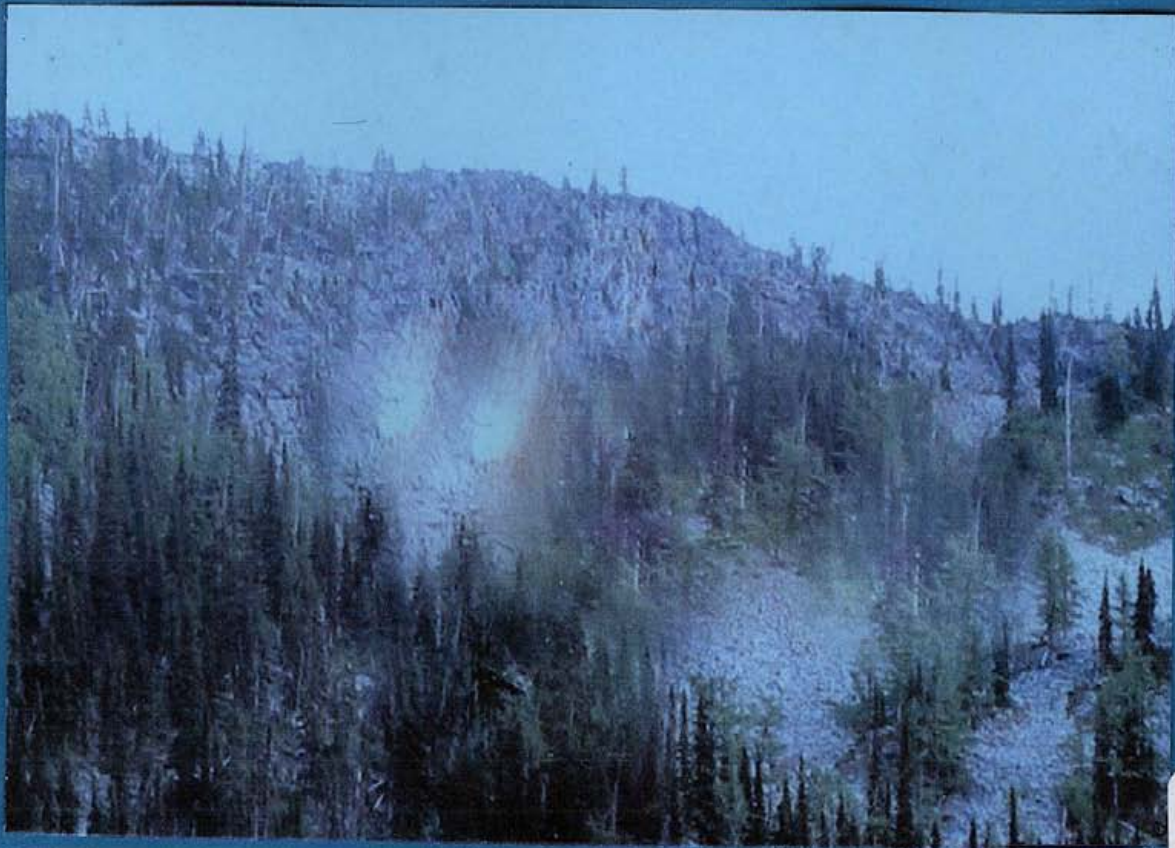


**ASSESSMENT REPORT  
'LOST MINE PROPERTY  
(COPPER RIDGE)  
NTS. MAP 082F02W (NAD 83)  
Latitude; 49 11' 42" N  
Longitude; 116 50' 10 W  
Nelson Mining District, British Columbia**



**December 2, 2010**  
**Prepared By**  
**Harold R. Oppelt**  
**For**  
**Innovative Energy Inc.**  
**21664 Monahan Court**  
**Langley B.C V3A8N1.**

31928

**ASSESSMENT REPORT FOR THE LOST MINE PROPERTY**

**KATIE CLAIMS**

**NTS MAP 082F02W (NAD 83)**

**Latitude: 49° 11' 42" N**

**Longitude: 116° 50' 10" W**

**Nelson Mining District, British Columbia**



**December 2, 2010**

**Prepared by: Harold R. Oppelt**

**For**

**Innovative Energy Inc.**

**21664 Monahan Court**

**Langley, BC, V3A 8N1**

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

**31,928**

**ASSESSMENT REPORT FOR THE LOST MINE PROPERTY**

**KATIE CLAIMS**

**NTS MAP 082F02W (NAD 83)**

**Latitude : 49° 11' 42" N**

**Longitude : 116° 50' 10" W**

**Nelson Mining District, British Columbia**

**December 2, 2010**

**Prepared by: Harold R. Oppelt**

**For**

**Innovative Energy Inc.**

**21664 Monahan Court**

**Langley, BC, V3A 8N1**

## **Executive Summary**

The Katie Mineral Claims are located in the Shaw Creek area of southeastern British Columbia, approximately 26 kilometers northwest of the Town of Creston. A field investigation of the Katie Claims was conducted during the period from June 15<sup>th</sup>, 2010 to September 8<sup>th</sup>, 2010. The Katie Claims cover the area known as the Copper Ridge/ Lost Mine showings as described in MINFILE Report 82FSE048.

The property is located in the Nelson Range of the Selkirk Mountains and lies within the southeastern section of the Omineca Geologic Belt within the Creston Map area (82F/02). The property is dominated by mid Jurassic/Cretaceous igneous intrusions.

The field investigations for the calendar year 2010 were comprised of a general examination of the claims blocks, sampling of host rocks and stream sediments, and mapping of outcrops and structural features. The intent of the program was to locate the previous workings as described as the Copper Ridge showings in the MINFILE Report.

The Katie Claims occur primarily within the middle Jurassic Mine Stock intrusives of the Kootenay Terrane in southeastern British Columbia. The Mine Stock consists of medium to coarse grained biotite calcic granodiorites. Cu-Ag-Au mineralization in the area is thought to occur as epithermal vein deposits dominated by quartz and calcite deposition within faulted structural features.

Two short adits believed to dated from the early 1900's were discovered on the Katie Claims, but the extensive workings consisting of a 75m adit within a chalcopryite-gold bearing vein as described in the MINFILE report were not yet located. Sulfide mineralization dominated by pyrite and marcasite were observed with minor showings of chalcopryite and malachite.

## **Index**

- 1.0 Introduction
- 2.0 Location, Access and Physiography
- 3.0 Tenure of Katie Claim Block
- 4.0 History of Exploration
- 5.0 Regional Geology
- 6.0 2010 Reconnaissance Program
- 7.0 Property Geology
  - 7.1 Mineralization
- 8.0 Conclusions and Recommendations

## **ILLUSTRATIONS**

### Figures

- 1. Location Map of Katie Claims
- 2. Air photo of Claim Block
- 3. Claim Location Map
- 4. Regional Geology Map
- 5. Photo of Adit Opening
- 6. Photo of sulfide mineralization
- 7. Photo of copper mineralization
- 8. Air Photo of location of quartz and calcite vein exposures
- 9. Photo cliff face on southern edge of cirque

## **APPENDICES**

- Appendix A.....Property Map
- Appendix B.....2010 Exploration Cost Statement
- Appendix C..... Statement of Qualifications

Appendix D Description , location of rick samples

Appendix E Additional regional geology

Appendix F Favourable conditions to support  
Lost mine Tunnel Location.

Appendix G 2 – Possible tunnel locations,  
See Fig 3, See fig 4.  
Area to be explored on or before July 1 2011

Appendix H Location of old workings.  
Blueschist Occurrence

2 - Headlights on Ridge

Appendix I Proposed budget for 2011 Season.

Appendix J Min- file comment section  
Leading to discovery of second  
Possible tunnel location.

Appendix K Location of copper ridge  
Katie cells and the recent  
Purchase by the Nature Conservatory,  
Of 550 sq KM in SE BC.

Appendix L Directions from Abbotsford BC. To  
Creston BC. And cost to get there

Appendix M Road system within the claim  
Block of the Katie Cells

Appendix N Analyses of rock samples

Appendix O Fig 3, Shows the location;

1. Old Sherpa claim western Boundry
2. Contact zone of the Bayonne Batholith  
And the Mine Stock
- 3 . Elevation of 1800 M
3. Possible tunnel location
4. Shows location of Copper ridge  
Min \_ file location.
- 5 . UTM approximate locations

Addendum #1

Map , Results and locations

Of mineral occurren

Addendum #2

Recent discovery of

Location of

Lost mine tunnel

Appendix P

General features of a favourable  
Prospecting area

## 1.0 Introduction

This assessment report summarizes the field work conducted during the calendar year 2010 on the Katie Mineral Claim Block located in the Creston Map Sheet (082F/02) of southeastern British Columbia. The property lies within the headwaters of the Shaw Creek watershed area of the Selkirk Mountain Range, southwest of Kootenay Landing.

The Katie Claims were originally obtained to explore for the significant copper-gold mineralization reported in MINFILE Report number 082FE048 known as Copper Ridge. The Copper Ridge showing was described as "...extensive high-grade mineralization exhibiting anomalous values of chalcopyrite and gold occurring within a quartz vein matter. The showing or vein matter is stated to have been traced for over 1 kilometer with widths obtaining up to 100m."

The Katie Claims has been mapped to occur within the granodiorites of the mid Jurassic aged pluton known as the Mine Stock. The Mine Stock intrusives lie immediately west and in contact with the Cretaceous aged granites of the Bayonne Batholith.

The exploration program for 2010 consisted of whole rock sampling, mapping of outcrops and structural elements, geochemical sampling and analysis for anomalous economic mineralization. The field work was conducted from the period June 15<sup>th</sup> to September 8<sup>th</sup>, 2010. Extensive property reconnaissance by ground was undertaken to verify and locate the old mine workings as described in the MINFILE report.

## 2.0 Location, Access and Physiography

The Katie Claims are located within the Nelson Mining District, approximately 26 kilometers west northwest of the Town of Creston, British Columbia and approximately 20 kilometers north of the US international boundary (Figure 1; location map). The property is located within the NTS Map sheet 82F02 known as the Creston map sheet. The property occurs at the headwaters of Shaw Creek which drains eastwards into Kootenay Lake.

Access to the property is via 40 kilometers of Forestry Trunk Road north of the all-weather road Salmo-Creston Highway #3. The forestry trunk road originates at the Summit Creek Bridge along Highway #3 approximately 7 kilometers west of Creston. Access to the property is best gained by four-wheel drive truck. Access to the property is now controlled the Federal Convservatory Road system. A permit is required which must outline all activities that will be undertaken enroute.

The topography of the property is moderately to very rugged, with elevations ranging from 1700 meters to 2300 meters at the summit of Wood Peak. The claim block straddles a rugged terrain comprised of cirque shaped steep ridge lines cresting into three peaks, Woods Peak, Hulme Peak and Kootenay Peak (Figure 2; air photo). The headwaters of Shaw Creek originate in the north cirque as three separate streams joining into one. The claim block is heavily timbered where it has not been logged or on the ridge lines. Significant sized boulders from 1 to 5m in size occur at the base of the ridge in large talus slopes.

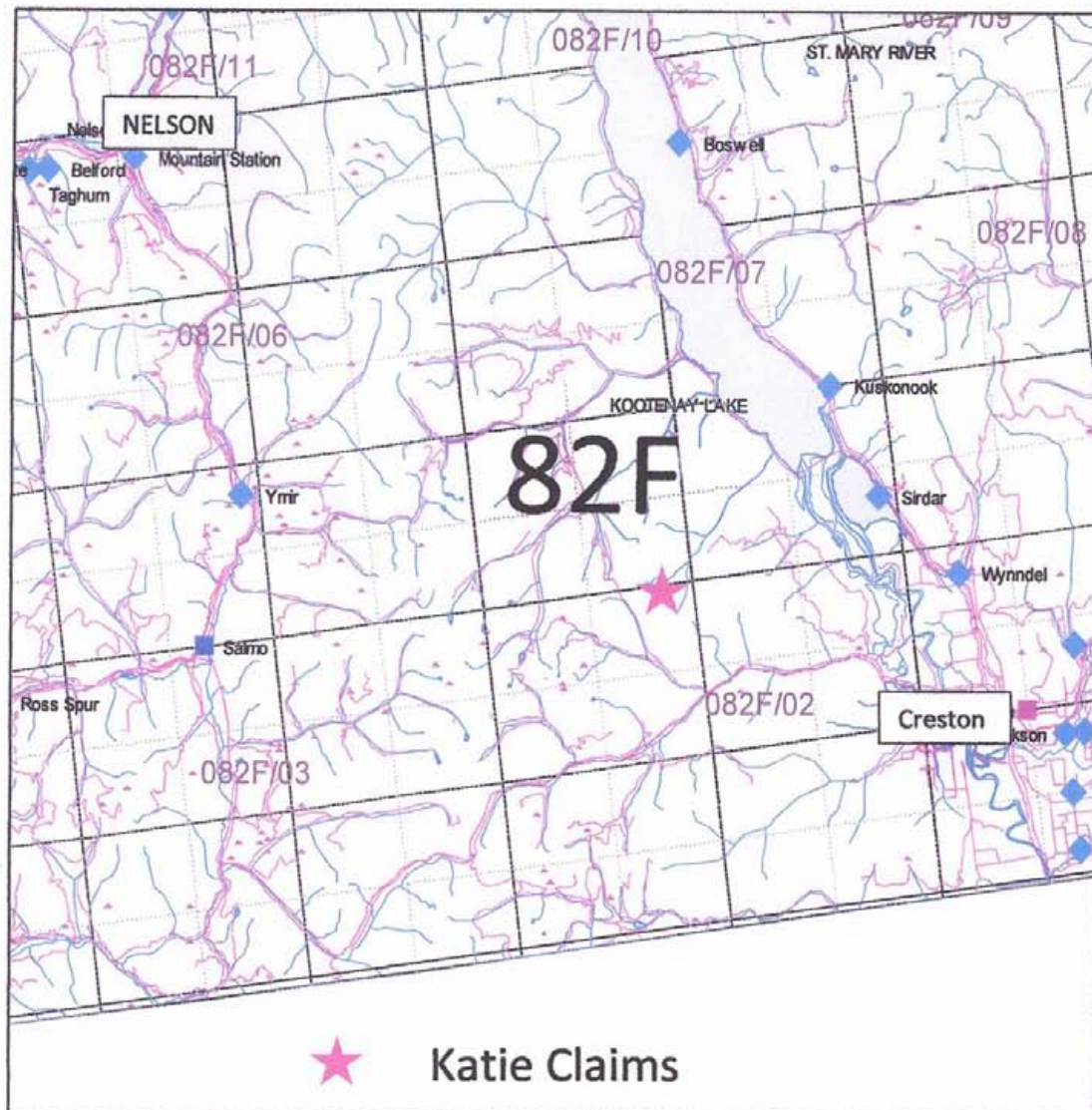


Figure 1: Location of Katie Claims



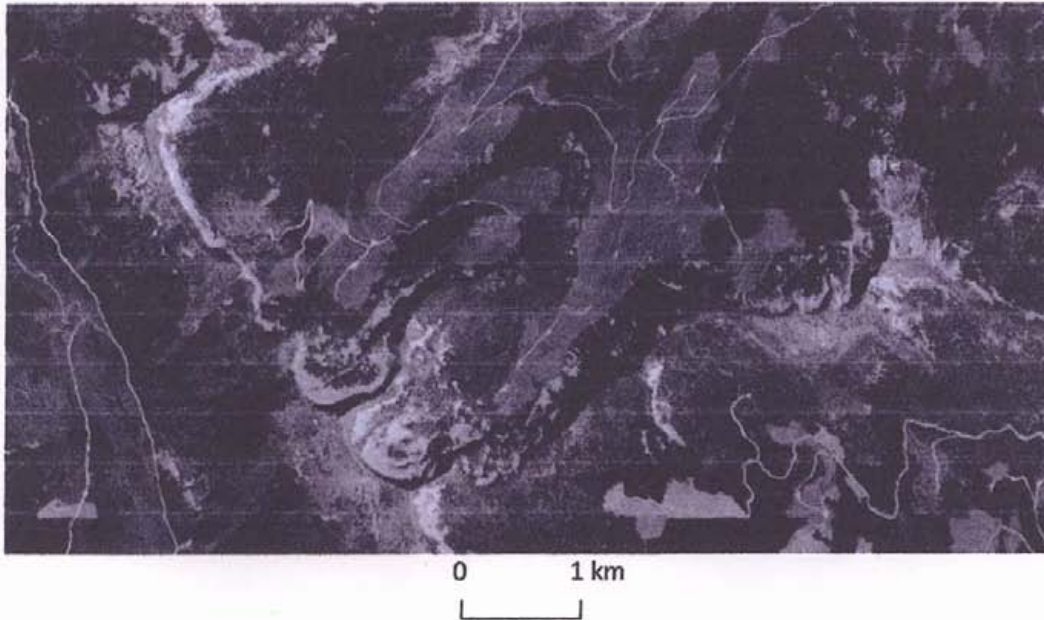


Figure 2: Air Photo of Katie Claim Block Area

### 3.0 TENURE OF KATIE CLAIM BLOCK

The Katie Claims consist of fourteen separate tenures totaling 142 cells or 2997 ha (Figure 3; Claim Location Map). The claims are owned 100% by Harold R. Oppelt and were originally registered at various dates. The Katie Claim block consists of the following claims:

Claim Name	Tenure No.	No of Units	Area (ha)	Anniversary Date
Katie	501319	24	506.62	January 12, 2011
Katie2	501469	25	527.80	January 12, 2011
	501561	17	359.01	January 12, 2011
Katie3	501599	2	42.23	January 12, 2011
Katie4	524219	15	316.51	December 22, 2010
Katie5	526680	10	211.03	January 30, 2011
Katie 9	832843	12	253.29	September 6, 2011
Katie10	832844	3	63.32	September 6, 2011
Katie 11	832845	3	63.32	September 6, 2011
Katie12	832852	3	63.32	September 6, 2011
Katie14	835287	10	210.97	October 7, 2011
Katie15	835288	8	168.74	October 7, 2011
Katie16	835301	5	105.46	October 7, 2011
Katie17	835307	5	105.46	October 7, 2011

