ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: 2013 Tulsequah Project: Tulsequah Chief and Banker Exploration Drilling
TOTAL COST: $266,148.11

AUTHOR(S): B. Armstrong,
SIGNATURE(S): B. Armstrong

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): Mx-1-910 Issued 20th August 2013, Approval # 13-0100019-0816
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5516065, 5th August 2014

YEAR OF WORK: 2013

PROPERTY NAME: Tulsequah Chief

CLAIM NAME(S) (on which work was done): 590422 TCMINE; 513813; 513814; 1011222 BANKER; 513819; 1017199; 513820;

COMMODITIES SOUGHT: Au, Ag, Cu,Pb, Zn

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: 104K 002; 104K 006; 104K 007; 104K 008

MINING DIVISION: Atlin
NTS / BCGS: 104K/12
LATITUDE: 58° 44' 25"
LONGITUDE: 133° 35' 24" (at centre of work)
UTM Zone: NAD83 8N EASTING: 581,600 NORTHING: 6,512,000

OWNER(S): Chieftain Metals Inc.
MAILING ADDRESS: 2 Bloor Street West, Suite 2510, Toronto, Ontario, M4W 3E2

OPERATOR(S) [who paid for the work]: Chieftain Metals Inc.
MAILING ADDRESS: 2 Bloor Street West, Suite 2510, Toronto, Ontario, M4W 3E2

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)
Stikine Assemblage, Mt. Eaton Suite, island arc volcanic, limestone, Devono-Mississippian, Permian, Llewellyn Fault, Chief Fault, Chief Cross Fault, Mount Eaton Anticline, quartz sericite pyrite alteration, polymetallic volcanogenic massive sulphide, Kuroko type, Geophysics, Induced Polarization, Magnetics, Tulsequah Chief, Big Bull, Potlatch, Sparling, Banker, Mira Geoscience.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
8933; 9825; 11018; 17054; 17137; 19453; 20423; 20901; 23762; 23763; 23951; 24183; 24188; 27385; 27659; 31030; 33468; 33482; 34358.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for …)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core	3,540m 9 holes Size: NQ Stored at Shazah Burrow Pit NAD83 8N 579,670E; 6,6513,580 N	590422; 1011222	$249,280.08
Non-core			
RELATED TECHNICAL			
Sampling / Assaying	1245 Samples	590422; 1011222	$998.03
Petrographic			
Mineralographic			
Metallurgic			
Geophysical Processing	Induced Polarization 3d Inversion	590422; 513813; 513814; 1011222; 513819; 1017199; 513820;	$15,880
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
		TOTAL COST	$266,148.11

BC Geological Survey
Assessment Report
34969

2013 Tulsequah Project: Tulsequah Chief and Banker Exploration Drilling

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

Work performed: September 5th – October 29th 2013

On mineral claims: 590422 TCMINE
1011222 BANKER

Statement of Work Event Number: 5516065; 5th August 2014

B. D. Armstrong P.Geo

Report Submitted October 30th, 2014

SUMMARY

The Tulsequah Chief Project is a development stage polymetallic volcanogenic massive sulphide (VMS) project situated in Northwestern British Columbia 100 km south of Atlin, B.C. and 64 km northeast of Juneau, Alaska. The Tulsequah property is 100% owned by Chieftain Metals Inc. and covers 32453.4ha including 36 Mineral Claims and 25 Crown Granted Mineral claims. The property includes the past producing Tulsequah Chief and Big Bull mines, and a number of earlier stage prospects.

The Tulsequah Chief deposit was discovered in 1923 and the nearby Big Bull deposit was discovered in 1929. Cominco Ltd. acquired the properties in 1946 and operated the Tulsequah Chief mine from 1951-1957, mining 575,463 tonnes at a grade of 3.43g/t Au, 108 g/t Ag, 1.8% Cu, 1.3% Pb and 6.7% Zn.

In the 1980's Cominco re-commenced exploration on the property using the new volcanogenic hosted massive sulphide 'Kuroko' genetic model, rather than hydrothermal veins or replacement models. Cominco conducted surface mapping and geophysical surveys and entered into a joint venture with Redfern Resources Ltd, commencing diamond drilling in 1987. Seasonal drilling and surface programs continued until 1992 when Redfern purchased Comino's remaining 60% interest and assumed the site legacy environmental remediation obligations. Redfern continued to develop the property and completed a positive feasibility study by Rescan in 1995. No technical work was conducted between 1994 and 2002

Redfern re-commenced exploration in 2003, with a significant drill program in 2004 to update the 1995 resource to the current NI43-101 criteria. Subsequent resources were published by AMEC in 2005 and reserves by Wardrop in 2007 with a positive feasibility study using river access from Juneau. Redfern commenced mine development in 2008 with the construction of 19km of exploration road, an air strip and 2 camp facilities. In early 2009 Redfern notified it's creditors it would not be able to fulfill it's financial obligation and they placed it into receivership.

Chieftain Metals acquired the property from the receiver in October 2011 and initiated transfer of Redfern's permits and began consultation with the Taku River Tlingit First Nation. Chieftain executed a 31,000m drilling program in 2011 which was successful in increasing the indicated resources and published in the 2012 JDS Energy and Mining Feasibility Study.

The 2012 JDS feasibility study stated a resource 6,762,00 tonnes in the indicated category with a grade of 2.4g/t Au, 85 g/t Ag, 1.19% Cu, 1.1% Pb and 5.89% Zn; and in the inferred category of 204,000 tonnes at 1.81g/t Au, 62 g/t Ag, 0.67% Cu, 0.76% Pb and 4.02% Zn. The mineral reserve is stated as 6,447,098 tonnes at 2.30g/t Au, 81.39 g/t Ag, 1.13% Cu, 1.04% Pb and 5.59% Zn.

This report discusses Chieftains 2013 3,540m drilling campaign targeting 3d IP chargeability inversion anomalies with coincident felsic rhyolite massive sulphide host stratigraphy.

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1. INTRODUCTION

The Tulsequah Chief deposit is an advanced stage polymetallic massive sulphide deposit, located in northern British Columbia, Canada. The deposit is located on the banks of the Tulsequah River 100 kilometres south of the town of Atlin.

This reports documents Chieftain Metals Inc. 2013 Exploration Program with geophysical re-processing of legacy induced polarization data collected by Delta Geoscience for Redfern Resources in 1994; and 3,540m of Diamond Drilling on the TCMINE and BANKER claims. The 3d inversion and interpretation referenced in this report was produced by Mira Geoscience and was used for generating the drilling targets that were tested. The total work program eligible exploration expenditures was $266,148.11 (Statement of Work Event Number 5516065, August 5th, 2014).

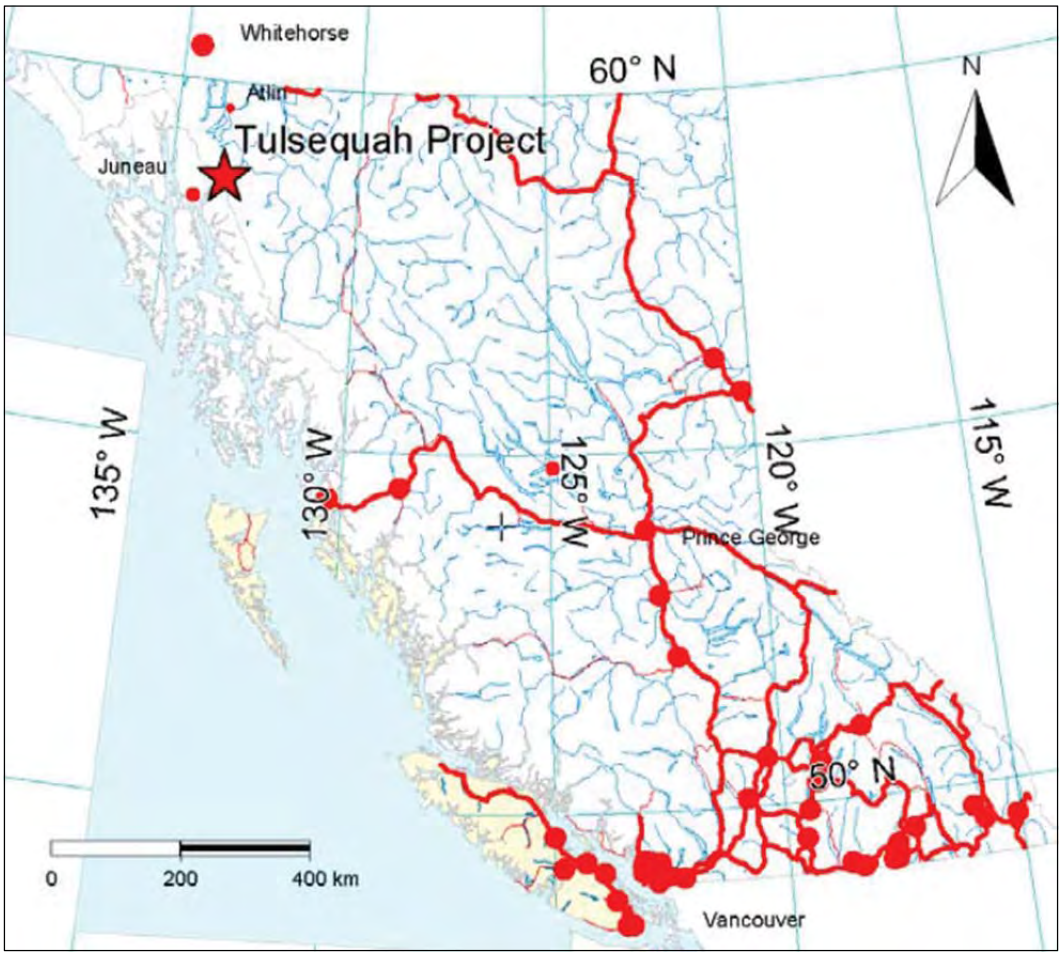
Property, history and geology information was well summarized in the recent assessment reports by Armstrong 2012a and 2012b, and the reader is referred to these reports.

Chieftain (and consultants JDS Mining and Energy) has also recently calculated new resource and reserve totals for the Tulsequah Chief Deposit during a feasibility optimization process, which will be included in a future assessment report.

2. PROPERTY DESCRIPTION AND LOCATION

The Tulsequah property is situated along the Tulsequah River in northwestern B.C. centered on latitude 58°43' N and longitude 133°35' W (NTS 104K/12 and 104K/13, Figure 2.1.) The property is accessible by air from Atlin BC 100 km to the north, from Whitehorse YT 230 km to the north, or from Juneau Alaska 64 km to the southwest.

Figure 2.1: Tulsequah Property Location



The Tulsequah Property comprises 36 mineral cell claims totaling 32453.4ha (Table 2.1 and Figure 2.2) and 25 crown granted mineral claims totaling 438.69 ha (Table 2.2) The property is owned 100% by Chieftain Metals Inc.

With acceptance of this report all mineral claims will be in good standing until the good to dates listed in Table 2.1. The July 1, 2012 revisions to the Mineral Tenure Act Regulations reset the zero anniversary of all current claims, to that date. The expenditure requirement to maintain claims in good standing is: $5 per hectare of exploration work per year to extend the good to dates for years 1-2; $10 per hectare for the years 3-4; $15 per hectare for years 5-6; and $20 per hectare for all subsequent years; upto a maximum of 10 years. Crown granted claims are maintained through the payment of annual taxes on July 2rd each year. The crown granted claims at Tulsequah have been legally surveyed. At the time of writing Mineral Claim

513828 was expropriated under the Park Act on July 6th 2012 with the establishment of the Taku River/T'akú Téix' Conservancy, compensation still pending.

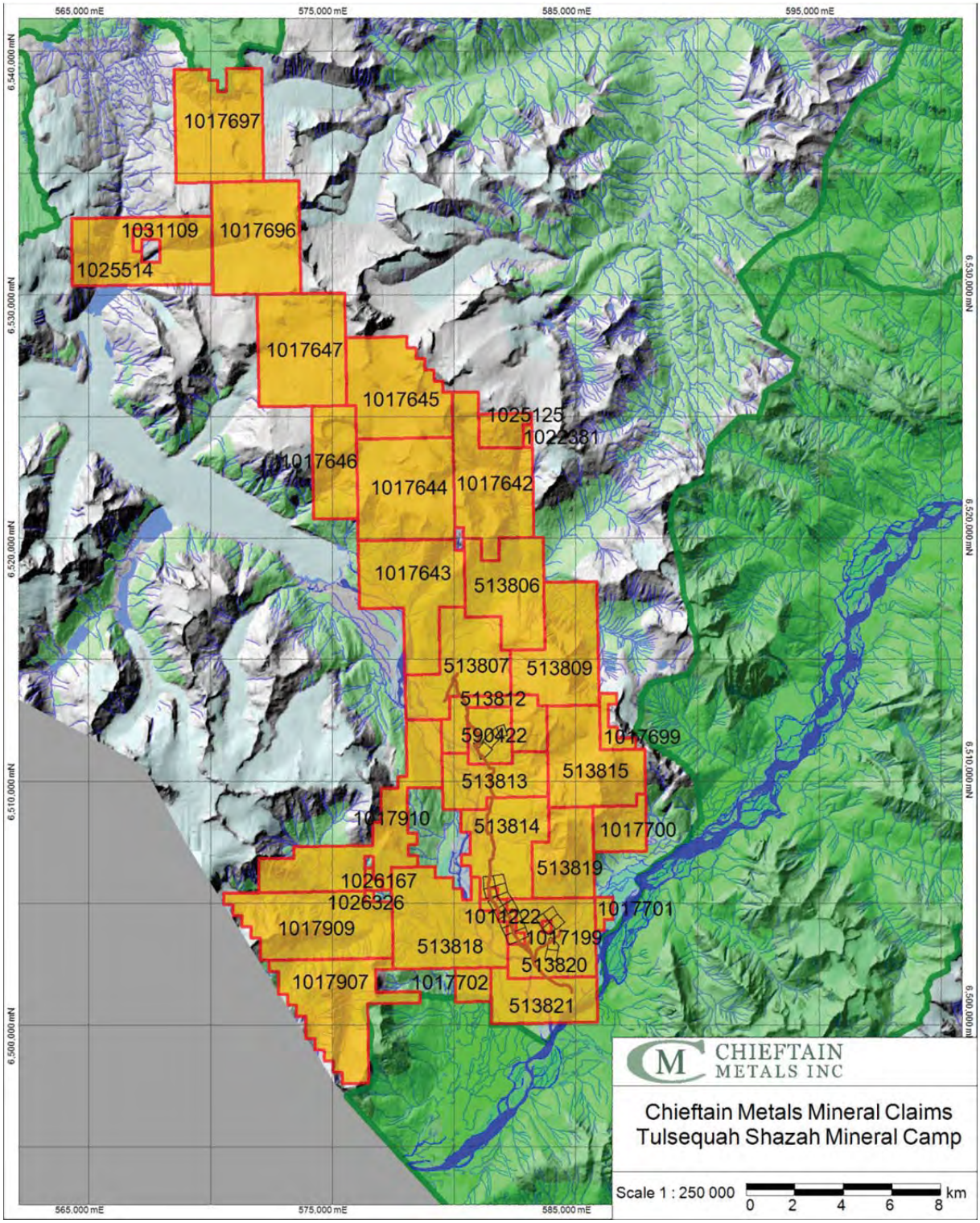
Table 2.1: Mineral Tenure Cell Claims

Tenure Number	Claim Name	Owner	Tenure Type	Tenure Sub Type	Area (ha)	Good To Date
513806		248384 (100%)	Mineral	Claim	1241.30	31-Dec-22
513807		248384 (100%)	Mineral	Claim	1242.29	31-Dec-22
513809		248384 (100%)	Mineral	Claim	1393.21	31-Dec-22
513812		248384 (100%)	Mineral	Claim	621.53	31-Dec-22
513813		248384 (100%)	Mineral	Claim	806.77	31-Dec-22
513814		248384 (100%)	Mineral	Claim	1160.49	31-Dec-22
513815		248384 (100%)	Mineral	Claim	1310.80	31-Dec-22
513818		248384 (100%)	Mineral	Claim	1615.84	31-Dec-22
513819		248384 (100%)	Mineral	Claim	841.08	31-Dec-22
513820		248384 (100%)	Mineral	Claim	1094.34	31-Dec-22
513821		248384 (100%)	Mineral	Claim	842.32	31-Dec-22
513828		248384 (100%)	Mineral	Claim	0.00	31-Dec-22
590422		248384 (100%)	Mineral	Claim	420.00	31-Dec-23
1011222	Banker	248384 (100%)	Mineral	Claim	151.48	15-Apr-17
1017199	Big Bull	248384 (100%)	Mineral	Claim	16.83	15-Apr-17
1017642	STAPLER1	248384 (100%)	Mineral	Claim	1507.93	15-Apr-17
1017643	STAPLER2	248384 (100%)	Mineral	Claim	1593.55	15-Apr-17
1017644	STAPLER3	248384 (100%)	Mineral	Claim	1658.84	15-Apr-17
1017645	STAPLER4	248384 (100%)	Mineral	Claim	1506.43	15-Apr-17
1017646		248384 (100%)	Mineral	Claim	837.54	15-Apr-17
1017647	STAPLER6	248384 (100%)	Mineral	Claim	1673.04	15-Apr-17
1017696	STAPLER7	248384 (100%)	Mineral	Claim	1670.96	15-Apr-17
1017697	STAPLER8	248384 (100%)	Mineral	Claim	1618.92	15-Apr-17
1017699		248384 (100%)	Mineral	Claim	167.99	15-Apr-17
1017700		248384 (100%)	Mineral	Claim	420.40	15-Apr-17
1017701		248384 (100%)	Mineral	Claim	84.16	15-Apr-17
1017702		248384 (100%)	Mineral	Claim	202.11	15-Apr-17
1017907	STRONG1	248384 (100%)	Mineral	Claim	1532.82	15-Apr-17
1017909	STRONG2	248384 (100%)	Mineral	Claim	1632.61	15-Apr-17
1017910	STRONG3	248384 (100%)	Mineral	Claim	1681.59	15-Apr-17
1022381	ICE FALL 2	248384 (100%)	Mineral	Claim	33.49	15-Apr-17
1025125	ICE FALL	248384 (100%)	Mineral	Claim	267.92	15-Jan-15
1025514	MAPLE LEAF	248384 (100%)	Mineral	Claim	1487.42	28-Jan-15
1026167	SOUTH SLOPE	248384 (100%)	Mineral	Claim	50.47	21-Feb-15
1026326	SB1	248384 (100%)	Mineral	Claim	16.83	27-Feb-15
1031109	ML1	248384 (100%)	Mineral	Claim	50.13	23-Sep-15
Total				**36**	**32453.43**	

Table 2.2: Crown Granted Mineral Claims

Claim Name	Record	Units	Area (Ha)	Expiry Date
Tulsequah Chief Crown Grants				
Tulsequah Bonanza	5668	1	20.9	July 3, 2014
River Fr.	5669	1	7.99	July 3, 2014
Tulsequah Chief	5670	1	20.9	July 3, 2014
Tulsequah Bald Eagle	5676	1	14.16	July 3, 2014
Tulsequah Elva Fr.	5679	1	9.7	July 3, 2014
Big Bull Crown Grants				
Big Bull	6303	1	20.65	July 3, 2014
Bull No. 1	6304	1	16.95	July 3, 2014
Bull No. 6	6305	1	17.22	July 3, 2014
Bull No. 5	6306	1	14.57	July 3, 2014
Jean	6307	1	17.02	July 3, 2014
Hugh	6308	1	20.71	July 3, 2014
Banker Crown Grants				
Vega No. 1	6155	1	20.9	July 3, 2014
Vega No. 2	6156	1	17.62	July 3, 2014
Vega No. 3	6157	1	18.97	July 3, 2014
Vega No. 4	6158	1	19.85	July 3, 2014
Vega No. 5	6159	1	14.94	July 3, 2014
Janet W. No. 1	6160	1	18.95	July 3, 2014
Janet W. No. 2	6161	1	18.75	July 3, 2014
Janet W. No. 3	6162	1	16.6	July 3, 2014
Janet W. No. 4	6163	1	20.76	July 3, 2014
Janet W. No. 5	6164	1	18.2	July 3, 2014
Janet W. No. 6	6165	1	19.02	July 3, 2014
Janet W. No. 7	6166	1	18.78	July 3, 2014
Janet W. No. 8	6167	1	17.98	July 3, 2014
Joker	6169	1	16.6	July 3, 2014
Total		**25**	**438.69**	

Figure 2.2: Chieftain Metals Mineral Tenure Claims



3. ACCESSIBILITY, LOCAL RESOURCES, INFRASTRUCTURE, CLIMATE AND PHYSIOGRAPHY

The Tulsequah Chief property is accessible only by air or water. The most direct access is by charter fixed wing or helicopter from Atlin BC or Whitehorse YT to the Shazah Camp airstrip. The Shazah gravel airstrip is 1,030m long, situated on the eastern side of the Tulsequah River just north of the confluence with Shazah Creek. The airstrip was constructed in 2008 and is utilized mostly by chartered Cessna 207 and Shorts Sky Van aircraft from Atlin, but has accommodated aircraft as large as De Havilland Buffalo.

Conventional water access using the Taku River is possible with shallow draft vessels from Juneau to Chieftain's barge landing site on the Taku River, 1.6km NE of the confluence with the Tulsequah River. This transportation method is seasonally limited May to October with higher water flows during the spring freshet in early Summer and extended rainfall periods in the Fall.

Site roads include the 19 km gravel exploration access road from the Barge Landing to the Shazah Camp via the Tulsequah Chief Mine completed in November 2008 by Redfern. A spur road 2km north of the Barge Landing continues 3km to the Big Bull mine site, the last 400m is unfinished and passable only with all-terrain vehicles.

The 32,453ha property is roughly an area of 40km north-north west and 7km east-west extending from the confluence of the Tulsequah and Taku Rivers in the south, to the Atlin Provinicial Park in the north. Topographic elevations on the property range from 50m at river level to over 1800m at the top of Mount Eaton. The Tulsequah and Taku River valleys are glacial in origin with broad flat floodplains, several kilometers wide, and moderate to steep valley walls. The north of the property is heavily glaciated with the Tulsequah River originating at the toe of the Tulsequah Glacier, immediately west of the Property. Coarse glaciofluvial sands, gravels and cobbles fill the Tulsequah valley with little vegetative cover. The Tulsequah River is noted for annual jökulhlaup glacial outburst flood events.

The climate at Tulsequah is typical of inland areas of the north coast of BC. It is characterized by high precipitation and generally moderate winter temperatures due to the influence of the Pacific ocean. The closest towns for which climate data are available are Juneau, Alaska and Atlin, BC. At the river level, snow cover typically lasts from mid-November to early May. Vegetation ranges from wet coastal rain forest with thick canopy at the lower elevations to dense sub-alpine scrub at the higher elevations. Two major ice fields; Mount Eaton and Manville, cover approximately 15% of the present property area.

4. HISTORY

The 1994 geophysical data used in this report was collected by Delta Geoscience with 73km of magnetics data in 5 grids: Tulsequah Chief Grid, Southeast Grid, Banker Grid, Big Bull Grid, and Big Bull extension Grid; 65 line km of Induced Polarization data from the Tulsequah Chief Grid, Southeast Grid, Banker Grid, Big Bull Grid; Hendrickson 1994.

The exploration history of the project was recently summarized by Armstrong 2012a and 2012b, and the current mineral resource and reserve in Doerksen et al 2012, the reader is referred to these reports.

5. GEOLOGICAL SETTING AND MINERALIZATION

Geological Setting of the Tulsequah Chief area is well understood with the regional geology mapped by Milalynuk et al 1994, and deposit geology well summarized by Armstrong 2012a and 2012b and the reader is referred to these report.

6. 2013 GEOPHYSICAL DATA REPROCESSING

Chieftain Metals retained Mira Geoscience to construct and interpret 3d magnetic and chargeability isoshell models from legacy geophysical data, collected in 1994 by Delta Geoscience for Redfern Resources. The Mira Geoscience reports are included in Appendixes IIV and IIIV.

Chargeability 3d models were produced from the 1993 Gradient Array Induced Polarization data from the Southeast, Banker and Big Bull grids. Mira Geoscience used the UBC-GIF MAG3D software with compactness algorithm to model and create 3d inversions of the chargeability physical properties.

7. 2013 DRILLING

Exploration drilling was conducted by Chieftain Metal Inc. between September 5th and October 29th, 2013. The program involved 3,540m in 9 NQ surface holes(Tables 7.1, 7.2 and Figures 7.1, 7.2). The drilling contractor was Atlas Drilling Ltd. of Kamloops, BC with support from Discovery Helicopters of Atlin, BC.

Surface collar locations and orientations were surveyed by GPS in UTM NAD83 using the reflex APS tool attached to the remnant drill hole casing. Down hole surveys were conducted as the drill hole advanced with the Reflex EZ-Shot tool, and used to verify the final Maxibor II tool survey at the conclusion of the hole. The reflex ACT-II tool was also used to provide a reference mark on the core to enable orientated core measurements.

Drill core was moved by helicopter to the core logging facility at the Shazah camp. The core is stored cross stacked on skids at the Shazah camp burrow pit, the sampled core is easily accessible in steel core racks (UTM NAD83 8N 579,670E; 6,6513,580N).

The core was logged by geologists capturing lithological, alteration and structural information and recorded directly with laptop computer into a MS Access database; the geologists also identified and marked up altered and mineralized core sections for sampling. Logged data was then imported into Gemcom's general mine planning software GEMS 6.5 for 3d visualization and evaluation of drill holes. Trained core technicians measured rock quality determinations (RQD) for all core, and sampled the core using a diamond saw following written marks placed on the core by the geologists. All drill core was also digitally photographed

Drill logs are presented in Appendix I, plan sections are presented in Appendix II, and analytical results are in Appendix III.

Table 7.1: 2013 Surface Drill Holes Collar Locations

Hole-ID	East NAD83	North NAD83	elev NAD83	X mine grid	Y mine grid	Z mine grid	Length (m)	Azimuth	Dip
TC13060	581,702.6	6,511,801.4	362.78	10668.8	15125.99	365.00	182	127.5	-45
TC13061	581,702.9	6,511,802.3	362.78	10669.09	15126.87	365.00	270	103	-55
TC13062	581,502.6	6,511,742.4	302.78	10467.49	15071.22	305.00	265	104	-45
TC13063	581,502.6	6,511,742.4	302.78	10467.49	15071.22	305.00	274	55	-50
TC13064	581,231.5	6,511,500.7	197.78	10191.23	14835.24	200.00	499	58	-48
TC13065	581,566.5	6,511,553.9	329.98	10527.41	14881.32	332.20	600	299.5	-72
TC13066	581,566.7	6,511,554.4	329.98	10527.66	14881.82	332.20	492	269.8	-61
TC13067	581,566.0	6,511,553.4	329.98	10526.91	14880.82	332.20	588	306.2	-62
BK13006	582,169.1	6,504,483.3	74.00				370	19	-45

Table 7.2: 2013 Surface drill hole significant intercepts

Hole-ID	From (m)	To (m)	Length (m)	TW (m)	Lith	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
TC13060					No Significant Results					
TC13061					No Significant Results					
TC13062	89.00	89.92	0.92	0.66	SMSX	0.53	9.00	0.05	2.51	5.51
TC13062	112.59	114.10	1.51	1.08	SMSX	0.16	14.60	0.14	0.01	12.99
inc.	112.59	113.17	0.58	0.41	MSX	0.21	18.00	0.16	0.00	22.20
TC13062	247.38	249.70	2.32	1.05	MSX	1.61	21.93	1.14	0.96	12.78
inc.	247.38	248.55	1.17	0.53	MSX	1.23	19.00	0.41	1.85	22.70
TC13063					No Significant Results					
TC13064	364.670	365.26	0.59	n/a	DSX	0.77	17.49	0.59	0.01	0.01
plus	399.17	399.62	0.45	n/a	STSX	0.22	10.00	3.28	0.01	0.03
TC13065	372.10	388.04	15.94	n/a	QSP	0.08	0.79	0.12	0.06	0.19
inc.	386.77	388.04	1.27	n/a	QSP	0.21	4.00	0.42	0.56	1.92
TC13066					No Significant Results					
TC13067					No Significant Results					
BK13006					No Significant Results					

Abbreviations: inc. - Including; TW - True Width; Lith – Lithology; MSX - Massive Sulphides; SMSX -Semi-Massive Sulphides; DSX - Disseminated Sulphides; STSX - Stringer Sulphides; QSP – Quartz Sericite Pyrite Alteration.

Figure 7.2: 2013 Tulsequah Chief Drilling

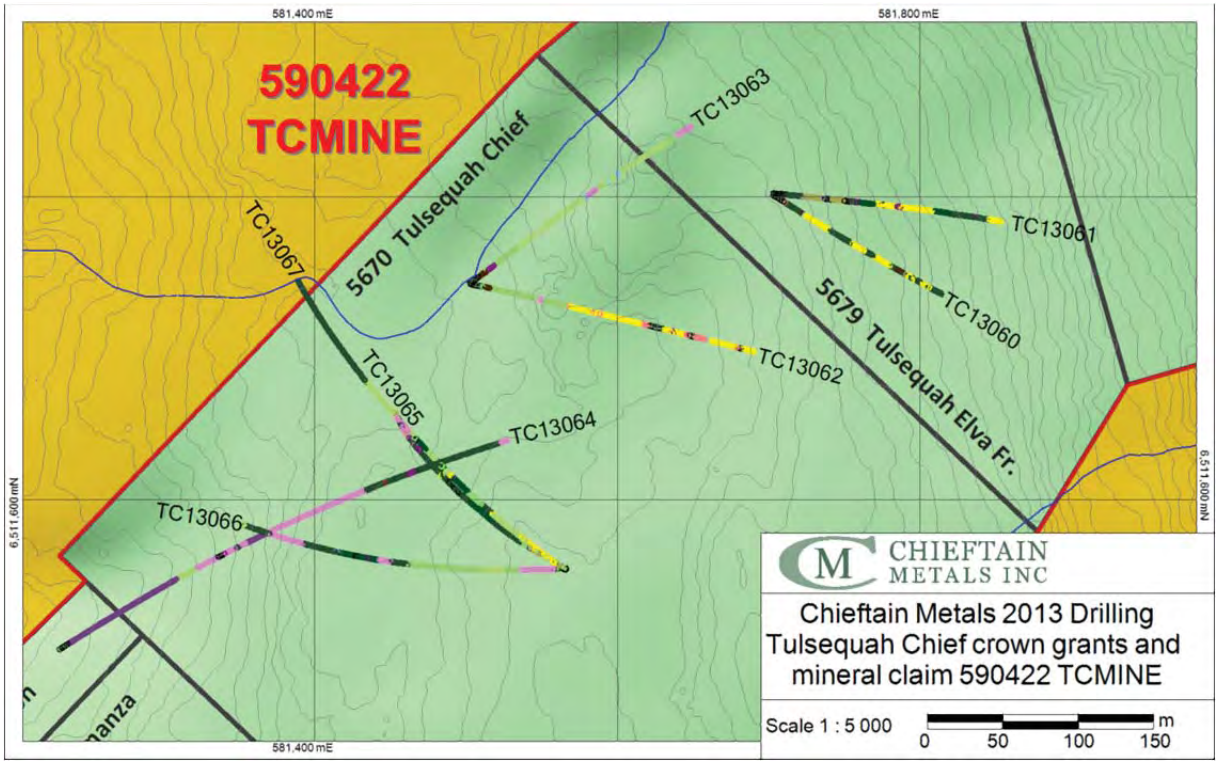
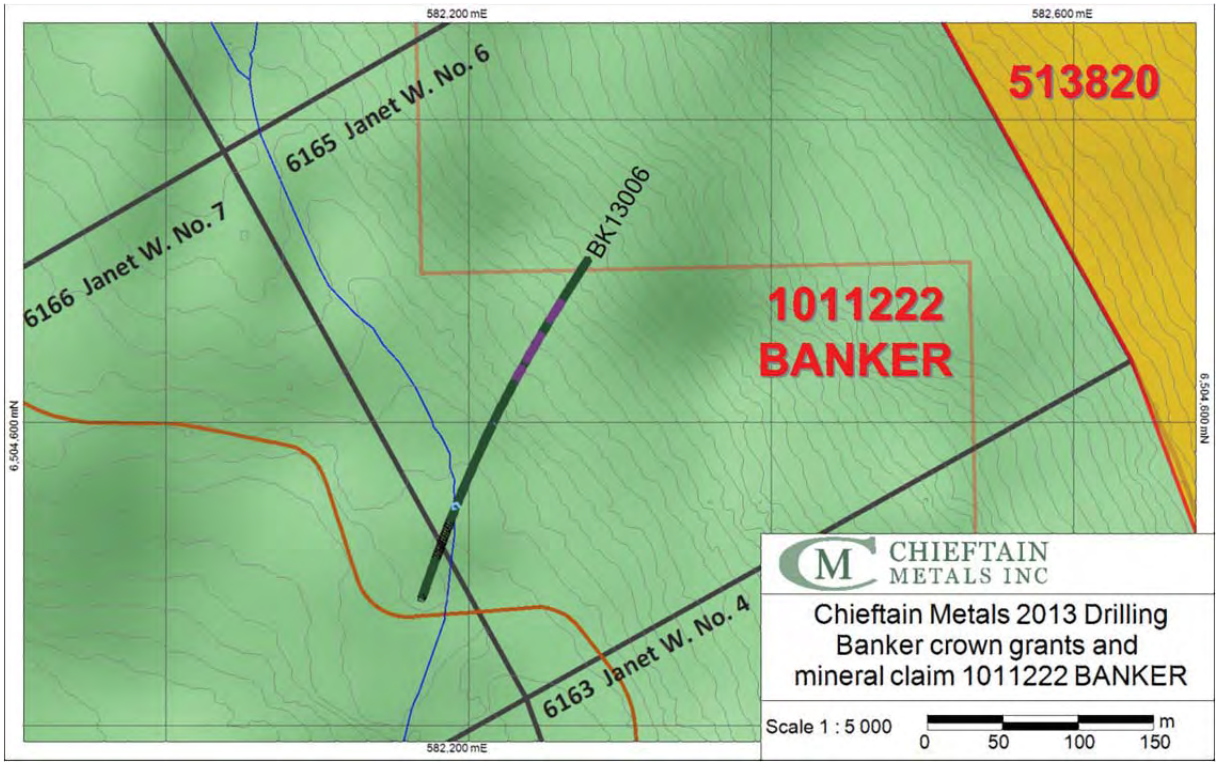


Figure 7.3: 2013 Banker Drilling



TC13060

Surface drillhole TC13060 was drilled to test 3d Induced polarization(IP) inversion anomaly above the Tulsequah Chief mine at the +300m elevation, coincident with the interpreted rhyolite horizon. Variably altered mafic flows and lapilli tuffs were intersected from 12.60-85.15m; Quartz Sericite Pyrite alteration and altered mafic lapilli Tuffs encountered from 85.15-185m. Pyrite rich massive sulphides encountered at 13.70-14.65m and 142.83-143.00m. This IP anomaly explained by the presence of abundant pyrite, and is proof of concept that the 3d IP inversion model can be used as an exploration technique.

TC11061

Surface drillhole TC13061 was drilled to test 3d IP inversion anomaly above the Tulsequah Chief mine at the +240m elevation, coincident with the interpreted rhyolite horizon. Altered basalt flow from 15.30-36.20m and rhyolite fragmental units from 36.20- 59.15m, with intermixed mafic fragmentals and quartz sericite pyrite alteration from 60.80-270m (EOH). Trace Chalcopyrite was noted at 258.5m. No major massive sulphide mineralisation was encountered, the IP anomaly explained by abundant pyrite present in the alteration.

TC11062

Surface drillhole TC13062 was drilled to test for continuation of the VMS Horizon at the +200m elevation at the location of the middle IP anomaly and rhyolite horizon. Rhyolite fragmental units encountered from 12.00-88.20m and alteration with narrow massive sulphide lenses encountered from 88.20-265m. The massive sulphide was present as narrow coarse sphalerite dominant sulphides: 89.00-89.92m, 112.59-113.17m, 113.80- 114.10m and also stringer chalcopyrite. Several massive pyrite facies mineralization with trace chalcopyrite was also intersected. This Drillhole was shut down in alteration, due to proximity to the 5400 level underground workings.

TC11063

Surface drillhole TC13063 was drilled to test for a possible continuation of the VMS Horizon in a gap between the A Extension and H-Lenses with no existing drill holes. The hole encountered sequences of massive rhyolite flows, rhyolite flow breccia's, and rhyolite debris flows cut by occasional mafic dykes. The 4400E fault was encountered from 175.00-175.55m. No mineralization was intersected and this hole is interpreted to have been drilled entirely in the hanging wall lithology's stratigraphically above the known mineralisation horizon.

TC11064

Surface drillhole TC13064 was drilled to test the IP anomaly immediately south of the 5200 level drift with extensive modeled rhyolite. The drill hole started in a thick sequence of mafic intrusive followed by sequences of massive rhyolite flows and rhyolite flow breccias cut by occasional mafic dykes moving into foot wall style mafic amygdaloidal flows and flow breccias. Stringer sulphide zone with chalcopyrite and pyrite was encountered from 364.67-364.96m, 365.09-365.26m and 399.17-399.62m. This stringer mineralisation and alteration explains the IP anomaly.

TC11065

Surface drillhole TC13065 was drilled to follow up on the IP anomaly south of the 5200 level drift and the stringer mineralisation identified in DDH TC13064. The drill hole was dominantly foot wall mafic amygdaloidal flows and flow breccias with and rhyolite hyaloclastic flows and tuffs. Two QSP units with pyrite, chalcopyrite, trace sphalerite and galena were encountered at 372.10-373.51m and 378.09-379.68m. Rhyolitic units begin to appear at 510.10m with semi-massive pyrite from 531.26-351.67m and 546.71-547.57m. The hole was abandoned at 599.31m in QSP alteration after the drill string was dropped, the QSP alteration explains the IP anomaly.

TC11066

Surface drillhole TC13066 was drilled to follow up on the IP anomaly south of the 5200 level drift and the stringer mineralisation identified in DDH TC13064. The upper portion of the drillhole is hanging wall rhyolite flows and tuffs, with basalt flows and debris flows in the middle of the drillhole. The bottom of the drillhole is rhyolite flows, flow breccias and amygdaloidal basalt flows. Weak trace mineralisation was noted, but overall was weaker than previous drillhole TC13065 suggesting this drillhole is more distal to the mineralisation source. This drillhole does not explain the IP anomaly.

TC11067

Surface drillhole TC13067 was drilled to follow up on the IP anomaly south of the 5200 level drift and the stringer mineralisation identified in DDH TC13064. The top of the drillhole is hanging wall rhyolite flows and tuffs, with local minor pyrite. The bottom of the drillhole is footwall style amygdaloidal flows basalt with local pyrite mineralisation and trace chalcopyrite. Trace mineralisation was noted, the hole was terminated at 588m in altered basalt flow, with the completion depth determined by maximum drill capacity. The QSP alteration explains the IP anomaly.

BK13006

Drillhole BK13006 in the Banker prospect area tested a moderate IP anomaly adjacent to the existing site barge landing service road. This hole intersected thick basalt flows and tuffs with minor pyrite alteration of significantly the same stratigraphy, likely drilled along strike. The IP anomaly is not readily explained.

8. INTERPRETATION AND CONCLUSIONS

The main objective of the 2013 exploration program was to use diamond drilling to test the new Mira Geoscience induced polarization inversions exploration targets coincident with prospective rhyolite stratigraphy. Three IP anomalies were tested at the Tulsequah Chief area, and one at the Banker area.

Mira Geoscience conducted 3d IP inversions on the legacy 1993 IP data from the SE Grid, Banker Grid, and Big Bull Grid. These chargeability IP inversion correctly identified the known Tulsequah Chief and Big Bull massive sulphide deposit as having lower chargeability, with the higher chargeability adjacent representing the disseminated pyrite alteration halo. The modeling of the compactness algorithm inversions have generated several drill ready targets that should be further investigated, particularly in the Banker and Big Bull areas.

The IP anomalies tested at Tulsequah Chief were spaced 350m apart along the strike of the deposit. Drill holes TC13060 and TC13061 tested the eastern IP anomaly above the G massive sulphide lenses and east of historic UG workings. Both holes intersected significant pyrite alteration, explaining the IP anomaly but with no massive sulphide mineralisation. Drill holes TC13062 tested the middle IP anomaly adjacent to the current workings but further south of the existing massive sulphide resource mineralisation, intercepting several narrow massive sulphide mineralisation intervals, with adjacent pyrite alteration, explaining the IP anomaly. This in the footwall area of the known mineralisation and requires further drilling to examine the continuity of the narrow mineralisation encountered.

Drill hole TC13064 tested the third IP anomaly and intersected massive chalcopyrite stringer mineralisation. This mineralisation and IP anomaly is potentially suggestive of footwall alteration that represents a new blind massive sulphide lens systems, as an extension to the Tulsequah Chief deposit. This new system has been referred to as the Southwest Zone. Drill holes TC13065, TC13066 and TC13067 were targeted to follow up and define further the stringer mineralisation intercepted in TC13064. These holes intersected wide zones of IP chargeable mineralization with some chalcopyrite within typical footwall massive sulphide stringer zones. The overall alteration, copper and sulphide contents were noted to increase dramatically at depth. The testing of this zone was limited by the depth capacity constraints of the selected diamond drill, two of these holes ended in alteration that should be investigated further.

Drillhole BK13006 in the Banker prospect area tested a moderate IP anomaly, the orientation of the drilling was along strike of the stratigraphy with only locally minor pyrite, the IP anomaly was not explained. Several adjacent IP targets in this area are stronger with coincident Rhyolite and anomalous Au in soil should be investigated further.

Five of the eight holes drilled adjacent to the Tulsequah Chief Deposit successfully hit abundant semi-massive to massive sulphides within strongly altered footwall feeder system rocks. Moderate to high-grade sections of zinc and copper were cut in two of the eight Tulsequah deposit-focused holes

9. RECOMMENDATIONS

Exploration drilling is recommended at the Tulsequah project to test three specific larger IP anomalies identified in the altered felsic zones and follow up on the SW Zone drilling with a larger depth capacity drill, to the north of current drilling. The IP anomalies warranting follow up are: Tulsequah Chief 350m southwest from the SW zone drilling, Banker IP anomaly coincident with the anomalous Au in Soil and the Big Bull IP anomaly along strike and northeast of the current deposit. Further property data compilation and investigation of known anomalous mineralisation sites with targets prioritized for a prospecting field campaign is also recommended. A drill program consisting of 6,500 meters of surface drilling and helicopter reconnaissance mapping/sampling should be sufficient to initiate these objectives, with a modest budget of $1.5-$3.0m.

10. REFERENCES

Armstrong, B 2012a, *2011 Exploration Program: Diamond Drilling on the Tulsequah Chief Mine*, Chieftain Metals Inc. Assessment Report [ARIS database: 33468].

Armstrong, B 2012b, *2011 Exploration Program: Diamond Drilling on the Big Bull Mine*, Chieftain Metals Inc. Assessment Report [ARIS database: 33482].

Armstrong, B 2013, *2013 Exploration Program: Magnetic and Induced Polarization 3D Geophysical Data Inversion*, Chieftain Metals Inc. Assessment Report [ARIS database: 34358].

Carmichael, RG 2005, *Geological, Geochemical and Diamond Drilling Report on the Tulsequah Chief Property*, Redfern Resources Ltd Assessment Report [ARIS database: 27659].

Doerksen, G *et al* 2012, *NI 43-101 Technical Report for theTulsequah Chief Project of Northern British Columbia, Canada*, JDS Energy and Mining Inc. [SEDAR database: Chieftain Metals Inc. Jan 25 2013].

Hendrickson, G 1994, *Report on the Geophysical Surveys at the Tulsequah Project, Northwest B.C. NTS 104K for Redfern Resources*, Delta Geoscience Ltd. Unpublished Report, Redfern Resources.

Mihalynuk, MG, Smith, MT, Hancock, KD & Dudka, S 1994, *Regional and Economic Geology of Tulsequah River and Glacier Areas (104K/12 & 13*), in Grant, B & Newell, JM (Eds), *Geological Fieldwork 1993*, B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 1994-1.

O'Donnell, MA, Armstrong, B, Giles, G 2009, *Geological, Geochemical, Geotechnical, and Physical Work Report on the Tulsequah Property*, Redfern Resources Ltd Assessment Report. [ARIS database: 31030].

11. STATEMENT OF QUALIFICATIONS

I, Brett Armstrong of North Vancouver, British Columbia, do hereby certify that as the Author of this Assessment Report "2013 Tulsequah Project: Tulsequah Chief and Banker Exploration Drilling", dated October 30th, 2014, I hereby make the following statements:

1. I am employed as Exploration Manager by Chieftain Metals Inc. since 2011, with a business address at Unit 118, 1515 Broadway Street, Port Coquitlam, BC, V3C 6M2.
2. I am a qualified person as defined by National Instrument 43-101
3. I am a graduate of the University of Tasmania, Australia 1995 with a Bachelor of Science degree, double major in Geology.
4. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, Licence No. 37985.
5. I have practiced my profession in mineral exploration since 2004, including work on volcanogenic massive sulphide deposits in British Columbia and Portugal.
6. I am responsible for all sections of this Assessment Report.
7. I have had prior involvement in the Property from 2004-2009 as an Exploration Geologist for Redfern Resources, the previous owner.
8. As of the date of this certificate, to my knowledge, information and belief, this Assessment Report contains all scientific and technical information that is required to be disclosed to make the Assessment report not misleading.
9. I am not independent of Chieftain Metals Inc.

Original Document, signed and sealed by

PROFESSIONAL ENGINEER
PROVINCE OF
B. D. ARMSTRONG
37985
BRITISH COLUMBIA
GEOSCIENTIST

30/10/14

"Brett D. Armstrong, P.Geo."
30th, October 2014
Exploration Manager
Chieftain Metals Inc.

2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX I

DIAMOND DRILL LOGS

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

Drill Hole Log - Tulsequah Chief 2013

TC13060

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
TC13060	10668.80	15125.99	365.00	182	127.5	-45

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
9/7/2013	9/8/2013	NQ	Atlas Drilling	9/9/2013	C. Taylor

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
2013 APS Survey	CT/AF/BA	10/22/2013	Ez-Shot Avg		9/7/2013

Purpose:

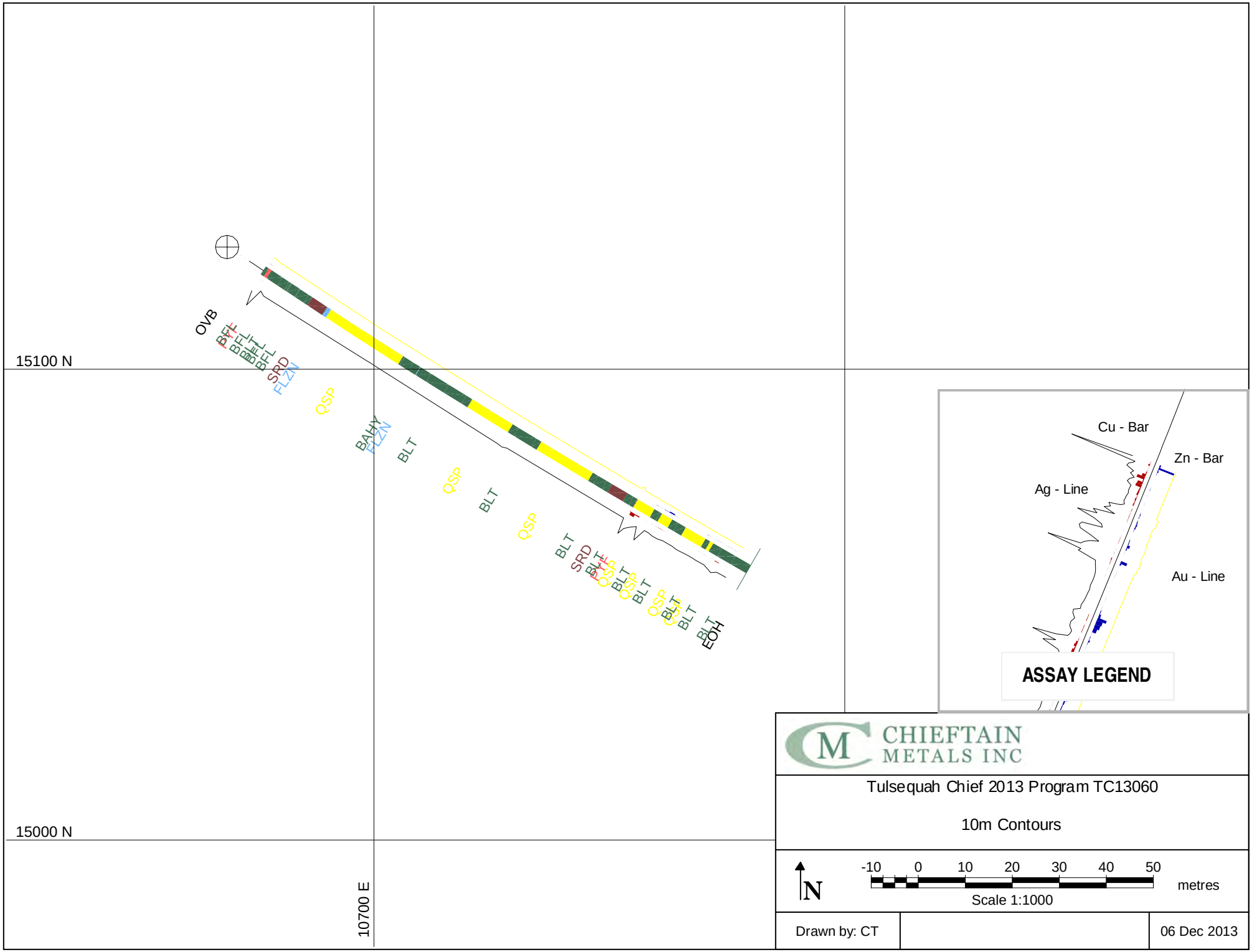
To test refined Mira 3D IP inversion anomaly at the +300m elevation, conincident with the interperted rhyolite horizion. Target depth down the hole is 85m. Target 13-JP02

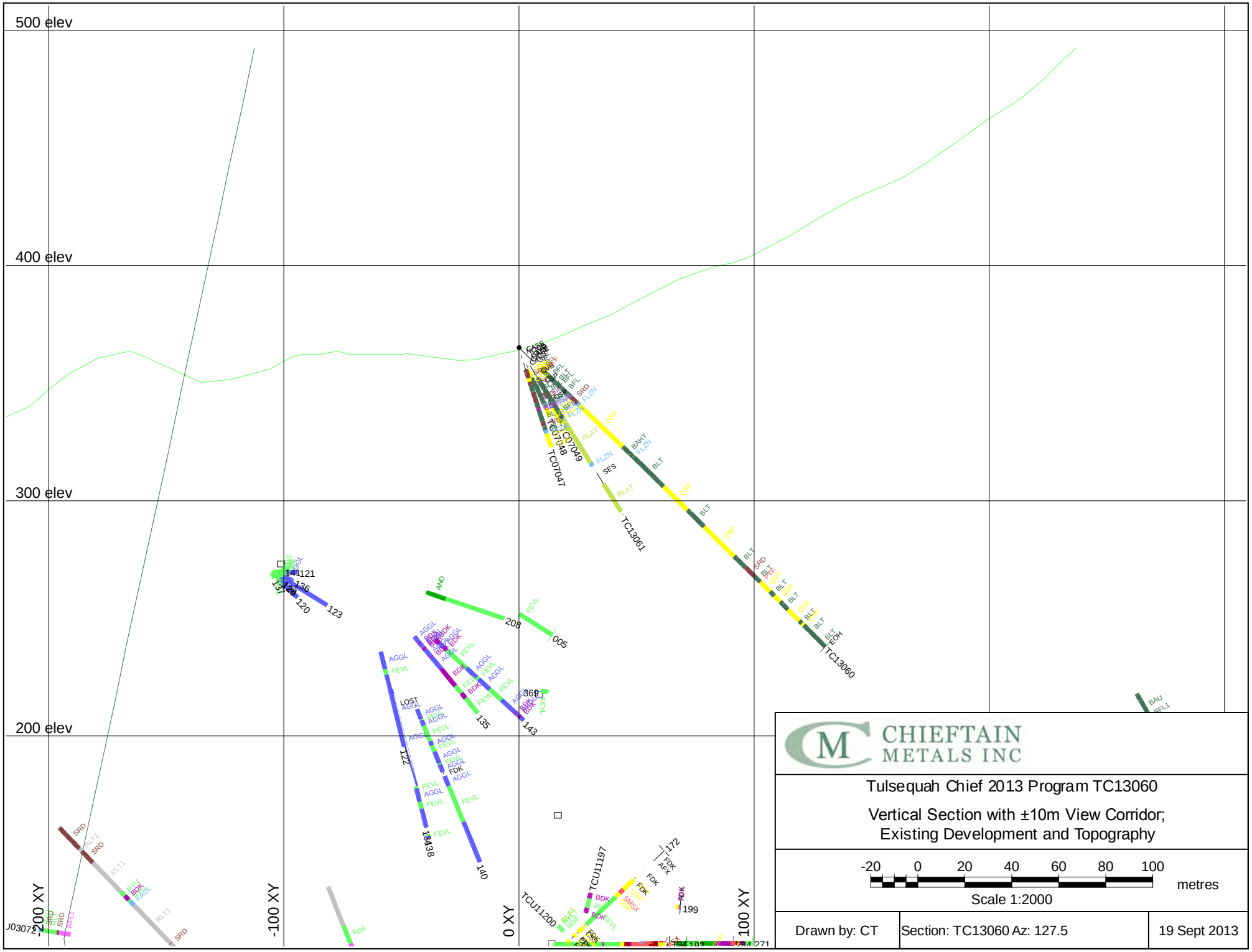
Summary:

Variably Altered Mafic Flows and Lapilli Tuffs from 12.60-85.15m. Quartz Sericite Pyrite Alteration and Altered Mafic Lapilli Tuffs encountered from 85.15-185m (EOH). Pyrite rich massive sulphides encountered at 13.70-14.65m and 142.83-143.00m. Anomaly explained by the presence of abundant Pyrite.

Significant Intercepts:

Hole-ID	From (m)	To (m)	Length (m)	True Width (m)	Zone	Lith	Au gpt	Ag gpt	Cu %	Pb %	Zn %	As ppm	SG g/cm3	$US Eq/t SRK12	$NSR/t JDS12	News Release Date
TC13060						No significant intercepts										11/20/2013


15100 N
15000 N
10700 E
OVB
BFL
SRD
FLZN
QSP
BAHY
BLT
EOH
Cu - Bar
Zn - Bar
Ag - Line
Au - Line
ASSAY LEGEND
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13060
10m Contours
N
-10 0 10 20 30 40 50
metres
Scale 1:1000
Drawn by: CT
06 Dec 2013


500 elev
400 elev
300 elev
200 elev
-200 XY
-100 XY
0 XY
100 XY
TC07047
TC07048
TC07049
TC13061
TC13060
TCU11197
TCU11200
J03072
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13060
Vertical Section with ±10m View Corridor;
Existing Development and Topography
-20 0 20 40 60 80 100
metres
Scale 1:2000
Drawn by: CT
Section: TC13060 Az: 127.5
19 Sept 2013

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments	Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	122.7	-43.7	Ez-Shot Az Avg/Maxibor	BA	9/8/2013								
3.07	122.6	-43.8	Maxibor	BA	9/8/2013	averaged dip							
6.15	122.9	-43.9	Maxibor	BA	9/8/2013								
9.22	123.4	-43.8	Maxibor	BA	9/8/2013	averaged dip							
12.30	123.7	-43.7	Maxibor	BA	9/8/2013								
18.44	123.5	-43.55	Maxibor	BA	9/8/2013								
21.52	123.5	-43.4	Maxibor	BA	9/8/2013	averaged dip							
24.59	123.6	-43.4	Maxibor	BA	9/8/2013	smoothed							
27.67	123.5	-43.4	Maxibor	BA	9/8/2013	averaged dip							
36.89	123.2	-43.8	Maxibor	BA	9/8/2013								
43.04	123	-43.8	Maxibor	BA	9/8/2013								
46.11	122.9	-43.8	Maxibor	BA	9/8/2013								
49.19	122.7	-43.9	Maxibor	BA	9/8/2013								
52.26	122.7	-44.1	Maxibor	BA	9/8/2013								
55.33	122.6	-44	Maxibor	BA	9/8/2013								
58.41	122.6	-44.1	Maxibor	BA	9/8/2013								
61.48	122.4	-44.2	Maxibor	BA	9/8/2013	averaged dip							
64.56	122.2	-44.25	Maxibor	BA	9/8/2013	averaged dip							
70.70	122	-44.3	Maxibor	BA	9/8/2013								
83.00	121.7	-44.7	Maxibor	BA	9/8/2013								
86.07	121.8	-44.5	Maxibor	BA	9/8/2013								
92.22	121.7	-44.7	Maxibor	BA	9/8/2013								
101.44	121.5	-44.6	Maxibor	BA	9/8/2013								
107.59	121.3	-44.9	Maxibor	BA	9/8/2013								
113.74	121.1	-44.8	Maxibor	BA	9/8/2013								
119.89	121	-44.6	Maxibor	BA	9/8/2013								
122.96	120.9	-44.5	Maxibor	BA	9/8/2013								
126.04	120.8	-44.7	Maxibor	BA	9/8/2013								
129.11	120.7	-44.4	Maxibor	BA	9/8/2013								
132.19	120.7	-44.5	Maxibor	BA	9/8/2013								
150.63	120.3	-44.5	Maxibor	BA	9/8/2013								
156.78	120.2	-44.5	Maxibor	BA	9/8/2013	averaged dip							
159.85	120.2	-44.5	Maxibor	BA	9/8/2013	averaged dip							
162.93	120.1	-44.5	Maxibor	BA	9/8/2013								
166.00	120.1	-44.8	Maxibor	BA	9/8/2013								
172.00	120	-44.8	Maxibor	BA	9/8/2013								

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
0.00	12.60	Overburden Boulders from 10.6-12.6m, mixture of basalt and sloko rhyolite dyke.									
12.60	13.70	Basalt Flow: Amygdaloidal Basalt Flow, weakly amygdaloidal. Medium green grey. Weakly brecciated. Weakly silicified. Fine grained disseminated Pyrite throughout, as well as randomly oriented bands (2mm-2cm thick) of coarser grained Pyrite. ~4% Pyrite overall. Few (<1%) small (1-3mm) folded quartz/carbonate veins.	12.60	13.70	1.1	41901	0.08	2.2	0.001	0.004	0.016
13.70	14.65	Pyrite Facies Pyrite Facies Massive Sulphides. Consists mainly of fine to medium grained Pyrite (1-5mm diameter). Folded inclusions of basalt (variably silicified) and quartz, up to 2cm. Becomes semi massive: 14.45-14.65m. Upper contact broken, sharp lower contact.	13.70	14.65	0.95	41902	0.41	8.5	0.005	0.014	0.008
14.65	20.86	Basalt Flow: Amygdaloidal Basalt Flow. Medium green grey. Weakly amygdaloidal. Generally weakly brecciated and silicified, small sections of moderate silicification where texture is obscured. Minor Pyrite throughout, disseminated in groundmass or associated with quartz/carbonate veining, 4% overall. Generally small, folded and crosscutting quartz carbonate veins throughout (1% overall).	14.65	16.15	1.5	41903	0.02	0.2	0	0	0.009
			16.15	17.65	1.5	41904	0.09	1.3	0.001	0.001	0.009
20.86	21.80	Basalt Lapilli Tuff Basalt Lapilli Tuff. Mottled medium grey. Tightly packed, generally small (1mm-1cm) fragments. Fragments are often stretched with foliation. Minor sericitization. Fine to medium grained Pyrite throughout, 3% overall, either disseminated in groundmass or forming bands.									
21.80	24.70	Basalt Flow: Siliceous Basalt Flow. Light green grey. Fairly massive. Moderately silicified and brecciated. Fine to medium grained Pyrite in stringers throughout (5% overall). Few thicker (1-3cm) fractured quartz veins near lower contact.									
24.70	29.00	Basalt Flow Basalt Flow. Dark green grey. Weakly chloritized and sericitized. Fairly massive. Crosscutting white quartz/carbonate veins throughout, weakly folded to straight. Generally weakly mineralized with trace fine grained Pyrite, with Pyrite concentrated at lower contact.									
29.00	34.20	Rhyolite Dyke, Sloko Fm Sloko Formation Rhyolite Dyke. Very light grey with green blebs. Heavily fractured, appears to be infilling fault zone. RQD = 0. Some lost core. Trace fine grained, euhedral Pyrite disseminated throughout. Upper contact lost, lower contact sharp.									
34.20	35.50	Fault Zone									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Fault Zone. Greenish grey clay with small rounded rock fragments. Trace fine grained Pyrite.									
35.50	60.87	Quartz Sericite Pyrite Alteration									
		Quartz Sericite Pyrite Alteration. Protolith difficult to determine. Core strongly broken to ~42.7m (due to above fault zone). Weakly brecciated texture. Alteration varies somewhat, but generally moderately to strongly silicified with minor sericitization. Trace chloritization. Minor quartz veining, generally 1-3cm broken veins with minimal mineralization associated and small (<1cm) folded quartz veins associated with Pyrite. Pyrite scattered throughout, either disseminated in groundmass or associated with folded quartz veins. Small clay gouge at 42.83m.	51.50	53.00	1.5	41907	0.02	0.3	0	0.001	0.002
			53.00	54.50	1.5	41908	0.02	0.3	0.001	0.001	0.003
			54.50	56.00	1.5	41909	0.02	0.3	0	0	0.002
60.87	66.85	Basalt Hyaloclastite									
		Basalt Hyaloclastite. Light to medium grey. Fragment size varies from 1mm-2cm. Fragments are generally cuspate. Groundmass and fragments are moderately silicified, groundmass is weakly sericitized. Some fragments with remnant amygdules. Stringers and blebs of fine to medium grained Pyrite throughout (5% overall).									
66.85	67.00	Fault Zone									
		Fault Zone. Infilled with fine grey clay.									
67.00	85.15	Basalt Lapilli Tuff									
		Basalt Lapilli Tuff. Medium grey, mottled. Fragments range in size from 2mm-2cm and are generally subangular. Larger fragments can be heavily silicified with remnant amygdules. Silicification becomes more pervasive downhole. Rare quartz veins, generally 1-2cm, weakly broken. Fine grained diseminated Pyrite throughout, increasing downhole (1% overall).									
		78.90 79.75 Basalt Dyke									
		Fine grained, massive, dark grey. Non mineralized.									
		83.22 84.02 Basalt Dyke									
		Fine grained, massive, dark grey. Non mineralized.									
85.15	99.33	Quartz Sericite Pyrite Alteration									
		Quartz Sericite Pyrite Alteration. Possible Rhyolitic protolith. Light grey. Brecciated texture. Strongly Silicified, weakly sericitized. Trace chloritization. Fine grained Pyrite along fractures and disseminated in groundmass, 3% overall. Trace white quartz/carbonate veins, folded.	97.83	99.33	1.5	41911	0.06	0.7	0.001	0.001	0.005
		92.75 92.90 Fault Zone									
		Minor fault zone. Core is fractured and weakly ground.									
99.33	109.37	Basalt Lapilli Tuff									
		Basalt Lapilli Tuff. Fragments typically 1mm-2cm, with rare fragments up to 5cm. Smaller fragments biotite/chlorite rich. Larger fragments tend to be silicified and occasionally show remnant amygdules. Groundmass moderately silicified. Alteration increases downhole.	99.33	100.83	1.5	41912	0.06	1.0	0.03	0.001	0.002
			100.83	102.33	1.5	41913	0.04	0.3	0.001	0.001	0.006

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Mineralization is patchy, medium grained Pyrite, ranging from 3-12%, typically decreasing donwhole.									
109.37	127.30	Quartz Sericite Pyrite Alteration Quartz Sericite Pyrite Alteration. Light to medium grey. Likely a mafic protolith. Remnant mafic texture apparent 112.65-115.88m. Weakly to moderately brecciated. Moderate silicification. Weak sericitization. Fine to medium grained Pyrite throughout, disseminated in groundmass and associated with veins. Small (<1cm) folded white quartz/carbonate veins (<1% overall). 123.08 124.12 Basalt Dyke Fine grained, massive, dark grey. Non mineralized. Sharp contacts. Large (1-4cm) fractured quartz/chlorite veins.									
127.30	134.05	Basalt Lapilli Tuff Basalt Lapilli Tuff. Mottled light to medium grey. Fragments typically 1mm-2cm. Fragments are biotite/chlorite rich, subangular to angular. Groundmass weakly silicified, weakly sericitized. Fine grained Pyrite scattered throughout, occasionally blebby or replacing fragments. Rare small folded quartz/carbonate veins (<1% overall). 128.74 129.00 Basalt Dyke Small fine grained massive Basaltic dyke. Non mineralized. Minor small broken quartz veins.									
134.05	139.30	Rhyolite Dyke, Sloko Fm Sloko Rhyolite Dyke. Light grey. Fine grained quartz rich groundmass with medium grained biotite and chlorite. Banding at contacts. Contacts sharp. Trace Pyrite.									
139.30	142.83	Basalt Lapilli Tuff: Siliceous Basalt Lapilli Tuff. Fragments range in size from 1mm to 5cm, are generally subangular and can be aligned with foliation. Larger fragments are highly silicified, and occasionally show remnant amygdules infilled with Pyrite. Minor sericitization, in bands or altering fragments. Pyrite throughout, content somewhat variable, fine grained, disseminated in groundmass and fragments or fine to medium grained in bands (8% overall).	139.83	141.33	1.5	41914	0.01	<0.2	0.001	0.001	0.006
			141.33	142.83	1.5	41917	0.01	<0.2	0.001	0.001	0.006
142.83	143.00	Pyrite Facies Pyrite facies Massive Sulphides. Approximately 90% fine to coarse grained Pyrite, with minor quartz/carbonate gangue.	142.83	143.00	0.17	41918	1.22	7.0	0.022	0.016	0.013
143.00	148.66	Quartz Sericite Pyrite Alteration Quartz Sericite Pyrite Alteration. Light to medium grey, mottled texture. Remnant fragmental texture visable in places. Highly silicified, weakly sericitized. Fine to medium grained Pyrite throughout, concentration is somewhat variable, but ~10% overall. Trace Chalcopyrite.	143.00	144.50	1.5	41919	0.07	4.0	0.737	0.002	0.01
			144.50	146.00	1.5	41922	0.06	2.0	0.207	0.004	0.007
			146.00	147.33	1.33	41923	0.05	0.6	0.004	0.002	0.004
			147.33	148.66	1.33	41924	0.25	6.1	0.01	0.01	0.005

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
148.66	151.33	**Basalt Lapilli Tuff: Siliceous** Basalt Lapilli Tuff. Medium to dark grey. Fragmental texture discernable, but difficult to determine whether felsic or mafic due to strong silicification. Fragments range in size from 1mm-2cm (occasionally up to 5cm), are subangular and silicified. Fine grained Pyrite in matrix and in possible amygdules in fragments, ~5% overall.	148.66	150.00	1.34	41927	0.02	0.4	0.001	0.001	0.009
			150.00	151.33	1.33	41928	0.02	0.3	0.002	0.002	0.027
151.33	154.80	**Quartz Sericite Pyrite Alteration** Quartz Sericite Pyrite Alteration. Light to medium grey. Texture appears fragmental, but is highly silicified. Weakly brecciated. Minor sericitization along fractures. Weakly foliated. Fine to medium grained Pyrite in groundmass and in bands (8% overall). Minor stringers of Chalcopyrite and Spahlerite (±Galena). 154.30 154.40 Fault Small fault, clay on fractures.	151.33	153.06	1.73	41929	0.06	0.7	0.03	0.002	0.043
			153.06	154.80	1.74	41932	0.04	0.7	0.044	0.002	0.243
154.80	159.50	**Basalt Lapilli Tuff** Basalt Lapilli Tuff. Fragments generally 1mm-2cm. Rarely larger. Moderately silicified, increasing downhole. Weak sericitization. Fine to medium grained Pyrite in groundmass (8% overall). Trace specks of Sphalerite.	154.80	156.30	1.5	41933	0.01	<0.2	0.002	0.001	0.017
			156.30	157.80	1.5	41934	0.02	<0.2	0.001	0.001	0.01
			157.80	159.50	1.7	41937	0.02	0.2	0.001	0.001	0.02
159.50	166.26	**Quartz Sericite Pyrite Alteration** Quartz Sericite Pyrite Alteration. Light grey. Texture somewhat mottled. Protolith difficult to determine due to intense silicification and moderate sericitization. Potentially rhyolitic, though rare ghosty fragments are visable. Small (<1cm) fairly straight but broken quartz veins throughout (<1% overall). Minor fine to medium grained blebby Pyrite, 1% overall. 162.90 163.17 Fault	159.50	161.00	1.5	41938	0.03	0.5	0.004	0.001	0.016
			161.00	162.50	1.5	41939	0.04	0.4	0.003	0.002	0.015
			162.50	164.00	1.5	41941	0.02	0.3	0.005	0.003	0.01
			164.00	165.26	1.26	41942	0.01	<0.2	0.002	0.001	0.008
			165.26	166.26	1	41943	0.01	0.2	0.014	0.001	0.009
166.26	167.87	**Basalt Lapilli Tuff** Small section of distinct Basalt Lapilli Tuff. Fragments are generally small (1mm-1cm) and angular with no preferred orientation. Strong silicification, moderate sericitization. Small (<1cm) fairly straight but broken quartz veins throughout (<1% overall). Fine to medium grained Pyrite in groundmass and in small bands.	166.26	167.87	1.61	41944	0.01	0.3	0.027	0.001	0.013
167.87	168.95	**Quartz Sericite Pyrite Alteration** Quartz Sericite Pyrite Alteration. Minor foliation, otherwise fairly massive. Strongly silicified. Moderately sericitized. Mall (<1cm) fairly straight but broken quartz veins throughout (~1% overall), occasionally tinged green. Fine to medium grained Pyrite throughout, 5% overall disseminated in groundmass, with trace blebby Chalcopyrite.	167.87	168.95	1.08	41947	0.02	0.3	0.035	0.001	0.017
168.95	176.60	**Basalt Lapilli Tuff: Siliceous** Basalt Lapilli Tuff. Moderately to strongly silicified (somewhat variable). Moderately sericitized. Fragments generally visable, though often distorted with foliation. Fragments are silicified and up to 2cm. Mineralized with Pyrite (fine to medium grained disseminated in groundmass and in	168.95	170.45	1.5	41948	0.03	0.2	0.003	0.001	0.022
			170.45	171.95	1.5	41949	0.08	0.9	0.003	0.002	0.01
			171.95	173.45	1.5	41952	0.07	1.7	0.128	0.003	0.02

From	To (m)												
		bands, 3% overall), trace stringers of Chalcopyrite, and rare blebs of Sphalerite. Lower contact gradational.			173.45	174.90	1.45	41953	0.04	0.3	0.002	0.001	0.023
					174.90	175.70	0.8	41954	<0.01	<0.2	0.011	0.002	0.013
		174.90	175.70	Basalt Dyke	175.70	176.60	0.9	41955	0.01	<0.2	0.001	0.001	0.011
				Small fine grained Basalt Dyke. Small (<1cm thick) quartz veins throughout, weakly mineralized with Pyrite.									
		175.70	175.85	Fault									
				Small fault, ground core and clay infilling.									
176.60	182.00	Basalt Lapilli Tuff											
		Basalt Lapilli Tuff. Weakly foliated. Moderately to strongly silicified (patchy). Moderately sericitized in fractures. Fragments are generally small, 1mm-1cm, larger fragments are silicified. Mineralized with fine to medium grained Pyrite, in groundmass and in veins (~5% overall).			176.60	178.10	1.5	41956	0.01	<0.2	0.001	0.002	0.01
182.00	182.00	End of Hole											

Drill Hole Log - Assays

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
41901	12.60	13.70	1.1		0.078							2.2	2.44	57	20	<0.5	3	0.11	0.7	7	4	10
41902	13.70	14.65	0.95		0.406							8.5	1.38	217	30	<0.5	15	0.07	5.2	28	1	48
41903	14.65	16.15	1.5		0.015							0.2	1.84	8	160	<0.5	<2	0.04	<0.5	1	1	2
41904	16.15	17.65	1.5		0.087							1.3	1.84	23	30	<0.5	2	0.04	0.7	2	2	11
41907	51.50	53.00	1.5		0.018							0.3	0.93	27	110	<0.5	2	0.13	<0.5	7	1	4
41908	53.00	54.50	1.5		0.021							0.3	1.10	24	100	<0.5	<2	0.18	<0.5	7	2	5
41909	54.50	56.00	1.5		0.016							0.3	0.82	19	150	<0.5	<2	0.16	<0.5	4	1	4
41911	97.83	99.33	1.5		0.056							0.7	1.64	36	40	<0.5	6	0.55	<0.5	13	<1	14
41912	99.33	100.83	1.5		0.059							1.0	0.81	29	10	<0.5	4	0.34	<0.5	13	3	303
41913	100.83	102.33	1.5		0.038							0.3	1.71	49	40	<0.5	2	0.48	<0.5	14	2	12
41914	139.83	141.33	1.5		0.013							<0.2	2.11	29	50	<0.5	<2	0.44	<0.5	16	1	8
41917	141.33	142.83	1.5		0.013							<0.2	2.17	35	70	<0.5	<2	0.35	<0.5	15	1	7
41918	142.83	143.00	0.17		1.215	7.00	0.022	0.016	0.013	0.12	3.51	4.9	1.20	906	10	<0.5	10	0.37	<0.5	23	1	179
41919	143.00	144.50	1.5		0.065							4.0	1.23	97	10	<0.5	<2	0.49	2.7	20	2	7370
41922	144.50	146.00	1.5		0.063							2.0	1.34	75	20	<0.5	5	0.56	0.9	16	3	2070
41923	146.00	147.33	1.33		0.045							0.6	0.74	56	40	<0.5	2	0.48	0.5	14	3	37
41924	147.33	148.66	1.33		0.245							6.1	0.90	119	20	<0.5	20	0.49	0.6	25	2	102
41927	148.66	150.00	1.34		0.020							0.4	1.92	35	70	<0.5	<2	0.37	<0.5	13	2	12
41928	150.00	151.33	1.33		0.021							0.3	1.56	37	60	<0.5	<2	0.36	1.7	13	2	15
41929	151.33	153.06	1.73		0.062							0.7	0.92	73	20	<0.5	3	0.31	2.7	18	3	296
41932	153.06	154.80	1.74		0.039							0.7	1.51	53	30	<0.5	<2	0.37	18.7	15	2	438
41933	154.80	156.30	1.5		0.014							<0.2	1.74	37	70	<0.5	<2	0.34	<0.5	13	1	15
41934	156.30	157.80	1.5		0.017							<0.2	2.28	41	70	<0.5	<2	0.37	<0.5	16	2	8
41937	157.80	159.50	1.7		0.017							0.2	1.58	31	90	<0.5	3	0.37	0.8	14	1	9
41938	159.50	161.00	1.5		0.026							0.5	1.05	62	50	<0.5	3	0.90	0.8	17	1	35
41939	161.00	162.50	1.5		0.035							0.4	1.30	59	60	<0.5	<2	0.55	<0.5	20	1	31
41941	162.50	164.00	1.5		0.020							0.3	1.43	41	80	0.6	3	0.76	<0.5	21	1	50
41942	164.00	165.26	1.26		0.014							<0.2	0.81	34	80	0.5	<2	0.69	<0.5	19	1	20
41943	165.26	166.26	1		0.011							0.2	1.08	26	70	<0.5	<2	0.57	<0.5	15	1	135
41944	166.26	167.87	1.61		0.007							0.3	1.84	17	130	<0.5	<2	0.49	<0.5	11	1	266
41947	167.87	168.95	1.08		0.015							0.3	1.18	30	60	<0.5	<2	0.74	0.9	12	1	353
41948	168.95	170.45	1.5		0.028							0.2	1.64	36	60	<0.5	2	0.48	1.3	15	1	31
41949	170.45	171.95	1.5		0.077							0.9	1.53	78	40	<0.5	3	0.39	<0.5	12	2	27
41952	171.95	173.45	1.5		0.065							1.7	1.39	75	50	<0.5	4	0.44	1.3	13	1	1285
41953	173.45	174.90	1.45		0.042							0.3	1.08	69	50	<0.5	3	0.54	1.5	14	2	17
41954	174.90	175.70	0.8		<0.005							<0.2	4.43	15	400	<0.5	<2	1.79	<0.5	38	434	110
41955	175.70	176.60	0.9		0.011							<0.2	2.20	22	110	<0.5	<2	0.54	<0.5	13	6	7
41956	176.60	178.10	1.5		0.014							<0.2	2.28	21	120	<0.5	2	0.55	<0.5	12	4	6

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
41901	6.55	<1	0.55	<10		3.01	942	10	0.01	2	80	36	5.73	<2	3			16	0.01	<10	10	<10		161
41902	25.20	2	0.19	<10		1.65	517	9	<0.01	5	30	140	>10.00	<2	2			26	<0.01	<10	14	<10		76
41903	2.60	<1	0.56	10		2.01	614	2	0.01	<1	90	4	1.66	<2	3			7	0.01	<10	3	<10		88
41904	4.22	<1	0.43	<10		2.16	665	4	<0.01	1	60	8	3.48	<2	2			21	0.01	<10	5	<10		87
41907	2.26	<1	0.51	10		0.66	235	2	0.01	1	130	7	2.14	<2	2			7	0.01	<10	1	<10		23
41908	2.66	<1	0.45	10		0.90	328	3	0.01	2	140	8	2.36	2	2			8	<0.01	<10	3	<10		32
41909	1.87	<1	0.44	10		0.58	217	2	<0.01	1	150	4	1.70	2	2			8	0.01	<10	1	<10		20
41911	5.81	<1	0.83	<10		1.42	584	3	0.01	<1	1600	14	5.37	<2	5			19	0.04	<10	16	<10		50
41912	13.40	<1	0.38	<10		0.45	201	16	0.01	1	530	10	>10.00	19	2			11	<0.01	<10	13	<10		25
41913	6.45	<1	0.61	<10		1.57	674	5	0.01	<1	1120	10	6.26	<2	4			20	0.02	<10	18	<10		57
41914	4.22	<1	0.93	<10		1.94	775	1	0.04	2	1220	10	3.31	<2	5			19	0.05	<10	23	<10		63
41917	4.13	<1	0.99	<10		2.08	785	1	0.02	2	1260	7	3.03	<2	5			15	0.05	<10	24	<10		59
41918	23.90	<1	0.31	<10		1.12	542	4	<0.01	1	580	122	>10.00	6	3			9	0.01	<10	20	<10		74
41919	18.00	<1	0.50	<10		0.95	579	13	0.01	<1	720	17	>10.00	31	3			12	0.02	<10	20	<10		99
41922	9.22	<1	0.52	<10		1.01	640	10	<0.01	1	930	36	>10.00	11	3			15	0.01	<10	17	<10		75
41923	4.49	<1	0.38	<10		0.41	251	5	0.01	<1	950	16	4.72	<2	2			14	<0.01	<10	8	<10		43
41924	9.51	<1	0.48	<10		0.48	336	7	0.01	<1	870	101	>10.00	<2	2			16	0.01	<10	11	<10		49
41927	4.21	<1	0.44	<10		1.86	924	1	0.01	1	1140	9	3.12	<2	3			14	0.02	<10	16	<10		91
41928	4.05	<1	0.54	<10		1.25	689	2	0.01	1	1050	15	3.41	2	3			14	0.02	<10	15	<10		270
41929	6.64	<1	0.43	<10		0.62	388	5	0.01	1	890	18	7.42	4	2			12	0.01	<10	10	<10		431
41932	6.37	<1	0.53	<10		1.16	590	7	0.01	1	1040	19	6.59	5	3			18	0.01	<10	17	<10		2430
41933	4.28	<1	0.55	<10		1.56	989	2	0.01	1	1120	9	3.31	<2	4			17	0.02	<10	17	<10		172
41934	4.98	<1	0.71	10		2.10	1190	1	0.01	2	1350	10	3.59	<2	5			17	0.02	<10	22	<10		105
41937	4.31	<1	0.41	10		1.48	915	2	0.01	1	1300	11	3.46	<2	4			20	<0.01	<10	14	<10		198
41938	4.29	<1	0.43	10		0.99	1190	3	0.01	2	1400	12	3.93	5	4			52	<0.01	<10	11	<10		165
41939	4.60	<1	0.40	10		1.45	961	2	0.01	2	1360	15	4.08	<2	4			41	<0.01	<10	14	<10		149
41941	4.59	<1	0.36	<10		1.57	715	1	0.03	2	1480	27	2.18	7	5			70	<0.01	<10	13	<10		102
41942	4.44	<1	0.34	10		1.16	701	<1	0.01	2	1520	13	3.29	<2	4			57	<0.01	<10	10	<10		84
41943	3.59	1	0.49	<10		1.10	802	1	0.01	2	1330	10	3.05	<2	4			48	<0.01	<10	10	<10		92
41944	3.41	<1	0.58	10		1.77	1205	1	0.03	2	1210	6	2.27	<2	4			37	0.01	<10	17	<10		134
41947	3.59	1	0.57	10		0.88	740	<1	0.02	1	1340	8	3.32	<2	4			48	0.01	<10	10	<10		166
41948	4.47	<1	0.64	10		1.44	917	1	0.01	2	1280	13	3.97	<2	4			31	0.01	<10	14	<10		222
41949	4.81	<1	0.55	<10		1.28	716	1	0.01	1	1120	22	4.65	<2	3			25	0.01	<10	13	<10		104
41952	4.77	1	0.51	<10		1.17	635	3	<0.01	1	1260	31	4.57	16	3			24	0.01	<10	13	<10		198
41953	4.27	<1	0.52	<10		0.67	433	2	0.01	1	1230	13	4.35	<2	3			28	0.01	<10	11	<10		227
41954	5.58	<1	0.45	<10		5.01	2010	<1	0.08	110	1280	16	0.88	4	18			73	0.08	<10	184	<10		126
41955	4.80	<1	0.15	10		2.48	1230	<1	0.05	2	1240	9	3.22	<2	7			22	0.01	<10	36	<10		110
41956	4.49	<1	0.25	10		2.57	1455	1	0.05	<1	1150	19	2.99	<2	7			17	0.05	<10	34	<10		98

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
41901			WH13168474				ALS: ME-ICP41				9/26/2013	
41902			WH13168474				ALS: ME-ICP41				9/26/2013	
41903			WH13168474				ALS: ME-ICP41				9/26/2013	
41904			WH13168474				ALS: ME-ICP41				9/26/2013	
41907			WH13168474				ALS: ME-ICP41				9/26/2013	
41908			WH13168474				ALS: ME-ICP41				9/26/2013	
41909			WH13168474				ALS: ME-ICP41				9/26/2013	
41911			WH13168474				ALS: ME-ICP41				9/26/2013	
41912			WH13168474				ALS: ME-ICP41				9/26/2013	
41913			WH13168474				ALS: ME-ICP41				9/26/2013	
41914			WH13168474				ALS: ME-ICP41				9/26/2013	
41917			WH13168474				ALS: ME-ICP41				9/26/2013	
41918		WH13168474	WH13168474	WH13168474		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		9/26/2013	9/26/2013	9/26/2013
41919			WH13168474				ALS: ME-ICP41				9/26/2013	
41922			WH13168474				ALS: ME-ICP41				9/26/2013	
41923			WH13168474				ALS: ME-ICP41				9/26/2013	
41924			WH13168474				ALS: ME-ICP41				9/26/2013	
41927			WH13168474				ALS: ME-ICP41				9/26/2013	
41928			WH13168474				ALS: ME-ICP41				9/26/2013	
41929			WH13168474				ALS: ME-ICP41				9/26/2013	
41932			WH13168474				ALS: ME-ICP41				9/26/2013	
41933			WH13168474				ALS: ME-ICP41				9/26/2013	
41934			WH13168474				ALS: ME-ICP41				9/26/2013	
41937			WH13168474				ALS: ME-ICP41				9/26/2013	
41938			WH13168474				ALS: ME-ICP41				9/26/2013	
41939			WH13168474				ALS: ME-ICP41				9/26/2013	
41941			WH13168474				ALS: ME-ICP41				9/26/2013	
41942			WH13168474				ALS: ME-ICP41				9/26/2013	
41943			WH13168474				ALS: ME-ICP41				9/26/2013	
41944			WH13168474				ALS: ME-ICP41				9/26/2013	
41947			WH13168474				ALS: ME-ICP41				9/26/2013	
41948			WH13168474				ALS: ME-ICP41				9/26/2013	
41949			WH13168474				ALS: ME-ICP41				9/26/2013	
41952			WH13168474				ALS: ME-ICP41				9/26/2013	
41953			WH13168474				ALS: ME-ICP41				9/26/2013	
41954			WH13168474				ALS: ME-ICP41				9/26/2013	
41955			WH13168474				ALS: ME-ICP41				9/26/2013	
41956			WH13168474				ALS: ME-ICP41				9/26/2013	

Drill Hole Log - Ez-Shot Survey

Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date	Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date
29.00	103	-43.4	5702	123.7	H. Grimmage	9/7/2013							
62.00	101.9	-44.1	5704	122.6	H. Grimmage	9/7/2013							
92.00	101	-44.2	5701	121.7	L. Clarke	9/8/2013							
122.00	99.7	-44.4	5700	120.4	L. Clarke	9/8/2013							
152.00	101.1	-45.1	5694	121.8	H. Grimmage	9/8/2013							
182.00	101.4	-45	5693	122.1	H. Grimmage	9/8/2013							

Drill Hole Log - Rock Quality Determination

TC13060

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
14.00	17.00	3	2.82	94	2	70.92	
17.00	20.00	3	2.97	99	1.67	56.23	
20.00	23.00	3	2.83	94.33	1.41	49.82	
23.00	26.00	3	2.64	88	0.93	35.23	
26.00	29.00	3	2.33	77.67	0.8	34.33	
29.00	32.00	3	1.66	55.33	0	0	
32.00	35.00	3	1.5	50	0.57	38	
35.00	38.00	3	2.01	67	1.02	50.75	
38.00	41.00	3	1.92	64	0.34	17.71	
41.00	44.00	3	2.82	94	1.32	46.81	
44.00	47.00	3	2.73	91	1.13	41.39	
47.00	50.00	3	2.82	94	0.55	19.5	
50.00	53.00	3	2.92	97.33	1.43	48.97	
53.00	56.00	3	2.78	92.67	1.82	65.47	
56.00	59.00	3	2.36	78.67	1.64	69.49	
59.00	62.00	3	2.35	78.33	1.72	73.19	
62.00	65.00	3	3	100	2.88	96	
65.00	68.00	3	2.86	95.33	2.43	84.97	
68.00	71.00	3	3.01	100.33	2.96	98.34	
71.00	74.00	3	2.89	96.33	2.65	91.7	
74.00	77.00	3	2.8	93.33	2.58	92.14	
77.00	80.00	3	2.87	95.67	2.2	76.66	
80.00	83.00	3	2.72	90.67	2.36	86.76	
83.00	86.00	3	2.92	97.33	2.27	77.74	
86.00	89.00	3	3.01	100.33	2.76	91.69	
89.00	92.00	3	2.89	96.33	2.41	83.39	
92.00	95.00	3	2.87	95.67	2.48	86.41	
95.00	98.00	3	2.91	97	2.73	93.81	
98.00	101.00	3	2.85	95	2.14	75.09	
101.00	104.00	3	2.98	99.33	2.84	95.3	
104.00	107.00	3	2.9	96.67	2.86	98.62	
107.00	110.00	3	2.94	98	2.84	96.6	
110.00	113.00	3	2.93	97.67	2.8	95.56	
113.00	116.00	3	2.96	98.67	2.88	97.3	
116.00	119.00	3	2.9	96.67	2.21	76.21	
119.00	122.00	3	2.95	98.33	1.52	51.53	
122.00	125.00	3	2.93	97.67	2.67	91.13	
125.00	128.00	3	2.82	94	2.62	92.91	
128.00	131.00	3	2.85	95	2.36	82.81	
131.00	134.00	3	2.99	99.67	2.94	98.33	
134.00	137.00	3	2.99	99.67	2.92	97.66	
137.00	140.00	3	2.89	96.33	2.38	82.35	
140.00	143.00	3	2.7	90	2.27	84.07	
143.00	146.00	3	2.27	75.67	1.41	62.11	
146.00	149.00	3	3.68	122.67	3.39	92.12	
149.00	152.00	3	2.88	96	2.64	91.67	
152.00	155.00	3	2.98	99.33	2.78	93.29	
155.00	158.00	3	2.96	98.67	2.68	90.54	
158.00	161.00	3	2.97	99	2.31	77.78	
161.00	164.00	3	3	100	2.26	75.33	
164.00	167.00	3	2.91	97	2.66	91.41	
167.00	170.00	3	2.99	99.67	2.93	97.99	
170.00	173.00	3	2.96	98.67	2.87	96.96	
173.00	176.00	3	2.94	98	1.96	66.67	
176.00	179.00	3	2.86	95.33	1.94	67.83	
179.00	182.00	3	3.02	100.67	2.71	89.74	

Drill Hole Log - Structure

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
134.05		cont			272.25	75.92	2.25			120.70	-44.50	30	80				5/22/2011	
134.30		fol			62.50	87.38	152.50			120.70	-44.50	35	40				5/22/2011	
139.07		fol			181.96	64.61	271.96			120.60	-44.50	60	300				5/22/2011	
168.50		fol			165.42	70.93	255.42			120.10	-44.80	45	290				5/22/2011	

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
12.60	13.70	vn	dis	4										
13.70	14.65	mx		90										
14.65	20.86	ws	dis	4										
16.15	20.86	ws	dis	4										
20.86	21.80	dis	str	3										
21.80	24.70	str		5										
24.70	29.00	dis		3										
29.00	34.20	dis		0.1										
34.20	35.50	dis		0.1										
35.50	51.50	dis	vn	4										
51.50	53.00	vn	dis	4										
53.00	54.50	vn	dis	4										
54.50	56.00	vn	dis	4										
56.00	60.87	dis	vn	4										
60.87	66.85	str	dis	5										
67.00	85.15	dis		1										
85.15	97.83	dis		3										
97.83	102.33	dis		3										
99.33	100.83	vn	dis	8										
100.83	102.33	vn	dis	8										
102.33	109.37	dis	sm	4										
109.37	127.30	vn	dis	4										
127.30	134.05	dis	BL	2										
134.05	139.30	tr		0.1										
139.30	139.83	vn	dis	8										
139.83	141.33	vn	dis	8										
141.33	142.83	vn	dis	8										
142.83	143.00	mx		90										
143.00	144.50	vn	dis	10										
144.50	146.00	vn	dis	10	0.1									
146.00	147.33	vn	dis	10										
147.33	148.66	vn	dis	10										
148.66	150.00	dis		5										
150.00	151.33	dis		5										
151.33	153.06	vn	dis	8	0.1									
153.06	154.80	vn	dis	8		0.1	0.1							
154.80	156.30	vn	dis	8										
156.30	157.80	vn	dis	8										
157.80	159.50	vn	dis	8										
159.50	161.00	dis		1										
161.00	162.50	dis		1										
162.50	164.00	dis		1										
164.00	165.26	dis		1										
165.26	166.26	dis		1										
166.26	167.87	vn	dis	3										
167.87	168.95	dis		5	0.1									
168.95	170.45	vn	dis	3	0.1									
170.45	171.95	vn	dis	3										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
171.95	173.45	vn	dis	3										
173.45	174.90	vn	dis	3										
174.90	175.70	vn	dis	3										
175.70	176.60	tr		0.1										
176.60	178.10	vn	dis	5										
178.10	182.00	vn	dis	5										

Drill Hole Log - Alteration

From	To (m)	Style 1	Style 2	Sil	Ser	% Py	Chl	Epi	Alb	Carb	Hem	Mar	Bio	Other Type 1	Oth1	Other Type 2	Oth2	Remarks
12.60	13.70	mot		3														
14.65	20.86	mot	per	4														
20.86	21.80	dis			2													
21.80	24.70	per		5														
24.70	29.00	dis			2		3											

Note : Alteration Intensity numerically ranked (1-10)

Drill Hole Log - Tulsequah Chief 2013

TC13061

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
TC13061	10669.09	15126.87	365.00	270	103	-55

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
9/9/2013	9/12/2013	NQ	Atlas Drilling	9/13/2013	C. Taylor

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
2013 APS Survey	CT/AF/BA	10/22/2013	Ez-Shot Avg		9/9/2013

Purpose:

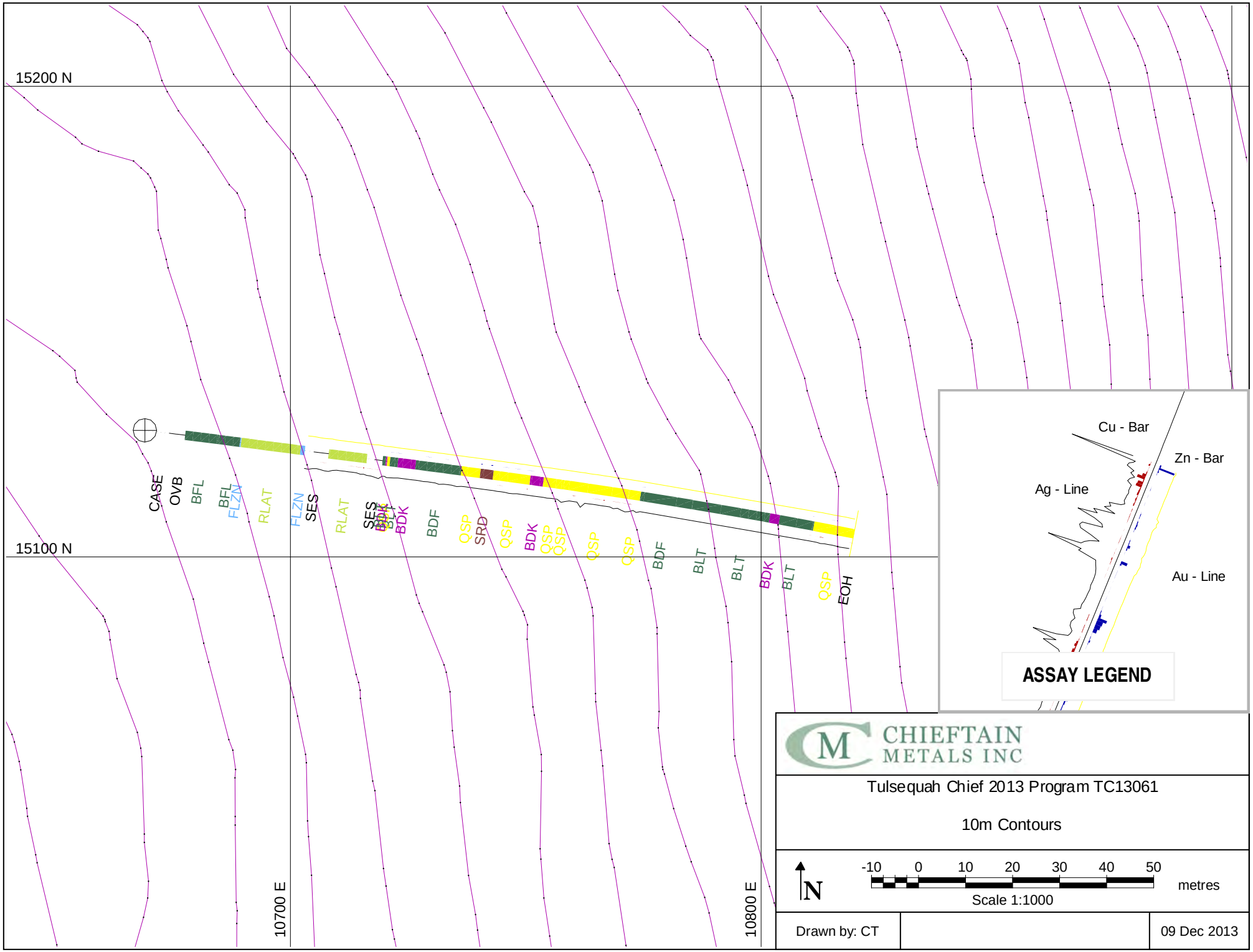
To test refined Mira 3D IP inversion anomaly at the +240m elevation, conincident with the interperted rhyolite horizion. Target depth down the hole is 85m. Target 13-JP03

Summary:

Encountered Altered Basalt Flow from 15.30-36.20m, Rhyolite Fragmental from 36.20-59.15m, and intermixed Mafic Fragmentals and Quartz Sericite Pyrite Alteration from 60.80-270m (EOH). Very trace Chalcopyrite at 258.5m. No major massive sulphide units encountered. IP anomaly explained by abundant Pyrite in alteration.

Significant Intercepts:

Hole-ID	From (m)	To (m)	Length (m)	True Width (m)	Zone	Lith	Au gpt	Ag gpt	Cu %	Pb %	Zn %	As ppm	SG g/cm3	$US Eq/t SRK12	$NSR/t JDS12	News Release Date
TC13061						No significant intercepts										11/20/2013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CASE
OVB
BFL
BFL
FLZN
RLAT
FLZN
SES
RLAT
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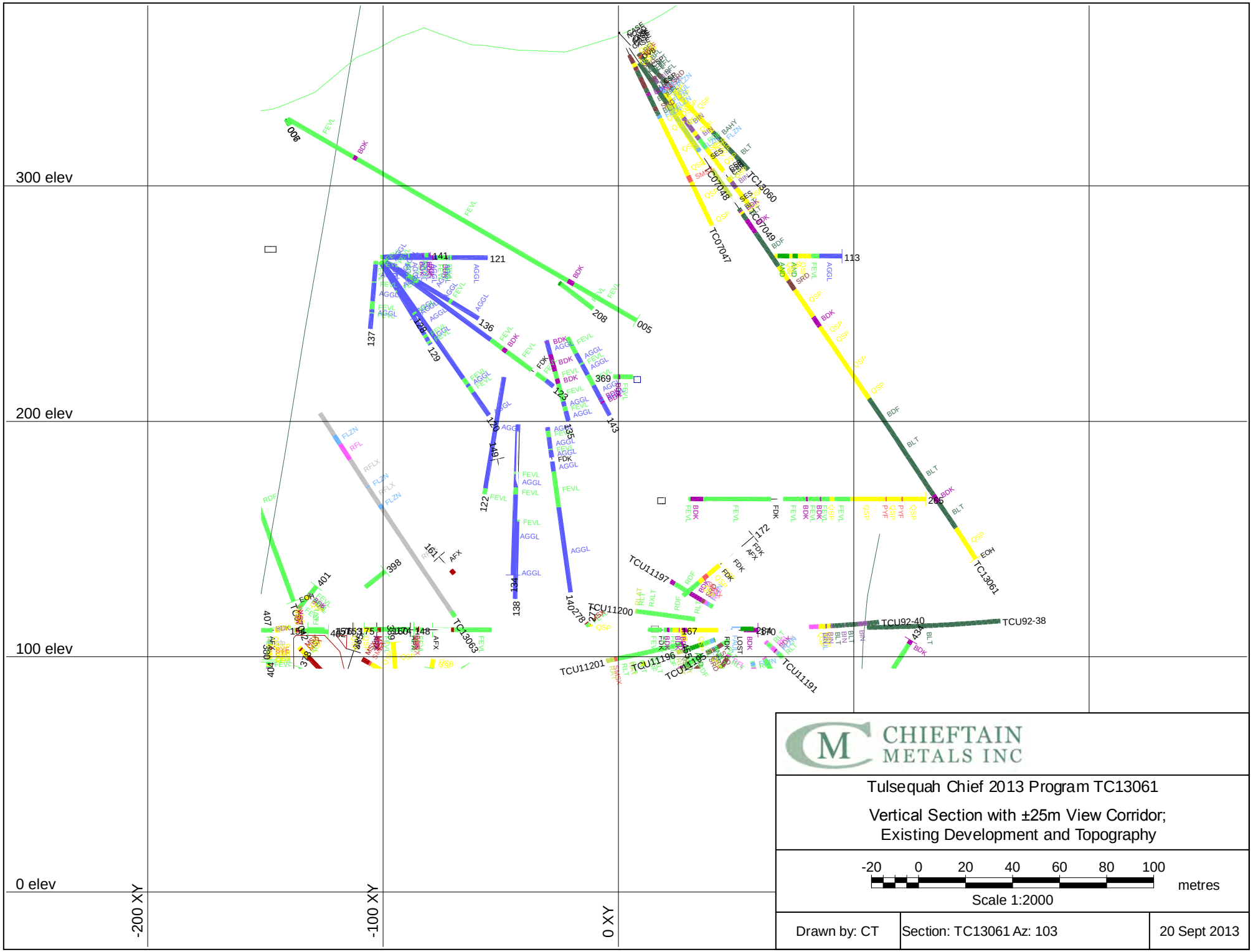
BDF
QSP
SRD
QSP
BDK
QSP
QSP
QSP
QSP
BDF
BLT
BLT
BDK
BLT
QSP
EOH
Cu - Bar
Zn - Bar
Ag - Line
Au - Line
ASSAY LEGEND
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13061
10m Contours
N
-10 0 10 20 30 40 50
metres
Scale 1:1000
Drawn by: CT
09 Dec 2013


300 elev
200 elev
100 elev
0 elev
-200 XY
-100 XY
0 XY
TC13060
TC07048
TC07049
TC07047
TC13061
TCU92-40
TCU92-38
TCU11197
TCU11200
TCU11201
TCU11196
TCU11195
TCU11191
TC13063
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13061
Vertical Section with ±25m View Corridor;
Existing Development and Topography
-20 0 20 40 60 80 100
metres
Scale 1:2000
Drawn by: CT
Section: TC13061 Az: 103
20 Sept 2013

Drill Hole Log - Down Hole Survey

TC13061

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	96.8	-55.3	Ez-Shot Az Avg/Maxibor	BA	9/12/2013	
3.06	96.7	-55.6	Maxibor	BA	9/12/2013	
6.12	96.6	-55.9	Maxibor	BA	9/12/2013	averaged dip
9.18	96.8	-56.2	Maxibor	BA	9/12/2013	
12.24	97	-56.15	Maxibor	BA	9/12/2013	averaged dip
15.30	97.1	-56.1	Maxibor	BA	9/12/2013	
18.36	97.2	-56	Maxibor	BA	9/12/2013	
21.42	97.3	-55.7	Maxibor	BA	9/12/2013	
24.48	97.3	-55.9	Maxibor	BA	9/12/2013	
27.54	97.4	-55.7	Maxibor	BA	9/12/2013	
30.60	97.4	-55.8	Maxibor	BA	9/12/2013	
33.65	97.4	-55.5	Maxibor	BA	9/12/2013	
36.71	97.4	-55.5	Maxibor	BA	9/12/2013	
39.77	97.3	-55.7	Maxibor	BA	9/12/2013	
42.83	97.3	-55.6	Maxibor	BA	9/12/2013	
45.89	97.3	-55.8	Maxibor	BA	9/12/2013	
48.95	97.4	-55.6	Maxibor	BA	9/12/2013	
52.01	97.4	-55.8	Maxibor	BA	9/12/2013	
55.07	97.4	-55.5	Maxibor	BA	9/12/2013	
58.13	97.4	-55.8	Maxibor	BA	9/12/2013	
61.19	97.5	-55.5	Maxibor	BA	9/12/2013	
64.25	97.4	-55.7	Maxibor	BA	9/12/2013	
67.31	97.4	-55.4	Maxibor	BA	9/12/2013	
70.37	97.4	-55.6	Maxibor	BA	9/12/2013	
73.43	97.3	-55.3	Maxibor	BA	9/12/2013	
76.49	97.2	-55.6	Maxibor	BA	9/12/2013	
79.55	97.2	-55.3	Maxibor	BA	9/12/2013	
82.61	97.2	-55.6	Maxibor	BA	9/12/2013	
85.67	97.3	-55.4	Maxibor	BA	9/12/2013	
88.73	97.2	-55.6	Maxibor	BA	9/12/2013	
91.79	97.2	-55.3	Maxibor	BA	9/12/2013	
94.85	97.2	-55.6	Maxibor	BA	9/12/2013	
97.90	97.2	-55.4	Maxibor	BA	9/12/2013	
100.96	97.3	-55.4	Maxibor	BA	9/12/2013	
104.02	97.3	-55.6	Maxibor	BA	9/12/2013	
107.08	97.4	-55.6	Maxibor	BA	9/12/2013	
110.14	97.5	-55.5	Maxibor	BA	9/12/2013	
113.20	97.5	-55.6	Maxibor	BA	9/12/2013	
116.26	97.6	-55.7	Maxibor	BA	9/12/2013	
119.32	97.7	-55.4	Maxibor	BA	9/12/2013	
122.38	97.6	-55.5	Maxibor	BA	9/12/2013	
128.50	97.6	-55.8	Maxibor	BA	9/12/2013	
134.62	97.7	-55.5	Maxibor	BA	9/12/2013	
137.68	97.7	-55.6	Maxibor	BA	9/12/2013	
146.86	97.8	-55.7	Maxibor	BA	9/12/2013	
149.92	97.8	-55.7	Maxibor	BA	9/12/2013	
152.98	97.9	-55.8	Maxibor	BA	9/12/2013	
156.04	97.9	-55.8	Maxibor	BA	9/12/2013	averaged dip
159.10	98	-55.8	Maxibor	BA	9/12/2013	
168.27	98.3	-55.8	Maxibor	BA	9/12/2013	
177.45	98.6	-55.7	Maxibor	BA	9/12/2013	
183.57	98.8	-55.6	Maxibor	BA	9/12/2013	
189.69	99	-55.6	Maxibor	BA	9/12/2013	
201.93	99.4	-55.6	Maxibor	BA	9/12/2013	
208.05	99.6	-55.65	Maxibor	BA	9/12/2013	
226.40	99.8	-55.65	Maxibor	BA	9/12/2013	
229.46	99.9	-55.65	Maxibor	BA	9/12/2013	
232.52	100	-55.65	Maxibor	BA	9/12/2013	
235.58	100.1	-55.7	Maxibor	BA	9/12/2013	
247.82	100.5	-55.7	Maxibor	BA	9/12/2013	
253.94	100.7	-56	Maxibor	BA	9/12/2013	Used EZ shot Az
263.00	100.9	-56	Maxibor	BA	9/12/2013	Used EZ shot Az

From	To (m)	
0.00	12.00	Casing
12.00	15.30	Overburden Large boulders of Silicified Basalt Flow and Sloko Rhyolite dyke.
15.30	28.28	Basalt Flow: Siliceous Strongly silicified Basalt Flow. Bleached light grey-green. Brecciated texture. Bands of fine to medium grained Pyrite throughout, sometimes associated with massive white quartz veins, Pyrite also fine grained, disseminated in groundmass, 8% overall. Quartz veins are frequent, typically folded and broken, generally 0.5-1cm, 2% overall. Lower contact gradational.
28.28	36.20	Basalt Flow Basalt Flow. Similar to previous unit, but moderately silicified (silicification increasing downhole). Medium grey-green becoming lighter downhole. Brecciated texture. Small (typically <1cm) quartz veins throughout, typically broken and folded, 1% overall. Fine to medium grained Pyrite throughout, disseminated in groundmass or in semi massive bands up to 20cm, 8% overall.
36.20	36.60	Fault Zone Fault Zone. Fine grey clay with small rounded fragments of below unit (Rhyolite).
36.60	59.15	Rhyolite Lapilli and Ash Tuff Rhyolite Lapilli and Ash Tuff. Mottled light to medium grey. Fragments are light grey, angular, typically 2mm-1cm in diameter, rarely up to 2cm, ~35% fragments overall. Frequent Pyrite in groundmass (rarely in fragments), ~5% overall. Lower contact gradational, foliation gradually increasing downhole. Infrequent straight, white, broken quartz veins scattered throughout. Generally fairly highly fractured, decreasing gradually downhole (influense from fault zone). Fractures sometimes clay filled. 51.10 52.10 Basalt Dyke Small dark grey-green Basalt Dyke. Sharp, distinct contacts. ~1cm folded, broken quartz veins throughout, non-mineralized.
59.15	60.80	Fault Zone Fault Zone. Clay gouge with large fragments of sericite schist.
60.80	69.85	Sericite Schist Sericitie Schist. Dominantly composed of quartz and sericite with frequent thick (up to 10cm) quartz (± yellowish sericite) veins (10% overall) and minor talc. Schistosity is erratic, often disturbed by veining, and folded near upper contact. Faint fragmental texture ~66-67.5m. Generally small amounts of fine grained Pyrite in groundmass, ~1% overall. Frequent fractures near upper contact (fault zone), often clay filled.

