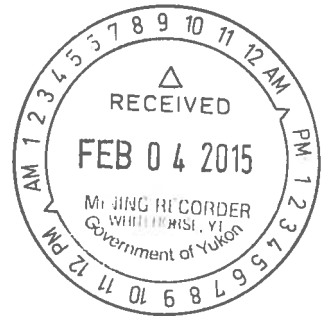


096715



**Summary of Geological Field Work- 2014**  
**A Geological and Geochemical, and Trenching Report**  
**Of New Mineralized Zones**  
**On the East Fork Gold Project**  
**NTS 115N2, Yukon**

Including the following Quartz Claims:

Fox, Git, Pud, Rag, Ran, Red, Say, Scot, See, Well, Wind, Womp, Won, Wine. et al claims

Whitehorse Mining Division  
NTS 115N2 Lat 63\*04' Long 140\*59'

By

Glenn S. Hartley P.Geol.

Hartley and Associated Ltd

For

Whitehorse Mining Recorders Office

Jan 2015

A handwritten signature or set of initials, possibly "G.S.H.", written in dark ink.



Photo 1: South face of Moosehorn Mtn showing the locations of the HV,RT and CT zones

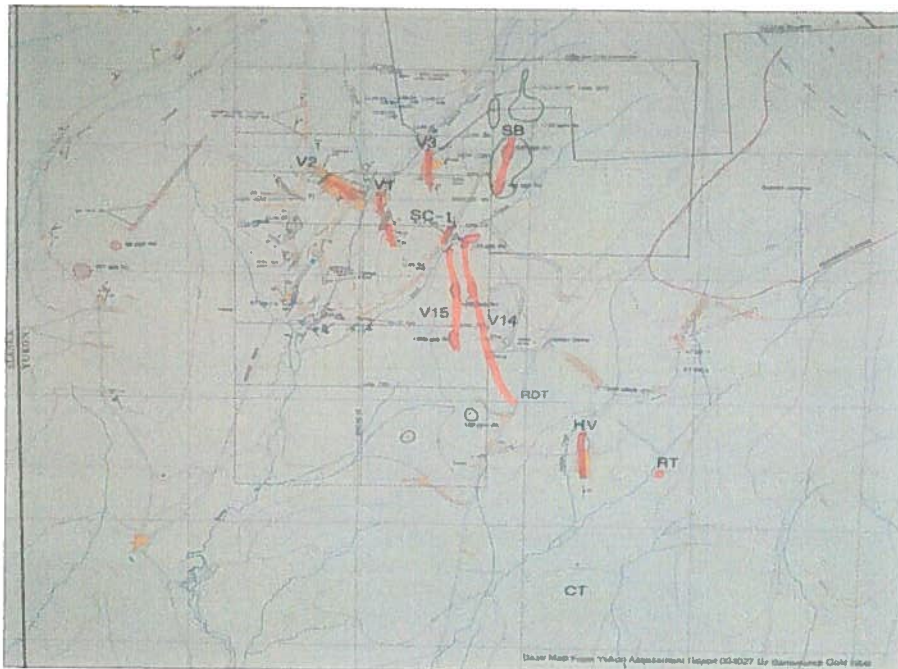


Photo 2: Map showing the location of 10 known Gold zones on the property

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# The East Fork Gold Project 2014

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Map 1 East Fork Project Data Compilation map. Plate 1. scale 1:10000
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# The East Fork Gold Project 2014

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## 1.0 Executive Summary

The East Fork Project (formerly named the Longline Project in earlier reports) consists of 234 Claims and is located approximately 140 km southwest of Dawson City. The area is accessible by fixed wing aircraft from Dawson or by winter road from the Alaska Highway.

The area is recognized as a Lode and Placer Gold Target. The immediate area of the claims has produced approximately 70000 oz of placer gold since discovery in 1975.

The key project claims were staked by the writer in 1983. The project now consists of 234 Quartz claims, all owned 100 percent by Hartley and Associates Ltd. Two quartz veins, V1 and V2, on the property, were high graded by Sikanni Oilfield during 1995 and 1996, production was approximately 4500 oz .

The Hartley claims, have been optioned at various times to Sikanni oil field construction, Barramundi Gold, Newmont mining, and Mountain Rio Exploration.

Approximately 5 Million dollars in exploration costs has been expended, on the project and 10000 meters of PQ and NQ legacy core are in racks on the Property.

Barramundi (1996 through 2000) conducted grid soil sampling, geophysical surveys and drilling of the exposed vein, V2 as well as regional reconnaissance. Numerous gold in soil anomalies were neither recognized or followed up.

In 2007 Mountain Rio drilled the H Vein and estimated that a total of 2.8 mill grams of Gold and 1.0 mill grams of Silver exist in the property in two zones, V2 and HV to a maximum depth of 50m from surface. Three additional mineralized zones remained untested.

In 2014 Hartley and Associates reinterpreted the Barramundi gold in soil data, and conducted a program of trenching sampling and geological mapping on the property, Five new mineralized zones were discovered, resulting in a doubling of the known zones to 10. The interpreted mineralized strike length now exceeds 4000 meters.

This report contains a summary of the previously known soil data and 2014 trench sample assay results.

## 2.0 Location and Access

The East Fork Project is located in NTS 115N2, central Yukon, immediately east of the Alaska Yukon border, approximately 140 km southwest of Dawson City, and some 65km north of the community of Beaver Creek. The area is accessible by fixed wing aircraft from Dawson or by winter road from the Alaska Highway.

## 3.0 Physiography

The region is not glaciated. Outcrops are restricted to heights of land where boulders and felsenmeer predominate. Elevations range from 1353 m on Moosehorn summit to 670 m in creek valleys in the southern portion of the property. Thick residual soils cover the intermediate slopes, swamp bog covers the low areas. The area is designated as a continuous permafrost zone.

# The East Fork Gold Project 2014

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## 4.0 Claim status

The East Fork property consists of 234 quartz claims, covering approximately 5000 hectares. The claims are owned 100 percent by Hartley and Associates Ltd.

## 5.0 History of the Area

The area has a long history of Artisanal gold mining. Though the names of the original miners are unknown. The author personally observed a prospectors cabin built on lower Kenyon creek during placer evaluation conducted in 1976. The cabin was at least 50 years old by its condition, and the condition of various tools at the site.

The Moosehorn summit was staked in 1970 by Quintana Minerals and again by A. Harmon and Mike Kenyon during the period 1972 to 1974. The Harmon claims became the property of Great Bear Mining. The Kenyon claims were optioned to Claymore Resources. Both companies conducted geophysics and diamond drilling near Moosehorn summit. These claims were allowed to lapse.

During 1982 Glenn Hartley recognized the vein occurrence, here described as V1 and staked the surrounding claims in the Swamp creek valley. Beginning in the mid 1980s, Hartley and G. Alberg has conducted geological, geophysical, and geochemical programs, and air track drilling. The V2 vein as well as several other gold occurrences were discovered by an air track drilling program in 1993 and 1994. The key claims of the land package have been held continuously since the 1982.

The claims, have been optioned at various times to Sikanni Oil Field Construction, Barramundi Gold, Newmont Mining, and Mountain Rio Exploration.

Sikanni, became interested in the lode gold while placer mining on Swamp Creek. A small gravity recovery mill was constructed and operated sporadically during 1996. Approximately 4000 tons of vein material was processed, yielding an estimated 4 to 5 thousand oz of crude gold. High grading ceased in mid 1996.

In 1996 the claims were optioned to Barramundi Gold. Prospecting along roads and trails was followed up with Contract grid soil sampling and geophysical surveys. Limited diamond drilling was conducted in 1998 and 1999. The V2 vein was drilled at 20m centers with PQ diameter core. No resource estimate was published.

In 2000, the property was joint ventured with Newmont Exploration. The Joint venture, drilled 5 NQ holes, only one tested the defined vein system in the immediate Swamp creek area.

In 2005 the Property was optioned to Mountain Rio Exploration. Beginning in 2006, Mtn Rio drilled 24 NQ holes in the HV and V2 zones. A resource estimate of 2.8 million grams AU and 1.0 million grams Ag was recognized.

An additional 12 holes were drilled at the V2 zone location in 2007.

# The East Fork Gold Project 2014

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## 6.0 Regional Geology

The Property is underlain by strongly weathered to massive foliated to nonfoliated grey biotite hornblend granodiorite of the Klotassin Batholith (Tempelman-Kluit 1974). This generally uniform lithological unit contains metasedimentary remnants and is intruded by porphyritic diorite, rhyolite and mafic dykes. This unit has been described by Tempelman-Kluit 1974 and in Yukon assessment reports 061387, Claymore 1974, Report 092880 Hartley 1990, Report 093282 Hartley 1994 and Report 093950 Bam 1998.

## 7.0 Work performed in 2014

Barramundi Gold conducted extensive grid and reconnaissance multi element soil geochemistry from 1996 to 1999 on the project lands. Although the data was compiled, very little effective interpretation or follow up work was conducted on the anomalous areas, additionally, in some cases the most obvious areas for grid soils investigation were totally ignored.

In early 2014, the author reinterpreted the Barramundi soils data. Six zones were identified where the legacy data suggested significant gold potential. Five of the six zones were trenched in 2014. In every case, trenching yielded significant lode gold mineralization.

### 7.1 The V14 Zone

The V14 zone is located along the east ridge of the Swamp Creek valley above Soya creek pup. The target was first located in 1996 by soil auger drilling where both surface and a sample from 1m depth returned significant gold in soil values, additionally the drilling data returned several significant gold in soils values down slope from the initial location.

#### a. Trench V14-1

**Location:** 0502763E, 6988510N. This trench is approximately 350m west of the Hartley Exploration Camp.

**Geological description:** 10 to 20 cm of broken white quartz occurs on top of a very rusty 1m zone of altered hornblende granodiorite. Quartz contains sparse silver metallic minerals, possibly stibnite. The zone dips 35 degrees east.

**Assay values:** Best assay, 2400 ppb Au over 20 cm, within rusty silicified granodiorite (no Quartz present). Best interval 609 ppb Au over 1.4m (Note this interval did not include any quartz vein material). The zone overlies an amphibole porphyry unit of undetermined thickness (photo V14-1).

### b. Trench V14-2

**Location:** 0502782E, 6988401N. This trench is approximately 100m south of trench V14-1.

**Geological description:** Rusty broken white quartz vein 20cm wide, Dip 30 degrees east within sandy weathered granodiorite, rusty black manganese zone about 20 cm thick below vein.

**Assays values:** Best assay 1559 ppb Au over 20 cm. Best interval 961 ppb Au over 1m.



Photo 3: The V14-1 trench looking south

### 7.2 The RDT Zone

**Location:** 0502877E, 6987875N. This trench is approximately 600m south along strike from V14-2. The location is on the Hartley camp access road, very near old trenches by Hartley 1984, and by Barramundi 1996. In both cases trenching was terminated just north and just south of the now known location of RDT mineralization. This location is interpreted to be the strike extension of the V14 zone.

**Geological description:** The trench lithology is fractured amphibole porphyry to the north end and altered granodiorite on the south, Mineralization is located near the south end. Mineralization occurs as a thin rusty fractured zone above a thin yellow calcareous gouge zone with large Iceland spar calcite crystals to 2cm. The zone dips 5 to 10 degrees East in this location

**Assay values:** Best grab sample was from yellow to grey green, strongly calcareous gouge containing 945ppb Au. More sampling is required.

# The East Fork Gold Project 2014

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## 7.3 The V15 Zone

**Location: 0502780E, 6988300N** Although identified during analysis of the legacy geochemical data, this zone was not trenched during 2014. The zones location is interpreted from several discrete gold in soils anomalies in the order of 200 to 300ppb . The geochemical response associated with a well-defined, southerly striking linear feature. The zone occurs, along the east side of the Swamp creek valley, topographically below and parallel to the V14 zone. Access is complicated by steep topography and permafrost terrain

## 7.4 The SB Zone

**Location: 0502895E, 6989870N.** This zone's soil anomaly measures approximately 500m by 200m. It has a strong geochemical response, to a maximum of 650ppb Au and 1400ppm As, and was noted in 1998 by Barramundi geologists as possibly significant. The zone was not the subject of any further geological investigation. During the 2000 diamond drill program, a single drill hole (LL00-01) was drilled to test the unconnected but parallel V3 vein system. The drill hole was collared within 200m of the SB anomaly and returned 3.1 g/t Au over 1.24 m.