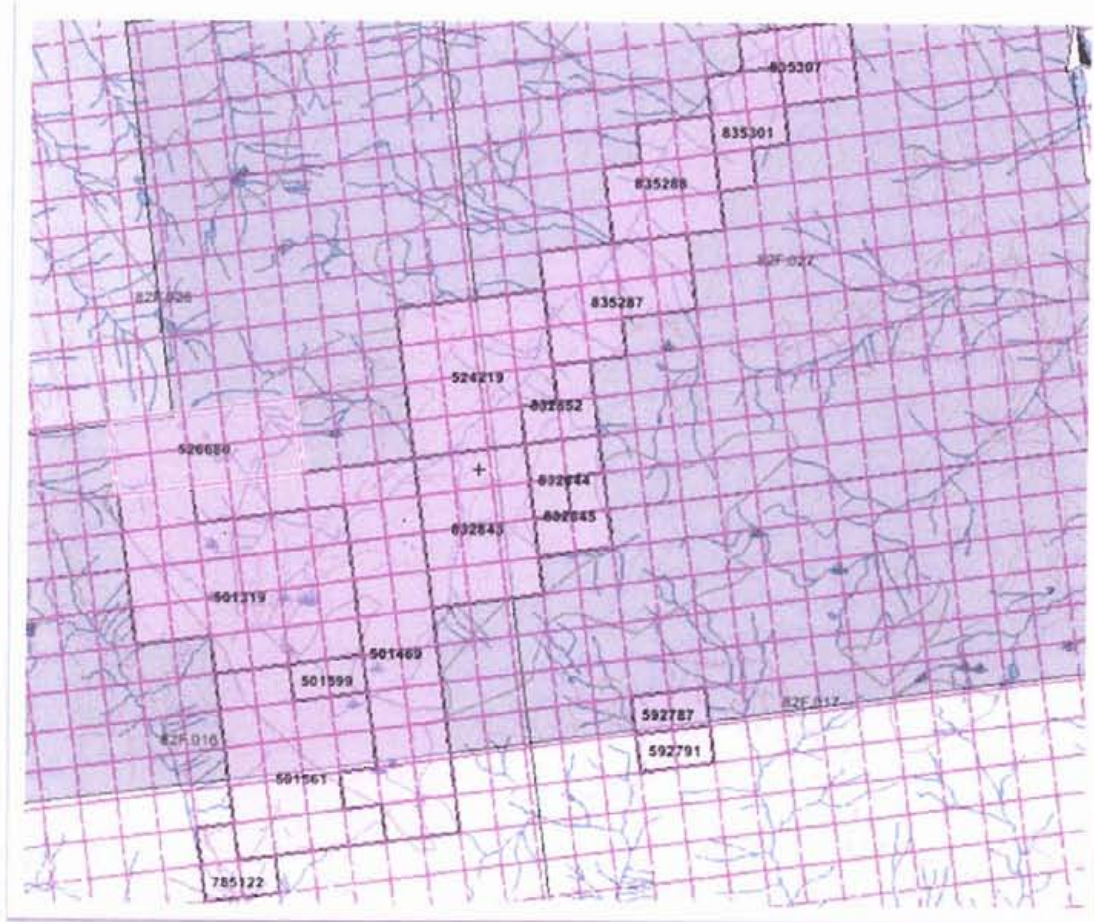


Figure 3: Katie Claim Block Location Map

#### 4.0 HISTORY OF EXPLORATION

The Copper Ridge Property (Katie Claim Block) was first reported in 1903 in the Minister of Mines Annual Report describing the property as 'The Lost Mine Group'. The group consisted of the Lost Mine, Copper Ridge and Copper Peak claims. The Ministers Report describes the property as 'vein matter is composed of calcite and quartz, with chalcoppyrite, and can be plainly traced at different exposures over the length of the Copper Peak and the Lost Mine, and for several hundred feet on the Copper Ridge, a total length (measured on the horizontal) of 3,300 feet'. The widths of the vein material along surface exposures are stated to be varying from 30 metres to up to 100 metres.

This group of claims was being explored during the period from 1899 to 1902 by an undetermined group of owners. During this time, a tunnel totaling 250 feet in length was driven at the 1830 metre (6000 foot) elevation level by the owners along the strike of the mineralization. In 1899, an unknown number of crosscuts totaling 27 lineal feet were also driven. Mineral values returned from surface samples averaged 8.6 grams of gold per tonne and 4% copper. It is stated that work ceased in 1902 and the group of owners 'headed east' to eastern Canada to look for financial help to develop this promising discovery, but never returned to resume work. It is not known if any shipments of ore were made or if the any mineral inventory was ever recovered.

In 1982, a Mr. Anthony Mould staked the Sherpa claim, which lies within Tenure Block 501319 of the Katie Claims, and optioned the claim to Brinco Mining Ltd. Brinco Mining conducted a preliminary geological and geochemical investigation consisting of 5 km<sup>2</sup> of outcrop mapping at 1:10,000 scale and 25 silt samples taken from streams at about 300m intervals. The geochem samples were analyzed for Cu, Mo, Ag and Au. Nothing of interest was returned in the analyses.

No mention was made by Brinco in the assessment report of any previous tunneling or workings on the property. No mineralization was reported by Brinco during that period and no further work was recommended. The property is believed to have remained idle since the Brinco investigation in 1982.

## **5.0 REGIONAL GEOLOGY**

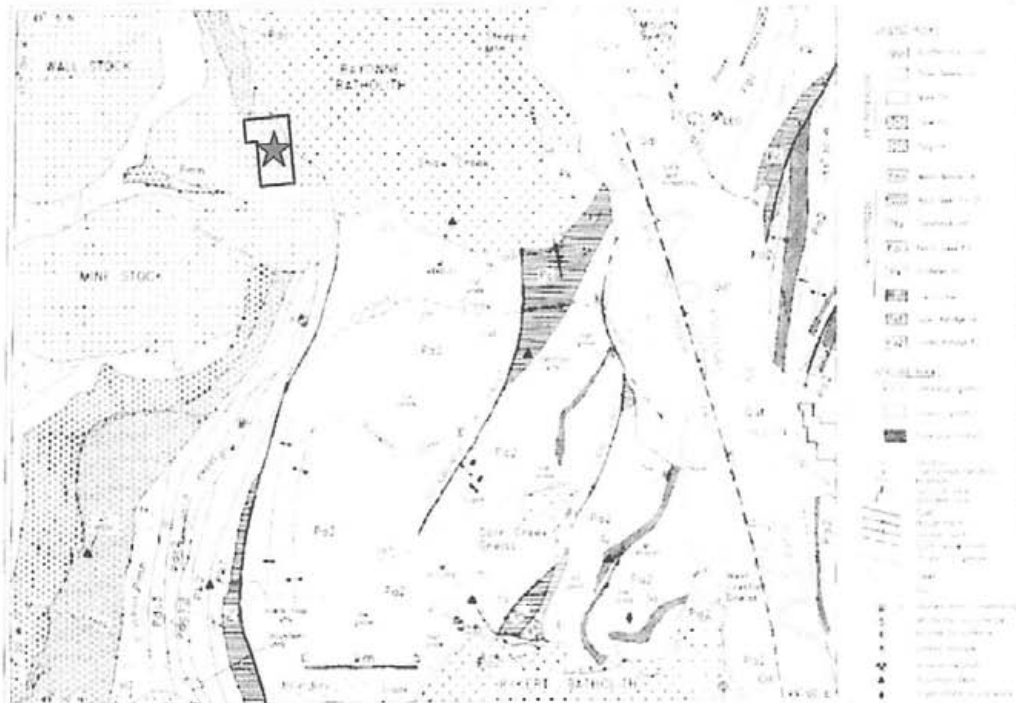
The Copper Ridge Property lies within the west half of the Creston map area within NTS map sheet 82F02W. The regional geology of the Creston map area 82F02 has been described in the past by Rice (1941), Leclair (1982, 1983), Reesor (1993), and Brown *et al* (1995). The Creston map area has a variety of structural and stratigraphic units that record the transition from the Purcell anticlinorium to the Kootenay Arc and includes important structures such as the northern extension of the Purcell Trench fault (Figure 4), the gradation of low grade, broadly folded Purcell Supergroup strata of the anticlinorium into equivalent but higher grade metamorphic and polydeformed rocks. The Purcell Supergroup is a thick succession of clastic and carbonate rocks of Middle Proterozoic age which is unconformably overlain to the west by the Upper Proterozoic Windermere Supergroup. A suite of small mid-Jurassic granitic

stocks, dykes, and sills and extensive mid-Cretaceous batholiths have been mapped which intrude into Proterozoic rocks in the Creston map area.

Within the immediate area of the Copper Ridge Property, the mid Cretaceous Bayonne Batholith is present to the east of the property boundary (Figure 4). The Bayonne Batholith is a large, elongate, granitic body which extends northeastwards for 60 kms across Kootenay Lake. The Bayonne Batholith varies in composition from granite to a calcic granodiorite and contains phases described as coarse grained to fine grained, porphyritic and non- porphyritic, pink and light grey to dark grey and is often gneissic in nature. Biotite is the most commonly associated mineral. Large inclusions of metamorphosed sediments, most likely Proterozoic in age, occur as xenoliths in the Bayonne Batholith. The xenoliths are said to occur most frequently in the porphyritic phases of the batholith.

Smaller mid-Jurassic stocks and dykes are also encountered in the Creston map area. These vary in shape and size and differ in composition from the Cretaceous aged intrusives. The Mine Stock pluton (Figure 4) underlies the majority of the immediate area of the Claim Block. The Mine Stock is centered southeast of the Katie Claim Block on John Bull Mountain. Within the Katie Claim Block, the eastern contact of the mid-Jurassic aged 'Mine Stock' abuts to the southwest corner of the Bayonne Batholith. Some of the granodiorite stocks are known to carry appreciable pyrite, pyrrhotite and chalcopyrite and tend to be associated with anomalous gold (ie Summit Bell, McMurdo).

The Mine Stock has been mapped to consist of fine to medium grained, light grey granodiorite that is fairly uniform in texture and composition, non-porphyritic, and few xenoliths. Amphiboles and biotite occur equally abundant as associated minerals.



Brown et al BC Geological Fieldwork 1994

#### Regional Geology of the Creston area (NTS 82F/02).

The Mine Stock Pluton is part of the North American Terrane with approximate age of 166 Ma. The Mine Stock Pluton is considered to be part of the Nelson Intrusive of Mid-Jurassic age. The Mine Stock Pluton is in contact to the northeast with the Cretaceous Shaw Creek Intrusives (Bayonne Batholith). The pluton is composed of coarse grained calcalkaline hornblende-biotite rich granodiorite with common pegmatites. The Pluton is host to various associated mineralization of Au-Ag-Pb-Zn occurrences. The Copper Ridge Occurrence is associated with a large quartz-calcite vein bearing chalcopyrite and minor gold.

Approximate location of Katie Claim Block is shown.

**Innovative Energy Inc.**

Figure 4:

Regional Geology of the Creston Area

## **6.0 2010 RECONNAISSANCE PROGRAM**

The field program for 2010 comprised of a reconnaissance mapping program to prospect the Katie Claims to locate the old mine workings as reported in the MINFILE Report number 082FSE048. Geological mapping of the area was conducted on a reconnaissance level, using GPS as a locator, to confirm the host rocks of the property as described in previous publications. Approximately 3.0 kms of transverse was conducted on the Katie Claim Tenure 501319 to find the old mine workings as well as map outcrops at 1:10,000 scale.

The original Copper Ridge Group of claims were reported to have a tunnel driven into mineralization during the early 1900's. The tunnel was described to be found off the western boundary of the former Sherpa Claim at an elevation of 1830m at the headwaters of Shaw Creek. Reconnaissance to find these workings using traverses and four wheel truck along all existing roads and trails was conducted.

## **7.0 PROPERTY GEOLOGY AND MINERALIZATION**

Due to soil and forest cover, outcrops are generally sparse within the cirque portion of the Katie Claims, but at higher elevations along the ridgelines outcropping can be continuous.

The Katie Claim Blocks are underlain by predominantly granodiorites apparently originating from the mid-Jurassic Mine Stock. The granodiorites observed in the mapping were generally a white to light grey colored mixture of fine-grained plagioclase, quartz, biotite and hornblende. The granodiorites, though, generally have a salt and pepper appearance. Quartz grains can be seen as smooth light gray grains scattered among the white feldspars. Orthoclase was present in only small amounts. Evidence of any bedding or any structural grain is faint and unreliable in the granodiorite stock. The composition of the granodiorite does vary over the property possibly due to the assimilation of Proterozoic country rocks.

Several inclusions of country rock were noted in the granodiorite of the Mine Stock. The inclusions consisted of gneisses and quartz mica schists. These are assumed to belong to the Proterozoic Windermere or Purcell Supergroups.

There is an obvious change in lithology on the eastern boundary of the claim area where light grey granodiorites containing few zenoliths described above gradationally changes to granites and granodiorites with abundant zenoliths. The contact of the two plutons was nowhere seen in this field work.

## 7.1 Mineralization

Extensive sulfide mineralization within a large quartz and calcite filled fracture vein was encountered within Tenure Blocks 501319 and 501599. The fracture zone is approximately 20 to 30m thick where it outcrops at the base of the talus slope along Copper Ridge. Two small adits were found to have been driven into the mineralization along the same elevation. The location of the adits are  $49^{\circ} 12' 30''\text{N}$  and  $116^{\circ} 50' 06''\text{W}$  at an elevation 2024m. Each adit is only six to eight feet in depth, but both are collapsed so the actual original depth is unknown (Figure 5, 6). The strike of the fracture is generally southeast  $145^{\circ}$  and dipping vertically. The fracture itself is filled with quartz and calcite with extensive pyrite, marcasite and pyrrhotite mineralization; chalcopyrite and malachite are present in float and in various showings in the adit. Striking the sulfide mineralization gave off a distinct "sulfide" smell, indicative of marcasite. Some thin quartz veins are pitted or vuggy and strongly limonitic, probably due to oxidized pyrite.



Figure 5: Photo of opening of small adit at  $49^{\circ} 12' 30''\text{N}$  and  $116^{\circ} 50' 06''\text{W}$ .



Figure 6: Photo of sulfide mineralization inside small adit.



Figure 7: Photo of copper mineralization in float outside of small adit.

The vein can be traced for several hundred meters to the cliff face that makes up the southeast exposure of the northernmost cirque and across into the southern face of the southern cirque (Figure 8). A low angle fault appears to have displaced the fracture vein material towards the west. A photo of the





Figure 8: Air Photo of location of quartz and calcite vein exposures.

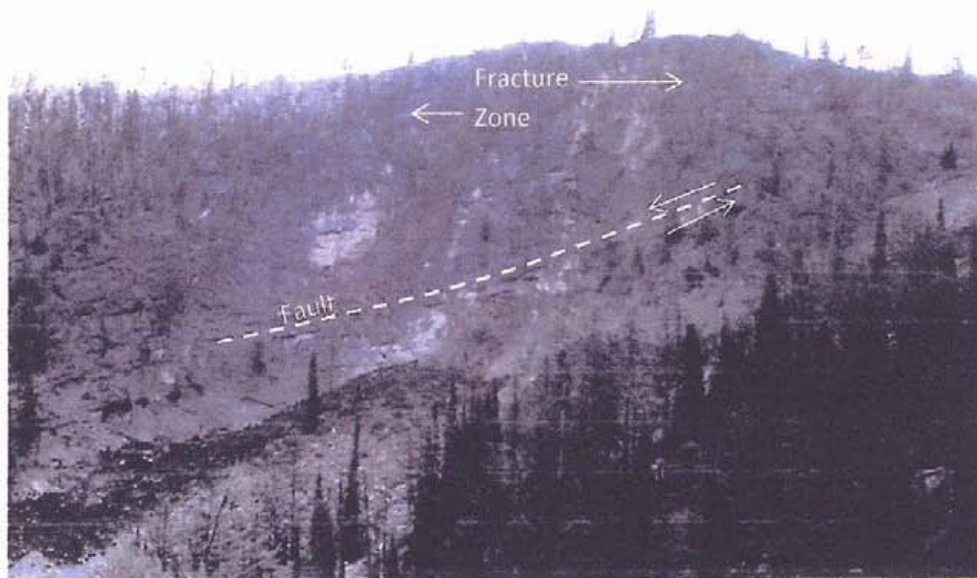


Figure 9: Photo cliff face on southern edge of cirque. Photo shows the fracture zone in the wall as well as the low angle displacement of the fracture. West is towards the right of the photo.

cliff face is provided in Figure 9 which shows the fracture zone being displaced in an east-west direction by a low angle fault. The fracture zone is approximately 100m wide and is comprised of rusty colored quartz and calcite vein. No sulfide mineralization was noted in the cliff face fracture zone.

The vein material appears to a skarn zone deposit along a southeast trending fracture zone containing quartz and calcite host material with pyrite, pyrrhotite dominating the sulfide along with minor amounts of chalcopyrite and malachite. No visible gold mineralization was observed.

## **8.0 CONCLUSIONS AND RECOMMENDATIONS**

Traverses to locate the old mine working even interpretation of satellite photography have failed to locate the old mine workings reported in the MINFILE report. Only two small adits were encountered which exhibit some minor chalcopyrite mineralization. The copper mineralization appears to be local to where the adits are located as no sulfides were observed in the cliff face exposures towards the southeast. No sign of any large scale mine tailings, which for a 250 foot adit should be apparent, were not found.

Reconnaissance geologic mapping confirmed the presence of granodiorite as described in Section 7.0 Property Geology and Mineralization. The granodiorites are extensive in distribution covering the majority of the claim block. These granodiorites belong to the mid-Jurassic Mine Stock.

There is a significant amount of rusty gossanous ground material or float in the area within the Tenure Claim Block 501319 and 501599. Much of the material is centered along the adits but can also be seen in float material in creeks within the property. Unfortunately there is significant tree and ground cover within the valley to establish any trends and minimizes exposures.

