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**ASSESSMENT REPORT**

describing

**GEOCHEMICAL SAMPLING**

at the

**SHAMROCK PROPERTY**

SH 1-72      YC93676-YC93747

NTS 1150/04 and 1150/05  
Latitude 63°14'N; Longitude 139°38'W

Field work performed on August 25, 2012

located in the

Dawson Mining District  
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

**ARCUS DEVELOPMENT GROUP INC.**

and

**ATAC RESOURCES LTD.**

by

H. Smith, B.Sc. P.Geo.  
March 2013

## **TABLE OF CONTENTS**

INTRODUCTION	1
PROPERTY LOCATION, CLAIM DATA AND ACCESS	1
HISTORY	1
GEOMORPHOLOGY	1
REGIONAL GEOLOGY	2
PROPERTY GEOLOGY	3
MINERALIZATION	3
SOIL GEOCHEMISTRY	3
DISCUSSION AND CONCLUSIONS	4
REFERENCES	6

## **APPENDICES**

I	STATEMENT OF QUALIFICATIONS
II	CERTIFICATES OF ANALYSIS
III	STATEMENT OF EXPENDITURES

## **TABLES**

I	Regional Lithologies	2
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## FIGURES

<u>No.</u>	<u>Description</u>	<u>Follows Page</u>
1	Property Location	1
2	Claim Locations	1
3	Tectonic Setting	2
4	Regional Geology	2
5	Soil Sample Locations	In Pocket
6	Gold Soil Geochemistry	4
7	Arsenic Soil Geochemistry	4
8	Zinc Soil Geochemistry	4

## **INTRODUCTION**

The Shamrock property is located in western Yukon and is owned 50% by ATAC Resources Ltd. and 50% by Arcus Development Group Inc. with Arcus acting as the joint venture operator. The property was initially staked to cover the projected extension of the geological package that hosts the White Gold Deposit owned by Kinross Gold Corporation. That deposit has a measured and indicated resource of 1,005,000 ounces grading 3.19 g/t gold (Kinross, 2013).

This report describes a geochemical sampling program that was conducted on August 25, 2012 by Archer, Cathro & Associates (1981) Limited on behalf of ATAC and Arcus. The author directed the program and her Statement of Qualifications is in Appendix I.

## **PROPERTY LOCATION, CLAIM DATA AND ACCESS**

The Shamrock property comprises 72 contiguous mineral claims located two kilometres north of the White and Yukon River confluence. The claims lie at latitude 63°14'N and longitude 139°38'W on NTS map sheets 1150/04 and 1150/05, as shown on Figure 1. They are registered with the Dawson Mining Recorder in the name of Archer Cathro, which holds them in trust for ATAC and Arcus. Claim data are listed below while the locations of individual claims are illustrated on Figure 2.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date</u>
SH 1-72	YC93676-YC93747	April 29, 2021*

\* Expiry date includes 2012 work that has been filed for assessment credit but has not yet accepted.

The 2012 work program was done from a temporary fly camp on Arcus' Touleary property, which is located about 35 km southeast of the Shamrock property. Setouts and pickups for this work were provided by a Hughes 500D helicopter owned by Fireweed Helicopters Ltd., which was based at Kinross' Thistle Creek camp located approximately halfway between the Shamrock and Touleary properties.

## **HISTORY**

There are no known mineral occurrences in the area covered by the Shamrock property. In April 2009, ATAC staked the property and shortly thereafter optioned it to Arcus. In summer 2009, a small geochemical sampling program was conducted on the property. Results from this program are discussed with the 2012 results in the Soil Geochemistry section below.

## **GEOMORPHOLOGY**

The Shamrock property lies west of the Yukon River immediately downstream from its confluence with the White River. Local elevations range from 360 to 1130 m above sea level (asl). The eastern property boundary lies at the base of prominent cliffs that rise 400 m in elevation over a horizontal distance of 450 m, while the remainder of the property comprises

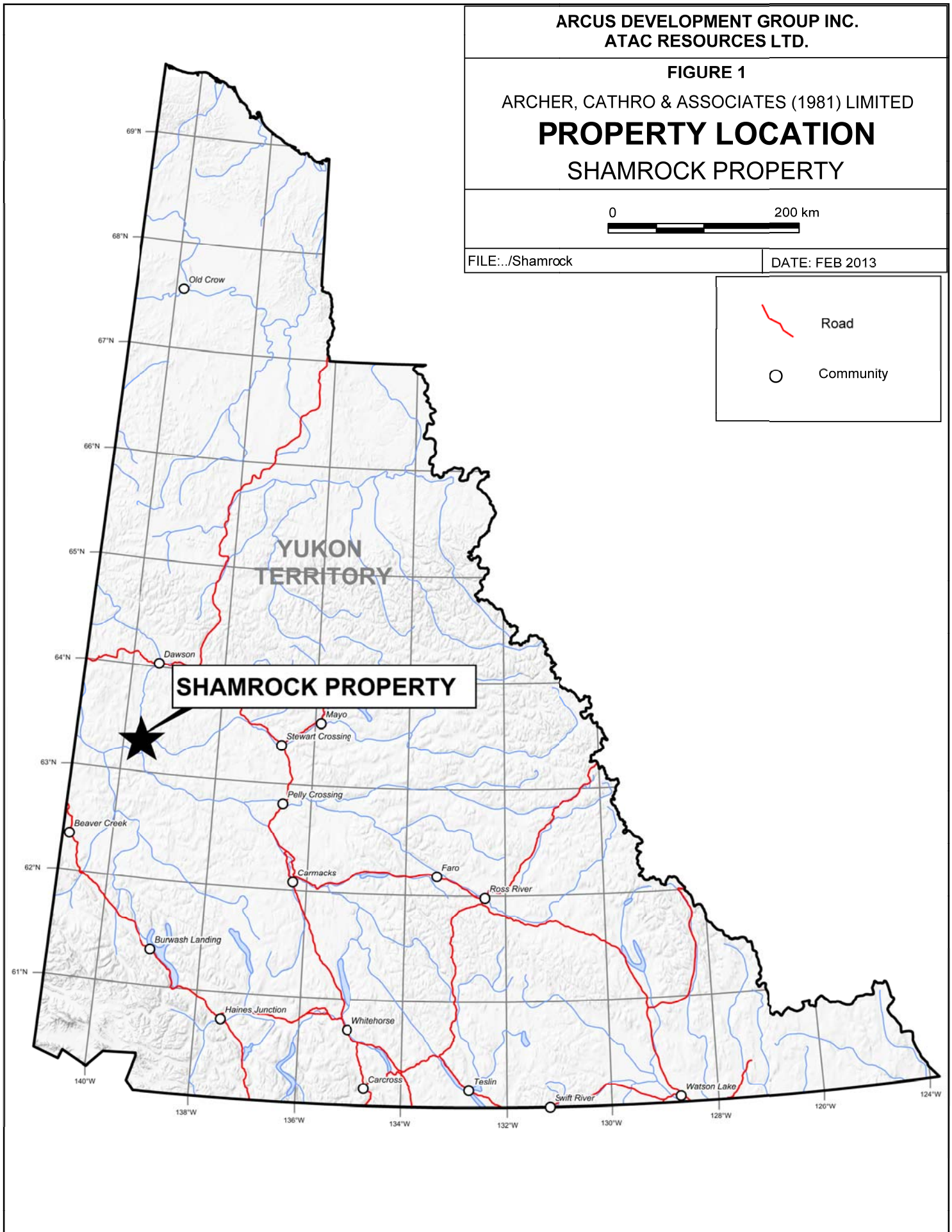
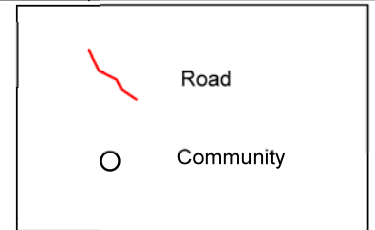
ARCUS DEVELOPMENT GROUP INC.  
ATAC RESOURCES LTD.

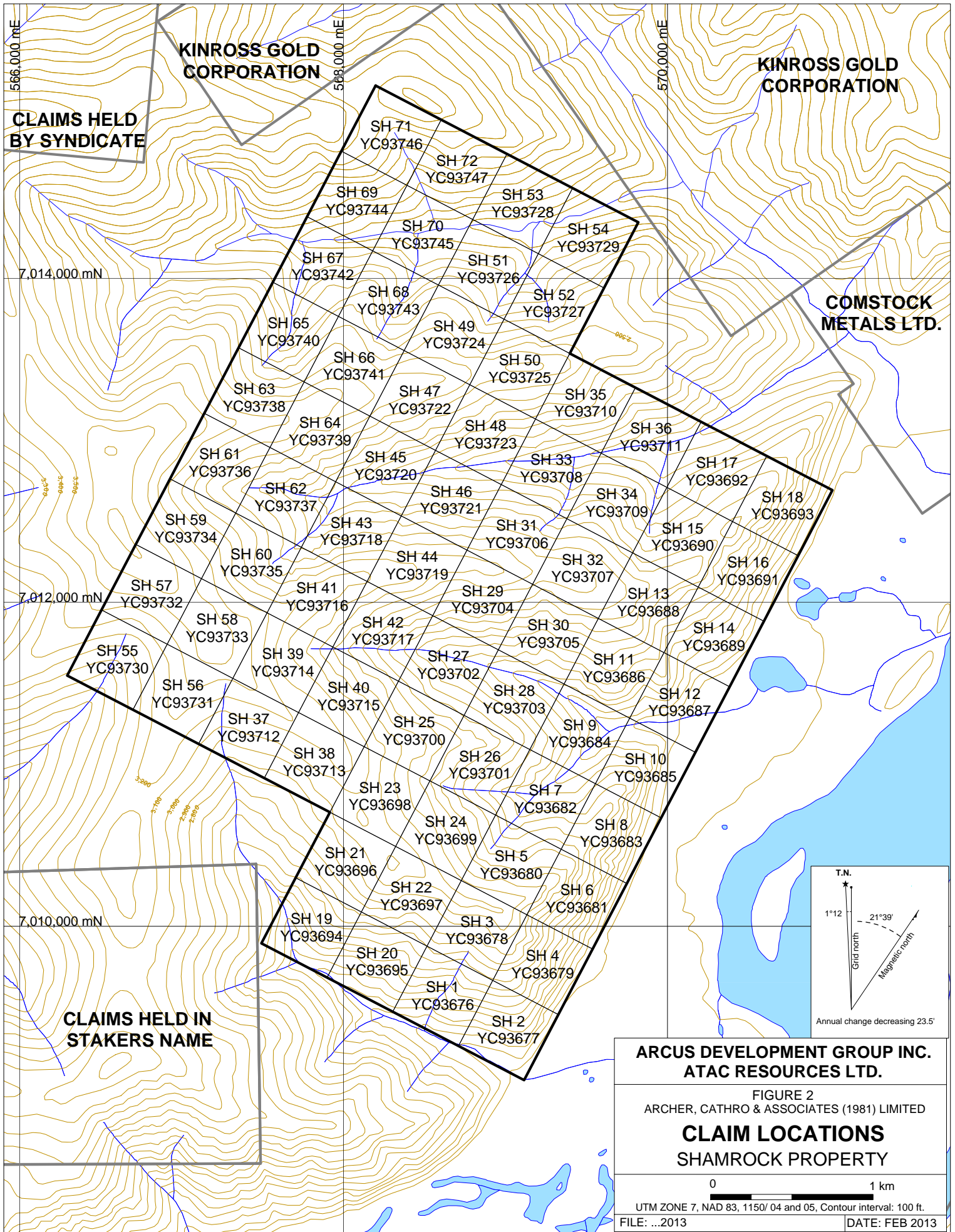
FIGURE 1  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**PROPERTY LOCATION**  
SHAMROCK PROPERTY



FILE:../Shamrock

DATE: FEB 2013





gentle to moderate relief. Higher parts of the property are vegetated with scattered deciduous and evergreen trees, scrub brush and a thin moss cover. Remnants of a historical forest fire are recognizable in localized areas on the property, at elevations above 900 m asl. Lower elevations support a mixture of dense deciduous and evergreen forest with thick buckbrush, willows and moss covered slopes. No part of the property is above tree line.

Outcrop exposures on the property are restricted to the cliffs in the eastern part of the property and ridge tops further to the west. Four streams drain the property, two of which are forks of Shamrock Creek. During the work program only the forks of Shamrock Creek contained flowing water. All four streams drain directly into the Yukon River.

### **REGIONAL GEOLOGY**

The Shamrock property lies within the Yukon Tanana Terrane (YTT) approximately 100 km southwest of the Tintina Fault (Figure 3). The YTT comprises a variety of Late Devonian to Early Mississippian metavolcanic and metasedimentary rocks that represent both arc and back-arc environments (Colpron and Nelson., 2006; Piercey et al., 2006).

In 2005, Gordey and Ryan published a compilation map that included the Shamrock property area. Figure 4 illustrates this mapping while Table I below provides a brief summary of the main lithologies.

**Table I - Regional Lithologies (After Gordey and Ryan, 2005)**

Unit	Period	Description
Er	Tertiary	<b>Porphyry:</b> smokey quartz and potassium feldspar phyrlic rhyolite to rhyodacite stocks and dykes.
Kg	Middle Cretaceous	<b>Granite-granodiorite:</b> pink to grey, locally porphyritic syenogranite to monzogranite plutons and dykes.
EJgd	Early Jurassic	<b>Granodiorite:</b> chlorite-altered hornblende and biotite-bearing granodiorite, monzogranite, quartz monzonite and quartz monzodiorite.
mPums and mPum	Middle to Late Paleozoic	<b>Ultramafic-gabbro:</b> foliated to unfoliated amphibolite facies metagabbro, metapyroxenite, serpentinite and talc-siderite schist.
DMps	Devonian to Mississippian	<b>Quartz-mica schist:</b> undivided metasedimentary rocks dominated by metapsammite, semipelite and metapelite; commonly quartz-garnet-biotite-muscovite schist.
DMogt		<b>Orthogneiss:</b> intermediate to mafic orthogneiss, generally grey, banded to layered, commonly veined and interlayered with amphibolite schist and gneiss.
DMc		<b>Marble:</b> marble associated with calc-silicate schist.
DMA		<b>Amphibolite:</b> amphibolite schist and gneiss; metabasite derived from mafic to intermediate volcanic or volcanoclastic rocks. Locally interlayered with orthogneiss.

FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

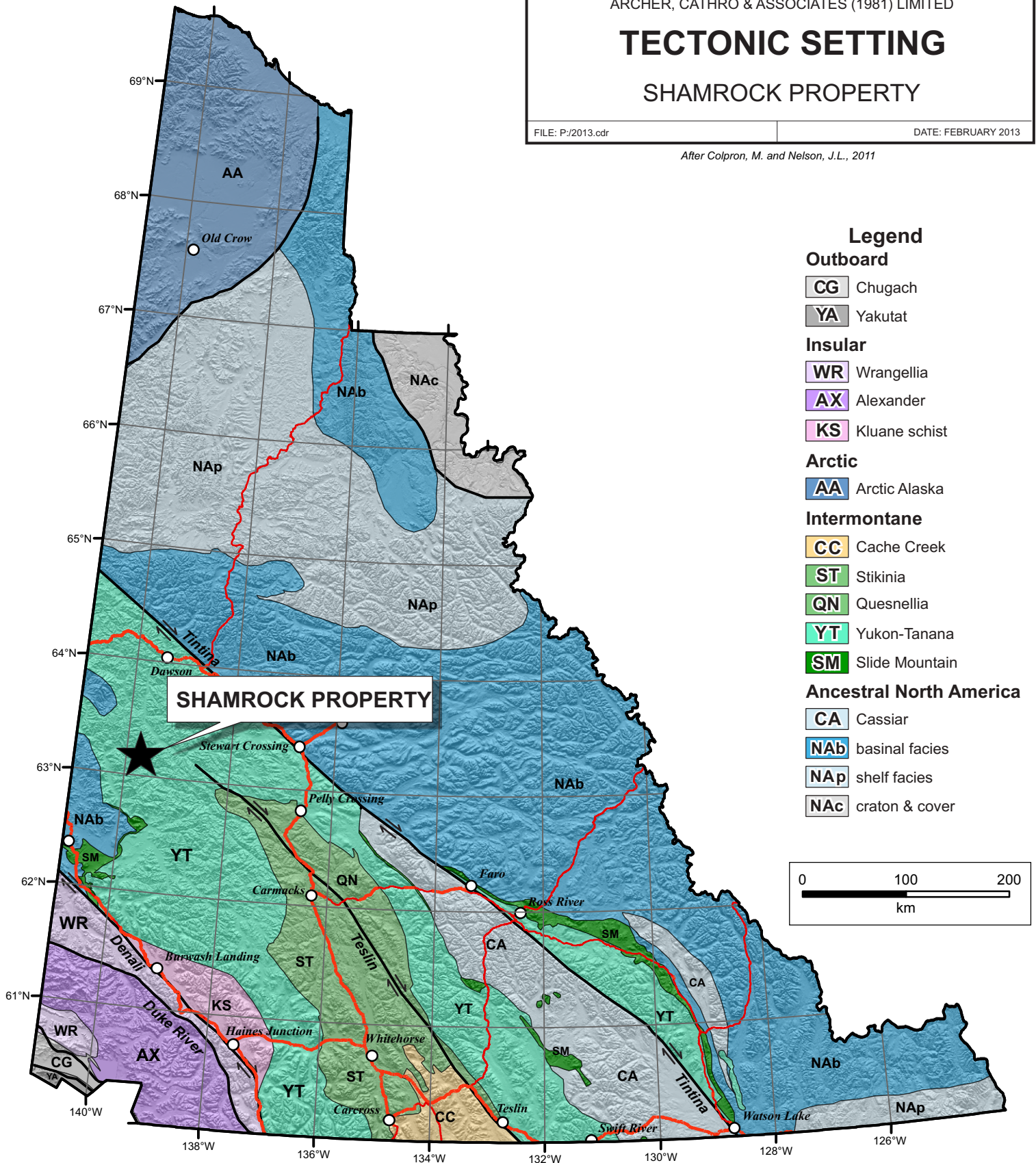
# TECTONIC SETTING

## SHAMROCK PROPERTY

FILE: P:/2013.cdr

DATE: FEBRUARY 2013

After Colpron, M. and Nelson, J.L., 2011

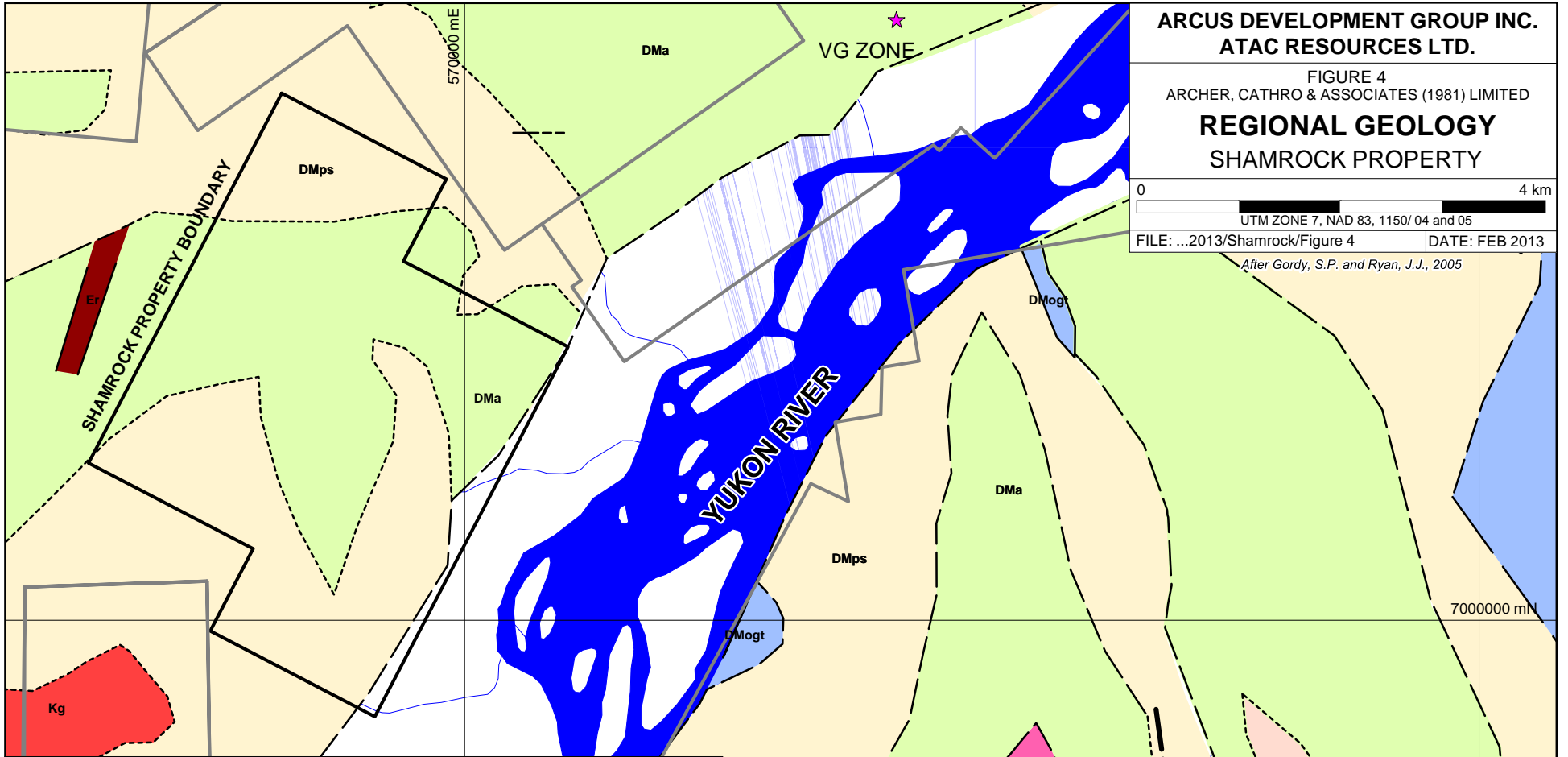


**ARCUS DEVELOPMENT GROUP INC.  
ATAC RESOURCES LTD.**

FIGURE 4  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**REGIONAL GEOLOGY**  
SHAMROCK PROPERTY

0 4 km  
UTM ZONE 7, NAD 83, 1150/ 04 and 05  
FILE: ...2013/Shamrock/Figure 4 DATE: FEB 2013

*After Gordy, S.P. and Ryan, J.J., 2005*



<b>Tertiary</b>		<b>Devonian to Mississippian</b>	
Er	Porphyry	DMps	Quartz-mica schist
Kg	Granite - Granodiorite	DMogt	Orthogneiss
EJgd	Granodiorite	DMa	Amphibolite
mPum	Ultramafic - Gabbro	DMc	Marble
mPums	Serpentinite		
		Assumed contact	-----
		Approximate contact	- - - - -
		Fault	—————

## **PROPERTY GEOLOGY**

No detailed geological mapping has been done on the Shamrock property. Based on the map published by Gordey and Ryan (2005), the property is underlain by two packages of Devonian to Mississippian age rocks – amphibolite (DMA) and quartz-mica schist (DMps).

A large, irregularly shaped package of amphibolite (DMA) comprising quartz-feldspar-biotite-hornblende-chlorite schist to gneiss underlies the central part of the property. The amphibolite is flanked by metasiliciclastic rocks (DMps) composed of micaceous quartzite and quartz-feldspar-biotite schist to gneiss. All geological contacts are inferred, because of the limited exposure.

## **MINERALIZATION**

No mineral occurrences or showings have been discovered on the Shamrock property during the brief 2009 and 2012 exploration programs; however, two significant discoveries have been identified nearby within the same geological units that are present on the property. The first discovery was the Golden Saddle Zone on the White Gold property (Kinross) and the second was the VG Zone on the QC property (Comstock Metals Ltd.).

The Golden Saddle Zone lies nine kilometres southeast of the Shamrock property and it is the main ore body comprising the White Gold Deposit. The deposit contains multiple styles of mineralization; however, most of the gold is hosted in quartz-albite-carbonate breccias with minor disseminated pyrite. A NI 43-101 compliant measured and indicated resource has been calculated with 9,797,000 tonnes containing 1,005,000 ounces of gold at an average grade of 3.19 g/t (Kinross, 2013).

Comstock's QV property is located immediately east-northeast of the Shamrock property (Figure 2). In 2012, Comstock performed a successful program comprising geochemical sampling, Can-Dig trenching and diamond drilling. Geochemical sampling identified four primary targets with significant gold-in-soil values up to 1277 ppb associated with moderately to strongly anomalous values for arsenic, bismuth, molybdenum and zinc. The VG Zone lies about five kilometres east-northeast of the Shamrock property and hosts disseminated and fracture-controlled mineralization (pyrite and visible gold) in intensely silicified and brecciated quartz veins and stockwork within quartz-sericite-carbonate altered gneiss. The VG Zone trends approximately 075° and dip 30° north (Figure 4). The best trenching results were: 16.28 g/t gold and 47 g/t silver over 0.5 m; 3.31 g/t gold over 95 m; and, 0.33 g/t gold over 85 m, while the best drill hole result was 2.34 g/t gold over 89.95 m including 9.98 g/t gold over 3.35 m (Paulter, 2012).

## **SOIL GEOCHEMISTRY**

A total of 225 soil samples were collected at 50 m spacing along all major ridges and spurs on the Shamrock property. All soil samples were collected using hand-held augers from as deep in the soil profile as ground conditions allowed, which was typically between 35 and 75 cm depth. Samples were placed into individually pre-numbered Kraft paper bags. Sample sites are marked by aluminum tags inscribed with the sample numbers and affixed to 0.5 m wooden lath that were

driven into the ground. All soil sample locations were recorded using hand-held GPS units. The soil samples were sent to ALS Minerals laboratory in Whitehorse, where they were dried, screened to -180 microns, and then sent to ALS Minerals laboratory in North Vancouver, where they were analyzed for 34 elements using a nitric acid-aqua regia digestion and ICP analysis (ME-ICP41). An additional 30 g charge was further analysed for gold by fire assay with inductively coupled plasma-atomic emissions spectroscopy finish (Au-ICP21). Certificates of Analysis are provided in Appendix II.

The location of all soil samples collected on the property to date are illustrated on Figure 5, while thematic maps for gold, arsenic and zinc are shown on Figures 6, 7 and 8, respectively.

The northern corner of the property returned the strongest soil geochemical response, with values up to 32 ppb gold, 242 ppm arsenic and 452 ppm zinc. There are also a few slightly elevated (up to 4 ppm) antimony and molybdenum values in this area. Analyses for bismuth and other elements returned near background values. The geochemical anomalous area is underlain by DMps and DMA.

Samples taken elsewhere on the property yielded relatively low values for all metals.

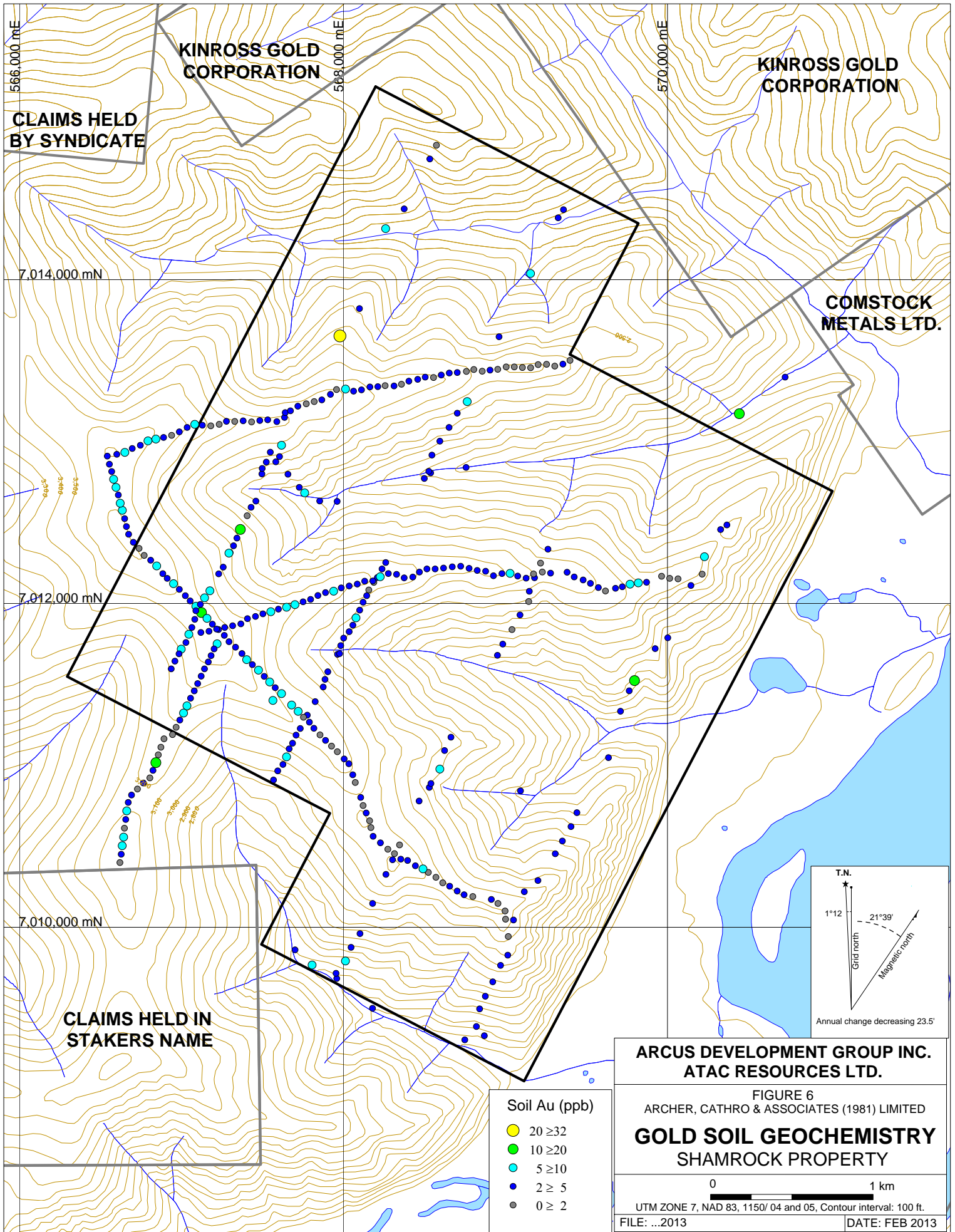
### **DISCUSSION AND CONCLUSIONS**

The Shamrock property is favourably situated within the same lithological package that hosts significant gold mineralization at the nearby White Gold and QV properties. However, exploration to date on the Shamrock property has not identified any mineralization or substantial areas of strong soil geochemical response.

The northern part of the Shamrock property appears most prospective for mineralization based on widely spaced soil geochemical sampling. No high priority follow up work is recommended for the property at this time, but future work may be warranted pending the following situations:

- 1) Comstock continues to delineate its shallowly dipping mineralized horizon – further emphasising the potential for mineral occurrences within DMA and DMps rocks;
- 2) new geochemical surveys performed by Comstock or Kinross identify significant values on their claims immediately northeast of the Shamrock property – once again drawing attention to the area; or,
- 3) a team of geological mappers and prospectors who are very familiar with other mineral prospects in the area is able to dedicate time to fully evaluate the property's potential.