Photo 4: Trenching at the SB zone. Sample series SB-2 is in the foreground. SB-3 is mid picture

## SB zone (cont)

**Geological description:** All zones contained thin Quartz veins, silicified granodiorite, a highly altered and weathered granodiorite, and a "fresh" possibly younger granitic intrusive phase or a strongly feldspathized and carbonitized phase of the granodiorite.

**Assay values:** Best assay 13442ppb Au over 20cm. A single east west trending 50m trench intersected three shallowly dipping zones containing several thin Quartz veins. The SB1-1 zone returned 1.2m of 313ppb Au. The SB1-2 zone returned 0.4m of 464ppb Au, and the SB1-3 zone returned 1.0m of 2817ppb Au. All sample intervals are true width.

## 7.5 The RT Zone

**Location:** 502866E, 6987434N This zone is located immediately east of the Hartley placer pit on the east fork of Swamp creek. Quartz veins, exposed in a old road cut, were sampled in 1998 by Barramundi geologists, returned low gold values associated with 10 opt Ag.

The area was resampled by consulting Geologist Robert Tilsley, in early 2014, and the exposed veins returned values of 47.8 g/t Au and 352 g/t Ag.

**Phase One Trenching:** The area was first trenched August 3<sup>rd</sup> 2014.

**Geological description:** Trenching exposed a stock works of thin quartz veins, an unusual 4cm massive sulphide vein, a fresh looking, feldspathized and carbonitized phase of the local granodiorite intrusive with associated silicification and sulfidation of local granodiorite country rocks.

**Assay values:** Sampling returned a maximum of 1121ppb Au over 20 cm and the entire interval returned 760 ppb Au over 1.6 m.



Photo 5: Phase 1 trenching of the RT zone, looking north. Stock works quartz structures are outlined in orange survey paint. Dip is 35 degrees toward the upper right of the picture.

### RT Zone (Cont)

**Phase 2 Trenching:** A second trenching program was conducted on this zone September 3<sup>rd</sup> 2014. Initially approximately 1.5 meters of soil was removed from the area with a D8 dozer allowing permafrost in the area to thaw. An easterly trending 50 meter trench was made using a Cat 235 excavator. The terrain in trench area is extremely slippery and steep. Access to the site was further complicated by an early snow fall.

**Geological description:** Beginning in at the westerly end of 50 meter the trench the section was described as: Approximately 2 meters of stock works quartz veins and silicified granodiorite, were with disseminated grey sulphide blebs, 3 m of weakly silicified granodiorite, 1.1 m of weathered Granodiorite, 5m of feldspathized granodiorite containing discrete red spots, rusty and silicified, 1m fine grained green dyke, 15m of altered granodiorite, 2m of feldspathized granodiorite with red spots and white mica, in part silicified, then, 1.1 m weathered granodiorite and fault gouge to the east end of the trench.

**Assay values:** The trench contains 5 discrete zones of weak gold mineralization totalling 9.2 m in thickness. The highest grade sample was 20 cm yielding 1323ppb within 1.6 m a section. Gold zones were from 0 to 1.6m above base assayed 442.9 ppb Au, a zone from 2.6 to 3.2m above base yielded 223ppb Au. A 2m section from 19 to 21m above base returned 220 ppb Au. A 3m section from 29 to 32m returned 314ppb Au, and lastly a 2 meter interval from 36 to 38m returned 314.9 ppb Au.

### 7.6 The CT Zone

The CT zone occurrence was noted by placer miners as a zone of fractured Quartz vein material that were exposed in heavy equipment tracks during drill moves by placer miner Canada Tungsten in 1990.

Barramundi geologists conducted deep soil sampling in the area using an augur drill, but although the area returned a positive soil response for gold and heavy metals. No follow up was done, due to the difficulty of accessing the area.

**Location: 503200E, 698676N** In early June 2014 a 1.5km trail was constructed through the area and 4 trenches were done. Three trenches were made to evaluate a geochemical anomaly to the north of the CT zone previously identified by Hartley and AlMBERG in 1993, and one trench to test the CT fractured quartz zone. In all cases the overburden was deep and too frozen to reach bedrock. No geological description was possible

**Assay Values:** Eight samples of Quartz vein material were recovered from the CT trench at various depths from the overburden. The samples contained up to 1373ppb Au and were also found to contain up to 0.9 ppm molybdenum, 198 ppm Cu, 10000 ppm Pb, 3831 ppm Zn, 230 g/t Ag, 2528ppm As, 375ppm Cd, greater than 2000 ppm Sb, and up to 9.1ppm Hg.

# The East Fork Gold Project 2014

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## 8.0 Summary of Exploration Costs

### Personnel

1. Geologist R. Tilsley P.Geol ,June 1 to June 10, Sept 1 to Sept 7  
17 days @ \$500.00/day.....8500.00
  2. Geologist G. Hartley P.Geol June 1 to 10, June 23 to July 1, July 18 to Aug 8, Sept 1 to 7  
48 days @ \$800.00/day.....38400.00
- Total      46900.00

### Air Charter

Great River Air .....5318.27

### Equipment Rental

Terex dozer rental 46hr at 300.00/hr.....13800.00

Cat 235 Excavator rental 24hr at 300.00/hr.....7200.00

Quad rental 2x17days, 1x 31days at 100/day.....6800.00

Sat phone rental .....1000.00

Camp costs (65 man days).....6500.00

### Assay Costs

ACME Labs.....4458.35

### Truck travel in the Yukon

350kmx 8 trips Dawson Whitehorse 1.00per km.....2800.00

\$94,776.62

## 9.0 Conclusions and Recommendations

The exploration program conducted in 2014 located 5 new zones of Gold mineralization on the property, increasing the number known from 5 to 10 mineralized zones. The total mineralized strike on the property now exceeds 4000m up from the previous total of 1000m.

Six additional exploration targets have been identified, Three were indicated, but of poorly defined, by previous drilling programs, and three were interpreted from geochemical results obtained during previous geological programs.

Significant mineralized, feldspathized and silicified wall rock occurs in in with associated with lessor quartz veining in the SB and RT zones, suggesting a hitherto unrecognized style of mineralization on the property. The RT zone trench contains an aggregate total of 9.2 m of gold mineralization. Thickness of the order of several meters of gold mineralization were previously unrecognized on the property.

The geochemical signature of the eight samples collected from the CT Zone is unlike typical Quartz vein mineralization found previously on the property. The CT samples were strongly and consistently enriched in molybdenum, copper, lead, zinc, arsenic, silver, and antimony, with variable values of gold. The geochemistry of the CT quartz vein samples, is remarkably similar to assay results obtained in 2014 from vein quartz samples of the RT zone, where much thicker gold mineralization occurs and appears not to be constrained by the presence quartz veins.

Further trenching followed by diamond drilling is recommended for the V14,V15, SB, RT and CT zones.

# The East Fork Gold Project 2014


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## 10.0 Statement of Qualifications

I, Glenn S. Hartley of Edmonton do here by state:

1. I am a graduate of the University of Alberta, Edmonton
2. I hold a BSc in Geology (1977)
3. I am a Member of APEGGA since 1982
4. I have been employed in my profession since 1970

Signed \_\_\_\_\_



January 25<sup>th</sup> 2015

# The East Fork Gold Project 2014

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## Appendix 1



East Fork Property Location Map

# The East Fork Gold Project 2014

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## Appendix 2

## Claim Status Report

25 November 2014

Claim Name and Nbr.	Grant No.	Expiry Date	Registered Owner	% Owned	NTS #'s	Grouping	Permit
FOX 1 - 4	YB36935 - YB36938	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
GIT 1 - 2	YA77840 - YA77841	2020/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
GIT 5 - 6	YA77844 - YA77845	2020/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
LIN 1 - 10	YB54408 - YB54417	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
PUD 1 - 2	YB38074 - YB38075	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
RAG 1 - 8	YA95122 - YA95129	2020/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
RAN 1 - 4	YB06123 - YB06126	2020/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
RAN 5 - 8	YC18046 - YC18049	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	F HW07487	
RED 1 - 8	YA95130 - YA95137	2020/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
SAY 1 - 3	YB38169 - YB38171	2019/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
SCOT 1 - 54	YB54544 - YB54597	2017/12/31	Hartley & Associates Ltd.	100.00	115K15, 115N02	HW07487	
SCOT 55 - 56	YB54598 - YB54599	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	F HW07487	
SCOT 57 - 91	YB54600 - YB54634	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
SCOT 96 - 97	YB54639 - YB54640	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
SCOT 98 - 99	YB54641 - YB54642	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	F HW07487	
SCOT 100 - 111	YB54643 - YB54654	2017/12/31	Hartley & Associates Ltd.	100.00	115K15, 115N02	HW07487	
SEE 1 - 6	YB38076 - YB38081	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
WELL 1 - 6	YB12664 - YB12669	2020/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
WELL 7 - 10	YC18050 - YC18053	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	F HW07487	
WIND 1 - 22	YB27350 - YB27371	2020/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
WINE 1 - 8	YB12670 - YB12677	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
WOMP 1 - 20	YB38198 - YB38217	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	
WOMP 24 - 29	YC18040 - YC18045	2016/12/31	Hartley & Associates Ltd.	100.00	115N02	F HW07487	
WON 1 - 7	YB12678 - YB12684	2017/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	

Total claims selected : 234

Left column indicator legend:

R - Indicates the claim is on one or more pending renewal(s)  
P - Indicates the claim is pending.

Right column indicator legend:

L - Indicates the Quartz Lease.  
F - Indicates Full Quartz fraction (25+ acres)  
P - Indicates Partial Quartz fraction (<25 acres)

D - Indicates Placer Discovery  
C - Indicates Placer Codiscovery  
B - Indicates Placer Fraction



## Claim Status Report

25 November 2014

Claim Name and Nbr.	Grant No.	Expiry Date	Registered Owner	% Owned	NTS #'s	Grouping	Permit
WON 8	YB38172	2016/12/31	Hartley & Associates Ltd.	100.00	115N02	HW07487	

**Criteria(s) used for search:**

AIM DISTRICT: 1000004 CLAIM STATUS: ACTIVE & PENDING OWNER(S): HARTLEY & ASSOCIATES LTD.  
REGULATION TYPE: QUARTZ

**Left column indicator legend:**

R - Indicates the claim is on one or more pending renewal(s).  
P - Indicates the claim is pending.