A previous geochemical analysis of stream silt samples failed to turn up any significant economic metal values. No economic mineral showings were observed in the remaining silt samples. Silt samples although were noted to contain abundant 'gold colored' mica grains.

Although the program failed to locate old mine workings or the original vein matter as reported in Minfile reports and the 1902 Annual Report of the Minister of Mines for BC, the potential to discover new mineralization described is significant. The geology of the host rocks is conducive to proximal Au-Ag-Cu fracture filled vein deposits related to the emplacement of the Cretaceous Bayonne Batholith.

Continued exploration of the block is warranted as previous reports have documented the existence of the mine workings and the potential of an economic deposit of precious metals and high grade copper showing. Further field work to continue to explore for the Copper Ridge vein (Lost Mine) will be undertaken in the summer of 2011 when access to the property can be permitted by weather. Simple prospecting of both bedrock and till on trend of the previous anomalies and more widespread structures along with continued soil sampling is recommended at the very least. The introduction of a defined grid for the purpose of conducting magnetometer and VLF-EM surveys (which have been shown to be highly effective in base metal exploration) is also recommended. Trenching of anomalous structures followed by diamond drilling could quickly follow the location of anomalies.

## **9.0 REFERENCES**

Annual Report of the Minister of Mines, British Columbia (1899-1902)

Energy Mines and Petroleum Resources Assessment Report Number 11028

Brown, D.K. and Logan J.M., (1989) Geology and Mineral Evaluation of Kokanee Glacier Provincial park, Southeastern British Columbia (82F/II, 14) Paper 1989-5

Brown, D.A., Doughty, T.P. and Stinson, P. (1995) Preliminary Geology of the Creston Map Area Southeastern British Columbia (82F/2), Geological Fieldwork 1994 Paper 1995-1, pp. 135-155.

Leclair, A.D. (1982): Preliminary Results on the Stratigraphic, Resources, Structural and Metamorphism of Central Kootenay Arc Rocks, Southeastern British Columbia; *in* Current Research, Part A, Geological Survey of Canada, Paper 82-1A, pp 45-49

Leclair, A.D. (1983): Stratigraphic and Structural Implications of Central Kootenay Arc Rocks, Southeastern British Columbia; *in* Current Research, Part A, Geological Survey of Canada, Paper 83-1A, pp. 235-240.

Reesor, J.E. (1993): Geology. Nelson (East Half, 82F/1,2,7-10,15,11); Geological Survey of Canada, Open File 2721.

Rice, H.M.A. (1941): Nelson Map Area, East Half Geological Survey of Canada, Memoir 228

Hart, C. J.R., Baker, T. and Burke, M. (2000): New exploration concepts for country-rock-hosted, intrusion-related gold systems: Tintina Gold Belt in Yukon; *in* The Tintina Gold Belt Concepts, Exploration and Discoveries, ed., J.L. Jambour,






British Columbia and Yukon Chamber of Mines, Cordilleran Exploration Roundup  
2000, Extended abstracts

Logan J.M. (2002) Intrusion-Related Gold Mineral Occurrences of the Bayonne  
Magmatic Belt, Geological Fieldwork 2001, paper 2002-1 pp.237-247.

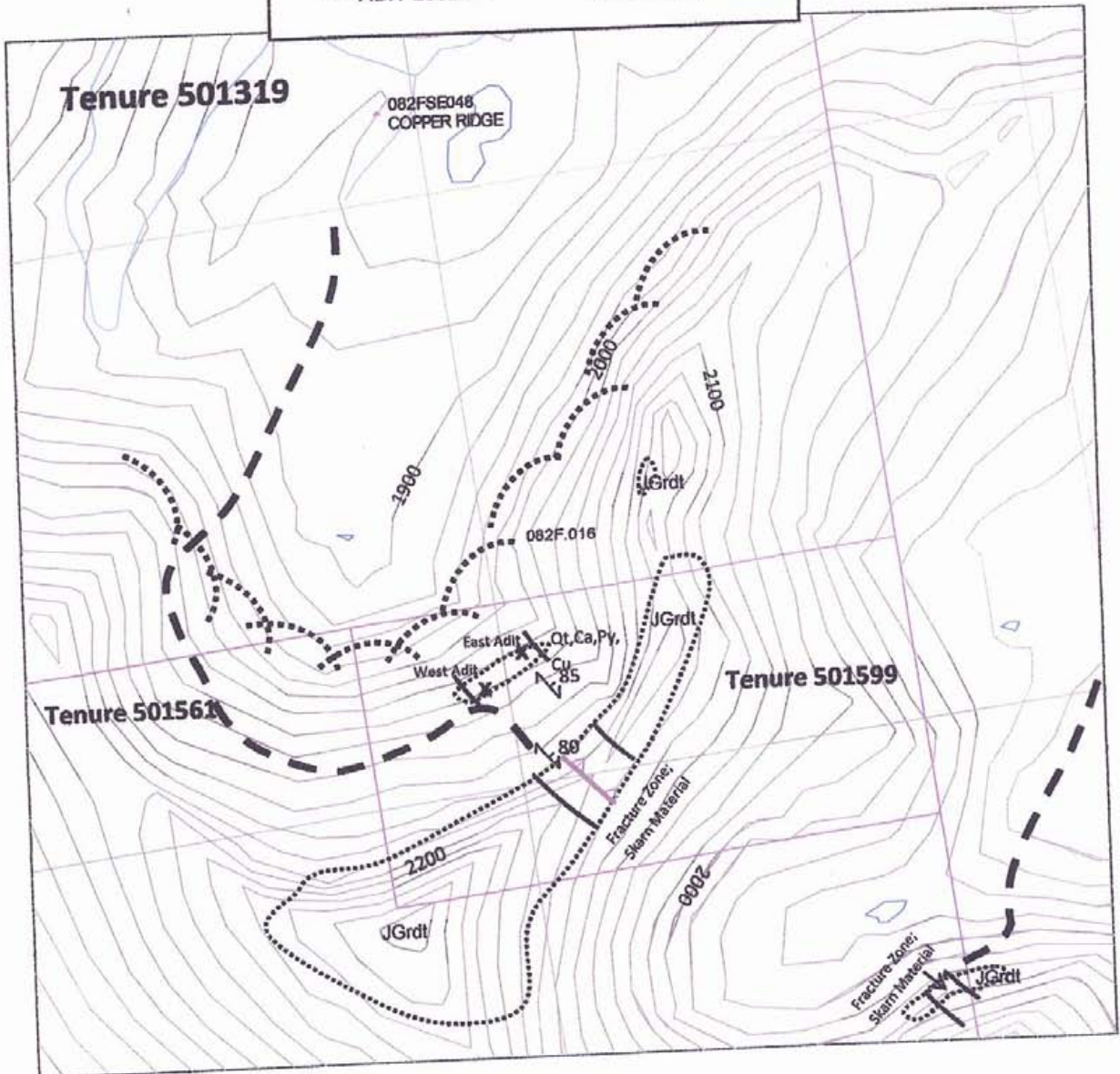
Bulletin No. 20 Part IV,  
By Deputy Minister, John F. Walker 1946

# APPENDIX A

**Copper Ridge Claims**

	Roads	JGrdt	Mine Stock Granodiorite
	Outcrop		
	Talus Slope	KGrdt	Cretaceous Granodiorite
	Traverse Lines		
	ADIT Location		

Scale: 1:10,000



## **Appendix B**

### **Exploration costs**

## Appendix B

### Expense sheet for Copper ridge 2010

Work period commenced JUNE 24, August 14, Oct 14<sup>th</sup> 2010

Harold Oppelt 4 days \$ 450.00 PER DAY	\$ 1800.00
Richard Oppelt 8 days \$350.00 per day	\$ 2800.00
Harold P. Oppelt, Geologist 10 days \$725.00 per day	\$ 7250.00
Cost of living allowance 22 man days at \$125.00 per day	\$ 2750.00
4 x4 truck rental 10 days at \$125.00 per day	\$ 1250.00
Car rental	\$ 247.00
Gas and oil expense	\$ 700.00
Camera rental and developing	\$ 200.00
Greyhound express shipping rock samples	\$ 40.00
Purolator express to deliver samples to Lab.	\$ 27.17
To preparation of report	\$ 1300.00
Cost of sample analyses	\$ 529.20
Grand total	\$ 18,893.37

**APPENDIX C**

**STATEMENT OF QUALIFICATION**

I, Harold Richard Oppelt of 21664 Monahan Court, Langley, B.C. do hereby declare the following:

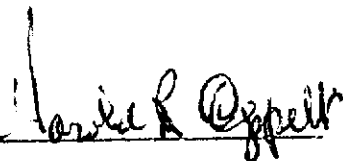
1. I have worked as an Industrial and Hard Rock prospector in Mineral Exploration for the past 43 years.

2. I have worked on several prospects and developed prospects in Alberta and in British Columbia during the years 1967 to 2010.

3. I am responsible for the preparation of this report and I am the sole owner of the claims.

4. the information used in this report is based on prospectors notes, references and abstracts by others and personal field work as indicated within this report

Dec 2, 2010

Signed 

Harold R. Oppelt



*Appendix D*

Descriptions locations  
And analyses of rock samples

Sample name	Latitude	Longitude	Texture	Composition	Characteristics	Name
✓ #1 A EAST ADIT	49-12-30 N	116-50-06 W	Blocky SILVERY	QUARTZITE	HEAVY MINERALIZE	QUARTZ
✓ #2 WEST ADIT	49-12-30N	116-50-00 W	FINE	HEMATITE RUSTY	RED-BROWN STREAK	HEMATITE
✓ #3 CLIFF FACE	49-11-18- 43N	116-50-20 22-W	VERY FINE	HEMATITE RUSTY	REDISH BROWN STREAK	HEMATITE
✓ #4 EAST ADIT WALL ROCK	UTM 5448217N	512059E	FINE	HEAVY MINERALIZE	BLACK NO CLEAVAGE BREAKS IN IRREGULAR PIECES	MAGNETITE
✓ LOWER CLIFF HEADLIGHTS #5	49-11-18-43 N	116 50 20 22 W	VERY FINE	RUSTY CLEAVAGE 1 DIRECTION	DARK VERY HARD	MAGNETITE
✓ #6 SHEAR-ZONE 2-HEADLIGHTS	49-11-18-43 N	116-50-20 22 W	VERY FINE	RUSTY CLEAVAGE 1 DIRECTION	DARK VERY HARD	MAGNETITE
✓ #7 EAST ADIT	49-12-22 N	116-50-10 W	COARSE GRAINED	MALACHITE STAIN	WELL MINERALIZED	QUARTZITE

Sample name	Latitude	Longitude	Texture	Composition	Characteristics	Name
✓ #3	49-12-30N	116-50-06 W	VUGGY COARSE	HEAVY MINERALIZED	VERY HEAVY QUARTZITE	QUARTZITE
✓ #9	49-12-30N	116-50-00 W	VUGGY VERY COARSE	HEAVY MINERALIZED	VERY HEAVY QUARTZITE	QUARTZITE
✓ #10	49-12-30N	116-50-00 W	VERY FINE	RUSTY IRON	CLEAVAGE ONEWAY	HEMATITE
✓ #11	49-12-30N	116-50-00 W	VUGGY VERY COARSE	HEAVY MINERALIZED	VERY HEAVY QUARTZITE	QUARTZITE

Sample name	Latitude	Longitude	Texture	Composition	Characteristics	Name
✓ #12 EAST ADIT	49-12-30N	116-50-06 W	FINE GRAIN	VERY HEAVY SILVERY	VERY HEAVY MINERALIZED UNEVEN NO CLEAVAGE	MAGNETITE
✓ #13 CLIFF FACE	49-11-18-43 N	116-50-20 22 W	FINE GRAIN	PLATY SEDIMENTARY	BLACK CLEAVAGE ONE WAY	SEDIMENTARY ROCK.
✓ #14 WEST ADIT WALL ROCK	49-12-30N	116-50-00 W	COARSE GRAINED	MALACHITE STAIN	WELL MINERALIZED	QUARTZITE
✓ #15 EAST ADIT #1	49-12-30N	116-50-06 W	COARSE GRAINED	VERY HEAVY RUSTY	WELL MINERALIZED NO CLEAVAGE	HEMATITE.

Appendix E

Additional regional  
Geology

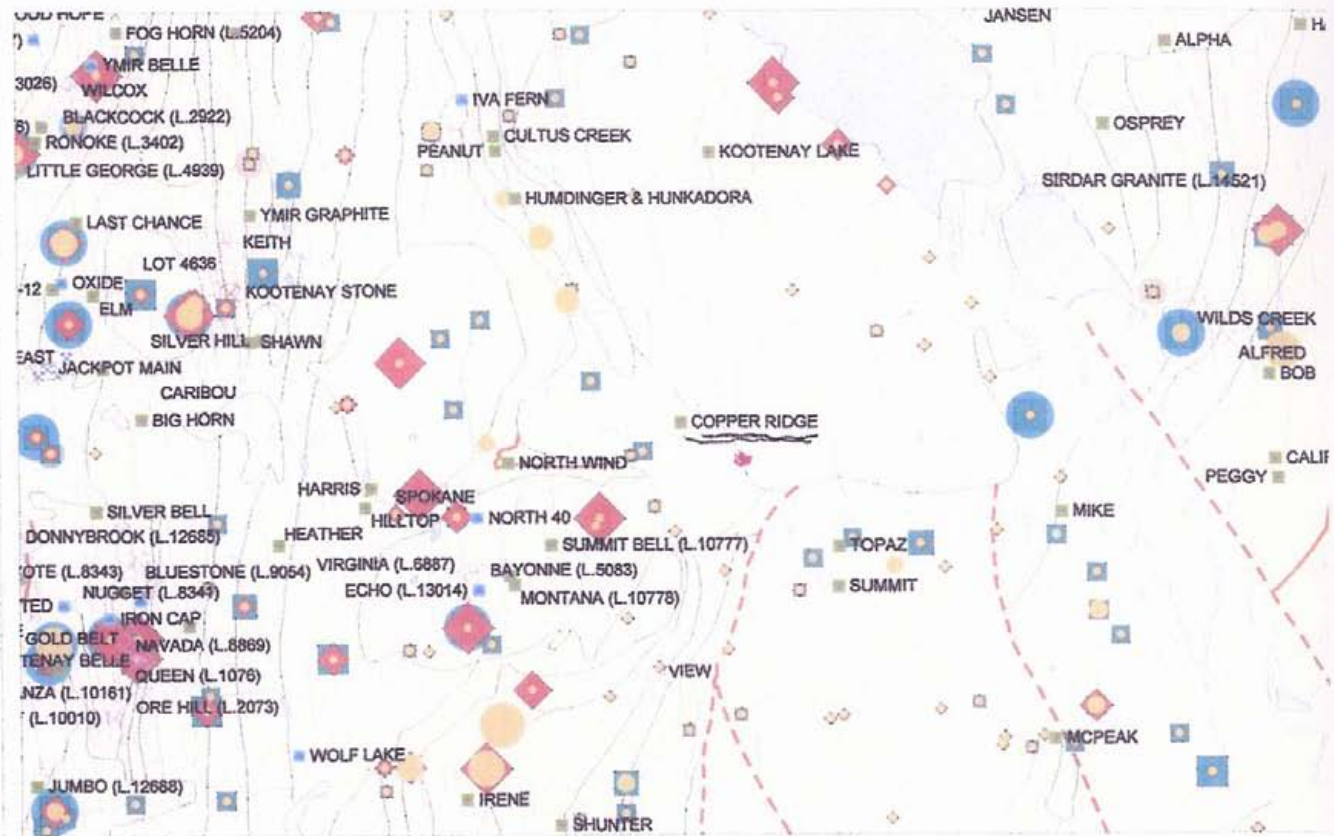
# BCGS Geology

## Mineral Inventory Layers

- ✕ ▲ **MINFILE status**  
✕ Developed Prospect  
○ Past Producer  
✕ Producer  
▲ Prospect  
▲ Showing  
■ All Others
- ✕ ■ **MINFILE name label**  
✕ Developed Prospect  
○ Past Producer  
✕ Producer  
■ Prospect  
■ Showing  
■ All Others

## Regional Geochem Layers

- ● **RGS - Copper (<1.2M)**  
● 50th Percentile  
● 70th Percentile  
● 90th Percentile  
● 95th Percentile  
● Greater than 95th Percentile  
■ All Others
- - -



SCALE 1 : 280,880



# BCGS Geology

## Mineral Inventory Layers

- MINFILE status**
  - Developed Prospect
  - Past Producer
  - Producer
  - Prospect
  - Showing
  - All Others

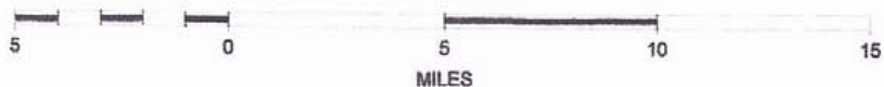
- MINFILE name label**
  - Developed Prospect
  - Past Producer
  - Producer
  - Prospect
  - Showing
  - All Others

## Regional Geochem Layers

- RGS - Copper (<1.2M)**
  - 50th Percentile
  - 70th Percentile
  - 90th Percentile
  - 95th Percentile
  - Greater than 95th Percentile
  - All Others



SCALE 1 : 280,880



## **Appendix F**

*Favourable conditions to support  
Lost Mine tunnel location.*



**General features of a favourable prospecting area on the copper ridge property have been indicated to the writer by experiencing similar circumstances on the west coast of British Columbia**

**It was discovered that most gold quartz veins occur most commonly found either in or close to batholiths or stocks of Granite rocks. Breaks fractures or shear zones which quartz veins follow, tend to follow or form where rock types of different competency or physical characteristics are found.**

**After a quick review of the secondary min-file report on the copper ridge Property, the writer noticed in the comment section. Stating the copper ridge tunnel will be found in the mine stock area close to the batholith contact zone. One line that set the pace for a quick resolve of the location of the mysterious Lost mine tunnel of 1902.**

**Knowing from other information that the tunnel would be located close to the Contact zone of the granites and the mine stock but more closely to the batholith contact zone, or the side of the contact zone of older rocks that may**

