ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT:
2013 PROSPECTING, GEOLOGICAL, GEOPHYSICAL AND PHYSICAL WORK.

TOTAL COST: $ 39,377.26

AUTHOR(S): **David J. Piggin, RPF, Prospector**

SIGNATURE(S): David J. Piggin, RPF(owner) David J Piggin, RPF

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):
EVENT 5495274 dated March 18, 2014: March 28, 2013 to March 17, 2014

YEAR OF WORK: **2013** (March 28, 2013 to March 17, 2014).

PROPERTY NAME: **BARRIERE RIDGE**
CLAIM NAME(S) (on which work was done): 20 Individual Claims – 8,307.9800 hectares

20 claims - 8,307.9800 hectares: 744542, 744562, 744582, 744602, 759003, 767042, 767062, 767102, 767123, 840411, 840413, 840415, 840417, 840418, 844642, 844643, 844644, 844645, 844646, and 844647.
Save and except DL4023 WHITE ROCK MC (18.09 ha) a Crown Granted mineral claim.

COMMODITIES SOUGHT: **Gold, Silver, Copper, Lead, Zinc**

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN:
MINFILE 082M 066 WHITE ROCK (with DL4043 KDYD WHITE ROCK MC);
MINFILE 082M 069 SILVER MINNOW (aka SILVER MINERAL)
MINFILE 082M 222 CAD

MINING DIVISION: **KAMLOOPS**

LATITUDE: **51 deg 18' 6.92" N;**
LONGITUDE: **119 deg 53' 56.48"** " (at centre of work)
UTM Zone: **11** EASTING: **297918.5** NORTHING: **5687392.2**
MAP SHEETS: **082M021; 082M031**

OPERATOR(S) [who paid for the work]:
David J. Piggin, RPF, Prospector: 5-2363 DeMamiel Drive, Sooke, British Columbia, V9Z 1K3, Cell: (250) 319-3191

OWNER [property optioned from]:
David J. Piggin, RPF, Prospector: 5-2363 DeMamiel Drive, Sooke, British Columbia, V9Z 1K3, Cell: (250) 319-3191

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)

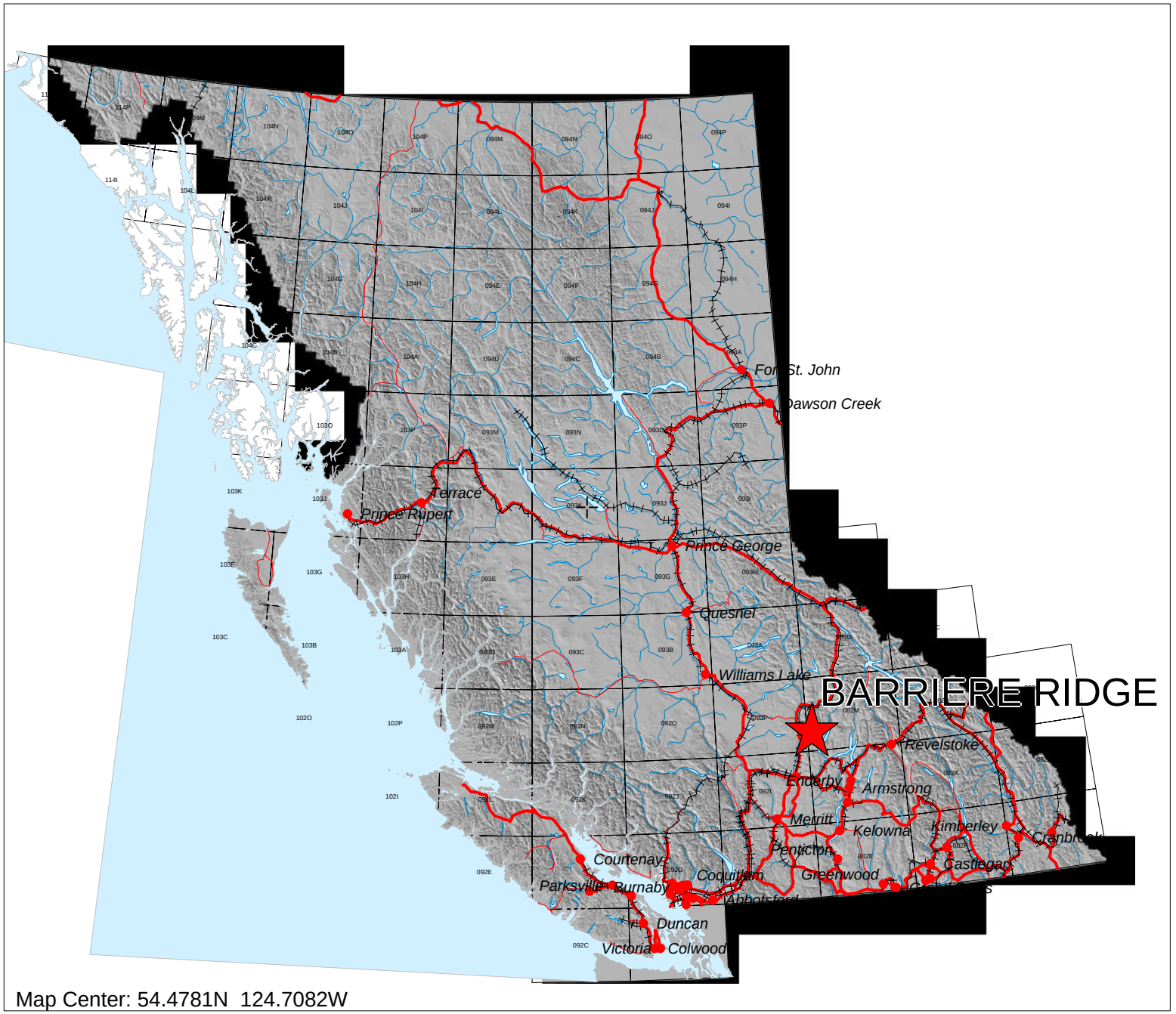
Baldy Batholith; Granite Intrusion; Mid-Cretaceous Intrusion; Iron Carbonate Alteration; Eagle Bay Assemblege, Devono-Mississippian; Metasediments; Volcanogenic Massive Sulfides; Devonian Orthogneiss; paragneiss; sericite alteration; Intrusive gold; copper in paragneiss; Limestone; Tshinakin Limstone; chlorite schist, Silver in Limestone; Silver in quartz veins; Silver Lead in limestone; Silver Lead in quartz limestone

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

03350, 05363, 08210, 12847A, 12847B, 13168, 13207, 13297, 13793, 14123, 14397, 18489, 19047, 19173, 19851, 22956, 32383, 33190, and 33744.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			$ 4,000.00
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for …)			
Soil	**12**		$ 645.17
Silt			
Rock	**9**		$ 523.42
Other (STREAM)	MOSS MAT 1		$ 79.52
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			$ 9,000.00
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)	**8,307.98 hectares**		$ 19,669.50
PREPARATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other	Literature General Research, database compilation, First Nations, BCTS, etc		$ 5,459.65
		TOTAL COST	$ 39,377.26

BARRIERE RIDGE



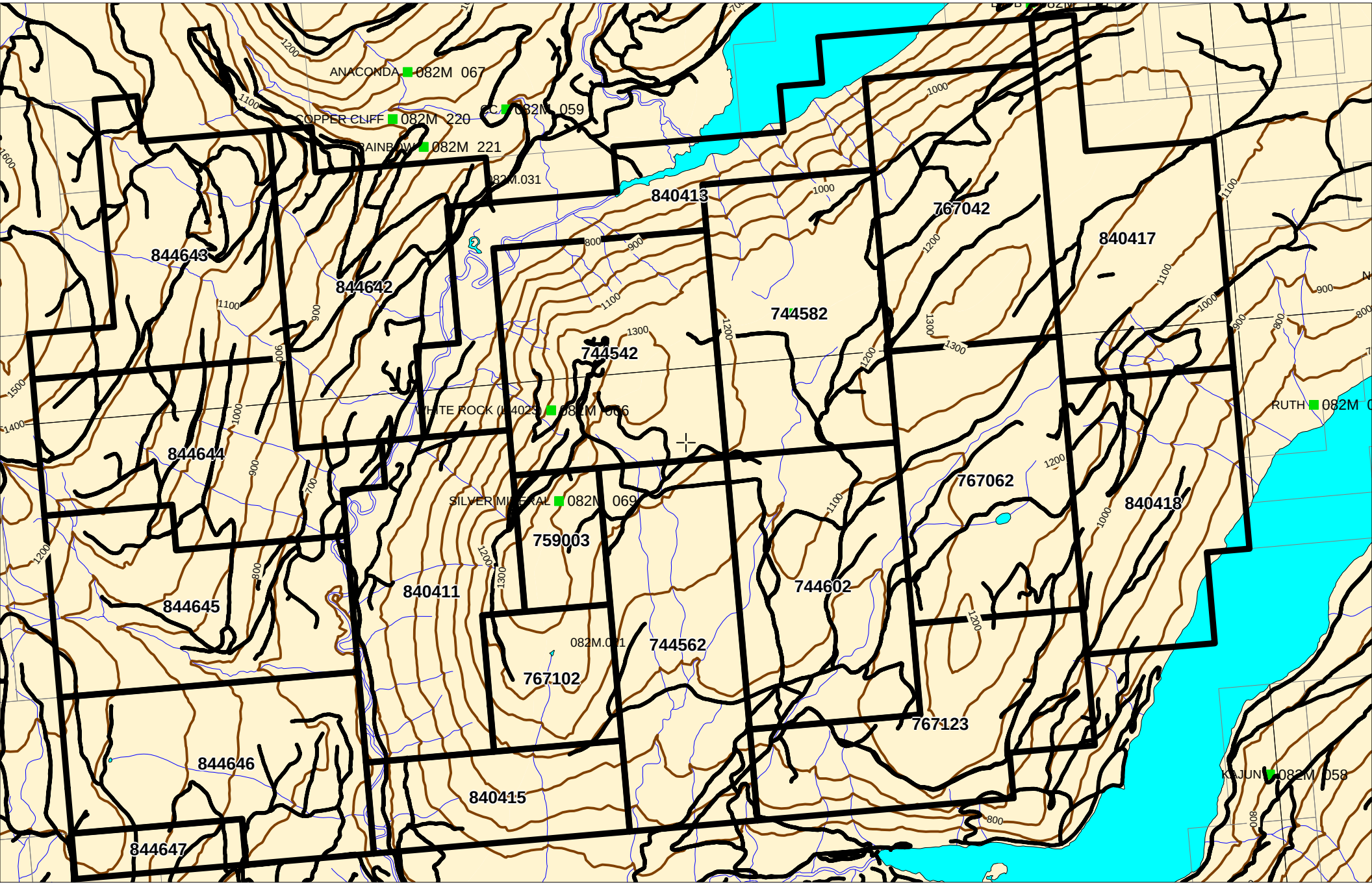
SCALE 1 : 8,677,682

100 0 100 200 300

MILES

N

BARRIERE RIDGE: OVERVIEW TENURES, ROADS, CONTOURS



BARRIERE RIDGE: Tenure List from MTOnline.

Tenure Number	Claim Name	Owner	Tenure Type	Map No	Issue Date	Good To Date	Status	Gross Area (ha)
744542 see note below	BLUFF1	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/apr/10	2015/may/12	GOOD	505.2364
744562	BLUFF2	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/apr/10	2015/may/12	GOOD	485.3074
744582	BLUFF3	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/apr/10	2015/may/12	GOOD	485.0088
744602	BLUFF4	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/apr/10	2015/may/12	GOOD	485.2667
759003	SILVER	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/apr/27	2015/may/12	GOOD	121.2995
767042	RIDGE5	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/may/04	2015/may/12	GOOD	484.9257
767062	RIDGE6	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/may/04	2015/may/12	GOOD	485.1844
767102	RIDGE7	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/may/04	2015/may/12	GOOD	181.9975
767123	RIDGE8	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/may/04	2015/may/12	GOOD	444.9574
840411	RIDGE9	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/dec/08	2015/may/12	GOOD	485.2319
840413	RIDGE10	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/dec/08	2015/may/12	GOOD	505.0888
840415	RIDGE11	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/dec/08	2015/may/12	GOOD	242.7164
840417	RIDGE12	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/dec/08	2015/may/12	GOOD	464.7640
840418	RIDGE13	David J. Piggin 140689 (100%)	Mineral Claim	082M	2010/dec/08	2015/may/12	GOOD	444.7881
844642	BIRK1	David J. Piggin 140689 (100%)	Mineral Claim	082M	2011/jan/27	2015/may/12	GOOD	484.9368
844643	BIRK2	David J. Piggin 140689 (100%)	Mineral Claim	082M	2011/jan/27	2015/may/12	GOOD	464.6854
844644	BIRK3	David J. Piggin 140689 (100%)	Mineral Claim	082M	2011/jan/27	2015/may/12	GOOD	485.0789
844645	BIRK4	David J. Piggin 140689 (100%)	Mineral Claim	082M	2011/jan/27	2015/may/12	GOOD	485.2230
844646	BIRK5	David J. Piggin 140689 (100%)	Mineral Claim	082M	2011/jan/27	2015/may/12	GOOD	485.3746
844647	BIRK6	David J. Piggin 140689 (100%)	Mineral Claim	082M	2011/jan/27	2015/may/12	GOOD	80.9083
							GROSS AREA: hectares	**8,307.9800**
							NET AREA: hectares	**8,289.8900**

NOTE: An 18.09 hectare Crown Granted mineral claim DL4023 KDYD WHITE ROCK MC, within Tenure 744542, is save and excepted from BARRIERE RIDGE; and held by George Robert Mitchell. MINFILE 082M066 WHITE ROCK is located within DL4023 KDYD WHITE ROCK MC.

2013 PROSPECTING, GEOLOGICAL, GEOCHEMICAL, AND PHYSICAL WORK

ASSESSMENT REPORT FOR BARRIERE RIDGE CLAIMS

David J. Piggin, R.P.F., Prospector and Owner

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA, CANADA.

20 claims - 8,307.98 hectares

Map Sheets: 082M021; 082M031
66 kilometres northeast of Kamloops, British Columbia, Canada.

Lat 51 deg 18' 6.92" N; and Long 119 deg 53' 56.48" W;
UTM NAD 83: Zone 11, Easterly 297918.5 Northerly 5687392.2.

West of East Barriere Lake; South of North Barriere Lake and Birk Creek;
within Russell Creek and Sprague Creek.

Event No.	Date	Tenure Numbers	Gross Area (hectares)	Total Value of Work($)	PAC Account ($)	Total Applied Work Value($)
5495274	March 18 2014	744542*, 744562, 744582, 744602, 759003, 767042, 767062, 767102, 767123, 840411, 840413, 840415, 840417, 840418, 844642, 844643, 844644, 844645, 844646, 844647. Note below:	8,307.9800	$ 27,564.27	$ 11,813.26	$ 39,377.26
		ASSESSMENT REPORT SUMMARY	8,307.9800 **hectares**	**$ 27,564.27**	**$ 11,813.26**	**$ 39,377.26**

***NOTE:** An 18.09 hectare Crown Granted mineral claim DL4023 KDYD WHITE ROCK MC (within Tenure 744542) is save and excepted from the BARRIERE RIDGE claims; and is held by George Robert Mitchell. MINFILE 082M066 WHITE ROCK is located within DL4023 KDYD WHITE ROCK MC.

PREPARED BY:
David J. Piggin, R.P.F.
PROSPECTOR, OWNER, Free Miner 140689,
5-2363 DeMamiel Drive, Sooke, British Columbia, V9Z 1K3

SUMMARY

Exploration work was completed by David J. Piggin from March 28, 2013 to March 17, 2014 on the BARRIERE RIDGE claims (EVENT 5495274). BARRIERE RIDGE is located between North Barriere Lake and East Barriere Lake 66 km northeast of the Kamloops, British Columbia, Canada. Mineralization was hosted in the Devono-Mississippian Eagle Bay Assemblege (EBGt – early Cambrian Tshinakin Limestone) within quartz veins, veinlets, stockwork and breccia rocks. The claims are within the Kootenay Terrain; and the Slide Mountain Terrains is situated right on the western boundary.

In the 1980's, parts of BARRIERE RIDGE were optioned by Noranda Inc, Minnova Inc, Cyprus Anvil Mining Corporation, Falconbridge Limited, and others. From 1984 - 1988, 20 diamond drill holes were completed for 2,195.98 metres. Best result was P4 BAR23: (sample 17807) Au 0.91 g/t, Ag 203 g/t, Cu 0.133 %, Pb 5.46 %, Zn 13.2 % (over 0.4 m).

In March 2, 2011 Astral Mining Corporation optioned the BARRIERE RIDGE claims. In February 2013, Astral was taken over by Orex Minerals Inc and on February 28, 2013, due to the industry wide lack of funding, Orex dropped their option on the BARRIERE RIDGE claims. DL4023 KDYD WHITE ROCK MC is save and excepted from the BARRIERE RIDGE claims.

PREVIOUSLY REPORTED ANOMALOUS RESULTS:

- **SILVERGAL Showing**: grab Ag 220 g/t, Pb 12.4 %; and Ag 172g/t, Cu 7470 ppm, Pb 795 ppm, Zn 3078 ppm;
- **MINFILE 082M 069 SILVER MINNOW** (historic 1925: Ag 927 g/t Au 0.69 g/t;
  10E41181 SMQCH7 Ag 171 ppm; Pb 14.4 percent; S 2.27 percent; Sb 198.5 ppm; Te 30.4 ppm; Zn 6490 ppm (1m).

2013 EXPLORATION: The following is a brief summary of the works completed and anomalous results:

- Total Applied Work Value $ 39,377.53 on 8,307.9800 hectares.
- A total of 22 samples (9 rock, 12 soil, 1 moss mat) were collected and assayed.
- The **SILVERBOY** showing was discovered (Tenure 744542) and is 420 metres north of the SILVER MINNOW adit. It was hosted within the Eagle Bay Assemblege (EBGt) in a limestone with quartz veins/veinlets/stockwork.
  10E41072 SM13R2 Ag 246 ppm; Bi 56.6 ppm; Cu 171.5 ppm; Cd 190 ppm; Pb 13.55 percent; Sb 237 ppm; Se 35 ppm; Sn 2 ppm; Te 29.3 ppm; Zn 5.34 percent.
  10E41071 SM13R1MALIC:
  Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent; Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm.
  This showing is close to the previously reported a mineralized Breccia Area: 10E41016 SM11R999: Au 29.2 ppb, Ag 50.4 ppm, Cu 1475 ppm, Pb 1275 ppm, Sb 533 ppm, Zn 2990 ppm.
- **Soil Anomalies:** Gold (multi-element) in soils was discovered 750 metres north of Sprague Creek in Tenure 644845.
  10E41059_SR13QT1: Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm;
  10E41061_SR13QT3: Au 9.8 ppb; As 24 ppm; Ni 71.1 ppm
  10E41060_SR13QT2: Au 7.3 ppb; As 30.3 ppm; Ba 220 ppm; Cu 61.5 ppm; Fe 4.45 %; Ni 91.3 ppm; Zn 107 ppm;
  The RGS stream sediment on Sprague Creek indicates the creek is anomalous for gold. A number of other gold in soil anomalies were observed. 10E41051 BR13T1: Au 6.5 ppb; Bi 0.44 ppm; Co 44 ppm; Cr 92 ppm; Cu 102.5 ppm; Fe 7.43 percent; Mg 1.34 percent; Mo 1.54 ppm; Ni 146.5 ppm; Pb 36.6 ppm; Zn 108 ppm; and 10E41053 BR13T3: Au 6.7 ppb; Ag 0.54 ppm; Bi 0.52 ppm; Co 34.9 ppm; Fe 4.88 percent; Ni 72.2 ppm; Pb 39.9 ppm; Zn 153 ppm.
  A number of preparatory and soil geochemical surveys were proposed for 2014 and 2015.
- Prospected recently logged areas and new roads for rock and soil anomalies; and outcrop exposures.
- Reviewed the two Fugro Airborne Geophyiscal Reports completed between 2011 and 2013.
- Updated and maintained a database; and started the UDIG software spatial database.
- Conducted literature and general research for publications related to the Eagle Bay Asemblege and Ag Pb Zn deposits.
- First Nations information letters/packages were completed/submitted in May 2013 and February 2014.
- BC Timber Sales: Proposed road closures were discussed in detail with BC Timber Sales representatives.

Recommended Exploration: Based on the 2011-2013 Fugro Airborne Geophysics Report(s); the high grade Ag Pb Zn SILVER MINNOW/SILVERGAL/SILVERBOY/ and Breccia Area showings; the Au Ag Cu Pb Sb Zn anomalies in soils; and the results of ARIS 32383, 33190, 33744; further exploration work is warranted. The highest priority targets are as follows:

- The Ag Pb Zn SILVER MINNOW/SILVERBOY/Breccia Area; and SILVERGAL; and related soil grids and anomalies.
- Field check airborne geophysical anomalies from the Fugro airborne geophysical reports; and related assay database.

Exploration should include prospecting and sourcing anomalies; rock and geochemical sampling, geological mapping; ground geophysics; ground truthing airborne geophysical anomalies/structures; trenching and drilling as well as First Nations consultation. A five year program of $1,000,000 is recommended, commencing in the summer of 2014 and 2015.

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- BARRIERE RIDGE ARIS MAP: OVERVIEW Roads, Contours, Boundary (1:50,000).
- BARRIERE RIDGE ARIS MAP: OVERVIEW Roads, Contours, Boundary (1:50,000) with Hillshade enhancement.
- BARRIERE RIDGE ARIS MAP: Detail Northeast Corner(1:50,000).
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C. BIOGEOCLIMATIC SUB-ZONES within the HONEYMOON and BARRIERE RIDGE claims on an Orthographic Map (scale 1:85,000).

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E. OVERVIEW GEOLOGY, AND MINFILE OCCURRENCES on an Orthographic Map. Geology is based on GeoFile 2005-4, Preto and Schiarizza 1982; and Open File 2000-7.

- BARRIERE RIDGE GEOLOGY MAP and MINFILE LOCATION - Overview (1:90,000).
- BARRIERE RIDGE GEOLOGY MAP AND MINFILE LOCATION - Overview (1:50,000).

F. OVERVIEW OF EXPLORATION AREA, AND PROSPECTING : Map of the general location of the exploration area where prospecting and preparatory grids were done. (1:50,000).

G. DETAILED LIST OF SAMPLES: Rock, Soil, and Moss Mat Samples including the Waypoint Name, GPS (UTM NAD83) Coordinates, Sample Tag No., etc. All within a spreadsheet.

H. DETAILED LIST OF INFRASTRUCTURE LOCATIONS FOR 2013 including GPS coordinates and description.

I. DETAILED MAPS (4 maps at 1:5,000) of Sample Locations by Tenure, and Anomalous Assay Results.

- Tenure 767042 Tenure 744452 Tenure 844642. Tenure 844645.

J. DETAILED LIST OF HISTORIC DRILLING FROM BARRIERE RIDGE CLAIMS: Spreadsheet showing Drill Site Name, ARIS Report, Company, and where available bearing, dip, length and grade, etc.

K. ALS MINERALS CANADA: ASSAY AND ANALYTICAL PROCEDURES.

L. ALS MINERALS CANADA: ASSAY CERTIFICATES FOR 2013.

KL13184930; KL13184931; KL13184932; KL13184933;
KL13184934; KL13199944; KL13199946; KL13199947;

I - INTRODUCTION:

The purpose of this report is to provide a summary of the exploration work completed by David J. Piggin and Orex Minerals Inc from March 28, 2013 to March 17, 2014 BARRIERE RIDGE claims. Total Applied Work Value $ 39,377.26 (including $ $ 11,813.26 from PAC). The Mineral Claim Exploration and Development Work/Expiry Date MTOnline documents were recorded under EVENTS 5495274.

There are 20 claims - 8,307.9800 hectares. A Mineral Tenures Online (MTOnline) map showing the assessment report area is given in APPENDIX A. The specific mineral titles included in this assessment report are as follows: 744542 (see next paragraph), 744562, 744582, 744602, 759003, 767042, 767062, 767102, 767123, 840411, 840413, 840415, 840417, 840418, 844642, 844643, 844644, 844645, 844646, and 844647.

An 18.09 hectare crown granted mineral claim DL4023 KDYD WHITE ROCK MC (situated within Tenure 744542) is save and excepted from BARRIERE RIDGE claims; and is believed to be held by George Robert Mitchell (Free Miner 141118). This crown granted mineral claim was granted on January 1, 1921. MINFILE 082M066 WHITE ROCK is located within DL4023 KDYD WHITE ROCK MC.

The BARRIERE RIDGE claims are located 66 km NE of Kamloops, B.C. The claims are situated along the west shore of East Barriere Lake; along the south shore of North Barriere Lake; south of Birk Creek; and within the mid to lower elevations of Sprague Creek. The onsite arterial access is via the Barriere Lakes Public Road (PR), Fir PR, Russell FSR, the Birk FSR, Sprague FSR, Barriere Ridge North FSR, and Barriere Ridge South FSR.

Assessment Report Information System (ARIS): The most recent ARIS reports are 32383, 33190, and 33744.

In the 1980's, various parts of BARRIERE RIDGE were optioned by Noranda Inc, Minnova Inc, Cyprus Anvil Mining Corporation, Falconbridge Limited, and others. Between 1984 - 1988, 20 diamond drill holes were completed for 2,195.98 metres. This drilling was summarized in a data table presented in Assessment Report (ARIS) 33744. In March 2, 2011 Astral Mining Corporation optioned the BARRIERE RIDGE claims. In February 2013, Astral was taken over by Orex Minerals Inc (Orex) of Vancouver, B. C. On February 28, 2013, due to the industry wide reduction in funding for junior mining companies, Orex dropped their option on the BARRIERE RIDGE claims.

The primary objectives of the 2013 exploration program were as follows:

(a) Prospect the MINFILE 082 069 SILVER MINNOW area to find new showings.
(b) Prospect the area just east of DL 4023 KDYD WHITE ROCK MC in the Breccia Area looking for new showings.
(c) Due to the termination of the option agreement, review all the ARIS reports, Airborne Geophysical Reports, maps and data to have a working knowledge of the major and minor anomalies.
(d) Confirm the published geological and geophysical mapping, and Regional (BSGS) Geochemical Survey results, in general terms. Where possible create a database.
(e) Complete Preparatory Grid for proposed ground geophysical survey and geochemical survey, on selected areas.
(f) Collect soil samples from proposed ground geophysical survey areas.
(g) Prospect for precious metals, map outcrop locations, sample and assay float rock, as well as outcrops.
(h) Locate the legal boundaries of the DL 4023 KDYD WHITE ROCK MC.
(i) Locate new MINFILE occurrences, historic drilling, and other historic workings.
(j) Report assay results from moss mats, stream sediments, float rock, channel samples and outcrops.
(k) Prospect, collect, and report new data using grassroots and hand exploration techniques.
(l) Propose new explorations works for the 2014 and beyond.
(m) Contact, listen, liaise, and communicate with First Nations representatives.
(n) Meet with local logging companies concerning road access and maps.

A. LOCATION, ACCESS, INFRASTRUCTURE, FACILITIES:

The City of Kamloops is located at the junction of the Trans Canada Highway (Hwy), Yellowhead Hwy (No. 5), Coquihalla Hwy, and Highway 97 which is the confluence of the South Thompson and North Thompson Rivers. The Village of Barriere is located 80 km north of Kamloops on the Yellowhead Hwy and is the nearest community to BARRIERE RIDGE claims. (See the ILLUSTRATION below and maps in APPENDIX).

ILLUSTRATION # 1: BARRIERE RIDGE Claims: Main Access Roads (not to scale).

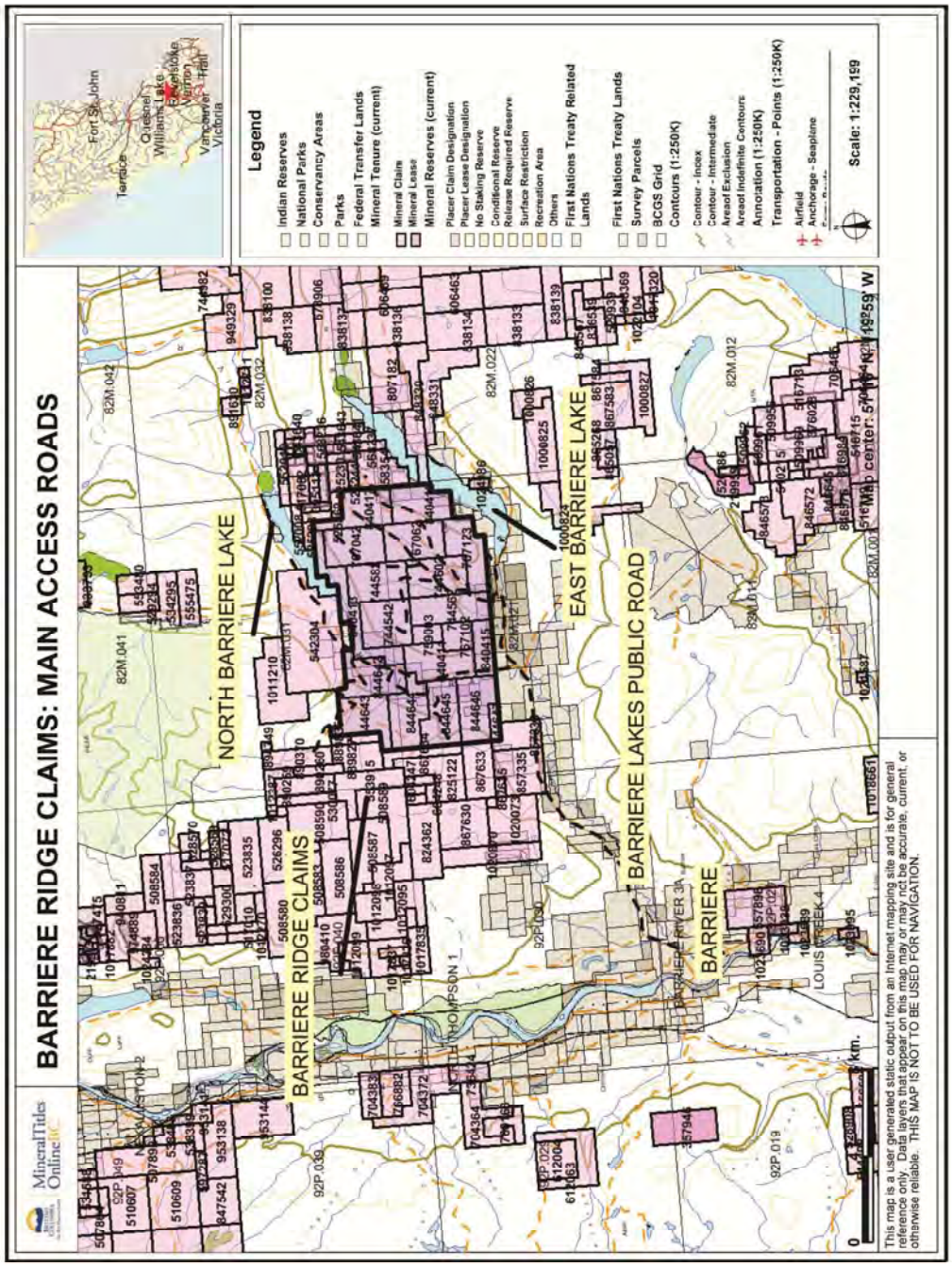
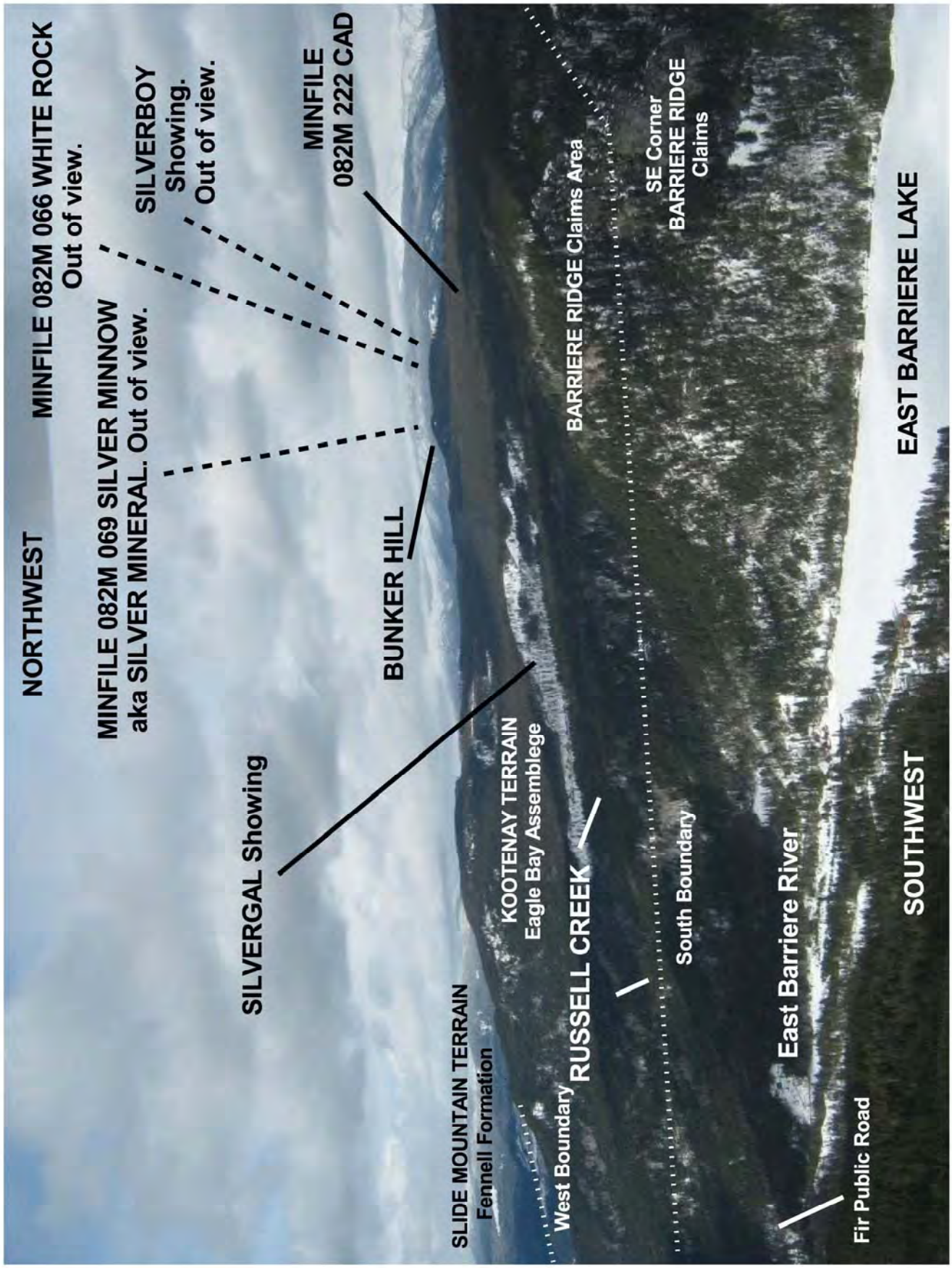


ILLUSTRATION # 2: Overview of BARRIERE RIDGE claims. Showing MINFILE Occurrances and claim boundary. Taken in a northwesterly direction from the SW end of East Barriere Lake.



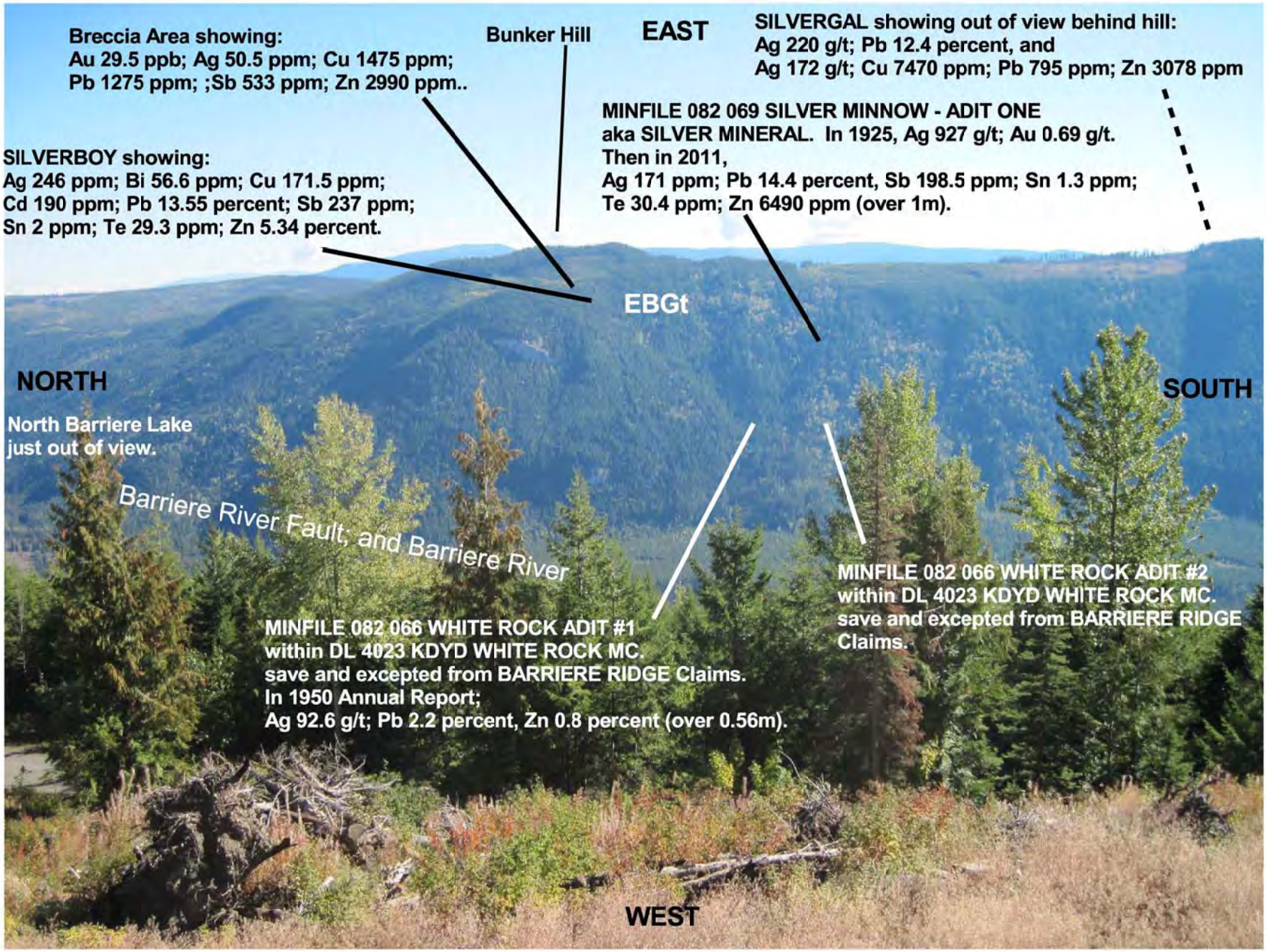


ILLUSTRATION # 3: Overview of BARRIERE RIDGE claims. Showing MINFILE Occurrances. Taken in an easterly direction.

There is one main access road is the Barriere Lakes Public Road (PR) and it is paved. The onsite access is via the Russell Forest Service Road (FSR), the Birk FSR, Sprague FSR, Barriere Ridge North FSR, and Barriere Ridge South FSR; as well as a number of related spur roads.

East Half of Claims:
Leaving Barriere travel east on the Barriere Lakes PR (paved) for 20 km (Zone 11 and 295678 E; 5681505 N); then continue straight onto the East Barriere Lake PR (gravel) for 3.5 km; and then turn left onto to Fir Road (Zone 11. 299226 E and 5681913 N). Within 100 metres you will encounter the Russell FSR #8534 at 0 km. The road radio frequency is FM 158.19.

West Half of Claims
Leaving Barriere travel east on the Barriere Lakes PR (paved) for 20 km (Zone 11 and 295678 E; 5681505 N); then turn left on the North Barriere Lake PR (gravel). Continue straight onto the North Barriere road (gravel) to

- 1 km North Barriere PR and turn right on the Barriere Ridge South FSR, or
- 4.0 km North Barriere PR and turn right on the Barriere Ridge North FSR, or
- 4.8 km North Barriere PR and turn left on the Sprague FSR #3410, or
- Estimate 7.0 km North Barriere PR and turn left on FSR 3400.18, or
- 8.0 km North Barriere PR and turn left on the Birk FSR at 8.0 km

B. PROPERTY STATUS:

The BARRIERE RIDGE claims are in good standing and are currently held by David J. Piggin (100 percent).

C. PHYSIOGRAPHY AND CLIMATE:

The property is located within the Shuswap Highlands Physiographic Area; and the Northern Wet-Belt Climatic Region and the North Wet-Belt Transition Climatic Region (Lloyd et al 1990). More specifically, they are within the Interior Cedar Hemlock (ICHmk2, ICHmw3) Biogeoclimatic Zone (BGCZ), the Engelmann Spruce Sub-Alpine Fir (ESSFdc2) BGCZ, Interior Douglas-fir (IDFmw2) BGCZ, and the Montane Spruce (MSdm2) BGCZ.