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
60.80	62.30	1.5	41957	0.19	1.2	0.002	0.001	0.001
62.30	63.80	1.5	41958	0.23	1.3	0.002	0.002	0.001
63.80	65.30	1.5	41959	0.17	0.8	0.002	0.002	0.001
65.30	66.80	1.5	41962	0.07	0.6	0.003	0.002	0.003

From	To (m)	
69.85	84.30	Rhyolite Lapilli and Ash Tuff: Siliceous Rhyolite Lapilli and Ash Tuff. Mottled light to medium grey. Fragments are light grey, angular, typically 2mm-1cm in diameter, rarely up to 2cm, ~35% fragments overall. Frequent fine grained Pyrite in groundmass, ~8% overall. Similar to 36.6-59.15 (RLAT), but fragments are more altered. White silicieous rims on fragments common, sometimes with fine grained replacement Pyrite in cores. Trace sericitization on fractures. Frequent clay filled fractures in the upper part of the unit. Trace fine quartz/carbonate veins. Lower contact gradational.
84.30	90.23	Sericite Schist Quartz Sericite Schist. Vague fragmental texture still apparent. Schistosity is fairly regular. Minor fine grained Pyrite regularly distributed in the groundmass, ~5% overall. Rare clay filled fractures. Trace small (<1cm) broken quartz veins.
90.23	91.42	Basalt Lapilli Tuff: Siliceous Basalt Lapilli Tuff. Fine grained mafic groundmass with small (1mm-1cm) silicified fragments. Fine to medium grained Pyrite throughout mainly in groundmass, ~5% overall. Sharp lower contact.
91.42	91.98	Basalt Dyke Small fine grained mafic dyke. Dark green-grey. Trace fine grained Pyrite. Sharp contacts.
91.98	93.02	Quartz Sericite Pyrite Alteration Quartz Sericite Pyrite Alteration. Patchy silicification. Basalt Lapilli Tuff protolith. Minor sericitization. Roughly 10% fine to medium grained Pyrite, more abundant with stronger silicification. Small (mm scale) broken quartz veins throughout.
93.02	96.00	Basalt Lapilli Tuff: Siliceous Basalt Lapilli Tuff. Fine grained mafic groundmass with small (1mm-1cm) silicified fragments. Fine to medium grained Pyrite throughout in groundmass and replacing fragments, 10% overall. Moderate patchy silicification.
96.00	102.70	Basalt Dyke Fine grained mafic dyke. Dark green-grey. Trace fine grained Pyrite. Sharp contacts. ~1% lightly folded small (<1cm) quartz veins (±chlorite, ± trace epidote).
102.70	120.00	Basalt Debris Flow

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
66.80	68.30	1.5	41963	0.08	0.8	0.006	0.002	0.002
68.30	69.85	1.55	41964	0.11	1.1	0.002	0.001	0.002
69.85	71.35	1.5	41965	0.26	1.1	0.004	0.002	0.002
71.35	72.85	1.5	41966	0.05	0.5	0.003	0.001	0.002
72.85	74.35	1.5	41967	0.02	0.2	0.004	0.001	0.002
74.35	75.85	1.5	41968	0.03	<0.2	0.003	0.001	0.002
75.85	77.35	1.5	41969	0.03	<0.2	0.002	0.001	0.003
77.35	78.85	1.5	41971	0.01	<0.2	0.013	0	0.007
78.85	80.35	1.5	41972	<0.01	<0.2	0.007	0.001	0.008
80.35	81.85	1.5	41973	0.02	0.2	0.023	0.001	0.009
81.85	83.35	1.5	41974	0.11	0.6	0.019	0.002	0.009
83.35	84.30	0.95	41975	0.02	0.4	0.026	0.001	0.01
84.30	85.80	1.5	41976	0.06	0.8	0.023	0.002	0.003
85.80	87.30	1.5	41977	0.04	0.8	0.02	0.002	0.002
87.30	88.80	1.5	41978	0.18	1.1	0.02	0.002	0.004
88.80	90.23	1.43	41979	0.10	1.5	0.015	0.002	0.002
90.23	91.42	1.19	41981	0.02	0.3	0.003	0.001	0.009
91.42	91.98	0.56	41982	<0.01	<0.2	0.006	0	0.01
91.98	93.02	1.04	41983	0.05	0.6	0.003	0.002	0.002
93.02	94.50	1.48	41984	0.03	0.5	0.007	0.001	0.007
94.50	96.00	1.5	41985	0.03	0.4	0.002	0.001	0.008
96.00	97.50	1.5	41986	<0.01	<0.2	0.005	0	0.009
101.20	102.70	1.5	41987	<0.01	<0.2	0.005	0.001	0.009

From	To (m)													
		Basalt Debris Flow. Mafic groundmass with abundant fragments ranging in size from 1mm-5cm. Larger fragments typically silicified. Fine to medium grained Pyrite throughout, disseminated in groundmass, in bands, and in fragments, roughly 5% overall. Silicification increases downhole. Lower contact sharp, irregular.			102.70	104.20	1.5	41988	0.02	0.2	0.001	0.001	0.006
					104.20	105.70	1.5	41989	0.02	0.2	0.001	0.001	0.008
					105.70	107.20	1.5	41992	0.02	0.3	0.001	0.003	0.009
					107.20	108.70	1.5	41993	0.02	0.2	0.001	0.001	0.007
		118.15	120.00	Basalt Debris Flow: Siliceous	108.70	110.20	1.5	41994	0.02	0.2	0.001	0.001	0.005
				Highly silicified. Possibly very large silicified fragment of the debris flow.	110.20	111.70	1.5	41995	0.02	0.3	0.001	0.001	0.006
					111.70	113.20	1.5	41996	0.04	0.6	0.002	0.001	0.005
					113.20	114.70	1.5	41997	0.02	0.3	0.001	0.001	0.006
					114.70	116.20	1.5	41998	0.02	0.3	0.001	0.001	0.005
					116.20	118.15	1.95	41999	0.01	0.3	0.001	0.001	0.005
					118.15	120.00	1.85	42001	0.02	0.6	0.002	0.002	0.003
120.00	127.15	Quartz Sericite Pyrite Alteration											
		Quartz Sericite Pyrite Alteration. Protolith is likely Basalt Fragmental. Highly silicified groundmass and fragments, with some remnant chloritic fragments. Potentially a more highly altered version of the previous unit. Fine to medium grained Pyrite throughout, ~5% overall.			120.00	121.50	1.5	42002	0.01	0.2	0.001	0.001	0.006
					121.50	123.00	1.5	42003	0.01	0.2	0.001	0.002	0.008
					123.00	124.50	1.5	42004	0.02	0.2	0.002	0.002	0.003
					124.50	126.00	1.5	42005	0.01	<0.2	0.001	0.001	0.004
					126.00	127.15	1.15	42006	0.02	<0.2	0.002	0.001	0.007
127.15	132.12	Rhyolite Dyke, Sloko Fm											
		Sloko Rhyolite Dyke. Light grey, light pink near contacts. Speckled with dark green chlorite? Trace fine grained Pyrite. Banding near contacts. Knife sharp contacts.			127.15	128.00	0.85	42007	<0.01	<0.2	0	0.007	0.01
					131.00	132.12	1.12	42008	<0.01	0.2	0	0.007	0.008
132.12	146.09	Quartz Sericite Pyrite Alteration											
		Quartz Sericite Pyrite Alteration. Protolith is likely Basalt Fragmental (debris flow?). Highly silicified groundmass and fragments, with some remnant chlorite fragments. Alteration is somewhat variable. Moderate sericitization. Fine to medium grained Pyrite throughout, ~8% overall. Rare small (<1cm) broken white quartz veins throughout.			132.12	133.62	1.5	42009	0.02	0.2	0.002	0.002	0.008
					133.62	135.12	1.5	42012	0.02	0.3	0.004	0.002	0.005
					135.12	136.62	1.5	42013	0.02	0.3	0.002	0.001	0.004
					136.62	138.12	1.5	42014	0.03	0.3	0.003	0.002	0.009
					138.12	139.62	1.5	42015	0.03	0.5	0.005	0.001	0.007
					139.62	141.12	1.5	42016	0.05	0.4	0.003	0.001	0.011
					141.12	142.62	1.5	42017	0.01	0.2	0.002	0	0.009
					142.62	144.12	1.5	42018	0.02	0.2	0.003	0.001	0.007
					144.12	146.09	1.97	42019	0.02	<0.2	0.006	0.001	0.009
146.09	151.13	Basalt Dyke : Siliceous											
		Fine grained mafic dyke. Patchy silicification and epidotization throughout. Regular small (<0.5cm) quartz ± epidote ± chlorite veins throughout, fairly straight and often with silicification on the margins. Trace Pyrite. Sharp contacts.			146.09	147.59	1.5	42021	<0.01	<0.2	0.003	0.002	0.013
					147.59	149.09	1.5	42022	<0.01	<0.2	0.009	0.001	0.011
					149.09	151.13	2.04	42023	<0.01	<0.2	0.002	0.002	0.01
151.13	158.09	Quartz Sericite Pyrite Alteration											
		Quartz Sericite Pyrite Alteration, likely with a basalt debris flow protolith. Strongly silicified, fragments typically bleached, matrix is variably silicified, remnant mafic. Minor sericitization. Fine to medium grained Pyrite disseminated throughout, occasionally forming bands, ~5% overall.			151.13	152.63	1.5	42024	0.01	<0.2	0.002	0.001	0.006
					152.63	154.13	1.5	42025	0.04	0.3	0.002	0.002	0.005
					154.13	155.32	1.19	42026	0.04	0.2	0.002	0.001	0.005
		155.20	156.50	Basalt Flow	155.32	156.50	1.18	42027	0.03	0.2	0.002	0.001	0.006

From	To (m)												
		Potentially a large block of amygdaloidal basalt. Strong silicification on contacts, but relatively unaltered otherwise. Fine grained disseminated	156.50	158.09	1.59	42028	0.03	0.2	0.003	0.001	0.003
158.09	161.10	Quartz Sericite Pyrite Alteration: Sericite									
		Quartz Sericite Pyrite Alteration. Protolith difficult to determine. Strong silicification, moderate banded sericitization. Almost schistose. Alteration is irregular, patchy, zoned. Could also potentially be a large block. Fine to medium grained Pyrite disseminated throughout, ~5% overall. Few large (2-4cm) broken quartz/chlorite veins. Sharp contacts.	158.09	159.60	1.51	42029	0.06	1.2	0.003	0.001	0.001
			159.60	161.10	1.5	42032	0.05	0.7	0.004	0.001	0.001
161.10	184.00	Quartz Sericite Pyrite Alteration									
		Quartz Sericite Pyrite Alteration, protolith appears to be Basalt Lapilli Tuff. Strongly silificied fragments and matrix, with some remnant mafic matrix. Fragments typically <2cm, occasionally weakly aligned with foliation. Foliation becomes more apparent downhole. Fine grained disseminated Pyrite throughout, occasionally forming weak bands, ~5% overall. Small fault at 182.2m, clay infilling. Lower contact sharp, marked where fragments become absent.	161.10	162.60	1.5	42033	0.02	<0.2	0.004	0.001	0.002
			162.60	164.10	1.5	42034	0.01	0.2	0.046	0.001	0.003
			164.10	165.60	1.5	42035	0.03	0.2	0.007	0.001	0.002
			165.60	167.10	1.5	42036	0.09	2.2	0.009	0.002	0.002
			167.10	168.60	1.5	42037	0.02	<0.2	0.005	0.001	0.002
		174.20 174.50 Fault	168.60	170.10	1.5	42038	0.01	<0.2	0.006	0.001	0.003
		Small fault, infilled with quartz/chlorite veins. Weakly healed (fault breccia). Fine grained Pyrite in fault.	170.10	171.60	1.5	42039	0.01	<0.2	0.016	0.001	0.004
			171.60	173.10	1.5	42041	0.01	<0.2	0.027	0	0.005
			173.10	174.20	1.1	42042	0.01	<0.2	0.01	0	0.005
			174.20	175.10	0.9	42043	0.02	0.2	0.01	0.001	0.009
			175.10	176.60	1.5	42044	0.01	<0.2	0.008	0.001	0.004
			176.60	178.10	1.5	42045	0.02	<0.2	0.009	0.001	0.002
			178.10	179.60	1.5	42046	0.05	0.7	0.012	0.001	0.001
			179.60	181.10	1.5	42047	0.03	0.3	0.015	0.001	0.002
			181.10	182.70	1.6	42048	0.06	0.9	0.006	0.001	0.002
			182.70	184.00	1.3	42049	0.06	1.3	0.004	0.001	0.001
184.00	188.18	Quartz Sericite Pyrite Alteration: Sericite									
		Quart Sericite Pyrite Alteration. Protolith difficult to determine, potentially rhyolitic. Strong patchy silicification, moderate banded sericitization. Weakly to moderately foliated, somewhat irregularly. Fine to medium grained Pyrite throughout, generally forming bands, ~3% overall. Sharp lower contact.	184.00	185.50	1.5	QO14001	0.05	1.0	0.02	0.001	0.002
			185.50	187.00	1.5	QO14002	0.02	0.2	0.002	0.001	0.002
			187.00	188.18	1.18	QO14003	0.05	0.8	0.002	0.001	0.001
188.18	208.00	Basalt Debris Flow: Siliceous									
		Basalt Debris Flow. Variably silicified, pervasively silicified ~188.18-199m, patchy silicification of groundmass and silicified fragments ~199-208m. Fragments are quite variable in size, regularly up to 3cm in diameter, with fragments up to 5cm. Occasional fragments with Pyrite cores (replacement?) and siliceous rims. Fine to medium grained Pyrite scattered throughout, in groundmass and fragments, 3% overall, decreasing downhole. Lower contact approximate, located where fragments are not easily distinguished.	188.18	189.68	1.5	QO14004	0.01	<0.2	0.004	0.001	0.002
208.00	218.90	Basalt Lapilli Tuff: Chlorite; Siliceous									
		Potentially an altered Basalt Lapilli Tuff. Alteration is patchy, obscuring proto-texture, but unit appears to be fine grained, possibly fragmental. Moderately chloritized/silicified. Variable fine to									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		medium grained Pyrite, ~2% overall. Fractured white quartz/carbonate veins throughout, varying in thickness from 1mm-3cm. Lower contact approximate, located with fragmental texture is again apparent.									
218.90	237.48	Basalt Lapilli Tuff: Siliceous Strongly silicified Basalt Lapilli Tuff. Silicification is fairly pervasive. Fragments are small, 1mm-1cm, angular, and abundant. Minor scattered fine grained Pyrite in groundmass, rare fine to medium grained bands, ~2% overall. Lower contact knife sharp. 230.50 231.45 Fault Zone: Chlorite Minor fault, infilled with vuggy carbonate or clay. This section is more chloritized than the main unit, potentially due to fault, though may be a small synvolcanic dyke.									
237.48	241.22	Basalt Dyke : Siliceous Potentially a synvolcanic Basalt Dyke. Medium green. Groundmass is fine grained, brecciated, moderately to strongly silicified. Frequent crosscutting quartz/carbonate veins (~10% overall). Small (~5cm) blocks of below unit near lower contact. Minor bands of fine to medium grained Pyrite, most commonly associated with blocks, ~1% overall. Very sharp contacts.									
241.22	254.45	Basalt Lapilli Tuff: Siliceous Basalt Lapilli Tuff. Slight purplish tinge to unit, posibly due to hematization or mica alteration? Silicification pervasive. Fragments typically small (1mm-1cm), angular, variably silicified, with few larger fragments downhole. Fine to medium grained Pyrite throughout, rarely forming bands, ~2% overall. Lower contact gradational.	253.45	254.45	1	QO14005	0.03	<0.2	0.014	0.001	0.004
254.45	270.00	Quartz Sericite Pyrite Alteration Quartz Sericite Pyrite Alteration. Protolith likely mafic fragmental, though texture is generally obscured (alteration varies somewhat) and in places appears massive and bleached. Silicification is strong, minor sericitization. Fine to medium grained pyrite throughout, disseminated in groundmass or in bands, ~4% overall. Trace Chalcopyrite associated with Pyrite at 258.5m. Last 3m of core dropped, gap in sampling: 266.45-267m.	254.45	255.95	1.5	QO14006	0.02	<0.2	0.005	0.001	0.004
			255.95	257.45	1.5	QO14007	0.02	<0.2	0.007	0.001	0.004
			257.45	258.95	1.5	QO14008	0.04	0.4	0.06	0.001	0.004
			258.95	260.45	1.5	QO14009	0.01	<0.2	0.003	0.001	0.003
			260.45	261.95	1.5	QO14012	0.01	<0.2	0.002	0.001	0.004
			261.95	263.45	1.5	QO14013	0.02	<0.2	0.002	0.001	0.004
			263.45	264.95	1.5	QO14014	0.05	0.3	0.014	0.001	0.003
			264.95	266.45	1.5	QO14015	0.09	0.4	0.002	0.002	0.004
			267.00	268.50	1.5	QO14016	0.04	0.3	0.001	0.001	0.003
			268.50	270.00	1.5	QO14017	0.03	0.2	0.002	0.001	0.004
270.00	270.00	End of Hole									

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
41957	60.80	62.30	1.5		0.188							1.2	0.66	40	30	<0.5	3	0.23	<0.5	3	3	24
41958	62.30	63.80	1.5		0.227							1.3	0.54	63	70	<0.5	3	0.20	<0.5	4	1	16
41959	63.80	65.30	1.5		0.174							0.8	0.96	64	20	<0.5	2	0.48	<0.5	6	2	25
41962	65.30	66.80	1.5		0.067							0.6	1.12	45	20	<0.5	5	0.42	<0.5	10	3	27
41963	66.80	68.30	1.5		0.078							0.8	0.93	45	20	<0.5	6	0.42	<0.5	7	3	62
41964	68.30	69.85	1.55		0.110							1.1	0.52	55	50	<0.5	2	0.06	<0.5	2	1	17
41965	69.85	71.35	1.5		0.257							1.1	1.05	190	20	<0.5	2	0.27	<0.5	16	1	43
41966	71.35	72.85	1.5		0.050							0.5	1.11	131	10	<0.5	4	0.28	<0.5	19	2	28
41967	72.85	74.35	1.5		0.020							0.2	1.38	67	10	<0.5	2	0.42	<0.5	28	2	36
41968	74.35	75.85	1.5		0.025							<0.2	1.31	152	60	<0.5	<2	0.14	<0.5	25	2	30
41969	75.85	77.35	1.5		0.025							<0.2	1.97	153	20	<0.5	2	0.28	<0.5	24	3	23
41971	77.35	78.85	1.5		0.006							<0.2	2.93	53	20	<0.5	<2	0.30	<0.5	24	4	127
41972	78.85	80.35	1.5		<0.005							<0.2	3.49	61	20	<0.5	3	0.38	<0.5	24	4	69
41973	80.35	81.85	1.5		0.019							0.2	3.30	49	20	<0.5	3	0.37	<0.5	24	4	235
41974	81.85	83.35	1.5		0.108							0.6	2.65	172	20	<0.5	<2	0.38	<0.5	22	3	194
41975	83.35	84.30	0.95		0.018							0.4	3.23	112	20	<0.5	2	0.27	<0.5	24	4	264
41976	84.30	85.80	1.5		0.060							0.8	1.32	140	10	<0.5	2	0.28	<0.5	30	2	234
41977	85.80	87.30	1.5		0.038							0.8	1.16	112	10	<0.5	2	0.21	<0.5	34	1	202
41978	87.30	88.80	1.5		0.178							1.1	1.26	237	10	<0.5	2	0.32	<0.5	34	2	199
41979	88.80	90.23	1.43		0.097							1.5	1.21	208	10	0.5	<2	0.45	<0.5	30	1	149
41981	90.23	91.42	1.19		0.023							0.3	2.98	64	20	<0.5	3	0.62	<0.5	20	7	28
41982	91.42	91.98	0.56		<0.005							<0.2	2.56	12	430	<0.5	2	0.49	<0.5	7	2	56
41983	91.98	93.02	1.04		0.050							0.6	1.39	70	10	<0.5	5	0.59	<0.5	19	4	34
41984	93.02	94.50	1.48		0.027							0.5	2.27	28	20	<0.5	3	0.49	<0.5	17	7	75
41985	94.50	96.00	1.5		0.031							0.4	2.35	38	20	<0.5	4	0.47	<0.5	18	7	19
41986	96.00	97.50	1.5		<0.005							<0.2	2.23	7	1220	<0.5	3	0.50	<0.5	7	1	51
41987	101.20	102.70	1.5		<0.005							<0.2	2.55	10	870	<0.5	2	0.63	<0.5	8	1	47
41988	102.70	104.20	1.5		0.023							0.2	2.24	43	20	<0.5	4	0.62	<0.5	18	2	10
41989	104.20	105.70	1.5		0.016							0.2	2.64	37	20	<0.5	4	0.49	<0.5	14	2	8
41992	105.70	107.20	1.5		0.020							0.3	2.13	62	20	<0.5	3	0.45	0.6	15	2	9
41993	107.20	108.70	1.5		0.015							0.2	2.21	44	20	<0.5	3	0.47	<0.5	12	2	6
41994	108.70	110.20	1.5		0.021							0.2	1.84	44	20	<0.5	3	0.64	<0.5	10	2	6
41995	110.20	111.70	1.5		0.022							0.3	2.10	46	30	<0.5	4	0.87	<0.5	13	3	8
41996	111.70	113.20	1.5		0.036							0.6	1.93	42	20	<0.5	4	0.44	<0.5	21	3	15
41997	113.20	114.70	1.5		0.024							0.3	1.93	36	30	<0.5	3	0.39	0.5	10	3	6
41998	114.70	116.20	1.5		0.018							0.3	1.80	24	30	<0.5	4	0.45	<0.5	11	3	7
41999	116.20	118.15	1.95		0.013							0.3	1.80	21	30	<0.5	4	0.46	<0.5	8	4	5
42001	118.15	120.00	1.85		0.024							0.6	1.39	23	20	<0.5	5	0.48	<0.5	10	3	23
42002	120.00	121.50	1.5		0.008							0.2	1.77	22	30	<0.5	3	0.55	<0.5	9	2	11
42003	121.50	123.00	1.5		0.008							0.2	1.63	14	20	<0.5	3	0.53	<0.5	8	2	12
42004	123.00	124.50	1.5		0.023							0.2	0.90	49	30	<0.5	4	0.50	<0.5	15	2	18
42005	124.50	126.00	1.5		0.010							<0.2	1.51	27	30	<0.5	4	0.39	<0.5	12	3	11
42006	126.00	127.15	1.15		0.019							<0.2	2.35	55	40	<0.5	2	0.42	<0.5	11	2	22
42007	127.15	128.00	0.85		<0.005							<0.2	0.59	10	130	<0.5	2	0.78	0.8	<1	7	1
42008	131.00	132.12	1.12		<0.005							0.2	0.59	26	80	0.5	3	0.70	0.8	<1	8	3
42009	132.12	133.62	1.5		0.015							0.2	1.88	46	20	<0.5	2	0.53	<0.5	13	2	22
42012	133.62	135.12	1.5		0.023							0.3	1.09	27	20	<0.5	4	0.34	<0.5	17	2	35
42013	135.12	136.62	1.5		0.023							0.3	1.07	27	10	<0.5	6	0.37	<0.5	17	2	21

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
41957	2.84	1	0.33	10		0.22	88	3	0.01	5	150	14	3.16	6	2			20	<0.01	<10	1	<10		11
41958	2.34	1	0.29	10		0.14	51	4	0.01	5	390	16	2.71	6	2			27	<0.01	<10	1	<10		7
41959	3.44	2	0.42	<10		0.31	155	2	0.04	5	550	20	3.89	6	3			45	<0.01	<10	4	<10		14
41962	4.79	<1	0.51	<10		0.51	207	5	0.02	6	1280	20	5.26	2	3			30	0.01	<10	11	<10		32
41963	4.62	<1	0.44	<10		0.35	137	9	0.02	2	900	21	5.23	4	3			30	<0.01	<10	8	<10		21
41964	2.48	1	0.31	10		0.11	33	3	0.01	3	40	11	2.90	3	1			19	<0.01	<10	1	<10		23
41965	8.27	2	0.50	10		0.56	177	1	0.01	4	830	23	>10.00	3	4			19	<0.01	<10	17	<10		24
41966	9.26	1	0.43	<10		0.82	242	1	0.01	5	1020	10	>10.00	2	5			22	<0.01	<10	24	<10		17
41967	8.18	<1	0.57	<10		0.89	282	<1	0.01	7	1500	13	>10.00	2	6			27	<0.01	<10	39	<10		18
41968	4.77	1	0.47	<10		1.16	368	<1	<0.01	7	380	6	5.00	3	6			20	<0.01	<10	38	<10		24
41969	6.44	<1	0.67	<10		1.71	666	<1	0.01	7	880	6	6.90	<2	7			20	0.01	<10	54	<10		34
41971	6.93	<1	0.98	<10		3.21	1225	<1	<0.01	7	900	4	6.20	2	10			16	0.05	<10	91	<10		66
41972	7.80	1	1.06	<10		3.98	1540	<1	0.02	7	990	5	7.05	<2	12			24	0.06	<10	106	<10		84
41973	8.55	<1	0.82	<10		3.81	1440	<1	0.01	7	1020	9	8.23	10	11			23	0.03	<10	98	<10		95
41974	7.94	1	0.81	<10		2.93	1210	<1	0.02	7	870	18	8.13	5	8			28	0.03	<10	68	<10		91
41975	7.97	<1	0.72	<10		3.59	1480	<1	0.01	8	930	10	7.67	6	9			23	0.02	<10	77	<10		101
41976	8.52	1	0.66	<10		0.93	387	<1	0.01	9	690	19	>10.00	10	6			26	0.01	<10	40	<10		32
41977	8.30	1	0.62	<10		0.46	181	<1	0.02	8	490	18	>10.00	14	5			28	<0.01	<10	35	<10		17
41978	8.24	<1	0.59	<10		0.74	292	1	0.01	9	1150	23	>10.00	12	5			27	0.01	<10	43	<10		39
41979	8.25	1	0.55	<10		0.41	223	<1	0.03	7	520	19	>10.00	14	5			36	0.01	<10	32	<10		24
41981	7.20	1	1.45	<10		1.81	789	4	0.10	4	1080	10	6.11	3	12			59	0.15	<10	95	<10		89
41982	3.87	<1	0.32	10		2.01	1170	<1	0.11	1	1100	4	0.31	2	11			48	0.09	<10	17	<10		98
41983	9.53	<1	0.59	<10		0.47	232	6	0.05	2	1040	16	>10.00	3	5			36	0.02	<10	32	<10		24
41984	5.91	<1	1.18	<10		1.52	498	5	0.06	3	860	6	4.94	4	8			44	0.10	<10	83	<10		73
41985	5.95	1	1.31	<10		1.55	538	7	0.07	4	870	9	4.64	3	8			47	0.13	<10	85	<10		82
41986	3.69	1	0.67	10		1.49	879	<1	0.09	1	1090	<2	0.06	3	8			24	0.11	<10	11	<10		92
41987	3.94	<1	1.15	10		1.54	831	<1	0.09	<1	1100	5	0.33	8	7			34	0.10	<10	13	<10		94
41988	6.30	<1	1.07	<10		1.43	575	3	0.07	1	1140	6	5.51	6	7			35	0.09	<10	34	<10		56
41989	5.86	1	1.29	<10		2.03	844	3	0.06	1	1260	6	4.33	4	8			32	0.12	<10	37	<10		77
41992	5.74	<1	1.17	<10		1.58	666	3	0.05	<1	1160	26	5.02	3	6			44	0.11	<10	27	<10		93
41993	6.16	<1	1.17	<10		1.48	608	3	0.05	1	1240	10	5.84	2	6			44	0.10	<10	25	<10		65
41994	4.57	<1	0.88	<10		1.13	524	4	0.06	1	1090	12	4.05	4	5			45	0.07	<10	22	<10		48
41995	4.93	1	0.97	<10		1.55	734	3	0.04	<1	1160	9	4.10	4	5			37	0.07	<10	25	<10		57
41996	5.70	1	0.96	<10		1.37	586	5	0.04	<1	1100	11	5.62	4	5			24	0.07	<10	27	<10		54
41997	4.16	<1	0.74	<10		1.45	612	3	0.04	<1	1040	8	3.38	<2	5			19	0.06	<10	27	<10		61
41998	4.38	<1	0.66	<10		1.44	620	4	0.05	<1	1130	8	3.66	<2	5			16	0.06	<10	28	<10		52
41999	4.39	<1	0.58	<10		1.39	604	4	0.05	<1	1040	8	3.84	<2	6			16	0.04	<10	29	<10		51
42001	4.07	<1	0.65	<10		0.82	412	5	0.04	1	1280	16	4.19	<2	4			20	0.02	<10	17	<10		34
42002	4.04	<1	0.59	<10		1.54	673	1	0.02	<1	1480	14	4.02	<2	4			28	0.01	<10	12	<10		64
42003	4.00	1	0.63	<10		1.28	568	1	0.02	<1	1380	19	4.11	2	4			24	0.01	<10	12	<10		79
42004	4.35	1	0.47	<10		0.47	218	2	0.01	<1	1780	22	4.94	2	3			22	<0.01	<10	7	<10		33
42005	3.77	1	0.51	10		1.22	590	1	0.01	<1	1320	7	3.75	<2	3			16	0.01	<10	11	<10		44
42006	6.14	<1	0.63	<10		2.33	1040	1	0.01	<1	1680	11	6.09	4	5			15	0.02	<10	15	<10		74
42007	0.83	<1	0.21	10		0.10	675	1	0.10	<1	90	65	0.05	2	1			31	0.01	<10	1	<10		101
42008	0.83	1	0.21	20		0.10	630	2	0.09	<1	90	67	0.09	4	1			42	0.01	<10	1	<10		82
42009	4.92	1	0.78	<10		1.54	741	2	0.02	1	1490	19	4.92	4	5			21	0.02	<10	13	<10		76
42012	4.81	1	0.51	<10		0.70	337	3	0.01	1	1150	15	5.59	2	3			16	<0.01	<10	8	<10		53
42013	6.56	1	0.51	<10		0.52	302	3	0.02	<1	820	13	7.96	<2	3			18	0.01	<10	7	<10		39

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
42014	136.62	138.12	1.5		0.028							0.3	0.95	35	10	<0.5	5	0.31	1.1	18	2	30
42015	138.12	139.62	1.5		0.029							0.5	0.85	77	20	<0.5	8	0.40	1.3	20	3	50
42016	139.62	141.12	1.5		0.046							0.4	3.06	94	50	<0.5	5	0.41	<0.5	20	2	26
42017	141.12	142.62	1.5		0.012							0.2	3.79	29	50	<0.5	2	0.38	<0.5	17	1	17
42018	142.62	144.12	1.5		0.015							0.2	2.87	57	40	<0.5	2	0.40	<0.5	21	1	30
42019	144.12	146.09	1.97		0.015							<0.2	3.28	54	40	<0.5	3	0.48	<0.5	22	<1	59
42021	146.09	147.59	1.5		<0.005							<0.2	3.25	12	1140	<0.5	2	2.56	<0.5	16	16	30
42022	147.59	149.09	1.5		<0.005							<0.2	2.22	12	450	<0.5	2	2.37	<0.5	15	19	90
42023	149.09	151.13	2.04		<0.005							<0.2	2.28	15	1680	<0.5	3	1.86	<0.5	15	21	21
42024	151.13	152.63	1.5		0.008							<0.2	3.21	84	50	<0.5	4	0.47	<0.5	23	2	20
42025	152.63	154.13	1.5		0.043							0.3	2.80	110	30	<0.5	5	0.39	<0.5	28	3	19
42026	154.13	155.32	1.19		0.041							0.2	2.29	127	20	<0.5	4	0.46	<0.5	22	3	21
42027	155.32	156.50	1.18		0.034							0.2	3.02	121	30	<0.5	2	0.33	<0.5	23	3	15
42028	156.50	158.09	1.59		0.033							0.2	1.57	104	40	<0.5	4	0.39	<0.5	18	3	26
42029	158.09	159.60	1.51		0.056							1.2	0.69	73	20	<0.5	2	0.39	<0.5	13	3	27
42032	159.60	161.10	1.5		0.050							0.7	0.59	85	30	<0.5	5	0.37	<0.5	14	2	36
42033	161.10	162.60	1.5		0.017							<0.2	1.58	132	20	<0.5	3	0.37	<0.5	19	2	42
42034	162.60	164.10	1.5		0.011							0.2	1.72	95	20	<0.5	3	0.36	<0.5	20	2	457
42035	164.10	165.60	1.5		0.025							0.2	1.32	117	20	0.5	3	0.45	<0.5	14	1	66
42036	165.60	167.10	1.5		0.093							2.2	1.16	197	30	0.5	2	0.65	<0.5	16	1	90
42037	167.10	168.60	1.5		0.018							<0.2	1.31	65	20	0.5	3	0.49	<0.5	15	<1	54
42038	168.60	170.10	1.5		0.007							<0.2	1.47	74	20	0.5	3	0.32	<0.5	14	1	57
42039	170.10	171.60	1.5		0.008							<0.2	2.24	88	20	0.5	2	0.32	<0.5	15	1	158
42041	171.60	173.10	1.5		0.008							<0.2	2.60	89	30	0.6	2	0.30	<0.5	13	1	272
42042	173.10	174.20	1.1		0.014							<0.2	2.16	99	40	0.6	2	0.31	<0.5	12	1	100
42043	174.20	175.10	0.9		0.024							0.2	2.57	90	30	0.5	3	1.13	<0.5	11	1	101
42044	175.10	176.60	1.5		0.012							<0.2	1.89	83	20	0.5	3	0.40	<0.5	12	1	82
42045	176.60	178.10	1.5		0.024							<0.2	1.39	83	20	0.5	<2	0.33	<0.5	13	3	92
42046	178.10	179.60	1.5		0.048							0.7	0.77	115	50	0.5	<2	0.37	<0.5	11	2	123
42047	179.60	181.10	1.5		0.026							0.3	1.32	67	20	0.6	2	0.40	<0.5	12	2	153
42048	181.10	182.70	1.6		0.056							0.9	0.87	81	30	0.5	2	0.48	<0.5	14	1	60
42049	182.70	184.00	1.3		0.062							1.3	1.09	118	20	0.5	2	0.44	<0.5	14	1	41
QO14001	184.00	185.50	1.5		0.048							1.0	0.88	81	10	<0.5	3	0.32	<0.5	14	3	198
QO14002	185.50	187.00	1.5		0.024							0.2	0.83	90	40	<0.5	3	0.42	<0.5	15	2	23
QO14003	187.00	188.18	1.18		0.050							0.8	0.89	63	30	<0.5	4	0.36	<0.5	13	2	22
QO14004	188.18	189.68	1.5		0.007							<0.2	1.37	114	20	<0.5	2	0.35	<0.5	13	2	44
QO14005	253.45	254.45	1		0.027							<0.2	2.23	29	40	<0.5	2	0.29	<0.5	16	4	137
QO14006	254.45	255.95	1.5		0.019							<0.2	2.07	28	80	<0.5	3	0.41	<0.5	19	42	47
QO14007	255.95	257.45	1.5		0.022							<0.2	2.01	35	60	0.5	3	0.29	<0.5	14	2	68
QO14008	257.45	258.95	1.5		0.035							0.4	1.74	75	60	<0.5	6	0.24	<0.5	19	3	598
QO14009	258.95	260.45	1.5		0.014							<0.2	1.59	48	50	<0.5	3	0.34	<0.5	13	1	26
QO14012	260.45	261.95	1.5		0.014							<0.2	2.44	50	80	0.5	2	0.41	<0.5	16	<1	19
QO14013	261.95	263.45	1.5		0.017							<0.2	2.12	44	40	0.5	2	0.34	<0.5	12	2	19
QO14014	263.45	264.95	1.5		0.050							0.3	1.65	53	30	<0.5	<2	0.31	<0.5	11	<1	137
QO14015	264.95	266.45	1.5		0.087							0.4	2.17	84	30	<0.5	2	0.33	<0.5	13	1	17
QO14016	267.00	268.50	1.5		0.039							0.3	1.68	76	70	<0.5	<2	0.30	<0.5	13	1	13
QO14017	268.50	270.00	1.5		0.032							0.2	2.18	76	40	<0.5	3	0.31	<0.5	13	2	17

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
42014	5.86	<1	0.41	<10		0.54	275	4	0.01	1	1000	16	7.04	<2	2			15	<0.01	<10	8	<10		92
42015	5.88	<1	0.42	<10		0.22	139	2	0.02	2	1120	14	7.21	<2	3			21	<0.01	<10	15	<10		75
42016	8.36	<1	0.48	<10		2.85	1205	<1	0.02	2	1320	14	8.01	<2	6			21	0.03	<10	54	<10		111
42017	7.11	1	0.43	<10		3.70	1570	<1	0.02	2	1450	4	5.50	<2	7			21	0.03	<10	67	<10		90
42018	8.55	1	0.49	<10		2.62	1260	<1	0.02	1	1470	10	8.81	<2	6			23	0.02	<10	54	<10		69
42019	7.36	1	0.54	<10		3.07	1425	<1	0.03	1	1340	10	6.92	2	7			27	0.02	<10	61	<10		86
42021	4.03	<1	0.97	10		2.33	921	1	0.22	16	1740	18	0.22	2	9			110	0.17	<10	110	<10		128
42022	3.91	1	0.23	10		1.92	1135	1	0.09	16	1750	9	0.22	11	8			59	0.08	<10	102	<10		110
42023	4.00	<1	0.61	10		1.79	586	1	0.16	16	1750	16	0.08	8	9			120	0.16	<10	112	<10		100
42024	6.85	<1	0.57	<10		3.12	1155	1	0.03	3	1420	9	6.19	<2	7			28	0.02	<10	69	<10		64
42025	6.91	1	0.57	<10		2.72	1050	1	0.02	4	1580	15	6.89	<2	6			20	0.01	<10	57	<10		52
42026	6.80	<1	0.42	<10		2.36	1075	1	0.01	2	1480	13	6.91	2	5			20	0.01	<10	42	<10		48
42027	7.21	<1	0.44	<10		3.15	1225	1	0.01	6	1460	14	7.10	<2	7			15	0.01	<10	68	<10		58
42028	6.28	1	0.37	<10		1.48	671	1	0.01	1	1420	10	6.95	2	4			16	<0.01	<10	25	<10		34
42029	5.36	<1	0.38	<10		0.14	82	1	0.01	1	1540	11	6.52	<2	2			17	<0.01	<10	6	<10		7
42032	4.95	<1	0.29	<10		0.28	136	1	0.02	4	1320	12	5.84	3	2			15	<0.01	<10	5	<10		12
42033	7.02	<1	0.54	<10		1.24	440	1	0.02	3	1500	8	8.01	2	4			15	0.01	<10	19	<10		22
42034	7.38	<1	0.47	<10		1.71	655	1	0.02	3	1430	7	8.25	2	4			16	0.01	<10	21	<10		34
42035	7.06	<1	0.49	<10		1.02	359	1	0.02	1	1910	10	8.33	<2	4			18	0.01	<10	12	<10		23
42036	7.17	1	0.47	<10		0.78	289	1	0.02	1	2880	18	8.50	3	4			24	<0.01	<10	11	<10		23
42037	6.74	<1	0.52	<10		0.92	391	1	0.03	1	2190	11	7.85	<2	4			19	0.01	<10	14	<10		24
42038	6.38	<1	0.46	<10		1.23	633	1	0.03	1	1350	8	6.92	2	4			13	0.01	<10	15	<10		31
42039	6.87	1	0.52	<10		2.15	993	1	0.03	2	1430	5	6.98	<2	4			11	0.01	<10	20	<10		39
42041	6.19	<1	0.51	<10		2.70	1140	<1	0.02	2	1350	4	5.70	2	5			11	0.02	<10	23	<10		49
42042	5.55	<1	0.45	<10		2.29	930	1	0.02	2	1280	4	4.91	3	4			11	0.01	<10	18	<10		46
42043	5.59	<1	0.30	<10		3.17	2040	<1	0.02	2	1030	8	4.62	11	5			33	<0.01	<10	20	<10		87
42044	5.63	<1	0.42	<10		2.05	962	1	0.02	2	1670	6	5.78	2	4			16	0.01	<10	18	<10		37
42045	5.32	<1	0.46	<10		1.22	549	1	0.02	1	1200	6	5.47	2	3			14	<0.01	<10	13	<10		19
42046	4.52	<1	0.33	<10		0.50	222	1	0.02	1	1440	7	4.90	3	2			16	<0.01	<10	7	<10		11
42047	5.86	<1	0.50	<10		0.98	460	1	0.02	2	1670	5	6.70	3	3			19	<0.01	<10	10	<10		18
42048	5.14	<1	0.38	<10		0.57	309	1	0.02	1	1860	10	5.97	3	3			20	<0.01	<10	8	<10		17
42049	5.12	1	0.52	<10		0.52	236	1	0.02	1	1880	10	5.98	2	3			20	<0.01	<10	10	<10		14
QO14001	5.65	1	0.41	<10		0.35	183	1	0.02	1	1280	10	6.60	8	2			16	<0.01	<10	10	<10		18
QO14002	5.03	1	0.34	<10		0.51	239	1	0.02	1	1740	7	5.41	<2	3			22	<0.01	<10	7	<10		15
QO14003	4.31	1	0.37	<10		0.50	323	1	0.02	2	1290	8	4.59	2	3			19	<0.01	<10	11	<10		12
QO14004	5.62	<1	0.50	<10		1.21	554	1	0.02	1	1440	5	6.17	2	4			18	0.01	<10	10	<10		23
QO14005	5.26	<1	0.49	<10		2.06	989	<1	0.04	3	1220	5	4.02	<2	5			9	0.03	<10	33	<10		44
QO14006	4.57	<1	0.27	<10		2.08	1105	<1	0.03	13	1320	5	3.36	2	4			12	0.01	<10	30	<10		44
QO14007	4.06	<1	0.52	<10		1.73	773	1	0.03	3	1180	5	3.25	2	4			10	0.01	<10	21	<10		40
QO14008	5.25	<1	0.43	<10		1.66	711	1	0.02	6	990	5	4.91	4	4			8	0.02	<10	34	<10		39
QO14009	3.35	1	0.48	<10		1.27	541	<1	0.03	2	1350	7	3.10	2	3			11	0.01	<10	17	<10		29
QO14012	3.82	<1	0.76	<10		2.28	873	1	0.04	2	1740	8	2.81	2	6			13	0.03	<10	27	<10		45
QO14013	4.14	<1	0.64	<10		1.79	835	<1	0.03	2	1320	7	3.41	3	4			11	0.01	<10	21	<10		39
QO14014	4.02	<1	0.47	<10		1.43	624	<1	0.02	1	1330	9	3.80	4	3			9	0.01	<10	15	<10		31
QO14015	4.35	<1	0.63	<10		1.95	788	1	0.03	3	1400	17	3.91	<2	5			11	0.02	<10	23	<10		41
QO14016	3.73	<1	0.46	<10		1.54	684	<1	0.02	3	1290	10	3.28	<2	3			9	0.02	<10	17	<10		34
QO14017	3.82	<1	0.64	<10		1.84	780	1	0.03	3	1330	10	3.01	2	4			10	0.02	<10	22	<10		40

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
41957			WH13170188				ALS: ME-ICP41				10/2/2013	
41958			WH13170188				ALS: ME-ICP41				10/2/2013	
41959			WH13170188				ALS: ME-ICP41				10/2/2013	
41962			WH13170188				ALS: ME-ICP41				10/2/2013	
41963			WH13170188				ALS: ME-ICP41				10/2/2013	
41964			WH13170188				ALS: ME-ICP41				10/2/2013	
41965			WH13170188				ALS: ME-ICP41				10/2/2013	
41966			WH13170188				ALS: ME-ICP41				10/2/2013	
41967			WH13170188				ALS: ME-ICP41				10/2/2013	
41968			WH13170188				ALS: ME-ICP41				10/2/2013	
41969			WH13170188				ALS: ME-ICP41				10/2/2013	
41971			WH13170188				ALS: ME-ICP41				10/2/2013	
41972			WH13170188				ALS: ME-ICP41				10/2/2013	
41973			WH13170188				ALS: ME-ICP41				10/2/2013	
41974			WH13170188				ALS: ME-ICP41				10/2/2013	
41975			WH13170188				ALS: ME-ICP41				10/2/2013	
41976			WH13170188				ALS: ME-ICP41				10/2/2013	
41977			WH13170188				ALS: ME-ICP41				10/2/2013	
41978			WH13170188				ALS: ME-ICP41				10/2/2013	
41979			WH13170188				ALS: ME-ICP41				10/2/2013	
41981			WH13170188				ALS: ME-ICP41				10/2/2013	
41982			WH13170188				ALS: ME-ICP41				10/2/2013	
41983			WH13170188				ALS: ME-ICP41				10/2/2013	
41984			WH13170188				ALS: ME-ICP41				10/2/2013	
41985			WH13170188				ALS: ME-ICP41				10/2/2013	
41986			WH13170188				ALS: ME-ICP41				10/2/2013	
41987			WH13170188				ALS: ME-ICP41				10/2/2013	
41988			WH13170188				ALS: ME-ICP41				10/2/2013	
41989			WH13170188				ALS: ME-ICP41				10/2/2013	
41992			WH13170188				ALS: ME-ICP41				10/2/2013	
41993			WH13170188				ALS: ME-ICP41				10/2/2013	
41994			WH13170188				ALS: ME-ICP41				10/2/2013	
41995			WH13170188				ALS: ME-ICP41				10/2/2013	
41996			WH13170188				ALS: ME-ICP41				10/2/2013	
41997			WH13170188				ALS: ME-ICP41				10/2/2013	
41998			WH13170188				ALS: ME-ICP41				10/2/2013	
41999			WH13170188				ALS: ME-ICP41				10/2/2013	
42001			WH13170188				ALS: ME-ICP41				10/2/2013	
42002			WH13170188				ALS: ME-ICP41				10/2/2013	
42003			WH13170188				ALS: ME-ICP41				10/2/2013	
42004			WH13170188				ALS: ME-ICP41				10/2/2013	
42005			WH13170188				ALS: ME-ICP41				10/2/2013	
42006			WH13170188				ALS: ME-ICP41				10/2/2013	
42007			WH13170188				ALS: ME-ICP41				10/2/2013	
42008			WH13170188				ALS: ME-ICP41				10/2/2013	
42009			WH13170188				ALS: ME-ICP41				10/2/2013	
42012			WH13170188				ALS: ME-ICP41				10/2/2013	
42013			WH13170188				ALS: ME-ICP41				10/2/2013	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
42014			WH13170188				ALS: ME-ICP41				10/2/2013	
42015			WH13170188				ALS: ME-ICP41				10/2/2013	
42016			WH13170188				ALS: ME-ICP41				10/2/2013	
42017			WH13170188				ALS: ME-ICP41				10/2/2013	
42018			WH13170188				ALS: ME-ICP41				10/2/2013	
42019			WH13170188				ALS: ME-ICP41				10/2/2013	
42021			WH13170188				ALS: ME-ICP41				10/2/2013	
42022			WH13170188				ALS: ME-ICP41				10/2/2013	
42023			WH13170188				ALS: ME-ICP41				10/2/2013	
42024			WH13170188				ALS: ME-ICP41				10/2/2013	
42025			WH13170188				ALS: ME-ICP41				10/2/2013	
42026			WH13170188				ALS: ME-ICP41				10/2/2013	
42027			WH13170188				ALS: ME-ICP41				10/2/2013	
42028			WH13170188				ALS: ME-ICP41				10/2/2013	
42029			WH13170188				ALS: ME-ICP41				10/2/2013	
42032			WH13170188				ALS: ME-ICP41				10/2/2013	
42033			WH13170188				ALS: ME-ICP41				10/2/2013	
42034			WH13170188				ALS: ME-ICP41				10/2/2013	
42035			WH13170188				ALS: ME-ICP41				10/2/2013	
42036			WH13170188				ALS: ME-ICP41				10/2/2013	
42037			WH13170188				ALS: ME-ICP41				10/2/2013	
42038			WH13170188				ALS: ME-ICP41				10/2/2013	
42039			WH13170188				ALS: ME-ICP41				10/2/2013	
42041			WH13170188				ALS: ME-ICP41				10/2/2013	
42042			WH13170188				ALS: ME-ICP41				10/2/2013	
42043			WH13170188				ALS: ME-ICP41				10/2/2013	
42044			WH13170188				ALS: ME-ICP41				10/2/2013	
42045			WH13170188				ALS: ME-ICP41				10/2/2013	
42046			WH13170188				ALS: ME-ICP41				10/2/2013	
42047			WH13170188				ALS: ME-ICP41				10/2/2013	
42048			WH13170188				ALS: ME-ICP41				10/2/2013	
42049			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14001			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14002			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14003			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14004			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14005			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14006			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14007			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14008			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14009			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14012			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14013			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14014			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14015			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14016			WH13170188				ALS: ME-ICP41				10/2/2013	
QO14017			WH13170188				ALS: ME-ICP41				10/2/2013	

Drill Hole Log - Ez-Shot Survey

Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date	Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date
32.00	76.6	-55.8	5744	97.3	H. Gammage	9/9/2013							
62.00	75.9	-55.2	5697	96.6	H. Gammage	9/9/2013							
90.00	76.6	-55.5	5689	97.3	L. Clarke	9/9/2013							
120.00	76	-55.3	5709	96.7	L. Clarke	9/10/2013							
150.00	77.7	-55.8	5698	98.4	L. Clarke	9/10/2013							
182.00	79	-56	5683	99.7	H. Gammage	9/10/2013							
212.00	79.3	-55.9	5675	100	H. Gammage	9/10/2013							
228.00	77.4	-55.8	5675	98.1	H. Gammage	9/10/2013							
261.00	78.4	-55.8	5681	99.1	H. Gammage	9/10/2013							

Drill Hole Log - Rock Quality Determination

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
11.00	12.00	1	0.87	87	0.5	57.47	
12.00	15.00	3	2.42	80.67	1.37	56.61	
15.00	18.00	3	2.2	73.33	1.02	46.36	
18.00	21.00	3	2.78	92.67	1.74	62.59	
21.00	24.00	3	2.66	88.67	1.89	71.05	
24.00	27.00	3	2.91	97	2.45	84.19	
27.00	30.00	3	2.94	98	2.45	83.33	
30.00	33.00	3	2.52	84	1.71	67.86	
33.00	36.00	3	2.88	96	2.12	73.61	
36.00	39.00	3	2.89	96.33	2.29	79.24	
39.00	42.00	3	2.9	96.67	2.14	73.79	
42.00	45.00	3	2.81	93.67	2.23	79.36	
45.00	48.00	3	2.82	94	2.08	73.76	
48.00	51.00	3	2.86	95.33	2.14	74.83	
51.00	54.00	3	2.89	96.33	2	69.2	
54.00	57.00	3	2.99	99.67	2.31	77.26	
57.00	60.00	3	2.85	95	2.12	74.39	
60.00	63.00	3	2.85	95	1.77	62.11	
63.00	66.00	3	2.81	93.67	1.74	61.92	
66.00	69.00	3	2.99	99.67	2.51	83.95	
69.00	72.00	3	2.88	96	2.71	94.1	
72.00	75.00	3	2.59	86.33	2.32	89.58	
75.00	78.00	3	2.99	99.67	1.5	50.17	
78.00	81.00	3	3.04	101.33	2.58	84.87	
81.00	84.00	3	2.92	97.33	2.58	88.36	
84.00	87.00	3	3	100	2.39	79.67	
87.00	90.00	3	2.93	97.67	2.62	89.42	
90.00	93.00	3	2.94	98	1.99	67.69	
93.00	96.00	3	2.85	95	2.24	78.6	
96.00	99.00	3	2.95	98.33	2.61	88.47	
99.00	102.00	3	2.85	95	2.26	79.3	
102.00	105.00	3	3.08	102.67	2.8	90.91	
105.00	108.00	3	2.92	97.33	2.77	94.86	
108.00	111.00	3	2.93	97.67	2.82	96.25	
111.00	114.00	3	3	100	2.8	93.33	
114.00	117.00	3	2.77	92.33	2.71	97.83	
117.00	120.00	3	3.05	101.67	2.86	93.77	
120.00	123.00	3	2.92	97.33	2.69	92.12	
123.00	126.00	3	2.94	98	2.63	89.46	
126.00	129.00	3	2.71	90.33	2.24	82.66	
129.00	132.00	3	3.1	103.33	2.75	88.71	
132.00	135.00	3	2.89	96.33	2.35	81.31	
135.00	138.00	3	2.99	99.67	2.96	99	
138.00	141.00	3	2.95	98.33	2.93	99.32	
141.00	144.00	3	2.85	95	2.76	96.84	
144.00	147.00	3	3.06	102	2.69	87.91	
147.00	150.00	3	2.9	96.67	2.45	84.48	
150.00	153.00	3	2.88	96	2.8	97.22	
153.00	156.00	3	3.08	102.67	2.9	94.16	
156.00	159.00	3	3	100	2.87	95.67	
159.00	162.00	3	2.93	97.67	2.61	89.08	
162.00	165.00	3	3.1	103.33	2.9	93.55	
165.00	168.00	3	2.98	99.33	2.59	86.91	
168.00	171.00	3	2.94	98	2.86	97.28	
171.00	174.00	3	3.05	101.67	3.05	100	
174.00	177.00	3	2.98	99.33	2.63	88.26	
177.00	180.00	3	3.01	100.33	2.78	92.36	
180.00	183.00	3	2.98	99.33	2.76	92.62	
183.00	186.00	3	2.9	96.67	2.6	89.66	
186.00	189.00	3	3.02	100.67	2.81	93.05	
189.00	192.00	3	3.03	101	2.81	92.74	
192.00	195.00	3	3.03	101	2.96	97.69	
195.00	198.00	3	2.98	99.33	2.95	98.99	
198.00	201.00	3	3	100	2.84	94.67	
201.00	204.00	3	2.92	97.33	2.79	95.55	
204.00	207.00	3	3.02	100.67	2.81	93.05	
207.00	210.00	3	2.83	94.33	2.26	79.86	
210.00	213.00	3	2.96	98.67	2.29	77.36	
213.00	216.00	3	2.77	92.33	1.68	60.65	
216.00	219.00	3	3.16	105.33	2.59	81.96	
219.00	222.00	3	3.06	102	2.93	95.75	
222.00	225.00	3	3.04	101.33	2.9	95.39	
225.00	228.00	3	3.02	100.67	2.27	75.17	
228.00	231.00	3	2.94	98	2.52	85.71	
231.00	234.00	3	3.02	100.67	2.8	92.72	
234.00	237.00	3	3.02	100.67	2.89	95.7	
237.00	240.00	3	3	100	3	100	
240.00	243.00	3	2.98	99.33	2.94	98.66	
243.00	246.00	3	3.05	101.67	3.05	100	
246.00	249.00	3	2.97	99	2.85	95.96	
249.00	252.00	3	2.99	99.67	2.87	95.99	
252.00	255.00	3	2.96	98.67	2.96	100	
255.00	258.00	3	2.98	99.33	2.94	98.66	

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments	From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
258.00	261.00	3	2.97	99	2.87	96.63									
261.00	264.00	3	2.99	99.67	2.99	100									
264.00	267.00	3	2.45	81.67	1.73	70.61									
267.00	270.00	3	2.9	96.67	0	0									

Drill Hole Log - Structure

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
67.60		fol			166.28	65.95	256.28			97.40	-55.40	55	325				5/22/2011	
71.85		fol			219.12	12.00	309.12			97.40	-55.50	65	165				5/22/2011	
86.90		fol			181.18	69.19	271.18			97.30	-55.50	55	350				5/22/2011	
188.08		fol			193.80	59.15	283.80			98.90	-55.60	65	10				5/22/2011	

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
15.30	28.28	dis		8										
28.28	36.20	dis	band	8										
36.60	59.15	dis		5										
60.80	62.30			1										
62.30	63.80			1										
63.80	65.30			1										
65.30	66.80			1										
66.80	68.30			1										
68.30	69.85			1										
69.85	71.35			8										
71.35	72.85			8										
72.85	74.35			8										
74.35	75.85			8										
75.85	77.35			8										
77.35	78.85			8										
78.85	80.35			8										
80.35	81.85			8										
81.85	83.35			8										
83.35	84.30			8										
84.30	85.80			5										
85.80	87.30			5										
87.30	88.80			5										
88.80	90.23			5										
90.23	91.42			5										
91.42	91.98			0.1										
91.98	93.02			10										
93.02	94.50			10										
94.50	96.00			10										
96.00	97.50			0.1										
97.50	101.20	dis		0.1										
101.20	102.70			0.1										
102.70	104.20			5										
104.20	105.70			5										
105.70	107.20			5										
107.20	108.70			5										
108.70	110.20			5										
110.20	111.70			5										
111.70	113.20			5										
113.20	114.70			5										
114.70	116.20			5										
116.20	118.15			5										
118.15	120.00			3										
120.00	121.50			5										
121.50	123.00			5										
123.00	124.50			5										
124.50	126.00			5										
126.00	127.15			5										
127.15	128.00			0.1										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
128.00	131.00	dis		0.1										
131.00	132.12			0.1										
132.12	133.62			8										
133.62	135.12			8										
135.12	136.62			8										
136.62	138.12			8										
138.12	139.62			8										
139.62	141.12			8										
141.12	142.62			8										
142.62	144.12			8										
144.12	146.09			8										
146.09	147.59			0.1										
147.59	149.09			0.1										
149.09	151.13			0.1										
151.13	152.63			5										
152.63	154.13			5										
154.13	155.32			5										
155.32	156.50			3										
156.50	157.09			5										
157.09	159.60			5										
159.60	161.10			5										
161.10	162.60			5										
162.60	164.10			5										
164.10	165.60			5										
165.60	167.10			5										
167.10	168.60			5										
168.60	170.10			5										
170.10	171.60			5										
171.60	173.10			5										
173.10	174.20			5										
174.20	175.10			3										
175.10	176.60			5										
176.60	178.10			5										
178.10	179.60			5										
179.60	181.10			5										
181.10	182.70			5										
182.70	184.00			5										
184.00	185.50			3										
185.50	187.00			3										
187.00	188.18			3										
188.18	189.68			3										
189.68	208.00	dis		3										
208.00	218.90	dis		2										
218.90	237.48	dis	band	2										
237.48	241.22	dis	band	1										
241.22	254.34	dis	band	2										
253.45	254.45			3										
254.45	255.95			4										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
255.95	257.45			4										
257.45	258.95			4	0.1									
258.95	260.45			4										
260.45	261.95			4										
261.95	263.45			4										
263.45	264.95			4										
264.95	265.50			4										
265.50	267.00			4										
267.00	270.00			4										

Drill Hole Log - Tulsequah Chief 2013

TC13062

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
TC13062	10467.49	15071.22	305.00	265	104	-45

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
9/12/2013	9/14/2013	NQ	Atlas Drilling	9/15/2013	C. Taylor

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
2013 APS Survey	CT/AF/BA	9/25/2013	Ez-Shot Avg		9/12/2013

Purpose:

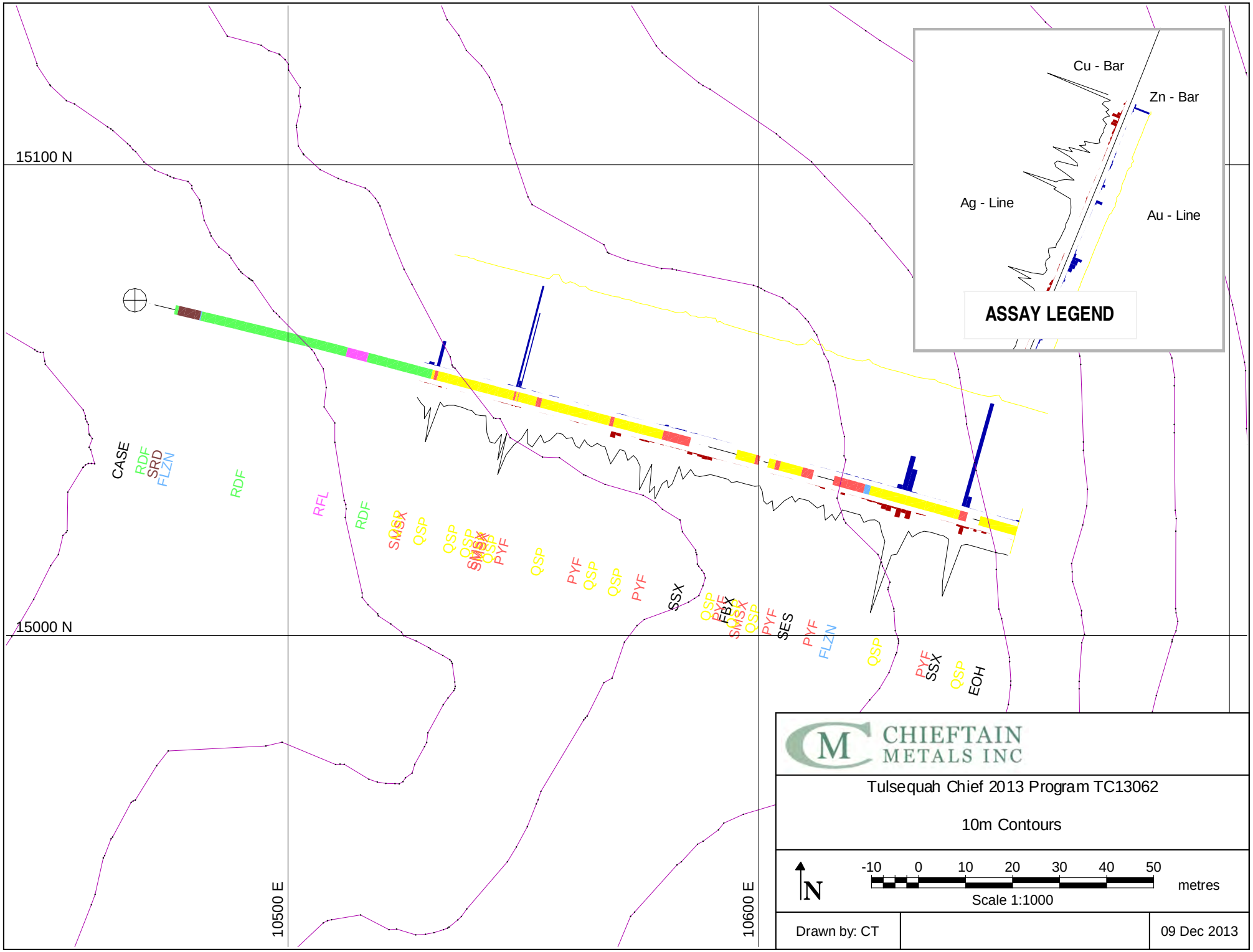
To test for continuation of the VMS Horizon at the +200m elevation at the location of the IP anomaly and Rhyolite horizon. Targeted between 13-JP08 and 13-JP11.

Summary:

Rhyolite Fragmental encountered from 12.00-88.20m. Alteration and Massive Sulphide lenses encountered from 88.20-265.00 (EOH).
Coarse Sphalerite dominant sulphides: 89.00-89.92m, 112.59-113.17m, 113.80-114.10m.
Stringer Chalcopyrite: 165.52-179.48m, 220.00-2473.8m, 249.70-253.60m. Massive Pyrite Facies Mineralization (± trace Chalcopyrite): 119.30-120.82m, 141.38-142.55m, 157.30-165.52m, 185.20-186.45m, 119.27-202.65m, 208.86-218.22m, 247.38-249.70m.
Shut down in Alteration, due to proximity to underground workings.

Significant Intercepts:

Hole-ID	From (m)	To (m)	Length (m)	True Width (m)	Zone	Lith	Au gpt	Ag gpt	Cu %	Pb %	Zn %	As ppm	SG g/cm3	$US Eq/t SRK12	$NSR/t JDS12	News Release Date
TC13062	89	89.92	0.92	0.66		SMSX	0.53	9	0.05	2.51	5.51	200	3.22	170.41	136.8	11/20/2013
plus	112.59	113.17	0.58	0.41			0.2	18	0.16	0	22.2	600	3.42	500.27	340.6	11/20/2013
plus	191.2	195.73	4.53	0		SMSX	3.26	7	0.01	0.01	0	134	3.25	113.8	122.7	11/20/2013
plus	229	233.5	4.5	0		QSP	0.68	22.7	1.52	0.78	4.19	1556	2.9	228.46	198.9	11/20/2013
plus	247.38	248.55	1.17	0.53			1.23	19	0.41	1.85	22.7	2300	4.25	581.51	424.4	11/20/2013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Zn - Bar
Ag - Line
Au - Line
ASSAY LEGEND
CASE
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SMSX
QSP
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QSP
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PYF
SSX
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EOH
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13062
10m Contours
N
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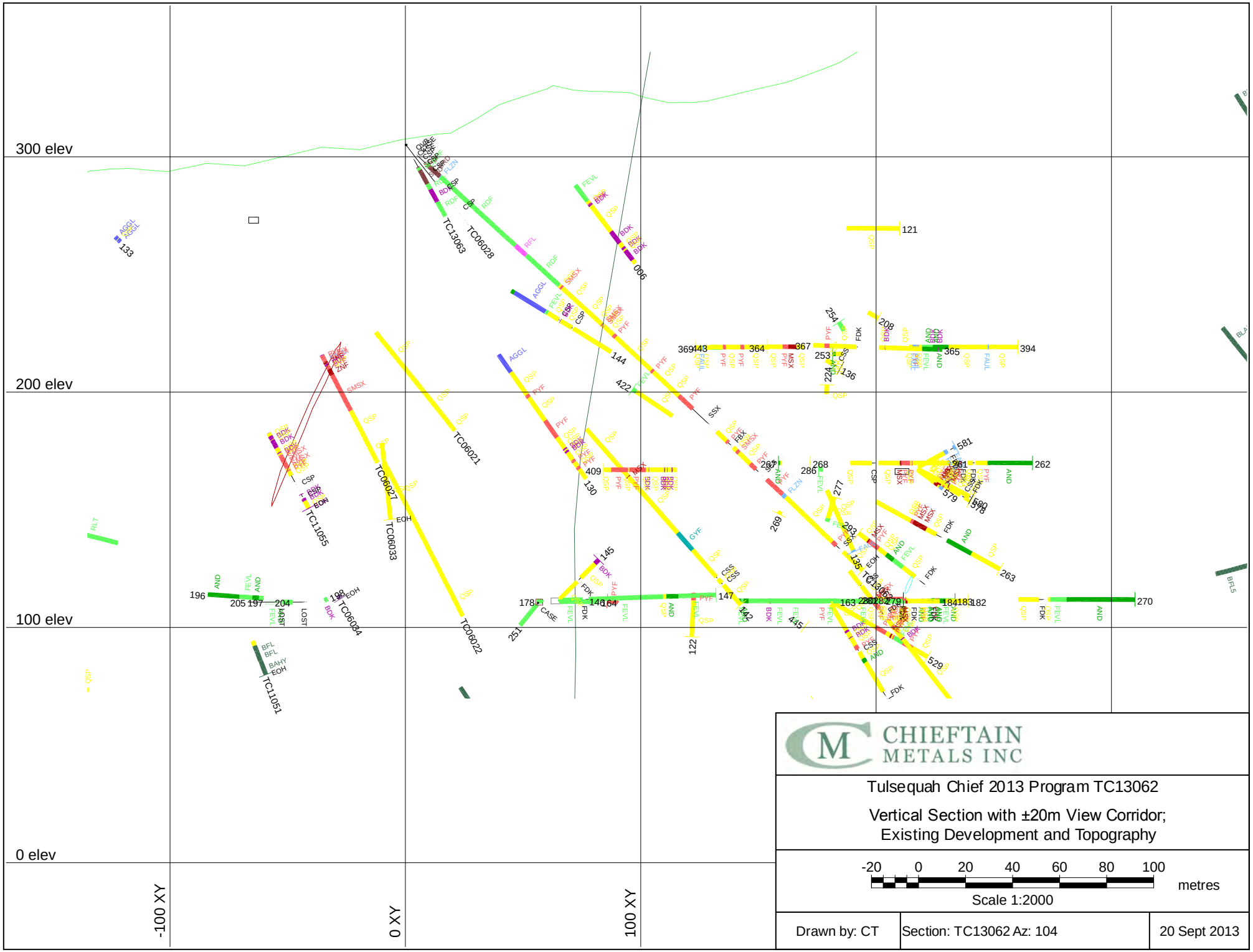
metres
Scale 1:1000
Drawn by: CT
09 Dec 2013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TC13063
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TC06021
TC06027
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TC06084
TC11051
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13062
Vertical Section with ±20m View Corridor;
Existing Development and Topography
-20 0 20 40 60 80 100
metres
Scale 1:2000
Drawn by: CT
Section: TC13062 Az: 104
20 Sept 2013

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	103.2	-44.5	Ez-Shot Az Avg/Maxibor	BA	9/14/2013	
3.00	103.3	-44.3	Maxibor	BA	9/14/2013	
6.00	103.3	-43.3	Maxibor	BA	9/14/2013	
9.00	103.2	-42.9	Maxibor	BA	9/14/2013	
12.00	103.3	-42.4	Maxibor	BA	9/14/2013	
15.00	103.6	-42.4	Maxibor	BA	9/14/2013	
18.00	103.6	-42.5	Maxibor	BA	9/14/2013	
21.00	103.6	-42.5	Maxibor	BA	9/14/2013	
24.00	103.6	-42.6	Maxibor	BA	9/14/2013	
27.00	103.6	-42.5	Maxibor	BA	9/14/2013	
30.00	103.6	-42.7	Maxibor	BA	9/14/2013	
33.00	103.6	-42.7	Maxibor	BA	9/14/2013	
36.00	103.7	-42.5	Maxibor	BA	9/14/2013	
39.00	103.7	-42.6	Maxibor	BA	9/14/2013	
42.00	103.8	-42.5	Maxibor	BA	9/14/2013	
45.00	103.9	-42.3	Maxibor	BA	9/14/2013	
48.00	104	-42.2	Maxibor	BA	9/14/2013	
51.00	104.1	-42.6	Maxibor	BA	9/14/2013	
54.00	104.2	-42.5	Maxibor	BA	9/14/2013	
57.00	104.4	-42.5	Maxibor	BA	9/14/2013	
60.00	104.5	-42.2	Maxibor	BA	9/14/2013	
63.00	104.6	-42.2	Maxibor	BA	9/14/2013	
66.00	104.6	-42.2	Maxibor	BA	9/14/2013	
69.00	104.7	-42.2	Maxibor	BA	9/14/2013	
72.00	104.7	-42.2	Maxibor	BA	9/14/2013	
75.00	104.7	-42.3	Maxibor	BA	9/14/2013	
78.00	104.7	-42.3	Maxibor	BA	9/14/2013	
81.00	104.7	-42.3	Maxibor	BA	9/14/2013	
84.00	104.6	-42.5	Maxibor	BA	9/14/2013	
87.00	104.7	-42.5	Maxibor	BA	9/14/2013	
90.00	104.7	-42.3	Maxibor	BA	9/14/2013	
93.00	104.7	-42.3	Maxibor	BA	9/14/2013	
96.00	104.7	-42.3	Maxibor	BA	9/14/2013	
99.00	104.6	-42.4	Maxibor	BA	9/14/2013	
102.00	104.6	-42.6	Maxibor	BA	9/14/2013	
105.00	104.7	-42.7	Maxibor	BA	9/14/2013	
108.00	104.7	-42.6	Maxibor	BA	9/14/2013	
111.00	104.7	-42.5	Maxibor	BA	9/14/2013	
114.00	104.7	-42.5	Maxibor	BA	9/14/2013	
117.00	104.8	-42.6	Maxibor	BA	9/14/2013	
120.00	104.7	-42.8	Maxibor	BA	9/14/2013	
126.00	104.7	-42.8	Maxibor	BA	9/14/2013	
129.00	104.8	-42.8	Maxibor	BA	9/14/2013	Dip averaged
135.00	104.8	-42.8	Maxibor	BA	9/14/2013	Dip averaged
138.00	104.8	-42.8	Maxibor	BA	9/14/2013	
141.00	104.8	-42.8	Maxibor	BA	9/14/2013	
147.00	104.7	-43.1	Maxibor	BA	9/14/2013	
150.00	104.6	-43.2	Maxibor	BA	9/14/2013	
159.00	104.7	-43.1	Maxibor	BA	9/14/2013	
162.00	104.7	-43.1	Maxibor	BA	9/14/2013	
171.00	104.8	-43.4	Maxibor	BA	9/14/2013	
201.00	105.1	-43.3	Maxibor	BA	9/14/2013	dip averaged
204.00	105.1	-43.2	Maxibor	BA	9/14/2013	
213.00	105.2	-43.7	Maxibor	BA	9/14/2013	
216.00	105.3	-44	Maxibor	BA	9/14/2013	dip averaged
231.00	105.4	-44.3	Maxibor	BA	9/14/2013	
237.00	105.5	-44.2	Maxibor	BA	9/14/2013	dip averaged
240.00	105.6	-44.1	Maxibor	BA	9/14/2013	
246.00	105.7	-44	Maxibor	BA	9/14/2013	smoothed

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
0.00	12.00	Casing									
12.00	13.00	Rhyolite Debris Flow Silicified Rhyolite Debris Flow with minor fine grained Pyrite. Highly broken.									
13.00	19.50	Rhyolite Dyke, Sloko Fm Sloko Rhyolite Dyke. Highly broken. Light grey/buff coloured. Rusty weathering on fractures. Dendritic manganese? Alteration on fractures. Contacts lost. Possible banding near upper contact.									
19.50	19.80	Fault Zone Faulted Rhyolite Debris Flow. Clay infilling with small rounded rhyolitic fragments. Sharp contacts.									
19.80	62.95	Rhyolite Debris Flow: Chlorite; Hematite Rhyolite Debris Flow. Patchy light to medium green, purple. Fragment content variable throughout the unit, generally appear to be increasing in size and abundance downhole, fragments are most distinct 55-62.95m. Fragments vary in size from 2mm-5cm. Generally felsic through rare mafic fragments are present. Alteration is variable, generally moderately chloritized, with patchy hematization. Patchy silicification (bleaching). Feldspar phenocrysts apparent throughout, with rare sightings of quartz eyes. Small (1mm-1cm) quartz/carbonate veins throughout. Rare larger, fractured quartz veins (up to 3cm). Some veins also contain chlorite. Lower contact approximate, located where no fragments discernable. Trace fine grained Pyrite, generally associated with fractures. The unit is weakly to moderately fractured, sometimes open with rusty coating, otherwise weakly healed with vuggy carbonate ± chlorite ± 40.58 42.80 Rhyolite Debris Flow: Siliceous Strongly bleached rhylote debris flow, brecciated. Fractures chloritized, epidotized. Gradational contacts.									
62.95	69.22	Rhyolite Flow: Hematite; mag Rhyolite Flow. Medium greyish/purple. Weakly brecciated texture, otherwise fairly massive. Moderate hematization, weak chloritization, weak epidotization. Rare small (1mm) feldspar phenocrysts apparent. Fairly highly fractured, fractures unhealed. Minor quartz/carbonate veining, generally mm scale but up to 1cm. Trace fine grained Pyrite. Minor fine grained magnetite in fractures. Lower contact fairly sharp.									
69.22	88.20	Rhyolite Debris Flow: Chlorite Rhyolite Debris Flow. Patchy light to medium green. Alteration is fairly consistent throughout unit, moderate chloritization with decimeter patches of bleaching (silicification), and minor hemitization. Fragments are apparent throughout, but generally decrease in size downhole. Fragments are generally subrounded to angular, and are often bleached or hematized. Generally trace fine grained Pyrite, though Pyrite content increases and becomes coarser grained at ~85m.	85.20	86.70	1.5	Q014018	0.03	1.0	0.009	0.01	0.065
			86.70	88.20	1.5	Q014019	0.09	3.0	0.068	0.319	0.603

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Unit is weakly fractured, sometimes weakly healed with carbonate and/or chlorite, rare rusty coating on fractures. Lower contact marked where moderate chloritzation end and quartz sericite alteration is prominent (fairly sharp).									
88.20	89.00	Quartz Sericite Pyrite Alteration: Sericite Quartz Sericite Pyrite Alteration. Medium grey, fine grained. Sericite alteration is dominant with patchy siliceous zones (1-20cm). Minor fine grained Pyrite, 3%, (possible fine grained, pale sphalerite?, 2%) Lower contact marked where coarse Sphalerite appears.	88.20	89.00	0.8	Q014021	0.17	4.0	0.037	0.038	0.103
89.00	89.92	Semi-Massive Sulphides Spalerite-rich semi massive sulphides. Hosted in Quartz Sericite Pyrite Alteration (as previous and subsequent units). Sphalerite is very light orange, 1mm-3mm in diameter, an-subhedral (2-15%). Lower contact marked where coarse grained Sphalerite is absent. Galena associated with Spahlerite, often on the margins of crystals (1%). Minor fine grained Pyrite disseminated in groundmass (1%).	89.00	89.92	0.92	Q014022	0.53	9.0	0.045	2.51	5.51
89.20	102.62	Quartz Sericite Pyrite Alteration: Sericite Quartz Sericite Pyrite Alteration. Mottled light to medium grey, fine grained. Irregular foliation. Sericite alteration dominant with regular, patchy silicification. Fine grained Pyrite disseminated throughout, ~3%, with rare semi massive sections. Possible fine grained pale Sphalerite throughout, fairly regular, up to 5% overall. Lower contact fairly sharp, marked where sericite bands are no longer present.	89.92	90.90	0.98	Q014023	0.27	3.7	0.038	0.014	0.024
			90.90	91.90	1	Q014024	0.52	18.3	0.242	0.008	0.037
			91.90	93.40	1.5	Q014025	0.02	0.4	0.007	0.001	0.021
			93.40	94.40	1	Q014026	0.23	1.8	0.01	0.011	0.012
			94.40	95.90	1.5	Q014027	0.06	0.8	0.003	0.003	0.002
		91.90 93.40 Andesitic Feldspar Porphyry Dyke Fine grained (grain size ~1mm), medium grey/green, highly fractured (RQD=0). Contacts lost due to fracturing. Trace fine to medium grained Pyrite. Some lost core in this section.	95.90	97.40	1.5	Q014028	0.04	0.2	0.001	0.002	0.002
			97.40	98.90	1.5	Q014029	0.01	<0.2	0.001	0.001	0.001
			98.90	100.40	1.5	Q014032	0.02	0.3	0.001	0.004	0.005
			100.40	101.51	1.11	Q014033	0.05	0.6	0.002	0.002	0.004
		93.70 93.90 Pyrite Facies Band of fine to medium grained Pyrite, ~50% Pyrite overall.	101.51	102.62	1.11	Q014034	0.04	0.5	0.001	0.003	0.005
102.62	107.20	Quartz Sericite Pyrite Alteration: Siliceous Quartz Sericite Pyrite Alteration. Light to medium grey, medium grained. Mottled texture, less so than previous unit. Silicification is the dominant form of alteration with minor sericitization. Fine to medium grained bands and blebs of Pyrite throughout, ~8% overall. Possible fine grained pale Sphalerite throughout, fairly regular, ~ 1% overall. Lower contact gradational.	102.62	104.12	1.5	Q014035	0.13	1.7	0.009	0.005	0.011
			104.12	105.62	1.5	Q014036	0.08	1.6	0.009	0.004	0.016
			105.62	107.12	1.5	Q014037	0.06	1.1	0.005	0.003	0.006
			107.12	108.62	1.5	Q014038	0.15	8.0	0.029	0.014	0.013
107.20	112.59	Quartz Sericite Pyrite Alteration: Sericite Quartz Sericite Pyrite Alteration. Light to medium grey, fine grained, Irregular banded texture (defined by sericite or Pyrite). Fine to medium grained Pyrite abundant, disseminated in groundmass or in irregular bands (~8% overall). Possible fine grained pale Sphalerite throughout, fairly regular, ~1% overall. Lower contact marked where coarse grained Sphalerite is present.	108.62	110.12	1.5	Q014039	0.14	11.4	0.061	0.004	0.023
			110.12	111.62	1.5	Q014041	0.26	11.5	0.074	0.013	0.095
			111.62	112.59	0.97	Q014042	0.21	7.0	0.023	0.01	0.031
112.59	113.17	Semi-Massive Sulphides									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Sphalerite rich Semi Massive Sulphides. Roughly 45% coarse grained yellow/orange spalerite, 1% fine grained Galena, and 4% fine grained Pyrite. Hosted in Quartz Sericite Pyrite Alteration. Contacts defined by the presence of coarse grained Sphalerite.	112.59	113.17	0.58	Q014043	0.21	18.0	0.158	0.004	22.2
113.17	113.80	Quartz Sericite Pyrite Alteration: Sericite Quartz Sericite Pyrite Alteration. Sericite dominant, as 107.2-112.59m. ~5% fine grained, banded Pyrite. Trace possible fine grained Sphalerite.	113.17	113.80	0.63	Q014044	0.07	6.0	0.044	0.006	1.445
113.80	114.10	Semi-Massive Sulphides Sphalerite rich Semi Massive Sulphides. ~30% coarse grained yellow/orange Spahlerite overall, ~5% fine grained Pyrite, trace fine grained Galena. Hosted in Quartz Sericite Pyrite Alteration.	113.80	114.10	0.3	Q014045	0.24	24.0	0.265	0.009	16.4
114.10	119.30	Quartz Sericite Pyrite Alteration: Sericite Quartz Sericite Pyrite Alteration. Patchy light to medium grey. Sericite alteration is dominant, but with siliceous patches up to 0.5m. Massive sericite alteration 118.8-119.30m. Small (~1cm) quartz carbonate veins throughout. Pyrite throughout, fine to medium grained disseminated in groundmass and in bands, ~8% overall. Lower contact sharp.	114.10	115.60	1.5	Q014046	2.47	15.0	0.119	0.001	0.101
			115.60	117.10	1.5	Q014047	3.04	10.0	0.007	0.002	0.015
			117.10	118.60	1.5	Q014048	0.58	7.0	0.007	0.005	0.061
			118.60	119.30	0.7	Q014049	0.11	2.0	0.004	0.002	0.02
119.30	120.82	Pyrite Facies Pyrite dominant massive sulfides. Generally very fine grained Pyrite hosted in Quartz Sericite Pyrite Alteration, with minor medium grained Pyrite. ~55% Pyrite overall. Fairly sharp contacts.	119.30	120.82	1.52	Q014051	1.35	8.0	0.012	0.014	0.015
120.82	141.38	Quartz Sericite Pyrite Alteration: Sericite; Siliceous Quartz Sericite Pyrite Alteration. Mottled light to medium grey. Alteration is quite variable, Alternating between sericite and quartz domination. Possible remnant fragmental texture at 124.3m (quite localized). Pyrite throughout, fine grained disseminated in groundmass and fine to medium grained in bands up to 5cm, 5% overall. Sections of possible fine grained pale Sphalerite, trace overall. Small clay gouge at 135.35m. Sharp lower contact. 135.46 135.96 Basalt Dyke Very fine grained dark grey mafic dyke. Magnetic. Very sharp irregular contacts.	120.82	122.32	1.5	Q014052	1.11	9.0	0.011	0.009	0.013
			122.32	123.82	1.5	Q014053	0.35	3.1	0.006	0.004	0.056
			123.82	125.32	1.5	Q014054	1.12	6.0	0.011	0.012	0.078
			125.32	126.82	1.5	Q014055	0.03	4.2	0.004	0.004	0.002
			126.82	128.32	1.5	Q014056	0.04	0.5	0.004	0.002	0.001
			128.32	129.82	1.5	Q014057	0.01	0.4	0.003	0.002	0.003
			129.82	131.32	1.5	Q014058	0.02	1.8	0.047	0.003	0.04
			131.32	132.80	1.48	Q014059	0.01	0.7	0.098	0.001	0.004
			132.80	134.32	1.52	Q014062	0.04	3.7	0.01	0.012	0.026
			134.32	135.46	1.14	Q014063	0.30	4.4	0.009	0.006	0.004
			135.46	135.95	0.49	Q014064	0.01	0.3	0.003	0.003	0.01
			135.95	137.45	1.5	Q014065	0.17	1.7	0.008	0.004	0.002
			137.45	138.95	1.5	Q014066	0.34	2.5	0.006	0.007	0.009
			138.95	140.15	1.2	Q014067	0.09	0.4	0.002	0.002	0.002
			140.15	141.38	1.23	Q014068	0.04	<1.0	0.001	0.001	0.005
141.38	142.55	Pyrite Facies Fine grained Pyrite Facies Massive Sulfides, rare coarser grained Pyrite. ~70% Pyrite overall. Quartz Sericite Pyrite gangue. Pyrite content decreases gradationally downhole.	141.38	142.55	1.17	Q014069	0.04	1.0	0.005	0.009	0.008

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
142.55	151.00	**Quartz Sericite Pyrite Alteration: Siliceous** Quartz Sericite Pyrite Alteration. Mottled light to medium grey. Fine grained. Alteration is dominantly siliceous, becoming gradationally sericitic downhole. Weak foliation. Fine to medium grained disseminated Pyrite, decreasing in contect downhole, ~5% overall. Trace Chalcopyrite. Lower contact gradational.	142.55	144.05	1.5	Q014072	0.21	4.0	1.215	0.007	0.058
			144.05	145.55	1.5	Q014073	0.12	7.4	0.597	0.009	0.08
			145.55	147.05	1.5	Q014074	0.06	0.5	0.003	0.002	0.006
			147.05	148.55	1.5	Q014075	0.06	0.6	0.002	0.002	0.009
			148.55	150.05	1.5	Q014076	0.37	4.1	0.021	0.01	0.014
			150.05	151.00	0.95	Q014077	0.21	1.5	0.009	0.004	0.009
151.00	157.30	**Quartz Sericite Pyrite Alteration: Sericite** Quartz Sericite Pyrite Alteration. White to light grey. Fine grained. Dominated by massive sericite alteration. Patchy siliceous sections. Bands of fine to medium grained Pyrite throughout, ~5% overall. Sporadic clay filled fractures: 154.25-157.3m.	151.00	152.55	1.55	Q014078	0.13	2.6	0.321	0.003	0.007
			152.55	154.00	1.45	Q014079	0.49	5.3	0.321	0.008	0.023
			154.00	155.50	1.5	Q014081	1.52	15.0	0.122	0.04	0.033
			155.50	157.30	1.8	Q014082	0.35	3.0	0.009	0.035	0.044
157.30	165.52	**Pyrite Facies** Massive fine to medium grained Pyrite dominated Massive Sulphides. Gangue generally quartz or sericite fragments. ~90% Pyrite overall. Sharp contacts. 163.85 163.35 Sericite Schist Small section of light grey, fine grained Sericite dominant alteration. ~5% fine grained Pyrite. Strongly fractured, clay on fractures. Sharp contacts.	157.30	158.30	1	Q014083	0.73	15.0	0.147	0.031	0.302
			158.30	159.30	1	Q014084	0.49	12.0	0.04	0.029	0.036
			159.30	160.30	1	Q014085	0.83	17.0	0.048	0.049	0.027
			160.30	161.30	1	Q014086	1.60	10.0	0.064	0.017	0.154
			161.30	162.30	1	Q014087	1.65	8.0	0.076	0.01	0.157
			162.30	163.30	1	Q014088	1.74	11.0	0.069	0.017	0.156
			163.30	163.85	0.55	Q014089	2.06	9.0	0.044	0.069	0.15
			163.85	164.65	0.8	Q014091	0.54	1.0	0.016	0.01	0.01
			164.65	165.52	0.87	Q014092	1.22	3.0	0.058	0.011	0.041
165.52	179.48	**Stringer Zone Sulphides** Pyrite and Chalcopyrite stockwork veins hosted in Siliceous Quartz Sericite Pyrite Alteration. ~15% sulphides overall, generally in mixed, randomly oriented veins of Pyrite/Chalcopyrite, with Chalcopyrite decreasing in abundance downhole. Also fine grained mineralization in groundmass. Siliceous groundmass is blocky, white to light grey, sometimes "cherty" and broken. Small (<1cm) broken white quartz veins throughout. Sharp lower contact.	165.52	167.00	1.48	Q014093	0.67	6.0	0.574	0.002	0.094
			167.00	168.50	1.5	Q014094	0.58	1.0	0.19	0.003	0.019
			168.50	170.00	1.5	Q014095	0.50	3.0	0.518	0.007	0.048
			170.00	171.50	1.5	Q014096	0.46	3.0	0.747	0.002	0.062
			171.50	173.00	1.5	Q014097	0.43	2.0	0.671	0.005	0.053
			173.00	174.50	1.5	Q014098	0.25	1.0	0.069	0.006	0.042
			174.50	176.00	1.5	Q014099	0.36	<1.0	0.054	0.005	0.019
			176.00	177.50	1.5	Q014102	0.24	1.0	0.029	0.003	0.015
			177.50	178.50	1	Q014103	0.22	1.0	0.012	0.003	0.003
			178.50	179.48	0.98	Q014104	0.13	<1.0	0.008	0.003	0.002
179.48	185.20	**Quartz Sericite Pyrite Alteration: Sericite** Sericite dominant Quartz Sericite Pyrite alteration. Mottled light to medium grey. Small (1-10cm) sections of massive yellowish sericite, increasing downhole. Bands of fine grained Pyrite throughout, ~5% overall. Moderately fractured, fractures increasing downhole. Lower contact approximate.	179.48	181.00	1.52	Q014105	0.17	2.0	0.043	0.005	0.011
			181.00	182.50	1.5	Q014106	0.10	<1.0	0.021	0.001	0.003
			182.50	184.00	1.5	Q014107	0.06	1.0	0.012	0.003	0.012
			184.00	185.20	1.2	Q014108	0.19	<1.0	0.002	0.001	0.001
185.20	186.45	**Pyrite Facies**									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Pyrite dominant Massive Sulphides intermixed with sericite dominant alteration (as previous unit). ~45% fine to medium grained Pyrite. Lower contact sharp.	185.20	186.45	1.25	Q014109	0.51	1.0	0.005	0.004	0.001
186.45	189.16	Fault Breccia									
		Fault Breccia. Subangular to angular yellowish/green sericitic fragments, weakly oriented, in a granular white quartz matrix. Non-mineralized. Sharp contacts.	186.45	187.80	1.35	Q014111	0.09	<1.0	0.001	0.001	0.001
			187.80	189.16	1.36	Q014112	<0.01	<0.2	0	0	0.001
189.16	191.20	Quartz Sericite Pyrite Alteration: Sericite									
		Sericite rich Quartz Sericite Pyrite Alteration. Mottled light to medium grey. Bands of massive sericite alteration. ~5% fine to medium grained Pyrite in bands and disseminated throughout. Sharp contacts.	189.16	190.20	1.04	Q014113	0.56	2.3	0.005	0.003	0.003
			190.20	191.20	1	Q014114	1.29	6.0	0.011	0.007	0.005
191.20	192.63	Semi-Massive Sulphides									
		Semi massive Pyrite mineralization. Hosted in Sericite Rich QSP. Massive bands of fine grained Pyrite, ~35% overall.	191.20	192.63	1.43	Q014115	4.10	7.0	0.02	0.014	0.005
192.63	199.27	Quartz Sericite Pyrite Alteration: Sericite									
		Sericite dominant Quartz Sericite Pyrite alteration. Fairly massive, medium grey, with minor whitish bands (195.73-196.15m massive sericite alteration). Fine grained Pyrite throughout, disseminated in groundmass, increasing donwhole, 10% overall. Fairly sharp contacts.	192.63	193.70	1.07	Q014116	3.12	5.0	0.01	0.004	0.003
			193.70	194.71	1.01	Q014117	2.31	9.0	0.009	0.006	0.004
			194.71	195.73	1.02	Q014118	3.07	7.0	0.008	0.004	0.004
		197.75 198.90 Quartz Sericite Pyrite Alteration: Siliceous	195.73	197.50	1.77	Q014119	1.00	3.6	0.011	0.003	0.003
		Groundmass is mainly sugary quartz, purplish tinge. Minor sericite/chlorite	197.50	199.27	1.77	Q014122	1.10	1.0	0.004	0.001	0.003
199.27	202.65	Pyrite Facies									
		Pyrite dominant massive sulphides. Fine grained Pyrite, ~85% overall. Gangue is generally sericite dominant QSP, with some fine grained quartz. Sharp contacts.	199.27	200.25	0.98	Q014123	0.57	3.0	0.005	0.005	0.01
			200.25	200.95	0.7	Q014124	0.15	<1.0	0.001	0.001	0.001
		200.25 200.95 Sericite Schist	200.95	202.65	1.7	Q014125	0.23	1.0	0.008	0.007	0.009
		Mainly massive sericite. Minor Pyrite.									
202.65	208.86	Sericite Schist									
		Sericite Alteration. Light yellowish green. Irregular patches of white suagry quartz. Brecciated texture. Soapy, likely due to presence of talc. Becomes more compentent, quartz rich downhole.	202.65	204.15	1.5	Q014126	0.10	<1.0	0.009	0.002	0.003
			204.15	205.65	1.5	Q014127	0.17	2.0	0.093	0.004	0.022
			205.65	207.15	1.5	Q014128	0.22	3.0	0.302	0.001	0.043
			207.15	208.86	1.71	Q014129	0.58	1.0	0.004	0.002	0.001
208.86	218.22	Pyrite Facies									
		Pyrite dominant massive sulphides, trace Chlacopyrite. Minor quartz carbonate gangue. Otherwise fine to medium grained massive Pyrite, overall ~85%. Minor brecciation near fault zone. Sharp contacts.	208.86	210.36	1.5	Q014131	1.97	7.0	0.013	0.015	0.049
			210.36	211.86	1.5	Q014132	0.68	4.0	0.017	0.015	0.058
			211.86	213.20	1.34	Q014133	0.53	6.0	0.441	0.023	0.158
		213.30 214.15 Andesitic Feldspar Porphyry Dyke	213.20	214.15	0.95	Q014134	0.07	<1.0	0.032	0.002	0.007
		Highly fractured porphyry dyke. Massive. Non mineralized. Sharp contacts.	214.15	214.65	0.5	Q014135	0.18	1.0	0.018	0.008	0.052
			214.65	215.82	1.17	Q014136	0.13	<1.0	0.02	0.021	0.08

From	To (m)	
		214.15 214.65 Fault Zone Graphitic gouge on upper contact. Otherwise this section is entirely Pyritic
218.22	220.00	Fault Zone Mixed Pyrite mineralization and Quartz Sericite Pyrite Alteration. Sections weakly consolidated, clayey. ~15% fine grained Pyrite overall. Sharp contacts.
220.00	247.38	Quartz Sericite Pyrite Alteration: Siliceous; Sericite Quartz Sericite Pyrite Alteration. Strongly silicified and sericitized. Variable chlorite alteration. Fine grained disseminated Pyrite throughout (~5% overall), trace blebs Chalcopyrite scattered throughout, associated with Pyrite veins. Weak to moderate foliation throughout. Weakly fractured, fractures healed with carbonate. Occasional quartz veins, 2-10cm. Faulted at lower contact. 246.00 247.38 Fault Zone Core highly broken, weakly healed with clay.
247.38	249.70	Pyrite Facies Pyrite dominant massive sulphides. Minor blebby Chalcopyrite, trace localized coarse grained Galena. Spahlerite at upper contact. Quartz/carbonate gangue. Lower contact gradational.
249.70	253.60	Stringer Zone Sulphides Siliceous white to light grey, blocky groundmass with Pyrite/Chalcopyrite stringers. Similar in appearance to 165.42-179.48m. 10% sulphide stringers, 9% Pyrite, 1% Chalcopyrite. Groundmass is banded in places, "cherty" where white. Ground is somehwat blocky. Sharp lower contact.
253.60	265.00	Quartz Sericite Pyrite Alteration: Sericite Sericite dominant Quartz Sericite Pyrite Alteration. Generally medium grey, weakly variable to light grey. Fine to medium grained stringers to bands of Pyrite throughout, ~12% Pyrite overall. Fairly blocky core, faulted near upper contact. 253.60 255.70 Fault Zone Core highly broken, weakly healed with clay.

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
215.82	217.00	1.18	Q014137	0.13	<1.0	0.016	0.011	0.01
217.00	218.22	1.22	Q014138	0.21	1.0	0.024	0.01	0.051
218.22	220.00	1.78	Q014139	0.21	1.0	0.104	0.009	0.088
220.00	221.50	1.5	Q014142	0.15	3.7	0.335	0.006	0.048
221.50	223.00	1.5	Q014143	0.13	2.1	0.257	0.006	0.066
223.00	224.50	1.5	Q014144	0.06	1.4	0.421	0.004	0.014
224.50	226.00	1.5	Q014145	0.12	2.0	1.085	0.008	0.032
226.00	227.50	1.5	Q014146	0.41	6.0	1.215	0.014	0.056
227.50	229.00	1.5	Q014147	0.61	9.0	0.378	0.017	0.96
229.00	230.50	1.5	Q014148	1.14	40.0	1.975	0.031	7.44
230.50	232.00	1.5	Q014149	0.38	14.0	0.782	2.36	4.79
232.00	233.50	1.5	Q014151	0.49	13.0	1.765	0.013	0.114
233.50	235.00	1.5	Q014152	0.43	2.2	0.013	0.012	0.013
235.00	236.50	1.5	Q014153	0.13	4.3	0.187	0.01	0.035
236.50	238.00	1.5	Q014154	0.08	2.0	0.117	0.002	0.019
238.00	239.50	1.5	Q014155	0.13	0.5	0.007	0.002	0.016
239.50	241.00	1.5	Q014156	0.02	0.2	0.005	0.001	0.008
241.00	242.50	1.5	Q014157	0.01	<0.2	0.003	0	0.005
242.50	244.00	1.5	Q014158	0.01	0.3	0.044	0	0.004
244.00	245.50	1.5	Q014159	0.02	0.2	0.025	0.001	0.002
245.50	247.38	1.88	Q014162	0.32	<1.0	0.013	0.008	0.006
247.38	248.55	1.17	Q014163	1.23	19.0	0.411	1.85	22.7
248.55	249.70	1.15	Q014164	2.01	25.0	1.895	0.03	2.36
249.70	251.20	1.5	Q014165	0.27	2.0	0.368	0.007	0.014
251.20	252.70	1.5	Q014166	0.17	<1.0	0.085	0.007	0.022
252.70	253.60	0.9	Q014167	0.17	1.0	0.494	0.004	0.005
253.60	255.10	1.5	Q014168	0.17	<1.0	0.052	0.003	0.006
255.10	256.60	1.5	Q014169	0.25	1.0	0.375	0.008	0.036
256.60	258.10	1.5	Q014171	0.21	<1.0	0.043	0.005	0.005
258.10	259.60	1.5	Q014172	0.09	<1.0	0.009	0.004	0.044
259.60	261.10	1.5	Q014173	0.16	<1.0	0.011	0.005	0.031
261.10	262.60	1.5	Q014174	0.05	0.9	0.011	0.007	0.029

From	To (m)	
265.00	265.00	End of Hole Shut down, near underground workings.