**Be found as inclusions or pendants in the batholith giving a physical contrast in the rock types, outward from the contact away from the batholith stocks**

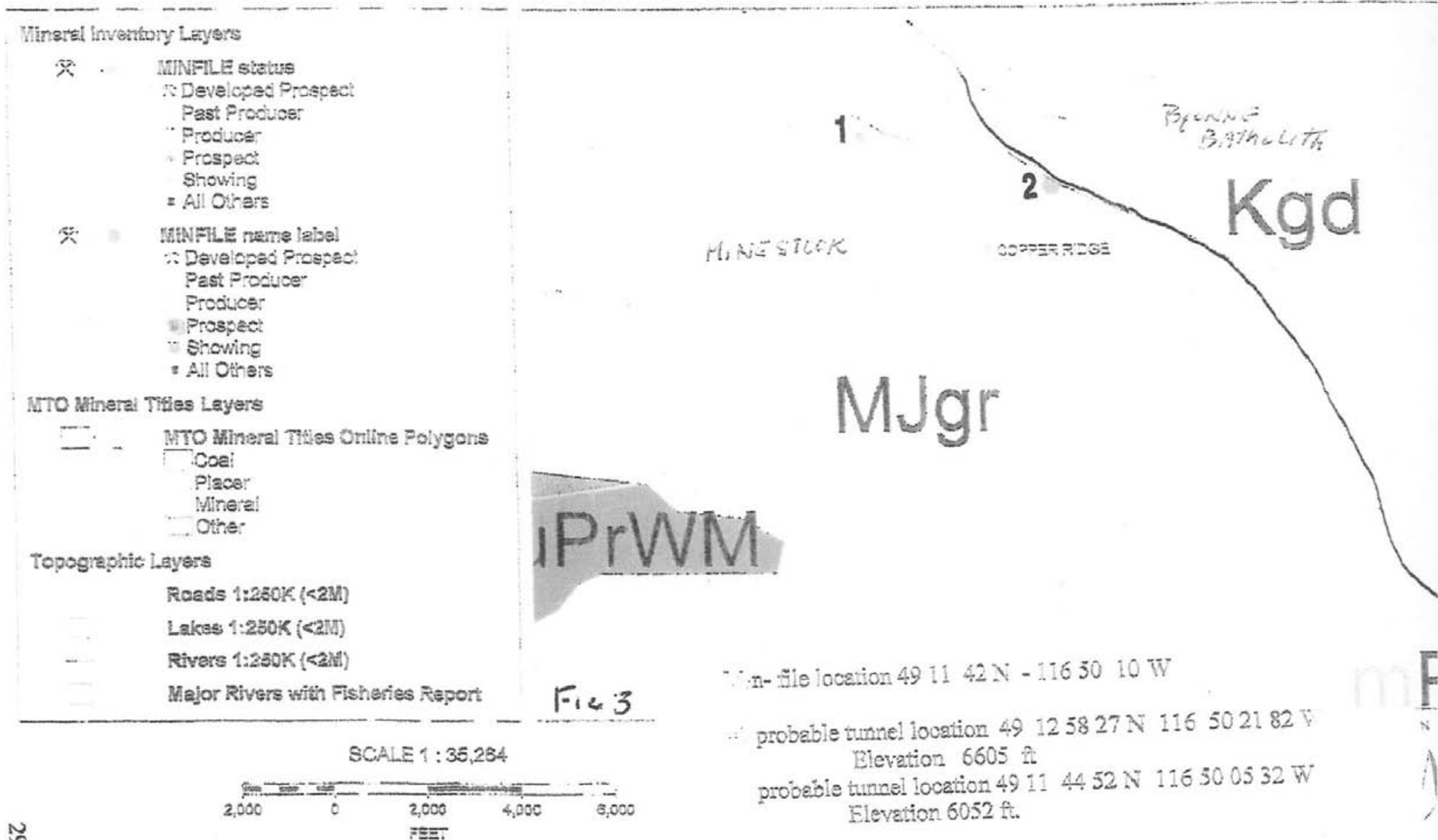
**And dykes cutting the older rocks that give the contrast in physical characteristics of rocks necessary for the formation of good breaks. This was noticed during our**

**Extensive search of the areas of 1830 meters elevation done earlier along the western border of the old Sherpa claim.**

**Among several controlling factors that would have to be considered or recognized is the curvature of the contact zone which is more favourable than the straight line fracture in finding gold quartz vein-structures. This was quite noticeable when viewing the location on a google map and from other occurrences along with the combination of the western border of the Sherpa claim and the closeness to the contact zone of the batholith and the head of Shaw creek. One would have to assume the coincidence of having the tunnel location at this point. Aforementioned of a 16 foot quartz calcite vein at this site.**

**The area is about 2000 feet NE of the mine file location and will most certainly be first on the list for exploration whether permitting. A successful conclusion to this long awaited legendary lost gold mine.**

# BCGS Geology



These 2 Possible tunnel locations are positioned on the Katie claim map

## **Appendix G**

### **2 Possible tunnel Locations**

**See fig 3 Fig 4**

**To be explored on or before July 1 2011**

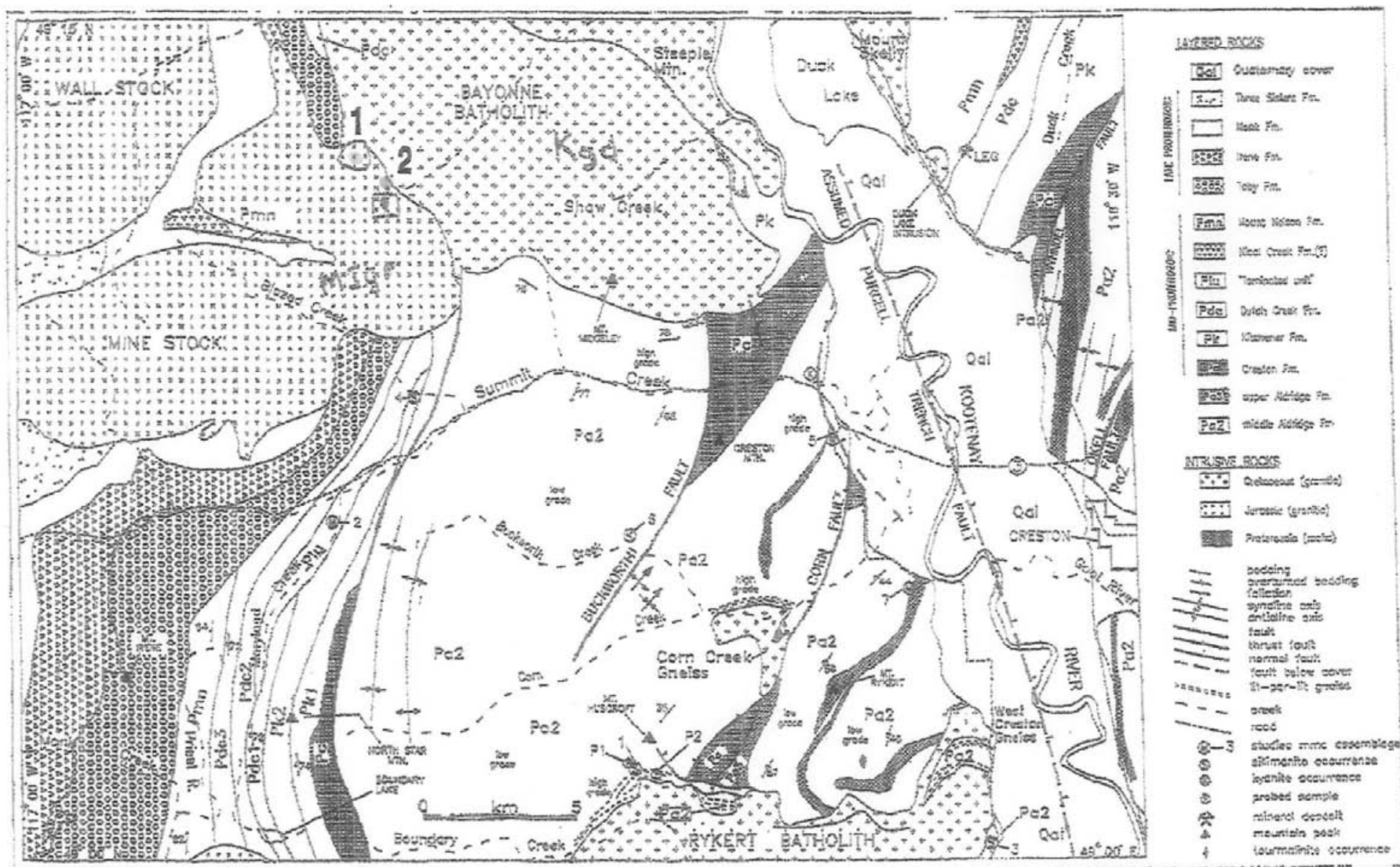


Figure 4. Simplified geology of the Creston map area (82V/02).

Min- file location 49 11 42 N - 116 50 10 W

30

#1 PROBABLE TUNNEL LOCATION 49 12 58 27 N 116 50 21 82 W  
Elevation 6605 ft

#2 PROBABLE TUNNEL LOCATION

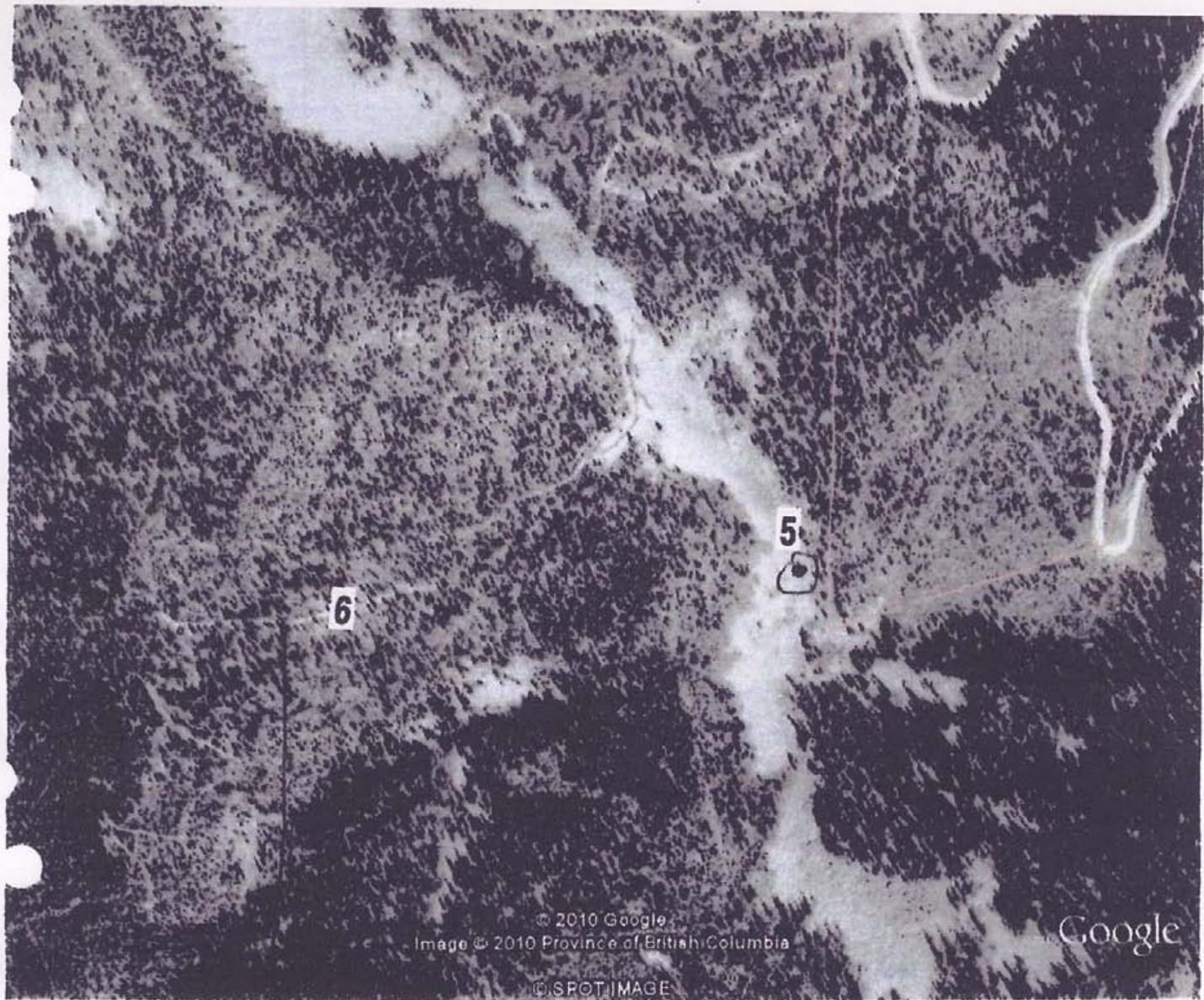
49-11 44-52 N - 116-50-05-32 W - 6000 FT

**Appendix H\**

**Location of old workings**

**Blue schist occurrence**

**2 Head Lights on ridge**



- 5** **Ⓢ** **Location of 2- Headlights.**  
**49 11 18 43 N, 116 50 20 22 W elevation**  
**1903 meters**
- 6** **Trail former owners took up the**  
**Mountain in 1898**  
**Western Boundry of Sherpa claim**

**2 Headlights on the hanging wall  
Of a ridge..**

**They are not head lights but I simply applied the term because of their unusual brilliant showing, an aurora that glitters and gives off an aurora reflecting at least a hundred meters in distance.**

**It has not been determined what has caused this very unusual pattern of discovery but I was able to zoom in and get in behind the bright glow and it shows a large intrusion of quartz and within that intrusion there is a large inverted (C) pattern with a swarm of lesser size veinlets displaying a highly oxidized iron staining and whatever the mineral is that gives off such a brilliant aurora is gold, I know of no other mineral that would create this kind of image.**


**We have sampled the lower part of that occurrence but I am quite sure we have not gotten to a proper sampling that may indicate what mineral is present.**

**It will take the services of a rock climber to enable to get samples of the occurrence.**

**Because of the perpendicular wall and being about 100 meters up from the base of the wall.**

**The writer is presently trying to obtain the services of a rock climber to take sampling of the occurrence.**





GPS location for the  
(2 Headlights)  
On the ridge  
49 11 18 43 N  
116 50 20 22 W  
Elev. 1903 m

33

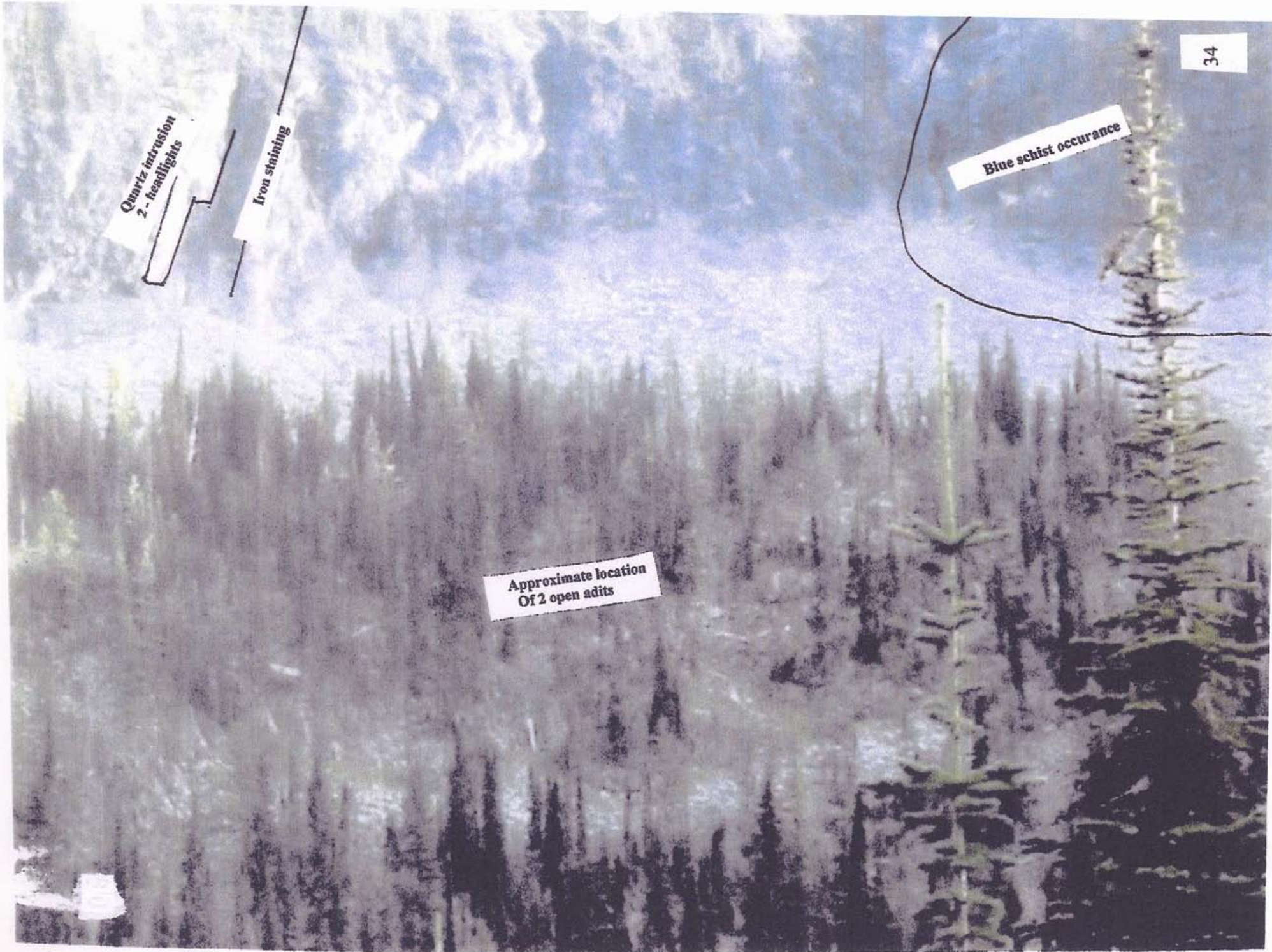
33

Quartz intrusion  
2 - headlights

Iron staining

Blue schist occurrence

Approximate location  
Of 2 open adits



**Appendix I**

**Proposed Budget for 2011 Season**

**Proposed work programme for the  
Copper ridge(Katie Cells) 2010.**

<b>1. Geo-Chem sampling from the following tenures To determine mineralization of the blueschist discovery, and the contents of the “Lost mine Tunnel” and its surface showings. Tenure numbers 526680, 501319,501469,501561, 501599,524219,832843,832844,832845,832852, 835287 ,835268,83530 ,835307,</b>	
<b>2. 1 geologist and helper for 15 days.</b>	
<b>Geologist \$600.00 per day</b>	<b>\$ 9000.00</b>
<b>Prospector helper per day</b>	
	<b>\$250.00 per day \$3,750.00</b>
<b>3 Sample analyses approximate</b>	<b>\$5000.00</b>
<b>4, IP, survey or 1-8 E Scan</b>	<b>\$ 20,000.00</b>
<b>5. Rental of service vehicle</b>	
	<b>15 days @ 125.00 1,875.00</b>
<b>6 Miscellaneous expenses including food and lodgings</b>	<b>\$2,500.00</b>
	<hr/> <b>\$42,125.00</b>

