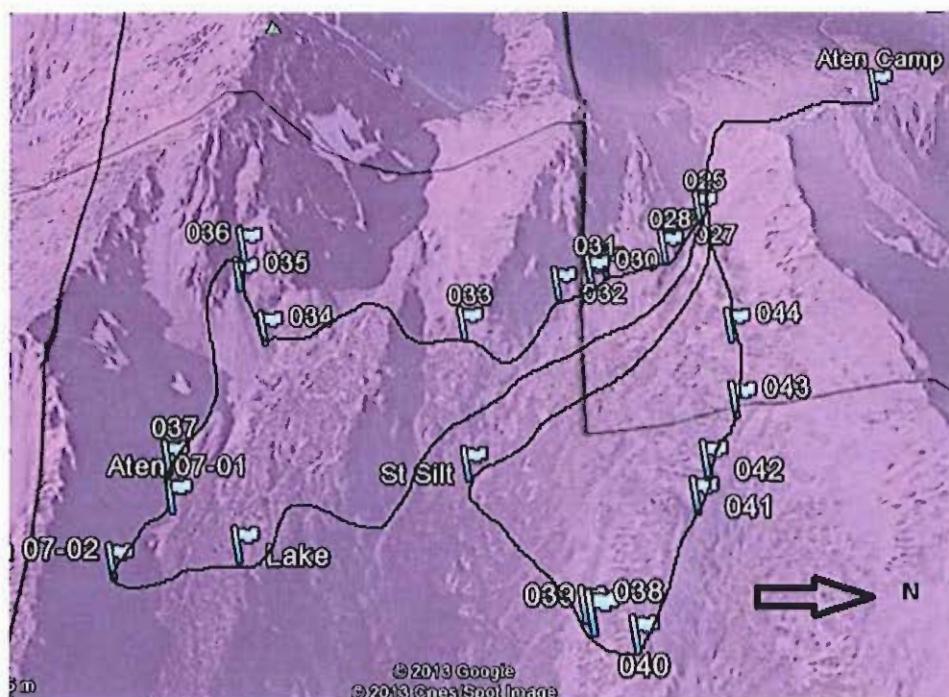
Q023156		soil	11-Aug-12	CC	B	Light Brown	40	Vegetated Slope, Next to Creek
Q023157		soil	11-Aug-12	CC	B	Brown	15	Vegetated Slope
Q023158		soil	12-Aug-12	CC	B	Brown	20	Buck Brush Slope
Q023159		soil	12-Aug-12	CC	B	Brown	20	Vegetated Slope, Next to Creek
Q023160		soil	12-Aug-12	CC	B	Orange Brown	20	Buck Brush
Q023161		soil	12-Aug-12	CC	B	Orange Brown	20	Buck Brush
Q023162		soil	12-Aug-12	CC	B	Orange Brown	20	Buck Brush
Q023163		soil	12-Aug-12	CC	B	Brown	20	Buck Brush
Q023164		soil	12-Aug-12	CC	B	Brown	25	Flat, Vegetated
Q023165		soil	12-Aug-12	CC	B	Light Brown	40	Buck Brush Slope
Q023166		soil	12-Aug-12	CC	B	Dark Brown	20	Buck Brush Slope, Next to Creek
Q023167		soil	12-Aug-12	CC	B	Orange Brown	25	Buck Brush Slope
Q023168		soil	12-Aug-12	CC	B	Orange Brown	20	Buck Brush Slope
Q023169		soil	12-Aug-12	CC	B	Brown	30	Wooded Slope
Q023276	JH	soil	9-Aug-12	JH	b	brown	35	
Q023277	JH	soil	11-Aug-12	JH	b	grey	25	
Q023278	JH	soil	11-Aug-12	JH	b	brown	20	
Q023279	JH	soil	11-Aug-12	JH	b	brown	35	
Q023280	JH	soil	11-Aug-12	JH	b	brown	30	
Q023281D	JH	soil	11-Aug-12	JH	b	brown	30	
Q023282	JH	soil	11-Aug-12	JH	b	brown	35	
Q023283	JH	soil	11-Aug-12	JH	b	brown	20	
Q023284	JH	soil	11-Aug-12	JH	b	brown	20	
Q023285	JH	soil	11-Aug-12	JH	b	brown	35	
Q023286	JH	soil	11-Aug-12	JH	b	brown	35	
Q023287	JH	soil	11-Aug-12	JH	b	brown	35	
Q023288	JH	soil	11-Aug-12	JH	b	brown	30	
Q023289	JH	soil	12-Aug-12	JH	b	brown	25	
Q023290	JH	soil	12-Aug-12	JH	b	brown	35	
Q023291	JH	soil	12-Aug-12	JH	b	brown	35	
Q023292	JH	soil	12-Aug-12	JH	b	brown	40	
Q023293	JH	soil	12-Aug-12	JH	b	br	40	
Q023294	JH	soil	12-Aug-12	JH	b	brown	35	
Q023295	JH	soil	12-Aug-12	JH	b	brown	25	
Q023997	JRM19	rock						Rock sample
Q023998	SP-37	rock						Rock sample
Q023999	SP-25	rock						Rock sample
Q023501	Cc-34	rock	15-Aug-12	JM				Rock sample