**Right column indicator legend:**

L - Indicates the Quartz Lease.  
F - Indicates Full Quartz fraction (25+ acres)  
P - Indicates Partial Quartz fraction (<25 acres)

Total claims selected : 234

D - Indicates Placer Discovery  
C - Indicates Placer Codiscovery  
B - Indicates Placer Fraction

# The East Fork Gold Project 2014

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Appendix 3

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client:** **Hartley Associates**  
7302 118A St  
Edmonton AB T6G 1V2 CANADA

Submitted By: Glenn Hartley  
Receiving Lab: Canada-Whitehorse  
Received: June 12, 2014  
Report Date: July 04, 2014  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

WHI14000014.1

### CLIENT JOB INFORMATION

Project: NONE GIVEN  
Shipment ID:  
P.O. Number  
Number of Samples: 14

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT Dispose of Reject After 90 days

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

Invoice To: Hartley Associates  
7302 118A St  
Edmonton AB T6G 1V2  
CANADA

CC:

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	14	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ202	14	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
BAT01	14	Batch charge of <20 samples			VAN
G6Gr	4	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN

### ADDITIONAL COMMENTS



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

**CERTIFICATE OF ANALYSIS**

**WHI14000040.1**

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
14-1-1	Rock	0.44	0.4	4.6	86.3	70	1.7	1.1	1.1	193	0.98	1284.0	678.8	1.5	4	2.0	9.7	0.1	7	0.05	0.006
14-1-2	Rock	0.29	0.2	6.3	111.5	64	2.4	0.5	0.4	60	0.75	2827.8	1469.6	0.5	6	3.5	10.4	<0.1	2	0.06	0.003
14-1-3	Rock	0.33	0.4	7.1	43.8	100	0.8	2.6	6.1	685	2.47	1451.4	449.3	10.7	12	3.0	4.3	0.2	15	0.18	0.053
14-1-4	Rock	0.52	0.6	5.5	33.4	106	1.2	1.6	5.6	781	2.81	2002.3	495.1	10.1	10	8.2	4.3	<0.1	17	0.14	0.046
14-1-5	Rock	0.79	0.4	3.5	118.9	81	1.4	1.0	1.0	172	1.29	2189.8	1190.0	0.9	6	3.2	7.9	<0.1	10	0.06	0.004
14-1-6	Rock	0.67	0.2	1.9	40.1	31	1.0	0.5	0.3	50	0.56	1684.7	774.7	0.4	3	0.9	13.4	<0.1	<2	0.04	0.002
14-2-1	Rock	0.51	0.6	17.8	1017.5	51	6.3	1.1	1.1	555	0.78	286.0	943.7	0.6	2	0.7	13.4	<0.1	25	0.02	0.005
14-2-2	Rock	0.74	0.9	14.4	46.9	300	4.4	3.3	6.2	1074	3.14	1940.8	663.3	20.5	14	15.7	6.2	<0.1	44	0.20	0.063
14-2-3	Rock	0.43	0.1	1.4	41.9	23	1.0	0.6	0.4	56	0.65	2487.3	1559.5	0.2	3	0.6	6.0	<0.1	<2	0.03	0.002
14-2-4	Rock	0.84	0.2	8.2	230.5	38	1.8	0.9	1.0	516	0.63	199.2	681.2	0.8	2	0.7	4.3	<0.1	11	0.02	0.005
14-2-5	Rock	0.45	0.8	35.3	893.5	201	8.0	1.9	3.1	1482	1.91	1153.9	957.3	2.3	5	5.1	19.5	<0.1	58	0.06	0.014
RDT-1	Rock	0.89	1.2	7.5	34.3	98	0.8	2.1	6.7	968	2.81	>10000	945.5	11.3	225	2.7	8.1	<0.1	15	3.16	0.054
RDT-2	Rock	0.34	1.3	5.6	102.4	83	0.7	0.2	1.9	1227	1.37	1704.5	711.6	9.8	353	0.3	2.8	<0.1	16	7.37	0.046

**CERTIFICATE OF ANALYSIS**

WHI14000040.1

Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
14-1-1	Rock	7	2	0.01	78	<0.001	1	0.12	0.003	0.06	0.8	0.02	0.8	<0.1	<0.05	<1	<0.5	<0.2
14-1-2	Rock	2	1	<0.01	123	0.001	<1	0.06	0.003	0.03	0.3	0.03	0.1	<0.1	0.06	<1	<0.5	<0.2
14-1-3	Rock	34	2	0.07	204	0.002	7	0.46	0.005	0.23	0.3	<0.01	3.3	0.1	<0.05	1	0.5	<0.2
14-1-4	Rock	31	2	0.02	255	0.001	4	0.28	0.004	0.22	0.4	0.02	3.7	<0.1	<0.05	<1	0.7	<0.2
14-1-5	Rock	8	2	<0.01	141	<0.001	1	0.08	0.003	0.04	0.2	0.01	0.5	<0.1	<0.05	<1	<0.5	<0.2
14-1-6	Rock	2	1	<0.01	49	<0.001	1	0.04	0.002	0.02	0.2	<0.01	0.2	<0.1	<0.05	<1	<0.5	<0.2
14-2-1	Rock	4	2	0.01	48	<0.001	<1	0.08	0.002	0.03	0.1	<0.01	0.5	<0.1	<0.05	<1	<0.5	<0.2
14-2-2	Rock	79	4	0.04	296	<0.001	4	0.39	0.004	0.21	0.3	0.04	5.2	<0.1	<0.05	1	<0.5	<0.2
14-2-3	Rock	1	2	<0.01	52	0.001	<1	0.04	0.003	0.02	<0.1	<0.01	0.2	<0.1	0.08	<1	<0.5	<0.2
14-2-4	Rock	4	2	0.02	67	0.002	<1	0.10	0.002	0.03	0.1	<0.01	0.4	<0.1	<0.05	<1	<0.5	<0.2
14-2-5	Rock	17	4	0.04	163	0.003	1	0.22	0.005	0.08	0.2	0.03	1.1	<0.1	<0.05	<1	<0.5	<0.2
RDT-1	Rock	12	2	0.22	257	0.001	<1	0.34	0.009	0.23	0.3	0.14	4.4	<0.1	0.75	<1	<0.5	<0.2
RDT-2	Rock	27	2	0.12	113	<0.001	<1	0.40	0.007	0.23	0.1	<0.01	3.5	<0.1	<0.05	1	<0.5	<0.2



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Project: NONE GIVEN  
Report Date: July 25, 2014

Page: 1 of 1

Part: 1 of 2

## QUALITY CONTROL REPORT

WHI14000040.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
Pulp Duplicates																					
RDT-2	Rock	0.34	1.3	5.6	102.4	83	0.7	0.2	1.9	1227	1.37	1704.5	711.6	9.8	353	0.3	2.8	<0.1	16	7.37	0.046
REP RDT-2	QC		1.4	5.3	95.1	74	0.7	0.5	1.8	1105	1.25	1593.5	629.5	8.7	317	0.3	2.9	<0.1	14	7.06	0.043
Reference Materials																					
STD DS10	Standard		14.4	145.5	149.0	347	1.8	72.3	12.3	846	2.57	43.8	73.6	7.2	71	2.3	8.5	11.4	46	1.10	0.070
STD OXC109	Standard		1.7	35.8	11.0	42	<0.1	74.4	19.9	420	2.87	2.3	237.8	1.5	159	<0.1	<0.1	<0.1	53	0.75	0.102
STD DS10 Expected			14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	91.9	7.5	67.1	2.49	8.23	11.65	43	1.0625	0.073
STD OXC109 Expected			201																		
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
G1-WHI	Prep Blank		<0.1	4.8	3.5	46	<0.1	2.4	3.8	589	1.97	3.4	22.7	6.2	72	<0.1	<0.1	<0.1	42	0.57	0.076
G1-WHI	Prep Blank		0.1	2.8	3.6	46	<0.1	2.1	3.9	608	2.00	0.8	7.3	5.5	64	<0.1	<0.1	<0.1	42	0.52	0.073

## QUALITY CONTROL REPORT

WHI14000040.1

Method		AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																		
RDT-2	Rock	27	2	0.12	113	<0.001	<1	0.40	0.007	0.23	0.1	<0.01	3.5	<0.1	<0.05	1	<0.5	<0.2
REP RDT-2	QC	25	2	0.11	110	<0.001	<1	0.37	0.007	0.22	0.1	0.01	3.2	<0.1	<0.05	<1	<0.5	<0.2
Reference Materials																		
STD DS10	Standard	18	52	0.76	352	0.076	6	1.10	0.073	0.35	3.1	0.28	2.8	4.9	0.27	5	2.6	4.5
STD OXC109	Standard	13	59	1.49	60	0.380	1	1.61	0.721	0.43	0.2	<0.01	1.3	<0.1	<0.05	6	<0.5	<0.2
STD DS10 Expected		17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OXC109 Expected																		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
G1-WHI	Prep Blank	15	6	0.52	183	0.130	<1	1.13	0.134	0.56	1.0	<0.01	2.7	0.3	<0.05	5	0.6	<0.2
G1-WHI	Prep Blank	13	4	0.49	163	0.118	<1	1.00	0.100	0.50	0.3	<0.01	2.5	0.3	<0.05	5	<0.5	<0.2

Bureau Veritas Commodities Canada Ltd.  
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**Client:** **Hartley Associates**  
7302 118A St  
Edmonton AB T6G 1V2 CANADA

Submitted By: Glenn Hartley  
Receiving Lab: Canada-Whitehorse  
Received: August 11, 2014  
Report Date: September 15, 2014  
Page: 1 of 3

## CERTIFICATE OF ANALYSIS

WHI14000099.1

### CLIENT JOB INFORMATION

Project: NONE GIVEN  
Shipment ID:  
P.O. Number  
Number of Samples: 36

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	36	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ202	36	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN

### SAMPLE DISPOSAL

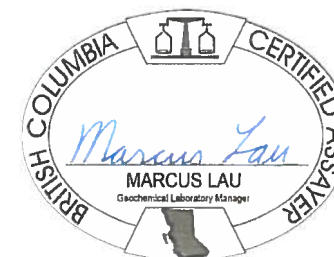
DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT Dispose of Reject After 90 days

### ADDITIONAL COMMENTS

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

Invoice To: **Hartley Associates**  
7302 118A St  
Edmonton AB T6G 1V2  
CANADA

CC:



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

# CERTIFICATE OF ANALYSIS

WHI14000099.1

Method Analyte Unit MDL	WGHT Wgt kg	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
		Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	
SB-1-20-0	Rock	1.20	0.4	14.8	103.0	132	0.9	3.3	9.3	997	3.28	>10000	384.7	9.5	63	3.2	7.4	<0.1	23	0.54	0.089
SB-1-40-20	Rock	1.85	0.3	13.4	112.2	191	0.9	3.0	8.6	1198	3.01	>10000	453.7	9.3	112	5.6	7.2	<0.1	14	1.61	0.079
SB-1-60-40	Rock	1.41	0.2	11.6	89.1	99	0.6	2.6	9.0	1019	3.04	>10000	292.1	10.0	96	1.7	4.5	<0.1	23	1.47	0.087
SB-1-80-60	Rock	1.32	0.6	13.7	43.1	136	0.4	4.4	9.7	945	3.25	4283.0	214.3	12.4	35	1.6	5.1	<0.1	37	0.40	0.091
SB-1-100-80	Rock	0.89	0.6	11.8	64.4	124	0.5	3.6	9.5	861	3.23	>10000	433.9	11.0	60	1.9	8.5	<0.1	33	0.50	0.086
SB-1-120-100	Rock	1.02	0.5	9.8	43.7	87	0.3	3.9	10.1	783	3.02	4932.1	104.3	13.1	57	0.8	4.7	<0.1	49	0.70	0.064
SB-2-20-0	Rock	1.96	0.6	9.0	560.7	124	2.9	2.0	6.4	1087	2.73	>10000	202.0	11.7	45	3.2	6.2	0.2	8	0.91	0.073
SB-2-40-20	Rock	1.97	0.7	8.9	509.0	136	2.4	2.1	6.3	1468	2.97	>10000	726.5	10.6	49	3.9	6.7	0.2	8	1.07	0.073
SB-2-60-40	Rock	1.35	0.4	6.0	49.4	96	0.4	2.1	6.6	1285	3.00	864.6	39.9	14.6	39	1.5	2.5	<0.1	10	2.38	0.083
SB-2-80-60	Rock	1.07	0.5	9.1	40.8	95	0.3	2.7	8.2	1020	3.21	507.4	19.1	16.3	23	0.8	2.5	<0.1	19	1.07	0.081
SB-2-100-80	Rock	1.45	0.4	7.5	46.5	83	0.2	2.3	8.5	825	3.28	5692.8	47.8	14.6	32	0.7	2.2	<0.1	25	0.74	0.080
SB-2-120-100	Rock	0.95	0.8	6.5	33.0	79	0.2	2.3	8.3	875	3.21	385.6	11.6	15.0	30	0.4	3.1	<0.1	30	1.40	0.075
SB-3-20-0	Rock	1.42	0.4	9.5	33.0	70	0.3	2.9	8.6	841	2.66	1753.5	49.9	13.2	52	0.8	1.8	<0.1	16	1.09	0.082
SB-3-40-20	Rock	1.22	0.4	11.9	123.0	135	0.9	2.5	8.6	966	3.10	>10000	207.4	9.9	87	3.0	4.7	<0.1	13	1.30	0.075
SB-3-60-40	Rock	1.16	0.3	6.7	9.3	76	<0.1	2.4	8.5	712	3.04	427.8	15.7	16.0	24	0.1	1.1	<0.1	41	0.33	0.079
SB-3-80-60	Rock	1.24	0.3	8.3	24.8	81	0.2	2.5	9.0	897	3.09	2414.8	124.4	15.6	37	0.6	1.9	<0.1	35	0.52	0.085
SB-3-100-80	Rock	1.38	0.3	7.4	160.5	72	1.5	1.8	7.4	923	2.87	>10000	297.4	11.9	62	1.7	4.3	<0.1	15	1.24	0.080
SB-3-120-100	Rock	1.16	0.4	4.5	1302.0	186	10.5	1.9	6.4	781	2.52	>10000	13442.9	7.5	86	4.6	7.4	0.3	16	1.28	0.050
V14-20-0	Rock	1.15	0.9	16.6	203.6	241	4.9	1.6	4.5	595	3.59	9046.2	2400.0	11.3	28	12.0	10.0	<0.1	33	0.32	0.053
V14-40-20	Rock	0.94	0.4	9.5	82.7	139	1.3	2.6	9.1	1138	3.12	2475.2	539.8	15.9	17	5.1	3.8	<0.1	22	0.22	0.061
V14-60-40	Rock	0.69	1.0	16.7	552.6	110	1.2	1.8	4.7	706	2.75	1526.3	626.4	13.6	12	6.3	3.9	0.5	53	0.22	0.074
V14-80-60	Rock	0.91	0.7	12.9	711.8	111	1.2	2.6	7.5	1514	3.03	713.1	220.2	13.6	11	3.9	2.7	0.3	42	0.19	0.072
V14-100-80	Rock	0.46	0.4	12.1	367.7	119	1.0	3.2	8.1	715	3.35	398.8	126.3	14.1	12	2.4	3.8	0.2	36	0.20	0.065
V14-120-100	Rock	0.85	0.5	5.6	92.0	106	0.6	2.5	6.4	570	2.39	275.7	63.1	16.1	13	2.0	2.1	<0.1	18	0.23	0.082
V14-140-120	Rock	1.04	0.4	12.7	176.1	87	1.9	2.8	10.3	1143	2.41	439.6	287.1	14.1	13	3.8	3.2	<0.1	18	0.21	0.073
V14-160-140	Rock	0.66	<0.1	5.2	9.8	59	0.2	2.9	7.8	423	2.49	118.4	12.9	13.7	36	0.4	0.6	<0.1	58	0.47	0.061
V14-HW	Rock	0.87	0.6	32.5	15.4	21	0.1	2.7	3.0	911	1.40	54.3	3.1	17.4	10	<0.1	2.2	3.1	8	0.18	0.042
RTZ-0	Rock	0.65	0.3	25.6	55.0	146	11.6	8.0	17.6	2661	6.46	>10000	3364.4	4.2	316	2.2	47.1	<0.1	9	4.42	0.102
RTZ-1	Rock	1.20	0.6	5.4	15.0	99	1.3	2.3	8.7	823	2.95	6473.5	652.7	14.4	38	1.0	6.1	<0.1	9	0.60	0.064
RTZ-2	Rock	0.77	0.2	18.6	47.6	354	8.0	0.8	1.8	390	1.32	7603.4	864.2	3.3	53	7.9	12.4	<0.1	4	0.81	0.016

**CERTIFICATE OF ANALYSIS**

WHI14000099.1

Method Analyte Unit MDL	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Te ppm	
	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
SB-1-20-0	Rock	21	4	0.28	345	0.047	2	0.76	0.029	0.38	0.2	0.02	4.4	0.2	0.39	2	<0.5	<0.2
SB-1-40-20	Rock	18	3	0.34	244	0.011	3	0.50	0.021	0.29	0.2	0.02	3.6	0.1	0.75	2	<0.5	<0.2
SB-1-60-40	Rock	21	3	0.44	217	0.019	2	0.74	0.031	0.31	0.2	<0.01	4.2	0.1	0.64	3	<0.5	<0.2
SB-1-80-60	Rock	36	6	0.45	373	0.087	2	1.14	0.040	0.39	0.1	0.01	6.4	0.2	0.07	5	<0.5	<0.2
SB-1-100-80	Rock	30	5	0.41	412	0.062	2	1.02	0.036	0.45	0.2	0.01	5.5	0.2	0.24	4	<0.5	<0.2
SB-1-120-100	Rock	26	6	0.62	311	0.087	2	1.35	0.087	0.55	0.1	<0.01	6.4	0.3	0.19	5	<0.5	<0.2
SB-2-20-0	Rock	22	2	0.20	164	0.003	4	0.34	0.007	0.26	0.2	0.06	2.7	<0.1	0.70	<1	<0.5	<0.2
SB-2-40-20	Rock	22	2	0.19	211	0.003	7	0.35	0.006	0.24	0.2	0.05	3.5	<0.1	0.58	<1	<0.5	<0.2
SB-2-60-40	Rock	37	2	0.07	487	0.002	9	0.40	0.008	0.32	0.2	0.04	6.5	0.1	0.12	<1	<0.5	<0.2
SB-2-80-60	Rock	42	3	0.07	599	0.002	4	0.62	0.015	0.27	<0.1	0.03	6.8	0.1	<0.05	2	<0.5	<0.2
SB-2-100-80	Rock	30	2	0.12	558	0.002	<1	0.56	0.012	0.23	<0.1	0.04	7.3	0.1	0.23	2	<0.5	<0.2
SB-2-120-100	Rock	35	3	0.09	1119	0.002	<1	0.66	0.016	0.25	<0.1	0.03	7.4	0.1	<0.05	2	<0.5	<0.2
SB-3-20-0	Rock	32	2	0.19	358	0.003	2	0.46	0.021	0.24	<0.1	0.01	5.0	<0.1	0.39	2	<0.5	<0.2
SB-3-40-20	Rock	20	3	0.23	128	0.004	2	0.41	0.018	0.27	0.2	0.03	3.9	<0.1	0.73	1	<0.5	<0.2
SB-3-60-40	Rock	42	3	0.35	594	0.088	<1	0.97	0.068	0.54	<0.1	<0.01	7.9	0.3	<0.05	4	<0.5	<0.2
SB-3-80-60	Rock	38	3	0.34	556	0.060	1	0.86	0.055	0.48	<0.1	0.01	6.7	0.3	0.13	4	<0.5	<0.2
SB-3-100-80	Rock	25	3	0.27	228	0.008	3	0.42	0.025	0.29	0.4	0.02	4.1	0.1	0.50	2	<0.5	<0.2
SB-3-120-100	Rock	19	4	0.24	206	0.015	1	0.44	0.025	0.28	0.4	0.04	3.7	<0.1	0.61	2	<0.5	<0.2
V14-20-0	Rock	41	5	0.05	896	0.004	5	0.36	0.006	0.25	0.4	0.02	3.9	<0.1	<0.05	1	<0.5	<0.2
V14-40-20	Rock	45	3	0.05	425	0.002	7	0.42	0.004	0.26	0.3	0.02	5.5	0.1	<0.05	1	<0.5	<0.2
V14-60-40	Rock	43	5	0.09	250	0.006	5	0.53	0.006	0.29	0.2	0.01	3.0	0.1	<0.05	2	<0.5	<0.2
V14-80-60	Rock	37	3	0.06	294	0.002	8	0.47	0.004	0.27	0.3	0.01	4.1	0.3	<0.05	1	<0.5	<0.2
V14-100-80	Rock	38	4	0.08	121	0.003	7	0.46	0.003	0.23	0.6	0.01	6.0	0.1	<0.05	1	<0.5	<0.2
V14-120-100	Rock	43	3	0.06	143	0.001	8	0.52	0.003	0.24	0.6	0.01	6.0	0.2	<0.05	1	<0.5	<0.2
V14-140-120	Rock	37	2	0.04	236	<0.001	9	0.35	0.003	0.23	0.4	0.02	7.0	0.2	<0.05	<1	<0.5	<0.2
V14-160-140	Rock	17	6	0.57	307	0.140	<1	1.48	0.068	0.51	<0.1	<0.01	5.0	0.2	<0.05	5	<0.5	<0.2
V14-HW	Rock	26	1	0.14	309	0.003	2	0.55	0.020	0.24	0.2	<0.01	1.2	<0.1	<0.05	1	<0.5	0.7
RTZ-0	Rock	3	2	1.66	55	0.002	5	0.34	0.004	0.28	0.7	0.03	11.6	<0.1	3.14	<1	<0.5	<0.2
RTZ-1	Rock	27	2	0.20	227	0.003	7	0.51	0.008	0.23	0.2	0.02	4.4	<0.1	0.30	1	<0.5	<0.2
RTZ-2	Rock	8	3	0.09	117	<0.001	3	0.19	0.003	0.10	0.1	0.08	1.5	<0.1	0.25	<1	<0.5	<0.2



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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client: **Hartley Associates**  
7302 118A St  
Edmonton AB T6G 1V2 CANADA

Project: NONE GIVEN  
Report Date: September 15, 2014

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Part: 1 of 2

**CERTIFICATE OF ANALYSIS**

**WHI14000099.1**

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
RTZ-3	Rock	0.83	0.2	5.3	13.6	85	1.9	1.2	6.1	601	2.86	>10000	1121.3	9.8	64	1.7	8.8	<0.1	5	0.83	0.054
RTZ-4	Rock	0.87	0.4	5.2	22.1	96	1.9	2.1	6.4	795	2.64	9676.0	879.3	11.8	85	1.3	8.2	<0.1	5	1.21	0.063
RTZ-5	Rock	0.98	0.4	6.1	17.2	169	2.0	1.3	4.5	512	2.54	7708.9	1089.9	10.1	48	2.6	7.1	<0.1	5	0.66	0.052
RTZ-6	Rock	0.64	0.3	5.7	12.2	63	1.5	1.9	5.8	1368	2.66	4393.3	567.5	11.5	111	0.9	5.8	<0.1	4	1.77	0.057
RTZ-7	Rock	0.57	0.4	6.3	16.4	45	1.5	2.0	5.5	1791	2.50	4055.4	368.1	13.2	117	0.7	4.1	<0.1	6	1.91	0.060
RTZ-8	Rock	0.46	0.5	13.6	234.5	69	3.5	1.8	5.8	451	2.22	3957.5	539.6	13.4	24	1.0	7.5	0.1	7	0.36	0.057

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Project: NONE GIVEN  
Report Date: September 15, 2014

Page: 3 of 3

Part: 2 of 2

**CERTIFICATE OF ANALYSIS**

WHI14000099.1

Method		AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
RTZ-3	Rock	12	2	0.23	130	<0.001	6	0.27	0.003	0.22	0.3	0.02	3.0	<0.1	1.01	<1	<0.5	<0.2
RTZ-4	Rock	14	2	0.23	135	<0.001	6	0.25	0.004	0.23	0.2	<0.01	3.5	<0.1	0.86	<1	<0.5	<0.2
RTZ-5	Rock	12	2	0.13	112	<0.001	5	0.25	0.004	0.22	0.2	0.03	2.9	<0.1	0.65	<1	0.7	<0.2
RTZ-6	Rock	12	2	0.31	123	<0.001	7	0.27	0.003	0.24	0.2	0.02	3.6	0.2	0.93	<1	<0.5	<0.2
RTZ-7	Rock	19	3	0.33	174	0.002	9	0.42	0.010	0.27	0.2	0.01	3.9	0.1	0.44	<1	<0.5	<0.2
RTZ-8	Rock	29	2	0.08	110	0.002	3	0.33	0.007	0.19	0.1	0.03	3.7	0.1	0.11	<1	<0.5	<0.2