**Appendix J**  
**Min – File comment section**  
**Leading to discovery of second**  
**Possible tunnel location**



**Mineral Titles Online** *Mineral Title Detail Report*  
 BC Geological Survey  
 Ministry of Energy, Mines & Petroleum Resources

Close Help

### Location/Identification

**MINFILE Number:** 082FSE048 **National Mineral Inventory Number:**

**Name(s):** COPPER RIDGE  
 LOST MINE, COPPER PEAK

**Status:** Showing **Mining Division:** Nelson

**Mining Method:** Underground **Electoral District:**

**Regions:** British Columbia **Forest District:**

**BCGS Map:**

**NTS Map:** 082F02W **UTM Zone:** 11 (NAD 83)

**Latitude:** 49 11 42 N **Northing:** 5449146

**Longitude:** 116 50 10 W **Easting:** 511940

**Elevation:** 1830 metres

**Location Accuracy:** Within 1KM

### Mineral Occurrence

**Commodities:** Copper, Gold

**Minerals**

**Significant:** Chalcopyrite

**Associated:** Quartz, Calcite

**Mineralization Age:** Unknown

**Deposit**

**Character:** Vein

**Classification:** Hydrothermal, Epigenetic

**Type:** 106: Cu<sup>+</sup>-Ag quartz veins, 101: Au-quartz veins

**Comments:** Described as a wide zone, 30 to 100 metres wide and 1000 metres along strike.

### Host Rock

**Dominant Host Rock:** Plutonic

Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other	Isotopic Age	Dating Method	Material Dated
Middle Jurassic			Nelson Intrusions			
<b>Lithology:</b>	Biotite Amphibole Granodiorite					
<b>Comments:</b>	Located in the Mine stock (Nelson intrusions) just outside of the Bayonne batholith.					

### Geological Setting

**Tectonic Belt:** Omineca **Physiographic Area:** Selkirk Mountains

**Terrane:** Ancestral North America

**Metamorphic Type:** Regional, Contact **Relationship:** Pre-mineralization

**Grade:** Amphibolite

**Comments:** Staurolite-kyanite-sillimanite regional metamorphism is pre-mineral.

### Inventory

No inventory data

### Capsule Geology

The Lost Mine (Copper Ridge, Copper Peak) showings were described in the Minister of Mines Annual Report for 1902 as situated at the head of Shaw Creek, at an elevation of 1830 metres. The vein matter is composed of quartz and calcite, with chalcopyrite, and can be traced for over 1 kilometre with widths of 30-100 metres (sic) and values at the surface averaging 8.6 grams per tonne gold (translated from \$5 values, at \$20 per ounce) and 4 per cent copper (Minister of Mines Annual Report 1902). A tunnel on the vein was driven for 75 metres in the mineralization.

36

Appendix K  
Location of the copper ridge  
(Katie Cells) and the Nature  
Conservatory recent purchase  
Of 550 sq KM in SE BC



The Nature Conservancy of Canada is buying the 550 sq. km Darkwoods area in southeast B.C., protecting habitat for some 29 species at risk.

BY ANDY IVENS  
STAFF REPORTER

The largest private land acquisition for conservation purposes in Canadian history will save 550 square kilometres of Interior rain-forest in the Selkirk Mountains dubbed "Darkwoods."

Federal Environment Minister John Baird joined Nature Conservancy of Canada president John Lounds yesterday to jointly announce the deal in Vancouver.

"This land is a significant investment in Canada's natural legacy," said Baird. "I have always thought British Columbia is one of the most beautiful places on the planet, and Darkwoods is a treasure in that crown."

The area includes 17 watersheds, 50 lakes and a stand of western red cedar more than 500 years old.

It is home to 29 species at risk, including bull trout, red-tailed chipmunk and western screech owl.

Roughly 140 times the size of Vancouver's Stanley Park, the former commercial forest will double the conservation area in the backcountry between Nelson and Creston and provide a sanctuary for wide-ranging grizzly bears, cougars, wolves, elk and a herd of rare woodland caribou.

Darkwoods includes nearly 20 kilometres of lakefront on the



The Darkwoods lands will protect 550 sq. km of habitat near Kootenay Lake in southeast B.C.

western shore of Kootenay Lake. It lies to the south of West Arm Provincial Park and Midge Creek wildlife management area.

The land was acquired from Pluto Darkwoods Forestry Corp., owned by the Duke of Wuertemberg, a wealthy German.

"The duke bought it as a safe haven for his family in 1967," said Pluto Darkwoods spokesman Christian Schadendorf.

"It was the height of the Cold War, Russian tanks were rolling through Prague and it looked like the area was not a safe place to stay."

The duke imported German

foresters to manage the area in a sustainable way — an idea ahead of its time, said Schadendorf.

"The duke decided to sell [because] he is over 70 years old now, the Cold War is history and there are increasing risks and costs associated with climate change on the property. The [mountain pine] beetle infestation has hit us hard . . . and there's way more frequent forest fires occurring."

The current dismal state of the B.C. forest industry was another factor, Schadendorf added.

"The final straw was when the [Central Kootenay] Regional District decided to increase our property taxes by 35 per cent."

Negotiations took three years.

The duke laid down a tough list of conditions for the sale — "no speculators, developers or timber cutters needed to apply," said Schadendorf. "We wanted someone who could appreciate and maintain the unique beauty of the forest and its wildlife riches."

"Seeing it now conserved and spared from being turned into golf courses and tacky retirement homes, like the rest of rural B.C., makes us very happy."

The sale price is \$125 million. Some \$25 million of that comes from Ottawa's \$225-million Natural Areas Conservation Program. Another \$65 million was raised by the Nature Conservancy.

## Natural history

Founded in 1962, the Nature Conservancy of Canada has acquired more than 8,000 sq. km of ecologically significant land in virtually every region of the country.

In 1972, it helped buy a piece of Mud Bay in South Surrey as a sanctuary for Brant geese.

The conservancy owns 29-hectare Swishwash Island near Vancouver International Airport, a refuge for migratory birds and coastal wildlife.

The private, non-profit organization raised more than \$53 million last year from 35,000 supporters.

For more information, log on to [www.natureconservancy.ca](http://www.natureconservancy.ca).

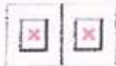
Lounds said the Nature Conservancy will try to raise the remaining \$35 million from private donors in the next year.

Darkwoods will remain private land, owned by the non-profit Nature Conservancy, and is not expected to be elevated to national park status.

Meanwhile, the owner of a large valley in the middle of the Darkwoods lands is being approached about a sale, said Lounds.



Appendix L  
Directions from Abbotsford to  
Creston BC, and cost to get there



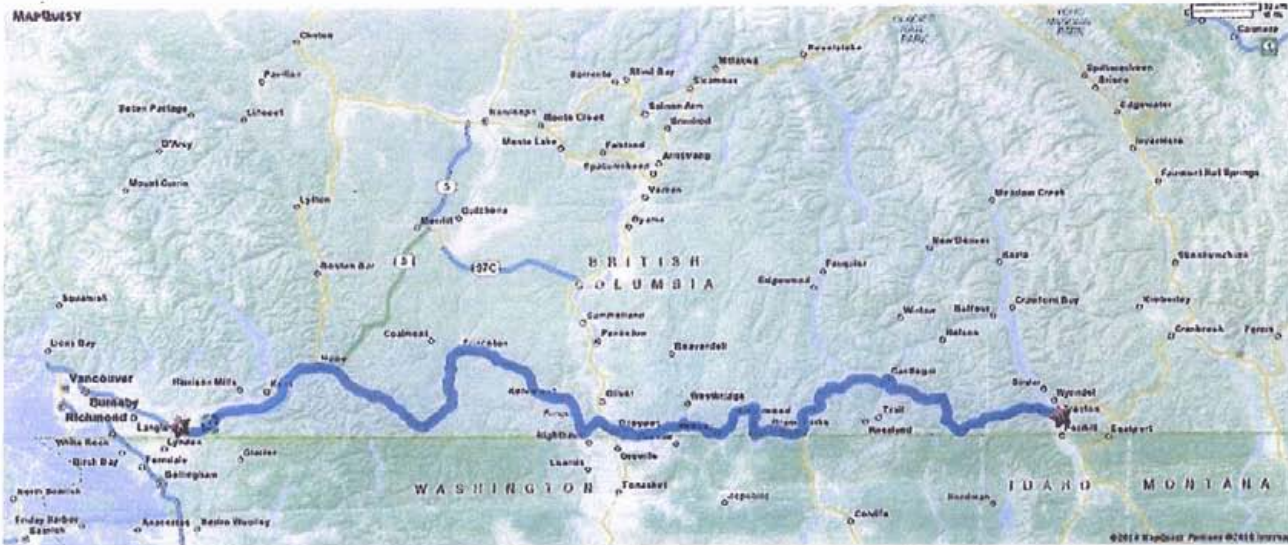
**MAPQUEST.**

Sorry! When printing directly from the browser your directions or map may not print correctly. For best results, try clicking the Printer-Friendly button.

**A** Starting Location  
**3273 Deertrail Drive**  
 Abbotsford, BC V2T

**B** Ending Location  
**Creston, BC**













Total Travel Estimate: **8 hours 18 minutes** / 420.98 miles Fuel Cost: [Calculate](#) **\$200.00 RETURN**



**A** **3273 Deertrail Drive** [Edit](#)  
 Abbotsford, BC V2T

- |  |   |        |
|--|---|--------|
|  | 1. Start out going <b>EAST</b> on <b>DEERTRAIL DR</b> toward <b>MALLARD ST.</b> | 0.1 mi |
|  | 2. Turn <b>RIGHT</b> onto <b>MALLARD ST.</b>                                    | 0.1 mi |
|  | 3. Turn <b>LEFT</b> onto <b>UPPER MACLURE RD.</b>                               | 0.1 mi |
|  | 4. Turn <b>RIGHT</b> onto <b>TOWNLINE RD/312 ST.</b>                            | 0.4 mi |
|  | 5. Turn <b>RIGHT</b> onto <b>MACLURE RD.</b>                                    | 0.5 mi |
|  | 6. <b>MACLURE RD</b> becomes <b>FRASER HWY/PROVINCIAL ROUTE 1A W.</b>           | 0.5 mi |
|  | 7. Make a <b>U-TURN</b> at <b>MT LEHMAN RD</b> onto <b>FRASER</b>               | 0.1 mi |

**HWY/PROVINCIAL ROUTE 1A E.**

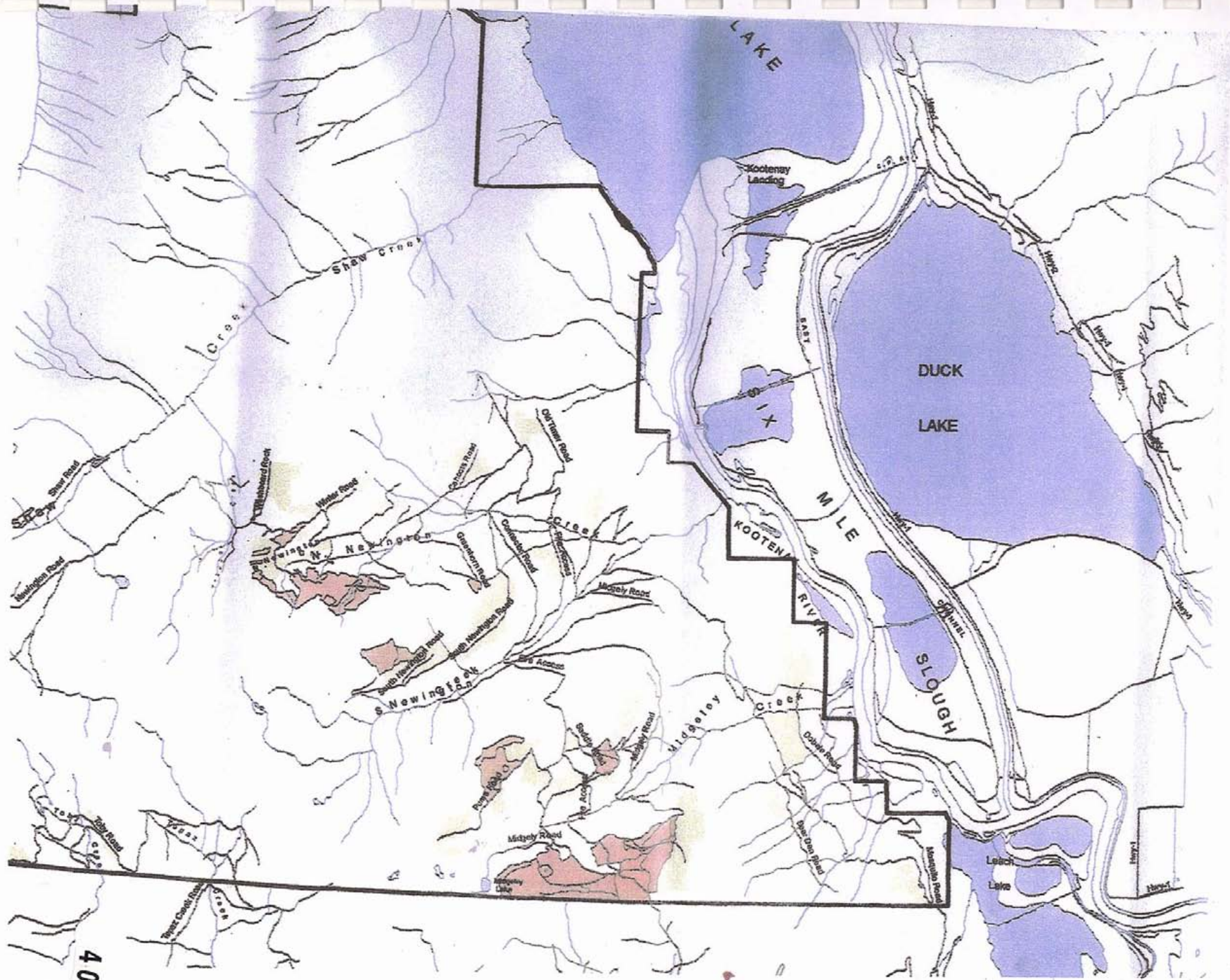
- 

8. Merge onto **PROVINCIAL ROUTE 1 E/TRANS CANADA HWY E** toward **HOPE**. 54.1 mi
- 

9. Merge onto **PROVINCIAL ROUTE 3 E/CROWSNEST HWY E** via the exit on the **LEFT**. 4.1 mi
- 
10. Take the **HWY-3 E/CROWSNEST HWY EAST** exit, **EXIT 177**, toward **PRINCETON/PENTICTON**. 0.4 mi
- 

11. Stay **STRAIGHT** to go onto **PROVINCIAL ROUTE 3 W/CROWSNEST HWY W**. 119.9 mi
- 

12. Turn **LEFT** onto **PROVINCIAL ROUTE 3/7TH ST/CROWSNEST HWY**. Continue to follow **PROVINCIAL ROUTE 3/CROWSNEST HWY**. 182.6 mi
- 

13. Turn **LEFT** to stay on **CROWSNEST HWY/PROVINCIAL ROUTE 3**. 58.0 mi
- 
14. Welcome to **CRESTON, BC**.

**B Creston, BC** [Edit](#)

Total Travel Estimate: **8 hours 18 minutes** / **420.98 miles** Fuel Cost: [Calculate](#)

Directions and maps are informational only. We make no warranties on the accuracy of their content, road conditions or route usability or expeditiousness. You assume all risk of use. MapQuest and its suppliers shall not be liable to you for any loss or delay resulting from your use of MapQuest.

Appendix M  
Road system within the claim  
Block of the Katie Cells



Appendix N  
Analyses of rock samples

ACME ANALYTICAL LABORATORIES LTD.

Final Report

Client: Innovative Energy Inc.