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
262.60	264.00	1.4	Q014175	0.04	0.7	0.013	0.004	0.101
264.00	265.00	1	Q014176	0.05	0.7	0.012	0.004	0.343

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014018	85.20	86.70	1.5		0.029	1.00	0.009	0.010	0.065	<0.01	2.83	0.7	1.94	26	180	<0.5	<2	0.50	1.9	3	2	91
Q014019	86.70	88.20	1.5		0.086	3.00	0.068	0.319	0.603	<0.01	2.90	3.7	2.30	42	10	<0.5	<2	0.35	22.2	4	2	703
Q014021	88.20	89.00	0.8		0.167	4.00	0.037	0.038	0.103	0.01	2.89	3.0	1.68	143	20	<0.5	<2	0.35	4.4	4	3	373
Q014022	89.00	89.92	0.92		0.532	9.00	0.045	2.510	5.510	0.02	3.22	9.9	2.57	203	40	<0.5	<2	0.46	189.5	3	<1	475
Q014023	89.92	90.90	0.98		0.266							3.7	1.15	179	20	<0.5	<2	0.31	0.8	7	2	381
Q014024	90.90	91.90	1		0.515							18.3	0.69	950	20	<0.5	<2	0.11	2.2	18	<1	2420
Q014025	91.90	93.40	1.5		0.020							0.4	4.64	10	130	<0.5	<2	1.32	<0.5	27	397	72
Q014026	93.40	94.40	1		0.230							1.8	1.42	38	20	<0.5	<2	0.67	0.5	10	31	105
Q014027	94.40	95.90	1.5		0.062							0.8	0.65	143	50	<0.5	<2	0.17	<0.5	8	1	34
Q014028	95.90	97.40	1.5		0.042							0.2	0.80	27	190	<0.5	<2	0.30	<0.5	4	1	10
Q014029	97.40	98.90	1.5		0.005							<0.2	0.59	13	210	<0.5	<2	0.25	<0.5	2	2	8
Q014032	98.90	100.40	1.5		0.020							0.3	0.66	38	170	<0.5	<2	0.24	<0.5	3	2	12
Q014033	100.40	101.51	1.11		0.045							0.6	0.69	56	130	<0.5	2	0.43	<0.5	6	2	22
Q014034	101.51	102.62	1.11		0.043							0.5	0.68	53	150	<0.5	<2	0.20	<0.5	4	1	14
Q014035	102.62	104.12	1.5		0.126							1.7	0.41	97	20	<0.5	<2	0.09	0.6	4	5	90
Q014036	104.12	105.62	1.5		0.078							1.6	0.43	68	20	<0.5	<2	0.12	0.8	3	5	90
Q014037	105.62	107.12	1.5		0.060							1.1	0.40	23	30	<0.5	3	0.13	<0.5	2	5	47
Q014038	107.12	108.62	1.5		0.148							8.0	0.47	90	20	<0.5	4	0.08	<0.5	5	2	285
Q014039	108.62	110.12	1.5		0.143							11.4	0.43	180	30	<0.5	3	0.07	1.0	3	2	611
Q014041	110.12	111.62	1.5		0.260							11.5	0.47	218	20	<0.5	2	0.07	3.4	10	1	736
Q014042	111.62	112.59	0.97		0.212	7.00	0.023	0.010	0.031	0.01	3.01	6.4	0.61	144	10	<0.5	<2	0.06	0.8	9	<1	237
Q014043	112.59	113.17	0.58		0.205	18.00	0.158	0.004	22.200	0.06	3.42	14.4	0.56	478	10	<0.5	<2	0.25	846.0	<1	<1	1250
Q014044	113.17	113.80	0.63		0.071	6.00	0.044	0.006	1.445	0.02	2.98	6.1	0.46	199	10	<0.5	<2	0.07	51.6	3	<1	428
Q014045	113.80	114.10	0.3		0.242	24.00	0.265	0.009	16.400	0.11	3.34	20.9	0.64	1000	20	<0.5	<2	0.38	636.0	<1	<1	2240
Q014046	114.10	115.60	1.5		2.470	15.00	0.119	0.001	0.101	0.04	3.05	15.0	0.67	405	10	<0.5	<2	0.04	4.2	6	1	1140
Q014047	115.60	117.10	1.5		3.040	10.00	0.007	0.002	0.015	0.01	2.99	10.7	0.47	87	30	<0.5	<2	0.04	0.5	6	1	63
Q014048	117.10	118.60	1.5		0.580	7.00	0.007	0.005	0.061	0.01	2.94	7.1	0.53	58	<10	<0.5	<2	0.03	2.0	4	2	74
Q014049	118.60	119.30	0.7		0.107	2.00	0.004	0.002	0.020	<0.01	2.88	2.8	0.63	38	50	<0.5	<2	0.05	0.6	2	1	38
Q014051	119.30	120.82	1.52		1.345	8.00	0.012	0.014	0.015	0.01	3.46	8.3	0.54	87	<10	<0.5	2	0.03	<0.5	8	<1	138
Q014052	120.82	122.32	1.5		1.105	9.00	0.011	0.009	0.013	0.01	3.18	7.7	0.67	53	<10	<0.5	<2	0.03	<0.5	9	2	114
Q014053	122.32	123.82	1.5		0.352							3.1	0.40	40	30	<0.5	2	0.04	2.1	1	8	63
Q014054	123.82	125.32	1.5		1.120	6.00	0.011	0.012	0.078	0.03	2.92	6.1	0.47	270	30	<0.5	2	0.05	1.7	12	5	108
Q014055	125.32	126.82	1.5		0.031							4.2	0.52	27	100	<0.5	2	0.09	<0.5	3	2	43
Q014056	126.82	128.32	1.5		0.035							0.5	0.58	75	80	<0.5	<2	0.15	<0.5	4	2	36
Q014057	128.32	129.82	1.5		0.014							0.4	1.25	48	60	<0.5	2	0.63	<0.5	3	3	28
Q014058	129.82	131.32	1.5		0.017							1.8	1.85	12	50	<0.5	3	1.24	2.5	6	22	472
Q014059	131.32	132.80	1.48		0.012							0.7	1.09	9	80	<0.5	<2	0.33	<0.5	2	4	982
Q014062	132.80	134.32	1.52		0.042							3.7	0.52	36	80	<0.5	4	0.13	1.5	8	4	99
Q014063	134.32	135.46	1.14		0.304							4.4	0.53	41	20	<0.5	5	0.08	<0.5	5	2	90
Q014064	135.46	135.95	0.49		0.005							0.3	3.20	12	870	<0.5	4	2.70	<0.5	27	80	34
Q014065	135.95	137.45	1.5		0.165							1.7	0.57	58	50	<0.5	5	0.18	<0.5	8	1	76
Q014066	137.45	138.95	1.5		0.343							2.5	0.44	79	10	<0.5	7	0.08	<0.5	3	4	56
Q014067	138.95	140.15	1.2		0.088							0.4	0.51	29	20	<0.5	3	0.11	<0.5	5	3	24
Q014068	140.15	141.38	1.23		0.035	<1.00	0.001	0.001	0.005	<0.01	3.05	0.2	0.53	34	<10	<0.5	<2	0.18	<0.5	3	3	22
Q014069	141.38	142.55	1.17		0.043	1.00	0.005	0.009	0.008	<0.01	3.53	0.4	0.80	31	<10	<0.5	3	0.30	<0.5	2	2	45
Q014072	142.55	144.05	1.5		0.205	4.00	1.215	0.007	0.058	0.01	3.17	4.8	1.21	62	10	<0.5	8	0.47	2.2	5	1	>10000
Q014073	144.05	145.55	1.5		0.120							7.4	1.19	210	20	<0.5	<2	0.20	4.2	4	1	5970
Q014074	145.55	147.05	1.5		0.055							0.5	1.67	19	40	<0.5	5	0.22	<0.5	4	3	28

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014018	1.82	<1	0.39	10		1.30	203	1	0.10	1	190	84	1.07	4	2			27	0.01	<10	4	<10		582
Q014019	4.32	2	0.38	<10		2.02	228	2	0.07	1	180	3150	4.58	10	1			35	<0.01	<10	3	<10		6020
Q014021	3.58	<1	0.44	<10		0.93	129	4	0.07	2	150	373	3.96	35	1			40	<0.01	<10	3	<10		969
Q014022	4.72	34	0.37	<10		2.59	270	3	0.05	1	420	>10000	8.03	25	1			27	<0.01	<10	3	<10		>10000
Q014023	6.04	<1	0.34	<10		0.50	79	10	0.06	7	90	142	7.20	26	1			34	<0.01	<10	2	<10		240
Q014024	6.13	2	0.36	<10		0.10	39	13	0.03	23	40	78	7.62	174	1			12	<0.01	10	1	<10		371
Q014025	4.68	<1	0.32	<10		5.06	732	<1	0.14	202	2030	14	1.28	3	9			83	0.07	<10	100	<10		214
Q014026	11.80	<1	0.33	<10		0.51	107	13	0.08	36	410	112	>10.00	16	2			42	<0.01	<10	9	<10		117
Q014027	3.18	<1	0.29	10		0.08	30	6	0.03	5	100	28	3.47	8	1			14	<0.01	<10	1	<10		21
Q014028	1.07	<1	0.31	10		0.13	46	1	0.05	2	140	15	1.09	3	1			15	<0.01	<10	1	<10		17
Q014029	0.90	<1	0.28	10		0.08	35	1	0.02	2	140	12	0.97	3	1			12	<0.01	<10	1	<10		14
Q014032	1.31	<1	0.30	<10		0.09	39	1	0.03	2	120	35	1.43	4	1			11	0.01	10	1	<10		50
Q014033	1.41	1	0.28	<10		0.12	58	2	0.04	6	130	23	1.54	5	2			12	<0.01	80	2	<10		37
Q014034	1.44	<1	0.32	<10		0.10	36	2	0.03	3	140	33	1.57	4	2			10	<0.01	110	2	<10		49
Q014035	6.33	<1	0.21	<10		0.06	40	8	0.01	4	10	53	7.63	9	<1			4	<0.01	<10	1	<10		107
Q014036	6.09	<1	0.23	<10		0.07	43	4	0.01	2	<10	42	7.33	7	<1			4	<0.01	<10	1	<10		159
Q014037	4.44	<1	0.21	<10		0.06	41	1	0.01	1	10	29	4.97	4	<1			5	<0.01	<10	1	<10		60
Q014038	6.80	<1	0.28	<10		0.03	28	3	0.01	1	20	142	8.28	14	1			7	<0.01	<10	1	<10		127
Q014039	4.39	<1	0.25	10		0.02	24	3	0.01	1	20	39	4.99	21	1			7	<0.01	<10	1	<10		228
Q014041	9.29	<1	0.28	<10		0.03	37	4	0.01	4	10	128	>10.00	20	1			8	<0.01	<10	1	<10		955
Q014042	4.39	<1	0.34	<10		0.03	27	5	0.02	2	10	88	5.21	4	1			7	<0.01	<10	1	<10		236
Q014043	3.36	69	0.29	<10		0.08	103	2	0.02	1	<10	44	9.52	<2	<1			10	<0.01	<10	1	10		>10000
Q014044	2.53	5	0.28	<10		0.03	19	4	0.02	<1	<10	56	3.56	7	<1			13	<0.01	<10	1	<10		>10000
Q014045	4.03	66	0.34	<10		0.04	90	2	0.02	1	<10	96	9.83	39	<1			26	<0.01	<10	2	<10		>10000
Q014046	5.22	<1	0.38	<10		0.02	15	6	0.03	7	10	38	6.48	29	1			6	<0.01	10	2	<10		1110
Q014047	4.40	<1	0.29	<10		0.01	10	7	0.02	10	<10	40	5.14	<2	1			6	<0.01	<10	1	<10		196
Q014048	6.32	<1	0.30	<10		0.02	19	4	0.02	3	<10	49	7.81	<2	1			5	<0.01	<10	2	<10		597
Q014049	3.06	<1	0.36	<10		0.03	17	4	0.03	1	10	24	3.59	<2	1			6	<0.01	<10	2	<10		195
Q014051	15.90	<1	0.31	<10		0.01	14	8	0.02	6	10	97	>10.00	6	<1			5	<0.01	<10	2	<10		54
Q014052	10.15	<1	0.38	<10		0.02	18	6	0.03	9	<10	82	>10.00	<2	<1			5	<0.01	<10	2	<10		140
Q014053	6.32	<1	0.24	<10		0.02	15	1	0.01	2	40	41	7.63	<2	<1			4	<0.01	<10	1	<10		559
Q014054	5.76	1	0.28	<10		0.02	22	4	0.01	9	50	83	6.98	2	<1			4	<0.01	<10	2	<10		732
Q014055	2.16	<1	0.29	10		0.05	28	3	0.01	1	50	38	2.38	2	1			8	<0.01	<10	1	<10		21
Q014056	3.13	2	0.30	10		0.10	43	3	0.02	<1	60	16	3.43	7	1			9	<0.01	<10	1	<10		12
Q014057	3.20	<1	0.38	<10		0.43	195	2	0.09	1	100	19	3.28	4	1			18	0.01	<10	2	<10		33
Q014058	3.17	<1	0.52	<10		0.92	420	<1	0.14	10	460	33	2.71	14	3			41	0.03	<10	23	<10		400
Q014059	3.15	<1	0.42	<10		0.39	126	2	0.05	1	120	6	3.19	7	1			12	<0.01	<10	2	<10		35
Q014062	3.72	<1	0.28	10		0.07	34	2	0.02	4	90	124	4.20	3	1			8	<0.01	<10	1	<10		256
Q014063	8.26	<1	0.29	<10		0.07	21	4	0.01	<1	30	64	>10.00	<2	1			7	<0.01	<10	1	<10		36
Q014064	5.69	<1	0.92	10		2.58	556	1	0.29	60	2320	27	0.33	5	7			107	0.22	<10	154	<10		101
Q014065	5.80	<1	0.30	<10		0.08	34	3	0.02	4	50	38	6.88	3	1			9	<0.01	<10	3	<10		18
Q014066	12.10	<1	0.25	<10		0.07	19	7	0.01	1	20	75	>10.00	6	1			5	<0.01	<10	3	<10		92
Q014067	7.55	<1	0.28	<10		0.04	16	10	0.01	1	150	15	9.28	2	1			7	<0.01	<10	4	<10		22
Q014068	9.21	<1	0.25	<10		0.07	24	4	0.03	1	210	13	>10.00	<2	1			7	<0.01	<10	2	<10		16
Q014069	23.10	<1	0.36	<10		0.17	44	3	0.03	<1	600	93	>10.00	<2	1			8	<0.01	<10	2	<10		60
Q014072	9.70	<1	0.40	10		0.67	149	12	0.04	<1	220	66	>10.00	17	1			10	<0.01	<10	3	<10		543
Q014073	10.45	<1	0.34	<10		0.80	150	8	0.03	<1	160	89	>10.00	93	1			9	<0.01	<10	4	<10		799
Q014074	9.40	<1	0.35	<10		1.39	244	6	0.03	1	290	20	>10.00	3	1			11	<0.01	<10	6	<10		57

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014075	147.05	148.55	1.5		0.056							0.6	2.19	22	30	<0.5	6	0.23	<0.5	6	3	24
Q014076	148.55	150.05	1.5		0.369							4.1	2.22	111	50	<0.5	6	0.45	<0.5	15	1	212
Q014077	150.05	151.00	0.95		0.212							1.5	2.15	73	40	<0.5	7	0.44	<0.5	17	1	87
Q014078	151.00	152.55	1.55		0.127							2.6	1.26	230	50	<0.5	4	0.34	<0.5	9	1	3210
Q014079	152.55	154.00	1.45		0.486							5.3	0.90	671	30	<0.5	6	0.19	1.3	14	1	3210
Q014081	154.00	155.50	1.5		1.515	15.00	0.122	0.040	0.033	0.05	2.76	15.4	0.99	517	70	<0.5	62	0.37	1.6	10	4	1220
Q014082	155.50	157.30	1.8		0.349	3.00	0.009	0.035	0.044	0.01	2.86	3.4	1.26	95	20	<0.5	22	0.50	1.4	5	4	97
Q014083	157.30	158.30	1		0.732	15.00	0.147	0.031	0.302	0.11	4.60	13.2	0.27	917	10	<0.5	33	0.16	10.1	3	4	1460
Q014084	158.30	159.30	1		0.492	12.00	0.040	0.029	0.036	0.06	4.23	9.2	0.23	504	<10	<0.5	10	0.03	1.2	8	4	394
Q014085	159.30	160.30	1		0.832	17.00	0.048	0.049	0.027	0.06	4.06	15.0	0.44	555	<10	<0.5	17	0.04	0.8	8	5	461
Q014086	160.30	161.30	1		1.600	10.00	0.064	0.017	0.154	0.06	4.29	9.5	0.57	538	<10	<0.5	17	0.02	5.6	16	4	636
Q014087	161.30	162.30	1		1.650	8.00	0.076	0.010	0.157	0.06	5.03	7.4	0.28	477	<10	<0.5	13	0.05	5.3	19	3	730
Q014088	162.30	163.30	1		1.735	11.00	0.069	0.017	0.156	0.12	4.95	9.9	0.36	878	<10	<0.5	19	0.02	5.6	21	3	682
Q014089	163.30	163.85	0.55		2.060	9.00	0.044	0.069	0.150	0.04	3.80	8.6	1.03	390	<10	<0.5	96	0.21	5.4	12	5	445
Q014091	163.85	164.65	0.8		0.537	1.00	0.016	0.010	0.010	0.02	3.18	2.1	0.75	172	<10	<0.5	12	0.13	<0.5	9	2	179
Q014092	164.65	165.52	0.87		1.220	3.00	0.058	0.011	0.041	0.05	4.25	3.2	0.67	420	<10	<0.5	17	0.16	1.6	3	3	548
Q014093	165.52	167.00	1.48		0.670	6.00	0.574	0.002	0.094	0.15	3.22	5.8	0.26	1490	<10	<0.5	3	0.05	3.7	20	9	5890
Q014094	167.00	168.50	1.5		0.584	1.00	0.190	0.003	0.019	0.04	2.94	1.5	0.29	370	<10	<0.5	2	0.03	0.9	6	9	1970
Q014095	168.50	170.00	1.5		0.498	3.00	0.518	0.007	0.048	0.07	3.46	3.0	0.50	686	<10	<0.5	3	0.07	1.9	17	6	5590
Q014096	170.00	171.50	1.5		0.458	3.00	0.747	0.002	0.062	0.07	3.11	3.4	0.33	769	<10	<0.5	14	0.08	2.0	13	8	8150
Q014097	171.50	173.00	1.5		0.431	2.00	0.671	0.005	0.053	0.06	3.30	2.5	0.29	537	<10	<0.5	17	0.05	1.8	12	9	6990
Q014098	173.00	174.50	1.5		0.249	1.00	0.069	0.006	0.042	0.03	3.11	1.1	0.29	291	10	<0.5	5	0.05	1.0	19	8	674
Q014099	174.50	176.00	1.5		0.357	<1.00	0.054	0.005	0.019	0.03	3.21	0.8	0.38	338	10	<0.5	8	0.04	1.0	9	8	577
Q014102	176.00	177.50	1.5		0.235	1.00	0.029	0.003	0.015	0.01	3.09	1.4	0.53	148	10	<0.5	6	0.05	0.7	23	7	286
Q014103	177.50	178.50	1		0.221	1.00	0.012	0.003	0.003	0.01	3.06	1.5	0.65	87	10	<0.5	10	0.10	<0.5	30	4	129
Q014104	178.50	179.48	0.98		0.132	<1.00	0.008	0.003	0.002	<0.01	2.99	0.7	0.85	61	20	<0.5	6	0.06	<0.5	30	4	86
Q014105	179.48	181.00	1.52		0.169	2.00	0.043	0.005	0.011	0.01	3.27	2.5	0.70	152	20	<0.5	4	3.80	0.8	6	1	450
Q014106	181.00	182.50	1.5		0.100	<1.00	0.021	0.001	0.003	<0.01	3.14	1.1	0.30	53	20	<0.5	3	10.50	<0.5	3	1	235
Q014107	182.50	184.00	1.5		0.059	1.00	0.012	0.003	0.012	<0.01	3.03	1.2	0.47	38	20	<0.5	3	7.60	0.6	4	1	141
Q014108	184.00	185.20	1.2		0.189	<1.00	0.002	0.001	<0.001	<0.01	2.96	0.4	0.71	25	30	<0.5	3	1.09	<0.5	4	1	24
Q014109	185.20	186.45	1.25		0.509	1.00	0.005	0.004	<0.001	<0.01	3.28	1.1	0.50	40	10	<0.5	6	1.96	<0.5	6	1	58
Q014111	186.45	187.80	1.35		0.086	<1.00	0.001	0.001	0.001	<0.01	2.73	0.4	0.57	38	60	<0.5	<2	7.40	<0.5	3	<1	19
Q014112	187.80	189.16	1.36		<0.005							<0.2	0.35	27	60	<0.5	<2	6.34	<0.5	<1	<1	4
Q014113	189.16	190.20	1.04		0.559							2.3	0.54	51	20	<0.5	5	0.72	<0.5	7	1	48
Q014114	190.20	191.20	1		1.285	6.00	0.011	0.007	0.005	0.01	3.10	6.6	0.54	113	20	<0.5	12	0.83	<0.5	22	1	118
Q014115	191.20	192.63	1.43		4.100	7.00	0.020	0.014	0.005	0.02	3.45	7.3	0.47	154	10	<0.5	17	1.27	<0.5	18	1	215
Q014116	192.63	193.70	1.07		3.120	5.00	0.010	0.004	0.003	0.01	3.00	5.7	0.54	112	10	<0.5	7	0.47	<0.5	8	1	102
Q014117	193.70	194.71	1.01		2.310	9.00	0.009	0.006	0.004	0.01	3.20	9.3	0.52	89	10	<0.5	10	0.21	<0.5	8	1	95
Q014118	194.71	195.73	1.02		3.070	7.00	0.008	0.004	0.004	0.01	3.26	6.8	0.50	73	10	<0.5	5	0.21	<0.5	7	1	78
Q014119	195.73	197.50	1.77		0.995							3.6	0.56	97	20	<0.5	6	0.64	<0.5	10	1	107
Q014122	197.50	199.27	1.77		1.100	1.00	0.004	<0.001	0.003	0.01	2.98	1.4	0.41	47	30	<0.5	3	8.20	<0.5	3	<1	46
Q014123	199.27	200.25	0.98		0.571	3.00	0.005	0.005	0.010	0.01	4.04	3.2	0.46	49	10	<0.5	8	2.30	<0.5	3	1	61
Q014124	200.25	200.95	0.7		0.154	<1.00	0.001	<0.001	<0.001	<0.01	3.09	0.8	0.75	35	30	<0.5	4	0.84	<0.5	3	<1	19
Q014125	200.95	202.65	1.7		0.234	1.00	0.008	0.007	0.009	<0.01	3.98	1.9	0.48	53	10	<0.5	7	2.76	<0.5	2	1	89
Q014126	202.65	204.15	1.5		0.097	<1.00	0.009	0.002	0.003	<0.01	2.94	0.9	0.68	44	30	<0.5	2	4.60	<0.5	2	1	100
Q014127	204.15	205.65	1.5		0.171	2.00	0.093	0.004	0.022	0.04	2.91	2.8	0.44	365	20	<0.5	2	7.80	0.9	4	1	983
Q014128	205.65	207.15	1.5		0.219	3.00	0.302	0.001	0.043	0.09	3.00	3.6	0.62	889	20	<0.5	4	3.83	1.8	8	1	3160
Q014129	207.15	208.86	1.71		0.578	1.00	0.004	0.002	0.001	0.01	2.94	1.2	0.77	75	80	<0.5	2	1.10	<0.5	4	1	44

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014075	6.68	<1	0.31	<10		2.24	389	7	0.03	1	220	24	7.28	<2	1			11	<0.01	<10	6	<10		90
Q014076	6.04	<1	0.46	10		1.75	325	5	0.08	5	320	101	6.72	8	1			22	<0.01	<10	5	<10		138
Q014077	4.55	<1	0.51	10		1.59	301	6	0.09	8	170	41	4.70	4	1			22	<0.01	<10	5	<10		93
Q014078	3.14	<1	0.49	10		0.57	112	2	0.05	5	180	30	3.32	10	1			19	<0.01	<10	4	<10		72
Q014079	6.03	<1	0.38	<10		0.41	83	15	0.03	9	60	77	7.24	42	1			11	<0.01	<10	3	<10		231
Q014081	2.22	1	0.32	<10		0.39	101	6	0.05	7	120	395	2.36	54	1			23	<0.01	<10	3	<10		331
Q014082	4.41	<1	0.37	<10		0.54	141	5	0.06	30	490	358	4.95	6	1			17	<0.01	<10	6	<10		422
Q014083	23.60	2	0.09	<10		0.10	94	1	0.01	3	70	300	>10.00	29	<1			5	<0.01	<10	4	<10		2880
Q014084	22.90	1	0.11	<10		0.02	66	<1	0.01	3	<10	237	>10.00	11	<1			3	<0.01	<10	2	<10		360
Q014085	25.50	1	0.23	<10		0.03	115	3	0.01	10	<10	390	>10.00	19	<1			3	<0.01	10	6	<10		206
Q014086	25.90	2	0.31	<10		0.03	47	5	0.01	4	10	154	>10.00	10	<1			3	<0.01	10	8	<10		1460
Q014087	24.00	2	0.13	<10		0.03	37	3	0.01	2	<10	90	>10.00	14	<1			2	<0.01	<10	5	<10		1490
Q014088	25.70	3	0.18	<10		0.03	36	3	0.01	14	<10	151	>10.00	23	<1			2	<0.01	10	8	<10		1480
Q014089	24.70	2	0.43	<10		0.16	64	7	0.05	29	70	713	>10.00	23	1			7	<0.01	30	12	<10		1460
Q014091	8.81	<1	0.41	<10		0.05	32	8	0.02	15	240	110	>10.00	8	1			6	<0.01	10	5	<10		118
Q014092	23.40	2	0.30	<10		0.12	39	4	0.02	12	30	117	>10.00	18	1			5	<0.01	<10	9	<10		398
Q014093	13.50	2	0.13	<10		0.03	21	16	0.01	<1	<10	20	>10.00	61	1			2	<0.01	<10	3	<10		884
Q014094	8.92	1	0.15	<10		0.02	28	4	0.01	1	10	36	>10.00	11	1			3	<0.01	<10	3	<10		201
Q014095	21.30	1	0.26	<10		0.04	24	10	0.02	1	70	65	>10.00	19	1			4	<0.01	<10	9	<10		464
Q014096	10.95	1	0.17	<10		0.03	26	4	0.01	3	80	25	>10.00	20	1			3	<0.01	<10	7	<10		609
Q014097	16.30	1	0.14	<10		0.03	26	5	0.01	2	<10	55	>10.00	18	1			2	<0.01	<10	7	<10		500
Q014098	11.00	1	0.15	<10		0.03	5	4	0.02	6	<10	69	>10.00	9	1			3	<0.01	<10	10	<10		392
Q014099	12.90	1	0.22	<10		0.02	30	9	0.02	3	<10	54	>10.00	13	1			2	<0.01	<10	13	<10		210
Q014102	8.63	1	0.30	<10		0.02	60	7	0.02	13	<10	31	>10.00	3	2			6	<0.01	<10	17	<10		163
Q014103	7.79	<1	0.36	<10		0.04	74	5	0.03	13	10	35	9.91	3	3			8	<0.01	<10	22	<10		48
Q014104	6.16	1	0.48	<10		0.06	87	5	0.03	12	10	36	7.62	2	4			9	<0.01	<10	27	<10		43
Q014105	12.60	1	0.32	<10		0.10	26	10	0.04	7	60	58	>10.00	9	1			254	<0.01	<10	3	<10		108
Q014106	8.52	<1	0.16	<10		0.04	5	9	0.02	3	60	33	>10.00	<2	<1			691	<0.01	<10	2	<10		45
Q014107	7.37	1	0.25	<10		0.03	15	9	0.03	3	60	39	>10.00	2	<1			490	<0.01	<10	2	<10		136
Q014108	3.71	1	0.39	<10		0.02	17	7	0.05	3	30	8	5.01	<2	1			58	<0.01	<10	2	<10		12
Q014109	16.60	1	0.28	<10		0.02	<5	5	0.04	4	20	34	>10.00	<2	<1			169	<0.01	<10	2	<10		14
Q014111	0.85	1	0.33	<10		0.01	7	6	0.04	2	30	5	7.79	<2	<1			411	<0.01	<10	1	<10		15
Q014112	0.07	<1	0.22	<10		0.01	6	4	0.02	<1	20	<2	6.05	2	<1			312	<0.01	<10	1	<10		6
Q014113	6.60	1	0.31	<10		0.02	23	8	0.04	8	40	28	8.62	2	<1			68	<0.01	<10	1	<10		27
Q014114	8.57	1	0.31	<10		0.01	15	17	0.04	17	30	66	>10.00	5	<1			46	<0.01	<10	1	<10		46
Q014115	20.80	6	0.25	<10		0.01	8	8	0.03	20	20	137	>10.00	5	<1			100	<0.01	<10	1	<10		39
Q014116	8.74	7	0.29	<10		0.01	47	17	0.04	9	60	41	>10.00	3	1			33	<0.01	<10	1	<10		31
Q014117	12.70	2	0.28	<10		0.01	36	16	0.04	7	40	60	>10.00	3	<1			24	<0.01	<10	1	<10		36
Q014118	14.50	2	0.28	<10		0.01	10	11	0.04	6	20	33	>10.00	3	<1			18	<0.01	<10	1	<10		38
Q014119	7.96	1	0.31	<10		0.01	18	10	0.05	7	40	34	>10.00	3	1			53	<0.01	<10	1	<10		31
Q014122	6.70	1	0.24	<10		0.01	<5	9	0.03	3	30	13	>10.00	<2	<1			494	<0.01	<10	2	<10		44
Q014123	25.40	1	0.24	<10		0.02	<5	1	0.03	1	20	61	>10.00	<2	<1			196	<0.01	<10	4	<10		100
Q014124	4.70	<1	0.40	<10		0.02	13	9	0.05	2	60	11	6.55	<2	1			54	<0.01	<10	3	<10		11
Q014125	25.30	1	0.25	<10		0.01	<5	4	0.03	3	20	76	>10.00	<2	<1			194	<0.01	<10	4	<10		95
Q014126	4.78	1	0.35	<10		0.03	17	3	0.04	2	960	23	>10.00	2	1			266	<0.01	<10	2	<10		41
Q014127	6.61	1	0.24	<10		0.02	12	2	0.03	3	50	41	>10.00	33	<1			503	<0.01	<10	2	<10		224
Q014128	6.58	2	0.33	<10		0.03	17	6	0.04	6	80	19	>10.00	73	1			296	<0.01	<10	3	<10		394
Q014129	1.83	<1	0.41	<10		0.04	15	4	0.04	4	120	17	2.93	2	1			71	<0.01	<10	3	<10		16

Drill Hole Log - Assays

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014131	208.86	210.36	1.5		1.970	7.00	0.013	0.015	0.049	0.01	3.93	6.6	0.20	54	10	<0.5	4	3.53	<0.5	6	2	131
Q014132	210.36	211.86	1.5		0.677	4.00	0.017	0.015	0.058	<0.01	3.79	4.4	0.26	53	10	<0.5	6	3.99	1.1	11	1	160
Q014133	211.86	213.20	1.34		0.534	6.00	0.441	0.023	0.158	0.04	3.63	5.3	0.33	338	10	<0.5	7	4.20	3.7	6	1	4290
Q014134	213.20	214.15	0.95		0.068	<1.00	0.032	0.002	0.007	<0.01	2.96	<0.2	2.98	31	150	<0.5	4	2.82	<0.5	18	40	337
Q014135	214.15	214.65	0.5		0.175	1.00	0.018	0.008	0.052	0.01	4.14	1.4	1.01	70	20	<0.5	9	0.94	0.5	11	15	186
Q014136	214.65	215.82	1.17		0.134	<1.00	0.020	0.021	0.080	<0.01	4.29	1.6	0.31	52	10	<0.5	5	2.44	1.4	3	2	170
Q014137	215.82	217.00	1.18		0.130	<1.00	0.016	0.011	0.010	0.01	4.05	1.4	0.47	44	20	<0.5	6	1.26	<0.5	15	1	133
Q014138	217.00	218.22	1.22		0.214	1.00	0.024	0.010	0.051	0.01	3.51	2.2	0.37	95	10	<0.5	8	4.20	0.9	11	2	247
Q014139	218.22	220.00	1.78		0.209	1.00	0.104	0.009	0.088	0.03	3.17	2.6	0.66	276	20	<0.5	4	4.14	2.8	6	2	1035
Q014142	220.00	221.50	1.5		0.154							3.7	0.32	805	30	<0.5	2	10.80	2.3	4	1	3350
Q014143	221.50	223.00	1.5		0.130							2.1	0.27	327	30	<0.5	3	12.10	2.7	2	1	2570
Q014144	223.00	224.50	1.5		0.056							1.4	0.38	137	40	<0.5	<2	13.10	0.7	2	<1	4210
Q014145	224.50	226.00	1.5		0.118	2.00	1.085	0.008	0.032	0.02	3.04	2.3	0.63	316	30	<0.5	<2	11.90	1.4	3	1	>10000
Q014146	226.00	227.50	1.5		0.414	6.00	1.215	0.014	0.056	0.08	3.12	6.2	0.67	916	20	<0.5	4	7.10	2.2	8	1	>10000
Q014147	227.50	229.00	1.5		0.608	9.00	0.378	0.017	0.960	0.04	2.98	9.5	0.35	448	20	<0.5	<2	11.00	42.3	4	1	4050
Q014148	229.00	230.50	1.5		1.140	40.00	1.975	0.031	7.440	0.25	3.03	43.1	0.34	2610	20	<0.5	<2	9.00	358.0	1	1	>10000
Q014149	230.50	232.00	1.5		0.381	14.00	0.782	2.360	4.790	0.06	2.83	13.8	0.30	638	10	<0.5	<2	9.00	222.0	2	<1	8380
Q014151	232.00	233.50	1.5		0.492	13.00	1.765	0.013	0.114	0.15	2.83	11.9	0.43	1580	20	<0.5	10	4.99	6.2	3	2	>10000
Q014152	233.50	235.00	1.5		0.428							2.2	0.53	103	30	<0.5	<2	1.37	0.5	7	2	129
Q014153	235.00	236.50	1.5		0.130							4.3	0.74	60	30	<0.5	<2	1.29	1.3	3	4	1870
Q014154	236.50	238.00	1.5		0.079							2.0	0.75	35	30	<0.5	<2	0.74	0.7	3	5	1170
Q014155	238.00	239.50	1.5		0.127							0.5	0.85	26	20	<0.5	<2	0.49	0.5	4	6	69
Q014156	239.50	241.00	1.5		0.015							0.2	1.74	14	50	<0.5	<2	0.31	<0.5	4	3	55
Q014157	241.00	242.50	1.5		0.012							<0.2	1.80	13	50	<0.5	<2	0.15	<0.5	3	4	28
Q014158	242.50	244.00	1.5		0.012							0.3	1.97	20	90	<0.5	<2	0.10	<0.5	3	4	443
Q014159	244.00	245.50	1.5		0.015							0.2	1.30	42	90	<0.5	<2	0.13	<0.5	5	3	253
Q014162	245.50	247.38	1.88		0.324	<1.00	0.013	0.008	0.006	0.03	2.97	0.8	1.22	272	40	<0.5	<2	0.18	<0.5	7	3	116
Q014163	247.38	248.55	1.17		1.225	19.00	0.411	1.850	22.700	0.23	4.25	18.9	1.66	2150	20	<0.5	2	0.10	950.0	<1	4	4120
Q014164	248.55	249.70	1.15		2.010	25.00	1.895	0.030	2.360	0.36	4.12	24.7	2.92	3670	50	<0.5	<2	0.07	82.8	39	7	>10000
Q014165	249.70	251.20	1.5		0.273	2.00	0.368	0.007	0.014	0.02	2.99	2.5	0.69	154	10	<0.5	<2	0.09	<0.5	22	2	3530
Q014166	251.20	252.70	1.5		0.173	<1.00	0.085	0.007	0.022	0.01	2.95	1.2	0.59	120	20	<0.5	2	0.07	0.9	13	4	875
Q014167	252.70	253.60	0.9		0.170	1.00	0.494	0.004	0.005	0.01	2.88	2.8	0.46	77	50	<0.5	<2	0.11	<0.5	4	6	5120
Q014168	253.60	255.10	1.5		0.166	<1.00	0.052	0.003	0.006	0.01	2.96	0.9	0.84	104	20	<0.5	<2	0.15	<0.5	3	1	514
Q014169	255.10	256.60	1.5		0.248	1.00	0.375	0.008	0.036	0.02	3.24	2.7	1.46	165	10	<0.5	<2	0.08	0.6	7	2	3760
Q014171	256.60	258.10	1.5		0.214	<1.00	0.043	0.005	0.005	0.01	3.07	1.6	0.67	135	20	<0.5	<2	0.11	<0.5	47	2	441
Q014172	258.10	259.60	1.5		0.093	<1.00	0.009	0.004	0.044	0.02	3.01	0.6	2.08	178	30	<0.5	4	0.26	<0.5	32	9	86
Q014173	259.60	261.10	1.5		0.156	<1.00	0.011	0.005	0.031	0.02	3.25	0.8	1.59	238	20	0.5	3	0.31	<0.5	38	6	100
Q014174	261.10	262.60	1.5		0.053							0.9	0.93	178	20	<0.5	2	0.32	1.6	48	4	106
Q014175	262.60	264.00	1.4		0.039							0.7	0.86	91	10	<0.5	3	0.23	4.6	62	3	126
Q014176	264.00	265.00	1		0.054							0.7	0.75	102	20	<0.5	7	0.32	17.6	41	3	121

Drill Hole Log - Assays

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014131	25.40	2	0.08	<10		0.02	<5	4	0.02	10	<10	145	>10.00	11	<1			254	<0.01	<10	4	<10		408
Q014132	23.00	<1	0.12	<10		0.03	<5	6	0.02	8	<10	129	>10.00	10	<1			274	<0.01	<10	3	<10		476
Q014133	23.90	1	0.18	<10		0.03	<5	11	0.01	11	<10	218	>10.00	30	<1			241	<0.01	<10	4	<10		1320
Q014134	5.38	<1	0.32	10		1.43	410	1	0.38	18	1530	31	1.89	12	5			271	0.35	<10	133	<10		86
Q014135	28.30	1	0.13	<10		0.49	123	4	0.15	11	410	84	>10.00	2	3			118	0.14	<10	45	<10		481
Q014136	26.70	<1	0.16	<10		0.03	<5	4	0.02	5	<10	159	>10.00	<2	<1			100	<0.01	<10	4	<10		617
Q014137	24.60	1	0.25	<10		0.04	<5	7	0.02	3	<10	101	>10.00	<2	<1			80	<0.01	<10	5	<10		91
Q014138	23.80	1	0.15	<10		0.06	<5	4	0.03	6	<10	96	>10.00	<2	<1			297	<0.01	<10	4	<10		480
Q014139	10.80	1	0.34	<10		0.06	14	9	0.03	7	10	86	>10.00	20	1			239	<0.01	<10	3	<10		782
Q014142	3.64	2	0.19	<10		0.03	12	6	0.02	3	60	60	>10.00	52	<1			656	<0.01	<10	1	<10		484
Q014143	5.22	1	0.16	<10		0.02	5	8	0.02	3	90	63	>10.00	11	<1			756	<0.01	<10	1	<10		656
Q014144	3.04	1	0.17	<10		0.10	22	3	0.02	1	70	40	>10.00	3	<1			850	<0.01	<10	2	<10		135
Q014145	5.76	1	0.20	<10		0.31	59	4	0.03	2	130	70	>10.00	5	<1			744	<0.01	<10	3	<10		286
Q014146	8.94	1	0.29	<10		0.13	29	9	0.04	10	90	125	>10.00	23	<1			435	<0.01	<10	3	<10		425
Q014147	4.87	3	0.19	<10		0.04	10	7	0.02	5	30	156	>10.00	23	<1			664	<0.01	<10	1	<10		>10000
Q014148	6.14	12	0.17	<10		0.04	27	11	0.02	6	30	218	>10.00	179	<1			549	<0.01	<10	3	10		>10000
Q014149	3.11	10	0.17	<10		0.03	17	7	0.02	4	20	>10000	>10.00	41	<1			573	<0.01	<10	2	<10		>10000
Q014151	6.04	2	0.23	<10		0.04	15	7	0.02	4	<10	111	>10.00	136	<1			308	<0.01	<10	3	<10		1060
Q014152	3.51	<1	0.27	<10		0.03	21	2	0.03	3	30	123	4.99	<2	<1			100	<0.01	<10	1	<10		133
Q014153	4.45	<1	0.32	<10		0.25	49	3	0.04	1	90	104	5.87	2	1			94	<0.01	<10	1	<10		347
Q014154	4.03	<1	0.32	<10		0.29	61	2	0.02	2	140	20	4.90	<2	1			36	<0.01	<10	1	<10		194
Q014155	4.79	1	0.31	<10		0.42	78	3	0.02	1	60	17	5.55	2	1			23	<0.01	<10	1	<10		158
Q014156	5.35	<1	0.41	10		1.21	198	2	0.05	1	130	5	5.63	<2	1			23	<0.01	<10	2	<10		82
Q014157	3.56	<1	0.30	<10		1.60	257	1	0.03	1	170	2	3.33	<2	1			15	<0.01	<10	1	<10		53
Q014158	3.17	<1	0.28	10		1.77	324	<1	0.02	2	130	<2	2.50	2	1			12	<0.01	<10	4	<10		44
Q014159	2.92	<1	0.31	<10		0.86	181	1	0.03	3	180	14	2.85	<2	1			7	<0.01	<10	7	<10		24
Q014162	4.27	<1	0.34	<10		0.81	195	6	0.02	14	300	73	4.68	5	1			9	<0.01	<10	5	<10		60
Q014163	15.60	27	0.09	<10		2.11	540	6	0.01	6	50	>10000	>10.00	97	<1			32	<0.01	<10	20	<10		>10000
Q014164	25.70	10	0.04	<10		3.38	827	18	0.01	10	30	222	>10.00	115	3			16	<0.01	<10	43	20		>10000
Q014165	7.35	<1	0.29	<10		0.20	88	8	0.03	9	10	55	9.38	3	1			12	<0.01	<10	6	<10		111
Q014166	4.40	<1	0.30	<10		0.06	46	3	0.02	5	20	61	5.11	3	2			8	<0.01	<10	6	<10		206
Q014167	3.28	<1	0.19	<10		0.10	65	3	0.03	2	20	25	3.72	5	1			6	<0.01	<10	3	<10		41
Q014168	3.46	<1	0.43	10		0.11	59	5	0.03	3	260	27	4.06	2	2			10	<0.01	<10	1	<10		85
Q014169	10.55	1	0.41	<10		0.93	339	8	0.03	9	120	69	>10.00	<2	2			6	<0.01	<10	3	<10		370
Q014171	5.53	<1	0.36	<10		0.04	86	2	0.03	25	110	53	7.02	2	4			10	<0.01	<10	23	<10		74
Q014172	6.13	1	0.51	<10		1.38	654	1	0.03	13	830	26	6.66	<2	6			11	<0.01	<10	43	<10		311
Q014173	7.65	<1	0.49	<10		0.84	443	2	0.03	14	880	48	9.25	2	5			11	<0.01	<10	38	<10		191
Q014174	9.72	1	0.36	<10		0.32	237	5	0.02	21	1100	67	>10.00	3	3			11	<0.01	<10	23	<10		288
Q014175	16.00	1	0.32	<10		0.35	265	5	0.02	26	730	42	>10.00	2	3			8	<0.01	<10	24	<10		1010
Q014176	10.95	2	0.35	<10		0.19	179	2	0.02	18	930	38	>10.00	2	3			8	<0.01	<10	19	<10		3430

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014018		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014019		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014021		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014022		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014023			WH13181217				ALS: ME-ICP41				10/19/201	
Q014024			WH13181217				ALS: ME-ICP41				10/19/201	
Q014025			WH13181217				ALS: ME-ICP41				10/19/201	
Q014026			WH13181217				ALS: ME-ICP41				10/19/201	
Q014027			WH13181217				ALS: ME-ICP41				10/19/201	
Q014028			WH13181217				ALS: ME-ICP41				10/19/201	
Q014029			WH13181217				ALS: ME-ICP41				10/19/201	
Q014032			WH13181217				ALS: ME-ICP41				10/19/201	
Q014033			WH13181217				ALS: ME-ICP41				10/19/201	
Q014034			WH13181217				ALS: ME-ICP41				10/19/201	
Q014035			WH13181217				ALS: ME-ICP41				10/19/201	
Q014036			WH13181217				ALS: ME-ICP41				10/19/201	
Q014037			WH13181217				ALS: ME-ICP41				10/19/201	
Q014038			WH13181217				ALS: ME-ICP41				10/19/201	
Q014039			WH13181217				ALS: ME-ICP41				10/19/201	
Q014041			WH13181217				ALS: ME-ICP41				10/19/201	
Q014042		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014043		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014044		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014045		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014046		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014047		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014048		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014049		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014051		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014052		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014053			WH13181217				ALS: ME-ICP41				10/19/201	
Q014054		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014055			WH13181217				ALS: ME-ICP41				10/19/201	
Q014056			WH13181217				ALS: ME-ICP41				10/19/201	
Q014057			WH13181217				ALS: ME-ICP41				10/19/201	
Q014058			WH13181217				ALS: ME-ICP41				10/19/201	
Q014059			WH13181217				ALS: ME-ICP41				10/19/201	
Q014062			WH13181217				ALS: ME-ICP41				10/19/201	
Q014063			WH13181217				ALS: ME-ICP41				10/19/201	
Q014064			WH13181217				ALS: ME-ICP41				10/19/201	
Q014065			WH13181217				ALS: ME-ICP41				10/19/201	
Q014066			WH13181217				ALS: ME-ICP41				10/19/201	
Q014067			WH13181217				ALS: ME-ICP41				10/19/201	
Q014068		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014069		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014072		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014073			WH13181217				ALS: ME-ICP41				10/19/201	
Q014074			WH13181217				ALS: ME-ICP41				10/19/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014075			WH13181217				ALS: ME-ICP41				10/19/201	
Q014076			WH13181217				ALS: ME-ICP41				10/19/201	
Q014077			WH13181217				ALS: ME-ICP41				10/19/201	
Q014078			WH13181217				ALS: ME-ICP41				10/19/201	
Q014079			WH13181217				ALS: ME-ICP41				10/19/201	
Q014081		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014082		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014083		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014084		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014085		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014086		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014087		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014088		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014089		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014091		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014092		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014093		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014094		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014095		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014096		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014097		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014098		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014099		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014102		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014103		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014104		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014105		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014106		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014107		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014108		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014109		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014111		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014112			WH13181217				ALS: ME-ICP41				10/19/201	
Q014113			WH13181217				ALS: ME-ICP41				10/19/201	
Q014114		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014115		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014116		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014117		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014118		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014119			WH13181217				ALS: ME-ICP41				10/19/201	
Q014122		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014123		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014124		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014125		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014126		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014127		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014128		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014129		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014131		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014132		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014133		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014134		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014135		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014136		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014137		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014138		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014139		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014142			WH13181217				ALS: ME-ICP41				10/19/201	
Q014143			WH13181217				ALS: ME-ICP41				10/19/201	
Q014144			WH13181217				ALS: ME-ICP41				10/19/201	
Q014145		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014146		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014147		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014148		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014149		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014151		WH13181217	WH13181217	WH13181217		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/19/201	10/19/201	10/19/201
Q014152			WH13181217				ALS: ME-ICP41				10/19/201	
Q014153			WH13181217				ALS: ME-ICP41				10/19/201	
Q014154			WH13181217				ALS: ME-ICP41				10/19/201	
Q014155			WH13181217				ALS: ME-ICP41				10/19/201	
Q014156			WH13181217				ALS: ME-ICP41				10/19/201	
Q014157			WH13181217				ALS: ME-ICP41				10/19/201	
Q014158			WH13181217				ALS: ME-ICP41				10/19/201	
Q014159			WH13181217				ALS: ME-ICP41				10/19/201	
Q014162		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014163		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014164		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014165		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014166		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014167		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014168		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014169		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014171		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014172		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014173		WH13156165	WH13156165	WH13156165		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/6/2013	10/6/2013	10/6/2013
Q014174			WH13181217				ALS: ME-ICP41				10/19/201	
Q014175			WH13181217				ALS: ME-ICP41				10/19/201	
Q014176			WH13181217				ALS: ME-ICP41				10/19/201	

Drill Hole Log - Ez-Shot Survey

Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date	Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date
32.00	82.9	-42.4	5669	103.6	H. Gammage	9/12/2013							
61.00	83.8	-42.5	5665	104.5	H. Gammage	9/12/2013							
91.00	84.5	-42.5	5666	105.2	L Clarke	9/12/2013							
121.00	83	-42.6	5663	103.7	L Clarke	9/12/2013							
154.00	83.3	-43	5663	104	H. Gammage	9/13/2013							
181.00	84.8	-43.5	5660	105.5	H. Gammage	9/13/2013							
211.00	82.1	-43.4	5683	102.8	H. Gammage	9/13/2013							
241.00	83	-43.2	5655	103.7	L. Clarke	9/13/2013							
265.00	84.7	-43.6	5651	105.4	L. Clarke	9/14/2013							

Drill Hole Log - Rock Quality Determination

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
12.00	13.00	1	1.57	157	0.44	28.03	
13.00	16.00	3	2.46	82	0.89	36.18	
16.00	19.00	3	2.16	72	0.43	19.91	
19.00	22.00	3	2.18	72.67	0.78	35.78	
22.00	25.00	3	2.49	83	1.62	65.06	
25.00	28.00	3	3.01	100.33	2.57	85.38	
28.00	31.00	3	2.88	96	2.11	73.26	
31.00	34.00	3	2.92	97.33	2.12	72.6	
34.00	37.00	3	2.94	98	2.43	82.65	
37.00	40.00	3	2.96	98.67	2.44	82.43	
40.00	43.00	3	3.1	103.33	1.53	49.35	
43.00	46.00	3	2.93	97.67	2.28	77.82	
46.00	49.00	3	2.95	98.33	1.74	58.98	
49.00	52.00	3	2.94	98	2.69	91.5	
52.00	55.00	3	2.94	98	1.83	62.24	
55.00	58.00	3	3.13	104.33	2.63	84.03	
58.00	61.00	3	2.86	95.33	2.24	78.32	
61.00	64.00	3	2.84	94.67	1.17	41.2	
64.00	67.00	3	2.86	95.33	0.85	29.72	
67.00	70.00	3	2.94	98	2.76	93.88	
70.00	73.00	3	3.04	101.33	2.67	87.83	
73.00	76.00	3	2.93	97.67	1.95	66.55	
76.00	79.00	3	2.81	93.67	2.32	82.56	
79.00	82.00	3	2.95	98.33	1.77	60	
82.00	85.00	3	2.93	97.67	2.51	85.67	
85.00	88.00	3	3.02	100.67	2.71	89.74	
88.00	91.00	3	3	100	2.51	83.67	
91.00	94.00	3	2.23	74.33	0.95	42.6	
94.00	97.00	3	3.01	100.33	2.55	84.72	
97.00	100.00	3	3.05	101.67	2.86	93.77	
100.00	103.00	3	2.93	97.67	2.69	91.81	
103.00	106.00	3	3.02	100.67	2.94	97.35	
106.00	109.00	3	3	100	2.49	83	
109.00	112.00	3	2.81	93.67	2.64	93.95	
112.00	115.00	3	2.9	96.67	2.5	86.21	
115.00	118.00	3	3.02	100.67	3	99.34	
118.00	121.00	3	2.83	94.33	2.78	98.23	
121.00	124.00	3	3.06	102	2.69	87.91	
124.00	127.00	3	2.9	96.67	2.81	96.9	
127.00	130.00	3	2.96	98.67	2.96	100	
130.00	133.00	3	2.98	99.33	2.73	91.61	
133.00	136.00	3	2.99	99.67	2.59	86.62	
136.00	139.00	3	2.95	98.33	2.83	95.93	
139.00	142.00	3	2.89	96.33	2.81	97.23	
142.00	145.00	3	3.01	100.33	2.77	92.03	
145.00	148.00	3	3.05	101.67	2.91	95.41	
148.00	151.00	3	3.06	102	2.97	97.06	
151.00	154.00	3	3.08	102.67	3.08	100	
154.00	157.00	3	2.96	98.67	2.34	79.05	
157.00	160.00	3	3.02	100.67	2.73	90.4	
160.00	163.00	3	3.04	101.33	3.04	100	
163.00	166.00	3	2.92	97.33	2.08	71.23	
166.00	169.00	3	3.02	100.67	2.9	96.03	
169.00	172.00	3	3.02	100.67	2.98	98.68	
172.00	175.00	3	3.04	101.33	3.04	100	
175.00	178.00	3	2.95	98.33	2.87	97.29	
178.00	181.00	3	2.93	97.67	2.73	93.17	
181.00	184.00	3	2.76	92	2.41	87.32	
184.00	187.00	3	3.01	100.33	2.01	66.78	
187.00	190.00	3	3.11	103.67	2.64	84.89	
190.00	193.00	3	3.06	102	2.12	69.28	
193.00	196.00	3	2.96	98.67	2.31	78.04	
196.00	199.00	3	3.11	103.67	3.08	99.04	
199.00	202.00	3	2.99	99.67	2.99	100	
202.00	205.00	3	3.04	101.33	2.86	94.08	
205.00	208.00	3	2.99	99.67	2.66	88.96	
208.00	211.00	3	3.09	103	3.09	100	
211.00	214.00	3	3.03	101	2.18	71.95	
214.00	217.00	3	3.1	103.33	2.24	72.26	
217.00	220.00	3	2.98	99.33	2.66	89.26	
220.00	223.00	3	2.98	99.33	2.91	97.65	
223.00	226.00	3	3.14	104.67	3.06	97.45	
226.00	229.00	3	2.98	99.33	2.79	93.62	
229.00	232.00	3	3.09	103	3.09	100	
232.00	235.00	3	3	100	2.44	81.33	
235.00	238.00	3	2.96	98.67	2.72	91.89	
238.00	241.00	3	3	100	2.83	94.33	
241.00	244.00	3	2.97	99	2.4	80.81	
244.00	247.00	3	3.03	101	2.04	67.33	
247.00	250.00	3	2.96	98.67	1.8	60.81	
250.00	253.00	3	2.97	99	1.9	63.97	
253.00	256.00	3	2.69	89.67	1.21	44.98	
256.00	259.00	3	3.08	102.67	2.54	82.47	

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments	From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
259.00	262.00	3	3.06	102	2.18	71.24									
262.00	265.00	3	2.99	99.67	2.22	74.25									

Drill Hole Log - Structure

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
111.00		fol			238.37	77.26	328.37			104.70	-42.50	42	65				5/22/2011	
126.95		fol			268.98	21.54	358.98			104.70	-43.00	45	150				5/22/2011	
187.30		fol			23.45	89.43	113.45			105.00	-43.80	45	12				5/22/2011	
198.70		fol			152.76	80.08	242.76			105.10	-44.10	40	300				5/22/2011	
219.50		faul			47.79	64.02	137.79			105.30	-42.80	15	30				5/22/2011	
228.90		fol			354.94	82.20	84.94			105.40	-44.00	35	335				5/22/2011	

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
12.00	13.00	dis		0.1										
19.50	62.50	ff		0.1										
62.50	69.22			0.1									0.5	
69.22	85.20			0.1										
85.20	86.70			1										
86.70	88.20			5										
88.20	89.00	fg					3							
89.00	89.92	cg		1		1	10							
89.92	90.90	fg		5			3							
90.90	91.90	fg		5			3							
91.90	93.40			0.1										
93.40	94.40			10										
94.40	95.90	fg		5			3							
95.90	97.40	fg		1			3							
97.40	98.90	fg		1			3							
98.90	100.40	fg		1			3							
100.40	101.51	fg		1			1							
101.51	102.62	fg		1			2							
102.62	104.12	fg		10			1							
104.12	105.62	fg		8			1							
105.62	107.12	fg		5			2							
107.12	108.62	fg		10			2							
108.62	110.12	fg		8			1							
110.12	111.62	fg		12			0.5							
111.62	112.59	fg		8			1							
112.59	113.17	cg		5		0.1	45							
113.17	113.80	cg		1		0.1	3							
113.80	114.10	cg		5		0.1	30							
114.10	115.60			5										
115.60	117.10			5										
117.10	118.60			10										
118.60	119.30			2										
119.30	120.82			55										
120.82	122.32			15										
122.32	123.82			12										
123.82	125.32			10										
125.32	126.82	fg		1			0.1							
126.82	128.32	fg		1			2							
128.32	129.82	fg		1			2							
129.82	131.32	fg		3			1							
131.32	132.80			5	0.1		0.1							
132.80	134.32	fg		5			0.1							
134.32	135.46			10										
135.46	135.95			0.1										
135.95	137.45	fg		5			0.1							
137.45	138.95	fg		12			0.1							
138.95	140.15			3										
140.15	141.38			5										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
141.38	142.55			20										
142.55	144.05			15	1									
144.05	145.55			15	1									
145.55	147.05			8										
147.05	148.55			5										
148.55	150.05			3										
150.05	151.00			3										
151.00	152.55			3	0.1									
152.55	154.00			4										
154.00	155.50			2										
155.50	157.30			3										
157.30	158.30			95										
158.30	159.30			90										
159.30	160.30			90										
160.30	161.30			90										
161.30	162.30			90										
162.30	163.30			95										
163.30	163.85			75										
163.85	164.65			2										
164.65	165.52			90										
165.52	167.00			15	2									
167.00	168.50			8	1									
168.50	170.00			15	3									
170.00	171.50			10	2									
171.50	173.00			10	1									
173.00	174.50			18	0.1									
174.50	176.00			12										
176.00	177.50			6										
177.50	178.50			8										
178.50	179.48			3										
179.48	181.00			10										
181.00	182.50			3										
182.50	184.00			5										
184.00	185.20			3										
185.20	186.45			40										
186.45	189.16			0.1										
189.16	190.20			5										
190.20	191.20			3										
191.20	192.63			35										
192.63	193.70			12										
193.70	194.71			10										
194.71	195.73			35										
195.73	197.50			7										
197.50	199.27			7										
199.27	200.25			95										
200.25	200.95			5										
200.95	202.65			75										
202.65	204.15			3										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
204.15	205.65			7										
205.65	207.15			5										
207.15	208.86			1										
208.86	210.36			90										
210.36	211.86			85										
211.86	213.20			80										
213.20	214.15			0.1										
214.15	214.65			90										
214.65	215.82			95										
215.82	217.00			90										
217.00	218.22			75										
218.22	220.00			5										
220.00	221.50			3										
221.50	223.00			5	0.1									
223.00	224.50			3	1									
224.50	226.00			3	2									
226.00	227.50			5	1									
227.50	229.00			3	1									
229.00	230.50			12	1									
230.50	232.00			6	1									
232.00	233.50			5	2									
233.50	235.00			6	0.1									
235.00	236.50			5	0.1									
236.50	238.00			4	0.1									
238.00	239.50			4										
239.50	241.00			5										
241.00	242.50			5										
242.50	244.00			4										
244.00	245.50			4										
245.50	247.38			5										
247.38	248.55			85	0.1		5							
248.55	249.70			90	0.1									
249.70	251.20			10	1									
251.20	252.70			8	0.1									
252.70	253.60			5	2									
253.60	255.10			3										
255.10	256.60			12										
256.60	258.10			5	0.1									
258.10	259.60			8										
259.60	261.10			8										
261.10	262.60			12										
262.60	264.00			20										
264.00	265.00			10										

Drill Hole Log - Tulsequah Chief 2013

TC13063

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
TC13063	10467.49	15071.22	305.00	274	55	-50

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
9/14/2013	9/17/2013	NQ	Atlas Drilling	9/17/2013	C. Taylor

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
2013 APS Survey	CT/AF/BA	9/25/2013	Field Az		9/14/2013

Purpose:

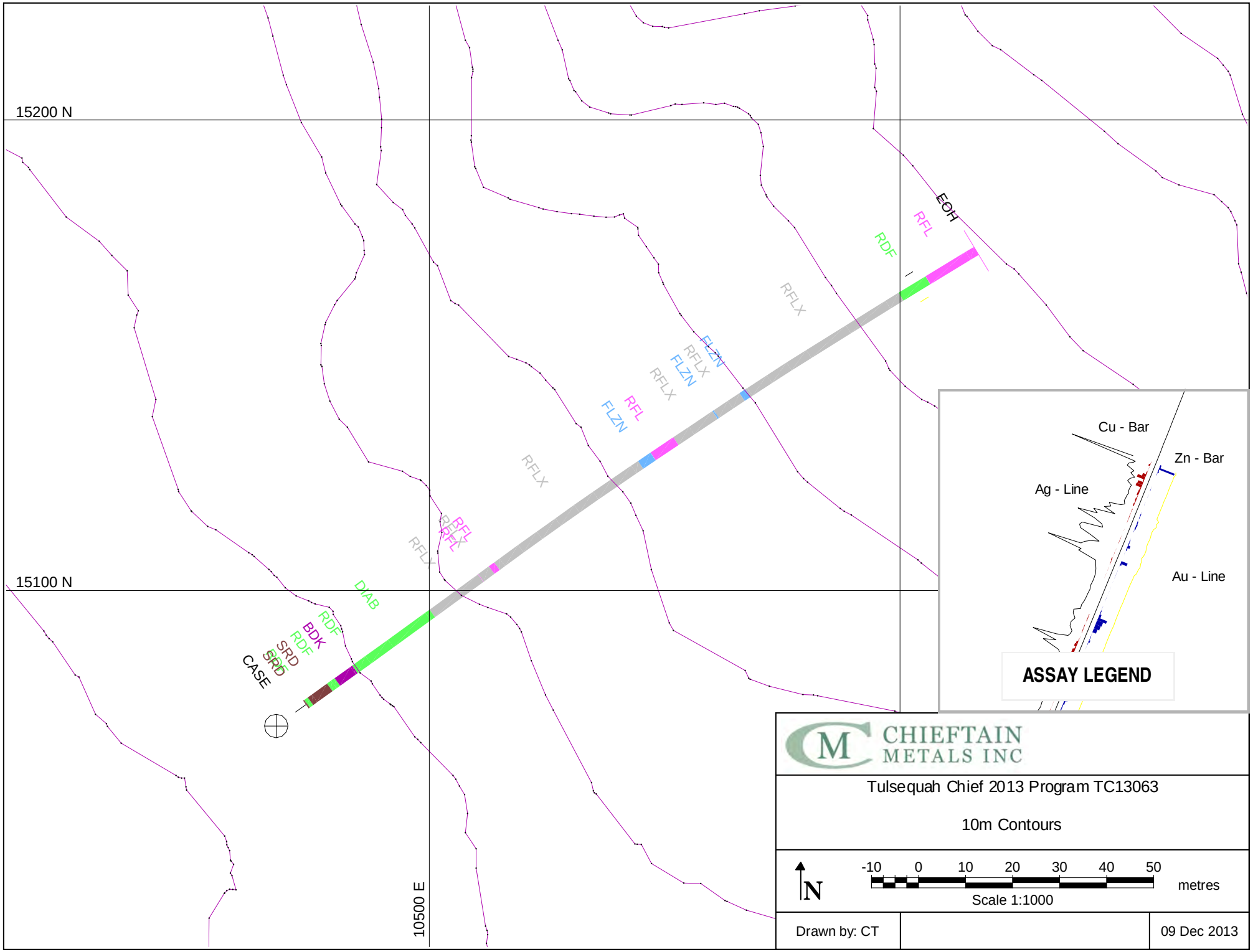
To test for IP anomaly and continuation of the VMS Horizon in a gap between the A-Extension and H-Lenses with no exising drill holes.

Summary:

Hole encountered sequences of massive rhyolite flows, rhyolite flow breccias, and rhyolite debris flows cut by occasional mafic dykes. No significant mineralization. Significant fault encountered from 175.00-175.55m, void partially infilled with euhedral carbonate, drill lost water.

Significant Intercepts:

Hole-ID	From (m)	To (m)	Length (m)	True Width (m)	Zone	Lith	Au gpt	Ag gpt	Cu %	Pb %	Zn %	As ppm	SG g/cm3	$US Eq/t SRK12	$NSR/t JDS12	News Release Date
TC13063						No significant intercepts										11/20/2013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15100 N
10500 E
EOH
RFL
RDF
RFLX
FLZN
RFLX
FLZN
RFLX
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RFL
RFL
RFLX
DIAB
RDF
BDK
RDF
SRD
SRD
CASE
Cu - Bar
Zn - Bar
Ag - Line
Au - Line
ASSAY LEGEND
CHIEFTAIN
METALS INC
Tulsequah Chief 2013 Program TC13063
10m Contours
N
-10
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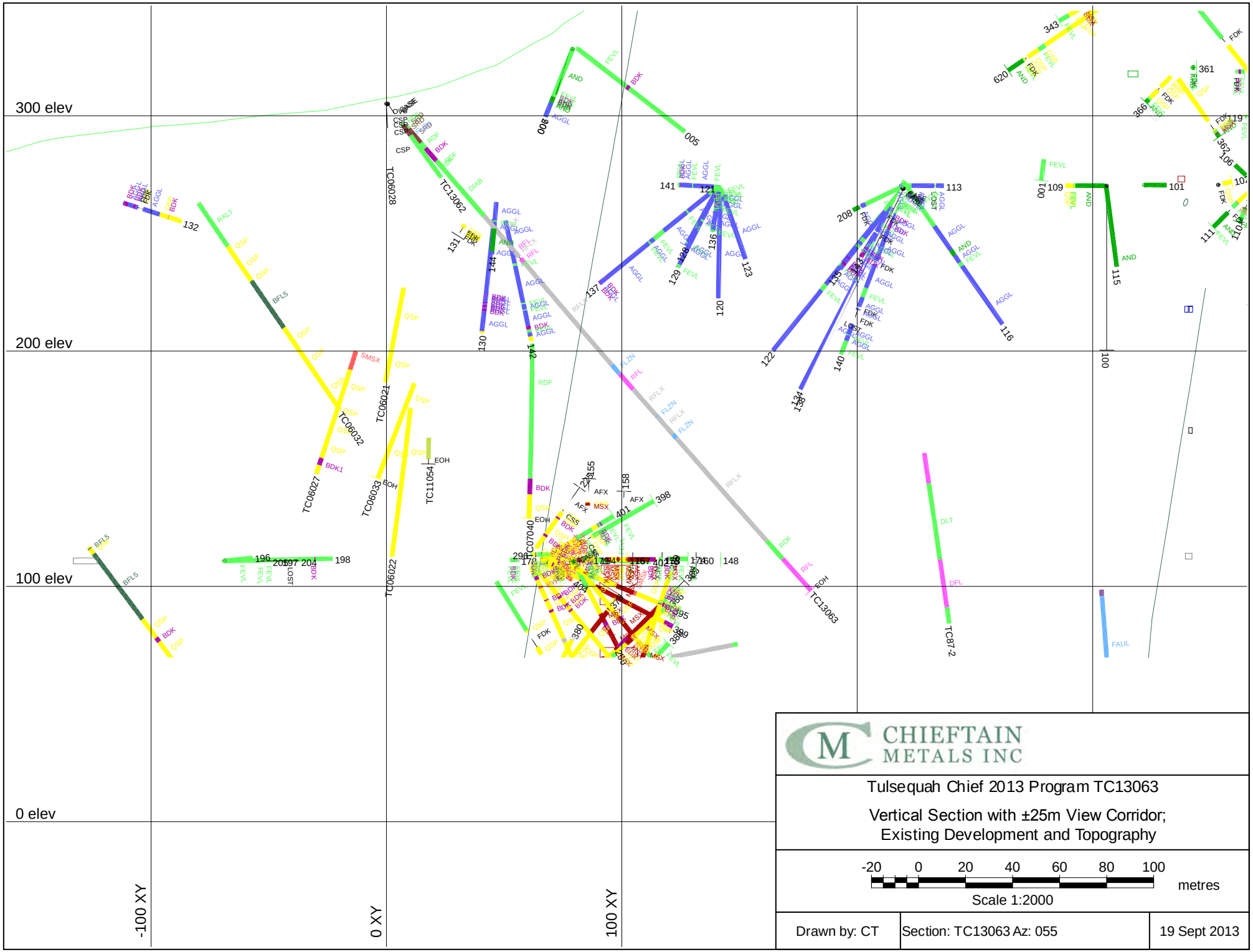
10
20
30
40
50
metres
Scale 1:1000
Drawn by: CT
09 Dec 2013


300 elev
200 elev
100 elev
0 elev
-100 XY
0 XY
100 XY
TC06028
TC13062
TC06032
TC06027
TC06021
TC06033
TC11054
TC06022
TC07040
TC13063
TC87-2
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13063
Vertical Section with ±25m View Corridor;
Existing Development and Topography
-20 0 20 40 60 80 100
metres
Scale 1:2000
Drawn by: CT
Section: TC13063 Az: 055
19 Sept 2013

Drill Hole Log - Down Hole Survey

TC13063

Dist (m)	Azimuth	Dip	Method	By	Date	Comments	Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	54	-50	Brunton FS/BS Boards lineup	BA	9/14/2013								
31.00	54.4	-49	Reflex EZ Shot		9/14/2013								
61.00	53.9	-49.3	Reflex EZ Shot		9/14/2013								
91.00	53.8	-49.4	Reflex EZ Shot		9/15/2013								
121.00	54.9	-49.6	Reflex EZ Shot		9/15/2013								
151.00	56.1	-48.8	Reflex EZ Shot		9/15/2013								
181.00	56.3	-48.5	Reflex EZ Shot		9/16/2013								
211.00	58	-48.8	Reflex EZ Shot		9/16/2013								
241.00	58.2	-48.4	Reflex EZ Shot		9/16/2013								
271.00	58.9	-48.1	Reflex EZ Shot		9/17/2013								

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
0.00	12.00	Casing									
12.00	12.50	Rhyolite Dyke, Sloko Fm Potentially a boulder. No distinct contacts.									
12.50	13.85	Rhyolite Debris Flow: Siliceous Highly silicified, likely altered rhyolite. Light to medium grey, mottled texture.									
13.85	21.65	Rhyolite Dyke, Sloko Fm Sloko rhyolite dyke. Strongly weathered. Cream coloured. Rusty coating on fractures. Dendritic manganese? Alteration. Banding at upper contact. Highly fractured at lower contact. Upper and lower contacts sharp.									
21.65	24.65	Rhyolite Debris Flow: Siliceous Moderately silicified rhyolite debris flow. Mottled light to medium reddish green grey. Silicification is patchy. Fragments are vague due to alteration. Trace medium grained Pyrite. 21.65 22.40 Fault Faulted, clayey.									
24.65	31.70	Basalt Dyke : Siliceous Silicified mafic dyke. Fairly massive, dark grey, with lighter (silicifed) patches throughout (generally <10cm). Fine grained Magnetite throughout. Trace fine grained Pyrite. Sharp upper contact, lower contact approximate. Small (generally <1cm) randomly oriented quartz carbonate veins throughout. Minor rusty coating on fractures.									
31.70	37.00	Rhyolite Debris Flow: Siliceous Rhyolite debris flow. Mottled light to medium greenish grey. Brecciated. Silicified, increasing downhole. Fragments are vague, becoming indistinct downhole. Minor chlorite alteration on fractures. Frequent quartz/carbonate veins, ± epidote, up to 5cm thick and brecciated. Sharp lower contact. Trace Pyrite. Bands of fine grained Magnetite at upper contact.									
37.00	62.70	Diabase Diabase Dyke. Fine grained (grain size ~1mm, phaneritic). Greenish grey. Consistantly weakly magnetic. Minor small, randomly oriented quartz/carbonate/chlorite (± epidote) veins throughout, 1mm-1cm, <1% overall. Sharp contacts. 38.15 39.00 Rhyolite Debris Flow Inclusion of above unit. Contacts somewhat vague 44.25 44.80 Fault Strongly broken, rusty quartz/carbonate veins.									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
62.70	82.22	Rhyolite Flow Breccias Rhyolite flow breccia. Mottled light ro medium grey. Patchy silicification. Fragments range in size from 1mm-5cm. Reddish feldspar phyric fragments thoughout, which tend to be weakly magnetic. Fragments possibly coarsening downhole, though alteration makes this difficult to establish. Trace medium grained Pyrite. Occasional brecciated quartz/chorite veins throughout, 1-10cm thick. Occasional fine (mm scale) chlorite/epidote veins ± carbonate. Lower contact sharp.									
82.22	82.35	Rhyolite Flow: Feldspar Massive section of feldspar phyric rhyolite. Medium grey, bleached white towards upper contact. Fine to medium grained magnetite in less silicified sections. Contacts sharp.									
82.35	86.65	Rhyolite Flow Breccias Rhyolite flow breccia. Mottled purplish grey. Fragments vary in size throughout, but are generally <2cm. Moderate patchy epidotization. Lower contact marked where fragments absent. Weakly magnetic.									
86.65	88.80	Rhyolite Flow: Feldspar Fairly massive, feldspar phyric rhyolite flow. Medium purplish grey. Pinkish where altered. Altered and brecciated: 86.65-87.9m, primary texture difficult to determine. Chlorite and magnetite infilling of fractures. Lower contact indistinct.									
88.80	146.20	Rhyolite Flow Breccias Rhyolite flow breccia. Mottled grey/pink/green. Fragments somewhat variable in size. Generally coarser grained fragments, up to 5cm in diameter, often weakly hematized or bleached. Sporadic small fractures infilled with chlorite/carbonate/epidote. Decimeter to meter scale sections pervasively bleached, increasing downhole. Core is sporadically magnetic. Lower contact gradational. Trace fine to medium grained Pyrite. 114.18 115.45 Rhyolite Flow: Feldspar No apparent fragments. Massive feldspar phyric rhyolite flow? Contacts vague.									
146.20	151.10	Fault Zone Fault Zone. Highly fractured, brecciated, clayey. Rhyolitic, but texture is difficult to discern due to fracturing. Chlorite/carbonate/epidote infilling fractures. Contacts gradational.									
151.10	159.93	Rhyolite Flow: Feldspar Rhyolite flow. Purplish in colour with abundant distinct feldspar phenocrysts. Fine to medium grained magnetite in fractures. Decimeter to meter scale sections bleached or chloritized. Sharp lower contact. Fractures commonly infilled with carbonate/chlorite/epidote (<1cm infilling). Rare 1-3cm broken quartz/chlorite veins.									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
159.93	175.00	Rhyolite Flow Breccias: Chlorite Rhyolite flow breccia. Mottled greenish pink. Moderately silicified. Groundmass pervasively chloritized. Fragments vary in size from 2mm-5cm, are angular, and tightly packed. Straight white carbonate veins throughout, generally <1cm, orientation varies. Rust on fractures, increasing downhole.									
175.00	175.55	Fault Zone Large fracture partially infilled with euhedral white and dark brown (iron?) carbonate. Drill lost water. This section prevasively rusty. Lithology consistent on either side of fault.									
175.55	185.45	Rhyolite Flow Breccias: Chlorite Rhyolite flow breccia. Mottled greenish pink. Moderately silicified. Groundmass pervasively chloritized. Fragments vary in size from 2mm-5cm, are angular, and tightly packed. Minor epidotization. Trace hematized fragments. Rare thin (mm scale) straight carbonate veins. Very trace fine grained Pyrite.									
184.45	187.70	Fault Zone Rhyolitic flow breccia groundmass intensely cut by thick (up to 2cm) quartz/carbonate veins, sometimes with euhdral crystals growing into voids. Borderline Fault breccia. Groundmass highly silicified. Light rust towards lower contact.									
187.70	245.85	Rhyolite Flow Breccias Rhyolite flow breccia. Mottled greenish pink. Variably chloritized/silicified. Fragments vary in size from 2mm-5cm, are angular, and tightly packed. Minor to moderate epidotization. Trace hematized fragments. Increasingly feldspar phryic downhole. Rare fragments with quartz eyes. Rust on fractures ~187.7-292m. Irregular quartz/carbonate/chlorite veins throughout ± epidote. Very trace Pyrite. Lower contact approximate. 206.60 210.00 Fault Highly fractured. Minor fine grained Pyrite on fracture faces.									
245.85	255.90	Rhyolite Debris Flow Rhyolite debris flow. Mottled medium to dark purple. Fragments generally 2mm-2cm, subangular, and fining downhole. Broken 2mm-2cm quartz/chlorite veins, 249.8-254m. Lower contact approximate.	249.80	251.00	1.2	Q014177	<0.01	<0.2	0.001	0.001	0.01
			251.00	252.50	1.5	Q014178	<0.01	<0.2	0.001	0.001	0.009
			252.50	254.00	1.5	Q014179	0.01	0.2	0.004	0.001	0.007
255.90	274.00	Rhyolite Flow: Feldspar Feldspar phyric rhyolite flow. Generally massive, medium to dark purple, with rare ghosty fragments. 1mm-1cm chlorite/epidote veins throughout. Very trace Pyrite.									
274.00	274.00	End of Hole									

From	To (m)	From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %

Drill Hole Log - Assays

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014177	249.80	251.00	1.2		<0.005							<0.2	3.15	9	380	0.5	<2	1.01	<0.5	2	3	8
Q014178	251.00	252.50	1.5		<0.005							<0.2	3.43	7	250	0.5	<2	1.39	<0.5	2	6	7
Q014179	252.50	254.00	1.5		0.008							0.2	3.40	7	260	0.5	<2	1.53	<0.5	2	5	35

Drill Hole Log - Assays

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014177	1.93	<1	1.20	<10		1.25	325	<1	0.27	1	210	8	0.04	4	2			117	0.04	<10	6	<10		102
Q014178	1.93	<1	0.99	10		0.91	300	<1	0.37	2	230	8	0.02	3	2			126	0.06	<10	8	<10		87
Q014179	2.21	<1	0.84	<10		0.75	256	<1	0.33	1	260	11	0.32	5	2			149	0.05	<10	8	<10		69

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014177			WH13181217				ALS: ME-ICP41				10/19/201	
Q014178			WH13181217				ALS: ME-ICP41				10/19/201	
Q014179			WH13181217				ALS: ME-ICP41				10/19/201	

Drill Hole Log - Ez-Shot Survey

Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date	Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date
31.00	33.5	-49	5654	54.4	H. Grimmage	9/14/2013							
61.00	33	-49.3	5689	53.9	L. Clarke	9/14/2013							
91.00	32.9	-49.4	5677	53.8	H. Grimmage	9/15/2013							
121.00	34	-49.6	5667	54.9	H. Grimmage	9/15/2013							
151.00	35.2	-48.8	5674	56.1	H. Grimmage	9/15/2013							
181.00	35.6	-48.5	5677	56.3	H. Grimmage	9/16/2013							
211.00	37.3	-48.8	5652	58	H. Grimmage	9/16/2013							
241.00	37.5	-48.4	5651	58.2	L. Clarke	9/16/2013							
271.00	38.2	-48.1	5653	58.9	H Grimmage	9/17/2013							

Drill Hole Log - Rock Quality Determination

TC13063

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
13.00	16.00	3	2.86	95.33	2.11	73.78	
16.00	19.00	3	2.29	76.33	1.98	86.46	
19.00	22.00	3	2.13	71	0.96	45.07	
22.00	25.00	3	2.92	97.33	1.77	60.62	
25.00	28.00	3	3.04	101.33	1.38	45.39	
28.00	31.00	3	2.81	93.67	0.65	23.13	
31.00	34.00	3	3	100	2.16	72	
34.00	37.00	3	3.04	101.33	2.02	66.45	
37.00	40.00	3	2.9	96.67	2.2	75.86	
40.00	43.00	3	2.54	84.67	0.84	33.07	
43.00	46.00	3	2.84	94.67	1.96	69.01	
46.00	49.00	3	3.03	101	2.81	92.74	
49.00	52.00	3	2.92	97.33	2.34	80.14	
52.00	55.00	3	3	100	2.95	98.33	
55.00	58.00	3	2.9	96.67	2.43	83.79	
58.00	61.00	3	3.02	100.67	2.54	84.11	
61.00	64.00	3	2.94	98	2.72	92.52	
64.00	67.00	3	2.87	95.67	2.3	80.14	
67.00	70.00	3	2.96	98.67	2.55	86.15	
70.00	73.00	3	2.86	95.33	2.54	88.81	
73.00	76.00	3	3.1	103.33	2.86	92.26	
76.00	79.00	3	2.99	99.67	2.69	89.97	
79.00	82.00	3	2.88	96	2.06	71.53	
82.00	85.00	3	3.06	102	2.84	92.81	
85.00	88.00	3	3.1	103.33	3.06	98.71	
88.00	91.00	3	2.99	99.67	2.76	92.31	
91.00	94.00	3	2.94	98	2.66	90.48	
94.00	97.00	3	3.05	101.67	2.97	97.38	
97.00	100.00	3	3.02	100.67	2.8	92.72	
100.00	103.00	3	3.02	100.67	2.73	90.4	
103.00	106.00	3	2.97	99	2.82	94.95	
106.00	109.00	3	3	100	2.67	89	
109.00	112.00	3	3.04	101.33	2.73	89.8	
112.00	115.00	3	3.01	100.33	2.87	95.35	
115.00	118.00	3	2.98	99.33	2.65	88.93	
118.00	121.00	3	2.97	99	2.75	92.59	
121.00	124.00	3	3	100	2.73	91	
124.00	127.00	3	2.96	98.67	2.64	89.19	
127.00	130.00	3	3	100	2.92	97.33	
130.00	133.00	3	3.01	100.33	2.55	84.72	
133.00	136.00	3	3.01	100.33	2.71	90.03	
136.00	139.00	3	2.99	99.67	2.83	94.65	
139.00	142.00	3	2.97	99	2.76	92.93	
142.00	145.00	3	3	100	2.81	93.67	
145.00	148.00	3	2.98	99.33	2.5	83.89	
148.00	151.00	3	2.99	99.67	1.96	65.55	
151.00	154.00	3	2.98	99.33	2.43	81.54	
154.00	157.00	3	2.87	95.67	2.64	91.99	
157.00	160.00	3	3.01	100.33	2.07	68.77	
160.00	163.00	3	2.99	99.67	2.52	84.28	
163.00	166.00	3	3.04	101.33	2.64	86.84	
166.00	169.00	3	2.93	97.67	2.6	88.74	
169.00	172.00	3	3.1	103.33	2.86	92.26	
172.00	175.00	3	2.96	98.67	2.8	94.59	
175.00	178.00	3	3.02	100.67	2.7	89.4	
178.00	181.00	3	2.9	96.67	2.56	88.28	
181.00	184.00	3	2.8	93.33	2.41	86.07	
184.00	187.00	3	2.79	93	2.56	91.76	
187.00	190.00	3	2.9	96.67	2.42	83.45	
190.00	193.00	3	2.88	96	2.14	74.31	
193.00	196.00	3	2.93	97.67	2.39	81.57	
196.00	199.00	3	3.04	101.33	2.52	82.89	
199.00	202.00	3	3.07	102.33	2.75	89.58	
202.00	205.00	3	2.89	96.33	2.55	88.24	
205.00	208.00	3	2.92	97.33	1.94	66.44	
208.00	211.00	3	2.98	99.33	2.2	73.83	
211.00	214.00	3	3	100	2.55	85	
214.00	217.00	3	2.97	99	2.58	86.87	
217.00	220.00	3	2.99	99.67	2.81	93.98	
220.00	223.00	3	2.96	98.67	2.71	91.55	
223.00	226.00	3	2.97	99	2.55	85.86	
226.00	229.00	3	3	100	2.96	98.67	
229.00	232.00	3	2.94	98	2.94	100	
232.00	235.00	3	2.95	98.33	2.57	87.12	
235.00	238.00	3	2.97	99	2.85	95.96	
238.00	241.00	3	3.01	100.33	2.61	86.71	
241.00	244.00	3	3	100	2.83	94.33	
244.00	247.00	3	2.92	97.33	2.54	86.99	
247.00	250.00	3	3.03	101	2.91	96.04	
250.00	253.00	3	2.95	98.33	2.61	88.47	
253.00	256.00	3	3.1	103.33	2.2	70.97	
256.00	259.00	3	3.02	100.67	2.35	77.81	
259.00	262.00	3	3.04	101.33	1.55	50.99	

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments	From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
262.00	265.00	3	3	100	2.66	88.67									
265.00	268.00	3	3.08	102.67	1.52	49.35									
268.00	271.00	3	3.01	100.33	1.78	59.14									
271.00	274.00	3	2.94	98	1.76	59.86									

Drill Hole Log - Structure

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
175.00		faul			18.28	73.23	108.28			56.30	-48.60	10	50				5/22/2011	

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
21.65	24.65	tr		0.1										
24.65	31.70	fg		0.1									1	
31.70	37.00	tr		0.1									0.1	
37.00	62.70	fg											1	
62.70	82.22	tr		0.1									0.1	
82.22	82.35	tr											0.1	
82.35	86.65	tr											0.1	
175.55	185.45	tr		0.1										
187.70	249.80	tr		0.1										
255.90	274.00			0.1										

Drill Hole Log - Tulsequah Chief 2013

TC13064

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
TC13064	10191.23	14835.24	200.00	499	58	-48

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
9/17/2013	9/23/2013	NQ	Atlas Drilling	10/24/2013	A. Forsyth

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
2013 APS Survey	CT/AF/BA	10/29/2013	Field Az		9/17/2013

Purpose:

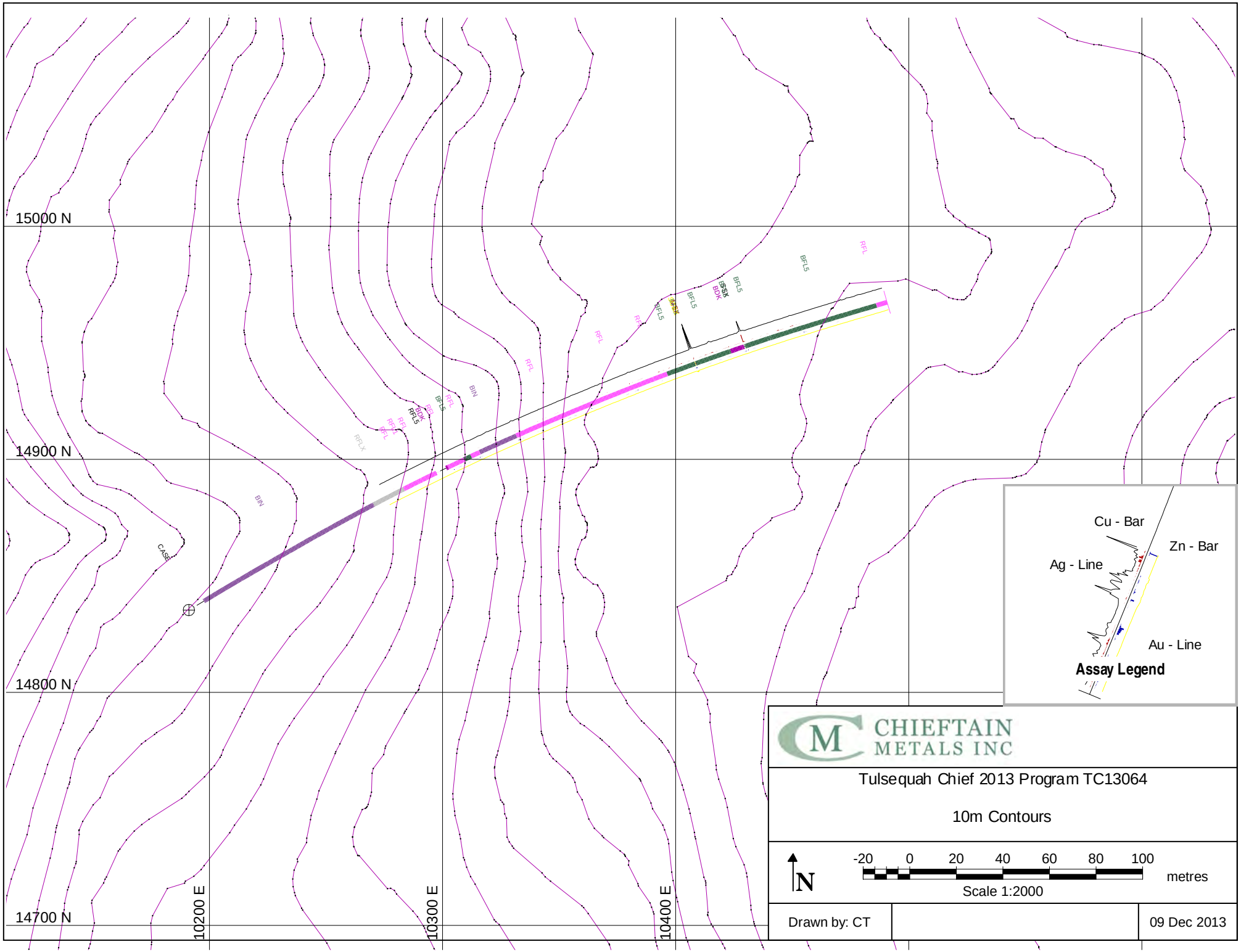
To test for IP anomaly immediately south of the 5200 level drift with extensive modeled rhyolite.

Summary:

Hole started in a thick sequence of mafic intrusive followed by sequences of massive rhyolite flows and rhyolite flow breccias cut by occasional mafic dykes moving into fw style mafic amygdaloidal flows and flow breccias. Stringer sulphide zone (mainly py with cp) from 364.67-364.96m, 365.09-365.26m and 399.17-399.62m. Abundant (up to 20% in places) secondary py mineralisation and strong chloritisation from about 300m to the end of the hole, trace to 3% cp from 340m to the end of the hole.

Significant Intercepts:

Hole-ID	From (m)	To (m)	Length (m)	True Width (m)	Zone	Lith	Au gpt	Ag gpt	Cu %	Pb %	Zn %	As ppm	SG g/cm3	$US Eq/t SRK12	$NSR/t JDS12	News Release Date
TC13064	325	439	114	0		DSX	0.02	0.4	0.05	0	0.01	27	2.72	4.58	4.47	11/20/2013
plus	364.67	365.26	0.59	0		DSX	0.77	17.5	0.59	0.01	0.01	227	3.26	72.64	73.45	11/20/2013
plus	399.17	399.62	0.45	0.03		STSX	0.22	10	3.28	0.01	0.03	100	3.46	219.84	215.45	11/20/2013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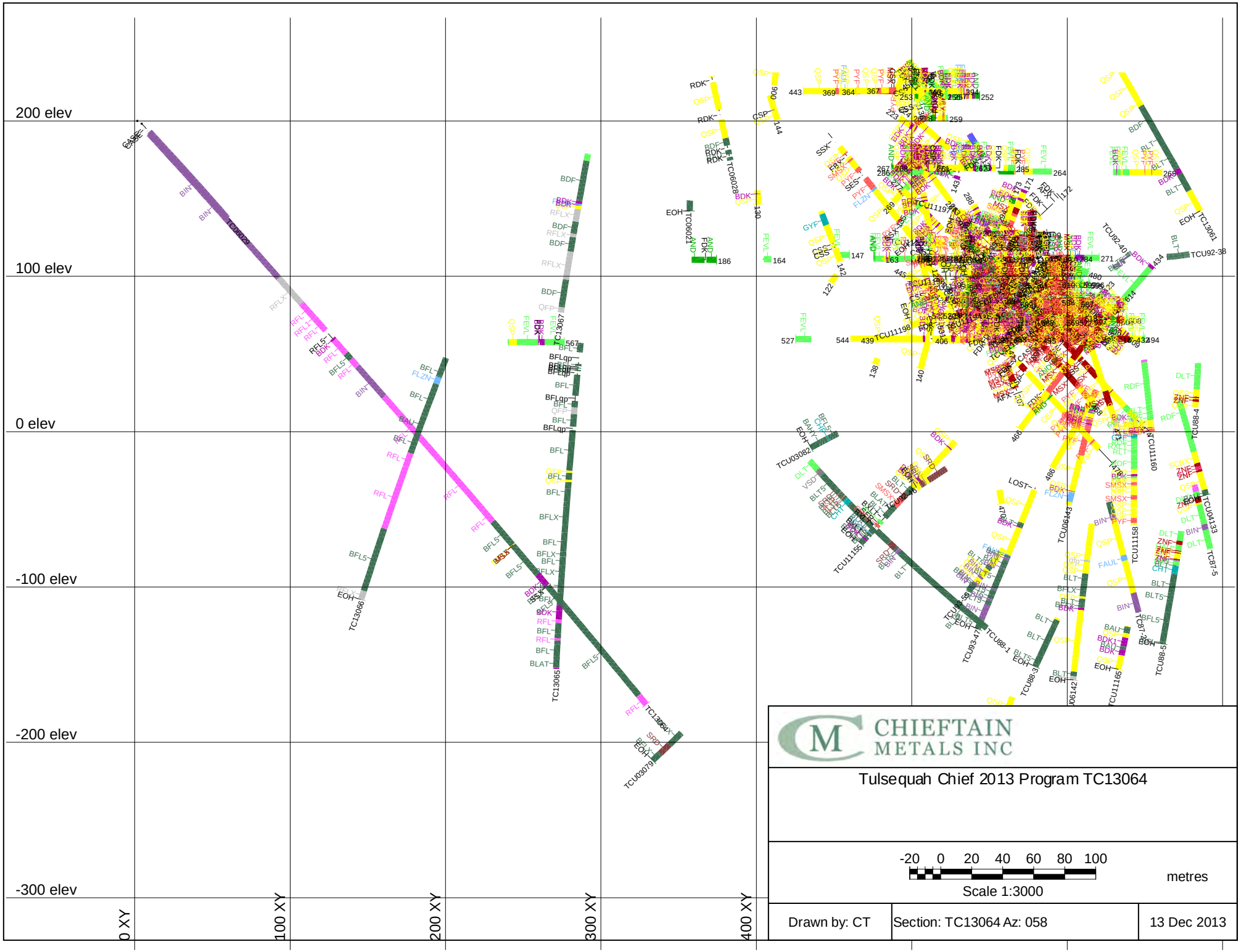
14900 N
14800 N
14700 N
10200 E
10300 E
10400 E
Cu - Bar
Zn - Bar
Ag - Line
Au - Line
Assay Legend
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13064
10m Contours
N
-20 0 20 40 60 80 100
metres
Scale 1:2000
Drawn by: CT
09 Dec 2013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100 elev
0 elev
-100 elev
-200 elev
-300 elev
0 XY
100 XY
200 XY
300 XY
400 XY
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13064
-20 0 20 40 60 80 100
metres
Scale 1:3000
Drawn by: CT
Section: TC13064 Az: 058
13 Dec 2013

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	58	-49.5	Compass Az/Maxib	CT/AF/	9/23/2013	
2.95	58.3	-48.2	Maxibor	CT/AF/	9/23/2013	
5.89	58.6	-47.4	Maxibor	CT/AF/	9/23/2013	
8.84	58.7	-47.3	Maxibor	CT/AF/	9/23/2013	
11.78	58.8	-47.1	Maxibor	CT/AF/	9/23/2013	
17.67	59	-47.1	Maxibor	CT/AF/	9/23/2013	
20.62	59.1	-47.4	Maxibor	CT/AF/	9/23/2013	
26.51	59.3	-47.6	Maxibor	CT/AF/	9/23/2013	
35.35	59.7	-47.2	Maxibor	CT/AF/	9/23/2013	
38.29	59.7	-47.4	Maxibor	CT/AF/	9/23/2013	
44.18	59.8	-47.6	Maxibor	CT/AF/	9/23/2013	
47.13	59.9	-47.6	Maxibor	CT/AF/	9/23/2013	
55.96	60.1	-47.6	Maxibor	CT/AF/	9/23/2013	
58.91	60	-47.8	Maxibor	CT/AF/	9/23/2013	
61.85	60	-47.9	Maxibor	CT/AF/	9/23/2013	
64.80	60.1	-48	Maxibor	CT/AF/	9/23/2013	
67.75	60.2	-48.1	Maxibor	CT/AF/	9/23/2013	
70.69	60.2	-48.1	Maxibor	CT/AF/	9/23/2013	
73.64	60.2	-48.1	Maxibor	CT/AF/	9/23/2013	
76.58	60.3	-48.1	Maxibor	CT/AF/	9/23/2013	
79.53	60.3	-48.2	Maxibor	CT/AF/	9/23/2013	
82.47	60.3	-48.2	Maxibor	CT/AF/	9/23/2013	
85.42	60.4	-48.3	Maxibor	CT/AF/	9/23/2013	
88.36	60.5	-48.4	Maxibor	CT/AF/	9/23/2013	
91.31	60.7	-48.4	Maxibor	CT/AF/	9/23/2013	
94.25	60.8	-48.3	Maxibor	CT/AF/	9/23/2013	
97.20	60.9	-48.3	Maxibor	CT/AF/	9/23/2013	
100.15	61	-48.3	Maxibor	CT/AF/	9/23/2013	
103.09	61.1	-48.3	Maxibor	CT/AF/	9/23/2013	
106.04	61.2	-48.2	Maxibor	CT/AF/	9/23/2013	
108.98	61.3	-48.2	Maxibor	CT/AF/	9/23/2013	
111.93	61.3	-48.3	Maxibor	CT/AF/	9/23/2013	
114.87	61.4	-48.3	Maxibor	CT/AF/	9/23/2013	
117.82	61.5	-48.3	Maxibor	CT/AF/	9/23/2013	
120.76	61.6	-48.3	Maxibor	CT/AF/	9/23/2013	
123.71	61.7	-48.3	Maxibor	CT/AF/	9/23/2013	
126.65	61.8	-48.4	Maxibor	CT/AF/	9/23/2013	
129.60	61.9	-48.4	Maxibor	CT/AF/	9/23/2013	
132.55	62	-48.3	Maxibor	CT/AF/	9/23/2013	
135.49	62.1	-48.4	Maxibor	CT/AF/	9/23/2013	
138.44	62.3	-48.4	Maxibor	CT/AF/	9/23/2013	
141.38	62.4	-48.35	Maxibor	CT/AF/	9/23/2013	averaged dip
144.33	62.5	-48.3	Maxibor	CT/AF/	9/23/2013	
147.27	62.6	-48.2	Maxibor	CT/AF/	9/23/2013	
150.22	62.8	-48.1	Maxibor	CT/AF/	9/23/2013	
153.16	62.9	-48.1	Maxibor	CT/AF/	9/23/2013	

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments	Dist (m)	Azimuth	Dip	Method	By	Date	Comments
156.11	63	-48.1	Maxibor	CT/AF/	9/23/2013		223.85	65.7	-48.5	Maxibor	CT/AF/	9/23/2013	
159.05	63.2	-48.2	Maxibor	CT/AF/	9/23/2013		226.80	65.8	-48.5	Maxibor	CT/AF/	9/23/2013	
162.00	63.3	-48.2	Maxibor	CT/AF/	9/23/2013		229.75	65.9	-48.6	Maxibor	CT/AF/	9/23/2013	
164.95	63.4	-48.2	Maxibor	CT/AF/	9/23/2013		232.69	66	-48.6	Maxibor	CT/AF/	9/23/2013	
167.89	63.5	-48.1	Maxibor	CT/AF/	9/23/2013		235.64	66.1	-48.7	Maxibor	CT/AF/	9/23/2013	
170.84	63.6	-48.2	Maxibor	CT/AF/	9/23/2013		238.58	66.1	-48.7	Maxibor	CT/AF/	9/23/2013	
173.78	63.7	-48.3	Maxibor	CT/AF/	9/23/2013		241.53	66.2	-48.7	Maxibor	CT/AF/	9/23/2013	
176.73	63.9	-48.2	Maxibor	CT/AF/	9/23/2013		244.47	66.3	-48.7	Maxibor	CT/AF/	9/23/2013	
179.67	64	-48.3	Maxibor	CT/AF/	9/23/2013		247.42	66.4	-48.7	Maxibor	CT/AF/	9/23/2013	
182.62	64.1	-48.3	Maxibor	CT/AF/	9/23/2013		250.36	66.5	-48.6	Maxibor	CT/AF/	9/23/2013	
185.56	64.2	-48.3	Maxibor	CT/AF/	9/23/2013		253.31	66.6	-48.6	Maxibor	CT/AF/	9/23/2013	
188.51	64.3	-48.4	Maxibor	CT/AF/	9/23/2013		256.25	66.7	-48.7	Maxibor	CT/AF/	9/23/2013	
191.45	64.4	-48.4	Maxibor	CT/AF/	9/23/2013		259.20	66.8	-48.6	Maxibor	CT/AF/	9/23/2013	
194.40	64.4	-48.4	Maxibor	CT/AF/	9/23/2013		262.15	66.9	-48.6	Maxibor	CT/AF/	9/23/2013	
197.35	64.5	-48.4	Maxibor	CT/AF/	9/23/2013		265.09	67	-48.7	Maxibor	CT/AF/	9/23/2013	
200.29	64.6	-48.4	Maxibor	CT/AF/	9/23/2013		268.04	67.1	-48.8	Maxibor	CT/AF/	9/23/2013	
203.24	64.7	-48.5	Maxibor	CT/AF/	9/23/2013		270.98	67.1	-48.8	Maxibor	CT/AF/	9/23/2013	
206.18	64.8	-48.6	Maxibor	CT/AF/	9/23/2013		273.93	67.2	-48.7	Maxibor	CT/AF/	9/23/2013	
209.13	65	-48.5	Maxibor	CT/AF/	9/23/2013		276.87	67.3	-48.7	Maxibor	CT/AF/	9/23/2013	
212.07	65.1	-48.5	Maxibor	CT/AF/	9/23/2013		279.82	67.4	-48.8	Maxibor	CT/AF/	9/23/2013	
215.02	65.3	-48.6	Maxibor	CT/AF/	9/23/2013		282.76	67.5	-48.8	Maxibor	CT/AF/	9/23/2013	
217.96	65.4	-48.6	Maxibor	CT/AF/	9/23/2013		285.71	67.6	-48.8	Maxibor	CT/AF/	9/23/2013	
220.91	65.6	-48.5	Maxibor	CT/AF/	9/23/2013		288.65	67.6	-48.8	Maxibor	CT/AF/	9/23/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
291.60	67.7	-48.9	Maxibor	CT/AF/	9/23/2013	
294.55	67.8	-48.9	Maxibor	CT/AF/	9/23/2013	
297.49	67.8	-48.9	Maxibor	CT/AF/	9/23/2013	
300.44	67.9	-48.9	Maxibor	CT/AF/	9/23/2013	
303.38	68	-49	Maxibor	CT/AF/	9/23/2013	
306.33	68.1	-49	Maxibor	CT/AF/	9/23/2013	
309.27	68.2	-49	Maxibor	CT/AF/	9/23/2013	
312.22	68.3	-49.1	Maxibor	CT/AF/	9/23/2013	
315.16	68.4	-49.2	Maxibor	CT/AF/	9/23/2013	
318.11	68.4	-49.2	Maxibor	CT/AF/	9/23/2013	
321.05	68.5	-49.3	Maxibor	CT/AF/	9/23/2013	
324.00	68.6	-49.3	Maxibor	CT/AF/	9/23/2013	
326.95	68.7	-49.3	Maxibor	CT/AF/	9/23/2013	
329.89	68.8	-49.4	Maxibor	CT/AF/	9/23/2013	
332.84	69	-49.5	Maxibor	CT/AF/	9/23/2013	
335.78	69.1	-49.4	Maxibor	CT/AF/	9/23/2013	
338.73	69.2	-49.5	Maxibor	CT/AF/	9/23/2013	
341.67	69.4	-49.5	Maxibor	CT/AF/	9/23/2013	
344.62	69.5	-49.5	Maxibor	CT/AF/	9/23/2013	
347.56	69.6	-49.5	Maxibor	CT/AF/	9/23/2013	
350.51	69.7	-49.5	Maxibor	CT/AF/	9/23/2013	
353.45	69.8	-49.6	Maxibor	CT/AF/	9/23/2013	
356.40	69.9	-49.5	Maxibor	CT/AF/	9/23/2013	
359.35	70	-49.6	Maxibor	CT/AF/	9/23/2013	
362.29	70.1	-49.6	Maxibor	CT/AF/	9/23/2013	
365.24	70.2	-49.6	Maxibor	CT/AF/	9/23/2013	
368.18	70.3	-49.6	Maxibor	CT/AF/	9/23/2013	
371.13	70.4	-49.6	Maxibor	CT/AF/	9/23/2013	
374.07	70.5	-49.6	Maxibor	CT/AF/	9/23/2013	
377.02	70.6	-49.6	Maxibor	CT/AF/	9/23/2013	
379.96	70.7	-49.6	Maxibor	CT/AF/	9/23/2013	
382.91	70.8	-49.7	Maxibor	CT/AF/	9/23/2013	
385.85	70.8	-49.6	Maxibor	CT/AF/	9/23/2013	
388.80	70.9	-49.6	Maxibor	CT/AF/	9/23/2013	
391.75	71	-49.6	Maxibor	CT/AF/	9/23/2013	
394.69	71.1	-49.7	Maxibor	CT/AF/	9/23/2013	
397.64	71.3	-49.7	Maxibor	CT/AF/	9/23/2013	
400.58	71.4	-49.7	Maxibor	CT/AF/	9/23/2013	
403.53	71.5	-49.8	Maxibor	CT/AF/	9/23/2013	
406.47	71.5	-49.7	Maxibor	CT/AF/	9/23/2013	
409.42	71.6	-49.8	Maxibor	CT/AF/	9/23/2013	
415.31	71.9	-49.8	Maxibor	CT/AF/	9/23/2013	
418.25	72.1	-49.8	Maxibor	CT/AF/	9/23/2013	
421.20	72.2	-49.8	Maxibor	CT/AF/	9/23/2013	
424.15	72.3	-49.8	Maxibor	CT/AF/	9/23/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments	Dist (m)	Azimuth	Dip	Method	By	Date	Comments
427.09	72.3	-49.8	Maxibor	CT/AF/	9/23/2013								
430.04	72.4	-49.7	Maxibor	CT/AF/	9/23/2013								
432.98	72.5	-49.8	Maxibor	CT/AF/	9/23/2013								
435.93	72.6	-49.8	Maxibor	CT/AF/	9/23/2013								
438.87	72.7	-49.8	Maxibor	CT/AF/	9/23/2013								
441.82	72.7	-49.9	Maxibor	CT/AF/	9/23/2013								
444.76	72.7	-49.9	Maxibor	CT/AF/	9/23/2013								
447.71	72.8	-49.9	Maxibor	CT/AF/	9/23/2013								
450.65	72.9	-50	Maxibor	CT/AF/	9/23/2013								
453.60	73	-50	Maxibor	CT/AF/	9/23/2013								
456.55	73.1	-50	Maxibor	CT/AF/	9/23/2013								
459.49	73.2	-50.1	Maxibor	CT/AF/	9/23/2013								
462.44	73.3	-50.1	Maxibor	CT/AF/	9/23/2013								
465.38	73.4	-50.1	Maxibor	CT/AF/	9/23/2013								
468.33	73.5	-50.15	Maxibor	CT/AF/	9/23/2013	averaged							
471.27	73.5	-50.15	Maxibor	CT/AF/	9/23/2013	averaged							
474.22	73.5	-50.15	Maxibor	CT/AF/	9/23/2013	averaged							
480.11	73.5	-50.2	Maxibor	CT/AF/	9/23/2013								
483.05	73.5	-50.3	Maxibor	CT/AF/	9/23/2013								
486.00	73.5	-50.3	Maxibor	CT/AF/	9/23/2013								
492.00	73.6	-50.3	Maxibor	CT/AF/	9/23/2013								

From	To (m)	
0.00	11.00	Casing
11.00	136.10	Basalt Intrusion: massive homogeneous fine grained mafic intrusive with varying intensity of ca+/-qt+/-ep+/-ch (+/-ank) veining and minor patches of pervasive ep alteration
	28.97 – 29.27	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 8%
	32.90 – 33.27	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 8%
	44.90 – 45.20	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 8%
	79.17 – 79.63	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 8%, intense car veining
	82.90 – 83.72	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 15%
	84.72 – 85.86	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 15%
	86.86 – 87.52	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 8%, intense ca+qt veining
	88.80 – 89.13	Basalt Dyke distinctive bi phenocrysts up to 8%, intense ca+qt+/-ank veining
	90.90 – 91.80	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 8%, intense ca+ank+qt+ch veining at upper contact
136.10	158.10	Rhyolite Flow Breccias: Hyaloclastic; Bedded/bedding hyaloclastic autobrecciated rhyolite flow unit; distinctive tan-beige massive rhy grading into monolithic clast dominated unsorted breccia w/ up to 3% fs phenocrysts (up to 5% pumaceous/frothy-looking clasts), bedding may not be primary, moderate to intense ep metasomatism (starting around 145.4m) increases towards mafic intrusion (152.7-155.72m) and below to 158.10m
	152.70 – 155.72	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 15%, moderate pervasive ca+ep+qt at upper contact
158.10	168.96	Rhyolite Flow: massive distinctive tan-beige massive rhy w/ varying degrees of banded flow textures, possibly minor hyaloclastite

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
145.00	146.00	1	Q014182	<0.01	<0.2	0.002	0.001	0.006
146.00	147.00	1	Q014183	<0.01	<0.2	0.002	0.001	0.004
147.00	148.00	1	Q014184	<0.01	<0.2	0.002	0.001	0.003
148.00	149.00	1	Q014185	<0.01	<0.2	0.002	0	0.004
149.00	150.00	1	Q014186	<0.01	<0.2	0.002	0	0.004
150.00	151.00	1	Q014187	<0.01	<0.2	0.003	0.001	0.004
151.00	152.00	1	Q014188	<0.01	<0.2	0.004	0.001	0.004
152.00	152.70	0.7	Q014189	<0.01	<0.2	0.003	0.001	0.005
152.70	153.50	0.8	Q014191	<0.01	<0.2	0.009	0.002	0.009

From	To (m)				From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		164.27	167.02	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 20%, moderate pervasive ca+ep+qt									
		167.14	167.49	Basalt Dyke mafic dyke w/ distinctive bi phenocrysts up to 20%, moderate pervasive ca+ep+qt									
168.96	171.30	Feldspar-phyric rhyolite flow rhyolite flow w/ up to 15% sub-angular to sub-rounded fs phenocrysts and hyaloclastic fragments (1-5mm)											
171.30	181.53	Rhyolite Flow distinctive tan-beige massive rhy w/ varying degrees of banded flow textures, possibly minor hyaloclastite, moderate to strong ca+qt+py veining, highly fractured, possible faulting w/ fault gouge from 177.8-178.6m											
		171.75	172.10	Basalt Dyke mafic dyke w/ sharp cross-cutting contacts, ch alt									
		178.83	181.36	Amygdaloidal basaltic flow: Amygdaloidal dark, fairly homogeneous mafic unit w/ diffuse to sharp contacts, 1-5mm amygdules									
181.53	188.30	RFL5: Amygdaloidal; Hyaloclastic; Feldspar rhy amygdaloidal flow, moderately to strongly altered due to proximity of mafic dyke, ca veining and up to 3% py, up to 15% sub-angular to sub-rounded fs phenocrysts and hyaloclastic fragments (1-5mm)											
188.30	189.75	Basalt Dyke mafic dyke, moderate patchy to pervasive ep+qt, moderate ca veining			189.00	189.75	0.75	Q014192	<0.01	<0.2	0.009	0	0.007
189.75	201.33	Rhyolite Flow massive rhy w/ varying degrees of banded flow textures, hyaloclastite, moderate to strong ca+qt+py veining, moderate to intense ep alteration, up to 10% fs phenos from 197.1-199.17m			189.75	190.95	1.2	Q014193	<0.01	<0.2	0.009	0.001	0.007
					190.95	192.00	1.05	Q014194	<0.01	<0.2	0.011	0.001	0.009
		195.79	197.10	Basalt Dyke mafic dyke, moderate patchy to pervasive ep+qt, moderate ca veining, minor jasper at upper contact	192.00	193.00	1	Q014195	<0.01	<0.2	0.004	0.001	0.007
					193.00	194.50	1.5	Q014196	<0.01	<0.2	0.001	0.001	0.005
					194.50	195.79	1.29	Q014197	0.01	<0.2	0.008	0.001	0.009
					195.79	197.10	1.31	Q014198	<0.01	<0.2	0.007	0	0.009
					197.10	198.50	1.4	Q014199	<0.01	<0.2	0.01	0	0.009
					198.50	199.17	0.67	Q014202	<0.01	<0.2	0.006	0.001	0.009
					199.17	199.54	0.37	Q014203	0.01	<0.2	0.004	0.001	0.004
					199.54	200.48	0.94	Q014204	<0.01	<0.2	0.01	0	0.008