## **Appendix II**

### **Prospecting Log and map of image of waypoints**

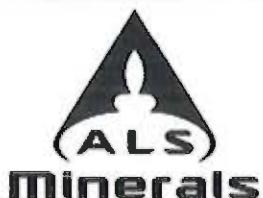
Prospecting Log – Aten Property

Prospector	Waypoint	Easting	Northing	Comments
Steve Potts	WP025	342983	6230645	Hornblende dominated granite. Boulders of malachite stained rock. Sample 23999
Steve Potts	WP026	343046	6230572	Fine grained leucocratic monzonite scree
Steve Potts	WP027	313051	6230553	Porphyritic coarse grained monzonite. Abundant secondary magnetite and pyrrhotite
Steve Potts	WP028	343117	6230531	Coarse grained hornblende monzonite. Well formed Joints, $78^{\circ} \rightarrow 086^{\circ}$
Steve Potts	WP030	343182	6230319	Monzonite boulders
Steve Potts	WP032	343218	6230224	Pink granite, Well jointed $53^{\circ} \rightarrow 176^{\circ}$
Steve Potts	WP034	343337	6229410	Boulders of syenite and volcanic rock. Blebs of pyrite and galena. Close to a fault line.
Steve Potts	WP036	343169	6229359	Malachite stained syenite. Close to a fault. 2 joint sets, $60^{\circ} \rightarrow 170^{\circ}$ and $80^{\circ} \rightarrow 288^{\circ}$
Steve Potts	WP037	343699	6229176	Talus slope with scattered rocks of malachite stained granite. Sample 23998
Steve Potts	WP038	344136	6230235	Scree of basalt
Steve Potts	WO039	344177	6230253	Quartz filled fault in basalt $70^{\circ} \rightarrow 174^{\circ}$ . Joint set at $78^{\circ} \rightarrow 300^{\circ}$
Steve Potts	WP042	343821	6230553	Fault with quartz and Fe gouge fill. $85^{\circ} \rightarrow 297^{\circ}$ . Sense of movement $50^{\circ}$ to the South. 2 joint sets $54^{\circ} \rightarrow 088^{\circ}$ and $38^{\circ} \rightarrow 230^{\circ}$
Steve Potts	WP043	343663	6230645	Proximal contact between hogem batholith and Volcanics.
Steve Potts	WP044	343398	6230676	Boulders of foliated monzonite and amphibolite



## **Appendix III**

### **Certificates of Analysis & Analytical Methods**



ALS Canada Ltd.  
2103 Dollarton Hwy  
North Vancouver BC V7H 0A7  
Phone: 604 984 0221 Fax: 604 984 0218 [www.alsglobal.com](http://www.alsglobal.com)

## ROCK

<b>SAMPLE PREPARATION</b>	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% < 75 um