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
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Project: NONE GIVEN  
Report Date: September 15, 2014

Page: 1 of 1

Part: 1 of 2

**QUALITY CONTROL REPORT**

**WHI14000099.1**

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
Pulp Duplicates																					
V14-60-40	Rock	0.69	1.0	16.7	552.6	110	1.2	1.8	4.7	706	2.75	1526.3	626.4	13.6	12	6.3	3.9	0.5	53	0.22	0.074
REP V14-60-40	QC		1.1	15.9	544.6	109	1.1	1.9	4.7	699	2.75	1516.2	523.3	14.3	12	6.2	4.0	0.6	52	0.22	0.076
RTZ-8	Rock	0.46	0.5	13.6	234.5	69	3.5	1.8	5.8	451	2.22	3957.5	539.6	13.4	24	1.0	7.5	0.1	7	0.36	0.057
REP RTZ-8	QC		0.4	13.7	233.5	77	3.5	2.1	5.8	453	2.23	3965.7	391.9	13.6	24	0.8	7.8	0.1	7	0.37	0.057
Core Reject Duplicates																					
RTZ-5	Rock	0.98	0.4	6.1	17.2	169	2.0	1.3	4.5	512	2.54	7708.9	1089.9	10.1	48	2.6	7.1	<0.1	5	0.66	0.052
DUP RTZ-5	QC		0.6	5.4	14.3	149	1.8	1.2	4.1	481	2.35	7243.1	1088.5	8.5	46	2.4	6.7	<0.1	4	0.64	0.045
Reference Materials																					
STD DS10	Standard		15.2	162.3	163.8	380	2.0	75.8	13.5	875	2.77	44.9	82.3	8.4	71	3.0	8.5	11.6	44	1.08	0.075
STD DS10	Standard		15.4	160.9	160.8	375	2.0	73.7	13.4	882	2.78	47.0	132.3	8.5	74	2.7	8.1	12.7	43	1.06	0.072
STD OXC109	Standard		1.5	36.3	11.8	37	<0.1	74.6	20.0	410	2.86	2.5	194.2	1.7	149	<0.1	<0.1	<0.1	49	0.71	0.102
STD OXC109	Standard		1.5	35.1	10.6	40	<0.1	68.7	18.7	390	2.83	1.5	168.5	1.4	133	<0.1	<0.1	<0.1	46	0.67	0.108
STD DS10 Expected			14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	91.9	7.5	67.1	2.49	8.23	11.65	43	1.0625	0.073
STD OXC109 Expected			201																		
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	1.8	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
G1-WHI	Prep Blank		<0.1	13.7	8.5	73	0.1	2.5	4.0	554	1.92	1.6	2.7	6.0	64	0.4	0.2	0.2	37	0.48	0.084
G1-WHI	Prep Blank		0.1	7.7	13.2	73	0.2	2.4	3.9	561	1.92	1.2	1.3	6.1	63	0.3	0.4	0.2	37	0.53	0.079

QUALITY CONTROL REPORT

WHI14000099.1

Method	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
Analyte	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																		
V14-60-40	Rock	43	5	0.09	250	0.006	5	0.53	0.006	0.29	0.2	0.01	3.0	0.1	<0.05	2	<0.5	<0.2
REP V14-60-40	QC	41	5	0.09	244	0.006	6	0.55	0.006	0.29	0.2	0.01	3.1	0.1	<0.05	1	<0.5	<0.2
RTZ-8	Rock	29	2	0.08	110	0.002	3	0.33	0.007	0.19	0.1	0.03	3.7	0.1	0.11	<1	<0.5	<0.2
REP RTZ-8	QC	30	2	0.08	116	0.002	6	0.37	0.008	0.20	0.1	0.04	3.9	<0.1	0.11	<1	<0.5	<0.2
Core Reject Duplicates																		
RTZ-5	Rock	12	2	0.13	112	<0.001	5	0.25	0.004	0.22	0.2	0.03	2.9	<0.1	0.65	<1	0.7	<0.2
DUP RTZ-5	QC	10	2	0.13	107	<0.001	5	0.24	0.004	0.21	0.2	0.03	2.5	<0.1	0.69	<1	<0.5	<0.2
Reference Materials																		
STD DS10	Standard	19	59	0.78	371	0.084	7	1.05	0.071	0.34	3.5	0.31	2.8	5.4	0.29	5	2.5	4.9
STD DS10	Standard	19	51	0.76	350	0.086	7	1.08	0.069	0.34	3.1	0.29	3.0	5.1	0.28	4	2.2	4.9
STD OXC109	Standard	13	60	1.45	57	0.402	1	1.54	0.680	0.42	0.2	<0.01	1.1	<0.1	<0.05	5	<0.5	<0.2
STD OXC109	Standard	12	55	1.37	54	0.369	1	1.47	0.659	0.40	0.2	<0.01	1.1	<0.1	<0.05	5	<0.5	<0.2
STD DS10 Expected		17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OXC109 Expected																		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
G1-WHI	Prep Blank	14	6	0.49	190	0.133	1	0.97	0.102	0.52	<0.1	<0.01	2.6	0.3	<0.05	5	0.5	<0.2
G1-WHI	Prep Blank	13	5	0.48	181	0.133	1	1.07	0.147	0.54	<0.1	<0.01	2.7	0.3	<0.05	5	<0.5	<0.2

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

Client: **Hartley Associates**  
7302 118A St  
Edmonton AB T6G 1V2 CANADA

Submitted By: Glenn Hartley  
Receiving Lab: Canada-Vancouver  
Received: October 28, 2014  
Report Date: December 09, 2014  
Page: 1 of 4

## CERTIFICATE OF ANALYSIS

VAN14003533.1

### CLIENT JOB INFORMATION

Project: NONE GIVEN  
Shipment ID:  
P.O. Number  
Number of Samples: 74

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT Dispose of Reject After 90 days

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

Invoice To: Hartley Associates  
7302 118A St  
Edmonton AB T6G 1V2  
CANADA

CC:

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	67	Crush, split and pulverize 250 g rock to 200 mesh			VAN
AQ202	67	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
DRPLP	67	Warehouse handling / disposition of pulps			VAN
DRRJT	66	Warehouse handling / Disposition of reject			VAN

### ADDITIONAL COMMENTS



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

**CERTIFICATE OF ANALYSIS**

**VAN14003533.1**

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
RT2 1	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT2 2	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT2 3	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT2 4	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT2 5	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT2 6	Rock	0.43	0.4	3.2	5.8	50	<0.1	1.8	5.9	687	2.58	11.5	1.2	12.5	23	<0.1	0.4	<0.1	38	0.29	0.062
RT2 7	Rock	0.53	0.2	3.7	10.1	53	<0.1	2.0	6.3	675	2.44	56.2	38.2	13.9	57	<0.1	0.5	<0.1	28	0.90	0.069
RT2 8	Rock	0.22	0.4	5.1	9.3	41	0.1	3.2	4.3	1030	2.19	528.2	41.7	17.5	27	0.2	1.6	<0.1	17	0.61	0.059
RT2 9	Rock	0.56	0.2	3.3	8.3	52	<0.1	2.1	6.1	654	2.39	34.8	2.6	15.5	19	<0.1	0.8	<0.1	31	0.25	0.064
RT2 10	Rock	0.38	0.3	3.3	6.3	53	<0.1	2.3	6.3	624	2.62	29.2	2.3	12.0	23	<0.1	0.6	<0.1	36	0.30	0.066
RT2 11	Rock	0.95	0.2	3.3	6.4	54	<0.1	2.3	6.5	670	2.55	35.6	5.4	15.9	20	<0.1	0.5	<0.1	38	0.31	0.066
RT2 12	Rock	0.50	0.2	4.0	6.6	57	<0.1	2.5	7.3	647	2.93	33.5	2.8	17.1	22	<0.1	0.5	<0.1	44	0.30	0.068
RT2 13	Rock	0.56	0.2	4.9	7.6	53	<0.1	2.1	6.4	628	2.45	52.4	2.4	13.5	21	<0.1	0.6	<0.1	35	0.26	0.067
RT2 14	Rock	0.54	0.1	3.7	7.0	55	<0.1	2.3	6.8	683	2.68	23.7	1.0	14.0	22	<0.1	0.6	<0.1	35	0.26	0.068
RT2 15	Rock	0.35	0.2	2.9	6.2	59	<0.1	1.8	6.4	595	2.66	24.0	<0.5	18.0	21	<0.1	0.7	<0.1	39	0.25	0.067
RT2 16	Rock	0.71	0.4	3.4	6.9	54	<0.1	2.1	6.1	547	2.60	17.1	2.0	15.3	30	<0.1	0.4	<0.1	33	0.41	0.062
RT2 17	Rock	0.48	0.7	3.9	10.2	38	<0.1	1.5	5.5	2061	2.01	544.5	41.7	13.3	13	0.3	1.4	<0.1	8	0.15	0.058
RT2 18	Rock	0.47	0.3	3.6	9.3	51	<0.1	2.0	5.8	854	2.46	40.6	1.4	15.5	58	<0.1	0.6	<0.1	29	1.02	0.056
RT2 19	Rock	0.39	0.4	2.8	9.9	33	0.1	1.3	3.3	1028	1.75	2470.2	234.6	12.0	43	0.4	1.6	0.1	5	0.59	0.060
RT2 20	Rock	0.54	0.3	2.7	11.5	49	0.2	1.1	3.7	817	1.72	2324.1	205.3	11.4	103	0.5	2.1	<0.1	7	1.67	0.056
RT2 21	Rock	0.38	0.3	2.9	12.4	44	<0.1	1.9	6.0	738	2.52	25.8	2.0	16.2	74	0.1	1.0	<0.1	27	1.78	0.061
RT2 22	Rock	0.65	0.2	32.7	10.2	110	<0.1	8.8	14.9	1408	4.62	16.1	<0.5	10.6	206	0.1	2.1	<0.1	80	2.53	0.132
RT2 23	Rock	0.43	0.2	3.4	7.6	51	<0.1	2.1	6.3	613	2.58	26.0	2.1	15.5	22	<0.1	0.6	<0.1	35	0.27	0.058
RT2 24	Rock	0.31	<0.1	4.5	5.8	56	<0.1	1.9	5.9	612	2.54	9.1	1.1	12.8	23	<0.1	0.4	<0.1	36	0.28	0.053
RT2 25	Rock	0.82	0.1	2.8	6.2	52	<0.1	2.4	6.3	609	2.78	7.5	<0.5	15.1	24	<0.1	0.4	<0.1	38	0.28	0.061
RT2 26	Rock	0.54	<0.1	3.2	10.2	54	<0.1	2.1	6.0	539	2.54	14.8	0.9	13.0	19	<0.1	0.5	<0.1	31	0.25	0.061
RT2 27	Rock	0.48	0.1	2.9	9.7	55	<0.1	2.3	5.7	643	2.62	11.3	<0.5	15.5	19	<0.1	0.5	<0.1	32	0.25	0.054
RT2 28	Rock	0.76	0.2	3.0	8.7	48	<0.1	2.0	5.7	738	2.38	17.5	7.6	13.1	17	<0.1	0.5	<0.1	31	0.23	0.053
RT2 29	Rock	0.38	0.2	3.1	7.2	54	<0.1	2.6	6.3	709	2.77	20.9	2.4	17.0	25	<0.1	0.4	<0.1	39	0.30	0.064
RT2 30	Rock	0.46	0.3	3.6	15.1	44	0.3	1.6	5.0	750	2.33	819.3	181.1	14.0	15	0.2	1.9	<0.1	24	0.23	0.058



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Project: NONE GIVEN  
Report Date: December 09, 2014