In general terms, the Interior Cedar Hemlock (ICH) climate is continental dominated by easterly moving air masses, resulting in cool, wet winters and warm, moderately dry summers. Snow fall is moderate to high. Frost occurrences during the summer are uncommon. For zonal soils:

a. The dominant soil type is a Humo-Ferric Podzol.
b. In moist subzones, Dystric Burunisols and Brunisolic Gray Luvisols
c. In wetter subzones, Ferro-Humic Podzols.
d. Litter depth 2 to 15 cm.

- For the ICHmw3: The mean annual precipitation is 671 mm and the mean snowfall is 252 cm (211 cm to 287cm). The mean frost free period is 127 days
- For the ICHmk2, there is no specific data in the reference literature (Lloyd et al 1990) therefore, data from the ICHmk1 is included here as an approximation only. For the ICHmk1, the mean annual precipitation 665 mm and the mean snowfall is 432 cm (365 cm to 500 cm). There was no data for the mean frost free period (Lloyd et al 1990) but the frost free period is expected to be shorter than the ICHmw3 (127 days).

The Montane Spruce (MS) climate is cool, continental; and frost may be common during the growing season. Summers are moderately short and warm. Winters are cold with moderate snowfall. For soils:

a. Zonal and drier ecosystems are predominantly Dystric and Eutric Brunisols, and Orthic Gray Luvisols may occur.
b. On coarser-textured soils Humo-Ferric Podzols develop in wetter parts.
c. Litter depth 3 to 12 cm.

- For the MSdm2, the mean annual precipitation is 606 mm; and the mean snowfall is 307 cm (216 cm to 398 cm). The mean frost free period is 85 days

The Engelmann Spruce Sub-Alpine Fir (ESSF) climate is a continental climate characterized by long, cold winters with high snow cover, and short cool summers. The snow pack reaches a maximum depth of 1 to 4 metres and remains until late May. Frosts are common and moisture deficits are uncommon during the growing season. For zonal soils:

a. Mineral soils are commonly strongly leached and acidic.
b. In dry to moist subzones, Humo-Ferric Podzols or Dystric Burunisols.
c. In wetter subzones, Ferro-Humic Podzols or Sombric Brunisols.
d. Litter depth 2 to 20 cm.

- For the ESSFdc2: The mean annual precipitation is 839 mm; and the mean snowfall is estimated to be 650 mm which is slightly greater than the ESSFdc1 at 635 mm.

The Interior Douglas-fir (IDF) climate is continental characterized by warm dry summers, a relatively long growing season, and cool winters with a low to moderate snowfall. Zonal soils:

a. May typically occur on morainal deposits derived from basic volcanic bedrock.
b. Are Orthic or Dark Gray Luvisols, and Eutric or Dystric Brunisols.
c. Have predominantly base-rich bedrock and low rates of leaching due to dry climatic conditions resulting in medium to rich nutrient characteristics.
d. Litter depth 2 to 5 cm.

- For the IDFmw2: The mean annual precipitation is 521 mm and the mean annual snow fall is 171 cm (137 cm to 202 cm). The mean frost free period is 139 days.

The large body of water in East Barriere Lake and North Barriere Lake may moderates the effects of the general climate conditions; and yet proximity of the Dunn Peak snow pack to BARRIERE RIDGE may also influences climatic conditions at Russell Creek and Sprague Creek especially in the spring and fall.

The property is tree covered and is extensively logged with numerous haul roads, spur roads, and skidder trails or dozer trails throughout. Harvesting is active at various locations on the Honeymoon Claims. Some of the oldest logging roads are brushing in and/or have immature trees growing on them.

The site characteristics are quite variable. The BARRIERE RIDGE claims are located along the lower slopes [of the mid-portion] of the Barriere River and East Barriere River; as well as the lower to upper elevations of Russell Creek, Sprague Creek; on the northwest side of East Barriere Lake, and on the southwest side of North Barriere Lake. In general terms, the aspect is south. In the main Barriere River valley (towards North Barriere Lake) the aspect is north, southeast, and northwest. The average elevation is about 1100 metres.

The claims are bounded on the east side (i.e. 840418) by East Barriere Lake at 700 metres and on the west side (i.e. 844643) at 1425 metres which is on the Birk Creek plateau. The north boundary is bounded (i.e. 840413) by Birk Creek, Harper Creek, and North Barriere at about 700 metres. The south boundary is bounded by the main Barriere River valley at about 800 metres. The highest point is located in the eastern half of the claims on the northwest corner of the west boundary of Tenure 844643 at 1425 metres.

Slopes are gentle to moderately steep; and are very steep in the vicinity of Tenure 744542, 840411, 840413, 840415, and 844645. Sprague Creek draw and lower portion of Russell Creek are deeply gullied. There are numerous vertical rock faces and talus slopes at Tenure 767123, 840411, 744542. These rock faces are useful for prospecting and identifying rock units; and have been underexplored.

TABLE 1: BARRIERE RIDGE **Physiography and Biogeoclimatic Zones by Tenure Number**. A summary of the aspect and elevation based on ARIS maps, and Biogeoclimatic Zone classification in based on Lloyd et al 1990.

Tenure Number	Aspect	Mean Slope (%)	Elevation Range (metres)	Mean Elevation (metres)	Biogeoclimatic Subzone
744542	NW, SE	45	625-1375	1200	ICHmw3.
744562	S	20	700-1275	1050	ICHmw3.
744582	S, N, Flat	15	725-1250	1150	ICHmw3.
744602	S	15	850-1200	1050	ICHmw3.
759003	E, NW, Flat	20	1150-1375	1300	ICHmw3.
767042	Mainly NW	25	700-1350	1200	ICHmw3.
767062	SW, Flat, SE	15	975-1300	1125	ICHmw3.
767102	SW, S, SE	40	850-1325	1150	ICHmw3.
767123	S, SE	25	750-1250	1025	ICHmw3.
840411	W, NW	50	600-1375	900	ICHmw3.
840413	N, NW	60	625-1100	800	ICHmw3.
840415	S, SW	35	625-1050	850	ICHmw3; IDFmw2 on SW corner.
840417	SE, Flat, N	25	925-1275	1175	ICHmw3.
840418	SE	40	625-1200	900	ICHmw3.
844642	SE	25	600-1175	800	ICHmw3.
844643	SE	40	875-1450	1250	ICHmk2 on west half; ICHmw3 on eastern ¼; ESSFdc2 in the NW corner.
844644	E, SE	40	600-1475	1100	ICHmk2 on west half; ICHmw3 on east half; IDFmw2 in center of south boundary; ESSFdc2 in the NW corner.
844645	SE, S, NE	45	600-1250	900	IDFmw2; ICHmw3 on eastern 1/4; MSdm2 in NW corner and SW corner.
844646	E, SE, Flat	15	575-1125	875	IDFmw2; MSdm2 in NW corner; ICHmw3 in NE corner
844647	E, S	30	700-1025	900	IDFmw2.

D. LOCAL INFRASTRUCTURE:

The following is a brief summary of the local infrastructure:

1. Deep Sea Port: The nearest deep sea port is at Vancouver, B.C. about 350 km southwest of Kamloops.
2. Railroad: The Canadian National Railway (CNR) mainline goes through the community of Barriere (on the Yellowhead Hwy) about 20 km west of BARRIERE RIDGE. The CNR mainline goes through Kamloops.
   The Canadian Pacific Railway (CPR) mainline passes through Kamloops located south of Barriere.
3. Utility Distibution Lines:
   - A power distribution line runs from Barriere 20 km along the Barriere Lakes PR and within 1 to 2 km of the claim boundary.

- Telephone/Cellphone: There is land line telephone service to homes along the south boundary of the claims. There is cell phone service in Kamloops, and Barriere but there is no cellphone service from the claim areas. There are a few unique/select waypoints on the claims where you can get out on cellphone.

4. Commercial Resort: The private East Barriere Resort (north central on East Barriere Lake) is accessed by the Russell FSR (turn off about 2 km); and there is a public North Barriere Lake resort (RV/cabins) on the north shore of North Barriere Lake.
5. Forest Service Recreation Sites: There is a public recreation site on the west end of East Barriere Lake immediately adjacent to Tenure 767123; and also on the north shore of North Barriere Lake at Vermillion Creek.
6. Community Recreation: BARRIERE RIDGE, there is a community recreation site south of Tenure 844647 on the Barriere Lakes PR.
7. Roads and Logging Companies: The Thompson Rivers Forest District administers forest tenures in the claims area (250-371-6500). Tolko Industries Ltd of Kamloops is a major forest licencee in the Sprague Creek and Birk Creek areas; and the BC Timber Sales Program, Kamloops Timber Sales Office (250-371-6500) is the major licencee harvesting timber from the Russell Creek area.
   The primary roads are the East Barriere and North Barriere FSR roads. These roads are maintained to a high standard, where practicable are almost 2 lanes wide, and are usually ploughed in the winter. The Russell FSR and Sprague FSR are one lane wide and are not ploughed unless there is active logging on the road system. The Russell FSR is maintained by the BC Timber Sales Program; and the Sprague FSR is maintained by Tolko Industries Ltd
8. Sawmill: Adams Lake Lumber Co. Ltd (International Forest Products Ltd.) has a large scale sawmill at 0 km on the Adams West FSR 45 km. Tolko Industries Ltd has veneer (plywood) operation at Heffley Creek (north of Kamloops) on the Yellowhead Highway.
9. Logging Road Frequencies:
   - East Barriere Lake FSR and North Barriere Lake FSR – FM 158.19 (Tolko)
10. Emergency Facilities:
    There is a full service hospital with emergency facilities (heliport) in Kamloops including police, and search and rescue. There is an ambulance, clinic, and police station in Barriere. Active logging operations will have industrial first aid attendants on site.
11. Education: There are schools in Kamloops, Barriere and Clearwater. Thompson Rivers University in Kamloops has various degree programs; and has a geology faculty.
12. Residential Garbage Disposal: At Barriere, and there is a Thompson Nicola Regional District (TNRD) Eco Depot also.

E. HISTORY:

The following section is divided into 3 parts as follows:.

1. Past Producers and Producers
2. Advanced Development Projects
3 MINFILE Occurrences, Assessment Reports, Historic Drilling, Prospector Assistance Program.
4. Airborne Geophysics, Fugro Reports.
5. Proposed Ground Geophysics.
6. Photosat Image (0.5m pixel).
7. Soil Geochemical Surveys.

1. Past Producers and Producers:

Three historic past producer mines are located in the immediate vicinity of the HONEYMOON and BARRIERE RIDGE claims and they are as follows:

- Samatosum Mountain (MINFILE 082M-244) located 12 km to the south (Table 3).
- Homestake Mine (MINFILE 082M-025) located 16 km to the south (Table 4).

- Windpass Mine (MINFILE 092P039) located 16 km to the northwest (Table 5).

Table 2: Samatosum Mountain (MINFILE 082M-244) recovery table.

1989 to 1992	**Metric**	**Imperial**
Silver	429,356,776 grams	13,804,121 ounces
Gold	639,118 grams	20,548 ounces
Copper	3,678,016 kilograms	8,108,635 pounds
Lead	5,069,127 kilograms	11,175,509 pounds
Antimony	97,620 kilograms	215,215 pounds
Zinc	9,538,263 kilograms	21,028,264 pounds

Table 3: Homestake Mine (MINFILE 082M-025) recovery table.

1926 to 1941 (intermittent)	**Metric**	**Imperial**
Silver	7,750,829 grams	281,345 ounces
Gold	11,259 grams	362 ounces
Copper	9,138 kilograms	20,146 pounds
Lead	141,295 kilograms	311,502 pounds
Zinc	203,310 kilograms	448,222 pounds

Table 4: Windpass Mine (MINFILE 092P-039) recovery table.

1916 to 1944 (intermittent)	**Metric**	**Imperial**
Silver	93,435 grams	1,886 ounces
Gold	1,071,684 grams	37,798 ounces
Copper	78,906 kilograms	173,956 pounds
Mined	93,435 tonnes	102,965 tons
Milled	73,319 tonnes	80,798 tons

From a regional perspective (within 150 km radius):

- The **AFTON MINE** (Teck Corp) near Kamloops, a former producer, is 80 km to the southwest. This mine was in production for 20 years.
- **New Gold Inc.'s – New Afton Project** (www.newgold.com) 10 km south of Kamloops recently started production. The mine is being developed for underground block cave at 11,000 tonnes per day. The proposed average annual production will be 120,000 tonnes of concentrate containing 85,000 ounces of Au, and 75 million pounds of Cu. Proven and probable reserves are Au = 1.05 million ounces, Cu = 993 million pounds, Ag 3.1 million ounces.
- **The HIGHLAND VALLEY COPPER (Teck Resources Ltd - 97.5%)** near Logan Lake, is located 120 km southwest of BARRIERE RIDGE. This mine is the largest mine in Canada and produces Cu and Mo. A total of 42,488,000 tonnes were milled in 2010. The mine is expected to close in 2025.

2. Advanced Development Projects: (within 150 km)

From a regional perspective, within 150 km of the HONEYMOON and BARRIERE RIDGE there are a number of active advanced development projects as follows:

The Harper Deposit (MINFILE 082M 009) 20 km to the north, is currently being developed by Yellowhead Mining Inc. of Vancouver (www.yellowheadmining.com) and they have identified a 43-101 compliant resource of over 569 million tonnes grading Cu 0.32% and an inferred resource of 62.7 million tonnes grading Cu 0.33%. Preliminary economic

assessments, environmental assessment processes, geotechnical and hydrogeological studies, and First Nations studies are currently underway. Drilling is ongoing.

Abacus Mining and Exploration Corp (www.amemining.com) and KGHM AJAX Mining Inc have a joint venture at the new AJAX deposit which is beneath the former AJAX PIT at the AFTON MINE (Teck Corp) just south of Kamloops. This joint venture is currently in various environmental assessment and permitting processes. A recent Ni-43-101 compliant Preliminary Economic Assessment Report (June 22, 2009) indicated the Ajax copper-gold project proposes a 60,000 tonne per day operation producing an average of 110 million pounds of Cu and 100,000 ounces of Au in concentrate per year. Preliminary economic assessments, environmental assessment processes, geotechnical and hydrogeological studies, First Nations studies, and drilling are currently underway.

3. MINFILE Occurrences, Assessment Reports, Historic Drilling, Prospector Assistance Program.

The early history of exploration in the area is not well known although a number of references were found in the Ministry of Mines Annual Report from 1924, 1925, 1926, 1927 and 1928 (Bruce Madu, pers. comm. 2011); and in the Ministry of Energy and Mines MINFILE (www.empr.gov.bc.ca/mining/geoscience/minfile/Pages/default.aspx) information system.

(a) MINFILE Occurrences and Showings within BARRIERE RIDGE Claims:

Within the outer boundary of the BARRIERE RIDGE claims there are 3 MINFILE occurrences and one showing as follows: MINFILE 082M 066 WHITE ROCK (with DL4043 KDYD WHITE ROCK MC);
MINFILE 082M 069 SILVER MINNOW (aka SILVER MINERAL);
MINFILE 082M 222 CAD;
SILVERGAL SHOWING;

Also, there are numerous (12+) MINFILE showings in the immediate vicinity of the BARRIERE RIDGE claims.

i. **DL4043 KDYD WHITE ROCK MC**, which contains MINFILE 082M 066 WHITE ROCK, is save and excepted from the BARRIERE RIDGE Claims because it is a crown granted mineral claim and it is owned by a third party George Robert Mitchell. The Crown Grant was made on January 1, 1921. The history of the BARRIERE RIDGE claims is given here in the following sections: MINFILE Occurrences, ARIS Reports, Historic Drilling , and Prospector Assistance Program (Grants).

DL4023 KDYD WHITE ROCK MC is immediately adjacent to SILVER MINNOW, and is geologically relevant to the BARRIERE RIDGE claim group. Therefore it is included here even though it is not within the claim group. The following is a brief description of each of the above 3 MINFILE occurrences as well as some important historic descriptions. Refer to the MINFILE website for more specific references and information; also Assessment Report 32383 and 33190 by David J. Piggin and Astral Mining Corporation.

ii. MINFILE 082M 066 WHITE ROCK (with DL4043 KDYD WHITE ROCK MC)
The WHITE ROCK showing is described as epigenetic hydrothermal polymetallic veins Ag-Pb-Zn+/-Au; and with a vein/stockwork character. The significant minerals are galena tetrahedrite, sphalerite, and chalcopyrite; and it is associated with quartz, calcite, azurite and malachite. The MINFILE indicates a *"56 centimetre sample assayed 2.2 percent lead, 0.8 percent zinc, 92.6 grams per tonne silver and 0.34 grams per tonne gold (Annual Report 1950").*

The following Illustrations and results were taken from ARIS 33190.

ILLUSTRATION #4 : : Entrance (apron area) leading into the **WHITE ROCK #1 ADIT** referred to as **MINFILE 082M 066 WHITE ROCK (with DL4043 KDYD WHITE ROCK MC).** David Piggin in picture is 180 cm tall and photo is shot in an easterly direction from the entrance apron. A mine car rail is shown in the foreground. DL 4043 KDYD is save and excepted from the BARRIERE RIDGE claims (MVI_0330.jpg):

ILLUSTRATION #5 : Partially buried entrance to **WHITE ROCK #2 ADIT** within DL4043 KDYD WHITE ROCK MC but on the boundary with BARRIERE RIDGE. Judy Burr is pointing to galena/silver mineralization (162 cm tall). Photo is shot from the road in an easterly direction (IMG_3941.jpg):

ILLUSTRATION #6 : **WHITE ROCK #2 ADIT** within DL4043 KDYD WHITE ROCK Judy Burr is pointing to galena/silver mineralization. Photo is shot from the road in an easterly direction (IMG_3942.jpg):

- **MINFILE 082M 069 SILVER MINNOW (aka SILVER MINERAL):** The SILVER MINNOW is described as epigenetic hydrothermal polymetallic veins Ag-Pb-Zn+/-Au; and with a vein character. The significant mineral is galena; and it is associated with quartz and calcite.
  In 1925 a sample assayed Ag 925.7 grams per tonne and Au 0.69 grams per tonne. Refer to the MINFILE website for more specific references and information; and also Assessment Report 32383, 33190 and 33744 by David J. Piggin and Astral/Orex. In 2011,
  Sample 10E41181 SMQCH7 Ag 171 ppm; Pb 14.4 percent; Zn 6490 ppm (over 1 m).

  The SILVER MINNOW is located just south of the southeast corner of DL 4023 KDYD WHITE ROCK MC in an area of large quartz veins. Some up to 5.8 metres wide..

  The following Illustrations and results were taken from ARIS 33190.

TABLE 5: Partial List of SILVER MINNOW Rock Anomalies - Selected Rock Anomalies for selected elements:

SELECTED ROCKS only	**Anomalous values shown in bold black**						
Sample Tag	**Au_ppb**	**Ag_ppm**	**Pb %**	**S %**	**Sb ppm**	**Te_ppm**	**Zn ppm**
10E41181 SMQCH7 SILVER MINNOW ADIT ONE	100	**171**	**14.4**	**2.27**	**198.5**	**30.4**	**6490**
Note: Sample 10E41181 SMQCH7 is adjacent to 10E41180 SM11EBCH1 at SILVER MINNOW ADIT ONE. See photos in HISTORY section; also close-up photo below.							
Sample Tag	**Au_ppb**	**Ag_ppm**	**Pb %**	**S %**	**Sb ppm**	**Te_ppm**	**Zn ppm**
10E41199 SM11FRA (see photo below)		**28**	**1.325**	0.92	**382**	2.71	**6970**
10E41021 SM11CHR1		**14.35**	**1.16**		**34.8**	1.64	**1880**

Sample Tag	Au_ppb	Ag_ppm	Cu ppm	Pb pppm	Sb ppm	Te_ppm	Zn ppm
10E41016 SM11R999	29.2	**50.4**	**1475**	**1275**	**533**	0.21	**2990**
10E41017 SM11R999A	55.5	**26.5**	**1465**	**1990**	**590**	0.36	**1600**
10E41182 SMQCH1		**12.8**	**40.8**	**9800**	22.8	1.97	**3280**
10E41198 SM11FRA (see photo below)		**10.55**	**185.5**	**6510**	38.4	1.13	**839**
10E41180 R/S SM11EBCH1 (see Note below)	21.4	**7.12**	**94.1**	**4410**	15.35	1.08	**4360**
10E41180 SM11EBCH1 (See Note below.)	21.2	**5.69**	**104.5**	**4100**	17.5	0.93	**5360**
Note: Sample is adjacent to 10E41180 SM11EBCH1 at SILVER MINNOW ADIT ONE see photos in HISTORY section; also close-up photo below.							
10E41184 SMQCH3		**2.38**	**51.4**	**1230**	39.4	0.23	**871**
10E41023 SM11CHR1-3		**1.89**		**1910**			**2510**
Sample Tag	**Al_%**	**Co_ppm**	**Cr ppm**	**Fe %**	**Mg %**	**Ni_ppm**	**P ppm**
10E41334 BR11FR59	**1.70**	**117**	**1152**	**>10**	**6.49**	**1027**	**670**

ILLUSTRATION #7: **SILVER MINNOW ADIT ONE** referred to as **MINFILE 082M 069 SILVER.** Judy is pointing to semi-massive galena/silver mineralization at the contact between the EBG on the right; and on the left a large near vertical (5.8m wide) quartz veins on the left. The contact is near vertical but dipping down to the south. The adit is believed to be buried in earth fill under Judy's feet (162 cm tall). The photo is shot in a NE direction. (excerpt MVI_0330.jpg):

ILLUSTRATION #8 : : Galena and silver mineralization from a channel sample at **SILVER MINNOW ADIT ONE**:**10E41181 SMQCH7 - Ag 171 ppm; Pb 14.4 percent; S 2.27 percent; Sb 198.5 ppm; Te 30.4 ppm; Zn 6490 ppm over 1m.** Location: MINFILE 082M 069 SILVER MINNOW (aka SILVER MINERAL). In the background is the contact between the EBG on the right 30% of photo; and on the left the EBGt left 70% of photo. (IMG_0522.jpg):

iii. MINFILE 082M 222 CAD

The CAD is described as epigenetic polymetallic veins Ag-Pb-Zn+/-Au; and with a vein character. Significant minerals are pyrite, spalerite, and galena; and associated with quartz and calcite. The alteration type is chloritic. Assessment Report 13168 reported Ag 15.6 grams per tonne, Pb 0.04 percent, Zn 1.2 percent over 10 cm vein width.

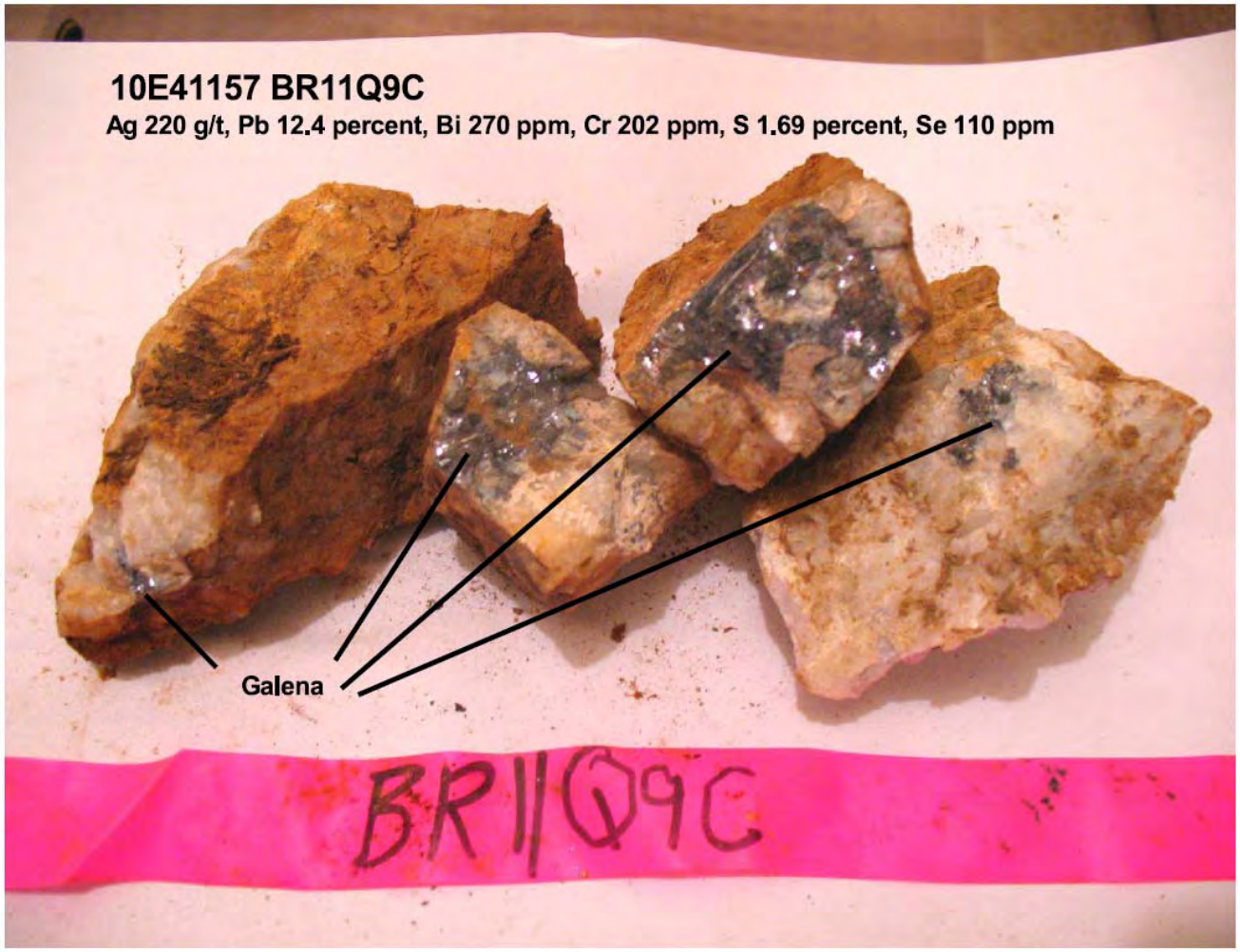
A number drilling programs occurred at CAD and the drill holes are summarized in a spreadsheet within the APPENDIX.

- **SILVERGAL SHOWING**: The SILVERGAL was discovered by David J. Piggin for Astral Mining Corporation in 2010 and reported in Assessment Report 32383. The SILVERGAL reported as follows:

TABLE 6: SILVERGAL - Selected Rock Anomalies For Selected Elements):

SILVERGAL Showing: Outcrop on log landing with quartz/limestone with galena, silver, chalcopyrite, malachite	
10E41157 BR11Q9C	Ag 220 g/t, Pb 12.4 percent, Bi 270 ppm, Cr 202 ppm, S 1.69 percent, Se 110 ppm
10E41157 BR11Q9C repeat	Ag 220 g/t, Pb 12.4 percent, Bi 270 ppm, Cr 208 ppm, S 1.78 percent, Se 110 ppm
10E41157 BR11Q9C respit	Ag 220 g/t, Pb 12.4 percent, Bi 285 ppm, Cr 226 ppm, S 1.80 percent, Se 120 ppm
10E41160 BR11Q9D	Au 25 ppb, Ag 172 g/t, As 600 ppm, Cu 7470 ppm, Pb 795 ppm, Sb >2000 ppm, Zn 3076 ppm
10E41160 BR11Q9D repeat	Au 30 ppb, Ag 172 g/t, As 600 ppm, Cu 7470 ppm, Pb 795 ppm, Sb >2000 ppm, Zn 3076 ppm
10E41158 BR11Q9A	Au 20 ppb, Ag 5.8 g/t, Bi 5 ppm, Cr 232 ppm, Pb 2250 ppm
10E41172 BR11-104	Ag 27.2 ppm g/t, Cu 244 ppm
10E41174 BR11-106	Ag 6.8 ppm, Ca > 10 percent, Cu 428 ppm, Mg 8.88 percent, P 1080 ppm, Sb 245 ppm, Zn 176 ppm

ILLUSTRATION # 9: SILVERGAL showing close-up galena in sample 10E41160 BR11Q9D (IMG_3695a.JPG).



<u>ILLUSTRATION # 10</u>: SILVERGAL showing in overview taken in northwesterly direction (IMG_3676.JPG).

The following is a partial list of various MINFILE Occurrences outside the BARRIERE RIDGE Claims. In the interest of brevity they are not discussed here:

East of the BARRIERE RIDGE:	MINFILE 082M 051	MINFILE 082M 061	MINFILE 082M 110
	MINFILE 082M 223	MINFILE 082M 300	
North of BARRIERE RIDGE:	MINFILE 082M 059	MINFILE 082M 060	MINFILE 082M 063
	MINFILE 082M 067	MINFILE 082M 072	MINFILE 082M 130
	MINFILE 082M 131	MINFILE 082M 219	MINFILE 082M 220
	MINFILE 082M 221	et al.	
West of BARRIERE RIDGE:	MINFILE 092P 160		

(b) Assessment Reports: There are at least 19 Assessment Reports within located within the BARRIERE RIDGE boundary, based on the Assessment Report Information System (ARIS). In the interest of brevity a detailed discussion of the results of the work is not included in this report. The reports can be downloaded from the following website if additional information is required. http://www.empr.gov.bc.ca/Mining/Geoscience/ARIS/Pages/default.aspx

The following is a complete list of these 21 ARIS reports:

- 03350 Duncanex Resources., B.J. Price and JR. Woodcock., September 27, 1971, $ 9,989.77
- 05363 Richard A. Rabbitt, D.L. Rabbit, 1974 $ 2,200.40
- 08210 Cyprus Anvil Mining Corporation, B.V. Hall and P.E. Walcott, July 11, 1980, $ 10,190.93
- 12847A Noranda Exploration Company Limited, G. Shevchenko, February 1985 $ 7,059.07
- 12847B Noranda Exploration Company Limited, L. Bradish, December 1984 $ 19,215.00
- 13168 J.D. Graham & Noranda Exploration Company Limited, R.G. Wilson, December 1984, $ 15,974.38
- 13207 Racer Resources Ltd (Ashton & Graham), J.D. Blanchflower, December 4, 2011, $ 24,301.05
- 13297 Mammoth Resources Limited, G.J. Dickie and G.D. Hodgson, November 1984, $12,025.00
- 13793 Racer Resources Ltd (Ashton & Graham), J.D. Blanchflower, July 25, 1985, $ 8,625.65
- 14123 J.D. Graham and Taywin Resources Ltd,), J.D. Blanchflower, September 19, 1985, $ 18, 635.18
- 14397 J.D. Graham & Noranda Exploration Company Limited, G. Shevchenko, February 1986, $ 21,830.05
- 16190 T.H. Thompson & National Resources Exploration Ltd, B.W. Kyba, July 15, 1987, $ 2,549.64
- 16331 J.D. Graham & Merritech Development Corporation, J.D. Blanchflower, February 27, 1987,$ 57, 271.32
- 17739 National Resources Exploration Ltd, D.C. Miller, April 20, 1988, $7,767.55
- 18489 Minnova Inc., D.W. Blackadar, February 12, 1989, a portion of $ 60,035.00
- 19047 National Resources Exploration Ltd & Minnova Inc, C.J. Clayton, September 7, 1989, $1,109.50
- 19173 Falconbridge Limited, S.G. Clemmer, September 1989, $ 2,739.83
- 19851 National Resources Exploration Ltd & Minnova Inc, D.R. Heberlein, March 1990, $32,000.00
- 22956 Rich Coast Resources Ltd, Michael Fox, March 23, 1993, $5,801.80
- 32383 Astral Mining Corporation and David J. Piggin, May 31 2011, $21,824.78
- 33190 Astral Mining Corporation, David J. Piggin, July 18, 2012, $ 344,154.71
  HONEYMOON $216,077.90 and BARRIERE RIDGE $128,076.81
- 33744 Astral Mining Corporation, Orex Minerals Inc, David J. Piggin. March 27, 2013. $ 97,303.43.
  HONEYMOON $ 67,713.37 and BARRIERE RIDGE f$ 29,590.06

(c) Historic Drilling: In 2012, a detailed review of the above BARRIERE RIDGE ARIS reports indicated that between 1984 - 1988, 20 diamond drill holes were completed for 2,195.98 metres. For detailed information see attached spreadsheet in APPENDIX). The best result were from Minnova Inc which returned:

Up to **P4 BAR23: (sample 17807) Au 0.91 g/t, Ag 203 g/t, Cu 0.133 %, Pb 5.46 %, Zn 13.2 % (over 0.4 m).**

The drill sites have not been located in the field so additional research is required to find and digitize the drill logs. The following is a brief summary of the drilling locations at BARRIERE RIDGE.

- In 1984, drilling within Tenure 744582 and MINFILE 082M 222 CAD**:** ARIS Report 13168 Noranda Inc. reported two NQ diamond drill holes (DDH) CAD 84-1 and CAD 84.-2 for a total of 132.2 metres. CAD 84-2 best samples in three separate veins:
  Ag 15.6 g/t; Zn 12,000 ppm; Pb 392 ppm over 0.1 metres.
  Ag 4.6 g/t; Zn 136 ppm; Pb 1070 ppm over 0.1 metres.
  Ag 3.6 g/t; Zn 500 ppm; Pb 1020 ppm over 0.6 metres.

- In 1985, drilling within Tenure 744582 and MINFILE 082M 222 CAD: ARIS Report 14397 Noranda Inc. reported two NQ diamond drill holes (DDH) CAD 85-1 and CAD 85-2 for a total of 184.7 metres. The drill holes failed to intersect mineralization.

- In 1987, drilling within Tenure 744582 and MINFILE 082M 222 CAD: ARIS Report 16331 Merritech Development Corporation reported three NQ diamond drill holes (DDH) CAD 87-1, CAD 87-2, and CAD 87-3 for a total of 394.11 metres. The drill holes failed to intersect economic mineralization.
  CAD 87-1: Au 30 ppb, Ag 1 ppm, Pb 323 ppm from 545' to 550'.
  CAD 87-2: Cu 122 ppm from 190' to 195'; and CAD 87-3: Pb 122 ppm from 300' to 305'.

- In 1987, drilling within Tenure 744542: Maps provided in ARIS Report 17739 (and 16190) National Resources Exploration Ltd indicated four diamond drill sites DDH 87-1, DDH 87-2, DDH 87-3, and DDH 87-4 on a property map, but no record or drill logs are given showing results.

- In 1989, drilling within Tenure 844646, 844647: ARIS Report 18489 Minnova Inc. reported four NQ drill holes, totalling 601 metres, in the extreme southwest corner of BARRIERE RIDGE. The holes were P1 BAR20 (154.5 m); P2 BAR21 (151.5 m); P3 BAR22 (120.7 m); and P4 BAR23 (174.2 m). Three of four holes were not mineralized.

  P4 BAR23: (sample 17807) Au 0.91 g/t, Ag 203 g/t, Cu 0.133 %, Pb 5.46 %, Zn 13.2 % (over 0.4 m).
  "... The bottom 35 m of the hole encountered medium to coarse grained andesite felspar crystal tuff. Potentially significant Pb-Zn mineralization consisting of minor medium brown sphalerite and galena occurs in the bottom 20 m of the hole. This mineralization generally occurs in trace amounts associated with narrow quartz veins. At the top of this interval is a 4 - 6 cm zone of massive, banded, coarse grained shpalerite and galena. ..." page 9.

- In 1989, drilling (1989) within Tenures 744542, 744562, 767102, 840411: ARIS Report 19851 Minnova Inc. reported 5 NQ drill holes totaling 524.6 metres. The holes were MBD89-1 (102.7 m) and MBD89-2 (96.6 m) both within Tenure 744542; hole MBD89-3 (105.8 m) south end of Tenure 744562; both MBD89-4 (124.1 m) and MBD89-5 (95.4 m) are within Tenure 767102 and 840411. No significant mineralization or alteration was encountered.

Other ARIS Reports: In addition to this, there are a number (15+) ARIS reports located near the boundary of BARRIERE RIDGE on adjacent mineral claims. In the interest of brevity they are not listed here but are available through the Exploration Assistant (Map Place) and ARIS program websites.

(d) Prospectors Assistance Program Grants:

At least 4 Prospector Assistance Grants were issued in the general vicinity of the North Barriere Lakes and East Barriere Lakes area as follows:

- In 1998, the author David J. Piggin - Prospector Assistance Grant #98/99 P94 (1998-43) for $ 10,000.00. Grassroots exploration work was completed over the eastern half of the BARRIERE RIDGE claims and on the HONEYMOON claims**. A number of significant Au, Ag, and base metal anomalies were found in stream sediment and soil samples.** A soil sieve sample was collected south of North Barriere Lake and the sieve sample was a significant gold in soils anomaly as follows:

  Sample 13C (Tag 103282) Certificate AK-0222i.xls: (UTM NAD 83 Zone 11, 300937.7E and 5688537.2N)
  Au 555 ppb, Ag 0.8 ppm, As 25 ppm, Bi 15 ppm, Mo 6 ppm, Pb 70 ppm, Zn 215 ppm.

TABLE 7: Ssieve sample, Weev 13C-09 (Tag 103213) Certificate AK98- 0595i.xls returned the following values.

Sample Tag #	Weight (grams)	Mesh Size	Au ppb
103213 Weev 13C-09	91	+32	15
	53	+60	35
	37	+80	20
	62	+140	35
	38	+230	35
	41	-230	65
Repeat		+80	105

- In 1998, Camille Berube - Prospector Assistance Grant #1998/99 P23 (1998-23) for $ 10,000.00. The CAM-GLORIA MINFILE 082M-266 was discovered during this exploration program.

- In 2000, Leonard P. Piggin - Prospector Assistance Grant #2000/01 P73 (2000-22) for $ 7,500.00. The LUCKY BEAR MINFILE 082M-275 (Au Bi, minor W) was discovered during this program. Numerous anomalous stream sediments and moss mats were collected.

- In 2000, Camille Berube - Prospector Assistance Grant #2000/01 P43 (2000-13) for $ 10,000.00. The LUCKY BEAR MINFILE 082M-275 (Au Bi, minor W) was discovered during this program.

A copy of each report can found on the following website.
http://www.empr.gov.bc.ca/Mining/Geoscience/PropertyFile/Pages/1998pros.aspx

4. Airborne Geophysics by Fugro, Including An Interpretations Report.

In 2011 (ARIS 33190), an airborne geophysical survey was completed on selected areas by Fugro Airborne Surveys – ***Logistics and Processing Report: Helicopter-borne HELITEM Time Domain Electromagnetic and Magnetic Geophysical Survey – Project No. 11089*** dated January 23, 2012 (see ILLUSTRATION # 17 below). The survey was flown from October 21, 2011 to November 9, 2011 and cost $ 239,146.00. Total coverage of the survey blocks amounted to 1334 km (1121.4 km of it was accepted). Due to bad weather over the blocks survey was stopped by the Astral Mining Corp. before the Fugro's crew was able to re-flight lines L20270-L22420 (Honeymoon block). In the interest of brevity the full report, submitted by Furo Airborne Surveys, was included in ARIS Report 33190 and is not included here.

ILLUSTRATION # 11: Location of the HONEYMOON and BARRIERE RIDGE airborne geophysical survey completed in 2011. This map is an excerpt from the Project No 11089 report. Not to scale and north is up.

Based on their report *"...The purpose of the survey was to determine the existence and locations of bedrock conductors and for better understanding of the subsurface geology within the survey areas. The EM data and the magnetic data were processed to produce images and profiles that are indicative of the magnetic and conductive properties of the survey areas. A GPS electronic navigation system ensured accurate positioning of the geophysical data with respect to the base maps..."* Page 4.

The full report for Project No 11089, submitted by Fugro Airborne Surveys, has been reported in the APPENDIX of ARIS Report 33190 dated July 18, 2013. In the interest of brevity, the Project No. 11089 report is not given here.

The Project No. 11089 report identified numerous significant geological and contract related features as well as geophysical and conductive features which require extensive exploration such as prospecting, geochemical surveys, geological mapping, ground geophysical surveys, trenching and drilling.

In 2012, Fugro was contracted to re-process the Project No. 11089 data for interpretation and targeting purposes. They subsequently submitted their report ***Magnetic and EM Interpretation Airborne Magnetic and HELITEM Survey - BARRIERE RIDGE AND HONEYMOON Blocks, British Columbia - Job No. 12578*** dated February 2013. The report cost $ 29,500.00 and is enclosed in the APPENDIX of ARIS Report 33744 dated March 27, 2013. In the interest of brevity, the Job No. 12578 report is not given here.

In general terms, Job No. 12578 reported significant results and priority targets as follows:

- Significant conductors within the survey area and were outlined on interpretation maps. Conductors were classified as conductive zones, points, and axes. A list of anomalous EM responses, for detailed review and ground follow-up, were provided in the Fugro report.

At BARRIERE RIDGE, the magnetic grid showed a magnetic low, with a gently rippling character in the western portion of the block, and a more complex and highly magnetic area to the centre and northeast. High conductivities exist in both the east and west with a low conductivity area running nearly N-S through the mid-western portion of the block, and along the north in the eastern portion of the block. There is a low conductivity area in the southeast.

Conductivity depth (CDI) sections identified major faults and in many cases these had been identified from the magnetic signatures. Conductivity depth identified some new faults. The dips of the faults can also be identified using CDI sections.