<b>ANALYTICAL PROCEDURES</b>		
ALS CODE	DESCRIPTION	INSTRUMENT
Cu-OG62	Ore Grade Cu - Four Acid	VARIABLE
PGM-MS23	Pt, Pd, Au 30g FA ICP-MS	ICP-MS
ME-ICP61	33 element four acid ICP-AES	ICP-AES
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES

## SOIL

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

<b>ANALYTICAL PROCEDURES</b>		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
ME-MS41L	51 anal. aqua regia ICPMS	

## SILT

<b>SAMPLE PREPARATION</b>	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
EXTRA-01	Extra Sample received in Shipment
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

<b>ANALYTICAL PROCEDURES</b>		
ALS CODE	DESCRIPTION	
ME-MS41L	51 anal. aqua regia ICPMS	



OVERBURDEN DRILLING MANAGEMENT LIMITED  
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1  
TELEPHONE: (613) 226-1771  
FAX NO.: (613) 226-8753  
EMAIL: [odm@stom.ca](mailto:odm@stom.ca)

DATA TRANSMITTAL REPORT

DATE: 03-Oct-12  
ATTENTION: Mr. S. Potts.  
CLIENT: Commander Resources Ltd.  
1100-1111 Melville Street  
Vancouver, BC  
V6E 3V6  
E-Mail: [spotts@commanderresources.com](mailto:spotts@commanderresources.com)

NO. OF PAGES: \_\_\_\_\_

PROJECT: Omineca

FILE NAME: 20125940 - Commander - Potts - PCIM

SAMPLE NUMBERS: 23155

BATCH NUMBER: 5940

NO. OF SAMPLES: 1

THESE SAMPLES WERE PROCESSED FOR: PCIMs

SPECIFICATIONS:

1. Submitted by client: One 3.8 kg sand and gravel sample.
2. Sample prescreened to <1.0 mm by client in the field.
3. 0.125 to 2.0 mm fraction heavy liquid separation specific gravity: 2.8 and 3.2.
4. 0.25-2.0 mm S.G. 2.8-3.2 and >3.2 nonferromagnetic heavy mineral fractions picked for indicator minerals.

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Remy Huneault, P.Geo.  
Laboratory Manager

**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
**GOLD GRAIN SUMMARY**

Project: Omineca

Filename: 20125940 - Commander - Potts - PCIM

Total Number of Samples in this Report = 1

Batch Number: 5940

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight (g)	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
23155	0	0	0	0	13.2	*	0	0	0

**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
**LABORATORY SAMPLE LOG**

Project: Omineca

Filename: 20125940 - Commander - Potts - PCIM

Total Number of Samples in this Report = 1

Sample Number	Weight (kg)					Clasts >2.0 mm*				Matrix <2.0 mm					Class		
	Bulk Rec'd	Table Split	+2 mm Clasts	Table Feed	Size	Percentage				Distribution			Colour				
						V/S	GR	LS	OT	S/U	SD	ST	CY	Org	Sand	Clay	
23155	3.8	3.3	0.0	3.3		No Clasts				S	MC	-	N	N	OC	NA	SAND + GRAVEL

\* sample screened to <1.0 mm by client in the field.

**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
**HEAVY MINERAL PROCESSING WEIGHTS FOR PORPHYRY Cu SAMPLES**

Project: Omineca

Filename: 20125940 - Commander - Potts - PCIM

Total Number of Samples in this Report = 1

Sample Number	Weight (g)																	
							0.125-2.0 mm Heavy Liquid Separations S.G 2.8 and 3.2											
	Total	-0.125 mm	Total	S.G <2.8 Heavy Liquid Lights	Mag HMC	Nonferromagnetic Fraction S.G 2.8 to 3.2								Nonferromagnetic Fraction S.G >3.2				
						<0.25 mm (wash)	0.125 to 0.25 mm	0.25 to 0.5 mm	0.5 to 1.0 mm	1.0 to 2.0 mm	Total	<0.25 mm (wash)	0.125 to 0.25 mm	0.25 to 0.5 mm	0.5 to 1.0 mm	1.0 to 2.0 mm		
23155	591.9	130.6	461.3	312.6	52.00	31.0	6.6	13.9	6.9	3.4	0.2	65.7	8.3	30.1	21.1	6.2	<0.01	

\* Values greater than 0.1 g were weighed only to one decimal place; the zero was added in the second decimal position to facilitate column alignment.