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# CERTIFICATE OF ANALYSIS

VAN14003533.1

Method	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.06	1	0.5	0.2	
RT2 1	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	
RT2 2	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	
RT2 3	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	
RT2 4	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	
RT2 5	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	
RT2 6	Rock	32	11	0.53	346	0.111	<1	1.12	0.095	0.57	<0.1	<0.01	4.6	0.3	<0.05	4	<0.5	<0.2
RT2 7	Rock	31	8	0.47	241	0.053	1	1.15	0.041	0.38	<0.1	<0.01	3.6	0.3	<0.05	4	<0.5	<0.2
RT2 8	Rock	46	8	0.18	271	0.014	6	0.68	0.038	0.30	0.1	<0.01	4.7	0.1	<0.05	2	<0.5	<0.2
RT2 9	Rock	37	8	0.44	231	0.046	<1	1.06	0.055	0.29	<0.1	<0.01	4.3	0.2	<0.05	4	<0.5	<0.2
RT2 10	Rock	30	10	0.51	381	0.099	1	1.13	0.089	0.42	<0.1	<0.01	5.2	0.3	<0.05	4	<0.5	<0.2
RT2 11	Rock	37	10	0.60	275	0.092	<1	1.21	0.072	0.43	<0.1	<0.01	4.4	0.2	<0.05	5	<0.5	<0.2
RT2 12	Rock	39	10	0.67	320	0.100	<1	1.33	0.085	0.46	<0.1	<0.01	6.0	0.3	<0.05	5	<0.5	<0.2
RT2 13	Rock	33	9	0.56	279	0.066	<1	1.16	0.066	0.34	<0.1	<0.01	4.9	0.2	<0.05	5	<0.5	<0.2
RT2 14	Rock	32	10	0.66	290	0.077	<1	1.27	0.090	0.41	<0.1	<0.01	4.0	0.3	<0.05	5	<0.5	<0.2
RT2 15	Rock	41	7	0.63	381	0.105	<1	1.24	0.074	0.51	<0.1	<0.01	5.5	0.3	<0.05	5	<0.5	<0.2
RT2 16	Rock	38	10	0.58	358	0.097	<1	1.28	0.083	0.52	<0.1	<0.01	4.0	0.3	<0.05	5	<0.5	<0.2
RT2 17	Rock	37	6	0.04	375	0.002	5	0.46	0.025	0.25	<0.1	<0.01	3.3	0.1	<0.05	1	<0.5	<0.2
RT2 18	Rock	39	8	0.42	315	0.057	2	1.15	0.051	0.42	<0.1	<0.01	5.2	0.2	<0.05	4	<0.5	<0.2
RT2 19	Rock	22	8	0.09	356	0.003	3	0.53	0.029	0.32	0.2	0.01	2.2	<0.1	0.23	1	<0.5	<0.2
RT2 20	Rock	18	6	0.21	229	0.004	4	0.44	0.024	0.27	0.1	<0.01	2.5	<0.1	0.33	1	<0.5	<0.2
RT2 21	Rock	43	8	0.42	406	0.037	3	1.13	0.039	0.36	<0.1	<0.01	4.6	0.2	<0.05	4	<0.5	<0.2
RT2 22	Rock	35	11	1.22	510	0.102	<1	2.53	0.041	0.64	<0.1	<0.01	14.4	0.4	<0.05	8	<0.5	<0.2
RT2 23	Rock	38	9	0.54	329	0.091	<1	1.23	0.078	0.45	<0.1	<0.01	5.0	0.3	<0.05	5	<0.5	<0.2
RT2 24	Rock	32	8	0.56	271	0.083	1	1.21	0.081	0.39	<0.1	<0.01	5.5	0.2	<0.05	5	<0.5	<0.2
RT2 25	Rock	38	10	0.62	303	0.087	<1	1.34	0.091	0.38	<0.1	<0.01	5.0	0.2	<0.05	5	<0.5	<0.2
RT2 26	Rock	34	10	0.54	258	0.069	<1	1.26	0.052	0.40	<0.1	<0.01	4.0	0.3	<0.05	5	<0.5	<0.2
RT2 27	Rock	34	10	0.56	308	0.078	<1	1.28	0.059	0.46	0.1	<0.01	4.3	0.3	<0.05	5	<0.5	<0.2
RT2 28	Rock	36	8	0.52	239	0.052	1	1.14	0.055	0.32	<0.1	<0.01	4.9	0.2	<0.05	4	<0.5	<0.2
RT2 29	Rock	43	11	0.59	323	0.093	<1	1.26	0.093	0.44	<0.1	<0.01	5.8	0.3	<0.05	5	<0.5	<0.2
RT2 30	Rock	48	8	0.34	261	0.041	1	0.89	0.039	0.34	0.1	<0.01	4.2	0.2	<0.05	3	<0.5	<0.2

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Project: NONE GIVEN  
Report Date: December 09, 2014

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Part: 1 of 2

CERTIFICATE OF ANALYSIS

VAN14003533.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
RT2 31	Rock	0.33	0.2	4.9	13.8	36	0.7	1.8	4.6	818	2.54	2305.4	309.7	12.4	41	0.2	3.4	<0.1	15	0.50	0.056
RT2 32	Rock	0.36	0.4	3.8	11.5	52	0.9	1.7	5.4	892	2.40	1969.9	451.3	12.5	15	0.5	3.5	<0.1	17	0.21	0.053
RT2 33	Rock	0.47	0.4	3.0	7.9	52	<0.1	2.2	5.3	1056	2.44	28.4	1.9	14.4	21	0.1	0.6	<0.1	29	0.21	0.059
RT2 34	Rock	0.34	0.1	2.9	6.3	56	<0.1	2.1	6.1	572	2.72	26.1	1.1	16.2	19	<0.1	0.6	<0.1	37	0.26	0.061
RT2 35	Rock	0.33	<0.1	2.2	38.1	53	0.3	2.2	5.8	526	2.59	61.1	3.3	16.1	22	<0.1	0.8	<0.1	33	0.27	0.059
RT2 36	Rock	0.27	0.2	2.4	6.4	53	<0.1	1.9	5.6	583	2.60	104.6	4.7	19.5	22	<0.1	0.5	<0.1	27	0.24	0.055
RT2 37	Rock	0.40	0.4	1.6	4.7	15	0.3	0.8	1.6	1398	1.34	3777.6	514.9	12.7	179	<0.1	2.6	<0.1	4	4.04	0.065
RT2 38	Rock	0.75	0.6	2.3	16.1	46	0.2	1.4	11.0	753	2.15	940.4	114.9	12.5	104	0.2	1.9	0.3	10	1.97	0.056
RT2 39	Rock	0.49	0.6	3.9	9.4	44	0.4	1.4	5.0	1417	1.97	196.1	17.0	13.1	57	0.4	1.4	<0.1	12	1.56	0.059
RT2 40	Rock	0.63	0.2	1.8	10.2	54	<0.1	2.0	5.4	696	2.72	10.6	1.1	16.0	50	<0.1	0.6	<0.1	28	1.10	0.055
RT2 41	Rock	0.43	0.1	2.8	12.9	57	<0.1	1.9	6.0	1008	2.70	15.0	1.9	14.4	31	<0.1	0.8	<0.1	27	0.49	0.060
RT2 42	Rock	0.37	0.2	3.0	12.0	50	<0.1	1.9	5.7	792	2.31	12.7	3.9	17.3	20	<0.1	0.5	<0.1	23	0.32	0.060
RT2 43	Rock	0.33	0.2	6.2	13.8	39	<0.1	1.4	4.4	1021	1.96	18.0	29.2	16.4	107	<0.1	0.6	<0.1	19	2.24	0.048
RT2 44	Rock	0.41	0.1	1.8	7.5	45	<0.1	1.6	5.0	539	2.34	2.0	1.3	15.1	55	<0.1	0.4	<0.1	27	0.95	0.050
RT2 45	Rock	0.40	0.3	2.5	10.4	57	<0.1	1.9	6.3	976	2.69	8.4	2.7	13.1	26	<0.1	0.5	<0.1	30	0.34	0.058
RT2 46	Rock	0.40	0.3	1.9	7.3	49	<0.1	2.0	5.5	699	2.60	6.6	0.6	15.4	55	<0.1	0.4	<0.1	31	0.98	0.053
RT2 47	Rock	0.61	0.1	2.0	10.6	44	<0.1	1.4	4.8	817	2.07	11.1	30.8	12.3	53	<0.1	0.4	<0.1	21	1.17	0.051
RT2 48	Rock	0.74	0.2	2.7	8.6	49	<0.1	1.9	5.4	786	2.68	1.7	0.9	11.8	29	<0.1	0.3	<0.1	32	0.35	0.052
RT2 49	Rock	0.50	0.1	2.0	9.2	58	<0.1	1.7	6.1	735	2.70	1.2	0.8	13.3	18	<0.1	0.5	<0.1	31	0.26	0.057
RT2 50	Rock	0.49	<0.1	2.2	8.6	50	<0.1	1.9	5.4	707	2.56	2.3	<0.5	12.0	20	<0.1	0.4	<0.1	31	0.25	0.054
RT2 0-20	Rock	0.52	0.2	5.1	15.3	85	2.3	2.1	5.3	741	2.31	9992.2	921.9	9.9	175	1.0	8.6	<0.1	10	1.73	0.052
RT2 20-40	Rock	0.67	0.3	4.1	8.0	59	1.1	2.1	6.2	754	2.68	7210.0	421.8	13.3	120	0.3	6.2	<0.1	25	1.34	0.063
RT2 40-60	Rock	0.32	0.2	2.8	7.7	73	<0.1	2.0	5.5	635	2.26	41.3	3.3	12.5	57	0.5	0.8	<0.1	29	0.89	0.054
RT2 60-80	Rock	0.53	0.2	2.7	7.3	93	<0.1	2.0	5.4	725	2.45	87.3	4.2	14.7	44	0.2	1.4	<0.1	32	0.73	0.057
RT2 80-100	Rock	0.49	0.1	2.6	7.0	131	<0.1	1.9	5.7	537	2.36	189.5	17.1	13.0	39	0.5	1.0	<0.1	30	0.54	0.055
RT2 100-120	Rock	0.45	0.2	3.3	10.2	117	0.6	1.8	4.4	535	1.93	5752.9	338.9	9.4	68	1.2	4.9	<0.1	14	0.86	0.047
RT2 120-140	Rock	0.37	0.5	4.3	11.6	105	1.3	1.6	5.4	1001	2.55	6103.6	513.3	12.2	147	1.5	6.1	<0.1	8	1.88	0.062
RT2 140-160	Rock	0.81	0.3	3.5	22.1	141	1.2	1.1	1.7	236	1.42	8732.7	1323.3	4.9	60	3.5	6.2	<0.1	3	0.39	0.022
RT2 160-180	Rock	0.75	0.3	3.7	9.3	89	0.1	2.3	6.6	578	2.75	101.1	7.0	14.1	83	0.1	0.9	<0.1	31	1.00	0.059
RT2 180-200	Rock	0.42	0.3	4.0	11.1	62	<0.1	2.2	6.9	858	2.74	73.8	3.9	14.2	130	<0.1	1.0	<0.1	28	1.71	0.064

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.