If any of the above scenarios transpire, additional work is recommended at the Shamrock property.



566,000 mE      568,000 mE      570,000 mE

**KINROSS GOLD CORPORATION**      **KINROSS GOLD CORPORATION**

**CLAIMS HELD BY SYNDICATE**

7,014,000 mN

**COMSTOCK METALS LTD.**

7,012,000 mN

7,010,000 mN

**CLAIMS HELD IN STAKERS NAME**

- Soil Au (ppb)**
- 20 ≥ 32
  - 10 ≥ 20
  - 5 ≥ 10
  - 2 ≥ 5
  - 0 ≥ 2

**ARCUS DEVELOPMENT GROUP INC.  
ATAC RESOURCES LTD.**

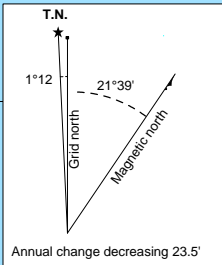
FIGURE 6  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

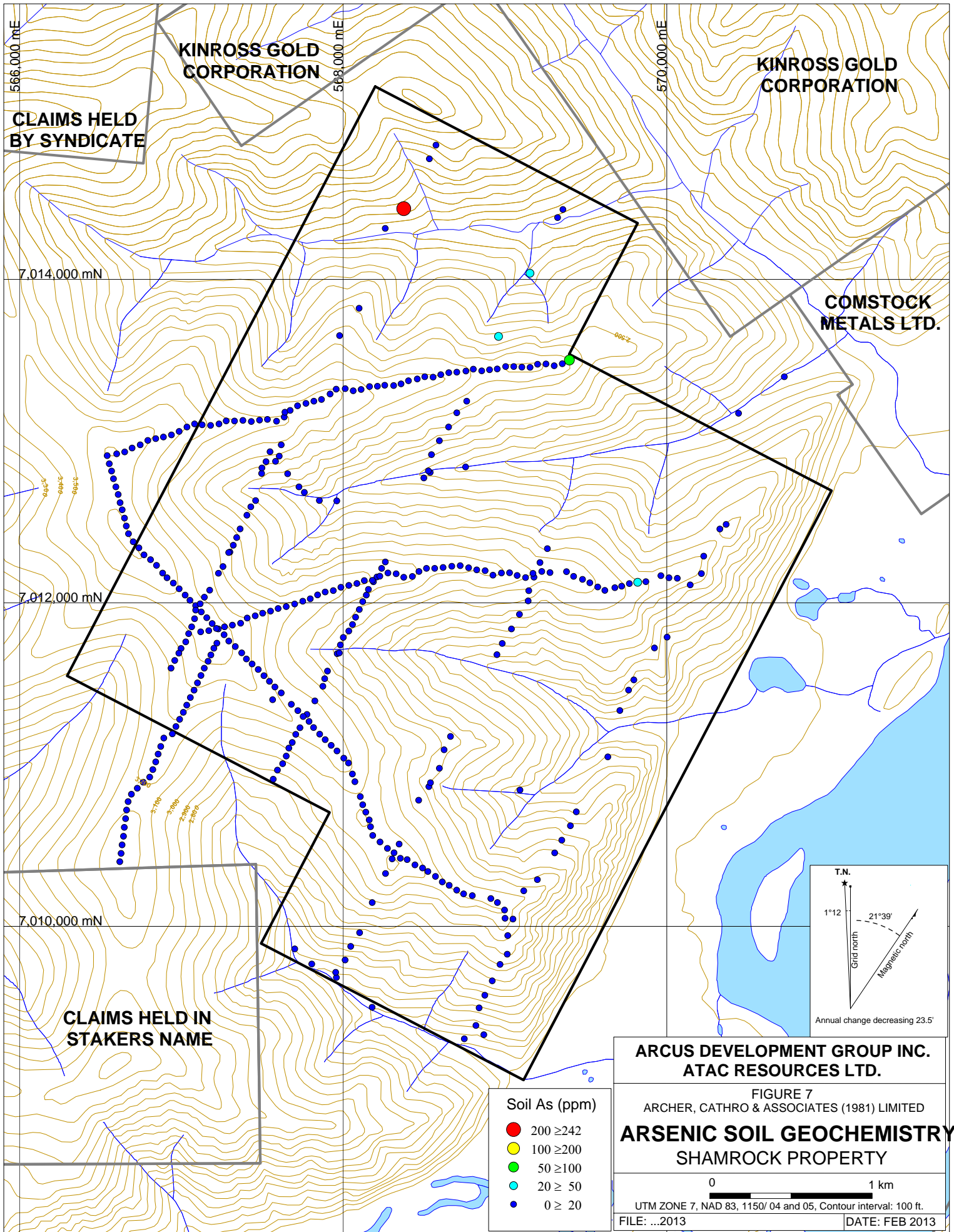
**GOLD SOIL GEOCHEMISTRY  
SHAMROCK PROPERTY**

0      1 km

UTM ZONE 7, NAD 83, 1150/ 04 and 05, Contour interval: 100 ft.

FILE: ...2013      DATE: FEB 2013





566,000 mE  
 CLAIMS HELD BY SYNDICATE

KINROSS GOLD CORPORATION

KINROSS GOLD CORPORATION

COMSTOCK METALS LTD.

7,014,000 mN

7,012,000 mN

7,010,000 mN

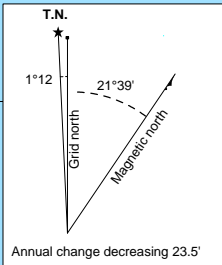
CLAIMS HELD IN STAKERS NAME

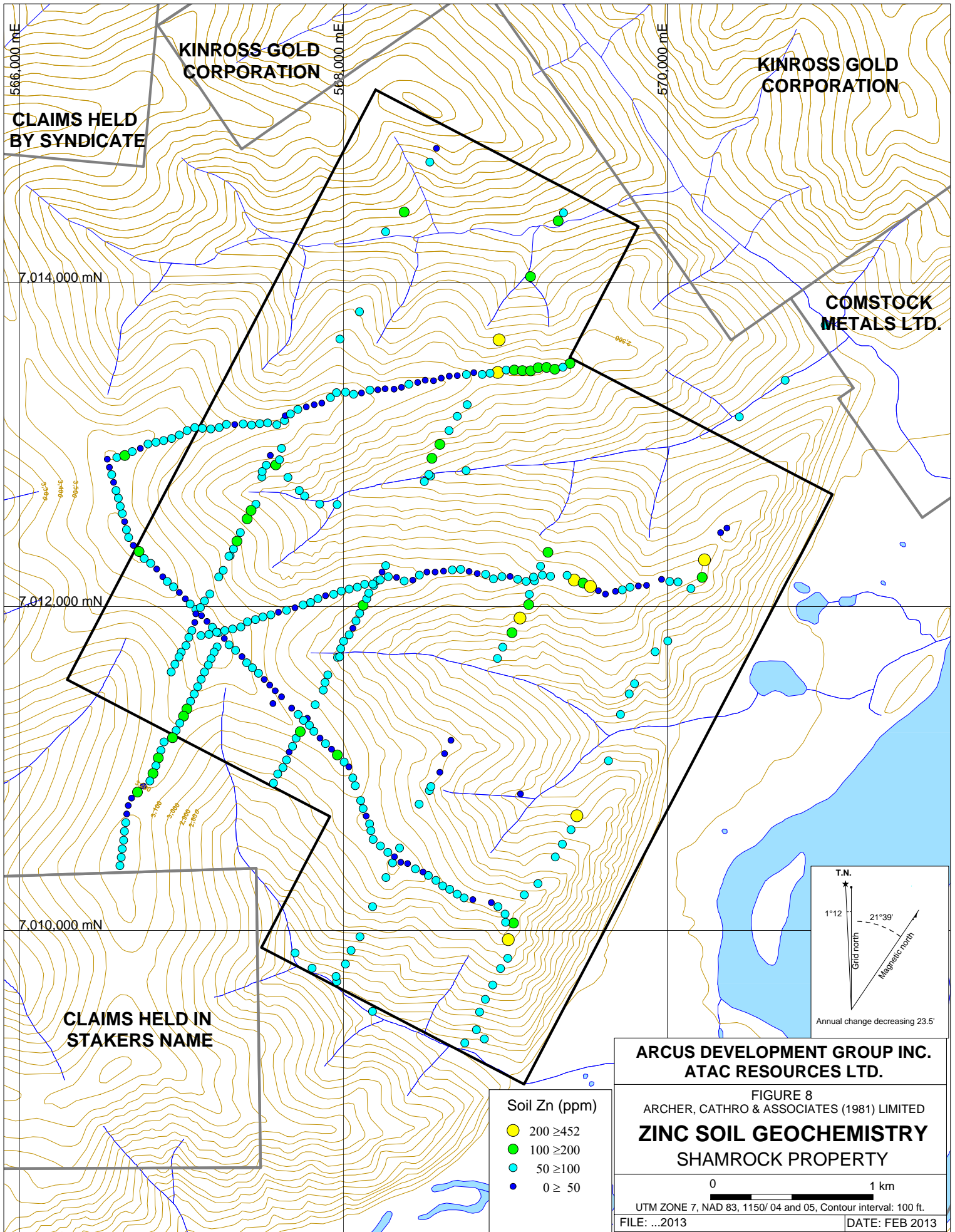
- Soil As (ppm)
- 200 ≥ 242
  - 100 ≥ 200
  - 50 ≥ 100
  - 20 ≥ 50
  - 0 ≥ 20

ARCUS DEVELOPMENT GROUP INC.  
 ATAC RESOURCES LTD.

FIGURE 7  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**ARSENIC SOIL GEOCHEMISTRY**  
 SHAMROCK PROPERTY

0 1 km  
 UTM ZONE 7, NAD 83, 1150/ 04 and 05, Contour interval: 100 ft.  
 FILE: ...2013 DATE: FEB 2013





Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



H. Smith, B.Sc. P.Geo.

**REFERENCES**

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2006 Paleozoic magmatism and crustal recycling along the ancient Pacific margin of North America, northern Cordillera; *in* Colpron, M. and Nelson, J.L. Eds., Paleozoic Evolution and Metallogeny of Pericratonic Terranes at the Ancient Pacific Margin of North America, Canadian and Alaskan Cordillera, Geological Association of Canada, Special Paper 45, p. 281-322.

**APPENDIX I**  
**STATEMENT OF QUALIFICATIONS**

## STATEMENT OF QUALIFICATIONS

I, Heather Burrell, geologist, with business addresses in Vancouver, British Columbia and Whitehorse, Yukon Territory and residential address in Squamish, British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia in 2006 with a B. Sc in Earth and Ocean Sciences.
2. From 2004 to present, I have been actively engaged in mineral exploration in the Yukon Territory, British Columbia and Northwest Territories.
3. I am a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia (Member Number 150000).
4. I have personally supervised the fieldwork reported herein and have interpreted all data resulting from this work.



H. Smith, B.Sc. P.Geol.

**APPENDIX II**  
**CERTIFICATES OF ANALYSIS**



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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**  
**1016- 510 W HASTINGS ST**  
**VANCOUVER BC V6B 1L8**

**Page: 1**  
**Finalized Date: 23- SEP- 2012**  
**Account: F**

**CERTIFICATE WH12209422**

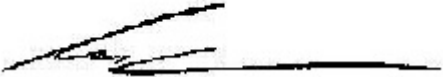
Project: SHAMROCK  
 P.O. No.:  
 This report is for 239 Soil samples submitted to our lab in Whitehorse, YT, Canada on 4- SEP- 2012.  
 The following have access to data associated with this certificate:  
 JOAN MARIACHER

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- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**  
**ATTN: JOAN MARIACHER**  
**1016- 510 W HASTINGS ST**  
**VANCOUVER BC V6B 1L8**

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.

**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: ARCHER, CATHRO AND ASSOCIATES (1981)  
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Page: 2 - A  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR		0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ47721		0.15	0.003	<0.2	1.12	6	<10	110	<0.5	<2	0.19	<0.5	2	20	16	2.30
ZZ47722		0.29	0.001	<0.2	2.83	4	<10	300	<0.5	<2	0.23	<0.5	20	25	38	4.31
ZZ47723		0.22	0.001	<0.2	2.61	5	<10	230	<0.5	<2	0.20	<0.5	18	29	36	3.78
ZZ47724		0.37	0.002	<0.2	1.86	4	<10	290	<0.5	3	0.28	<0.5	13	22	39	2.68
ZZ47725		0.25	0.005	<0.2	1.13	5	<10	110	<0.5	<2	0.12	<0.5	3	21	17	1.84
ZZ47726		0.25	0.004	<0.2	2.06	7	<10	210	<0.5	2	0.20	<0.5	9	72	23	2.97
ZZ47727		0.26	0.003	<0.2	2.80	4	<10	210	<0.5	<2	0.22	<0.5	15	44	23	2.96
ZZ47728		0.17	0.007	<0.2	2.09	4	<10	240	<0.5	<2	0.12	<0.5	8	23	84	4.58
ZZ47729		0.20	0.003	<0.2	1.07	4	<10	170	<0.5	2	0.16	<0.5	3	18	16	1.96
ZZ47730		0.29	0.004	<0.2	2.08	9	<10	210	<0.5	2	0.21	<0.5	10	32	20	3.05
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ZZ47732		0.18	0.006	0.4	2.91	9	<10	410	0.8	2	0.23	<0.5	10	41	71	4.10
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ZZ47735		0.34	0.002	<0.2	1.95	5	<10	220	0.5	<2	0.33	<0.5	10	27	52	3.15
ZZ47736		0.38	0.003	<0.2	2.04	10	<10	170	<0.5	2	0.27	<0.5	9	32	25	2.88
ZZ47737		0.48	0.002	<0.2	2.08	7	<10	190	<0.5	<2	0.20	<0.5	11	31	29	2.63
ZZ47738		0.32	0.002	<0.2	2.02	12	<10	240	<0.5	<2	0.29	<0.5	12	34	23	2.89
ZZ47739		0.27	0.003	<0.2	2.21	9	<10	190	<0.5	<2	0.19	<0.5	10	36	25	2.97
ZZ47740		0.26	0.002	<0.2	1.24	3	<10	160	<0.5	<2	0.26	<0.5	11	22	32	2.33
ZZ47741		0.30	0.009	<0.2	1.82	6	<10	260	<0.5	<2	0.32	<0.5	12	35	31	2.91
ZZ47742		0.27	0.002	<0.2	1.95	9	<10	160	<0.5	<2	0.20	<0.5	9	35	16	3.79
ZZ47743		0.45	0.005	<0.2	2.04	8	<10	200	0.5	<2	0.25	<0.5	10	35	27	2.97
ZZ47744		0.23	0.003	<0.2	1.50	6	<10	170	<0.5	<2	0.17	<0.5	5	28	21	2.33
ZZ47745		0.26	0.005	<0.2	1.92	10	<10	240	<0.5	<2	0.23	<0.5	8	32	26	2.79
ZZ47746		0.20	0.003	<0.2	1.60	6	<10	180	<0.5	<2	0.18	<0.5	6	25	16	2.42
ZZ47747		0.19	0.005	<0.2	1.31	6	<10	170	<0.5	<2	0.24	<0.5	5	21	11	2.05
ZZ47748		0.27	0.005	<0.2	1.90	6	<10	140	0.5	<2	0.19	<0.5	8	36	18	2.59
ZZ47749		0.23	0.005	<0.2	2.17	11	<10	170	<0.5	<2	0.20	<0.5	10	39	21	3.75
ZZ47750		0.29	0.006	<0.2	2.50	12	<10	510	0.6	<2	0.21	<0.5	12	42	27	3.47
ZZ60588		0.30	0.004	<0.2	1.81	10	<10	160	<0.5	<2	0.24	<0.5	8	30	17	3.44
ZZ60589		0.29	0.002	<0.2	2.03	5	<10	230	<0.5	<2	0.29	<0.5	14	35	41	3.00
ZZ60590		0.39	0.002	<0.2	2.11	<2	<10	340	<0.5	<2	0.44	<0.5	18	39	43	2.68
ZZ60591		0.38	0.008	<0.2	1.89	4	<10	220	<0.5	<2	0.25	<0.5	9	28	26	2.94
ZZ60592		0.43	0.005	<0.2	1.91	5	<10	380	<0.5	<2	0.35	<0.5	11	28	28	3.28
ZZ60593		0.27	0.002	<0.2	1.99	4	<10	130	<0.5	<2	0.21	<0.5	12	35	20	3.70
ZZ60594		0.39	0.005	<0.2	2.04	8	<10	340	0.5	<2	0.29	<0.5	12	34	25	3.15
ZZ60595		0.30	0.005	<0.2	2.01	9	<10	140	<0.5	<2	0.14	<0.5	8	31	15	3.05
ZZ60596		0.25	0.003	<0.2	2.01	8	<10	210	<0.5	<2	0.29	<0.5	12	32	20	2.98
ZZ60597		0.27	0.004	<0.2	2.74	11	<10	180	<0.5	<2	0.15	<0.5	13	39	22	3.28