File Create 9-Dec-10

Job Number VAN10006097

Number of 15

Project: Copper Ridge

Shipment ID:

P.O. Number:

Received: 10-Nov-10

Method	WGHT	1F15	1F15	1F15	1F15	1F15	1F15	1F15
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	
Unit	KG	PPM	PPM	PPM	PPM	PPB	PPM	
MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	
Sample Type								
EAST ADI Rock	0.44	0.7	616.16	18.61	280.2	127	13.1	
EAST ADI Rock	0.08	1.8	4939.78	7.45	89.6	1867	61.5	
EAST ADI Rock	0.34	17.26	1359.8	4.2	31.1	439	84.5	
EAST ADI Rock	0.1	0.36	762.71	29.35	277.7	88	18.6	
EAST ADI Rock	0.75	97.25	1512.5	4.06	10.1	473	140.5	
2 SMALL A Rock	0.34	0.61	26.65	1.29	417	10	4.8	
WALLROC Rock	0.24	0.7	16.9	5.05	55.7	41	38.5	
EAST WAL Rock	0.73	2.3	2413.83	22.7	22.4	888	34.6	
CLIFF FAC Rock	0.32	0.85	18.71	3.87	56.3	57	33.1	
WEST ADI Rock	0.23	3.95	181.1	7.95	22.4	304	34.5	
WEST ADI Rock	0.78	0.11	397.09	5.44	159.6	42	12.6	
WEST ADI Rock	0.16	0.29	578.09	28.27	367.9	62	16.1	
LOWER CI Rock	0.12	2.05	76.2	13.42	30.3	274	1.8	
SHEAR ZC Rock	0.36	1.91	64.31	3.38	83.1	346	17.5	
CLIFF FAC Rock	0.41	1.41	54.01	5.32	119.5	132	102.6	
Pulp Duplicates								
EAST ADI Rock	0.34	17.26	1359.8	4.2	31.1	439	84.5	
EAST ADI REP		17.93	1408.26	4.32	31.9	441	86.3	
Reference Materials								
STD DS7 STD		21.96	104.74	69.83	396.5	1040	57.9	
STD DS8 STD		14.05	108.61	134.45	318.1	1821	40	
BLK BLK		<0.01	<0.01	<0.01	<0.1	<2	<0.1	
Prep Wash								
G1 Prep Blank	<0.01	0.1	3.52	3.35	46.6	17	3.8	
G1 Prep Blank	<0.01	0.1	4.11	3.5	45.8	15	3.4	

NI

1F15 Co PPM	1F15 Mn PPM	1F15 Fe %	1F15 As PPM	1F15 U PPM	1F15 Au PPB	1F15 Th PPM	1F15 Sr PPM	1F15 Cd PPM
0.1	1	0.01	0.1	0.1	0.1	0.2	0.1	0.5
14.5	1014	11.98	2.2	4.5	3.2	0.6	19.2	4.2
698.5	211	29.83	14.6	3.6	0.3	0.2	1.7	0.99
208.8	359	14.95	0.7	1.8	7.2	1.3	33.7	0.12
24.7	915	10.37	1.7	6	1	0.7	15.1	1.54
199.2	211	23.07	0.5	2.5	8.3	0.8	2.9	0.12
3.9	161	0.92	0.3	1.8	1	0.7	65	1.86
14.2	267	3.65	0.2	0.5	0.4	4.8	81.4	0.02
12.2	578	15.25	3.8	2.7	3.9	0.2	1.8	0.17
11.5	267	3.81	0.2	0.4	0.6	4.2	47.1	<0.01
9.7	37	2.43	2.1	1.5	13.1	1.4	220.6	0.2
8.9	916	2.93	4.9	8.2	0.7	1.1	26.2	1.41
15.7	930	10.4	1.7	5.7	0.7	0.6	23.5	1.94
6.3	71	1.93	1.1	0.5	3.7	2.1	184.7	0.35
9	473	3.99	0.5	0.3	0.6	2.1	48.9	0.09
9.9	149	2.47	<0.1	1	1.1	3.3	98.6	0.31
208.8	359	14.95	0.7	1.8	7.2	1.3	33.7	0.12
215.7	369	15.20	0.9	1.7	6.4	1.4	33.7	0.11
9.6	641	2.44	47.4	4.8	80.8	4.6	73.6	6.33
8.1	631	2.51	23.5	2.9	110.2	7.1	67.3	2.46
<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01
4.4	610	2.07	<0.1	2	3.1	5.7	67.8	0.04
4.3	598	1.99	0.2	1.8	1.4	6.2	65.7	0.02

N2



1F15 Sb PPM	1F15 Bi PPM	1F15 V PPM	1F15 Ca %	1F15 P %	1F15 La PPM	1F15 Cr PPM	1F15 Mg %	1F15 Ba PPM	1F15 Ba PPM
0.02	0.02		2	0.01	0.001	0.5	0.5	0.01	0.5
0.03	0.1		40	15.93	0.066	5.4	7.9	0.02	1.8
0.03	0.73		6	1.21	0.012	0.7	3.3 <0.01		1
0.03	0.78		43	2.55	0.132	4.4	41.6	0.79	14.8
<0.02	0.07		31	14.13	0.085	8.2	4.7	0.02	1.9
<0.02	1.17		23	1.86	0.132	3.4	14.3 <0.01	<0.5	
0.03	0.12		11	1.66	0.103	3.3	6.8	0.05	1.1
<0.02	0.22		52	2.16	0.079	9.6	68.2	1.7	34.8
0.03	0.41		13	8.86	0.069	1.8	9.1	0.03	0.5
0.02	0.18		65	1.38	0.073	8.1	77.5	1.55	31.3
0.11	0.25		9	2.31	0.095	4.4	9.3	0.05	13.4
0.04	0.04		16	15.66	0.14	10.8	14.9	0.07	2.2
<0.02	0.06		31	15.77	0.071	7.8	4.8	0.02	1.7
0.41	0.17		13	2.16	0.103	3	3.2	0.19	12.6
<0.02	0.09		56	1.02	0.062	4.9	43.9	1.51	62.6
0.1	0.3		46	2.66	0.177	9.2	74.6	1.2	22
0.03	0.78		43	2.55	0.132	4.4	41.6	0.79	14.8
0.03	0.78		44	2.6	0.134	4.4	44.4	0.81	14.3
6.08	4.53		85	0.98	0.079	12.7	221.9	1.08	423.7
5.8	6.78		42	0.75	0.083	15.7	118.7	0.63	281
<0.02	<0.02	<2	<0.01	<0.001	<0.5	<0.5	<0.01	<0.5	
0.03	0.09		41	0.56	0.087	13.2	10.2	0.55	190.3
0.04	0.13		41	0.55	0.086	16.7	10.6	0.56	183.7

N3

1F15 Ti %	1F15 B PPM	1F15 Al %	1F15 Na %	1F15 K %	1F15 W PPM	1F15 Sc PPM	1F15 Ti PPM	1F15 S %	
0.001		1	0.01	0.001	0.01	0.1	0.1	0.02	0.02
0.011		2	0.88	0.002	<0.01	0.4	3.4	<0.02	0.09
0.002	<1		0.03	0.001	<0.01	0.4	1.7	<0.02	>10.00
0.095		1	2.59	0.136	0.74	0.7	2.7	0.27	7.27
0.007	<1		0.52	0.004	<0.01	0.4	1.5	<0.02	0.03
0.014	<1		0.16	0.002	<0.01	0.2	0.7	<0.02	9.5
0.06	<1		0.79	0.002	<0.01	0.1	0.8	<0.02	0.08
0.223		1	5.38	0.229	1.39	0.1	3.5	0.78	0.74
0.004	<1		0.07	<0.001	<0.01	3.9	0.6	<0.02	2.03
0.207	<1		3.99	0.216	1.38	<0.1	4.9	0.63	0.61
0.051		3	3.37	0.433	0.08	0.6	0.6	0.04	1.14
0.005		1	0.13	0.002	0.01	0.6	0.5	<0.02	0.04
0.007	<1		0.51	0.002	<0.01	0.5	1.9	<0.02	<0.02
0.045		2	3.33	0.5	0.16	0.3	0.5	0.12	0.57
0.168	<1		3.34	0.178	0.69	<0.1	1.9	0.35	0.31
0.111		1	4.51	0.257	0.79	0.2	3.3	0.41	0.83
0.095		1	2.59	0.136	0.74	0.7	2.7	0.27	7.27
0.098		1	2.68	0.138	0.76	0.7	2.8	0.25	7.27
0.113		41	1.06	0.097	0.48	4	2.6	4.19	0.2
0.111		4	0.95	0.09	0.42	3.3	2.3	5.72	0.18
<0.001	<1		<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02
0.121		2	1.02	0.099	0.54	<0.1	2.2	0.35	<0.02
0.124		1	1.04	0.093	0.54	<0.1	2.3	0.35	<0.02

N4

1F15 Hg PPB	1F15 Se PPM	1F15 Te PPM	1F15 Ga PPM	1F15 Cs PPM	1F15 Ge PPM	1F15 Hf PPM	1F15 Nb PPM	1F15 Rb PPM	1F15 Rb PPM
	5	0.1	0.02	0.1	0.02	0.1	0.02	0.02	0.1
	6	1.2	0.15	5.4	0.06	0.5	0.06	0.34	0.3
	6 >100.0		1.77	0.4	0.02	0.5	0.04	0.19	0.2
	5	42.7	1.45	8.7	5.33	0.5	0.19	0.34	47.2
	8	0.7	0.09	3.9	0.08	0.4	0.03	0.11	0.5
	7	75	2.4	2.2 <0.02		0.7	0.31	0.27 <0.1	
<5		0.3	0.04	2.6	0.04 <0.1		0.21	2.04	0.1
<5		0.2	0.06	13	6.66 <0.1	<0.02		0.33	85.6
	6	20.7	0.53	2.5	0.03	0.4	0.05	0.06 <0.1	
<5		0.4	0.08	12.1	4.76 <0.1	<0.02		0.13	83
<5		6	0.12	7	0.42 <0.1		0.06	0.36	2.6
<5		0.8	0.08	1.1	0.04	0.3	0.07	0.09	0.6
	11	0.3	0.09	4	0.04	0.4	0.03	0.13	0.1
<5		2.3	0.11	6.2	1.1 <0.1		0.04	0.35	15.3
	10	0.3	0.02	9.3	2.97 <0.1	<0.02		0.35	40.1
<5		5.6	0.05	11.3	4.09	0.1	0.02	0.14	52.4
	5	42.7	1.45	8.7	5.33	0.5	0.19	0.34	47.2
	5	43.4	1.51	8.8	5.37	0.5	0.21	0.38	47.2
	238	3.3	1.42	5.1	6.68	0.1	0.12	1.33	34.3
	218	5.7	5.37	5	2.62	0.1	0.09	1.81	37
<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02	<0.02	<0.1	
<5	<0.1	<0.02		5.3	3.31	0.1	0.11	0.58	43.3
<5	<0.1	<0.02		5	3.31 <0.1		0.1	0.66	42.9

N 6

1F15 Pd PPB	1F15 Pt PPB	
	10	2
<10	<2	
<10		5
<10		3
<10	<2	
	21	<2
<10	<2	
<10	<2	
<10	<2	
<10	<2	
<10	<2	
<10	<2	
<10	<2	
<10	<2	
<10	<2	
<10		2
<10		3
<10	<2	
	84	47
	115	365
<10	<2	
<10	<2	
<10	<2	

N7



Acme Analytical Laboratories (Vancouver) Ltd.

1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Innovative Energy Inc.**  
 21864 Monohan Court  
 Langley BC V3A 8N1 Canada

Project: Copper Ridge  
 Report Date: December 09, 2010

Page: 1 of 1 Part 3

**QUALITY CONTROL REPORT**

**VAN10006097.1**

Method		1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15
Analyte		Hf	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
MDL		0.02	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
<b>Pulp Duplicates</b>															
EAST ADIT SAMPLE-4	Rock	0.19	0.34	47.2	0.8	<0.05	8.5	5.49	9.9	0.04	37	0.7	7.5	<10	3
REP EAST ADIT SAMPLE-4	QC	0.21	0.38	47.2	0.9	<0.05	8.7	5.69	9.9	0.05	36	0.4	7.7	<10	<2
<b>Reference Materials</b>															
STD DS7	Standard	0.12	1.33	34.3	4.6	<0.05	5.9	6.26	41.5	1.50	4	2.1	30.6	84	47
STD DS8	Standard	0.09	1.81	37.0	6.6	<0.05	2.5	6.39	32.6	2.24	59	5.9	28.7	115	365
STD DS7 Expected		0.11	0.71	35.8	4.61		5.4	5.18	36	1.57	4	1.6	29.3	70	40
STD DS8 Expected		0.06	1.71	39	6.76	0.01	3.03	7.12	31.7	2.14	55	5.9	28.9	110	339
BLK	Blank	<0.02	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
<b>Prep Wash</b>															
G1	Prep Blank	0.11	0.58	43.3	0.6	<0.05	1.6	6.23	27.3	0.03	<1	0.4	32.5	<10	<2
G1	Prep Blank	0.10	0.66	42.9	0.7	<0.05	1.6	6.41	34.0	<0.02	<1	0.2	31.8	<10	<2

8 N

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.



Acme Analytical Laboratories (Vancouver) Ltd.

1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

**Client:** Innovative Energy Inc.  
21664 Monohan Court  
Langley BC V3A 8N1 Canada

**Project:** Copper Ridge

**Report Date:** December 09, 2010

**Page:** 1 of 1 Part 2

## QUALITY CONTROL REPORT

VAN10006097.1

Method		1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15
Analyte		P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ge	Ca	Ge	
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
MDL		0.001	0.6	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	
<b>Pulp Duplicates</b>																						
EAST ADIT SAMPLE-4	Rock	0.132	4.4	41.6	0.79	14.8	0.095	1	2.59	0.136	0.74	0.7	2.7	0.27	7.27	5	42.7	1.45	8.7	5.33	0.5	
REP EAST ADIT SAMPLE-4	QC	0.134	4.4	44.4	0.81	14.3	0.098	1	2.68	0.138	0.76	0.7	2.8	0.25	7.27	5	43.4	1.51	8.8	5.37	0.5	
<b>Reference Materials</b>																						
STD DS7	Standard	0.079	12.7	221.9	1.08	423.7	0.113	41	1.06	0.097	0.48	4.0	2.6	4.19	0.20	238	3.3	1.42	5.1	6.68	0.1	
STD DS8	Standard	0.083	15.7	118.7	0.63	281.0	0.111	4	0.95	0.090	0.42	3.3	2.3	5.72	0.18	218	5.7	5.37	5.0	2.62	0.1	
STD DS7 Expected		0.08	12.7	192	1.05	410	0.124	36.6	1.0195	0.089	0.44	3.4	2.5	4.19	0.19	210	3.5	1.18	4.6	6.36	0.1	
STD DS8 Expected		0.08	17.2	117.9	0.62	279	0.13	12	0.96	0.09	0.4	3.18	2.77	5.58	0.17	192	5.9	5.15	5	2.47	0.13	
BLK	Blank	<0.001	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	
<b>Prep Wash</b>																						
G1	Prep Blank	0.087	13.2	10.2	0.55	190.3	0.121	2	1.02	0.099	0.54	<0.1	2.2	0.36	<0.02	<5	<0.1	<0.02	5.3	3.31	0.1	
G1	Prep Blank	0.086	16.7	10.6	0.56	183.7	0.124	1	1.04	0.093	0.54	<0.1	2.3	0.35	<0.02	<5	<0.1	<0.02	5.0	3.31	<0.1	

N  
9

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.



Acme Analytical Laboratories (Vancouver) Ltd.

1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Innovative Energy Inc.**  
 21664 Monohan Court  
 Langley BC V3A 8N1 Canada

Project: Copper Ridge

Report Date: December 09, 2010

Page: 1 of 1 Part 1

**QUALITY CONTROL REPORT**

**VAN10006097.1**

Method	WGHT	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca		
Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%		
MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01		
<b>Pulp Duplicates</b>																						
EAST ADIT SAMPLE-4	Rock	0.34	17.26	1360	4.20	31.1	439	84.5	208.8	359	14.95	0.7	1.8	7.2	1.3	33.7	0.12	0.03	0.78	43	2.55	
REP EAST ADIT SAMPLE-4	QC		17.93	1408	4.32	31.9	441	86.3	215.7	369	15.29	0.9	1.7	6.4	1.4	33.7	0.11	0.03	0.78	44	2.60	
<b>Reference Materials</b>																						
STD DS7	Standard		21.96	104.7	69.83	396.5	1040	57.9	9.6	641	2.44	47.4	4.8	80.8	4.6	73.6	6.33	6.08	4.53	85	0.98	
STD DS8	Standard		14.05	108.6	134.4	318.1	1821	40.0	8.1	631	2.51	23.5	2.9	110.2	7.1	67.3	2.46	5.80	6.78	42	0.75	
STD DS7 Expected			20.5	109	70.6	411	890	56	9.7	627	2.39	50	4.9	70	4.4	72.3	6.38	4.6	4.51	84	0.93	
STD DS8 Expected			12.87	113	126	313	1710	40.6	7.9	622	2.54	27.73	2.89	99	7.91	70.74	2.35	4.89	6.67	41	0.76	
BLK	Blank		<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<2	<0.01	
<b>Prep Wash</b>																						
G1	Prep Blank		<0.01	0.10	3.52	3.35	46.6	17	3.8	4.4	610	2.07	<0.1	2.0	3.1	5.7	67.8	0.04	0.03	0.09	41	0.56
G1	Prep Blank		<0.01	0.10	4.11	3.50	45.8	15	3.4	4.3	596	1.99	0.2	1.8	1.4	6.2	65.7	0.02	0.04	0.13	41	0.55

N/A

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.



Acme Analytical Laboratories (Vancouver) Ltd.