From	To (m)															
						From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
						200.48	201.33	0.85	Q014205	<0.01	0.2	0.01	0	0.01
201.33	206.24	Amygdaloidal basaltic flow: Amygdaloidal												
		dark, fairly homogeneous mafic unit w/ diffuse to sharp contacts, 1-5mm amygdules up to 10% in patches, patches of ep+/-jasper				201.33	202.80	1.47	Q014206	<0.01	<0.2	0.006	0	0.008
						202.80	203.96	1.16	Q014207	<0.01	<0.2	0.008	0	0.008
						203.96	205.00	1.04	Q014208	<0.01	<0.2	0.009	0	0.008
						205.00	206.24	1.24	Q014209	<0.01	<0.2	0.008	0	0.009
206.24	212.44	Rhyolite Flow: Hyaloclastic												
		massive rhy w/ varying degrees of banded flow textures and hyaloclastite, distintive tan-beige moderate to strong ca+qt+py veining, moderate ep alteration at upper contact w/ the mafic unit above				206.24	207.00	0.76	Q014211	0.01	0.2	0.005	0.001	0.014
						207.00	208.50	1.5	Q014212	0.04	0.8	0.006	0.001	0.008
						208.50	210.85	2.35	Q014213	0.01	0.2	0.007	0.001	0.011
						210.85	211.19	0.34	Q014214	0.01	0.2	0.007	0.001	0.016
						211.19	211.64	0.45	Q014215	0.01	<0.2	0.003	0.002	0.059
						211.64	212.44	0.8	Q014216	0.01	<0.2	0.008	0.001	0.021
212.44	238.44	Basalt Intrusion: Amygdaloidal												
		mafic massive high level intrusive, homogeneous w/ partially digested rhy patches, doesn't have typical dyke or flow features (esp no bi phenos), more "frothy"/amygdular at both upper and lower contacts w/ rhy, amygdules filled w/ ca+ep				212.44	213.77	1.33	Q014217	0.01	0.2	0.008	0.001	0.009
						213.77	215.09	1.32	Q014218	0.01	0.3	0.009	0.001	0.011
						215.09	216.28	1.19	Q014219	0.01	0.5	0.01	0.008	0.018
		215.09	216.28	Rhyolite Flow: Hyaloclastic		216.28	218.10	1.82	Q014222	<0.01	<0.2	0.009	0.001	0.009
				partially digested rhy w/ net textured py (4%), distinctive tan-beige, flow/hyalo texture		218.10	219.02	0.92	Q014223	0.01	0.2	0.009	0.002	0.015
						219.02	219.70	0.68	Q014224	0.01	0.3	0.009	0.002	0.016
		218.10	219.02	Rhyolite Flow: Hyaloclastic		219.70	221.00	1.3	Q014225	0.01	0.5	0.009	0.005	0.018
				partially digested rhy w/ net textured py (4%), distinctive tan-beige, flow/hyalo texture		221.00	222.20	1.2	Q014226	0.05	0.8	0.013	0.012	0.053
						222.20	223.65	1.45	Q014227	0.01	0.5	0.009	0.001	0.013
						237.02	238.44	1.42	Q014228	0.01	<0.2	0.002	0.001	0.018
238.44	290.66	Rhyolite Flow: Hyaloclastic; Auto-breccia												
		rhy w/ hyaloclastite/breccia, distintive tan-beige to blue-grey silicified, moderate ca+qt+py veining, patches of up to 8% secondary sub- to euhedral py, moderate ep+ch+ca alteration at upper contact w/ the mafic unit above				238.44	239.56	1.12	Q014229	0.04	0.9	0.054	0.011	0.142
						239.56	241.00	1.44	Q014231	0.01	<0.2	0.002	0	0.004
						241.00	242.50	1.5	Q014232	0.01	0.3	0.001	0.011	0.019
						242.50	244.00	1.5	Q014233	<0.01	<0.2	0.001	0.001	0.003
						244.00	245.50	1.5	Q014234	<0.01	<0.2	0.001	0.001	0.005
						245.50	247.00	1.5	Q014235	<0.01	<0.2	0.001	0.003	0.008
						247.00	248.50	1.5	Q014236	<0.01	<0.2	0.001	0	0.009
						248.50	250.00	1.5	Q014237	<0.01	<0.2	0.001	0	0.008
						250.00	251.50	1.5	Q014238	<0.01	<0.2	0.001	0	0.007
						251.50	253.00	1.5	Q014239	<0.01	<0.2	0.002	0	0.004
						253.00	254.50	1.5	Q014242	<0.01	<0.2	0.007	0.001	0.006
						254.50	256.00	1.5	Q014243	<0.01	<0.2	0.012	0	0.007
						256.00	257.50	1.5	Q014244	0.01	<0.2	0.017	0	0.004
						257.50	258.19	0.69	Q014245	0.01	<0.2	0.028	0	0.004
						258.19	258.49	0.3	Q014246	<0.01	0.5	0.191	0	0.005

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			258.49	259.50	1.01	Q014247	<0.01	<0.2	0.009	0	0.006
			259.50	261.00	1.5	Q014248	<0.01	<0.2	0.013	0.001	0.004
			261.00	262.00	1	Q014249	<0.01	<0.2	0.021	0.002	0.009
			262.00	263.50	1.5	Q014251	0.01	<0.2	0.007	0.002	0.005
			263.50	265.00	1.5	Q014252	<0.01	<0.2	0.002	0.001	0.004
			265.00	266.50	1.5	Q014253	<0.01	<0.2	0.001	0.001	0.004
			266.50	268.00	1.5	Q014254	<0.01	<0.2	0	0	0.004
			268.00	269.50	1.5	Q014255	<0.01	0.2	0.012	0.001	0.004
			269.50	271.00	1.5	Q014256	0.01	<0.2	0.001	0.002	0.004
			271.00	272.50	1.5	Q014257	0.01	0.3	0.001	0.001	0.003
			272.50	274.00	1.5	Q014258	0.01	<0.2	0.001	0.001	0.003
			274.00	275.00	1	Q014259	0.03	<0.2	0.001	0.001	0.002
			275.00	276.30	1.3	Q014262	0.04	0.2	0.002	0.001	0.003
			276.30	277.50	1.2	Q014263	<0.01	<0.2	0.001	0	0.003
			277.50	279.00	1.5	Q014264	0.01	<0.2	0	0	0.003
			279.00	280.50	1.5	Q014265	0.01	<0.2	0.001	0.001	0.004
			280.50	282.00	1.5	Q014266	0.02	0.4	0.002	0.002	0.008
			282.00	283.50	1.5	Q014267	0.02	0.4	0.001	0.002	0.001
			283.50	285.00	1.5	Q014268	0.01	<0.2	0.001	0.001	0.003
			285.00	286.50	1.5	Q014269	0.01	0.2	0.001	0.001	0.004
			286.50	288.00	1.5	Q014271	<0.01	<0.2	0.001	0.001	0.004
			288.00	289.50	1.5	Q014272	<0.01	<0.2	0	0.001	0.004
			289.50	290.66	1.16	Q014273	0.01	<0.2	0	0.001	0.005
290.66	335.20	Rhyolite Flow: massive									
		massive rhy w/ distintive tan-beige to blue-grey silicified, intense ca+ch+qt+py+mar veining from 298.78-300.76m, up to 5% secondary sub- to euhedral along w/ net textured and glomeroblastic py, intense fabric destructing dark ch+bi alteration from 305.40-335.20m w/ 10% disseminated py	290.66	292.00	1.34	Q014274	0.01	0.2	0	0.001	0.002
			292.00	293.50	1.5	Q014275	0.01	<0.2	0	0.001	0.002
			293.50	295.00	1.5	Q014276	0.02	0.4	0.001	0.001	0.002
			295.00	296.50	1.5	Q014277	0.02	0.4	0.001	0.001	0.001
			296.50	298.00	1.5	Q014278	0.01	0.4	0.001	0.001	0.001
			298.00	298.78	0.78	Q014279	0.02	0.5	0.001	0.001	0.002
			298.78	299.78	1	Q014281	0.01	<0.2	0.001	0	0.002
			299.78	300.76	0.98	Q014282	0.02	<0.2	0.001	0.001	0.003
			300.76	302.00	1.24	Q014283	0.02	0.5	0.001	0.001	0.002
			302.00	303.50	1.5	Q014284	0.01	<0.2	0	0.001	0.002
			303.50	304.70	1.2	Q014285	<0.01	<0.2	0.001	0.001	0.003
			304.70	305.40	0.7	Q014286	<0.01	0.2	0.001	0.001	0.005
			305.40	307.00	1.6	Q014287	0.02	<0.2	0.004	0.001	0.018
			307.00	308.50	1.5	Q014288	0.01	0.3	0.007	0.001	0.018
			308.50	310.00	1.5	Q014289	0.03	0.2	0.003	0.002	0.016
			310.00	311.50	1.5	Q014292	0.04	0.2	0.003	0.002	0.016
			311.50	313.00	1.5	Q014293	0.01	0.2	0.023	0.001	0.015
			313.00	314.50	1.5	Q014294	0.02	<0.2	0.004	0.001	0.014

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			314.50	316.00	1.5	Q014295	0.01	<0.2	0.003	0.001	0.015
			316.00	317.50	1.5	Q014296	0.02	<0.2	0.001	0.001	0.016
			317.50	319.00	1.5	Q014297	0.02	<0.2	0.001	0.001	0.015
			319.00	320.50	1.5	Q014298	0.02	<0.2	0.004	0.001	0.015
			320.50	322.00	1.5	Q014299	0.01	0.7	0.019	0.001	0.014
			322.00	323.00	1	Q014301	0.01	0.2	0.001	0.001	0.016
			323.00	324.00	1	Q014302	0.04	0.2	0.001	0.001	0.01
			324.00	325.00	1	Q014303	0.02	0.2	0.002	0.001	0.011
			325.00	326.52	1.52	Q014304	0.01	0.2	0.033	0.001	0.013
			326.52	328.00	1.48	Q014305	0.03	<0.2	0.016	0.001	0.012
			328.00	329.50	1.5	Q014306	0.03	0.2	0.027	0.001	0.011
			329.50	331.00	1.5	Q014307	<0.01	<0.2	0.038	0.001	0.009
			331.00	332.50	1.5	Q014308	0.01	<0.2	0.007	0.001	0.01
			332.50	334.00	1.5	Q014309	0.01	<0.2	0.001	0.001	0.01
			334.00	335.20	1.2	Q014312	<0.01	<0.2	0.002	0.002	0.011
335.20	345.06	Rhyolite Flow: fragmental; Breccia, Undivided									
		fragmental/breccia rhy, 5mm-10cm frag/clasts, up to 10% jasper fragments in patches, up to 20% secondary sub- to euhedral along w/ net textured and glomeroblastic py, up to 1% cp, intense dark ch+bi alteration (could be silicified mafic)	335.20	336.50	1.3	Q014313	<0.01	<0.2	0.01	0.001	0.009
			336.50	337.50	1	Q014314	0.01	<0.2	0.006	0.001	0.01
			337.50	338.50	1	Q014315	0.03	<0.2	0.003	0.001	0.01
			338.50	339.41	0.91	Q014316	0.01	0.2	0.008	0.001	0.009
			339.41	339.67	0.26	Q014317	0.02	<0.2	0.002	0.001	0.01
			339.67	340.88	1.21	Q014318	0.01	0.4	0.157	0	0.013
			340.88	342.00	1.12	Q014319	0.01	<0.2	0.013	0.001	0.009
			342.00	343.00	1	Q014322	0.01	0.2	0.039	0.001	0.01
			343.00	343.97	0.97	Q014323	<0.01	0.3	0.095	0	0.011
			343.97	345.06	1.09	Q014324	<0.01	<0.2	0.004	0.001	0.01
345.06	364.67	Amygdaloidal basaltic flow: Amygdaloidal; Breccia, Undivided									
		dark mafic unit w/ diffuse contacts, 1-10mm amygdules up to 10% in patches, ep+/-ca infilling of amygdules, moderate to strong silicification	345.06	346.00	0.94	Q014325	0.01	<0.2	0.002	0.002	0.018
			346.00	346.79	0.79	Q014326	<0.01	<0.2	0.001	0	0.013
			346.79	348.22	1.43	Q014327	<0.01	<0.2	0.129	0	0.011
			348.22	349.12	0.9	Q014328	<0.01	<0.2	0.019	0	0.009
			349.12	350.50	1.38	Q014329	<0.01	<0.2	0.002	0	0.012
			350.50	352.00	1.5	Q014331	<0.01	<0.2	0.01	0	0.012
			352.00	353.18	1.18	Q014332	0.01	<0.2	0.005	0	0.011
			353.18	354.00	0.82	Q014333	<0.01	<0.2	0.016	0	0.01
			354.00	354.90	0.9	Q014334	<0.01	0.2	0.103	0	0.01
			354.90	356.08	1.18	Q014335	0.01	0.3	0.051	0	0.009
			356.08	356.16	0.08	Q014336	0.07	0.6	0.004	0.003	0.007
			356.16	357.50	1.34	Q014337	0.01	0.2	0.077	0	0.007
			357.50	359.00	1.5	Q014338	0.01	<0.2	0.017	0	0.009
			359.00	360.50	1.5	Q014339	0.01	<0.2	0.018	0	0.008
			360.50	362.01	1.51	Q014341	0.01	0.3	0.066	0	0.009

From	To (m)														
				From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
				362.01	363.50	1.49	Q014342	0.03	<0.2	0.004	0.001	0.007
				363.50	364.67	1.17	Q014343	0.03	0.3	0.003	0.001	0.008
364.67	364.96	Sulphide Clast Breccia: Amygdaloidal; secondary replacement up to 50% brecciated and euhedral secondary replacement and finely disseminated py; hosted in amygdaloidal basalt		364.67	364.96	0.29	Q014344	0.87	20.0	0.56	0.009	0.011
364.96	365.09	Amygdaloidal basaltic flow: Amygdaloidal dark mafic unit, 1-10mm amygdules up to 10% in patches, ep+/-ca infilling of amygdules, moderate to strong silicification		364.96	365.09	0.13	Q014345	0.06	0.8	0.019	0.004	0.017
365.09	365.26	Massive Sulphides: Breccia, Undivided; secondary replacement up to 90% brecciated and euhedral secondary replacement and finely disseminated py		365.09	365.26	0.17	Q014346	1.02	23.0	0.908	0.02	0.012
365.26	389.66	Amygdaloidal basaltic flow dark mafic unit, 1-10mm amygdules up to 40% in patches, ep+/-ca infilling of amygdules, moderate silicification, moderate chloritisation, "frothy"/vesicular clasts to blocks, py occurs as finely disseminated, euhedral secondary replacement of amygdules, glomeroblasts		365.26	366.51	1.25	Q014347	0.06	0.8	0.045	0.001	0.015
				366.51	368.00	1.49	Q014348	0.05	0.7	0.045	0.001	0.01
				368.00	369.50	1.5	Q014349	0.05	0.3	0.015	0.001	0.01
		377.05	378.69	369.50	371.00	1.5	Q014352	0.04	0.4	0.009	0.002	0.016
			Rhyolite Flow partially digested rhy w/ disseminated/wispy py (8%), possible remnant flow textures, moderately to strongly chloritised, abundant ca+/-qt veining	371.00	372.50	1.5	Q014353	0.03	0.3	0.012	0.001	0.011
				372.50	374.00	1.5	Q014354	0.01	0.3	0.064	0	0.011
				374.00	375.50	1.5	Q014355	<0.01	0.2	0.051	0	0.012
				375.50	377.06	1.56	Q014356	<0.01	0.2	0.065	0.001	0.011
				377.06	378.69	1.63	Q014357	0.01	1.4	0.154	0.001	0.014
				378.69	380.00	1.31	Q014358	0.01	<0.2	0.003	0.001	0.011
				380.00	381.50	1.5	Q014359	0.01	0.6	0.062	0.001	0.011
				381.50	383.00	1.5	Q014361	0.01	<0.2	0.026	0	0.011
				383.00	384.50	1.5	Q014362	0.01	<0.2	0.036	0	0.012
				384.50	386.00	1.5	Q014363	0.01	<0.2	0.032	0	0.011
				386.00	387.50	1.5	Q014364	0.01	<0.2	0.032	0	0.011
				387.50	389.00	1.5	Q014365	0.04	0.2	0.093	0.001	0.01
				389.00	389.66	0.66	Q014366	0.01	0.2	0.054	0	0.011
389.66	398.95	Basalt Dyke : massive mafic massive mg intrusive, fairly homogeneous w/ a partially digested rhy patch from 395.73-396.39m w/ ~2% po, strongly chloritised, very diffuse contacts w/ upper and lower basalt flow, minimal to no mineralisation except for po associated w/ rhy, ca+qt vein from 395.45-395.90m @ alpha of 45		389.66	391.00	1.34	Q014367	<0.01	0.2	0.008	0.001	0.006
				391.00	392.54	1.54	Q014368	<0.01	0.5	0.008	0.002	0.005
				392.54	394.00	1.46	Q014369	<0.01	0.5	0.016	0.001	0.006
				394.00	395.60	1.6	Q014371	<0.01	0.2	0.007	0.001	0.007
		395.73	396.39	395.60	396.39	0.79	Q014372	<0.01	0.4	0.022	0.002	0.007
			Rhyolite Flow partially digested rhy w/ wispy po (2%), possible remnant flow textures,	396.39	397.98	1.59	Q014373	<0.01	0.2	0.009	0.001	0.005
				397.98	398.95	0.97	Q014374	<0.01	<1.0	0.007	0.004	0.008
398.95	399.17	Amygdaloidal basaltic flow: Amygdaloidal										

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		dark mafic unit, 1-10mm amygdules up to 30% in patches, ep+/-ca infilling of amygdules, moderate silicification, moderate chloritisation, "frothy"/vesicular clasts to blocks, py occurs as finely disseminated, euhedral secondary replacement of amygdules, glomeroblasts	398.95	399.17	0.22	Q014375	0.08	<1.0	0.066	0.003	0.019
399.17	399.62	Stringer Zone Sulphides									
		stringer sulphide zone of 40% py + 20% cp, 30 tca	399.17	399.62	0.45	Q014376	0.22	10.0	3.28	0.005	0.03
399.62	417.00	Amygdaloidal basaltic flow: Amygdaloidal; secondary replacement									
		dark mafic unit, 1-10mm amygdules up to 30% in patches, extensive ep+/-ca infilling of amygdules, moderate silicification, moderate chloritisation, "frothy"/vesicular clasts to blocks, py occurs as finely disseminated, euhedral secondary replacement of amygdules, glomerocrysts	399.62	400.50	0.88	Q014377	0.07	1.0	0.26	0.002	0.01
			400.50	402.00	1.5	Q014378	0.02	1.0	0.014	0.004	0.015
			402.00	403.50	1.5	Q014379	0.01	<0.2	0.003	0.001	0.012
			403.50	405.00	1.5	Q014381	0.02	<0.2	0.002	0.001	0.01
			405.00	406.50	1.5	Q014382	0.03	0.3	0.049	0.001	0.01
			406.50	408.00	1.5	Q014383	0.01	<0.2	0.003	0	0.008
			408.00	409.50	1.5	Q014384	0.01	<0.2	0.007	0	0.009
			409.50	411.00	1.5	Q014385	<0.01	<0.2	0.002	0	0.009
			411.00	412.50	1.5	Q014386	0.01	<0.2	0.018	0.001	0.009
			412.50	414.00	1.5	Q014387	0.01	<0.2	0.006	0	0.011
			414.00	415.50	1.5	Q014388	<0.01	<0.2	0.023	0.001	0.008
			415.50	417.00	1.5	Q014389	0.01	0.3	0.081	0.001	0.008
417.00	491.38	Amygdaloidal basaltic flow: Amygdaloidal; Breccia, Undivided									
		dark mafic unit, possible relict flow breccia texture, 1-10mm amygdules up to 30% in patches,weak to moderate ep+/-ca infilling of amygdules, moderate to strong silicification/chloritisation/biotisation increasing w/ depth, "frothy"/vesicular clasts to blocks, py occurs as finely disseminated, euhedral secondary replacement of amygdules, glomerocrysts, jasper fragments from 435.90-437.10m	417.00	418.51	1.51	Q014392	0.02	<0.2	0.013	0.001	0.011
			418.51	420.00	1.49	Q014393	0.04	<0.2	0.005	0.001	0.009
			420.00	421.50	1.5	Q014394	0.04	<0.2	0.005	0.001	0.009
			421.50	423.00	1.5	Q014395	0.02	<0.2	0.009	0.001	0.008
			423.00	424.50	1.5	Q014396	0.02	0.4	0.167	0	0.009
		428.00 430.88 Basalt Dyke	424.50	426.00	1.5	Q014397	0.01	<0.2	0.048	0	0.007
		fairly homogeneous mafic dyke, moderate to strong qt and bi+ch alteration, moderate ca+qt veining	426.00	428.00	2	Q014398	0.01	<0.2	0.03	0.001	0.007
			428.00	429.50	1.5	Q014399	<0.01	0.2	0.009	0.001	0.007
		431.26 432.12 Basalt Dyke	429.50	431.00	1.5	Q014401	<0.01	<0.2	0.004	0.001	0.005
		fairly homogeneous mafic dyke, moderate to strong qt and bi+ch alteration, weak ca+qt veining	431.00	432.12	1.12	Q014402	<0.01	<0.2	0.005	0	0.004
			432.12	433.20	1.08	Q014403	0.01	0.2	0.125	0.001	0.008
		433.20 433.54 Basalt Dyke	433.20	434.50	1.3	Q014404	0.01	0.5	0.166	0.001	0.008
		fairly homogeneous mafic dyke, moderate to strong qt and bi+ch alteration	434.50	436.00	1.5	Q014405	0.01	<0.2	0.014	0.001	0.008
			436.00	437.50	1.5	Q014406	0.02	0.2	0.022	0.002	0.009
			437.50	439.00	1.5	Q014407	0.03	0.2	0.043	0.001	0.007
			439.00	439.46	0.46	Q014408	0.03	<0.2	0.002	0.002	0.008
			439.46	440.13	0.67	Q014409	0.06	0.2	0.006	0.002	0.006
			440.13	441.00	0.87	Q014411	0.02	<0.2	0.003	0.001	0.007
			441.00	442.50	1.5	Q014412	0.02	<0.2	0.005	0.004	0.011
			442.50	444.00	1.5	Q014413	0.03	<0.2	0.005	0	0.007
			444.00	445.50	1.5	Q014414	0.03	<0.2	0.002	0.002	0.007

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			445.50	447.00	1.5	Q014415	0.04	<0.2	0.002	0.002	0.006
			447.00	448.50	1.5	Q014416	0.02	<0.2	0.012	0.002	0.007
			448.50	450.00	1.5	Q014417	0.03	0.2	0.02	0.001	0.006
			450.00	451.50	1.5	Q014418	0.01	<0.2	0.001	0.001	0.007
			451.50	453.00	1.5	Q014419	0.02	<0.2	0.002	0.001	0.006
			453.00	454.50	1.5	Q014421	0.01	<0.2	0.001	0.001	0.007
			454.50	456.00	1.5	Q014422	0.02	<0.2	0.001	0.001	0.005
			456.00	457.50	1.5	Q014423	0.04	<0.2	0.003	0.001	0.004
			457.50	459.00	1.5	Q014424	0.01	<0.2	0.023	0.001	0.005
			459.00	460.50	1.5	Q014425	0.02	<0.2	0.004	0.001	0.004
			460.50	462.00	1.5	Q014426	0.02	<0.2	0.003	0.001	0.005
			462.00	463.50	1.5	Q014427	0.03	<0.2	0.002	0.001	0.004
			463.50	464.50	1	Q014428	0.02	<0.2	0.001	0	0.004
			464.50	465.44	0.94	Q014429	0.02	<0.2	0.001	0.001	0.005
			465.44	465.87	0.43	Q014432	0.10	0.5	0.004	0.002	0.008
			465.87	467.00	1.13	Q014433	0.03	0.2	0.002	0.001	0.006
			467.00	468.50	1.5	Q014434	0.03	0.2	0.001	0.001	0.005
			468.50	469.10	0.6	Q014435	0.03	0.3	0.001	0.001	0.006
			469.10	469.29	0.19	Q014436	0.12	0.9	0.004	0.002	0.003
			469.29	470.50	1.21	Q014437	0.05	0.2	0.001	0.001	0.004
			470.50	472.00	1.5	Q014438	0.05	0.2	0.002	0.001	0.004
			472.00	473.12	1.12	Q014439	0.04	<0.2	0.002	0.001	0.004
			473.12	473.77	0.65	Q014441	0.12	0.8	0.002	0.002	0.002
			473.77	475.00	1.23	Q014442	0.07	0.5	0.001	0.001	0.003
			475.00	476.50	1.5	Q014443	0.02	<0.2	0.002	0.001	0.004
			476.50	478.00	1.5	Q014444	0.02	<0.2	0.002	0	0.005
			478.00	479.50	1.5	Q014445	0.04	<0.2	0.001	0.001	0.004
			479.50	481.00	1.5	Q014446	0.07	0.4	0.001	0.001	0.004
			481.00	482.50	1.5	Q014447	0.08	0.6	0.001	0.001	0.004
			482.50	484.00	1.5	Q014448	0.04	0.2	0.001	0.001	0.004
			484.00	485.50	1.5	Q014449	0.01	<0.2	0.001	0.001	0.004
			485.50	487.00	1.5	Q014451	0.02	<0.2	0.001	0.003	0.006
			487.00	488.50	1.5	Q014452	0.01	<0.2	0.001	0.001	0.006
			488.50	490.10	1.6	Q014453	0.03	<0.2	0.001	0.001	0.008
			490.10	491.38	1.28	Q014454	0.05	0.2	0.002	0.001	0.007
491.38	499.00	Rhyolite Flow									
		fairly massive grey-blue rhy (likely QSP), diffuse contact, py content drops significantly compared to unit above, moderate si+py+se alteration	491.38	491.74	0.36	Q014455	0.11	0.3	0.002	0.002	0.002
			491.74	491.95	0.21	Q014456	0.07	0.4	0.001	0.002	0.001
			491.95	493.00	1.05	Q014457	0.04	<0.2	0.001	0.001	0.001
			493.00	494.50	1.5	Q014458	0.02	<0.2	0.001	0.001	0.001
			494.50	496.00	1.5	Q014459	0.01	<0.2	0.001	0.001	0.003
			496.00	497.50	1.5	Q014461	0.01	<0.2	0.001	0	0.002

From	To (m)	From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		497.50	499.00	1.5	Q014462	0.01	<0.2	0	0	0.002

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014182	145.00	146.00	1		<0.005							<0.2	1.74	6	100	<0.5	<2	1.93	<0.5	10	7	24
Q014183	146.00	147.00	1		<0.005							<0.2	1.39	3	100	<0.5	<2	1.33	<0.5	6	5	20
Q014184	147.00	148.00	1		<0.005							<0.2	1.58	2	120	0.6	<2	1.20	<0.5	6	5	16
Q014185	148.00	149.00	1		<0.005							<0.2	1.66	5	120	0.6	<2	1.05	<0.5	5	4	17
Q014186	149.00	150.00	1		<0.005							<0.2	1.22	3	100	0.5	<2	0.98	<0.5	4	3	22
Q014187	150.00	151.00	1		<0.005							<0.2	1.78	3	130	0.6	<2	1.16	<0.5	6	6	30
Q014188	151.00	152.00	1		<0.005							<0.2	1.54	10	100	0.5	<2	1.17	<0.5	6	8	35
Q014189	152.00	152.70	0.7		<0.005							<0.2	1.69	5	120	<0.5	<2	1.62	<0.5	6	8	34
Q014191	152.70	153.50	0.8		<0.005							<0.2	4.18	14	110	0.5	<2	3.55	<0.5	25	75	93
Q014192	189.00	189.75	0.75		<0.005							<0.2	2.84	10	30	<0.5	<2	2.13	<0.5	25	20	87
Q014193	189.75	190.95	1.2		<0.005							<0.2	3.28	11	80	<0.5	<2	3.05	<0.5	21	18	93
Q014194	190.95	192.00	1.05		<0.005							<0.2	4.38	16	160	<0.5	<2	2.85	<0.5	29	22	107
Q014195	192.00	193.00	1		<0.005							<0.2	3.22	7	230	<0.5	<2	3.60	<0.5	14	9	37
Q014196	193.00	194.50	1.5		<0.005							<0.2	2.07	7	120	<0.5	<2	2.34	<0.5	8	3	14
Q014197	194.50	195.79	1.29		0.010							<0.2	3.20	11	110	<0.5	<2	2.49	<0.5	30	23	84
Q014198	195.79	197.10	1.31		<0.005							<0.2	3.37	6	70	<0.5	<2	2.15	<0.5	31	23	70
Q014199	197.10	198.50	1.4		<0.005							<0.2	3.60	6	30	<0.5	<2	1.84	<0.5	36	25	98
Q014202	198.50	199.17	0.67		<0.005							<0.2	3.22	9	30	<0.5	<2	2.93	<0.5	28	24	63
Q014203	199.17	199.54	0.37		0.006							<0.2	1.68	12	20	<0.5	<2	5.12	<0.5	19	14	41
Q014204	199.54	200.48	0.94		<0.005							<0.2	2.99	5	50	<0.5	<2	1.80	<0.5	29	23	100
Q014205	200.48	201.33	0.85		<0.005							0.2	3.85	9	130	<0.5	<2	2.36	<0.5	33	26	100
Q014206	201.33	202.80	1.47		<0.005							<0.2	3.34	5	110	<0.5	<2	2.10	<0.5	28	22	62
Q014207	202.80	203.96	1.16		<0.005							<0.2	4.39	6	160	<0.5	<2	1.14	<0.5	34	25	79
Q014208	203.96	205.00	1.04		<0.005							<0.2	3.70	2	40	<0.5	<2	1.57	<0.5	35	22	87
Q014209	205.00	206.24	1.24		<0.005							<0.2	4.01	3	90	<0.5	<2	1.49	<0.5	38	22	77
Q014211	206.24	207.00	0.76		0.007							0.2	4.24	47	220	<0.5	<2	4.52	0.7	40	20	51
Q014212	207.00	208.50	1.5		0.044							0.8	5.23	14	110	<0.5	<2	2.25	<0.5	33	43	58
Q014213	208.50	210.85	2.35		0.008							0.2	6.19	6	230	<0.5	<2	1.33	<0.5	30	46	65
Q014214	210.85	211.19	0.34		0.007							0.2	4.97	8	140	<0.5	<2	1.56	<0.5	32	35	73
Q014215	211.19	211.64	0.45		0.011							<0.2	4.49	11	40	<0.5	<2	0.94	2.2	43	49	30
Q014216	211.64	212.44	0.8		0.005							<0.2	7.70	10	230	<0.5	<2	3.49	<0.5	40	113	82
Q014217	212.44	213.77	1.33		0.006							0.2	4.68	11	220	<0.5	<2	2.76	<0.5	29	10	83
Q014218	213.77	215.09	1.32		0.009							0.3	5.98	6	170	<0.5	<2	1.33	<0.5	33	31	94
Q014219	215.09	216.28	1.19		0.013							0.5	4.90	16	60	<0.5	<2	0.97	<0.5	31	28	100
Q014222	216.28	218.10	1.82		<0.005							<0.2	6.95	12	440	<0.5	<2	2.67	<0.5	31	21	95
Q014223	218.10	219.02	0.92		0.006							0.2	6.79	12	100	0.5	<2	2.45	<0.5	34	25	90
Q014224	219.02	219.70	0.68		0.007							0.3	4.81	14	150	<0.5	<2	2.40	<0.5	30	11	87
Q014225	219.70	221.00	1.3		0.014							0.5	5.05	24	140	<0.5	<2	1.23	<0.5	33	37	92
Q014226	221.00	222.20	1.2		0.046							0.8	4.58	59	210	<0.5	<2	0.54	1.2	27	12	125
Q014227	222.20	223.65	1.45		0.010							0.5	6.84	9	440	0.5	<2	1.97	<0.5	24	9	93
Q014228	237.02	238.44	1.42		0.011							<0.2	3.83	5	200	0.6	<2	2.44	<0.5	25	6	25
Q014229	238.44	239.56	1.12		0.036							0.9	1.92	27	160	0.6	<2	0.94	18.8	11	6	537
Q014231	239.56	241.00	1.44		0.006							<0.2	0.90	69	200	<0.5	<2	1.11	<0.5	2	5	22
Q014232	241.00	242.50	1.5		0.006							0.3	0.75	41	150	<0.5	<2	1.17	5.0	1	7	11
Q014233	242.50	244.00	1.5		<0.005							<0.2	0.73	11	160	<0.5	<2	0.98	<0.5	1	7	5
Q014234	244.00	245.50	1.5		<0.005							<0.2	0.90	613	170	<0.5	<2	0.73	<0.5	1	6	11
Q014235	245.50	247.00	1.5		<0.005							<0.2	1.58	11	180	<0.5	<2	0.95	<0.5	1	5	10
Q014236	247.00	248.50	1.5		<0.005							<0.2	1.33	6	160	<0.5	<2	0.48	<0.5	1	4	5

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014182	1.39	<1	0.57	10		0.47	266	<1	0.17	9	420	11	0.03	3	2			93	0.07	<10	11	<10		56
Q014183	0.98	<1	0.44	<10		0.29	198	<1	0.12	3	240	7	0.02	2	1			88	0.06	<10	5	<10		38
Q014184	0.95	<1	0.56	<10		0.35	193	<1	0.13	2	240	5	0.01	<2	1			92	0.06	<10	4	<10		33
Q014185	1.02	<1	0.59	<10		0.41	183	<1	0.12	1	260	3	0.01	3	1			109	0.06	<10	4	<10		38
Q014186	0.82	<1	0.45	<10		0.31	152	<1	0.08	2	210	4	0.01	3	1			91	0.06	<10	3	<10		35
Q014187	1.32	<1	0.56	<10		0.44	210	<1	0.14	3	280	6	0.09	5	2			112	0.08	<10	5	<10		45
Q014188	1.26	<1	0.41	<10		0.47	218	14	0.14	3	180	6	0.22	8	2			92	0.07	<10	8	<10		40
Q014189	1.48	<1	0.46	<10		0.44	243	1	0.18	3	270	12	0.09	11	2			130	0.07	<10	9	<10		51
Q014191	3.99	<1	0.48	<10		2.94	577	<1	0.24	45	1730	24	0.23	21	8			367	0.20	<10	107	<10		90
Q014192	5.01	<1	0.08	<10		2.34	458	<1	0.13	10	530	<2	0.14	17	9			61	0.17	<10	157	<10		71
Q014193	5.84	<1	0.26	<10		2.34	552	<1	0.22	9	430	5	0.58	19	15			73	0.14	<10	230	<10		71
Q014194	7.06	<1	0.69	<10		2.47	679	<1	0.32	13	580	11	0.56	18	26			119	0.16	<10	280	<10		92
Q014195	4.51	<1	0.85	<10		1.55	521	<1	0.25	4	950	5	0.29	4	10			123	0.12	<10	130	<10		72
Q014196	2.62	<1	0.63	10		0.89	358	<1	0.18	1	1310	7	0.07	5	2			102	0.13	<10	69	<10		53
Q014197	6.41	<1	0.52	<10		2.19	607	1	0.24	12	510	9	0.94	10	19			74	0.16	<10	190	<10		95
Q014198	6.38	<1	0.22	<10		3.06	754	<1	0.13	12	530	4	0.15	5	12			64	0.16	<10	209	<10		87
Q014199	6.75	<1	0.09	<10		3.37	518	<1	0.10	18	380	<2	0.01	4	11			59	0.17	<10	166	<10		85
Q014202	6.45	<1	0.12	<10		2.87	522	<1	0.11	17	390	11	0.02	<2	15			78	0.15	<10	176	<10		87
Q014203	5.12	<1	0.09	<10		0.85	246	<1	0.06	12	400	5	0.06	6	7			139	0.18	<10	139	<10		39
Q014204	5.60	<1	0.17	<10		2.78	416	<1	0.09	13	520	<2	0.04	5	13			56	0.15	<10	168	<10		83
Q014205	6.66	<1	0.62	<10		2.91	618	<1	0.19	15	590	3	0.28	4	29			63	0.15	<10	260	<10		102
Q014206	5.81	<1	0.57	<10		3.06	387	<1	0.13	12	580	<2	0.02	6	18			59	0.17	<10	211	<10		84
Q014207	7.50	<1	0.89	<10		3.97	328	<1	0.19	17	420	2	0.03	11	14			55	0.17	<10	211	<10		79
Q014208	6.51	<1	0.18	<10		4.00	308	<1	0.09	14	550	<2	0.01	5	11			57	0.15	<10	186	<10		78
Q014209	6.90	<1	0.50	<10		3.77	334	<1	0.16	18	610	<2	0.10	5	17			99	0.16	<10	227	<10		90
Q014211	7.70	<1	0.80	<10		3.55	1150	<1	0.07	19	440	8	1.53	9	19			159	0.05	<10	154	<10		141
Q014212	6.57	<1	2.48	<10		4.27	953	<1	0.22	26	890	8	2.41	9	23			114	0.17	<10	190	<10		83
Q014213	7.32	<1	2.12	<10		5.94	1200	<1	0.16	28	810	9	1.71	6	24			69	0.19	<10	180	<10		112
Q014214	7.41	<1	1.14	<10		5.23	1335	<1	0.07	22	1020	11	2.81	14	13			56	0.12	<10	128	<10		159
Q014215	10.70	<1	1.17	<10		4.49	1300	3	0.08	38	950	17	8.04	6	14			32	0.14	<10	120	<10		586
Q014216	7.80	<1	2.88	<10		5.29	1580	<1	0.39	29	1020	14	2.20	5	41			73	0.30	<10	289	<10		208
Q014217	6.02	<1	2.21	<10		2.87	1140	1	0.46	14	760	11	2.13	4	25			44	0.26	<10	228	<10		90
Q014218	7.16	<1	2.38	<10		4.09	1365	<1	0.40	18	830	10	1.60	4	26			33	0.29	<10	222	<10		111
Q014219	7.23	<1	1.93	<10		3.80	1060	1	0.24	19	790	81	3.45	7	17			27	0.24	<10	141	<10		177
Q014222	6.82	<1	2.98	<10		4.03	1275	1	0.68	15	820	11	1.24	4	29			43	0.30	<10	258	<10		85
Q014223	7.26	<1	3.46	<10		3.79	1100	<1	0.55	19	840	17	2.66	9	26			50	0.31	<10	226	<10		148
Q014224	6.46	1	2.61	<10		3.11	1140	<1	0.45	15	880	21	2.82	10	26			40	0.31	<10	237	<10		159
Q014225	7.05	<1	2.61	<10		3.54	1020	<1	0.31	20	810	48	2.71	15	22			22	0.30	<10	186	<10		183
Q014226	6.79	<1	2.11	<10		3.73	1145	3	0.15	17	770	115	1.71	10	17			13	0.23	<10	139	<10		530
Q014227	6.50	<1	3.21	<10		3.77	991	<1	0.47	13	790	8	0.04	8	22			40	0.28	<10	192	<10		132
Q014228	5.37	<1	2.22	<10		1.88	996	<1	0.04	11	920	9	0.12	5	15			39	0.25	<10	136	<10		179
Q014229	4.98	<1	0.89	10		0.93	1000	<1	0.01	8	540	111	1.65	5	6			38	0.04	<10	32	<10		1425
Q014231	1.53	<1	0.54	10		0.17	367	1	0.05	1	330	4	0.54	2	2			32	0.02	<10	2	<10		40
Q014232	1.40	<1	0.40	10		0.21	533	1	0.02	1	310	107	0.45	2	2			28	<0.01	<10	1	<10		192
Q014233	1.18	<1	0.42	10		0.15	387	<1	0.04	2	240	5	0.24	2	2			19	0.02	<10	1	<10		29
Q014234	1.47	<1	0.56	10		0.20	373	<1	0.02	1	330	5	0.46	7	2			11	0.01	<10	<1	<10		46
Q014235	2.08	<1	0.67	10		0.42	605	<1	0.11	1	280	28	0.27	10	3			13	0.05	<10	1	<10		81
Q014236	2.19	1	0.86	10		0.35	562	<1	0.08	1	290	2	0.24	4	4			20	0.08	<10	1	<10		86

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014237	248.50	250.00	1.5		<0.005							<0.2	1.30	9	180	<0.5	<2	0.46	<0.5	1	5	6
Q014238	250.00	251.50	1.5		<0.005							<0.2	1.05	11	130	<0.5	<2	0.49	<0.5	1	5	5
Q014239	251.50	253.00	1.5		<0.005							<0.2	1.10	7	170	<0.5	<2	0.34	<0.5	1	5	19
Q014242	253.00	254.50	1.5		<0.005							<0.2	1.19	9	130	<0.5	<2	0.31	<0.5	1	4	65
Q014243	254.50	256.00	1.5		<0.005							<0.2	1.57	10	160	<0.5	<2	0.53	<0.5	1	4	120
Q014244	256.00	257.50	1.5		0.005							<0.2	0.94	14	180	<0.5	<2	0.62	<0.5	2	5	174
Q014245	257.50	258.19	0.69		0.008							<0.2	0.85	21	120	<0.5	<2	0.47	<0.5	1	7	279
Q014246	258.19	258.49	0.3		<0.005							0.5	1.11	14	150	<0.5	<2	0.62	<0.5	1	5	1910
Q014247	258.49	259.50	1.01		<0.005							<0.2	1.50	12	160	<0.5	<2	0.26	<0.5	1	4	94
Q014248	259.50	261.00	1.5		<0.005							<0.2	1.21	19	160	<0.5	<2	0.37	<0.5	1	4	134
Q014249	261.00	262.00	1		<0.005							<0.2	1.18	13	200	<0.5	<2	0.32	0.5	1	3	213
Q014251	262.00	263.50	1.5		0.005							<0.2	1.39	8	230	0.5	<2	0.40	<0.5	1	4	65
Q014252	263.50	265.00	1.5		<0.005							<0.2	1.22	8	180	<0.5	<2	0.23	<0.5	1	4	15
Q014253	265.00	266.50	1.5		<0.005							<0.2	1.46	9	200	0.5	<2	0.23	<0.5	1	3	12
Q014254	266.50	268.00	1.5		<0.005							<0.2	1.37	7	190	0.5	<2	0.14	<0.5	<1	3	3
Q014255	268.00	269.50	1.5		<0.005							0.2	1.28	9	200	<0.5	<2	0.23	<0.5	1	3	123
Q014256	269.50	271.00	1.5		0.009							<0.2	1.28	17	170	<0.5	<2	0.21	<0.5	1	3	5
Q014257	271.00	272.50	1.5		0.010							0.3	1.00	24	170	<0.5	<2	0.31	<0.5	1	4	10
Q014258	272.50	274.00	1.5		0.014							<0.2	0.86	12	190	<0.5	<2	0.45	<0.5	1	5	7
Q014259	274.00	275.00	1		0.027							<0.2	0.65	22	160	<0.5	<2	0.63	<0.5	2	5	5
Q014262	275.00	276.30	1.3		0.035							0.2	0.86	33	120	<0.5	<2	0.46	<0.5	2	4	18
Q014263	276.30	277.50	1.2		<0.005							<0.2	1.08	14	130	<0.5	<2	0.43	<0.5	1	4	5
Q014264	277.50	279.00	1.5		0.006							<0.2	1.32	20	150	<0.5	<2	0.21	<0.5	2	3	4
Q014265	279.00	280.50	1.5		0.007							<0.2	1.25	29	130	<0.5	<2	0.17	<0.5	1	3	6
Q014266	280.50	282.00	1.5		0.017							0.4	0.86	23	100	<0.5	<2	0.36	0.5	1	4	22
Q014267	282.00	283.50	1.5		0.016							0.4	0.63	22	70	<0.5	<2	0.22	<0.5	2	5	14
Q014268	283.50	285.00	1.5		0.010							<0.2	1.13	21	110	0.5	<2	0.25	<0.5	1	3	6
Q014269	285.00	286.50	1.5		0.006							0.2	1.22	63	130	<0.5	<2	0.25	<0.5	1	5	7
Q014271	286.50	288.00	1.5		<0.005							<0.2	1.35	22	200	<0.5	<2	0.30	<0.5	2	3	5
Q014272	288.00	289.50	1.5		<0.005							<0.2	1.48	18	190	<0.5	<2	0.17	<0.5	2	3	3
Q014273	289.50	290.66	1.16		0.006							<0.2	1.43	19	180	<0.5	<2	0.24	<0.5	2	3	4
Q014274	290.66	292.00	1.34		0.009							0.2	0.61	14	140	<0.5	<2	0.15	<0.5	1	4	4
Q014275	292.00	293.50	1.5		0.013							<0.2	0.82	11	200	<0.5	<2	0.17	<0.5	1	3	4
Q014276	293.50	295.00	1.5		0.018							0.4	0.75	27	90	<0.5	<2	0.21	<0.5	4	3	9
Q014277	295.00	296.50	1.5		0.017							0.4	0.57	47	30	<0.5	<2	0.16	<0.5	3	3	10
Q014278	296.50	298.00	1.5		0.008							0.4	0.75	38	30	<0.5	<2	0.18	<0.5	2	3	6
Q014279	298.00	298.78	0.78		0.018							0.5	0.91	39	40	<0.5	<2	0.27	<0.5	8	6	14
Q014281	298.78	299.78	1		0.007							<0.2	0.81	14	180	<0.5	2	0.57	<0.5	11	24	5
Q014282	299.78	300.76	0.98		0.015							<0.2	1.11	23	130	<0.5	<2	0.88	<0.5	13	21	13
Q014283	300.76	302.00	1.24		0.024							0.5	0.92	27	50	<0.5	<2	0.40	<0.5	3	2	13
Q014284	302.00	303.50	1.5		0.007							<0.2	1.32	13	190	0.5	<2	0.44	<0.5	1	2	3
Q014285	303.50	304.70	1.2		<0.005							<0.2	1.96	25	250	0.6	<2	0.79	<0.5	2	3	8
Q014286	304.70	305.40	0.7		<0.005							0.2	2.65	17	270	0.6	<2	1.79	<0.5	3	5	10
Q014287	305.40	307.00	1.6		0.016							<0.2	3.83	31	40	0.6	<2	0.93	<0.5	22	7	39
Q014288	307.00	308.50	1.5		0.014							0.3	4.47	36	30	0.5	<2	0.65	<0.5	26	8	69
Q014289	308.50	310.00	1.5		0.027							0.2	3.92	28	30	<0.5	<2	0.72	<0.5	27	8	31
Q014292	310.00	311.50	1.5		0.041							0.2	4.39	41	50	<0.5	<2	0.66	<0.5	24	11	30
Q014293	311.50	313.00	1.5		0.007							0.2	4.76	18	60	<0.5	<2	0.68	<0.5	23	10	229

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014237	2.38	<1	0.81	10		0.31	537	<1	0.09	1	300	3	0.40	4	4			12	0.08	<10	1	<10		80
Q014238	2.14	<1	0.60	10		0.29	562	<1	0.06	1	290	3	0.30	3	4			8	0.07	<10	<1	<10		66
Q014239	2.11	<1	0.72	10		0.28	492	<1	0.06	1	290	2	0.28	3	3			7	0.07	<10	<1	<10		41
Q014242	2.61	<1	0.74	20		0.38	590	<1	0.06	1	290	10	0.32	4	5			7	0.08	<10	1	<10		58
Q014243	3.62	<1	1.00	20		0.58	819	<1	0.08	1	280	3	0.42	6	6			26	0.08	<10	2	<10		69
Q014244	2.66	<1	0.54	20		0.27	443	<1	0.06	1	250	3	0.65	6	4			34	0.05	<10	1	<10		41
Q014245	2.83	<1	0.41	20		0.24	440	<1	0.08	1	270	4	0.96	8	4			24	0.05	<10	1	<10		42
Q014246	2.79	<1	0.70	10		0.38	547	<1	0.05	1	240	3	0.69	6	4			32	0.06	<10	1	<10		46
Q014247	3.06	<1	0.94	20		0.58	637	<1	0.06	1	290	2	0.30	4	5			8	0.08	<10	1	<10		57
Q014248	2.82	<1	0.68	10		0.41	541	5	0.07	1	280	5	0.50	4	5			10	0.06	<10	1	<10		45
Q014249	2.67	<1	0.74	20		0.35	458	3	0.07	1	290	21	0.56	3	4			10	0.07	<10	1	<10		90
Q014251	2.75	<1	0.90	20		0.47	544	4	0.07	2	300	16	0.51	3	5			16	0.07	<10	1	<10		46
Q014252	2.33	<1	0.78	20		0.44	404	2	0.06	1	270	13	0.47	2	4			8	0.06	<10	1	<10		36
Q014253	2.44	<1	1.01	20		0.55	475	3	0.06	4	280	6	0.26	3	5			7	0.08	<10	1	<10		41
Q014254	2.28	<1	1.03	20		0.49	411	3	0.04	2	270	3	0.14	2	4			6	0.08	<10	1	<10		38
Q014255	2.89	<1	0.87	20		0.49	487	3	0.06	2	280	9	0.64	3	5			7	0.07	<10	1	<10		39
Q014256	3.33	<1	0.82	20		0.51	495	11	0.06	1	290	17	1.05	4	5			6	0.07	<10	1	<10		43
Q014257	2.23	<1	0.54	10		0.38	352	21	0.08	2	290	6	0.65	5	5			7	0.06	<10	1	<10		30
Q014258	2.15	<1	0.48	10		0.28	326	11	0.08	2	250	5	0.53	3	5			19	0.05	<10	1	<10		29
Q014259	2.23	<1	0.34	10		0.19	217	4	0.08	1	250	6	1.20	2	4			25	0.04	<10	1	<10		21
Q014262	2.61	<1	0.50	10		0.31	245	2	0.08	2	270	11	1.33	4	5			11	0.05	<10	1	<10		33
Q014263	1.98	<1	0.71	10		0.48	286	6	0.07	1	270	3	0.60	5	4			18	0.06	<10	<1	<10		30
Q014264	2.39	<1	0.87	10		0.63	293	5	0.07	2	260	4	0.83	5	5			8	0.06	<10	2	<10		34
Q014265	2.88	<1	0.86	10		0.60	264	3	0.07	2	280	5	1.49	4	5			6	0.06	<10	1	<10		37
Q014266	2.64	<1	0.59	10		0.37	190	3	0.07	2	270	19	2.02	5	4			12	0.04	<10	1	<10		83
Q014267	3.21	<1	0.42	10		0.17	120	2	0.10	2	270	23	2.98	10	3			8	0.01	<10	2	<10		12
Q014268	2.76	<1	0.78	10		0.51	215	1	0.06	1	270	9	1.93	9	3			12	0.04	<10	1	<10		32
Q014269	2.71	<1	0.78	10		0.55	298	2	0.05	2	250	12	1.68	11	3			15	0.03	<10	1	<10		35
Q014271	2.46	<1	0.86	20		0.52	409	<1	0.06	1	280	6	0.71	9	4			15	0.06	<10	<1	<10		35
Q014272	2.77	<1	0.99	10		0.70	427	3	0.06	1	260	9	0.67	8	4			11	0.06	<10	1	<10		45
Q014273	2.79	<1	0.96	10		0.62	366	1	0.07	1	280	12	1.34	8	4			15	0.05	<10	<1	<10		46
Q014274	2.09	<1	0.45	10		0.16	132	7	0.06	1	250	11	1.87	6	2			7	0.02	<10	<1	<10		15
Q014275	1.68	<1	0.63	10		0.23	187	4	0.04	2	280	7	1.16	4	2			7	0.04	<10	<1	<10		20
Q014276	2.12	<1	0.53	10		0.20	185	2	0.05	2	270	12	1.96	6	2			17	0.01	<10	<1	<10		15
Q014277	2.60	<1	0.40	10		0.06	118	3	0.03	2	280	13	2.71	5	1			16	<0.01	<10	<1	<10		5
Q014278	2.95	<1	0.55	10		0.13	189	2	0.03	2	300	10	2.96	5	2			12	0.01	<10	<1	<10		9
Q014279	2.74	<1	0.66	10		0.22	256	2	0.03	8	410	9	2.56	7	2			16	0.03	<10	4	<10		19
Q014281	1.74	<1	0.56	<10		0.30	413	<1	0.02	18	440	4	1.10	5	3			34	0.03	<10	12	<10		21
Q014282	2.41	<1	0.65	<10		0.46	586	1	0.05	17	430	6	1.67	9	4			58	0.04	<10	17	<10		28
Q014283	2.51	<1	0.58	10		0.26	294	2	0.03	2	280	12	2.14	8	2			29	0.01	<10	1	<10		19
Q014284	2.26	<1	0.78	10		0.45	346	1	0.05	1	280	5	1.35	7	3			38	0.03	<10	<1	<10		25
Q014285	2.34	<1	0.81	10		0.71	495	1	0.08	2	240	6	0.79	15	4			60	0.05	<10	1	<10		34
Q014286	2.72	<1	0.98	<10		1.05	609	1	0.12	3	400	9	1.12	12	5			99	0.06	<10	10	<10		47
Q014287	7.10	<1	2.10	<10		3.86	1615	<1	0.01	7	1120	13	3.23	13	14			58	0.17	<10	125	<10		182
Q014288	7.98	<1	2.19	<10		4.65	1780	1	0.01	9	1180	9	4.20	16	15			23	0.22	<10	157	<10		182
Q014289	7.01	<1	2.12	<10		3.66	1385	<1	0.05	9	790	18	4.04	7	12			23	0.21	<10	132	<10		160
Q014292	7.30	1	1.96	<10		3.74	1230	<1	0.12	8	560	20	4.12	5	12			28	0.18	<10	119	<10		161
Q014293	6.75	<1	2.10	<10		3.93	1185	<1	0.16	8	550	9	3.16	7	13			36	0.19	<10	134	<10		146

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014294	313.00	314.50	1.5		0.018							<0.2	5.34	35	50	<0.5	<2	1.01	<0.5	26	11	38
Q014295	314.50	316.00	1.5		0.011							<0.2	5.86	24	60	<0.5	<2	1.10	<0.5	25	12	28
Q014296	316.00	317.50	1.5		0.017							<0.2	6.46	20	60	<0.5	<2	1.19	<0.5	27	12	11
Q014297	317.50	319.00	1.5		0.017							<0.2	6.22	9	60	<0.5	<2	1.26	<0.5	27	11	10
Q014298	319.00	320.50	1.5		0.017							<0.2	6.45	25	50	<0.5	<2	1.56	<0.5	29	12	42
Q014299	320.50	322.00	1.5		0.011							0.7	5.30	31	50	<0.5	<2	1.59	<0.5	27	11	188
Q014301	322.00	323.00	1		0.009							0.2	4.87	13	50	0.5	<2	0.55	<0.5	25	9	10
Q014302	323.00	324.00	1		0.036							0.2	3.84	33	50	<0.5	<2	0.61	<0.5	25	9	10
Q014303	324.00	325.00	1		0.022							0.2	3.87	37	80	<0.5	<2	4.09	<0.5	26	8	18
Q014304	325.00	326.52	1.52		0.013							0.2	4.85	22	50	<0.5	<2	1.04	<0.5	28	9	330
Q014305	326.52	328.00	1.48		0.033							<0.2	4.40	39	30	<0.5	<2	0.71	<0.5	29	5	158
Q014306	328.00	329.50	1.5		0.030							0.2	4.79	43	40	<0.5	<2	0.84	<0.5	33	5	274
Q014307	329.50	331.00	1.5		<0.005							<0.2	5.48	13	40	<0.5	<2	1.48	<0.5	29	6	376
Q014308	331.00	332.50	1.5		0.005							<0.2	4.40	15	40	<0.5	<2	0.94	<0.5	26	5	75
Q014309	332.50	334.00	1.5		0.005							<0.2	4.28	11	40	<0.5	<2	1.57	<0.5	23	5	14
Q014312	334.00	335.20	1.2		<0.005							<0.2	4.80	8	50	<0.5	<2	0.98	<0.5	24	6	25
Q014313	335.20	336.50	1.3		<0.005							<0.2	4.84	14	40	<0.5	2	0.99	<0.5	26	6	100
Q014314	336.50	337.50	1		0.008							<0.2	4.64	25	40	<0.5	<2	0.78	<0.5	24	5	62
Q014315	337.50	338.50	1		0.031							<0.2	4.69	32	30	<0.5	2	0.68	<0.5	31	6	30
Q014316	338.50	339.41	0.91		0.011							0.2	4.61	12	40	<0.5	<2	0.97	<0.5	28	6	77
Q014317	339.41	339.67	0.26		0.016							<0.2	5.15	7	40	<0.5	5	0.81	<0.5	54	7	25
Q014318	339.67	340.88	1.21		0.008							0.4	5.08	17	40	<0.5	<2	0.55	<0.5	45	7	1570
Q014319	340.88	342.00	1.12		0.014							<0.2	4.34	13	40	<0.5	<2	1.20	<0.5	39	6	126
Q014322	342.00	343.00	1		0.007							0.2	5.02	11	30	<0.5	<2	0.84	<0.5	40	7	387
Q014323	343.00	343.97	0.97		<0.005							0.3	5.55	4	50	<0.5	<2	0.85	<0.5	33	8	951
Q014324	343.97	345.06	1.09		<0.005							<0.2	4.54	6	40	<0.5	<2	0.59	<0.5	29	6	40
Q014325	345.06	346.00	0.94		0.010							<0.2	5.60	12	50	<0.5	<2	0.71	<0.5	29	5	19
Q014326	346.00	346.79	0.79		<0.005							<0.2	6.15	6	80	<0.5	<2	0.68	<0.5	26	6	12
Q014327	346.79	348.22	1.43		<0.005							<0.2	5.36	9	80	<0.5	<2	0.62	<0.5	33	5	1290
Q014328	348.22	349.12	0.9		<0.005							<0.2	4.51	6	50	<0.5	3	0.59	<0.5	35	5	191
Q014329	349.12	350.50	1.38		<0.005							<0.2	5.34	9	50	<0.5	3	0.51	<0.5	29	5	22
Q014331	350.50	352.00	1.5		<0.005							<0.2	5.12	3	70	<0.5	2	0.50	<0.5	26	5	101
Q014332	352.00	353.18	1.18		0.006							<0.2	4.84	19	70	<0.5	2	0.55	<0.5	27	5	49
Q014333	353.18	354.00	0.82		<0.005							<0.2	5.41	25	120	<0.5	<2	1.21	<0.5	25	6	158
Q014334	354.00	354.90	0.9		<0.005							0.2	5.37	7	100	<0.5	<2	0.97	<0.5	25	6	1030
Q014335	354.90	356.08	1.18		0.007							0.3	4.89	15	60	<0.5	<2	0.56	<0.5	30	5	514
Q014336	356.08	356.16	0.08		0.065							0.6	3.60	114	20	<0.5	7	0.66	<0.5	44	4	37
Q014337	356.16	357.50	1.34		0.013							0.2	4.00	35	50	<0.5	2	0.45	<0.5	31	5	768
Q014338	357.50	359.00	1.5		0.010							<0.2	4.47	30	50	<0.5	<2	0.54	<0.5	32	5	172
Q014339	359.00	360.50	1.5		0.009							<0.2	4.27	21	80	<0.5	<2	0.46	<0.5	29	5	178
Q014341	360.50	362.01	1.51		0.008							0.3	4.83	13	90	<0.5	2	0.66	<0.5	25	6	663
Q014342	362.01	363.50	1.49		0.029							<0.2	4.02	44	50	<0.5	<2	0.52	<0.5	26	7	36
Q014343	363.50	364.67	1.17		0.033							0.3	3.91	34	50	<0.5	2	0.42	<0.5	30	6	26
Q014344	364.67	364.96	0.29		0.874							20.0	3.12	242	10	<0.5	31	0.39	2.1	243	3	5600
Q014345	364.96	365.09	0.13		0.060							0.8	4.10	47	30	<0.5	5	0.34	<0.5	43	3	189
Q014346	365.09	365.26	0.17		1.015	23.00	0.908	0.020	0.012	0.03	4.16	23.7	1.82	243	10	<0.5	46	0.30	3.5	192	3	9690
Q014347	365.26	366.51	1.25		0.059							0.8	4.97	43	40	<0.5	4	0.58	<0.5	45	12	451
Q014348	366.51	368.00	1.49		0.046							0.7	5.40	24	40	<0.5	5	0.78	<0.5	44	13	452

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014294	6.81	<1	2.38	<10		3.86	1230	<1	0.30	7	520	11	3.22	4	16			52	0.21	<10	169	<10		137
Q014295	7.21	<1	2.52	<10		4.08	1280	<1	0.30	9	580	11	2.98	7	17			56	0.21	<10	174	<10		150
Q014296	7.58	1	2.30	<10		4.55	1445	<1	0.22	8	590	8	2.54	6	17			59	0.21	<10	179	<10		158
Q014297	7.31	2	2.70	<10		4.02	1405	<1	0.26	8	530	9	2.69	4	17			75	0.23	<10	176	<10		147
Q014298	7.68	<1	2.85	<10		3.77	1445	<1	0.20	9	600	12	2.76	8	18			89	0.24	<10	189	<10		149
Q014299	7.72	<1	2.17	<10		3.68	1315	<1	0.12	9	630	11	2.86	25	16			63	0.19	<10	176	<10		137
Q014301	7.68	<1	2.40	<10		4.25	1355	<1	0.05	8	890	11	3.25	3	14			32	0.23	<10	153	<10		163
Q014302	7.24	<1	1.73	<10		3.12	947	<1	0.07	10	540	13	4.15	4	10			37	0.17	<10	108	<10		99
Q014303	7.74	1	0.89	<10		3.60	1545	1	0.04	8	600	14	4.23	5	10			146	0.08	<10	116	<10		108
Q014304	7.58	<1	2.43	<10		3.21	1170	<1	0.10	9	560	7	3.60	15	13			66	0.19	<10	160	<10		128
Q014305	8.68	1	2.07	<10		2.94	1155	<1	0.08	8	670	13	4.94	12	11			47	0.16	<10	147	<10		115
Q014306	9.05	<1	1.93	<10		3.24	1175	<1	0.08	9	730	12	4.95	16	11			50	0.15	<10	148	<10		108
Q014307	8.37	1	1.99	<10		3.02	1240	<1	0.14	10	610	6	4.00	14	14			99	0.16	<10	175	<10		95
Q014308	8.00	1	1.37	<10		3.14	1100	<1	0.09	9	650	5	4.34	10	11			45	0.12	<10	142	<10		96
Q014309	7.46	<1	1.07	<10		3.10	1160	<1	0.13	8	640	5	4.07	5	10			66	0.11	<10	133	<10		97
Q014312	7.60	<1	1.54	<10		3.15	1155	<1	0.23	9	620	18	3.52	4	12			68	0.17	<10	154	<10		114
Q014313	7.86	<1	1.52	<10		3.18	1085	<1	0.22	9	650	8	4.03	11	12			54	0.17	<10	150	<10		91
Q014314	9.32	<1	1.40	<10		3.41	1125	1	0.13	8	770	8	5.61	10	11			40	0.15	<10	147	<10		98
Q014315	10.90	1	1.30	<10		3.66	1195	3	0.10	9	750	10	7.53	6	11			30	0.14	<10	154	<10		105
Q014316	7.87	<1	1.31	<10		3.29	1105	<1	0.19	7	700	7	4.10	7	12			55	0.15	<10	151	<10		91
Q014317	8.50	<1	1.63	<10		3.66	1180	<1	0.25	12	630	9	4.32	3	14			54	0.18	<10	171	<10		98
Q014318	9.59	<1	1.31	<10		3.76	1445	<1	0.14	11	690	4	4.08	4	14			33	0.16	<10	170	<10		127
Q014319	9.85	<1	0.90	<10		3.09	1125	<1	0.15	8	690	6	5.80	6	13			66	0.12	<10	163	<10		94
Q014322	9.92	<1	1.06	<10		3.74	1230	<1	0.18	7	910	7	4.99	3	15			46	0.15	<10	183	<10		97
Q014323	9.08	<1	1.27	<10		4.14	1390	<1	0.20	8	950	4	2.98	7	17			42	0.19	<10	188	<10		111
Q014324	8.33	<1	1.06	<10		3.64	1170	<1	0.16	6	610	8	3.94	2	12			28	0.17	<10	151	<10		103
Q014325	8.45	<1	1.04	<10		4.44	1355	<1	0.16	5	620	15	3.19	6	12			30	0.15	<10	147	<10		175
Q014326	8.66	<1	1.16	<10		4.67	1570	<1	0.18	7	640	4	1.75	2	15			33	0.17	<10	186	<10		126
Q014327	8.03	<1	0.99	<10		4.07	1430	1	0.15	9	600	3	2.04	2	13			37	0.15	<10	164	<10		114
Q014328	7.46	<1	0.98	<10		3.50	1115	<1	0.16	6	640	<2	3.27	<2	12			35	0.16	<10	152	<10		95
Q014329	8.24	<1	0.93	<10		4.50	1265	<1	0.16	7	550	<2	3.27	2	14			29	0.15	<10	165	<10		116
Q014331	7.47	<1	0.92	<10		4.40	1260	<1	0.15	6	500	<2	2.41	3	14			28	0.15	<10	160	<10		117
Q014332	7.38	<1	0.79	<10		4.09	1245	<1	0.15	6	430	<2	2.70	3	13			27	0.15	<10	160	<10		109
Q014333	6.88	<1	1.34	<10		3.28	1275	<1	0.38	5	680	2	1.43	7	19			62	0.21	<10	223	<10		103
Q014334	7.55	<1	1.26	<10		3.73	1345	<1	0.30	7	650	<2	1.66	3	18			47	0.20	<10	208	<10		100
Q014335	7.02	<1	1.00	<10		3.98	1095	<1	0.16	8	630	4	2.47	<2	13			21	0.15	<10	154	<10		94
Q014336	15.10	<1	0.82	<10		2.53	767	6	0.19	5	500	28	>10.00	8	10			22	0.11	<10	123	<10		66
Q014337	6.35	<1	1.01	<10		3.09	870	<1	0.15	5	610	4	2.83	2	11			18	0.15	<10	132	<10		73
Q014338	8.40	<1	0.72	<10		3.45	1140	1	0.14	6	640	4	3.83	2	12			20	0.13	<10	157	<10		85
Q014339	7.14	<1	0.77	<10		3.15	1160	<1	0.13	7	640	<2	1.89	5	12			19	0.14	<10	157	<10		84
Q014341	7.16	<1	1.01	<10		3.35	1200	<1	0.20	7	580	4	1.86	7	14			29	0.16	<10	169	<10		86
Q014342	7.52	<1	0.86	<10		3.09	922	1	0.14	8	650	5	3.87	4	11			17	0.13	<10	137	<10		74
Q014343	6.56	<1	0.86	<10		3.22	878	1	0.11	9	680	6	2.97	5	10			17	0.13	<10	134	<10		82
Q014344	27.80	2	0.65	<10		2.54	781	65	0.08	148	370	87	>10.00	45	6			19	0.07	<10	112	<10		108
Q014345	11.05	<1	0.95	<10		3.57	935	2	0.05	21	750	37	8.79	4	8			11	0.10	<10	123	<10		172
Q014346	25.50	<1	0.36	<10		1.41	540	9	0.04	81	110	160	>10.00	20	4			7	0.04	<10	76	<10		88
Q014347	10.45	<1	1.07	<10		3.91	1130	3	0.14	13	760	12	6.75	4	17			21	0.16	<10	212	<10		150
Q014348	9.12	<1	1.15	<10		4.19	1195	1	0.19	12	740	7	4.23	3	19			29	0.18	<10	229	<10		100

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014349	368.00	369.50	1.5		0.049							0.3	4.51	30	40	<0.5	4	0.56	<0.5	32	11	149
Q014352	369.50	371.00	1.5		0.043							0.4	4.22	25	40	<0.5	5	0.59	0.6	38	9	95
Q014353	371.00	372.50	1.5		0.025							0.3	4.52	21	60	<0.5	2	1.04	<0.5	36	7	116
Q014354	372.50	374.00	1.5		0.006							0.3	5.34	7	70	<0.5	3	0.85	<0.5	34	8	635
Q014355	374.00	375.50	1.5		<0.005							0.2	5.99	<2	90	<0.5	2	0.98	<0.5	35	10	505
Q014356	375.50	377.06	1.56		<0.005							0.2	5.25	9	40	<0.5	2	1.31	<0.5	43	10	648
Q014357	377.06	378.69	1.63		0.014							1.4	4.02	10	60	<0.5	2	2.17	0.5	32	9	1540
Q014358	378.69	380.00	1.31		0.012							<0.2	5.39	24	60	<0.5	3	1.34	<0.5	41	10	28
Q014359	380.00	381.50	1.5		0.006							0.6	4.89	3	50	<0.5	4	2.06	<0.5	40	11	617
Q014361	381.50	383.00	1.5		0.010							<0.2	5.46	17	70	<0.5	2	1.26	<0.5	27	10	264
Q014362	383.00	384.50	1.5		0.012							<0.2	5.41	19	80	<0.5	2	1.02	<0.5	33	11	358
Q014363	384.50	386.00	1.5		0.006							<0.2	5.14	14	60	<0.5	<2	0.91	<0.5	34	10	318
Q014364	386.00	387.50	1.5		0.013							<0.2	5.94	13	110	0.5	<2	0.98	<0.5	35	10	320
Q014365	387.50	389.00	1.5		0.037							0.2	5.16	17	30	0.5	4	0.75	<0.5	62	9	925
Q014366	389.00	389.66	0.66		0.005							0.2	5.99	9	70	<0.5	2	0.62	<0.5	39	77	542
Q014367	389.66	391.00	1.34		<0.005							0.2	3.23	48	2580	<0.5	<2	1.06	<0.5	32	786	81
Q014368	391.00	392.54	1.54		<0.005							0.5	2.59	45	1700	<0.5	<2	2.16	<0.5	30	688	78
Q014369	392.54	394.00	1.46		<0.005							0.5	2.75	68	1580	<0.5	2	2.01	<0.5	36	663	163
Q014371	394.00	395.60	1.6		<0.005							0.2	3.39	30	560	<0.5	<2	3.71	<0.5	44	985	68
Q014372	395.60	396.39	0.79		<0.005							0.4	2.64	134	250	<0.5	<2	1.96	<0.5	39	476	217
Q014373	396.39	397.98	1.59		<0.005							0.2	2.97	16	1060	<0.5	<2	1.06	<0.5	32	876	94
Q014374	397.98	398.95	0.97		<0.005	<1.00	0.007	0.004	0.008	<0.01	2.95	0.2	3.94	5	2290	<0.5	<2	0.44	<0.5	41	1120	66
Q014375	398.95	399.17	0.22		0.079	<1.00	0.066	0.003	0.019	0.01	3.09	0.7	3.28	45	20	<0.5	5	0.20	<0.5	68	64	687
Q014376	399.17	399.62	0.45		0.223	10.00	3.280	0.005	0.030	0.01	3.46	10.8	1.14	104	10	<0.5	13	0.21	3.6	97	11	>10000
Q014377	399.62	400.50	0.88		0.071	1.00	0.260	0.002	0.010	<0.01	3.06	0.9	2.25	48	10	<0.5	6	0.42	<0.5	53	7	2690
Q014378	400.50	402.00	1.5		0.020	1.00	0.014	0.004	0.015	<0.01	3.04	<0.2	4.45	28	20	<0.5	2	0.49	<0.5	41	10	129
Q014379	402.00	403.50	1.5		0.008							<0.2	6.20	29	50	<0.5	4	0.74	<0.5	40	83	32
Q014381	403.50	405.00	1.5		0.017							<0.2	5.36	35	50	<0.5	3	0.71	<0.5	38	10	19
Q014382	405.00	406.50	1.5		0.029							0.3	4.85	36	30	<0.5	4	0.79	<0.5	59	138	491
Q014383	406.50	408.00	1.5		0.007							<0.2	4.54	34	50	<0.5	<2	0.58	<0.5	33	18	32
Q014384	408.00	409.50	1.5		0.006							<0.2	5.51	26	70	<0.5	3	0.70	<0.5	32	11	70
Q014385	409.50	411.00	1.5		<0.005							<0.2	6.45	18	70	<0.5	2	1.06	<0.5	35	11	24
Q014386	411.00	412.50	1.5		0.007							<0.2	6.75	26	50	0.5	4	1.24	<0.5	40	11	178
Q014387	412.50	414.00	1.5		0.007							<0.2	6.64	23	40	<0.5	2	0.91	<0.5	35	10	56
Q014388	414.00	415.50	1.5		<0.005							<0.2	5.37	9	50	<0.5	3	0.91	<0.5	29	8	234
Q014389	415.50	417.00	1.5		0.010							0.3	4.25	18	40	<0.5	3	1.24	<0.5	30	6	806
Q014392	417.00	418.51	1.51		0.018							<0.2	2.80	23	30	<0.5	6	0.52	<0.5	32	5	133
Q014393	418.51	420.00	1.49		0.039							<0.2	2.74	48	20	<0.5	9	0.36	<0.5	63	5	52
Q014394	420.00	421.50	1.5		0.037							<0.2	3.00	42	20	<0.5	7	0.37	<0.5	66	5	54
Q014395	421.50	423.00	1.5		0.024							<0.2	2.64	27	20	<0.5	7	0.36	<0.5	51	5	91
Q014396	423.00	424.50	1.5		0.015							0.4	3.90	20	30	<0.5	<2	0.42	<0.5	32	139	1670
Q014397	424.50	426.00	1.5		0.011							<0.2	3.12	15	30	<0.5	4	0.50	<0.5	28	6	480
Q014398	426.00	428.00	2		0.005							<0.2	4.06	11	60	<0.5	3	1.03	<0.5	24	9	298
Q014399	428.00	429.50	1.5		<0.005							0.2	3.49	28	870	<0.5	<2	2.96	0.5	37	652	92
Q014401	429.50	431.00	1.5		<0.005							<0.2	3.34	28	4230	<0.5	2	1.47	<0.5	31	729	40
Q014402	431.00	432.12	1.12		<0.005							<0.2	3.74	18	3060	<0.5	2	1.45	<0.5	34	859	49
Q014403	432.12	433.20	1.08		0.007							0.2	5.04	6	70	<0.5	2	1.62	<0.5	30	27	1250
Q014404	433.20	434.50	1.3		0.008							0.5	4.97	20	40	<0.5	4	1.72	<0.5	46	286	1660

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014349	8.32	<1	1.18	<10		3.64	970	3	0.14	11	710	6	4.68	6	12			21	0.16	<10	152	<10		98
Q014352	8.66	<1	1.32	<10		3.39	980	2	0.11	13	620	16	5.14	6	13			26	0.15	<10	151	<10		159
Q014353	8.52	<1	1.19	<10		4.10	1435	4	0.02	14	630	8	3.38	2	12			58	0.09	<10	144	<10		113
Q014354	7.84	<1	1.33	<10		4.23	1600	<1	0.15	10	850	4	2.12	2	15			81	0.15	<10	164	<10		108
Q014355	8.71	<1	1.00	<10		4.90	1885	<1	0.15	12	700	3	1.59	2	17			98	0.14	<10	186	<10		120
Q014356	8.77	<1	0.86	<10		4.33	1805	<1	0.13	13	740	5	3.02	2	18			129	0.13	<10	185	<10		109
Q014357	7.93	<1	0.20	<10		4.62	2030	<1	0.05	14	660	12	2.49	5	16			144	0.02	<10	164	<10		137
Q014358	7.87	<1	0.96	<10		4.68	1840	<1	0.15	15	710	10	2.49	3	16			72	0.15	<10	197	<10		109
Q014359	6.83	<1	0.78	<10		4.03	1765	<1	0.15	14	730	11	1.70	3	17			117	0.14	<10	191	<10		108
Q014361	7.67	<1	1.12	<10		4.53	1725	1	0.17	14	720	4	2.43	<2	15			73	0.17	<10	188	<10		114
Q014362	7.61	<1	1.24	<10		4.50	1750	<1	0.18	14	710	2	2.04	3	16			81	0.20	<10	186	<10		122
Q014363	7.18	<1	1.05	<10		4.16	1565	<1	0.17	16	640	2	1.97	3	13			73	0.17	<10	165	<10		110
Q014364	7.90	<1	1.26	<10		4.71	1730	<1	0.13	16	740	2	1.64	<2	13			67	0.19	<10	185	<10		109
Q014365	9.11	<1	1.21	<10		4.31	1480	2	0.08	17	740	6	3.86	<2	12			44	0.17	<10	172	<10		101
Q014366	8.54	<1	1.32	<10		5.26	1390	1	0.10	41	830	<2	1.56	<2	21			50	0.20	<10	252	<10		107
Q014367	3.43	<1	0.19	<10		4.48	514	<1	0.10	344	1670	9	0.22	11	2			91	0.14	<10	85	<10		61
Q014368	2.98	<1	0.13	<10		3.50	508	<1	0.15	259	1690	16	0.27	14	3			119	0.15	<10	88	<10		54
Q014369	3.04	<1	0.10	<10		3.79	516	<1	0.19	326	1500	9	0.37	10	3			125	0.13	<10	83	<10		61
Q014371	3.62	<1	0.09	<10		6.00	904	1	0.10	452	1210	6	0.11	2	7			248	0.08	<10	91	<10		75
Q014372	4.44	<1	0.13	<10		3.66	493	<1	0.15	207	1230	17	0.96	12	8			155	0.14	<10	99	<10		69
Q014373	3.03	<1	0.18	<10		4.59	420	1	0.11	372	1540	7	0.09	3	2			48	0.13	<10	63	<10		48
Q014374	3.98	<1	0.13	<10		6.35	697	<1	0.01	501	1140	23	0.06	4	2			86	0.11	<10	72	<10		61
Q014375	9.21	<1	0.39	<10		4.04	606	13	0.02	43	690	20	5.70	5	12			129	0.11	<10	141	<10		187
Q014376	20.70	<1	0.49	<10		0.85	201	30	0.03	20	360	30	>10.00	2	4			18	0.04	<10	51	<10		292
Q014377	9.42	<1	1.25	<10		1.51	393	13	0.06	11	630	21	9.02	<2	6			18	0.12	<10	80	<10		88
Q014378	8.61	<1	1.50	<10		3.79	1055	2	0.12	12	610	15	4.53	<2	12			19	0.20	<10	148	<10		108
Q014379	8.88	<1	1.54	<10		5.33	1595	1	0.16	30	790	5	2.85	<2	15			60	0.23	<10	197	<10		116
Q014381	7.92	<1	1.67	<10		4.00	1195	1	0.17	17	670	5	3.07	2	12			44	0.22	<10	162	<10		97
Q014382	10.85	<1	1.55	<10		4.06	1115	4	0.15	45	780	7	7.50	<2	14			63	0.22	<10	165	<10		98
Q014383	6.97	<1	1.63	<10		3.58	985	1	0.17	15	700	3	2.63	2	13			44	0.22	<10	161	<10		76
Q014384	7.64	<1	1.58	<10		4.41	1265	1	0.22	12	740	2	2.28	5	15			48	0.22	<10	186	<10		89
Q014385	8.36	<1	1.91	<10		4.58	1390	1	0.31	14	770	2	2.38	3	18			88	0.24	<10	213	<10		95
Q014386	9.41	<1	1.99	<10		4.62	1420	1	0.31	14	740	5	3.65	3	20			122	0.26	<10	216	<10		95
Q014387	9.29	<1	1.78	<10		5.09	1480	<1	0.21	13	680	<2	3.05	4	19			75	0.23	<10	205	<10		106
Q014388	7.52	<1	1.86	<10		3.97	1210	1	0.19	11	740	5	2.71	2	16			78	0.22	<10	166	<10		82
Q014389	7.38	<1	1.60	<10		2.93	1300	1	0.19	7	730	9	3.35	4	13			86	0.17	<10	125	<10		82
Q014392	5.90	<1	1.47	<10		1.81	665	3	0.16	8	700	14	3.95	2	11			39	0.18	<10	114	<10		106
Q014393	8.01	<1	1.47	<10		1.93	758	4	0.11	6	720	9	6.84	5	9			23	0.18	<10	110	<10		92
Q014394	8.83	<1	1.25	<10		2.20	1010	3	0.10	7	690	8	7.18	3	9			18	0.17	<10	110	<10		86
Q014395	7.55	<1	1.26	<10		1.82	841	1	0.10	7	620	7	5.86	4	8			18	0.16	<10	98	<10		76
Q014396	7.46	<1	1.04	<10		3.57	1400	2	0.10	114	800	3	3.49	<2	14			20	0.16	<10	156	<10		93
Q014397	6.77	<1	1.38	<10		2.23	961	1	0.16	5	770	4	3.71	6	13			40	0.20	<10	162	<10		71
Q014398	6.35	<1	1.62	<10		2.63	1010	1	0.27	8	730	5	2.02	4	17			96	0.21	<10	207	<10		73
Q014399	3.03	<1	0.11	<10		3.98	663	<1	0.19	333	1270	14	0.52	29	3			205	0.08	<10	55	<10		74
Q014401	2.80	<1	0.05	<10		4.25	473	<1	0.12	374	1400	8	0.10	27	3			189	0.12	<10	58	<10		55
Q014402	2.73	<1	0.06	<10		4.59	446	1	0.17	383	1270	4	0.11	11	2			276	0.11	<10	56	<10		43
Q014403	8.11	<1	1.47	<10		3.50	996	1	0.39	17	720	7	2.43	5	21			333	0.21	<10	235	<10		76
Q014404	7.74	<1	1.20	<10		3.86	1000	1	0.24	164	880	6	3.15	6	16			103	0.22	<10	167	<10		81

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014405	434.50	436.00	1.5		0.007							<0.2	5.24	21	40	<0.5	3	1.38	<0.5	39	11	139
Q014406	436.00	437.50	1.5		0.023							0.2	5.24	45	30	<0.5	3	0.88	<0.5	52	17	216
Q014407	437.50	439.00	1.5		0.028							0.2	3.77	27	30	<0.5	<2	1.32	<0.5	33	12	434
Q014408	439.00	439.46	0.46		0.025							<0.2	4.25	41	30	<0.5	<2	1.37	<0.5	31	5	19
Q014409	439.46	440.13	0.67		0.055							0.2	3.12	42	10	<0.5	5	1.16	<0.5	58	13	57
Q014411	440.13	441.00	0.87		0.018							<0.2	4.37	28	10	<0.5	<2	1.36	<0.5	43	8	26
Q014412	441.00	442.50	1.5		0.018							<0.2	4.85	20	20	<0.5	<2	1.04	<0.5	43	9	46
Q014413	442.50	444.00	1.5		0.027							<0.2	3.42	25	30	<0.5	4	0.42	<0.5	33	6	52
Q014414	444.00	445.50	1.5		0.034							<0.2	3.39	50	20	<0.5	<2	0.66	<0.5	23	3	21
Q014415	445.50	447.00	1.5		0.040							<0.2	2.97	56	20	<0.5	2	0.49	<0.5	23	4	21
Q014416	447.00	448.50	1.5		0.024							<0.2	3.11	47	20	<0.5	<2	0.49	<0.5	23	5	116
Q014417	448.50	450.00	1.5		0.030							0.2	3.36	41	20	<0.5	<2	0.45	<0.5	31	4	198
Q014418	450.00	451.50	1.5		0.014							<0.2	4.51	24	30	<0.5	<2	0.51	<0.5	20	4	6
Q014419	451.50	453.00	1.5		0.015							<0.2	3.31	20	20	<0.5	<2	0.34	<0.5	25	5	20
Q014421	453.00	454.50	1.5		0.013							<0.2	3.26	19	30	<0.5	<2	0.26	<0.5	25	5	14
Q014422	454.50	456.00	1.5		0.020							<0.2	2.86	32	20	<0.5	2	0.25	<0.5	26	6	14
Q014423	456.00	457.50	1.5		0.035							<0.2	2.75	42	30	<0.5	4	0.30	<0.5	32	6	33
Q014424	457.50	459.00	1.5		0.014							<0.2	3.33	25	30	<0.5	<2	0.46	<0.5	32	10	235
Q014425	459.00	460.50	1.5		0.018							<0.2	2.82	19	60	<0.5	4	0.32	<0.5	27	5	38
Q014426	460.50	462.00	1.5		0.017							<0.2	3.02	22	30	<0.5	4	0.27	<0.5	29	6	32
Q014427	462.00	463.50	1.5		0.029							<0.2	2.70	29	20	<0.5	6	0.27	<0.5	25	5	15
Q014428	463.50	464.50	1		0.015							<0.2	3.31	14	30	<0.5	4	0.41	<0.5	22	6	8
Q014429	464.50	465.44	0.94		0.015							<0.2	3.25	17	30	<0.5	4	0.34	<0.5	20	5	8
Q014432	465.44	465.87	0.43		0.100							0.5	3.04	120	10	<0.5	21	0.27	<0.5	52	5	42
Q014433	465.87	467.00	1.13		0.025							0.2	3.74	23	30	<0.5	8	0.56	<0.5	32	5	15
Q014434	467.00	468.50	1.5		0.031							0.2	3.43	40	20	<0.5	8	0.32	<0.5	26	6	10
Q014435	468.50	469.10	0.6		0.033							0.3	3.86	56	20	<0.5	12	0.29	<0.5	44	5	11
Q014436	469.10	469.29	0.19		0.121							0.9	1.99	121	<10	<0.5	34	0.16	<0.5	81	4	42
Q014437	469.29	470.50	1.21		0.050							0.2	3.10	60	40	<0.5	11	0.24	<0.5	28	6	9
Q014438	470.50	472.00	1.5		0.050							0.2	3.06	44	20	<0.5	10	0.26	<0.5	31	7	16
Q014439	472.00	473.12	1.12		0.037							<0.2	2.56	40	30	<0.5	7	0.24	<0.5	27	8	16
Q014441	473.12	473.77	0.65		0.117							0.8	1.38	114	<10	<0.5	17	0.21	<0.5	39	7	17
Q014442	473.77	475.00	1.23		0.066							0.5	2.18	58	10	<0.5	16	0.23	<0.5	34	8	11
Q014443	475.00	476.50	1.5		0.018							<0.2	2.96	21	20	<0.5	5	0.27	<0.5	28	5	15
Q014444	476.50	478.00	1.5		0.020							<0.2	3.46	22	20	<0.5	<2	0.21	<0.5	22	6	18
Q014445	478.00	479.50	1.5		0.044							<0.2	3.00	24	20	<0.5	5	0.20	<0.5	27	5	8
Q014446	479.50	481.00	1.5		0.066							0.4	2.89	39	20	<0.5	8	0.17	<0.5	34	6	10
Q014447	481.00	482.50	1.5		0.075							0.6	2.63	59	20	<0.5	10	0.18	<0.5	35	4	10
Q014448	482.50	484.00	1.5		0.041							0.2	2.72	70	30	<0.5	4	0.36	<0.5	35	5	11
Q014449	484.00	485.50	1.5		0.013							<0.2	2.50	45	30	<0.5	3	0.29	<0.5	30	6	9
Q014451	485.50	487.00	1.5		0.017							<0.2	3.71	47	40	<0.5	5	0.31	<0.5	26	6	12
Q014452	487.00	488.50	1.5		0.014							<0.2	3.14	27	40	<0.5	4	0.29	<0.5	26	5	7
Q014453	488.50	490.10	1.6		0.032							<0.2	3.56	50	30	<0.5	6	0.16	<0.5	34	5	12
Q014454	490.10	491.38	1.28		0.054							0.2	3.35	89	30	<0.5	8	0.23	<0.5	40	5	19
Q014455	491.38	491.74	0.36		0.106							0.3	1.14	116	10	<0.5	9	0.27	<0.5	35	6	17
Q014456	491.74	491.95	0.21		0.067							0.4	0.52	61	10	<0.5	7	0.30	<0.5	58	5	14
Q014457	491.95	493.00	1.05		0.042							<0.2	0.59	31	30	<0.5	3	0.12	<0.5	7	7	11
Q014458	493.00	494.50	1.5		0.021							<0.2	1.25	17	20	<0.5	4	0.45	<0.5	4	6	5

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014405	8.76	<1	1.71	<10		2.91	1130	1	0.30	9	680	5	3.73	5	18			86	0.24	<10	180	<10		79
Q014406	10.30	<1	1.88	<10		3.36	1115	1	0.14	12	510	15	5.92	6	19			40	0.19	<10	180	<10		89
Q014407	7.29	<1	1.47	<10		1.70	750	1	0.21	15	570	13	4.50	4	12			43	0.19	<10	119	<10		72
Q014408	7.74	1	1.91	<10		1.84	826	3	0.25	8	680	17	4.98	3	15			37	0.28	<10	159	<10		83
Q014409	13.85	<1	1.30	<10		1.06	423	6	0.27	18	520	17	>10.00	5	11			29	0.16	<10	82	<10		59
Q014411	10.75	<1	1.79	<10		2.01	715	1	0.29	12	700	14	9.56	6	14			34	0.20	<10	137	<10		73
Q014412	8.98	<1	1.61	<10		3.30	1080	<1	0.11	14	700	41	5.44	4	14			29	0.21	<10	155	<10		108
Q014413	8.45	2	0.73	<10		2.74	941	1	0.03	10	640	3	5.73	4	10			20	0.11	<10	132	<10		73
Q014414	7.61	1	0.83	<10		2.94	850	<1	0.01	4	660	25	4.76	5	7			17	0.12	<10	94	<10		73
Q014415	7.34	<1	1.02	<10		2.08	567	<1	0.04	4	630	19	5.82	3	6			11	0.10	<10	84	<10		61
Q014416	7.93	<1	1.11	<10		2.28	601	<1	0.05	4	640	16	6.23	3	7			15	0.11	<10	90	<10		67
Q014417	8.51	<1	1.02	<10		2.50	665	<1	0.06	4	620	12	6.63	2	6			14	0.11	<10	86	<10		61
Q014418	9.09	1	0.66	<10		4.10	946	<1	0.03	5	1070	13	4.95	2	8			11	0.09	<10	106	<10		70
Q014419	9.63	1	0.76	<10		2.70	686	<1	0.03	5	700	10	7.84	<2	7			10	0.08	<10	91	<10		58
Q014421	8.26	<1	0.57	<10		3.03	749	<1	0.01	5	800	7	5.19	3	6			7	0.09	<10	78	<10		69
Q014422	8.30	1	0.56	<10		2.43	639	<1	0.02	5	590	8	6.36	2	5			6	0.07	<10	74	<10		52
Q014423	7.24	1	0.55	<10		2.27	591	1	0.03	8	720	7	5.12	3	5			7	0.07	<10	73	<10		45
Q014424	8.28	<1	0.66	<10		2.68	686	<1	0.05	10	990	6	5.48	<2	6			10	0.12	<10	87	<10		55
Q014425	5.44	1	0.82	<10		2.21	599	<1	0.05	6	670	5	3.00	<2	5			8	0.12	<10	75	<10		43
Q014426	8.62	<1	0.65	<10		2.48	645	<1	0.04	7	640	10	6.54	2	5			8	0.09	<10	70	<10		48
Q014427	7.82	<1	0.54	<10		2.18	599	3	0.03	6	500	5	5.98	<2	5			7	0.08	<10	71	<10		38
Q014428	7.48	<1	0.71	<10		2.55	734	<1	0.06	5	560	4	4.48	<2	6			9	0.11	<10	87	<10		44
Q014429	7.28	<1	0.83	<10		2.61	689	<1	0.06	4	500	5	4.38	<2	6			8	0.13	<10	86	<10		52
Q014432	20.80	<1	0.51	<10		2.34	688	4	0.04	6	230	20	>10.00	<2	7			6	0.06	<10	92	<10		82
Q014433	7.87	<1	1.11	<10		2.76	728	1	0.10	4	810	8	4.68	<2	8			13	0.16	<10	104	<10		57
Q014434	9.52	<1	0.68	<10		2.96	834	1	0.04	7	530	6	6.66	<2	6			6	0.11	<10	91	<10		54
Q014435	10.15	1	0.64	<10		3.33	896	2	0.05	10	570	8	6.91	<2	7			6	0.11	<10	97	<10		57
Q014436	25.90	<1	0.17	<10		1.57	550	1	0.02	8	240	22	>10.00	<2	4			3	0.03	<10	59	<10		30
Q014437	7.80	<1	0.60	<10		2.69	681	2	0.04	8	600	7	4.90	<2	5			5	0.09	<10	82	<10		43
Q014438	8.95	1	0.59	<10		2.48	619	2	0.04	8	580	6	6.78	3	6			6	0.08	<10	80	<10		41
Q014439	6.93	<1	0.64	<10		2.10	495	1	0.04	10	590	7	4.99	<2	5			6	0.09	<10	63	<10		39
Q014441	18.20	<1	0.44	<10		0.90	243	8	0.03	11	290	20	>10.00	<2	3			5	0.03	<10	38	<10		19
Q014442	10.25	<1	0.74	<10		1.56	387	6	0.04	10	640	14	>10.00	4	5			5	0.07	<10	61	<10		33
Q014443	8.49	1	0.71	<10		2.31	635	1	0.04	7	590	5	6.19	<2	6			6	0.11	<10	82	<10		39
Q014444	9.61	<1	0.54	<10		2.96	824	1	0.03	7	610	4	6.50	<2	6			4	0.09	<10	92	<10		49
Q014445	8.46	<1	0.67	<10		2.51	634	2	0.03	7	600	5	6.08	<2	6			5	0.10	<10	88	<10		42
Q014446	10.55	<1	0.64	<10		2.46	631	3	0.03	8	550	12	9.55	4	6			4	0.09	<10	89	<10		42
Q014447	8.94	1	0.96	<10		2.31	503	2	0.03	12	670	9	8.19	5	6			4	0.11	<10	91	<10		36
Q014448	7.03	<1	1.17	<10		2.09	558	2	0.09	10	790	6	5.36	6	8			13	0.13	<10	101	<10		40
Q014449	5.85	<1	0.88	<10		2.02	517	1	0.09	5	620	14	4.04	3	8			9	0.13	<10	101	<10		45
Q014451	7.13	<1	0.74	<10		3.18	853	3	0.08	6	780	29	3.68	4	9			9	0.12	<10	124	<10		63
Q014452	6.78	<1	0.68	<10		2.78	737	2	0.08	8	660	9	4.10	4	9			8	0.13	<10	124	<10		58
Q014453	9.92	1	0.45	<10		3.26	828	3	0.04	9	510	11	7.63	9	7			6	0.07	<10	112	<10		83
Q014454	11.70	<1	0.58	<10		3.07	767	6	0.04	11	720	14	>10.00	7	6			8	0.08	<10	91	<10		66
Q014455	15.50	<1	0.50	<10		0.50	184	4	0.05	6	350	15	>10.00	6	3			9	0.02	<10	28	<10		17
Q014456	24.70	<1	0.13	<10		0.12	78	4	0.05	1	20	18	>10.00	<2	1			8	<0.01	<10	9	<10		8
Q014457	4.12	<1	0.31	10		0.12	65	5	0.04	1	100	7	4.38	3	1			5	<0.01	<10	1	<10		10
Q014458	3.46	<1	0.44	10		0.38	206	3	0.13	1	100	9	3.54	3	2			29	0.01	<10	3	<10		13

Drill Hole Log - Assays

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014459	494.50	496.00	1.5		0.012							<0.2	1.47	11	60	<0.5	2	0.16	<0.5	2	7	6
Q014461	496.00	497.50	1.5		0.011							<0.2	1.28	9	90	<0.5	2	0.15	<0.5	1	6	6
Q014462	497.50	499.00	1.5		0.010							<0.2	1.25	11	60	<0.5	2	0.19	<0.5	4	5	3

Drill Hole Log - Assays

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014459	3.18	<1	0.63	10		0.97	349	2	0.06	1	100	7	2.41	4	2			9	0.02	<10	2	<10		27
Q014461	2.46	<1	0.54	10		0.88	329	2	0.06	1	110	2	1.79	5	2			8	0.02	<10	3	<10		20
Q014462	2.80	1	0.58	10		0.81	316	2	0.05	<1	110	3	2.26	2	2			9	0.02	<10	4	<10		21

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014182			WH13178965				ALS: ME-ICP41				10/18/201	
Q014183			WH13178965				ALS: ME-ICP41				10/18/201	
Q014184			WH13178965				ALS: ME-ICP41				10/18/201	
Q014185			WH13178965				ALS: ME-ICP41				10/18/201	
Q014186			WH13178965				ALS: ME-ICP41				10/18/201	
Q014187			WH13178965				ALS: ME-ICP41				10/18/201	
Q014188			WH13178965				ALS: ME-ICP41				10/18/201	
Q014189			WH13178965				ALS: ME-ICP41				10/18/201	
Q014191			WH13178965				ALS: ME-ICP41				10/18/201	
Q014192			WH13178965				ALS: ME-ICP41				10/18/201	
Q014193			WH13178965				ALS: ME-ICP41				10/18/201	
Q014194			WH13178965				ALS: ME-ICP41				10/18/201	
Q014195			WH13178965				ALS: ME-ICP41				10/18/201	
Q014196			WH13178965				ALS: ME-ICP41				10/18/201	
Q014197			WH13178965				ALS: ME-ICP41				10/18/201	
Q014198			WH13178965				ALS: ME-ICP41				10/18/201	
Q014199			WH13178965				ALS: ME-ICP41				10/18/201	
Q014202			WH13178965				ALS: ME-ICP41				10/18/201	
Q014203			WH13178965				ALS: ME-ICP41				10/18/201	
Q014204			WH13178965				ALS: ME-ICP41				10/18/201	
Q014205			WH13178965				ALS: ME-ICP41				10/18/201	
Q014206			WH13178965				ALS: ME-ICP41				10/18/201	
Q014207			WH13178965				ALS: ME-ICP41				10/18/201	
Q014208			WH13178965				ALS: ME-ICP41				10/18/201	
Q014209			WH13178965				ALS: ME-ICP41				10/18/201	
Q014211			WH13178965				ALS: ME-ICP41				10/18/201	
Q014212			WH13178965				ALS: ME-ICP41				10/18/201	
Q014213			WH13178965				ALS: ME-ICP41				10/18/201	
Q014214			WH13178965				ALS: ME-ICP41				10/18/201	
Q014215			WH13178965				ALS: ME-ICP41				10/18/201	
Q014216			WH13178965				ALS: ME-ICP41				10/18/201	
Q014217			WH13178965				ALS: ME-ICP41				10/18/201	
Q014218			WH13178965				ALS: ME-ICP41				10/18/201	
Q014219			WH13178965				ALS: ME-ICP41				10/18/201	
Q014222			WH13178965				ALS: ME-ICP41				10/18/201	
Q014223			WH13178965				ALS: ME-ICP41				10/18/201	
Q014224			WH13178965				ALS: ME-ICP41				10/18/201	
Q014225			WH13178965				ALS: ME-ICP41				10/18/201	
Q014226			WH13178965				ALS: ME-ICP41				10/18/201	
Q014227			WH13178965				ALS: ME-ICP41				10/18/201	
Q014228			WH13178965				ALS: ME-ICP41				10/18/201	
Q014229			WH13178965				ALS: ME-ICP41				10/18/201	
Q014231			WH13178965				ALS: ME-ICP41				10/18/201	
Q014232			WH13178965				ALS: ME-ICP41				10/18/201	
Q014233			WH13178965				ALS: ME-ICP41				10/18/201	
Q014234			WH13178965				ALS: ME-ICP41				10/18/201	
Q014235			WH13178965				ALS: ME-ICP41				10/18/201	
Q014236			WH13178965				ALS: ME-ICP41				10/18/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014237			WH13178965				ALS: ME-ICP41				10/18/201	
Q014238			WH13178965				ALS: ME-ICP41				10/18/201	
Q014239			WH13178965				ALS: ME-ICP41				10/18/201	
Q014242			WH13178965				ALS: ME-ICP41				10/18/201	
Q014243			WH13178965				ALS: ME-ICP41				10/18/201	
Q014244			WH13178965				ALS: ME-ICP41				10/18/201	
Q014245			WH13178965				ALS: ME-ICP41				10/18/201	
Q014246			WH13178965				ALS: ME-ICP41				10/18/201	
Q014247			WH13178965				ALS: ME-ICP41				10/18/201	
Q014248			WH13178965				ALS: ME-ICP41				10/18/201	
Q014249			WH13178965				ALS: ME-ICP41				10/18/201	
Q014251			WH13178965				ALS: ME-ICP41				10/18/201	
Q014252			WH13178965				ALS: ME-ICP41				10/18/201	
Q014253			WH13178965				ALS: ME-ICP41				10/18/201	
Q014254			WH13178965				ALS: ME-ICP41				10/18/201	
Q014255			WH13178965				ALS: ME-ICP41				10/18/201	
Q014256			WH13178965				ALS: ME-ICP41				10/18/201	
Q014257			WH13178965				ALS: ME-ICP41				10/18/201	
Q014258			WH13178965				ALS: ME-ICP41				10/18/201	
Q014259			WH13178965				ALS: ME-ICP41				10/18/201	
Q014262			WH13178965				ALS: ME-ICP41				10/18/201	
Q014263			WH13178965				ALS: ME-ICP41				10/18/201	
Q014264			WH13178965				ALS: ME-ICP41				10/18/201	
Q014265			WH13178965				ALS: ME-ICP41				10/18/201	
Q014266			WH13178965				ALS: ME-ICP41				10/18/201	
Q014267			WH13178965				ALS: ME-ICP41				10/18/201	
Q014268			WH13178965				ALS: ME-ICP41				10/18/201	
Q014269			WH13178965				ALS: ME-ICP41				10/18/201	
Q014271			WH13178965				ALS: ME-ICP41				10/18/201	
Q014272			WH13178965				ALS: ME-ICP41				10/18/201	
Q014273			WH13178965				ALS: ME-ICP41				10/18/201	
Q014274			WH13178965				ALS: ME-ICP41				10/18/201	
Q014275			WH13178965				ALS: ME-ICP41				10/18/201	
Q014276			WH13178965				ALS: ME-ICP41				10/18/201	
Q014277			WH13178965				ALS: ME-ICP41				10/18/201	
Q014278			WH13178965				ALS: ME-ICP41				10/18/201	
Q014279			WH13178965				ALS: ME-ICP41				10/18/201	
Q014281			WH13178965				ALS: ME-ICP41				10/18/201	
Q014282			WH13178965				ALS: ME-ICP41				10/18/201	
Q014283			WH13178965				ALS: ME-ICP41				10/18/201	
Q014284			WH13178965				ALS: ME-ICP41				10/18/201	
Q014285			WH13178965				ALS: ME-ICP41				10/18/201	
Q014286			WH13178965				ALS: ME-ICP41				10/18/201	
Q014287			WH13178965				ALS: ME-ICP41				10/18/201	
Q014288			WH13178965				ALS: ME-ICP41				10/18/201	
Q014289			WH13178965				ALS: ME-ICP41				10/18/201	
Q014292			WH13178965				ALS: ME-ICP41				10/18/201	
Q014293			WH13178965				ALS: ME-ICP41				10/18/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014294			WH13178965				ALS: ME-ICP41				10/18/201	
Q014295			WH13178965				ALS: ME-ICP41				10/18/201	
Q014296			WH13178965				ALS: ME-ICP41				10/18/201	
Q014297			WH13178965				ALS: ME-ICP41				10/18/201	
Q014298			WH13178965				ALS: ME-ICP41				10/18/201	
Q014299			WH13178965				ALS: ME-ICP41				10/18/201	
Q014301			WH13178965				ALS: ME-ICP41				10/18/201	
Q014302			WH13178965				ALS: ME-ICP41				10/18/201	
Q014303			WH13178965				ALS: ME-ICP41				10/18/201	
Q014304			WH13178965				ALS: ME-ICP41				10/18/201	
Q014305			WH13178965				ALS: ME-ICP41				10/18/201	
Q014306			WH13178965				ALS: ME-ICP41				10/18/201	
Q014307			WH13178965				ALS: ME-ICP41				10/18/201	
Q014308			WH13178965				ALS: ME-ICP41				10/18/201	
Q014309			WH13178965				ALS: ME-ICP41				10/18/201	
Q014312			WH13178965				ALS: ME-ICP41				10/18/201	
Q014313			WH13178965				ALS: ME-ICP41				10/18/201	
Q014314			WH13178965				ALS: ME-ICP41				10/18/201	
Q014315			WH13178965				ALS: ME-ICP41				10/18/201	
Q014316			WH13178965				ALS: ME-ICP41				10/18/201	
Q014317			WH13178965				ALS: ME-ICP41				10/18/201	
Q014318			WH13178965				ALS: ME-ICP41				10/18/201	
Q014319			WH13178965				ALS: ME-ICP41				10/18/201	
Q014322			WH13178965				ALS: ME-ICP41				10/18/201	
Q014323			WH13178965				ALS: ME-ICP41				10/18/201	
Q014324			WH13178965				ALS: ME-ICP41				10/18/201	
Q014325			WH13178965				ALS: ME-ICP41				10/18/201	
Q014326			WH13178965				ALS: ME-ICP41				10/18/201	
Q014327			WH13178965				ALS: ME-ICP41				10/18/201	
Q014328			WH13178965				ALS: ME-ICP41				10/18/201	
Q014329			WH13178965				ALS: ME-ICP41				10/18/201	
Q014331			WH13178965				ALS: ME-ICP41				10/18/201	
Q014332			WH13178965				ALS: ME-ICP41				10/18/201	
Q014333			WH13178965				ALS: ME-ICP41				10/18/201	
Q014334			WH13178965				ALS: ME-ICP41				10/18/201	
Q014335			WH13178965				ALS: ME-ICP41				10/18/201	
Q014336			WH13178965				ALS: ME-ICP41				10/18/201	
Q014337			WH13178965				ALS: ME-ICP41				10/18/201	
Q014338			WH13178965				ALS: ME-ICP41				10/18/201	
Q014339			WH13178965				ALS: ME-ICP41				10/18/201	
Q014341			WH13178965				ALS: ME-ICP41				10/18/201	
Q014342			WH13178965				ALS: ME-ICP41				10/18/201	
Q014343			WH13178965				ALS: ME-ICP41				10/18/201	
Q014344			WH13178965				ALS: ME-ICP41				10/18/201	
Q014345			WH13178965				ALS: ME-ICP41				10/18/201	
Q014346		WH13178965	WH13178965	WH13178965		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/18/201	10/18/201	10/18/201
Q014347			WH13178965				ALS: ME-ICP41				10/18/201	
Q014348			WH13178965				ALS: ME-ICP41				10/18/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014349			WH13178965				ALS: ME-ICP41				10/18/201	
Q014352			WH13178965				ALS: ME-ICP41				10/18/201	
Q014353			WH13178965				ALS: ME-ICP41				10/18/201	
Q014354			WH13178965				ALS: ME-ICP41				10/18/201	
Q014355			WH13178965				ALS: ME-ICP41				10/18/201	
Q014356			WH13178965				ALS: ME-ICP41				10/18/201	
Q014357			WH13178965				ALS: ME-ICP41				10/18/201	
Q014358			WH13178965				ALS: ME-ICP41				10/18/201	
Q014359			WH13178965				ALS: ME-ICP41				10/18/201	
Q014361			WH13178965				ALS: ME-ICP41				10/18/201	
Q014362			WH13178965				ALS: ME-ICP41				10/18/201	
Q014363			WH13178965				ALS: ME-ICP41				10/18/201	
Q014364			WH13178965				ALS: ME-ICP41				10/18/201	
Q014365			WH13178965				ALS: ME-ICP41				10/18/201	
Q014366			WH13178965				ALS: ME-ICP41				10/18/201	
Q014367			WH13178965				ALS: ME-ICP41				10/18/201	
Q014368			WH13178965				ALS: ME-ICP41				10/18/201	
Q014369			WH13178965				ALS: ME-ICP41				10/18/201	
Q014371			WH13178965				ALS: ME-ICP41				10/18/201	
Q014372			WH13178965				ALS: ME-ICP41				10/18/201	
Q014373			WH13178965				ALS: ME-ICP41				10/18/201	
Q014374		WH13178964	WH13178964	WH13178964		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/11/201	10/11/201	10/11/201
Q014375		WH13178964	WH13178964	WH13178964		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/11/201	10/11/201	10/11/201
Q014376		WH13178964	WH13178964	WH13178964		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/11/201	10/11/201	10/11/201
Q014377		WH13178964	WH13178964	WH13178964		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/11/201	10/11/201	10/11/201
Q014378		WH13178964	WH13178964	WH13178964		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		10/11/201	10/11/201	10/11/201
Q014379			WH13178965				ALS: ME-ICP41				10/18/201	
Q014381			WH13178965				ALS: ME-ICP41				10/18/201	
Q014382			WH13178965				ALS: ME-ICP41				10/18/201	
Q014383			WH13178965				ALS: ME-ICP41				10/18/201	
Q014384			WH13178965				ALS: ME-ICP41				10/18/201	
Q014385			WH13178965				ALS: ME-ICP41				10/18/201	
Q014386			WH13178965				ALS: ME-ICP41				10/18/201	
Q014387			WH13178965				ALS: ME-ICP41				10/18/201	
Q014388			WH13178965				ALS: ME-ICP41				10/18/201	
Q014389			WH13178965				ALS: ME-ICP41				10/18/201	
Q014392			WH13178965				ALS: ME-ICP41				10/18/201	
Q014393			WH13178965				ALS: ME-ICP41				10/18/201	
Q014394			WH13178965				ALS: ME-ICP41				10/18/201	
Q014395			WH13178965				ALS: ME-ICP41				10/18/201	
Q014396			WH13178965				ALS: ME-ICP41				10/18/201	
Q014397			WH13178965				ALS: ME-ICP41				10/18/201	
Q014398			WH13178965				ALS: ME-ICP41				10/18/201	
Q014399			WH13178965				ALS: ME-ICP41				10/18/201	
Q014401			WH13178965				ALS: ME-ICP41				10/18/201	
Q014402			WH13178965				ALS: ME-ICP41				10/18/201	
Q014403			WH13178965				ALS: ME-ICP41				10/18/201	
Q014404			WH13178965				ALS: ME-ICP41				10/18/201	