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Page: 2 - B  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
		ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ47721		10	<1	0.03	10	0.16	75	1	0.03	6	340	9	0.05	<2	1	16
ZZ47722		10	<1	1.00	10	1.66	783	<1	0.03	14	450	3	0.03	<2	2	16
ZZ47723		10	<1	0.55	<10	1.26	495	1	0.03	20	460	3	0.03	<2	2	13
ZZ47724		<10	<1	0.27	10	0.97	320	<1	0.03	17	280	3	0.02	3	2	20
ZZ47725		10	<1	0.04	10	0.23	87	1	0.03	9	310	8	0.04	<2	1	12
ZZ47726		10	<1	0.05	10	0.59	218	1	0.03	35	350	8	0.02	<2	3	16
ZZ47727		10	<1	0.13	10	1.09	301	<1	0.04	26	330	4	0.03	<2	4	19
ZZ47728		10	<1	0.34	10	0.81	272	1	0.03	7	430	5	0.03	<2	6	12
ZZ47729		10	<1	0.04	10	0.26	116	1	0.04	7	320	7	0.03	<2	1	14
ZZ47730		10	<1	0.04	10	0.51	269	1	0.03	19	320	8	0.02	<2	4	18
ZZ47731		10	<1	0.04	10	0.70	241	1	0.03	20	280	6	0.02	<2	4	18
ZZ47732		10	<1	0.09	10	0.55	360	1	0.04	19	1710	10	0.05	<2	4	20
ZZ47733		<10	<1	0.04	10	0.15	104	1	0.04	8	1090	8	0.05	<2	1	20
ZZ47734		10	<1	0.04	10	0.49	218	1	0.03	16	550	8	0.03	<2	3	20
ZZ47735		10	<1	0.24	10	0.96	374	<1	0.04	17	590	6	0.02	<2	5	22
ZZ47736		10	<1	0.05	10	0.63	200	1	0.04	19	610	8	0.03	2	4	19
ZZ47737		10	<1	0.04	10	0.63	227	1	0.01	23	170	9	<0.01	<2	3	16
ZZ47738		<10	<1	0.05	10	0.65	293	1	0.02	22	360	6	<0.01	<2	4	22
ZZ47739		10	<1	0.04	10	0.60	272	1	0.02	21	150	7	<0.01	<2	4	17
ZZ47740		10	<1	0.15	<10	0.59	469	1	0.02	9	430	4	0.01	<2	3	15
ZZ47741		<10	<1	0.23	20	0.77	317	<1	0.02	27	380	6	0.01	<2	5	22
ZZ47742		10	1	0.07	10	0.64	301	1	0.01	16	380	7	0.01	<2	4	16
ZZ47743		10	1	0.08	20	0.63	278	<1	0.02	18	300	8	0.01	<2	5	19
ZZ47744		10	<1	0.07	10	0.64	205	1	0.01	10	260	6	0.01	<2	2	14
ZZ47745		10	<1	0.04	20	0.50	203	1	0.02	17	370	8	0.01	<2	5	18
ZZ47746		10	<1	0.10	10	0.52	158	<1	0.01	11	360	8	0.01	<2	3	13
ZZ47747		10	<1	0.10	10	0.39	168	1	0.01	9	480	8	0.01	<2	2	16
ZZ47748		<10	1	0.04	10	0.60	210	<1	0.01	19	100	7	0.01	<2	4	17
ZZ47749		10	<1	0.05	10	0.60	268	1	0.02	21	300	9	0.01	<2	4	17
ZZ47750		10	<1	0.05	20	0.56	289	1	0.02	26	460	10	0.01	<2	6	17
ZZ60588		10	1	0.08	10	0.57	209	1	0.02	15	390	6	0.02	<2	3	16
ZZ60589		10	<1	0.34	10	1.04	350	<1	0.02	20	440	3	0.01	<2	3	17
ZZ60590		<10	<1	0.52	10	1.80	266	<1	0.02	15	200	<2	0.01	<2	2	42
ZZ60591		10	<1	0.18	10	0.83	240	1	0.02	12	430	5	0.02	<2	3	18
ZZ60592		10	<1	0.40	10	1.03	399	<1	0.02	14	590	4	0.01	<2	4	20
ZZ60593		10	<1	0.33	10	0.81	345	<1	0.01	22	570	7	0.01	<2	2	11
ZZ60594		10	<1	0.14	20	0.74	363	1	0.02	21	620	9	0.01	<2	5	22
ZZ60595		10	<1	0.06	10	0.48	212	1	0.01	16	310	8	0.01	<2	3	12
ZZ60596		10	<1	0.12	10	0.76	297	<1	0.02	18	660	6	0.01	<2	3	17
ZZ60597		10	<1	0.04	10	0.52	247	1	0.02	25	240	8	0.02	<2	4	14



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Page: 2 - C  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
ZZ47721		<20	0.08	<10	<10	69	<10	22
ZZ47722		<20	0.20	<10	<10	90	<10	104
ZZ47723		<20	0.18	<10	<10	79	<10	75
ZZ47724		<20	0.15	<10	<10	57	<10	50
ZZ47725		<20	0.10	<10	<10	62	<10	23
ZZ47726		<20	0.09	<10	<10	67	<10	40
ZZ47727		<20	0.11	<10	<10	58	<10	52
ZZ47728		<20	0.13	<10	<10	81	<10	54
ZZ47729		<20	0.07	<10	<10	53	<10	28
ZZ47730		<20	0.09	<10	<10	64	<10	48
ZZ47731		<20	0.12	<10	<10	73	<10	54
ZZ47732		<20	0.09	<10	<10	82	<10	75
ZZ47733		<20	0.04	<10	<10	35	<10	26
ZZ47734		<20	0.07	<10	<10	61	<10	46
ZZ47735		<20	0.15	<10	<10	68	<10	91
ZZ47736		<20	0.08	<10	<10	66	<10	57
ZZ47737		<20	0.10	<10	<10	62	<10	45
ZZ47738		<20	0.11	<10	<10	67	<10	53
ZZ47739		<20	0.11	<10	<10	69	<10	54
ZZ47740		<20	0.15	<10	<10	67	<10	46
ZZ47741		<20	0.15	<10	<10	48	<10	58
ZZ47742		<20	0.11	<10	<10	77	<10	56
ZZ47743		<20	0.12	<10	<10	61	<10	57
ZZ47744		<20	0.14	<10	<10	65	<10	43
ZZ47745		<20	0.09	<10	<10	62	<10	45
ZZ47746		<20	0.11	<10	<10	57	<10	39
ZZ47747		<20	0.08	<10	<10	56	<10	37
ZZ47748		<20	0.08	<10	<10	58	<10	44
ZZ47749		<20	0.11	<10	<10	73	<10	47
ZZ47750		<20	0.09	<10	<10	71	<10	60
ZZ60588		<20	0.12	<10	<10	78	<10	52
ZZ60589		<20	0.17	<10	<10	68	<10	65
ZZ60590		<20	0.18	<10	<10	87	<10	44
ZZ60591		<20	0.14	<10	<10	68	<10	56
ZZ60592		<20	0.17	<10	<10	64	<10	76
ZZ60593		<20	0.17	<10	<10	64	<10	69
ZZ60594		<20	0.11	<10	<10	61	<10	59
ZZ60595		<20	0.10	<10	<10	66	<10	45
ZZ60596		<20	0.13	<10	<10	68	<10	53
ZZ60597		<20	0.10	<10	<10	69	<10	44



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Page: 3 - A  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR		0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ60598		0.34	0.004	<0.2	2.08	7	<10	200	<0.5	<2	0.22	<0.5	14	29	29	2.93
ZZ60599		0.36	0.002	<0.2	2.31	5	<10	300	<0.5	<2	0.32	<0.5	15	29	25	3.27
ZZ60600		0.36	0.005	<0.2	2.81	<2	<10	730	<0.5	<2	0.45	<0.5	21	17	67	4.99
ZZ60621		0.34	0.006	<0.2	2.80	7	<10	160	<0.5	<2	0.18	<0.5	16	29	42	3.60
ZZ60622		0.23	0.003	<0.2	2.72	5	<10	100	0.7	<2	0.08	<0.5	11	48	23	3.76
ZZ60623		0.23	0.003	<0.2	1.82	7	<10	120	<0.5	<2	0.10	<0.5	11	34	24	3.04
ZZ60624		0.39	0.003	<0.2	2.71	8	<10	180	0.6	<2	0.14	<0.5	15	46	21	3.71
ZZ60625		0.21	0.002	0.2	1.63	9	<10	100	<0.5	<2	0.10	<0.5	5	26	12	2.71
ZZ60626		0.36	0.005	0.4	2.63	11	<10	200	0.6	<2	0.15	<0.5	10	39	27	3.24
ZZ60627		0.28	0.002	0.3	2.14	14	<10	150	<0.5	<2	0.12	<0.5	9	35	21	3.07
ZZ60628		0.31	0.002	0.2	2.24	6	<10	240	<0.5	<2	0.11	<0.5	8	44	35	3.04
ZZ60629		0.25	0.004	<0.2	2.35	9	<10	240	<0.5	<2	0.17	<0.5	10	51	32	3.07
ZZ60630		0.24	0.003	0.3	2.00	8	<10	170	<0.5	<2	0.15	0.6	8	33	15	2.85
ZZ60631		0.20	0.004	0.5	1.40	6	<10	180	<0.5	<2	0.16	0.8	8	24	12	2.50
ZZ60632		0.24	0.005	1.4	2.40	9	<10	220	0.5	<2	0.14	0.6	10	37	24	2.90
ZZ60633		0.26	0.003	0.4	2.54	10	<10	240	<0.5	<2	0.12	0.7	10	39	17	3.11
ZZ60634		0.37	0.003	0.3	2.15	7	<10	380	<0.5	<2	0.14	0.5	8	52	16	2.86
ZZ60635		0.21	0.002	<0.2	2.29	11	<10	290	<0.5	<2	0.17	0.5	10	38	22	3.22
ZZ60636		0.30	0.002	0.2	1.84	7	<10	300	<0.5	<2	0.20	0.6	8	31	15	2.96
ZZ60637		0.29	0.002	<0.2	2.78	6	<10	250	0.5	<2	0.28	0.5	18	39	31	3.36
ZZ60638		0.37	0.002	<0.2	2.09	3	<10	140	<0.5	<2	0.25	0.5	13	142	7	2.78
ZZ60639		0.33	0.002	<0.2	2.15	<2	<10	180	<0.5	<2	0.23	0.5	12	64	12	3.29
ZZ60640		0.24	0.002	<0.2	1.85	6	<10	170	<0.5	<2	0.14	<0.5	6	34	11	2.77
ZZ60641		0.44	0.002	<0.2	2.29	7	<10	280	<0.5	<2	0.19	0.5	12	44	22	2.94
ZZ60642		0.24	0.003	<0.2	2.33	7	<10	260	<0.5	<2	0.18	0.5	10	48	18	3.14
ZZ60643		0.22	0.003	<0.2	2.79	9	<10	490	<0.5	<2	0.26	0.5	11	28	20	3.45
ZZ60644		0.35	0.002	<0.2	1.87	6	<10	290	<0.5	<2	0.25	0.5	8	46	13	2.64
ZZ60645		0.29	0.003	<0.2	2.02	9	<10	190	<0.5	<2	0.14	0.5	9	38	13	2.68
ZZ60646		0.25	0.002	<0.2	1.62	3	<10	370	<0.5	<2	0.25	0.5	9	49	12	2.34
ZZ60647		0.30	0.003	<0.2	1.66	6	<10	330	<0.5	<2	0.29	<0.5	7	32	11	2.45
ZZ60648		0.37	0.005	<0.2	1.81	5	<10	240	<0.5	<2	0.28	<0.5	7	32	19	2.51
ZZ60649		0.18	0.003	<0.2	1.87	10	<10	360	0.6	<2	0.53	0.6	9	38	17	2.93
ZZ60650		0.23	0.003	<0.2	1.79	8	<10	430	0.5	<2	0.41	0.5	12	45	15	2.72
ZZ60673		0.32	0.007	<0.2	2.26	9	<10	200	0.7	<2	0.19	<0.5	11	39	29	3.03
ZZ60674		0.31	0.003	<0.2	2.24	8	<10	150	<0.5	<2	0.23	0.5	9	36	16	2.99
ZZ60675		0.25	0.005	<0.2	2.01	4	<10	170	<0.5	<2	0.14	0.5	10	33	28	3.02
ZZ60676		0.26	0.004	<0.2	2.06	5	<10	150	<0.5	<2	0.16	0.6	12	37	21	3.26
ZZ60677		0.33	0.004	<0.2	2.50	5	<10	240	<0.5	<2	0.24	0.7	15	44	31	3.45
ZZ60678		0.36	0.003	<0.2	2.06	5	<10	220	<0.5	<2	0.24	0.6	10	45	24	3.28
ZZ60679		0.34	0.004	<0.2	1.84	7	<10	230	<0.5	<2	0.21	0.5	8	29	19	2.91