# CERTIFICATE OF ANALYSIS

VAN14003533.1

Method Analyte Unit MDL	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
	La ppm 1	Cr ppm 1	Mg % 0.01	Ba ppm 1	Tl % 0.001	B ppm 1	Al % 0.01	Na % 0.001	K % 0.01	W ppm 0.1	Hg ppm 0.01	Sc ppm 0.1	Tl ppm 0.1	S % 0.05	Ga ppm 1	Se ppm 0.5	Te ppm 0.2	
RT2 31	Rock	35	8	0.20	246	0.017	3	0.67	0.035	0.32	0.1	<0.01	3.9	0.1	0.31	2	<0.5	<0.2
RT2 32	Rock	38	6	0.21	212	0.026	2	0.64	0.029	0.28	0.1	<0.01	4.1	0.1	<0.05	2	<0.5	<0.2
RT2 33	Rock	37	9	0.44	440	0.095	<1	1.09	0.062	0.53	<0.1	<0.01	4.3	0.3	<0.05	4	<0.5	<0.2
RT2 34	Rock	43	7	0.59	346	0.106	<1	1.28	0.070	0.49	<0.1	<0.01	5.5	0.3	<0.05	5	<0.5	<0.2
RT2 35	Rock	37	7	0.55	328	0.090	<1	1.24	0.069	0.43	0.3	<0.01	5.0	0.3	<0.05	5	<0.5	<0.2
RT2 36	Rock	41	6	0.50	245	0.069	1	1.24	0.059	0.40	<0.1	<0.01	3.7	0.3	<0.05	5	<0.5	<0.2
RT2 37	Rock	6	2	0.28	238	0.002	3	0.46	0.007	0.34	0.2	<0.1	1.9	<0.1	0.40	1	<0.5	<0.2
RT2 38	Rock	21	6	0.25	209	0.010	4	0.63	0.027	0.30	<0.1	<0.01	3.4	0.1	0.23	2	<0.5	<0.2
RT2 39	Rock	29	5	0.22	208	0.008	6	0.82	0.024	0.28	<0.1	<0.01	4.0	0.1	<0.05	2	<0.5	<0.2
RT2 40	Rock	36	8	0.44	255	0.071	<1	1.23	0.068	0.41	<0.1	<0.01	4.9	0.3	<0.05	5	<0.5	<0.2
RT2 41	Rock	37	6	0.45	264	0.055	<1	1.22	0.037	0.38	<0.1	<0.01	6.1	0.3	<0.05	4	<0.5	<0.2
RT2 42	Rock	35	4	0.42	233	0.024	<1	1.42	0.015	0.45	<0.1	<0.01	4.2	0.3	<0.05	5	<0.5	<0.2
RT2 43	Rock	30	5	0.28	222	0.027	<1	0.85	0.029	0.29	<0.1	<0.01	4.0	0.1	<0.05	3	<0.5	<0.2
RT2 44	Rock	30	7	0.43	271	0.079	<1	1.05	0.057	0.45	<0.1	<0.01	3.7	0.3	<0.05	4	<0.5	<0.2
RT2 45	Rock	33	6	0.49	211	0.048	<1	1.23	0.047	0.30	<0.1	<0.01	6.6	0.2	<0.05	5	<0.5	<0.2
RT2 46	Rock	33	7	0.52	309	0.088	<1	1.15	0.071	0.47	<0.1	<0.01	5.6	0.3	<0.05	5	<0.5	<0.2
RT2 47	Rock	27	6	0.38	184	0.030	<1	0.89	0.041	0.26	<0.1	<0.01	4.1	0.2	<0.05	4	<0.5	<0.2
RT2 48	Rock	31	8	0.51	309	0.072	<1	1.14	0.070	0.40	<0.1	<0.01	6.1	0.3	<0.05	5	<0.5	<0.2
RT2 49	Rock	29	6	0.63	233	0.061	<1	1.31	0.043	0.35	<0.1	<0.01	6.2	0.2	<0.05	6	<0.5	<0.2
RT2 50	Rock	26	7	0.55	310	0.080	<1	1.18	0.062	0.42	<0.1	<0.01	5.3	0.3	<0.05	5	<0.5	<0.2
RT2 0-20	Rock	14	6	0.33	147	0.004	2	0.52	0.009	0.24	0.2	0.02	3.4	<0.1	0.96	2	<0.5	<0.2
RT2 20-40	Rock	23	8	0.48	252	0.042	2	0.85	0.041	0.40	0.2	<0.01	4.7	0.2	0.48	3	<0.5	<0.2
RT2 40-60	Rock	28	7	0.46	274	0.058	<1	0.98	0.052	0.37	<0.1	<0.01	4.3	0.3	<0.05	4	<0.5	<0.2
RT2 60-80	Rock	33	8	0.42	311	0.072	<1	0.99	0.078	0.43	<0.1	<0.01	4.3	0.3	<0.05	4	<0.5	<0.2
RT2 80-100	Rock	29	8	0.49	272	0.071	<1	1.07	0.070	0.40	<0.1	<0.01	4.6	0.2	<0.05	4	<0.5	<0.2
RT2 100-120	Rock	21	11	0.27	244	0.020	2	0.63	0.029	0.33	0.4	<0.01	2.9	0.2	0.35	2	<0.5	<0.2
RT2 120-140	Rock	16	7	0.31	191	0.002	6	0.48	0.018	0.30	0.2	0.01	3.3	<0.1	0.93	1	<0.5	<0.2
RT2 140-160	Rock	11	14	0.07	376	<0.001	4	0.21	0.004	0.15	0.1	0.05	1.2	<0.1	0.31	<1	<0.5	<0.2
RT2 160-180	Rock	33	9	0.52	255	0.044	<1	1.29	0.052	0.35	<0.1	<0.01	5.3	0.2	<0.05	5	<0.5	<0.2
RT2 180-200	Rock	33	7	0.57	238	0.038	<1	1.38	0.032	0.39	<0.1	<0.01	4.4	0.2	<0.05	5	<0.5	<0.2

**CERTIFICATE OF ANALYSIS**

**VAN14003533.1**

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
RT2 200-230	Rock	1.10	0.3	3.0	9.1	49	<0.1	1.9	5.1	505	2.38	124.9	9.3	15.2	75	<0.1	1.1	<0.1	23	1.00	0.056
RT2 230-260	Rock	0.98	0.3	4.0	15.2	47	0.4	1.5	5.4	603	2.22	1884.7	250.0	12.4	148	0.1	2.9	<0.1	13	1.75	0.056
RT2 260-290	Rock	1.02	0.2	5.6	16.8	42	0.4	1.5	4.8	843	2.35	1658.0	197.1	12.7	172	0.1	3.3	<0.1	13	2.57	0.057
RT2 290-320	Rock	1.26	0.3	3.3	10.3	48	<0.1	1.7	5.6	679	2.35	38.1	5.2	15.7	80	<0.1	1.0	<0.1	26	1.42	0.061
RT2 320-350	Rock	0.52	0.2	3.4	9.9	52	<0.1	1.9	5.6	597	2.59	17.3	<0.5	15.4	90	<0.1	0.9	<0.1	28	1.15	0.060
RT2 350-380	Rock	0.55	0.2	6.4	10.1	47	<0.1	1.7	5.6	471	2.28	15.0	4.9	13.9	57	0.1	1.0	<0.1	26	0.86	0.060
RT2 380-410	Rock	1.01	0.3	3.5	10.3	54	<0.1	2.3	6.3	879	2.58	8.7	2.5	13.7	110	<0.1	1.0	<0.1	31	1.72	0.059
RT2 410-440	Rock	0.68	0.4	3.6	9.2	50	<0.1	2.0	5.8	662	2.39	39.2	4.0	15.1	43	<0.1	0.9	<0.1	29	0.66	0.062
RT2 440-470	Rock	0.74	0.3	3.7	12.1	53	<0.1	2.0	5.8	909	2.41	315.5	26.2	12.8	60	<0.1	1.2	<0.1	24	1.05	0.065
RT2 470-500	Rock	0.98	0.3	3.4	11.3	55	<0.1	1.9	6.4	810	2.57	15.7	1.6	15.3	61	<0.1	1.1	<0.1	30	0.89	0.064
RT2-3-190	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT2-3-335	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT3-19.0	Rock	0.90	14.8	21.6	14.1	10	0.1	1.0	1.4	148	0.92	19.2	11.5	21.2	7	<0.1	0.6	<0.1	5	0.06	0.007
RT3-37.5	Rock	0.44	5.4	30.9	21.8	12	1.1	0.7	1.9	120	0.89	29.0	6.7	27.8	6	<0.1	4.7	0.1	3	0.04	<0.001

**CERTIFICATE OF ANALYSIS**

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Method	Analyte	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
RT2 200-230	Rock	32	9	0.40	219	0.024	<1	0.97	0.051	0.28	<0.1	<0.01	3.8	0.2	<0.05	4	<0.5	<0.2
RT2 230-260	Rock	22	7	0.35	264	0.005	2	0.71	0.024	0.25	<0.1	<0.01	3.0	0.1	0.37	2	<0.5	<0.2
RT2 260-290	Rock	22	7	0.39	289	0.005	6	0.59	0.025	0.28	0.1	0.01	3.7	0.1	0.49	2	<0.5	<0.2
RT2 290-320	Rock	35	8	0.42	246	0.021	1	0.90	0.041	0.27	<0.1	<0.01	4.4	0.2	<0.05	4	<0.5	<0.2
RT2 320-350	Rock	37	8	0.47	238	0.028	<1	1.18	0.039	0.31	<0.1	<0.01	4.2	0.2	<0.05	5	<0.5	<0.2
RT2 350-380	Rock	33	7	0.42	223	0.022	<1	1.12	0.036	0.29	<0.1	<0.01	3.5	0.2	<0.05	4	<0.5	<0.2
RT2 380-410	Rock	32	8	0.53	257	0.038	<1	1.19	0.046	0.33	<0.1	<0.01	4.5	0.2	<0.05	4	<0.5	<0.2
RT2 410-440	Rock	33	8	0.40	249	0.039	<1	1.07	0.049	0.31	<0.1	<0.01	4.2	0.2	<0.05	4	<0.5	<0.2
RT2 440-470	Rock	30	8	0.40	260	0.028	2	1.09	0.039	0.33	<0.1	<0.01	3.9	0.2	<0.05	4	<0.5	<0.2
RT2 470-500	Rock	39	8	0.48	335	0.027	<1	1.20	0.042	0.30	<0.1	<0.01	4.1	0.2	<0.05	4	<0.5	<0.2
RT2-3-190	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT2-3-335	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
RT3-19.0	Rock	8	12	0.08	80	0.009	<1	0.36	0.047	0.17	<0.1	<0.01	1.6	<0.1	<0.05	1	<0.5	<0.2
RT3-37.5	Rock	7	8	0.07	45	<0.001	1	0.35	0.035	0.14	0.1	<0.01	1.4	<0.1	0.06	1	<0.5	<0.2