5. Proposed Ground Geophysics (also Proposed Soil Geochemical Survey).

A number of initial (primary) ground geophysical targets were identified by Dale Brittliffe, P. Geo., (Astra/Orex) based on historical/recent data and airborne geophysics. In the fall of 2012, in advance of a large scale ground geophysical survey, a small ground geophysics survey totaling 9,600 lineal metres was recommended as follows:

SILVER MINNOW: (aka SILVER MINNOW2 GRID)

- 3 lines 1400 lineal metres each; Zone 11 central line 5,686,900mN, 297,400mE – 298,800mE.
- Lines 100 metres apart and stations every 25 metres.
- No soil samples collected to date.

SILVERGAL: (aka SILVERGAL1 GRID from ARIS 33190 plus additional stations (east-west) from ARIS 33744.

- 3 lines 1800 lineal metres each; Zone 11 central line 5,684,200mN, 298,600mE – 300,400mE.
- Stations every 25 metres.
- The original SILVERGAL1 GRID was 2 parallel lines at 200 meters spacing; and 82 soil samples were collected and assayed.

The previously established SILVER MINNOW1 GRID had a soil geochemical survey (50 soil samples) but was not proposed for ground geophysics at the time due financial restrictions. It is located about halfway between the SILVERGAL showing and the SILVER MINNOW MINNFILE.

The purpose of the small geophysical survey area was to provide a starting point data for a much larger scale survey. These ground geophysics survey lines were to be used for a preliminary soil geochemical survey as well.

A total of 225 lineal metres was ribboned on the centre line at SILVER MINNOW2 GRID (see ILLUSTRATION #12 below). The line was marked with florescent pink ribbon and kevlar tags at 25 m stations, candy strip orange/ black for the line. Snow/road and budget circumstances brought the preparatory survey to a halt before it could be completed.

The intent was to have First Nations contractors buck out the survey line before the ground geophysical survey started. A First Nations contractor was available but funds were not therefore, the project was re-scheduled for 2013/2015.

ILLUSTRATION # 12: Preparatory survey for ground geophysical survey and soil geochemical survey at SILVER MINNOW (Line 2). Photo (David J. Piggin, author) taken in an easterly direction down the survey line. Station is at NAD83 Zone11. 298300E. 5686900N. (IMG_1351.jpg).

6. Soil Geochemical Surveys (see Proposed Ground Geophysics in previous section).

In ARIS 33190, the results of the soil grids SILVERGAL1 (82 samples) and SILVER MINNOW1 GRID (50 samples) were reported. The following tables show selected results (gold and silver only) ARIS 33190. The following data is taken from ARIS 33190. For more detailed results including spreadsheets, maps and assays refer to ARIS 33190.

SILVERGAL1: The following two tables **TABLE 8 and TABLE 9,** from ARIS 33190, show a few selected gold and silver anomalies for selected elements.

TABLE 8: SILVERGAL1 - Selected Gold Soil Anomalies For Selected Elements: (from ARIS 33190)

SELECTED SOILS only	SILVERGAL1 GRID – GOLD LEADING with Au 6.8 ppb at 90 percentile: Anomalous values shown (in bold black text) for selected elements.								
Sample Tag 14E41213	Au ppb repeat	W ppm repeat	Au ppb	W ppm	Sample Tag 14E41233		Au ppm	Se ppm	
	80	0.20	69	0.20			30	0.30	
Sample Tag 14E41239 repeat	Au_ppb	Ag ppm	Ca %	Cu ppm	Fe %	Ge ppm	Hg ppm	K %	La ppm
	11	0.7	0.55	55.6	4.28	34.8	35	0.23	14.5
	Mg %	Nb ppm	Rb ppm	Sc ppm	Sr ppm	Te ppm	T %	Tl ppm	Zn ppm
	0.80	1.84	18.7	5.1	24	0.12	0.131	0.1	113.70
Sample Tag 14E41270	Au_ppb	Ag ppm	As ppm	Bi ppm	Cu ppm	La ppm	Se ppm	Te ppm	Y ppm
	10	0.4	9.2	0.32	71.5	17	0.4	0.1	10.2
Sample Tag 14E41232	Au_ppb	Ag ppm	Mo ppm	Se ppm	Sample Tag 14E41232		Au ppm	Se ppm	
	9.0	0.2	1.18	0.8			7.0	0.3	
Sample Tags: 14E41235 14E41230 14E41231 14E41240 14E41254 were all anomalous with Au = 7.0 ppb									

TABLE 9: SILVERGAL1 - Selected Silver Soil Anomalies For Selected Elements: (from ARIS 33190)

SELECTED SOILS only	SILVERGAL1 GRID – SILVER LEADING with Ag 0.5ppm at 90 percentile: Anomalous values shown (in bold black text) for selected elements.								
Sample Tag 14E41213	Au ppb	Ag ppm	Al %	Be ppm	Bi ppm	Ca %	Cd ppm	Fe %	Ga ppm
	2.0	1.1	2.74	0.80	4.0	1.29	0.5	6.04	8.0
	Hg ppm	Mn ppm	Mo ppm	Nb ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm
	100	1131	2.0	2.16	1117	0.10	1.42	4.2	0.50
	Sn ppm	Sr ppm	Te ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
	0.7	30.5	0.34	0.8 ppm	60	0.30	16.4	129.9	10.87
Sample Tags: 14E41212, 14E41222, 14E41227, 14E41236, 14E41265 were all anomalous with Ag = 0.5 ppm									

In addition to the above soil anomalies **14E41266 returned Cu 179.0 ppm; and sample 14E41266 returned Pb 246.9 ppm.** Both of these are at or near the top of the range.

Soil geochemistry results for the SILVERGAL1 (especially **14E41213, 14E41213, 4E41239)** confirmed the presence of multiple Au (mult-element), Ag (multi-element), copper, lead, and zinc soil anomalies which require high priority follow-up work such as prospecting, additional soil geochemistry, geological mapping, ground geophysics, trenching and drilling.

SILVER MINNOW1 GRID: The following two tables **TABLE 10 and TABLE 11,** from ARIS 33190, show a few selected gold and silver anomalies for selected elements.

TABLE 10: SILVER MINNOW1 GRID - Selected Gold in Soil Anomalies For Selected Elements: (from ARIS 33190)

SELECTED SOILS only	**SILVER MINNOW1 GRID – GOLD LEADING with Au 6.8 ppb at 90 percentile: Anomalous values shown (in bold black text) for selected elements.**								
Sample Tag 14E41285	**Au_ppb**	Ag ppm	**As ppm**	**Ce ppm**	**Co ppm**	**Cr ppm**	**Cu ppm**	**Fe %**	**Ga ppm**
	26	0.3	**18.9**	**33.10**	**27.8**	**67.5**	**149.4**	**5.55**	**7.10**
	K %	**La ppm**	**Mg %**	**Mn ppm**	**Mo ppm**	**Ni ppm**	**Sb ppm**	**Sc ppm**	**Se ppm**
	0.15	**16**	**0.81**	**1019**	**1.31**	**74.3**	**0.92**	**7.0**	**0.40**
	Te ppm	**Th ppm**	**V ppm**	**Y ppm**					
	0.12	**5.2**	**82**	**9.1**					
Sample Tag 14E41306: Au 12 ppb									

TABLE 11: SILVER MINNOW1 GRID - Selected Silver in Soil Anomalies For Selected Elements: (from ARIS 33190)

SELECTED SOILS only	**SILVER MINNOW1 GRID – SILVER LEADING with Ag 0.5ppm at 90 percentile: Anomalous values shown (in bold black text) for selected elements.**								
The following Sample Tags were anomalous for silver: 14E41286 returned Ag 0.7 ppm; 14E41327 returned 0.7 ppm; 14E41329 returned Ag 0.7 ppm; 14E41311 returned Ag 0.5 ppm;									
Sample Tag 14E41305	Au ppb	**Ag ppm**	**Al %**	**Ba ppm**	**Be ppm**	**Bi**	**Cu ppm**	**Ga ppm**	**Hg ppm**
	2.0	**0.5**	**2.77**	**218**	**0.6**	**0.34**	**63**	**9.5**	**45**
	Li ppm	**Mn ppm**	**Nb ppm**	**Rb ppm**	**S %**	**Se ppm**	**Sn ppm**	**Tl ppm**	**U ppm**
	17.9	**2153**	**1.54**	**14.9**	**0.10**	**0.4**	**0.7**	**0.1**	**0.9**
	W ppm	**Zn ppm**							
	0.2	**138.6**							
Sample Tag 14E41322	Au ppb	**Ag ppm**	**Al %**	Be ppm	**Bi ppm**	Cd ppm	Ce ppm	**Hg ppm**	**La ppm**
	2.0	**0.5**	**2.86**	0.6	**0.28**	0.32	30.5	**50**	**29.9**
	Nb ppm	**S %**	**Se ppm**	**Sn ppm**	**Sr ppm**	**Te ppm**	**Ti %**	**U ppm**	**Zn ppm**
	1.68	**0.1**	**0.4**	**0.7**	**26.5**	**0.12**	**0.091**	**1**	**188**
Copper: Sample Tag 14E41308 returned Cu 59.7;14E41309 returned Cu 84.4 ppm; and 14E41325 returned Cu 75.3 ppm with the 90 percentile being Cu 52.32 ppm. **Lead: : Sample Tag 14E41297 returned Pb 28; 14E41330 returned Pb 26 ppm; 14E41325 returned Pb 27.3 ppm; and 14E41299 returned Pb 25.5 ppm with the 90 percentile being Pb 24.72 ppm.** **Zinc: 14E41283 returned Zn 195.2 ppm with the 90 percentile being Zn 137.62 ppm**									

Soil geochemistry results for the SILVER MINNOW1 GRID confirm the presence of multiple Au (mult-element), Ag (multi-element), copper, lead and zinc soil anomalies which require high priority follow-up work such as prospecting, additional soil geochemistry, geological mapping, ground geophysics, trenching and drilling.

PROSPECTING SOIL SAMPLES:

At BARRIERE RIDGE, soil samples were collected when float rocks in till were observed (or suspected) to have mineralization. The each soil sample was collected from the same soil horizon as the float rock. Prospecting soil samples were not included in the soil grid sampling data because they were biased by the anomalous float rock. For example, ARIS 33190 soil sample **Tag 10E41191 SM11FRAT returned Au 18.1 ppb, Ag 9.74 ppm, Pb 1835 ppm, Zn 2730 ppm** which far exceeds any Zn Pb Zn soil values in any of the soil grids in this report.

TABLE 12: PROSPECTING (only) SOIL SAMPLES vicinity of SILVER MINNOW1 GRID – Selected Soil Anomalies For Selected Elements:

SELECTED SOILS only	**PROSPECTING (only) SOIL SAMPLES Anomalous values shown (in bold black text) for selected elements.**								
Sample Tag 10E41191 SM11FRAT	**Au ppb**	**Ag ppm**	**As ppm**	**Cd ppm**	**Be ppm**	**Cu ppm**	**Pb ppm**	**Sb ppm**	**Se ppm**
	18.1	**9.74**	**8.5**	**4.5**	**0.6**	**53.4**	**1835**	**51.6**	**0.6**
	Te ppm	**W ppm**	**Zn ppm**						
	0.24	**0.76**	**2730**						
Sample Tag 10E41193 SM11FR10T	Au ppb	Ag ppm	**As ppm**	**Cd ppm**	**Bi ppm**	Cd ppm	Co ppm	**Cu ppm**	**Nb ppm**
	6.1	0.3	**18**	**1.53**	**0.28**	0.32	33.9	**174**	**1.48**
	Pb ppm	**Se ppm**	**Sr ppm**	**Ta ppm**	**Tl ppm**	**Zn ppm**			
	30.2	**0.4**	**28.9**	**0.04**	**0.08**	**427**			
Copper: Sample Tag 14E41194 SM11T8 returned Cu 124 ppm, Fe 5.99 %, Pb 30.3 ppm. **Lead: Sample Tag 14E41190 SM11FR5T returned** Cu 37.1 ppm**, Pb 139 ppm.**									

Soil geochemistry results from prospecting soil samples confirm the presence of multiple Au (mult-element), Ag (multi-element), copper, lead and zinc soil anomalies which require high priority follow-up work such as prospecting, additional soil geochemistry, geological mapping, ground geophysics, trenching and drilling.

Clearly, based on the soil geochemical data to date, there is a need for an expanded soil geochemical survey related to existing Ag Pb Zn anomalies such as the SILVER MINNOW MINFILE, SILVERGAL, and the newly discovered SILVERBOY (to be discussed later in the results section).

7. Stream Geochemical Surveys.

A total of 2 stream sediment and 2 moss mat samples were previously collected in ARIS 33190. The target area was south (down ice) from the SILVER MINNOW adit and DL 4023 WHITE ROCK MC. All 4 samples had anomalous values therefore all four are shown in the following tables **TABLE 13 Moss Mats**, and **Table 14 Stream Sediments** as follows:

TABLE 13: Selected Moss Mat Anomalies: (for selected elements).

Moss Mats only	Anomalous values shown in red (90 percentile)				
Sample Tag	Ag_ppm	Ca_%	Cu_ppm	Pb_ppm	Sb_ppm
10E41186 SM11MM1	**0.35**	**16.8**	14	6	0.18
10E41187 SM11MM2	0.21	**18.45**	**29**	**16.8**	**0.54**

TABLE 14: Selected Stream Sediment Anomalies: (for selected elements).

Stream Sediments only	Anomalous values shown in red (90 percentile)				
Sample Tag	Ag_ppm	Ca_%	Cu_ppm	Pb_ppm	Sb_ppm
10E41188 SM11SS1	**0.75**	**22.5**	**26.1**	5.8	0.17
10E41189 SM11SS2	0.12	**20.2**	21.8	**24.8**	**0.53**

Based on these results, the area 400 metres south of SILVER MINNOW is prospective for Ag and Cu and is associated with limestone. These stream anomalies require followed up to determine the source.

8. Photosat Image (0.5m pixel).

A total of 23,530 hectares of 2012 PhotoSat 0.5metre Pixel imagery were acquired and reported in ARIS 33744. This will be used extensively for mineral exploration and development programs; and reporting.

II – TECHNICAL DATA AND INTERPRETATION

2013 EXPLORATION PROGRAM

The property geology described here is based largely on Schiarizza and Preto Dec 1987, Dixon and Warren et al 1997; Logan and Mann April 2000; as well as BC Assessment Report 26216 by G. Evans Dec 1999 (Teck Corp). For detailed information, consult the above references and additional references given in LITERATURE CITED.

A. PROPERTY GEOLOGY:

The property geology and rock type descriptions are based entirely on Schiarizza and Preto Dec 1987; Dixon and Warren et al 1997; Logan and Mann April 2000; and GeoFile 2005-4 downloaded from the Ministry of Energy Mines website. For detailed information, consult the above references and additional references given in LITERATURE CITED. See ILLUSTRATION # 5 and TABLE 6 below, and the geology map provided in the APPENDIX.

Regionally, this property is located in the Kootenay Terrane at or, near the main contact between the mid-CRETACEOUS Baldy Batholith Unit **[Kg, also KBBgd, KBBmg]** the DEVONO-MISSISSIPPIAN Eagle Bay Assemblage Unit **[EB**], and the late DEVONIAN Paragneiss Unit **[Dgnp]**. On the west side of the BARRIERE RIDGE claims along the western boundary of Tenures 844644/844645, the claims are at the contact between the Fennell Formation **[lF]** (Slide Mountain Terrane) and the Eagle Bay Assemblege (Kootenay Terrane).

The Baldy Batholith is generally considered MID-CRETACEOUS at 80 to 100Ma. The **Kg** is a massive granite and granodiorite intrusive. The Eagle Bay Assemblege **[EB]** is a series of low-grade meta-sedimentary and meta-volcanic

rocks. The Fennell Formation [**uF** – upper structural division; **lF** – lower structural division is comprised of oceanic rocks which were tectonically emplaced over Mississippian rocks of the Eagle Bay Assemblege in early Mesozoic time. The **lF** and **EB** successions are cut by mid-Cretaceous granitic rocks, and by Early Tertiary quartz feldspar porhhyry, basalt and lamprophyre dykes. The Late Devonian Paragneiss Unit **[Dgnp],** is absent from the BARRIERE RIDGE claims.

The following is a brief description of the various rock types:

1. Kootenay Terrane: Lower Cambrian (and older?) to Mississipian

(a) EBF: *Devonian and/or Mississipian – light to medium grey, rusty weathering felspathic phyllite, schist and fragmental schist derived from intermediate tuff and volcanic breccia; minor amounts of dark grey phyllite and siltstone.*

(b) EBA: *Devonian – light silvery grey to medium greenish grey sericite-quartz phyllite and sericite-chlorite-quartz phyllite derived from felsic to intermediate volcanic and volcaniclastic rocks, including pyritic, felspathic and coarsely fragmental varieties; lesser amounts of dark grey phyllite and siltstone, green chloiritc phyllite, sericiteic quartzite and pyritic chert (exhlite?).*

(c) EBG: *Lower Cambrian (may include younger and or older rocks) Medium to dark green calcareious chlorite schist, fragmental schist and greenstone derived largely from mafic to intermediate volcanic and volcaniclastic rocks; lesser amounts of limeston and dolostone; minor amouns of quartzite grit and light to dark grey phyllite.*

- EBGp: *dark grey phyllite, calcareious phyllite and limestone; minor amounts of rusty weathering carbonate-sericite-quartz phyllite (metatuff?).*
- EBGq: *light to medium grey quartzite.*
- EBGt: *Tshinakin limestone member – massive light grey finely crystalline limestone dolostone.*

(d) EBP: *Mississippian – dark grey phylilite and slate with interbeedded siltstone, sandstone and grit; lesser amounts of conglomerate, limestone, dolostone, chlorite-sericite quartz schist, quartzite and metatuff.*

- EBPv: *metavolcanic breccia and tuff.*

(e) EBQ: *Lower Cambrian ? and Hadrynian ? – light to dark grey quartzite, micaceious quartzite, grit chlorite-muscovite-quartz schist and phyllite; lesser amounts of calcareous phyllite, calc-silicate schist, carbonate and green chlorite schist; eastern exposures include staurolite-garnet-mica schist and amphibolite.*
Note: Described by Logan and Mann (April 2000) as **"HCEBQ";** and **"HCEBQgn"** *includes orthogneiss of unit* **Dgn***, as well as sericite-quartz phyllite derived from quartz porphyry dikes and sills*.

2. Slide Mountain Terrane: Devonian to Permain: Fennell Formation – Lower Structural Division

(a) lFu: *Undivided; mainly lFc, lFg and lFb, but may include any or all of the Fennell Formation rock types.*

- lFc: *grey and green bedded chert, certy argillite, slate and phyllite.*
- lFg: *gabbro, diorite, diabase.*
- lFb: *grey and green pillowed and massive metabasalt; minor amounts of basaltic breccia and tuff.*

3. Cretaceous

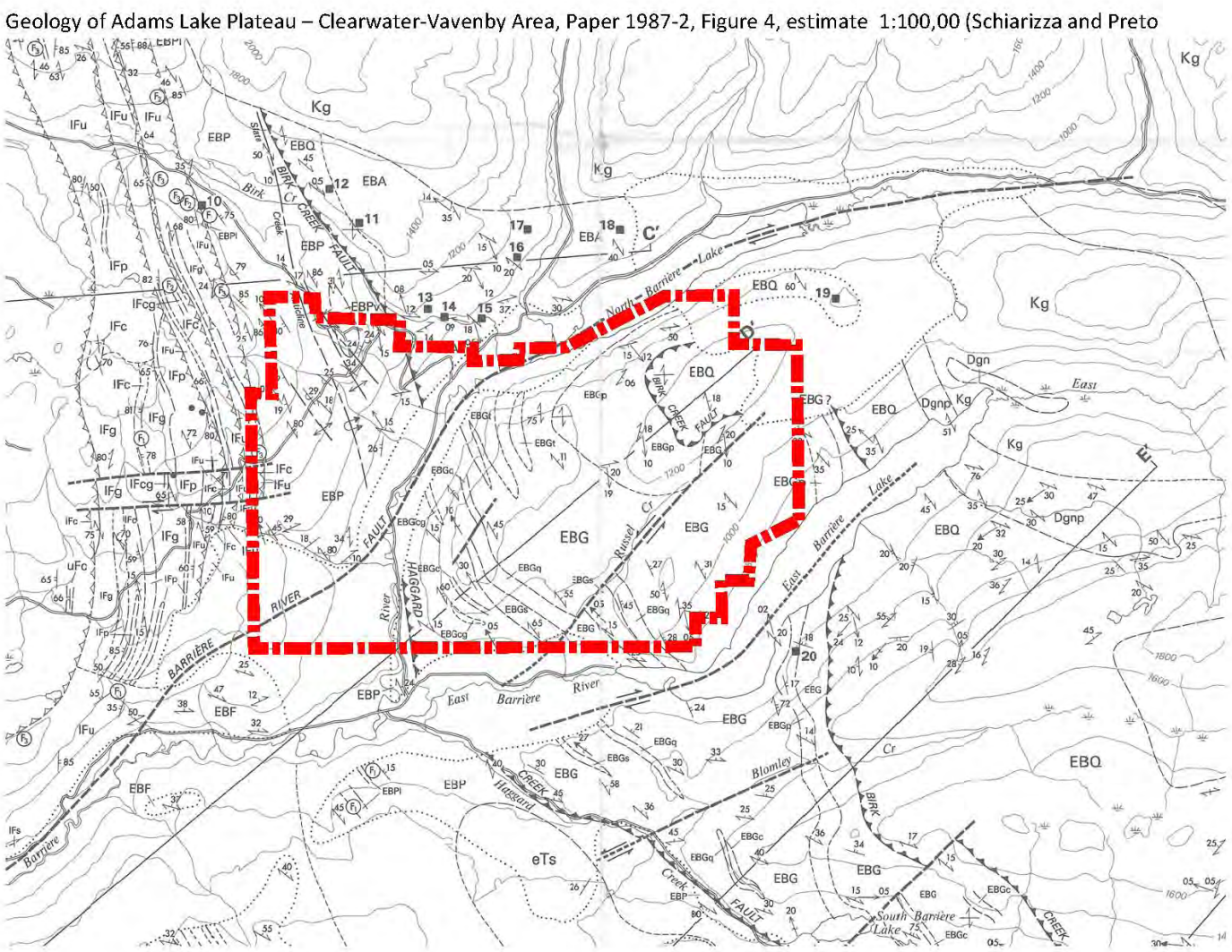
(a) **Kg:** *granite and granodiorite***; Kgp** *includes abundant pegmatite;* **KBBmg** – *medium to course grained, pink potassium feldspar megacrystic biotite monzogranite, hornblende-biotite monzodiorite and coarse pegmatite segregations*; **KBBgd** – *coarse potassium feldspar megacrystic hornblende-biotite granite to granodiorite, coarse equigranular biotite monzogranite (KBBg) and medium-grained aplite dikes.*

4. Geologic Faults: A number of important geologic faults occur within the BARRIERE RIDGE claims (Schiarizza and Preto Dec 1987 Figure 4 map). They are as follows:

- The Barriere River Fault which follows the Barriere River and North Barriere Lake in a southwest to northeast direction.

- The Birk Creek Fault which follows Birk Creek in a northwest to south east direction. This fault forms a junction with the Barriere River Fault at the confluence of Birk Creek. The fault forms a NE facing "U-shape" on the height of land between North Barriere Lake and East Barriere Lake; and continues in a southerly direction south of East Barriere Lake.
- The Haggard Creek Fault which follows Haggard Creek in a southeast to northwest direction; and follows the Barriere River upstream from the confluence with the East Barriere River.
- The Russell Creek Fault runs in a southwest to northeasterly direction up Russell Creek.
- The East Barriere Lake Fault runs up the center of East Barriere Lake in a roughly southwest to northeasterly direction.

ILLUSTRATION # 13: Map excerpt from Figure 4 of Schiarizza and Preto Dec 1987 showing the geology and faults in the vicinity of North Barriere Lake, East Barriere Lake, Adams Lake (not to scale). The North on this map is up. See cross section in the next Illustration.



BRITISH COLUMBIA GEOLOGICAL SURVEY DATA (BCGS):

The BCGS has completed a number of regional geochemistry surveys including till, stream water, steam/moss sediment, and geological mapping works as follows:

(a) *Till Geochemistry of the Adams Lake Plateau - North Barriere Lake Area (82M/4 & 5) – Open File 1997-9.* (Bobrowsky et. al. 1997).

(b) *Regional Stream Water Geochemistry of the Adams Lake – North Barriere Lake Area, British Columbia (NTS 82M/4 and 82M/5) – Open File 1998-9* (Lett, Sibbick, Runnells January 1999)

(c) *Stream Geochemical Exploration for Pluton-Related Quartz Vein Gold Deposits in Southern British Columbia - Open File 2000-23.* (Lett, Jackaman, Englund April 2000).

(d) *Geology & Mineralization around Baldy Batholith, Southcentral BC. Map Scale 1:50 000. NTS 82M/3, 4, 5 &6.* Open File 2000-7. (Logan and Mann April 2000).

(e) *Geology of the Adams Plateau-Clearwater-Vavenby Area; B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 1987-2.* Schiarizza, P. and Preto, V. (1987).

(f) *British Columbia Regional Geochemical Survey, Seymour Arm - NTS82M - RGS 33* (P.F. Maytysek et al 1991)

Anomalies and geological mapping summarized in these 6 OPEN FILE/PAPER references, when considered together, formed part of the basis for this 2010/2011 exploration program. On a number of occasions, the author spoke to various authors named above to obtain (free) advise concerning various aspects of their work (i.e. Jim Logan, Ray Letts, and Paul Schiarizza).

ILLUSTRATION # 14: Geological Cross Section D, an excerpt from Figure 4): An excerpt from *Geology of the Adams Plateau-Clearwater-Vavenby Area; B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 1987-2.* Schiarizza, P. and Preto, V. (1987). View is to the north and west is at the bottom of the page.

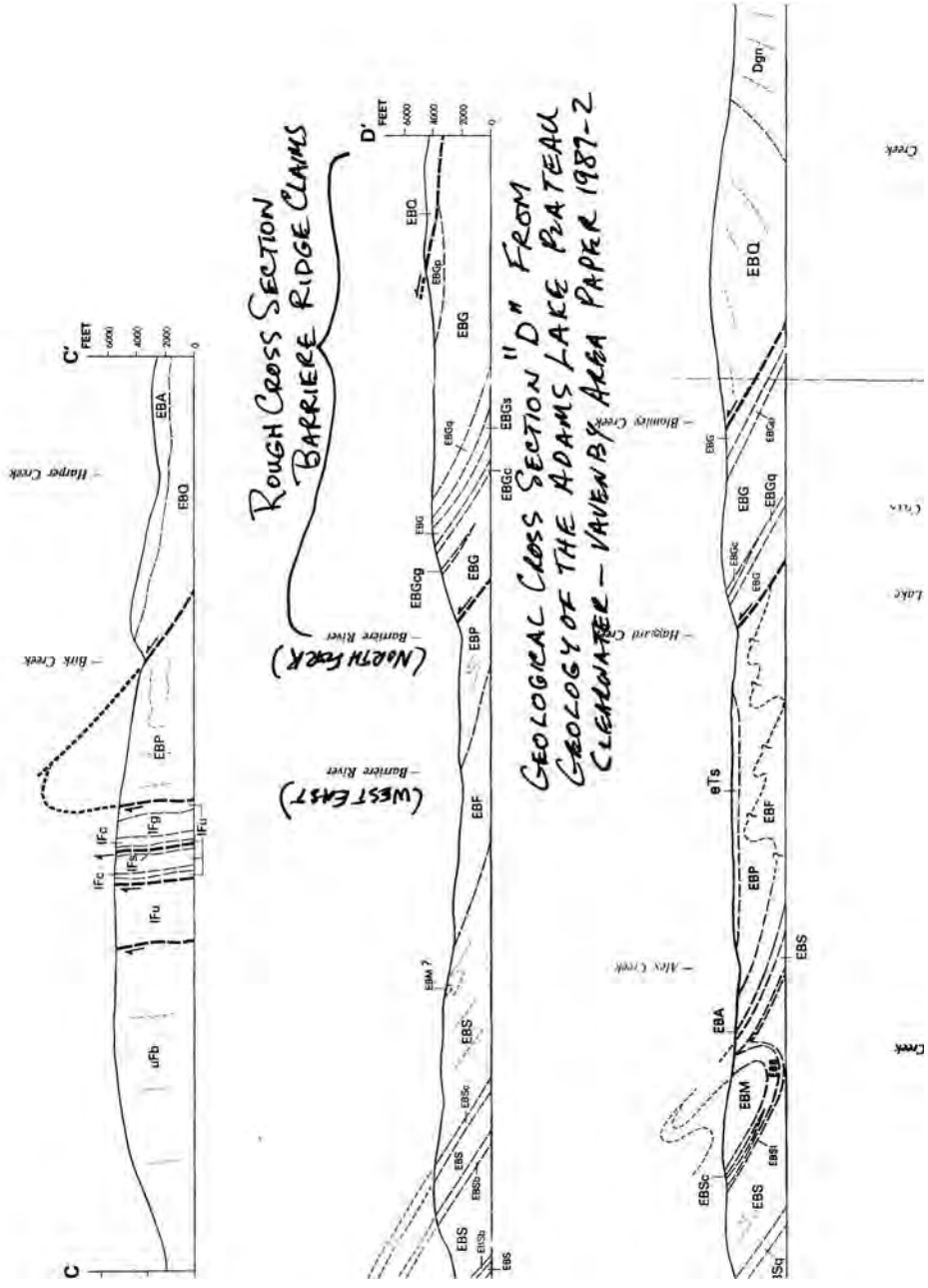


ILLUSTRATION # 15: Map excerpt directly from OPEN FILE 2000-7 Logan and Mann April 2000 showing the geology and faults in the vicinity of North Barriere Lake, East Barriere Lake, Adams Lake (estimated scale <1:100,000). North is up.

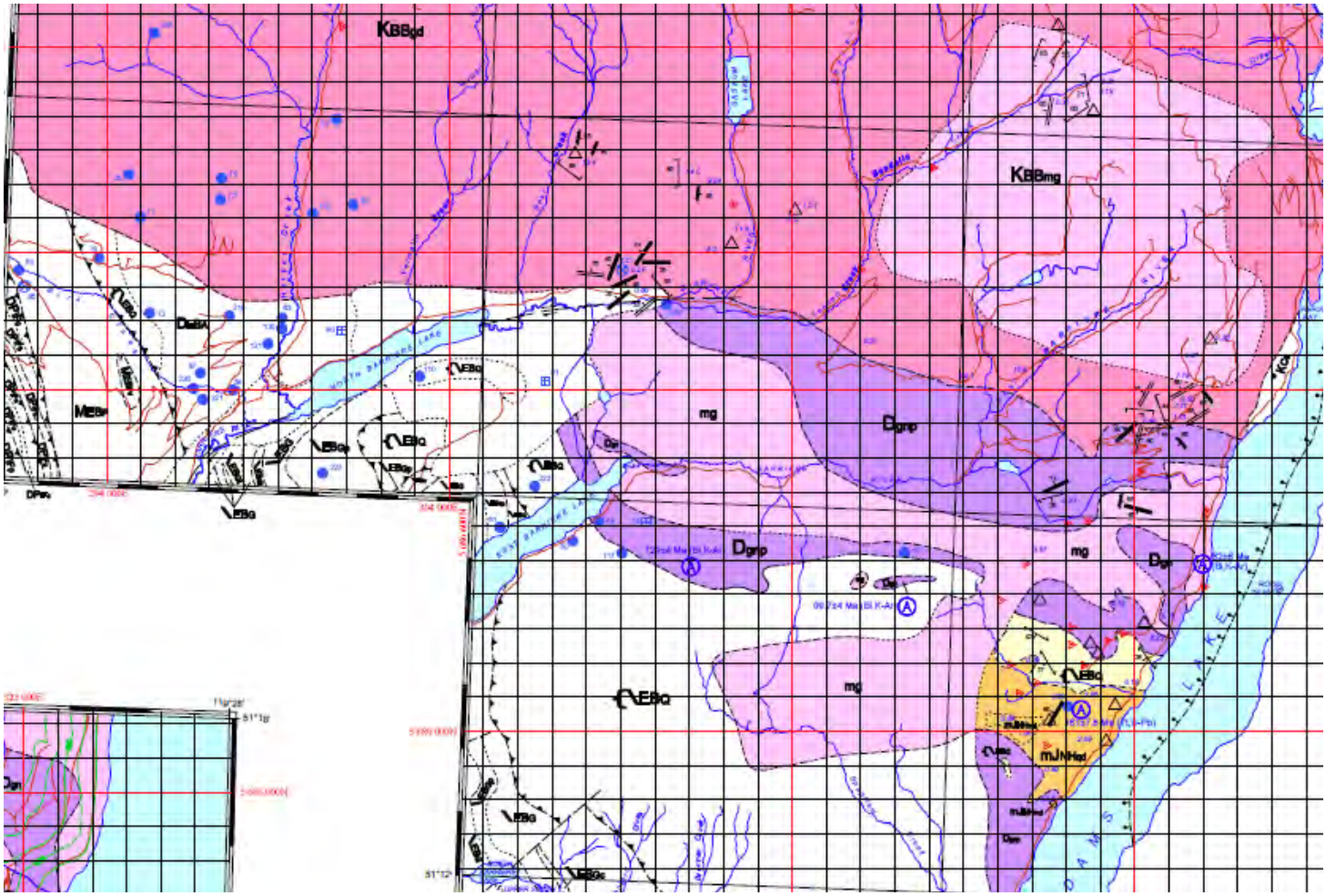


TABLE 15: GEOLOGY OF THE BARRIERE RIDGE CLAIMS: This table gives a detailed summary of each claim based on GeoFile 2005-4 and Open File 2007-7. See also Schiarizza and Preto 1987 and geology maps in the APPENDICIES

Tenure	Geology
744542	EBG; EBGt with fingers forming in northwest to southeast direction. Hosts WHITE ROCK MINFILE.
744562	EBG; with EBGq in the south 1/2.
744582	EBGp; EBG in SW corner; sliver of EBG in NW.
744602	EBG; EBGp in north 1/3. Hosts new discovery SILVERGAL showing.
759003	EBG; and EBGq in a finger on SW corner. Hosts SILVER MINNOW MINFILE.
767042	EBQ in center and east half; EBGp in SW corner and NW corner.
767062	EBG; EBGp in NW corner.
767102	EBG; EBGq in NE corner.
767123	EBG; EBGq in a NW to SE sliver in middle of claims.
840411	EBG; EBP? in a sliver on SW corner (see note below).
840413	Complex geology; EBG predominately with sliver of EBGt, EBA, EBP, EBQ.
840415	EBG; EBP? in sliver on west boundary (see note below).

840417	EBQ; with EBG on south 1/4; EBGp in sliver on east boundary.
840418	EBG.
844642	EBP on SW half; EBA on NE half.
844643	EBP; EBPv finger on north boundary.
844644	EBP; lFu of Fennell Formation on extreme west boundary.
844645	EBP? (see note below); lFu of Fennell Formation on extreme NW boundary.
844646	EBP? (see note below); EBF sliver on SW corner.
844647	EBP? on East half (see note below); EBF on west half.
NOTE:	*Tenures 840411, 840415, 844645, 844646, and 844647 have a portion classified as EBP? as the map Figure 4 (Schiarizza and Preto Dec 1987) specifically classify the geologic unit. In Figure 5 of (Schiarizza and Preto Dec 1987) Cross Section D describes the area as EBP therefore EBP is used in this table.*

B. 2013 EXPLORATION METHODS, WORKS AND OBJECTIVES:

Sampling methods, works and objectives are discussed in the following 6 sections:

1. **Sampling Methods and Analysis Procedures**
2. **Stream Sediment Surveys**
3. **Moss Mat Surveys,**
4. **Soil Sampling**
5. **Rock Samples**
6. **Assay and Analytical Procedures.**

1. Sampling Methods and Analysis Procedures:

Sample locations were marked with winter weight survey ribbon, and/or an aluminum tag or white Tyvek tag. In most circumstances the interval between sample locations was marked with "candy stripe orange & black" survey ribbon, and each sample site was marked with florescent orange or florescent pink ribbon.

A Garmin 60CSx (or Garmin 12XL) was used to collect Global Position System (GPS) waypoints. GPS data was collected using the Universal Transverse Mercator Grid (UTM) in NAD 83 and usually 4 or more satellites were used for waypoints unless narrow gullies, ravines, and heavy timber made waypoint collection problematic. Where the sample location is problematic, in terms of satellite reception (i.e. deep gully, forest cover), and only 2 satellites were obtained the UTM coordinates were interpolated from 3 adjacent waypoints by an iterative process, or by hip chain and compass bearing. Adjusted waypoints were confirmed by referencing the sample location on an orthographic map, at a scale of 1:5000, and/or re-confirming the location with prospecting field notes.

Sample waypoints were named according to the following naming convention:

- The Barriere Ridge claims had a prefix of "BR13__"; and the second 2 digits give the year.
- The Sprague Creek area had a prefix of "SG__".
- The SILVER MINNOW area had a prefix "SM__"
- Stream sediment sample waypoints – "_SS_" (i.e. BR13SS__).
- Moss Mat sediment sample waypoints – "_MM_" (i.e. BR13MM__).
- Soil or Till sample waypoints – "_T_" or "__T" (i.e. SGT__ or (i.e. "BR13__T".
- Float Rock sample waypoints – "_FT_ " (i.e. BR13FT__) or (i.e. BR13FL__).
- Rock sample waypoints – "_R_" (i.e. BR13_R__) and are associated with talus or outcrops.
- Grab sample waypoints – "_GR_" (i.e. BR13_GR__")
- Channel sample waypoints– "_CH_ " (i.e. BR13CH__)
- Quartz Veins waypoints – "_Q_" or "_QZ_" or "_QTZ_" (i.e. BR_QZ__) or (i.e. SG_QZ__")
- Limestone waypoints "_LIM_" or "_QLIM_" for quartz limestone.

Important samples sites were photographed with a digital camera for future reference. Rocks, outcrops and sample sites were photographed in the field, and then at home a close up of each sample rock (macro zoom) was taken before being assayed. Before sealing the sample bag for assay, a voucher specimen piece was taken from the sample bag, and marked and securely stored for future reference.

2. Stream Sediment Surveys:

Usually a stream sediment sample is collected in tandem with a moss mat sample because the moss mats tended to give more reliable data for gold anomalies.

Stream sediment surveys were collected using a clean plastic hand trowel, black/green plastic gold pan (40cm diameter), black plastic door screen (0.1 inch square), and kraft sample bags. Stream sediments were collected from the centre of the main stream channel. The trowel or D-handled spade was used to dig the gravels and sand from the creek bed and the material was dumped into a clean plastic gold pan which had been covered by the black plastic screen. Approximately 4.5 litres of gravel, sand, and silt were collected; sieved with a plastic screen, and lightly panned. Gravels were removed and discarded on the steam bank. The whole remaining sample was troweled or poured into a kraft sample bag. In some cases, the kraft bags were double bagged because they were too wet and would break. The location was GPS'd, and samples were air dried in Kamloops prior to assay at ALS Minerals in Kamloops.

To determine if stream sediment assay results were anomalous they were compared to statistical (90 percentile) references given in Lett, Jackaman, Englund April 2000.

3. Moss Mat Surveys:

Usually a moss mat sample is collected in tandem with a stream sediment sample because the stream sediment samples tended to give more reliable data for elements other than gold.

Moss mat samples were collected using methods recommended Open File 2000-23 (Lett, Jackaman, Englund April 2000), and based on numerous personal communications with Dr. Ray Letts a co-author. Moss mats were collected by hand from the main stream channel and from (overhanging or partially submerged) moss on the edge of the main water flow. The moss was attached to rocks, logs, and stream banks. Moss Mat samples were compacted tightly into white "cloth" linen-like bags. Approximately 4.0 – 5.0 litres of moss, organics, sands, and silts were collected. Large gravels and sticks were removed unless they were encrusted with sediments. In order to ensure moss mat samples were not cross contaminated while packing them out of the bush the moss mat bags were put into plastic bags. These plastic bags were removed at the vehicle so the samples would not become moldy prior to drying. The location was GPS'd, and samples were air dried in Kamloops prior to assay at ALS Minerals in Kamloops.

Based on recommendations in Open File 2000-23, moss mat sampling is a preferred sampling method for heavy sediments like gold. For the purposes of prospecting at each sample site both a stream sediment sample and a moss mat samples were collected. In the odd case, a moss mat was not collected due to the lack of suitable stream moss for collection purposes. There was no intent to conduct efficacy studies on the two sampling methods as part of this assessment report.

To determine if moss mat assay results were anomalous they were compared to statistical (90 percentile) references given in Lett, Jackaman, Englund April 2000.

4. Soil Sampling:

Surface soils (exposed in road cuts or skidder trails) containing color anomalies were observed in some locations. On a prospective basis, random soil samples were collected from the apparently altered soil. A shallow pit or hand trench (i.e. 0.5m x 0.5m x 0.4m) was dug with a grub hoe, geotul, or shovel. The soil sample was collected with a

clean plastic hand trowel and put in a kraft soil bag. If samples were very wet they were double bagged to ensure the samples was secure. The location was GPS'd and photographed; and samples were then air dried in Kamloops prior to assay at ALS Minerals in Kamloops. To determine if soil sample assay results were anomalous they were compared to statistical (90 percentile) references given in Open File 1997-9 (Bobrowsky, et al. 1999).