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Page: 3 - B  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ60598		10	<1	0.05	10	0.68	225	1	0.02	18	160	4	0.01	<2	4	17
ZZ60599		10	<1	0.34	20	1.25	357	<1	0.02	15	320	3	0.01	<2	4	27
ZZ60600		10	<1	1.34	20	1.89	440	<1	0.03	8	1460	3	0.07	<2	4	18
ZZ60621		10	1	0.13	10	0.91	224	1	0.02	27	440	4	<0.01	<2	4	11
ZZ60622		10	<1	0.21	30	1.06	268	1	0.01	26	160	11	<0.01	<2	4	8
ZZ60623		10	<1	0.14	20	0.55	202	1	0.01	28	170	10	0.02	<2	3	13
ZZ60624		10	1	0.29	30	0.81	360	1	0.01	30	130	10	<0.01	<2	6	16
ZZ60625		10	<1	0.03	10	0.31	138	1	0.01	12	220	8	0.02	<2	2	9
ZZ60626		10	1	0.12	10	0.61	213	1	0.02	26	210	9	0.08	<2	4	18
ZZ60627		10	<1	0.05	10	0.58	253	1	0.01	25	290	9	0.01	<2	3	12
ZZ60628		10	<1	0.30	10	0.92	280	1	0.01	25	310	6	0.09	<2	3	14
ZZ60629		10	1	0.16	10	0.92	272	1	0.01	38	220	6	0.04	<2	4	17
ZZ60630		10	<1	0.13	10	0.58	290	<1	0.01	21	250	9	<0.01	<2	3	15
ZZ60631		10	<1	0.04	10	0.36	882	1	0.01	15	280	9	<0.01	<2	2	13
ZZ60632		10	<1	0.04	10	0.45	242	1	0.01	22	270	8	<0.01	2	3	13
ZZ60633		10	<1	0.04	10	0.47	283	1	0.01	21	220	9	0.01	2	3	14
ZZ60634		10	<1	0.04	10	0.52	205	1	0.01	20	150	8	<0.01	<2	3	13
ZZ60635		10	<1	0.06	10	0.65	353	<1	0.01	20	200	11	<0.01	<2	4	15
ZZ60636		10	<1	0.03	10	0.37	612	1	0.01	14	170	10	<0.01	2	3	17
ZZ60637		10	<1	0.25	<10	1.39	338	<1	0.02	22	120	3	<0.01	2	4	21
ZZ60638		10	<1	0.15	<10	1.53	254	<1	0.02	19	200	2	<0.01	2	4	16
ZZ60639		10	<1	0.12	<10	1.34	267	<1	0.01	15	230	4	<0.01	2	5	14
ZZ60640		10	<1	0.04	10	0.42	194	1	0.01	13	190	7	<0.01	<2	2	12
ZZ60641		10	<1	0.05	10	0.56	314	1	0.01	17	170	7	<0.01	2	4	17
ZZ60642		10	<1	0.08	10	1.09	284	<1	0.01	20	170	7	<0.01	<2	4	14
ZZ60643		10	<1	0.42	10	1.41	289	<1	0.02	13	240	5	<0.01	<2	4	18
ZZ60644		10	<1	0.05	10	0.57	218	<1	0.01	19	150	8	<0.01	<2	3	20
ZZ60645		10	<1	0.04	10	0.47	235	<1	0.01	17	220	8	<0.01	<2	3	14
ZZ60646		10	<1	0.07	10	0.75	629	<1	0.02	21	330	6	<0.01	<2	3	18
ZZ60647		10	<1	0.09	10	0.58	550	<1	0.01	17	260	6	<0.01	<2	3	19
ZZ60648		10	<1	0.16	20	0.76	288	<1	0.01	18	340	6	<0.01	<2	3	20
ZZ60649		10	<1	0.15	10	0.49	340	<1	0.01	22	520	7	<0.01	<2	5	30
ZZ60650		10	<1	0.19	10	0.55	863	1	0.02	25	400	8	<0.01	<2	4	25
ZZ60673		10	<1	0.05	20	0.55	340	<1	0.01	23	260	11	<0.01	<2	5	17
ZZ60674		10	<1	0.08	10	0.56	180	<1	0.01	20	370	8	0.01	<2	4	20
ZZ60675		10	<1	0.10	40	0.59	173	<1	0.01	25	270	8	0.01	2	3	16
ZZ60676		10	<1	0.21	20	0.70	228	<1	0.01	26	370	8	0.02	<2	3	15
ZZ60677		10	<1	0.28	20	1.01	308	<1	0.02	28	460	8	0.06	<2	4	23
ZZ60678		10	<1	0.26	20	0.84	296	<1	0.02	25	520	7	0.05	2	4	22
ZZ60679		10	<1	0.10	10	0.64	263	<1	0.01	15	260	6	<0.01	<2	4	18



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Page: 3 - C  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
ZZ60598		<20	0.13	<10	<10	61	<10	46
ZZ60599		<20	0.21	<10	<10	76	<10	61
ZZ60600		<20	0.31	<10	<10	121	<10	114
ZZ60621		<20	0.15	<10	<10	79	<10	47
ZZ60622		<20	0.12	<10	<10	66	<10	66
ZZ60623		<20	0.10	<10	<10	52	<10	55
ZZ60624		<20	0.15	<10	<10	66	<10	63
ZZ60625		<20	0.07	<10	<10	66	<10	32
ZZ60626		<20	0.09	<10	<10	65	<10	56
ZZ60627		<20	0.06	<10	<10	69	<10	58
ZZ60628		<20	0.12	<10	<10	56	<10	66
ZZ60629		<20	0.13	<10	<10	70	<10	61
ZZ60630		<20	0.10	<10	<10	73	<10	58
ZZ60631		<20	0.07	<10	<10	66	<10	77
ZZ60632		<20	0.08	<10	<10	68	<10	53
ZZ60633		<20	0.08	<10	<10	74	<10	51
ZZ60634		<20	0.09	<10	<10	71	<10	38
ZZ60635		<20	0.10	<10	<10	85	<10	63
ZZ60636		<20	0.08	<10	<10	78	<10	33
ZZ60637		<20	0.22	<10	<10	97	<10	62
ZZ60638		<20	0.21	<10	<10	79	<10	45
ZZ60639		<20	0.14	<10	<10	93	<10	49
ZZ60640		<20	0.08	<10	<10	74	<10	40
ZZ60641		<20	0.11	<10	<10	76	<10	58
ZZ60642		<20	0.12	<10	<10	85	<10	63
ZZ60643		<20	0.18	<10	<10	85	<10	48
ZZ60644		<20	0.10	<10	<10	67	<10	39
ZZ60645		<20	0.09	<10	<10	69	<10	56
ZZ60646		<20	0.10	<10	<10	60	<10	72
ZZ60647		<20	0.09	<10	<10	59	<10	56
ZZ60648		<20	0.11	<10	<10	52	<10	43
ZZ60649		<20	0.08	<10	<10	63	<10	75
ZZ60650		<20	0.09	<10	<10	61	<10	69
ZZ60673		<20	0.09	<10	<10	66	<10	54
ZZ60674		<20	0.10	<10	<10	62	<10	49
ZZ60675		<20	0.12	<10	<10	64	<10	55
ZZ60676		<20	0.15	<10	<10	68	<10	65
ZZ60677		<20	0.15	<10	<10	70	<10	75
ZZ60678		<20	0.14	<10	<10	76	<10	68
ZZ60679		<20	0.13	<10	<10	65	<10	58



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Page: 4 - A  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR		0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ60680		0.37	0.002	<0.2	2.29	2	<10	370	<0.5	<2	0.34	0.6	17	31	30	3.36
ZZ60681		0.33	0.003	<0.2	2.18	7	<10	200	<0.5	<2	0.21	0.6	12	33	24	3.39
ZZ60682		0.30	0.004	<0.2	2.39	11	<10	210	0.5	<2	0.20	0.6	13	39	25	3.36
ZZ60683		0.32	0.003	<0.2	2.11	7	<10	180	<0.5	<2	0.26	0.6	10	32	24	3.07
ZZ60684		0.27	0.004	<0.2	2.57	10	<10	160	<0.5	<2	0.17	0.6	11	39	24	3.45
ZZ60685		0.33	0.008	<0.2	2.02	11	<10	270	<0.5	<2	0.26	0.5	9	32	21	2.81
ZZ60686		0.30	0.003	0.2	2.65	11	<10	190	0.5	<2	0.17	0.7	11	41	21	3.50
ZZ60687		0.32	0.003	0.2	2.22	9	<10	210	<0.5	<2	0.14	0.6	12	38	20	3.18
ZZ60688		0.38	0.002	<0.2	3.04	7	<10	250	0.5	<2	0.24	<0.5	16	33	33	4.24
ZZ60689		0.34	0.004	<0.2	2.27	8	<10	200	<0.5	<2	0.25	<0.5	11	42	31	3.27
ZZ60690		0.33	0.003	<0.2	2.43	6	<10	460	<0.5	<2	0.27	<0.5	10	27	27	4.21
ZZ60691		0.32	0.002	<0.2	2.10	5	<10	320	<0.5	<2	0.30	<0.5	9	48	27	2.92
ZZ60692		0.34	0.003	<0.2	2.57	6	<10	350	0.6	<2	0.59	<0.5	14	46	44	3.89
ZZ60693		0.33	0.002	<0.2	2.56	<2	<10	450	<0.5	<2	0.39	<0.5	30	36	27	4.11
ZZ60694		0.39	0.008	<0.2	2.17	15	<10	220	0.7	<2	0.36	<0.5	20	38	47	3.61
ZZ60695		0.36	0.009	<0.2	3.29	4	<10	360	<0.5	<2	0.26	<0.5	13	24	56	4.28
ZZ60696		0.38	0.002	0.2	2.63	9	<10	270	<0.5	<2	0.20	<0.5	13	34	45	4.00
ZZ60697		0.31	0.001	<0.2	2.42	5	<10	110	<0.5	<2	0.22	<0.5	10	18	17	2.56
ZZ60698		0.38	0.001	<0.2	2.43	2	<10	230	<0.5	<2	3.03	<0.5	15	15	17	3.17
ZZ60699		0.39	0.001	<0.2	2.79	4	<10	400	0.5	<2	0.62	<0.5	10	26	72	3.86
ZZ60700		0.37	0.001	<0.2	2.11	3	<10	450	<0.5	<2	0.37	<0.5	10	25	38	3.07
ZZ60701		0.33	0.001	<0.2	2.95	2	<10	320	<0.5	<2	0.23	<0.5	11	105	33	3.74
ZZ60702		0.35	0.019	<0.2	2.60	10	<10	220	<0.5	<2	0.19	<0.5	10	39	35	3.43
ZZ60703		0.31	0.002	<0.2	2.55	7	<10	250	<0.5	<2	0.19	<0.5	10	34	20	3.75
ZZ60704		0.32	0.001	<0.2	2.67	2	<10	370	<0.5	<2	0.30	<0.5	19	46	26	3.77
ZZ60705		0.39	0.002	<0.2	2.04	5	<10	220	<0.5	<2	0.20	<0.5	11	22	21	2.91
ZZ60706		0.36	0.001	<0.2	2.62	8	<10	220	<0.5	<2	0.21	<0.5	10	26	24	3.69
ZZ60707		0.25	0.004	<0.2	2.88	13	<10	230	0.5	<2	0.17	<0.5	14	43	24	3.28
ZZ60708		0.32	0.002	<0.2	2.47	10	<10	210	<0.5	<2	0.21	<0.5	12	33	18	3.29
ZZ60709		0.28	0.005	<0.2	2.35	13	<10	200	<0.5	<2	0.23	<0.5	10	32	22	2.95
ZZ60710		0.31	0.004	<0.2	2.67	10	<10	200	<0.5	<2	0.18	<0.5	11	41	32	3.54
ZZ60711		0.31	<0.001	<0.2	2.62	10	<10	210	<0.5	<2	0.26	<0.5	13	37	35	4.09
ZZ60712		0.35	0.005	0.2	2.84	7	<10	400	0.7	<2	0.44	<0.5	12	60	47	3.73
ZZ60713		0.29	0.005	<0.2	1.92	8	<10	130	<0.5	<2	0.21	<0.5	9	35	17	3.72
ZZ60714		0.32	0.003	0.4	2.50	7	<10	490	<0.5	<2	0.67	<0.5	14	45	41	3.75
ZZ60715		0.31	0.001	<0.2	2.80	9	<10	260	<0.5	<2	0.26	<0.5	14	29	42	4.28
ZZ60716		0.34	0.002	<0.2	3.05	7	<10	250	<0.5	<2	0.42	<0.5	14	24	44	4.11
ZZ60717		0.30	0.003	<0.2	2.03	9	<10	440	0.5	<2	2.49	<0.5	10	53	20	2.69
ZZ60718		0.36	0.010	<0.2	2.89	2	<10	420	0.5	<2	1.08	<0.5	10	37	35	3.07
ZZ60719		0.30	0.003	<0.2	2.59	10	<10	220	<0.5	<2	0.19	<0.5	12	40	18	3.45



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Page: 4 - B  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ60680		10	<1	0.53	10	1.32	502	<1	0.02	15	830	<2	<0.01	2	3	19
ZZ60681		10	<1	0.08	10	0.66	317	<1	0.02	19	420	6	0.01	<2	4	17
ZZ60682		10	<1	0.05	10	0.58	395	1	0.02	20	320	8	0.01	<2	6	18
ZZ60683		10	<1	0.07	10	0.62	276	<1	0.02	18	550	8	0.01	<2	4	20
ZZ60684		10	<1	0.07	10	0.65	279	<1	0.01	22	300	7	0.01	3	4	15
ZZ60685		10	<1	0.05	10	0.51	231	<1	0.02	19	950	9	0.01	2	3	21
ZZ60686		10	<1	0.06	10	0.56	300	1	0.01	24	340	9	0.01	2	4	15
ZZ60687		10	<1	0.08	10	0.64	619	<1	0.01	21	330	7	0.01	<2	4	15
ZZ60688		10	<1	0.15	10	1.17	477	1	0.02	22	400	10	0.01	<2	8	17
ZZ60689		10	<1	0.21	10	0.93	298	1	0.02	25	410	5	<0.01	2	5	18
ZZ60690		10	<1	0.52	20	1.08	631	<1	0.01	13	400	3	<0.01	<2	7	18
ZZ60691		10	<1	0.24	20	1.04	390	1	0.02	21	210	3	<0.01	<2	6	22
ZZ60692		10	<1	0.46	30	1.28	442	1	0.02	20	1660	7	<0.01	<2	5	29
ZZ60693		10	<1	1.03	10	1.55	677	<1	0.03	21	990	<2	<0.01	<2	6	10
ZZ60694		10	<1	0.10	30	0.59	460	2	0.02	35	730	9	<0.01	<2	9	27
ZZ60695		10	<1	0.85	10	2.03	718	<1	0.02	12	260	7	<0.01	<2	4	31
ZZ60696		10	<1	0.40	10	1.03	456	1	0.02	19	600	6	<0.01	<2	4	15
ZZ60697		10	<1	0.09	<10	1.31	278	1	0.01	11	210	4	<0.01	<2	2	30
ZZ60698		10	<1	0.21	<10	2.92	1200	<1	0.01	11	1970	7	0.02	<2	3	45
ZZ60699		10	<1	0.24	10	1.91	616	<1	0.01	15	940	6	<0.01	<2	10	14
ZZ60700		10	<1	0.47	20	1.23	496	1	0.01	21	370	5	<0.01	2	7	16
ZZ60701		10	<1	0.51	20	1.74	497	<1	0.02	24	250	6	<0.01	<2	9	17
ZZ60702		10	<1	0.13	10	0.75	346	1	0.02	26	250	9	<0.01	<2	5	17
ZZ60703		10	<1	0.43	10	1.07	382	1	0.01	20	450	8	<0.01	<2	4	14
ZZ60704		10	<1	0.65	10	1.96	532	<1	0.02	21	280	<2	<0.01	<2	3	28
ZZ60705		10	<1	0.18	<10	0.83	239	1	0.02	13	400	5	<0.01	<2	3	16
ZZ60706		10	<1	0.22	10	0.82	479	1	0.01	13	370	8	<0.01	<2	5	17
ZZ60707		10	<1	0.04	10	0.53	294	1	0.02	24	270	8	<0.01	<2	5	18
ZZ60708		10	<1	0.05	10	0.66	324	1	0.02	18	250	7	<0.01	<2	6	18
ZZ60709		10	<1	0.04	10	0.60	248	1	0.02	18	200	6	<0.01	<2	4	21
ZZ60710		10	1	0.05	10	0.63	297	1	0.02	21	200	8	<0.01	<2	6	17
ZZ60711		10	<1	0.30	10	1.12	265	1	0.02	24	560	5	0.01	<2	7	15
ZZ60712		10	<1	0.27	10	1.26	517	2	0.02	31	480	8	<0.01	2	8	26
ZZ60713		10	<1	0.06	10	0.61	409	1	0.01	16	570	8	0.01	<2	3	16
ZZ60714		10	<1	0.25	10	1.34	741	1	0.02	26	1050	6	0.01	<2	11	28
ZZ60715		10	<1	0.39	10	1.20	472	2	0.01	18	520	5	<0.01	<2	9	16
ZZ60716		10	<1	0.79	<10	1.37	698	1	0.01	17	1390	4	<0.01	2	3	22
ZZ60717		10	<1	0.05	10	1.86	511	1	0.03	29	640	12	<0.01	2	6	56
ZZ60718		10	<1	0.59	10	3.06	443	<1	0.01	15	1970	12	<0.01	<2	8	34
ZZ60719		10	<1	0.06	10	0.64	225	1	0.02	22	360	8	<0.01	<2	4	17