Sample No.	Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014405				WH13178965				ALS: ME-ICP41				10/18/201	
Q014406				WH13178965				ALS: ME-ICP41				10/18/201	
Q014407				WH13178965				ALS: ME-ICP41				10/18/201	
Q014408				WH13178965				ALS: ME-ICP41				10/18/201	
Q014409				WH13178965				ALS: ME-ICP41				10/18/201	
Q014411				WH13178965				ALS: ME-ICP41				10/18/201	
Q014412				WH13178965				ALS: ME-ICP41				10/18/201	
Q014413				WH13193615				ALS: ME-ICP41				11/18/201	
Q014414				WH13178965				ALS: ME-ICP41				10/18/201	
Q014415				WH13178965				ALS: ME-ICP41				10/18/201	
Q014416				WH13178965				ALS: ME-ICP41				10/18/201	
Q014417				WH13178965				ALS: ME-ICP41				10/18/201	
Q014418				WH13178965				ALS: ME-ICP41				10/18/201	
Q014419				WH13178965				ALS: ME-ICP41				10/18/201	
Q014421				WH13178965				ALS: ME-ICP41				10/18/201	
Q014422				WH13178965				ALS: ME-ICP41				10/18/201	
Q014423				WH13178965				ALS: ME-ICP41				10/18/201	
Q014424				WH13178965				ALS: ME-ICP41				10/18/201	
Q014425				WH13178965				ALS: ME-ICP41				10/18/201	
Q014426				WH13178965				ALS: ME-ICP41				10/18/201	
Q014427				WH13178965				ALS: ME-ICP41				10/18/201	
Q014428				WH13178965				ALS: ME-ICP41				10/18/201	
Q014429				WH13178965				ALS: ME-ICP41				10/18/201	
Q014432				WH13178965				ALS: ME-ICP41				10/18/201	
Q014433				WH13178965				ALS: ME-ICP41				10/18/201	
Q014434				WH13178965				ALS: ME-ICP41				10/18/201	
Q014435				WH13178965				ALS: ME-ICP41				10/18/201	
Q014436				WH13178965				ALS: ME-ICP41				10/18/201	
Q014437				WH13178965				ALS: ME-ICP41				10/18/201	
Q014438				WH13178965				ALS: ME-ICP41				10/18/201	
Q014439				WH13178965				ALS: ME-ICP41				10/18/201	
Q014441				WH13178965				ALS: ME-ICP41				10/18/201	
Q014442				WH13178965				ALS: ME-ICP41				10/18/201	
Q014443				WH13178965				ALS: ME-ICP41				10/18/201	
Q014444				WH13178965				ALS: ME-ICP41				10/18/201	
Q014445				WH13178965				ALS: ME-ICP41				10/18/201	
Q014446				WH13178965				ALS: ME-ICP41				10/18/201	
Q014447				WH13178965				ALS: ME-ICP41				10/18/201	
Q014448				WH13178965				ALS: ME-ICP41				10/18/201	
Q014449				WH13178965				ALS: ME-ICP41				10/18/201	
Q014451				WH13178965				ALS: ME-ICP41				10/18/201	
Q014452				WH13178965				ALS: ME-ICP41				10/18/201	
Q014453				WH13178965				ALS: ME-ICP41				10/18/201	
Q014454				WH13178965				ALS: ME-ICP41				10/18/201	
Q014455				WH13178965				ALS: ME-ICP41				10/18/201	
Q014456				WH13178965				ALS: ME-ICP41				10/18/201	
Q014457				WH13178965				ALS: ME-ICP41				10/18/201	
Q014458				WH13178965				ALS: ME-ICP41				10/18/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014459			WH13178965				ALS: ME-ICP41				10/18/201	
Q014461			WH13178965				ALS: ME-ICP41				10/18/201	
Q014462			WH13178965				ALS: ME-ICP41				10/18/201	

Dist (m)	Sa No.	Unit	Chemical Group	Alteration	Class By	Class Date	Lab	Year	Certificate	Method	Cert Date	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %
313.20	957101	0				1/1/2010			0 VAN13004665		1/1/2010	47.55	0.900	19.32	10.32

Dist (m)	Sa No.	MnO %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	Cr2O3 %	Ni ppm	Sc ppm	LOI %	C %	S %	Sum %	Ba ppm	Be ppm	Ce ppm	Co ppm	Cs ppm	Dy ppm	Er ppm	Eu ppm	Ga ppm
313.20	957101	0.30	7.81	1.90	1.03	5.54	0.120	0.003	<20.0	36	4.8	0.1	2.2	99.58	2635	<1	14.5	21.2	3.6	2.61	1.23	1.23	19.9

Dist (m)	Sa No.	Gd ppm	Hf ppm	Ho ppm	La ppm	Lu ppm	Nb ppm	Nd ppm	Pr ppm	Rb ppm	Sm pp	Sn ppm	Sr ppm	Ta ppm	Tb ppm	Th ppm	Th ppm	U ppm	V ppm	W ppm	Y ppm	Yb ppm	Zr ppm
313.20	957101	2.85	1.6	0.47	6.7	0.27	2.7	10.2	2.03	102.7	2.5	1	96.7	0.1	0.46	0.6	0.24	0.2	315	1.7	13.1	1.75	28.3

Drill Hole Log - Litho Geochem

Dist (m)	Sa No.	Ag ppm	As ppm	Au ppb	Bi ppm	Cd ppm	Cu ppm	Hg ppm	Mo pp	Ni ppm	Pb ppm	Sb ppm	Se ppm	Tl ppm	Zn ppm	Al/Ti	La/Yb	Zr/Al	Zr/Nb	Zr/Ti	Zr/Y	Comments
313.20	957101	<0.1	17.7	13.3	<0.1	<0.1	23	0.02	0.1	8.0	7	1.0	<0.5	0.3	134							Rhyolite

Drill Hole Log - Ez-Shot Survey

Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date	Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date
31.00	38.7	-47.3	5692	59.4	H Grimmage	9/19/2013							
61.00	39.3	-47.8	5688	60	H Grimmage	9/19/2013							
91.00	40.1	-48.3	5688	60.8	H Grimmage	9/18/2013							
121.00	41	-48.5	5697	61.7	H Grimmage	9/18/2013							
151.00	40.2	-47.9	5699	61	L Clarke	9/18/2013							
181.00	42.9	-48.1	5672	63.6	L Clarke	9/19/2013							
214.00	44.7	-48.3	5674	65.4	H Grimmage	9/19/2013							
244.00	44.6	-48.5	5678	65.3	H Grimmage	9/19/2013							
274.00	44.6	-48.9	5678	65.3	H Grimmage	9/20/2013							
307.00	45.7	-49.3	5661	66.4		6/21/2003							
337.00	46.9	-49.3	5624	67.6		6/21/2003							
397.00	48.9	-49.5	5633	69.6		6/21/2003							
430.00	49	-49.3	5635	69.7		6/21/2003							

Drill Hole Log - Rock Quality Determination

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
11.00	13.00	2	1.61	80.5	1.25	77.64	
13.00	16.00	3	2.97	99	2.61	87.88	
16.00	19.00	3	3.01	100.33	2.59	86.05	
19.00	22.00	3	2.98	99.33	2.79	93.62	
22.00	25.00	3	2.91	97	2.58	88.66	
25.00	28.00	3	2.99	99.67	2.79	93.31	
28.00	31.00	3	3.01	100.33	2.34	77.74	
31.00	34.00	3	2.94	98	1.67	56.8	
34.00	37.00	3	2.89	96.33	2.06	71.28	
37.00	40.00	3	2.88	96	1.96	68.06	
40.00	43.00	3	3	100	2.4	80	
43.00	46.00	3	2.98	99.33	2.67	89.6	
46.00	49.00	3	2.95	98.33	2.01	68.14	
49.00	52.00	3	2.96	98.67	2.37	80.07	
52.00	55.00	3	3.07	102.33	2.65	86.32	
55.00	58.00	3	2.98	99.33	2.83	94.97	
58.00	61.00	3	3.08	102.67	2.48	80.52	
61.00	64.00	3	3.01	100.33	2.75	91.36	
64.00	67.00	3	2.96	98.67	2.53	85.47	
67.00	70.00	3	3.04	101.33	2.81	92.43	
70.00	73.00	3	3.01	100.33	2.64	87.71	
73.00	76.00	3	2.95	98.33	2.84	96.27	
76.00	79.00	3	2.96	98.67	2.56	86.49	
79.00	82.00	3	3.01	100.33	2.51	83.39	
82.00	85.00	3	2.95	98.33	2.62	88.81	
85.00	88.00	3	3.05	101.67	2.81	92.13	
88.00	91.00	3	2.81	93.67	1.92	68.33	
91.00	94.00	3	3.02	100.67	2.76	91.39	
94.00	97.00	3	3.04	101.33	3.01	99.01	
97.00	100.00	3	2.83	94.33	2.07	73.14	
100.00	103.00	3	2.95	98.33	2.61	88.47	
103.00	106.00	3	2.91	97	1.89	64.95	
106.00	109.00	3	3	100	2.84	94.67	
109.00	112.00	3	2.98	99.33	2.57	86.24	
112.00	115.00	3	2.98	99.33	2.82	94.63	
115.00	118.00	3	2.94	98	2.56	87.07	
118.00	121.00	3	2.93	97.67	2.35	80.2	
121.00	124.00	3	2.99	99.67	2.61	87.29	
124.00	127.00	3	2.95	98.33	1.75	59.32	
127.00	130.00	3	2.92	97.33	1.99	68.15	
130.00	133.00	3	3	100	2.45	81.67	
133.00	136.00	3	3.03	101	2.22	73.27	
136.00	139.00	3	2.94	98	2.31	78.57	
139.00	142.00	3	3.01	100.33	2.88	95.68	
142.00	145.00	3	3	100	3	100	
145.00	148.00	3	3.01	100.33	2.81	93.36	
148.00	151.00	3	2.96	98.67	2.64	89.19	
151.00	154.00	3	2.76	92	2.51	90.94	
154.00	157.00	3	2.98	99.33	2.82	94.63	
157.00	160.00	3	3.01	100.33	2.7	89.7	
160.00	163.00	3	2.9	96.67	0.65	22.41	
163.00	166.00	3	3	100	1.2	40	
166.00	169.00	3	3.03	101	2.6	85.81	
169.00	172.00	3	3	100	2.5	83.33	
172.00	175.00	3	3	100	1.15	38.33	
175.00	178.00	3	2.5	83.33	1.22	48.8	
178.00	181.00	3	2.97	99	2.67	89.9	
181.00	184.00	3	2.98	99.33	2.74	91.95	
184.00	187.00	3	2.96	98.67	2.2	74.32	
187.00	190.00	3	2.95	98.33	2.73	92.54	
190.00	193.00	3	3	100	2.66	88.67	
193.00	196.00	3	3	100	2.48	82.67	
196.00	199.00	3	3	100	2.63	87.67	
199.00	202.00	3	3	100	2.98	99.33	
202.00	205.00	3	2.93	97.67	2.88	98.29	
205.00	208.00	3	3.05	101.67	2.3	75.41	
208.00	211.00	3	2.98	99.33	2.52	84.56	
211.00	214.00	3	2.93	97.67	2.03	69.28	
214.00	217.00	3	3.05	101.67	2.88	94.43	
217.00	220.00	3	3.04	101.33	2.77	91.12	
220.00	223.00	3	2.97	99	2.42	81.48	
223.00	226.00	3	2.99	99.67	2.67	89.3	
226.00	229.00	3	2.97	99	2.93	98.65	
229.00	232.00	3	3.03	101	3.03	100	
232.00	235.00	3	3	100	2.87	95.67	
235.00	238.00	3	3.07	102.33	2.66	86.64	
238.00	241.00	3	3	100	2.75	91.67	
241.00	244.00	3	2.96	98.67	2.6	87.84	
244.00	247.00	3	3.03	101	2.48	81.85	
247.00	250.00	3	3	100	3	100	
250.00	253.00	3	3.03	101	3.03	100	
253.00	256.00	3	3	100	3	100	
256.00	259.00	3	3	100	3	100	

Drill Hole Log - Rock Quality Determination

TC13064

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
259.00	262.00	3	3.04	101.33	3.04	100	
262.00	265.00	3	2.97	99	2.97	100	
265.00	268.00	3	2.95	98.33	2.95	100	
268.00	271.00	3	3.02	100.67	3.02	100	
271.00	274.00	3	3	100	3	100	
274.00	277.00	3	2.99	99.67	2.99	100	
277.00	280.00	3	2.95	98.33	2.93	99.32	
280.00	283.00	3	3.04	101.33	3.04	100	
283.00	286.00	3	3	100	2.96	98.67	
286.00	289.00	3	3	100	2.88	96	
289.00	292.00	3	2.98	99.33	2.96	99.33	
292.00	295.00	3	3.07	102.33	2.97	96.74	
295.00	298.00	3	2.96	98.67	2.96	100	
298.00	301.00	3	3.03	101	2.75	90.76	
301.00	304.00	3	2.97	99	2.83	95.29	
304.00	307.00	3	2.93	97.67	2.7	92.15	
307.00	310.00	3	2.99	99.67	2.85	95.32	
310.00	313.00	3	3.02	100.67	3.02	100	
313.00	316.00	3	2.95	98.33	2.87	97.29	
316.00	319.00	3	3.03	101	2.8	92.41	
319.00	322.00	3	2.93	97.67	2.2	75.09	
322.00	325.00	3	2.97	99	2.9	97.64	
325.00	328.00	3	3.03	101	3.03	100	
328.00	331.00	3	3	100	3	100	
331.00	334.00	3	2.97	99	2.7	90.91	
334.00	337.00	3	3.03	101	3.03	100	
337.00	340.00	3	3.02	100.67	2.94	97.35	
340.00	343.00	3	2.96	98.67	2.77	93.58	
343.00	346.00	3	2.99	99.67	2.99	100	
346.00	349.00	3	3.02	100.67	3.02	100	
349.00	352.00	3	2.95	98.33	2.95	100	
352.00	355.00	3	3.11	103.67	2.99	96.14	
355.00	358.00	3	3.02	100.67	3.02	100	
358.00	361.00	3	3.05	101.67	3.05	100	
361.00	364.00	3	2.9	96.67	2.9	100	
364.00	367.00	3	2.98	99.33	2.77	92.95	
367.00	370.00	3	3	100	2.94	98	
370.00	373.00	3	2.97	99	2.5	84.18	
373.00	376.00	3	3.02	100.67	2.89	95.7	
376.00	379.00	3	3.03	101	2.91	96.04	
379.00	382.00	3	3.02	100.67	2.92	96.69	
382.00	385.00	3	3.04	101.33	2.7	88.82	
385.00	388.00	3	3.03	101	2.61	86.14	
388.00	391.00	3	3.03	101	2.72	89.77	
391.00	394.00	3	2.97	99	2.92	98.32	
394.00	397.00	3	3	100	2.73	91	
397.00	400.00	3	3.04	101.33	3.04	100	
400.00	403.00	3	2.96	98.67	2.86	96.62	
403.00	406.00	3	2.97	99	2.97	100	
406.00	409.00	3	2.96	98.67	2.9	97.97	
409.00	412.00	3	3.07	102.33	2.92	95.11	
412.00	415.00	3	3.07	102.33	3.07	100	
415.00	418.00	3	3	100	2.73	91	
418.00	421.00	3	3.04	101.33	3	98.68	
421.00	424.00	3	3	100	2.94	98	
424.00	427.00	3	2.94	98	2.94	100	
427.00	430.00	3	3.02	100.67	2.76	91.39	
430.00	433.00	3	2.98	99.33	2.96	99.33	
433.00	436.00	3	3.03	101	3.02	99.67	
436.00	439.00	3	2.92	97.33	2.92	100	
439.00	442.00	3	3.07	102.33	3.05	99.35	
442.00	445.00	3	2.88	96	1.48	51.39	
445.00	448.00	3	3.11	103.67	3.05	98.07	
448.00	451.00	3	2.98	99.33	2.86	95.97	
451.00	454.00	3	3.03	101	2.8	92.41	
454.00	457.00	3	3	100	3	100	
457.00	460.00	3	3	100	3	100	
460.00	463.00	3	2.92	97.33	2.92	100	
463.00	466.00	3	3.06	102	3.06	100	
466.00	469.00	3	3.1	103.33	2.84	91.61	
469.00	472.00	3	3.07	102.33	3.07	100	
472.00	475.00	3	2.99	99.67	2.99	100	
475.00	478.00	3	2.94	98	2.84	96.6	
478.00	481.00	3	3.04	101.33	3.04	100	
481.00	484.00	3	3	100	3	100	
484.00	487.00	3	3	100	3	100	
487.00	490.00	3	3.07	102.33	3.07	100	
490.00	493.00	3	3.08	102.67	3.08	100	
493.00	496.00	3	2.96	98.67	2.96	100	
496.00	499.00	3	3.03	101	2.97	98.02	

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
18.60		j										70					5/22/2011	
18.70		j										40					5/22/2011	
22.00		j										35					5/22/2011	
27.00		j										55					5/22/2011	
28.00		j										40					5/22/2011	
28.97		cont			102.85	60.70	192.85			59.40	-47.50	50	280				5/22/2011	
34.50		j										60					5/22/2011	
42.00		j										30					5/22/2011	
44.20		j										65					5/22/2011	
46.30		j										70					5/22/2011	
51.30		j										45					5/22/2011	
57.00		j										45					5/22/2011	
61.00		j										30					5/22/2011	
62.20		j										45					5/22/2011	
69.15		cont										30					5/22/2011	
69.55		cont										20					5/22/2011	
70.70		j										50					5/22/2011	
88.10		j										50					5/22/2011	
88.20		j										30					5/22/2011	
90.90		cont			7.26	32.64	97.26			60.70	-48.40	20	200				5/22/2011	
92.50		j										45					5/22/2011	
115.65		j										40					5/22/2011	
117.60		j										65					5/22/2011	
117.90		j										20					5/22/2011	
133.60		j										20					5/22/2011	
134.90		j										40					5/22/2011	
136.10		cont			103.96	35.55	193.96			62.10	-48.40	60	240				5/22/2011	
140.00		S0			114.73	53.68	204.73			62.40	-48.60	60	280				5/22/2011	
143.00		j										20					5/22/2011	
144.30		S0			110.13	56.95	200.13			62.50	-48.30	55	280				5/22/2011	
155.72		cont			333.00	13.09	63.00			63.00	-48.10	35	180				5/22/2011	
156.65		S0			116.44	69.17	206.44			63.00	-48.10	50	300				5/22/2011	
177.80		goug	ank									60					5/22/2011	
178.20		faul	ank									60					5/22/2011	
178.60		faul	ank									60					5/22/2011	
182.44		cont			58.77	26.18	148.77			64.10	-48.30	40	215				5/22/2011	
183.60		j										55					5/22/2011	
188.30		cont			114.78	35.11	204.78			64.30	-48.40	65	240				5/22/2011	
189.75		cont			176.84	87.69	266.84			64.30	-48.40	40	30				5/22/2011	
198.00		j										45					5/22/2011	
203.50		j										60					5/22/2011	
206.24		cont			94.29	43.94	184.29			64.80	-48.60	50	250				5/22/2011	
207.00		faul										40					5/22/2011	
210.00		S1			108.49	40.36	198.49			65.00	-48.50	60	250				5/22/2011	
215.45		j										60					5/22/2011	
215.70		j										40					5/22/2011	
227.00		j										45					5/22/2011	
233.80		j										40					5/22/2011	

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
235.85		j										60					5/22/2011	
236.82		faul										65					5/22/2011	fault breccia 236.82-237.02m
237.02		faul										60					5/22/2011	
239.23		faul			107.64	35.35	197.64			66.10	-48.70	60	240				5/22/2011	
243.50		j										30					5/22/2011	
246.64		j										70					5/22/2011	
251.00		j										30					5/22/2011	
255.25		j										65					5/22/2011	
255.90		vn	ca		124.92	89.04	214.92			66.70	-48.70	35	320				5/22/2011	
258.46		vn	ca		324.50	84.66	54.50			66.80	-48.60	35	345				5/22/2011	
263.55		j										60					5/22/2011	
272.70		faul			157.20	21.29	247.20			67.20	-48.70	70	180				5/22/2011	
274.30		faul			133.90	12.68	223.90			67.20	-48.70	60	190				5/22/2011	
274.31		vn	ca									40					5/22/2011	
284.15		j										35					5/22/2011	
285.90		j										60					5/22/2011	
294.38		j										60					5/22/2011	
299.05		j										60					5/22/2011	
303.70		j										20					5/22/2011	
309.30		j										20					5/22/2011	
313.56		j										70					5/22/2011	
317.86		j										60					5/22/2011	
319.80		j										30					5/22/2011	
324.66		j										60					5/22/2011	
327.65		j										30					5/22/2011	
333.06		j										50					5/22/2011	
335.35		j										25					5/22/2011	
340.66		fol			81.14	33.60	171.14			69.30	-49.50	45	230				5/22/2011	
340.70		vn	cp		81.14	33.60	171.14			69.30	-49.50	45	230				5/22/2011	
341.00		vn	ca		75.44	68.52	165.44			69.40	-49.50	20	260				5/22/2011	
342.60		j										50					5/22/2011	
351.80		j										40					5/22/2011	
355.14		j										55					5/22/2011	
356.00		vn			100.52	76.42	190.52			69.90	-49.50	30	285				5/22/2011	
361.18		j										70					5/22/2011	
365.09		vn	py		120.24	50.85	210.24			70.20	-49.60	60	275				5/22/2011	
370.20		j										50					5/22/2011	
371.46		goug										70					5/22/2011	371.46-371.60m
379.10		j										35					5/22/2011	
383.37		j										60					5/22/2011	
384.45		j										60					5/22/2011	
389.66		cont			124.34	80.19	214.34			70.90	-49.60	40	310				5/22/2011	
394.31		j										45					5/22/2011	
395.45		vn										45					5/22/2011	ca+qt vn from 395.45-395.60m (true
399.17		str	cp		301.33	84.71	31.33			71.40	-49.70	25	315				5/22/2011	cp+py stringer zone
402.85		j										50					5/22/2011	
407.10		j										65					5/22/2011	
411.78		j										25					5/22/2011	

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
416.80		j										40					5/22/2011	
420.12		j										40					5/22/2011	
423.90		j										40					5/22/2011	
428.00		cont			114.97	51.26	204.97			72.30	-49.80	55	270				5/22/2011	
432.12		cont			102.66	54.55	192.66			72.50	-49.80	45	265				5/22/2011	
439.10		fol			139.06	37.35	229.06			72.70	-49.80	75	250				5/22/2011	could be bedding
442.15		fol			149.23	57.43	239.23			72.70	-49.90	70	325				5/22/2011	could be bedding
442.75		j										60					5/22/2011	
448.10		vn	ca									30					5/22/2011	
449.85		j										40					5/22/2011	
455.40		str	py		112.05	27.04	202.05			73.10	-50.00	60	225				5/22/2011	
461.79		fol			136.46	25.76	226.46			73.30	-50.10	70	215				5/22/2011	could be bedding
467.25		vn										50					5/22/2011	
473.53		fol			158.19	70.00	248.19			73.50	-49.70	60	350				5/22/2011	
483.11		j										40					5/22/2011	
483.80		fol			142.74	65.06	232.74			73.50	-50.30	60	320				5/22/2011	could be bedding
487.46		j										60					5/22/2011	
491.38		cont			247.21	12.78	337.21			73.60	-50.30	50	160				5/22/2011	
493.28		fol			247.00	39.17	337.00			73.60	-50.30	40	125				5/22/2011	could be bedding
494.75		j										20					5/22/2011	

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
0.00	136.10	dis		0										more or less disseminated throughout, as minor fracture coatings in places
136.10	158.10	dis		0										more or less disseminated throughout
158.10	168.96	dis		0										more or less disseminated throughout
168.96	171.30	dis		0										more or less disseminated throughout
171.30	178.83	dis	ff	0										more or less disseminated throughout
178.83	181.36	ff	dis	1										
181.36	181.53	ff		1										
181.53	182.44	bl		0.3										
182.44	184.95	ff	bl	1										
184.95	187.00	ff	bl	1										
187.00	188.30	ff	bl	4										
188.30	189.75	ff	bl	0.3										
189.75	190.20	ff		2										
190.20	194.60	sec		0.3										
194.60	195.79	ff	sec	3										
195.79	197.10	sec		0.5										
197.10	201.33	ff	sec	1										
201.33	206.24	dis		0.3										
206.24	211.19	net	dis	2										
211.19	211.64	sm		40	2		1							
211.64	212.44	net	dis	2										
212.44	215.09	dis		1										
215.09	216.28	net		3										
216.28	218.10	dis		1										mt 0.5%
218.10	219.02	net		4										
219.02	219.70	dis		3										
219.70	222.20	net	ff	4										
222.20	223.30	dis		1										
223.30	223.40	pat		0.5										hm+mt 4%
223.40	238.44	sec		1										mt 0.5%
238.44	258.19	sec		1										
258.19	258.46	ws	sec	2	4									
258.46	274.00	sec		1										
274.00	276.30	ff	sec	3										
276.30	290.66	ff	sec	2										
290.66	305.40	dis	sec	2										
305.40	326.52	dis	sec	10										
326.52	335.20	dis	sec	10										1% mt
335.20	339.41	dis	sec	10										
339.41	339.67	dis	sec	20										
339.67	340.40	dis	sec	10										
340.40	340.88	dis	str	10	3									
340.88	343.97	dis	str	10	0.8									
343.97	345.06	dis	sec	10										
345.06	346.79	dis	sec	10										
346.79	348.22	dis	ws	10	0.5									
348.22	354.90	dis	sec	10										
354.90	356.02	dis	ws	10	0.3									

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
356.02	356.16	vn	sec	30	0.3									
356.16	364.67	dis	sec	10	0.1									
364.67	364.96	sm	ws	40	1									
364.96	365.09	dis	sec	15										
365.09	365.26	mx		85	1									
365.26	377.05	dis	ws	10										sec, eu
377.05	378.69	dis	ws	10										
378.69	389.66	dis	ws	10										sec, eu
395.60	396.39	ws	str	1							2			
398.95	399.17	ws		15										
399.17	399.62	str	eu	40	20									
399.62	417.00	ws	dis	15	0.3									
417.00	439.46	ws	dis	15	0.5									
439.46	440.13	ws	bed	25	0.5									
440.13	465.44	ws	dis	15	0.5									
465.44	465.87	sm	sec	30										
465.87	469.10	ws	dis	15	0.5									
469.10	469.29	sm		40										
469.29	473.12	ws	dis	15	0.5									
473.12	473.77	str	dis	30	0.5									
473.77	490.10	amyg	dis	15	0.5									
490.10	491.38	amyg	dis	20	0.3									
491.38	491.74	bx	dis	20										
491.74	491.95	sm		40										
491.95	499.00	dis	ws	5										

Drill Hole Log - Alteration

From	To (m)	Style 1	Style 2	Sil	Ser	% Py	Chl	Epi	Alb	Carb	Hem	Mar	Bio	Other Type 1	Oth1	Other Type 2	Oth2	Remarks
11.00	26.80	vn	frac					1		4								
26.80	28.97	vn	frac					1		7								
28.97	29.27	vn								7	2			li	0			
29.27	36.97	vn	frac					1		7								
36.97	39.17	mot	pat					5		5								
39.17	43.25	vn	frac					1		5								
43.25	43.43	frac		4				4		4								
43.43	52.85	vn	frac					1		2								
52.85	53.70	vn		2			1	2		4				li	2			rusty oxidation, possibly ank
53.70	66.80	vn	frac					0.5		1								
66.80	68.00	net				0.5		1		1								
68.00	69.15	vn	frac							2								
69.15	69.55	vn		3			2	3		5								
69.55	84.00	vn	frac							3								
84.00	90.90	vn	frac	1			1	1		5								
90.90	91.15	frac	vn	3			3			10				ank	15			
95.05	95.30	pat	vn	3		0.1		4		1								
95.30	99.70	vn	frac	1		0.5		2		1								
99.70	136.10	vn	frac	2			2	1		6								black ch increasing w/ depth, py
136.10	145.40	per		2		0.1	1	1		1								
145.40	152.70	per		4		0.1	2	4		2								
155.72	158.10	per		4		0.1	2	4		2								
158.10	168.96	vn	per	1			1	2		2								
168.96	171.30	vn	per	1				1		1								pervasive ep, vein ca+qt
171.30	177.80	frac	per	3		0.5	2	2		2								
177.80	178.83	frac		4		1	2			10				ank	15			
178.83	181.36	per					2	1					1					
181.36	181.53	frac	vn	2		2	2	1		15			2					
181.53	182.44	per	frac	2			2	1		2			2					fracture controlled ca
182.44	184.95	per	frac	1		2	2	5		2			2					fracture controlled ca
184.95	188.30	per	frac	2		3	3	5		2			3					fracture controlled ca+ch
188.30	189.75	per	frac	1			1	5		1								fracture controlled ca
189.75	192.20	per	frac	2		2	3	3		3			3					fracture controlled ca
192.20	195.79	per	frac	1		2	4	4		6		1	4	jasper	1			ca+qt+mar veining, jasper frags
195.79	197.10	per	frac			1		4		3				jasper	3			jasper frags at upper contact
197.10	199.17	per	frac			1	4	5		3			4	jasper	0			
199.17	199.54	per	frac			1	5	10		5				jasper	2			
199.54	201.33	per	frac			2	4	3		3			4					
206.24	212.44	per	frac			2	8	1		2			4					
212.44	238.44	frac	spot					1		2								
238.44	247.00	per		2		1	1			2		0.5	1					
247.00	290.66	per		2		1	2			2			2					
290.66	298.78	per		2		1	1			1			1					
298.78	300.76	vn		4		8	10			10		4	10					
300.76	305.40	per		2		1	1			1			1					
305.40	335.20	per				10	15						10	jasp	3			up to 5% jasper from 326.52-33
335.20	339.41	per	pat	5		10	10			3			5	jasp	3			
339.41	345.06	per		5		10	15			3			10					

Note : Alteration Intensity numerically ranked (1-10)

Drill Hole Log - Alteration

From	To (m)	Style 1	Style 2	Sil	Ser	% Py	Chl	Epi	Alb	Carb	Hem	Mar	Bio	Other Type 1	Oth1	Other Type 2	Oth2	Remarks
345.06	349.12	per	spot	10		10	5	5		3			5					
349.12	364.67	pat	per	10		10	5	10		3			5					
365.26	377.05	pat	per	10		10	10	10		4			5					
377.05	378.69	per	pat	10		10	15			10								
378.69	389.66	pat	per	10		10	10	15		6			5					ep+ca infilling amygdules
389.66	398.95	per					20			2			10					
398.95	417.00	per	spot	10		10	10	15		4			5					ep+ca infilling amygdules
417.00	491.38	per	spot	15		10	15	5		5			5					
491.38	499.00	per		10	10	5	5			2		1	1					

Note : Alteration Intensity numerically ranked (1-10)

Drill Hole Log - Texture

From	To (m)	Grain mm	% Matrix	Texture	Remarks
11.00	26.80			mas	homogeneous
26.80	36.97			mas	homogenous w/ more intense carb veining
36.97	39.17			mot	patchy mottled texture of varying intensities of ep alteration
39.17	43.25			mas	homogenous w/ more intense carb veining
43.25	43.43			frac	brecciated fracture controlled alteration (ep+qt+ca)
43.43	136.10			mas	homogeneous
136.10	140.60			bed	possibly flow bedding or ash layers
140.60	158.10			hylo	frothy/pumaceous and lithic fragments up to 4cm
158.10	161.16			mas	
161.70	168.96			band	weak to moderate flow banding
168.96	171.30		75	por	fs phenocrysts
171.30	178.83			band	strongly altered flow banding
178.83	181.36		70	por/amyg	fs pheno, infilled amygdules
181.36	181.53			band	flow banding
181.53	182.44			por	
182.44	184.95		70	por/amyg	fs pheno, infilled amygdules
184.95	188.30		70	por	fs pheno
189.75	201.33			hyal	minor patches of up to 10% fs phenos
201.33	206.24			mas	
206.24	212.44			hyal	
212.44	238.44		65	amyg	
238.44	290.66			hyal	breccia
290.66	305.40			flbx	flow top breccia to massive
305.40	335.20			mas	
335.20	345.06			frag	
345.06	364.67		70	amyg	
365.26	389.66		60	amyg	
389.66	398.95	2		mas	
398.95	417.00		75	amyg	amygdaloidal
417.00	491.38		70	amyg	amygdaloidal, flow brecciated
491.38	499.00			mas	possible flow bx

Drill Hole Log - Tulsequah Chief 2013

TC13065

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
TC13065	10527.41	14881.32	332.20	600	299.5	-72

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
9/28/2013	10/10/2013	NQ	Atlas Drilling	10/11/2013	A. Forsyth

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
2013 APS Survey	CT/AF/BA	10/29/2013	2013 APS Survey	CT/AF/BA	10/29/2013

Purpose:

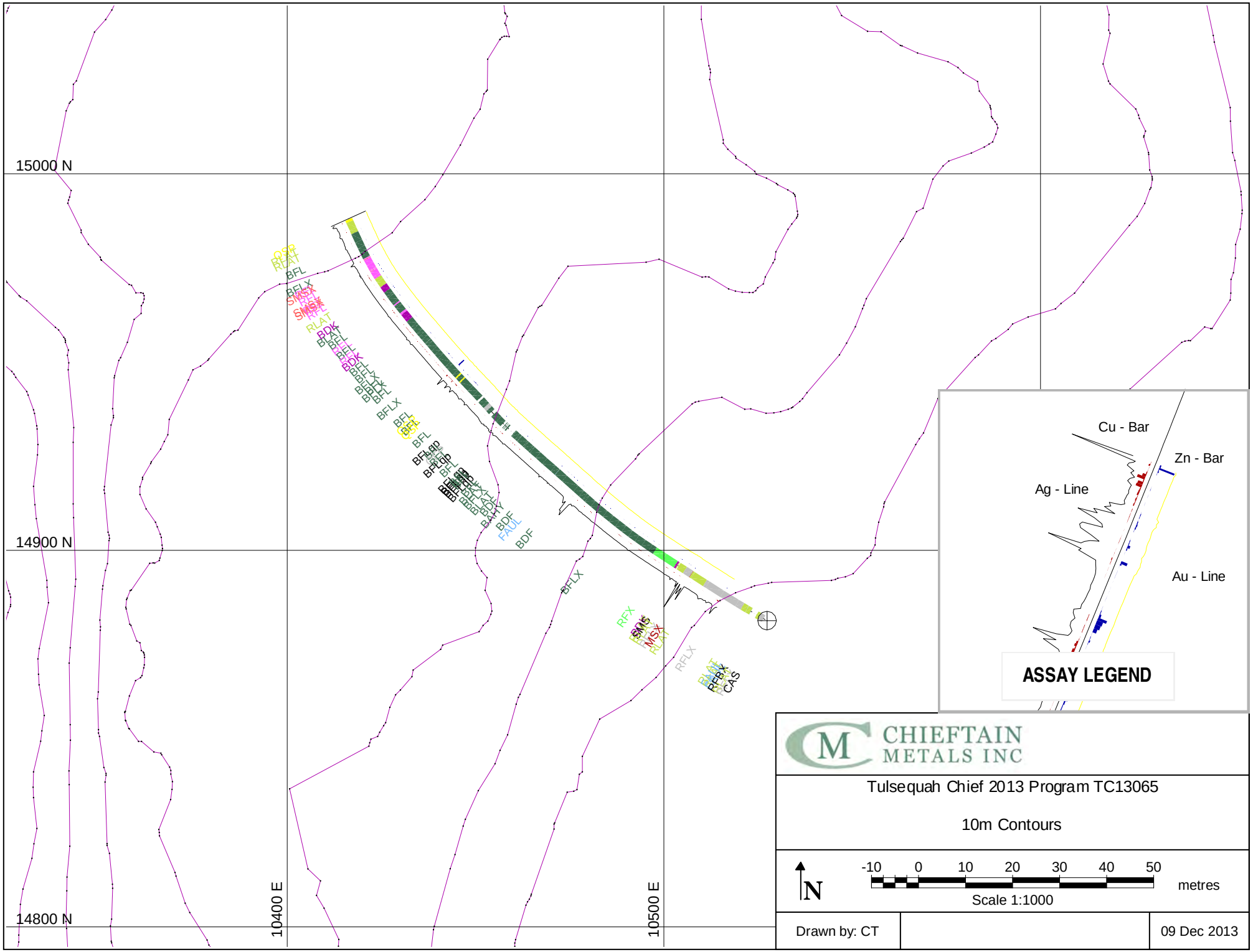
To test for IP anomaly immediately south of the 5200 level drift with extensive modeled rhyolite.

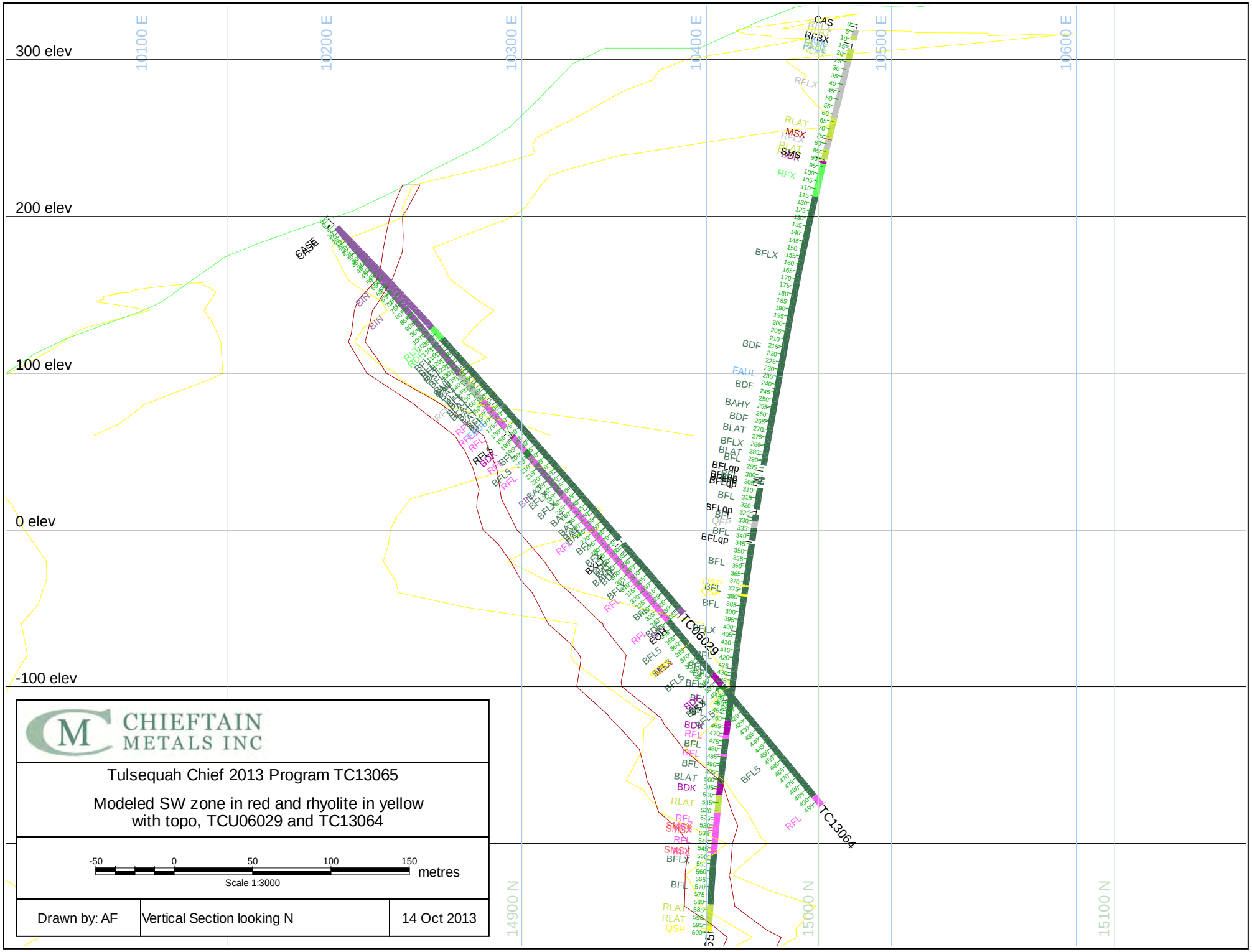
Summary:

The hole was drilled to a depth of 599.31m intending to go deeper, however, the rod string was lost with 3m of core.
Hole encountered sequences of moderately to strongly chlorite altered basalt and rhyolite hyaloclastic flows and tuffs. The hole is dominated by distinct FW style mafic amygdaloidal flows and flow breccias. Rhyolitic units begin to appear at 510.10m. Two QSP units with pyrite, chalcopyrite, trace sphalerite and galena were encountered at 372.10-373.51m and 378.09-379.68m. Semi-massive pyrite from 531.26-351.67m and 546.71-547.57m. The hole ended in QSP at 596.21-599.31m.

Significant Intercepts:

Hole-ID	From (m)	To (m)	Length (m)	True Width (m)	Zone	Lith	Au gpt	Ag gpt	Cu %	Pb %	Zn %	As ppm	SG g/cm3	$US Eq/t SRK12	$NSR/t JDS12	News Release Date
TC13065	372.1	388.04	15.94	0		QSP	0.08	0.8	0.12	0.06	0.19	38	2.74	15.36	14.16	11/20/2013
plus	386.77	388.04	1.27	0		QSP	0.21	4	0.42	0.56	1.92	100	3.13	82.63	69.82	11/20/2013


15000 N
14900 N
14800 N
10400 E
10500 E
Cu - Bar
Zn - Bar
Ag - Line
Au - Line
ASSAY LEGEND
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13065
10m Contours
N
-10 0 10 20 30 40 50
metres
Scale 1:1000
Drawn by: CT
09 Dec 2013



CHIEFTAIN METALS INC

Tulsequah Chief 2013 Program TC13065

Modeled SW zone in red and rhyolite in yellow with topo, TCU06029 and TC13064

-50 0 50 100 150 metres

Scale 1:3000

Drawn by: AF	Vertical Section looking N	14 Oct 2013

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments	Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	299.5	-72	2013 APS Survey	CT/AF	10/29/2013								
60.00	302.8	-72.1	EZSHOT		9/29/2013								
90.00	302.6	-72.5	EZSHOT		4/26/2011								
120.00	303.5	-72.8	EZSHOT		4/26/2011								
150.00	307.8	-73.4	EZSHOT		4/26/2011								
210.00	312.1	-74.4	EZSHOT		4/26/2011								
240.00	311.3	-74.6	EZSHOT		4/26/2011								
270.00	311.8	-74.6	EZSHOT		4/26/2011								
300.00	312.2	-75.3	EZSHOT		4/26/2011								
330.00	318.9	-75.7	EZSHOT		4/26/2011								
360.00	316	-75.9	EZSHOT		4/26/2011								
408.00	319.1	-75.8	EZSHOT		4/26/2011								
450.00	319.7	-76.4	EZSHOT		4/26/2011								
480.00	322	-76.3	EZSHOT		4/26/2011								
510.00	324.9	-77	EZSHOT		4/26/2011								
540.00	331.1	-77	EZSHOT		4/26/2011								
570.00	335.5	-77.3	EZSHOT		4/26/2011								

From	To (m)	
0.00	3.50	CAS
3.50	7.70	Rhyolite Flow Breccias: Hyaloclastic hyaloclastic rhyolite flow unit; distinctive light tan-grey monolithic clast dominated unsorted breccia, up to 5% disseminated secondary py, weak sericite alteration
7.70	10.37	Rhyolite Lapilli and Ash Tuff: Breccia, Undivided fairly massive rhyolite unit, medium grey w/ up to 8% jasper fragments, up to 8% disseminated secondary py, moderate silica and weak biotite alteration
10.37	16.00	RFBX hyaloclastic rhyolite flow unit; distinctive light tan-grey monolithic clast dominated unsorted breccia, up to 10% disseminated secondary py, weak sericite and biotite alteration, moderate silica, <5% jasper
16.00	16.15	Fault brecciated and gouged, 30tca
16.15	19.84	Rhyolite Lapilli and Ash Tuff fairly massive rhyolite unit, light grey, up to 2% disseminated secondary py, moderate silica and weak biotite alteration, possible false bedding
19.84	20.08	Fault intense silica+albite fault breccia w/ up to 3% py
20.08	24.48	Rhyolite Lapilli and Ash Tuff fairly massive rhyolite unit, light grey, up to 2% disseminated secondary py, moderate silica and weak biotite alteration, possible false bedding, moderate silica+albite veining
24.48	62.62	Rhyolite Flow Breccias: Hyaloclastic hyaloclastic rhyolite flow unit; distinctive light tan-grey unsorted monolithic breccia, up to 10% disseminated secondary py, moderate sericite and biotite alteration, moderate silica, >5% jasper from 26.78-47.49m, si+ab reaction rims around clasts from 31.00-40.40m, up to 3% cp associated w/ jasp+si+ab "fragments" from 43.51-44.94m, py ff along tension gashes? 39.11 39.25 Fault sheared rhy, 30tca

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
42.00	43.51	1.51	Q014496	0.01	<0.2	0.004	0	0.002
43.51	44.20	0.69	Q014497	0.03	0.6	0.11	0	0.002
44.20	44.94	0.74	Q014498	0.02	1.8	0.425	0.001	0.002
44.94	46.00	1.06	Q014499	0.04	5.1	0.216	0.002	0.011
46.00	47.49	1.49	Q014501	0.02	1.1	0.026	0.001	0.002
47.49	49.00	1.51	Q014502	0.02	<0.2	0.003	0	0.001
49.00	50.50	1.5	Q014503	0.05	0.2	0.001	0.001	0.002
50.50	52.00	1.5	Q014504	0.03	<0.2	0.002	0.001	0.001
52.00	53.50	1.5	Q014505	0.07	1.2	0.001	0.001	0.001

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			53.50	55.00	1.5	Q014506	0.05	0.4	0.001	0.001	0.001
			55.00	56.50	1.5	Q014507	0.05	0.9	0.001	0.001	0.001
			56.50	58.00	1.5	Q014508	0.04	0.7	0.001	0.001	0.001
			58.00	59.50	1.5	Q014509	0.06	1.0	0.002	0.002	0.004
			59.50	61.03	1.53	Q014511	0.08	1.8	0.002	0.005	0.002
			61.03	62.62	1.59	Q014512	0.04	0.7	0.001	0.002	0.001
62.62	76.66	Rhyolite Lapilli and Ash Tuff									
		fairly massive rhyolite unit, light grey, up to 10% disseminated secondary py, moderate silica+ser and weak biotite alteration	62.62	64.00	1.38	Q014513	0.01	0.2	0.001	0	0.001
			64.00	65.50	1.5	Q014514	0.02	0.2	0.001	0	0.001
			65.50	67.00	1.5	Q014515	0.02	0.2	0.001	0.001	0.001
			67.00	68.00	1	Q014516	0.03	0.2	0.002	0	0.001
			68.00	69.50	1.5	Q014517	0.01	<0.2	0.001	0	0.001
			69.50	71.00	1.5	Q014518	0.02	0.2	0.001	0	0.001
			71.00	72.50	1.5	Q014519	0.02	<0.2	0.001	0	0.001
			72.50	74.00	1.5	Q014522	0.03	0.2	0.002	0.001	0.005
			74.00	75.60	1.6	Q014523	0.03	0.2	0.001	0.001	0.002
			75.60	76.66	1.06	Q014524	0.04	0.4	0.001	0.002	0.003
76.66	76.99	Massive Sulphides									
		massive eu secondary py	76.66	76.99	0.33	Q014525	0.28	8.7	0.016	0.012	0.021
76.99	83.46	Rhyolite Flow Breccias: Hyaloclastic									
		hyaloclastic rhyolite flow unit; distinctive light tan-grey unsorted monolithic breccia, up to 15% disseminated secondary py, moderate sericite and silica alteration and weak albite alteration, py ff along tension gashes?, sharp (chilled) lower contact	76.99	78.50	1.51	Q014526	0.15	1.8	0.002	0.003	0.002
			78.50	80.00	1.5	Q014527	0.32	6.0	0.004	0.016	0.005
			80.00	81.09	1.09	Q014528	0.05	0.5	0.001	0.004	0.003
			81.09	81.99	0.9	Q014529	0.36	15.2	0.019	0.032	0.061
			81.99	83.00	1.01	Q014531	0.03	0.3	0.001	0.001	0.003
			83.00	83.46	0.46	Q014532	0.13	3.0	0.011	0.009	0.119
83.46	90.04	Rhyolite Lapilli and Ash Tuff									
		fairly massive rhyolite unit, light grey, up to 10% disseminated and eu secondary py, py ff, moderate silica+ser and weak biotite alteration	83.46	85.00	1.54	Q014533	0.01	<0.2	0.012	0	0.002
			85.00	86.50	1.5	Q014534	0.04	0.4	0.001	0.001	0.002
			86.50	88.00	1.5	Q014535	0.03	0.4	0.001	0.001	0.001
			88.00	89.00	1	Q014536	0.03	<0.2	0.001	0.001	0.002
			89.00	90.04	1.04	Q014537	0.02	<0.2	0.001	0.001	0.002
90.04	90.60	SMS									
		semi-massive eu secondary py replacement vein, brecciated, hosted in rhyolite tuff	90.04	90.60	0.56	Q014538	0.25	1.3	0.012	0.004	0.005
90.60	91.28	Rhyolite Lapilli and Ash Tuff									
		fairly massive rhyolite unit, light grey, up to 10% disseminated and eu secondary py, py ff, moderate silica+ser and weak biotite alteration	90.60	91.28	0.68	Q014539	0.15	0.3	0.023	0.002	0.005
91.28	93.05	Basalt Dyke									

From	To (m)					From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		massive homogenous dyke, brecciated and partially digested clasts w/ 15% py mineralisation from 92.30-92.66m, 20% po from 92.66-92.95m				91.28	92.30	1.02	Q014541	<0.01	<0.2	0.002	0.005	0.015
						92.30	92.66	0.36	Q014542	0.14	<0.2	0.007	0.002	0.004
						92.66	93.05	0.39	Q014543	0.03	<0.2	0.033	0.001	0.002
93.05	115.15	Rhyolite Fragmental, Coarse: Auto-breccia												
		autoclastic rhyolite unit, unsorted monolithic clast dominated jigsaw breccia, up to 15% disseminated secondary py, moderate sericite and silica alteration and weak albite alteration, reaction rims on clasts lower in unit				93.05	94.50	1.45	Q014544	0.04	0.3	0.001	0.001	0.002
						94.50	96.00	1.5	Q014545	0.01	<0.2	0.003	0	0.002
						96.00	97.50	1.5	Q014546	0.02	0.4	0.044	0	0.002
						97.50	99.00	1.5	Q014547	0.01	<0.2	0.064	0	0.002
						99.00	100.50	1.5	Q014548	0.01	<0.2	0.029	0	0.002
						100.50	102.00	1.5	Q014549	<0.01	<0.2	0.024	0	0.002
						102.00	103.50	1.5	Q014551	0.01	<0.2	0.02	0.001	0.002
						103.50	105.00	1.5	Q014552	0.01	<0.2	0.012	0.001	0.002
						105.00	106.50	1.5	Q014553	0.01	<0.2	0.01	0.001	0.003
						106.50	108.00	1.5	Q014554	0.01	<0.2	0.024	0	0.001
						108.00	109.50	1.5	Q014555	<0.01	<0.2	0.021	0	0.002
						109.50	111.00	1.5	Q014556	<0.01	<0.2	0.031	0	0.002
						111.00	112.50	1.5	Q014557	0.01	0.2	0.033	0	0.002
						112.50	114.00	1.5	Q014558	0.01	<0.2	0.001	0	0.002
						114.00	115.15	1.15	Q014559	0.01	<0.2	0.005	0.001	0.002
115.15	198.00	Basalt Flow Breccia: amy												
		mafic flow breccia w/ up to 20% qt infilled amygules (most abundant in upper 20m), up to 15% py, trace to 2% cp in places, up to 4% jasper in patches, clasts up to 10cm and 30% matrix in places, monolithic clasts of juvenile mafic material				115.15	116.61	1.46	Q014562	0.04	<0.2	0.003	0.001	0.009
						116.61	118.00	1.39	Q014563	0.01	<0.2	0.08	0	0.007
						118.00	119.50	1.5	Q014564	<0.01	<0.2	0.007	0.001	0.006
		172.80	175.32	Basalt Dyke		119.50	121.00	1.5	Q014565	<0.01	<0.2	0.013	0	0.007
				aphanitic homogeneous mafic unit with fairly distinct contacts, no mineralisation		121.00	122.50	1.5	Q014566	<0.01	<0.2	0.002	0.001	0.007
						122.50	124.00	1.5	Q014567	0.01	<0.2	0.004	0.001	0.007
		178.44	180.40	Rhyolite Flow: Breccia, Undivided		124.00	125.50	1.5	Q014568	<0.01	<0.2	0.018	0.001	0.007
				block of highly siliceous brecciated rhyolite (almost china rock) with up to 3% secondary eu py		125.50	127.00	1.5	Q014569	0.01	<0.2	0.132	0	0.008
						127.00	128.50	1.5	Q014572	<0.01	<0.2	0.073	0.001	0.01
						128.50	130.00	1.5	Q014573	0.01	<0.2	0.002	0.001	0.005
						130.00	131.50	1.5	Q014574	0.02	<0.2	0.001	0	0.006
						131.50	133.00	1.5	Q014575	0.01	<0.2	0.001	0	0.007
						133.00	134.50	1.5	Q014576	<0.01	<0.2	0.001	0.001	0.007
						134.50	136.00	1.5	Q014577	0.03	0.6	0.043	0.001	0.006
						136.00	137.50	1.5	Q014578	<0.01	0.2	0.078	0	0.006
						137.50	139.00	1.5	Q014579	<0.01	<0.2	0.044	0	0.005
						139.00	140.50	1.5	Q014580	<0.01	<0.2	0.019	0	0.005
						140.50	142.00	1.5	Q014582	<0.01	<0.2	0.002	0	0.005
						142.00	143.00	1	Q014583	<0.01	<0.2	0	0	0.006
						143.00	144.50	1.5	Q014584	0.01	<0.2	0.001	0	0.006
						144.50	146.00	1.5	Q014585	0.01	0.2	0.001	0.001	0.005
						146.00	147.50	1.5	Q014586	<0.01	<0.2	0.007	0	0.005

From	To (m)	
198.00	234.45	Basalt Debris Flow mafic debris flow breccia w/ up to 5% qt infilled amygules; up to 25% finely disseminated and wispy py, trace to 1% cp in places; angular to sub-rounded clasts up to 20+cm, mostly pumiceous clasts with qt+py infilling of vesicles, some completely and preferentially infilled and flooded with qt, chilled margins, some zonation with chloritic cores 223.05 225.95 Basalt Dyke

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
147.50	149.00	1.5	Q014587	<0.01	0.2	0.079	0	0.006
149.00	150.50	1.5	Q014588	0.01	<0.2	0.12	0	0.005
150.50	152.00	1.5	Q014589	0.01	<0.2	0.004	0.001	0.005
152.00	153.50	1.5	Q014591	0.01	0.2	0.001	0.003	0.009
153.50	155.00	1.5	Q014592	0.01	<0.2	0.001	0.002	0.008
155.00	156.50	1.5	Q014593	0.01	<0.2	0.001	0.001	0.007
156.50	158.00	1.5	Q014594	0.01	<0.2	0.001	0.001	0.006
158.00	159.50	1.5	Q014595	0.01	<0.2	0.001	0.001	0.006
159.50	161.00	1.5	Q014596	0.01	<0.2	0.001	0.001	0.005
161.00	162.50	1.5	Q014597	0.01	<0.2	0.003	0.001	0.005
162.50	164.00	1.5	Q014598	0.01	<0.2	0.001	0.001	0.004
164.00	165.50	1.5	Q014599	0.01	<0.2	0.001	0.001	0.005
165.50	167.00	1.5	Q014601	0.01	<0.2	0.001	0.001	0.004
167.00	168.50	1.5	Q014602	0.01	<0.2	0.002	0.001	0.005
168.50	170.00	1.5	Q014603	0.01	<0.2	0.003	0.001	0.004
170.00	171.50	1.5	Q014604	0.01	<0.2	0.023	0.001	0.005
171.50	172.80	1.3	Q014605	0.01	0.2	0.001	0.001	0.004
172.80	174.00	1.2	Q014606	0.02	<0.2	0.012	0	0.009
174.00	175.32	1.32	Q014607	0.01	<0.2	0.012	0	0.008
175.32	176.50	1.18	Q014608	0.01	<0.2	0.004	0.001	0.005
176.50	177.50	1	Q014609	0.01	0.3	0.001	0.001	0.005
177.50	178.44	0.94	Q014611	0.01	0.4	0.002	0.003	0.005
178.44	180.00	1.56	Q014612	0.01	0.3	0.032	0.002	0.005
180.00	180.40	0.4	Q014613	0.01	<0.2	0.001	0.001	0.004
180.40	182.20	1.8	Q014614	0.02	<0.2	0.008	0.001	0.008
182.20	183.05	0.85	Q014615	<0.01	<0.2	0.012	0.001	0.01
183.05	184.50	1.45	Q014616	0.01	0.2	0.02	0	0.006
184.50	186.00	1.5	Q014617	0.02	<0.2	0.004	0	0.006
186.00	187.50	1.5	Q014618	0.03	0.3	0.004	0.001	0.006
187.50	189.00	1.5	Q014619	0.04	0.4	0.002	0.001	0.004
189.00	190.50	1.5	Q014622	0.03	0.3	0.002	0.001	0.01
190.50	192.00	1.5	Q014623	0.03	0.3	0.009	0.001	0.007
192.00	193.50	1.5	Q014624	0.03	0.5	0.009	0.001	0.006
193.50	195.00	1.5	Q014625	0.06	0.4	0.013	0.001	0.007
195.00	196.50	1.5	Q014626	0.01	<0.2	0.02	0.001	0.004
196.50	198.00	1.5	Q014627	0.01	<0.2	0.004	0	0.005
198.00	199.50	1.5	Q014628	0.01	<0.2	0.003	0.001	0.005
199.50	201.00	1.5	Q014629	0.02	0.3	0.024	0.001	0.005
201.00	202.50	1.5	Q014631	0.03	1.0	0.017	0.001	0.005
202.50	204.00	1.5	Q014632	0.02	0.5	0.003	0.001	0.006
204.00	204.64	0.64	Q014633	0.04	1.5	0.002	0.001	0.004

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		mafic dyke w/ less than 4% ghost clasts, distinct but not sharp contacts, qt+mar veining	204.64	205.02	0.38	Q014634	0.11	9.0	0.004	0.002	0.002
			205.02	206.20	1.18	Q014635	0.13	8.3	0.002	0.002	0.005
			206.20	207.50	1.3	Q014636	0.13	6.9	0.002	0.002	0.003
			207.50	208.40	0.9	Q014637	0.14	6.9	0.007	0.002	0.004
			208.40	209.40	1	Q014638	0.09	1.4	0.002	0.001	0.007
			209.40	211.00	1.6	Q014639	0.14	3.1	0.002	0.001	0.005
			211.00	212.50	1.5	Q014641	0.11	1.7	0.001	0.001	0.006
			212.50	214.00	1.5	Q014642	0.01	0.4	0.001	0	0.007
			214.00	215.50	1.5	Q014643	0.01	<0.2	0.001	0	0.007
			215.50	217.00	1.5	Q014644	<0.01	<0.2	0.001	0.001	0.008
			217.00	218.50	1.5	Q014645	0.01	<0.2	0.007	0	0.007
			218.50	220.00	1.5	Q014646	0.01	<0.2	0.013	0.001	0.006
			220.00	221.50	1.5	Q014647	<0.01	<0.2	0.008	0.001	0.006
			221.50	223.05	1.55	Q014648	0.01	<0.2	0.027	0.001	0.006
			223.05	224.50	1.45	Q014649	<0.01	<0.2	0.007	0.001	0.008
			224.50	225.95	1.45	Q014651	<0.01	<0.2	0.009	0.002	0.009
			225.95	227.50	1.55	Q014652	<0.01	<0.2	0.001	0.001	0.007
			227.50	229.00	1.5	Q014653	<0.01	<0.2	0	0	0.005
			229.00	230.50	1.5	Q014654	<0.01	<0.2	0.015	0	0.005
			230.50	232.00	1.5	Q014655	<0.01	0.4	0.032	0	0.007
			232.00	233.50	1.5	Q014656	<0.01	0.3	0.009	0.001	0.008
			233.50	234.45	0.95	Q014657	0.01	0.2	0.006	0.001	0.008
234.45	234.65	Fault									
		fault gouge, brecciated qt+ca vein	234.45	234.65	0.2	Q014658	0.12	0.7	0.006	0.007	0.016
234.65	251.20	Basalt Debris Flow									
		mafic debris flow breccia w/ up to 5% qt infilled amygules; up to 25% finely disseminated and wispy py, trace to 1% cp in places; angular to sub-rounded clasts up to 20+cm, mostly pumiceous clasts with qt+py infilling of vesicles, some completely and preferentially infilled and flooded with qt, chilled margins, some zonation with chloritic cores; grades into mafic hyaloclastite from 249.10-251.20m	234.65	236.00	1.35	Q014659	<0.01	<0.2	0.004	0	0.008
			236.00	237.50	1.5	Q014662	0.01	<0.2	0.002	0.001	0.011
			237.50	239.00	1.5	Q014663	<0.01	<0.2	0.008	0	0.009
			239.00	240.50	1.5	Q014664	0.01	0.4	0.007	0.003	0.01
			240.50	242.00	1.5	Q014665	0.01	<0.2	0.002	0.001	0.008
			242.00	243.50	1.5	Q014666	0.02	0.3	0.003	0.001	0.008
			243.50	245.02	1.52	Q014667	0.04	<0.2	0.002	0.001	0.008
			245.02	245.30	0.28	Q014668	0.09	1.2	0.15	0.002	0.013
			245.30	247.00	1.7	Q014669	0.03	<0.2	0.004	0.001	0.01
			247.00	248.50	1.5	Q014671	0.04	0.2	0.002	0.001	0.005
			248.50	249.10	0.6	Q014672	0.03	<0.2	0.002	0.001	0.005
			249.10	250.50	1.4	Q014673	0.04	<0.2	0.003	0.001	0.003
			250.50	251.20	0.7	Q014674	0.08	0.2	0.004	0.001	0.002
251.20	260.20	Basalt Hyaloclastite: Hyaloclastic									
		mafic hyaloclastite?or flow top breccia, clast supported, sub-angular to sub-rounded clasts range from 2mm-7cm, rims are strongly altered to clays (cream-coloured, very soft), sharp (chilled)	251.20	252.50	1.3	Q014675	0.09	0.2	0.004	0.001	0.001
			252.50	254.00	1.5	Q014676	0.05	<0.2	0.004	0.001	0.001

From	To (m)	
		lower contact at 260.20m implying overturned strata (top up=down hole)
260.20	267.81	Basalt Debris Flow mafic debris flow breccia w/ up to 5% qt infilled amygules; up to 10% finely disseminated and wispy py; sub-angular to sub-rounded clasts up to 20+cm, mostly pumiceous clasts with qt+py infilling of vesicles, some completely and preferentially infilled and flooded with qt, chilled margins, some zonation with chloritic cores; sharp (chilled) upper contact at 260.20m
267.81	275.90	Basalt Lapilli and Ash Tuff fine-grained to porphyritic to clastic mafic? fragmental unit, up to 20% clasts ranging in size from 2cm to 15cm, strong sericite+pyrite alteration (similar to BAHY unit above), possible bedding or foliation, cut by very fine-grained mafic dykes 269.65 270.00 Basalt Dyke very fine grained with distinct contacts, qt+ca veining 270.98 272.00 Basalt Dyke very fine grained with distinct contacts, qt+ca veining 273.64 274.38 Basalt Dyke very fine grained with distinct contacts, qt+ca veining
275.90	285.44	Basalt Flow Breccia mafic? Flow breccia w/ up to 10% qt infilled amygules, up to 15% py, trace cp in places, clasts up to 10cm and 30% matrix in places, some clasts are scoriaceous, matrix comprised of bi+py in patches mostly around silicified clasts, silica alteration increases toward lower contact
285.44	288.24	Basalt Lapilli and Ash Tuff fine-grained to porphyritic to clastic mafic? Unit, up to 20% clasts ranging in size from 2cm to 15cm, strong sericite+pyrite alteration (similar to BAHY unit above), possible bedding or foliation, cut by very fine-grained mafic dykes, veining and shearing at lower contact
288.24	293.47	Basalt Flow: amy fairly massive mafic flow, fine to medium grained grey-green-black, bi+ch+qt alteration, up to 15% py+/-po finely disseminated, euhedral and wispy

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
254.00	255.50	1.5	Q014677	0.03	<0.2	0.002	0.001	0.001
255.50	257.00	1.5	Q014678	0.03	<0.2	0.006	0.001	0.001
257.00	258.50	1.5	Q014679	0.02	<0.2	0.005	0.001	0.001
258.50	260.20	1.7	Q014681	0.02	<0.2	0.005	0.001	0.002
260.20	261.50	1.3	Q014682	0.01	<0.2	0.035	0	0.004
261.50	263.00	1.5	Q014683	0.01	<0.2	0.015	0	0.004
263.00	264.50	1.5	Q014684	<0.01	<0.2	0.027	0	0.004
264.50	266.00	1.5	Q014685	<0.01	<0.2	0.007	0	0.004
266.00	267.81	1.81	Q014686	0.01	<0.2	0.001	0	0.006
267.81	269.00	1.19	Q014687	0.07	0.2	0.005	0.001	0.001
269.00	270.00	1	Q014688	0.02	<0.2	0.005	0.001	0.005
270.00	270.98	0.98	Q014689	0.04	<0.2	0.007	0.002	0.001
270.98	272.00	1.02	Q014691	0.01	0.2	0.004	0.002	0.009
272.00	273.64	1.64	Q014692	0.05	0.2	0.006	0.002	0.001
273.64	274.63	0.99	Q014693	0.05	0.2	0.005	0.001	0.007
274.63	275.90	1.27	Q014694	0.02	<0.2	0.004	0.001	0.004
275.90	277.45	1.55	Q014695	0.02	0.2	0.002	0.001	0.005
277.45	278.60	1.15	Q014696	0.04	<0.2	0.005	0.001	0.004
278.60	279.62	1.02	Q014697	0.06	<0.2	0.007	0.001	0.005
279.62	280.66	1.04	Q014698	<0.01	<0.2	0.006	0	0.007
280.66	282.00	1.34	Q014699	0.04	<0.2	0.003	0.001	0.005
282.00	283.50	1.5	Q014702	0.02	<0.2	0.009	0.001	0.011
283.50	284.52	1.02	Q014703	0.04	<0.2	0.004	0.001	0.004
284.52	285.44	0.92	Q014704	0.08	0.2	0.002	0.001	0.004
285.44	287.00	1.56	Q014705	0.04	<0.2	0.005	0.001	0.001
287.00	288.24	1.24	Q014706	0.05	<0.2	0.006	0.001	0.002
288.24	289.50	1.26	Q014707	0.03	<0.2	0.004	0.001	0.005
289.50	291.00	1.5	Q014708	0.03	<0.2	0.061	0.001	0.008
291.00	292.50	1.5	Q014709	0.02	<0.2	0.005	0	0.009
292.50	293.47	0.97	Q014711	0.02	0.2	0.001	0	0.008

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
293.47	301.07	BFLqp: amy tan-beige coloured, moderate to strong qt-se-py alteration, up to 90% amygdules ranging in size from 2mm-7mm, qt or ch infilled +/-py, matrix composed almost entirely of se+py	293.47	295.00	1.53	Q014712	0.07	0.8	0.003	0.001	0.003
			295.00	296.50	1.5	Q014713	0.05	0.4	0.002	0.001	0.001
			296.50	298.00	1.5	Q014714	0.04	0.5	0.023	0.001	0.001
			298.00	299.50	1.5	Q014715	0.07	0.3	0.003	0.001	0.001
			299.50	301.07	1.57	Q014716	0.04	0.4	0.007	0.001	0.002
301.07	302.67	Basalt Flow: amy fairly massive mafic flow, fine to medium grained grey-green-black, bi+ch+qt alteration, up to 15% py finely disseminated, euhedral and wispy and up to 1% cp	301.07	302.67	1.6	Q014717	0.01	0.2	0.157	0.001	0.007
302.67	303.62	BFLqp tan-beige coloured, moderate to strong qt-se-py alteration, up to 90% amygdules ranging in size from 2mm-7mm, qt or ch infilled +/-py, matrix composed almost entirely of se+py, jasper appears near lower contact, ab?+qt veining 303.25-303.62m	302.67	304.03	1.36	Q014718	0.01	<0.2	0.002	0.001	0.006
303.62	304.30	Basalt Flow: amy fairly massive mafic flow, fine to medium grained grey-green-black, bi+ch+qt alteration, jasper near upper contact to 303.75m, up to 15% py finely disseminated, euhedral and wispy	304.03	305.05	1.02	Q014719	0.02	<0.2	0.055	0.001	0.006
304.30	305.05	BFLqp tan-beige coloured, moderate to strong qt-se-py alteration, up to 90% amygdules ranging in size from 2mm-7mm, qt or ch infilled +/-py, matrix composed almost entirely of se+py, purple-brown bi alteration near upper contact, ab?+qt veining 304.25m									
305.05	306.00	Basalt Flow: amy fairly massive mafic flow, fine to medium grained grey-green-black, bi+ch+qt alteration, up to 15% py finely disseminated, euhedral and wispy	305.05	306.00	0.95	Q014721	0.06	0.3	0.001	0.001	0.005
306.00	308.35	BFLqp tan-beige coloured, moderate to strong qt-se-py alteration, up to 90% amygdules ranging in size from 2mm-7mm, qt or ch infilled +/-py, matrix composed almost entirely of se+py, jasp+qt around 306.40m	306.00	307.20	1.2	Q014722	0.19	0.7	0.001	0.002	0.002
			307.20	308.35	1.15	Q014723	0.33	1.0	0.002	0.002	0.001
308.35	322.31	Basalt Flow: amy fairly massive mafic flow, fine to medium grained grey-green-black, bi+ch+qt alteration, up to 15% py finely disseminated, euhedral and wispy, qt+/-py infilling of amygdules, jasp+qt+mar? patch from 313.45-314.75m, jasp+qt patch from 318.68-318.91m, 40% py+po from 320.04-320.19m (could be rhyolite unit logged in TC13064)	308.35	309.50	1.15	Q014724	0.08	0.2	0.001	0.001	0.003
			309.50	311.00	1.5	Q014725	0.09	0.4	0.004	0.002	0.004
			311.00	312.50	1.5	Q014726	0.23	1.0	0.002	0.002	0.002
			312.50	313.45	0.95	Q014727	0.12	0.8	0.002	0.001	0.003
			313.45	314.00	0.55	Q014728	0.17	0.8	0.006	0.002	0.006
			314.00	315.00	1	Q014729	0.03	<0.2	0.001	0.001	0.005
			315.00	316.00	1	Q014731	0.08	0.2	0.001	0.002	0.007

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			316.00	316.70	0.7	Q014732	0.09	0.4	0.001	0.002	0.005
			316.70	318.00	1.3	Q014733	0.04	0.2	0.001	0.001	0.005
			318.00	319.50	1.5	Q014734	0.02	<0.2	0.001	0.001	0.009
			319.50	320.35	0.85	Q014735	0.04	0.5	0.001	0.001	0.01
			320.35	321.00	0.65	Q014736	0.06	0.7	0.001	0.001	0.004
			321.00	322.31	1.31	Q014737	0.02	<0.2	0.001	0	0.005
322.31	325.78	BFLqp tan-beige coloured, moderate to strong qt-se-py alteration, up to 90% amygdules ranging in size from 2mm-7mm, qt or ch infilled +/-py, matrix composed almost entirely of se+py	322.31	323.50	1.19	Q014738	0.13	0.7	0.001	0.001	0.001
			323.50	324.50	1	Q014739	0.18	1.0	0.001	0.001	0.001
			324.50	325.78	1.28	Q014742	0.11	0.7	0.002	0.001	0.004
325.78	330.20	Basalt Flow: amy fairly massive mafic flow, fine to medium grained grey-green-black, bi+ch+qt alteration, up to 15% py finely disseminated, euhedral and wispy, qt+/-py infilling of amygdules, 25% py from 328.38-328.83m (could be rhyolite unit logged in TC13064)	325.78	327.00	1.22	Q014743	0.13	0.7	0.001	0.001	0.007
			327.00	328.38	1.38	Q014744	0.06	0.5	0.001	0.001	0.008
			328.38	328.83	0.45	Q014745	0.06	0.4	0.001	0.001	0.01
			328.83	330.20	1.37	Q014746	0.02	<0.2	0.001	0.001	0.009
330.20	334.56	Quartz Feldspar Porphyry Dyke fs-porphyritic dyke, finer grained near upper and lower contacts, up to 40% porphyroblasts ranging from 1mm-5mm, some infilled by py	330.20	331.50	1.3	Q014747	<0.01	<0.2	0.004	0.001	0.008
			331.50	333.00	1.5	Q014748	<0.01	0.2	0.003	0.002	0.009
			333.00	334.56	1.56	Q014749	<0.01	<0.2	0.001	0.001	0.007
334.56	342.85	Basalt Flow: amy fairly massive mafic flow, fine to medium grained grey-green-black, ch+qt+bi alteration, up to 15% py finely disseminated, euhedral and wispy, qt+/-py infilling of amygdules, minor ep alteration around amygdules starting around 337m, very minor jasp appearing in siliceous patches starting around 337.5m, siliceous and pyritic from 342.57-342.85m (could be rhyolite unit logged in TC13064)	334.56	336.00	1.44	Q014751	0.01	<0.2	0.001	0.001	0.007
			336.00	337.50	1.5	Q014752	0.02	<0.2	0.002	0.001	0.005
			337.50	339.00	1.5	Q014753	0.01	<0.2	0.004	0.001	0.006
			339.00	340.50	1.5	Q014754	0.03	0.4	0.002	0.001	0.004
			340.50	342.00	1.5	Q014755	0.02	0.3	0.003	0.001	0.005
			342.00	342.85	0.85	Q014756	0.06	0.3	0.007	0.001	0.004
342.85	345.15	BFLqp tan-beige coloured, moderate to strong qt-se-py alteration, up to 90% amygdules ranging in size from 2mm-5mm, qt or ch infilled +/-py, finely disseminated, euhedral and wispy py, 344.87-345.15m siliceous with jasp and py	342.85	344.00	1.15	Q014757	0.09	0.3	0.005	0.001	0.003
			344.00	345.15	1.15	Q014758	0.13	0.4	0.007	0.001	0.004
345.15	372.10	Basalt Flow: amy; Breccia, Undivided fairly massive mafic flow, fine to medium grained grey-green-black, ch+qt+bi alteration, up to 15% py finely disseminated, euhedral and wispy, qt+/-py infilling of amygdules, strong qt+py from 351.08-352.02m (25% py) (could be rhyolite as logged in TC13064), fault from 362-362.53m at 20tca	345.15	346.50	1.35	Q014759	0.03	0.2	0.009	0	0.006
			346.50	348.00	1.5	Q014761	0.02	<0.2	0.001	0	0.005
			348.00	349.50	1.5	Q014762	0.01	<0.2	0.001	0	0.006
			349.50	351.08	1.58	Q014763	0.01	<0.2	0.001	0	0.006
			351.08	352.02	0.94	Q014764	0.22	1.2	0.053	0.002	0.005
			352.02	353.41	1.39	Q014765	0.01	<0.2	0.001	0	0.007
			353.41	355.00	1.59	Q014766	0.01	0.2	0.001	0	0.008
			355.00	356.50	1.5	Q014767	0.01	<0.2	0.001	0.001	0.008
			356.50	358.00	1.5	Q014768	0.02	<0.2	0.002	0.001	0.01

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			358.00	359.50	1.5	Q014769	0.02	<0.2	0.002	0.002	0.012
			359.50	361.00	1.5	Q014771	0.07	1.1	0.027	0.106	0.141
			361.00	362.81	1.81	Q014772	0.04	0.7	0.016	0.021	0.066
			362.81	364.00	1.19	Q014773	0.02	0.4	0.028	0.001	0.014
			364.00	365.67	1.67	Q014774	0.02	0.3	0.03	0.001	0.009
			365.67	366.00	0.33	Q014775	0.03	0.3	0.002	0.001	0.008
			366.00	367.00	1	Q014776	0.01	<0.2	0.005	0.001	0.008
			367.00	368.50	1.5	Q014777	0.03	0.4	0.005	0.001	0.007
			368.50	370.00	1.5	Q014778	0.02	0.3	0.006	0.002	0.012
			370.00	371.50	1.5	Q014779	0.04	0.4	0.003	0.003	0.022
			371.50	372.10	0.6	Q014782	0.04	0.4	0.003	0.014	0.028
372.10	373.51	Quartz Sericite Pyrite Alteration									
		highly silicified unit with abundant pyrite and minor sericite; up to 60% pyrite occurs as wisps, very finely disseminated and some secondary euhedral; less than 1% sphalerite and galena in very fine stringers around 372.20m at 40tca; less than 1% chalcopyrite at lower contact; minor jasper associated with qt clusters	372.10	373.51	1.41	Q014783	0.25	2.2	0.209	0.062	0.06
373.51	378.09	Basalt Flow: amy									
		fairly massive mafic flow, fine to medium grained grey-green-black, ch+qt+bi alteration, up to 25% 1-3mm bi/ch lathes; up to 15% py finely disseminated, euhedral and wispy, qt+/-py infilling of amygdules	373.51	375.00	1.49	Q014784	0.03	0.4	0.134	0.002	0.012
			375.00	376.50	1.5	Q014785	0.04	<0.2	0.029	0.004	0.015
			376.50	378.09	1.59	Q014786	0.07	0.3	0.002	0.005	0.018
378.09	379.68	Quartz Sericite Pyrite Alteration									
		highly silicified unit with abundant pyrite and minor sericite; up to 60% pyrite occurs as wisps, very finely disseminated and some secondary euhedral; 5% chalcopyrite from 379.10-379.68; minor jasper associated with qt clusters	378.09	379.10	1.01	Q014787	0.15	0.9	0.072	0.011	0.013
			379.10	379.68	0.58	Q014788	0.07	2.5	0.554	0.034	0.034
379.68	392.75	Basalt Flow: amy									
		fairly massive mafic flow, fine to medium grained grey-green-black, ch+qt+bi alteration, up to 25% 1-3mm bi/ch lathes; up to 15% py finely disseminated, euhedral and wispy, qt+/-py infilling of amygdules; rare lithic clasts with qt+/-ep alteration	379.68	381.00	1.32	Q014789	0.09	0.3	0.054	0.005	0.012
			381.00	382.47	1.47	Q014791	0.03	<0.2	0.052	0.002	0.01
			382.47	384.00	1.53	Q014792	0.01	<0.2	0.049	0.001	0.009
			384.00	385.50	1.5	Q014793	0.01	<0.2	0.082	0.001	0.012
			385.50	386.77	1.27	Q014794	0.03	<0.2	0.016	0.002	0.043
			386.77	388.04	1.27	Q014795	0.21	4.0	0.421	0.556	1.92
			388.04	389.50	1.46	Q014796	0.04	<0.2	0.005	0.002	0.038
			389.50	391.00	1.5	Q014797	0.03	<0.2	0.023	0.015	0.047
			391.00	392.50	1.5	Q014798	0.02	<0.2	0.054	0.002	0.021
			392.50	394.00	1.5	Q014799	0.03	<0.2	0.037	0.002	0.016
392.75	413.02	Basalt Flow Breccia: amy									
		fairly massive mafic flow with up to 20% scoriaceous fragments, fine to medium grained grey-green-black, ch+qt+bi alteration; up to 10% py finely disseminated, euhedral and wispy; qt+/-py	394.00	395.50	1.5	Q014801	0.03	<0.2	0.038	0.001	0.016
			395.50	397.00	1.5	Q014802	0.06	<0.2	0.024	0.001	0.014

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		infilling of amygdules, moderately epidote altered; lithic clasts with qt+/-ep alteration; 5mm-2cm barite crystals in cores of lithic fragments from 401.95-403.30m	397.00	398.50	1.5	Q014803	0.03	<0.2	0.013	0.002	0.014
			398.50	400.00	1.5	Q014804	0.01	<0.2	0.005	0.002	0.014
			400.00	401.50	1.5	Q014805	0.01	<0.2	0.008	0.001	0.011
			401.50	403.00	1.5	Q014806	0.01	0.3	0.09	0.001	0.014
			403.00	404.50	1.5	Q014807	0.06	0.3	0.052	0.024	0.139
			404.50	406.00	1.5	Q014808	0.02	<0.2	0.021	0.002	0.022
			406.00	407.50	1.5	Q014809	0.02	<0.2	0.014	0.001	0.01
			407.50	409.00	1.5	Q014811	0.01	<0.2	0.026	0.002	0.009
			409.00	410.50	1.5	Q014812	<0.01	<0.2	0.003	0.001	0.009
			410.50	412.00	1.5	Q014813	<0.01	<0.2	0.001	0.001	0.009
			412.00	413.02	1.02	Q014814	<0.01	<0.2	0.017	0.001	0.01
413.02	425.74	Basalt Flow: amy									
		fairly massive mafic flow, fine to medium grained grey-green-black, ch+qt+bi alteration, moderate epidote alteration of amygdules; up to 8% py finely disseminated, euhedral, wispy, and glomeroblastic; qt+/-py infilling of amygdules; rare lithic clasts with qt+/-ep alteration; minor calcite veins to 415m, minor qt+ca veins to 417m	413.02	414.50	1.48	Q014815	0.01	0.2	0.021	0.001	0.01
			414.50	416.00	1.5	Q014816	<0.01	<0.2	0.055	0.001	0.012
			416.00	417.50	1.5	Q014817	<0.01	<0.2	0.041	0.001	0.01
			417.50	419.00	1.5	Q014818	<0.01	<0.2	0.02	0.001	0.009
			419.00	420.50	1.5	Q014819	0.01	<0.2	0.044	0.001	0.009
			420.50	422.00	1.5	Q014822	0.02	<0.2	0.079	0.001	0.011
			422.00	423.50	1.5	Q014823	0.01	<0.2	0.016	0	0.007
			423.50	425.74	2.24	Q014824	0.01	<0.2	0.035	0.001	0.007
425.74	429.28	Basalt Flow Breccia: amy									
		fairly massive mafic flow with up to 35% scoriaceous fragments, fine to medium grained grey-green-black, ch+qt+bi alteration; up to 5% py finely disseminated, euhedral and wispy; qt+/-py infilling of amygdules, moderately epidote altered; scoriaceous fragments are moderately altered with qt+/-ep	425.74	426.00	0.26	Q014825	0.01	<0.2	0.003	0	0.01
			426.00	427.50	1.5	Q014826	0.01	<0.2	0.013	0	0.009
			427.50	429.28	1.78	Q014827	0.01	<0.2	0.062	0.001	0.011
429.28	434.65	Basalt Flow									
		fairly massive mafic flow, fine grained grey-green-black, ch+qt+bi alteration, moderate epidote alteration of amygdules; up to 5% py finely disseminated, euhedral, and wispy; qt+/-py infilling of amygdules; rare lithic clasts with qt+/-ep alteration; qt+ch+py folded vein from 432.09-432.31m	429.28	430.50	1.22	Q014828	0.01	<0.2	0.034	0	0.009
			430.50	432.00	1.5	Q014829	0.01	<0.2	0.049	0.001	0.011
			432.00	434.65	2.65	Q014831	0.01	<0.2	0.044	0.001	0.009
434.65	443.51	Basalt Flow Breccia									
		fairly massive mafic flow with up to 15% scoriaceous fragments, fine to medium grained grey-green-black, ch+qt+bi alteration; up to 3% py finely disseminated, euhedral and wispy; qt+/-py infilling of amygdules, moderately epidote altered; scoriaceous fragments are moderately altered with qt+/-ep; ca veining from 438.20m; fault from 438.45-438.60m at 15tca; increasing ep alteration towards lower contact	434.65	436.00	1.35	Q014832	0.01	<0.2	0.003	0.001	0.012
			436.00	436.50	0.5	Q014833	0.02	<0.2	0.014	0.001	0.014
			436.50	438.00	1.5	Q014834	0.01	<0.2	0.002	0.001	0.015
			438.00	439.50	1.5	Q014835	0.01	0.9	0.028	0.006	0.013
			439.50	441.00	1.5	Q014836	0.01	0.5	0.042	0.001	0.011
			441.00	442.50	1.5	Q014837	0.01	0.2	0.013	0.002	0.017
			442.50	443.51	1.01	Q014838	0.01	<0.2	0.004	0.001	0.016
443.51	453.25	Basalt Flow									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		ca veining ending around 448.32m; fault breccia with ca+ep from 446.06-446.25m; strong ep alteration that weakens away from fault breccia	443.51	445.00	1.49	Q014839	0.01	0.3	0.024	0.001	0.009
			445.00	446.50	1.5	Q014841	0.01	0.8	0.069	0.002	0.012
			446.50	448.00	1.5	Q014842	<0.01	<0.2	0.006	0.001	0.01
			448.00	449.50	1.5	Q014843	0.01	<0.2	0.077	0.001	0.009
			449.50	451.00	1.5	Q014844	0.01	<0.2	0.083	0.001	0.01
			451.00	452.00	1	Q014845	0.01	<0.2	0.022	0.002	0.01
			452.00	453.25	1.25	Q014846	0.01	0.2	0.084	0.001	0.009
453.25	461.14	Basalt Flow: amy									
		fairly massive mafic flow, fine to medium grained grey-green-black, ch+qt+bi alteration; up to 8% py finely disseminated, euhedral, and wispy; qt+/-py infilling of amygdules; rare lithic clasts with qt+/-ep alteration	453.25	454.50	1.25	Q014847	0.01	<0.2	0.098	0.001	0.009
			454.50	455.50	1	Q014848	0.01	<0.2	0.084	0.001	0.008
			455.50	457.00	1.5	Q014849	0.01	<0.2	0.057	0.001	0.01
			457.00	459.00	2	Q014851	0.02	<0.2	0.016	0.002	0.01
			459.00	460.00	1	Q014852	0.01	<0.2	0.002	0.001	0.009
			460.00	461.14	1.14	Q014853	0.01	<0.2	0.087	0.001	0.009
461.14	470.75	Basalt Dyke									
		massive homogeneous medium grained mafic unit; fault breccia with gouge from 468.52-468.82m	461.14	462.00	0.86	Q014854	<0.01	<0.2	0.009	0	0.005
			462.00	470.75	8.75	Q014855	<0.01	<0.2	0.005	0.001	0.006
470.75	473.05	Rhyolite Flow									
		possible rhyolite flow unit with flow banding?, fine to medium grained blue-ish grey/black, felsic lithic fragments up to 15cm; qt-se-ch-bi alteration; mineralisation occurs as finely disseminated py+/po+/-cp also as wisps, in "bands" and euhedral secondary py	470.75	472.00	1.25	Q014856	0.01	0.3	0.038	0.002	0.013
			472.00	473.05	1.05	Q014857	0.01	0.3	0.088	0.001	0.008
473.05	483.19	Basalt Flow: amy									
		fairly massive to weakly flow banded? Mafic unit, fine to medium grained dark grey-green-black with felsic "clots"/fragments that are likely qt altered or this unit is possibly a rhyolite, patches of 20% amygdules are infilled ep+qt+/-py, bi/ch "lathes" display weak foliation, minor qt+ab+mar+po amorphous veins, mineralisation occurs as finely disseminated py+/-po+/-cp; fine-grained with minor qt+py infilled amygdules and jasper+py "clots" from 481.67-483.19m	473.05	474.50	1.45	Q014858	0.02	<0.2	0.004	0.001	0.008
			474.50	476.00	1.5	Q014859	0.01	<0.2	0.018	0.001	0.008
			476.00	477.50	1.5	Q014862	0.01	<0.2	0.091	0.001	0.012
			477.50	479.00	1.5	Q014863	0.04	0.6	0.119	0.001	0.009
			479.00	480.50	1.5	Q014864	0.03	<0.2	0.004	0.001	0.009
			480.50	481.67	1.17	Q014865	0.02	<0.2	0.003	0.001	0.01
			481.67	483.19	1.52	Q014866	0.01	<0.2	0.002	0.001	0.01
483.19	484.76	Rhyolite Flow: Banded									
		fine to medium grained felsic flow banded unit?, bands are roughly 5mm-1cm, mineralisation occurs as disseminated py+po oriented with bands	483.19	484.76	1.57	Q014867	0.01	<0.2	0.001	0.001	0.006
484.76	497.35	Basalt Flow: amy									
		fairly massive mafic? unit, fine to medium grained dark grey-green-black, patches of 35% amygdules are infilled ep+qt+/-py, mineralisation occurs as finely disseminated py+/-po; moderate pervasive qt+se alteration from 491.36-491.82m; 15% felsic "clots"/fragments that are likely qt altered or this unit is possibly a rhyolite from 492.82-493.3m; py mineralisation increases to 25% from 493.3-497.35m	484.76	486.00	1.24	Q014868	0.01	<0.2	0.001	0.001	0.009
			486.00	487.50	1.5	Q014869	0.01	<0.2	0.001	0.001	0.008
			487.50	489.00	1.5	Q014871	0.01	<0.2	0.005	0.001	0.008
			489.00	490.50	1.5	Q014872	0.01	<0.2	0.038	0	0.009

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			490.50	491.36	0.86	Q014873	0.01	<0.2	0.005	0.001	0.008
			491.36	491.82	0.46	Q014874	0.02	<0.2	0.005	0	0.006
			491.82	493.30	1.48	Q014875	0.01	<0.2	0.003	0	0.009
			493.30	494.00	0.7	Q014876	0.01	<0.2	0.007	0	0.011
			494.00	495.50	1.5	Q014877	0.02	<0.2	0.02	0.001	0.009
			495.50	496.50	1	Q014878	<0.01	0.2	0.116	0.001	0.01
			496.50	497.35	0.85	Q014879	0.01	0.2	0.184	0	0.009
497.35	502.62	Basalt Lapilli and Ash Tuff									
		massive, homogeneous fine grained green-black matrix with 20% unsorted sub-rounded fragments ranging in size form 5mm-5cm; fragments are felsic but could have been altered/replaced by qt, euhedral and wispy py occurs in and as rims on fragments (possibly glomeroblastic)	497.35	498.50	1.15	Q014881	<0.01	<0.2	0.002	0.001	0.01
			498.50	500.00	1.5	Q014882	<0.01	<0.2	0.002	0	0.011
			500.00	501.00	1	Q014883	<0.01	<0.2	0.014	0	0.01
			501.00	502.00	1	Q014884	<0.01	<0.2	0.007	0	0.01
			502.00	502.62	0.62	Q014885	<0.01	<0.2	0.008	0	0.01
502.62	510.10	Basalt Dyke									
		massive, homogeneous medium grained green-blackk mafic unit, 30% bi/ch lathes show weak foliation	502.62	504.00	1.38	Q014886	<0.01	<0.2	0.009	0.001	0.005
			504.00	505.50	1.5	Q014887	<0.01	<0.2	0.011	0.002	0.006
			505.50	507.00	1.5	Q014888	<0.01	<0.2	0.006	0.001	0.007
			507.00	508.50	1.5	Q014889	<0.01	<0.2	0.006	0.001	0.006
			508.50	510.10	1.6	Q014891	<0.01	<0.2	0.008	0.003	0.006
510.10	521.60	Rhyolite Lapilli and Ash Tuff									
		massive, homogeneous fine grained green-black matrix with 20% unsorted sub-rounded scoriaceous fragments ranging in size form 5mm-10cm; fragments are felsic but could have been altered/replaced by qt, weak to moderate ep alteration infilling vesicles in fragments, euhedral and wispy py occurs in and as rims on fragments; qt+ab+ch+po amorphous veins/patches from 512.90-515.20m	510.10	511.50	1.4	Q014892	0.01	<0.2	0.004	0.001	0.011
			511.50	512.90	1.4	Q014893	0.01	<0.2	0.002	0.001	0.01
			512.90	514.00	1.1	Q014894	<0.01	<0.2	0.005	0.002	0.01
			514.00	515.20	1.2	Q014895	<0.01	<0.2	0.005	0.001	0.012
			515.20	516.50	1.3	Q014896	<0.01	0.2	0.01	0.001	0.011
			516.50	518.00	1.5	Q014897	0.01	<0.2	0.003	0.002	0.012
			518.00	519.50	1.5	Q014898	<0.01	<0.2	0.005	0.001	0.011
			519.50	521.00	1.5	Q014899	<0.01	<0.2	0.002	0.001	0.011
			521.00	521.60	0.6	Q014902	<0.01	<0.2	0.003	0.001	0.011
521.60	531.26	Rhyolite Flow									
		weakly amygdaloidal, fine grained green-black matrix with patches of 20% qt+py infilled amygdules, weak to moderate jasper associated with qt "clots", euhedral and wispy py+/-cp; fault with gouge at 522.08-522.24m; qt+ab+ch amorphous vein/patch around 525.50m	521.60	523.00	1.4	Q014903	0.02	0.4	0.086	0.001	0.013
			523.00	524.50	1.5	Q014904	0.01	<0.2	0.036	0	0.011
			524.50	526.00	1.5	Q014905	0.01	0.3	0.176	0	0.012
			526.00	527.50	1.5	Q014906	0.01	0.2	0.116	0.001	0.012
			527.50	528.50	1	Q014907	0.01	<0.2	0.006	0.001	0.009
			528.50	530.00	1.5	Q014908	0.01	<0.2	0.083	0.001	0.012
			530.00	531.26	1.26	Q014909	0.01	<0.2	0.028	0	0.01
531.26	531.67	Semi-Massive Sulphides									
		finely disseminated, wispy and euhedral (up to 4mm) pyrite "stringer"	531.26	531.67	0.41	Q014911	0.08	0.7	0.022	0.002	0.006
531.67	533.36	Rhyolite Flow: mot									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		weakly amygdaloidal, fine to medium grained green-black matrix with patches of 20% qt+py	531.67	533.00	1.33	Q014912	0.02	<0.2	0.004	0.001	0.006
		infilled amygdules, moderate to strong ch+bi+qt alteration, euhedral and wispy py+/-cp; could	533.00	533.36	0.36	Q014913	0.02	0.2	0.006	0.001	0.006
		very well be a mafic unit									
533.36	533.58	Semi-Massive Sulphides									
		finely disseminated, wispy and euhedral (up to 4mm) pyrite "stringer"	533.36	533.58	0.22	Q014914	0.10	0.8	0.01	0.003	0.004
533.58	546.71	Rhyolite Flow: mot									
		weakly amygdaloidal, fine to medium grained green-black matrix with patches of 20% qt+py	533.58	535.00	1.42	Q014915	0.04	0.3	0.003	0.002	0.007
		infilled amygdules, moderate to strong ch+bi+qt alteration, euhedral and wispy py+/-cp; could	535.00	536.00	1	Q014916	0.07	0.2	0.004	0.002	0.007
		very well be a mafic unit	536.00	537.50	1.5	Q014917	0.07	0.2	0.003	0.002	0.007
			537.50	539.00	1.5	Q014918	0.05	0.3	0.003	0.002	0.008
			539.00	540.50	1.5	Q014919	0.03	0.2	0.003	0.002	0.009
			540.50	542.00	1.5	Q014921	0.03	0.2	0.002	0.001	0.008
			542.00	542.72	0.72	Q014922	0.05	<0.2	0.004	0.001	0.007
			542.72	544.00	1.28	Q014923	0.05	0.4	0.007	0.002	0.009
			544.00	545.60	1.6	Q014924	0.07	0.4	0.005	0.003	0.006
			545.60	546.71	1.11	Q014925	0.07	0.6	0.006	0.003	0.003
546.71	547.57	Semi-Massive Sulphides									
		finely disseminated, wispy and euhedral (up to 4mm) pyrite "stringer"	546.71	547.57	0.86	Q014926	0.09	2.4	0.173	0.002	0.006
547.57	548.54	Rhyolite Flow: mot									
		weakly amygdaloidal, fine to medium grained green-black matrix with patches of 20% qt+py	547.57	548.54	0.97	Q014927	0.06	1.0	0.039	0.002	0.006
		infilled amygdules, moderate to strong ch+bi+qt alteration, euhedral and wispy py+/-cp; could									
		very well be a mafic unit									
548.54	556.86	Basalt Flow Breccia: amy; mot									
		weakly amygdaloidal, fine to medium grained green-black matrix with patches of 20% qt+py	548.54	550.00	1.46	Q014928	0.01	<0.2	0.001	0	0.007
		infilled amygdules, moderate to strong ch+bi+qt alteration, euhedral and wispy py+/-cp; could	550.00	551.50	1.5	Q014929	0.03	0.2	0.007	0.001	0.007
		very well be same as rhyolite? unit above however is lacking felsic "clots"/fragments; very	551.50	553.00	1.5	Q014931	0.02	<0.2	0.003	0.002	0.01
		siliceous "block" from 555.90-556.40m	553.00	554.50	1.5	Q014932	0.01	0.2	0.027	0.001	0.009
			554.50	555.90	1.4	Q014933	0.01	0.4	0.042	0	0.008
			555.90	556.40	0.5	Q014934	<0.01	<0.2	0.004	0.001	0.008
			556.40	556.86	0.46	Q014935	0.01	<0.2	0.001	0.001	0.006
556.86	581.56	Basalt Flow: amy									
		strongly amygdaloidal, up to 55% qt+py infilled amygdules, matrix nearly completely replaced	556.86	558.00	1.14	Q014936	0.01	<0.2	0.001	0.001	0.007
		with ch+bi	558.00	559.50	1.5	Q014937	0.05	<0.2	0.001	0.001	0.007
			559.50	561.00	1.5	Q014938	0.04	<0.2	0.002	0.001	0.006
			561.00	562.50	1.5	Q014939	0.03	<0.2	0.001	0.001	0.007
			562.50	564.00	1.5	Q014942	0.04	0.3	0.01	0.001	0.01
			564.00	565.50	1.5	Q014943	0.06	0.3	0.003	0.001	0.007

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			565.50	567.00	1.5	Q014944	0.04	0.3	0.002	0.001	0.008
			567.00	568.50	1.5	Q014945	0.03	0.8	0.024	0.001	0.034
			568.50	570.00	1.5	Q014946	0.09	0.6	0.01	0.001	0.007
			570.00	571.50	1.5	Q014947	0.02	0.4	0.024	0.001	0.006
			571.50	573.00	1.5	Q014948	0.07	0.4	0.002	0.001	0.005
			573.00	574.50	1.5	Q014949	0.04	0.3	0.021	0.001	0.005
			574.50	576.00	1.5	Q014951	0.03	<0.2	0.002	0.001	0.007
			576.00	577.50	1.5	Q014952	0.02	<0.2	0.002	0.001	0.007
			577.50	579.00	1.5	Q014953	0.02	0.2	0.003	0.001	0.007
			579.00	580.50	1.5	Q014954	0.02	0.2	0.001	0.001	0.006
			580.50	581.56	1.06	Q014955	0.03	0.2	0.002	0.002	0.008
581.56	586.67	Rhyolite Lapilli and Ash Tuff: mot									
		beige-grey felsic or mafic unit, moderately to strongly altered by qt+se+bi+py, minor patches of possible lithic clasts (light tan), 1-3mm qt and/or ch "clots", possibly foliated defined by se matrix, alteration is texture destructive	581.56	583.00	1.44	Q014956	0.10	1.0	0.002	0.003	0.006
			583.00	584.50	1.5	Q014957	0.10	0.9	0.003	0.002	0.003
			584.50	586.00	1.5	Q014958	0.08	0.4	0.004	0.001	0.005
			586.00	586.67	0.67	Q014959	0.08	0.4	0.004	0.002	0.004
586.67	596.21	Rhyolite Lapilli and Ash Tuff									
		medium grey-beige/green-black felsic or mafic unit, texture is very similar to unit above however less qt+se alteration, alteration is texture destructive	586.67	588.00	1.33	Q014961	0.02	<0.2	0.002	0.001	0.006
			588.00	589.50	1.5	Q014962	0.04	0.3	0.003	0.001	0.004
			589.50	591.00	1.5	Q014963	0.04	0.2	0.002	0.001	0.004
			591.00	592.50	1.5	Q014964	0.09	0.5	0.002	0.001	0.006
			592.50	594.00	1.5	Q014965	0.05	0.4	0.002	0.002	0.009
			594.00	595.50	1.5	Q014966	0.06	0.5	0.004	0.002	0.008
			595.50	596.21	0.71	Q014967	0.06	0.7	0.006	0.002	0.008
596.21	599.31	Quartz Sericite Pyrite Alteration									
		beige-grey felsic or mafic unit, strongly altered by qt+se+py, minor patches of scoriaceous clasts (light tan), 1-3mm qt "clots", possibly foliated defined by se matrix, alteration is mostly texture destructive, veinlets of py	596.21	597.00	0.79	Q014968	0.16	2.2	0.005	0.003	0.002
			597.00	598.00	1	Q014969	0.21	2.2	0.005	0.002	0.001
			598.00	599.31	1.31	Q014971	0.17	1.2	0.003	0.003	0.002

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014496	42.00	43.51	1.51		0.007							<0.2	0.92	4	10	<0.5	<2	0.48	<0.5	34	2	41
Q014497	43.51	44.20	0.69		0.033							0.6	0.85	13	<10	<0.5	<2	0.51	<0.5	30	2	1100
Q014498	44.20	44.94	0.74		0.019							1.8	0.77	12	<10	<0.5	3	0.51	0.9	62	3	4250
Q014499	44.94	46.00	1.06		0.039							5.1	0.71	119	<10	<0.5	17	0.44	3.6	73	2	2160
Q014501	46.00	47.49	1.49		0.023							1.1	0.80	30	10	<0.5	2	0.36	0.5	27	3	265
Q014502	47.49	49.00	1.51		0.015							<0.2	0.84	26	10	<0.5	3	0.53	<0.5	10	2	29
Q014503	49.00	50.50	1.5		0.049							0.2	0.95	24	20	<0.5	4	0.59	<0.5	12	2	14
Q014504	50.50	52.00	1.5		0.033							<0.2	0.81	21	<10	<0.5	4	0.56	<0.5	40	2	19
Q014505	52.00	53.50	1.5		0.067							1.2	0.94	23	30	<0.5	2	0.55	<0.5	11	3	13
Q014506	53.50	55.00	1.5		0.049							0.4	0.48	27	40	<0.5	<2	0.48	<0.5	9	3	12
Q014507	55.00	56.50	1.5		0.045							0.9	0.40	30	10	<0.5	<2	0.45	<0.5	10	2	8
Q014508	56.50	58.00	1.5		0.035							0.7	0.46	20	<10	<0.5	5	0.37	<0.5	26	2	14
Q014509	58.00	59.50	1.5		0.055							1.0	0.48	22	<10	<0.5	5	0.42	0.6	36	2	24
Q014511	59.50	61.03	1.53		0.078							1.8	0.45	27	<10	<0.5	6	0.33	<0.5	22	3	20
Q014512	61.03	62.62	1.59		0.043							0.7	0.56	28	40	<0.5	3	0.39	<0.5	11	3	12
Q014513	62.62	64.00	1.38		0.012							0.2	0.66	7	70	<0.5	4	0.35	<0.5	6	2	9
Q014514	64.00	65.50	1.5		0.015							0.2	0.65	4	20	<0.5	5	0.31	<0.5	7	3	10
Q014515	65.50	67.00	1.5		0.024							0.2	0.59	12	20	<0.5	4	0.33	<0.5	11	2	8
Q014516	67.00	68.00	1		0.026							0.2	0.62	8	10	<0.5	3	0.28	<0.5	13	2	18
Q014517	68.00	69.50	1.5		0.011							<0.2	0.66	5	20	<0.5	2	0.29	<0.5	9	2	10
Q014518	69.50	71.00	1.5		0.019							0.2	0.65	6	<10	<0.5	3	0.29	<0.5	8	3	7
Q014519	71.00	72.50	1.5		0.017							<0.2	0.65	4	10	<0.5	5	0.30	<0.5	7	3	9
Q014522	72.50	74.00	1.5		0.026							0.2	0.72	15	30	<0.5	5	0.30	<0.5	6	2	18
Q014523	74.00	75.60	1.6		0.031							0.2	0.53	13	30	<0.5	3	0.25	<0.5	10	2	8
Q014524	75.60	76.66	1.06		0.036							0.4	0.59	27	10	<0.5	4	0.32	<0.5	10	2	13
Q014525	76.66	76.99	0.33		0.283							8.7	0.37	183	<10	<0.5	26	0.17	4.7	103	2	163
Q014526	76.99	78.50	1.51		0.146							1.8	0.43	104	<10	<0.5	5	0.29	<0.5	16	2	17
Q014527	78.50	80.00	1.5		0.321							6.0	0.34	164	<10	<0.5	12	0.30	2.3	28	5	38
Q014528	80.00	81.09	1.09		0.052							0.5	0.39	33	<10	<0.5	3	0.42	0.5	8	4	13
Q014529	81.09	81.99	0.9		0.361							15.2	0.39	199	<10	<0.5	14	0.30	9.2	35	2	187
Q014531	81.99	83.00	1.01		0.026							0.3	0.54	19	20	<0.5	3	0.33	<0.5	6	2	10
Q014532	83.00	83.46	0.46		0.130							3.0	0.44	49	<10	<0.5	9	0.40	19.1	28	3	113
Q014533	83.46	85.00	1.54		0.012							<0.2	0.70	4	40	<0.5	4	0.27	<0.5	4	2	116
Q014534	85.00	86.50	1.5		0.043							0.4	0.72	84	10	<0.5	5	0.22	<0.5	10	2	11
Q014535	86.50	88.00	1.5		0.031							0.4	0.49	15	40	<0.5	4	0.27	<0.5	10	3	9
Q014536	88.00	89.00	1		0.031							<0.2	0.53	28	40	<0.5	2	0.27	<0.5	7	2	12
Q014537	89.00	90.04	1.04		0.017							<0.2	0.63	9	40	<0.5	4	0.28	<0.5	10	2	7
Q014538	90.04	90.60	0.56		0.246							1.3	1.05	207	10	<0.5	8	0.19	0.7	101	3	120
Q014539	90.60	91.28	0.68		0.150							0.3	3.25	1640	20	<0.5	14	0.26	<0.5	78	3	233
Q014541	91.28	92.30	1.02		<0.005							<0.2	3.10	394	390	<0.5	<2	3.33	1.3	14	48	18
Q014542	92.30	92.66	0.36		0.135							<0.2	3.61	629	20	<0.5	68	0.24	<0.5	27	4	69
Q014543	92.66	93.05	0.39		0.027							<0.2	1.13	186	30	<0.5	11	0.25	<0.5	12	2	327
Q014544	93.05	94.50	1.45		0.039							0.3	0.60	25	40	<0.5	3	0.27	<0.5	7	2	9
Q014545	94.50	96.00	1.5		0.013							<0.2	0.60	9	60	<0.5	2	0.33	<0.5	7	2	28
Q014546	96.00	97.50	1.5		0.016							0.4	0.93	10	60	<0.5	2	0.32	<0.5	6	2	439
Q014547	97.50	99.00	1.5		0.006							<0.2	1.01	4	60	<0.5	<2	0.29	<0.5	6	3	644
Q014548	99.00	100.50	1.5		0.007							<0.2	0.83	10	50	<0.5	<2	0.30	<0.5	6	2	288
Q014549	100.50	102.00	1.5		<0.005							<0.2	0.84	7	40	<0.5	<2	0.32	<0.5	8	2	244