OVERBURDEN DRILLING MANAGEMENT LIMITED S.G. >3.2 PORPHYRY Cu INDICATOR MINERAL DATA																					
Sample Number	Minerals 0.25-0.5 mm																				
	>1 amp						<1.0 amp						Mg/Mn/Au/Cr Minerals 0.25-0.5 mm								
	% Cpy	Misc. Prime PCIMs	% Py	% Gth	% Adt	PCIMs	% Mn-oxide	Red Rutile	Blond Ttn	% Ase	% Ky/Sil	% Tm	% St	% Ol	% Opx	% Cr	% Ap	% Rose Mz	INPUT Remarks		
23155	0	0	Tr (~20 gr)	0	0	0	0	0	0	0	0	Tr	0	0	15	0	Tr	0	limenite-orthopyroxene-hematite/ (17 epidote assemblage. gr)	0.25-0.5 mm fraction: 17 rose zircon	limenite-orthopyroxene-hematite/ epidote

**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
**S.G. 2.8-3.2 PORPHYRY Cu INDICATOR MINERAL DATA**

Project: Omineca

Filename: 20125940 - Commander - Potts - PCIM

Total Number of Samples in this Report = 1

Sample Number	0.25-0.5 mm						Remarks	Picked Grains
	% Cu Minerals	Misc. Prime Porphyry Cu Indicators	Major Sulphates					
			Jarosite	Alunite	Tourmaline			
23155	0	0	0	0	Tr (~200 gr)			

**OVERBURDEN DRILLING MANAGEMENT LIMITED**  
**LABORATORY ABBREVIATIONS**

**SEDIMENT LOG**

<b>Largest Clasts Present:</b>		<b>Matrix Organics:</b>
G: Granules		ORG: Y: Organics present in matrix
P: Pebbles		N: Organics absent or negligible in matrix
C: Cobbles		+: Matrix is mainly organic
<b>Clast Composition:</b>		<b>Matrix Colour:</b>
VS: Volcanics and/or sediments		Primary
GR: Granitics		BE: Beige
LS: Limestone, carbonates		GY: Grey
OT: Other Lithologies (refer to footnotes)		GB: Grey-beige
TR: Only trace present		GN: Green
NA: Not applicable		GG: Grey-green
OX: Very oxidized, undifferentiated		PP: Purple
<b>Matrix Grain Size Distribution:</b>		PK: Pink
S/U: Sorted or Unsorted		PB: Pink-Beige
SD: Sand (F: Fine; M: Medium; C: Coarse)		Secondary (soil):
ST: Silt		OC: Ochre
CY: Clay		BN: Brown
Y: Fraction present		BK: Black
+: Fraction more abundant than normal		Secondary Colour Modifier:
-: Fraction less abundant than normal		L: Light
N: Fraction not present		M: Medium
		D: Dark

**GOLD GRAIN LOG**

<b>Thickness:</b>
VG: Visible gold grains
M: Actual measured thickness of grain (microns)
C: Thickness of grain (microns) calculated from measured width and length

**KIM (kimberlite indicator mineral) LOG**

GP: Purple to red peridotitic garnet (G9/10 Cr-pyrope)
GO: Orange mantle garnet; includes both eclogitic pyrope-almandine (G3) and Cr-poor megacrystic pyrope (G1/G2) varieties; may include uncheckable (by SEM) grains of common crustal garnet (G5) lacking diagnostic inclusions or crystal faces
DC: Cr-diopside; distinctly emerald green (paler emerald green low-Cr diopside picked separately)
IM: Mg-ilmenite; may include uncheckable (by SEM) grains of common crustal ilmenite lacking diagnostic inclusions or crystal faces
CR: Chromite
FO: Forsterite