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Page: 4 - C  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
ZZ60680		<20	0.22	<10	<10	75	<10	77
ZZ60681		<20	0.12	<10	<10	75	<10	65
ZZ60682		<20	0.09	<10	<10	75	<10	54
ZZ60683		<20	0.09	<10	<10	68	<10	69
ZZ60684		<20	0.11	<10	<10	75	<10	64
ZZ60685		<20	0.07	<10	<10	64	<10	52
ZZ60686		<20	0.10	<10	<10	79	<10	62
ZZ60687		<20	0.10	<10	<10	70	<10	62
ZZ60688		<20	0.17	<10	<10	104	<10	75
ZZ60689		<20	0.18	<10	<10	79	<10	63
ZZ60690		<20	0.22	<10	<10	71	<10	83
ZZ60691		<20	0.16	<10	<10	56	<10	74
ZZ60692		<20	0.20	<10	<10	90	<10	81
ZZ60693		<20	0.28	<10	<10	139	<10	66
ZZ60694		<20	0.08	<10	<10	77	<10	103
ZZ60695		<20	0.26	<10	<10	119	<10	127
ZZ60696		<20	0.20	<10	<10	95	<10	87
ZZ60697		<20	0.16	<10	<10	51	<10	96
ZZ60698		<20	0.23	<10	<10	83	<10	109
ZZ60699		<20	0.15	<10	<10	111	<10	92
ZZ60700		<20	0.18	<10	<10	59	<10	79
ZZ60701		<20	0.19	<10	<10	73	<10	109
ZZ60702		<20	0.14	<10	<10	73	<10	81
ZZ60703		<20	0.20	<10	<10	69	<10	112
ZZ60704		<20	0.28	<10	<10	99	<10	76
ZZ60705		<20	0.14	<10	<10	76	<10	45
ZZ60706		<20	0.14	<10	<10	74	<10	109
ZZ60707		<20	0.10	<10	<10	72	<10	44
ZZ60708		<20	0.09	<10	<10	74	<10	41
ZZ60709		<20	0.11	<10	<10	70	<10	42
ZZ60710		<20	0.13	<10	<10	80	<10	52
ZZ60711		<20	0.19	<10	<10	109	<10	74
ZZ60712		<20	0.14	<10	<10	90	<10	90
ZZ60713		<20	0.16	<10	<10	102	<10	51
ZZ60714		<20	0.17	<10	<10	92	<10	76
ZZ60715		<20	0.20	<10	<10	124	<10	86
ZZ60716		<20	0.25	<10	<10	87	<10	89
ZZ60717		<20	0.09	<10	<10	67	<10	54
ZZ60718		<20	0.18	<10	<10	88	<10	87
ZZ60719		<20	0.11	<10	<10	72	<10	47



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Page: 5 - A  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR		0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ60720		0.29	0.003	<0.2	3.05	12	<10	240	0.5	<2	0.21	<0.5	14	51	39	3.36
ZZ60721		0.31	0.002	<0.2	2.36	11	<10	280	<0.5	<2	0.17	<0.5	13	37	28	3.33
ZZ60722		0.33	0.002	<0.2	2.92	6	<10	360	<0.5	<2	0.42	<0.5	15	34	33	4.00
ZZ60723		0.36	<0.001	<0.2	2.97	4	<10	510	<0.5	<2	0.16	<0.5	12	36	94	5.15
ZZ60724		0.40	0.001	<0.2	2.27	6	<10	290	<0.5	<2	0.46	<0.5	18	69	43	2.63
ZZ60725		0.34	0.003	0.6	2.15	11	<10	180	<0.5	2	0.19	<0.5	10	32	23	3.11
ZZ60726		0.32	0.002	0.2	1.43	7	<10	210	<0.5	2	6.85	<0.5	5	22	16	1.35
ZZ60727		0.38	0.003	<0.2	1.05	<2	<10	90	<0.5	<2	4.71	<0.5	2	14	6	0.74
ZZ60728		0.31	0.003	<0.2	2.75	5	<10	1010	<0.5	<2	0.59	<0.5	14	24	98	4.69
ZZ60751		0.31	0.003	<0.2	2.00	7	<10	450	<0.5	<2	0.29	<0.5	13	29	27	2.97
ZZ60752		0.32	0.002	<0.2	1.75	6	<10	160	<0.5	2	0.17	<0.5	8	30	23	2.83
ZZ60753		0.31	0.007	<0.2	2.13	10	<10	1120	<0.5	3	0.18	<0.5	9	41	34	3.11
ZZ60754		0.22	0.006	<0.2	1.98	8	<10	210	<0.5	<2	0.20	<0.5	11	33	23	2.99
ZZ60755		0.33	0.003	<0.2	2.30	9	<10	130	<0.5	<2	0.17	<0.5	11	41	28	3.60
ZZ60756		0.26	0.001	<0.2	1.95	9	<10	100	<0.5	<2	0.15	<0.5	10	35	27	3.16
ZZ60757		0.28	0.004	0.2	2.14	11	<10	160	0.5	<2	0.19	<0.5	10	36	25	3.23
ZZ60758		0.31	0.003	<0.2	2.56	6	<10	150	<0.5	2	0.24	<0.5	14	62	26	3.79
ZZ60759		0.33	0.006	<0.2	2.00	7	<10	180	<0.5	<2	0.30	<0.5	11	35	39	2.92
ZZ60760		0.26	0.003	<0.2	2.87	12	<10	210	<0.5	<2	0.12	<0.5	11	42	19	3.58
ZZ60761		0.27	0.001	0.3	2.00	9	<10	120	<0.5	2	0.12	<0.5	11	36	14	3.60
ZZ60762		0.29	0.001	<0.2	2.64	8	<10	130	<0.5	<2	0.21	<0.5	15	57	21	3.94
ZZ60763		0.27	0.002	<0.2	2.69	6	<10	150	<0.5	<2	0.15	<0.5	13	51	24	3.64
ZZ60764		0.22	0.001	<0.2	2.69	13	<10	120	<0.5	<2	0.11	<0.5	9	39	11	3.50
ZZ60765		0.28	0.002	<0.2	2.43	7	<10	180	0.5	<2	0.14	<0.5	13	38	23	3.42
ZZ60766		0.25	0.001	0.3	2.84	10	<10	190	<0.5	<2	0.14	<0.5	11	38	17	3.22
ZZ60767		0.33	0.002	0.5	2.67	12	<10	220	0.6	<2	0.17	<0.5	12	37	38	3.48
ZZ60768		0.23	0.002	0.2	2.43	15	<10	180	<0.5	<2	0.12	<0.5	9	36	21	3.67
ZZ60769		0.20	0.002	0.2	1.99	11	<10	140	<0.5	2	0.13	<0.5	7	30	16	3.32
ZZ60770		0.25	0.002	<0.2	2.57	13	<10	230	<0.5	<2	0.13	<0.5	10	38	35	3.42
ZZ60771		0.23	0.003	0.7	2.97	11	<10	250	0.5	<2	0.17	<0.5	13	43	25	3.46
ZZ60772		0.27	0.002	0.4	2.94	11	<10	230	0.5	<2	0.19	<0.5	12	41	17	3.41
ZZ60773		0.25	0.001	<0.2	1.28	5	<10	110	<0.5	<2	0.16	<0.5	13	95	23	1.77
ZZ60774		0.30	0.001	<0.2	1.33	7	<10	90	<0.5	<2	0.13	<0.5	9	29	73	1.72
ZZ60775		0.27	0.002	<0.2	2.63	10	<10	170	<0.5	<2	0.15	<0.5	14	48	52	3.12
ZZ60776		0.31	0.003	0.3	2.04	10	<10	230	<0.5	<2	0.16	<0.5	9	31	67	3.02
ZZ60777		0.23	0.001	0.3	1.48	5	<10	260	<0.5	<2	0.19	<0.5	8	57	34	2.60
ZZ60778		0.33	0.005	0.3	2.60	12	<10	290	0.5	<2	0.20	<0.5	9	41	21	3.16
ZZ60779		0.31	0.004	<0.2	1.85	9	<10	290	<0.5	<2	0.33	<0.5	11	29	45	2.96
ZZ60780		0.30	0.002	<0.2	2.76	9	<10	190	<0.5	<2	0.15	<0.5	10	54	12	3.50
ZZ60781		0.29	0.002	<0.2	2.29	7	<10	140	<0.5	<2	0.14	<0.5	11	38	30	3.73



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Page: 5 - B  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ60720		10	<1	0.08	10	0.69	285	1	0.02	30	370	7	0.01	<2	4	17
ZZ60721		10	<1	0.12	10	0.58	557	1	0.02	23	560	8	<0.01	<2	4	16
ZZ60722		10	<1	0.55	<10	1.68	412	<1	0.02	23	1550	3	<0.01	<2	3	22
ZZ60723		10	<1	0.89	<10	1.46	466	3	0.01	21	660	2	0.01	<2	4	16
ZZ60724		10	<1	0.32	<10	1.57	225	1	0.02	32	830	4	<0.01	<2	3	17
ZZ60725		10	<1	0.21	10	0.73	308	2	0.01	23	270	9	0.02	<2	4	15
ZZ60726		<10	<1	0.04	10	4.11	322	1	0.01	10	410	11	<0.01	2	4	107
ZZ60727		<10	<1	0.02	10	2.55	214	1	0.01	6	420	9	<0.01	<2	2	79
ZZ60728		10	<1	1.05	10	1.47	571	1	0.02	14	1420	3	0.01	<2	10	24
ZZ60751		<10	<1	0.25	10	0.90	420	1	0.02	19	400	5	0.01	3	4	21
ZZ60752		10	<1	0.19	10	0.71	242	1	0.01	15	400	9	0.01	<2	3	14
ZZ60753		10	<1	0.10	20	0.70	307	2	0.02	21	360	10	0.07	<2	5	25
ZZ60754		<10	<1	0.13	10	0.62	303	2	0.01	23	390	8	0.02	<2	4	18
ZZ60755		10	<1	0.17	20	0.74	243	1	0.01	28	340	9	0.01	2	4	14
ZZ60756		10	<1	0.07	10	0.50	226	2	0.02	24	410	8	0.01	<2	3	14
ZZ60757		10	<1	0.08	10	0.54	350	2	0.02	21	930	10	0.01	<2	4	17
ZZ60758		10	<1	0.38	20	1.13	283	2	0.01	47	580	9	0.03	<2	4	20
ZZ60759		<10	1	0.13	20	0.71	229	1	0.02	33	590	8	0.06	<2	4	26
ZZ60760		10	<1	0.05	10	0.53	308	2	0.01	26	270	13	0.01	3	3	14
ZZ60761		10	<1	0.04	10	0.37	651	2	0.02	14	460	11	0.02	<2	3	10
ZZ60762		10	<1	0.17	10	1.16	344	2	0.01	36	490	9	0.01	<2	3	17
ZZ60763		10	<1	0.44	10	1.10	314	2	0.01	34	300	9	0.01	<2	3	15
ZZ60764		10	<1	0.05	10	0.40	239	2	0.01	17	370	11	0.01	3	3	10
ZZ60765		10	<1	0.17	20	0.64	271	1	0.02	29	330	10	0.03	<2	3	17
ZZ60766		10	<1	0.04	10	0.49	282	2	0.01	22	310	10	0.01	3	3	16
ZZ60767		10	1	0.06	20	0.70	322	2	0.02	37	230	10	0.03	<2	5	26
ZZ60768		10	1	0.06	10	0.47	309	3	0.01	23	470	10	0.04	<2	3	16
ZZ60769		10	<1	0.04	10	0.39	368	2	0.01	21	370	11	0.01	2	3	12
ZZ60770		10	<1	0.08	10	0.58	426	3	0.01	23	320	10	0.05	<2	4	16
ZZ60771		10	<1	0.08	10	0.54	243	2	0.02	27	380	10	0.03	2	4	19
ZZ60772		10	1	0.04	10	0.47	296	2	0.01	29	340	12	0.01	2	3	17
ZZ60773		<10	<1	0.05	<10	0.70	144	4	0.01	137	250	5	0.01	<2	2	11
ZZ60774		<10	<1	0.03	<10	0.31	106	1	0.01	27	150	4	0.01	3	2	9
ZZ60775		10	<1	0.04	<10	0.61	197	2	0.01	30	220	7	0.01	<2	3	13
ZZ60776		10	<1	0.06	10	0.58	213	2	0.01	21	340	7	0.01	2	3	15
ZZ60777		10	<1	0.13	10	0.72	257	2	0.02	32	530	10	0.02	<2	3	16
ZZ60778		10	1	0.04	10	0.49	173	1	0.02	22	220	18	0.01	3	4	19
ZZ60779		<10	<1	0.08	10	0.74	264	1	0.02	20	460	8	0.01	<2	4	24
ZZ60780		10	1	0.15	10	1.07	238	2	0.01	17	260	10	0.01	<2	3	13
ZZ60781		10	<1	0.19	<10	1.18	262	1	0.01	22	140	6	0.01	2	3	13



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Page: 5 - C  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
ZZ60720		<20	0.14	<10	<10	79	<10	50
ZZ60721		<20	0.11	<10	<10	77	<10	50
ZZ60722		<20	0.24	<10	<10	107	<10	86
ZZ60723		<20	0.32	<10	<10	136	<10	78
ZZ60724		<20	0.19	<10	<10	76	<10	41
ZZ60725		<20	0.13	<10	<10	62	<10	76
ZZ60726		<20	0.07	<10	<10	34	<10	35
ZZ60727		<20	0.04	<10	<10	21	<10	21
ZZ60728		<20	0.27	<10	<10	154	<10	98
ZZ60751		<20	0.16	<10	<10	61	<10	68
ZZ60752		<20	0.15	<10	<10	62	<10	49
ZZ60753		<20	0.11	<10	<10	67	<10	55
ZZ60754		<20	0.10	<10	<10	56	<10	52
ZZ60755		<20	0.14	<10	<10	63	<10	59
ZZ60756		<20	0.10	<10	<10	69	<10	51
ZZ60757		<20	0.10	<10	<10	69	<10	57
ZZ60758		<20	0.18	<10	<10	64	<10	70
ZZ60759		<20	0.11	<10	<10	59	<10	54
ZZ60760		<20	0.10	<10	<10	77	<10	60
ZZ60761		<20	0.09	<10	<10	82	<10	71
ZZ60762		<20	0.19	<10	<10	75	<10	63
ZZ60763		<20	0.16	<10	<10	60	<10	64
ZZ60764		<20	0.09	<10	<10	80	<10	45
ZZ60765		<20	0.12	<10	<10	60	<10	60
ZZ60766		<20	0.09	<10	<10	76	<10	60
ZZ60767		<20	0.10	<10	<10	82	<10	96
ZZ60768		<20	0.09	<10	<10	83	<10	51
ZZ60769		<20	0.09	<10	<10	83	<10	68
ZZ60770		<20	0.10	<10	<10	81	<10	61
ZZ60771		<20	0.09	<10	<10	71	<10	58
ZZ60772		<20	0.09	<10	<10	83	<10	60
ZZ60773		<20	0.10	<10	<10	51	<10	26
ZZ60774		<20	0.11	<10	<10	39	<10	24
ZZ60775		<20	0.13	<10	<10	72	<10	46
ZZ60776		<20	0.12	<10	<10	83	<10	50
ZZ60777		<20	0.11	<10	<10	89	<10	60
ZZ60778		<20	0.08	<10	<10	66	<10	50
ZZ60779		<20	0.11	<10	<10	70	<10	50
ZZ60780		<20	0.15	<10	<10	86	<10	48
ZZ60781		<20	0.16	<10	<10	88	<10	81