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014496	4.08	1	0.66	<10		0.34	309	<1	0.03	3	990	<2	3.94	2	3			36	0.02	<10	6	<10		17
Q014497	4.33	<1	0.61	<10		0.29	250	<1	0.02	3	930	4	4.43	11	3			37	0.01	<10	5	<10		18
Q014498	5.98	2	0.51	<10		0.24	248	1	0.03	3	930	6	6.97	29	2			34	0.01	<10	5	<10		20
Q014499	6.72	2	0.48	<10		0.14	153	5	0.02	2	1020	17	8.46	872	2			34	<0.01	<10	3	<10		109
Q014501	4.16	1	0.52	<10		0.11	96	3	0.02	2	1070	10	4.70	115	2			27	0.01	<10	4	<10		19
Q014502	2.54	1	0.56	10		0.17	135	3	0.03	17	1190	4	2.73	10	3			37	0.01	<10	4	<10		10
Q014503	2.61	1	0.57	10		0.22	190	5	0.04	3	1220	11	2.62	<2	3			36	0.01	<10	8	<10		16
Q014504	4.22	<1	0.54	<10		0.14	130	2	0.02	2	1170	9	4.74	3	3			33	<0.01	<10	5	<10		13
Q014505	2.05	1	0.54	<10		0.16	134	3	0.06	3	1070	9	2.13	3	3			28	0.01	<10	4	<10		10
Q014506	2.30	1	0.32	<10		0.10	117	3	0.03	3	1180	8	2.48	<2	2			27	0.01	<10	4	<10		9
Q014507	2.72	1	0.28	<10		0.10	131	3	0.03	3	1040	8	2.99	2	2			25	<0.01	<10	2	<10		9
Q014508	4.69	1	0.33	<10		0.09	135	5	0.02	3	980	9	5.65	<2	2			28	0.01	<10	2	<10		11
Q014509	6.96	1	0.34	<10		0.09	135	10	0.03	3	960	22	8.80	4	2			26	0.01	<10	2	<10		35
Q014511	5.96	<1	0.30	<10		0.08	113	17	0.03	3	950	48	7.37	3	2			22	<0.01	<10	3	<10		25
Q014512	1.73	1	0.34	<10		0.13	141	3	0.04	4	1050	15	1.74	<2	2			32	0.01	<10	3	<10		12
Q014513	2.34	1	0.48	<10		0.17	146	2	0.03	2	1150	3	2.30	<2	2			24	0.03	<10	4	<10		12
Q014514	3.21	1	0.46	<10		0.19	127	2	0.03	1	1050	3	3.33	<2	2			22	0.03	<10	4	<10		11
Q014515	2.20	1	0.40	<10		0.13	134	5	0.03	3	1090	5	2.22	<2	2			25	0.02	<10	3	<10		10
Q014516	4.11	<1	0.48	<10		0.16	125	5	0.03	2	880	4	4.43	<2	2			16	0.03	<10	4	<10		13
Q014517	2.98	1	0.50	<10		0.16	125	4	0.03	3	1080	2	3.07	<2	2			20	0.03	<10	3	<10		10
Q014518	4.88	<1	0.49	<10		0.15	131	3	0.03	2	1000	4	5.73	<2	2			23	0.03	<10	3	<10		11
Q014519	3.76	1	0.50	<10		0.17	155	3	0.02	2	940	<2	3.95	<2	2			17	0.03	<10	3	<10		13
Q014522	2.35	<1	0.56	<10		0.16	141	5	0.03	2	1080	7	2.45	<2	2			20	0.03	<10	3	<10		48
Q014523	2.45	1	0.42	<10		0.12	130	4	0.02	3	910	6	2.59	<2	2			18	0.02	<10	2	<10		15
Q014524	3.58	1	0.46	<10		0.12	148	6	0.03	2	1100	17	3.91	<2	2			21	0.03	<10	3	<10		28
Q014525	24.70	1	0.26	<10		0.09	108	40	0.04	14	720	118	>10.00	4	2			17	0.01	<10	3	<10		211
Q014526	4.62	1	0.30	<10		0.07	109	20	0.03	4	1100	33	5.61	4	2			29	0.01	<10	3	<10		21
Q014527	7.73	1	0.21	<10		0.08	154	43	0.05	3	830	159	9.92	8	2			36	0.01	<10	3	<10		54
Q014528	2.68	1	0.21	<10		0.14	184	4	0.05	2	1050	35	2.89	2	3			40	0.01	<10	4	<10		34
Q014529	16.60	1	0.29	<10		0.07	123	37	0.03	7	990	325	>10.00	20	2			29	0.01	<10	3	<10		609
Q014531	1.97	1	0.37	<10		0.14	158	4	0.03	3	1050	13	2.00	<2	2			28	0.01	<10	3	<10		28
Q014532	8.31	2	0.23	<10		0.15	194	37	0.04	4	870	95	>10.00	11	3			34	0.01	<10	3	<10		1185
Q014533	2.77	1	0.53	<10		0.23	151	1	0.02	2	960	<2	2.79	<2	2			20	0.02	<10	3	<10		17
Q014534	3.99	<1	0.40	<10		0.19	139	4	0.02	2	980	6	3.87	6	2			18	0.01	<10	3	<10		22
Q014535	2.40	<1	0.35	<10		0.14	140	6	0.01	2	900	10	2.48	<2	2			21	0.01	<10	3	<10		13
Q014536	2.76	<1	0.38	<10		0.16	179	3	<0.01	2	870	6	2.87	2	1			18	0.02	<10	2	<10		16
Q014537	3.13	1	0.50	<10		0.22	152	2	<0.01	1	940	6	3.30	<2	2			18	0.02	<10	3	<10		15
Q014538	25.10	2	0.34	<10		0.47	282	13	<0.01	3	900	39	>10.00	15	2			18	0.01	<10	11	<10		47
Q014539	22.80	1	0.32	<10		1.25	588	15	<0.01	2	1230	20	>10.00	30	8			20	0.01	<10	36	<10		46
Q014541	5.65	1	0.21	10		2.33	1115	<1	0.02	23	1580	53	0.58	20	13			67	0.04	<10	121	<10		155
Q014542	15.10	1	0.32	<10		0.83	447	20	<0.01	2	1130	15	7.37	12	6			25	0.01	<10	19	<10		45
Q014543	7.56	<1	0.53	10		0.32	206	5	0.01	3	890	9	5.07	7	3			17	0.03	<10	5	<10		23
Q014544	2.52	<1	0.46	10		0.18	133	4	0.01	1	980	10	2.50	<2	2			22	0.02	<10	2	<10		16
Q014545	2.73	<1	0.46	10		0.21	170	3	0.01	1	1100	3	2.67	2	2			23	0.03	<10	2	<10		15
Q014546	3.10	<1	0.67	10		0.41	323	<1	0.02	2	1010	3	2.44	2	3			23	0.07	<10	3	<10		23
Q014547	3.42	1	0.76	10		0.51	385	<1	0.01	2	970	3	2.41	<2	3			19	0.09	<10	4	<10		25
Q014548	3.26	<1	0.61	10		0.38	251	<1	0.01	1	910	3	2.67	<2	2			22	0.06	<10	4	<10		16
Q014549	3.51	<1	0.62	10		0.35	230	<1	0.02	2	970	2	3.07	3	2			23	0.06	<10	3	<10		15

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014551	102.00	103.50	1.5		0.008							<0.2	0.85	9	40	<0.5	3	0.30	<0.5	10	3	204
Q014552	103.50	105.00	1.5		0.014							<0.2	0.98	19	40	<0.5	<2	0.35	<0.5	13	3	119
Q014553	105.00	106.50	1.5		0.006							<0.2	1.12	9	40	<0.5	2	0.28	<0.5	19	3	102
Q014554	106.50	108.00	1.5		0.008							<0.2	0.60	11	40	<0.5	2	0.20	<0.5	8	3	241
Q014555	108.00	109.50	1.5		<0.005							<0.2	0.80	3	60	<0.5	<2	0.22	<0.5	9	3	213
Q014556	109.50	111.00	1.5		<0.005							<0.2	0.96	4	90	<0.5	4	0.26	<0.5	5	3	309
Q014557	111.00	112.50	1.5		0.005							0.2	0.71	4	80	<0.5	3	0.24	<0.5	6	2	326
Q014558	112.50	114.00	1.5		0.009							<0.2	0.94	7	110	<0.5	2	0.29	<0.5	7	2	8
Q014559	114.00	115.15	1.15		0.009							<0.2	1.04	9	120	<0.5	2	0.20	<0.5	7	2	54
Q014562	115.15	116.61	1.46		0.035							<0.2	2.74	39	40	<0.5	4	0.40	<0.5	22	10	26
Q014563	116.61	118.00	1.39		0.005							<0.2	3.60	10	60	<0.5	3	0.37	<0.5	16	12	802
Q014564	118.00	119.50	1.5		<0.005							<0.2	3.40	9	40	<0.5	<2	0.44	<0.5	15	12	72
Q014565	119.50	121.00	1.5		<0.005							<0.2	3.88	10	50	<0.5	<2	0.44	<0.5	14	12	131
Q014566	121.00	122.50	1.5		<0.005							<0.2	3.89	6	40	<0.5	<2	0.45	<0.5	15	12	25
Q014567	122.50	124.00	1.5		0.007							<0.2	3.83	14	40	<0.5	2	0.81	<0.5	17	7	40
Q014568	124.00	125.50	1.5		<0.005							<0.2	4.32	5	50	<0.5	<2	0.89	<0.5	16	8	183
Q014569	125.50	127.00	1.5		0.005							<0.2	4.17	4	40	<0.5	5	0.77	<0.5	22	7	1315
Q014572	127.00	128.50	1.5		<0.005							<0.2	3.94	4	40	<0.5	2	0.69	<0.5	17	6	729
Q014573	128.50	130.00	1.5		0.010							<0.2	3.21	33	40	<0.5	2	0.60	<0.5	19	8	23
Q014574	130.00	131.50	1.5		0.016							<0.2	2.87	12	50	<0.5	3	0.37	<0.5	17	11	11
Q014575	131.50	133.00	1.5		0.009							<0.2	3.52	8	50	<0.5	<2	1.47	<0.5	19	12	8
Q014576	133.00	134.50	1.5		<0.005							<0.2	3.85	8	50	<0.5	2	0.96	<0.5	17	11	10
Q014577	134.50	136.00	1.5		0.031							0.6	3.54	21	40	<0.5	2	0.80	<0.5	19	6	426
Q014578	136.00	137.50	1.5		<0.005							0.2	3.00	6	50	<0.5	<2	0.81	<0.5	17	8	782
Q014579	137.50	139.00	1.5		<0.005							<0.2	2.37	5	60	<0.5	2	0.39	<0.5	14	10	444
Q014580	139.00	140.50	1.5		<0.005							<0.2	2.92	5	120	<0.5	<2	0.55	<0.5	10	7	186
Q014582	140.50	142.00	1.5		<0.005							<0.2	2.69	5	150	<0.5	<2	0.45	<0.5	9	11	16
Q014583	142.00	143.00	1		<0.005							<0.2	3.67	7	60	<0.5	3	0.64	<0.5	13	8	4
Q014584	143.00	144.50	1.5		0.011							<0.2	3.89	19	50	<0.5	3	0.80	<0.5	19	8	13
Q014585	144.50	146.00	1.5		0.014							0.2	3.30	29	50	<0.5	4	0.54	<0.5	20	3	10
Q014586	146.00	147.50	1.5		<0.005							<0.2	3.35	12	40	<0.5	2	0.57	<0.5	20	3	74
Q014587	147.50	149.00	1.5		<0.005							0.2	3.42	10	50	<0.5	<2	0.87	<0.5	20	3	792
Q014588	149.00	150.50	1.5		0.005							<0.2	3.30	4	50	<0.5	<2	0.62	<0.5	16	4	1200
Q014589	150.50	152.00	1.5		0.005							<0.2	3.22	7	40	<0.5	2	0.53	<0.5	18	3	41
Q014591	152.00	153.50	1.5		0.006							0.2	3.16	9	40	<0.5	4	0.57	<0.5	15	3	9
Q014592	153.50	155.00	1.5		0.009							<0.2	3.26	8	30	<0.5	2	0.49	0.5	16	3	9
Q014593	155.00	156.50	1.5		0.008							<0.2	2.34	7	40	<0.5	3	0.66	<0.5	20	3	12
Q014594	156.50	158.00	1.5		0.006							<0.2	2.86	4	40	<0.5	3	0.51	<0.5	18	3	8
Q014595	158.00	159.50	1.5		0.005							<0.2	3.31	6	30	<0.5	2	0.44	<0.5	20	4	8
Q014596	159.50	161.00	1.5		0.007							<0.2	3.46	5	40	<0.5	2	0.40	<0.5	21	3	8
Q014597	161.00	162.50	1.5		0.006							<0.2	3.11	5	40	<0.5	2	0.45	<0.5	22	5	28
Q014598	162.50	164.00	1.5		0.005							<0.2	3.06	7	50	<0.5	<2	0.57	<0.5	19	4	6
Q014599	164.00	165.50	1.5		0.005							<0.2	3.52	7	50	<0.5	3	0.53	<0.5	14	3	5
Q014601	165.50	167.00	1.5		0.013							<0.2	3.18	15	40	<0.5	3	0.48	<0.5	15	2	7
Q014602	167.00	168.50	1.5		0.010							<0.2	3.26	14	50	<0.5	3	0.61	<0.5	15	3	17
Q014603	168.50	170.00	1.5		0.005							<0.2	2.95	8	50	<0.5	<2	0.73	<0.5	15	2	28
Q014604	170.00	171.50	1.5		0.009							<0.2	2.89	10	50	<0.5	<2	0.75	<0.5	17	3	234
Q014605	171.50	172.80	1.3		0.005							0.2	3.02	5	50	<0.5	5	0.57	<0.5	18	3	7

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014551	3.98	1	0.67	10		0.39	267	<1	0.01	2	950	5	3.55	<2	2			19	0.07	<10	4	<10		19
Q014552	4.09	<1	0.72	10		0.53	327	<1	0.01	1	1040	6	3.47	2	3			21	0.08	<10	5	<10		25
Q014553	3.90	<1	0.76	10		0.65	423	<1	0.02	1	800	5	3.13	<2	2			17	0.06	<10	5	<10		29
Q014554	2.79	<1	0.48	10		0.23	172	1	<0.01	1	510	4	2.74	<2	2			12	0.03	<10	1	<10		13
Q014555	2.97	1	0.55	10		0.40	309	<1	0.02	1	520	<2	2.46	2	2			11	0.06	<10	1	<10		19
Q014556	2.73	<1	0.68	10		0.51	408	<1	0.02	1	640	<2	1.78	3	3			15	0.07	<10	2	<10		24
Q014557	2.44	1	0.49	10		0.32	230	1	0.01	1	550	2	2.00	2	2			11	0.04	<10	2	<10		15
Q014558	2.42	<1	0.49	10		0.59	375	1	0.04	<1	430	3	1.41	2	3			12	0.05	<10	7	<10		22
Q014559	2.36	<1	0.74	10		0.57	242	<1	0.04	1	410	5	1.46	2	3			12	0.06	<10	12	<10		19
Q014562	5.82	<1	1.18	<10		1.81	649	2	0.07	5	650	11	3.24	4	6			21	0.14	<10	77	<10		87
Q014563	6.41	1	0.94	<10		2.80	1020	<1	0.07	5	560	2	2.08	5	8			22	0.12	<10	87	<10		68
Q014564	6.47	1	1.01	<10		2.50	882	<1	0.09	6	590	5	2.67	3	7			26	0.13	<10	85	<10		60
Q014565	6.93	<1	0.96	<10		2.93	1070	<1	0.08	5	560	2	2.26	5	8			23	0.14	<10	94	<10		66
Q014566	7.60	<1	1.03	<10		2.92	1035	<1	0.08	6	620	6	3.11	6	9			21	0.14	<10	94	<10		73
Q014567	7.22	<1	0.74	<10		3.08	1100	<1	0.08	4	1820	8	2.48	3	11			36	0.14	<10	95	<10		66
Q014568	7.69	<1	1.07	<10		3.14	1135	<1	0.14	4	1780	6	2.12	7	18			48	0.18	<10	141	<10		68
Q014569	8.53	1	0.91	<10		3.02	1050	<1	0.11	4	1590	3	3.41	3	13			33	0.16	<10	106	<10		84
Q014572	8.00	1	0.88	<10		2.95	1030	<1	0.07	4	1490	8	3.01	6	12			27	0.15	<10	97	<10		102
Q014573	7.33	<1	0.90	<10		2.41	794	1	0.05	8	1270	9	3.36	7	10			23	0.10	<10	87	<10		55
Q014574	6.29	<1	0.71	<10		2.42	811	1	0.02	5	590	4	2.55	2	6			12	0.07	<10	76	<10		60
Q014575	7.93	<1	0.43	<10		3.01	1105	1	0.04	6	590	3	3.46	6	7			30	0.05	<10	98	<10		73
Q014576	7.77	<1	0.77	<10		3.13	1030	<1	0.06	6	810	5	2.89	6	9			25	0.11	<10	91	<10		66
Q014577	7.50	<1	0.85	<10		2.59	802	4	0.12	4	1520	6	3.24	9	12			42	0.14	<10	98	<10		59
Q014578	6.81	<1	0.92	<10		1.98	711	<1	0.12	4	1240	4	3.36	8	11			41	0.15	<10	83	<10		57
Q014579	5.03	1	0.81	<10		1.64	543	2	0.08	4	840	2	2.13	6	7			17	0.11	<10	47	<10		54
Q014580	4.95	<1	1.16	<10		2.12	667	<1	0.09	3	890	3	1.10	7	8			26	0.12	<10	61	<10		53
Q014582	4.66	<1	0.78	<10		1.96	603	<1	0.07	4	850	4	1.26	5	7			21	0.11	<10	50	<10		50
Q014583	6.84	<1	0.81	<10		2.78	800	<1	0.10	4	890	2	2.58	4	10			34	0.12	<10	116	<10		58
Q014584	7.69	<1	1.01	<10		2.74	864	1	0.12	4	980	4	3.30	8	11			38	0.14	<10	120	<10		60
Q014585	7.57	<1	0.79	<10		2.47	748	3	0.09	3	1260	8	3.66	6	8			24	0.13	<10	80	<10		48
Q014586	7.14	<1	0.88	<10		2.50	710	1	0.10	3	1190	4	3.42	2	9			25	0.13	<10	81	<10		47
Q014587	7.15	<1	0.85	<10		2.54	738	1	0.11	3	1200	3	3.19	4	9			28	0.12	<10	86	<10		61
Q014588	6.87	<1	0.90	<10		2.46	748	<1	0.10	3	1310	<2	2.92	3	10			25	0.14	<10	90	<10		52
Q014589	7.50	<1	0.78	<10		2.57	703	1	0.08	3	1090	5	3.91	<2	9			19	0.12	<10	93	<10		53
Q014591	6.93	<1	0.74	<10		2.60	682	1	0.08	4	1080	32	3.42	3	10			23	0.14	<10	99	<10		87
Q014592	8.13	<1	0.73	<10		2.71	815	<1	0.07	4	1050	20	4.54	<2	9			21	0.13	<10	95	<10		82
Q014593	7.76	<1	0.54	<10		2.15	874	1	0.04	4	1000	12	4.96	3	6			44	0.05	<10	60	<10		67
Q014594	7.47	<1	0.70	<10		2.31	750	1	0.07	3	1080	8	4.54	2	8			21	0.12	<10	81	<10		60
Q014595	7.86	<1	0.71	<10		2.74	801	<1	0.05	4	970	6	3.94	2	9			17	0.13	<10	99	<10		59
Q014596	7.90	<1	0.73	<10		2.91	792	<1	0.05	4	1110	7	3.66	4	9			15	0.13	<10	101	<10		54
Q014597	7.30	<1	0.78	<10		2.51	693	<1	0.07	4	1030	7	3.77	5	9			17	0.14	<10	102	<10		46
Q014598	6.26	<1	0.78	<10		2.49	636	<1	0.08	4	1300	6	2.68	<2	9			21	0.14	<10	93	<10		44
Q014599	6.31	<1	0.89	<10		2.94	650	<1	0.08	4	1320	7	2.53	2	7			21	0.14	<10	83	<10		49
Q014601	6.48	1	0.79	<10		2.68	604	2	0.07	4	1220	8	3.18	5	6			19	0.13	<10	75	<10		44
Q014602	6.27	<1	0.78	<10		2.60	626	1	0.08	3	1160	8	2.94	2	6			24	0.11	<10	70	<10		49
Q014603	5.33	<1	1.06	<10		2.15	471	1	0.09	3	1480	5	2.57	3	6			26	0.14	<10	66	<10		44
Q014604	5.68	<1	1.11	<10		2.12	493	1	0.08	3	1110	8	2.93	6	7			23	0.14	<10	76	<10		48
Q014605	5.62	<1	1.01	<10		2.46	528	<1	0.09	3	1270	7	2.51	5	9			23	0.13	<10	99	<10		44

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014606	172.80	174.00	1.2		0.015							<0.2	5.63	18	1630	<0.5	<2	2.78	0.7	34	62	122
Q014607	174.00	175.32	1.32		0.005							<0.2	4.80	14	880	<0.5	2	2.38	<0.5	32	59	121
Q014608	175.32	176.50	1.18		0.009							<0.2	2.67	15	30	<0.5	5	0.66	0.5	26	5	40
Q014609	176.50	177.50	1		0.014							0.3	3.11	16	40	<0.5	2	0.71	<0.5	24	4	12
Q014611	177.50	178.44	0.94		0.009							0.4	2.59	12	30	<0.5	4	0.64	<0.5	21	4	15
Q014612	178.44	180.00	1.56		0.012							0.3	0.96	27	30	<0.5	2	2.18	<0.5	28	2	324
Q014613	180.00	180.40	0.4		0.014							<0.2	1.69	12	30	<0.5	5	0.72	<0.5	21	2	11
Q014614	180.40	182.20	1.8		0.024							<0.2	3.89	36	40	<0.5	2	0.90	<0.5	23	20	80
Q014615	182.20	183.05	0.85		<0.005							<0.2	6.59	6	1280	<0.5	2	1.75	<0.5	33	64	120
Q014616	183.05	184.50	1.45		0.011							0.2	3.24	7	90	<0.5	<2	0.47	<0.5	22	20	201
Q014617	184.50	186.00	1.5		0.017							<0.2	3.22	9	80	<0.5	4	0.45	<0.5	24	21	41
Q014618	186.00	187.50	1.5		0.026							0.3	3.56	17	60	<0.5	4	0.55	<0.5	29	14	41
Q014619	187.50	189.00	1.5		0.038							0.4	2.61	35	30	<0.5	5	0.67	<0.5	48	2	23
Q014622	189.00	190.50	1.5		0.026							0.3	2.65	14	40	<0.5	5	0.40	<0.5	64	6	24
Q014623	190.50	192.00	1.5		0.030							0.3	2.53	12	40	<0.5	6	0.52	<0.5	45	6	87
Q014624	192.00	193.50	1.5		0.034							0.5	2.58	14	50	<0.5	6	0.52	<0.5	41	5	87
Q014625	193.50	195.00	1.5		0.058							0.4	2.82	41	30	<0.5	4	0.41	<0.5	63	4	130
Q014626	195.00	196.50	1.5		0.012							<0.2	2.32	6	40	<0.5	3	0.59	<0.5	31	3	199
Q014627	196.50	198.00	1.5		0.008							<0.2	2.66	8	40	<0.5	6	0.52	<0.5	27	4	40
Q014628	198.00	199.50	1.5		0.012							<0.2	2.37	15	40	<0.5	5	0.57	<0.5	30	3	26
Q014629	199.50	201.00	1.5		0.016							0.3	2.29	34	50	<0.5	5	0.59	<0.5	27	3	242
Q014631	201.00	202.50	1.5		0.028							1.0	2.19	67	40	<0.5	6	0.53	<0.5	34	3	166
Q014632	202.50	204.00	1.5		0.017							0.5	2.72	36	40	<0.5	5	0.46	<0.5	60	2	31
Q014633	204.00	204.64	0.64		0.042							1.5	2.11	91	40	<0.5	9	0.49	<0.5	72	2	24
Q014634	204.64	205.02	0.38		0.105							9.0	1.39	79	20	<0.5	9	0.47	<0.5	61	2	36
Q014635	205.02	206.20	1.18		0.127							8.3	1.81	87	20	<0.5	6	0.53	<0.5	44	3	19
Q014636	206.20	207.50	1.3		0.134							6.9	1.52	88	20	<0.5	6	0.52	<0.5	38	3	22
Q014637	207.50	208.40	0.9		0.143							6.9	2.00	121	20	<0.5	8	0.47	<0.5	51	3	71
Q014638	208.40	209.40	1		0.087							1.4	3.36	43	30	<0.5	4	0.54	<0.5	24	4	17
Q014639	209.40	211.00	1.6		0.142							3.1	2.74	37	30	<0.5	8	0.62	<0.5	36	4	15
Q014641	211.00	212.50	1.5		0.109							1.7	3.61	33	40	<0.5	7	0.74	<0.5	47	3	10
Q014642	212.50	214.00	1.5		0.012							0.4	4.36	7	80	<0.5	6	0.63	<0.5	26	4	6
Q014643	214.00	215.50	1.5		0.007							<0.2	3.96	9	90	<0.5	<2	0.61	<0.5	21	4	7
Q014644	215.50	217.00	1.5		<0.005							<0.2	3.92	14	90	<0.5	5	0.56	<0.5	15	3	13
Q014645	217.00	218.50	1.5		0.006							<0.2	3.55	6	50	<0.5	4	0.62	<0.5	18	3	75
Q014646	218.50	220.00	1.5		0.006							<0.2	3.22	12	40	<0.5	6	0.61	<0.5	21	3	127
Q014647	220.00	221.50	1.5		<0.005							<0.2	3.09	5	80	<0.5	2	0.50	<0.5	16	4	76
Q014648	221.50	223.05	1.55		0.005							<0.2	3.00	10	160	<0.5	2	0.60	<0.5	16	5	272
Q014649	223.05	224.50	1.45		<0.005							<0.2	4.14	6	520	<0.5	<2	1.65	<0.5	30	127	71
Q014651	224.50	225.95	1.45		<0.005							<0.2	3.97	6	1270	<0.5	2	2.91	<0.5	32	144	85
Q014652	225.95	227.50	1.55		<0.005							<0.2	3.55	9	70	<0.5	<2	0.48	<0.5	23	5	13
Q014653	227.50	229.00	1.5		<0.005							<0.2	2.64	<2	60	<0.5	<2	0.53	<0.5	18	5	2
Q014654	229.00	230.50	1.5		<0.005							<0.2	2.75	<2	40	<0.5	<2	0.52	<0.5	26	4	152
Q014655	230.50	232.00	1.5		<0.005							0.4	2.70	5	90	<0.5	<2	0.60	<0.5	15	3	317
Q014656	232.00	233.50	1.5		<0.005							0.3	2.93	12	60	<0.5	<2	0.38	<0.5	18	4	89
Q014657	233.50	234.45	0.95		0.005							0.2	2.78	3	30	<0.5	<2	0.36	<0.5	40	4	64
Q014658	234.45	234.65	0.2		0.118							0.7	2.98	30	80	<0.5	2	1.42	1.9	21	3	63
Q014659	234.65	236.00	1.35		<0.005							<0.2	3.45	4	100	<0.5	<2	0.34	<0.5	14	4	40

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014606	6.94	<1	1.63	<10		5.14	1360	1	0.31	48	940	2	0.18	9	28			129	0.23	<10	307	<10		92
Q014607	6.87	1	0.48	<10		5.56	1340	<1	0.11	47	850	3	0.03	6	30			164	0.14	<10	298	<10		80
Q014608	6.29	<1	0.74	<10		2.30	534	<1	0.08	4	1120	10	3.48	4	12			26	0.13	<10	129	<10		53
Q014609	6.42	<1	1.05	<10		2.46	701	1	0.09	4	1220	10	3.30	4	9			32	0.13	<10	109	<10		48
Q014611	6.64	<1	0.98	<10		2.19	888	<1	0.04	3	1280	26	3.76	4	7			27	0.08	<10	91	<10		53
Q014612	6.50	<1	0.43	<10		1.71	1030	3	0.01	5	970	16	4.08	76	6			122	0.01	<10	36	<10		50
Q014613	5.72	<1	0.66	<10		1.59	730	9	0.05	3	1380	8	3.60	5	7			43	0.03	<10	58	<10		39
Q014614	7.53	<1	0.91	<10		3.75	1355	1	0.08	18	1080	12	2.65	13	14			47	0.08	<10	134	<10		78
Q014615	7.52	<1	1.29	<10		6.08	1700	1	0.26	48	910	9	0.19	8	33			62	0.15	<10	297	<10		97
Q014616	4.78	<1	1.11	<10		3.03	659	2	0.08	16	1080	3	1.31	7	14			19	0.13	<10	104	<10		57
Q014617	4.97	<1	0.89	<10		3.07	695	1	0.07	17	1070	3	1.73	5	11			18	0.12	<10	93	<10		56
Q014618	5.20	<1	1.11	<10		2.94	655	4	0.10	17	900	8	1.91	9	9			23	0.14	<10	105	<10		60
Q014619	5.62	<1	1.25	<10		1.69	339	14	0.08	7	1420	9	3.90	6	6			26	0.12	<10	132	<10		44
Q014622	6.27	1	0.85	<10		2.00	492	5	0.03	9	1100	11	3.97	7	4			16	0.10	<10	43	<10		98
Q014623	5.22	<1	0.87	<10		1.96	474	5	0.03	7	1670	12	2.85	9	5			18	0.10	<10	40	<10		74
Q014624	5.32	<1	0.86	<10		1.96	477	3	0.03	6	1510	10	3.02	9	5			17	0.09	<10	40	<10		64
Q014625	7.79	<1	0.79	<10		2.22	527	16	0.03	10	970	10	5.79	10	5			15	0.10	<10	61	<10		67
Q014626	4.92	<1	0.93	<10		1.57	362	2	0.06	9	1550	5	3.20	13	4			21	0.09	<10	36	<10		44
Q014627	5.37	<1	0.93	<10		1.99	460	2	0.07	7	1230	3	3.00	5	6			19	0.12	<10	63	<10		55
Q014628	4.82	<1	1.09	10		1.65	368	5	0.07	7	1490	7	2.96	6	6			22	0.13	<10	61	<10		46
Q014629	4.56	<1	0.97	10		1.56	353	7	0.07	8	1520	7	2.86	8	5			24	0.11	<10	55	<10		46
Q014631	4.71	<1	1.02	<10		1.50	350	18	0.05	6	1390	9	3.14	13	5			22	0.10	<10	51	<10		48
Q014632	5.81	<1	1.10	<10		2.02	454	4	0.03	7	1260	8	3.68	5	6			17	0.10	<10	64	<10		60
Q014633	5.12	<1	0.95	<10		1.56	383	11	0.02	8	1420	10	3.65	10	5			19	0.09	<10	50	<10		45
Q014634	7.02	<1	0.85	<10		0.72	223	9	0.04	10	920	23	7.73	9	4			18	0.04	<10	38	<10		23
Q014635	5.90	<1	0.93	<10		1.11	328	6	0.04	6	930	18	5.21	5	4			19	0.08	<10	40	<10		47
Q014636	5.73	<1	0.92	<10		0.78	223	4	0.06	6	960	20	5.94	7	4			18	0.07	<10	38	<10		29
Q014637	7.58	<1	1.00	<10		1.36	354	13	0.06	6	810	20	7.45	9	5			14	0.09	<10	53	<10		41
Q014638	6.45	<1	1.09	<10		2.88	705	6	0.07	5	1060	12	3.60	7	7			18	0.13	<10	89	<10		71
Q014639	5.77	<1	1.19	<10		2.03	478	4	0.09	6	1180	11	3.89	6	7			22	0.14	<10	72	<10		47
Q014641	6.50	<1	0.96	<10		2.88	664	6	0.10	6	1280	10	3.53	8	7			24	0.13	<10	81	<10		58
Q014642	6.63	1	0.82	<10		3.73	900	2	0.08	7	1380	4	2.10	4	8			20	0.12	<10	101	<10		75
Q014643	6.14	<1	0.87	<10		3.27	811	<1	0.09	7	1360	3	2.16	7	8			19	0.13	<10	105	<10		67
Q014644	6.08	<1	1.01	<10		3.41	828	<1	0.06	8	1590	9	1.78	6	10			19	0.14	<10	131	<10		79
Q014645	6.24	<1	0.92	<10		3.05	710	<1	0.07	9	1690	3	2.59	18	11			17	0.14	<10	144	<10		70
Q014646	6.14	<1	0.87	<10		2.70	650	<1	0.07	13	1640	9	3.07	18	11			17	0.13	<10	152	<10		64
Q014647	5.20	1	0.75	<10		2.62	694	<1	0.07	6	1060	5	1.98	9	10			13	0.13	<10	180	<10		62
Q014648	5.34	<1	0.33	<10		2.74	770	<1	0.05	4	1190	6	1.67	8	13			12	0.14	<10	152	<10		64
Q014649	5.85	1	0.10	<10		5.04	1200	<1	0.07	53	620	7	0.21	7	28			49	0.15	<10	261	<10		83
Q014651	5.68	1	0.10	<10		4.77	1405	<1	0.08	58	540	22	0.18	8	27			110	0.16	<10	254	<10		87
Q014652	6.81	1	0.40	<10		3.16	909	<1	0.06	4	1080	7	2.75	5	13			13	0.11	<10	145	<10		72
Q014653	4.97	<1	0.72	<10		2.14	555	<1	0.08	3	1280	4	2.64	3	8			15	0.13	<10	71	<10		46
Q014654	6.13	<1	0.61	<10		2.26	662	2	0.06	4	1410	<2	3.58	7	8			14	0.11	<10	94	<10		49
Q014655	5.54	<1	0.31	<10		2.27	862	<1	0.03	4	1300	3	2.39	6	8			16	0.09	<10	87	<10		69
Q014656	6.86	<1	0.43	<10		2.42	1005	<1	0.02	3	1010	13	3.59	6	7			11	0.09	<10	79	<10		81
Q014657	8.39	<1	0.40	<10		2.21	936	<1	0.04	4	1060	7	6.28	4	7			10	0.08	<10	70	<10		76
Q014658	7.49	<1	0.15	<10		2.77	1255	<1	0.01	3	1120	67	4.33	12	7			26	0.01	<10	74	<10		159
Q014659	6.43	<1	0.48	<10		2.88	1130	<1	0.01	4	930	<2	2.09	4	7			9	0.12	<10	76	<10		83

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014662	236.00	237.50	1.5		0.012							<0.2	3.75	7	40	<0.5	<2	0.54	<0.5	24	5	21
Q014663	237.50	239.00	1.5		<0.005							<0.2	4.20	4	120	<0.5	<2	0.44	<0.5	11	4	76
Q014664	239.00	240.50	1.5		0.005							0.4	3.35	2	130	<0.5	<2	0.82	<0.5	10	4	71
Q014665	240.50	242.00	1.5		0.011							<0.2	2.64	4	80	<0.5	3	0.45	<0.5	18	3	17
Q014666	242.00	243.50	1.5		0.020							0.3	2.86	13	40	<0.5	2	0.40	<0.5	27	3	26
Q014667	243.50	245.02	1.52		0.037							<0.2	2.01	22	20	<0.5	5	0.35	<0.5	51	3	21
Q014668	245.02	245.30	0.28		0.088							1.2	0.76	44	10	<0.5	15	0.72	1.1	63	3	1505
Q014669	245.30	247.00	1.7		0.025							<0.2	1.96	15	30	<0.5	5	0.46	<0.5	32	2	36
Q014671	247.00	248.50	1.5		0.040							0.2	1.36	13	30	<0.5	3	0.44	<0.5	14	3	20
Q014672	248.50	249.10	0.6		0.034							<0.2	1.67	21	30	<0.5	4	0.43	<0.5	17	2	18
Q014673	249.10	250.50	1.4		0.039							<0.2	1.48	19	20	<0.5	2	0.56	<0.5	21	1	28
Q014674	250.50	251.20	0.7		0.082							0.2	0.78	23	20	<0.5	4	0.36	<0.5	28	1	43
Q014675	251.20	252.50	1.3		0.092							0.2	0.50	23	10	<0.5	3	0.34	<0.5	30	1	43
Q014676	252.50	254.00	1.5		0.050							<0.2	0.54	24	10	<0.5	<2	0.35	<0.5	30	1	38
Q014677	254.00	255.50	1.5		0.030							<0.2	0.62	45	10	<0.5	<2	0.38	<0.5	35	1	24
Q014678	255.50	257.00	1.5		0.027							<0.2	0.67	51	10	<0.5	<2	0.40	<0.5	32	1	61
Q014679	257.00	258.50	1.5		0.017							<0.2	0.77	48	10	<0.5	<2	0.31	<0.5	30	1	54
Q014681	258.50	260.20	1.7		0.016							<0.2	0.91	30	20	<0.5	<2	0.46	<0.5	33	1	55
Q014682	260.20	261.50	1.3		0.006							<0.2	1.81	6	120	<0.5	2	0.75	<0.5	17	2	346
Q014683	261.50	263.00	1.5		0.007							<0.2	1.50	4	130	<0.5	<2	0.62	<0.5	19	2	148
Q014684	263.00	264.50	1.5		<0.005							<0.2	1.90	2	140	<0.5	<2	0.55	<0.5	7	2	271
Q014685	264.50	266.00	1.5		<0.005							<0.2	2.43	3	80	<0.5	2	0.69	<0.5	8	3	67
Q014686	266.00	267.81	1.81		0.009							<0.2	2.63	22	60	<0.5	2	0.49	<0.5	18	28	11
Q014687	267.81	269.00	1.19		0.068							0.2	0.61	26	30	<0.5	3	0.61	<0.5	29	1	53
Q014688	269.00	270.00	1		0.017							<0.2	3.08	28	30	<0.5	<2	0.65	<0.5	24	115	52
Q014689	270.00	270.98	0.98		0.041							<0.2	0.81	87	20	0.5	<2	0.66	<0.5	34	3	72
Q014691	270.98	272.00	1.02		0.005							0.2	4.63	7	550	<0.5	2	0.62	<0.5	31	175	41
Q014692	272.00	273.64	1.64		0.048							0.2	0.66	63	30	<0.5	2	0.80	0.5	34	2	63
Q014693	273.64	274.63	0.99		0.048							0.2	3.86	25	60	<0.5	<2	0.69	<0.5	39	120	54
Q014694	274.63	275.90	1.27		0.022							<0.2	2.70	12	50	<0.5	3	0.79	<0.5	25	68	36
Q014695	275.90	277.45	1.55		0.021							0.2	2.14	9	40	<0.5	2	0.74	<0.5	28	3	20
Q014696	277.45	278.60	1.15		0.041							<0.2	1.84	9	30	<0.5	<2	0.72	<0.5	25	2	51
Q014697	278.60	279.62	1.02		0.057							<0.2	2.17	8	40	<0.5	<2	0.75	<0.5	26	7	74
Q014698	279.62	280.66	1.04		<0.005							<0.2	4.84	3	430	<0.5	<2	0.84	<0.5	34	418	62
Q014699	280.66	282.00	1.34		0.040							<0.2	2.33	4	30	<0.5	3	0.62	<0.5	22	7	28
Q014702	282.00	283.50	1.5		0.022							<0.2	2.28	6	40	<0.5	2	0.58	<0.5	23	2	92
Q014703	283.50	284.52	1.02		0.035							<0.2	1.55	12	30	<0.5	2	0.50	<0.5	34	3	43
Q014704	284.52	285.44	0.92		0.081							0.2	1.59	25	30	<0.5	6	0.53	<0.5	38	3	23
Q014705	285.44	287.00	1.56		0.043							<0.2	0.76	27	20	<0.5	2	0.51	<0.5	30	1	49
Q014706	287.00	288.24	1.24		0.052							<0.2	0.85	36	30	<0.5	<2	0.84	<0.5	38	1	61
Q014707	288.24	289.50	1.26		0.025							<0.2	2.21	24	40	<0.5	2	0.66	<0.5	23	4	36
Q014708	289.50	291.00	1.5		0.030							<0.2	3.09	27	40	<0.5	3	0.50	<0.5	25	5	614
Q014709	291.00	292.50	1.5		0.023							<0.2	4.92	19	70	<0.5	3	1.03	<0.5	29	73	51
Q014711	292.50	293.47	0.97		0.024							0.2	3.30	17	40	<0.5	3	0.53	<0.5	18	6	11
Q014712	293.47	295.00	1.53		0.074							0.8	0.67	64	30	<0.5	2	0.56	<0.5	33	3	27
Q014713	295.00	296.50	1.5		0.048							0.4	0.60	40	30	<0.5	5	0.45	<0.5	26	3	19
Q014714	296.50	298.00	1.5		0.037							0.5	0.44	32	30	<0.5	<2	0.38	<0.5	42	3	227
Q014715	298.00	299.50	1.5		0.066							0.3	0.51	68	20	<0.5	5	0.62	<0.5	71	2	34

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014662	8.75	1	0.38	<10		3.52	1120	<1	0.01	4	1380	7	5.61	5	6			14	0.08	<10	85	<10		106
Q014663	6.97	1	0.46	<10		4.03	1230	<1	0.01	5	1290	3	2.24	2	8			12	0.09	<10	90	<10		92
Q014664	5.91	1	0.23	<10		3.08	1205	<1	0.02	5	1190	32	1.95	5	6			16	0.03	<10	88	<10		105
Q014665	5.37	<1	0.37	<10		2.19	896	<1	0.02	7	1170	6	2.48	2	5			13	0.06	<10	126	<10		77
Q014666	6.51	1	0.56	<10		2.26	843	<1	0.03	6	940	7	3.52	4	7			11	0.10	<10	96	<10		77
Q014667	6.70	1	0.64	<10		1.40	484	2	0.02	7	920	6	5.94	4	5			10	0.10	<10	61	<10		81
Q014668	17.30	1	0.31	<10		0.38	189	38	0.03	3	320	18	>10.00	42	2			15	0.01	<10	31	<10		132
Q014669	6.02	<1	0.88	<10		1.44	451	1	0.03	5	1030	6	4.83	5	6			11	0.12	<10	67	<10		105
Q014671	4.84	<1	0.74	<10		0.88	335	1	0.03	6	820	6	4.28	5	5			11	0.07	<10	46	<10		46
Q014672	5.60	<1	0.65	<10		1.21	438	<1	0.01	7	930	5	4.68	6	5			13	0.07	<10	51	<10		46
Q014673	5.99	<1	0.58	<10		0.96	386	1	0.02	10	890	7	6.29	6	5			21	0.02	<10	38	<10		34
Q014674	6.76	<1	0.34	<10		0.42	204	4	0.01	7	470	8	8.41	12	2			12	<0.01	<10	18	<10		18
Q014675	7.03	2	0.34	<10		0.09	73	1	<0.01	8	790	11	9.61	13	2			10	<0.01	<10	12	<10		6
Q014676	7.67	1	0.36	<10		0.09	56	2	<0.01	9	1210	14	>10.00	11	2			12	<0.01	<10	14	<10		5
Q014677	9.57	1	0.37	<10		0.10	50	1	<0.01	9	1630	11	>10.00	9	3			13	<0.01	<10	16	<10		12
Q014678	8.20	<1	0.38	<10		0.16	101	1	<0.01	9	1280	14	>10.00	11	2			14	<0.01	<10	16	<10		11
Q014679	6.62	1	0.41	<10		0.26	110	1	<0.01	8	910	11	8.41	8	2			10	<0.01	<10	18	<10		11
Q014681	6.79	1	0.42	<10		0.47	182	3	<0.01	9	870	8	8.38	9	3			14	<0.01	<10	21	<10		17
Q014682	3.19	<1	0.65	10		1.33	475	<1	0.03	7	1360	3	1.80	19	5			25	0.04	<10	45	<10		43
Q014683	2.94	<1	0.61	10		1.14	420	<1	0.02	10	1120	3	1.60	3	4			20	0.04	<10	39	<10		38
Q014684	3.18	<1	0.94	10		1.42	501	<1	0.03	3	1010	2	1.45	8	5			17	0.10	<10	48	<10		45
Q014685	3.78	<1	1.16	<10		1.80	505	<1	0.09	2	820	<2	1.92	3	7			23	0.12	<10	61	<10		45
Q014686	4.87	<1	1.16	<10		2.33	607	<1	0.03	19	1090	3	2.62	<2	7			15	0.10	<10	63	<10		58
Q014687	7.27	1	0.37	<10		0.21	108	1	0.01	9	1440	7	9.09	14	2			14	<0.01	<10	15	<10		9
Q014688	7.08	2	1.26	<10		2.69	820	1	0.08	54	1360	8	5.68	6	10			24	0.10	<10	77	<10		47
Q014689	8.96	<1	0.46	<10		0.25	124	2	0.02	17	1560	15	>10.00	18	3			16	0.01	<10	20	<10		13
Q014691	5.48	1	1.83	<10		4.43	1470	<1	0.06	115	840	20	0.34	<2	13			20	0.19	<10	115	<10		86
Q014692	8.18	<1	0.38	<10		0.25	136	2	0.01	15	1190	16	>10.00	12	3			16	<0.01	<10	19	<10		12
Q014693	6.62	<1	2.07	<10		3.44	1150	1	0.04	90	930	8	2.96	3	11			18	0.16	<10	99	<10		70
Q014694	4.64	1	1.67	<10		1.85	597	1	0.11	43	1140	6	2.87	6	9			30	0.12	<10	84	<10		40
Q014695	5.69	<1	1.07	<10		1.58	448	1	0.05	5	1350	6	4.34	<2	7			20	0.09	<10	67	<10		48
Q014696	5.50	<1	0.83	<10		1.24	374	1	0.07	5	1050	6	4.64	7	7			22	0.08	<10	65	<10		36
Q014697	6.04	1	0.59	<10		1.93	540	1	0.07	6	1380	7	4.48	5	10			19	0.09	<10	82	<10		46
Q014698	5.56	1	0.42	<10		6.41	1540	<1	0.12	144	620	2	0.05	<2	33			37	0.16	<10	232	<10		73
Q014699	6.40	<1	0.71	<10		2.02	553	1	0.07	8	1250	5	4.65	2	10			15	0.12	<10	83	<10		46
Q014702	5.89	1	1.12	<10		1.70	479	<1	0.07	3	1210	12	4.18	5	8			15	0.15	<10	62	<10		107
Q014703	4.94	<1	0.87	<10		0.97	349	1	0.04	11	1090	6	4.18	8	6			14	0.10	<10	59	<10		35
Q014704	5.93	<1	0.69	<10		1.15	397	1	0.05	8	900	7	5.41	5	7			11	0.09	<10	62	<10		43
Q014705	6.63	2	0.50	<10		0.29	116	1	0.01	8	450	12	8.07	4	3			11	0.05	<10	26	<10		12
Q014706	7.40	1	0.50	<10		0.39	197	2	0.01	13	920	10	8.85	6	4			14	0.03	<10	31	<10		15
Q014707	5.48	<1	1.10	<10		1.46	533	2	0.07	9	1060	6	4.10	<2	7			17	0.12	<10	77	<10		48
Q014708	7.05	1	1.01	<10		2.33	927	1	0.08	8	630	7	4.34	2	8			16	0.13	<10	106	<10		77
Q014709	6.83	1	1.67	<10		4.04	1445	<1	0.23	35	590	2	1.86	<2	22			33	0.18	<10	208	<10		88
Q014711	7.09	1	1.34	<10		2.45	1195	<1	0.09	9	500	4	3.75	<2	9			18	0.14	<10	96	<10		83
Q014712	6.44	1	0.43	<10		0.21	237	1	0.03	8	580	14	7.77	6	3			15	0.02	<10	26	<10		30
Q014713	4.99	<1	0.40	<10		0.16	210	2	0.01	9	540	12	5.89	5	2			10	0.02	<10	21	<10		10
Q014714	5.60	<1	0.32	<10		0.13	186	5	<0.01	8	510	8	6.77	13	2			13	0.01	<10	14	<10		8
Q014715	8.29	1	0.35	<10		0.22	309	7	0.01	10	580	12	>10.00	3	2			21	<0.01	<10	15	<10		14

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014716	299.50	301.07	1.57		0.037							0.4	0.56	48	30	<0.5	2	0.56	<0.5	39	3	65
Q014717	301.07	302.67	1.6		0.012							0.2	2.60	26	40	<0.5	4	0.79	<0.5	42	6	1570
Q014718	302.67	304.03	1.36		0.009							<0.2	2.27	9	40	<0.5	2	1.13	<0.5	24	4	23
Q014719	304.03	305.05	1.02		0.015							<0.2	2.11	22	40	<0.5	<2	0.77	<0.5	33	7	550
Q014721	305.05	306.00	0.95		0.064							0.3	2.31	92	30	<0.5	5	0.55	<0.5	42	5	10
Q014722	306.00	307.20	1.2		0.186							0.7	0.78	119	20	<0.5	4	0.45	<0.5	55	3	12
Q014723	307.20	308.35	1.15		0.333							1.0	0.70	114	20	<0.5	2	0.46	<0.5	59	5	15
Q014724	308.35	309.50	1.15		0.075							0.2	1.83	61	20	<0.5	4	0.60	<0.5	71	4	12
Q014725	309.50	311.00	1.5		0.093							0.4	2.43	92	20	<0.5	<2	0.53	<0.5	29	5	35
Q014726	311.00	312.50	1.5		0.227							1.0	1.31	152	20	<0.5	2	0.37	<0.5	43	3	17
Q014727	312.50	313.45	0.95		0.120							0.8	2.14	80	20	<0.5	5	0.45	<0.5	53	3	15
Q014728	313.45	314.00	0.55		0.174							0.8	3.45	89	20	<0.5	7	0.74	<0.5	77	5	64
Q014729	314.00	315.00	1		0.032							<0.2	3.82	33	30	<0.5	2	0.59	<0.5	40	4	8
Q014731	315.00	316.00	1		0.083							0.2	4.07	65	20	<0.5	<2	0.65	<0.5	59	4	12
Q014732	316.00	316.70	0.7		0.094							0.4	3.42	107	20	<0.5	3	0.52	<0.5	81	3	13
Q014733	316.70	318.00	1.3		0.039							0.2	3.36	63	20	<0.5	2	0.60	<0.5	63	3	8
Q014734	318.00	319.50	1.5		0.016							<0.2	5.21	42	30	<0.5	<2	0.72	<0.5	36	5	12
Q014735	319.50	320.35	0.85		0.035							0.5	5.66	54	30	<0.5	2	0.61	<0.5	47	4	14
Q014736	320.35	321.00	0.65		0.060							0.7	2.84	52	10	<0.5	7	0.56	<0.5	78	3	14
Q014737	321.00	322.31	1.31		0.022							<0.2	3.67	51	30	<0.5	3	0.76	<0.5	56	4	9
Q014738	322.31	323.50	1.19		0.130							0.7	1.43	100	20	<0.5	<2	0.48	<0.5	24	4	10
Q014739	323.50	324.50	1		0.177							1.0	1.24	131	20	<0.5	4	0.35	<0.5	34	3	14
Q014742	324.50	325.78	1.28		0.114							0.7	1.41	57	20	<0.5	2	0.43	<0.5	35	3	17
Q014743	325.78	327.00	1.22		0.125							0.7	4.07	62	20	<0.5	9	0.51	<0.5	75	6	14
Q014744	327.00	328.38	1.38		0.056							0.5	5.11	21	20	<0.5	6	0.57	<0.5	49	5	9
Q014745	328.38	328.83	0.45		0.063							0.4	6.53	54	20	<0.5	2	0.55	<0.5	89	5	12
Q014746	328.83	330.20	1.37		0.020							<0.2	5.21	20	40	<0.5	2	0.57	<0.5	34	6	11
Q014747	330.20	331.50	1.3		<0.005							<0.2	2.79	4	280	<0.5	2	2.95	<0.5	23	67	35
Q014748	331.50	333.00	1.5		<0.005							0.2	2.35	2	180	<0.5	<2	2.14	<0.5	17	55	28
Q014749	333.00	334.56	1.56		<0.005							<0.2	3.15	6	350	<0.5	3	2.76	<0.5	20	73	7
Q014751	334.56	336.00	1.44		0.009							<0.2	4.93	9	40	<0.5	<2	0.75	<0.5	33	7	10
Q014752	336.00	337.50	1.5		0.015							<0.2	3.49	15	20	<0.5	<2	0.62	<0.5	52	5	17
Q014753	337.50	339.00	1.5		0.010							<0.2	4.26	11	30	<0.5	<2	0.63	<0.5	48	5	35
Q014754	339.00	340.50	1.5		0.026							0.4	2.97	31	30	<0.5	<2	0.57	<0.5	47	20	19
Q014755	340.50	342.00	1.5		0.019							0.3	2.84	20	30	<0.5	4	0.45	<0.5	44	4	31
Q014756	342.00	342.85	0.85		0.056							0.3	2.59	71	20	<0.5	3	0.48	<0.5	75	4	74
Q014757	342.85	344.00	1.15		0.089							0.3	2.12	46	10	<0.5	7	0.45	<0.5	138	5	49
Q014758	344.00	345.15	1.15		0.134							0.4	2.74	77	10	<0.5	11	0.46	<0.5	159	7	65
Q014759	345.15	346.50	1.35		0.028							0.2	3.82	32	30	<0.5	4	0.49	<0.5	54	4	86
Q014761	346.50	348.00	1.5		0.020							<0.2	3.12	18	20	<0.5	3	0.46	<0.5	30	5	8
Q014762	348.00	349.50	1.5		0.006							<0.2	3.93	9	30	<0.5	<2	0.48	<0.5	26	5	7
Q014763	349.50	351.08	1.58		0.012							<0.2	3.79	17	30	<0.5	<2	0.54	<0.5	33	5	6
Q014764	351.08	352.02	0.94		0.220							1.2	3.08	169	10	<0.5	5	0.38	<0.5	143	5	527
Q014765	352.02	353.41	1.39		0.006							<0.2	3.71	16	50	<0.5	<2	0.50	<0.5	23	5	7
Q014766	353.41	355.00	1.59		0.010							0.2	4.29	12	60	<0.5	3	0.52	<0.5	18	6	6
Q014767	355.00	356.50	1.5		0.012							<0.2	3.65	23	30	<0.5	<2	0.55	<0.5	23	5	14
Q014768	356.50	358.00	1.5		0.018							<0.2	4.51	25	40	<0.5	<2	0.60	<0.5	24	5	20
Q014769	358.00	359.50	1.5		0.020							<0.2	4.49	13	40	<0.5	2	0.53	<0.5	22	5	16

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014716	6.99	<1	0.35	<10		0.28	325	1	0.01	8	540	9	8.30	8	2			25	<0.01	<10	18	<10		15
Q014717	7.20	1	1.38	<10		2.00	1460	1	0.02	6	900	5	4.06	<2	9			25	0.15	<10	101	<10		69
Q014718	6.57	<1	0.49	<10		2.06	1365	1	0.01	5	980	6	3.27	<2	7			43	0.03	<10	70	<10		64
Q014719	6.21	1	0.84	<10		1.66	1110	1	0.02	6	610	7	3.85	20	6			26	0.06	<10	70	<10		57
Q014721	6.87	<1	1.51	<10		1.48	1030	6	0.05	7	680	11	5.86	2	6			24	0.14	<10	80	<10		54
Q014722	6.21	<1	0.51	<10		0.30	266	5	0.02	7	510	17	7.39	4	3			18	0.02	<10	27	<10		16
Q014723	6.71	<1	0.40	<10		0.25	205	5	0.02	5	430	20	8.13	4	2			17	0.02	<10	24	<10		13
Q014724	8.52	1	1.03	<10		0.89	463	1	0.09	6	620	10	9.42	4	4			20	0.10	<10	56	<10		29
Q014725	7.28	<1	1.40	<10		1.32	571	2	0.11	9	570	15	6.74	<2	7			21	0.12	<10	94	<10		40
Q014726	5.57	<1	0.83	<10		0.51	229	3	0.06	7	540	19	6.06	3	5			12	0.07	<10	49	<10		20
Q014727	6.87	<1	1.20	<10		1.11	411	7	0.08	6	630	14	6.71	4	6			17	0.10	<10	70	<10		29
Q014728	10.90	<1	1.36	<10		2.64	1180	13	0.04	7	430	21	8.99	5	9			22	0.12	<10	131	<10		64
Q014729	6.45	<1	1.99	<10		2.46	851	2	0.07	8	730	8	3.41	<2	9			27	0.18	<10	120	<10		52
Q014731	7.28	<1	2.08	<10		2.61	835	2	0.07	7	710	25	4.20	<2	10			29	0.16	<10	123	<10		65
Q014732	8.45	1	1.74	<10		2.26	761	3	0.05	6	700	15	6.48	2	8			22	0.15	<10	108	<10		55
Q014733	7.26	<1	1.61	<10		2.18	701	2	0.06	6	760	10	4.94	3	8			26	0.14	<10	106	<10		53
Q014734	9.18	<1	1.39	<10		4.33	1380	1	0.05	7	620	6	4.05	<2	13			31	0.17	<10	162	<10		95
Q014735	11.25	<1	1.35	<10		4.91	1625	<1	0.04	6	610	6	5.98	<2	12			27	0.17	<10	162	<10		105
Q014736	8.49	<1	1.31	<10		1.73	534	4	0.05	6	730	8	7.97	2	7			28	0.11	<10	92	<10		40
Q014737	6.59	<1	2.08	<10		2.13	629	1	0.07	9	720	4	4.49	<2	9			30	0.17	<10	117	<10		52
Q014738	4.50	<1	0.65	<10		0.38	211	1	0.07	5	410	11	4.65	2	4			19	0.04	<10	42	<10		11
Q014739	5.08	<1	0.75	<10		0.31	196	6	0.06	6	650	14	5.87	<2	4			15	0.05	<10	39	<10		12
Q014742	4.11	<1	0.80	<10		0.42	232	1	0.08	6	600	10	4.07	2	4			17	0.06	<10	41	<10		36
Q014743	9.51	<1	1.97	<10		2.91	896	4	0.06	7	660	13	7.26	<2	9			25	0.15	<10	121	<10		69
Q014744	9.51	1	1.93	<10		3.91	1070	2	0.05	7	660	11	5.24	<2	13			27	0.17	<10	171	<10		80
Q014745	16.40	1	1.31	<10		5.62	1560	1	0.05	8	520	12	>10.00	<2	17			22	0.13	<10	258	<10		102
Q014746	7.85	<1	1.91	<10		3.98	990	1	0.06	7	730	5	3.27	<2	14			23	0.15	<10	190	<10		94
Q014747	4.24	<1	0.70	10		2.22	776	1	0.18	30	830	13	0.19	<2	13			152	0.20	<10	121	<10		76
Q014748	3.90	<1	0.40	10		1.77	702	1	0.17	28	830	21	0.10	2	7			111	0.24	<10	103	<10		88
Q014749	4.40	<1	1.00	10		2.33	794	1	0.26	34	860	12	0.09	2	14			166	0.27	<10	132	<10		73
Q014751	6.98	<1	1.97	<10		3.25	845	<1	0.14	7	620	6	2.81	<2	16			33	0.16	<10	202	<10		72
Q014752	6.72	1	1.54	<10		2.11	617	<1	0.17	6	640	5	4.38	<2	11			30	0.17	<10	139	<10		54
Q014753	7.08	1	1.50	<10		2.88	893	<1	0.17	7	690	7	3.21	<2	12			29	0.18	<10	158	<10		62
Q014754	5.51	<1	1.24	<10		1.95	508	1	0.12	13	590	6	3.65	<2	8			18	0.13	<10	109	<10		39
Q014755	5.56	1	1.06	<10		2.01	570	1	0.11	7	650	7	3.59	<2	7			15	0.12	<10	99	<10		46
Q014756	7.73	<1	0.96	<10		1.80	483	6	0.11	7	570	6	6.91	<2	7			14	0.11	<10	92	<10		39
Q014757	7.85	1	0.88	<10		1.24	341	9	0.10	7	750	9	7.90	2	5			13	0.08	<10	63	<10		26
Q014758	10.95	1	0.81	<10		1.92	550	3	0.10	7	500	9	>10.00	3	7			13	0.09	<10	94	<10		41
Q014759	7.21	1	1.03	<10		2.99	750	<1	0.12	7	600	4	4.24	5	9			16	0.12	<10	126	<10		59
Q014761	6.09	1	0.93	<10		2.41	601	<1	0.11	4	540	4	3.75	<2	8			15	0.11	<10	116	<10		48
Q014762	6.68	<1	0.87	<10		3.28	786	<1	0.12	5	510	3	3.21	2	9			18	0.13	<10	112	<10		63
Q014763	6.60	1	0.90	<10		3.01	777	<1	0.14	5	560	4	3.33	3	9			21	0.14	<10	105	<10		61
Q014764	15.80	<1	0.60	<10		2.39	706	3	0.10	7	230	24	>10.00	8	7			12	0.09	<10	100	<10		52
Q014765	5.36	1	0.88	<10		3.04	722	<1	0.12	5	780	3	1.87	<2	9			36	0.14	<10	99	<10		67
Q014766	6.13	1	0.77	<10		3.57	998	<1	0.13	6	570	4	1.61	2	10			23	0.15	<10	117	<10		78
Q014767	6.18	1	0.79	<10		3.02	799	<1	0.10	6	570	8	2.62	5	10			24	0.15	<10	115	<10		76
Q014768	7.57	<1	0.50	<10		4.00	1085	1	0.10	7	630	9	2.74	3	10			22	0.15	<10	150	<10		96
Q014769	6.97	1	0.64	<10		3.95	1010	1	0.09	6	570	18	2.05	4	10			35	0.11	<10	144	<10		121

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014771	359.50	361.00	1.5		0.072							1.1	3.72	26	20	<0.5	2	0.94	9.8	31	5	275
Q014772	361.00	362.81	1.81		0.043							0.7	2.80	21	50	<0.5	<2	1.43	3.6	26	4	164
Q014773	362.81	364.00	1.19		0.019							0.4	3.74	9	120	<0.5	<2	0.55	<0.5	20	5	279
Q014774	364.00	365.67	1.67		0.020							0.3	4.59	8	50	<0.5	<2	0.63	<0.5	27	5	303
Q014775	365.67	366.00	0.33		0.026							0.3	3.91	10	30	<0.5	2	0.73	<0.5	26	5	16
Q014776	366.00	367.00	1		0.010							<0.2	4.23	8	50	<0.5	2	0.61	<0.5	25	5	49
Q014777	367.00	368.50	1.5		0.029							0.4	3.61	14	30	<0.5	3	0.57	<0.5	27	5	53
Q014778	368.50	370.00	1.5		0.021							0.3	3.77	9	40	<0.5	2	0.47	<0.5	25	4	64
Q014779	370.00	371.50	1.5		0.035							0.4	4.63	18	40	<0.5	2	0.71	<0.5	24	5	26
Q014782	371.50	372.10	0.6		0.041							0.4	5.55	13	70	<0.5	2	0.89	<0.5	19	5	31
Q014783	372.10	373.51	1.41		0.247							2.2	1.14	58	10	<0.5	15	0.39	5.1	57	7	2090
Q014784	373.51	375.00	1.49		0.026							0.4	4.72	18	130	<0.5	<2	0.98	<0.5	26	9	1340
Q014785	375.00	376.50	1.5		0.038							<0.2	4.46	13	140	<0.5	<2	1.10	<0.5	23	7	285
Q014786	376.50	378.09	1.59		0.065							0.3	4.30	33	60	<0.5	<2	1.05	<0.5	21	4	21
Q014787	378.09	379.10	1.01		0.150							0.9	1.29	51	10	<0.5	3	0.45	<0.5	44	7	722
Q014788	379.10	379.68	0.58		0.074							2.5	2.70	29	30	<0.5	<2	0.66	1.9	49	15	5540
Q014789	379.68	381.00	1.32		0.094							0.3	4.94	42	60	<0.5	3	1.07	<0.5	117	9	537
Q014791	381.00	382.47	1.47		0.026							<0.2	5.64	38	50	<0.5	2	1.57	<0.5	32	9	519
Q014792	382.47	384.00	1.53		0.013							<0.2	5.68	23	80	<0.5	<2	2.03	<0.5	22	9	485
Q014793	384.00	385.50	1.5		0.014							<0.2	6.09	18	170	0.5	<2	1.91	<0.5	20	9	820
Q014794	385.50	386.77	1.27		0.025							<0.2	6.44	30	100	0.5	<2	1.56	<0.5	21	9	156
Q014795	386.77	388.04	1.27		0.209	4.00	0.421	0.556	1.920	0.01	3.13	4.8	6.22	60	20	0.6	15	2.71	132.5	35	7	4240
Q014796	388.04	389.50	1.46		0.044							<0.2	6.78	26	70	0.5	<2	2.03	<0.5	27	9	53
Q014797	389.50	391.00	1.5		0.028							<0.2	5.18	28	60	<0.5	2	1.34	1.6	27	8	225
Q014798	391.00	392.50	1.5		0.015							<0.2	6.88	12	80	0.5	<2	2.21	<0.5	25	9	542
Q014799	392.50	394.00	1.5		0.026							<0.2	6.28	30	80	0.5	<2	1.91	<0.5	21	8	373
Q014801	394.00	395.50	1.5		0.034							<0.2	6.10	32	90	<0.5	<2	1.42	<0.5	21	9	384
Q014802	395.50	397.00	1.5		0.058							<0.2	6.26	45	50	<0.5	3	1.79	<0.5	41	9	240
Q014803	397.00	398.50	1.5		0.027							<0.2	6.49	24	50	<0.5	<2	2.04	<0.5	48	9	125
Q014804	398.50	400.00	1.5		0.008							<0.2	6.61	16	60	0.5	<2	2.12	<0.5	25	9	54
Q014805	400.00	401.50	1.5		0.006							<0.2	5.76	10	70	0.5	3	1.86	<0.5	20	9	80
Q014806	401.50	403.00	1.5		0.014							0.3	6.24	13	70	0.5	<2	1.82	<0.5	29	9	896
Q014807	403.00	404.50	1.5		0.062							0.3	6.08	29	40	<0.5	2	1.39	7.8	43	9	524
Q014808	404.50	406.00	1.5		0.015							<0.2	5.67	15	50	<0.5	<2	1.59	<0.5	19	9	209
Q014809	406.00	407.50	1.5		0.015							<0.2	5.31	6	40	<0.5	<2	1.40	<0.5	33	9	144
Q014811	407.50	409.00	1.5		0.011							<0.2	4.64	8	50	<0.5	<2	1.42	<0.5	29	9	263
Q014812	409.00	410.50	1.5		<0.005							<0.2	5.06	9	90	<0.5	<2	1.49	<0.5	17	9	31
Q014813	410.50	412.00	1.5		<0.005							<0.2	4.53	14	60	<0.5	4	1.76	<0.5	21	9	9
Q014814	412.00	413.02	1.02		<0.005							<0.2	4.90	6	130	<0.5	<2	1.77	<0.5	23	9	170
Q014815	413.02	414.50	1.48		0.006							0.2	4.76	7	140	<0.5	<2	1.94	<0.5	24	7	214
Q014816	414.50	416.00	1.5		<0.005							<0.2	5.92	5	110	<0.5	<2	2.07	<0.5	26	8	547
Q014817	416.00	417.50	1.5		<0.005							<0.2	6.61	5	90	0.5	2	2.29	<0.5	26	6	415
Q014818	417.50	419.00	1.5		<0.005							<0.2	5.99	<2	990	<0.5	2	1.83	<0.5	21	8	196
Q014819	419.00	420.50	1.5		0.006							<0.2	5.44	3	110	<0.5	<2	1.41	<0.5	25	7	441
Q014822	420.50	422.00	1.5		0.020							<0.2	4.63	13	40	<0.5	<2	1.10	<0.5	27	6	788
Q014823	422.00	423.50	1.5		0.013							<0.2	3.77	14	60	<0.5	2	0.84	<0.5	26	6	156
Q014824	423.50	425.74	2.24		0.008							<0.2	3.85	17	40	<0.5	<2	0.96	<0.5	34	5	349
Q014825	425.74	426.00	0.26		0.006							<0.2	4.93	13	80	<0.5	<2	1.00	<0.5	20	10	30

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014771	7.29	2	0.82	<10		2.75	812	3	0.19	7	440	1065	4.35	8	13			33	0.11	<10	156	<10		1410
Q014772	5.97	1	0.31	<10		2.34	893	4	0.05	6	590	207	2.69	23	8			28	0.03	<10	105	<10		657
Q014773	6.32	1	0.48	<10		2.91	1000	<1	0.07	7	660	6	1.17	4	10			24	0.11	<10	124	<10		145
Q014774	7.31	1	0.81	<10		3.38	1100	1	0.14	7	710	10	1.80	3	12			30	0.15	<10	158	<10		95
Q014775	7.40	1	0.58	<10		3.02	1005	2	0.13	7	420	12	2.92	5	12			28	0.12	<10	161	<10		83
Q014776	6.55	<1	0.92	<10		3.01	975	<1	0.16	7	700	7	1.57	2	14			33	0.16	<10	157	<10		76
Q014777	6.72	2	0.75	<10		2.84	812	1	0.12	8	770	14	3.00	5	12			24	0.13	<10	142	<10		66
Q014778	6.42	1	0.67	<10		3.14	828	1	0.08	8	760	15	2.42	6	10			21	0.10	<10	142	<10		120
Q014779	7.73	2	0.57	<10		3.88	1110	2	0.11	8	660	26	2.53	5	10			33	0.11	<10	150	<10		216
Q014782	7.79	1	1.00	<10		4.67	1390	3	0.11	9	620	135	1.29	3	14			47	0.14	<10	181	<10		284
Q014783	13.25	1	0.14	<10		0.81	328	10	0.02	19	200	621	>10.00	15	3			14	0.03	<10	43	<10		599
Q014784	6.54	1	0.69	<10		3.07	1090	4	0.11	12	520	17	0.95	6	12			64	0.20	<10	145	<10		120
Q014785	6.06	1	0.83	<10		2.99	1070	5	0.12	11	610	35	1.00	4	12			63	0.18	<10	138	<10		149
Q014786	5.90	1	1.01	<10		3.10	851	2	0.13	9	900	46	1.75	7	9			58	0.13	<10	122	<10		178
Q014787	14.70	1	0.16	<10		0.93	395	12	0.03	19	290	107	>10.00	12	2			15	0.03	<10	47	<10		127
Q014788	7.29	<1	0.08	<10		2.28	913	21	0.02	18	380	340	3.67	9	7			26	0.08	<10	112	<10		337
Q014789	7.26	<1	0.79	<10		3.37	1190	5	0.09	13	460	47	1.69	7	15			66	0.20	<10	165	<10		117
Q014791	7.42	1	1.38	<10		3.25	1235	4	0.13	12	520	18	2.23	4	17			145	0.22	<10	188	<10		97
Q014792	6.84	<1	1.08	<10		3.33	1340	1	0.11	10	530	13	1.49	11	15			129	0.24	<10	216	<10		95
Q014793	6.74	<1	1.13	<10		3.73	1375	<1	0.13	13	600	12	0.96	8	14			136	0.25	<10	215	<10		116
Q014794	6.88	<1	1.47	<10		4.08	1360	1	0.15	12	630	23	1.24	3	16			103	0.24	<10	207	<10		426
Q014795	9.33	1	1.31	<10		2.25	819	31	0.27	9	580	5510	8.74	21	19			106	0.15	<10	259	<10		>10000
Q014796	7.76	1	1.55	<10		3.81	1385	1	0.19	12	600	22	1.77	5	18			150	0.21	<10	227	<10		378
Q014797	6.74	1	1.10	<10		3.02	1065	5	0.17	11	600	155	1.75	8	14			135	0.16	<10	169	<10		467
Q014798	7.45	<1	1.66	<10		3.78	1360	<1	0.19	12	600	21	1.28	6	19			204	0.23	<10	231	<10		207
Q014799	7.24	<1	1.35	<10		3.67	1340	<1	0.15	12	590	18	1.31	6	16			147	0.22	<10	210	<10		157
Q014801	8.03	1	0.73	<10		4.51	1600	1	0.09	12	620	12	1.47	6	14			102	0.21	<10	197	<10		161
Q014802	8.93	<1	0.89	<10		4.22	1530	2	0.15	15	610	14	2.66	6	15			116	0.19	<10	202	<10		136
Q014803	8.18	1	0.96	<10		3.88	1425	1	0.24	13	590	16	2.32	3	18			140	0.20	<10	223	<10		145
Q014804	7.19	1	1.13	<10		3.89	1485	<1	0.33	16	700	17	1.73	10	16			163	0.23	<10	218	<10		137
Q014805	6.26	<1	1.23	<10		3.49	1435	<1	0.30	13	640	9	1.45	9	13			193	0.24	<10	201	<10		111
Q014806	7.15	<1	1.12	<10		3.94	1575	<1	0.26	14	690	12	1.43	6	15			163	0.24	<10	205	<10		145
Q014807	8.54	<1	1.16	<10		4.22	1605	5	0.20	15	700	237	2.60	5	15			120	0.23	<10	204	<10		1390
Q014808	7.47	<1	0.92	<10		3.56	1500	<1	0.30	14	670	25	2.13	3	16			132	0.22	<10	205	<10		217
Q014809	7.88	1	0.98	<10		3.41	1535	1	0.28	13	710	6	2.74	6	13			106	0.24	<10	196	<10		102
Q014811	6.71	<1	0.67	<10		3.26	1425	<1	0.21	13	680	15	2.05	6	12			92	0.21	<10	180	<10		92
Q014812	6.40	<1	0.92	<10		3.27	1570	<1	0.29	12	670	10	1.36	5	14			94	0.25	<10	200	<10		90
Q014813	6.78	1	0.69	<10		3.14	1580	1	0.26	15	630	6	2.04	2	14			80	0.25	<10	200	<10		86
Q014814	7.17	<1	0.49	<10		3.68	1890	<1	0.22	16	650	7	1.46	3	15			78	0.24	<10	211	<10		101
Q014815	7.08	1	0.35	<10		3.50	1795	1	0.24	14	670	6	1.61	3	17			69	0.23	<10	234	<10		104
Q014816	7.33	<1	1.22	<10		3.04	1595	<1	0.45	6	790	9	1.04	3	20			126	0.25	<10	284	<10		124
Q014817	6.89	1	1.56	<10		3.26	1540	1	0.51	7	700	7	1.23	2	19			147	0.24	<10	252	<10		101
Q014818	5.91	1	1.45	<10		3.12	1460	1	0.48	8	740	7	0.36	5	16			146	0.25	<10	235	<10		91
Q014819	6.44	<1	1.36	<10		3.26	1430	<1	0.38	7	800	7	1.14	6	20			105	0.24	<10	271	<10		95
Q014822	7.13	<1	1.11	<10		3.12	1235	<1	0.27	7	780	8	2.81	7	18			55	0.21	<10	242	<10		111
Q014823	5.67	1	0.99	<10		2.61	1090	1	0.21	7	740	4	1.88	4	14			55	0.20	<10	194	<10		75
Q014824	5.88	1	1.22	<10		2.54	1085	1	0.22	6	710	6	2.46	4	14			70	0.22	<10	183	<10		75
Q014825	6.58	<1	0.93	<10		3.78	1580	<1	0.17	14	760	4	1.27	4	14			55	0.24	<10	187	<10		103

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014826	426.00	427.50	1.5		0.006							<0.2	4.42	14	50	<0.5	<2	1.15	<0.5	23	9	128
Q014827	427.50	429.28	1.78		0.008							<0.2	4.96	11	80	<0.5	2	0.89	<0.5	37	11	621
Q014828	429.28	430.50	1.22		0.007							<0.2	4.61	6	70	<0.5	<2	0.95	<0.5	33	12	345
Q014829	430.50	432.00	1.5		0.007							<0.2	5.00	7	80	<0.5	3	1.09	<0.5	28	11	488
Q014831	432.00	434.65	2.65		0.007							<0.2	5.40	14	60	<0.5	2	1.78	<0.5	23	6	437
Q014832	434.65	436.00	1.35		0.013							<0.2	5.33	25	70	<0.5	3	1.34	<0.5	17	10	30
Q014833	436.00	436.50	0.5		0.016							<0.2	5.49	30	50	<0.5	2	0.61	<0.5	27	10	144
Q014834	436.50	438.00	1.5		0.014							<0.2	5.83	21	40	<0.5	3	1.07	<0.5	25	10	21
Q014835	438.00	439.50	1.5		0.006							0.9	3.84	10	60	<0.5	<2	2.91	0.6	19	7	283
Q014836	439.50	441.00	1.5		0.005							0.5	3.71	8	50	<0.5	<2	1.87	<0.5	19	5	416
Q014837	441.00	442.50	1.5		0.009							0.2	4.46	11	70	<0.5	<2	1.36	<0.5	19	9	129
Q014838	442.50	443.51	1.01		0.005							<0.2	4.24	11	150	<0.5	<2	1.74	<0.5	14	8	45
Q014839	443.51	445.00	1.49		0.008							0.3	3.70	10	40	<0.5	3	1.52	<0.5	24	6	236
Q014841	445.00	446.50	1.5		0.010							0.8	2.91	17	100	<0.5	<2	3.20	0.9	27	5	691
Q014842	446.50	448.00	1.5		<0.005							<0.2	4.37	8	230	<0.5	2	1.90	0.5	21	9	58
Q014843	448.00	449.50	1.5		0.006							<0.2	4.77	10	130	<0.5	<2	1.53	<0.5	23	6	768
Q014844	449.50	451.00	1.5		0.008							<0.2	5.25	14	50	<0.5	<2	1.50	<0.5	21	7	826
Q014845	451.00	452.00	1		0.005							<0.2	5.64	7	60	<0.5	4	2.08	0.6	21	6	217
Q014846	452.00	453.25	1.25		0.007							0.2	6.38	11	40	0.5	<2	1.68	0.5	27	5	837
Q014847	453.25	454.50	1.25		0.010							<0.2	5.48	9	30	<0.5	4	1.62	<0.5	39	6	984
Q014848	454.50	455.50	1		0.014							<0.2	5.09	9	40	<0.5	<2	1.20	<0.5	36	7	843
Q014849	455.50	457.00	1.5		0.012							<0.2	5.73	13	80	<0.5	<2	1.30	0.5	31	11	569
Q014851	457.00	459.00	2		0.017							<0.2	5.38	12	60	<0.5	<2	1.19	<0.5	22	12	158
Q014852	459.00	460.00	1		0.008							<0.2	5.27	10	40	<0.5	<2	1.39	<0.5	29	12	16
Q014853	460.00	461.14	1.14		0.007							<0.2	4.39	10	40	<0.5	2	0.91	<0.5	39	7	874
Q014854	461.14	462.00	0.86		<0.005							<0.2	2.78	7	750	<0.5	<2	0.90	<0.5	30	682	95
Q014855	462.00	470.75	8.75		<0.005							<0.2	2.66	22	440	<0.5	<2	0.86	<0.5	27	677	47
Q014856	470.75	472.00	1.25		0.010							0.3	3.51	27	30	<0.5	<2	0.67	0.8	51	264	382
Q014857	472.00	473.05	1.05		0.012							0.3	3.45	6	80	<0.5	<2	0.68	<0.5	38	412	878
Q014858	473.05	474.50	1.45		0.019							<0.2	3.32	19	30	<0.5	4	0.35	<0.5	31	11	44
Q014859	474.50	476.00	1.5		0.007							<0.2	4.04	21	40	<0.5	<2	0.71	<0.5	30	12	180
Q014862	476.00	477.50	1.5		0.009							<0.2	4.48	8	50	<0.5	2	1.08	0.6	23	15	908
Q014863	477.50	479.00	1.5		0.040							0.6	3.94	13	30	<0.5	2	0.61	0.8	32	11	1190
Q014864	479.00	480.50	1.5		0.030							<0.2	4.19	31	20	<0.5	5	0.46	<0.5	48	12	40
Q014865	480.50	481.67	1.17		0.021							<0.2	4.51	24	20	<0.5	4	0.39	<0.5	51	13	33
Q014866	481.67	483.19	1.52		0.007							<0.2	4.68	22	30	<0.5	<2	0.40	<0.5	51	18	21
Q014867	483.19	484.76	1.57		0.010							<0.2	2.58	20	20	<0.5	2	0.40	<0.5	35	8	9
Q014868	484.76	486.00	1.24		0.011							<0.2	4.34	28	20	<0.5	4	0.64	<0.5	35	6	10
Q014869	486.00	487.50	1.5		0.008							<0.2	3.98	12	30	<0.5	2	0.67	<0.5	37	6	8
Q014871	487.50	489.00	1.5		0.007							<0.2	4.01	15	40	<0.5	<2	0.64	<0.5	36	9	51
Q014872	489.00	490.50	1.5		0.007							<0.2	4.24	20	30	<0.5	<2	0.59	<0.5	30	10	383
Q014873	490.50	491.36	0.86		0.010							<0.2	3.86	209	30	<0.5	<2	0.41	<0.5	40	7	49
Q014874	491.36	491.82	0.46		0.017							<0.2	3.50	80	20	<0.5	<2	0.39	<0.5	64	7	52
Q014875	491.82	493.30	1.48		0.008							<0.2	4.28	27	20	<0.5	2	0.45	<0.5	38	9	27
Q014876	493.30	494.00	0.7		0.010							<0.2	5.00	29	30	<0.5	<2	0.50	<0.5	38	9	74
Q014877	494.00	495.50	1.5		0.019							<0.2	4.32	40	20	<0.5	<2	0.44	<0.5	86	8	203
Q014878	495.50	496.50	1		<0.005							0.2	4.72	17	30	<0.5	<2	0.61	<0.5	35	9	1165
Q014879	496.50	497.35	0.85		0.007							0.2	4.22	23	20	<0.5	3	0.38	<0.5	40	8	1835

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014826	6.50	1	0.79	<10		3.19	1450	1	0.18	11	710	2	1.76	6	12			68	0.22	<10	176	<10		86
Q014827	7.38	1	0.80	<10		4.03	1770	<1	0.15	14	650	5	1.57	3	14			46	0.22	<10	190	<10		111
Q014828	6.61	1	0.99	<10		3.23	1470	1	0.25	9	690	3	1.38	5	16			61	0.22	<10	216	<10		93
Q014829	6.68	<1	1.22	<10		3.31	1580	<1	0.31	12	660	6	1.20	6	16			73	0.24	<10	216	<10		108
Q014831	6.60	1	1.49	<10		2.71	1435	<1	0.38	8	640	8	1.74	6	16			113	0.23	<10	209	<10		90
Q014832	7.37	<1	0.93	<10		3.86	1885	<1	0.21	16	610	5	1.19	3	15			73	0.17	<10	198	<10		122
Q014833	8.45	1	0.71	<10		4.64	2000	<1	0.11	17	680	5	1.72	3	15			40	0.14	<10	179	<10		144
Q014834	9.38	1	0.62	<10		4.81	2370	1	0.14	24	600	6	2.25	3	18			74	0.12	<10	194	<10		150
Q014835	6.79	<1	0.55	<10		2.95	1785	<1	0.14	11	640	61	1.51	3	16			211	0.10	<10	172	<10		125
Q014836	5.83	<1	0.87	<10		2.40	1550	<1	0.22	7	730	14	1.38	2	16			204	0.14	<10	184	<10		114
Q014837	6.99	<1	0.67	<10		3.79	2140	<1	0.12	17	660	19	1.19	2	17			111	0.09	<10	190	<10		169
Q014838	7.28	1	0.35	<10		4.22	2240	<1	0.02	16	640	13	1.14	2	14			95	0.02	<10	162	<10		159
Q014839	6.81	<1	0.55	<10		2.68	1575	1	0.15	9	620	12	2.41	3	13			88	0.06	<10	152	<10		85
Q014841	7.93	1	0.21	<10		3.39	2260	<1	0.02	12	710	17	2.29	<2	15			201	0.01	<10	127	<10		124
Q014842	8.26	1	0.54	<10		4.16	2430	<1	0.01	17	680	6	1.29	<2	18			120	0.03	<10	155	<10		105
Q014843	7.07	1	1.08	<10		3.31	1755	<1	0.24	14	740	5	1.12	4	19			88	0.15	<10	227	<10		89
Q014844	7.44	<1	1.41	<10		3.33	1470	<1	0.34	15	790	9	2.19	<2	22			85	0.21	<10	267	<10		99
Q014845	8.12	<1	1.41	<10		3.08	1550	<1	0.40	6	860	15	1.77	6	18			157	0.26	<10	279	<10		99
Q014846	8.15	<1	1.89	<10		3.12	1485	<1	0.47	6	700	7	2.49	3	19			118	0.23	<10	251	<10		94
Q014847	8.19	1	1.44	<10		2.84	1300	<1	0.39	6	740	11	3.17	6	19			148	0.21	<10	247	<10		88
Q014848	7.79	<1	1.55	<10		2.96	1320	<1	0.21	9	670	7	2.99	<2	14			128	0.21	<10	184	<10		80
Q014849	8.41	1	1.14	<10		3.98	1800	<1	0.08	16	740	5	1.74	4	16			122	0.26	<10	227	<10		101
Q014851	7.54	<1	1.30	<10		3.70	1565	<1	0.08	13	710	18	1.48	2	18			92	0.26	<10	237	<10		98
Q014852	8.00	<1	1.12	<10		3.71	1565	<1	0.13	14	820	8	2.46	5	17			106	0.24	<10	244	<10		95
Q014853	7.96	<1	0.98	<10		3.50	1285	<1	0.17	10	680	6	2.37	4	18			123	0.20	<10	237	<10		94
Q014854	3.49	<1	0.16	<10		4.26	630	<1	0.05	309	1230	2	0.30	4	4			68	0.12	<10	81	<10		49
Q014855	2.61	1	0.06	<10		4.00	471	<1	0.09	336	1180	10	0.07	10	1			55	0.13	<10	53	<10		64
Q014856	6.99	1	0.07	<10		4.64	727	8	0.06	174	800	23	2.73	5	14			34	0.17	<10	177	<10		133
Q014857	5.91	<1	0.06	<10		4.68	779	7	0.07	184	980	6	2.05	9	11			32	0.16	<10	154	<10		80
Q014858	7.55	<1	1.18	<10		2.77	854	<1	0.08	10	690	5	4.05	2	15			23	0.20	<10	170	<10		79
Q014859	7.30	<1	1.72	<10		2.62	1130	<1	0.17	11	740	9	2.82	6	13			64	0.23	<10	161	<10		81
Q014862	7.18	<1	1.38	<10		2.64	1355	<1	0.27	12	690	14	2.01	5	16			85	0.21	<10	185	<10		115
Q014863	7.57	1	1.11	<10		2.56	1020	<1	0.16	12	670	12	3.19	11	15			54	0.15	<10	149	<10		92
Q014864	10.25	1	1.39	<10		3.07	1160	1	0.11	15	660	10	6.40	6	15			27	0.19	<10	161	<10		89
Q014865	10.60	<1	1.07	<10		3.43	1345	<1	0.12	14	510	6	5.39	5	18			26	0.16	<10	188	<10		96
Q014866	11.00	<1	0.96	<10		3.87	1450	3	0.11	13	550	7	5.62	2	19			22	0.19	<10	211	<10		102
Q014867	8.13	<1	0.59	<10		2.03	728	<1	0.08	7	920	7	5.83	3	12			13	0.17	<10	142	<10		57
Q014868	9.42	<1	1.14	<10		3.29	1110	1	0.16	9	1010	8	5.68	<2	18			22	0.22	<10	238	<10		90
Q014869	8.65	<1	0.68	<10		3.12	1155	<1	0.17	10	860	6	4.29	3	20			27	0.21	<10	266	<10		82
Q014871	7.56	<1	1.05	<10		3.02	1100	<1	0.19	22	930	8	3.06	2	19			30	0.25	<10	238	<10		79
Q014872	7.70	<1	1.20	<10		3.32	1235	<1	0.13	11	640	4	2.89	<2	16			28	0.19	<10	187	<10		87
Q014873	8.57	<1	0.66	<10		3.24	1125	<1	0.06	10	540	13	4.11	9	12			16	0.14	<10	145	<10		84
Q014874	9.36	<1	0.32	<10		2.87	936	2	0.04	12	730	4	5.57	2	10			12	0.13	<10	143	<10		59
Q014875	9.55	<1	0.88	<10		3.67	1310	<1	0.08	11	610	3	4.82	<2	14			17	0.18	<10	173	<10		95
Q014876	9.74	1	1.33	<10		4.10	1480	<1	0.12	10	640	4	4.41	3	15			26	0.18	<10	190	<10		110
Q014877	14.30	<1	1.21	<10		3.43	1265	2	0.12	10	550	6	>10.00	2	12			22	0.17	<10	161	<10		93
Q014878	8.66	<1	1.28	<10		3.77	1415	<1	0.15	11	630	5	3.50	<2	14			42	0.20	<10	178	<10		103
Q014879	9.19	<1	1.46	<10		3.49	1165	<1	0.10	11	650	4	5.09	<2	13			20	0.18	<10	169	<10		93

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014881	497.35	498.50	1.15		<0.005							<0.2	4.37	10	30	<0.5	2	0.51	<0.5	29	9	18
Q014882	498.50	500.00	1.5		<0.005							<0.2	5.03	6	40	<0.5	<2	0.70	<0.5	26	9	16
Q014883	500.00	501.00	1		<0.005							<0.2	4.37	4	30	<0.5	<2	0.58	0.5	31	9	142
Q014884	501.00	502.00	1		<0.005							<0.2	4.23	5	30	<0.5	<2	0.55	<0.5	28	10	68
Q014885	502.00	502.62	0.62		<0.005							<0.2	3.93	8	40	<0.5	<2	0.59	<0.5	24	21	80
Q014886	502.62	504.00	1.38		<0.005							<0.2	2.77	12	1450	<0.5	<2	1.04	<0.5	28	717	95
Q014887	504.00	505.50	1.5		<0.005							<0.2	2.61	13	440	<0.5	2	1.85	<0.5	25	522	108
Q014888	505.50	507.00	1.5		<0.005							<0.2	4.17	14	1010	0.6	<2	3.81	<0.5	39	837	56
Q014889	507.00	508.50	1.5		<0.005							<0.2	3.81	43	210	0.5	<2	2.89	<0.5	37	869	57
Q014891	508.50	510.10	1.6		<0.005							<0.2	2.92	14	1020	<0.5	<2	2.18	<0.5	28	490	82
Q014892	510.10	511.50	1.4		0.014							<0.2	4.02	20	30	<0.5	3	0.65	<0.5	36	20	41
Q014893	511.50	512.90	1.4		0.005							<0.2	5.09	10	40	<0.5	<2	0.78	<0.5	32	13	17
Q014894	512.90	514.00	1.1		<0.005							<0.2	5.50	3	70	<0.5	<2	1.37	<0.5	27	13	48
Q014895	514.00	515.20	1.2		<0.005							<0.2	5.96	7	60	<0.5	<2	1.02	<0.5	29	12	46
Q014896	515.20	516.50	1.3		<0.005							0.2	5.70	7	50	<0.5	<2	1.27	<0.5	36	14	97
Q014897	516.50	518.00	1.5		0.006							<0.2	5.76	12	30	<0.5	<2	1.21	0.5	39	14	26
Q014898	518.00	519.50	1.5		<0.005							<0.2	5.45	8	40	<0.5	<2	1.49	0.6	30	13	48
Q014899	519.50	521.00	1.5		<0.005							<0.2	5.96	5	40	<0.5	<2	1.81	<0.5	33	12	19
Q014902	521.00	521.60	0.6		<0.005							<0.2	5.66	12	60	<0.5	<2	2.60	0.5	25	12	31
Q014903	521.60	523.00	1.4		0.017							0.4	4.55	19	40	<0.5	4	1.13	<0.5	25	10	855
Q014904	523.00	524.50	1.5		0.006							<0.2	4.87	11	30	<0.5	3	0.51	<0.5	21	9	360
Q014905	524.50	526.00	1.5		0.007							0.3	4.88	10	30	<0.5	3	0.65	<0.5	29	11	1760
Q014906	526.00	527.50	1.5		0.012							0.2	4.88	17	30	<0.5	6	0.57	<0.5	23	7	1160
Q014907	527.50	528.50	1		0.006							<0.2	4.69	9	30	<0.5	2	0.54	<0.5	22	8	56
Q014908	528.50	530.00	1.5		0.008							<0.2	4.42	20	30	<0.5	4	0.51	0.5	33	7	830
Q014909	530.00	531.26	1.26		0.011							<0.2	4.47	18	50	<0.5	4	0.88	<0.5	31	4	280
Q014911	531.26	531.67	0.41		0.083							0.7	0.96	90	10	<0.5	8	0.30	1.0	68	3	221
Q014912	531.67	533.00	1.33		0.017							<0.2	2.10	14	20	<0.5	2	0.37	<0.5	23	4	43
Q014913	533.00	533.36	0.36		0.022							0.2	2.06	29	10	<0.5	4	0.33	<0.5	31	4	58
Q014914	533.36	533.58	0.22		0.095							0.8	1.45	89	10	<0.5	12	0.25	0.8	69	3	103
Q014915	533.58	535.00	1.42		0.035							0.3	2.20	40	20	<0.5	5	0.33	<0.5	29	3	29
Q014916	535.00	536.00	1		0.069							0.2	2.87	47	20	<0.5	7	0.35	0.5	37	5	38
Q014917	536.00	537.50	1.5		0.071							0.2	2.96	55	20	<0.5	6	0.33	<0.5	31	3	26
Q014918	537.50	539.00	1.5		0.050							0.3	3.33	87	20	<0.5	7	0.28	<0.5	31	3	30
Q014919	539.00	540.50	1.5		0.029							0.2	3.01	35	20	<0.5	3	0.25	<0.5	28	3	31
Q014921	540.50	542.00	1.5		0.029							0.2	2.92	24	30	<0.5	3	0.28	<0.5	22	3	25
Q014922	542.00	542.72	0.72		0.048							<0.2	2.38	49	20	<0.5	6	0.25	0.8	33	2	41
Q014923	542.72	544.00	1.28		0.054							0.4	2.99	59	10	<0.5	6	0.33	<0.5	53	5	73
Q014924	544.00	545.60	1.6		0.068							0.4	2.19	59	20	<0.5	6	0.52	1.1	42	3	47
Q014925	545.60	546.71	1.11		0.074							0.6	1.62	64	10	<0.5	7	0.33	0.9	47	3	57
Q014926	546.71	547.57	0.86		0.092							2.4	1.89	85	10	<0.5	11	0.39	2.1	59	4	1730
Q014927	547.57	548.54	0.97		0.055							1.0	2.46	148	20	<0.5	10	0.45	1.0	48	3	391
Q014928	548.54	550.00	1.46		0.010							<0.2	3.31	12	40	<0.5	3	0.27	<0.5	16	3	13
Q014929	550.00	551.50	1.5		0.026							0.2	2.98	18	20	<0.5	4	0.30	<0.5	19	3	67
Q014931	551.50	553.00	1.5		0.015							<0.2	4.03	11	30	<0.5	3	0.48	<0.5	21	4	34
Q014932	553.00	554.50	1.5		0.009							0.2	3.85	8	30	<0.5	4	0.49	<0.5	18	3	269
Q014933	554.50	555.90	1.4		0.010							0.4	3.73	8	30	<0.5	4	0.41	<0.5	18	4	418
Q014934	555.90	556.40	0.5		<0.005							<0.2	2.99	38	210	<0.5	<2	3.66	<0.5	16	36	41

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014881	7.82	<1	1.36	<10		3.65	1280	<1	0.13	11	680	6	3.13	<2	14			37	0.20	<10	173	<10		98
Q014882	8.03	<1	1.48	<10		4.03	1405	<1	0.18	13	700	<2	2.74	<2	16			65	0.21	<10	197	<10		107
Q014883	8.72	<1	1.49	<10		3.67	1185	<1	0.13	13	700	3	4.36	2	15			56	0.21	<10	190	<10		99
Q014884	7.81	<1	1.40	<10		3.71	1105	<1	0.11	12	800	4	3.29	2	17			66	0.20	<10	233	<10		99
Q014885	7.84	<1	0.50	<10		4.43	1135	<1	0.09	16	710	<2	2.46	<2	15			100	0.18	<10	262	<10		105
Q014886	3.13	<1	0.09	<10		3.84	497	<1	0.11	309	1410	8	0.26	19	2			101	0.15	<10	70	<10		51
Q014887	3.09	<1	0.07	<10		3.20	478	<1	0.16	233	1730	18	0.44	23	3			159	0.16	<10	84	<10		61
Q014888	4.44	<1	0.06	<10		6.46	952	<1	0.07	467	1200	10	0.12	3	10			316	0.14	<10	114	<10		75
Q014889	3.69	<1	0.06	<10		6.15	699	<1	0.07	532	1080	10	0.11	2	6			192	0.12	<10	82	<10		58
Q014891	3.33	<1	0.05	<10		3.61	628	<1	0.14	242	1310	27	0.34	13	4			163	0.14	<10	94	<10		64
Q014892	8.33	<1	0.96	<10		3.82	1165	<1	0.08	13	630	9	3.74	3	17			67	0.23	<10	220	<10		113
Q014893	8.01	<1	1.75	<10		4.13	1175	<1	0.20	14	760	6	2.65	6	23			51	0.22	<10	273	<10		104
Q014894	6.93	<1	1.18	<10		3.57	974	<1	0.32	11	760	17	1.77	9	23			125	0.20	<10	251	<10		101
Q014895	7.83	<1	1.56	<10		4.44	1270	<1	0.27	13	770	11	2.11	8	24			113	0.23	<10	276	<10		115
Q014896	8.06	<1	1.26	<10		4.37	1230	<1	0.29	13	900	12	2.42	8	26			69	0.24	<10	297	<10		114
Q014897	9.44	1	1.08	<10		4.87	1285	<1	0.28	14	860	15	4.30	8	24			51	0.22	<10	339	<10		117
Q014898	7.48	1	1.01	<10		4.20	1215	<1	0.32	14	810	10	1.99	7	20			55	0.20	<10	270	<10		106
Q014899	8.23	<1	1.26	<10		4.33	1275	<1	0.41	12	810	12	2.79	<2	26			52	0.20	<10	310	<10		107
Q014902	6.54	<1	1.14	<10		3.57	1455	<1	0.33	8	590	13	2.03	<2	22			73	0.20	<10	241	<10		112
Q014903	9.11	<1	0.78	<10		3.90	1385	1	0.05	18	680	11	3.43	9	13			40	0.17	<10	159	<10		126
Q014904	9.11	<1	0.95	<10		4.13	1440	<1	0.04	13	580	4	3.24	2	12			24	0.14	<10	147	<10		112
Q014905	8.82	<1	0.97	<10		3.89	1250	<1	0.03	12	850	3	3.16	4	10			22	0.16	<10	142	<10		120
Q014906	9.66	<1	0.91	<10		4.14	1405	<1	0.03	12	620	6	4.54	4	10			18	0.16	<10	134	<10		121
Q014907	8.41	<1	0.90	<10		3.84	1445	<1	0.03	14	620	6	2.98	4	9			18	0.15	<10	127	<10		92
Q014908	9.59	<1	0.88	<10		3.51	1640	<1	0.03	15	610	7	4.14	3	8			18	0.14	<10	121	<10		118
Q014909	8.31	1	1.30	<10		2.98	1470	<1	0.06	8	1140	3	2.68	<2	6			30	0.16	<10	112	<10		98
Q014911	21.10	<1	0.62	<10		0.39	159	5	0.02	2	420	17	>10.00	6	2			10	0.03	<10	30	<10		64
Q014912	6.94	<1	1.05	<10		1.38	370	<1	0.04	3	530	9	6.58	<2	4			11	0.10	<10	58	<10		61
Q014913	7.75	<1	1.18	<10		1.26	404	<1	0.03	4	560	12	7.80	<2	5			11	0.09	<10	63	<10		57
Q014914	20.00	<1	0.99	<10		0.84	317	8	0.02	6	550	32	>10.00	<2	3			9	0.05	<10	45	<10		45
Q014915	7.83	<1	0.69	<10		1.66	494	3	0.03	4	540	15	7.61	2	4			11	0.06	<10	57	<10		66
Q014916	8.98	<1	0.99	<10		2.37	656	2	0.03	4	550	18	8.03	2	5			11	0.10	<10	76	<10		73
Q014917	9.31	1	0.91	<10		2.50	661	2	0.03	3	520	19	8.70	<2	6			11	0.08	<10	79	<10		74
Q014918	9.37	<1	0.80	<10		2.93	725	2	0.02	5	630	24	7.93	5	6			9	0.07	<10	92	<10		79
Q014919	8.27	<1	0.85	<10		2.62	687	<1	0.02	3	580	15	7.08	<2	5			9	0.07	<10	77	<10		88
Q014921	6.36	<1	0.78	<10		2.56	654	1	0.02	3	560	7	4.33	4	5			9	0.08	<10	71	<10		77
Q014922	7.63	<1	0.94	<10		1.72	447	1	0.02	4	600	10	7.41	2	5			7	0.07	<10	64	<10		71
Q014923	11.70	1	0.97	<10		2.51	649	3	0.02	9	610	17	>10.00	<2	6			9	0.11	<10	79	<10		85
Q014924	9.78	<1	0.98	<10		1.48	453	3	0.03	8	580	27	>10.00	3	5			12	0.11	<10	66	<10		58
Q014925	12.20	<1	0.88	<10		0.87	246	8	0.02	6	510	30	>10.00	<2	4			8	0.05	<10	48	<10		32
Q014926	15.70	2	0.59	<10		1.33	406	6	0.02	7	470	17	>10.00	16	4			6	0.12	<10	54	<10		58
Q014927	11.90	<1	0.72	<10		1.79	499	4	0.02	7	530	18	>10.00	7	6			11	0.09	<10	80	<10		57
Q014928	5.92	<1	0.79	<10		2.74	771	<1	0.02	3	610	4	2.72	<2	6			8	0.09	<10	94	<10		68
Q014929	8.87	<1	0.70	<10		2.43	661	<1	0.02	2	560	11	7.52	3	6			7	0.07	<10	85	<10		65
Q014931	8.76	<1	0.87	<10		3.57	973	<1	0.02	3	630	19	5.12	<2	8			9	0.10	<10	123	<10		98
Q014932	7.78	<1	1.15	<10		3.16	894	<1	0.02	3	620	7	4.25	2	9			8	0.14	<10	114	<10		87
Q014933	7.57	<1	1.16	<10		3.08	854	<1	0.02	3	600	3	4.13	5	9			12	0.12	<10	130	<10		78
Q014934	4.76	1	0.30	10		2.32	1225	<1	0.11	17	1170	12	1.13	4	13			103	0.08	<10	134	<10		84

Drill Hole Log - Assays

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014935	556.40	556.86	0.46		0.012							<0.2	2.84	21	30	<0.5	2	0.31	<0.5	27	3	13
Q014936	556.86	558.00	1.14		0.010							<0.2	3.48	15	30	<0.5	4	0.45	<0.5	27	4	9
Q014937	558.00	559.50	1.5		0.048							<0.2	3.54	39	40	<0.5	5	0.61	<0.5	29	3	10
Q014938	559.50	561.00	1.5		0.036							<0.2	3.24	33	30	<0.5	6	0.52	<0.5	28	3	15
Q014939	561.00	562.50	1.5		0.034							<0.2	4.08	31	30	<0.5	4	0.56	<0.5	30	4	13
Q014942	562.50	564.00	1.5		0.040							0.3	4.02	28	30	<0.5	5	0.50	<0.5	33	4	101
Q014943	564.00	565.50	1.5		0.062							0.3	3.95	25	30	<0.5	7	0.56	<0.5	39	3	33
Q014944	565.50	567.00	1.5		0.037							0.3	3.69	22	30	<0.5	5	0.51	<0.5	35	4	18
Q014945	567.00	568.50	1.5		0.031							0.8	3.62	24	30	<0.5	4	0.55	11.4	36	4	237
Q014946	568.50	570.00	1.5		0.085							0.6	4.22	29	30	<0.5	7	0.52	<0.5	43	4	103
Q014947	570.00	571.50	1.5		0.022							0.4	3.98	15	30	<0.5	5	0.50	<0.5	40	5	243
Q014948	571.50	573.00	1.5		0.067							0.4	3.91	58	30	<0.5	7	0.59	<0.5	35	6	25
Q014949	573.00	574.50	1.5		0.035							0.3	3.68	21	20	<0.5	7	0.49	<0.5	23	4	209
Q014951	574.50	576.00	1.5		0.030							<0.2	4.34	20	30	<0.5	5	0.46	<0.5	24	4	15
Q014952	576.00	577.50	1.5		0.018							<0.2	4.24	18	30	<0.5	5	0.42	<0.5	30	4	15
Q014953	577.50	579.00	1.5		0.016							0.2	4.12	22	30	<0.5	5	0.37	<0.5	30	4	34
Q014954	579.00	580.50	1.5		0.022							0.2	3.21	23	30	<0.5	5	0.36	<0.5	26	3	12
Q014955	580.50	581.56	1.06		0.032							0.2	3.40	31	30	<0.5	4	0.31	0.9	26	4	15
Q014956	581.56	583.00	1.44		0.102							1.0	2.58	80	20	<0.5	12	0.29	2.4	32	3	23
Q014957	583.00	584.50	1.5		0.096							0.9	1.26	104	10	<0.5	10	0.19	0.6	36	2	33
Q014958	584.50	586.00	1.5		0.076							0.4	1.75	110	20	<0.5	8	0.17	<0.5	41	5	42
Q014959	586.00	586.67	0.67		0.080							0.4	1.79	68	20	<0.5	8	0.17	<0.5	43	3	35
Q014961	586.67	588.00	1.33		0.021							<0.2	3.08	55	30	<0.5	5	0.17	<0.5	25	3	17
Q014962	588.00	589.50	1.5		0.039							0.3	2.37	51	30	<0.5	4	0.18	<0.5	29	3	28
Q014963	589.50	591.00	1.5		0.043							0.2	2.04	63	20	<0.5	5	0.22	<0.5	31	3	23
Q014964	591.00	592.50	1.5		0.091							0.5	2.85	118	20	<0.5	5	0.18	<0.5	30	3	20
Q014965	592.50	594.00	1.5		0.045							0.4	3.87	104	30	<0.5	5	0.22	<0.5	43	4	25
Q014966	594.00	595.50	1.5		0.061							0.5	3.40	129	30	<0.5	4	0.19	<0.5	38	3	37
Q014967	595.50	596.21	0.71		0.057							0.7	2.93	240	20	<0.5	2	0.24	<0.5	72	3	57
Q014968	596.21	597.00	0.79		0.161							2.2	0.93	200	20	<0.5	3	0.23	<0.5	34	1	53
Q014969	597.00	598.00	1		0.205							2.2	0.71	202	20	<0.5	7	0.14	<0.5	23	1	46
Q014971	598.00	599.31	1.31		0.168							1.2	0.67	103	20	<0.5	4	0.09	<0.5	9	2	34