**MMSIM (metamorphosed or magmatic massive sulphide indicator mineral) and PCIM (porphyry Cu indicator mineral) LOGS**

Adr: Andradite	Cr: Chromite	Ky: Kyanite	Sil: Sillimanite	Ttn: Titanite
Ap: Apatite	Fay: Fayalite	Mz: Monazite	Spi: Spinel	
Ase: Anatase	Gh: Gahnite	Ol: Olivine	Sps: Spessartine	
Ax: Axinite	Gr: Grossular	Opx: Orthopyroxene	St: Staurolite	
Cpy: Chalcopyrite	Gth: Goethite	Py: Pyrite	Tm: Tourmaline	

## **Appendix IV**

### **Statement of Expenditures**

**STATEMENT OF EXPENDITURES (excluding HST)**  
**ATEN**

Aten	Details	time	rate	Total
<b>Project Planning &amp; Supervision</b>	S. Potts	2	\$610 /day	1220.00
<b>Data Compilation and Map prep</b>	L. Grexton	12.75	\$ 54 per hour	688.50
<b>Field Personnel</b>	Personnel			
	J. McKenzie (Geological Field Technician)	3	\$ 250 per day	750.00
	S. Potts (Geologist)	3	\$610 per day	1,830.00
	C.Campbell	3	\$ 225 per day	675.00
	J. Harris	3	\$ 225 per day	675.00
<b>Field Supplies</b>	(flagging, sample bags, shipping bags)			537.82
<b>Sample Processing &amp; Analyses</b>	ALS Chemex, North Vancouver			
	rock	4	\$44.90 /sample	179.60
	soil	82	\$29.45 /sample	2,414.90
	silt	1	\$31.62 /sample	31.62
	HMC	1	\$378/ sample	378.00
<b>Transportation</b>	Visa Truck Rental & Fuel			728.15
	Interior Helicopters Ltd 1.6 hours @\$1137.00 per hour)	3.4	\$ 1137.00/hour	3865.80
	Travel (including Food & Lodging)			368.15
<b>Communication</b>	Glentel Inc. (radio rental), Sat Phone			193.35
<b>Camp Rental</b>	Rugged Edge Holdings Ltd.			234.38
<b>Camp Supplies</b>	(paper plates, garbage bags, tarps)			86.21
<b>Camp Food</b>				
<b>Shipping</b>	<b>Freight &amp; Courier</b>			91.96
				213.37
<b>Report</b>	L. Grexton (maps & summaries, expenditures)	3.5	@ \$320/day	1120.00
	J. McKenzie (field notes, data compilation, logistics)	20	\$20 / hr	400.00
	S. Potts	1	@ \$610/day	610.00
			Subtotal	17291.81
	Miscellaneous (5%)			864.59
			TOTAL	18,156.40