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Page: 6 - A  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR		0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ60782		0.31	0.003	<0.2	1.35	5	<10	180	<0.5	<2	0.15	<0.5	4	22	12	1.77
ZZ60783		0.31	0.001	<0.2	2.28	5	<10	240	<0.5	<2	0.19	<0.5	14	70	12	2.66
ZZ60784		0.35	0.004	<0.2	2.08	8	<10	230	<0.5	<2	0.18	<0.5	12	38	15	2.89
ZZ60785		0.28	0.001	<0.2	1.72	5	<10	140	<0.5	<2	0.12	<0.5	7	32	11	2.37
ZZ60786		0.25	0.002	0.2	1.76	2	<10	630	<0.5	<2	0.21	<0.5	9	24	28	2.74
ZZ60787		0.27	0.002	<0.2	1.62	7	<10	220	<0.5	<2	0.14	<0.5	6	26	10	2.58
ZZ60788		0.32	0.002	<0.2	2.39	8	<10	330	0.5	<2	0.25	<0.5	8	41	13	3.57
ZZ60789		0.23	0.001	<0.2	1.35	4	<10	300	<0.5	<2	0.28	<0.5	7	21	9	2.25
ZZ60790		0.31	0.002	<0.2	1.87	6	<10	230	0.5	<2	0.17	<0.5	7	35	14	2.60
ZZ60791		0.28	0.002	<0.2	2.28	10	<10	290	<0.5	<2	0.15	<0.5	11	38	17	3.40
ZZ60792		0.28	0.002	<0.2	1.77	6	<10	230	0.6	<2	0.41	<0.5	12	43	27	2.78
ZZ60793		0.37	0.001	0.2	2.55	6	<10	270	<0.5	<2	0.23	<0.5	14	48	25	3.79
ZZ60794		0.28	0.001	<0.2	1.95	6	<10	210	<0.5	<2	0.37	<0.5	13	29	52	3.18
ZZ60795		0.30	0.001	<0.2	2.01	8	<10	230	<0.5	<2	0.27	<0.5	10	46	15	3.01
ZZ60796		0.26	0.002	0.3	1.58	7	<10	210	<0.5	<2	0.19	<0.5	13	27	19	2.62
ZZ60797		0.24	0.001	0.5	1.73	4	<10	460	<0.5	<2	0.30	2.2	14	33	32	2.66
ZZ60798		0.27	0.001	0.5	1.57	8	<10	170	<0.5	<2	0.21	<0.5	7	29	18	2.51
ZZ60799		0.28	0.001	0.2	1.60	3	<10	290	<0.5	<2	0.28	<0.5	9	32	14	2.53
ZZ60800		0.26	0.001	0.4	1.61	6	<10	360	<0.5	<2	0.29	<0.5	10	30	15	2.48
ZZ60801		0.26	0.001	<0.2	2.30	3	<10	960	<0.5	<2	0.35	<0.5	10	69	40	3.67
ZZ60802		0.27	0.002	<0.2	2.56	10	<10	180	<0.5	<2	0.14	<0.5	13	41	21	3.46
ZZ60803		0.21	0.004	<0.2	2.43	10	<10	200	<0.5	<2	0.13	<0.5	14	49	24	3.65
ZZ60804		0.18	0.001	0.2	2.22	8	<10	160	<0.5	<2	0.17	<0.5	8	33	13	3.27
ZZ60805		0.19	0.003	<0.2	2.36	11	<10	180	<0.5	<2	0.16	<0.5	11	36	13	3.37
ZZ60806		0.11	0.001	<0.2	2.14	12	<10	180	<0.5	<2	0.14	<0.5	8	36	18	3.74
ZZ60807		0.20	0.001	<0.2	2.57	9	<10	150	0.5	<2	0.16	<0.5	11	39	32	3.66
ZZ60808		0.19	0.002	0.2	2.30	11	<10	160	<0.5	<2	0.38	<0.5	10	37	16	3.23
ZZ60809		0.37	0.003	<0.2	1.91	7	<10	180	0.5	<2	0.19	<0.5	9	39	17	2.66
ZZ60810		0.15	0.002	<0.2	1.72	8	<10	240	<0.5	<2	0.20	<0.5	8	31	11	2.64
ZZ60811		0.23	0.001	<0.2	2.24	9	<10	110	0.5	<2	0.11	<0.5	11	39	18	3.30
ZZ60812		0.25	0.004	<0.2	1.26	10	<10	140	<0.5	<2	0.16	<0.5	5	26	11	2.48
ZZ60813		0.29	0.003	0.3	1.76	7	<10	180	<0.5	<2	0.11	<0.5	8	38	12	2.60
ZZ60814		0.29	<0.001	0.4	2.11	8	<10	220	<0.5	<2	0.13	<0.5	10	31	21	3.43
ZZ60815		0.25	0.003	<0.2	1.90	10	<10	330	<0.5	<2	0.20	<0.5	10	34	19	2.56
ZZ60816		0.25	0.001	0.2	2.02	9	<10	220	<0.5	<2	0.10	<0.5	8	30	19	2.98
ZZ60817		0.27	<0.001	<0.2	1.61	6	<10	270	0.5	<2	0.18	<0.5	10	30	35	3.38
ZZ60818		0.32	0.002	<0.2	2.04	9	<10	340	<0.5	<2	0.21	<0.5	9	38	20	2.89
ZZ60819		0.33	0.002	0.2	2.20	9	<10	210	<0.5	<2	0.18	<0.5	9	49	23	3.28
ZZ60820		0.22	0.001	<0.2	1.47	6	<10	170	<0.5	<2	0.15	<0.5	6	26	8	2.74
ZZ60821		0.29	0.001	<0.2	2.13	7	<10	490	<0.5	<2	0.39	<0.5	13	117	23	2.56



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Page: 6 - B  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ60782		10	<1	0.04	10	0.29	90	3	0.01	8	150	7	0.01	<2	3	13
ZZ60783		10	<1	0.30	<10	1.43	222	2	0.01	18	390	2	0.01	<2	3	12
ZZ60784		10	<1	0.06	10	0.68	187	2	0.01	19	240	6	0.02	<2	3	16
ZZ60785		10	<1	0.05	10	0.55	162	2	0.01	12	190	5	0.01	<2	2	10
ZZ60786		10	<1	0.07	<10	0.73	919	2	0.01	13	540	3	0.01	2	2	15
ZZ60787		10	<1	0.04	10	0.42	204	3	<0.01	11	160	6	0.01	2	3	13
ZZ60788		10	<1	0.30	10	0.93	290	4	0.01	23	890	5	0.10	<2	4	35
ZZ60789		10	<1	0.04	10	0.32	1045	3	0.01	10	210	7	0.01	<2	2	22
ZZ60790		10	<1	0.03	10	0.48	199	3	0.01	14	130	6	0.01	<2	5	17
ZZ60791		10	<1	0.04	10	0.50	370	3	0.01	22	270	8	0.01	<2	3	15
ZZ60792		<10	<1	0.05	10	0.71	415	2	0.01	28	310	12	0.01	<2	4	26
ZZ60793		10	<1	0.17	10	0.93	227	3	0.01	26	250	5	0.01	<2	4	15
ZZ60794		<10	<1	0.13	10	1.05	247	2	0.01	19	230	3	0.03	<2	3	27
ZZ60795		10	<1	0.24	10	0.83	317	2	0.01	24	200	7	0.01	<2	3	18
ZZ60796		10	<1	0.08	10	0.59	915	3	0.01	19	490	5	0.02	<2	2	15
ZZ60797		10	<1	0.06	10	0.59	1095	3	0.01	30	650	12	0.03	2	3	26
ZZ60798		<10	<1	0.06	10	0.50	336	3	0.01	23	220	7	0.01	<2	2	18
ZZ60799		10	<1	0.05	10	0.57	531	3	0.01	22	390	5	0.01	<2	3	21
ZZ60800		<10	<1	0.07	10	0.52	684	3	0.01	22	440	5	0.01	<2	3	21
ZZ60801		10	<1	0.74	20	1.29	377	3	0.02	27	850	3	0.24	<2	5	30
ZZ60802		10	<1	0.10	10	0.64	195	3	0.01	28	200	5	0.02	<2	4	15
ZZ60803		10	<1	0.13	10	0.80	200	3	0.01	33	190	7	0.05	<2	3	13
ZZ60804		10	<1	0.04	10	0.39	287	3	0.01	15	300	9	0.02	<2	3	16
ZZ60805		10	<1	0.06	10	0.52	262	3	0.01	20	360	8	0.02	<2	3	15
ZZ60806		10	<1	0.05	10	0.50	298	3	0.01	20	740	7	0.02	<2	3	13
ZZ60807		10	<1	0.23	20	0.77	293	3	0.01	28	410	9	0.01	<2	3	13
ZZ60808		10	1	0.09	10	0.55	344	3	0.01	23	440	9	0.01	<2	3	24
ZZ60809		10	<1	0.05	20	0.60	246	2	0.01	24	160	8	0.01	<2	4	17
ZZ60810		<10	<1	0.07	10	0.51	267	2	0.01	17	390	6	0.01	<2	3	19
ZZ60811		10	<1	0.12	10	0.62	231	3	0.01	26	260	8	0.01	<2	4	13
ZZ60812		10	<1	0.03	10	0.30	110	3	<0.01	12	220	7	0.01	<2	2	13
ZZ60813		10	<1	0.04	10	0.48	361	3	0.01	19	250	7	0.01	<2	3	11
ZZ60814		10	<1	0.05	10	0.48	264	3	0.01	24	340	8	0.02	<2	3	13
ZZ60815		10	<1	0.04	10	0.58	177	3	0.01	21	170	6	0.01	<2	4	17
ZZ60816		10	<1	0.04	10	0.47	452	4	0.01	22	270	11	0.01	<2	3	10
ZZ60817		10	<1	0.13	20	0.48	512	3	0.01	29	480	10	0.02	<2	3	15
ZZ60818		<10	<1	0.07	10	0.62	219	3	0.01	24	350	8	<0.01	<2	3	16
ZZ60819		10	<1	0.08	10	0.70	223	2	0.01	25	300	6	<0.01	<2	4	14
ZZ60820		10	<1	0.05	10	0.33	243	2	0.01	12	310	8	<0.01	<2	2	12
ZZ60821		10	<1	0.14	10	0.95	307	1	0.01	46	550	5	<0.01	<2	3	27



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Page: 6 - C  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Tl	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
ZZ60782		<20	0.08	<10	<10	52	<10	22
ZZ60783		<20	0.15	<10	<10	68	<10	42
ZZ60784		<20	0.10	<10	<10	65	<10	41
ZZ60785		<20	0.08	<10	<10	63	<10	42
ZZ60786		<20	0.13	<10	<10	70	<10	51
ZZ60787		<20	0.08	<10	<10	66	<10	33
ZZ60788		<20	0.14	<10	<10	88	<10	41
ZZ60789		<20	0.07	<10	<10	58	<10	37
ZZ60790		<20	0.08	<10	<10	60	<10	38
ZZ60791		<20	0.08	<10	<10	71	<10	48
ZZ60792		<20	0.09	<10	<10	55	<10	48
ZZ60793		<20	0.16	<10	<10	79	<10	50
ZZ60794		<20	0.13	<10	<10	69	<10	49
ZZ60795		<20	0.13	<10	<10	63	<10	62
ZZ60796		<20	0.08	<10	<10	63	<10	84
ZZ60797		<20	0.08	<10	<10	78	<10	354
ZZ60798		<20	0.08	<10	<10	61	<10	71
ZZ60799		<20	0.07	<10	<10	65	<10	101
ZZ60800		<20	0.08	<10	<10	60	<10	103
ZZ60801		<20	0.20	<10	<10	81	<10	95
ZZ60802		<20	0.11	<10	<10	64	<10	51
ZZ60803		<20	0.15	<10	<10	90	<10	56
ZZ60804		<20	0.08	<10	<10	72	<10	41
ZZ60805		<20	0.09	<10	<10	81	<10	71
ZZ60806		<20	0.07	<10	<10	72	<10	46
ZZ60807		<20	0.08	<10	<10	59	<10	113
ZZ60808		<20	0.09	<10	<10	76	<10	71
ZZ60809		<20	0.09	<10	<10	59	<10	45
ZZ60810		<20	0.07	<10	<10	61	<10	54
ZZ60811		<20	0.10	<10	<10	65	<10	67
ZZ60812		<20	0.09	<10	<10	78	<10	26
ZZ60813		<20	0.09	<10	<10	66	<10	50
ZZ60814		<20	0.09	<10	<10	77	<10	68
ZZ60815		<20	0.08	<10	<10	56	<10	37
ZZ60816		<20	0.08	<10	<10	69	<10	55
ZZ60817		<20	0.05	<10	<10	61	<10	82
ZZ60818		<20	0.09	<10	<10	61	<10	55
ZZ60819		<20	0.11	<10	<10	67	<10	55
ZZ60820		<20	0.10	<10	<10	67	<10	50
ZZ60821		<20	0.11	<10	<10	56	<10	38