A hand held compass, hip chain, and a GPS unit were used to survey soil grids. Sample stations were marked with survey ribbon and Tyvek tags. Where possible, soil samples were taken with a hand powered soil auger except on rocky sites where a geotul or rock hammer was used to dig a small sampling pit.

In previously reported soil grids at BARRIERE RIDGE (i.e. SILVERGAL SOIL GRID and SILVER MINNOW SOIL GRID) stations were established using a "preset" UTM grid using a Garmin 60scx hand held GPS (25 metre interval). The strip lines were following a UTM easterly strip line. Periodically, a hip chain was used to measure the distance between samples to make sure the GPS working properly.

Where possible, soil samples were collected from the top of the B horizon (usually Bf, Bm, Bmf, or Bh) based on the reference *The Canadian System of Soil Classification* (1987) as well as the *Taxonomic Classification of Humus Forms in Ecosystems of British Columbia* (Klinka et al 1981).

5. Rock Samples:

Rock samples were collected using a geotul, rock hammer, sledge hammer or grub hoe. In certain cases small prospecting hand trenches (i.e. 0.5m x 0.5m x0.4m) were made to collect the sample. All samples were broken to a suitable size and collected in plastic samples bags secured with survey ribbon. The plastic bags were permanently marked for identification purposes and survey ribbon (sample no.) was placed inside the bag just in case the markings on the bag were rubbed off.

The location was GPS'd. The collection site and rocks were photographed with a digital camera, and again (macro zoom) prior to being sent to the assay lab for processing. Where necessary, field notes described the location of the samples and rough sketch maps were made of rock faces showing the detailed sample location. Care was taken to note if samples were a random sample, selective sample, channel sample, grab sample, glacial float sample, stream float sample, or from outcrop. Some rocks were collected, observed and not assayed. These rocks were discarded in a sensitive manner.

6. Assay and Analytical Procedures:

Assay and analytical work are done by ALS Minerals Canada following international certification practices. In the interest of brevity, refer to their website (http://www.alsglobal.com/en/Our-Services/Minerals) for more specific assay criterion; and also the information provided in the APPENDIX.

C. 2013- EXPLORATION AND ANALYTICAL RESULTS:

In February 28, 2013, the BARRIERE RIDGE option to Astral/Orex was terminated therefore, a fresh start was required to review and assemble all the related exploration work, exploration reports, literature, and proposed works.

In 2013, in general terms, exploration works involved as follows:

- Prospecting, sampling (rock, soil, stream), and geochemical assays.
- Analyzing geochemical assay results to test for first and second order anomalies.
- The review of the Fugro airborne geophysical work and interpretations report including data and maps.
- The review and upload spatial files of the digital aerial photography by Photosat in to UDIG software.

- Field checking, and planning preparatory surveys, and geochemical survey work for 2013 and early 2014.
- Working with a company geologist (Dale Brittliffe, P.Geo.) related to interpreting geophysical results and maps.
- Communication with First Nations.
- Communication with BC Timber Sales concerning proposed harvesting and road access for mineral exploration.
- Database management and update.
- Initiating a new GIS spatial software package called UDIG and importing BARRIERE RIDGE data into this new software.
- Joint field inspection and sampling of the main showings with Jim Britton, Regional Geologist, Mining Operations Kamloops, B.C. (jim.britton@gov.bc.ca and phone 250-371-3903).
- Literature searches and research (BCGS, GSC, Internet searches) concerning historic assessment work from government data sets and published literature related to the Eagle Bay Assemblege and Ag Pb Zn deposits.
- Review of historic literature and research concerning the geology and geochemistry of the BARRIERE RIDE claims. A number of new publications were added to the bibliography and government websites were used for example: "Property File, etc".

Exploration work was completed by David J. Piggin from March 28, 2013 to March 17, 2014. Some follow-up work was done by Dale Brittliffe, P.Geo. (Orex Minerals Inc.) related to the compilation of data sets, drawing and compilation of maps, and exploration related reports. A detailed cost summary is at the end of this report just before the APPENDIX.

The Mineral Claim Exploration and Development Work/Expiry Date MTOnline documents were recorded under EVENT 5495274 as shown in the following table.

TABLE 16: Cost Summary by EVENT Number: A cost summary is presented at the end of this report before the APPENDIX.

Event No.	Date	Area (hectares)	Total Value of Work($)	PAC Account ($)	Total Applied Work Value ($)
5495274	March 18, 2014	8,307.9800	$ 27,564.27	$ 11,813.26	$ 39,377.26
TOTAL EXPENDITURES		8,307.9800 **hectares**	**$ 27,564.27**	**$ 11,813.26**	**$ 39,377.26**

In general terms, all exploration works (where applicable) are given in the APPENDICIES for example: overview maps, the general location of prospecting work, detailed maps showing sampling locations and anomalous results, as well as assay results. The following is a brief summary of the works completed:

- Total Applied Work Value $ 39,377.26 on 8,307.9800 hectares.
- A total of 22 samples (9 rock, 12 soil, 1 moss mat) were collected and assayed.
- Collated and mapped anomalous results.
- The **SILVERBOY** showing was discovered in Tenure 744542.

10E41072 SM13R2 Ag 246 ppm; Bi 56.6 ppm; Cu 171.5 ppm; Cd 190 ppm; Pb 13.55 percent; Sb 237 ppm; Se 35 ppm; Sn 2 ppm; Te 29.3 ppm; Zn 5.34 percent.

10E41071 SM13R1MALIC:

Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent; Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm.

- **Sprague Creek in Tenure 644845:** A new Au (multi-element) in soils anomaly was discovered about 750 metres north of Sprague Creek. **10E41059_SR13QT1: Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm**. The RGS stream sediment on Sprague Creek indicates the creek is anomalous for gold.
- **South of North Barriere Lake in Tenure 767042:** A new Au multi-element soil anomaly was discovered.
- **Prospected** recently logged areas and new roads for rock and soil anomalies; and outcrop exposures.

- **Fugro**: Reviewed the report: *"Magnetic and EM Interpretation Airborne Magnetic and HeliTEM Survey BARRIERE RIDGE and HONEYMOON Blocks British Columbia - Job No. 12578"* dated February 2013.
- **Fugro:** Reviewed the reprocessing and targeting study "*Magnetic and EM Interpretation Airborne Magnetic and HELITEM Survey - BARRIERE RIDGE AND HONEYMOON Blocks, British Columbia - Job No. 12578"* dated February 2013.
- Updated the **UDIG database** with the Photosat aerial photography: 0.5m pixel 2012 image, and other data.
- **Research:** Conducted literature and general research for publications related to the Eagle Bay Asemblege and Ag Pb Zn deposits (i.e. Geoscience BC, BC Geological Survey).
- **FIRST NATIONS letter 2013:** A First Nations information letter/package was completed and submitted to each First Nation between May 17, 2013 and May 19, 2013. The letter was 3 pages plus an overview tenure map. The package included a detailed summary with maps and photographs of the BARRIERE RIDGE claims including geology and exploration works (25 pages). The letter/package was sent to the Simpcw First Nation in Chu Chua (north of Barriere); Adams Lake Indian Band in Chase; the Neskonlith First Nation in Chase; the Little Shuswap Indian Nation in Chase.
- **FIRST NATIONS letter 2014:** A First Nations information letter/package was completed and submitted to each First Nation on February 26, 2014. The letter had 3 pages plus an overview tenure map. The package included a detailed summary with maps and photographs of the BARRIERE RIDGE claims including geology and exploration works (25 pages). The letter/package was sent to the Simpcw First Nation in Chu Chua (north of Barriere); Adams Lake Indian Band in Chase; the Neskonlith First Nation in Chase; the Little Shuswap Indian Nation in Chase.
- **BC Timber Sales:** Letters, telecons, email correspondence, and an office visit with BC Timber Sales representatives (Bert Middleburg, RPF) to coordinate harvesting, road building, and follow-up road closures with mineral explorations.
- **Database management** and update; including work on UDIG GIS software. Continue to update and work on an EXCEL database.

Discussion of the 2013 exploration work is provided here in the following five sections:

1. **Rock Samples,**
2. **Soil Samples,**
3. **Stream Sediment Samples.**
4. **Fugro Airborne Geophysics/Intrepretation Report** (Anomalous Rock, Soil, and Stream Samples)**.**
5. **First Nations.**
6. **Joint Field Inspection, Regional Geologist.**

1. ROCK SAMPLES:

A total of 9 rock samples were collected and assayed. A complete list of the sample tag numbers, GPS coordinates, rock descriptions, detailed location maps (1:10,000), anomalous results, and assay certificates are given in the APPENDICIES. A short list of selected anomalous results for certain selected elements is given in the TABLE below.

SILVERBOY Discovery: A new Ag Pb Zn discovery was made as follows (see TABLE and photographs in the following pages):

10E41072 SM13R2:
Ag 246 ppm; Bi 56.6 ppm; Cu 171.5 ppm; Cd 190 ppm; Pb 13.55 percent; Sb 237 ppm; Se 35 ppm; Sn 2 ppm; Te 29.3 ppm; Zn 5.34 percent.

10E41071 SM13R1MALIC:
Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent; Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm.

ILLUSTRATION #16: Close up of SILVERBOY showing. Sample **10E41072_SM13R2: Ag 246 ppm; Cu 171.5 ppm; Pb 13.55 %; Sb 237 ppm; Zn 5.34 %.** Limestone with quartz veins, veinlets, and stockwork.(IMG_1549.jpg)

ILLUSTRATION #17: Close up of SILVERBOY sample: Limestone with quartz veins, veinlets, and stockwork. **10E41072_SM13R2: Ag 246 ppm; Cu 171.5 ppm; Pb 13.55 %; Sb 237 ppm; Zn 5.34 %** (IMG_1668.jpg)

ILLUSTRATION #18 Close up of SILVERBOY. Sample **10E41072_SM13R2: Ag 246 ppm; Cu 171.5 ppm; Pb 13.55 %; Sb 237 ppm; Zn 5.34 %** : Limestone with quartz veins, veinlets, and stockwork. (IMG_1670.jpg)

The SILVERBOY host rock is similar to the SILVERGAL showing – a massive limestone outcrop with silver-galena-sphalerite-malachite mineralization (Ag Pb Zn Cu) in quartz veins-veinlets-stockwork. At SILVERBOY a subtle malachite staining was observed in a quartz vein exposed in a machine trench (sample 10E41071 SM13R1MALIC) and followed along strike 10 metres to the SILVERBOY discovery at sample 10E41072 SM13R2.

For reference purposes, the SILVERBOY discovery is located about:

- 384 metres northeast of the WHITE ROCK MINFILE Adit No. 1.
- 420 metres north of the SILVER MINNOW adit.
- 3.4 km north of the SILVERGAL discovery.

The SILVERBOY host rock is identical to the SILVERGAL showing therefore, there is a need to prospect for similar mineralized outcrops between the SILVERBOY and SILVER MINNOW zones; and the SILVERGAL zone, 3.4 km to the south. It appears the SILVERBOY grab sample grades are similar to the SILVERGAL and SILVER MINNOW showings.

In addition to this in 2011, within close proximity to the SILVERBOY, an area of limestone quartz breccia of prospective (subtle) malachite staining was observed and requires additional sampling and trenching. This malachite staining was sampled (10E41016 SM11R999 and 10E41017 SM11R999A) and reported in ARIS 33190.

In 2011 (ARIS 33190),
10E41016 SM11R999: Au 29.2 ppb, Ag 50.4 ppm, Cu 1475 ppm, Pb 1275 ppm, Sb 533 ppm, Zn 2990 ppm.

High Priority Target: The SILVERBOY and limestone breccia area are a high priority target for a soil geochemical and ground geophysical surveys, trenching and drilling.

ILLUSTRATION #19: Close up of the 10E41071 SM13R1MALIC (10m from SILVERBOY) quartz vein with malachite staining located in the cut slope of an old machine trench. Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent; Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm. Quartz vein is at the head of the geotul and where the survey ribbon is tied. (IMG_1545.jpg)

ILLUSTRATION #20: Close up of the 10E41071 SM13R1MALIC (10m from SILVERBOY) sample. Quartz vein with malachite staining located in the cut slope of an old machine trench. Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent; Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm. Quartz vein is at the head of the geotul and where the survey ribbon is tied. (IMG_1612.jpg)

TABLE 17 Partial List of Rock Anomalies

Sample Tag	Assay Certificate(s)	Comments	Anomalous Results
SILVERBOY Discovery **10E41072 SM13R2**	KL13184934	On strike 10 metres from 10E41071 SM13R1MALIC. Massive limestone outcrop, galena in Quartz veins veinlets stockwork Zone 11, 297919.055 E. 5687392.442 N.	**Ag 246 ppm; Bi 56.6 ppm; Cu 171.5 ppm; Cd 190 ppm; Pb 13.55 percent; Sb 237 ppm; Se 35 ppm; Sn 2 ppm; Te 29.3 ppm; Zn 5.34 percent**
10E41071 SM13R1MALIC **(10m from SILVERBOY)**	KL13184933	On strike 10 metres from SILVERBOY discovery 10E41072 SM13R2. Near vertical 80 deg quartz vein, strike 190 deg, with malachite stain, galena, in old trench cutslope. Zone 11, 2 297917.094 E. 5687399.071 N.	**Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent; Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm**
10E41066 BR13R3	KL13184933	rusty, suspect sulphides, gently dipping Eagle Bay sediments	Al 11.85 percent; Ce 150 ppm; Fe 5.16 percent; K 5.81 percent
10E41064 BR13R1	KL13184933	rusty, suspect sulphides, gently dipping Eagle Bay sediments	Al 7.39 percent; Ca 3.65 percent; Mg 1.91 percent; Na 1.65 percent; Ni 147.5 ppm
10E41065 BR13R2	KL13184933	rusty, suspect sulphides, gently dipping Eagle Bay sediments	Ca 4.31 percent; Fe 7.51 precent; Mg 2.42 percent: Na 1.67 percent; Ni 156 ppm;

A soil grid, called SILVER MINNOW1 GRID, was reported in ARIS 33190 report. It was located almost half way between SILVERBOY/SILVER MINNOW, and the SILVERGAL discovery. This soil grid obtained anomalous results with Au (up to 26 ppb), Ag (up to 0.7 ppm), Ca (up to 1.32 percent), Cu (up to 149.3 ppm), Mo (up to 1.54 ppm), Sb (up to 1.76 ppm), and Zn (up to 195.2 ppm). There is a need to expand this soil grid and determine if there are mineralized zones between the SILVERBOY and SILVER MINNOW zones; and the SILVERGAL zone. The grid could be used for geological mapping.

2. SOIL SAMPLES:

A total of 12 prospecting type- soil samples were collected and assayed. A complete list of the sample tag numbers, GPS coordinates, rock descriptions, detailed location maps, anomalous results, and assay certificates are given in the APPENDICIES.

Prospecting soils were collected to test soils which appeared to be altered or otherwise colored; or were next to mineralized glacial float and outcrop; or where rusty quartz was abundant in the till. Usually at least 2 or 3 samples were collected together about 25 metres apart.

A number of these samples were anomalous for various elements; and multiple elements such as Au, Ag, Cu, Pb, Zn, and W. A list of the anomalous soil samples is given in the table below.

ILLUSTRATION #21: Close up of the prospecting soil samples collected at BARRIERE RIDGE. (IMG_1687.jpg)

(a) <u>Sprague Creek – Gold In Soils</u>: Near the center of Tenure 844645, North of Sprague Creek 3 soil samples were collected that were anomalous for gold. See Illustration below. This is in an area of major faulting.

10E41059_SR13QT1: Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm.
10E41061_SR13QT3: Au 9.8 ppb; As 24 ppm; Ni 71.1 ppm
10E41060_SR13QT2: Au 7.3 ppb; As 30.3 ppm; Ba 220 ppm; Cu 61.5 ppm; Fe 4.45 %; Ni 91.3 ppm; Zn 107 ppm;

These 3 samples were collected 25 metres apart in a soil with numerous chunks and pieces of rusty quartz. The underlying bedrock was a dark bluey-grey colored (rusty on bedding surfaces) meta-sediment. Sprague Creek is anomalous for gold based on the Regional Stream Sediment Sample:
82M765098: Au 16 ppb; As 22 ppm; Ba 1400 ppm; Cu 41 ppm; Cr 200 ppm; Ni 65 ppm; Zn 89 ppm.
Therefore, we have 2 independent gold anomalies pointing to a gold source in the Sprague Creek drainage.

Sprague Creek Geology and Faulting: The Sprague Creek – Gold In Soils anomaly is within Tenure 844645, and the Eagle Bay Assemblege (EBP) – Kootenay Terrain. The extreme west boundary of Tenure 844645 hosts the contact (north-south trending) between the Slide Mountain Terrain - Fennell Formation (IFc, IFu); and the Kootenay Terrain. This is a major contact, and it is about 1300 metres west of the soil anomaly. Refer to the GEOLOGY section/maps above, and the maps given in the APPENDICIES.

On the eastern boundary and the southeast corner of Tenure 844645, the Barriere River Fault (northeast-southwest trending) contacts the Haggard Creek Fault (north-south trending). The Haggard Creek Faults apparently ends where it joins the Barriere River Fault. The junction of these 2 contacts is about 1500 metres east of the soil anomaly; and about 800 metres north of the mouth of Sprague Creek where RGS 82M765098 was taken.

Just north of Tenure 844645 (probably in Tenure 844644) the south end of the Slate Creek Anticline (north-south trending) starts, and trends north to the Birk Creek Fault. The south end of this anticline is about 1300 metres north of the soil anomaly.

Clearly, the Sprague Creek – Gold in Soils and RGS anomaly are highly prospective because they are sandwiched between a major tectonic contact; and major fault contacts. Recommend rock sampling, prospecting, geological mapping, geochemical and geophysical surveys be done prior to trenching and drilling.

A preparatory soil survey at the Sprague Creek Gold-In-Soils anomaly was proposed and sample stations were determined using UTM coordinates. The GPS coordinates for 205 stations (5 strips @ 1 km long; at 100 metre intervals) were determined. No field work has been done. Work may commence in April/May 2014 subject to snow conditions and funding.

ILLUSTRATION: #22. Sample Location for Soil Sample 10E41059_SR13QT1: Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm. Sample taken at center of picture above exposed bed rock (pink flagging). Numerous pieces of rusty quartz were observed in the glacial till. (IMG_1506.jpg)

(b) South of North Barriere Lake, in Tenure 767042: Near a "U" shaped portion of the Birk Creek Fault, anomalous soil samples **10E41051 BR13T1,** and **10E41052 BR13T2** were collected immediately adjacent to the moss mat sample (stream) **10E41063 BR13MM1** (see Table and photograph below).

10E41051 BR13T1: Au 6.5 ppb; Bi 0.44 ppm; Co 44 ppm; Cr 92 ppm; Cu 102.5 ppm; Fe 7.43 percent; Mg 1.34 percent; Mo 1.54 ppm; Ni 146.5 ppm; Pb 36.6 ppm; Zn 108 ppm

10E41063 BR13MM1: Ag 0.32 ppm; As 15.6 ppm; Hg 0.22 ppm; Mn 14,700 ppm; Mo 2.53 ppm; Ni 26.4 ppm; Sb 0.33 ppm

Both soil sample **10E41051 BR13T1** and moss mat stream sample **10E41063 BR13MM1** were anomalous for multi-elements. The stream was on very flat ground and drained a swampy poorly drained area on the top of the Barriere Ridge (a topographic feature). A nearby outcrop (<50m) was EB meta-sediment schist. Additional soil sampling and prospecting is required to investigate this Au multi-element, and Ag multi-element anomaly.

ILLUSTRATION #23: Sample Location for Soil Sample 10E41051 BR13T1 (pink ribbon on right side of photo) and Moss Mat Sample10E41063 BR13MM1 taken from creek just above the culvert at left. Note rusty soil color. (IMG_1517.jpg)

About 350 metres south of samples **10E41051 BR13T1 and 10E41063 BR13MM1** (still in Tenure 767042) there is another anomalous area for consideration with these two samples.

One sample was anomalous for bismuth and tungsten in clayey soils:
10E41054 BR13T4: Bi 0.57 ppm; Fe 4.43 percent; Pb 31.9 ppm; W 12.25 ppm.

A second sample located 50 metres northwest of **10E41054 BR13T4** was taken and it was anomalous for Au Ag (multi-element):
10E41053 BR13T3:
Au 6.7 ppb; Ag 0.54 ppm; Bi 0.52 ppm; Co 34.9 ppm; Fe 4.88 percent; Ni 72.2 ppm; Pb 39.9 ppm; Zn 153 ppm
This area was very flat and poorly drained with very fine clayey (gumbo) soils; relative absent of stones or cobbles.

This area requires further prospecting, rock sampling, and a geochemical soil survey. Proximity to the Birk Creek Fault may be important for mineralization.

ILLUSTRATION #24: Sample Location for Soil Sample 10E41051 BR13T, pink ribbon on left (IMG_1530.jpg).

TABLE 18 Partial List of Prospecting (only) – Soil Sample Anomalies

Sample Tag	Assay Certificate(s)	Comments	Anomalous Results
10E41059 SR13QT1	KL13199947 KL13184931	Bm horizon, light brown, clayey, poorly graded	**Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm**
10E41061 SR13QT3	KL13199947 KL13184931	Bm horizon, light brown, clayey, poorly graded	**Au 9.8 ppb; As 24 ppm; Ni 71.1 ppm**
10E41060 SR13QT2	KL13199947 KL13184931	Bm horizon, light brown, clayey, poorly graded	**Au 7.3 ppb; As 30.3 ppm; Ba 220 ppm; Cu 61.5 ppm; Fe 4.45 percent; Ni 91.3 ppm; Zn 107 ppm**
10E41053 BR13T3	KL13199944 KL13184930		**Au 6.7 ppb; Ag 0.54 ppm; Bi 0.52 ppm; Co 34.9 ppm; Fe 4.88 percent; Ni 72.2 ppm; Pb 39.9 ppm; Zn 153 ppm**
10E41051 BR13T1	KL13199944 KL13184930	Bf horizon, yellowish medium brown, clayey, poorly graded. Anomalous moss mat sample (stream) **10E41063 BR13MM1** is 6metres to soil sample.	**Au 6.5 ppb; Bi 0.44 ppm; Co 44 ppm; Cr 92 ppm; Cu 102.5 ppm; Fe 7.43 precent; Mg 1.34 percent; Mo 1.54 ppm; Ni 146.5 ppm; Pb 36.6 ppm; Zn 108 ppm**
10E41062 SM13T1	KL13199947 KL13184931		**Al 2.64 percent; Ca 6.26 percent; Pb 57.7 ppm; Sb 2.46 ppm; Zn 146 ppm**
10E41052 BR13T2	KL13199944 KL13184930	Bf horizon, yellowish medium brown, clayey, poorly graded. Anomalous moss mat sample (stream) **10E41063 BR13MM1** is 19 metres to soil sample.	Bi 0.4 ppm; Co 37.6 ppm; Cr 95 ppm; Cu 69 ppm; Fe 6.31 percent; Mg 1.47 percent; Ni 125 ppm; Pb 31.1 ppm; Zn 119 ppm
10E41054 BR13T4	KL13199944 KL13184930		Bi 0.57 ppm; Fe 4.43 percent; Pb 31.9 ppm; **W 12.25 ppm;**
10E41055 BR13T5	KL13199944 KL13184930		Bi 0.45 ppm; Pb 49.6 ppm
10E41056 BR13TQ1	KL13199944 KL13184930	Bg horizon, grey, clayey, poorly graded	Cu 70.4 ppm; Pb 35.4 ppm; Zn 114 ppm

Soil geochemistry results from ARIS 33190; Prospector Assistance Grant #98/99 P94 (1998-43) with gold in soils up to 555 ppb; and prospecting soil samples from this report (up to Au 25.7 ppb) confirm the presence of multiple Au (mult-element), Ag (multi-element) soil anomalies. These and other anomalies require follow-up work such as prospecting, rock sampling, additional soil geochemistry grids, geological mapping, ground geophysics, trenching and drilling.

Clearly, based on the soil geochemical data to date, there is a need for an expanded soil geochemical survey related to existing Ag Pb Zn anomalies such as the SILVER MINNOW MINFILE, SILVERGAL, the newly discovered SILVERBOY, and the newly discovered soil anomaly **10E41059 SR13QT1** north of Sprague Creek.

NOTE: A prospecting soil sample from ARIS 33190, located west and downhill from the SILVER MINNOW, returned **10E41191 SM11FRAT: Au 18.1 ppb, Ag 9.74 ppm, Cu 53.4 ppm, Pb 1835 ppm, Zn 2730 ppm**. This would be within the proposed SILVERMINNOW2 Grid.

3. STREAM SEDIMENT SAMPLES:

A total of 1 moss mat sample (stream moss) was collected and assayed during this exploration period. No stream sediment samples were collected.

As indicated in the previous section, anomalous soil samples **10E41051 BR13T1,** and **10E41052 BR13T2** were collected immediately adjacent to the moss mat sample **10E41063 BR13MM1.** Both soil sample **10E41051 BR13T1** and moss mat sample **10E41063 BR13MM1** were anomalous for Au and Mo as well as other elements. Additional soil sampling and prospecting is required to investigate this Au Mo anomaly.

TABLE 10 List of Moss Mat Anomalies (stream).

Sample Tag	Assay Certificate(s)	Comments	Anomalous Results
10E41063 BR13MM1	KL13184932 KL13199946	Adjacent to soil samples **10E41062 SM13T1** (6 metres) and 10E41052 BR13T2 (19 metres)	**Ag 0.32 ppm; As 15.6 ppm; Hg 0.22 ppm; Mn 14,700 ppm; Mo 2.53 ppm; Ni 26.4 ppm; Sb 0.33 ppm**

ILLUSTRATION #25: Close up of the prospecting moss mat sample 10E41063 BR13MM1collected at BARRIERE RIDGE. (IMG_1688.jpg)

4. **Fugro Airborne Geophysics/Intrepretation Report** (Anomalous Rock, Soil, and Stream Samples).

There is a need to compare, contrast, interpret, and field check the results of the Fugro Airborne Geophysics Report and follow-up Interpretations Report, using a spatial GIS database, with the following data included:

- Anomalous rock, soil, and stream sediment assay results from ARIS 32383, 33190, 33744.
- Anomalous rock, soil, and stream sediment assay results from this report.
- Historical data and geological mapping from old ARIS reports where appropriate.
- Historical data collected by David Piggin for a Prospector Assistance Grant #98/99 P94 (1998-43).
- Existing geological mapping.
- Existing fault and structural information.
- Additional geological mapping that may done in 2014.

Outputs from this spatial information would be used to prioritize exploration areas for further targeting, prospecting, geochemical and ground geophysical surveys, trenching and drilling; and to provide a framework to field test various geophysical and structural anomalies identified by the Fugro Airborne Survey and Interpretation Report.

5. **FIRST NATIONS**:

Based on current government information, the following First Nations may have aboriginal interests in the BARRIERE RIDGE mineral tenure(s) area. This is a preliminary First Nations contact list and should not be considered conclusive.

- Adams Lake Indian Band, Chief and Council, Hillcrest Road, PO Box 588, Chase, British Columbia, V0E 1M0
  Phone: 250-679-8841, Fax: 250-679-8813
- Neskonlith First Nation, Chief and Council, PO Box 608, Chase, British Columbia, V0E 1M0
  Phone: 250-679-3295, Fax 250-679-5306
- North Thompson – Simpcw First Nation, Chief and Council, PO Box 220, Barriere, British Columbia, V0E 1E0
  Phone: 250-672-9995, Fax 250-672-5858
- Little Shuswap First Nation, Chief and Council, PO Box 1100, Chase, British Columbia, V0E 1M0
  Phone: 250-679-3203, Fax 250-679-3220

In 2011 and 2012, a number of informal meetings, telephone conversations, and informational letters were shared with First Nations. A two day First Nations sponsored workshop was attended by David J. Piggin and Dale Brittliffe, P.Geo (OREX/Astral) which was held at the Quaaout Lodge and Spa, 1663 Little Shuswap Road in Chase, B. C. [250-679-3090] which is located on the Little Shuswap Firs Nation reserve.

FIRST NATIONS letter 2013: A First Nations information letter/package was completed and submitted to each First Nation between May 17, 2013 and May 19, 2013. The letter was 3 pages plus an overview tenure map. The package included a detailed summary with maps and photographs of the BARRIERE RIDGE claims including geology and exploration works (25 pages).

FIRST NATIONS letter 2014: A First Nations information letter/package was completed and submitted to each First Nation on February 26, 2014. The letter had 3 pages plus an overview tenure map. The package included a detailed summary with maps and photographs of the BARRIERE RIDGE claims including geology and exploration works (25 pages).

6. REGIONAL GEOLOGIST, JOINT FIELD INSPECTION:

On May 25, 2013, Jim Britton, P.Geo., Regional Geologist, and David J. Piggin completed a joint inspection of the SILVER MINNOW MINFILE 082M-069 and the recently discovered SILVERGAL showing. The history, style of mineralization, geological setting, exploration techniques and strategies, future exploration opportunities were discussed and new learnings considered. Jim also collected some mineralized rock samples. Jim was planning to designate the SILVERGAL in the MINFILE database.

The joint field inspection was a benefit to Jim and gave him insight into the BARRIERE RIDGE claims and adjacent projects/geology. David benefited significantly as Jim provided insight into the style of mineralization, overall geology, mineral identification, next steps and opportunities for future exploration. It was a great field trip. Future inspections were planned.

ILLUSTRATION #26: Jim Britton, Regional Geologist at the SILVER MINNOW MINFILE 082M-069 showing. A 5.8 metre quartz vein (ARIS 33190) is located behind Jim, and the contact with the Eagle Bay schists is just under the log in the upper centre right. Sample 10E41181 SMQCH7 - Ag 171 ppm; Pb 14.4 percent; S 2.27 percent; Sb 198.5 ppm; Te 30.4 ppm; Zn 6490 ppm over 1m. (IMG_1540.jpg)

III – CONCLUSIONS AND RECOMMENDATIONS:

The following conclusions and recommendations were made based on the exploration work completed by David J. Piggin, from March 28, 2013 to March 17, 2014 on the BARRIERE RIDGE claims. . Total Applied Work Value $ 39,377.26 (including $ $ 11,813.26 from PAC). The Mineral Claim Exploration and Development Work/Expiry Date MTOnline documents were recorded under EVENT 5495274.

Results, conclusions and recommendations from three previous ARIS reports 32383, 33190 and 33744 should be considered along with the conclusions and recommendations of this report.

SUMMARY:

Based on 2011/2012 Fugro Airborne Geophysics Survey; the Fugro Interpretations Report from 2013; the discovery of the high grade Ag Pb Zn SILVERBOY, SILVERGAL, the breccia area showings; the discovery of a Au in soils anomaly north of Sprague Creek; various MINFILE occurrences; the results of this report and previous (ARIS 32383, 33190, 33744) exploration work to date; further exploration work is warranted. The highest priority targets are as follows:

- The Ag Pb Zn SILVER MINNOW/SILVERBOY and Breccia Area.
- The Ag Pb Zn SILVERGAL area.
- The under explored area between the SILVER MINNOW/SILVERBOY and SILVERGAL.
- Follow-up anomalies in soil grids SILVERGAL1, SILVER MINNOW1, other prospecting anomalies.
- Completion of the proposed SILVERMINNOW2 grid.
- Sprague Creek-Gold in Soils area. **10E41059_SR13QT1: Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm**.

Exploration should include as follows: prospecting, prospecting and sourcing known soil anomalies; geological mapping; spatial database management; soil, stream, and outcrop sampling; ground geophysics surveys; ground truth Airborne Geophysical Survey results and interpretations; trenching; and drilling as well as First Nations consultation. A five year program of $1,000,000 is recommended, commencing in the summer of 2014 and 2015.

EXPLORATION WORK COMPLETED 2013:

The following is a brief summary of the works completed:

- Total Applied Work Value $ 39,377.26 on 8,307.9800 hectares.
- A total of 22 samples (9 rock, 12 soil, 1 moss mat) were collected and assayed.
- Collated and mapped anomalous results.
- The **SILVERBOY** showing was discovered in Tenure 744542.
  10E41072 SM13R2 Ag 246 ppm; Bi 56.6 ppm; Cu 171.5 ppm; Cd 190 ppm; Pb 13.55 percent; Sb 237 ppm; Se 35 ppm; Sn 2 ppm; Te 29.3 ppm; Zn 5.34 percent.
  10E41071 SM13R1MALIC:
  Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent; Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm.
- **Sprague Creek in Tenure 644845:** A new Au (multi-element) in soils anomaly was discovered about 750 metres north of Sprague Creek.
  10E41059_SR13QT1: Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm.
  10E41061_SR13QT3: Au 9.8 ppb; As 24 ppm; Ni 71.1 ppm
  10E41060_SR13QT2: Au 7.3 ppb; As 30.3 ppm; Ba 220 ppm; Cu 61.5 ppm; Fe 4.45 %; Ni 91.3 ppm; Zn 107 ppm;
  The RGS stream sediment on Sprague Creek indicates the creek is anomalous for gold.
- **South of North Barriere Lake in Tenure 767042:** A new Au multi-element soil anomaly was observed.
- **Prospected** recently logged areas and new roads for rock and soil anomalies; and outcrop exposures.

- **Fugro**: Reviewed the report: *"Magnetic and EM Interpretation Airborne Magnetic and HeliTEM Survey BARRIERE RIDGE and HONEYMOON Blocks British Columbia - Job No. 12578"* dated February 2013.
- **Fugro:** Reviewed the reprocessing and targeting study "*Magnetic and EM Interpretation Airborne Magnetic and HELITEM Survey - BARRIERE RIDGE AND HONEYMOON Blocks, British Columbia - Job No. 12578"* dated February 2013.
- Updated the **UDIG database** with the Photosat aerial photography: 0.5m pixel 2012 image, and other data.
- **Researched:** Conducted literature and general research for publications related to the Eagle Bay Asemblege and Ag Pb Zn deposits (i.e. Geoscience BC, BC Geological Survey).
- **FIRST NATIONS letter 2013:** A First Nations information letter/package was completed and submitted to each First Nation between May 17, 2013 and May 19, 2013. The letter was 3 pages plus an overview tenure map. The package included a detailed summary with maps and photographs of the BARRIERE RIDGE claims including geology and exploration works (25 pages). The letter/package was sent to the Simpcw First Nation in Chu Chua (north of Barriere); Adams Lake Indian Band in Chase; the Neskonlith First Nation in Chase; the Little Shuswap Indian Nation in Chase.
- **FIRST NATIONS letter 2014:** A First Nations information letter/package was completed and submitted to each First Nation on February 26, 2014. The letter had 3 pages plus an overview tenure map. The package included a detailed summary with maps and photographs of the BARRIERE RIDGE claims including geology and exploration works (25 pages). The letter/package was sent to the Simpcw First Nation in Chu Chua (north of Barriere); Adams Lake Indian Band in Chase; the Neskonlith First Nation in Chase; the Little Shuswap Indian Nation in Chase.
- **BC Timber Sales:** Letters, telephone conversations, government regulations discussed, email correspondence, and an office visit with BC Timber Sales representatives (Bert Middleburg, RPF) to coordinate harvesting, road building, and follow-up road closures with mineral explorations.
- **Database management** and update; including work on UDIG GIS software. Continue to update and work on an EXCEL database.
- **Proposed Preparatory Soil Survey:** A preparatory soil survey at the Sprague Creek Gold-In-Soils anomaly was proposed and sample stations were calculated using UTM coordinates. The GPS coordinates for 205 stations (5 strips @ 1 km long; at 100 metre intervals) were determined. No field work has been done. Work may commence in April/May 2014 subject to snow conditions and funding.

THE DETAILS, PROPOSED EXPLORATION WORK:

1. HIGH PRIORITY TRENCHING AND DRILLING AREAS.

It is recommended the following high priority - main showings be trenched and drilled:

- **SILVERGAL**: In 2011, Sample 10E41157 BR11Q9C:
  Ag 220 g/t, Pb 12.4 percent, Bi 270 ppm, Cr 202 ppm, S 1.69 percent, Se 110 ppm
  Sample 10E41160 BR11Q9D:
  Ag 172 g/t, As 600 ppm, Cu 7470 ppm, Pb 795 ppm, Sb >2000 ppm, Zn 3076 ppm
- **MINFILE 082M 069 SILVER MINNOW** (historic 1925) **Ag 927 g/t Au 0.69 g/t.**
  In 2011, Sample 10E41181 SMQCH7:
  Ag 171 ppm; Pb 14.4 percent; Zn 6490 ppm (over 1 m)
- **SILVERBOY:** In 2013, sample: 10E41072 SM13R2:
  Ag 246 ppm; Bi 56.6 ppm; Cu 171.5 ppm; Cd 190 ppm; Pb 13.55 percent; Sb 237 ppm; Se 35 ppm; Sn 2 ppm; Te 29.3 ppm; Zn 5.34 percent.

SILVERGAL is located on a flat log landing. The access road to the landing will require an ATV, and is not suitable for an 4x4 pickup. The SILVERBOY is about 10 metres passed the end of an exisiting machine trench in a large outcrop. Access is through a regenerated logged block (trees 2 to 5 metres tall). The SILVER MINNOW is on steep ground and will require field study to determine the "best practice" route into the showing for trenching and/or drilling.

2. HIGH PRIORITY GROUND GEOPHYSICS AND GEOCHEMICAL SURVEYS:

To target trench and drill site selection, additional ground geophysical surveys, soil geochemical surveys, and prospecting are required as follows:

SILVERGAL: Prospecting; ground geophysics; and expand the (existing 2 lines) SILVERGAL1 soil geochemical grid.

SILVERMINNOW: Prospecting; ground geophysics; and soil geochemical surveys.
Complete the proposed SILVERMINNOW2 GRID soil geochemical grid along the south boundary of DL 4023 KDYD WHITE ROCK MC. Also, expand this grid to surround DL 4023 KDYD WHITE ROCK MC. This should include outcrop sample 10E41016 SM11R999 and 10E41017 SM11R999 which is a new malachite quartz limestone breccia outcrop east of the NW corner DL 4023 KDYD WHITE ROCK MC and also, the new SILVERBOY discovery. Also, this soil grid should be extended to the south to include previously completed SILVERMINNOW1 GRID (existing 2 lines).

SILVERBOY and Breccia Area: Prospecting, ground geophysics and expand proposed SILVER MINNOW2 GRID soil geochemical grid to include the SILVERBOY.

The prospecting, ground geophysics, and soil surveys will identify additional areas for trenching and drilling; and may test the strike, dip, structure, mineralization as well as determine if the showings are part of one structure or more structures.

3. ANOMALOUS ROCK, SOIL, AND STREAM SEDIEMENTS FOR FOLLOW-UP:

Based on ARIS 33190 and this report, the following anomalous samples require follow-up:

SILVERGAL1 SOIL GRID: It is proposed that this soil grid be expanded.
14E41213: Au 80 ppb, W 0.2 ppm.
14E41233: Au 30 ppm, Se 0.3 ppm.
14E41239 repeat: Au 11 ppb, Ag 0.7 ppm, Cu 55.6 ppm, Fe 4.28 %, Ge 34.8 ppm, Zn 113.7 ppm
14E41270: Au 10 ppb, Mo 1.18 ppm
14E41232, 14E41235, 14E41230, 14E41231, 14E41240, and 14E41254 all carried Au 7 ppb
14E41213: Ag 1.1 ppm, Bi 4 ppm, Fe 6.04 %, Mo 2 ppm, Pb 1117 ppm
14E41212, 14E41222, 14E41227, 14E41236, and 14E41265 were all anomalous with Ag 0.5 ppm
14E41266 returned Cu 179.0 ppm; and sample 14E41266 returned Pb 246.9 ppm.

SILVER MINNOW1 SOIL GRID: It is proposed that this soil grid be expanded.
14E41285: Au 26 ppb, Ag 0.3 ppm, Cu 149.4 ppm, Fe 5.55 %, Mo 1.31 ppm.
14E41306: Au 12 ppb
14E41305: Ag 0.5 ppm, Cu 63 ppm, Zn 188 ppm
14E41308: Cu 59.7 (90 percentile being Cu 52.32 ppm). 14E41309: Cu 84.4 ppm 14E41325: Cu 75.3 ppm.
14E41297: Pb 28 (90 percentile being Pb 24.72 ppm).
14E41330: Pb 26 ppm 14E41325: Pb 27.3 ppm 14E41299: Pb 25.5 ppm.

PROSPECTING SOIL SAMPLES: It proposed that Sample 10E41191 SM11FRAT be included in the proposed SILVERMINNOW2 SOIL GRID which was started at the end of the 2011 field season.
In 2011:
10E41191 SM11FRAT: Au 18.1 ppb, Ag 9.74 ppm, Cu 53.4 ppm, Pb 1835 ppm, Zn 2730 ppm.
(south boundary DL 4023 KDYD WHITE ROCK MC just west and down hill from SILVER MINNOW.)
10E41193 SM11FR10T: Au 6.1 ppb, Cu 174 ppm, Pb 30.2 ppm, Zn 427 ppm
14E41194 SM11T8: Cu 124 ppm, Fe 5.99 %, Pb 30.3 ppm.

14E41190 SM11FR5T: Cu 37.1 ppm, Pb 139 ppm.