1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: Innovative Energy Inc.  
21884 Monohan Court  
Langley BC V3A 8N1 Canada

Project: Copper Ridge  
Report Date: December 09, 2010

Page: 2 of 2 Part 3

# CERTIFICATE OF ANALYSIS

VAN10006097.1

Method	Analyte	Unit	MDL	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15		
				Hf	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pb
				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
				0.02	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
EAST ADIT-1 SAMPLE-15	Rock			0.06	0.34	0.3	11.8	<0.05	3.7	7.52	15.0	0.92	<1	<0.1	0.2	<10	<2
EAST ADIT-1A	Rock			0.04	0.19	0.2	0.2	<0.05	2.0	0.94	1.3	0.05	151	<0.1	<0.1	<10	5
EAST ADIT SAMPLE-4	Rock			0.19	0.34	47.2	0.8	<0.05	8.5	5.49	9.9	0.04	37	0.7	7.5	<10	3
EAST ADIT -7	Rock			0.03	0.11	0.5	11.0	<0.05	2.3	6.23	20.3	0.75	<1	<0.1	<0.1	<10	<2
EAST ADIT SULPHUR-12	Rock			0.31	0.27	<0.1	0.8	<0.05	11.6	5.58	6.9	0.07	93	<0.1	<0.1	21	<2
2 SMALL ADDITS	Rock			0.21	2.04	0.1	0.9	<0.05	4.1	5.37	7.3	0.06	<1	<0.1	<0.1	<10	<2
WALLROCK-10 2 SMALL	Rock			<0.02	0.33	85.6	0.4	<0.05	0.2	5.38	21.1	<0.02	<1	1.7	17.4	<10	<2
EAST WALLROCK	Rock			0.05	0.06	<0.1	2.6	<0.05	2.8	5.48	4.0	0.21	12	<0.1	<0.1	<10	<2
CLIFF FACE RIDGE-3	Rock			<0.02	0.13	83.0	0.4	<0.05	0.2	4.98	18.1	<0.02	<1	0.9	18.5	<10	<2
WEST ADIT WALLROCK-2	Rock			0.06	0.36	2.6	0.3	<0.05	1.1	4.73	9.0	<0.02	14	0.5	2.7	<10	<2
WEST ADIT	Rock			0.07	0.09	0.6	1.8	<0.05	2.8	3.78	19.4	0.18	<1	<0.1	<0.1	<10	<2
WEST ADIT	Rock			0.03	0.13	0.1	10.6	<0.05	2.4	6.44	19.4	0.73	<1	<0.1	<0.1	<10	<2
LOWER CLIFF	Rock			0.04	0.35	15.3	0.3	<0.05	0.8	3.35	7.1	<0.02	<1	0.4	14.7	<10	<2
SHEAR ZONE CLIFF FACE	Rock			<0.02	0.35	40.1	0.3	<0.05	0.3	3.24	11.0	<0.02	<1	0.7	17.5	<10	<2
CLIFF FACE LOWER	Rock			0.02	0.14	52.4	0.3	<0.05	0.6	14.02	15.5	0.02	7	1.0	27.0	<10	2

111

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.





Acme Analytical Laboratories (Vancouver) Ltd.

1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: Innovative Energy Inc.  
21664 Monohan Court  
Langley BC V3A 8N1 Canada

Project: Copper Ridge  
Report Date: December 09, 2010

Page: 2 of 2 Part 2

CERTIFICATE OF ANALYSIS

VAN10006097.1

Method		1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	
Analyte		P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga	Cs	Ge
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm
MDL		0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1
EAST ADIT-1 SAMPLE-15	Rock	0.066	5.4	7.9	0.02	1.8	0.011	2	0.88	0.002	<0.01	0.4	3.4	<0.02	0.09	6	1.2	0.15	5.4	0.06	0.5
EAST ADIT-1A	Rock	0.012	0.7	3.3	<0.01	1.0	0.002	<1	0.03	0.001	<0.01	0.4	1.7	<0.02	>10	6	>100	1.77	0.4	0.02	0.5
EAST ADIT SAMPLE-4	Rock	0.132	4.4	41.6	0.79	14.8	0.095	1	2.59	0.136	0.74	0.7	2.7	0.27	7.27	5	42.7	1.45	8.7	5.33	0.5
EAST ADIT -7	Rock	0.085	8.2	4.7	0.02	1.9	0.007	<1	0.52	0.004	<0.01	0.4	1.5	<0.02	0.03	8	0.7	0.09	3.9	0.08	0.4
EAST ADIT SULPHUR-12	Rock	0.132	3.4	14.3	<0.01	<0.5	0.014	<1	0.16	0.002	<0.01	0.2	0.7	<0.02	9.50	7	75.0	2.40	2.2	<0.02	0.7
2 SMALL ADDITS	Rock	0.103	3.3	6.8	0.05	1.1	0.060	<1	0.79	0.002	<0.01	0.1	0.8	<0.02	0.08	<5	0.3	0.04	2.6	0.04	<0.1
WALLROCK-10 2 SMALL	Rock	0.079	9.6	68.2	1.70	34.8	0.223	1	5.38	0.229	1.39	0.1	3.5	0.78	0.74	<5	0.2	0.06	13.0	6.66	<0.1
EAST WALLROCK	Rock	0.069	1.8	9.1	0.03	0.5	0.004	<1	0.07	<0.001	<0.01	3.9	0.6	<0.02	2.03	6	20.7	0.53	2.5	0.03	0.4
CLIFF FACE RIDGE-3	Rock	0.073	8.1	77.5	1.55	31.3	0.207	<1	3.99	0.216	1.38	<0.1	4.9	0.63	0.81	<5	0.4	0.08	12.1	4.76	<0.1
WEST ADIT WALLROCK-2	Rock	0.095	4.4	9.3	0.05	13.4	0.051	3	3.37	0.433	0.08	0.6	0.6	0.04	1.14	<5	6.0	0.12	7.0	0.42	<0.1
WEST ADIT	Rock	0.140	10.8	14.9	0.07	2.2	0.005	1	0.13	0.002	0.01	0.8	0.5	<0.02	0.04	<5	0.8	0.06	1.1	0.04	0.3
WEST ADIT	Rock	0.071	7.8	4.8	0.02	1.7	0.007	<1	0.51	0.002	<0.01	0.5	1.9	<0.02	<0.02	11	0.3	0.09	4.0	0.04	0.4
LOWER CLIFF	Rock	0.103	3.0	3.2	0.18	12.6	0.045	2	3.33	0.500	0.16	0.3	0.5	0.12	0.57	<5	2.3	0.11	6.2	1.10	<0.1
SHEAR ZONE CLIFF FACE	Rock	0.062	4.9	43.9	1.51	62.6	0.168	<1	3.34	0.178	0.69	<0.1	1.9	0.35	0.31	10	0.3	0.02	9.3	2.97	<0.1
CLIFF FACE LOWER	Rock	0.177	9.2	74.6	1.20	22.0	0.111	1	4.51	0.257	0.79	0.2	3.3	0.41	0.83	<5	5.6	0.05	11.3	4.09	0.1

N12

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.



Acme Analytical Laboratories (Vancouver) Ltd.  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Innovative Energy Inc.**  
 21664 Monohan Court  
 Langley BC V3A 8N1 Canada

Project: Copper Ridge  
 Report Date: December 09, 2010

Page: 2 of 2 Part 1

**CERTIFICATE OF ANALYSIS**

**VAN10006097.1**

Method	WGHT	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15	1F15
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	
EAST ADIT-1 SAMPLE-15	Rock	0.44	0.70	616.2	18.61	280.2	127	13.1	14.5	1014	11.98	2.2	4.5	3.2	0.6	19.2	4.20	0.03	0.10	40	15.93
EAST ADIT-1A	Rock	0.08	1.80	4940	7.45	89.6	1887	61.5	698.5	211	29.83	14.6	3.6	0.3	0.2	1.7	0.99	0.03	0.73	6	1.21
EAST ADIT SAMPLE-4	Rock	0.34	17.26	1360	4.20	31.1	439	84.5	208.8	359	14.95	0.7	1.8	7.2	1.3	33.7	0.12	0.03	0.78	43	2.55
EAST ADIT -7	Rock	0.10	0.36	762.7	29.35	277.7	88	18.6	24.7	915	10.37	1.7	6.0	1.0	0.7	15.1	1.54	<0.02	0.07	31	14.13
EAST ADIT SULPHUR-12	Rock	0.75	97.25	1512	4.06	10.1	473	140.5	199.2	211	23.07	0.5	2.5	8.3	0.8	2.9	0.12	<0.02	1.17	23	1.86
2 SMALL ADDITS	Rock	0.34	0.61	26.65	1.29	417.0	10	4.8	3.9	161	0.92	0.3	1.8	1.0	0.7	65.0	1.86	0.03	0.12	11	1.66
WALLROCK-10 2 SMALL	Rock	0.24	0.70	16.90	5.05	55.7	41	38.5	14.2	267	3.65	0.2	0.5	0.4	4.8	81.4	0.02	<0.02	0.22	52	2.16
EAST WALLROCK	Rock	0.73	2.30	2414	22.70	22.4	888	34.6	12.2	578	15.25	3.8	2.7	3.9	0.2	1.8	0.17	0.03	0.41	13	8.86
CLIFF FACE RIDGE-3	Rock	0.32	0.85	18.71	3.87	56.3	57	33.1	11.5	267	3.81	0.2	0.4	0.6	4.2	47.1	<0.01	0.02	0.18	65	1.38
WEST ADIT WALLROCK-2	Rock	0.23	3.95	181.1	7.95	22.4	304	34.5	9.7	37	2.43	2.1	1.5	13.1	1.4	220.6	0.20	0.11	0.25	9	2.31
WEST ADIT	Rock	0.78	0.11	397.1	5.44	159.6	42	12.6	8.9	916	2.93	4.9	8.2	0.7	1.1	26.2	1.41	0.04	0.04	16	15.66
WEST ADIT	Rock	0.16	0.29	578.1	28.27	367.9	62	16.1	15.7	930	10.40	1.7	5.7	0.7	0.6	23.5	1.94	<0.02	0.06	31	15.77
LOWER CLIFF	Rock	0.12	2.05	76.20	13.42	30.3	274	1.8	6.3	71	1.93	1.1	0.5	3.7	2.1	184.7	0.35	0.41	0.17	13	2.16
SHEAR ZONE CLIFF FACE	Rock	0.36	1.91	84.31	3.38	83.1	346	17.5	9.0	473	3.99	0.5	0.3	0.6	2.1	48.9	0.09	<0.02	0.09	56	1.02
CLIFF FACE LOWER	Rock	0.41	1.41	54.01	5.32	119.5	132	102.6	9.9	149	2.47	<0.1	3.0	1.1	3.3	98.6	0.31	0.10	0.30	46	2.66

N13

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.



1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Client: Innovative Energy Inc.
21664 Monohan Court
Langley BC V3A 8N1 Canada

Submitted By: Harold Oppelt
Receiving Lab: Canada-Vancouver
Received: November 10, 2010
Report Date: December 09, 2010
Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN10006097.1

CLIENT JOB INFORMATION

Project: Copper Ridge
Shipment ID:
P.O. Number
Number of Samples: 15

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Table with 7 columns: Method Code, Number of Samples, Code Description, Test Wgt (g), Report Status, Lab. Row 1: R200-250, 15, Crush, split and pulverize 250 g rock to 200 mesh, 15, Completed, VAN. Row 2: 1F05, 15, 1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis, 15, Completed, VAN.

SAMPLE DISPOSAL

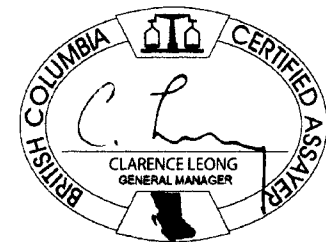
STOR-PLP Store After 90 days invoice for Storage
DISP-RJT Dispose of Reject After 90 days

ADDITIONAL COMMENTS

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

Invoice To: Innovative Energy Inc.
21664 Monohan Court
Langley BC V3A 8N1
Canada

CC:



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

Handwritten number 114

Appendix O

Fig 3. Shows the Location

Of old Sherpa claim(western Boundry)  
Contact zone of the Bayonne Batholith,  
And the Mine stock.

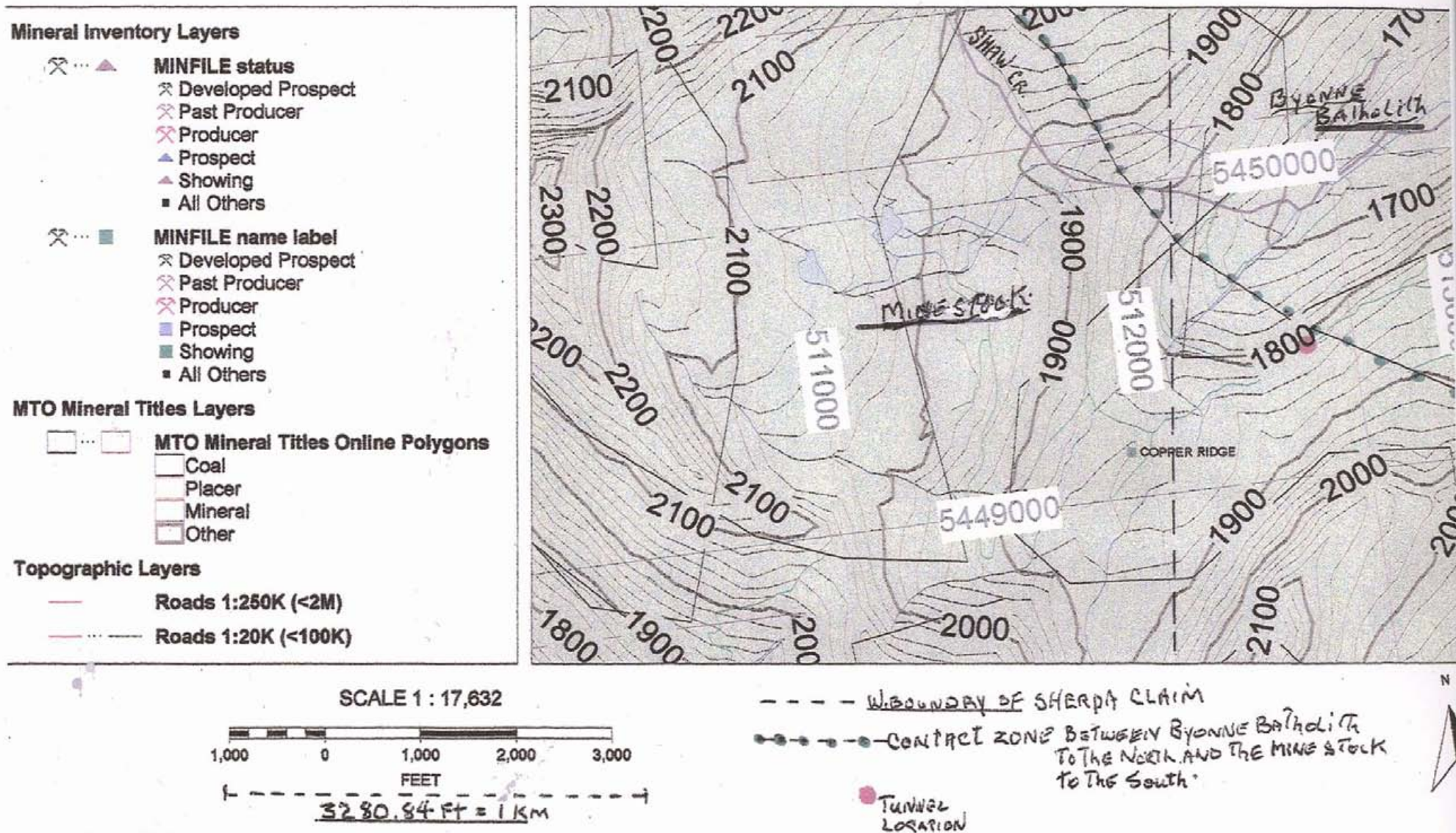
Shows elevation of 1800 m

Shows probable tunnel location.

Shows location of Copper ridge min-File location

Shows UTM Locations

# BCGS Geology



**Appendix P**

**General Features of a favourable  
Prospecting area for location of  
Copper ridge lost mine tunnel**

## **Appendice P.**

**Area that will indicate the presence of the long lost mine tunnel of the copper ridge showing.**

**General features of a favourable prospecting Area;**

**I have found that most gold –quartz veins in the south western and south eastern parts of the province of British Columbia are found either in or close to batholiths or stocks of Granite rocks. This Common association of gold quartz veins and intrusive rocks supports the theory that the gold bearing solutions, from which the vein- matter was deposited, originated in the intrusive rocks or in related sources deep within the earths crust.**

**This may be hard to prove, but the writer has found in some places granitic rocks close to quartz veins have been proven to be the actual sources of the vein solutions, a source much deeper within the crust is generally accepted as more probable. Case in point The lucky Jim mine in the south western part of the province has demonstrated just such an event where the vein structure almost simulates this close relationship.**

**It does not follow that all gold- bearing deposits occur in or near all small granitic batholiths or stocks, but the presence of such intrusives indicates that conditions may have been favourable for the production of vein solutions.. Therefore, search should be made in and close to such intrusives for “for Colours” or any float surrounding rock types that favour the development of**

**breaks in which vein matter could have been deposited from the solutions.**

**Breaks, either fractures or shear-zones, which may follow or may, tend to form where rock types of different competency or physical characteristics are found.**

**This particular feature is demonstrated quite clearly at the contact zone between the batholith and mine stock contact zone, where the presence of blue schist facies exist, the breaks may follow or may cross the contacts of the different rock-types.**

**The nature of a break which crosses a contact may differ in the different rock types; it may be a wide shear-zone in a weak rock such as schist or schistose greenstone, and a narrow shear in a stronger rock such as a granite. A closer inspection of the copper ridge contact zone of the mine stock and batholith is warranted to prove this theory.**

**It is known that of different physical characteristics are common in these types of contact areas of batholiths, both within and on the outer side of a contact. On the batholith or innorside of the contact, older rocks may be found as inclusions or pendants in the batholith, giving a physical contrast in rock types. On the outward from the contact and away from the batholith, stocks and dykes cutting the older rocks may give the contrasts in The physical characteristics of rocks necessary for the formation of good breaks along the copper ridge contact zone.**

**The presence of this favourable zone along the break could be wider on the outer than on the batholith**



side of the batholith side of the contact, in general a batholith contact usually dips outwards towards the older rocks, and therefore a one-ness assemblage of rock -types tend to extend a greater distance from the contact into the older rocks than into the batholith. Again this experience has been quite evident in the Lucky Jim deposit that I have noted on quadra island where sometimes the full length of any contact- zone may not be a productive area.

This will have to be established from inspection of the tunnel and surface workings on the copper ridge property. It may be concentrated in several areas or it may be continuous along the contact- zone.

The favourable area of a more concentrated productive zone would be along the curvature of the contact zone and less likely to continue in an economic deposit further along the straight part of the contact zone. In support of a more continuous productive zone the min- file description indicates the showings indicate up to a 100 meters wide and a tracing of mineralized zone for a Km from the Copper ridge, Copper peak and the Lost mine connection it could eventually disclose a very economic mineral deposit. Certainly the mention of mineralization that is supposed to indicate 4% cu, and 8.6 grams of gold throughout the full length of the tunnel makes for a very interesting and economic deposit. However a closer inspection is warranted to prove the extension of the line of strike along the contact -zone.