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Page: 7 - A  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR		0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ60822		0.33	0.003	<0.2	1.94	9	<10	310	<0.5	<2	0.18	<0.5	8	43	15	2.76
ZZ60823		0.28	0.003	0.2	1.41	8	<10	180	<0.5	<2	0.11	<0.5	8	27	7	2.35
ZZ60824		0.22	0.002	0.2	2.27	4	<10	370	<0.5	<2	0.28	<0.5	12	32	10	3.15
ZZ60825		0.20	0.008	<0.2	1.20	3	<10	290	<0.5	<2	0.20	<0.5	7	22	7	1.99
ZZ60826		0.27	0.001	<0.2	1.76	8	<10	340	<0.5	<2	0.24	<0.5	10	37	12	2.70
ZZ60827		0.14	<0.001	<0.2	1.81	2	<10	310	<0.5	<2	0.21	<0.5	10	32	9	2.45
ZZ60828		0.15	0.001	<0.2	2.15	8	<10	200	<0.5	<2	0.32	<0.5	11	75	18	3.27
ZZ60829		0.21	0.002	0.2	1.72	9	<10	370	<0.5	<2	0.18	0.9	8	37	15	2.51
ZZ60830		0.35	0.003	0.2	2.24	9	<10	300	<0.5	<2	0.22	<0.5	10	37	13	2.90
ZZ60831		0.23	0.002	<0.2	1.89	5	<10	270	<0.5	<2	0.12	<0.5	9	28	12	2.52
ZZ60832		0.27	0.001	<0.2	1.79	10	<10	250	<0.5	<2	0.28	<0.5	8	37	15	2.61
ZZ60833		0.32	0.003	<0.2	1.95	8	<10	290	<0.5	<2	0.25	<0.5	10	36	14	2.72
ZZ60834		0.29	0.002	<0.2	2.03	8	<10	230	<0.5	<2	0.11	<0.5	8	36	16	2.72
ZZ60835		0.19	<0.001	0.2	2.30	10	<10	380	<0.5	<2	0.19	<0.5	10	37	18	3.01
ZZ60836		0.22	0.001	0.5	1.69	9	<10	460	<0.5	<2	0.32	<0.5	14	31	15	2.75
ZZ60837		0.19	0.001	0.4	1.65	5	<10	420	<0.5	<2	0.42	<0.5	11	32	12	2.63
ZZ60851		0.26	0.001	<0.2	2.09	8	<10	400	0.5	<2	0.28	<0.5	13	62	20	3.15
ZZ60852		0.29	0.001	<0.2	1.73	9	<10	220	<0.5	2	0.23	<0.5	9	190	9	2.56
ZZ60853		0.27	0.002	<0.2	1.75	7	<10	330	<0.5	<2	0.34	<0.5	10	46	15	2.64
ZZ60854		0.27	0.004	<0.2	2.29	16	<10	320	0.5	<2	0.26	<0.5	11	39	22	3.12
ZZ60855		0.27	0.003	0.5	1.82	14	<10	480	0.6	3	0.29	1.5	8	26	64	3.55
ZZ60856		0.24	0.002	0.5	1.58	6	<10	680	<0.5	<2	0.34	0.9	11	30	13	2.49
ZZ60857		0.33	0.002	0.4	2.10	7	<10	320	0.5	<2	0.37	0.8	12	41	25	2.94
ZZ60858		0.36	0.004	<0.2	2.12	6	<10	370	0.5	<2	0.68	<0.5	18	221	19	2.90
ZZ60859		0.36	<0.001	<0.2	1.63	7	<10	330	<0.5	<2	0.23	<0.5	10	33	15	2.36
ZZ60860		0.34	0.003	<0.2	1.72	7	<10	300	<0.5	<2	0.26	<0.5	9	39	14	2.56
ZZ60861		0.29	0.004	<0.2	1.90	11	<10	270	<0.5	<2	0.29	<0.5	10	38	19	2.78
ZZ60862		0.44	0.008	<0.2	2.20	14	<10	370	0.7	<2	0.38	<0.5	12	43	40	3.30
ZZ60863		0.27	0.005	0.2	1.57	34	<10	300	0.5	<2	0.59	<0.5	10	40	31	2.70
ZZ60864		0.25	0.003	<0.2	1.40	13	<10	180	<0.5	<2	0.26	<0.5	5	23	8	2.00
ZZ60865		0.12	0.001	<0.2	2.11	9	<10	180	<0.5	<2	0.16	<0.5	8	34	14	2.91
ZZ60866		0.25	0.001	<0.2	1.47	6	<10	360	<0.5	<2	0.39	<0.5	10	29	12	2.45
ZZ60867		0.22	0.001	<0.2	1.61	4	<10	350	<0.5	<2	0.36	0.6	10	29	16	2.77
ZZ60901		0.23	0.001	0.4	1.79	9	<10	380	0.6	<2	0.39	1.5	10	34	25	2.81
ZZ60902		0.22	0.001	0.4	1.59	6	<10	350	<0.5	<2	0.29	1.2	9	31	15	2.52
ZZ60903		0.27	<0.001	0.4	2.53	6	<10	280	0.6	<2	0.43	1.1	10	34	92	4.04
ZZ60904		0.27	0.001	0.3	1.55	9	<10	450	<0.5	<2	0.31	1.2	9	34	17	2.55
ZZ60905		0.29	0.002	0.4	1.29	6	<10	300	<0.5	<2	0.30	0.7	7	27	14	2.40
ZZ60906		0.25	0.001	0.4	1.65	71	<10	370	0.5	<2	0.34	0.9	10	32	30	2.84



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Page: 7 - B  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ60822		10	<1	0.04	10	0.54	231	2	0.01	20	170	7	<0.01	<2	3	17
ZZ60823		<10	<1	0.04	10	0.36	659	2	0.01	12	270	8	<0.01	<2	2	9
ZZ60824		10	<1	0.13	10	0.60	538	2	0.01	15	390	7	<0.01	<2	4	18
ZZ60825		<10	<1	0.11	<10	0.53	295	1	0.02	9	200	4	<0.01	<2	2	14
ZZ60826		<10	<1	0.07	10	0.53	717	1	0.01	19	230	7	<0.01	<2	3	19
ZZ60827		10	<1	0.06	10	0.46	663	1	0.01	17	440	6	<0.01	<2	3	16
ZZ60828		10	<1	0.23	10	1.09	310	2	0.01	44	320	5	<0.01	<2	3	18
ZZ60829		<10	<1	0.07	10	0.51	326	2	0.01	21	400	9	0.01	<2	3	16
ZZ60830		10	<1	0.03	10	0.47	310	2	0.01	17	290	8	<0.01	<2	3	19
ZZ60831		10	<1	0.05	10	0.43	853	2	0.01	16	250	10	<0.01	<2	3	11
ZZ60832		<10	<1	0.05	10	0.46	257	2	0.01	20	140	8	<0.01	<2	4	19
ZZ60833		10	<1	0.04	10	0.48	414	2	0.01	20	220	7	<0.01	<2	4	22
ZZ60834		10	<1	0.04	10	0.46	236	2	0.01	19	170	8	<0.01	<2	3	11
ZZ60835		10	<1	0.04	10	0.50	330	2	0.01	26	320	8	0.01	<2	3	18
ZZ60836		<10	<1	0.09	10	0.43	448	2	0.01	24	430	6	0.01	<2	3	22
ZZ60837		<10	<1	0.11	10	0.42	778	2	0.01	20	460	7	0.01	<2	3	27
ZZ60851		<10	<1	0.24	10	0.95	540	1	0.01	35	300	7	<0.01	<2	5	20
ZZ60852		10	<1	0.14	10	0.87	673	1	0.01	69	270	6	<0.01	<2	2	15
ZZ60853		<10	1	0.13	10	0.53	556	2	0.01	22	210	7	<0.01	<2	4	24
ZZ60854		10	<1	0.05	10	0.60	314	2	0.01	23	270	8	<0.01	<2	3	22
ZZ60855		10	<1	0.08	20	0.33	721	3	0.01	26	1050	184	0.01	<2	4	23
ZZ60856		10	<1	0.08	10	0.38	909	2	0.01	20	670	10	0.01	<2	4	26
ZZ60857		10	<1	0.10	10	0.54	533	3	0.01	38	800	14	0.01	2	5	28
ZZ60858		10	<1	0.05	10	1.92	281	1	0.02	167	480	6	<0.01	<2	6	34
ZZ60859		<10	<1	0.06	10	0.45	418	2	0.02	22	230	8	<0.01	<2	3	17
ZZ60860		<10	<1	0.05	10	0.51	236	2	0.01	37	200	7	<0.01	<2	3	20
ZZ60861		<10	<1	0.08	10	0.54	215	2	0.01	27	390	8	<0.01	<2	3	23
ZZ60862		10	<1	0.06	20	0.68	309	2	0.01	36	560	10	0.01	<2	5	30
ZZ60863		<10	<1	0.05	20	0.61	289	1	0.02	56	660	7	<0.01	2	7	46
ZZ60864		10	<1	0.05	10	0.35	126	2	0.01	11	190	8	<0.01	<2	2	19
ZZ60865		10	<1	0.07	10	0.52	203	1	0.01	17	160	8	<0.01	<2	4	15
ZZ60866		<10	<1	0.15	10	0.38	799	1	0.01	16	160	7	<0.01	<2	4	21
ZZ60867		10	<1	0.29	10	0.66	873	<1	0.01	16	510	8	0.01	<2	4	21
ZZ60901		10	<1	0.09	10	0.62	932	1	0.01	31	500	11	0.01	4	5	27
ZZ60902		<10	<1	0.06	10	0.43	1095	1	0.01	21	430	8	0.02	<2	3	24
ZZ60903		10	<1	0.85	40	1.53	721	1	0.01	24	1170	21	0.19	<2	3	47
ZZ60904		10	<1	0.09	10	0.48	696	1	0.01	26	360	8	0.05	<2	4	27
ZZ60905		<10	<1	0.08	10	0.39	430	1	0.01	12	360	12	0.07	<2	2	23
ZZ60906		10	<1	0.11	10	0.55	968	1	0.01	26	450	15	0.09	3	3	32



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
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To: ARCHER, CATHRO AND ASSOCIATES (1981)  
 LIMITED  
 1016- 510 W HASTINGS ST  
 VANCOUVER BC V6B 1L8

Page: 7 - C  
 Total # Pages: 7 (A - C)  
 Finalized Date: 23- SEP- 2012  
 Account: F

Project: SHAMROCK

**CERTIFICATE OF ANALYSIS WH12209422**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
		Th	Ti	Ti	U	V	W	Zn
		ppm	%	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2
ZZ60822		<20	0.08	<10	<10	64	<10	41
ZZ60823		<20	0.07	<10	<10	59	<10	40
ZZ60824		<20	0.09	<10	<10	68	<10	83
ZZ60825		<20	0.09	<10	<10	48	<10	36
ZZ60826		<20	0.09	<10	<10	62	<10	51
ZZ60827		<20	0.08	<10	<10	57	<10	60
ZZ60828		<20	0.17	<10	<10	81	<10	64
ZZ60829		<20	0.07	<10	<10	67	<10	97
ZZ60830		<20	0.07	<10	<10	69	<10	57
ZZ60831		<20	0.08	<10	<10	56	<10	62
ZZ60832		<20	0.07	<10	<10	57	<10	43
ZZ60833		<20	0.07	<10	<10	63	<10	52
ZZ60834		<20	0.08	<10	<10	63	<10	45
ZZ60835		<20	0.07	<10	<10	72	<10	76
ZZ60836		<20	0.07	<10	<10	64	<10	89
ZZ60837		<20	0.08	<10	<10	59	<10	60
ZZ60851		<20	0.12	<10	<10	65	<10	58
ZZ60852		<20	0.11	<10	<10	60	<10	67
ZZ60853		<20	0.09	<10	<10	57	<10	74
ZZ60854		<20	0.07	<10	<10	69	<10	57
ZZ60855		<20	0.02	<10	<10	75	<10	262
ZZ60856		<20	0.06	<10	<10	58	<10	159
ZZ60857		<20	0.07	<10	<10	83	<10	215
ZZ60858		<20	0.09	<10	<10	54	<10	48
ZZ60859		<20	0.08	<10	<10	57	<10	48
ZZ60860		<20	0.07	<10	<10	60	<10	43
ZZ60861		<20	0.07	<10	<10	59	<10	52
ZZ60862		<20	0.08	<10	<10	73	<10	79
ZZ60863		<20	0.08	<10	<10	55	<10	48
ZZ60864		<20	0.06	<10	<10	55	<10	32
ZZ60865		<20	0.08	<10	<10	66	<10	38
ZZ60866		<20	0.08	<10	<10	55	<10	51
ZZ60867		<20	0.11	<10	<10	66	<10	92
ZZ60901		<20	0.06	<10	<10	67	<10	165
ZZ60902		<20	0.07	<10	<10	64	<10	112
ZZ60903		<20	0.15	<10	<10	64	<10	134
ZZ60904		<20	0.08	<10	<10	62	<10	108
ZZ60905		<20	0.07	<10	<10	59	<10	71
ZZ60906		<20	0.07	<10	<10	61	<10	111

**APPENDIX III**  
**STATEMENT OF EXPENDITURES**

Statement of Expenditures  
Shamrock Project  
SH 1-72 Mineral Claims  
March 21, 2013

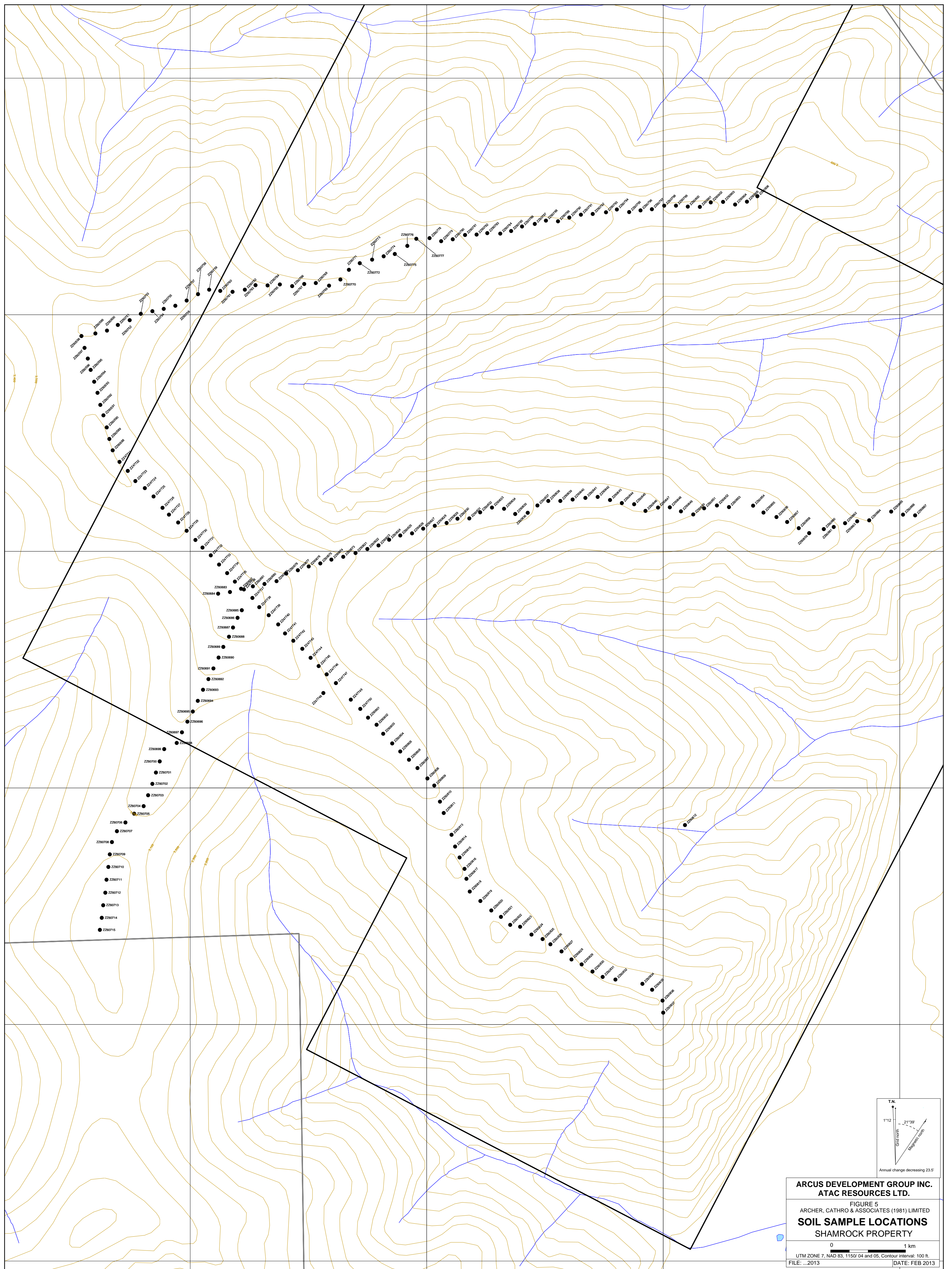
Labour

T. Epp (field assistant) Aug. 2012 – 1 day @ \$476/day	\$ 533.12
K. Punnett (field assistant) Aug. 2012 – 1 day @ \$357/day	399.84
K. Grey (field assistant) Aug. 2012 – 1 day @ \$340/day	380.80
M. Van Loon (field assistant) Aug. 2012 – 1 day @ \$340/day	380.80
D. Eaton (report preparation) Feb. 2013 – 2 hours @ \$120/hour	268.80
H. Burrell (report preparation) Feb. 2013 – 13 hours @ \$95.63/hour	1,392.37
L. Smith (report preparation) Feb. 2013 – 8 hours @ \$62/hour	<u>555.52</u>
	3,911.25

Expenses (including management fee)

Field room and board – 4 mandays @ \$185/manday	895.10
Fireweed Helicopters	3,556.22
ALS Chemex	<u>6,266.59</u>
	10,717.91

Total \$14,629.16



ARCUS DEVELOPMENT GROUP INC.  
 ATAC RESOURCES LTD.

FIGURE 5  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**SOIL SAMPLE LOCATIONS**  
 SHAMROCK PROPERTY

0 1 km  
 UTM ZONE 7, NAD 83, 1150' 04 and 05, Contour interval: 100 ft.  
 FILE: ...2013 DATE: FEB 2013