In 2013: (including Sprague Creek Gold-in-Soils)
10E41059 SR13QT1: Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm.
10E41061 SR13QT3: Au 9.8 ppb; As 24 ppm; Ni 71.1 ppm.
10E41060 SR13QT2:
Au 7.3 ppb; As 30.3 ppm; Ba 220 ppm; Cu 61.5 ppm; Fe 4.45 percent; Ni 91.3 ppm; Zn 107 ppm.
A proposed preparatory soil survey at the Sprague Creek Gold-In-Soils anomaly was proposed; and sample stations were determined using UTM coordinates. The GPS coordinates for 205 stations (5 strips @ 1 km long; at 100 metre intervals) were determined. No field work has been done. Work may commence in April/May 2014 subject to snow conditions.

10E41053 BR13T3: Au 6.7 ppb; Ag 0.54 ppm; Bi 0.52 ppm; Co 34.9 ppm; Fe 4.88 percent; Ni 72.2 ppm; Pb 39.9 ppm; Zn 153 ppm
10E41051 BR13T1: Au 6.5 ppb; Bi 0.44 ppm; Co 44 ppm; Cr 92 ppm; Cu 102.5 ppm; Fe 7.43 precent; Mg 1.34 percent; Mo 1.54 ppm; Ni 146.5 ppm; Pb 36.6 ppm; Zn 108 ppm
10E41062 SM13T1: Al 2.64 percent; Ca 6.26 percent; Pb 57.7 ppm; Sb 2.46 ppm; Zn 146 ppm.
10E41054 BR13T4: Bi 0.57 ppm; Fe 4.43 percent; Pb 31.9 ppm; W 12.25 ppm.

STREAM SEDIMENT AND MOSS MAT SAMPLES:
In 2011, Moss Mat and paired Stream Sediment Samples:
10E41186 SM11MM1: Ag 0.35 ppm; **10E41188 SM11SS1: Ag 0.75 ppm**, Cu 26.1 ppm.
10E41187 SM11MM2: Cu 29 ppm, Pb 16.8 ppm; 10E41189 SM11SS2: Cu 21.8 ppm, Pb 24.8 ppm.

In 2013,
10E41063 BR13MM1: Ag 0.32 ppm; As 15.6 ppm; Hg 0.22 ppm; Mn 14,700 ppm; Mo 2.53 ppm; Ni 26.4 ppm; Sb 0.33 ppm.

MISCELLANEOUS ROCK SAMPLES:
- **10E41016 SM11R999: Au 29.2 ppb, Ag 50.4 ppm, Cu 1475 ppm, Pb 1275 ppm, Sb 533 ppm, Zn 2990 ppm.** Limestone quartz breccia with malachite in outcrop; possibly a new mineralized zone.
- Limestone quartz stockwork/veins.
  10E41021 SM11CHR1: Ag 12.8 ppm, Pb 1.16 %, Zn 1880 ppm (channel).
  10E41023 SM11CHR1-3: Ag 1.89 ppm, Pb 1910 ppm, Zn 2510 ppm (channel).
- **10E41198 SM11FRA (float rock): Ag 10.55 ppm, Cu 185.5 ppm, Pb 6510 ppm, Zn 839 ppm.**
- 10E41334 BR11FR59 (float rock): Al 1.7 %, Co 117 ppm, Cr 1152 ppm, Fe >10 %, Mg 6.49 %, Ni 1027 ppm.

4. GEOPHYSICS AND GEOCHEMICAL SURVEYS (ARIS 33190, 33744):

An airborne geological survey was completed by Fugro Airborne Surveys Corp titled ***Logistics and Processing Report: Helicopter-borne HELITEM Time Domain Electromagnetic and Magnetic Geophysical Survey – Project No. 11089*** dated January 23, 2012. The purpose of the survey was to determine the existence and locations of bedrock conductors and for better understanding of subsurface geology within the survey areas. The EM data and the magnetic data were processed to produce images and profiles that are indicative of the magnetic and conductive properties of the survey area. A GPS navigation system ensured accurate positioning of geophysical data.

In February 2013, a follow-up interpretations report was completed. In general terms, ***"Magnetic and EM Interpretation Airborne Magnetic and HeliTEM Survey BARRIERE RIDGE and HONEYMOON Blocks British Columbia - Job No. 12578"*** reported priority targets and significant results as follows:

- Significant conductors were identified within the survey area and they were outlined on interpretation maps. Conductors were classified as conductive zones, points, and axes. A list of anomalous EM responses, for detailed review and ground follow-up were provided Fugro.
- The magnetic grid showed a magnetic low, with a gently rippling character in the western portion of the block, and a more complex and highly magnetic area to the centre and northeast. High conductivities exist in both the east and west with a low conductivity area running nearly N-S through the mid-western portion of the block, and along the north in the eastern portion of the block. There is a low conductivity area in the southeast.
- Conductivity depth (CDI) sections identified major faults and in many cases these had been identified from the magnetic signatures. Conductivity depth identified some new faults. The dips of the faults can also be identified using CDI sections.

Geophysical Anomaly List: A list of geophysical anomalies was provided by Fugro including GPS coordinates and a key map. These geophysical anomalies require further interpretation through field checks and ground geophysics.

Based on the above geophysical surveys and various geochemical anomalies, there is a need to compare, contrast, field check, and interpret the results of the Fugro airborne geophysics surveys using a spatial GIS database with the following data included:

- Anomalous rock, soil, and stream sediment assay results from ARIS 32383, 33190, 33744.
- Historical data from old ARIS reports
- Historical data collected by David Piggin for a Prospector Assistance Grant #98/99 P94 (1998-43).
- Existing geological mapping.
- Existing fault and structural information.

Outputs from this spatial information would be used to prioritize exploration areas for further targeting, prospecting, geochemical and ground geophysical surveys, trenching and drilling; and to provide a framework to field test various geophysical and structural anomalies identified by the Fugro airborne geophysical surveys

5. MISCELLANEOUS:

A. Advanced Exploration Projects in the Vicinity of BARRIERE RIDGE.

The BARRIERE RIDGE claims are prospective for Ag Pb Zn (Au Cu) due the many anomalies that have been discovered, and because of the many exploration and development projects in the near vicinity, for example the:

- HARPER CREEK deposit of Yellowhead Mining Inc (25 km to the north),
- CHU CHUA Deposit of Newport Exploration Ltd. (??? Km to the northwest),
- Initial work of First American Gold Corp immediately to the east of BARRIERE RIDGE
- RUDDOCK CREEK deposit of Imperial Metals (??? Km to the northeast)
- Past production at the Samatosum Mountain, Rea, and Homestake Mines.
- Many MINFILE occurrences immediately adjacent to the BARRIERE RIDGE claims and south of the Mid-Cretacious Bald Batholith intrusive.

B. British Columbia Geological Survey (BCGS) and Regional Geologist: Open File reports are extremely useful for prospecting the Birk Creek, North Barriere River, East Barriere River, Russell Creek areas. There is a wealth of geological, mapping, geochemical, sampling, and exploration information in the till, stream chemistry, moss mat, stream sediment, and mapping data. The GeoFile 2005-4 download data set proved to be invaluable for spatial mapping purposes. It was noted that GeoFile 2005-4 needs to be updated with respect to new mapping available in Open File 2000-7. Personal communication with Jim Britton, Regional Geologist has proven invaluable for exploration.

C. **<u>Spatial Data</u>:** A digital database is being developed and continued for BARRIERE RIDGE. There is a need to bring all this data together into a spatial data base (i.e. ARCGIS, UDIG) to define possible exploration targets. Work was commenced by David Piggin and Dale Brittliffe on a spatial data base and will continue until all data sources are coalesced.

D. **<u>MINFILE 082M 069 SILVER MINNOW (aka SILVER MINERAL)</u>: Tenure 744542.** The GPS coordinates in the MINFILE database are incorrect. The correct GPS coordinates for 082M 069 are as follows: NAD 83 Zone 11: 297803.482E and 5686989.765N.

List of Literature Cited

Agriculture Canada Expert Committee on Soil Survey, 1987: The Canadian System of Soil Classsification. Second Edition, Agriculture Canada Publication 1646.

Bobrowsky, P., Leboe, E., Sixon-Warren, A., Ledwon, A., MacDougall, D., and Sibbick, S. 1997: Till Geochemistry of the Adams Plateau-North Barriere Lake area (82M/4 and 5). B.C. Ministry of Employment and Investment. Open File 1997-9.

Bobrowsky, P., Leboe, E., A. Dixon-Warren, and Ledwon, A., 1996. Eagle Bay Project: Till Geochemistry of the Adams Plateau (82M/4) and North Barriere Lake (82M/5) Map Areas. Geological Fieldwork 1996. Paper 1997-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Bailey, S., S. Paradis, S. Johnston, T. Hoy, 2000: Geologic Setting of the Devonian Mississippian, Rea and Samatosum VMS Deposits of the Eagle Bay Asssemblage, Adams Lake Area, South Central British Columbia. Paper 2000-1. British Columbia Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Cathro, M., and Lefebure, D. 1999: Several New Plutonic-related Gold, Bismuth Tungsten Occurrences in southern British Columbia. Geological Fieldwork 1999, p. 207-211. B.C. Ministry of Energy and Mines. Paper 2000-1.

Dixon-Warren, A., Bobrowsky, P., Leboe, E., and Ledwon, A., 1996. Eagle Bay Project: Surficial Geology of the Adams Platearu (82m/4) and North Barriere Lake (82M5) Map Areas. Geological Fieldwork 1996. Paper 1997-1.

Dixon-Warren, A., Bobrowsky, P., Leboe, E., and Ledwon, A. 1997b: Terrain geology map of the Adams Plateau area, NTS 82 M/4, scale 1:50 000; B.C. Ministry of Employment and Investment, Open File 1997-7. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Evans, G., Dec 1999. Teck Corp: 1999 Geological & Geophysical & Geochemical & Diamond Drilling - Report on the Cam Gloria Property, Kamloops Mining Division, British Columbia. Geological Survey Branch, BC Assessment Report 26,216.

Fugro Airborne Surveys, Jan 2012: Logistics and Processing Report: Helicopter-borne HELITEM Time Domain Electromagnetic and Magnetic Geophysical Survey - Project No. 11089 - for the HONEYMOON and BARRIERE RIDGE claims dated January 23, 2012. Prepared for Astral Mining Corporation, Vancouver, British Columbia and reported in ARIS 33190 Report dated July 18, 2012

Fugro Airborne Surveys, Feb 2013: Magnetic and EM Interpretation Airborne Magnetic and HeliTEM Survey BARRIERE RIDGE and HONEYMOON Blocks - Job No. 11089 - dated February 2013. Prepared for Astral Mining Corporation, Vancouver, British Columbia.

Hoy, T., 1998. Massive Sulphide Deposits of the Eagle Bay Assemblage, Adams Plateau, South Central British Columbia (82m3,4). Geological Fieldwork 1998. Paper 1999-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Hoy, T., 1996. Harper Creek: A Volcanogenic Sulphide Deposit within the Eagle Bay Assemlage, Kootenay Terrane, Southern British Columbia. Geological Fieldwork 1996. Paper 1997-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Hoy, T., F. Goutier. 1985. Rea Gold (Hilton) and Homestake Volcanogenic Sulphide-Barite Deposits Southeastern British Columbia (82M/4W). Geological Fieldwork 1985. Paper 1986-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Klinka, K., R.N. Green, R.L. Trowbridge and L.E. Lowe August 1981: Taxonomic Classification of Humus Forms in Ecosystems of British Columbia, First Approximation, Land Management Report 8. BC Ministry of Forests.

Leboe, E., Bobrowsky, P., Dixon-Warren, A. and Ledwon, A. 1997: Terrain geology map of the North Barriere Lake area NTS 82 M/5, scale 1:50 000; B.C. Ministry of Employment and Investment, Open File 1997-6.

Lett, R., P. Bobrowsky, M. Cathro, A. Yeow, 1997. Geochemical Pathfinders for Massive Sulphide Deposits In The Southern Kootenay Terrane. Geological Fieldwork 1997. Paper 1998-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Lett, R., Jackaman, W., Englund, L. April 2000: Stream Geochemical Exploration for Pluton-Related Quartz-Vein Gold Deposits in Southern British Columbia, NTS 82M/4, 5, 6; 92P/8; 82F7. B.C. Ministry of Energy and Mines, Open File 2000-23.

Lett, R., Sibbick, S., Runnels, J. January 1999: Regional stream water geochemistry of the Adams Lake-North Barriere Lake area, British Columbia (NTS 82M/4 and 82M/5). B.C. Ministry of Energy and Mines, Open File 1998-9.

Lloyd, D., Angove, G., Hope, G., and Thompson, C., 1990. A guide to site identification and interpretation for the Kamloops Forest Region. Land Management Handbook No. 23. B.C. Ministry of Forests, Research Branch, Victoria, B.C.

Logan, J., 2000: Prospective Areas for Intrusion-Related Gold-Quartz Veins in Southern British Columbia. Geological Fieldwork 2000. Paper 2000-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Logan, J., 1999. Plutonic-related Gold-quartz Veins in Southern British Columbia. Geological Fieldwork 1999. Paper 2000-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Logan, J., Mann, R. April 2000: Geology & Mineralization around Baldy Batholith, Southcentral BC. Map Scale 1:50 000. NTS 82M/3, 4, 5 &6. B.C. Ministry of Energy and Mines. Open File 2000-7.

Marshall, L., J. Mortensen, J. Gabites, 1999. Lead Isotope Data From Epigenetic Sulphide Occurrences in the Purcell Supergroup, Southeastern British Columbia, and Implications for Exploration for Sediment-hosted Base Metal Deposits. Geological Fieldwork 1999. Paper 2000-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Massey, N., MacIntyre, D., et al. 2005: Geology Map of British Columbia: Tile NM11 Southeast B.C., B.C. Ministry of Energy and Mines, GeoFile 2005-4, 82E, F, G, J, K, L, M, N, O (Southeast B.C.). Download Shape File Albers Projection (33MB).

Schiarizza, P. 1985. Geology of the Eagle Bay Formation between the Raft and Baldy Batholiths (82M/5, 11, 12). Geological Fieldwork 1985. Paper 1996-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

Schiarizza, P. and Preto, V. (1987): Geology of the Adams Plateau-Clearwater-Vavenby Area; B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 1987-2.

Sibbick, S., J. Runnells, R. Lett. 1996. Eagle Bay Project: Regional Hydrogeochemical Survey and Geochemical Orientation Studies (82J/4) and 5). Geological Fieldwork 1996. Paper 1997-1. BC Geological Survey, Ministry of Energy and Mines, Victoria, British Columbia.

AUTHORS QUALIFICATIONS

The author has been a prospector since 1997 and has the following qualifications:

- Registered Professional Forester (2412).
- Retired in 2009 from the Ministry of Forests and Range, Southern Interior Forest Region with 35 years of meritorious service.
- Director, Vice President, and Member of the Kamloops Exploration Group (KEG).
- Plan and participate in KEG meetings in Kamloops since 1997.
- Attend the Cordilleran Roundup (Vancouver) and maintained a prospector's booth for most years.
- Attend the KEG (Kamloops) and maintained a prospector's booth for most years.
- KEG Prospectors Course (University College of the Cariboo) in 1997.
- Attended numerous KEG and Geoscience BC short courses or field trips for prospecting, geochemistry, (basic) geophysics, mineralization, ore bodies, and formations such as the Nicola Volcanics.
- Attended numerous KEG and Geoscience BC field trips to Afton (Abacus), New Gold Inc (underground), Gibraltar, Mount Polley, Highland Valley Copper, Samatosum, Copper Mountain, and etc.
- Conducted field tours of properties with company geologists, and government geologists.
- Conducted one rotary wing geological inspection with geologist.
- Completed Prospectors Assistance Grant #98/99 P94.
- Completed contract staking for mining companies.
- Completed contracts for over 80 line kilometers of soil surveys for mining companies.
- Collected 2500+ of soil samples for assay by exploration companies.
- Collected 500+ prospecting soil samples.
- Collected 400+ moss mats and stream sediments samples.
- Collected 400+ rock samples.
- Completed advanced courses in Mathematics and Physics in the 1970s; and Forest Sciences such as Forest Hydrology, Forest Soils, Forest Ecology, Statistics, and Forest Mensuration in the 1980s..
- Project Management Courses, Continuous Improvement, Conflict Resolution, Coaching & Facilitating (meetings and teams), and business processes.
- Member of Provincial Working Groups related to government initiatives.
- Budgeted and implemented up to $ 1.2 million per year of forestry related contracts.
- Contracted and supervised professionals working to a scientific standard.
- Certified Incident Commander for forest fires in 2009.
- Completed Assessment Reports (ARIS) as follows:
  29378: SPAPILEM CREEK (aka HONEYMOON) - July 4, 2007; $ 6,375.11.
  29407: HONEYMOON CREEK (aka HONEYMOON)- November 18, 2007; $ 11,040.10.
  29709: CAMGLORIA (aka HONEYMOON) - December 20, 2007; $ 7,037.87.
  29960: HONEYMOON - March 1, 2008; $ 25,177.09.
  30869: HONEYMOON - June 2, 2009; $ 29,959.06.
  32076: HONEYMOON - for Astral Mining Corporation, June 7, 2011, $ 78,250.27;
  32383: BARRIERE RIDGE for Astral Mining Corporation, August 21, 2011; $ 21,824.78.
  33190: HONEYMOON and BARRIERE RIDGE for Astral Mining Corporation, July 18, 2012, $ 344,154.71.
  33744: HONEYMOON and BARRIERE RIDGE for Astral Mining Corporation; March 27, 2013. $ 97,303.43.
  33202: SASKUM BEAR for David J. Piggin, August 11, 2012; $ 9,411.98.
  33216: BENDGOLD for David J. Piggin, August 28, 2012; $ 37,007.66.
  34324: BENDGOLD for David J. Piggin, December 12, 2013; $ 17,706.83.
- Optioned/sold the MAGNUM CLAIMS (near Ajax Pit at Afton) to New Gold Inc, near Kamloops, British Columbia.
- Optioned the HONEYMOON CLAIMS to Acrex Ventures Ltd., Vancouver, British Columbia.
- Optioned the HONEYMOON CLAIMS to Astral Mining Corporation, Vancouver, British Columbia.
- Optioned the BARRIERE RIDGE CLAIMS to Astral Mining Corporation, Vancouver, British Columbia.
- Optioned the HONEYMOON CLAIMS to Mantra Capital Inc., Vancouver, British Columbia.

Software Programs Used In Support of this Report

The following computer software and equipment used in support of the exploration and development work, and in the preparation of this report.

1. Microsoft Office 2010: EXCEL, WORD, OUTLOOK, ACCESS.
2. Internet Explorer (version 7).
3. Mineral Tenures Online mapping software.
4. ARIS MapBuilder.
5. MINFILE, Ministry of Mines – Open Files and related data.
6. UDIG spatial software.
7. Arcview 3.2a.
8. Adobe Acrobat 9 Pro.
9. Trackmaker version 13.1 (freeware) for GPS download.
10. DNR Garmin GPS download.
11. Garmin 12XL – Global Positioning Unit.
12. Garmin GPSmap 60CSx – Global Positioning Unit.
13. Canon A630 and A1100 digital camera.
14. ICOM road radio and hand held radio for safety.
15. Stone Blaze, belt chain, surveying tool.
16. Hand held Ranger Silva Compass, Azimuth.
17. Clinometer, Sunnto, (degrees, percent).
18. Iwamoto Hand lens.
19. Survey ribbon (various colours), metal tags, and tyvek tags with wire.
20. Rock hammer, geotul, and various sledge hammers, shovels, and trowels.
21. Gold pan, black, for collecting sediment samples prior to bagging.
22. Black plastic door screen (0.1 inch square mesh) for screening stream sediment samples.
23. Samples were collected with plastic bags (rock), stream sediments/soil (kraft bags), moss mats (linen bags).
24. 2 Trapper Nelson pack boards with sacks.
25. Ford, F150 4x4 pickup, with canopy/boat racks.
26. Shindawa powersaw and Husqvarna Chainsaw.
27. 1 hand tank pumps (fire) and fire extinguishers for fire prevention
28. First aid kit for safety.

BARRIERE RIDGE: EVENT 5495274 dated March 18, 2014

Exploration Work type	Comment	Days			Totals
Personnel (Name)* / Position	Field Days (list actual days)	Days	Rate	Subtotal*	
March 31, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
April 1, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
April 2, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
April 16, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
April 16, 2013	Heidi Romeike, Compass person	1	$250.00	$250.00	
May 14, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 15, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 16, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 17, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 20, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 20, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 21, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 21, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 23, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 25, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
May 25, 2013	Jim Britton, P. Geo. Ministry of Mines	1	$0.00	$0.00	
July 24, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	

July 24, 2013	Leonard Piggin, Prospector	1	$400.00	$400.00	
September 25, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
October 3, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
October 8, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
October 9, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
December 14, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
December 15, 2013	David Piggin, RPF. Prospector	0.2	$400.00	$80.00	
December 16, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
December 18, 2013	David Piggin, RPF. Prospector	1	$400.00	$400.00	
February 7, 2014	Leonard Piggin	1	$300.00	$300.00	
				$0.00	
				$9,830.00	**$9,830.00**
Office Studies	**List Personnel (note - Office only, do not include field days**				
Literature search	David Piggin, RPF. Prospector	2.0	$400.00	$800.00	
Database compilation	David Piggin, RPF. Prospector	3.0	$400.00	$1,200.00	
Database compilation, Data for David Piggin on external drive	Dale Brittliffe, Pgeo	3.5	$650.00	$2,275.00	
Computer modelling			$0.00	$0.00	
Reprocessing of data	Dale Brittliffe, Pgeo	0.5	$650.00	$325.00	
General research	David Piggin, RPF. Prospector	1.0	$400.00	$400.00	
General research					
Report preparation	David Piggin, RPF. Prospector	5.8	$400.00	$2,320.00	
Other (specify) First Nations communications, letters, packages, May 2013	David Piggin, RPF. Prospector	2.0	$400.00	$800.00	

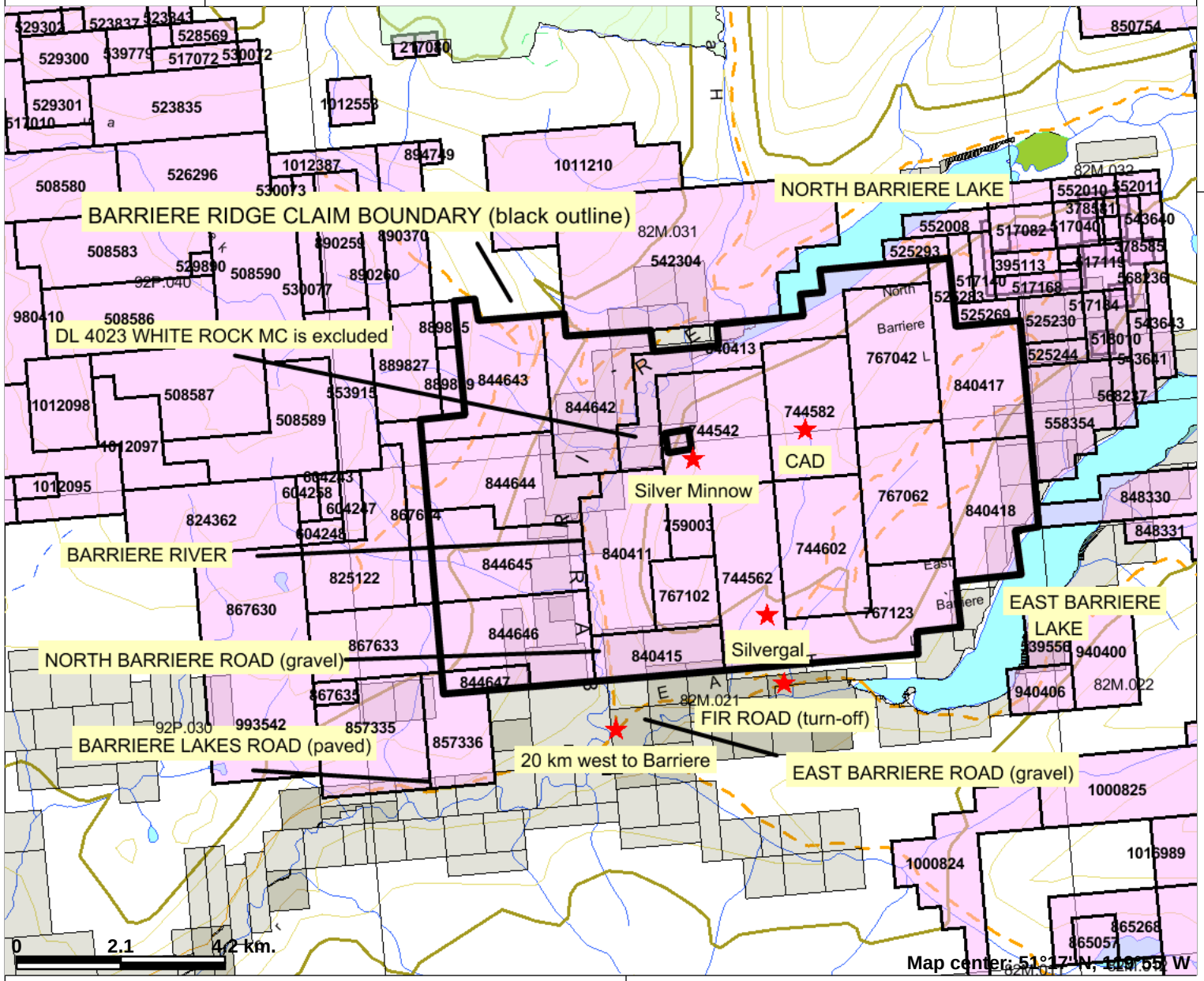
Other (specify) First Nations communications, letters, packages,Feb 2014	David Piggin, RPF. Prospector	3.0	$400.00	$1,200.00	
Other (specify): BC Timbers Sales, access, road deactivation	David Piggin, RPF. Prospector	1.5	$400.00	$600.00	
Other (specify) Sprague Creek Proposed Grid, prepare GPS coordinates for upload to GPS with Sample Tags 200 samples	David Piggin, RPF. Prospector	1.0	$400.00	$400.00	
Other (specify)			$0.00	$0.00	
				$10,320.00	**$10,320.00**
Airborne Exploration Survey	**Line Kilometres / Enter total invoiced amount**				
Aeromagnetics				$0.00	
Radiometrics			$0.00	$0.00	
Electromagnetics			$0.00	$0.00	
Gravity			$0.00	$0.00	
Digital terrain modelling			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Remote Sensing	**Area in Hectares / Enter total invoiced amount or list personnel**				
Aerial photography				$0.00	
LANDSAT			$0.00	$0.00	
Other (specify)				$0.00	
				$0.00	**$0.00**
Ground Exploration Surveys	**Area in Hectares/List Personnel**				
Geological mapping				$0.00	
Regional		*note: expenditures here*		$0.00	
Reconnaissance		*should be captured in Personnel*		$0.00	
Prospect		*field expenditures above*		$0.00	
Underground	Define by length and width			$0.00	
Trenches	Define by length and width			$0.00	
				$0.00	**$0.00**
Ground geophysics	**Line Kilometres / Enter total amount invoiced list personnel**				
Radiometrics				$0.00	
Magnetics				$0.00	
Gravity				$0.00	
Digital terrain modelling				$0.00	
Electromagnetics	*note: expenditures for your crew in the field*			$0.00	
SP/AP/EP	*should be captured above in Personnel*			$0.00	

IP	*field expenditures above*			$0.00	
AMT/CSAMT				$0.00	
Resistivity				$0.00	
Complex resistivity				$0.00	
Seismic reflection				$0.00	
Seismic refraction				$0.00	
Well logging	Define by total length			$0.00	
Geophysical interpretation				$0.00	
Petrophysics				$0.00	
Other (specify)				$0.00	
				$0.00	**$0.00**
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Drill (cuttings, core, etc.)			$0.00	$0.00	
Stream sediment			$0.00	$0.00	
Stream sediment - Moss Mat	KL13184932	1.0	$22.08	$22.08	
Stream sediment - Moss Mat	KL13199946	1.0	$57.44	$57.44	
Soil	KL13184930	8.0	$25.19	$201.51	
Soil	KL13184931	4.0	$21.30	$85.18	
Soil	KL13199944	8.0	$28.50	$227.96	
Soil	KL13199947	4.0	$32.63	$130.52	
Rock	KL13184933	8.0	$56.03	$448.23	
Rock	KL13184934	1.0	$75.19	$75.19	
Water			$0.00	$0.00	
Biogeochemistry			$0.00	$0.00	
Whole rock			$0.00	$0.00	
Petrology			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$1,248.11	**$1,248.11**
Drilling	**No. of Holes, Size of Core a**	**No.**	**Rate**	**Subtotal**	
Diamond			$0.00	$0.00	
Reverse circulation (RC)			$0.00	$0.00	
Rotary air blast (RAB)			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Other Operations	**Clarify**	**No.**	**Rate**	**Subtotal**	
Trenching			$0.00	$0.00	
Bulk sampling			$0.00	$0.00	
Underground development			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Reclamation	**Clarify**	**No.**	**Rate**	**Subtotal**	
After drilling			$0.00	$0.00	

Monitoring			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Transportation		**No.**	**Rate**	**Subtotal**	
Airfare			$0.00	$0.00	
Taxi			$0.00	$0.00	
truck rental	Barriere Ridge	13.00	$75.00	$975.00	
kilometers	Barriere Ridge	5,664.00	$0.48	$2,718.72	
ATV			$0.00	$0.00	
fuel			$0.00	$0.00	
Helicopter (hours)			$0.00	$0.00	
Fuel (litres/hour)			$0.00	$0.00	
Ferry		6.00	$66.75	$400.50	
Other					
				$4,094.22	**$4,094.22**
Accommodation & Food	**Rates per day**				
Hotel			$0.00	$0.00	
Hotel			$0.00	$0.00	
Camp			$0.00	$0.00	
Meals	day rate	11.00	$45.00	$495.00	
Meals	day rate or actual costs-specify			$0.00	
				$495.00	**$495.00**
Miscellaneous					
Telephone		1.00	$61.94	$61.94	
Other (Specify)	Field Supplies		$980.00	$980.00	
Other (Specify)				$0.00	
				$1,041.94	**$1,041.94**
Equipment Rentals					
Field Gear (Specify)				$0.00	
Budget Storage Locker for samples and field tools		7.00	$70.00	$490.00	
Other (Specify)	Chainsaw	1.00	$25.00	$25.00	
				$515.00	**$515.00**
Freight, rock samples					
			$0.00	$20.00	
			$0.00	$0.00	
				$20.00	**$20.00**
TOTAL Expenditures			**TOTAL VALUE OF WORK**		**$ 27,564.27**
			PAC ACCOUNT	**David J. Piggin**	**$ 11,813.26**
			TOTAL APPLIED WORK VALUE		**$ 39,377.53**

APPENDICIES

BARRIERE RIDGE CLAIMS



Legend

- Indian Reserves
- National Parks
- Conservancy Areas
- Parks
- Federal Transfer Lands

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
- First Nations Treaty Related Lands
- First Nations Treaty Lands
- Survey Parcels
- BCGS Grid

Contours (1:250K)

- Contour - Index
- Contour - Intermediate
- Areaof Exclusion
- Areaof Indefinite Contours

Annotation (1:250K)

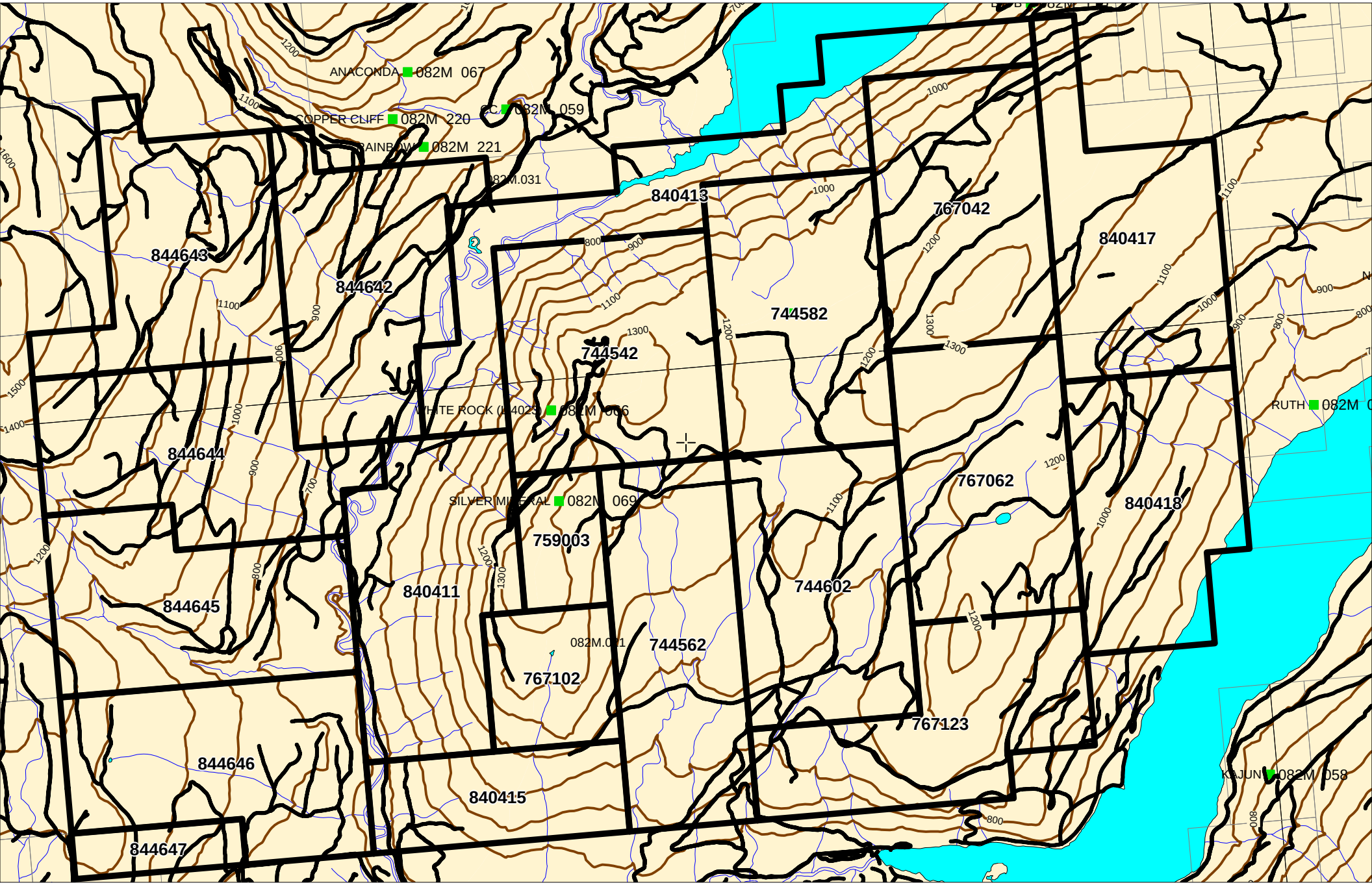
Transportation - Points (1:250K)

- Airfield
- Anchorage - Seaplane

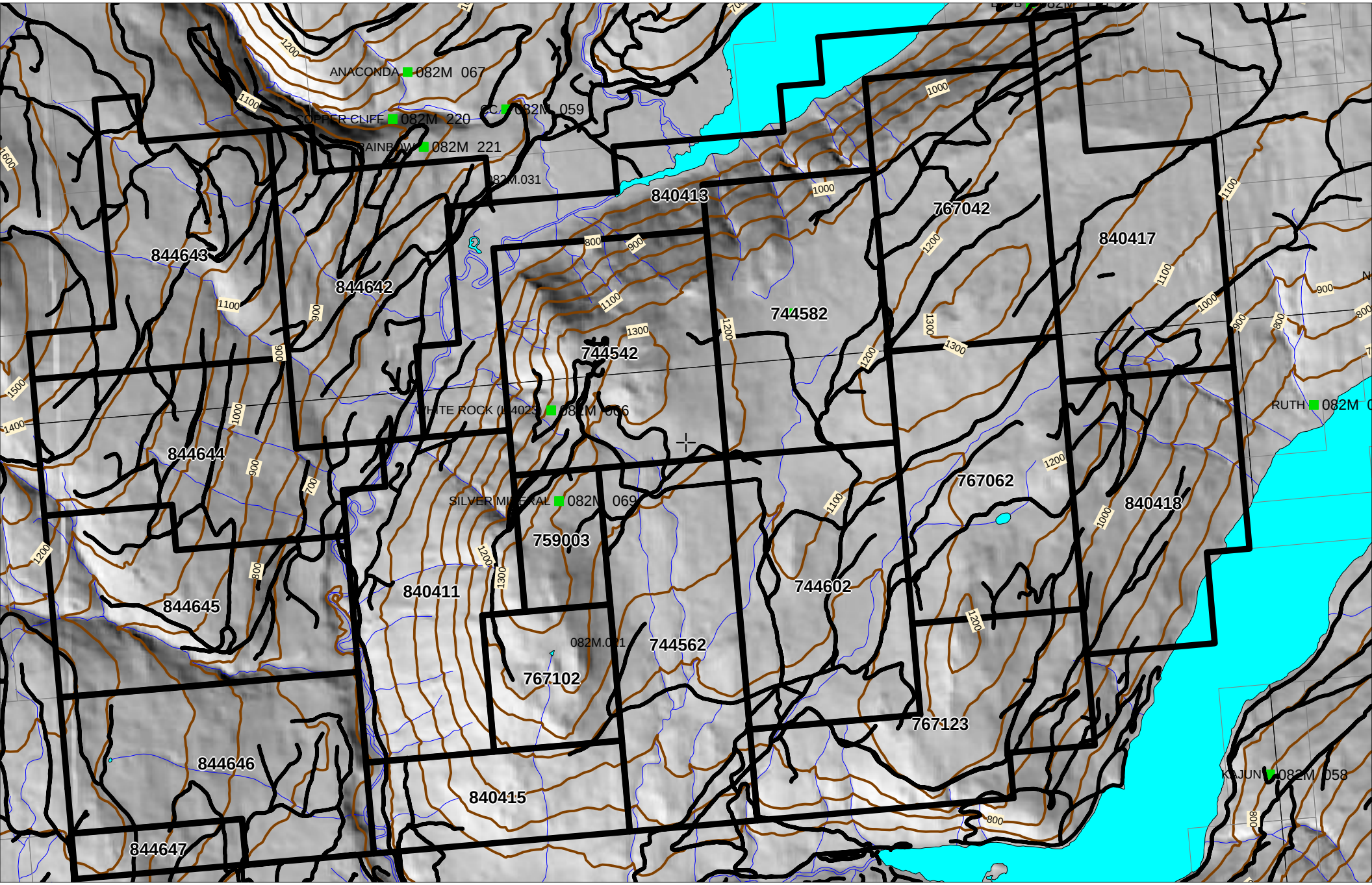
Scale: 1:120,253

Notes: BARRIERE RIDE CLAIMS, SAVE AND EXCEPTING DL 4023 KDYD WHITE ROCK MC WHICH CONTAINS MINFILE 082M-066 WHITE ROCK

BARRIERE RIDGE: OVERVIEW TENURES, ROADS, CONTOURS



BARRIERE RIDGE: OVERVIEW TENURES, ROADS, CONTOURS



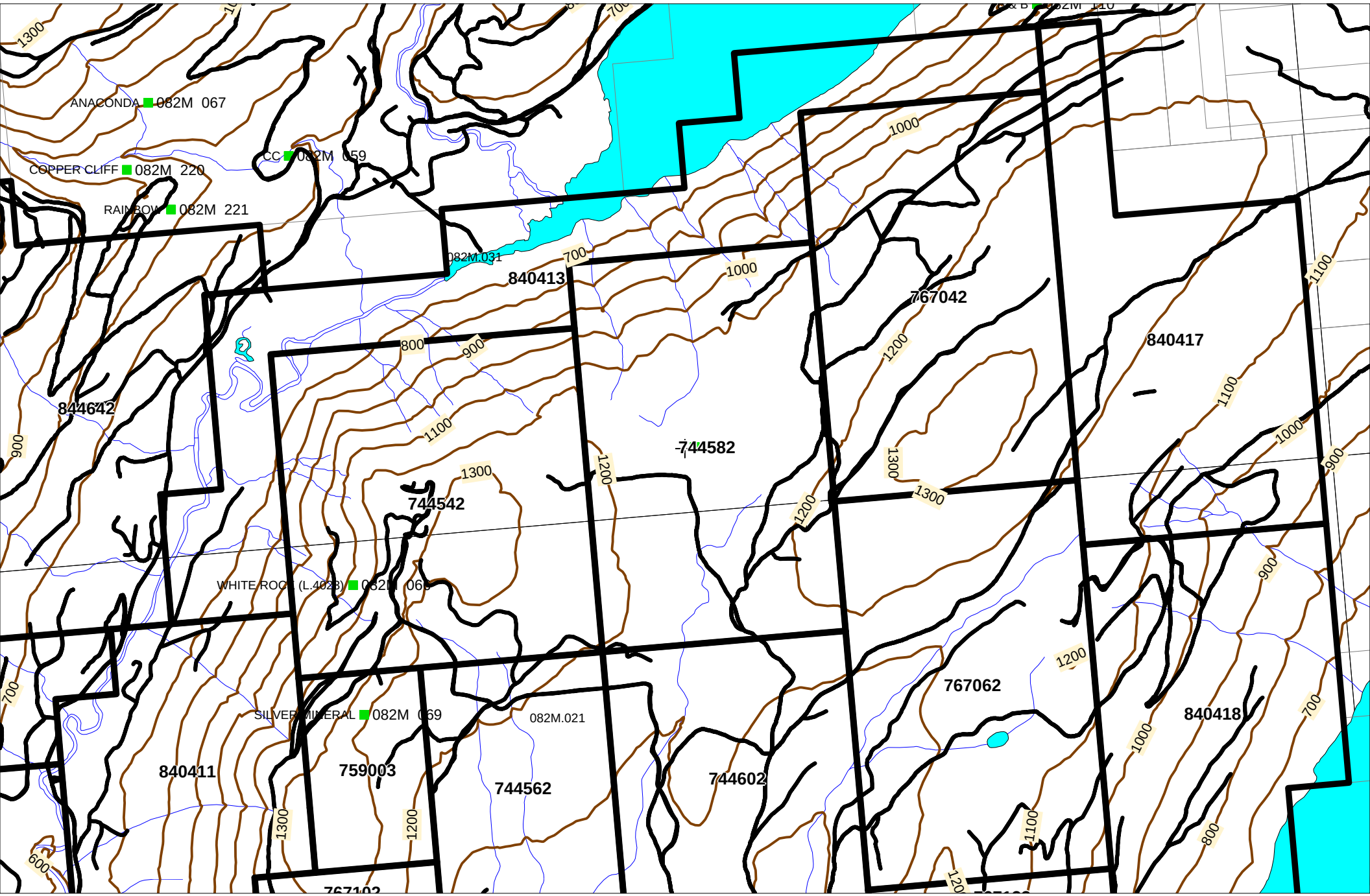
SCALE 1 : 50,000

1 0 1 2 3

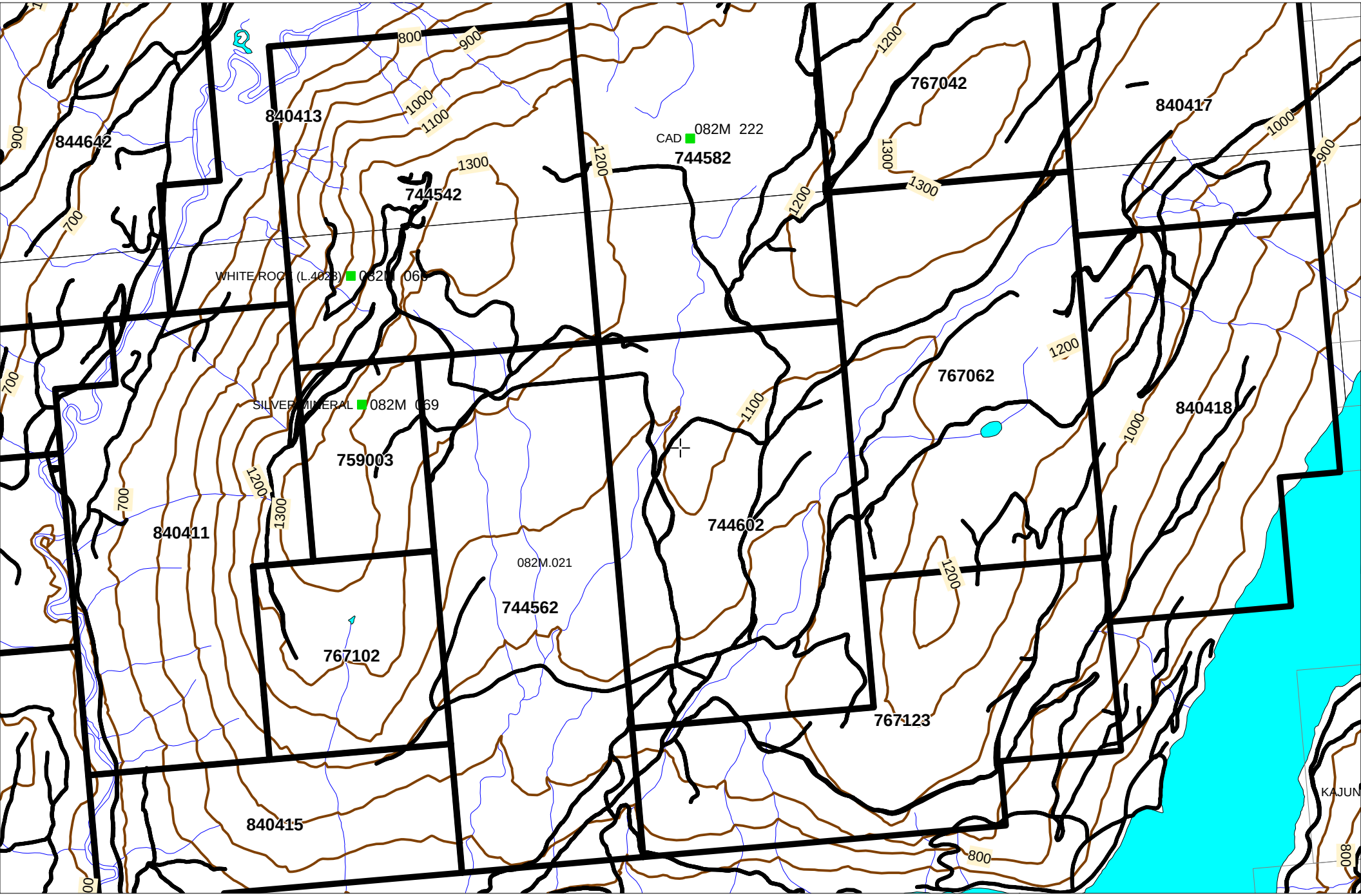
KILOMETERS

N

Barriere Ridge NE Corner: 744542, 744582, 759003, 767042, 767062, 840413, 840417



Barriere Ridge SE Corner: 744542, 744562, 744602, 759003, 767062, 767102, 767123, 840411, 840418