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014935	6.34	<1	0.90	<10		2.12	682	<1	0.02	4	540	6	3.80	2	6			12	0.08	<10	85	<10		58
Q014936	7.31	<1	0.79	<10		2.89	963	<1	0.01	4	650	5	3.75	<2	6			8	0.10	<10	87	<10		68
Q014937	7.62	<1	0.86	<10		2.97	934	<1	0.02	6	710	8	4.20	<2	7			11	0.11	<10	98	<10		71
Q014938	6.69	<1	1.04	<10		2.56	720	<1	0.02	4	690	9	3.96	<2	6			9	0.12	<10	90	<10		58
Q014939	7.78	<1	1.17	<10		2.97	878	<1	0.02	5	730	9	4.42	<2	7			11	0.14	<10	106	<10		68
Q014942	7.91	1	1.13	<10		2.98	862	<1	0.02	4	730	12	4.54	<2	7			11	0.15	<10	101	<10		99
Q014943	7.81	<1	1.28	<10		2.73	794	1	0.03	5	740	11	4.81	<2	7			13	0.16	<10	102	<10		70
Q014944	7.36	<1	1.09	<10		2.62	761	<1	0.02	5	750	9	4.73	<2	6			13	0.14	<10	95	<10		79
Q014945	7.55	<1	1.07	<10		2.57	692	<1	0.03	5	740	8	5.21	<2	6			14	0.13	<10	89	<10		335
Q014946	8.79	<1	1.11	<10		3.16	890	1	0.03	12	710	14	6.25	<2	8			13	0.13	<10	109	<10		71
Q014947	8.15	<1	0.94	<10		2.98	858	<1	0.03	17	700	8	5.15	<2	7			13	0.13	<10	93	<10		63
Q014948	6.99	<1	1.09	<10		2.83	751	2	0.04	26	630	7	4.27	<2	7			16	0.13	<10	97	<10		55
Q014949	8.20	<1	0.92	<10		2.77	721	1	0.03	5	630	8	6.38	<2	6			13	0.12	<10	92	<10		54
Q014951	8.09	<1	0.86	<10		3.49	921	1	0.03	6	660	7	4.68	<2	7			13	0.11	<10	100	<10		68
Q014952	8.69	<1	0.76	<10		3.41	962	<1	0.02	6	630	6	5.85	<2	7			11	0.10	<10	99	<10		70
Q014953	8.69	<1	0.70	<10		3.37	1015	<1	0.02	5	650	8	5.62	<2	7			9	0.09	<10	98	<10		73
Q014954	6.67	<1	0.75	<10		2.49	713	1	0.02	4	650	9	4.49	<2	6			10	0.08	<10	86	<10		59
Q014955	8.21	<1	0.63	<10		2.91	794	1	0.02	5	690	15	6.57	<2	5			9	0.06	<10	79	<10		80
Q014956	7.98	<1	0.71	<10		2.02	686	3	0.02	6	720	27	7.84	<2	5			7	0.04	<10	63	<10		56
Q014957	6.42	<1	0.65	<10		0.63	208	3	0.01	5	660	16	7.49	<2	3			5	0.02	<10	37	<10		31
Q014958	8.31	<1	0.60	<10		1.17	337	4	0.01	6	580	14	9.09	<2	4			5	0.03	<10	44	<10		48
Q014959	7.16	<1	0.66	<10		1.04	309	6	0.01	6	620	15	7.75	<2	4			6	0.03	<10	46	<10		37
Q014961	6.64	1	0.47	<10		2.59	734	1	0.01	4	560	8	4.35	<2	5			5	0.05	<10	75	<10		63
Q014962	6.26	<1	0.60	<10		1.74	532	3	0.01	6	630	8	5.17	<2	5			7	0.03	<10	60	<10		43
Q014963	7.92	<1	0.51	<10		1.43	449	2	0.01	4	650	8	8.25	<2	4			6	0.03	<10	49	<10		42
Q014964	8.57	<1	0.53	<10		2.29	717	3	0.01	4	660	13	8.15	<2	5			6	0.03	<10	67	<10		62
Q014965	8.00	<1	0.70	<10		3.17	856	1	0.02	12	930	17	5.76	<2	8			6	0.07	<10	102	<10		85
Q014966	7.51	<1	0.80	<10		2.80	899	1	0.02	8	800	15	5.52	<2	7			7	0.05	<10	95	<10		83
Q014967	7.12	<1	0.91	<10		2.31	903	1	0.02	27	980	18	6.46	<2	7			7	0.04	<10	79	<10		83
Q014968	5.25	1	0.56	<10		0.27	101	1	0.02	8	880	26	6.52	<2	3			7	0.01	<10	28	<10		19
Q014969	5.76	<1	0.46	<10		0.16	54	1	0.01	5	480	25	7.26	<2	2			6	<0.01	<10	14	<10		14
Q014971	3.13	<1	0.40	10		0.09	41	2	0.01	2	270	33	3.67	<2	2			6	<0.01	<10	9	<10		18

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014496			WH13193615				ALS: ME-ICP41				11/18/201	
Q014497			WH13193615				ALS: ME-ICP41				11/18/201	
Q014498			WH13193615				ALS: ME-ICP41				11/18/201	
Q014499			WH13193615				ALS: ME-ICP41				11/18/201	
Q014501			WH13193615				ALS: ME-ICP41				11/18/201	
Q014502			WH13193615				ALS: ME-ICP41				11/18/201	
Q014503			WH13193615				ALS: ME-ICP41				11/18/201	
Q014504			WH13193615				ALS: ME-ICP41				11/18/201	
Q014505			WH13193615				ALS: ME-ICP41				11/18/201	
Q014506			WH13193615				ALS: ME-ICP41				11/18/201	
Q014507			WH13193615				ALS: ME-ICP41				11/18/201	
Q014508			WH13193615				ALS: ME-ICP41				11/18/201	
Q014509			WH13193615				ALS: ME-ICP41				11/18/201	
Q014511			WH13193615				ALS: ME-ICP41				11/18/201	
Q014512			WH13193615				ALS: ME-ICP41				11/18/201	
Q014513			WH13193615				ALS: ME-ICP41				11/18/201	
Q014514			WH13193615				ALS: ME-ICP41				11/18/201	
Q014515			WH13193615				ALS: ME-ICP41				11/18/201	
Q014516			WH13193615				ALS: ME-ICP41				11/18/201	
Q014517			WH13193615				ALS: ME-ICP41				11/18/201	
Q014518			WH13193615				ALS: ME-ICP41				11/18/201	
Q014519			WH13193615				ALS: ME-ICP41				11/18/201	
Q014522			WH13193615				ALS: ME-ICP41				11/18/201	
Q014523			WH13193615				ALS: ME-ICP41				11/18/201	
Q014524			WH13193615				ALS: ME-ICP41				11/18/201	
Q014525			WH13193615				ALS: ME-ICP41				11/18/201	
Q014526			WH13193615				ALS: ME-ICP41				11/18/201	
Q014527			WH13193615				ALS: ME-ICP41				11/18/201	
Q014528			WH13193615				ALS: ME-ICP41				11/18/201	
Q014529			WH13193615				ALS: ME-ICP41				11/18/201	
Q014531			WH13193615				ALS: ME-ICP41				11/18/201	
Q014532			WH13193615				ALS: ME-ICP41				11/18/201	
Q014533			WH13193615				ALS: ME-ICP41				11/18/201	
Q014534			WH13193615				ALS: ME-ICP41				11/18/201	
Q014535			WH13193615				ALS: ME-ICP41				11/18/201	
Q014536			WH13193615				ALS: ME-ICP41				11/18/201	
Q014537			WH13193615				ALS: ME-ICP41				11/18/201	
Q014538			WH13193615				ALS: ME-ICP41				11/18/201	
Q014539			WH13193615				ALS: ME-ICP41				11/18/201	
Q014541			WH13193615				ALS: ME-ICP41				11/18/201	
Q014542			WH13193615				ALS: ME-ICP41				11/18/201	
Q014543			WH13193615				ALS: ME-ICP41				11/18/201	
Q014544			WH13193615				ALS: ME-ICP41				11/18/201	
Q014545			WH13193615				ALS: ME-ICP41				11/18/201	
Q014546			WH13193615				ALS: ME-ICP41				11/18/201	
Q014547			WH13193615				ALS: ME-ICP41				11/18/201	
Q014548			WH13193615				ALS: ME-ICP41				11/18/201	
Q014549			WH13193615				ALS: ME-ICP41				11/18/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014551			WH13193615				ALS: ME-ICP41				11/18/201	
Q014552			WH13193615				ALS: ME-ICP41				11/18/201	
Q014553			WH13193615				ALS: ME-ICP41				11/18/201	
Q014554			WH13193615				ALS: ME-ICP41				11/18/201	
Q014555			WH13193615				ALS: ME-ICP41				11/18/201	
Q014556			WH13193615				ALS: ME-ICP41				11/18/201	
Q014557			WH13193615				ALS: ME-ICP41				11/18/201	
Q014558			WH13193615				ALS: ME-ICP41				11/18/201	
Q014559			WH13193615				ALS: ME-ICP41				11/18/201	
Q014562			WH13193615				ALS: ME-ICP41				11/18/201	
Q014563			WH13193615				ALS: ME-ICP41				11/18/201	
Q014564			WH13193615				ALS: ME-ICP41				11/18/201	
Q014565			WH13193615				ALS: ME-ICP41				11/18/201	
Q014566			WH13193615				ALS: ME-ICP41				11/18/201	
Q014567			WH13193615				ALS: ME-ICP41				11/18/201	
Q014568			WH13193615				ALS: ME-ICP41				11/18/201	
Q014569			WH13193615				ALS: ME-ICP41				11/18/201	
Q014572			WH13193615				ALS: ME-ICP41				11/18/201	
Q014573			WH13193615				ALS: ME-ICP41				11/18/201	
Q014574			WH13193615				ALS: ME-ICP41				11/18/201	
Q014575			WH13193615				ALS: ME-ICP41				11/18/201	
Q014576			WH13193615				ALS: ME-ICP41				11/18/201	
Q014577			WH13193615				ALS: ME-ICP41				11/18/201	
Q014578			WH13193615				ALS: ME-ICP41				11/18/201	
Q014579			WH13193615				ALS: ME-ICP41				11/18/201	
Q014580			WH13193615				ALS: ME-ICP41				11/18/201	
Q014582			WH13193615				ALS: ME-ICP41				11/18/201	
Q014583			WH13193615				ALS: ME-ICP41				11/18/201	
Q014584			WH13193615				ALS: ME-ICP41				11/18/201	
Q014585			WH13193615				ALS: ME-ICP41				11/18/201	
Q014586			WH13193615				ALS: ME-ICP41				11/18/201	
Q014587			WH13193615				ALS: ME-ICP41				11/18/201	
Q014588			WH13193615				ALS: ME-ICP41				11/18/201	
Q014589			WH13193615				ALS: ME-ICP41				11/18/201	
Q014591			WH13193615				ALS: ME-ICP41				11/18/201	
Q014592			WH13193615				ALS: ME-ICP41				11/18/201	
Q014593			WH13193615				ALS: ME-ICP41				11/18/201	
Q014594			WH13193615				ALS: ME-ICP41				11/18/201	
Q014595			WH13193615				ALS: ME-ICP41				11/18/201	
Q014596			WH13193615				ALS: ME-ICP41				11/18/201	
Q014597			WH13193615				ALS: ME-ICP41				11/18/201	
Q014598			WH13193615				ALS: ME-ICP41				11/18/201	
Q014599			WH13193615				ALS: ME-ICP41				11/18/201	
Q014601			WH13193615				ALS: ME-ICP41				11/18/201	
Q014602			WH13193615				ALS: ME-ICP41				11/18/201	
Q014603			WH13193615				ALS: ME-ICP41				11/18/201	
Q014604			WH13193615				ALS: ME-ICP41				11/18/201	
Q014605			WH13193615				ALS: ME-ICP41				11/18/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014606			WH13193615				ALS: ME-ICP41				11/18/201	
Q014607			WH13193615				ALS: ME-ICP41				11/18/201	
Q014608			WH13193615				ALS: ME-ICP41				11/18/201	
Q014609			WH13193615				ALS: ME-ICP41				11/18/201	
Q014611			WH13193615				ALS: ME-ICP41				11/18/201	
Q014612			WH13193615				ALS: ME-ICP41				11/18/201	
Q014613			WH13193615				ALS: ME-ICP41				11/18/201	
Q014614			WH13193615				ALS: ME-ICP41				11/18/201	
Q014615			WH13193615				ALS: ME-ICP41				11/18/201	
Q014616			WH13193615				ALS: ME-ICP41				11/18/201	
Q014617			WH13193615				ALS: ME-ICP41				11/18/201	
Q014618			WH13193615				ALS: ME-ICP41				11/18/201	
Q014619			WH13193615				ALS: ME-ICP41				11/18/201	
Q014622			WH13193615				ALS: ME-ICP41				11/18/201	
Q014623			WH13193615				ALS: ME-ICP41				11/18/201	
Q014624			WH13193615				ALS: ME-ICP41				11/18/201	
Q014625			WH13193615				ALS: ME-ICP41				11/18/201	
Q014626			WH13193615				ALS: ME-ICP41				11/18/201	
Q014627			WH13193615				ALS: ME-ICP41				11/18/201	
Q014628			WH13193615				ALS: ME-ICP41				11/18/201	
Q014629			WH13193615				ALS: ME-ICP41				11/18/201	
Q014631			WH13193615				ALS: ME-ICP41				11/18/201	
Q014632			WH13193615				ALS: ME-ICP41				11/18/201	
Q014633			WH13193615				ALS: ME-ICP41				11/18/201	
Q014634			WH13193615				ALS: ME-ICP41				11/18/201	
Q014635			WH13193615				ALS: ME-ICP41				11/18/201	
Q014636			WH13193615				ALS: ME-ICP41				11/18/201	
Q014637			WH13193615				ALS: ME-ICP41				11/18/201	
Q014638			WH13193615				ALS: ME-ICP41				11/18/201	
Q014639			WH13193615				ALS: ME-ICP41				11/18/201	
Q014641			WH13193615				ALS: ME-ICP41				11/18/201	
Q014642			WH13193615				ALS: ME-ICP41				11/18/201	
Q014643			WH13193615				ALS: ME-ICP41				11/18/201	
Q014644			WH13193615				ALS: ME-ICP41				11/18/201	
Q014645			WH13193615				ALS: ME-ICP41				11/18/201	
Q014646			WH13193615				ALS: ME-ICP41				11/18/201	
Q014647			WH13193615				ALS: ME-ICP41				11/18/201	
Q014648			WH13193615				ALS: ME-ICP41				11/18/201	
Q014649			WH13193615				ALS: ME-ICP41				11/18/201	
Q014651			WH13193615				ALS: ME-ICP41				11/18/201	
Q014652			WH13193615				ALS: ME-ICP41				11/18/201	
Q014653			WH13193615				ALS: ME-ICP41				11/18/201	
Q014654			WH13193615				ALS: ME-ICP41				11/18/201	
Q014655			WH13193615				ALS: ME-ICP41				11/18/201	
Q014656			WH13193615				ALS: ME-ICP41				11/18/201	
Q014657			WH13193615				ALS: ME-ICP41				11/18/201	
Q014658			WH13193615				ALS: ME-ICP41				11/18/201	
Q014659			WH13193615				ALS: ME-ICP41				11/18/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014662			WH13193615				ALS: ME-ICP41				11/18/201	
Q014663			WH13193615				ALS: ME-ICP41				11/18/201	
Q014664			WH13193615				ALS: ME-ICP41				11/18/201	
Q014665			WH13193615				ALS: ME-ICP41				11/18/201	
Q014666			WH13193615				ALS: ME-ICP41				11/18/201	
Q014667			WH13193615				ALS: ME-ICP41				11/18/201	
Q014668			WH13193615				ALS: ME-ICP41				11/18/201	
Q014669			WH13193615				ALS: ME-ICP41				11/18/201	
Q014671			WH13193615				ALS: ME-ICP41				11/18/201	
Q014672			WH13193615				ALS: ME-ICP41				11/18/201	
Q014673			WH13193615				ALS: ME-ICP41				11/18/201	
Q014674			WH13193615				ALS: ME-ICP41				11/18/201	
Q014675			WH13193615				ALS: ME-ICP41				11/18/201	
Q014676			WH13193615				ALS: ME-ICP41				11/18/201	
Q014677			WH13193615				ALS: ME-ICP41				11/18/201	
Q014678			WH13193615				ALS: ME-ICP41				11/18/201	
Q014679			WH13193615				ALS: ME-ICP41				11/18/201	
Q014681			WH13193615				ALS: ME-ICP41				11/18/201	
Q014682			WH13193615				ALS: ME-ICP41				11/18/201	
Q014683			WH13193615				ALS: ME-ICP41				11/18/201	
Q014684			WH13193615				ALS: ME-ICP41				11/18/201	
Q014685			WH13193615				ALS: ME-ICP41				11/18/201	
Q014686			WH13193615				ALS: ME-ICP41				11/18/201	
Q014687			WH13193615				ALS: ME-ICP41				11/18/201	
Q014688			WH13193615				ALS: ME-ICP41				11/18/201	
Q014689			WH13193615				ALS: ME-ICP41				11/18/201	
Q014691			WH13193615				ALS: ME-ICP41				11/18/201	
Q014692			WH13193615				ALS: ME-ICP41				11/18/201	
Q014693			WH13193615				ALS: ME-ICP41				11/18/201	
Q014694			WH13193615				ALS: ME-ICP41				11/18/201	
Q014695			WH13193615				ALS: ME-ICP41				11/18/201	
Q014696			WH13193615				ALS: ME-ICP41				11/18/201	
Q014697			WH13193615				ALS: ME-ICP41				11/18/201	
Q014698			WH13193615				ALS: ME-ICP41				11/18/201	
Q014699			WH13193615				ALS: ME-ICP41				11/18/201	
Q014702			WH13193615				ALS: ME-ICP41				11/18/201	
Q014703			WH13193615				ALS: ME-ICP41				11/18/201	
Q014704			WH13193615				ALS: ME-ICP41				11/18/201	
Q014705			WH13193615				ALS: ME-ICP41				11/18/201	
Q014706			WH13193615				ALS: ME-ICP41				11/18/201	
Q014707			WH13193615				ALS: ME-ICP41				11/18/201	
Q014708			WH13193615				ALS: ME-ICP41				11/18/201	
Q014709			WH13193615				ALS: ME-ICP41				11/18/201	
Q014711			WH13193615				ALS: ME-ICP41				11/18/201	
Q014712			WH13193615				ALS: ME-ICP41				11/18/201	
Q014713			WH13193615				ALS: ME-ICP41				11/18/201	
Q014714			WH13193615				ALS: ME-ICP41				11/18/201	
Q014715			WH13193615				ALS: ME-ICP41				11/18/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014716			WH13193615				ALS: ME-ICP41				11/18/201	
Q014717			WH13193615				ALS: ME-ICP41				11/18/201	
Q014718			WH13193615				ALS: ME-ICP41				11/18/201	
Q014719			WH13193615				ALS: ME-ICP41				11/18/201	
Q014721			WH13193615				ALS: ME-ICP41				11/18/201	
Q014722			WH13193615				ALS: ME-ICP41				11/18/201	
Q014723			WH13193615				ALS: ME-ICP41				11/18/201	
Q014724			WH13193615				ALS: ME-ICP41				11/18/201	
Q014725			WH13193616				ALS: ME-ICP41				11/17/201	
Q014726			WH13193616				ALS: ME-ICP41				11/17/201	
Q014727			WH13193616				ALS: ME-ICP41				11/17/201	
Q014728			WH13193616				ALS: ME-ICP41				11/17/201	
Q014729			WH13193616				ALS: ME-ICP41				11/17/201	
Q014731			WH13193616				ALS: ME-ICP41				11/17/201	
Q014732			WH13193616				ALS: ME-ICP41				11/17/201	
Q014733			WH13193616				ALS: ME-ICP41				11/17/201	
Q014734			WH13193616				ALS: ME-ICP41				11/17/201	
Q014735			WH13193616				ALS: ME-ICP41				11/17/201	
Q014736			WH13193616				ALS: ME-ICP41				11/17/201	
Q014737			WH13193616				ALS: ME-ICP41				11/17/201	
Q014738			WH13193616				ALS: ME-ICP41				11/17/201	
Q014739			WH13193616				ALS: ME-ICP41				11/17/201	
Q014742			WH13193616				ALS: ME-ICP41				11/17/201	
Q014743			WH13193616				ALS: ME-ICP41				11/17/201	
Q014744			WH13193616				ALS: ME-ICP41				11/17/201	
Q014745			WH13193616				ALS: ME-ICP41				11/17/201	
Q014746			WH13193616				ALS: ME-ICP41				11/17/201	
Q014747			WH13193616				ALS: ME-ICP41				11/17/201	
Q014748			WH13193616				ALS: ME-ICP41				11/17/201	
Q014749			WH13193616				ALS: ME-ICP41				11/17/201	
Q014751			WH13193616				ALS: ME-ICP41				11/17/201	
Q014752			WH13193616				ALS: ME-ICP41				11/17/201	
Q014753			WH13193616				ALS: ME-ICP41				11/17/201	
Q014754			WH13193616				ALS: ME-ICP41				11/17/201	
Q014755			WH13193616				ALS: ME-ICP41				11/17/201	
Q014756			WH13193616				ALS: ME-ICP41				11/17/201	
Q014757			WH13193616				ALS: ME-ICP41				11/17/201	
Q014758			WH13193616				ALS: ME-ICP41				11/17/201	
Q014759			WH13193616				ALS: ME-ICP41				11/17/201	
Q014761			WH13193616				ALS: ME-ICP41				11/17/201	
Q014762			WH13193616				ALS: ME-ICP41				11/17/201	
Q014763			WH13193616				ALS: ME-ICP41				11/17/201	
Q014764			WH13193616				ALS: ME-ICP41				11/17/201	
Q014765			WH13193616				ALS: ME-ICP41				11/17/201	
Q014766			WH13193616				ALS: ME-ICP41				11/17/201	
Q014767			WH13193616				ALS: ME-ICP41				11/17/201	
Q014768			WH13193616				ALS: ME-ICP41				11/17/201	
Q014769			WH13193616				ALS: ME-ICP41				11/17/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014771			WH13193616				ALS: ME-ICP41				11/17/201	
Q014772			WH13193616				ALS: ME-ICP41				11/17/201	
Q014773			WH13193616				ALS: ME-ICP41				11/17/201	
Q014774			WH13193616				ALS: ME-ICP41				11/17/201	
Q014775			WH13193616				ALS: ME-ICP41				11/17/201	
Q014776			WH13193616				ALS: ME-ICP41				11/17/201	
Q014777			WH13193616				ALS: ME-ICP41				11/17/201	
Q014778			WH13193616				ALS: ME-ICP41				11/17/201	
Q014779			WH13193616				ALS: ME-ICP41				11/17/201	
Q014782			WH13193616				ALS: ME-ICP41				11/17/201	
Q014783			WH13193616				ALS: ME-ICP41				11/17/201	
Q014784			WH13193616				ALS: ME-ICP41				11/17/201	
Q014785			WH13193616				ALS: ME-ICP41				11/17/201	
Q014786			WH13193616				ALS: ME-ICP41				11/17/201	
Q014787			WH13193616				ALS: ME-ICP41				11/17/201	
Q014788			WH13193616				ALS: ME-ICP41				11/17/201	
Q014789			WH13193616				ALS: ME-ICP41				11/17/201	
Q014791			WH13193616				ALS: ME-ICP41				11/17/201	
Q014792			WH13193616				ALS: ME-ICP41				11/17/201	
Q014793			WH13193616				ALS: ME-ICP41				11/17/201	
Q014794			WH13193616				ALS: ME-ICP41				11/17/201	
Q014795		WH13193616	WH13193616	WH13193616		ALS: ME-OG46	ALS: ME-ICP41	ALS: OA-GRA08b		11/17/201	11/17/201	11/17/201
Q014796			WH13193616				ALS: ME-ICP41				11/17/201	
Q014797			WH13193616				ALS: ME-ICP41				11/17/201	
Q014798			WH13193616				ALS: ME-ICP41				11/17/201	
Q014799			WH13193616				ALS: ME-ICP41				11/17/201	
Q014801			WH13193616				ALS: ME-ICP41				11/17/201	
Q014802			WH13193616				ALS: ME-ICP41				11/17/201	
Q014803			WH13193616				ALS: ME-ICP41				11/17/201	
Q014804			WH13193616				ALS: ME-ICP41				11/17/201	
Q014805			WH13193616				ALS: ME-ICP41				11/17/201	
Q014806			WH13193616				ALS: ME-ICP41				11/17/201	
Q014807			WH13193616				ALS: ME-ICP41				11/17/201	
Q014808			WH13193616				ALS: ME-ICP41				11/17/201	
Q014809			WH13193616				ALS: ME-ICP41				11/17/201	
Q014811			WH13193616				ALS: ME-ICP41				11/17/201	
Q014812			WH13193616				ALS: ME-ICP41				11/17/201	
Q014813			WH13193616				ALS: ME-ICP41				11/17/201	
Q014814			WH13193616				ALS: ME-ICP41				11/17/201	
Q014815			WH13193616				ALS: ME-ICP41				11/17/201	
Q014816			WH13193616				ALS: ME-ICP41				11/17/201	
Q014817			WH13193616				ALS: ME-ICP41				11/17/201	
Q014818			WH13193616				ALS: ME-ICP41				11/17/201	
Q014819			WH13193616				ALS: ME-ICP41				11/17/201	
Q014822			WH13193616				ALS: ME-ICP41				11/17/201	
Q014823			WH13193616				ALS: ME-ICP41				11/17/201	
Q014824			WH13193616				ALS: ME-ICP41				11/17/201	
Q014825			WH13193616				ALS: ME-ICP41				11/17/201	

Sample No.	Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014826				WH13193616				ALS: ME-ICP41				11/17/201	
Q014827				WH13193616				ALS: ME-ICP41				11/17/201	
Q014828				WH13193616				ALS: ME-ICP41				11/17/201	
Q014829				WH13193616				ALS: ME-ICP41				11/17/201	
Q014831				WH13193616				ALS: ME-ICP41				11/17/201	
Q014832				WH13193616				ALS: ME-ICP41				11/17/201	
Q014833				WH13193616				ALS: ME-ICP41				11/17/201	
Q014834				WH13193616				ALS: ME-ICP41				11/17/201	
Q014835				WH13193616				ALS: ME-ICP41				11/17/201	
Q014836				WH13193616				ALS: ME-ICP41				11/17/201	
Q014837				WH13193616				ALS: ME-ICP41				11/17/201	
Q014838				WH13193616				ALS: ME-ICP41				11/17/201	
Q014839				WH13193616				ALS: ME-ICP41				11/17/201	
Q014841				WH13193616				ALS: ME-ICP41				11/17/201	
Q014842				WH13193616				ALS: ME-ICP41				11/17/201	
Q014843				WH13193616				ALS: ME-ICP41				11/17/201	
Q014844				WH13193616				ALS: ME-ICP41				11/17/201	
Q014845				WH13193616				ALS: ME-ICP41				11/17/201	
Q014846				WH13193616				ALS: ME-ICP41				11/17/201	
Q014847				WH13193616				ALS: ME-ICP41				11/17/201	
Q014848				WH13193616				ALS: ME-ICP41				11/17/201	
Q014849				WH13193616				ALS: ME-ICP41				11/17/201	
Q014851				WH13193616				ALS: ME-ICP41				11/17/201	
Q014852				WH13193616				ALS: ME-ICP41				11/17/201	
Q014853				WH13193616				ALS: ME-ICP41				11/17/201	
Q014854				WH13193616				ALS: ME-ICP41				11/17/201	
Q014855				WH13193616				ALS: ME-ICP41				11/17/201	
Q014856				WH13193616				ALS: ME-ICP41				11/17/201	
Q014857				WH13193616				ALS: ME-ICP41				11/17/201	
Q014858				WH13193616				ALS: ME-ICP41				11/17/201	
Q014859				WH13193616				ALS: ME-ICP41				11/17/201	
Q014862				WH13193616				ALS: ME-ICP41				11/17/201	
Q014863				WH13193616				ALS: ME-ICP41				11/17/201	
Q014864				WH13193616				ALS: ME-ICP41				11/17/201	
Q014865				WH13193616				ALS: ME-ICP41				11/17/201	
Q014866				WH13193616				ALS: ME-ICP41				11/17/201	
Q014867				WH13193616				ALS: ME-ICP41				11/17/201	
Q014868				WH13193616				ALS: ME-ICP41				11/17/201	
Q014869				WH13193616				ALS: ME-ICP41				11/17/201	
Q014871				WH13193616				ALS: ME-ICP41				11/17/201	
Q014872				WH13193616				ALS: ME-ICP41				11/17/201	
Q014873				WH13193616				ALS: ME-ICP41				11/17/201	
Q014874				WH13193616				ALS: ME-ICP41				11/17/201	
Q014875				WH13193616				ALS: ME-ICP41				11/17/201	
Q014876				WH13193616				ALS: ME-ICP41				11/17/201	
Q014877				WH13193616				ALS: ME-ICP41				11/17/201	
Q014878				WH13193616				ALS: ME-ICP41				11/17/201	
Q014879				WH13193616				ALS: ME-ICP41				11/17/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014881			WH13193616				ALS: ME-ICP41				11/17/201	
Q014882			WH13193616				ALS: ME-ICP41				11/17/201	
Q014883			WH13193616				ALS: ME-ICP41				11/17/201	
Q014884			WH13193616				ALS: ME-ICP41				11/17/201	
Q014885			WH13193616				ALS: ME-ICP41				11/17/201	
Q014886			WH13193616				ALS: ME-ICP41				11/17/201	
Q014887			WH13193616				ALS: ME-ICP41				11/17/201	
Q014888			WH13193616				ALS: ME-ICP41				11/17/201	
Q014889			WH13193616				ALS: ME-ICP41				11/17/201	
Q014891			WH13193616				ALS: ME-ICP41				11/17/201	
Q014892			WH13193616				ALS: ME-ICP41				11/17/201	
Q014893			WH13193616				ALS: ME-ICP41				11/17/201	
Q014894			WH13193616				ALS: ME-ICP41				11/17/201	
Q014895			WH13193616				ALS: ME-ICP41				11/17/201	
Q014896			WH13193616				ALS: ME-ICP41				11/17/201	
Q014897			WH13193616				ALS: ME-ICP41				11/17/201	
Q014898			WH13193616				ALS: ME-ICP41				11/17/201	
Q014899			WH13193616				ALS: ME-ICP41				11/17/201	
Q014902			WH13193616				ALS: ME-ICP41				11/17/201	
Q014903			WH13193616				ALS: ME-ICP41				11/17/201	
Q014904			WH13193616				ALS: ME-ICP41				11/17/201	
Q014905			WH13193616				ALS: ME-ICP41				11/17/201	
Q014906			WH13193616				ALS: ME-ICP41				11/17/201	
Q014907			WH13193616				ALS: ME-ICP41				11/17/201	
Q014908			WH13193616				ALS: ME-ICP41				11/17/201	
Q014909			WH13193616				ALS: ME-ICP41				11/17/201	
Q014911			WH13193616				ALS: ME-ICP41				11/17/201	
Q014912			WH13193616				ALS: ME-ICP41				11/17/201	
Q014913			WH13193616				ALS: ME-ICP41				11/17/201	
Q014914			WH13193616				ALS: ME-ICP41				11/17/201	
Q014915			WH13193616				ALS: ME-ICP41				11/17/201	
Q014916			WH13193616				ALS: ME-ICP41				11/17/201	
Q014917			WH13193616				ALS: ME-ICP41				11/17/201	
Q014918			WH13193616				ALS: ME-ICP41				11/17/201	
Q014919			WH13193616				ALS: ME-ICP41				11/17/201	
Q014921			WH13193616				ALS: ME-ICP41				11/17/201	
Q014922			WH13193616				ALS: ME-ICP41				11/17/201	
Q014923			WH13193616				ALS: ME-ICP41				11/17/201	
Q014924			WH13193616				ALS: ME-ICP41				11/17/201	
Q014925			WH13193616				ALS: ME-ICP41				11/17/201	
Q014926			WH13193616				ALS: ME-ICP41				11/17/201	
Q014927			WH13193616				ALS: ME-ICP41				11/17/201	
Q014928			WH13193616				ALS: ME-ICP41				11/17/201	
Q014929			WH13193616				ALS: ME-ICP41				11/17/201	
Q014931			WH13193616				ALS: ME-ICP41				11/17/201	
Q014932			WH13193616				ALS: ME-ICP41				11/17/201	
Q014933			WH13193616				ALS: ME-ICP41				11/17/201	
Q014934			WH13193616				ALS: ME-ICP41				11/17/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014935			WH13193616				ALS: ME-ICP41				11/17/201	
Q014936			WH13193616				ALS: ME-ICP41				11/17/201	
Q014937			WH13193616				ALS: ME-ICP41				11/17/201	
Q014938			WH13193616				ALS: ME-ICP41				11/17/201	
Q014939			WH13193616				ALS: ME-ICP41				11/17/201	
Q014942			WH13193616				ALS: ME-ICP41				11/17/201	
Q014943			WH13193616				ALS: ME-ICP41				11/17/201	
Q014944			WH13193616				ALS: ME-ICP41				11/17/201	
Q014945			WH13193616				ALS: ME-ICP41				11/17/201	
Q014946			WH13193616				ALS: ME-ICP41				11/17/201	
Q014947			WH13193616				ALS: ME-ICP41				11/17/201	
Q014948			WH13193616				ALS: ME-ICP41				11/17/201	
Q014949			WH13193616				ALS: ME-ICP41				11/17/201	
Q014951			WH13193616				ALS: ME-ICP41				11/17/201	
Q014952			WH13193616				ALS: ME-ICP41				11/17/201	
Q014953			WH13193616				ALS: ME-ICP41				11/17/201	
Q014954			WH13193616				ALS: ME-ICP41				11/17/201	
Q014955			WH13193616				ALS: ME-ICP41				11/17/201	
Q014956			WH13193616				ALS: ME-ICP41				11/17/201	
Q014957			WH13193616				ALS: ME-ICP41				11/17/201	
Q014958			WH13193616				ALS: ME-ICP41				11/17/201	
Q014959			WH13193616				ALS: ME-ICP41				11/17/201	
Q014961			WH13193616				ALS: ME-ICP41				11/17/201	
Q014962			WH13193616				ALS: ME-ICP41				11/17/201	
Q014963			WH13193616				ALS: ME-ICP41				11/17/201	
Q014964			WH13193616				ALS: ME-ICP41				11/17/201	
Q014965			WH13193616				ALS: ME-ICP41				11/17/201	
Q014966			WH13193616				ALS: ME-ICP41				11/17/201	
Q014967			WH13193616				ALS: ME-ICP41				11/17/201	
Q014968			WH13193616				ALS: ME-ICP41				11/17/201	
Q014969			WH13193616				ALS: ME-ICP41				11/17/201	
Q014971			WH13193616				ALS: ME-ICP41				11/17/201	

Dist (m)	Sa No.	Unit	Chemical Group	Alteration	Class By	Class Date	Lab	Year	Certificate	Method	Cert Date	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %
8.12	957111	0				1/1/2010			0 VAN13004665		1/1/2010	64.46	0.570	13.66	7.59
36.00	957112	0				1/1/2010			0 VAN13004665		1/1/2010	65.91	0.710	13.96	5.61
74.18	957113	0				###########			0 VAN13004665		###########	65.02	0.730	14.21	6.49
94.75	957114	0				1/1/2010			0 VAN13004665		1/1/2010	65.89	0.730	14.58	5.57
137.65	957115	0				1/1/2010			0 VAN13004665		1/1/2010	63.23	0.730	14.06	8.45
181.54	957116	0				1/1/2010			0 VAN13004665		1/1/2010	54.07	0.940	15.10	12.08
198.62	957117	0				1/1/2010			0 VAN13004665		1/1/2010	55.04	1.170	17.87	8.72
228.00	957118	0				1/1/2010			0 VAN13004665		1/1/2010	54.35	1.200	18.32	8.70
243.12	957119	0				1/1/2010			0 VAN13004665		1/1/2010	63.54	0.840	13.96	8.65
254.20	957120	0				1/1/2010			0 VAN13004665		1/1/2010	37.11	1.600	24.36	15.28
264.70	957121	0				1/1/2010			0 VAN13004665		1/1/2010	57.39	1.210	18.52	6.74
286.10	957122	0				1/1/2010			0 VAN13004665		1/1/2010	44.19	1.470	23.49	10.35
323.00	957123	0				1/1/2010			0 VAN13004665		1/1/2010	57.74	0.720	17.38	8.20
360.10	957124	0				1/1/2010			0 VAN13004665		1/1/2010	55.98	0.640	13.37	13.03
402.00	957125	0				1/1/2010			0 VAN13004665		1/1/2010	51.90	0.800	15.15	11.16
435.70	957126	0				1/1/2010			0 VAN13004665		1/1/2010	51.75	0.910	16.35	12.70
468.00	957127	0				1/1/2010			0 VAN13004665		1/1/2010	46.33	0.480	10.01	9.21
495.72	957128	0				1/1/2010			0 VAN13004665		1/1/2010	47.46	0.920	17.07	14.67
528.70	957129	0				1/1/2010			0 VAN13004665		1/1/2010	51.67	0.730	14.40	15.68
540.70	957130	0				1/1/2010			0 VAN13004665		1/1/2010	52.61	0.800	16.63	11.93
567.40	957131	0				1/1/2010			0 VAN13004665		1/1/2010	51.15	0.840	17.66	12.26
583.20	957132	0				1/1/2010			0 VAN13004665		1/1/2010	58.21	0.770	15.25	10.66
598.20	957133	0				1/1/2010			0 VAN13004665		1/1/2010	73.92	0.270	13.82	2.95

Dist (m)	Sa No.	MnO %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	Cr2O3 %	Ni ppm	Sc ppm	LOI %	C %	S %	Sum %	Ba ppm	Be ppm	Ce ppm	Co ppm	Cs ppm	Dy ppm	Er ppm	Eu ppm	Ga ppm
8.12	957111	0.07	2.26	0.55	0.08	5.34	0.180	0.002	<20.0	18	4.7	0.1	3.0	99.47	3885	<1	41.4	6.1	3.4	6.48	3.51	3.51	15.8
36.00	957112	0.06	1.87	0.65	0.09	5.63	0.260	0.002	<20.0	21	4.5	0.2	2.1	99.26	5770	<1	36.5	5.4	2.4	4.69	2.88	2.88	16.2
74.18	957113	0.06	1.60	0.51	0.15	5.77	0.300	<0.002	<20.0	21	4.5	<0.0	3.3	99.35	5002	<1	43.8	11.4	1.5	6.18	3.11	3.11	17.3
94.75	957114	0.06	1.75	0.49	0.56	5.90	0.280	<0.002	<20.0	23	3.5	<0.0	1.9	99.35	4919	<1	43.1	5.7	2.0	5.16	3.24	3.24	17.6
137.65	957115	0.13	3.08	1.02	2.83	2.47	0.210	0.003	<20.0	22	3.4	0.0	2.0	99.55	2660	3	38.6	14.4	1.4	5.98	3.94	3.94	16.1
181.54	957116	0.15	5.31	1.03	1.72	2.71	0.280	0.002	<20.0	27	6.2	0.2	3.7	99.61	2529	1	15.0	18.7	3.4	3.07	1.38	1.38	17.1
198.62	957117	0.10	3.62	1.05	1.35	5.23	0.410	<0.002	<20.0	31	4.9	0.0	3.1	99.46	3641	<1	57.8	33.4	2.9	6.39	2.96	2.96	18.8
228.00	957118	0.12	4.06	1.12	2.75	4.08	0.300	<0.002	<20.0	33	4.6	0.0	3.0	99.61	2544	1	31.4	20.4	2.1	3.81	2.34	2.34	16.9
243.12	957119	0.13	3.30	0.40	0.53	3.71	0.160	0.002	<20.0	24	4.4	0.0	2.8	99.61	2612	4	18.4	23.5	3.5	2.08	1.29	1.29	15.9
254.20	957120	0.02	1.35	0.54	0.13	8.15	0.380	0.002	<20.0	44	10.5	<0.0	10.8	99.42	3959	1	35.4	35.7	3.6	6.68	3.89	3.89	25.4
264.70	957121	0.11	3.30	0.69	1.16	5.78	0.260	<0.002	<20.0	32	4.4	0.1	2.0	99.52	3274	1	45.6	8.9	3.8	5.22	2.08	2.08	18.8
286.10	957122	0.03	2.05	0.68	0.28	8.58	0.110	<0.002	<20.0	41	8.1	0.1	6.6	99.29	5149	2	31.1	28.9	5.2	5.53	2.70	2.70	25.2
323.00	957123	0.04	1.78	0.55	0.21	6.48	0.130	0.003	<20.0	27	5.9	<0.0	4.8	99.14	6831	<1	6.7	21.5	2.3	1.96	1.50	1.50	16.0
360.10	957124	0.13	4.43	1.44	2.35	1.90	0.160	<0.002	<20.0	23	6.2	0.1	5.9	99.59	1994	2	7.0	46.2	1.7	2.21	0.94	0.94	11.8
402.00	957125	0.31	6.21	4.37	0.55	2.16	0.130	0.003	<20.0	28	4.2	0.1	1.9	96.98	24236	<1	14.2	22.5	1.8	2.85	1.51	1.51	16.4
435.70	957126	0.37	7.92	1.60	1.08	1.90	0.160	<0.002	<20.0	33	4.9	0.1	1.0	99.66	1656	2	21.4	26.3	1.7	2.61	1.72	1.72	17.9
468.00	957127	0.17	18.37	7.56	1.25	0.18	0.270	0.241	683.0	26	5.7	0.2	0.0	99.82	454	2	14.4	63.5	0.7	1.94	1.00	1.00	11.7
495.72	957128	0.29	6.88	2.62	1.59	2.74	0.160	<0.002	<20.0	33	5.3	<0.0	3.4	99.71	1402	2	16.3	38.7	1.6	3.31	2.26	2.26	17.5
528.70	957129	0.30	6.56	0.86	0.09	2.84	0.130	0.003	<20.0	26	6.3	0.0	3.9	99.59	2616	<1	14.2	36.9	1.1	2.79	1.13	1.13	13.1
540.70	957130	0.17	6.11	0.38	0.09	4.16	0.140	<0.002	<20.0	28	6.6	<0.0	4.1	99.57	2926	<1	8.9	26.3	1.7	3.17	2.13	2.13	18.7
567.40	957131	0.14	4.75	0.85	0.14	5.16	0.180	0.002	<20.0	30	6.3	<0.0	4.8	99.41	4107	<1	22.1	38.1	1.5	3.33	2.18	2.18	15.4
583.20	957132	0.06	2.75	0.27	0.11	4.73	0.150	0.002	<20.0	28	6.6	<0.0	6.0	99.56	3005	3	5.8	31.8	1.4	2.18	1.36	1.36	16.0
598.20	957133	0.01	0.91	0.06	0.11	4.58	0.030	0.004	<20.0	13	3.0	<0.0	1.7	99.64	2255	<1	55.3	3.7	1.3	7.26	5.08	5.08	16.0

Dist (m)	Sa No.	Gd ppm	Hf ppm	Ho ppm	La ppm	Lu ppm	Nb ppm	Nd ppm	Pr ppm	Rb ppm	Sm pp	Sn ppm	Sr ppm	Ta ppm	Tb ppm	Th ppm	Th ppm	U ppm	V ppm	W ppm	Y ppm	Yb ppm	Zr ppm
8.12	957111	6.08	3.5	1.28	19.5	0.55	6.4	22.8	5.27	104.9	5.2	1	66.3	0.3	0.99	3.7	0.56	1.3	17	2.0	31.7	3.58	114.0
36.00	957112	5.45	2.1	0.95	18.6	0.54	4.9	23.1	4.97	93.2	5.9	2	92.6	0.5	0.81	2.4	0.41	1.2	39	2.2	22.5	3.25	90.8
74.18	957113	6.03	3.0	1.31	20.6	0.54	5.3	22.0	5.57	87.4	5.9	2	44.9	0.3	1.03	2.9	0.47	1.1	30	3.9	27.9	3.31	93.1
94.75	957114	5.56	2.7	1.17	21.3	0.49	5.9	20.3	5.21	89.7	4.3	2	63.9	0.6	0.82	3.2	0.48	1.2	25	3.6	26.6	2.93	104.8
137.65	957115	5.45	2.4	1.32	20.3	0.53	5.4	22.6	5.33	44.6	5.4	2	58.5	0.2	1.01	2.6	0.57	0.9	106	1.5	33.9	3.88	96.0
181.54	957116	2.70	1.6	0.55	6.9	0.31	3.0	9.5	1.92	43.0	2.1	2	72.8	0.1	0.45	1.2	0.28	0.7	269	2.1	10.8	1.72	55.6
198.62	957117	7.02	2.4	1.24	24.0	0.46	4.2	29.3	6.91	84.5	6.0	1	45.0	0.2	1.07	1.4	0.48	0.9	230	2.3	29.9	3.12	70.1
228.00	957118	4.67	1.9	0.92	15.7	0.39	4.4	19.5	4.29	72.7	3.9	1	49.7	0.2	0.79	1.5	0.37	1.0	175	2.4	21.5	2.44	74.3
243.12	957119	3.05	1.0	0.58	8.1	0.29	3.2	12.7	2.50	57.0	3.2	1	21.7	<0.1	0.47	1.1	0.25	0.7	240	1.3	13.5	1.87	52.5
254.20	957120	6.68	2.0	1.33	15.1	0.62	5.5	22.7	4.40	100.0	5.6	1	34.1	0.3	1.06	1.8	0.56	0.9	370	3.1	29.8	3.76	86.3
264.70	957121	5.68	2.4	0.89	17.1	0.41	4.6	21.5	5.75	89.9	5.7	2	32.2	0.3	0.88	1.7	0.41	0.4	222	2.3	20.6	2.74	73.8
286.10	957122	5.05	3.5	1.01	14.0	0.40	5.1	18.8	4.17	129.8	4.6	2	29.4	0.3	0.80	2.0	0.41	0.8	343	2.0	21.3	2.66	85.9
323.00	957123	2.16	0.5	0.52	2.7	0.22	1.5	6.0	1.02	102.0	1.8	<1	37.5	<0.1	0.33	0.6	0.19	0.3	290	1.5	10.4	1.28	27.7
360.10	957124	1.99	1.3	0.34	3.7	0.18	1.4	5.8	1.18	37.6	1.8	<1	66.7	<0.1	0.34	0.5	0.18	0.4	222	1.5	10.1	0.93	25.6
402.00	957125	2.70	1.2	0.44	6.5	0.31	1.8	6.9	1.97	39.3	2.1	<1	811.2	0.1	0.49	0.6	0.26	0.3	285	1.9	15.3	1.52	34.1
435.70	957126	2.89	1.9	0.57	8.3	0.28	1.6	15.4	2.83	34.1	3.0	<1	120.8	<0.1	0.47	0.6	0.25	0.2	313	4.4	12.9	1.51	37.1
468.00	957127	2.33	0.6	0.42	6.1	0.21	1.7	8.8	1.79	2.6	2.0	1	212.0	0.1	0.35	0.9	0.18	0.7	173	0.9	10.3	1.23	37.7
495.72	957128	3.60	1.1	0.69	7.9	0.32	1.8	12.5	2.23	56.3	2.9	<1	176.5	<0.1	0.56	0.7	0.34	0.2	302	1.3	16.6	2.01	37.3
528.70	957129	2.77	1.3	0.65	6.5	0.19	1.7	8.1	1.90	55.4	2.2	1	28.8	0.1	0.43	0.5	0.22	0.3	256	1.7	14.2	1.50	32.8
540.70	957130	2.74	0.9	0.68	3.8	0.34	1.6	7.5	1.26	68.9	2.1	<1	16.2	<0.1	0.50	0.8	0.32	0.3	267	1.7	17.9	1.81	32.5
567.40	957131	3.61	0.8	0.75	8.7	0.25	1.7	15.5	2.85	92.7	3.3	<1	24.5	<0.1	0.64	0.8	0.32	0.3	266	1.3	20.0	1.95	33.5
583.20	957132	2.13	0.7	0.51	3.1	0.21	1.6	4.0	0.96	84.0	1.3	1	12.1	<0.1	0.34	0.7	0.18	0.5	268	3.6	10.6	1.14	30.2
598.20	957133	6.89	5.0	1.60	26.1	0.86	8.5	32.3	7.06	70.6	7.3	2	15.9	0.6	1.17	5.1	0.80	2.0	12	2.3	48.5	5.42	184.2

Drill Hole Log - Litho Geochem

Dist (m)	Sa No.	Ag ppm	As ppm	Au ppb	Bi ppm	Cd ppm	Cu ppm	Hg ppm	Mo pp	Ni ppm	Pb ppm	Sb ppm	Se ppm	Tl ppm	Zn ppm	Al/Ti	La/Yb	Zr/Al	Zr/Nb	Zr/Ti	Zr/Y	Comments
8.12	957111	<0.1	14.4	4.8	1.3	<0.1	12	0.05	2.1	0.7	4	1.9	2.3	0.2	26							Rhyolite Flow w/
36.00	957112	<0.1	4.8	0.8	0.8	<0.1	16	0.03	0.6	1.8	1	0.6	1.6	<0.1	19							rhyolite breccia
74.18	957113	0.2	12.2	16.6	2.2	<0.1	7	0.03	5.2	1.1	6	0.4	2.3	0.2	15							Rhyolite Tuff
94.75	957114	0.2	8.2	12.8	1.0	<0.1	91	0.05	0.8	1.4	2	0.5	0.7	0.1	16							Rhyolite Autobre
137.65	957115	<0.1	3.8	<0.5	0.6	<0.1	387	<0.01	0.1	5.3	1	1.5	1.2	<0.1	42							Basalt Flow Brec
181.54	957116	0.1	18.6	19.4	2.0	<0.1	26	0.02	3.0	6.5	8	3.1	1.6	<0.1	57							Basalt Flow Brec
198.62	957117	0.2	18.3	11.4	6.0	<0.1	25	0.04	4.7	6.5	5	2.3	1.5	0.2	46							Debris Flow? Ma
228.00	957118	<0.1	2.1	<0.5	0.4	<0.1	2	0.01	1.2	3.6	1	1.4	1.2	0.1	41							Debris Flow? Ma
243.12	957119	0.1	11.3	14.5	2.0	<0.1	14	0.02	1.5	5.3	3	1.0	1.7	0.1	52							Mafic? Debris Fl
254.20	957120	0.1	66.5	23.3	0.5	<0.1	36	0.17	1.5	10.5	9	3.5	0.9	0.2	12							Mafic Hyaloclasti
264.70	957121	<0.1	2.0	<0.5	<0.1	<0.1	29	<0.01	<0.1	1.0	0	1.5	<0.5	0.2	35							Mafic debris flo
286.10	957122	<0.1	25.2	14.3	<0.1	<0.1	47	0.09	1.9	7.3	11	2.8	0.8	0.2	9							Mafic hyalocastit
323.00	957123	0.8	75.9	64.9	2.4	<0.1	10	0.03	0.8	5.8	9	2.5	0.7	0.2	7							porphyritic mafic
360.10	957124	0.4	55.1	99.5	1.3	1.4	60	0.05	3.2	6.4	199	2.7	4.5	0.2	528							Mafic? Flow?
402.00	957125	0.4	10.4	9.6	0.4	0.1	903	<0.01	0.2	11.9	9	3.4	0.6	<0.1	120							Mafic Flow Bx? B
435.70	957126	<0.1	20.9	7.7	0.2	<0.1	211	<0.01	0.2	14.2	4	1.6	<0.5	<0.1	129							Mafic Fragmenta
468.00	957127	0.1	1.5	<0.5	<0.1	<0.1	73	<0.01	1.5	436.6	4	0.3	<0.5	<0.1	44							Mafic dyke/intru
495.72	957128	<0.1	11.7	2.9	0.7	<0.1	23	0.02	<0.1	10.0	2	0.6	2.9	0.1	101							Mafic? Amyg flo
528.70	957129	<0.1	15.4	3.4	0.9	0.3	54	0.02	<0.1	16.9	6	2.6	4.1	<0.1	113							Rhyolite? Lapilli
540.70	957130	0.1	21.5	24.1	2.9	0.2	21	0.07	2.0	3.9	8	0.9	1.8	0.2	91							rhyolite? Flow bx
567.40	957131	0.2	29.4	31.1	3.1	<0.1	21	0.05	0.8	6.5	8	1.1	3.0	0.2	193							"amygdaloidal b
583.20	957132	0.5	50.2	57.7	6.4	0.9	29	0.05	1.7	4.9	14	0.8	5.9	0.5	52							rhyolite? flow bx
598.20	957133	0.8	81.5	147.4	1.5	<0.1	28	0.05	2.0	0.6	12	0.8	0.8	<0.1	7							QSP

Drill Hole Log - Ez-Shot Survey

Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date	Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date
30.00	279.1	-71.7	5307	299.8	C.Baskin	9/28/2013							
60.00	282.1	-72.1	5708	302.8	M.Smith	9/29/2013							
90.00	281.9	-72.5	5652	302.6	M.Smith	9/30/2013							
120.00	282.8	-72.8	5685	303.5	C.Baskin	9/30/2013							
150.00	287.1	-73.4	5689	307.8	C.Baskin	9/30/2013							
180.00	287.1	-73.4	5689	307.8	M.Smith	10/1/2013							
210.00	291.4	-74.4	5674	312.1	M.Smith	10/1/2013							
240.00	290.6	-74.6	5683	311.3	M.Smith	10/2/2013							
270.00	291.1	-74.6	5680	311.8	C.Baskin	10/2/2013							
300.00	291.5	-75.3	5667	312.2	C.Baskin	10/2/2013							
360.00	295.3	-75.9	5666	316	C.Baskin	10/3/2013							
408.00	298.4	-75.8	5615	319.1	C.Baskin	10/4/2013							
420.00	304.8	-75.9	5626	325.5	C.Baskin - BAD AZ	10/4/2013							
450.00	299	-76.4	5715	319.7	M.Smith	10/4/2013							
480.00	301.3	-76.3	5548	322	C.Baskin	10/5/2013							
510.00	304.2	-77	5695	324.9	M.Smith	10/5/2013							
540.00	310.4	-77	5622	331.1	C.Baskin	10/6/2013							
570.00	314.8	-77.3	5637	335.5	M.Smith	10/7/2013							

Drill Hole Log - Rock Quality Determination

TC13065

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
3.00	6.00	3	2.5	83.33	2.06	82.4	
6.00	9.00	3	3.04	101.33	2.75	90.46	
9.00	12.00	3	2.9	96.67	2.73	94.14	
12.00	15.00	3	2.98	99.33	2.86	95.97	
15.00	18.00	3	2.61	87	0.53	20.31	
18.00	21.00	3	2.72	90.67	0.99	36.4	
21.00	24.00	3	2.68	89.33	0.69	25.75	
24.00	27.00	3	2.85	95	2	70.18	
27.00	30.00	3	3.01	100.33	2.91	96.68	
30.00	33.00	3	3.07	102.33	2.72	88.6	
33.00	36.00	3	2.84	94.67	2.4	84.51	
36.00	39.00	3	3.01	100.33	2.77	92.03	
39.00	42.00	3	3.04	101.33	3.04	100	
42.00	45.00	3	3.04	101.33	2.76	90.79	
45.00	48.00	3	3.03	101	2.69	88.78	
48.00	51.00	3	2.79	93	2.57	92.11	
51.00	54.00	3	3.07	102.33	2.62	85.34	
54.00	57.00	3	3.41	113.67	3.33	97.65	
57.00	60.00	3	2.71	90.33	2.54	93.73	
60.00	63.00	3	3.05	101.67	2.97	97.38	
63.00	66.00	3	3.27	109	2.99	91.44	
66.00	69.00	3	2.97	99	2.83	95.29	
69.00	72.00	3	3.03	101	2.72	89.77	
72.00	75.00	3	2.99	99.67	2.77	92.64	
75.00	78.00	3	2.83	94.33	2.75	97.17	
78.00	81.00	3	3.02	100.67	2.93	97.02	
81.00	84.00	3	3.06	102	2.91	95.1	
84.00	87.00	3	2.99	99.67	2.69	89.97	
87.00	90.00	3	3	100	2.92	97.33	
90.00	93.00	3	2.35	78.33	2.21	94.04	
93.00	96.00	3	3.73	124.33	3.51	94.1	
96.00	99.00	3	2.96	98.67	2.91	98.31	
99.00	102.00	3	2.31	77	2.17	93.94	
102.00	105.00	3	3.67	122.33	3.41	92.92	
105.00	108.00	3	3.01	100.33	2.88	95.68	
108.00	111.00	3	3.05	101.67	2.83	92.79	
111.00	114.00	3	3.04	101.33	2.84	93.42	
114.00	117.00	3	2.76	92	2.66	96.38	
117.00	120.00	3	3.17	105.67	2.9	91.48	
120.00	123.00	3	3.13	104.33	2.92	93.29	
123.00	126.00	3	3.01	100.33	2.98	99	
126.00	129.00	3	2.95	98.33	2.57	87.12	
129.00	132.00	3	3.12	104	2.41	77.24	
132.00	135.00	3	2.95	98.33	2.78	94.24	
135.00	138.00	3	3.06	102	2.94	96.08	
138.00	141.00	3	3.03	101	2.8	92.41	
141.00	144.00	3	2.77	92.33	2.77	100	
144.00	147.00	3	2.99	99.67	2.94	98.33	
147.00	150.00	3	2.64	88	2.5	94.7	
150.00	153.00	3	3.28	109.33	2.75	83.84	
153.00	156.00	3	3.02	100.67	3.02	100	
156.00	159.00	3	2.97	99	2.83	95.29	
159.00	162.00	3	2.94	98	2.79	94.9	
162.00	165.00	3	3	100	2.94	98	
165.00	168.00	3	3.04	101.33	3.04	100	
168.00	171.00	3	2.93	97.67	2.88	98.29	
171.00	174.00	3	2.91	97	2.45	84.19	
174.00	177.00	3	2.95	98.33	2.88	97.63	
177.00	180.00	3	2.78	92.67	2.33	83.81	
180.00	183.00	3	3.21	107	2.12	66.04	
183.00	186.00	3	2.94	98	2.64	89.8	
186.00	189.00	3	3.06	102	2.96	96.73	
189.00	192.00	3	3	100	2.82	94	
192.00	195.00	3	2.81	93.67	2.37	84.34	
195.00	198.00	3	3.12	104	2.89	92.63	
198.00	201.00	3	3.07	102.33	2.8	91.21	
201.00	204.00	3	2.91	97	2.53	86.94	
204.00	207.00	3	2.97	99	2.75	92.59	
207.00	210.00	3	3.09	103	2.9	93.85	
210.00	213.00	3	2.52	84	2.43	96.43	
213.00	216.00	3	3.14	104.67	2.89	92.04	
216.00	219.00	3	2.95	98.33	2.35	79.66	
219.00	222.00	3	3.05	101.67	3	98.36	
222.00	225.00	3	2.95	98.33	2.68	90.85	
225.00	228.00	3	3.19	106.33	3.05	95.61	
228.00	231.00	3	3.14	104.67	3.08	98.09	
231.00	234.00	3	3	100	2.63	87.67	
234.00	237.00	3	2.93	97.67	2.8	95.56	
237.00	240.00	3	2.82	94	2.33	82.62	
240.00	243.00	3	2.8	93.33	2.19	78.21	
243.00	246.00	3	2.36	78.67	2.32	98.31	
246.00	249.00	3	3.87	129	3.79	97.93	
249.00	252.00	3	3.08	102.67	3.04	98.7	

Drill Hole Log - Rock Quality Determination

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
252.00	255.00	3	2.76	92	2.7	97.83	
255.00	258.00	3	3.15	105	3.08	97.78	
258.00	261.00	3	3.06	102	3.06	100	
261.00	264.00	3	3.06	102	3.04	99.35	
264.00	267.00	3	3.03	101	3.03	100	
267.00	270.00	3	2.9	96.67	2.84	97.93	
270.00	273.00	3	3.17	105.67	3.04	95.9	
273.00	276.00	3	2.65	88.33	2.65	100	
276.00	279.00	3	3.19	106.33	3.19	100	
279.00	282.00	3	3.1	103.33	2.98	96.13	
282.00	285.00	3	3.08	102.67	3	97.4	
285.00	288.00	3	3.03	101	3.03	100	
288.00	291.00	3	3.05	101.67	2.86	93.77	
291.00	294.00	3	2.92	97.33	2.72	93.15	
294.00	297.00	3	2.98	99.33	2.93	98.32	
297.00	300.00	3	3.01	100.33	2.65	88.04	
300.00	303.00	3	2.9	96.67	2.79	96.21	
303.00	306.00	3	3.04	101.33	2.72	89.47	
306.00	309.00	3	2.98	99.33	2.91	97.65	
309.00	312.00	3	2.8	93.33	2.7	96.43	
312.00	315.00	3	2.79	93	2.22	79.57	
315.00	318.00	3	2.71	90.33	2.44	90.04	
318.00	321.00	3	3.58	119.33	3.18	88.83	
321.00	324.00	3	2.97	99	2.73	91.92	
324.00	327.00	3	3.03	101	2.15	70.96	
327.00	330.00	3	3	100	3	100	
330.00	333.00	3	3.06	102	2.83	92.48	
333.00	336.00	3	3.01	100.33	2.81	93.36	
336.00	339.00	3	2.98	99.33	2.84	95.3	
339.00	342.00	3	2.97	99	2.97	100	
342.00	345.00	3	3.11	103.67	3.02	97.11	
345.00	348.00	3	3.03	101	3.01	99.34	
348.00	351.00	3	3.03	101	3.02	99.67	
351.00	354.00	3	2.99	99.67	2.54	84.95	
354.00	357.00	3	2.85	95	1.9	66.67	
357.00	360.00	3	2.73	91	1.56	57.14	
360.00	363.00	3	2.84	94.67	2.53	89.08	
363.00	366.00	3	3.04	101.33	3.04	100	
366.00	369.00	3	2.89	96.33	2.89	100	
369.00	372.00	3	2.96	98.67	2.87	96.96	
372.00	375.00	3	3.05	101.67	2.97	97.38	
375.00	378.00	3	3	100	3	100	
378.00	381.00	3	2.95	98.33	2.53	85.76	
381.00	384.00	3	3.04	101.33	2.69	88.49	
384.00	387.00	3	3.03	101	2.87	94.72	
387.00	390.00	3	2.95	98.33	2.85	96.61	
390.00	393.00	3	2.98	99.33	2.04	68.46	
393.00	396.00	3	3.04	101.33	2.7	88.82	
396.00	399.00	3	3.02	100.67	2.79	92.38	
399.00	402.00	3	3.07	102.33	2.91	94.79	
402.00	405.00	3	2.94	98	2.72	92.52	
405.00	408.00	3	2.99	99.67	2.94	98.33	
408.00	411.00	3	3.12	104	3.12	100	
411.00	414.00	3	3.06	102	2.98	97.39	
414.00	417.00	3	3	100	2.9	96.67	
417.00	420.00	3	2.94	98	2.53	86.05	
420.00	423.00	3	3.11	103.67	3.11	100	
423.00	426.00	3	2.96	98.67	2.72	91.89	
426.00	429.00	3	3.04	101.33	2.74	90.13	
429.00	432.00	3	3	100	2.82	94	
432.00	435.00	3	3.09	103	3.03	98.06	
435.00	438.00	3	3.01	100.33	2.81	93.36	
438.00	441.00	3	2.93	97.67	2.69	91.81	
441.00	444.00	3	2.89	96.33	2.89	100	
444.00	447.00	3	2.89	96.33	2.73	94.46	
447.00	450.00	3	3.1	103.33	2.99	96.45	
450.00	453.00	3	2.76	92	1.96	71.01	
453.00	456.00	3	3.5	116.67	3.32	94.86	
456.00	459.00	3	2.43	81	2.13	87.65	
459.00	462.00	3	3.02	100.67	3.02	100	
462.00	465.00	3	3.03	101	3.03	100	
465.00	468.00	3	2.99	99.67	2.88	96.32	
468.00	471.00	3	2.98	99.33	2.74	91.95	
471.00	474.00	3	3.1	103.33	2.67	86.13	
474.00	477.00	3	3.16	105.33	3.06	96.84	
477.00	480.00	3	2.88	96	2.74	95.14	
480.00	483.00	3	3.03	101	3.03	100	
483.00	486.00	3	2.94	98	2.91	98.98	
486.00	489.00	3	2.91	97	2.91	100	
489.00	492.00	3	3.04	101.33	2.73	89.8	
492.00	495.00	3	2.85	95	2.85	100	
495.00	498.00	3	3.15	105	3.08	97.78	
498.00	501.00	3	3.09	103	3	97.09	

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments	From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
501.00	504.00	3	4.14	138	4.02	97.1									
504.00	507.00	3	1.73	57.67	1.39	80.35									
507.00	510.00	3	3.03	101	2.95	97.36									
510.00	513.00	3	3.03	101	2.97	98.02									
513.00	516.00	3	3.06	102	3.06	100									
516.00	519.00	3	2.84	94.67	2.96	104.23									
519.00	522.00	3	3.02	100.67	2.6	86.09									
522.00	525.00	3	2.93	97.67	2.76	94.2									
525.00	528.00	3	3.24	108	3.11	95.99									
528.00	531.00	3	2.83	94.33	2.36	83.39									
531.00	534.00	3	3.14	104.67	3.14	100									
534.00	537.00	3	2.6	86.67	2.53	97.31									
537.00	540.00	3	3.16	105.33	3.16	100									
540.00	543.00	3	2.97	99	2.79	93.94									
543.00	546.00	3	3.21	107	3.04	94.7									
546.00	549.00	3	3.03	101	2.5	82.51									
549.00	552.00	3	3.12	104	3.05	97.76									
552.00	555.00	3	3	100	2.9	96.67									
555.00	558.00	3	2.92	97.33	2.35	80.48									
558.00	561.00	3	3	100	2.94	98									
561.00	564.00	3	2.99	99.67	2.92	97.66									
564.00	567.00	3	2.98	99.33	2.79	93.62									
567.00	570.00	3	2.96	98.67	2.87	96.96									
570.00	573.00	3	2.84	94.67	2.81	98.94									
573.00	576.00	3	3.03	101	3.03	100									
576.00	579.00	3	3.13	104.33	2.96	94.57									
579.00	582.00	3	3.07	102.33	2.99	97.39									
582.00	585.00	3	2.84	94.67	2.66	93.66									
585.00	588.00	3	3.11	103.67	3.04	97.75									
588.00	591.00	3	3.08	102.67	3.08	100									
591.00	594.00	3	3.06	102	3.06	100									
594.00	597.00	3	3.03	101	3	99.01									
597.00	600.00	3	2.31	77	2.31	100									

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
8.95		j										40					5/22/2011	
12.50		j										40					5/22/2011	
15.70		j										50					5/22/2011	
19.35		fol										50					5/22/2011	
21.10		j										60					5/22/2011	
23.90		j										30					5/22/2011	
26.70		j										45					5/22/2011	
28.10		vn										50					5/22/2011	
33.90		j										30					5/22/2011	
39.11		faul										30					5/22/2011	
45.20		j										25					5/22/2011	
50.30		j										45					5/22/2011	
57.10		j										60					5/22/2011	
59.50		j										40					5/22/2011	
62.70		j										50					5/22/2011	
64.40		j										40					5/22/2011	
65.50		vn										50					5/22/2011	
69.82		j										45					5/22/2011	
74.10		ff										50					5/22/2011	
77.60		j										45					5/22/2011	
82.05		vn	py		48.63	61.76	138.63			302.70	-72.40	45	20				5/22/2011	
83.04		vn	py		99.54	55.07	189.54			302.60	-72.40	40	80				5/22/2011	
87.25		j										50					5/22/2011	
91.28		cont										60					5/22/2011	
93.05		cont			278.61	29.85	8.61			302.70	-72.50	50	225				5/22/2011	
100.23		j										50					5/22/2011	
103.70		j										20					5/22/2011	
105.50		j										40					5/22/2011	
110.30		vn	qt		24.60	72.07	114.60			303.20	-72.70	35	350				5/22/2011	
111.80		j										40					5/22/2011	
115.15		cont										40					5/22/2011	
119.10		j										50					5/22/2011	
122.40		vn	qt		29.80	62.14	119.80			303.80	-72.80	45	355				5/22/2011	
122.90		j										40					5/22/2011	
126.80		vn	qt		11.50	55.35	101.50			304.50	-72.90	50	330				5/22/2011	
130.85		j										50					5/22/2011	
135.20		j										50					5/22/2011	
136.00		vn	qt		58.85	55.17	148.85			305.80	-73.10	50	30				5/22/2011	
140.25		vn	qt		7.21	64.27	97.21			306.40	-73.20	40	325				5/22/2011	
149.00		j										20					5/22/2011	
153.25		j										25					5/22/2011	
155.40		vn	ca		173.84	42.22	263.84			308.20	-73.50	35	145				5/22/2011	
164.35		j										30					5/22/2011	
193.20		vn	cal									25					5/22/2011	
196.00		j										20					5/22/2011	
201.88		j										45					5/22/2011	
203.00		j										50					5/22/2011	
205.45		j										30					5/22/2011	

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
209.60		j										60					5/22/2011	
214.30		j										40					5/22/2011	
217.00		j										40					5/22/2011	
220.67		j										40					5/22/2011	
225.95		j										30					5/22/2011	
232.40		j										30					5/22/2011	
234.30		j										30					5/22/2011	
238.20		j										40					5/22/2011	
240.25		vn	cal									20					5/22/2011	
249.30		j										25					5/22/2011	
255.30		j										40					5/22/2011	
260.55		j										25					5/22/2011	
261.45		j										30					5/22/2011	
266.80		j										40					5/22/2011	
267.81		cont										70					5/22/2011	
272.32		fol			5.99	72.10	95.99			311.80	-74.70	30	320				5/22/2011	
274.57		fol			346.66	57.68	76.66			311.90	-74.70	40	295				5/22/2011	
279.70		vn	cal									20					5/22/2011	
287.66		fol			346.60	57.51	76.60			312.00	-75.00	40	295				5/22/2011	
289.53		fol			8.18	61.94	98.18			312.10	-75.10	40	320				5/22/2011	
296.84		fol			351.05	58.42	81.05			312.20	-75.20	40	300				5/22/2011	
298.90		fol			222.20	35.29	312.20			312.20	-75.30	40	180				5/22/2011	
304.45		fol			4.91	60.95	94.91			313.20	-75.40	40	315				5/22/2011	
306.15		fol			334.67	53.94	64.67			313.60	-75.40	40	280				5/22/2011	
310.36		fol			92.33	48.67	182.33			314.50	-75.40	50	60				5/22/2011	
314.10		j										40					5/22/2011	
316.22		j										30					5/22/2011	
318.50		j										60					5/22/2011	
325.30		j										30					5/22/2011	
328.68		j										40					5/22/2011	
331.60		j										30					5/22/2011	
337.82		j										45					5/22/2011	
353.85		j										25					5/22/2011	
356.00		faul										20					5/22/2011	
362.00		faul	ca									20					5/22/2011	
367.40		fol			42.53	54.05	132.53			316.50	-75.90	50	355				5/22/2011	
367.95		fol	py									45					5/22/2011	
372.35		fol			352.64	67.70	82.64			316.80	-75.90	30	300				5/22/2011	
376.80		fol			3.12	64.65	93.12			317.10	-75.90	35	310				5/22/2011	
379.85		fol			2.22	69.55	92.22			317.30	-75.90	30	310				5/22/2011	
384.12		fol			351.78	57.06	81.78			317.60	-75.80	40	295				5/22/2011	
390.10		fol			108.54	45.42	198.54			317.90	-75.80	50	75				5/22/2011	
404.30		j										45					5/22/2011	
414.70		fol			26.37	67.45	116.37			322.70	-75.90	35	330				5/22/2011	
417.40		fol			4.17	53.15	94.17			324.10	-75.90	45	300				5/22/2011	
431.25		fol			19.08	61.11	109.08			323.30	-76.10	40	320				5/22/2011	
438.25		fol			18.97	81.45	108.97			322.00	-76.20	20	325				5/22/2011	
444.10		fol			347.32	65.44	77.32			320.80	-76.30	30	290				5/22/2011	

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
449.50		j										50					5/22/2011	
456.20		fol			327.93	60.92	57.93			320.20	-76.40	30	270				5/22/2011	
461.14		vn										50					5/22/2011	
471.40		fol			179.58	35.38	269.58			321.30	-76.30	45	140				5/22/2011	
474.10		fol			352.70	50.97	82.70			321.50	-76.30	45	290				5/22/2011	
479.10		fol			320.04	58.57	50.04			321.90	-76.30	30	260				5/22/2011	
482.45		fol			28.18	52.14	118.18			322.20	-76.40	50	330				5/22/2011	
485.35		fol			16.33	50.38	106.33			322.50	-76.40	50	315				5/22/2011	
488.50		fol			340.58	31.54	70.58			322.80	-76.50	60	265				5/22/2011	
498.20		j										40					5/22/2011	
502.62		cont			17.84	50.05	107.84			324.20	-76.80	50	315				5/22/2011	
505.60		j										30					5/22/2011	
513.85		vn			104.52	63.05	194.52			325.70	-77.00	35	55				5/22/2011	
514.60		fol			38.69	62.32	128.69			325.90	-77.00	40	340				5/22/2011	
517.70		fol										40					5/22/2011	
531.12		fol			26.94	50.53	116.94			329.30	-77.00	50	320				5/22/2011	
533.36		fol			22.68	39.50	112.68			329.70	-77.00	60	310				5/22/2011	
537.50		fol			341.01	40.62	71.01			330.60	-77.00	50	265				5/22/2011	
552.20		fol			333.95	48.98	63.95			332.90	-77.10	40	260				5/22/2011	
566.70		fol			333.00	26.96	63.00			335.00	-77.30	60	245				5/22/2011	
575.65		fol			341.20	50.07	71.20			335.50	-77.30	40	265				5/22/2011	
581.80		fol			16.38	47.41	106.38			335.50	-77.30	50	300				5/22/2011	
588.85		fol			357.06	48.48	87.06			335.50	-77.30	45	280				5/22/2011	
593.80		fol			345.95	51.16	75.95			335.50	-77.30	40	270				5/22/2011	

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
3.50	7.70	dis	sec	5										
7.70	10.37	dis	ws	8										
10.37	16.00	dis	ws	10										
16.10	19.84	dis	ws	2										
19.84	20.08	ff		3										
20.08	24.48	dis	ws	3										
24.48	43.51	dis	ws	8										
43.51	44.94	dis	ws	8	3									
44.94	62.62	dis	ws	10										
62.62	76.66	dis	ws	10										
76.66	76.99	ms	sec	80										
76.99	81.09	dis	vn	10										
81.09	81.99	sec	vn	30										
81.99	83.04	dis	vn	10										
83.04	83.23	sec	vn	25										
83.23	83.46	dis	sec	5										
83.46	90.04	dis	vn	8										
90.04	90.60	sec	vn	40										
90.60	91.28	dis	ws	8										
92.30	92.66	dis	ws	15										
92.66	92.95	sec	vn	10							30			brecciated
92.95	93.05	dis		10										
93.05	115.15	dis	ws	12	0.3									
115.15	198.00	dis	ws	10	0.3									
198.00	204.64	dis	ws	10										
204.64	205.02	dis	ws	25										very fined grained
205.02	245.02	dis	ws	10										
245.02	245.30	dis	eu	40										
245.30	251.20	dis	ws	10										
251.20	260.20	dis	ws	12										
260.20	267.81	dis	ws	10										
267.81	275.90	dis	ws	12										
275.90	285.44	ws	dis	12	0.1									
285.44	288.24	dis	ws	12										
288.24	293.47	dis	wa	10							1			
293.47	301.07	dis	sec	10										
301.07	302.67	dis	ws	10	0.5									
302.67	303.62	dis	ws	5										
303.62	304.03	dis	ws	10										
304.03	305.05	dis	ws	10										
305.05	306.00	dis	ws	15										
306.00	308.35	dis	ws	10										
308.35	314.00	dis	ws	15										
314.00	316.00	dis	ws	10										
316.00	316.70	ws	dis	13							1		1	
316.70	318.68	dis	ws	10										
318.68	318.91	ws	dis	15										
318.91	320.04	dis	ws	10										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
320.04	320.19	ws	vn	25										
320.19	322.31	dis	ws	10										
322.31	325.78	dis	ws	8										
325.78	328.38	dis	ws	12										
328.38	328.83	dis	ws	18										
328.83	330.20	dis	ws	8										
330.20	334.56	dis		2										
334.56	342.57	dis	ws	8										
342.57	342.85	ws	dis	15										
342.85	344.87	dis	ws	10										
344.87	345.15	ws	dis	15										
345.15	351.08	dis	ws	10										
351.08	352.02	ws	dis	20										
352.02	365.67	dis	ws	8										
365.67	365.97	dis	vn	15										very finely disseminated within a qt alteration band
365.97	367.80	dis	ws	8										
367.80	368.02	dis	vn	15										very finely disseminated band with bi+ch halo
368.02	372.10	dis	ws	10										
372.10	373.51	dis	ws	25	0.5	0.1	0.1						0.5	
373.51	378.09	dis	ws	10	0.3									
378.09	379.10	dis	ws	30	0.5									
379.10	379.69	dis	ws	15	5									
379.69	386.77	dis	ws	10	0.5						1		1	
386.77	388.04	dis		20	1		0.5				1		1	
388.04	392.75	dis	ws	8	0.3						1		1	
392.75	413.02	dis	ws	5							1		1	
413.02	425.74	dis	ws	5							1		1	
425.74	429.28	dis	ws	5										
429.28	434.65	dis	ws	5										
434.65	443.51	dis	ws	3										
443.51	453.25	dis	ws	3										
453.25	461.14	dis	ws	5										
461.14	470.75	vn									0.5			
470.75	473.05	dis	ws	10	0.3						0.5			
473.05	481.67	dis	ws	10	0.3						0.5			
481.67	483.19	dis	ws	8										
483.19	484.76	dis	band	8							2			
484.76	491.36	dis	ws	8										
491.36	493.30	dis	ws	12										
493.30	497.35	dis	ws	20										
497.35	502.62	dis	ws	12										
502.62	510.10	dis									0.5			
510.10	521.60	dis	ws	10							2			
521.60	531.26	dis	ws	10	0.5									
531.26	531.67	smx	eu	45										
531.67	533.36	dis	ws	10										
533.36	533.58	smx	eu	35										
533.58	542.72	dis	ws	15										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
542.72	545.60	dis	ws	25										
545.60	547.57	smx	eu	40										
547.57	548.54	dis	ws	20										
548.54	556.86	dis	ws	12										
556.86	581.56	dis	ws	15										
581.56	586.67	dis	ws	15										
586.67	596.21	dis	ws	15										
596.21	599.31	dis	ws	10										

Drill Hole Log - Alteration

From	To (m)	Style 1	Style 2	Sil	Ser	% Py	Chl	Epi	Alb	Carb	Hem	Mar	Bio	Other Type 1	Oth1	Other Type 2	Oth2	Remarks
3.50	7.70	per		5	5													
7.70	10.37	per	pat	5	5		1						1					
10.37	16.00	per	ff	5	5								1					
16.15	19.84	per	pat	5	5								1					
19.84	20.08	vn		40										ab	25			
20.08	24.48	per	pat	5	10													
24.48	62.62	per	pat	10	10								1	ab	1			
62.62	76.66	per	pat	10	10								1					
76.99	83.46	per	pat	15	15									2				
83.46	90.04	per	pat	10	10								1					
90.60	91.28	per	pat	10	10								1					
93.05	115.15	per	pat	10	10	10	2						2	jasp	1			
115.15	198.00	per	pat	10		10	5			5			5	jasp	1			qt+ca veining
198.00	206.20	per	pat	10	5	10	5						5					
206.20	208.40	per	pat	15	10	10	2						2					
208.40	209.40	per	pat	10	5	10	5						10					
209.40	223.05	per	pat	10	5	10	5						2					
225.95	229.00	per	pat	15	5	10	8						2					silica flooding of pumiceous frag
229.00	234.45	per	pat	10	5	10	5						8					
234.65	238.45	per	pat	10	5	10	5						8					
238.45	240.90	per	pat	15	5	10	10						5					
240.90	249.10	per	pat	10	5	10	5						5					
249.10	251.20	per	pat	10	10	10	8						5	clay	15			
251.20	260.20	per	rim		5	5	5						5	clay	25			
260.20	267.81	per	pat	10	5	10	10						5					
267.81	275.90	per	rim		5	10	5						5	clay	5			
275.90	284.52	per	pat	10	5	10	10						10					
284.52	285.44	per	pat	15	5	10	5						5					
285.44	288.24	per	pat	10	15	10	5						5					
288.24	293.47	per	pat	5	5	10	10						10					
293.47	301.07	per	infil	10	10	10	10						5					
301.07	302.67	per	pat	10	5	10	10						10					
302.67	303.62	per	pat	15	10	10	5						5	jasp	2			
303.62	304.03	per	pat	10	5	10	10						10					
304.03	305.05	per	pat	15	10	10	5						5					
305.05	306.00	per	pat	10	5	15	10						10					
306.00	308.35	per	pat	15	10	10	5						5					
308.35	313.45	per	pat	8	5	10	10						10					
313.45	313.75	per	pat	20	5	15	5					5		jasp	5			
313.75	322.31	per	pat	8	5	10	10						10	jasp	2			
322.31	325.78	per		15	10	5	10											
325.78	330.20	per	pat	8	5	15	10						10					
330.20	334.56	per		5		2	5											
334.56	342.57	per	pat	10	5	10	10	5					5	jasp	1			
342.57	342.85	per	pat	20	5	15	8						2					
342.85	345.15	per	pat	10	10	10	10						5	jasp	1			
345.15	351.08	per	pat	10	5	10	10	2					5	jasp	5			
351.08	352.02	per	pat	20	5	20	10						10					

Note : Alteration Intensity numerically ranked (1-10)

Drill Hole Log - Alteration

From	To (m)	Style 1	Style 2	Sil	Ser	% Py	Chl	Epi	Alb	Carb	Hem	Mar	Bio	Other Type 1	Oth1	Other Type 2	Oth2	Remarks
352.02	372.10	per	pat	10	5	10	10	2					5	jasp	2			
372.10	373.51	per	pat	25	10	20	5						5	jasp	0			
373.51	378.09	per	pat	10	5	10	10	2					10					
378.09	379.69	per	pat	25	10	20	5						5	jasp	2			
379.69	392.75	per	pat	10	5	10	10	5					10					
392.75	413.02	per	pat	10	5	8	10	15		2			5					
413.02	425.74	per	spot	8	5	5	10	10		5			5					
425.74	429.28	per	pat	10	5	5	10	15					5					
429.28	434.65	per	pat	8	5	5	10	2					5					
434.65	443.51	par	pat	10	5	3	10	10					5					
443.51	453.25	per	pat	8	5	3	10	15					5					
453.25	461.14	per	pat	10	5	5	10	15					5					
461.14	470.75	per	pat				10						10					
470.75	473.05	per	pat	15	5	10	10						10					
473.05	481.67	per	pat	10	5	10	10	5					10					
481.67	483.19	per	pat	10	5	8	10						10	jasp	5			
483.19	484.76	per	pat	15	5	8	8						8					
484.76	491.36	per	pat	8	5	8	10	3					10					
491.36	491.82	per		15	8	8	5						5					
491.82	493.30	per	pat	12	5	8	10	3					10					
493.30	497.35	per	pat	10	5	15	10	5					10					
497.35	502.62	per	pat	10	5	12	10	3					10					
502.62	510.10	per		1	1		10	3					10					
510.10	512.90	per	pat	10	5	10	10	5					10					
512.90	515.20	pat	per	15	5	10	10	5					10					
515.20	521.60	per	pat	10	5	10	10	5					10					
521.60	531.26	per	pat	10	5	10	10	2					10	jasp	5			
531.67	533.36	per	pat	15	5	10	15	2					10	jasp	1			
533.38	546.71	per	pat	15	5	15	15	1					10	jasp	1			
547.57	548.54	per	pat	20	10	15	15						10					
548.54	555.90	per	pat	10	10	15	15						15					
555.90	556.40	per		30	5	5												
556.40	556.86	per	pat	10	10	15	15						15					
556.86	581.56	per	pat	10	10	15	15						15					
581.56	586.67	per	pat	15	20	15	10						10					
586.67	596.21	per	pat	10	20	15	15						15					
596.21	599.31	per	pat	25	25	10	2						2					

Note : Alteration Intensity numerically ranked (1-10)

Drill Hole Log - Texture

From	To (m)	Grain mm	% Matrix	Texture	Remarks
3.50	7.70			hylo	
7.70	10.37			mas	ash tuff
10.37	16.00			hylo	
16.00	16.15			bx	fault breccia
16.15	19.84			mas	tuffaceous
19.84	20.08			bx	fault breccia
20.08	24.48			mas	tuffaceous
24.48	62.62			hylo	bx
62.62	76.66			mas	tuffaceous
76.99	83.46			hylo	brecciated
83.46	90.04			mas	tuffaceous
90.60	91.28			mas	tuffaceous
91.28	92.30			mas	homogeneous
92.30	92.66			bx	
93.05	115.15			abx	
115.15	198.00			bx	
198.00	251.20			bx	
251.20	260.20				"seal skin"
260.20	267.81			bx	amy
267.81	275.90			frag	
275.90	285.44			bx	amy
285.44	288.24			frag	
288.24	293.47			mas	minor amygdules
293.47	301.07			por	qt and ch infilled porphyroblasts
301.07	302.67			amy	
302.67	303.62			por	qt and ch infilled porphyroblasts
303.62	304.03			amy	
304.03	305.05			por	qt and ch infilled porphyroblasts
305.05	306.00			amy	
306.00	308.35			por	qt and ch infilled porphyroblasts
308.35	322.31			mas	amy
322.31	325.78			por	qt and ch infilled porphyroblasts
325.78	330.20			mas	amy
330.20	334.56		65	por	fs pheno
334.56	342.85			mas	amy
342.85	345.15			por	qt and ch infilled porphyroblasts
345.15	372.10			mas	amy
372.10	373.51			fol	
373.51	378.09			mas	amy
378.09	379.69			fol	
379.69	392.75			mas	amy
392.75	413.02			frag	amy
413.02	425.74			mas	amy
425.74	429.28			frag	amy
429.28	434.65			mas	
434.65	443.51			frag	
443.51	453.25			mas	
453.25	461.14			mas	amy

Drill Hole Log - Texture

From	To (m)	Grain mm	% Matrix	Texture	Remarks
461.14	470.75			mas	
470.75	473.05			band	
473.05	483.19			mas	band
483.19	484.76			band	
484.76	497.35			mas	amy
497.35	502.62			mas	lapilli tuff fragments
502.62	510.10			mas	
510.10	521.60			mas	frag
521.60	531.26			mas	amy
531.67	533.36			mot	
533.58	546.71			mot	
547.57	548.54			mot	
548.54	556.86			bx	"mottled, amygdaloidal"
556.86	581.56			amy	
581.56	586.67			fol	
586.67	596.21			fol	
596.21	599.31			tuff	502.62

Drill Hole Log - Tulsequah Chief 2013

TC13066

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
TC13066	10527.66	14881.82	332.20	492	269.8	-61

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
10/10/2013	10/17/2013	NQ	Atlas Drilling	10/18/2013	Forsyth/Taylor

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
2013 APS Survey	CT/AF/BA	10/29/2013	2013 APS Survey	CT/AF/BA	10/29/2013

Purpose:

To test for IP anomaly immediately south of the 5200 level drift with extensive modeled rhyolite. Following up on TC13065.

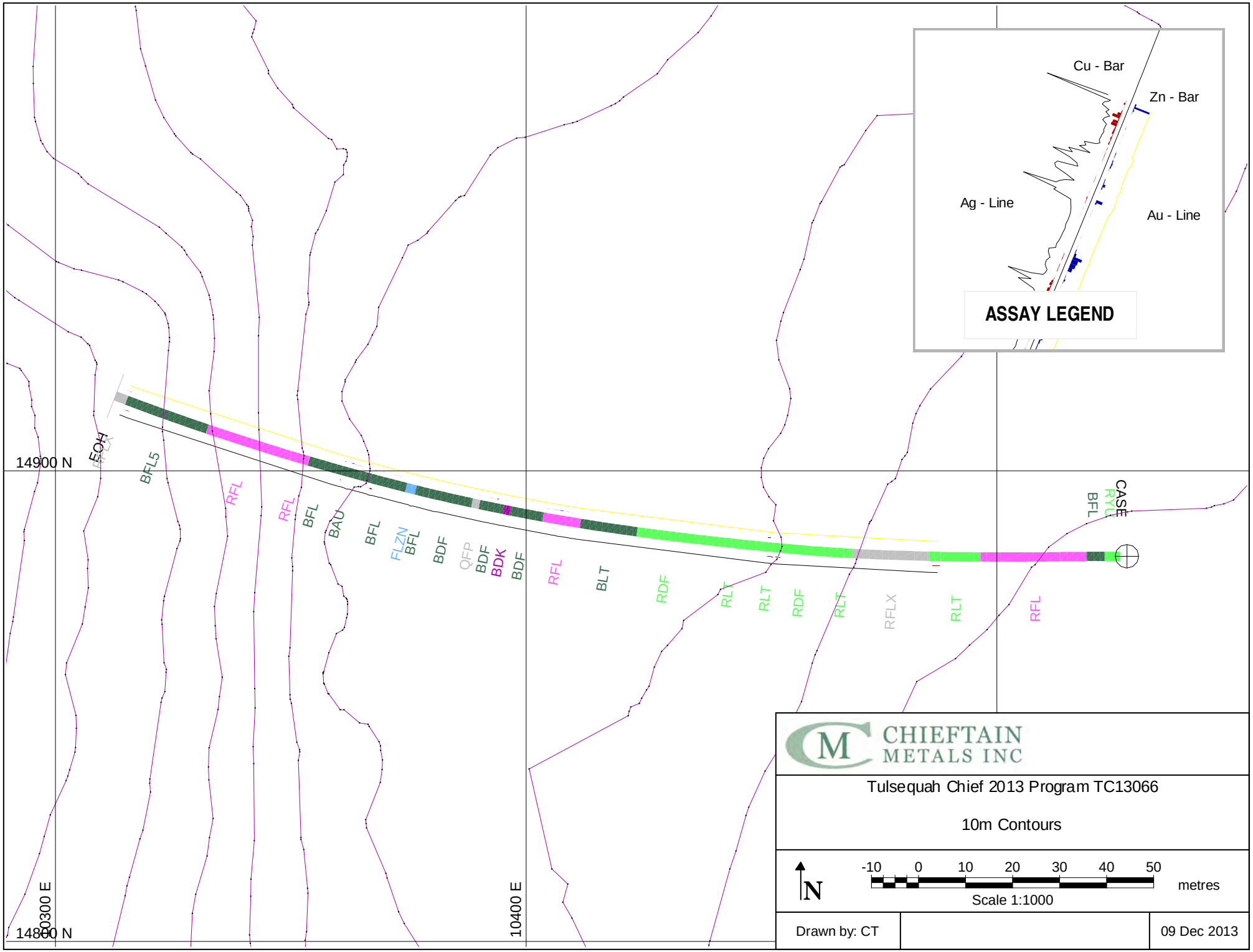
Summary:

No significant mineralization encountered.

3.0-224.8m: Mainly Rhyolite Tuffs and Flows, generally silicified with minor Pyrite and rare traces of Chalcopyrite.
244.8-252.0m: Highly silicified basalt Tuff with minor Pyrite
252.0-270.3m: Fairly massive Rhyolite Flow
270.3-327.2m: Basalt Debris Flows, strongly silicified, minor Pyrite, trace Pyrrhotite and Sphalerite. Intruded by mafic and felsic dykes.
327.2-361.6m: Basalt Flows, variable strong silicification, minor Pyrite, trace Pyrrhotite, Chalcopyrite. Fault zone: 333.80-338.55m
361.6-374.0m: Basalt, very strongly silicified, Moderate Pyrite, trace Sphalerite.
374.0-388.2m: Basalt Flows, minor Pyrite, trace Pyrrhotite.
38.2-441.65m: Rhyolite Flows, variably silicified, minor Pyrite, altered to lower contact.
441.65-485.72m: Amygdaloidal Basalt, relatively unaltered, minor Pyrite, Pyrrhotite and Chalcopyrite near lower contact.
485.72m-492.00m: Rhyolite Flow Breccia, chloritized, minor Pyrite.
EOH

Significant Intercepts:

Hole-ID	From (m)	To (m)	Length (m)	True Width (m)	Zone	Lith	Au gpt	Ag gpt	Cu %	Pb %	Zn %	As ppm	SG g/cm3	$US Eq/t SRK12	$NSR/t JDS12	News Release Date
TC13066						No significant intercepts										11/20/2013



CHIEFTAIN METALS INC

Tulsequah Chief 2013 Program TC13066

10m Contours

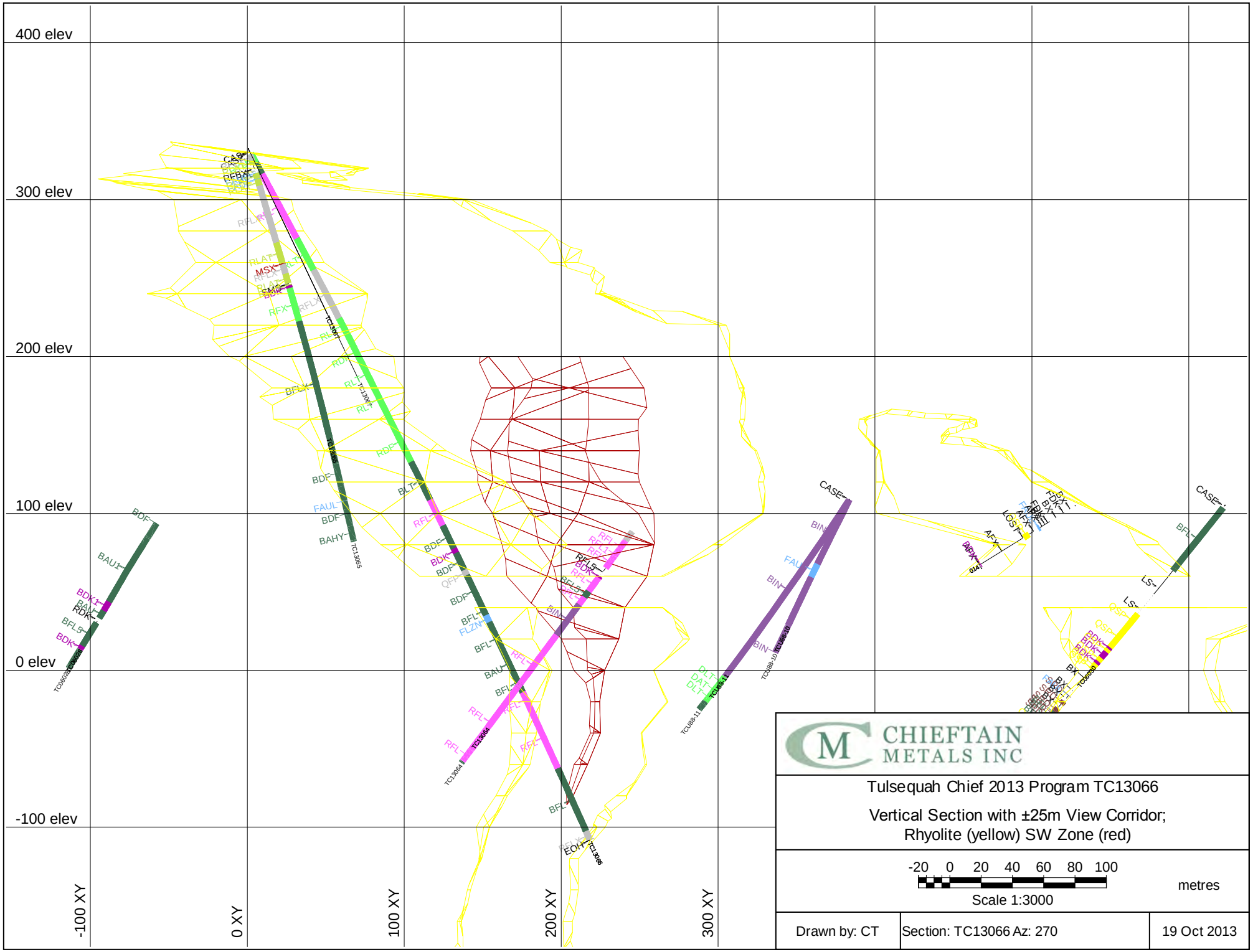
N

-10 0 10 20 30 40 50 metres

Scale 1:1000

Drawn by: CT

09 Dec 2013


400 elev
300 elev
200 elev
100 elev
0 elev
-100 elev
-100 XY
0 XY
100 XY
200 XY
300 XY
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13066
Vertical Section with ±25m View Corridor;
Rhyolite (yellow) SW Zone (red)
-20 0 20 40 60 80 100
metres
Scale 1:3000
Drawn by: CT
Section: TC13066 Az: 270
19 Oct 2013

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	269.8	-61	2013 APS Survey	CT/AF	10/10/2013	
8.84	269.9	-61.2	Maxibor	CT/BA	10/17/2013	
11.78	269.8	-61.2	Maxibor	CT/BA	10/17/2013	
14.73	269.8	-61.3	Maxibor	CT/BA	10/17/2013	
17.67	269.8	-61.2	Maxibor	CT/BA	10/17/2013	
23.56	269.6	-61.3	Maxibor	CT/BA	10/17/2013	
26.51	269.5	-61.2	Maxibor	CT/BA	10/17/2013	
29.45	269.3	-61.1	Maxibor	CT/BA	10/17/2013	
35.35	269.3	-61.1	Maxibor	CT/BA	10/17/2013	
41.24	269.4	-61.2	Maxibor	CT/BA	10/17/2013	averaged dip
44.18	269.5	-61.3	Maxibor	CT/BA	10/17/2013	
55.96	270.2	-61.4	Maxibor	CT/BA	10/17/2013	averaged dip
61.85	270.5	-61.4	Maxibor	CT/BA	10/17/2013	averaged dip
67.75	270.6	-61.5	Maxibor	CT/BA	10/17/2013	
79.53	271	-61.5	Maxibor	CT/BA	10/17/2013	
82.47	271	-61.9	Maxibor	CT/BA	10/17/2013	
85.42	271.2	-61.7	Maxibor	CT/BA	10/17/2013	
88.36	271.3	-61.75	Maxibor	CT/BA	10/17/2013	averaged dip
91.31	271.3	-61.8	Maxibor	CT/BA	10/17/2013	
94.25	271.4	-61.8	Maxibor	CT/BA	10/17/2013	
103.09	272	-62.1	Maxibor	CT/BA	10/17/2013	
106.04	272.1	-62.2	Maxibor	CT/BA	10/17/2013	
108.98	272.3	-62.25	Maxibor	CT/BA	10/17/2013	averaged dip
111.93	272.5	-62.3	Maxibor	CT/BA	10/17/2013	
114.87	272.6	-62.3	Maxibor	CT/BA	10/17/2013	averaged dip
117.82	272.8	-62.3	Maxibor	CT/BA	10/17/2013	
120.76	273	-62.4	Maxibor	CT/BA	10/17/2013	
123.71	273.1	-62.4	Maxibor	CT/BA	10/17/2013	
126.65	273.3	-62.5	Maxibor	CT/BA	10/17/2013	
129.60	273.5	-62.5	Maxibor	CT/BA	10/17/2013	
132.55	273.8	-62.7	Maxibor	CT/BA	10/17/2013	
135.49	273.9	-62.7	Maxibor	CT/BA	10/17/2013	
141.38	274.5	-63.2	Maxibor	CT/BA	10/17/2013	
144.33	274.7	-63.2	Maxibor	CT/BA	10/17/2013	averaged dip
153.16	275.2	-63.2	Maxibor	CT/BA	10/17/2013	
156.11	275.4	-63.3	Maxibor	CT/BA	10/17/2013	
159.05	275.6	-63.4	Maxibor	CT/BA	10/17/2013	
162.00	275.7	-63.6	Maxibor	CT/BA	10/17/2013	
164.95	275.7	-63.7	Maxibor	CT/BA	10/17/2013	
167.89	275.7	-63.6	Maxibor	CT/BA	10/17/2013	
170.84	275.8	-63.7	Maxibor	CT/BA	10/17/2013	
173.78	275.9	-63.6	Maxibor	CT/BA	10/17/2013	
176.73	276	-63.6	Maxibor	CT/BA	10/17/2013	
179.67	276.1	-63.6	Maxibor	CT/BA	10/17/2013	
182.62	276.2	-63.5	Maxibor	CT/BA	10/17/2013	
185.56	276.2	-63.5	Maxibor	CT/BA	10/17/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
188.51	276.3	-63.5	Maxibor	CT/BA	10/17/2013	
191.45	276.4	-63.5	Maxibor	CT/BA	10/17/2013	
194.40	276.5	-63.4	Maxibor	CT/BA	10/17/2013	
197.35	276.6	-63.4	Maxibor	CT/BA	10/17/2013	
200.29	276.8	-63.4	Maxibor	CT/BA	10/17/2013	
203.24	276.9	-63.4	Maxibor	CT/BA	10/17/2013	
206.18	276.9	-63.4	Maxibor	CT/BA	10/17/2013	
209.13	277.1	-63.4	Maxibor	CT/BA	10/17/2013	
212.07	277.2	-63.3	Maxibor	CT/BA	10/17/2013	
215.02	277.3	-63.3	Maxibor	CT/BA	10/17/2013	
217.96	277.5	-63.3	Maxibor	CT/BA	10/17/2013	
220.91	277.6	-63.3	Maxibor	CT/BA	10/17/2013	
223.85	277.7	-63.3	Maxibor	CT/BA	10/17/2013	
226.80	277.8	-63.3	Maxibor	CT/BA	10/17/2013	
229.75	277.9	-63.3	Maxibor	CT/BA	10/17/2013	
232.69	278	-63.4	Maxibor	CT/BA	10/17/2013	
235.64	278.2	-63.4	Maxibor	CT/BA	10/17/2013	
238.58	278.4	-63.4	Maxibor	CT/BA	10/17/2013	
241.53	278.5	-63.5	Maxibor	CT/BA	10/17/2013	
244.47	278.7	-63.6	Maxibor	CT/BA	10/17/2013	
247.42	279	-63.6	Maxibor	CT/BA	10/17/2013	
250.36	279.2	-63.7	Maxibor	CT/BA	10/17/2013	
253.31	279.3	-63.8	Maxibor	CT/BA	10/17/2013	
256.25	279.5	-63.8	Maxibor	CT/BA	10/17/2013	
259.20	279.7	-63.9	Maxibor	CT/BA	10/17/2013	
262.15	279.8	-63.8	Maxibor	CT/BA	10/17/2013	
265.09	280	-63.9	Maxibor	CT/BA	10/17/2013	
268.04	280.1	-64	Maxibor	CT/BA	10/17/2013	
270.98	280.3	-64	Maxibor	CT/BA	10/17/2013	
273.93	280.5	-64	Maxibor	CT/BA	10/17/2013	
276.87	280.6	-64	Maxibor	CT/BA	10/17/2013	
279.82	280.7	-64	Maxibor	CT/BA	10/17/2013	
282.76	280.9	-64	Maxibor	CT/BA	10/17/2013	
285.71	281.1	-64	Maxibor	CT/BA	10/17/2013	
288.65	281.3	-64.1	Maxibor	CT/BA	10/17/2013	
291.60	281.5	-64.2	Maxibor	CT/BA	10/17/2013	
294.55	281.6	-64.1	Maxibor	CT/BA	10/17/2013	
297.49	281.7	-64.2	Maxibor	CT/BA	10/17/2013	
300.44	281.9	-64.2	Maxibor	CT/BA	10/17/2013	
303.38	282	-64.2	Maxibor	CT/BA	10/17/2013	
306.33	282.2	-64.2	Maxibor	CT/BA	10/17/2013	
309.27	282.3	-64.3	Maxibor	CT/BA	10/17/2013	
312.22	282.5	-64.2	Maxibor	CT/BA	10/17/2013	
315.16	282.7	-64.3	Maxibor	CT/BA	10/17/2013	
318.11	282.8	-64.3	Maxibor	CT/BA	10/17/2013	
321.05	283	-64.4	Maxibor	CT/BA	10/17/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
324.00	283.2	-64.3	Maxibor	CT/BA	10/17/2013	
326.95	283.4	-64.4	Maxibor	CT/BA	10/17/2013	
329.89	283.7	-64.4	Maxibor	CT/BA	10/17/2013	
332.84	283.9	-64.4	Maxibor	CT/BA	10/17/2013	
335.78	284.1	-64.3	Maxibor	CT/BA	10/17/2013	
338.73	284.3	-64.3	Maxibor	CT/BA	10/17/2013	
341.67	284.4	-64.3	Maxibor	CT/BA	10/17/2013	
344.62	284.5	-64.3	Maxibor	CT/BA	10/17/2013	
347.56	284.6	-64.3	Maxibor	CT/BA	10/17/2013	
350.51	284.7	-64.3	Maxibor	CT/BA	10/17/2013	
353.45	284.8	-64.3	Maxibor	CT/BA	10/17/2013	
356.40	285	-64.3	Maxibor	CT/BA	10/17/2013	
359.35	285.1	-64.3	Maxibor	CT/BA	10/17/2013	
362.29	285.3	-64.4	Maxibor	CT/BA	10/17/2013	
365.24	285.4	-64.4	Maxibor	CT/BA	10/17/2013	
368.18	285.4	-64.4	Maxibor	CT/BA	10/17/2013	
371.13	285.5	-64.5	Maxibor	CT/BA	10/17/2013	
374.07	285.6	-64.5	Maxibor	CT/BA	10/17/2013	
377.02	285.8	-64.5	Maxibor	CT/BA	10/17/2013	
379.96	285.9	-64.5	Maxibor	CT/BA	10/17/2013	
382.91	286.1	-64.5	Maxibor	CT/BA	10/17/2013	
385.85	286.2	-64.6	Maxibor	CT/BA	10/17/2013	
388.80	286.4	-64.6	Maxibor	CT/BA	10/17/2013	
391.75	286.5	-64.6	Maxibor	CT/BA	10/17/2013	
394.69	286.6	-64.7	Maxibor	CT/BA	10/17/2013	
397.64	286.7	-64.8	Maxibor	CT/BA	10/17/2013	
400.58	286.8	-64.9	Maxibor	CT/BA	10/17/2013	
403.53	287	-64.9	Maxibor	CT/BA	10/17/2013	
406.47	287.1	-64.9	Maxibor	CT/BA	10/17/2013	
409.42	287.2	-65	Maxibor	CT/BA	10/17/2013	
412.36	287.4	-65	Maxibor	CT/BA	10/17/2013	
415.31	287.5	-65	Maxibor	CT/BA	10/17/2013	
418.25	287.7	-65	Maxibor	CT/BA	10/17/2013	
421.20	287.8	-65	Maxibor	CT/BA	10/17/2013	
424.15	287.9	-65.1	Maxibor	CT/BA	10/17/2013	
430.04	288	-65.2	Maxibor	CT/BA	10/17/2013	
432.98	288.2	-65.2	Maxibor	CT/BA	10/17/2013	
435.93	288.4	-65.2	Maxibor	CT/BA	10/17/2013	
438.87	288.6	-65.3	Maxibor	CT/BA	10/17/2013	
441.82	288.8	-65.3	Maxibor	CT/BA	10/17/2013	
444.76	288.9	-65.35	Maxibor	CT/BA	10/17/2013	averaged dip
447.71	289	-65.4	Maxibor	CT/BA	10/17/2013	
453.60	289.2	-65.3	Maxibor	CT/BA	10/17/2013	
456.55	289.2	-65.5	Maxibor	CT/BA	10/17/2013	
459.49	289.4	-65.8	Maxibor	CT/BA	10/17/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments	Dist (m)	Azimuth	Dip	Method	By	Date	Comments
462.44	289.6	-65.7	Maxibor	CT/BA	10/17/2013								
465.38	289.7	-65.5	Maxibor	CT/BA	10/17/2013								
468.33	289.8	-65.55	Maxibor	CT/BA	10/17/2013	averaged dip							
471.27	290	-65.6	Maxibor	CT/BA	10/17/2013								
474.22	290.1	-65.8	Maxibor	CT/BA	10/17/2013								
477.16	290.2	-65.8	Maxibor	CT/BA	10/17/2013	averaged dip							
480.11	290.3	-65.8	Maxibor	CT/BA	10/17/2013								
483.05	290.5	-65.8	Maxibor	CT/BA	10/17/2013								
486.00	290.9	-65.7	Maxibor	CT/BA	10/17/2013								

From	To (m)	
0.00	3.00	Casing
3.00	9.90	Rhyolite, Undivided light-grey felsic fairly massive and homogeneous unit, fine grained, moderate qt+se alteration, less than 1% wisps/veins of pyrrhotite, broken core
9.90	17.95	Basalt Flow: Amygdaloidal medium grey-green-black mafic unit with patches of 20% amydgules infilled with qt+ep+py, less than 1% cp wisps, fine grained, becoming brecciated near lower contact, very broken core
17.95	64.70	Rhyolite Flow: Breccia, Undivided light-medium grey felsic fairly massive to fragmental breccia unit, fine grained, moderate qt+se alteration, less than 2% wisps/veins of pyrrhotite, 2% very finely disseminated py, trace cp, very broken core from 17.95-31m, fault with gouge from 39.87-40.15m, 25% pyrite from 41.64m, 15% py fracture surfaces from 41.64-64.70m.
64.70	87.58	Rhyolite Lapilli Tuff: Siliceous Rhyolite Lapilli Tuff. Light to medium grey. Highly altered, texture can be obscured (bleached) in places due to silicification. Trace chlorite alteration. Generally a fine fragmental, with fragments rarely exceeding 2mm. Pyrite scattered throughout, fine to medium grained, in groundmass or associated with veins, varies from 1-5%, 4% overall. Trace Chalcopyrite from ~83-86m. Occasional highly irregular quartz carbonate veins throughout (almost appearing absorbed). Occasional thin (generally 1mm) straight, carbonate/chlorite veins. 86.4-86.6m: Highly broken core. Lower contact approximate, placed where large fragments become apparent. Strong bleaching at lower contact.
87.58	122.47	Rhyolite Flow Breccias: Siliceous Rhyolite Flow Breccia. Light to medium grey. Distinctive larger (up to 4cm) fragments fairly consistently throughout. Fragments are typically felsic, rounded to subrounded. Fragment supported. Few sections without distinct fragments typically strongly bleached (altered), or may be rhyolite flow without distinct fragmentation. Alteration mainly silicification with minor sericite. Fine to medium grained Pyrite scattered throughout in matrix and in fragments, 3% overall with section up to 10%. Minor brecciated white quartz veins, fragments up to 1cm. Rare small (mm scale) quartz/carbonate/chlorite/anhydrite veins, generally fairly straight. 91.22 91.60 Fault Zone Highly broken, brecciated core, semi-consolidated and filled with ground, sandy material.
122.47	132.65	Rhyolite Lapilli Tuff

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
83.00	84.50	1.5	Q014972	<0.01	0.2	0.033	0	0.003
84.50	86.00	1.5	Q014973	<0.01	0.2	0.03	0	0.003
86.00	87.58	1.58	Q014974	<0.01	0.2	0.002	0.001	0.003

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Rhyolite Lapilli Tuff. Medium grey. Fairly massive. Generally small (mm scale), tightly packed lapilli. Trace jasper associated. Moderate silicification. Fine to medium grained Pyrite throughout, often in patches or bands, ~5% overall. Contacts gradational.									
132.65	160.33	Rhyolite Debris Flow Rhyolite Debris Flow. Light to medium grey. Distinctive larger (up to 4cm) fragments fairly consistently throughout. Fragments are typically felsic, rounded to subrounded, typically preferentially bleached, speckled (lapillistone?) Fragment supported. Poorly sorted Moderately to strongly altered. Alteration mainly silicification with minor sericite. Fine to medium grained Pyrite scattered throughout in matrix and in fragments, 3% overall with sections up to 10%. Trace Chalcopyrite near lower contact. Minor brecciated white quartz veins, fragments up to 1cm.	155.85	157.35	1.5	Q014975	0.01	<0.2	0.038	0.001	0.009
			157.35	158.85	1.5	Q014976	<0.01	<0.2	0.009	0	0.007
			158.85	160.33	1.48	Q014977	<0.01	<0.2	0.018	0	0.009
160.33	164.30	Rhyolite Lapilli Tuff Rhyolite Lapilli Tuff. Medium grey. Fairly massive. Generally small (mm scale), tightly packed lapilli. Moderate silicification. Fine to medium grained Pyrite throughout, often in patches or bands, ~5% overall. Minor blebby Chalcopyrite. Contacts gradational.	160.33	161.85	1.52	Q014978	<0.01	0.2	0.039	0.001	0.014
			161.85	163.55	1.7	Q014979	<0.01	<0.2	0.004	0.001	0.015
		164.08 164.30 Basalt Dyke Small mafic dyke at lower contact. Broken quartz veins throughout.									
164.30	195.55	Rhyolite Lapilli Tuff Rhyolite Lapilli Tuff. Light to medium grey. Fragments typically bleached, small (up to 1cm), fairly angular. Tightly packed. Sections are less distictly fragmental, weakly brecciated. Fine to medium grained Pyrite scattered throughout, 1-3% overall. Fairly straight, weakly broken white quartz/carbonate veins throughout, typically 0.5-2cm thick, ± chlorite. Weak foliation to fragments in places. Lower contact marked where large fragments appear.									
195.55	224.80	Rhyolite Debris Flow Rhyolite Debris Flow. Medium grey, mottled. Minor chloritization, increasing downhole. Moderately silicified (increasing around contacts with dykes). Fragment content varies considerably in size and composition. Generally ranging in size from 2mm-5cm (up to 10cm). Subrounded to angular. Composition is generally felsic with mafic fragments increasing in abundance downhole. Lower contact approximate. Scattered fine grained Pyrite throughout, typically in matrix, 1% overall. Rare fine (mm scale) straight white quartz veins (very rare thicker, broken quartz veins).									
		197.33 200.92 Basalt Dyke Mafic Dyke. Sharp contacts. Dark grey, fine grained. Weakly silicified. Rare broken white quartz veins throughout with greenish alteration associated. Minor Pyrite veins, sometimes rusty. Significant alteration below lower contact.									