## **Appendix V**

### **Statement of Qualifications**

### **Statement of Qualifications**

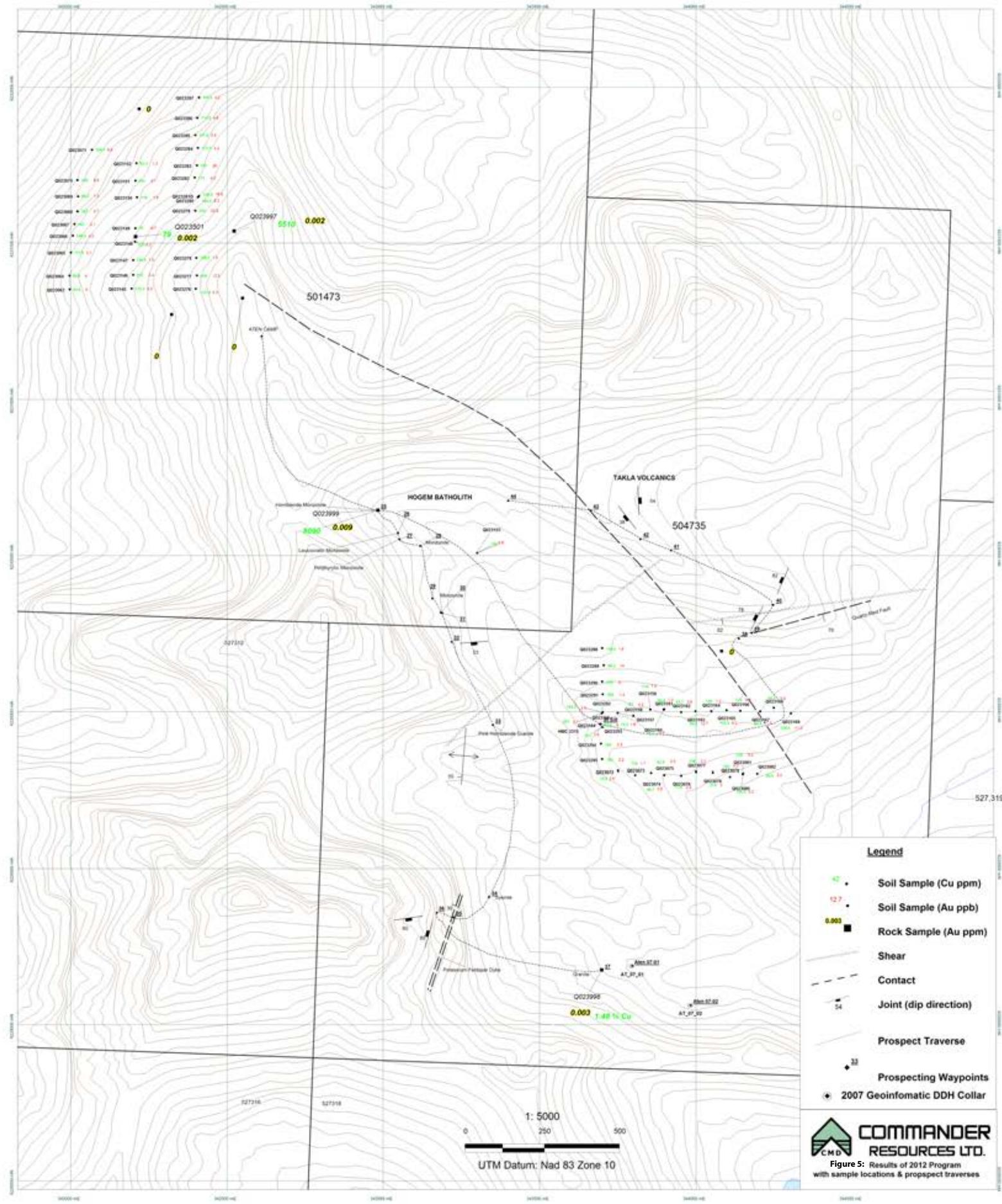
I, Steve Potts, with business address at 11<sup>th</sup> floor, 1111 Melville Street, Vancouver, B.C. V6E 3V6, hereby certify that:

- I am a practising Geologist, located in Delta B.C.
- I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Licence 33654).
- I hold a Bachelor of Science (B.Sc. Hons) in Geology and Geography (1988) from the University of Leeds, U.K.
- I have been practicing my profession as a geologist since graduation in 1988.
- I am Vice President of Exploration and therefore have a direct interest in the operations of Commander Resources Ltd.
- I have based this report on:
  - Field work conducted by myself and carried out under my supervision.
  - Assisted on historical research and compilation of data by Ms. L Grexton and Mr. J. Mckenzie.
- I consent to the use of this report for any Filing Statement, Statement of Material Facts, or support document.



---

Steve Potts B.Sc. P.Geo.



Legend

- 42 • Soil Sample (Cu ppm)
- 12.7 • Soil Sample (Au ppb)
- 0.003 ■ Rock Sample (Au ppm)
- Shear
- Contact
- Joint (dip direction)
- 54 Prospect Traverse
- Prospecting Waypoints
- 2007 Geoinformatic DDH Collar



**COMMANDER  
RESOURCES LTD.**

Figure 5: Results of 2012 Program with sample locations & prospect traverses