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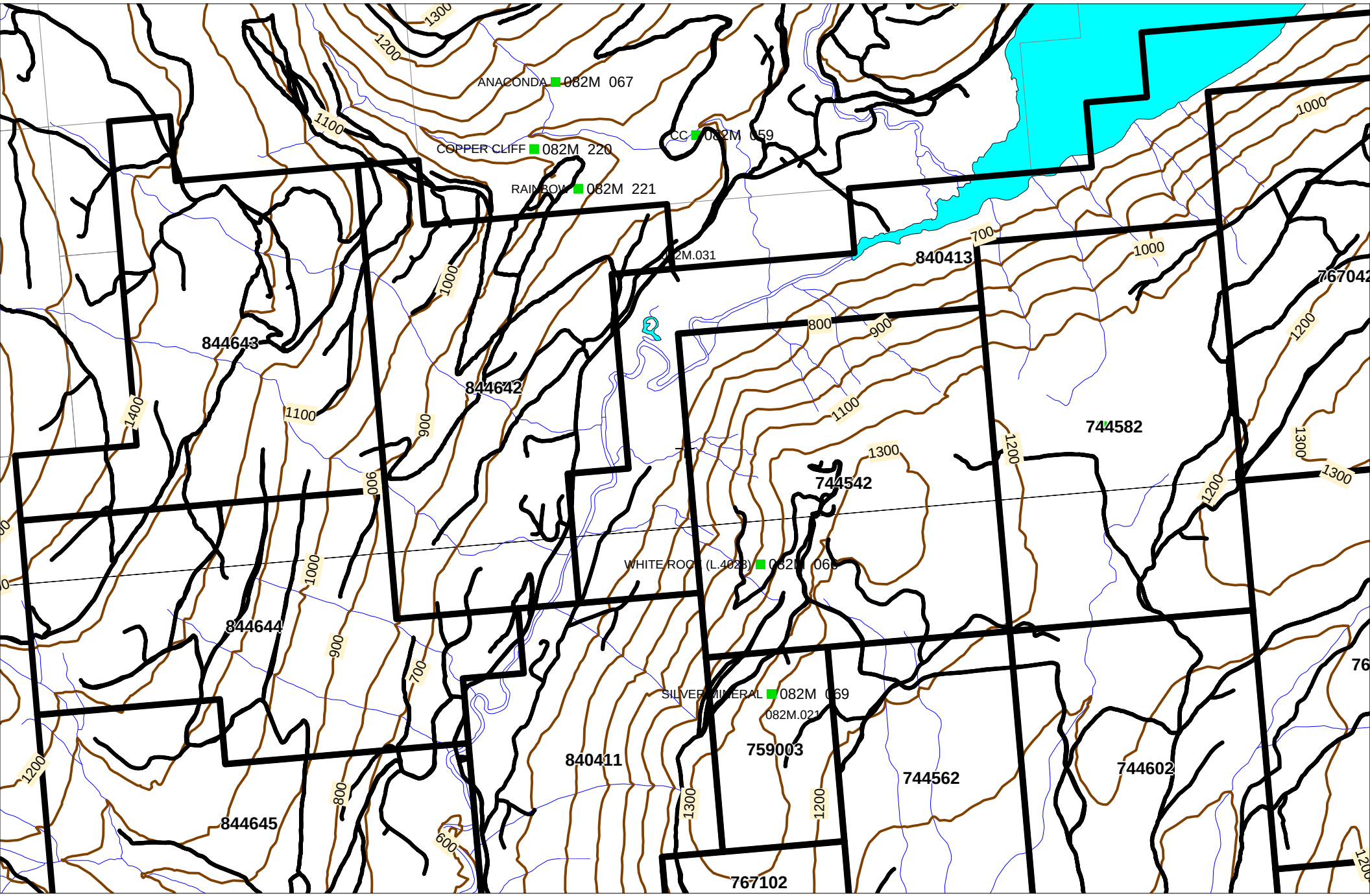
1 0 1 2 3

KILOMETERS

N

Barriere Ridge NW Corner: Tenures 744542, 744582, 759003, 844642, 844643, 844644



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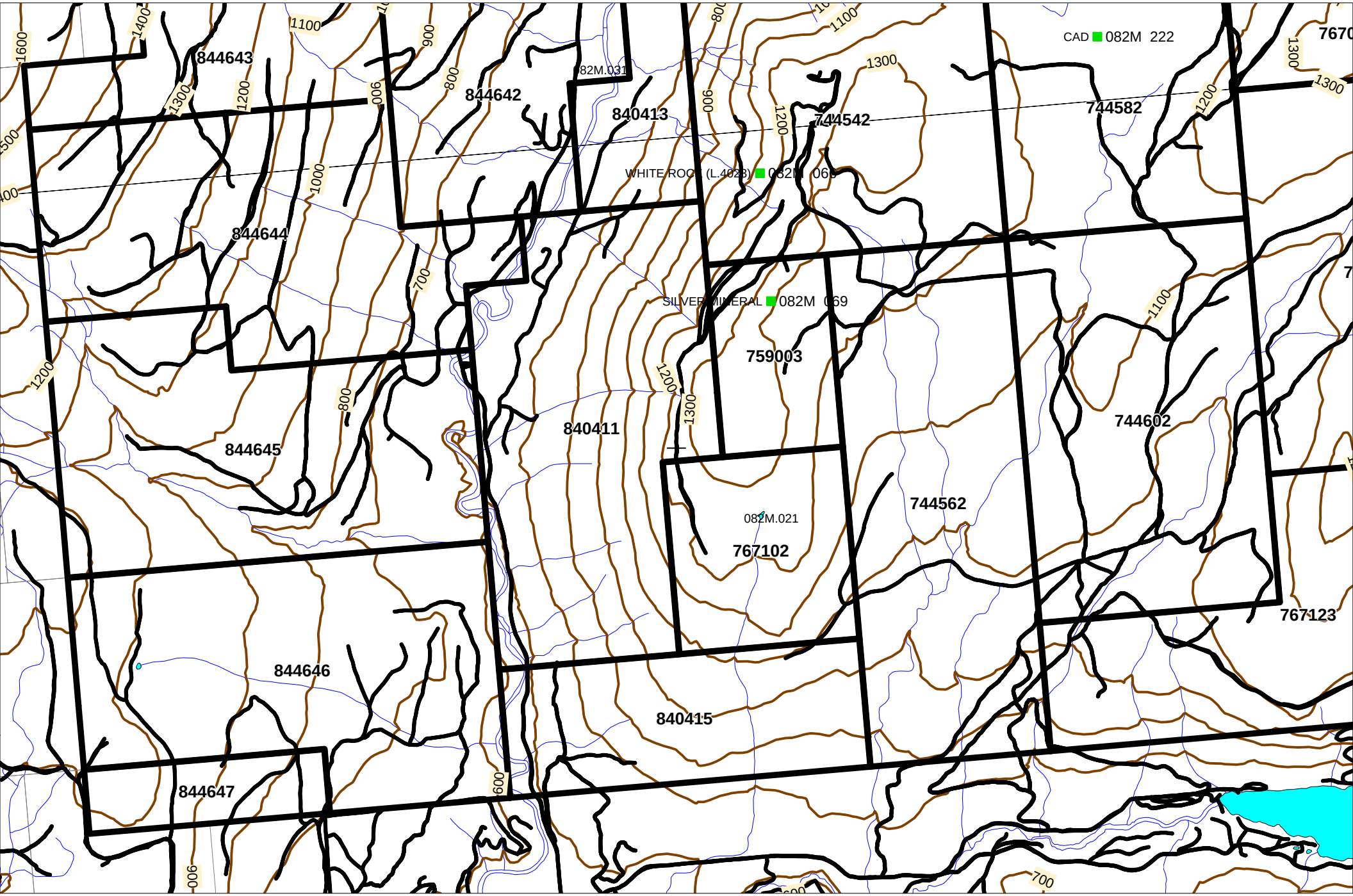
KILOMETERS

N

Barriere Ridge SW Corner: 744562, 744602, 759003, 767102, 840411, 840415, 844644, 844645, 844646, 844647



SCALE 1 : 35,000

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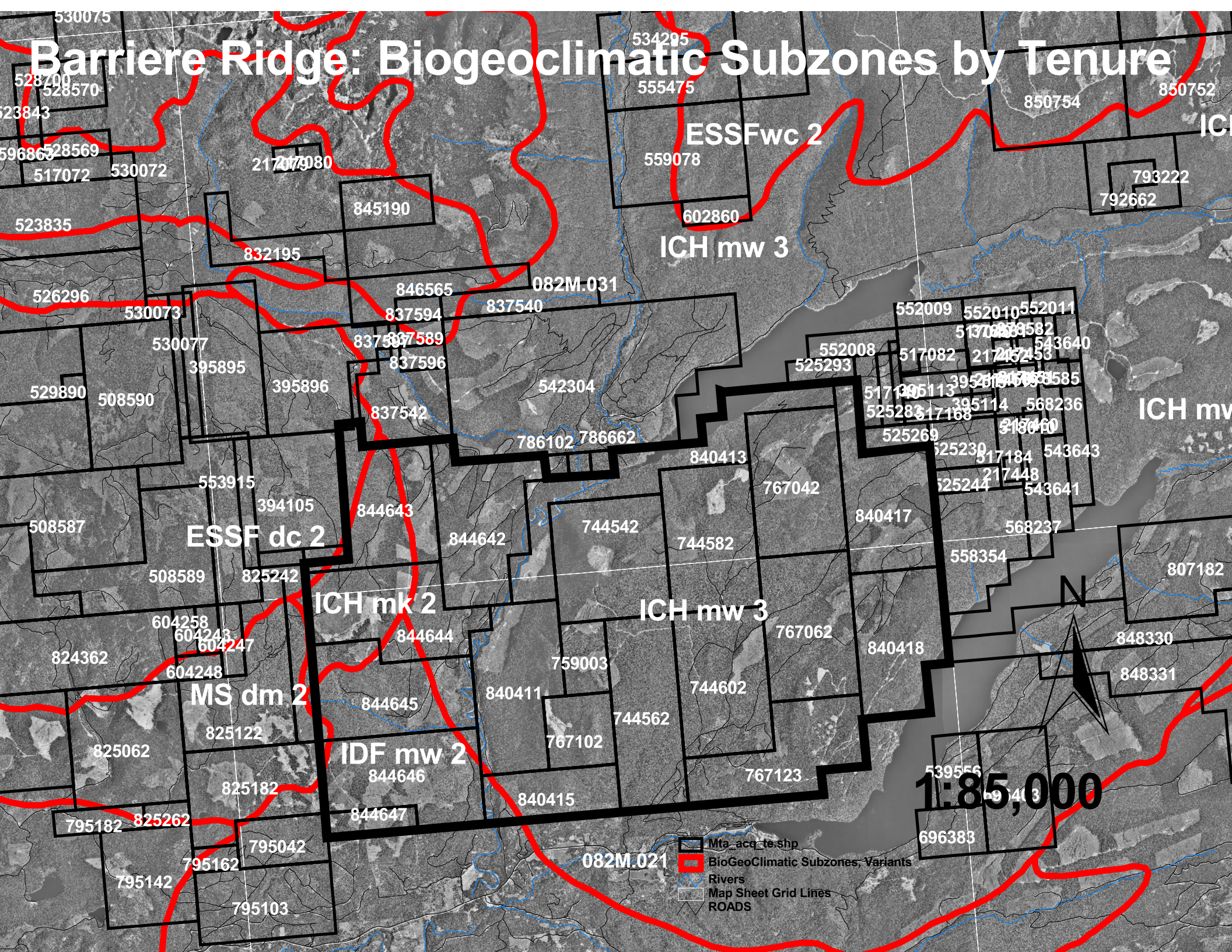
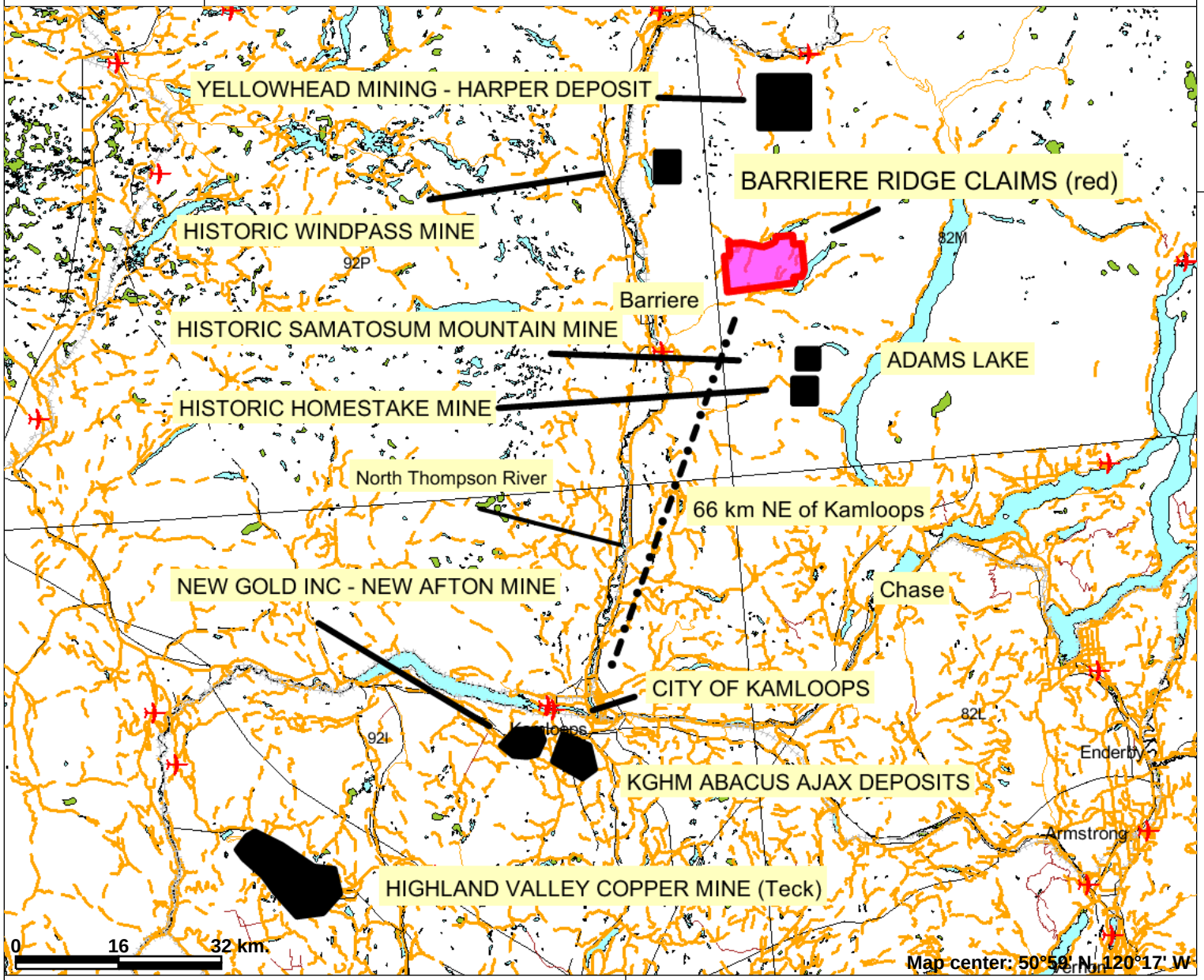
KILOMETERS

N


Barriere Ridge: Biogeoclimatic Subzones by Tenure
ESSFwc 2
ICH mw 3
ESSF dc 2
ICH mk 2
ICH mw 3
MS dm 2
IDF mw 2
082M.031
082M.021
N
1:85,000
Mta_acq_te.shp
BioGeoClimatic Subzones, Variants
Rivers
Map Sheet Grid Lines
ROADS

BARRIERE RIDGE: Overview of Mines & Deposits

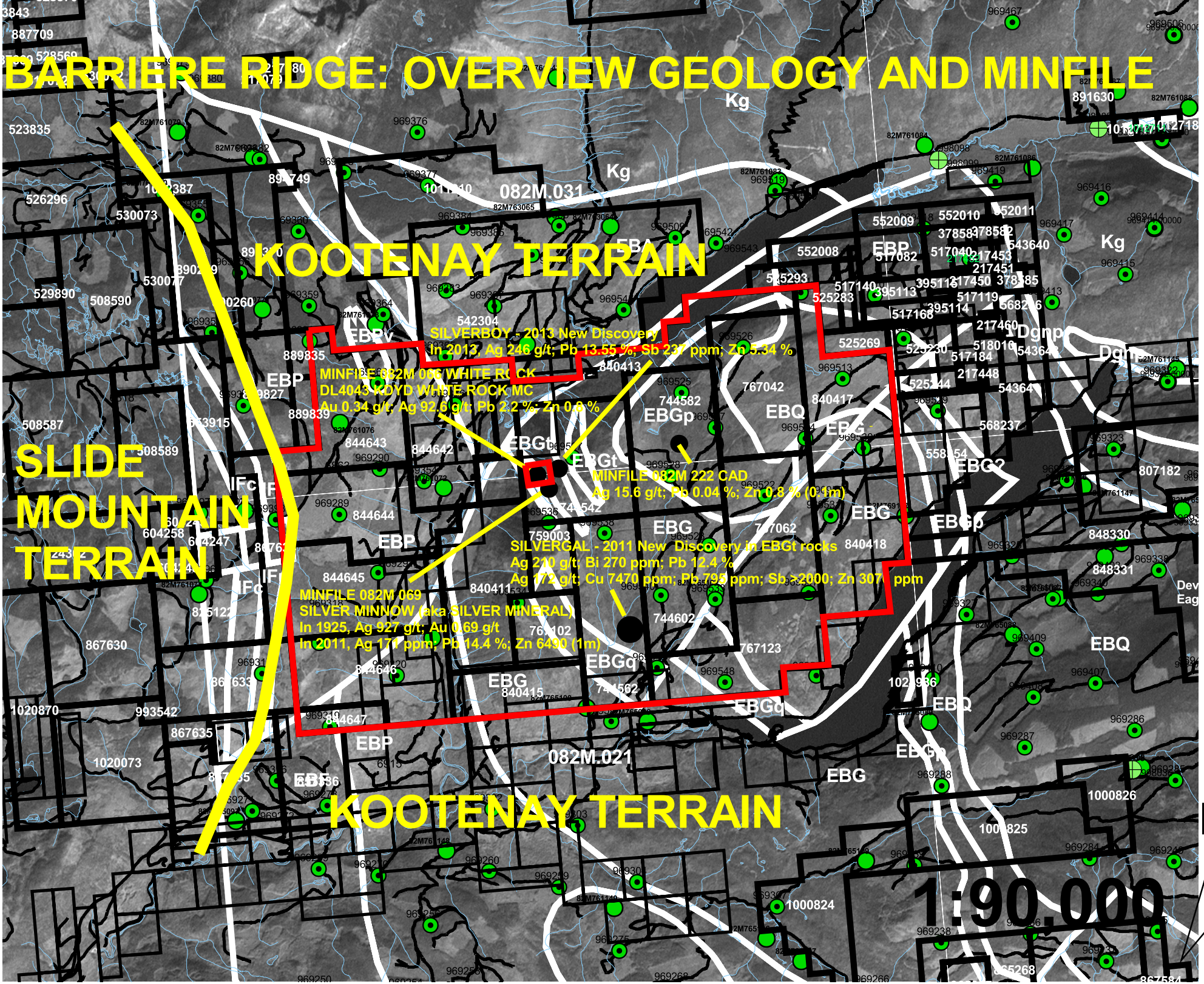


Legend

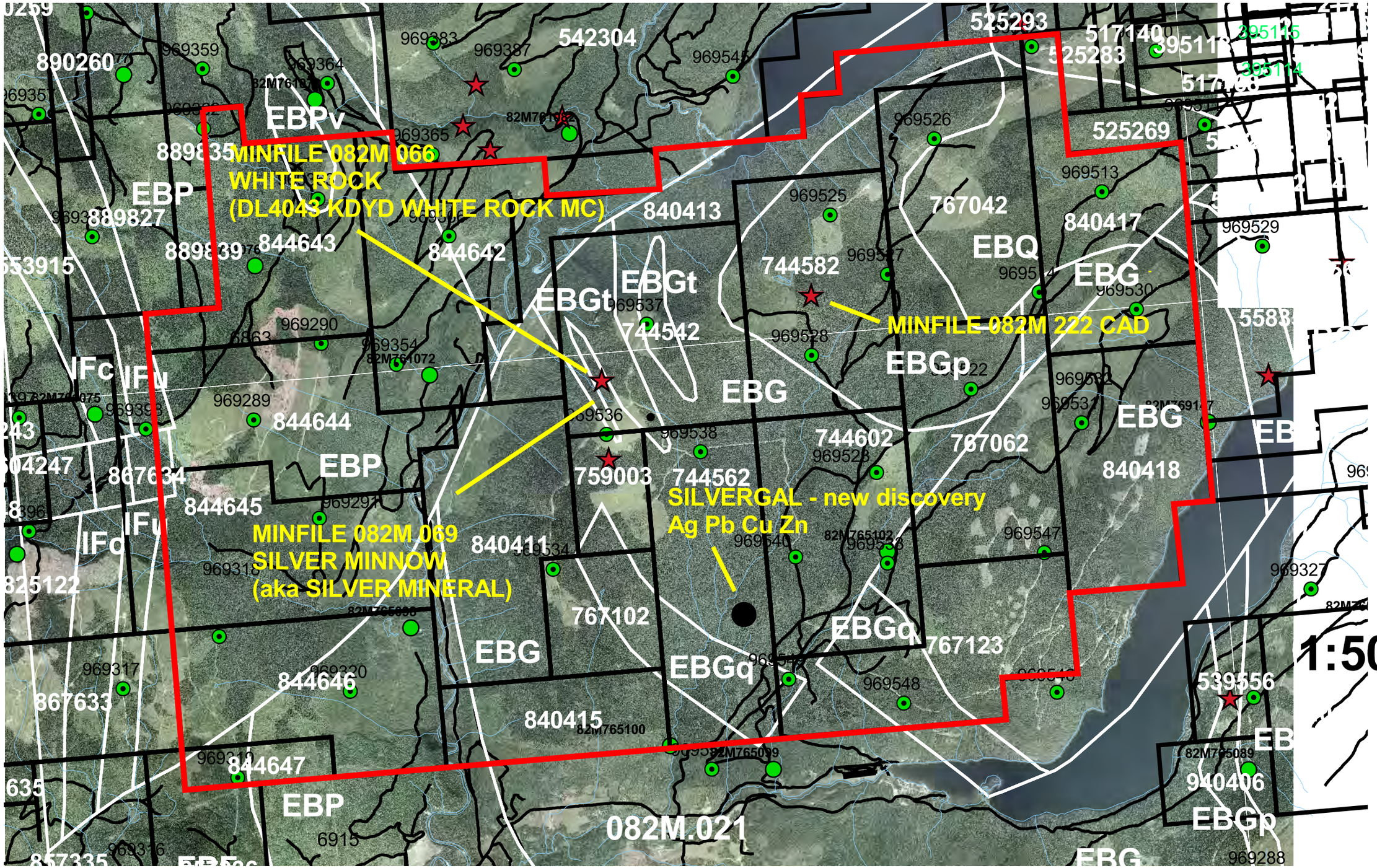
- NTS Grid
- Annotation (1:250K)
- Transportation - Points (1:250K)
  - Airfield
  - Anchorage - Seaplane
  - Ferry Route
  - Heliport
  - Seaplane Base
  - Air Field
  - Airport
  - Air Feature - Condition Unknown
  - Airport.Abandoned
- Transportation - Lines (1:250K)
  - Ferry Route
  - Aerial Cableway
  - Road (Gravel Undivided) - 1 Lane
  - Road (Gravel Undivided) - 3 Lanes
  - Road - Paved.lanes.2or More.Divided
  - Road (Paved Undivided) - Not Elevated - 1 Lane
  - Road (Paved Undivided) - Not Elevated - 2 Lanes
  - Road - Paved.lanes.3or More.Undivided
  - Road (Unimproved)
  - Road - Loose.access Dry Weather
  - Road (Winter Road)
  - Road - Paved.lanes.2.Undivided
  - Road - Paved.lanes.2.Undivided.U/C
  - Road - Paved.Divided.access.Non Standard
  - Track - Cart/Tractor
  - Causeway (Railway)
  - Cut (Roadway)
  - Trail
  - Tunnel
  - Bridge
  - Rail Line - Narrow Gauge - Single Track

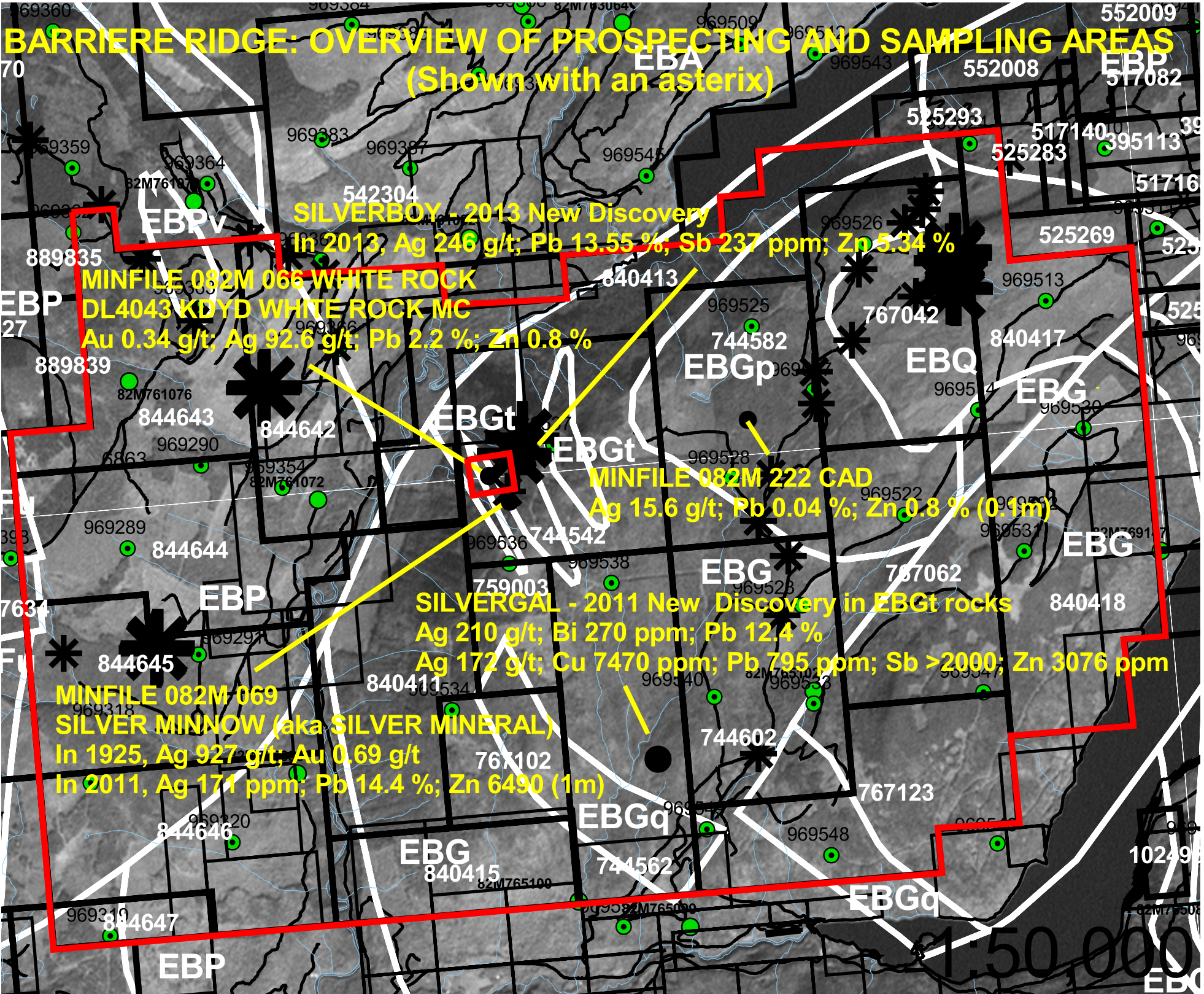
N

Scale: 1:929,947


BARRIERE RIDGE: OVERVIEW GEOLOGY AND MINFILE
KOOTENAY TERRAIN
SLIDE MOUNTAIN TERRAIN
KOOTENAY TERRAIN
082M.031
082M.021
SILVERBOY - 2013 New Discovery
In 2013, Ag 246 g/t; Pb 13.55 %; Sb 237 ppm; Zn 5.34 %
MINFILE 082M 068 WHITE ROCK
DL4043 ROYD WHITE ROCK MC
Au 0.34 g/t; Ag 92.6 g/t; Pb 2.2 %; Zn 0.8 %
MINFILE 082M 222 CAD
Ag 15.6 g/t; Pb 0.04 %; Zn 0.8 % (0.1m)
SILVERGAL - 2011 New Discovery in EBGt rocks
Ag 210 g/t; Bi 270 ppm; Pb 12.4 %
Ag 172 g/t; Cu 7470 ppm; Pb 795 ppm; Sb >2000; Zn 307 ppm
MINFILE 082M 069
SILVER MINNOW (aka SILVER MINERAL)
In 1925, Ag 927 g/t; Au 0.69 g/t
In 2011, Ag 171 ppm; Pb 14.4 %; Zn 6490 (1m)
1:90,000
N

BARRIERE RIDGE: OVERVIEW GEOLOGY, MINFILE, SILVERGAL SHOWING




BARRIERE RIDGE: OVERVIEW OF PROSPECTING AND SAMPLING AREAS
(Shown with an asterix)
SILVERBOY - 2013 New Discovery
In 2013, Ag 246 g/t; Pb 13.55 %; Sb 237 ppm; Zn 5.34 %
MINFILE 082M 066 WHITE ROCK
DL4043 KDYD WHITE ROCK MC
Au 0.34 g/t; Ag 92.6 g/t; Pb 2.2 %; Zn 0.8 %
MINFILE 082M 222 CAD
Ag 15.6 g/t; Pb 0.04 %; Zn 0.8 % (0.1m)
SILVERGAL - 2011 New Discovery in EBGt rocks
Ag 210 g/t; Bi 270 ppm; Pb 12.4 %
Ag 172 g/t; Cu 7470 ppm; Pb 795 ppm; Sb >2000; Zn 3076 ppm
MINFILE 082M 069
SILVER MINNOW (aka SILVER MINERAL)
In 1925, Ag 927 g/t; Au 0.69 g/t
In 2011, Ag 171 ppm; Pb 14.4 %; Zn 6490 (1m)
EBA
EBP
EBPV
EBGt
EBGp
EBQ
EBG
EBGq
552009
552008
525293
525283
525269
517082
517140
395113
542304
889835
889839
840413
744582
767042
840417
844643
844642
844644
844645
844646
844647
759003
744542
767062
840418
840411
744602
767102
767123
744562
840415
1:50 000
N

BARRIERE RIDGE: LIST OF ROCK, SOIL, MOSS MAT, and STREAM SEDIMENT SAMPLES.

Samples listed by Sample Tag, GPS Coordinate UTM NAD 83, Showing Assay Certificates, and Anomalous Results

Rock Samples - 9 assayed; Soil Samples - 12 assayed; Moss Mat Sediment - 1 assayed. Total of 22 samples.