## QUALITY CONTROL REPORT

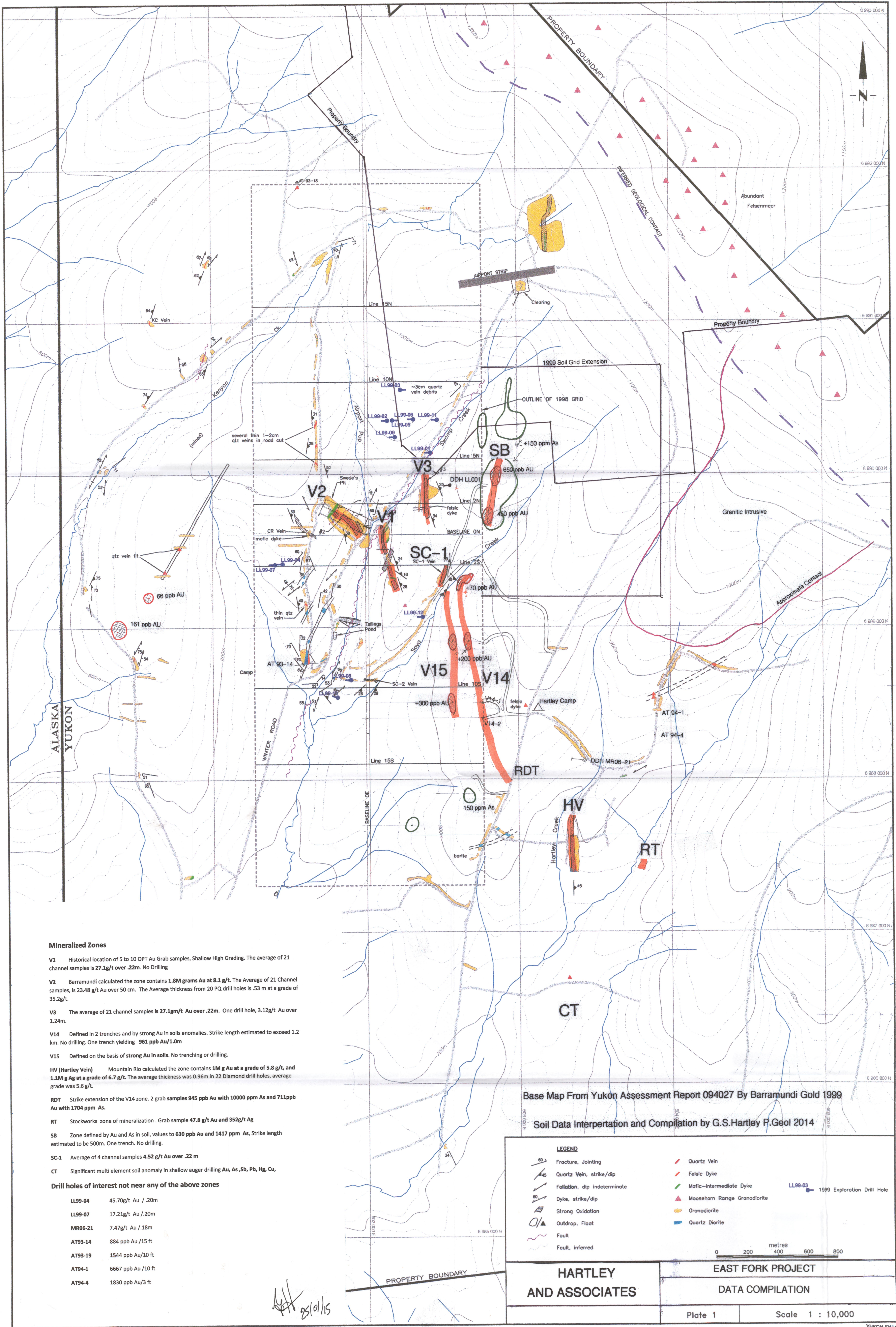
VAN14003533.1

Method	WGHT	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	BI	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
Pulp Duplicates																					
RT2 30	Rock	0.46	0.3	3.6	15.1	44	0.3	1.6	5.0	750	2.33	819.3	181.1	14.0	15	0.2	1.9	<0.1	24	0.23	0.058
REP RT2 30	QC		0.3	3.5	15.3	43	0.4	1.8	5.1	759	2.39	825.3	198.1	14.7	16	0.2	1.9	<0.1	24	0.23	0.057
RT2 200-230	Rock	1.10	0.3	3.0	9.1	49	<0.1	1.9	5.1	505	2.38	124.9	9.3	15.2	75	<0.1	1.1	<0.1	23	1.00	0.056
REP RT2 200-230	QC		0.2	2.9	8.8	49	<0.1	1.9	5.3	500	2.37	120.5	9.8	15.3	73	<0.1	1.1	<0.1	24	1.00	0.055
RT3-37.5	Rock	0.44	5.4	30.9	21.8	12	1.1	0.7	1.9	120	0.89	29.0	6.7	27.8	6	<0.1	4.7	0.1	3	0.04	<0.001
REP RT3-37.5	QC		5.2	32.7	22.3	11	1.1	0.6	1.8	115	0.84	29.4	6.4	28.7	5	<0.1	4.5	0.1	2	0.04	0.001
Core Reject Duplicates																					
RT2 18	Rock	0.47	0.3	3.6	9.3	51	<0.1	2.0	5.8	854	2.46	40.6	1.4	15.5	58	<0.1	0.6	<0.1	29	1.02	0.058
DUP RT2 18	QC		0.5	3.7	9.9	52	<0.1	2.0	6.2	884	2.33	43.9	1.1	15.6	61	<0.1	0.7	<0.1	29	1.02	0.064
RT2 100-120	Rock	0.45	0.2	3.3	10.2	117	0.6	1.8	4.4	535	1.93	5752.9	338.9	9.4	68	1.2	4.9	<0.1	14	0.86	0.047
DUP RT2 100-120	QC		0.2	3.2	8.9	105	0.6	1.5	3.6	485	1.73	5731.0	337.3	8.6	63	1.3	4.9	<0.1	11	0.80	0.041
Reference Materials																					
STD DS10	Standard		13.9	150.8	155.5	371	1.8	76.3	12.8	898	2.81	44.8	78.3	8.3	75	2.6	9.3	13.4	43	1.10	0.074
STD DS10	Standard		16.3	166.0	156.5	366	1.9	81.1	13.6	899	2.82	50.2	77.0	7.4	70	2.6	8.5	11.7	45	1.10	0.072
STD DS10	Standard		17.0	173.0	156.7	373	2.1	80.6	13.9	906	2.89	46.4	105.0	8.5	73	2.9	8.5	12.6	45	1.20	0.077
STD OXC109	Standard		1.4	34.3	10.8	39	<0.1	72.9	18.9	406	2.87	<0.5	195.8	1.5	155	<0.1	<0.1	<0.1	46	0.72	0.105
STD OXC109	Standard		1.7	40.1	11.4	44	<0.1	79.5	21.6	411	2.93	1.0	189.8	1.5	154	<0.1	<0.1	<0.1	50	0.74	0.112
STD OXC109	Standard		1.5	40.2	10.6	41	<0.1	77.1	21.6	418	2.93	0.8	189.2	1.6	145	<0.1	<0.1	<0.1	50	0.79	0.118
STD DS10 Expected			14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	91.9	7.5	67.1	2.49	8.23	11.65	43	1.0625	0.073
STD OXC109 Expected												201									
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
ROCK-VAN	Prep Blank		0.6	3.7	1.2	33	<0.1	1.1	4.1	444	1.93	1.0	<0.5	2.2	29	<0.1	<0.1	<0.1	23	0.76	0.043
ROCK-VAN	Prep Blank		0.5	3.0	1.1	31	<0.1	1.2	4.1	441	1.89	1.4	<0.5	2.2	28	<0.1	<0.1	<0.1	25	0.78	0.045

## QUALITY CONTROL REPORT

VAN14003533.1

Method	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
<b>Pulp Duplicates</b>																		
RT2 30	Rock	48	8	0.34	261	0.041	1	0.89	0.039	0.34	0.1	<0.01	4.2	0.2	<0.05	3	<0.5	<0.2
REP RT2 30	QC	48	8	0.35	273	0.042	2	0.90	0.040	0.34	0.1	<0.01	4.5	0.2	<0.05	3	<0.5	<0.2
RT2 200-230	Rock	32	9	0.40	219	0.024	<1	0.97	0.051	0.28	<0.1	<0.01	3.8	0.2	<0.05	4	<0.5	<0.2
REP RT2 200-230	QC	32	9	0.39	212	0.024	<1	0.97	0.051	0.28	<0.1	<0.01	3.8	0.1	<0.05	4	<0.5	<0.2
RT3-37.5	Rock	7	8	0.07	45	<0.001	1	0.35	0.035	0.14	0.1	<0.01	1.4	<0.1	0.06	1	<0.5	<0.2
REP RT3-37.5	QC	7	8	0.07	45	<0.001	2	0.35	0.034	0.14	0.1	<0.01	1.4	<0.1	0.06	1	<0.5	<0.2
<b>Core Reject Duplicates</b>																		
RT2 18	Rock	39	8	0.42	315	0.057	2	1.15	0.051	0.42	<0.1	<0.01	5.2	0.2	<0.05	4	<0.5	<0.2
DUP RT2 18	QC	39	9	0.43	328	0.065	1	1.19	0.048	0.42	<0.1	<0.01	5.5	0.3	<0.05	4	<0.5	<0.2
RT2 100-120	Rock	21	11	0.27	244	0.020	2	0.63	0.029	0.33	0.4	<0.01	2.9	0.2	0.35	2	<0.5	<0.2
DUP RT2 100-120	QC	17	10	0.23	220	0.014	2	0.56	0.021	0.29	0.4	0.01	2.4	0.1	0.34	2	<0.5	<0.2
<b>Reference Materials</b>																		
STD DS10	Standard	20	55	0.79	367	0.087	6	1.09	0.069	0.34	3.3	0.31	3.2	5.0	0.28	4	3.2	4.7
STD DS10	Standard	21	58	0.80	370	0.091	7	1.12	0.071	0.35	3.0	0.30	3.2	5.0	0.29	4	2.4	4.8
STD DS10	Standard	20	61	0.80	342	0.097	7	1.15	0.076	0.36	3.4	0.29	3.4	5.2	0.32	4	1.9	4.5
STD OXC109	Standard	13	56	1.44	56	0.376	<1	1.54	0.690	0.42	0.1	<0.01	1.4	<0.1	<0.05	5	<0.5	<0.2
STD OXC109	Standard	13	66	1.49	59	0.411	2	1.58	0.700	0.42	0.2	<0.01	1.1	<0.1	<0.05	5	<0.5	<0.2
STD OXC109	Standard	14	64	1.55	57	0.386	2	1.66	0.718	0.44	0.2	<0.01	1.3	0.1	<0.05	6	<0.5	<0.2
STD DS10 Expected		17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OXC109 Expected																		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
<b>Prep Wash</b>																		
ROCK-VAN	Prep Blank	6	13	0.42	78	0.085	2	0.96	0.104	0.10	0.2	<0.01	3.2	<0.1	<0.05	4	<0.5	<0.2
ROCK-VAN	Prep Blank	6	14	0.43	75	0.079	2	0.98	0.106	0.10	0.2	<0.01	3.2	<0.1	<0.05	4	<0.5	<0.2



**Mineralized Zones**

- V1** Historical location of 5 to 10 OPT Au Grab samples, Shallow High Grading. The average of 21 channel samples is 27.1g/t over .22m. No Drilling
- V2** Barramundi calculated the zone contains 1.8M grams Au at 8.1 g/t. The Average of 21 Channel samples, is 23.48 g/t Au over 50 cm. The Average thickness from 20 PQ drill holes is .53 m at a grade of 35.2g/t.
- V3** The average of 21 channel samples is 27.1gm/t Au over .22m. One drill hole, 3.12g/t Au over 1.24m.
- V14** Defined in 2 trenches and by strong Au in soils anomalies. Strike length estimated to exceed 1.2 km. No drilling. One trench yielding 961 ppb Au/1.0m
- V15** Defined on the basis of strong Au in soils. No trenching or drilling.
- HV (Hartley Vein)** Mountain Rio calculated the zone contains 1M g Au at a grade of 5.8 g/t, and 1.1M g Ag at a grade of 6.7 g/t. The average thickness was 0.96m in 22 Diamond drill holes, average grade was 5.6 g/t.
- RDT** Strike extension of the V14 zone. 2 grab samples 945 ppb Au with 10000 ppm As and 711ppb Au with 1704 ppm As.
- RT** Stockworks zone of mineralization . Grab sample 47.8 g/t Au and 352g/t Ag
- SB** Zone defined by Au and As in soil, values to 630 ppb Au and 1417 ppm As, Strike length estimated to be 500m. One trench. No drilling.
- SC-1** Average of 4 channel samples 4.52 g/t Au over .22 m
- CT** Significant multi element soil anomaly in shallow auger drilling Au, As, Sb, Pb, Hg, Cu,

**Drill holes of interest not near any of the above zones**

LL99-04	45.70g/t Au / .20m
LL99-07	17.21g/t Au / .20m
MR06-21	7.47g/t Au / .18m
AT93-14	884 ppb Au /15 ft
AT93-19	1544 ppb Au/10 ft
AT94-1	6667 ppb Au /10 ft
AT94-4	1830 ppb Au/3 ft

Base Map From Yukon Assessment Report 094027 By Barramundi Gold 1999

Soil Data Interpretation and Compilation by G.S.Hartley F.Geol 2014

**LEGEND**

- Fracture, Jointing
- Quartz Vein, strike/dip
- Folication, dip indeterminate
- Dyke, strike/dip
- Strong Oxidation
- Outcrop, Float
- Fault
- Fault, inferred
- Quartz Vein
- Felsic Dyke
- Mafic-intermediate Dyke
- Moosehorn Range Granodiorite
- Granodiorite
- Quartz Diorite
- 1999 Exploration Drill Hole



**HARTLEY AND ASSOCIATES**

**EAST FORK PROJECT DATA COMPILATION**

Plate 1

Scale 1 : 10,000

094 027