**Geologist s Report  
2010 – Copper ridge  
Katie Cells**

**Property Examination on the Copper Ridge Property**

**KATIE CLAIMS**

Nelson Mining District, British Columbia

NTS MAP 082F02W (NAD 83)

Latitude : 49° 11' 42" N      Longitude : 116° 50' 10" W

Prepared by: H.P. Oppelt P.Geol



Prepared for:

Innovative Energy Inc.

21664 Monahan Court

Langley, BC, V3A 8N1

## **Introduction**

An examination of the Copper Ridge Property in the Shaw Creek area of southeast British Columbia was undertaken during the July and August of 2010. The property examination was primarily conducted to locate the previous workings as well as to define the geologic setting of the claims. The field investigations for the calendar year 2010 were comprised of a general examination of the claims blocks, sampling of host rocks and stream sediments, and mapping of outcrops and structural features.

The Katie Mineral Claims are located approximately 30 kilometers northwest of the Town of Creston, British Columbia. The Katie Claims Block were originally obtained in 2006 to investigate and locate the prospect known as the Copper Ridge/ Lost Mine showing as described in MINFILE Report 82FSE048. The majority of the time spent on the claims was within the area of the headwaters of Shaw Creek.

## **Regional Geology**

The property is located within the Omineca Geologic Belt within the Creston Map area (82F/02). The Omineca Belt is an uplifted zone of metamorphosed and deformed Proterozoic to Tertiary aged rocks that straddles the boundary between accreted terranes and the ancestral North America craton. Tectonism in the area was accompanied by intrusion of granitic bodies during the Mesozoic era which was accompanied by a variety of structurally controlled vein deposits. In early Tertiary time, it is believed that regional extension created uplift and the formation of low angle normal faults. This period of extension was associated with local vein and shear hosted skarn mineralization.

The Katie property is dominated by a suite of mid Jurassic/Cretaceous Nelson intrusions. The Katie Claims occur primarily within the middle Jurassic aged Mine Stock intrusives of associated with the Kootenay Terrane in southeastern British Columbia. The Mine Stock consists of medium to porphyritic amphibole biotite calcic granodiorites.

Most of the historical production and previous exploration in the Nelson District has been directed at gold or copper-gold/silver mineralization. The Mine Stock is known to host the historic Bayonne gold and silver mine. Mineral occurrences in this particular area are thought to occur as epithermal vein deposits dominated by quartz and calcite deposition within faulted structural features. Cu-Au-Ag deposits have been encountered in these geologic settings in other showings such as Summit Bell where Ag-Au values of 33g/t have been tested from northeast striking quartz-pyrite bearing shear zone.

### **Historical Information**

The Katie Claim block were obtained originally in 2005 to investigate and locate the mineralization that was reported in the MINFILE number 082FSE048 known as the Lost Mine/Copper Ridge showing. The Copper Ridge showing was originally reported in a Minister of Mines Annual Report for 1902 which described a significant copper and gold deposit at the headwaters of Shaw Creek near Creston, BC. The report described the occurrence as a quartz-calcite vein with assays of 8.6 g/t and up to 4% copper. The report also claimed that a 75 meter tunnel was reportedly driven into the mineralization. No further information was available until 1982, when Brinco staked the Sherpa Claim in the area. Brinco reported geochemical analysis of stream samples were uniformly low and mapping did not discover any mineralization of importance nor did they confirm the location of the tunnel. The claims were subsequently dropped by Brinco.

### **Property Geology and Mineralization**

Outcrops are generally confined to the ridges that form the two cirques within the claim block boundary. At lower elevations outcrops are generally sparse due to forest cover and swamps. From reconnaissance mapping in the area, the Katie Claim Blocks are underlain by granodiorites of the mid-Jurassic Mine Stock as well as Cretaceous Shaw Creek Pluton of the Bayonne Batholith towards the eastern boundary of the claim block. The Mine Stock is composed of granodiorites and quartz monzonites. The granodiorites observed were generally a white to light grey colored mixture of medium-grained plagioclase, quartz, biotite and hornblende. The quartz monzonites are medium grained quartz, biotite with large phenocrysts of plagioclase feldspar often cut by muscovite bearing pegmatite dykes in which the mica can be found in abundance in the creeks that form the headwaters of Shaw Creek.

The granodiorites, though, generally have a salt and pepper appearance. Evidence of any structural grain is faint and unreliable in the granodiorite stock. The composition of the granodiorite does vary over the property possibly due to the assimilation of Proterozoic country rocks. Several roof pendants and xenoliths country rock were noted in the granodiorite of the Mine Stock. The inclusions consisted of gneisses and quartz mica schists. These are assumed to belong to the Proterozoic Windermere or Purcell Supergroups.

There is an obvious change in lithology towards the eastern boundary of the claim area where light grey granodiorites containing few xenoliths of the Mine Stock gradationally

changes to granites and granodiorites with abundant xenoliths. The contact of the two intrusive units, although within the property boundary, was not located due to cover.

The majority of the reconnaissance work, sampling and mapping were conducted on the Katie and Katie3 Claims, Tenure numbers 501319 and 501599. A series of traverses were conducted along the ridge line and along the lower slopes of the northern most cirque. The ridgeline of the cirque provides continuous exposures of the granodiorites of the Mine Stock intrusive. The lower slopes of the cirque, however, are covered by a significant amount of talus or boulder fields of granodiorite host rock.

A series of workings were encountered along the lower slope of the south wall of the cirque. The old workings consist of two small adits and one open cut trench that were driven into vein material associated with a shear or fracture zone (Photo 1). The two adits were located at  $49^{\circ} 12' 30''$ N and  $116^{\circ} 50' 06''$  W at an elevation 2024m. Each adit is only 3 to 4m in length, but both are collapsed so the actual original mined length is unknown. The most easterly tunnel had a bearing of  $150^{\circ}$  for the first 1 to 2m and then changed direction to approximately  $200^{\circ}$  towards the western adit. The western adit had a length of approximately 2m at a bearing of  $125^{\circ}$ . Both tunnels appear to have further depth past the point of collapse. The date of excavation of the workings is unknown but assumed to have been constructed in the early 1900's as no other work was recorded on this property.

The fracture zone is heavily skarned, fractured and oxidized with abundant iron oxide staining. The fracture zone is potentially associated with a low angle fault that is visible in the southern cliff face of the cirque. The vein material is composed of both quartz and calcite, both heavily oxidized. A photo of the orange red heavily oxidized dump material outside of the one of the two adits is provided (Photo #2). Mineralization consisted of disseminated to massive sulfides that were fracture controlled. The sulfides were predominately pyrite and pyrrhotite occurring as disseminated along fracture lines but also as massive pods of mineralization (Photo #3). Chalcopyrite and malachite staining was observed along some of the fracture lines along the hangingwall of the adit as well as in rocks within the dump material (Photo#4). The strike of the fracture is generally southeast  $145^{\circ}$  and dipping eastwards. The fracture zone is approximately 20 to 30m thick where it outcrops at the adits.



Photo #1: Epithermal-type quartz veins are seen cross-cutting skarn alteration in the two small adit locations



Photo #2: Oxidized dump material outside of small adits.



Photo #3: Massive sulfide mineralization composed of pyrite, pyrrhotite and chalcopyrite are seen inside east adit hangingwall.



Photo #4: Malachite staining on float outside of small west adit.



Towards the south end of the cirque, along the cliff face is an exposure or what appears to be a continuation of the shear zone observed at the the adit site (Photo #5). The cliff exposure is comprised of massive quartz-calcite matrix distorted by fracturing. The face of the exposure is well oxidized, but no sulfide mineralization appears to be present. A low angle fault that is dipping eastwards displaces the hangingwall eastwards. The low-angle faults have not only displaced mineralization, but in places it is probable that the faults control mineralization.



Photo #5: Cliff face on southern end of north cirque. Fracture zone heavily oxidized with quartz and calcite veining. Note low angle fault with drag displacing vein material.

### **Conclusions and Recommendations**

Two short adits believed to dated from the early 1900's were discovered on the Katie Claims, but the extensive workings consisting of a 75m adit within a chalcopyrite-gold bearing vein as described in the MINFILE report were not yet located. Sulfide mineralization dominated by pyrite and pyrrhotite were observed along with minor showings of chalcopyrite and malachite. The mineralization occurs within a fracture zone that is traceable for several hundred meters across the property into the south cliff face of the cirque where it is evident that the vein is displaced by a low angle normal fault.

The property warrants further investigation to locate the old workings as the property hosts a number of creeks that display rusty colored iron oxides which may point to an area of significant vein mineralization.

## Statement of Qualifications

I, Harold P. Oppelt, certify that:

1. I am a graduate of the University of British Columbia in Geology ( BSc 1982). I also have a Master of Science, Geology from the University of Alberta (MSc, 1988).
2. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
3. This report is based on field work carried out between June 15<sup>th</sup>, 2010 to August 15<sup>th</sup>, 2010 on the Katie Group of Claims. The work was supervised by myself.
4. I do not have an interest in the claims.

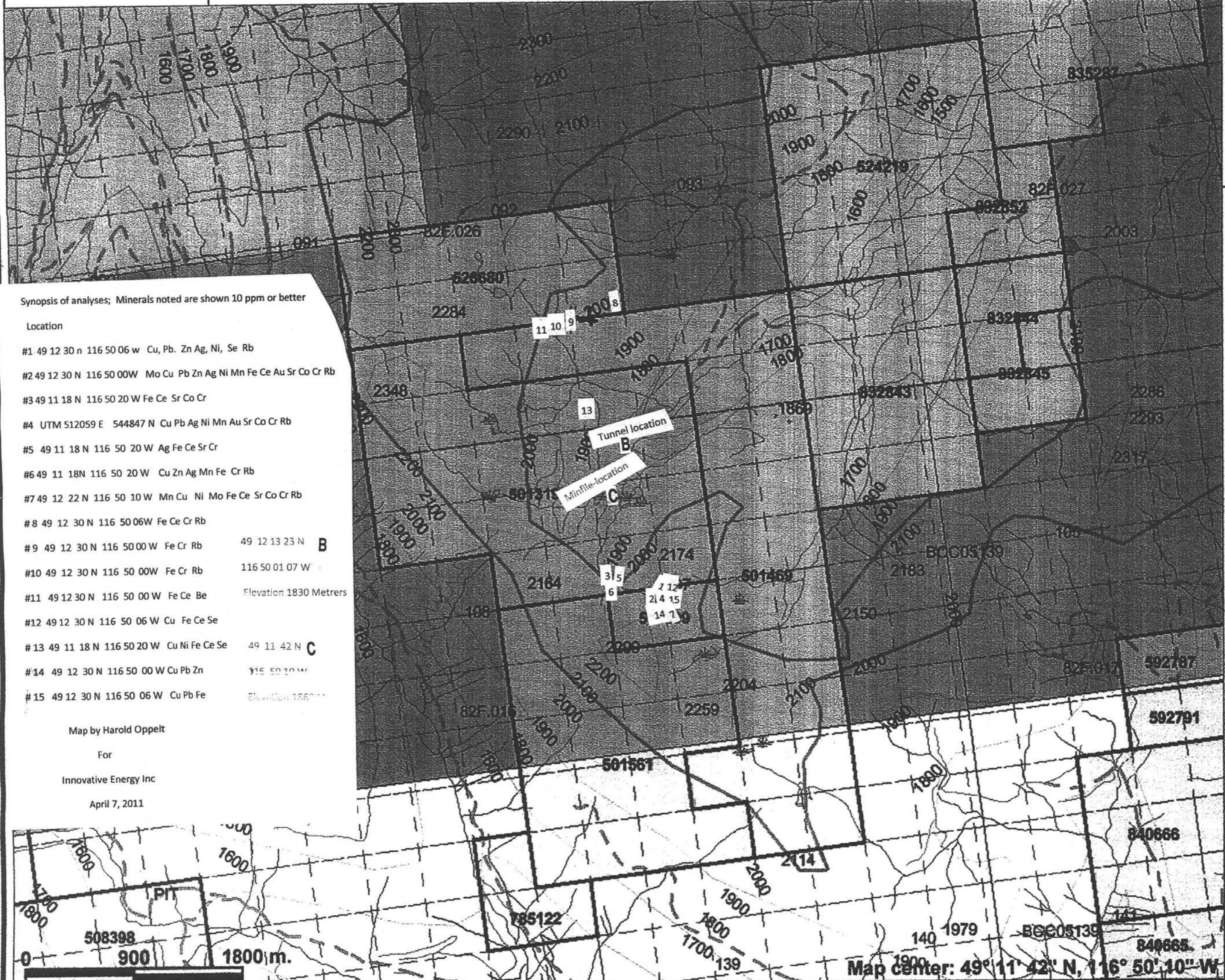
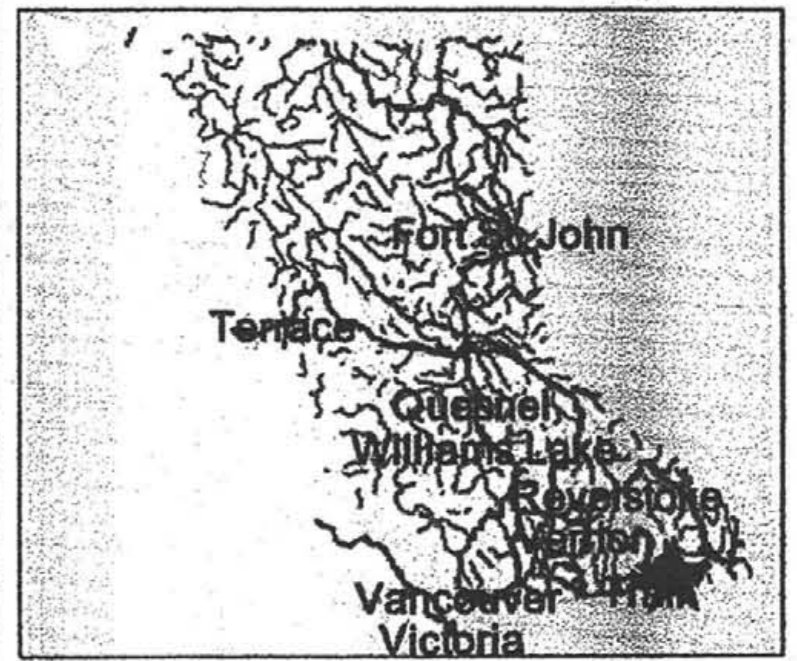


Harold Oppelt, P.Geol (AB)

December 11, 2010

Calgary, Alberta

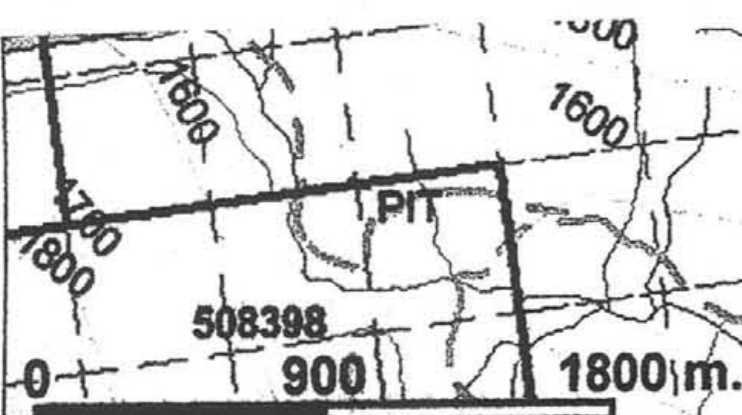
# copper ridge



Synopsis of analyses; Minerals noted are shown 10 ppm or better

Location	Minerals
#1 49 12 30 n 116 50 06 w	Cu, Pb, Zn, Ag, Ni, Se, Rb
#2 49 12 30 N 116 50 00W	Mo, Cu, Pb, Zn, Ag, Ni, Mn, Fe, Ce, Au, Sr, Co, Cr, Rb
#3 49 11 18 N 116 50 20 W	Fe, Ce, Sr, Co, Cr
#4 UTM 512059 E 544847 N	Cu, Pb, Ag, Ni, Mn, Au, Sr, Co, Cr, Rb
#5 49 11 18 N 116 50 20 W	Ag, Fe, Ce, Sr, Cr
#6 49 11 18 N 116 50 20 W	Cu, Zn, Ag, Mn, Fe, Cr, Rb
#7 49 12 22 N 116 50 10 W	Mn, Cu, Ni, Mo, Fe, Ce, Sr, Co, Cr, Rb
#8 49 12 30 N 116 50 06 W	Fe, Ce, Cr, Rb
#9 49 12 30 N 116 50 00 W	Fe, Cr, Rb
#10 49 12 30 N 116 50 00 W	Fe, Cr, Rb
#11 49 12 30 N 116 50 00 W	Fe, Ce, Be
#12 49 12 30 N 116 50 06 W	Cu, Fe, Ce, Se
#13 49 11 18 N 116 50 20 W	Cu, Ni, Fe, Ce, Se
#14 49 12 30 N 116 50 00 W	Cu, Pb, Zn
#15 49 12 30 N 116 50 06 W	Cu, Pb, Fe

Map by Harold Oppelt  
For  
Innovative Energy Inc  
April 7, 2011



Map center: 49° 11' 42" N, 116° 50' 10" W

## Legend

- Indian Reserves
- National Parks
- Conservancy Areas
- Parks
- MTO Grid (MTO)
- Blocked by MEM
- Other
- Mineral Tenure (current)
- Mineral Claim
- Mineral Lease
- Mineral Reserves (current)
- Placer Claim Designation
- Placer Lease Designation
- No Staking Reserve
- Conditional Reserve
- Release Required Reserve
- Surface Restriction
- Recreation Area
- Others
- Survey Parcels
- BCGS Grid
- Contours (1:250K)
- Contour - Index
- Contour - Intermediate
- Area of Exclusion
- Area of Indefinite Contours
- Transportation - Points (TRIM)
- Helipad
- Transportation - Lines (TRIM)
- Airfield
- Airport
- Airstrip



Scale: 1:50,082

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.