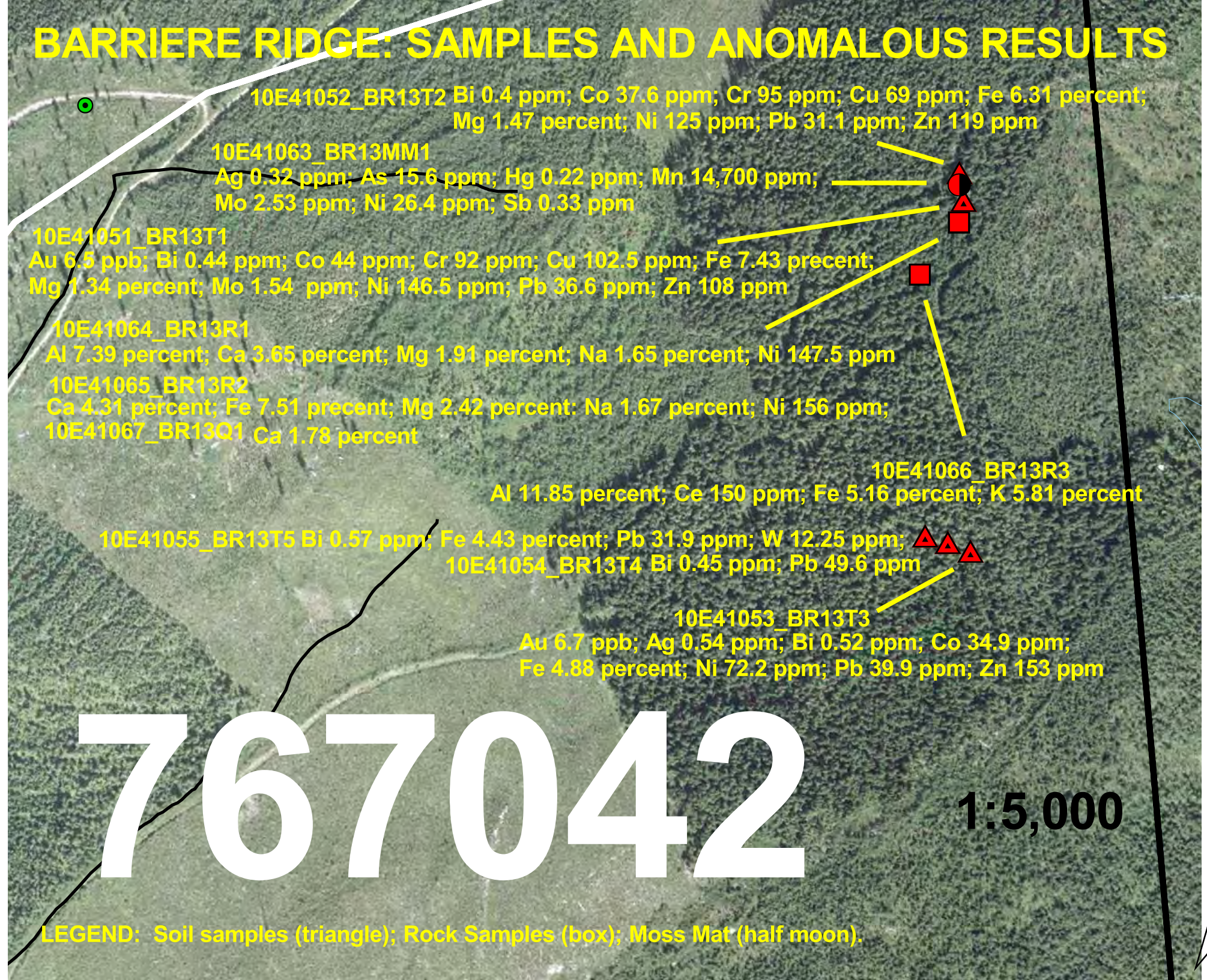
Sample Tag	Assay Certificate(s)	Sample Type	Sampling Method	Zone	Easterly	Northerly	Elevation (m)	Comments	Anomalous Results
ROCK SAMPLES: Total of 9 Collected and Assayed.									
10E41072 SM13R2	KL13184934	rock	grab	11	297919.055	5687392.442	1215.2230	**massive limestone outcrop, galena in Quartz veins veinlets stockwork on strike from SM13R1MALIC**	**Ag 246 ppm; Bi 56.6 ppm; Cu 171.5 ppm; Cd 190 ppm; Pb 13.55 percent; Sb 237 ppm; Se 35 ppm; Sn 2 ppm; Te 29.3 ppm; Zn 5.34 percent**
10E41071 SM13R1MALIC	KL13184933	rock	grab	11	297917.094	5687399.071	1216.4250	**near vertical 80 deg quartz vein, strike 190 deg, with malachite stain, galena, in old trench cutslope**	**Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent; Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm**
10E41066 BR13R3	KL13184933	rock	grab	11	302845.604	5688867.717	1250.3110	rusty, suspect sulphides, gently dipping Eagle Bay sediments	Al 11.85 percent; Ce 150 ppm; Fe 5.16 percent; K 5.81 percent
10E41064 BR13R1	KL13184933	rock	grab	11	302896.181	5688919.710	1243.3420	rusty, suspect sulphides, gently dipping Eagle Bay sediments	Al 7.39 percent; Ca 3.65 percent; Mg 1.91 percent; Na 1.65 percent; Ni 147.5 ppm
10E41065 BR13R2	KL13184933	rock	grab	11	302896.181	5688919.710	1243.3420	rusty, suspect sulphides, gently dipping Eagle Bay sediments	Ca 4.31 percent; Fe 7.51 precent; Mg 2.42 percent: Na 1.67 percent; Ni 156 ppm;
10E41067 BR13Q1	KL13184933	rock	grab	11	302896.181	5688919.710	1243.3420	quartz in Eagle Bay sediments, gently dipping	Ca 1.78 percent
10E41069 BR13RQA	KL13184933	rock	grab	11	295336.951	5688438.639	965.2822	Same location as soils samples 10E41056 BR13TQ1; 10E41057 BR13TQ2; 10E41058 BR13TQ3. quartz in cutslope, apparent width 0.4 m.	
10E41070 BR13RQB	KL13184933	rock	grab	11	295340.936	5688444.071	968.1660	Same location as soils samples 10E41056 BR13TQ1; 10E41057 BR13TQ2; 10E41058 BR13TQ3. quartz in cutslope in small creek	
10E41068 SR13QFA	KL13184933	rock	grab	11	293836.821	5685804.561	1006.8590	**Sprague Creek - Gold In Soils.** Rock is quartz, rusty non-magnetic as float rock. Common in cut back of road.	Same location as soil samples: 10E41059 SR13QT1; 10E41060 SR13QT2; 10E41061 SR13QT3 which were anomalous for gold.
SOIL SAMPLES: Total of 12 Collected and Assayed.									
10E41059 SR13QT1	KL13199947 KL13184931	soil	trowel	11	293823.535	5685780.175	1005.8970	**Sprague Creek - Gold in Soils.** Bm horizon, light brown, clayey, poorly graded. See also 10E41068 SR13QFA.	**Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm**
10E41061 SR13QT3	KL13199947 KL13184931	soil	trowel	11	293850.441	5685827.515	1006.6180	**Sprague Creek - Gold in Soils.** Bm horizon, light brown, clayey, poorly graded. See also 10E41068 SR13QFA.	**Au 9.8 ppb; As 24 ppm; Ni 71.1 ppm**
10E41060 SR13QT2	KL13199947 KL13184931	soil	trowel	11	293836.821	5685804.561	1006.8590	**Sprague Creek - Gold in Soils.** Bm horizon, light brown, clayey, poorly graded. See also 10E41068 SR13QFA.	**Au 7.3 ppb; As 30.3 ppm; Ba 220 ppm; Cu 61.5 ppm; Fe 4.45 percent; Ni 91.3 ppm; Zn 107 ppm**
10E41053 BR13T3	KL13199944 KL13184930	soil	trowel	11	302862.991	5688557.474	1260.6450		**Au 6.7 ppb; Ag 0.54 ppm; Bi 0.52 ppm; Co 34.9 ppm; Fe 4.88 percent; Ni 72.2 ppm; Pb 39.9 ppm; Zn 153 ppm**
10E41051 BR13T1	KL13199944 KL13184930	soil	trowel	11	302904.071	5688943.055	1239.2560	Bf horizon, yellowish medium brown, clayey, poorly graded, Same location as moss mat sediment 10E41063 BR13MM1. 6metres to creek	**Au 6.5 ppb; Bi 0.44 ppm; Co 44 ppm; Cr 92 ppm; Cu 102.5 ppm; Fe 7.43 precent; Mg 1.34 percent; Mo 1.54 ppm; Ni 146.5 ppm; Pb 36.6 ppm; Zn 108 ppm**
10E41062 SM13T1	KL13199947 KL13184931	soil	trowel	11	298025.986	5687553.054	1237.5740		**Al 2.64 percent; Ca 6.26 percent; Pb 57.7 ppm; Sb 2.46 ppm; Zn 146 ppm**

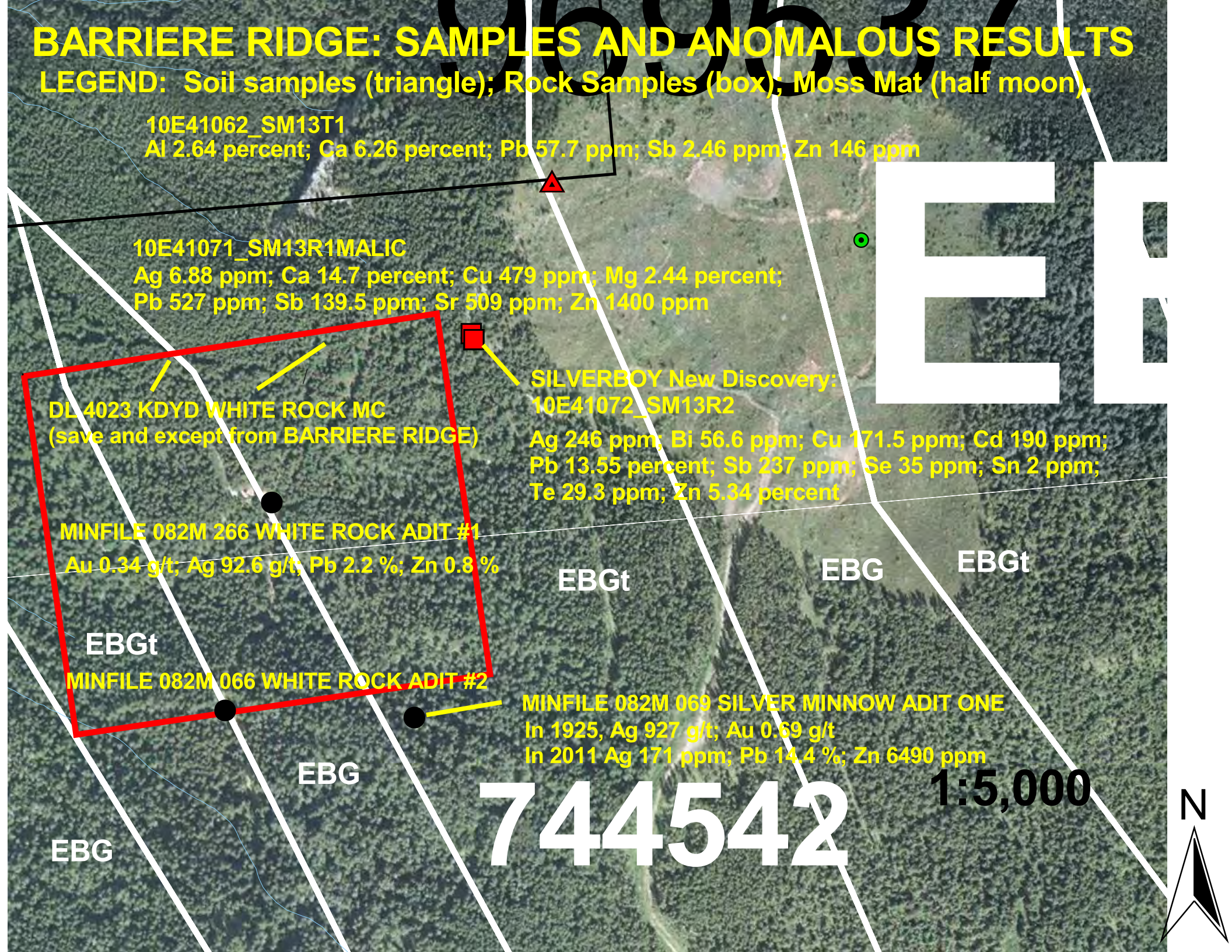
Sample Tag	Assay Certificate(s)	Sample Type	Sampling Method	Zone	Easterly	Northerly	Elevation (m)	Comments	Anomalous Results
10E41052 BR13T2	KL13199944 KL13184930	soil	trowel	11	302903.308	5688973.939	1245.5040	Bf horizon, yellowish medium brown, clayey, poorly graded, Same location as moss mat sediment 10E41063 BR13MM1. 19metres to creek	Bi 0.4 ppm; Co 37.6 ppm; Cr 95 ppm; Cu 69 ppm; Fe 6.31 percent; Mg 1.47 percent; Ni 125 ppm; Pb 31.1 ppm; Zn 119 ppm
10E41054 BR13T4	KL13199944 KL13184930	soil	trowel	11	302839.542	5688570.026	1259.9240		Bi 0.57 ppm; Fe 4.43 percent; Pb 31.9 ppm; **W 12.25 ppm;**
10E41055 BR13T5	KL13199944 KL13184930	soil	trowel	11	302815.419	5688580.420	1256.5590		Bi 0.45 ppm; Pb 49.6 ppm
10E41056 BR13TQ1	KL13199944 KL13184930	soil	trowel	11	295322.348	5688418.578	966.7241	Same loaction as rock samples 10E41069 BR13RQA and 10E41070 BR13RQB. Bg horizon, grey, clayey, poorly graded	Cu 70.4 ppm; Pb 35.4 ppm; Zn 114 ppm
10E41057 BR13TQ2	KL13199944 KL13184930	soil	trowel	11	295338.276	5688439.594	968.1660	Same loaction as rock samples 10E41069 BR13RQA and 10E41070 BR13RQB. Bm horizon, brown, clayey, poorly graded, some grit	
10E41058 BR13TQ3	KL13199944 KL13184930	soil	trowel	11	295347.153	5688453.977	959.9949	Same loaction as rock samples 10E41069 BR13RQA and 10E41070 BR13RQB.	
MOSS MAT SAMPLES: Total of 1 Collected and Assayed.									
10E41063 BR13MM1	KL13184932 KL13199946	moss mat	grab	11	302901.771	5688960.605	1250.7920	Adjacent to soil samples 10E41051 BR13T1 (6 metres) and 10E41052 BR13T2 (19 metres)	**Ag 0.32 ppm; As 15.6 ppm; Hg 0.22 ppm; Mn 14,700 ppm; Mo 2.53 ppm; Ni 26.4 ppm; Sb 0.33 ppm**

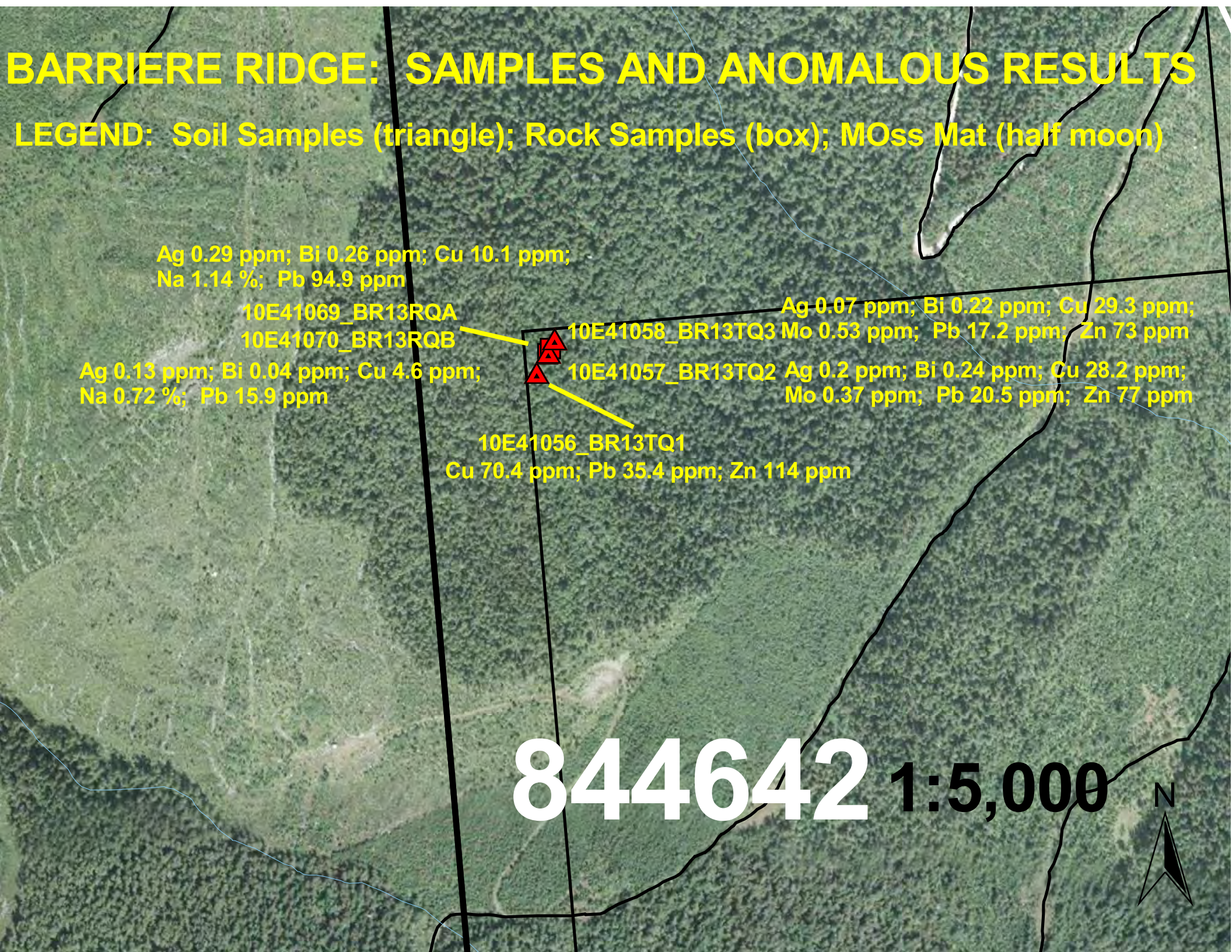
BARRIERE RIDGE: Summary of Infrastructure Locations For Roads and Bridges (2013 only)

UTM grid: NAD 83. Both Zone 10 and 11.

Waypoint	UTM Zone	Easterly	Northerly	Elevation (m)	Comments
Birk11KM	11	296145.998	5689571.366	997.0054	Birk FSR 11 km
Birk12KM	11	295388.185	5690056.716	1119.092	Birk FSR 12 km
Birk14KM	11	294689.513	5689253.734	1279.391	Birk FSR 14 km
Birk15KM	11	294210.975	5689981.092	1361.102	Birk FSR 15 km
Birk16KM	11	293847.368	5690613.184	1428.394	Birk FSR 16 km
Birk17KM	11	293173.604	5691395.389	1461.078	Birk FSR 17 km
Birkjct3101.12	11	296164.114	5688781.098	803.061	Birk FSR junction with FSR 3101.12
Birkjct3300.05	11	295776.161	5689822.334	1065.018	Birk FSR junction with FSR 3300.65
BirkjctF9RD	11	292764.658	5691667.080	1473.816	Birk FSR junction with F9 road
Deltardspragcr	11	292836.285	5685881.924	1016.232	Delta Creek Road, bridge over Sprague Creek
F9RD18KM	11	292659.938	5691716.536	1479.824	F9 road 18 km
F9RD19KM	11	292197.124	5691311.727	1562.016	F9 road 19 km
F9RD20KM	11	292057.529	5690703.462	1629.067	F9 road 20 km
F9RD21KM	11	291235.118	5690949.020	1697.801	F9 road 21 km
F9RDJCTA	11	291153.313	5691023.865	1701.166	F9 road and road jct A
F9RDJCTB	10	708231.100	5690691.736	1701.406	F9 road and road jct B
Jimsilver1	11	297800.047	5687008.857	1112.363	waypoint collected by Jim Britton, Regional Geologist
Out-EB1	11	293811.264	5685765.717	1005.657	outcrop of Eagle Bay Assemblege
Russbr15-9KM	11	301687.469	5688157.784	1191.19	Russell FSR Branch 15, 9 km
Russbr15A87896	11	302427.826	5688535.219	1237.814	Russell FSR Branch 15, A87896
Russbr17-11KM	11	302616.068	5689459.436	1131.349	Russell FSR Branch 17, 11 km
Russbr17-12KM	11	303619.696	5689893.201	1126.302	Russell FSR Branch 17, 12 km
Russbr17LAND	11	304076.063	5689962.175	1118.371	Russell FSR Branch 17, log landing
Russbr1-BR15	11	301242.145	5687875.937	1173.166	Russell FSR Branch 1, Jct Branch 15
Russbr1-BR17	11	302412.041	5689338.163	1133.992	Russell FSR Branch 1, Jct Branch 17
Russbr1-BR5	11	300129.361	5683877.137	972.9727	Russell FSR Branch 1, Jct Branch 5
Russbr1-JCTA	11	300566.682	5685319.921	1064.057	Russell FSR Branch 1, Jct A
Russbr1-JCTB	11	300444.224	5686356.900	1153.939	Russell FSR Branch 1, Jct B
Russmain10KM	11	301858.776	5688906.740	1151.056	Russell FSR main, 10 km
Russmain11KM	11	302676.106	5689643.524	1104.432	Russell FSR main, 11 km
Russmain6KM	11	300713.854	5685944.832	1144.326	Russell FSR main, 6 km
Russmain7KM	11	300640.869	5686840.246	1173.887	Russell FSR main, 7 km
Russmain8KM	11	301216.768	5687531.535	1187.585	Russell FSR main, 8 km
Sqpostold	11	297935.937	5687391.616	1225.797	very old squared post, up slope from SM13R2 wpt


BARRIERE RIDGE: SAMPLES AND ANOMALOUS RESULTS
10E41052_BR13T2 Bi 0.4 ppm; Co 37.6 ppm; Cr 95 ppm; Cu 69 ppm; Fe 6.31 percent; Mg 1.47 percent; Ni 125 ppm; Pb 31.1 ppm; Zn 119 ppm
10E41063_BR13MM1
Ag 0.32 ppm; As 15.6 ppm; Hg 0.22 ppm; Mn 14,700 ppm; Mo 2.53 ppm; Ni 26.4 ppm; Sb 0.33 ppm
10E41051_BR13T1
Au 6.5 ppb; Bi 0.44 ppm; Co 44 ppm; Cr 92 ppm; Cu 102.5 ppm; Fe 7.43 precent; Mg 1.34 percent; Mo 1.54 ppm; Ni 146.5 ppm; Pb 36.6 ppm; Zn 108 ppm
10E41064_BR13R1
Al 7.39 percent; Ca 3.65 percent; Mg 1.91 percent; Na 1.65 percent; Ni 147.5 ppm
10E41065_BR13R2
Ca 4.31 percent; Fe 7.51 precent; Mg 2.42 percent: Na 1.67 percent; Ni 156 ppm;
10E41067_BR13Q1 Ca 1.78 percent
10E41066_BR13R3
Al 11.85 percent; Ce 150 ppm; Fe 5.16 percent; K 5.81 percent
10E41055_BR13T5 Bi 0.57 ppm; Fe 4.43 percent; Pb 31.9 ppm; W 12.25 ppm;
10E41054_BR13T4 Bi 0.45 ppm; Pb 49.6 ppm
10E41053_BR13T3
Au 6.7 ppb; Ag 0.54 ppm; Bi 0.52 ppm; Co 34.9 ppm; Fe 4.88 percent; Ni 72.2 ppm; Pb 39.9 ppm; Zn 153 ppm
767042
1:5,000
N
LEGEND: Soil samples (triangle); Rock Samples (box); Moss Mat (half moon).


BARRIERE RIDGE: SAMPLES AND ANOMALOUS RESULTS
LEGEND: Soil samples (triangle); Rock Samples (box); Moss Mat (half moon).
10E41062_SM13T1
Al 2.64 percent; Ca 6.26 percent; Pb 57.7 ppm; Sb 2.46 ppm; Zn 146 ppm
10E41071_SM13R1MALIC
Ag 6.88 ppm; Ca 14.7 percent; Cu 479 ppm; Mg 2.44 percent;
Pb 527 ppm; Sb 139.5 ppm; Sr 509 ppm; Zn 1400 ppm
DL 4023 KDYD WHITE ROCK MC
(save and except from BARRIERE RIDGE)
SILVERBOY New Discovery:
10E41072_SM13R2
Ag 246 ppm; Bi 56.6 ppm; Cu 171.5 ppm; Cd 190 ppm;
Pb 13.55 percent; Sb 237 ppm; Se 35 ppm; Sn 2 ppm;
Te 29.3 ppm; Zn 5.34 percent
MINFILE 082M 266 WHITE ROCK ADIT #1
Au 0.34 g/t; Ag 92.6 g/t; Pb 2.2 %; Zn 0.8 %
MINFILE 082M 066 WHITE ROCK ADIT #2
MINFILE 082M 069 SILVER MINNOW ADIT ONE
In 1925, Ag 927 g/t; Au 0.69 g/t
In 2011 Ag 171 ppm; Pb 14.4 %; Zn 6490 ppm
EBGt
EBG
EBGt
EBGt
EBG
EBG
744542
1:5,000
N


BARRIERE RIDGE: SAMPLES AND ANOMALOUS RESULTS
LEGEND: Soil Samples (triangle); Rock Samples (box); MOss Mat (half moon)
Ag 0.29 ppm; Bi 0.26 ppm; Cu 10.1 ppm;
Na 1.14 %; Pb 94.9 ppm
10E41069_BR13RQA
10E41070_BR13RQB
Ag 0.13 ppm; Bi 0.04 ppm; Cu 4.6 ppm;
Na 0.72 %; Pb 15.9 ppm
10E41058_BR13TQ3
Ag 0.07 ppm; Bi 0.22 ppm; Cu 29.3 ppm;
Mo 0.53 ppm; Pb 17.2 ppm; Zn 73 ppm
10E41057_BR13TQ2
Ag 0.2 ppm; Bi 0.24 ppm; Cu 28.2 ppm;
Mo 0.37 ppm; Pb 20.5 ppm; Zn 77 ppm
10E41056_BR13TQ1
Cu 70.4 ppm; Pb 35.4 ppm; Zn 114 ppm
844642
1:5,000
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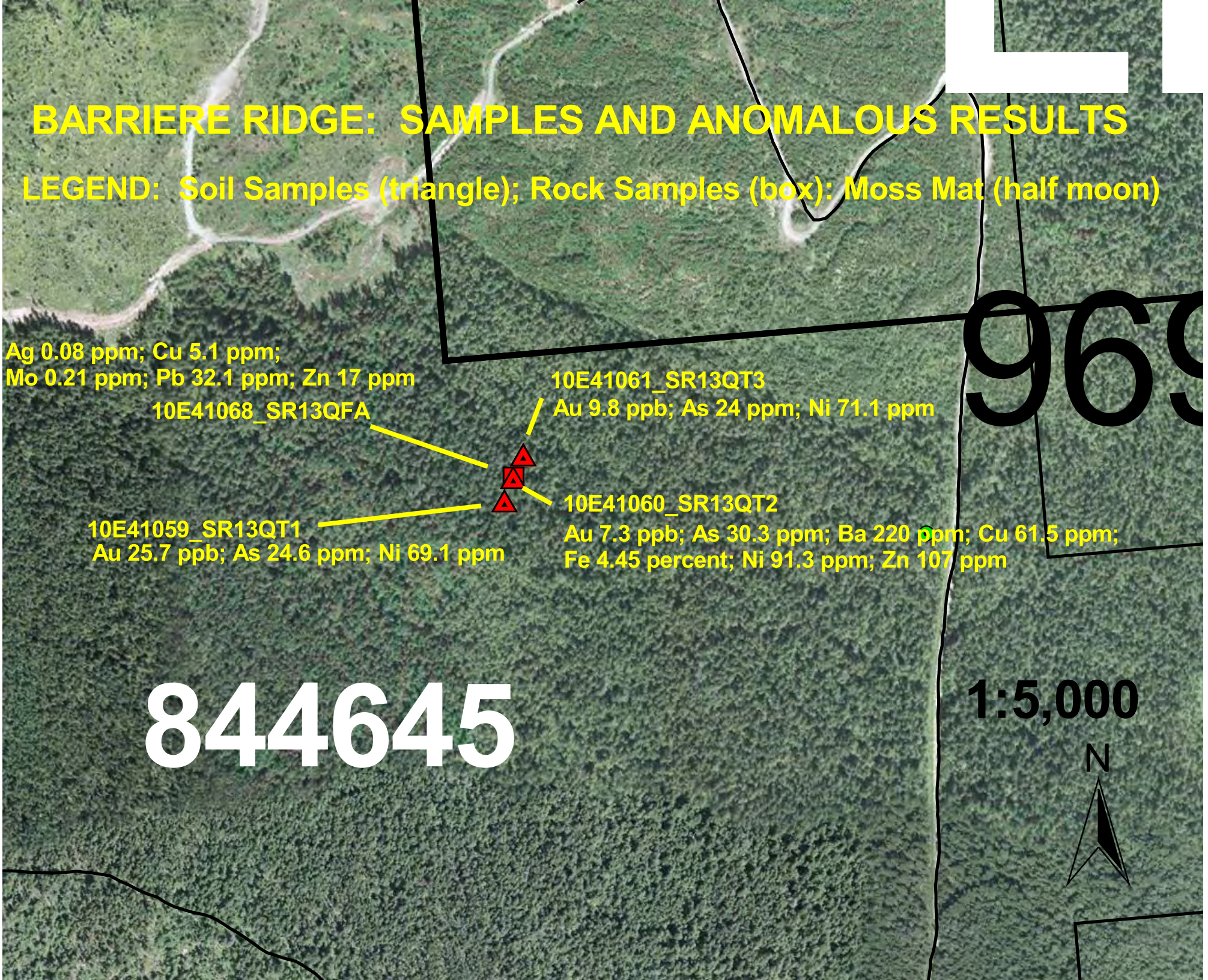

BARRIERE RIDGE: SAMPLES AND ANOMALOUS RESULTS
LEGEND: Soil Samples (triangle); Rock Samples (box): Moss Mat (half moon)
Ag 0.08 ppm; Cu 5.1 ppm;
Mo 0.21 ppm; Pb 32.1 ppm; Zn 17 ppm
10E41068_SR13QFA
10E41061_SR13QT3
Au 9.8 ppb; As 24 ppm; Ni 71.1 ppm
10E41060_SR13QT2
Au 7.3 ppb; As 30.3 ppm; Ba 220 ppm; Cu 61.5 ppm;
Fe 4.45 percent; Ni 91.3 ppm; Zn 107 ppm
10E41059_SR13QT1
Au 25.7 ppb; As 24.6 ppm; Ni 69.1 ppm
844645
1:5,000
N

BARRIERE RIDGE CLAIMS: GENERAL LIST OF HISTORIC DIAMOND DRILLING BASED ON ARIS REPORTS.

Data based on review of ARIS Reports completed March 2013 by David J. Piggin.

Field work to locate and GPS drill collars scheduled for 2013/2014.

	ESTIMATED TOTAL LENGTH OF DRILLING (metres)	2,195.98	20 Historic Drill Holes based on ARIS Reports

Year	ARIS Report	Operator	Drill Hole	Core Size	S.D. Length (m)	H.D. Length (m)	Azimuth (deg)	Angle (deg)	Depth to Collar (m)	Results and Comments	Interval	Coordinates
					1,836.60	**359.38**						
1984	13168	Noranda Inc	CAD 84-1	NQ	66.1		250	-45	12.5	Ag 2 g/t; Zn 0.65 % Drill logs in ARIS report.	2 m	Line 145+15E and ll0+00N.
1984	13168	Noranda Inc	CAD 84-2	NQ	66.1		250	-45	3	Ag 15.6 g/t; Zn 12,000 ppm; Pb 392 ppm over 0.1 metres; and Ag 4.6 g/t; Zn 136 ppm; Pb 1070 ppm over 0.1 metres; and Ag 3.6 g/t; Zn 500 ppm; Pb 1020 ppm over 0.6 metres. Drill logs in ARIS report.	In 3 separate quartz veins	Line 134+58E and ll2+00N,
1985	14397	Noranda Inc	CAD 85-1	NQ	137.2		270	-45	17.08	Drilling failed to intersect mineralization that would explain Soil and IP anomaly. Drill logs in ARIS report.		East 146+95 and North 110+90
1985	14397	Noranda Inc	CAD 85-2	NQ	47.5		270	-65	13.1	Drilling failed to intersect mineralization that would explain Soil and IP anomaly. Drill logs in ARIS report.		East 146+47 and North 110+95
1987	16331	Merritech Development Corporation	CAD 87-1	NQ	175		250	-45	13.4	Drilling failed to intersect mineralization that would explain soil anomaly. Drill logs in ARIS report.		143+00 East and 110+00 North

Year	ARIS Report	Operator	Drill Hole	Core Size	S.D. Length (m)	H.D. Length (m)	Azimuth (deg)	Angle (deg)	Depth to Collar (m)	Results and Comments	Interval	Coordinates
1987	16331	Merritech Development Corporation	CAD 87-2	NQ	98.8		250	-60	9.1	Drilling failed to intersect mineralization that would explain soil anomaly. Drill logs in ARIS report.		146+42 East and 111+50 North
1987	16331	Merritech Development Corporation	CAD 87-3	NQ	120.4		250	-45	3	Drilling failed to intersect mineralization that would explain soil anomaly. Drill logs in ARIS report.		145+60.5 East and 106+94 North
1987	17739	National Resources Exploration Ltd	DDH 87-1	NQ	na	125	SW	na	na	Unknown, Drill site shown on map 125 m horizontal distance. Drill logs not found.		115 North line about 134.4 m west of baseline.
1987	17739	National Resources Exploration Ltd	DDH 87-2	NQ	na	134.375	SW	na	na	Unknown, Drill site shown on map 134 m horizontal distance. Drill logs not found.		114 North line about 93.8 m west of baseline.
1987	17739	National Resources Exploration Ltd	DDH 87-3	NQ	na	50	SW	na	na	Unknown, Drill site shown on map 50 m horizontal distance. Drill logs not found.		113 North line about 156.3 mwest of baseline.
1987	17739	National Resources Exploration Ltd	DDH 87-4	NQ	na	50	SW	na	na	Unknown, Drill site shown on map 50 m horizontal distance. Drill logs not found.		113 North line about 156.3 mwest of baseline.
1988	18489	Minnova Inc.	P1 BAR20	NQ	154.5		235	-45	4.1	Intersected a uniform sequence of dacite tuffs with a relatively narrow rhyolite interval. Conductor is associated with graphitic argillites.		L52+50E and 53+50N

Year	ARIS Report	Operator	Drill Hole	Core Size	S.D. Length (m)	H.D. Length (m)	Azimuth (deg)	Angle (deg)	Depth to Collar (m)	Results and Comments	Interval	Coordinates
1988	18489	Minnova Inc.	P2 BAR21	NQ	151.5		235	-45	3.05	Drill through a QFP rhyolite-dacite dome in a na area of overlapping Na2O depletion and Ag enrichment. Intersected QFP rhyolite flow and dacite tuff. Drill logs in ARIS report.		L54+25E and 52+35N
1988	18489	Minnova Inc.	P3 BAR22	NQ	120.7		235	-45	15.7	Tested a Max/Min conductor with a weak coincident Cu soil anomaly. Trace pyrite and pyrrhotite. Drill logs in ARIS report.		L48+35E and 53+08N
1988	18489	Minnova Inc.	P4 BAR23	NQ	174.2		235	-45	4.8	Tested a strong coincident Cu and Zn soil anomaly. Intersected a narrow intervalof epigenetic (?) massive sulphide mineralization. Conductor is associated with graphitic argillites. **Au 0.91 g/t, Ag 203 g/t, Cu 0.133 %, Pb 5.46 %, Zn 13.2 % Drill logs in ARIS report.**	0.4 m	L48+00E and 56+73N
1989	19851	Minnova Inc.	MBD89-1		102.7		270	-50	3.05	No significant mineralization or alteration was encountered. Drill logs in ARIS report.		Grid 1-C: 109+50mE and 137+00mN

Year	ARIS Report	Operator	Drill Hole	Core Size	S.D. Length (m)	H.D. Length (m)	Azimuth (deg)	Angle (deg)	Depth to Collar (m)	Results and Comments	Interval	Coordinates
1989	19851	Minnova Inc.	MBD89-2		96.6		245	-50	13.3	No significant mineralization or alteration was encountered. Drill logs in ARIS report.		Grid 1-C: 110+75mE and 133+00mN
1989	19851	Minnova Inc.	MBD89-3		105.8		270	-48	18.3	No significant mineralization or alteration was encountered. Drill logs in ARIS report.		Grid 1-B: 100+60mE and 105+20mN
1989	19851	Minnova Inc.	MBD89-4		124.1		235	-50	12.2	No significant mineralization or alteration was encountered. Drill logs in ARIS report.		Grid 6: 89+00mE and 120+00mN
1989	19851	Minnova Inc.	MBD89-5		95.4		235	-50	30.5	No significant mineralization or alteration was encountered. Drill logs in ARIS report.		Grid 6: 89+35mE and 116+00mN

ALS Minerals

SAMPLE PREPARATION PACKAGE

PREP- 31

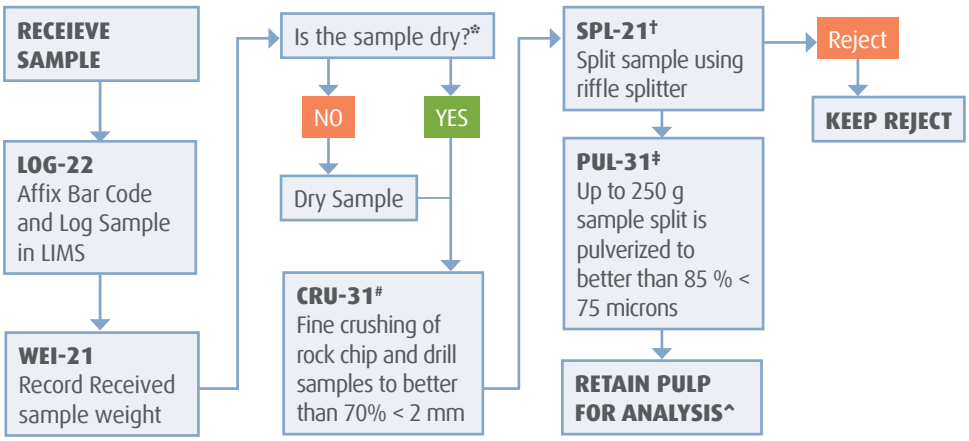
STANDARD SAMPLE PREPARATION: DRY, CRUSH, SPLIT AND PULVERIZE

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

The sample is logged in the tracking system, weighed, dried and finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen. A split of up to 250 g is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh, US Std. No. 200) screen. This method is appropriate for rock chip or drill samples.

METHOD CODE	DESCRIPTION
LOG-22	Sample is logged in tracking system and a bar code label is attached.
DRY-21	Drying of excessively wet samples in drying ovens. This is the default drying procedure for most rock chip and drill samples.
CRU-31	Fine crushing of rock chip and drill samples to better than 70% of the sample passing 2 mm.
SPL-21	Split sample using riffle splitter.
PUL-31	A sample split of up to 250 g is pulverized to better than 85% of the sample passing 75 microns.

FLOW CHART - SAMPLE PREPARATION PACKAGE – PREP-31 STANDARD SAMPLE PREPARATION: DRY, CRUSH, SPLIT AND PULVERIZE



*If samples air-dry overnight, no charge to client. If samples are excessively wet, the sample should be dried to a maximum of 120°C. (**DRY-21**)

#QC testing of crushing efficiency is conducted on random samples (**CRU-QC**).

†The sample reject is saved or dumped pending client instructions. Prolonged storage (> 45 days) of rejects will be charged to the client.

‡QC testing of pulverizing efficiency is conducted on random samples (**PUL-QC**).

^Lab splits are required when analyses must be performed at a location different than where samples received.

ALS Minerals

SAMPLE PREPARATION PACKAGE

PREP- 41

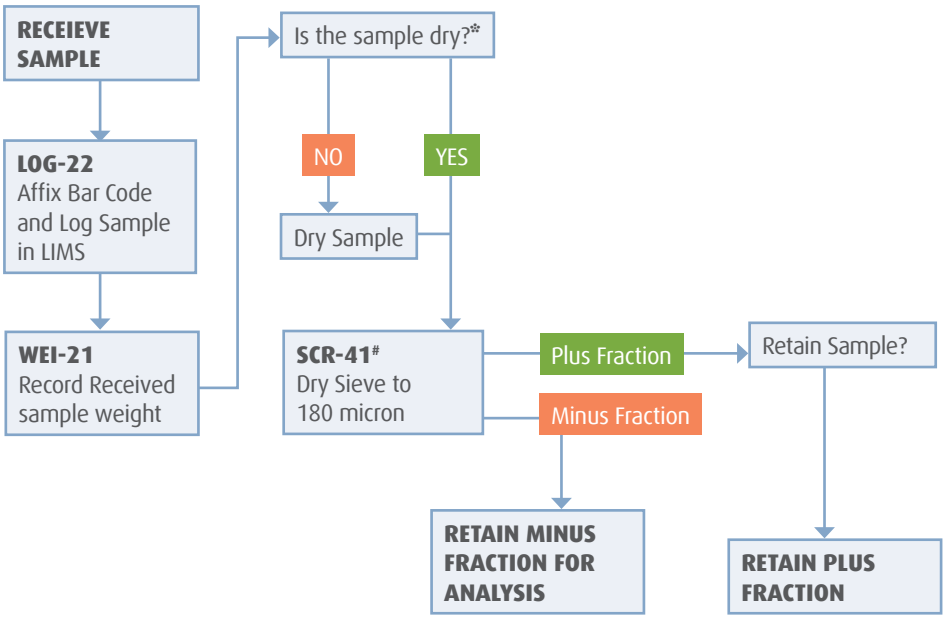
STANDARD PREPARATION: DRY SAMPLE AND DRY- SIEVE TO –180 MICRON

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

An entire sample is dried and then dry-sieved using a 180 micron (Tyler 80 mesh) screen. The plus fraction is retained unless disposal is requested. This method is appropriate for soil or sediment samples up to 1 kg in weight.

METHOD CODE	DESCRIPTION
LOG-22	Sample is logged in tracking system and a bar code label is attached.
DRY-22	Low temperature drying of excessively wet samples where the oven temperature is not to exceed 60°C. This method is suitable for more soil and sediment samples that are analyzed for volatile elements.
SCR-41	Sample is dry-sieved to – 180 micron and both the plus and minus fractions are retained.

SAMPLE PREPARATION FLOWCHART PACKAGE –PREP- 41



*If samples air-dry overnight, no charge to client. If samples are excessively wet, the sample should be dried to a maximum of 120°C. (**DRY-21**)

#The plus fraction is the material remaining on the screen. The minus fraction is the material passing through the screen.

†The plus fraction is retained unless disposal is requested.

ALS Minerals

FIRE ASSAY PROCEDURE

Au-ICP21 and Au-ICP22

FIRE ASSAY FUSION ICP-AES FINISH

SAMPLE DECOMPOSITION

Fire Assay Fusion (FA-FUSPG1 & FA-FUSPG2)

ANALYTICAL METHOD

Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by inductively coupled plasma atomic emission spectrometry against matrix-matched standards.

METHOD CODE	ELEMENT	SYMBOL	UNITS	SAMPLE WEIGHT (G)	LOWER LIMIT	UPPER LIMIT	DEFAULT OVERLIMIT METHOD
Au-ICP21	Gold	Au	ppm	30	0.001	10	Au-AA25
Au-ICP22	Gold	Au	ppm	50	0.001	10	Au-AA26

ALS Minerals

FIRE ASSAY PROCEDURE

Au- SCR21

PRECIOUS METALS ANALYSIS – SCREEN METALLICS GOLD, DOUBLE MINUS

SAMPLE DECOMPOSITION

Fire Assay Fusion

ANALYTICAL METHOD

Gravimetric

1000 g of the final prepared pulp is passed through a 100 micron (Tyler 150 mesh) stainless steel screen to separate the oversize fractions. Any +100 micron material remaining on the screen is retained and analyzed in its entirety by fire assay with gravimetric finish and reported as the Au(+)fraction result. The –100 micron fraction is homogenized and two sub-samples are analyzed by fire assay with AAS finish (Au-AA25 and Au-AA25D). The average of the two AAS results is taken and reported as the Au (-) fraction result. All three values are used in calculating the combined gold content of the plus and minus fractions.

In the fire assay procedure, the sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required in order to produce a lead button. The lead button, containing the precious metals, is cupelled to remove the lead and the resulting precious metal bead is parted in dilute nitric acid, annealed and weighed to determine gold content.

The gold values for both the +100 and -100 micron fractions are reported together with the weight of each fraction as well as the calculated total gold content of the sample.

Calculations

$$\text{Au – avg} = \frac{\text{Au – (1)} + \text{Au –(2)}}{2}$$

$$\text{AuTotal (g / t)} = \frac{(\text{Au – avg (g/t)} \times \text{Wt.Minus(g)} \times 10^{-6}\ \text{t /g}) + (\text{Weight Au in Plus(mg)} \times 10^{-3}\ \text{g/mg})}{(\text{Wt.Minus(g)} + \text{Wt.Plus(g)}) \times 10\ \text{–6 t / g}}$$

Au- SCR21

FIRE ASSAY

Density = Specific gravity x Density of water (at temperature (t°C))

Factors for converting specific gravity to density are tabulated below:

DETERMINATION	DESCRIPTION	DETECTION LIMIT	UPPER LIMIT	UNITS
Au Total (+)(-) Combined	Total gold content of sample as determined by metallics calculation above.	0.05	0.05	ppm
Au (+) Fraction	Gold content of plus fraction determined by Au-GRA21.	0.05	0.05	ppm
Au (-) Fraction	Gold content of minus fraction. Reported as average of two subsamples.	0.05	0.05	ppm
Au-AA25	Gold content of first minus fraction subsample.	0.05	0.05	ppm
Au-AA25D	Gold content of second minus fraction subsample.	0.05	0.05	ppm
Au (+) mg	Weight of gold in plus fraction.	0.001	0.001	mg
WT. (+) Fraction Entire	Weight of plus fraction.	0.01	0.01	g
WT. (-) Fraction Entire	Weight of minus fraction.	0.1	0.1	g

ALS Minerals

GEOCHEMICAL PROCEDURE

Au-TL43, Au-TL44

DETERMINATION OF TRACE LEVEL GOLD BY SOLVENT EXTRACTION – GRAPHITE FURNACE AAS OR ICPMS FINISH

SAMPLE DECOMPOSITION

Aqua regia gold digestion (GEO-AuAR01/02)

ANALYTICAL METHOD

Inductively coupled mass spectrometry (ICPMS) or Atomic absorption spectrometry (AAS)

A finely pulverised sample (25 – 50 g) is digested in a mixture of 3 parts hydrochloric acid and 1 part nitric acid (aqua regia). This acid mixture generates nascent chlorine and nitrosyl chloride, which will dissolve free gold and gold compounds such as calaverite, $AuTe_2$.

The dissolved gold is complexed and extracted with Kerosene/DBS and determined by graphite furnace AAS. Alternatively gold is determined by ICPMS directly from the digestion liquor. This method allows for the simple and economical addition of extra elements by running the digestion liquor through the ICPAES or ICPMS.

NOTE: Samples high in sulphide or carbon content may lead to low gold recoveries unless they are roasted prior to digestion.

METHOD CODE	ELEMENT	SYMBOL	UNITS	SAMPLE MASS (G)	LOWER LIMIT	UPPER LIMIT	DEFAULT OVERLIMIT METHOD
Au-TL43	Gold	Au	ppm	25	0.001	1	Au-OG43
Au-TL44	Gold	Au	ppm	50	0.001	1	Au-OG44

ALS Minerals

GEOCHEMICAL PROCEDURE

ME- MS41

ULTRA- TRACE LEVEL METHODS USING ICP- MS AND ICP- AES

SAMPLE DECOMPOSITION

Aqua Regia Digestion (GEO-AR01)

ANALYTICAL METHOD

Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES)
Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)

A prepared sample (0.50 g) is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, ment spectral interferences.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Silver	Ag	ppm	0.01	100
Aluminum	Al	%	0.01	25
Arsenic	As	ppm	0.1	10 000
Gold	Au	ppm	0.2	25
Boron	B	ppm	10	10 000
Barium	Ba	ppm	10	10 000
Beryllium	Be	ppm	0.05	1 000
Bismuth	Bi	ppm	0.01	10 000
Calcium	Ca	%	0.01	25
Cadmium	Cd	ppm	0.01	1 000
Cerium	Ce	ppm	0.02	500
Cobalt	Co	ppm	0.1	10 000
Chromium	Cr	ppm	1	10 000
Cesium	Cs	ppm	0.05	500
Copper	Cu	ppm	0.2	10 000
Iron	Fe	%	0.01	50
Gallium	Ga	ppm	0.05	10 000
Germanium	Ge	ppm	0.05	500
Hafnium	Hf	ppm	0.02	500

ALS Minerals

ME- MS41

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Mercury	Hg	ppm	0.01	10 000
Indium	In	ppm	0.005	500
Potassium	K	%	0.01	10
Lanthanum	La	ppm	0.2	10 000
Lithium	Li	ppm	0.1	10 000
Magnesium	Mg	%	0.01	25
Manganese	Mn	ppm	5	50 000
Molybdenum	Mo	ppm	0.05	10 000
Sodium	Na	%	0.01	10
Niobium	Nb	ppm	0.05	500
Nickel	Ni	ppm	0.2	10 000
Phosphorus	P	ppm	10	10 000
Lead	Pb	ppm	0.2	10 000
Rubidium	Rb	ppm	0.1	10 000
Rhenium	Re	ppm	0.001	50
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	0.05	10 000
Scandium	Sc	ppm	0.1	10 000
Selenium	Se	ppm	0.2	1 000
Tin	Sn	ppm	0.2	500
Strontium	Sr	ppm	0.2	10 000
Tantalum	Ta	ppm	0.01	500
Tellurium	Te	ppm	0.01	500
Thorium	Th	ppm	0.2	10000
Titanium	Ti	%	0.005	10
Thallium	Tl	ppm	0.02	10 000
Uranium	U	ppm	0.05	10 000
Vanadium	V	ppm	1	10 000
Tungsten	W	ppm	0.05	10 000
Yttrium	Y	ppm	0.05	500
Zinc	Zn	ppm	2	10 000
Zirconium	Zr	ppm	0.5	500

NOTE: In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

ALS Minerals

GEOCHEMICAL PROCEDURE

ME-ICP61

TRACE LEVEL METHODS USING CONVENTIONAL ICP- AES ANALYSIS

SAMPLE DECOMPOSITION

HNO_3 -$HClO_4$ -HF-HCl digestion, HCl Leach (GEO-4ACID)

ANALYTICAL METHOD

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and the resulting solution is analyzed by inductively coupled plasma-atomic emission spectrometry. Results are corrected for spectral interelement interferences.

NOTE: Four acid digestions are able to dissolve most minerals; however, although the term "*near- total*" is used, depending on the sample matrix, not all elements are quantitatively extracted.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Silver	Ag	ppm	0.5	100	Ag-OG62
Aluminum	Al	%	0.01	50	
Arsenic	As	ppm	5	10,000	
Barium	Ba	ppm	10	10,000	
Beryllium	Be	ppm	0.5	1,000	
Bismuth	Bi	ppm	2	10,000	
Calcium	Ca	%	0.01	50	
Cadmium	Cd	ppm	0.5	500	
Cobalt	Co	ppm	1	10,000	Co-OG62
Chromium	Cr	ppm	1	10,000	
Copper	Cu	ppm	1	10,000	Cu-OG62
Iron	Fe	%	0.01	50	
Gallium	Ga	ppm	10	10,000	
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10,000	
Magnesium	Mg	%	0.01	50	
Manganese	Mn	ppm	5	10,0000	

ME-ICP61

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Molybdenum	Mo	ppm	1	10,000	Mo-OG62
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	10,000	Ni-OG62
Phosphorus	P	ppm	10	10,000	
Lead	Pb	ppm	2	10,000	Pb-OG62
Sulphur	S	%	0.01	10	
Antimony	Sb	ppm	5	10,000	
Scandium	Sc	ppm	1	10,000	
Strontium	Sr	ppm	1	10,000	
Thorium	Th	ppm	20	10,000	
Titanium	Ti	%	0.01	10	
Thallium	Tl	ppm	10	10,000	
Uranium	U	ppm	10	10,000	
Vanadium	V	ppm	1	10,000	
Tungsten	W	ppm	10	10,000	
Zinc	Zn	ppm	2	10,000	Zn-OG62

ELEMENTS LISTED BELOW ARE AVAILABLE UPON REQUEST

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Lithium	Li	ppm	10	10,000	
Niobium	Nb	ppm	5	2,000	
Rubidium	Rb	ppm	10	10,000	
Selenium	Se	ppm	10	1,000	
Tin	Sn	ppm	10	10,000	
Tantalum	Ta	ppm	10	10,000	
Tellurium	Te	ppm	10	10,000	
Yttrium	Y	ppm	10	10,000	
Zirconium	Zr	ppm	5	500	

ALS Minerals

GEOCHEMICAL PROCEDURE

ME- MS61

ULTRA- TRACE LEVEL METHOD USING ICP- MS AND ICP- AES

SAMPLE DECOMPOSITION

HF-HNO_3 -$HClO_4$ acid digestion, HCl leach (GEO-4A01)

ANALYTICAL METHOD

Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES)
Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)

A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and analyzed by inductively coupled plasma- atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, silver and tungsten and diluted accordingly. Samples meeting this criterion are then analyzed by inductively coupled plasma-mass spectrometry. Results are corrected for spectral interelement interferences.

NOTE: Four acid digestions are able to dissolve most minerals; however, although the term "*near- total*" is used, depending on the sample matrix, not all elements are quantitatively extracted.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Silver	Ag	ppm	0.01	100
Aluminum	Al	%	0.01	50
Arsenic	As	ppm	0.2	10,000
Barium	Ba	ppm	10	10,000
Beryllium	Be	ppm	0.05	1,000
Bismuth	Bi	ppm	0.01	10,000
Calcium	Ca	%	0.01	50
Cadmium	Cd	ppm	0.02	1,000
Cerium	Ce	ppm	0.01	500
Cobalt	Co	ppm	0.1	10,000
Chromium	Cr	ppm	1	10,000
Cesium	Cs	ppm	0.05	500
Copper	Cu	ppm	0.2	10,000
Iron	Fe	%	0.01	50
Gallium	Ga	ppm	0.05	10,000
Germanium	Ge	ppm	0.05	500
Hafnium	Hf	ppm	0.1	500

ALS Minerals

ME- MS61

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Indium	In	ppm	0.005	500
Potassium	K	%	0.01	10
Lanthanum	La	ppm	0.5	10,000
Lithium	Li	ppm	0.2	10,000
Magnesium	Mg	%	0.01	50
Manganese	Mn	ppm	5	100,000
Molybdenum	Mo	ppm	0.05	10,000
Sodium	Na	%	0.01	10
Niobium	Nb	ppm	0.1	500
Nickel	Ni	ppm	0.2	10,000
Phosphorous	P	ppm	10	10,000
Lead	Pb	ppm	0.5	10,000
Rubidium	Rb	ppm	0.1	10,000
Rhenium	Re	ppm	0.002	50
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	0.05	10,000
Scandium	Sc	ppm	0.1	10,000
Selenium	Se	ppm	1	1,000
Tin	Sn	ppm	0.2	500
Strontium	Sr	ppm	0.2	10,000
Tantalum	Ta	ppm	0.05	100
Tellurium	Te	ppm	0.05	500
Thorium	Th	ppm	0.2	10,000
Titanium	Ti	%	0.005	10
Thallium	Tl	ppm	0.02	10,000
Uranium	U	ppm	0.1	10,000
Vanadium	V	ppm	1	10 000
Tungsten	W	ppm	0.1	10,000
Yttrium	Y	ppm	0.1	500
Zinc	Zn	ppm	2	10,000
Zirconium	Zr	ppm	0.5	500

ALS Minerals

ASSAY PROCEDURE

ME- OG62

ORE GRADE ELEMENTS BY FOUR ACID DIGESTION USING CONVENTIONAL ICP- AES ANALYSIS

SAMPLE DECOMPOSITION

HNO_3 -$HClO_4$ -HF-HCl Digestion (ASY-4A01)

ANALYTICAL METHOD

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)*

Assays for the evaluation of ores and high-grade materials are optimized for accuracy and precision at high concentrations. Ultra high concentration samples (> 15 -20%) may require the use of methods such as titrimetric and gravimetric analysis, in order to achieve maximum accuracy.

A prepared sample is digested with nitric, perchloric, hydrofluoric, and hydrochloric acids, and then evaporated to incipient dryness. Hydrochloric acid and de-ionized water is added for further digestion, and the sample is heated for an additional allotted time. The sample is cooled to room temperature and transferred to a volumetric flask (100 mL). The resulting solution is diluted to volume with de-ionized water, homogenized and the solution is analyzed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry.

***NOTE:** ICP-AES is the default finish technique for ME-OG62. However, under some conditions and at the discretion of the laboratory an AA finish may be substituted. The certificate will clearly reflect which instrument finish was used.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Silver	Ag	ppm	1	1,500
Arsenic	As	%	0.01	30
Bismuth	Bi	%	0.01	30
Cadmium	Cd	%	0.0001	10
Cobalt	Co	%	0.001	20
Chromium	Cr	%	0.002	30
Copper	Cu	%	0.001	40
Iron	Fe	%	0.01	100
Manganese	Mn	%	0.01	50
Molybdenum	Mo	%	0.001	10
Nickel	Ni	%	0.001	30
Lead	Pb	%	0.001	20
Zinc	Zn	%	0.001	30

ALS Minerals

Technical Note

LOW LEVEL SAMPLE PREPARATION PROCEDURES

New facilities and procedures with Super Trace detection limits

Recent upgrades at the Townsville and Orange laboratories as well as new sample preparation facilities in Darwin and Perth now provide dedicated low-level soil and stream sediment preparation areas and equipment to ensure a contamination free environment for sieving and pulverisation of geochemical, soil, sediment and lag samples.

ALS Minerals recommends carrying out an orientation survey to optimise sampling parameters such as soil horizon, size fraction, preparation, digestion and analysis.

Unless otherwise specified by its clients, ALS Minerals will adopt the following procedures when preparing soil, sediment and lag samples:

- Any samples submitted to the laboratory identified as soil, stream sediment or lag will be logged under a separate workorder if submitted with other sample types
- Samples will be dried either in the paper packets they are received in or transferred to dedicated stainless steel or aluminium trays
- ALS Minerals recommends sieving of samples instead of pulverising to reduce the possibility of steel contamination inherent with pulverising bowls. Samples can be sieved in the field, or ALS Minerals can provide this service in our dedicated low level sample preparation areas. A range of sieve sizes is available depending on individual client requirements. Where sample sieving is required to a minus 80 mesh or finer fraction, samples will not be pulverised and the oversize fraction will automatically be retained and stored
- Where pulverising is required for bulk soils or fractions coarser than 80 mesh, a maximum 250g split will be finely pulverised with the remaining unpulverised portion being retained and stored. All bulk residues will be stored in sealed plastic bags and in a designated soil/sediment storage area
- Samples with significant clay content can be problematic when pulverising; and bowl cleaning between each sample may not be effective with vacuum and compressed air. In such cases a barren wash containing high silica content will be used between each sample
- Dedicated 400cc capacity low chromium steel bowls will be used for sample pulverisation. Pulverising any sample in a steel bowl has the potential to contribute trace levels of certain metals to the sample due to the composition of the steel bowls and their inherent wear rates.

Recommended analysis procedures include aqua regia digestion with analysis of gold by method Au-ST43 and base metals by method ME-MS41L. Both methods can be provided in package ST43L-PKG:

ANALYTICAL METHODS

Detection limits in (ppm) unless otherwise stated

Analytes			Method Description	Method Code
Au (0.0001)			Up to a 25g, aqua regia extraction, with ICPMS finish	ST43L-PKG
Ag (0.002)	**Hf** (0.02)	**Sb** (0.005)	Aqua regia digestion, ICPAES and ICPMS finish, providing Super Trace detection limits	
Al (0.01%)	**Hg** (0.005)	**Sc** (0.1)		
As (0.02)	**In** (0.005)	**Se** (0.1)		
B (10)	**K** (0.01%)	**Sn** (0.2)		
Ba (0.5)	**La** (0.2)	**Sr** (0.2)		
Be (0.05)	**Li** (0.1)	**Ta** (0.01)		
Bi (0.01)	**Mg** (0.01%)	**Te** (0.01)		
Ca (0.01%)	**Mn** (1)	**Th** (0.1)		
Cd (0.01)	**Mo** (0.01)	**Ti** (0.001%)		
Ce (0.02)	**Na** (0.01%)	**Tl** (0.02)		
Co (0.1)	**Nb** (0.05)	**U** (0.05)		
Cr (0.5)	**Ni** (0.1)	**V** (1)		
Cs (0.05)	**P** (10)	**W** (0.01)		
Cu (0.01)	**Pb** (0.01)	**Y** (0.05)		
Fe (0.01%)	**Rb** (0.1)	**Zn** (0.1)		
Ga (0.05)	**Re** (0.001)	**Zr** (0.5)		
Ge (0.05)	**S** (0.01%)			

A range of other methods is also available. To discuss your soil sampling program and analytical requirements, please contact your nearest ALS Minerals laboratory or email alsminerals.brisbane@alsglobal.com or alsminerals.perth@alsglobal.com

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

CERTIFICATE KL13184930

Project: Barriere Ridge

P.O. No.:

This report is for 8 Soil samples submitted to our lab in Kamloops, BC, Canada on 10- OCT- 2013.

The following have access to data associated with this certificate:

DAVID PIGGIN

SAMPLE PREPARATION

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

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ST43	Super Trace Au - 25g AR	ICP- MS

To: DAVID PIGGIN
ATTN: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184930

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-ST43 Au ppm 0.0001
10E41051_BR13T1		0.43	0.0065
10E41052_BR13T2		0.45	0.0030
10E41053_BR13T3		0.54	0.0067
10E41054_BR13T4		0.84	0.0041
10E41055_BR13T5		0.62	0.0034
10E41056_BR13TQ1		0.52	0.0026
10E41057_BR13TQ2		0.43	0.0031
10E41058_BR13TQ3		0.43	0.0036

***** See Appendix Page for comments regarding this certificate *****

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North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184930

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Kamloops located at 2953 Shuswap Drive, Kamloops, BC, Canada.
LOG- 22 SCR- 41 WEI- 21

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
Au- ST43

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

CERTIFICATE KL13184931

Project: Barriere Ridge

P.O. No.:

This report is for 4 Soil samples submitted to our lab in Kamloops, BC, Canada on 10- OCT- 2013.

The following have access to data associated with this certificate:

DAVID PIGGIN

SAMPLE PREPARATION

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

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ST43	Super Trace Au - 25g AR	ICP- MS

To: DAVID PIGGIN
ATTN: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184931

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-ST43 Au ppm 0.0001
10E41059_SR13QT1		0.90	0.0257
10E41060_SR13QT2		0.64	0.0073
10E41061_ SR13QT3		0.74	0.0098
10E41062_SM13T1		0.24	0.0009

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184931

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method:	Processed at ALS Kamloops located at 2953 Shuswap Drive, Kamloops, BC, Canada. LOG- 22 SCR- 41 WEI- 21
Applies to Method:	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. Au- ST43

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

CERTIFICATE KL13184932

Project: Barriere Ridge
P.O. No.:
This report is for 1 Other sample submitted to our lab in Kamloops, BC, Canada on 10- OCT- 2013.
The following have access to data associated with this certificate:

DAVID PIGGIN

SAMPLE PREPARATION

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

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ST43	Super Trace Au - 25g AR	ICP- MS

To: DAVID PIGGIN
ATTN: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

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***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184932

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-ST43 Au ppm 0.0001
10E41063_BR13MM1		0.95	0.0014

***** See Appendix Page for comments regarding this certificate *****

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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 23- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184932

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Kamloops located at 2953 Shuswap Drive, Kamloops, BC, Canada.
LOG- 22 SCR- 41 WEI- 21

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
Au- ST43

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
This copy reported on
28- OCT- 2013
Account: DAVIPI

CERTIFICATE KL13184933

Project: Barriere Ridge

P.O. No.:

This report is for 8 Rock samples submitted to our lab in Kamloops, BC, Canada on 10- OCT- 2013.

The following have access to data associated with this certificate:

DAVID PIGGIN		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES

To: DAVID PIGGIN
ATTN: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

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Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

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91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184933

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-ICP21 Au ppm 0.001	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2
10E41064_BR13R1		1.44	0.001	0.09	7.39	4.9	100	0.73	0.03	3.65	0.05	9.84	41.9	231	1.92	58.2
10E41065_BR13R2		1.34	0.001	0.09	7.39	6.6	110	0.60	0.04	4.31	0.04	9.07	39.9	240	2.11	65.9
10E41066_BR13R3		2.39	0.003	0.10	11.85	2.0	930	3.17	0.18	0.11	0.02	150.0	13.5	80	4.92	41.8
10E41067_BR13Q1		1.76	0.002	0.02	1.06	1.6	40	0.22	0.03	1.78	0.03	8.15	5.9	44	0.39	8.9
10E41068_SR13QFA		2.13	0.008	0.08	0.24	8.2	10	<0.05	0.03	0.07	0.10	3.04	1.8	27	<0.05	5.1
10E41069_BR13RQA		1.88	0.002	0.29	1.72	1.0	80	0.30	0.26	0.57	0.11	16.40	2.9	48	0.21	10.1
10E41070_BR13RQB		1.98	0.002	0.13	0.94	1.9	20	0.08	0.04	0.23	0.18	7.11	2.3	38	0.06	4.6
10E41071_SM13R1MALIC		2.06	0.037	6.88	0.07	48.8	30	0.05	0.73	14.70	7.21	2.24	1.8	8	<0.05	479

***** See Appendix Page for comments regarding this certificate *****

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To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184933

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P
	Units	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10
10E41064_BR13R1		7.80	18.00	0.12	0.3	0.050	1.12	4.1	71.3	1.91	822	0.58	1.65	2.5	147.5	450
10E41065_BR13R2		7.51	16.55	0.13	0.5	0.041	1.15	3.7	81.5	2.42	864	0.50	1.67	2.3	156.0	470
10E41066_BR13R3		5.16	30.9	0.32	2.9	0.079	5.81	72.9	13.5	0.42	172	0.33	0.25	14.0	34.5	590
10E41067_BR13Q1		1.51	2.98	0.16	0.2	0.018	0.25	4.1	8.2	0.51	291	0.24	0.12	0.5	32.5	20
10E41068_SR13QFA		0.75	0.52	0.12	0.1	0.006	0.02	1.4	0.5	0.01	250	0.21	0.15	0.4	6.5	270
10E41069_BR13RQA		1.12	3.30	0.12	0.5	0.010	0.17	7.3	2.7	0.22	174	0.27	1.14	1.8	13.0	450
10E41070_BR13RQB		0.78	1.60	0.07	0.2	0.006	0.04	3.5	0.9	0.08	76	0.28	0.72	1.0	7.9	230
10E41071_SM13R1MALIC		0.49	0.25	0.06	<0.1	0.085	0.02	1.1	1.0	2.44	195	0.13	0.01	<0.1	3.4	10

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184933

Sample Description	Method / Analyte / Units / LOR	ME-MS61 Pb ppm 0.5	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S % 0.01	ME-MS61 Sb ppm 0.05	ME-MS61 Sc ppm 0.1	ME-MS61 Se ppm 1	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.2	ME-MS61 Ti % 0.005	ME-MS61 Tl ppm 0.02	ME-MS61 U ppm 0.1
10E41064_BR13R1		7.4	43.4	<0.002	0.15	0.26	19.4	<1	0.4	208	0.16	<0.05	0.3	0.204	0.27	0.2
10E41065_BR13R2		6.2	44.4	<0.002	0.27	0.25	18.7	<1	0.4	224	0.15	<0.05	0.3	0.225	0.29	0.2
10E41066_BR13R3		31.5	253	<0.002	0.55	0.35	18.6	1	4.0	38.8	0.86	<0.05	28.5	0.187	1.44	2.9
10E41067_BR13Q1		2.0	9.3	<0.002	0.05	0.29	3.0	<1	0.2	46.3	<0.05	<0.05	1.0	0.035	0.06	0.2
10E41068_SR13QFA		32.1	0.7	<0.002	0.12	0.26	1.1	<1	<0.2	13.2	<0.05	<0.05	0.6	0.011	<0.02	0.1
10E41069_BR13RQA		94.9	7.4	<0.002	0.27	0.22	2.2	1	0.3	119.5	0.13	0.07	2.8	0.049	0.05	0.5
10E41070_BR13RQB		15.9	1.5	<0.002	0.26	0.18	1.0	<1	<0.2	54.5	0.06	0.08	1.6	0.029	<0.02	0.2
10E41071_SM13R1MALIC		527	0.8	<0.002	0.01	139.5	0.3	1	<0.2	509	<0.05	0.28	<0.2	<0.005	0.02	0.5

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184933

Sample Description	Method / Analyte / Units / LOR	ME-MS61 V ppm 1	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5
10E41064_BR13R1		154	0.4	3.3	92	6.7
10E41065_BR13R2		153	0.3	3.5	88	9.6
10E41066_BR13R3		91	1.9	8.8	130	90.7
10E41067_BR13Q1		20	<0.1	2.0	17	8.6
10E41068_SR13QFA		3	<0.1	1.9	17	3.7
10E41069_BR13RQA		19	0.8	2.8	18	16.0
10E41070_BR13RQB		5	0.4	1.5	27	7.3
10E41071_SM13R1MALIC		4	<0.1	0.7	1400	<0.5

***** See Appendix Page for comments regarding this certificate *****

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North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184933

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: REE's may not be totally soluble in this method.
ME- MS61

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Kamloops located at 2953 Shuswap Drive, Kamloops, BC, Canada.

CRU- 31	CRU- QC	LOG- 22	PUL- 31
PUL- QC	SPL- 21	WEI- 21	

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Au- ICP21	ME- MS61

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
This copy reported on
28- OCT- 2013
Account: DAVIPI

CERTIFICATE KL13184934

Project: Barriere Ridge

P.O. No.:

This report is for 1 Rock sample submitted to our lab in Kamloops, BC, Canada on 10- OCT- 2013.

The following have access to data associated with this certificate:

DAVID PIGGIN		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Ag- OG62	Ore Grade Ag - Four Acid	VARIABLE
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Pb- OG62	Ore Grade Pb - Four Acid	VARIABLE
Zn- OG62	Ore Grade Zn - Four Acid	VARIABLE
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES

To: DAVID PIGGIN
ATTN: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

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***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184934

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-ICP21 Au ppm 0.001	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2
10E41072_SM13R2		1.37	0.042	>100	0.03	44.8	10	0.05	56.6	2.44	190.0	1.58	6.5	18	<0.05	171.5

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184934

Sample Description	Method Analyte Units LOR	ME-MS61 Fe % 0.01	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 Hf ppm 0.1	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.2	ME-MS61 P ppm 10
10E41072_SM13R2		0.40	0.45	<0.05	<0.1	0.998	<0.01	0.9	0.9	0.11	68	0.76	<0.01	<0.1	3.8	30

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184934

Sample Description	Method / Analyte / Units / LOR	ME-MS61 Pb ppm 0.5	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S % 0.01	ME-MS61 Sb ppm 0.05	ME-MS61 Sc ppm 0.1	ME-MS61 Se ppm 1	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.2	ME-MS61 Ti % 0.005	ME-MS61 Tl ppm 0.02	ME-MS61 U ppm 0.1
10E41072_SM13R2		>10000	0.2	<0.002	1.89	237	0.1	35	2.0	78.1	<0.05	29.3	<0.2	<0.005	0.10	0.9

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184934

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Ag-OG62	Pb-OG62	Zn-OG62
	Analyte	V	W	Y	Zn	Zr	Ag	Pb	Zn
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	LOR	1	0.1	0.1	2	0.5	1	0.001	0.001
10E41072_SM13R2		3	0.1	0.2	>10000	<0.5	246	13.55	5.34

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
91- 137 MCGILL ROAD
KAMLOOPS BC V2C 1L9

Finalized Date: 27- OCT- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13184934

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: REE's may not be totally soluble in this method.
ME- MS61

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Kamloops located at 2953 Shuswap Drive, Kamloops, BC, Canada.

CRU- 31	CRU- QC	LOG- 22	PUL- 31
PUL- QC	SPL- 21	WEI- 21	

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Ag- OG62	Au- ICP21	ME- MS61	ME- OG62
Pb- OG62	Zn- OG62		

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
This copy reported on
18- NOV- 2013
Account: DAVIPI

CERTIFICATE KL13199944

Project: Barriere Ridge

P.O. No.:

This report is for 8 Soil samples submitted to our lab in Kamloops, BC, Canada on 8- NOV- 2013.

The following have access to data associated with this certificate:

DAVID PIGGIN

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME- MS41	51 anal. aqua regia ICPMS

To: DAVID PIGGIN
ATTN: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199944

Sample Description	Method Analyte Units LOR	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1	ME-MS41 Cr ppm 1	ME-MS41 Cs ppm 0.05	ME-MS41 Cu ppm 0.2
10E41051_BR13T1		0.24	2.32	17.6	<0.2	<10	60	0.76	0.44	0.51	0.27	38.4	44.0	92	2.69	102.5
10E41052_BR13T2		0.10	2.24	16.2	<0.2	<10	70	0.54	0.40	0.30	0.18	43.9	37.6	95	1.20	69.0
10E41053_	BR13T3	0.54	1.56	15.9	<0.2	<10	120	0.38	0.52	0.41	0.72	40.7	34.9	44	1.28	21.2
10E41054_BR13T4		0.24	1.36	15.5	<0.2	<10	50	0.37	0.57	0.39	0.20	46.5	21.5	49	0.88	45.9
10E41055_BR13T5		0.22	1.01	12.8	<0.2	<10	40	0.31	0.45	0.25	0.14	45.1	13.7	29	0.68	26.1
10E41056_	BR13TQ1	0.10	1.20	11.9	<0.2	<10	80	0.28	0.38	0.18	0.28	40.0	17.6	17	0.74	70.4
10E41057_BR13TQ2		0.20	1.09	8.2	<0.2	<10	70	0.27	0.24	0.10	0.12	43.3	13.1	20	0.78	28.2
10E41058_BR13TQ3		0.07	1.03	8.7	<0.2	<10	60	0.21	0.22	0.03	0.12	41.0	12.3	18	0.57	29.3

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
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To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199944

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05	0.2
10E41051_BR13T1		7.43	7.75	0.08	0.15	0.06	0.052	0.09	19.5	12.0	1.34	1230	1.54	0.01	0.92	146.5
10E41052_BR13T2		6.31	7.74	0.08	0.03	0.02	0.042	0.07	19.4	11.3	1.47	626	0.96	0.01	0.63	125.0
10E41053_BR13T3		4.88	5.10	0.06	0.15	0.03	0.031	0.08	20.4	8.2	0.65	639	1.45	0.01	0.86	72.2
10E41054_BR13T4		4.43	4.99	0.06	0.11	0.02	0.029	0.10	22.8	7.1	0.75	688	1.06	0.01	0.62	71.0
10E41055_BR13T5		3.38	3.57	0.05	0.10	0.01	0.024	0.08	21.5	4.7	0.44	394	0.86	0.01	0.66	35.1
10E41056_BR13TQ1		3.10	3.13	0.06	0.26	0.02	0.025	0.14	20.8	9.9	0.45	669	0.79	0.01	0.55	31.9
10E41057_BR13TQ2		2.59	2.97	0.05	0.14	0.02	0.017	0.10	20.4	11.1	0.35	194	0.37	0.01	0.73	34.1
10E41058_BR13TQ3		2.45	2.65	0.05	0.02	0.02	0.017	0.06	19.2	11.6	0.33	189	0.53	0.01	0.89	28.6

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199944

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2	0.005	0.02
10E41051_BR13T1		1180	36.6	12.0	<0.001	0.05	0.53	10.5	0.9	0.3	39.0	<0.01	0.07	3.9	0.046	0.11
10E41052_BR13T2		1560	31.1	8.3	<0.001	0.03	0.45	6.2	0.8	0.2	21.0	<0.01	0.05	3.9	0.049	0.06
10E41053_BR13T3		1360	39.9	9.8	0.001	0.03	0.27	4.1	0.7	0.3	25.2	<0.01	0.06	5.5	0.024	0.11
10E41054_BR13T4		1310	31.9	6.9	<0.001	0.01	0.40	4.3	0.6	0.2	26.0	<0.01	0.05	10.8	0.029	0.06
10E41055_BR13T5		710	49.6	6.6	0.001	0.01	0.31	2.7	0.6	0.2	16.6	<0.01	0.02	8.2	0.019	0.05
10E41056_BR13TQ1		530	35.4	9.3	<0.001	0.02	0.46	3.3	0.6	0.3	19.8	<0.01	0.04	11.2	0.023	0.10
10E41057_BR13TQ2		160	20.5	9.1	<0.001	0.01	0.24	2.8	0.5	0.2	15.4	<0.01	0.04	9.1	0.017	0.07
10E41058_BR13TQ3		220	17.2	8.6	<0.001	0.01	0.27	1.6	0.5	0.2	5.8	<0.01	0.03	4.4	0.019	0.06

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199944

Sample Description	Method Analyte Units LOR	ME-MS41 U ppm 0.05	ME-MS41 V ppm 1	ME-MS41 W ppm 0.05	ME-MS41 Y ppm 0.05	ME-MS41 Zn ppm 2	ME-MS41 Zr ppm 0.5
10E41051_BR13T1		0.86	64	0.11	20.1	108	4.6
10E41052_BR13T2		0.70	63	0.09	8.25	119	1.1
10E41053_ BR13T3		1.12	33	0.08	9.51	153	4.3
10E41054_BR13T4		0.83	34	12.25	9.44	80	5.2
10E41055_BR13T5		0.74	22	0.08	7.07	73	2.9
10E41056_ BR13TQ1		1.68	21	0.17	7.07	114	9.4
10E41057_BR13TQ2		1.33	17	0.10	4.32	77	6.6
10E41058_BR13TQ3		0.63	16	0.09	1.97	73	0.8

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199944

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).
ME- MS41

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
FND- 02 ME- MS41

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
This copy reported on
18- NOV- 2013
Account: DAVIPI

CERTIFICATE KL13199946

Project: Barriere Ridge

P.O. No.:

This report is for 1 Other sample submitted to our lab in Kamloops, BC, Canada on 8- NOV- 2013.

The following have access to data associated with this certificate:

DAVID PIGGIN

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME- MS41	51 anal. aqua regia ICPMS

To: DAVID PIGGIN
ATTN: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199946

Sample Description	Method Analyte Units LOR	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1	ME-MS41 Cr ppm 1	ME-MS41 Cs ppm 0.05	ME-MS41 Cu ppm 0.2
10E41063_BR13MM1		0.32	0.61	15.6	<0.2	10	490	0.16	0.09	2.96	1.22	4.95	17.4	8	1.21	24.9

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199946

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05	0.2
10E41063_BR13MM1		3.12	1.62	<0.05	0.12	0.22	0.010	0.06	2.5	2.2	0.36	14700	2.53	0.02	0.33	26.4

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199946

Sample Description	Method Analyte Units LOR	ME-MS41 P ppm 10	ME-MS41 Pb ppm 0.2	ME-MS41 Rb ppm 0.1	ME-MS41 Re ppm 0.001	ME-MS41 S % 0.01	ME-MS41 Sb ppm 0.05	ME-MS41 Sc ppm 0.1	ME-MS41 Se ppm 0.2	ME-MS41 Sn ppm 0.2	ME-MS41 Sr ppm 0.2	ME-MS41 Ta ppm 0.01	ME-MS41 Te ppm 0.01	ME-MS41 Th ppm 0.2	ME-MS41 Ti % 0.005	ME-MS41 Tl ppm 0.02
10E41063_BR13MM1		2130	9.2	2.3	0.003	0.30	0.33	0.7	2.4	0.2	143.0	0.01	0.03	0.3	0.014	0.20

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199946

Sample Description	Method / Analyte / Units / LOR	ME-MS41 U ppm 0.05	ME-MS41 V ppm 1	ME-MS41 W ppm 0.05	ME-MS41 Y ppm 0.05	ME-MS41 Zn ppm 2	ME-MS41 Zr ppm 0.5
10E41063_BR13MM1		2.43	12	<0.05	3.18	96	3.4

***** See Appendix Page for comments regarding this certificate *****

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North Vancouver BC V7H 0A7
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To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199946

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).
ME- MS41

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
FND- 02 ME- MS41

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
This copy reported on
18- NOV- 2013
Account: DAVIPI

CERTIFICATE KL13199947

Project: Barriere Ridge

P.O. No.:

This report is for 4 Soil samples submitted to our lab in Kamloops, BC, Canada on 8- NOV- 2013.

The following have access to data associated with this certificate:

DAVID PIGGIN		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME- MS41	51 anal. aqua regia ICPMS

To: DAVID PIGGIN
ATTN: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199947

Sample Description	Method / Analyte / Units / LOR	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1	ME-MS41 Cr ppm 1	ME-MS41 Cs ppm 0.05	ME-MS41 Cu ppm 0.2
10E41059_SR13QT1		0.27	1.44	24.6	<0.2	<10	140	0.33	0.21	0.24	0.14	44.8	17.4	41	0.69	46.4
10E41060_SR13QT2		0.08	1.73	30.3	<0.2	<10	220	0.48	0.23	0.33	0.18	38.6	23.8	50	0.75	61.5
10E41061_ SR13QT3		0.23	1.47	24.0	<0.2	<10	140	0.36	0.19	0.24	0.14	41.0	19.2	46	0.54	43.7
10E41062_SM13T1		0.26	2.64	7.3	<0.2	<10	140	0.96	0.17	6.26	0.78	26.4	6.4	12	1.03	9.9

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 17- NOV- 2013
Account: DAVIPI

Project: Barriere Ridge

CERTIFICATE OF ANALYSIS KL13199947

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05	0.2
10E41059_SR13QT1		3.50	3.69	0.07	0.18	0.03	0.022	0.09	21.5	16.0	0.62	378	0.42	0.01	0.67	69.1
10E41060_SR13QT2		4.45	4.40	0.07	0.33	0.02	0.027	0.14	19.3	17.8	0.79	692	0.48	0.01	0.33	91.3
10E41061_ SR13QT3		3.65	3.86	0.06	0.17	0.03	0.023	0.07	18.2	20.1	0.68	421	0.51	0.01	0.60	71.1
10E41062_SM13T1		3.58	5.08	0.05	0.12	0.08	0.024	0.03	10.1	9.1	0.24	1320	0.45	0.03	2.11	19.8

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CERTIFICATE OF ANALYSIS KL13199947

Sample Description	Method Analyte Units LOR	ME-MS41 P ppm 10	ME-MS41 Pb ppm 0.2	ME-MS41 Rb ppm 0.1	ME-MS41 Re ppm 0.001	ME-MS41 S % 0.01	ME-MS41 Sb ppm 0.05	ME-MS41 Sc ppm 0.1	ME-MS41 Se ppm 0.2	ME-MS41 Sn ppm 0.2	ME-MS41 Sr ppm 0.2	ME-MS41 Ta ppm 0.01	ME-MS41 Te ppm 0.01	ME-MS41 Th ppm 0.2	ME-MS41 Ti % 0.005	ME-MS41 Tl ppm 0.02
10E41059_SR13QT1		460	16.4	6.3	<0.001	0.01	0.46	5.8	0.7	0.2	19.5	<0.01	0.04	8.5	0.064	0.05
10E41060_SR13QT2		640	19.8	7.4	<0.001	0.01	0.58	7.4	0.5	0.3	25.2	<0.01	0.06	8.6	0.079	0.05
10E41061_ SR13QT3		280	14.2	6.8	<0.001	0.01	0.51	5.6	0.7	0.2	17.6	<0.01	0.04	6.4	0.079	0.05
10E41062_SM13T1		1280	52.7	5.6	<0.001	0.07	2.46	1.8	0.7	0.6	38.5	0.04	0.02	1.2	0.077	0.06

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Sample Description	Method Analyte Units LOR	ME-MS41 U ppm 0.05	ME-MS41 V ppm 1	ME-MS41 W ppm 0.05	ME-MS41 Y ppm 0.05	ME-MS41 Zn ppm 2	ME-MS41 Zr ppm 0.5
10E41059_SR13QT1		1.19	34	0.10	6.87	89	8.4
10E41060_SR13QT2		0.94	48	0.12	8.11	107	15.4
10E41061_ SR13QT3		0.94	40	0.11	5.17	92	7.4
10E41062_SM13T1		0.61	36	0.25	7.40	146	4.9

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CERTIFICATE OF ANALYSIS KL13199947

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).
ME- MS41

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
FND- 02 ME- MS41


BARRIER RIDGE: 2013 SAMPLES AND ANOMALOUS RESULTS
LEGEND: Soil Samples (triangle); Rock Samples (box); Moss Mat (half moon)
1:12,000
N
082M.021
EBPv
EBP
IFu
IFc
EBGt
EBGp
EBQ
EBG
EBGq
969386
969359
969383
969387
969545
969362
969365
969363
969366
969526
969525
969527
969513
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969291
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969540
969533
969534
969318
969317
969320
969549
969548
969546
969319
969316
969510
969511
82M761073
82M761082
82M761076
82M761072
82M765102
82M765098
82M765100
82M765099
82M769147
542304
889835
889827
889839
844643
844642
844644
844645
844646
844647
840413
744582
767042
840417
744542
759003
767062
840418
840411
744602
767102
767123
840415
744562
867634
525283
525269
517082
517140
517168
395113
1024986
6863
6915