From	To (m)			
		208.24	211.95	Basalt Dyke Fine grained mafic dyke. Dark grey. Sharp contacts. Inclusion of debris flow: 210.82-211.03m. Trace fine grained Pyrite. Sharp contacts, lower contact brecciated. Minor broken white quartz veins.
		222.00	223.80	Fault Zone Highly altered (silicified, bleached). Protolith is debris flow. Low angle fractures, sometimes healed and infilled with Pyrite or carbonate.
224.80	252.00	Basalt Lapilli Tuff: Siliceous; Chlorite Basalt? Lapilli Tuff. Medium grey, weakly mottled. Groundmass strongly silicified, fragments variably silicified. Weak chloritization. Generally less contrast between fragments and groundmass than rhyolitic units. Fragments generally small (1mm-1cm, rarely up to 3cm). Fine grained Pyrite generally scattered throughout groundmass, rarely in folded bands, overall 2%. Lower contact indistinct. Placed where fragments are absent. Small chlorite/epidote/carbonate veins throughout, mm scale, whispy.			
252.00	270.30	Rhyolite Flow: Feldspar Feldspar-phyric Rhyolite Flow. Medium grey. Generally fairly massive, consistent small (~1-2mm) feldspar phenocrysts throughout. Moderately silicified, strong near dyke contacts. Blebby epidotization throughout. Minor scattered fine grained Pyrite (~1%), generally trace Pyrrhotite in blebs and bands, and very trace reddish Sphalerite (generally associated with Pyrrhotite). Patchy carbonate alteration, often with epidote associated.			
		256.54	258.20	Basalt Dyke Fine grained mafic dyke. Sharp contacts. Whispy carbonate veining throughout, often with Pyrrhotite associated (0.5% Pyrrhotite overall).
		264.12	265.50	Basalt Dyke Fine grained mafic dyke. Sharp contacts. Fine grained pyrite scattered throughout (~1% overall). Trace Pyrrhotite/Sphalerite veining.
270.30	286.62	Basalt Debris Flow: Chlorite; Siliceous Basalt? Debris Flow. Mottled medium greenish-grey. Groundmass chloritized, increasing downhole. Fragments appear silicifed, locally silicified groundmass. Fragments vary greatly in size and abundance, generally 1mm to 3cm. Proto-composition difficult to determine due to alteration. Scattered trace Pyrite. Occasional small (3-10mm) white quartz veins, broken or folded.			
286.62	289.74	Basalt Dyke Fine grained mafic dyke. Dark grey-purple speckled dark green. Small patches of chloritization (mm scale). Fine grained Pyrite scattered throughout (0.5% overall). Fine to medium grained Pyrrhotite associated with veining (0.5% overall). Irregular carbonate/chlorite ± Pyrrhotite veins throughout. Sharp contacts.			

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
252.00	253.50	1.5	Q014982	0.01	0.2	0.008	0.001	0.01
253.50	255.00	1.5	Q014983	0.01	<0.2	0.006	0.001	0.007
255.00	256.54	1.54	Q014984	<0.01	<0.2	0.002	0.001	0.007
256.54	258.20	1.66	Q014985	<0.01	<0.2	0.006	0.001	0.013
258.20	259.70	1.5	Q014986	0.01	<0.2	0.003	0.001	0.038
259.70	261.20	1.5	Q014987	<0.01	<0.2	0.007	0.001	0.021
261.20	262.70	1.5	Q014988	<0.01	0.3	0.008	0.002	0.09
262.70	264.12	1.42	Q014989	<0.01	0.2	0.005	0.007	0.054
264.12	265.60	1.48	Q014991	<0.01	<0.2	0.006	0.001	0.043
265.60	267.00	1.4	Q014992	<0.01	<0.2	0.002	0.003	0.013
267.00	268.50	1.5	Q014993	<0.01	<0.2	0.002	0.002	0.018
268.50	270.30	1.8	Q014994	<0.01	<0.2	0.003	0.003	0.01
288.24	289.74	1.5	Q014995	<0.01	<0.2	0.004	0.001	0.012

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
289.74	301.77	**Basalt Debris Flow: Siliceous; Chlorite; Biotite** Basalt? Debris Flow. Highly altered, possibly due to nearby dykes? Groundmass is highly silicified, whitish. Fragments are either chloritized (green), silcified (white), or biotite altered (purplish), subangular to angular, and 1mm-3cm in diameter. Fine grained Pyrite scattered throughout in matrix and in fragments (5% overall). Pyrrotite associated with veining. Generally low angle quartz/carbonate/chlorite (± Pyrrhotite) veins throughout. 293.25 293.71 Basalt Dyke Fine grained mafic dyke. Similar to 286.62-289.74m.	289.74	291.70	1.96	Q014996	<0.01	<0.2	0.001	0.001	0.007
			291.70	293.25	1.55	Q014997	<0.01	<0.2	0	0.001	0.008
			293.25	293.71	0.46	Q014998	<0.01	<0.2	0.007	0.002	0.018
			293.71	295.15	1.44	Q014999	<0.01	<0.2	0.001	0.001	0.007
			295.15	296.65	1.5	Q015001	<0.01	<0.2	0	0.001	0.005
			296.65	298.15	1.5	Q015002	<0.01	<0.2	0	0.001	0.009
			298.15	299.65	1.5	Q015003	<0.01	<0.2	0	0.001	0.011
			299.65	300.71	1.06	Q015004	<0.01	<0.2	0	0	0.01
			300.71	301.77	1.06	Q015005	<0.01	<0.2	0	0	0.009
301.77	305.50	**Quartz Feldspar Porphyry Dyke** Quartz Feldspar Porphyry Dyke. Fine grained purplish grey felsic matrix with coarse feldspar lathes (1-5mm), sometimes zoned. Medium to coarse grained Pyrite (0.7%) and Pyrrhotite (0.3%) blebs scattered throughout. Thin (1-3mm) straight carbonate veins throughout, generally oriented 20-25 degrees, with alteration haloes surrounding, turning groundmass lighter grey. Very sharp contacts. Finer grained near contacts (within ~10cm).	301.77	303.27	1.5	Q015006	<0.01	<0.2	0.002	0.002	0.01
305.50	327.20	**Basalt Debris Flow: Siliceous; Chlorite** Basalt? Debris Flow. Groundmass is highly silicified, intensely to strongly, decreasing slightly downhole. Fragments are chloritized, generally 1mm-2cm, subangular, and in places appear to be absorbed. Purplish biotite alteration to ~310m (possibly due to contact with above dyke). Rare whispy chlorite veins, low angle, near upper contact. Chlorite/quartz carbonate veins, generally straight, 0.3-2cm, with associated Pyrrhotite (and very rarely Sphalerite). Very blocky: 312.6-314.56m. Lower contact approximate.	320.00	321.00	1	Q015007	<0.01	<0.2	0	0	0.01
			321.00	322.00	1	Q015008	<0.01	<0.2	0	0	0.012
			322.00	323.00	1	Q015009	<0.01	0.4	0.003	0.046	0.007
327.20	333.80	**Basalt Flow: Siliceous** Basalt? Flow. Generally fine grained. Medium green grey. Silicification is patchy to pervasive, increasing downhole. Moderately brecciated near lower contact, possibly due to influence from fault, chlorite infilling brecciation. Scattered fine to medium grained Pyrite throughout, up to 1%. Trace Pyrrhotite. Thick 1-3cm straight white quartz/chlorite veins as well as thinner generally low angle carbonate/chlorite veins.	332.30	333.80	1.5	Q015011	<0.01	0.2	0.001	0.003	0.017
333.80	338.55	**Fault Zone** Fault Zone. Original protolith difficult to distinguish, highly silicified. Brecciated (generally healed). Frequently intruded by white quartz veins ± chlorite and biotite. Moderate sericite alteration. Purplish biotite alteration. Moderate chlorite infilling fractures. Fine to medium grained Pyrite scattered throughout. Trace fine grained Pyrrhotite. Contacts gradational.	333.80	335.05	1.25	Q015012	<0.01	0.5	0.003	0.095	0.003
			335.05	336.30	1.25	Q015013	<0.01	<0.2	0.003	0.005	0.002
			336.30	337.55	1.25	Q015014	<0.01	<0.2	0.001	0.001	0.004
			337.55	338.55	1	Q015015	<0.01	<0.2	0.003	0	0.003
338.55	361.60	**Basalt Flow: Siliceous** Basalt Flow. Texture varies significantly in this unit. Sections are distinctively fragmental (flow breccia?), while others are more massive. Alteration is significant, silicification is generally high,	338.55	339.85	1.3	Q015016	0.01	<0.2	0	0.001	0.009
			339.85	341.35	1.5	Q015017	<0.01	<0.2	0	0.001	0.007

From	To (m)	
		and in places appears to obliterate original texture. Mineralization generally increases downhole. Fine to coarse grained Pyrite throughout. Scattered fine to medium grained Pyrrhotite and blebby Chalcopyrite. Thick white quartz/chlorite veins throughout, 0.5-5cm, generally fairly straight, though thicker veins are internally brecciated.
361.60	374.00	Basalt Undivided: Siliceous; Sericite Highly altered basalt. Light grey green. Pervasively intensely silcified. Mottled texture. Original texture obscured. Localized moderate sericitization. Fine to medium grained Pyrite scattered throughout, ~5% overall. Trace medium grained reddish Sphalerite. Frequent thick quartz/chlorite veins, 0.5-5cm, often broken. 370.46 370.96 Basalt Dyke Small fine grained mafic dyke. Frequent irregular quartz/chlorite veining. ~1% fine grained Pyrrhotite. Trace fine grained Pyrite. Trace blebby Chalcopyrite.
374.00	388.20	Basalt Flow: Siliceous Basalt Flow. Medium grey green. Fairly strongly silicified. Generally appears to be an amygdaloidal flow, with small sections of fragmental (flow top?). Frequent thick white quartz/chlorite veins (0.5-5cm). Fine to medium grained Pyrite scattered throughout, 3% overall. Trace Pyrrhotite. Lower contact sharp.
388.20	398.06	Rhyolite Flow: Siliceous; Feldspar Highly silicified, bleached, likely feldspar phyric Rhyolite. Faint feldspar phenocrysts in places. Lower contact highly gradational. Biotite pods 395.50-398.06m. Scattered fine to medium grained Pyrite, ~3% overall. Small (<0.5cm) straight white quartz/carbonate veins throughout. Likely fragmental texture: 391.20-392.50m, large fragments, up to 2cm, though could be an alteration pattern.
398.06	441.65	Rhyolite Flow: Feldspar; Siliceous Feldspar phyric Rhyolite Flow. Medium to dark grey. Strongly to intensely silicified (glassy). Weakly chloritized. Rare sericitization. Fairly homogenous. Small feldspar phenocrysts throughout (0.5-1mm), though obscured where silicification is more intense. Becomes more altered (purplish biotite alteration and chloritization), brecciated at ~432.65-441.65m (to lower

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
341.35	342.85	1.5	Q015018	<0.01	<0.2	0	0.001	0.007
342.85	344.35	1.5	Q015019	<0.01	<0.2	0	0	0.006
344.35	345.85	1.5	Q015022	<0.01	<0.2	0.002	0.001	0.009
345.85	347.35	1.5	Q015023	<0.01	<0.2	0.002	0.001	0.007
347.35	348.85	1.5	Q015024	<0.01	<0.2	0.003	0.001	0.007
348.85	350.35	1.5	Q015025	<0.01	<0.2	0.001	0.001	0.008
350.35	351.85	1.5	Q015026	0.01	0.2	0.004	0.013	0.054
351.85	353.35	1.5	Q015027	<0.01	<0.2	0.005	0.001	0.008
353.35	354.85	1.5	Q015028	<0.01	<0.2	0.004	0.001	0.006
354.85	355.90	1.05	Q015029	0.01	0.4	0.24	0.001	0.016
355.90	357.40	1.5	Q015031	<0.01	<0.2	0.02	0	0.007
357.40	358.90	1.5	Q015032	<0.01	<0.2	0.001	0	0.005
358.90	360.40	1.5	Q015033	<0.01	<0.2	0.001	0	0.005
360.40	361.60	1.2	Q015034	<0.01	<0.2	0.001	0	0.005
361.60	363.10	1.5	Q015035	<0.01	<0.2	0.001	0.001	0.007
363.10	364.60	1.5	Q015036	<0.01	<0.2	0.002	0.003	0.007
364.60	366.10	1.5	Q015037	0.02	0.2	0.002	0.01	0.015
366.10	367.60	1.5	Q015038	0.01	0.4	0.01	0.086	0.093
367.60	369.10	1.5	Q015039	<0.01	<0.2	0	0.001	0.004
369.10	370.46	1.36	Q015041	<0.01	<0.2	0	0.001	0.004
370.46	370.96	0.5	Q015042	<0.01	<0.2	0.01	0.001	0.016
370.96	372.50	1.54	Q015043	<0.01	<0.2	0.002	0.001	0.004
372.50	374.00	1.5	Q015044	0.01	<0.2	0.014	0.001	0.009
374.00	375.50	1.5	Q015045	0.02	0.2	0.004	0.001	0.003

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		contact), weak foliation in this section. Large white quartz/carbonate veins throughout, 0.5-15cm thick, weakly broken. Scattered fine to medium grained Pyrite throughout, very rarely forming small bands (~2% overall).									
		432.65 433.20 Fault Breccia Fault breccia. Quartz-rich breccia infilled with altered rhyolitic groundmass? Bright green tinge, fuchsite?									
441.65	485.72	Amygdaloidal basaltic flow: Amygdaloidal Amygdaloidal Basalt. Dark grey. Relatively unaltered. Distinct amygdules throughout, size ranges from 1-5mm, rarely up to 2cm, sometimes elongate, generally carbonate filled, occasionally chlorite or epidote filled and zoned, some may contain barite. Scattered fine to medium grained Pyrite, trace to 1%. Very trace chalcopyrite or pyrrhotite, associated with amygdules.Occasional small (1-5mm) wispy carbonate/chlorite veins. Contacts sharp. 445.95 447.62 Basalt Flow Breccia Similar to main unit, but amygdules not present and is brecciated. Possible flow top?	481.22	482.72	1.5	Q015046	0.01	<0.2	0.015	0.001	0.015
			482.72	484.22	1.5	Q015047	0.01	<0.2	0.061	0	0.013
			484.22	485.72	1.5	Q015048	0.01	0.2	0.041	0	0.013
485.72	492.00	Rhyolite Flow Breccias: Chlorite Rhyolite Flow Breccia. Mottled medium greenish grey. Small (mm scale) feldspar phenocrysts present. Moderately chloritized. Homogenous felsic fragments, angular, generally small (1-10mm), and appear fairly weakly broken apart. Fine to medium grained euhedral Pyrite throughout, ~2% overall. White quartz/chlorte veins throughout, 2mm-35cm thick, generally fairly straight.	485.72	487.22	1.5	Q015049	<0.01	<0.2	0.003	0	0.004
492.00	492.00	End of Hole									

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014972	83.00	84.50	1.5		<0.005							0.2	1.08	7	30	<0.5	<2	0.31	<0.5	4	3	330
Q014973	84.50	86.00	1.5		<0.005							0.2	0.93	3	30	<0.5	2	0.30	<0.5	4	2	297
Q014974	86.00	87.58	1.58		<0.005							0.2	0.66	10	40	<0.5	<2	0.67	<0.5	3	3	23
Q014975	155.85	157.35	1.5		0.005							<0.2	2.12	12	30	0.5	2	0.37	<0.5	6	3	378
Q014976	157.35	158.85	1.5		<0.005							<0.2	1.57	8	30	<0.5	<2	0.28	<0.5	5	2	91
Q014977	158.85	160.33	1.48		<0.005							<0.2	1.83	4	40	<0.5	2	0.31	<0.5	7	2	182
Q014978	160.33	161.85	1.52		<0.005							0.2	2.23	8	20	<0.5	<2	0.35	<0.5	9	3	394
Q014979	161.85	163.55	1.7		<0.005							<0.2	2.59	6	30	<0.5	<2	0.33	<0.5	14	2	45
Q014982	252.00	253.50	1.5		0.009							0.2	2.20	6	170	0.5	<2	0.74	<0.5	1	3	84
Q014983	253.50	255.00	1.5		0.007							<0.2	2.23	9	170	0.5	<2	0.70	<0.5	2	3	61
Q014984	255.00	256.54	1.54		<0.005							<0.2	1.71	9	180	<0.5	<2	1.10	<0.5	2	6	19
Q014985	256.54	258.20	1.66		<0.005							<0.2	4.97	19	640	<0.5	3	2.37	<0.5	27	232	59
Q014986	258.20	259.70	1.5		0.005							<0.2	1.31	6	170	<0.5	<2	0.62	1.7	2	4	31
Q014987	259.70	261.20	1.5		<0.005							<0.2	1.51	12	120	<0.5	2	0.70	0.5	1	4	71
Q014988	261.20	262.70	1.5		<0.005							0.3	2.16	10	90	<0.5	<2	0.82	3.5	2	4	84
Q014989	262.70	264.12	1.42		<0.005							0.2	3.69	39	200	0.7	<2	1.77	1.3	10	68	48
Q014991	264.12	265.60	1.48		<0.005							<0.2	6.41	7	840	0.8	<2	2.04	3.0	31	201	63
Q014992	265.60	267.00	1.4		<0.005							<0.2	2.35	5	260	<0.5	<2	1.10	<0.5	4	22	17
Q014993	267.00	268.50	1.5		<0.005							<0.2	1.58	8	200	<0.5	<2	0.77	0.6	1	3	23
Q014994	268.50	270.30	1.8		<0.005							<0.2	1.32	7	130	<0.5	<2	0.58	0.8	1	4	34
Q014995	288.24	289.74	1.5		<0.005							<0.2	4.96	29	840	<0.5	3	2.37	<0.5	28	132	43
Q014996	289.74	291.70	1.96		<0.005							<0.2	1.47	460	120	<0.5	<2	0.78	<0.5	3	5	11
Q014997	291.70	293.25	1.55		<0.005							<0.2	1.96	7	200	<0.5	<2	0.58	<0.5	1	3	3
Q014998	293.25	293.71	0.46		<0.005							<0.2	8.24	21	710	1.3	5	4.09	<0.5	28	140	66
Q014999	293.71	295.15	1.44		<0.005							<0.2	2.55	170	160	<0.5	<2	1.21	<0.5	1	3	7
Q015001	295.15	296.65	1.5		<0.005							<0.2	2.30	1900	140	0.5	<2	1.13	<0.5	1	3	3
Q015002	296.65	298.15	1.5		<0.005							<0.2	2.39	288	180	0.5	<2	0.69	<0.5	1	2	<1
Q015003	298.15	299.65	1.5		<0.005							<0.2	2.73	2	150	0.5	<2	0.81	<0.5	1	2	1
Q015004	299.65	300.71	1.06		<0.005							<0.2	2.90	2	150	0.7	<2	0.91	<0.5	1	3	<1
Q015005	300.71	301.77	1.06		<0.005							<0.2	3.16	9	200	0.6	<2	0.82	<0.5	2	4	2
Q015006	301.77	303.27	1.5		<0.005							<0.2	3.37	26	290	<0.5	<2	3.18	<0.5	20	88	21
Q015007	320.00	321.00	1		<0.005							<0.2	1.68	<2	190	<0.5	<2	0.33	<0.5	1	2	1
Q015008	321.00	322.00	1		<0.005							<0.2	1.72	4	200	<0.5	2	0.34	<0.5	1	2	2
Q015009	322.00	323.00	1		<0.005							0.4	1.47	9	300	0.5	2	1.57	<0.5	2	2	32
Q015011	332.30	333.80	1.5		<0.005							0.2	1.59	2	210	<0.5	2	0.26	<0.5	1	2	6
Q015012	333.80	335.05	1.25		<0.005							0.5	0.53	13	130	<0.5	<2	0.42	<0.5	1	7	32
Q015013	335.05	336.30	1.25		<0.005							<0.2	0.71	13	200	<0.5	<2	0.55	<0.5	1	9	27
Q015014	336.30	337.55	1.25		<0.005							<0.2	1.29	11	230	<0.5	<2	0.87	<0.5	1	6	5
Q015015	337.55	338.55	1		<0.005							<0.2	0.92	8	220	<0.5	<2	0.54	<0.5	2	5	32
Q015016	338.55	339.85	1.3		0.007							<0.2	1.97	3	340	0.5	2	0.43	<0.5	2	2	2
Q015017	339.85	341.35	1.5		<0.005							<0.2	1.66	2	260	<0.5	<2	0.56	<0.5	2	3	2
Q015018	341.35	342.85	1.5		<0.005							<0.2	1.75	3	210	0.5	2	0.60	<0.5	1	2	3
Q015019	342.85	344.35	1.5		<0.005							<0.2	1.59	6	250	0.5	<2	0.43	<0.5	1	1	2
Q015022	344.35	345.85	1.5		<0.005							<0.2	0.98	9	170	<0.5	<2	0.46	<0.5	1	4	18
Q015023	345.85	347.35	1.5		<0.005							<0.2	1.56	6	180	0.5	<2	0.50	<0.5	2	2	16
Q015024	347.35	348.85	1.5		<0.005							<0.2	1.61	7	210	0.5	<2	0.69	<0.5	1	3	27
Q015025	348.85	350.35	1.5		<0.005							<0.2	1.42	7	300	<0.5	<2	0.32	<0.5	1	4	13
Q015026	350.35	351.85	1.5		0.005							0.2	1.44	13	140	<0.5	2	0.34	3.5	1	3	42

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014972	3.88	1	0.63	10		0.79	558	1	0.03	4	720	3	3.47	10	3			26	0.02	<10	2	<10		26
Q014973	3.68	<1	0.52	10		0.75	579	1	0.02	2	750	4	3.24	4	3			25	0.01	<10	2	<10		26
Q014974	3.62	<1	0.36	10		0.73	766	1	0.02	2	680	5	2.75	9	2			37	<0.01	<10	2	<10		31
Q014975	4.86	<1	0.78	10		1.68	889	<1	0.07	2	930	5	4.02	4	4			17	0.08	<10	3	<10		87
Q014976	3.89	<1	0.65	<10		1.23	693	<1	0.06	2	710	4	3.21	2	3			13	0.07	<10	2	<10		73
Q014977	4.65	<1	0.72	10		1.45	804	<1	0.06	2	810	4	3.81	4	4			13	0.09	<10	3	<10		95
Q014978	8.15	<1	0.71	10		1.86	1075	<1	0.07	3	870	7	8.13	5	4			15	0.08	<10	3	<10		142
Q014979	8.82	<1	0.63	10		2.38	1465	<1	0.05	2	740	8	8.28	7	5			14	0.08	<10	3	<10		148
Q014982	3.23	1	0.83	10		0.76	734	1	0.20	1	300	13	1.38	4	5			20	0.10	<10	<1	<10		101
Q014983	3.36	<1	0.91	10		0.72	727	1	0.20	1	280	8	1.40	2	5			18	0.09	<10	<1	<10		73
Q014984	2.83	<1	0.54	10		0.62	639	<1	0.20	1	280	8	1.15	6	6			19	0.09	<10	3	<10		71
Q014985	4.36	<1	1.55	<10		3.34	1210	<1	0.42	83	560	8	0.51	20	17			78	0.19	<10	151	<10		133
Q014986	2.88	<1	0.47	<10		0.64	648	<1	0.11	1	250	8	1.13	7	6			14	0.07	<10	3	<10		381
Q014987	3.24	<1	0.69	10		0.49	726	<1	0.16	1	290	11	1.89	7	6			18	0.10	<10	1	<10		206
Q014988	4.11	<1	0.85	10		0.69	1085	1	0.24	1	270	22	2.21	4	7			22	0.10	<10	3	<10		900
Q014989	4.70	<1	1.34	10		1.36	1680	2	0.33	30	420	69	1.23	17	13			43	0.16	<10	45	<10		536
Q014991	5.58	<1	2.26	<10		3.99	1665	<1	0.55	81	750	12	0.46	15	27			81	0.23	<10	208	<10		430
Q014992	3.39	1	0.85	10		0.81	1265	2	0.20	9	290	29	0.44	11	8			31	0.10	<10	11	<10		133
Q014993	2.75	<1	0.66	10		0.44	871	1	0.14	1	290	20	0.60	8	5			15	0.10	<10	1	<10		181
Q014994	2.30	<1	0.49	10		0.43	640	1	0.14	1	250	32	0.81	7	6			16	0.10	<10	1	<10		104
Q014995	5.16	<1	2.05	<10		3.56	1265	<1	0.36	50	490	12	0.42	15	23			111	0.27	<10	248	<10		124
Q014996	2.49	1	0.56	<10		0.74	533	<1	0.11	2	230	13	0.64	22	5			17	0.05	<10	5	<10		74
Q014997	2.55	<1	0.99	10		0.68	573	<1	0.14	1	280	6	0.27	7	5			21	0.07	<10	1	<10		83
Q014998	6.13	<1	2.90	<10		3.01	1605	<1	0.71	48	520	19	0.73	14	27			211	0.31	<10	227	<10		181
Q014999	2.67	<1	0.84	10		0.96	616	<1	0.23	1	280	10	0.37	11	7			42	0.08	<10	4	<10		71
Q015001	2.59	<1	0.69	10		0.79	527	<1	0.20	1	260	9	0.94	26	5			40	0.04	<10	1	<10		54
Q015002	2.29	<1	1.15	10		0.78	473	<1	0.21	1	270	6	0.22	15	5			23	0.07	<10	<1	<10		87
Q015003	2.50	<1	1.30	10		0.89	605	<1	0.23	<1	290	6	0.04	<2	6			23	0.11	<10	1	<10		108
Q015004	2.61	<1	1.31	10		0.86	631	<1	0.24	1	300	4	0.07	3	6			30	0.10	<10	<1	<10		96
Q015005	3.35	<1	1.62	10		1.13	695	<1	0.23	2	320	4	0.08	5	9			24	0.12	<10	5	<10		92
Q015006	4.56	1	0.75	10		2.37	1020	1	0.17	33	900	16	0.33	<2	16			121	0.24	<10	137	<10		100
Q015007	2.71	1	1.07	10		0.45	353	<1	0.10	1	330	4	0.03	3	6			14	0.10	<10	1	<10		104
Q015008	2.70	<1	1.00	10		0.59	529	<1	0.11	<1	310	4	0.20	8	6			15	0.09	<10	1	<10		116
Q015009	1.92	<1	0.60	10		0.63	655	2	0.06	2	300	461	0.49	10	3			57	0.02	<10	2	<10		70
Q015011	2.51	<1	1.08	10		0.47	377	<1	0.08	1	330	30	0.04	4	5			13	0.09	<10	1	<10		170
Q015012	0.82	<1	0.25	<10		0.16	158	<1	0.02	1	190	952	0.38	30	1			15	<0.01	<10	1	<10		29
Q015013	1.00	<1	0.31	10		0.18	239	1	0.03	1	270	48	0.36	14	1			17	0.01	<10	2	<10		22
Q015014	1.58	<1	0.46	10		0.32	276	1	0.12	1	320	9	0.61	6	3			25	0.03	<10	1	<10		36
Q015015	1.39	<1	0.41	10		0.25	297	1	0.05	1	230	4	0.33	7	3			17	0.03	<10	2	<10		26
Q015016	3.18	<1	1.01	10		0.62	625	<1	0.08	1	310	5	0.27	2	4			22	0.06	<10	1	<10		87
Q015017	2.44	<1	0.94	10		0.41	403	<1	0.11	1	370	5	0.10	4	4			22	0.07	<10	1	<10		69
Q015018	2.12	<1	0.84	10		0.42	387	<1	0.13	1	320	5	0.14	6	4			23	0.06	<10	1	<10		72
Q015019	1.94	1	0.87	10		0.33	320	1	0.09	<1	300	3	0.26	7	4			18	0.04	<10	1	<10		59
Q015022	1.67	1	0.45	20		0.19	253	<1	0.09	1	310	11	0.69	5	3			17	0.04	<10	1	<10		95
Q015023	2.37	<1	0.77	10		0.36	399	1	0.13	<1	290	10	0.80	6	4			17	0.05	<10	1	<10		73
Q015024	2.21	<1	0.70	10		0.41	405	<1	0.12	<1	350	8	0.45	9	4			23	0.05	<10	<1	<10		65
Q015025	2.59	<1	0.93	10		0.54	447	1	0.05	1	310	8	0.45	3	4			13	0.07	<10	<1	<10		81
Q015026	2.64	1	0.89	10		0.58	335	7	0.08	<1	290	130	1.21	9	3			17	0.06	<10	<1	<10		537

Drill Hole Log - Assays

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q015027	351.85	353.35	1.5		<0.005							<0.2	1.43	5	300	<0.5	<2	0.46	<0.5	1	3	47
Q015028	353.35	354.85	1.5		<0.005							<0.2	1.23	6	170	<0.5	<2	0.41	<0.5	2	7	41
Q015029	354.85	355.90	1.05		0.009							0.4	1.33	15	120	<0.5	<2	0.43	0.5	2	4	2400
Q015031	355.90	357.40	1.5		<0.005							<0.2	1.49	13	260	<0.5	<2	0.48	<0.5	1	4	204
Q015032	357.40	358.90	1.5		<0.005							<0.2	1.19	2	180	<0.5	<2	0.59	<0.5	1	2	10
Q015033	358.90	360.40	1.5		<0.005							<0.2	1.08	<2	140	<0.5	<2	0.65	<0.5	1	4	6
Q015034	360.40	361.60	1.2		<0.005							<0.2	1.49	6	210	0.6	<2	0.46	<0.5	1	4	8
Q015035	361.60	363.10	1.5		<0.005							<0.2	1.49	573	160	0.6	<2	1.00	<0.5	1	2	13
Q015036	363.10	364.60	1.5		<0.005							<0.2	1.24	29	190	<0.5	<2	1.30	<0.5	1	4	20
Q015037	364.60	366.10	1.5		0.015							0.2	0.81	12	130	<0.5	3	0.25	1.0	3	3	20
Q015038	366.10	367.60	1.5		0.014							0.4	0.82	9	80	<0.5	<2	0.40	6.6	2	3	101
Q015039	367.60	369.10	1.5		<0.005							<0.2	0.79	3	300	<0.5	<2	0.36	<0.5	1	3	4
Q015041	369.10	370.46	1.36		<0.005							<0.2	0.82	2	250	<0.5	<2	0.35	<0.5	2	4	4
Q015042	370.46	370.96	0.5		<0.005							<0.2	2.69	10	370	0.8	<2	3.69	<0.5	15	103	103
Q015043	370.96	372.50	1.54		<0.005							<0.2	0.96	12	300	0.5	<2	0.92	<0.5	1	5	21
Q015044	372.50	374.00	1.5		0.005							<0.2	1.38	13	310	0.6	<2	1.14	<0.5	8	38	137
Q015045	374.00	375.50	1.5		0.017							0.2	0.72	13	160	<0.5	<2	0.36	<0.5	2	4	42
Q015046	481.22	482.72	1.5		0.008							<0.2	6.03	16	70	0.6	4	0.65	<0.5	16	8	153
Q015047	482.72	484.22	1.5		0.007							<0.2	5.25	13	130	0.6	3	0.31	<0.5	19	6	614
Q015048	484.22	485.72	1.5		0.007							0.2	5.78	20	110	0.8	2	0.45	<0.5	18	7	414
Q015049	485.72	487.22	1.5		<0.005							<0.2	1.56	166	150	<0.5	<2	0.37	<0.5	2	3	30

Drill Hole Log - Assays

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q015027	2.53	<1	0.86	10		0.61	486	<1	0.08	<1	260	8	0.54	3	4			16	0.08	<10	<1	<10		78
Q015028	2.97	<1	0.48	10		0.57	502	<1	0.11	1	250	6	0.94	9	6			13	0.07	<10	1	<10		64
Q015029	3.48	1	0.59	10		0.53	504	<1	0.09	1	260	8	1.83	15	5			14	0.06	<10	1	<10		157
Q015031	2.90	<1	0.91	10		0.64	463	<1	0.08	1	320	2	0.70	2	5			30	0.09	<10	1	<10		71
Q015032	2.00	<1	0.71	10		0.52	369	<1	0.07	1	300	<2	0.52	2	4			18	0.07	<10	1	<10		54
Q015033	2.66	<1	0.57	10		0.52	456	<1	0.08	<1	280	2	1.35	2	5			25	0.07	<10	1	<10		48
Q015034	2.57	<1	0.84	10		0.67	440	2	0.08	1	300	4	0.91	4	4			18	0.07	<10	1	<10		53
Q015035	2.43	<1	0.73	10		0.60	531	<1	0.04	<1	270	7	1.14	11	3			22	0.03	<10	<1	<10		66
Q015036	2.08	1	0.59	10		0.45	621	1	0.06	1	250	30	0.95	8	2			28	0.02	<10	<1	<10		70
Q015037	2.16	1	0.55	10		0.27	219	12	0.04	1	270	99	1.69	6	2			13	0.03	<10	<1	<10		151
Q015038	2.50	<1	0.54	10		0.31	291	6	0.04	<1	260	861	2.14	25	2			22	0.03	<10	1	<10		934
Q015039	1.21	<1	0.49	10		0.28	261	9	0.04	1	240	10	0.49	2	2			22	0.02	<10	<1	<10		39
Q015041	1.24	<1	0.50	10		0.30	249	4	0.06	2	230	14	0.55	<2	2			22	0.02	<10	2	<10		35
Q015042	3.56	<1	1.42	<10		1.50	1770	<1	0.06	44	690	5	0.40	11	11			94	0.11	<10	61	<10		160
Q015043	1.86	<1	0.46	10		0.45	432	1	0.03	2	280	7	0.61	6	3			48	0.01	<10	2	<10		39
Q015044	2.97	<1	0.76	10		0.80	733	<1	0.02	18	440	5	0.70	6	7			49	0.03	<10	29	<10		89
Q015045	2.59	<1	0.37	10		0.23	420	1	0.08	3	260	6	1.29	9	3			11	0.03	<10	1	<10		29
Q015046	9.80	<1	3.03	<10		4.04	1890	<1	0.08	9	820	9	1.93	18	17			36	0.27	<10	170	<10		148
Q015047	9.76	<1	3.19	<10		3.29	1670	<1	0.05	10	800	4	1.69	16	15			17	0.30	<10	147	<10		129
Q015048	10.15	<1	3.57	<10		3.28	1710	<1	0.07	14	910	4	1.53	17	17			26	0.33	<10	151	<10		130
Q015049	2.84	<1	0.84	10		0.76	471	<1	0.07	2	320	2	1.15	16	5			22	0.07	<10	11	<10		39

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014972			WH13196422				ALS: ME-ICP41				11/17/201	
Q014973			WH13196422				ALS: ME-ICP41				11/17/201	
Q014974			WH13196422				ALS: ME-ICP41				11/17/201	
Q014975			WH13196422				ALS: ME-ICP41				11/17/201	
Q014976			WH13196422				ALS: ME-ICP41				11/17/201	
Q014977			WH13196422				ALS: ME-ICP41				11/17/201	
Q014978			WH13196422				ALS: ME-ICP41				11/17/201	
Q014979			WH13196422				ALS: ME-ICP41				11/17/201	
Q014982			WH13196422				ALS: ME-ICP41				11/17/201	
Q014983			WH13196422				ALS: ME-ICP41				11/17/201	
Q014984			WH13196422				ALS: ME-ICP41				11/17/201	
Q014985			WH13196422				ALS: ME-ICP41				11/17/201	
Q014986			WH13196422				ALS: ME-ICP41				11/17/201	
Q014987			WH13196422				ALS: ME-ICP41				11/17/201	
Q014988			WH13196422				ALS: ME-ICP41				11/17/201	
Q014989			WH13196422				ALS: ME-ICP41				11/17/201	
Q014991			WH13196422				ALS: ME-ICP41				11/17/201	
Q014992			WH13196422				ALS: ME-ICP41				11/17/201	
Q014993			WH13196422				ALS: ME-ICP41				11/17/201	
Q014994			WH13196422				ALS: ME-ICP41				11/17/201	
Q014995			WH13196422				ALS: ME-ICP41				11/17/201	
Q014996			WH13196422				ALS: ME-ICP41				11/17/201	
Q014997			WH13196422				ALS: ME-ICP41				11/17/201	
Q014998			WH13196422				ALS: ME-ICP41				11/17/201	
Q014999			WH13196422				ALS: ME-ICP41				11/17/201	
Q015001			WH13196422				ALS: ME-ICP41				11/17/201	
Q015002			WH13196422				ALS: ME-ICP41				11/17/201	
Q015003			WH13196422				ALS: ME-ICP41				11/17/201	
Q015004			WH13196422				ALS: ME-ICP41				11/17/201	
Q015005			WH13196422				ALS: ME-ICP41				11/17/201	
Q015006			WH13196422				ALS: ME-ICP41				11/17/201	
Q015007			WH13196422				ALS: ME-ICP41				11/17/201	
Q015008			WH13196422				ALS: ME-ICP41				11/17/201	
Q015009			WH13196422				ALS: ME-ICP41				11/17/201	
Q015011			WH13196422				ALS: ME-ICP41				11/17/201	
Q015012			WH13196422				ALS: ME-ICP41				11/17/201	
Q015013			WH13196422				ALS: ME-ICP41				11/17/201	
Q015014			WH13196422				ALS: ME-ICP41				11/17/201	
Q015015			WH13196422				ALS: ME-ICP41				11/17/201	
Q015016			WH13196422				ALS: ME-ICP41				11/17/201	
Q015017			WH13196422				ALS: ME-ICP41				11/17/201	
Q015018			WH13196422				ALS: ME-ICP41				11/17/201	
Q015019			WH13196422				ALS: ME-ICP41				11/17/201	
Q015022			WH13196422				ALS: ME-ICP41				11/17/201	
Q015023			WH13196422				ALS: ME-ICP41				11/17/201	
Q015024			WH13196422				ALS: ME-ICP41				11/17/201	
Q015025			WH13196422				ALS: ME-ICP41				11/17/201	
Q015026			WH13196422				ALS: ME-ICP41				11/17/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q015027			WH13196422				ALS: ME-ICP41				11/17/201	
Q015028			WH13196422				ALS: ME-ICP41				11/17/201	
Q015029			WH13196422				ALS: ME-ICP41				11/17/201	
Q015031			WH13196422				ALS: ME-ICP41				11/17/201	
Q015032			WH13196422				ALS: ME-ICP41				11/17/201	
Q015033			WH13196422				ALS: ME-ICP41				11/17/201	
Q015034			WH13196422				ALS: ME-ICP41				11/17/201	
Q015035			WH13196422				ALS: ME-ICP41				11/17/201	
Q015036			WH13196422				ALS: ME-ICP41				11/17/201	
Q015037			WH13196422				ALS: ME-ICP41				11/17/201	
Q015038			WH13196422				ALS: ME-ICP41				11/17/201	
Q015039			WH13196422				ALS: ME-ICP41				11/17/201	
Q015041			WH13196422				ALS: ME-ICP41				11/17/201	
Q015042			WH13196422				ALS: ME-ICP41				11/17/201	
Q015043			WH13196422				ALS: ME-ICP41				11/17/201	
Q015044			WH13196422				ALS: ME-ICP41				11/17/201	
Q015045			WH13196422				ALS: ME-ICP41				11/17/201	
Q015046			WH13196422				ALS: ME-ICP41				11/17/201	
Q015047			WH13196422				ALS: ME-ICP41				11/17/201	
Q015048			WH13196422				ALS: ME-ICP41				11/17/201	
Q015049			WH13196422				ALS: ME-ICP41				11/17/201	

Dist (m)	Sa No.	Unit	Chemical Group	Alteration	Class By	Class Date	Lab	Year	Certificate	Method	Cert Date	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %
37.27	957134	0				1/1/2010			0 VAN13004665		1/1/2010	73.37	0.470	10.83	4.99
155.45	957135	0				1/1/2010			0 VAN13004665		1/1/2010	62.62	0.560	13.39	8.66
190.69	957136	0				1/1/2010			0 VAN13004665		1/1/2010	71.05	0.360	13.58	4.07
206.64	957137	0				1/1/2010			0 VAN13004665		1/1/2010	69.80	0.360	14.08	4.15
238.53	957138	0				1/1/2010			0 VAN13004665		1/1/2010	69.91	0.380	14.31	4.77
259.18	957139	0				1/1/2010			0 VAN13004665		1/1/2010	69.67	0.390	14.24	4.47
278.04	957140	0				1/1/2010			0 VAN13004665		1/1/2010	68.94	0.400	14.78	4.65
349.70	957141	0				1/1/2010			0 VAN13004665		1/1/2010	67.46	0.390	14.87	5.79
368.00	957142	0				1/1/2010			0 VAN13004665		1/1/2010	68.89	0.440	15.22	3.53
383.40	957143	0				1/1/2010			0 VAN13004665		1/1/2010	71.00	0.370	13.93	4.43
399.87	957144	0				1/1/2010			0 VAN13004665		1/1/2010	69.93	0.370	13.65	5.27
460.76	957145	0				1/1/2010			0 VAN13004665		1/1/2010	50.74	0.850	17.19	10.34
489.50	957146	0				1/1/2010			0 VAN13004665		1/1/2010	77.17	0.290	10.95	2.98

Dist (m)	Sa No.	MnO %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	Cr2O3 %	Ni ppm	Sc ppm	LOI %	C %	S %	Sum %	Ba ppm	Be ppm	Ce ppm	Co ppm	Cs ppm	Dy ppm	Er ppm	Eu ppm	Ga ppm
37.27	957134	0.04	1.04	0.84	1.30	2.87	0.140	<0.002	<20.0	15	3.7	0.4	2.1	99.59	2744	2	29.6	12.5	1.7	5.04	2.94	2.94	10.1
155.45	957135	0.18	3.24	0.67	2.60	2.64	0.180	<0.002	<20.0	18	5.0	0.0	4.8	99.73	1565	1	41.3	8.6	1.8	5.85	3.06	3.06	17.2
190.69	957136	0.07	1.46	0.63	2.52	3.39	0.080	<0.002	<20.0	14	2.5	0.0	1.6	99.72	1643	2	65.3	2.1	2.4	8.25	4.17	4.17	18.1
206.64	957137	0.09	1.65	1.42	4.22	1.92	0.080	<0.002	<20.0	14	2.0	0.1	0.6	99.77	1266	2	44.0	1.2	1.4	5.92	4.07	4.07	14.1
238.53	957138	0.11	1.61	1.09	3.10	2.59	0.090	<0.002	<20.0	15	1.8	0.1	0.5	99.76	1362	3	43.7	1.1	1.5	7.56	4.56	4.56	17.7
259.18	957139	0.11	1.16	1.12	3.91	2.61	0.080	<0.002	<20.0	15	2.0	0.1	1.1	99.70	1530	2	50.6	1.4	1.5	6.98	4.87	4.87	17.6
278.04	957140	0.10	1.47	0.94	3.98	2.76	0.080	<0.002	<20.0	16	1.7	0.1	<0.0	99.77	1033	3	49.4	1.1	1.8	6.96	4.37	4.37	18.3
349.70	957141	0.11	1.81	0.44	2.34	4.36	0.080	<0.002	<20.0	15	2.0	0.0	0.6	99.67	2018	<1	42.9	1.1	2.1	7.26	4.43	4.43	17.3
368.00	957142	0.05	1.48	0.56	1.58	5.17	0.090	<0.002	<20.0	18	2.6	0.1	0.4	99.59	2777	3	41.8	1.4	1.7	5.91	4.54	4.54	18.0
383.40	957143	0.06	0.84	0.50	4.36	2.67	0.090	<0.002	<20.0	16	1.5	0.1	0.6	99.75	1364	<1	57.8	2.2	1.5	6.58	3.89	3.89	14.4
399.87	957144	0.09	1.16	0.39	1.44	4.88	0.090	<0.002	<20.0	15	2.5	0.0	1.1	99.73	1665	2	28.3	2.2	2.2	5.92	4.00	4.00	15.0
460.76	957145	0.35	6.75	4.73	2.95	3.46	0.190	<0.002	<20.0	31	2.1	0.2	0.2	99.67	1478	<1	22.1	30.0	2.5	2.67	1.79	1.79	15.0
489.50	957146	0.05	0.56	0.37	3.65	2.30	0.070	0.002	<20.0	11	1.4	0.1	0.7	99.79	1201	<1	39.8	1.6	0.3	5.42	3.44	3.44	10.7

Dist (m)	Sa No.	Gd ppm	Hf ppm	Ho ppm	La ppm	Lu ppm	Nb ppm	Nd ppm	Pr ppm	Rb ppm	Sm pp	Sn ppm	Sr ppm	Ta ppm	Tb ppm	Th ppm	Th ppm	U ppm	V ppm	W ppm	Y ppm	Yb ppm	Zr ppm
37.27	957134	4.57	2.4	0.90	14.3	0.49	4.9	18.6	3.91	50.0	4.1	1	73.9	0.3	0.81	2.7	0.50	0.9	13	2.8	25.1	2.72	92.0
155.45	957135	5.75	2.9	1.26	21.7	0.65	6.4	22.8	5.16	51.1	5.6	2	48.7	0.4	0.99	3.7	0.51	1.4	<8	1.6	34.8	3.79	115.7
190.69	957136	8.87	4.6	1.80	32.9	0.72	8.6	32.9	8.24	61.6	8.3	2	65.2	0.7	1.51	4.7	0.64	1.6	<8	1.0	45.6	4.35	149.7
206.64	957137	5.62	4.5	1.34	20.5	0.54	8.0	24.6	5.53	31.0	5.5	2	111.0	0.4	1.04	4.3	0.57	2.1	<8	0.7	34.4	4.15	136.9
238.53	957138	6.40	3.7	1.44	21.6	0.73	8.2	22.2	5.86	41.2	6.7	2	58.9	0.4	1.10	4.9	0.71	2.1	<8	1.6	37.5	4.38	152.1
259.18	957139	6.74	3.8	1.52	24.3	0.70	8.5	25.6	6.58	45.8	7.3	3	66.2	0.3	1.19	5.1	0.67	1.9	<8	0.7	42.5	4.99	160.8
278.04	957140	7.69	4.1	1.68	23.0	0.81	9.0	33.2	6.79	54.6	7.4	2	84.6	0.4	1.19	5.3	0.72	2.1	<8	0.7	41.6	4.53	162.5
349.70	957141	5.85	4.8	1.47	17.7	0.79	8.7	22.9	5.73	84.0	6.0	2	49.4	0.6	1.13	4.9	0.72	1.8	<8	1.5	42.8	5.00	171.3
368.00	957142	5.82	4.7	1.50	19.9	0.83	9.6	19.6	5.34	89.9	5.5	2	47.2	0.5	1.17	5.0	0.67	2.5	<8	1.4	44.1	5.35	179.0
383.40	957143	7.19	3.6	1.38	26.2	0.75	8.0	28.6	6.95	44.5	7.4	1	52.9	0.6	1.13	4.4	0.65	1.8	<8	1.4	34.1	5.06	160.2
399.87	957144	5.06	3.5	1.26	13.4	0.65	7.0	16.9	3.85	85.2	4.6	1	35.9	0.4	0.94	3.7	0.50	1.6	<8	0.9	34.1	3.93	141.1
460.76	957145	3.27	1.4	0.56	9.1	0.31	3.9	12.9	2.62	56.5	3.1	<1	187.6	0.2	0.55	1.3	0.27	0.5	265	0.6	18.5	1.91	51.1
489.50	957146	4.79	4.1	1.25	19.2	0.65	6.2	20.7	4.44	29.8	4.5	2	43.7	0.5	0.90	3.7	0.58	1.5	<8	0.9	33.7	4.16	124.4

Dist (m)	Sa No.	Ag ppm	As ppm	Au ppb	Bi ppm	Cd ppm	Cu ppm	Hg ppm	Mo pp	Ni ppm	Pb ppm	Sb ppm	Se ppm	Tl ppm	Zn ppm	Al/Ti	La/Yb	Zr/Al	Zr/Nb	Zr/Ti	Zr/Y	Comments
37.27	957134	0.1	252.0	13.5	0.7	1.2	53	0.04	0.1	0.5	37	8.3	2.9	<0.1	92							rhyolite flow bre
155.45	957135	0.2	11.6	12.7	0.4	<0.1	125	<0.01	1.0	1.8	3	0.4	0.9	<0.1	81							rhyolite flow bre
190.69	957136	<0.1	2.2	1.9	0.2	<0.1	11	<0.01	5.2	0.8	6	1.8	<0.5	0.1	24							rhyolite lapilli tuf
206.64	957137	<0.1	8.6	7.4	<0.1	<0.1	13	0.01	1.7	0.8	3	3.5	<0.5	0.1	50							rhyolite debris fl
238.53	957138	<0.1	8.8	3.7	<0.1	0.1	11	<0.01	1.5	0.7	5	5.6	<0.5	0.1	67							Basalt? fragment
259.18	957139	0.1	6.0	5.6	<0.1	1.5	39	0.02	1.1	0.4	6	1.8	<0.5	0.1	313							Feldspar phyric r
278.04	957140	<0.1	1.6	<0.5	<0.1	<0.1	25	0.01	<0.1	0.2	2	4.3	<0.5	0.1	101							Basalt debris flo
349.70	957141	<0.1	9.9	<0.5	<0.1	<0.1	16	<0.01	0.3	0.2	3	1.7	<0.5	0.2	82							altered basalt flo
368.00	957142	<0.1	2.5	1.6	0.1	<0.1	4	<0.01	19.5	0.4	11	1.5	<0.5	<0.1	34							highly silicified b
383.40	957143	<0.1	15.6	1.2	<0.1	<0.1	21	<0.01	<0.1	0.3	2	5.6	<0.5	0.1	36							basalt flow
399.87	957144	<0.1	16.8	5.6	0.2	<0.1	9	<0.01	0.7	0.4	4	2.7	<0.5	<0.1	29							feldspar phyric r
460.76	957145	<0.1	11.5	1.3	<0.1	<0.1	163	<0.01	0.4	16.2	5	3.6	<0.5	0.3	202							amygdaloidal ba
489.50	957146	<0.1	16.0	2.9	0.2	<0.1	3	<0.01	12.5	0.5	1	3.8	<0.5	<0.1	16							rhyolite flow bre

Drill Hole Log - Ez-Shot Survey

Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date	Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date
30.00	247.1	-60.1	5705	267.8	M.Smith	10/11/2013							
60.00	245.4	-61.6	5682	266.1	C.Baskin	10/11/2013							
90.00	247.6	-62	5680	268.3	C.Baskin	10/11/2013							
120.00	248.9	-62.3	5681	269.6	C.Baskin	10/11/2013							
150.00	249.9	-63.3	5678	270.6	M.Smith	10/11/2013							
180.00	248.9	-63.8	5672	269.6	M.Smith	10/12/2013							
210.00	251.6	-63.1	5673	272.3	C.Baskin	10/12/2013							
240.00	251.9	-63.5	5669	272.6	M.Smith	10/12/2013							
270.00	2.9	-63.3	4102	23.6	C.Baskin	10/13/2013							
300.00	253.4	-64.5	5649	274.1	M.Smith	10/13/2013							
330.00	254.2	-64.7	5668	274.9	M.Smith	10/14/2013							
360.00	256.2	-64.4	5691	276.9	M.Smith	10/14/2013							
390.00	257.7	-65.1	5677	278.4	C Baskin	10/15/2013							
420.00	257.6	-65.2	5642	278.3	M Smith	10/16/2013							
450.00	258.2	-65.5	5674	279.2	C Baskin	10/16/2013							
480.00	254.6	-66.1	5350	275.5	M Smith	10/17/2013							

Drill Hole Log - Rock Quality Determination

TC13066

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
3.00	6.00	3	1.96	65.33	1.06	54.08	
6.00	9.00	3	3.01	100.33	1.83	60.8	
9.00	12.00	3	2.52	84	1.44	57.14	
12.00	15.00	3	2.67	89	1.67	62.55	
15.00	18.00	3	2.57	85.67	1.34	52.14	
18.00	21.00	3	2.91	97	2.06	70.79	
21.00	24.00	3	1.63	54.33	1.13	69.33	
24.00	27.00	3	1.11	37	0.25	22.52	
27.00	30.00	3	1.27	42.33	0.31	24.41	
30.00	33.00	3	1.86	62	0.86	46.24	
33.00	36.00	3	3	100	1.55	51.67	
36.00	39.00	3	3.02	100.67	2.74	90.73	
39.00	42.00	3	2.87	95.67	2.67	93.03	
42.00	45.00	3	2.82	94	2.4	85.11	
45.00	48.00	3	3.12	104	3	96.15	
48.00	51.00	3	2.78	92.67	2.58	92.81	
51.00	54.00	3	2.62	87.33	2.31	88.17	
54.00	57.00	3	3.37	112.33	3.18	94.36	
57.00	60.00	3	2.95	98.33	2.68	90.85	
60.00	63.00	3	3.1	103.33	2.66	85.81	
63.00	66.00	3	2.53	84.33	1.74	68.77	
66.00	69.00	3	3.2	106.67	2.32	72.5	
69.00	72.00	3	2.88	96	2.04	70.83	
72.00	75.00	3	3.01	100.33	1.91	63.46	
75.00	78.00	3	2.94	98	2.38	80.95	
78.00	81.00	3	2.81	93.67	1.96	69.75	
81.00	84.00	3	2.7	90	1.71	63.33	
84.00	87.00	3	3.09	103	2.51	81.23	
87.00	90.00	3	2.95	98.33	2.59	87.8	
90.00	93.00	3	2.91	97	2.36	81.1	
93.00	96.00	3	2.88	96	2.86	99.31	
96.00	99.00	3	3	100	3	100	
99.00	102.00	3	2.89	96.33	2.63	91	
102.00	105.00	3	2.9	96.67	2.74	94.48	
105.00	108.00	3	2.97	99	2.87	96.63	
108.00	111.00	3	3.03	101	1.65	54.46	
111.00	114.00	3	2.81	93.67	2.03	72.24	
114.00	117.00	3	3.11	103.67	2.25	72.35	
117.00	120.00	3	2.94	98	2.6	88.44	
120.00	123.00	3	2.97	99	2.62	88.22	
123.00	126.00	3	2.98	99.33	2.9	97.32	
126.00	129.00	3	2.91	97	2.49	85.57	
129.00	132.00	3	2.81	93.67	2.21	78.65	
132.00	135.00	3	2.98	99.33	2.71	90.94	
135.00	138.00	3	3.13	104.33	2.86	91.37	
138.00	141.00	3	2.88	96	2.51	87.15	
141.00	144.00	3	3.11	103.67	2.57	82.64	
144.00	147.00	3	2.79	93	2.52	90.32	
147.00	150.00	3	3.02	100.67	2.8	92.72	
150.00	153.00	3	3.05	101.67	2.62	85.9	
153.00	156.00	3	2.95	98.33	2.78	94.24	
156.00	159.00	3	3	100	2.69	89.67	
159.00	162.00	3	3	100	2.67	89	
162.00	165.00	3	2.88	96	2.37	82.29	
165.00	168.00	3	2.82	94	2.01	71.28	
168.00	171.00	3	3.16	105.33	2.05	64.87	
171.00	174.00	3	2.94	98	1.47	50	
174.00	177.00	3	2.56	85.33	2.32	90.63	
177.00	180.00	3	3.62	120.67	2.95	81.49	
180.00	183.00	3	3.12	104	2.96	94.87	
183.00	186.00	3	2.87	95.67	2.45	85.37	
186.00	189.00	3	3.05	101.67	2.9	95.08	
189.00	192.00	3	2.84	94.67	2.35	82.75	
192.00	195.00	3	2.98	99.33	2.81	94.3	
195.00	198.00	3	3.23	107.67	2.51	77.71	
198.00	201.00	3	2.73	91	2.2	80.59	
201.00	204.00	3	2.95	98.33	2.23	75.59	
204.00	207.00	3	2.91	97	2.88	98.97	
207.00	210.00	3	3.04	101.33	2.45	80.59	
210.00	213.00	3	2.96	98.67	2.26	76.35	
213.00	216.00	3	2.95	98.33	2.67	90.51	
216.00	219.00	3	2.97	99	2.65	89.23	
219.00	222.00	3	2.96	98.67	2.32	78.38	
222.00	225.00	3	2.89	96.33	2.38	82.35	
225.00	228.00	3	2.93	97.67	2.59	88.4	
228.00	231.00	3	2.96	98.67	2.32	78.38	
231.00	234.00	3	3.05	101.67	2.54	83.28	
234.00	237.00	3	2.99	99.67	2.89	96.66	
237.00	240.00	3	2.93	97.67	2.89	98.63	
240.00	243.00	3	3.02	100.67	2.98	98.68	
243.00	246.00	3	2.89	96.33	2.57	88.93	
246.00	249.00	3	2.88	96	2.7	93.75	
249.00	252.00	3	2.89	96.33	2.79	96.54	

Drill Hole Log - Rock Quality Determination

TC13066

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
252.00	255.00	3	2.98	99.33	2.87	96.31	
255.00	258.00	3	2.98	99.33	2.73	91.61	
258.00	261.00	3	2.85	95	2.76	96.84	
261.00	264.00	3	2.96	98.67	2.62	88.51	
264.00	267.00	3	3.01	100.33	1.76	58.47	
267.00	270.00	3	2.81	93.67	2.41	85.77	
270.00	273.00	3	3.11	103.67	2.69	86.5	
273.00	276.00	3	3.06	102	2.68	87.58	
276.00	279.00	3	2.94	98	2.76	93.88	
279.00	282.00	3	3	100	2.56	85.33	
282.00	285.00	3	3.01	100.33	2.99	99.34	
285.00	288.00	3	2.98	99.33	2.9	97.32	
288.00	291.00	3	2.98	99.33	2.73	91.61	
291.00	294.00	3	2.95	98.33	2.95	100	
294.00	297.00	3	2.99	99.67	2.89	96.66	
297.00	300.00	3	3	100	2.75	91.67	
300.00	303.00	3	3.02	100.67	2.82	93.38	
303.00	306.00	3	2.9	96.67	2.74	94.48	
306.00	309.00	3	3	100	2.52	84	
309.00	312.00	3	2.93	97.67	2.25	76.79	
312.00	315.00	3	2.74	91.33	1.04	37.96	
315.00	318.00	3	2.95	98.33	2.82	95.59	
318.00	321.00	3	2.93	97.67	2.25	76.79	
321.00	324.00	3	2.79	93	2.6	93.19	
324.00	327.00	3	3.01	100.33	2.78	92.36	
327.00	330.00	3	3.1	103.33	2.72	87.74	
330.00	333.00	3	2.93	97.67	2.33	79.52	
333.00	336.00	3	2.93	97.67	1.83	62.46	
336.00	339.00	3	3.01	100.33	2.68	89.04	
339.00	342.00	3	2.99	99.67	2.87	95.99	
342.00	345.00	3	2.99	99.67	2.86	95.65	
345.00	348.00	3	2.99	99.67	2.86	95.65	
348.00	351.00	3	2.97	99	2.79	93.94	
351.00	354.00	3	3	100	2.86	95.33	
354.00	357.00	3	2.99	99.67	2.53	84.62	
357.00	360.00	3	2.91	97	2.62	90.03	
360.00	363.00	3	3	100	2.92	97.33	
363.00	366.00	3	2.55	85	2.36	92.55	
366.00	369.00	3	3.08	102.67	2.87	93.18	
369.00	372.00	3	3.1	103.33	3.01	97.1	
372.00	375.00	3	2.98	99.33	2.87	96.31	
375.00	378.00	3	3.01	100.33	2.92	97.01	
378.00	381.00	3	2.95	98.33	2.54	86.1	
381.00	384.00	3	2.98	99.33	2.76	92.62	
384.00	387.00	3	2.95	98.33	2.72	92.2	
387.00	390.00	3	2.64	88	1.7	64.39	
390.00	393.00	3	2.94	98	2.26	76.87	
393.00	396.00	3	2.98	99.33	2.69	90.27	
396.00	399.00	3	2.91	97	2.84	97.59	
399.00	402.00	3	3.08	102.67	2.94	95.45	
402.00	405.00	3	2.87	95.67	2.72	94.77	
405.00	408.00	3	2.96	98.67	2.96	100	
408.00	411.00	3	2.93	97.67	2.84	96.93	
411.00	414.00	3	3	100	3	100	
414.00	417.00	3	2.96	98.67	2.82	95.27	
417.00	420.00	3	2.89	96.33	2.42	83.74	
420.00	423.00	3	2.99	99.67	2.72	90.97	
423.00	426.00	3	3.04	101.33	2.86	94.08	
426.00	429.00	3	2.99	99.67	2.8	93.65	
429.00	432.00	3	2.9	96.67	2.64	91.03	
432.00	435.00	3	2.93	97.67	1.85	63.14	
435.00	438.00	3	2.74	91.33	1.89	68.98	
438.00	441.00	3	3.2	106.67	2.41	75.31	
441.00	444.00	3	3.15	105	2.29	72.7	
444.00	447.00	3	3	100	2.8	93.33	
447.00	450.00	3	2.67	89	2.21	82.77	
450.00	453.00	3	2.82	94	2.14	75.89	
453.00	456.00	3	3.3	110	2.57	77.88	
456.00	459.00	3	2.71	90.33	2.24	82.66	
459.00	462.00	3	3.02	100.67	2.75	91.06	
462.00	465.00	3	2.96	98.67	2.58	87.16	
465.00	468.00	3	2.9	96.67	2.77	95.52	
468.00	471.00	3	3.11	103.67	2.74	88.1	
471.00	474.00	3	2.94	98	2.8	95.24	
474.00	477.00	3	2.7	90	1.88	69.63	
477.00	480.00	3	3.09	103	2.98	96.44	
480.00	483.00	3	3.04	101.33	2.43	79.93	
483.00	486.00	3	2.93	97.67	2.59	88.4	
486.00	489.00	3	2.76	92	2.18	78.99	
489.00	492.00	3	3	100	3	100	

Drill Hole Log - Structure

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
180.10		fol										35					5/22/2011	
208.24		cont										20					5/22/2011	
223.00		frac										10					5/22/2011	
256.50		fol										50					5/22/2011	
256.54		cont										70					5/22/2011	
258.20		cont										60					5/22/2011	
286.62		cont										45					5/22/2011	
293.25		cont										25					5/22/2011	
305.50		cont										60					5/22/2011	
388.20		cont										30					5/22/2011	
440.30		fol										20					5/22/2011	
446.15		fol										30					5/22/2011	
485.72		cont										30					5/22/2011	

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
3.00	9.90	ws									1			
9.90	17.95	dis	infil	3	0.5									
17.95	40.94	dis	ws	3	0						3			
40.94	41.64	dis	ws	25							1			
41.64	64.70	dis	ws	5							2			thin py fracture surfaces
64.70	83.00			4										
83.00	84.50			3	0.1									
84.50	86.00			3	0.1						0.1			
86.00	87.58			5										
87.58	122.47			3										
122.47	132.65			5										
132.65	155.85			3										
155.85	157.35			5	0.1									
157.35	158.85			3										
158.85	160.33			3										
160.33	161.85			10	0.5									
161.85	163.55			5										
163.55	164.30			5										
164.30	195.55			2										
195.55	244.80			1										
244.80	252.00			2										
252.00	253.50			2										
253.50	255.00			3										
255.00	256.54			2	0.1									
256.54	258.20				0.5									
258.20	259.70			1	0.1		0.1							
259.70	261.20			2										
261.20	262.70			2			0.1				0.1			
262.70	264.12			2			0.1				0.5			
264.12	265.60			1			0.1				0.5			
265.60	267.00			2			0.1				0.1			
267.00	268.50			2							0.1			
268.50	270.30			1							0.1			
270.30	286.62			0.1										
286.62	288.24			0.5							0.5			
288.24	289.74			0.5							0.5			
289.74	291.70			5							0.1			
291.70	293.25			5							0.1			
293.25	293.71			0.5							0.5			
293.71	295.15			5							0.1			
295.15	296.65			5							0.1			
296.65	298.15			5							0.1			
298.15	299.65			5							0.1			
299.65	300.71			5							0.1			
300.71	301.77			5							0.1			
301.77	303.27			0.7							0.3			
303.27	305.50			0.7							0.3			
305.50	320.00			0.1										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
320.00	321.00			1										
321.00	322.00			1			0.1				0.1			
322.00	323.00			1										
323.00	332.30			1										
332.30	333.80			1										
333.80	335.05			1							0.1			
335.05	336.30			1							0.1			
336.30	337.55			1							0.1			
337.55	338.55			1							0.1			
338.55	339.85			3										
339.85	341.35			3										
341.35	342.85			3										
342.85	344.35			3										
344.35	345.85			3										
345.85	347.35			3										
347.35	348.85			3										
348.85	350.35			3										
350.35	351.85			3										
351.85	353.35			5	0.1									
353.35	354.85			5	0.1									
354.85	355.90			5	1						1			
355.90	357.40			5							0.1			
357.40	358.90			5										
358.90	360.40			10										
360.40	361.60			10										
361.60	363.10			5										
363.10	364.60			5										
364.60	366.10			5										
366.10	367.60			10			0.5							
367.60	369.10			5										
369.10	370.46			5										
370.46	370.96			0.1	0.1						1			
370.96	372.50			5										
372.50	374.00			5										
374.00	375.50			3										
375.50	388.20			3							0.1			
388.20	398.06			3										
398.06	441.65			2										
441.65	481.22			0.5										
481.22	482.72			2							0.1			
482.72	483.72			2	0.1						1			
483.72	484.22			2							0.1			
484.22	487.22			2	0.1						1			
487.22	492.00			2										

Drill Hole Log - Alteration

From	To (m)	Style 1	Style 2	Sil	Ser	% Py	Chl	Epi	Alb	Carb	Hem	Mar	Bio	Other Type 1	Oth1	Other Type 2	Oth2	Remarks
3.00	9.90	per		10	10													
9.90	17.95	per	pat	5	5		5	5										
17.95	64.70	per	pat	15	10	2	5						2					

Note : Alteration Intensity numerically ranked (1-10)

Drill Hole Log - Tulsequah Chief 2013

TC13067

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
TC13067	10526.91	14880.82	332.20	588	306.2	-62

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
10/17/2013	10/27/2013	NQ	Atlas Drilling	10/28/2013	C. Taylor

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
2013 APS Survey	CT/AF/BA	10/29/2013	2013 APS Survey	CT/AF/BA	10/29/2013

Purpose:

To test for IP anomaly immediately south of the 5200 level drift to follow up on extensive alteration zone in hole TC13065 and extensive stringer zone in hole TC13064 with chalcopyrite at 399m.

Summary:

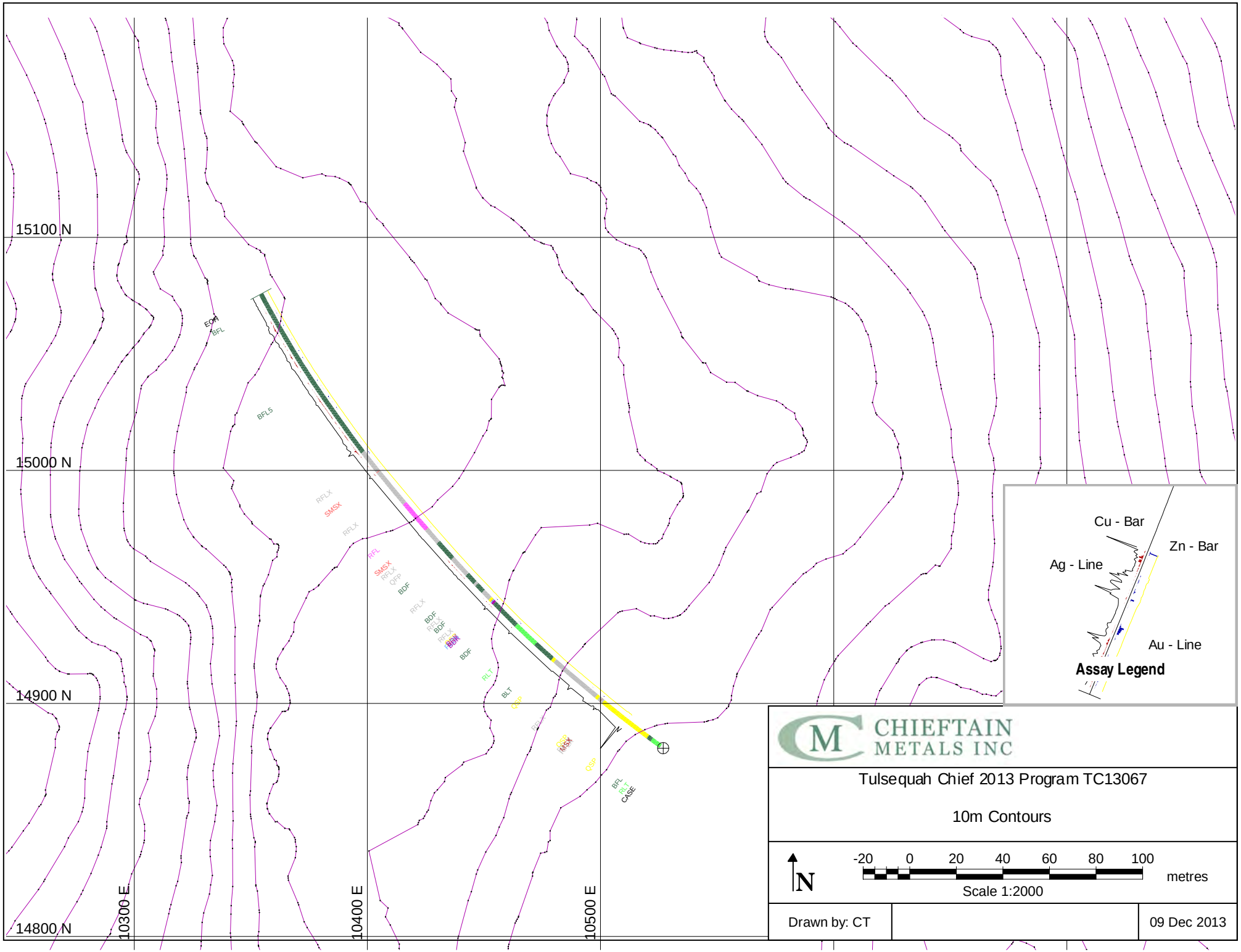
3-13.5m: Rhyolite Lapilli Tuff; weakly mineralized with Pyrite
13.5-18.0m: Highly silicified Basalt Flow; weakly mineralized with Pyrite and trace Chalcopyrite
18.0-73.3m: Silicified Rhyolite Flows; moderate (5-10%) Pyrite mineralization
73.30-73.72m: Pyrite Facies Massive Sulphides hosted in sericite alteration. ~75% Pyrite overall
73.72-284.04m: Rhyolite and potentially Basalt fragmentals. Weakly mineralized with Pyrite. Chalcopyrite: 243.78-268.95m, overall trace.
284.04-286.70m: Quartz Feldspar Porphyry Dyke
286.70-300.37m: Rhyolite fragmental
300.37-300.63m: Semi massive sulphides hosted in biotite and sericite alteration, ~45% Pyrite.
300.63-332.05m: Feldspar Phyric Rhyolite
332.05-394.35m: Rhyolite fragmental. Low angle Pyrite stringer: 370.47-371.08m, otherwise weakly mineralized with Pyrite.
394.35-588m: Amygdaloidal Basalt. ~10% Pyrite, overall trace Chalcopyrite (up to 4% in places).

Most significant mineralization in hole is overall trace chalcopyrite 243.78-268.95m (mainly hosted in rhyolite) and 394.35-588m (hosted in amygdaloidal basalt).

Significant Intercepts:

Hole-ID	From (m)	To (m)	Length (m)	True Width (m)	Zone	Lith	Au gpt	Ag gpt	Cu %	Pb %	Zn %	As ppm	SG g/cm3	$US Eq/t SRK12	$NSR/t JDS12	News Release Date
TC13067	43.31	47.11	3.8	0		STPY	0.29	7.4	0	0.01	0.01	148	2.7	14	14.41	N/A
plus	73.3	73.72	0.42	0		MSX	0.25	3	0	0.01	0	128	2.7	10.1	10.99	N/A

plus	370.47	371.08	0.61	0	STPY	0.14	1.8	0.32	0.01	0.01	83	2.7	26.11	25.85	N/A
plus	395.85	400	4.15	0	BFL5	0.02	1.3	0.43	0	0.01	142	2.7	28.62	28.07	N/A
plus	542.5	551.5	9	0	BFL5	0.03	1.4	0.28	0	0.03	19	2.7	20.03	19.44	N/A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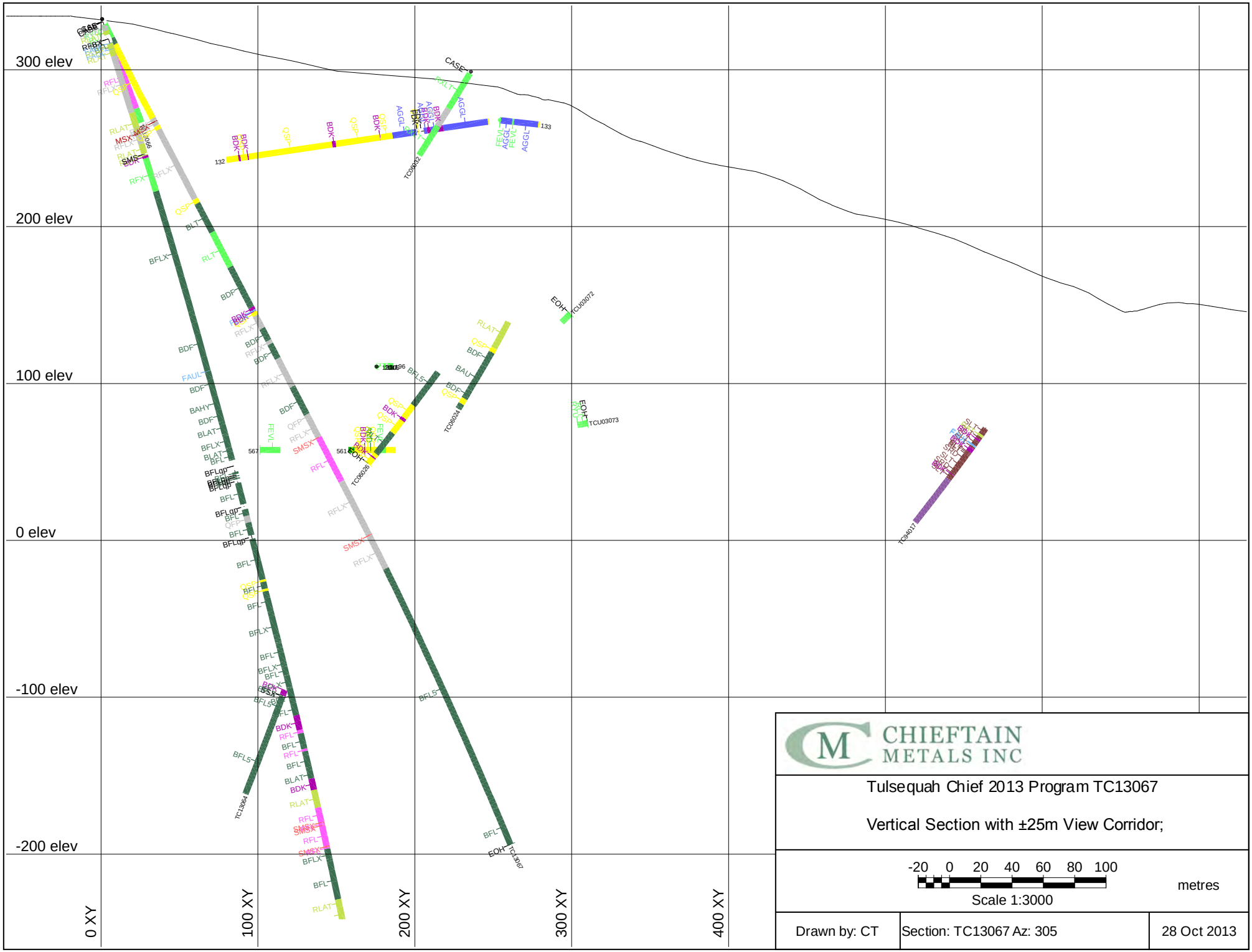
15000 N
14900 N
14800 N
10300 E
10400 E
10500 E
Cu - Bar
Zn - Bar
Ag - Line
Au - Line
Assay Legend
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13067
10m Contours
N
-20 0 20 40 60 80 100
metres
Scale 1:2000
Drawn by: CT
09 Dec 2013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200 elev
100 elev
0 elev
-100 elev
-200 elev
0 XY
100 XY
200 XY
300 XY
400 XY
CASE
TC06032
TCU03072
TCU03073
TC06024
TC06026
TC94017
TC13064
TC13067
CHIEFTAIN METALS INC
Tulsequah Chief 2013 Program TC13067
Vertical Section with ±25m View Corridor;
-20 0 20 40 60 80 100
metres
Scale 1:3000
Drawn by: CT
Section: TC13067 Az: 305
28 Oct 2013

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	306.2	-62	2013 APS Survey	CT/AF	10/29/2013	
2.95	306.4	-63	Maxibor	CT/BA	10/26/2013	
5.89	306.4	-62.8	Maxibor	CT/BA	10/26/2013	
8.84	306.4	-62.85	Maxibor	CT/BA	10/26/2013	averaged dip
14.73	306.5	-62.9	Maxibor	CT/BA	10/26/2013	
17.67	306.6	-63	Maxibor	CT/BA	10/26/2013	
20.62	306.8	-63	Maxibor	CT/BA	10/26/2013	
23.56	307	-63.1	Maxibor	CT/BA	10/26/2013	
26.51	307.1	-63.2	Maxibor	CT/BA	10/26/2013	
29.45	307.2	-63.2	Maxibor	CT/BA	10/26/2013	
32.40	307.3	-63.2	Maxibor	CT/BA	10/26/2013	
35.35	307.6	-63.3	Maxibor	CT/BA	10/26/2013	
38.29	307.6	-63.3	Maxibor	CT/BA	10/26/2013	
41.24	307.7	-63.3	Maxibor	CT/BA	10/26/2013	
44.18	307.8	-63.4	Maxibor	CT/BA	10/26/2013	
47.13	308.1	-63.5	Maxibor	CT/BA	10/26/2013	
50.07	308.3	-63.5	Maxibor	CT/BA	10/26/2013	
53.02	308.6	-61.8	Maxibor	CT/BA	10/26/2013	
55.96	308.6	-61.8	Maxibor	CT/BA	10/26/2013	averaged dip
61.85	308.8	-61.8	Maxibor	CT/BA	10/26/2013	
64.80	309	-61.8	Maxibor	CT/BA	10/26/2013	
67.75	309.2	-61.9	Maxibor	CT/BA	10/26/2013	
76.58	309.6	-61.9	Maxibor	CT/BA	10/26/2013	
85.42	309.9	-62.2	Maxibor	CT/BA	10/26/2013	
88.36	310	-62	Maxibor	CT/BA	10/26/2013	
91.31	310	-62	Maxibor	CT/BA	10/26/2013	
100.15	310.1	-62.1	Maxibor	CT/BA	10/26/2013	
111.93	310.4	-62.3	Maxibor	CT/BA	10/26/2013	
114.87	310.6	-62.3	Maxibor	CT/BA	10/26/2013	
120.76	311	-62.35	Maxibor	CT/BA	10/26/2013	averaged dip
129.60	311.4	-62.4	Maxibor	CT/BA	10/26/2013	
132.55	311.5	-62.2	Maxibor	CT/BA	10/26/2013	
135.49	311.7	-62.4	Maxibor	CT/BA	10/26/2013	
138.44	311.8	-62.3	Maxibor	CT/BA	10/26/2013	
141.38	312	-62.4	Maxibor	CT/BA	10/26/2013	
144.33	312.2	-62.4	Maxibor	CT/BA	10/26/2013	
153.16	312.8	-62.4	Maxibor	CT/BA	10/26/2013	
156.11	313	-62.5	Maxibor	CT/BA	10/26/2013	
159.05	313.2	-62.4	Maxibor	CT/BA	10/26/2013	
162.00	313.4	-62.5	Maxibor	CT/BA	10/26/2013	
164.95	313.7	-62.5	Maxibor	CT/BA	10/26/2013	
167.89	313.9	-62.5	Maxibor	CT/BA	10/26/2013	
170.84	314.2	-62.5	Maxibor	CT/BA	10/26/2013	
173.78	314.4	-62.5	Maxibor	CT/BA	10/26/2013	
176.73	314.6	-62.5	Maxibor	CT/BA	10/26/2013	
179.67	314.8	-62.6	Maxibor	CT/BA	10/26/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
182.62	314.9	-62.6	Maxibor	CT/BA	10/26/2013	
185.56	315	-62.7	Maxibor	CT/BA	10/26/2013	
188.51	315.1	-62.6	Maxibor	CT/BA	10/26/2013	
191.45	315.2	-62.6	Maxibor	CT/BA	10/26/2013	
194.40	315.4	-62.6	Maxibor	CT/BA	10/26/2013	
197.35	315.5	-62.6	Maxibor	CT/BA	10/26/2013	
200.29	315.6	-62.6	Maxibor	CT/BA	10/26/2013	
203.24	315.8	-62.6	Maxibor	CT/BA	10/26/2013	
206.18	315.9	-62.6	Maxibor	CT/BA	10/26/2013	
209.13	315.9	-62.6	Maxibor	CT/BA	10/26/2013	
212.07	316	-62.5	Maxibor	CT/BA	10/26/2013	
215.02	316.1	-62.6	Maxibor	CT/BA	10/26/2013	
217.96	316.2	-62.6	Maxibor	CT/BA	10/26/2013	
220.91	316.3	-62.6	Maxibor	CT/BA	10/26/2013	
223.85	316.4	-62.6	Maxibor	CT/BA	10/26/2013	
226.80	316.5	-62.6	Maxibor	CT/BA	10/26/2013	
229.75	316.6	-62.6	Maxibor	CT/BA	10/26/2013	
232.69	316.7	-62.6	Maxibor	CT/BA	10/26/2013	
235.64	316.9	-62.6	Maxibor	CT/BA	10/26/2013	
238.58	317	-62.6	Maxibor	CT/BA	10/26/2013	
241.53	317	-62.6	Maxibor	CT/BA	10/26/2013	
244.47	317.1	-62.6	Maxibor	CT/BA	10/26/2013	
247.42	317.2	-62.6	Maxibor	CT/BA	10/26/2013	
250.36	317.3	-62.6	Maxibor	CT/BA	10/26/2013	
253.31	317.3	-62.6	Maxibor	CT/BA	10/26/2013	
256.25	317.4	-62.6	Maxibor	CT/BA	10/26/2013	
259.20	317.6	-62.6	Maxibor	CT/BA	10/26/2013	
262.15	317.7	-62.6	Maxibor	CT/BA	10/26/2013	
265.09	317.8	-62.6	Maxibor	CT/BA	10/26/2013	
268.04	318	-62.6	Maxibor	CT/BA	10/26/2013	
270.98	318.1	-62.6	Maxibor	CT/BA	10/26/2013	
273.93	318.2	-62.6	Maxibor	CT/BA	10/26/2013	
276.87	318.3	-62.6	Maxibor	CT/BA	10/26/2013	
279.82	318.4	-62.6	Maxibor	CT/BA	10/26/2013	
282.76	318.5	-62.6	Maxibor	CT/BA	10/26/2013	
285.71	318.6	-62.6	Maxibor	CT/BA	10/26/2013	
288.65	318.8	-62.6	Maxibor	CT/BA	10/26/2013	
291.60	318.9	-62.6	Maxibor	CT/BA	10/26/2013	
294.55	319	-62.6	Maxibor	CT/BA	10/26/2013	
297.49	319	-62.5	Maxibor	CT/BA	10/26/2013	
300.44	319.1	-62.5	Maxibor	CT/BA	10/26/2013	
303.38	319.1	-62.5	Maxibor	CT/BA	10/26/2013	
306.33	319.1	-62.5	Maxibor	CT/BA	10/26/2013	
309.27	319.2	-62.5	Maxibor	CT/BA	10/26/2013	
312.22	319.2	-62.5	Maxibor	CT/BA	10/26/2013	
315.16	319.3	-62.6	Maxibor	CT/BA	10/26/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
318.11	319.4	-62.6	Maxibor	CT/BA	10/26/2013	
321.05	319.5	-62.6	Maxibor	CT/BA	10/26/2013	
324.00	319.7	-62.6	Maxibor	CT/BA	10/26/2013	
326.95	319.7	-62.5	Maxibor	CT/BA	10/26/2013	
329.89	319.7	-62.6	Maxibor	CT/BA	10/26/2013	
332.84	319.8	-62.5	Maxibor	CT/BA	10/26/2013	
335.78	320	-62.6	Maxibor	CT/BA	10/26/2013	
338.73	320	-62.7	Maxibor	CT/BA	10/26/2013	
341.67	320.1	-62.6	Maxibor	CT/BA	10/26/2013	
344.62	320.2	-62.6	Maxibor	CT/BA	10/26/2013	
347.56	320.4	-62.7	Maxibor	CT/BA	10/26/2013	
350.51	320.4	-62.8	Maxibor	CT/BA	10/26/2013	
353.45	320.5	-62.8	Maxibor	CT/BA	10/26/2013	
356.40	320.5	-62.8	Maxibor	CT/BA	10/26/2013	
359.35	320.6	-62.9	Maxibor	CT/BA	10/26/2013	
362.29	320.7	-63	Maxibor	CT/BA	10/26/2013	
365.24	320.9	-63.1	Maxibor	CT/BA	10/26/2013	
368.18	321	-63.1	Maxibor	CT/BA	10/26/2013	
371.13	321.2	-63.1	Maxibor	CT/BA	10/26/2013	
374.07	321.3	-63.2	Maxibor	CT/BA	10/26/2013	
377.02	321.4	-63.2	Maxibor	CT/BA	10/26/2013	
379.96	321.7	-63.3	Maxibor	CT/BA	10/26/2013	
382.91	321.7	-63.3	Maxibor	CT/BA	10/26/2013	
385.85	321.9	-63.4	Maxibor	CT/BA	10/26/2013	
388.80	322.2	-63.5	Maxibor	CT/BA	10/26/2013	
391.75	322.4	-63.5	Maxibor	CT/BA	10/26/2013	
394.69	322.7	-63.6	Maxibor	CT/BA	10/26/2013	
397.64	323	-63.7	Maxibor	CT/BA	10/26/2013	
400.58	323.2	-63.7	Maxibor	CT/BA	10/26/2013	
403.53	323.3	-63.8	Maxibor	CT/BA	10/26/2013	
406.47	323.5	-63.9	Maxibor	CT/BA	10/26/2013	
409.42	323.6	-63.9	Maxibor	CT/BA	10/26/2013	
412.36	323.8	-64	Maxibor	CT/BA	10/26/2013	
415.31	324	-64.1	Maxibor	CT/BA	10/26/2013	
418.25	324.1	-64.2	Maxibor	CT/BA	10/26/2013	
421.20	324.2	-64.2	Maxibor	CT/BA	10/26/2013	
424.15	324.2	-64.4	Maxibor	CT/BA	10/26/2013	
427.09	324.3	-64.4	Maxibor	CT/BA	10/26/2013	
430.04	324.4	-64.4	Maxibor	CT/BA	10/26/2013	
432.98	324.5	-64.5	Maxibor	CT/BA	10/26/2013	
435.93	324.6	-64.5	Maxibor	CT/BA	10/26/2013	
438.87	324.6	-64.6	Maxibor	CT/BA	10/26/2013	
441.82	324.7	-64.7	Maxibor	CT/BA	10/26/2013	
444.76	324.7	-64.7	Maxibor	CT/BA	10/26/2013	
447.71	324.8	-64.8	Maxibor	CT/BA	10/26/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
450.65	324.9	-64.8	Maxibor	CT/BA	10/26/2013	
453.60	325	-64.9	Maxibor	CT/BA	10/26/2013	
456.55	325.2	-64.9	Maxibor	CT/BA	10/26/2013	
459.49	325.3	-65	Maxibor	CT/BA	10/26/2013	
462.44	325.5	-65	Maxibor	CT/BA	10/26/2013	
465.38	325.6	-65	Maxibor	CT/BA	10/26/2013	
468.33	325.7	-65.1	Maxibor	CT/BA	10/26/2013	
471.27	325.9	-65.1	Maxibor	CT/BA	10/26/2013	
474.22	326	-65.2	Maxibor	CT/BA	10/26/2013	
477.16	326.2	-65.2	Maxibor	CT/BA	10/26/2013	
480.11	326.4	-65.3	Maxibor	CT/BA	10/26/2013	
483.05	326.7	-65.3	Maxibor	CT/BA	10/26/2013	
486.00	326.8	-65.3	Maxibor	CT/BA	10/26/2013	
488.95	326.9	-65.4	Maxibor	CT/BA	10/26/2013	
491.89	327	-65.4	Maxibor	CT/BA	10/26/2013	
494.84	327.1	-65.4	Maxibor	CT/BA	10/26/2013	
497.78	327.3	-65.5	Maxibor	CT/BA	10/26/2013	
500.73	327.5	-65.5	Maxibor	CT/BA	10/26/2013	
503.67	327.9	-65.5	Maxibor	CT/BA	10/26/2013	
506.62	328.3	-65.6	Maxibor	CT/BA	10/26/2013	
509.56	328.5	-65.7	Maxibor	CT/BA	10/26/2013	
512.51	328.8	-65.7	Maxibor	CT/BA	10/26/2013	
515.45	328.9	-65.8	Maxibor	CT/BA	10/26/2013	
518.40	329	-65.8	Maxibor	CT/BA	10/26/2013	
524.29	329.1	-65.9	Maxibor	CT/BA	10/26/2013	
527.24	329.2	-65.9	Maxibor	CT/BA	10/26/2013	
530.18	329.3	-65.9	Maxibor	CT/BA	10/26/2013	
533.13	329.4	-66	Maxibor	CT/BA	10/26/2013	
536.07	329.5	-66	Maxibor	CT/BA	10/26/2013	
539.02	329.6	-66.1	Maxibor	CT/BA	10/26/2013	
541.96	329.8	-66.1	Maxibor	CT/BA	10/26/2013	
544.91	330	-66.2	Maxibor	CT/BA	10/26/2013	
547.85	330.2	-66.1	Maxibor	CT/BA	10/26/2013	
550.80	330.3	-66.2	Maxibor	CT/BA	10/26/2013	
553.75	330.5	-66.2	Maxibor	CT/BA	10/26/2013	
556.69	330.5	-66.1	Maxibor	CT/BA	10/26/2013	
559.64	330.7	-66.2	Maxibor	CT/BA	10/26/2013	
562.58	330.8	-66.1	Maxibor	CT/BA	10/26/2013	
568.47	331.2	-66.2	Maxibor	CT/BA	10/26/2013	
571.42	331.3	-66.3	Maxibor	CT/BA	10/26/2013	
574.36	331.5	-66.6	Maxibor	CT/BA	10/26/2013	
577.31	331.8	-66.6	Maxibor	CT/BA	10/26/2013	

From	To (m)	
0.00	3.00	Casing
3.00	13.50	Rhyolite Lapilli Tuff Rhyolite Lapilli Tuff. Light grey. Fine fragmental texture, fragments felsic, 1-5mm, rounded. Moderately silicified. Weakly brecciated texture (secondary?) with biotite infilling. Fine grained Pyrite scattered throughout, ~3% overall, rarely forming weak bands. Rusty coating on fractures (weathering).
13.50	18.00	Basalt Flow: Amygdaloidal; Siliceous Silicified Amygdaloidal basalt. Dark grey with light grey patches. Strongly bleached, patchy, though amygdules still visable where bleached. Appears to become brecciated towards lower contact (flow breccia). Scattered fine grained pyrite, usually concentrated near amygdules or forming weak bands, ~5% overall. Trace blebby Chalcopyrite. Contacts lost, core highly broken. Straight quartz/carbonate veins throughout, generally 1-3mm, rarely thicker.
18.00	71.04	Quartz Sericite Pyrite Alteration: Siliceous Quartz Sericite Pyrite alteration. Texture is generally massive, weakly mottled due to alteration. Potentially a Rhyolite Flow? Fine grained. Light grey. Rare sections of fragmental texture, broken out where significant. Silicification is strong. Weak to moderate sericitization. Significant Pyrite, fine to medium grained and scattered in groundmass, also forming stringers (generally tarnished and randomly oriented), 5-10% overall. Potential Pyrite fragments at 54.80m. Fine specks of leucoxene? Scattered throughout. Rare folded/broken quartz/carbonate veins, 2mm-2cm. Lower contact gradational. 27.41 33.01 Rhyolite Debris Flow: Siliceous Rhyolite debris flow? Highly silicified. Mottled. Distinctly fragmental. Fragments felsic, 1mm-5cm, subrounded. Sharp contacts. Pyrite content similar to main unit. 63.14 66.53 Andesite Dyke Intermediate dyke. Fine grained, medium grey. Strongly broken. Relatively unaltered. Frequent white quartz/carbonate veins, 1mm-5cm thick, weakly broken. Trace medium grained euhedral Pyrite.
71.04	73.30	Rhyolite Flow Breccias: Siliceous Strongly silicified rhyolite flow breccia. Light to medium grey, mottled. Felsic, subrounded to subangular fragments weakly apparent, up to 5cm. Fine grained Pyrite scattered throughout, generally accreting into weak bands, 5% overall. Sharp lower contact.
73.30	73.72	Massive Sulphides: Sericite Massive Sulfides. Mainly bands of fine to medium grained Pyrite, 75% Pyrite overall. Host rock appears to be rhyolite fragmental, strongly sericitized. Weak foliation. Sharp contacts.

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
41.81	43.31	1.5	Q015051	0.03	<0.2	0	0.001	0.001
43.31	44.81	1.5	Q015052	0.38	4.9	0.004	0.012	0.012
44.81	46.31	1.5	Q015053	0.02	0.3	0.001	0.001	0.003
46.31	47.11	0.8	Q015054	0.60	25.2	0.007	0.007	0.003
47.11	48.61	1.5	Q015055	0.08	2.7	0.002	0.001	0.001
69.54	71.04	1.5	Q015056	0.03	<0.2	0.001	0.001	0.001
71.04	72.17	1.13	Q015057	0.17	1.1	0.002	0.002	0.003
72.17	73.30	1.13	Q015058	0.05	0.5	0.002	0.002	0.005
73.30	73.72	0.42	Q015059	0.25	3.0	0.003	0.013	0.004

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
73.32	76.38	**Rhyolite Flow Breccias: Siliceous** Strongly silicified Rhyolite Flow Breccia. Fragments are felsic, abundant, subangular, and are commonly rimmed (alteration?). ~5% fine grained Pyrite, often on rims of fragments. Lower contact sharp.	73.72	75.05	1.33	Q015061	0.06	0.8	0.001	0.003	0.004
			75.05	76.38	1.33	Q015062	0.09	0.3	0.001	0.002	0.005
76.38	79.20	**Quartz Sericite Pyrite Alteration: Siliceous** Quartz Sericite Pyrite Alteration. Fairly massive. Mottled due to alteration, light to medium grey. ~3% scattered fine grained Pyrite. Abundant leucoxene? Folded quartz veins throughout, generally <1cm. Sharp lower contact.	76.38	77.88	1.5	Q015063	0.20	1.7	0.002	0.002	0.002
79.20	129.10	**Rhyolite Flow Breccias: Siliceous** Rhyolite Flow Breccia. Highly silicified. Strongly bleached. Weakly sericitized. Fragmental sections are medium to coarse, highly angular, and often have altered rims. Texture varies from brecciated to fragmental, becoming more fragmental downhole. Fragments range in size from 1mm-2cm (rarely up to 5cm), generally mottled, light to medium grey. Rare darker grey, massive, sericitized sections (QSP?). Scattered fine to medium grained Pyrite throughout, generally associated with brecciation or fragment rims, ~5-10% overall. Very trace blebby Chalcopyrite. Fine grained leucoxene? Throughout. Rare thin whitish beige mineral infilling fractures, mainly from 93.6-97.65m and at lower contact, weak faulting? Lower contact gradational. 79.67 80.72 Andesite Dyke	84.00	85.43	1.43	Q015064	0.13	2.4	0.003	0.004	0.008
			85.43	86.43	1	Q015065	0.15	2.9	0.009	0.003	0.004
			86.43	87.93	1.5	Q015066	0.05	0.5	0.002	0.001	0.003
			99.74	101.24	1.5	Q015067	0.06	0.7	0.002	0.001	0.002
			101.24	102.74	1.5	Q015068	0.05	1.1	0.009	0.001	0.002
			102.74	103.75	1.01	Q015069	0.14	3.9	0.018	0.003	0.005
			103.75	105.25	1.5	Q015071	0.02	0.2	0.01	0	0.003
			124.00	125.00	1	Q015072	0.01	0.2	0.001	0	0.002
			125.00	126.00	1	Q015073	0.04	0.9	0.002	0.002	0.002
			126.00	127.00	1	Q015074	0.04	0.7	0.001	0.001	0.001
129.10	132.22	**Quartz Sericite Pyrite Alteration: Siliceous** Quartz Sericite Pyrite alteration, possible rhyolite tuff protolith. Light grey, weakly mottled. Highly silicified. Abundant fine to medium grained Pyrite, disseminated in groundmass and forming bands, 10% overall. Fine grained leucoxene throughout. Fine straight quartz/carbonate ± chlorite veins throughout, 1-3mm. Lower contact gradational.									
132.22	153.04	**Basalt Lapilli Tuff: Chlorite; Siliceous** Basalt? Lapilli Tuff. Strongly silicified groundmass with strongly chloritized fragments. Large, angular (5cm) silicified clast with Pyrite on margins at 139.4m. Otherwise fragments are generally small, 1-5mm, angular and appear mafic. Sections, up to 1m, appear felsic (QSP?). Fine to medium grained Pyrite disseminated throughout in groundmass, as well as occasional 2mm-1cm fine to medium grained lightly folded Pyrite stringers. Gradational lower contact. 143.90 144.10 Quartz Sericite Pyrite Alteration Fragment? Sharp contacts. Massive, highly siliceous.									
153.04	178.00	**Rhyolite Lapilli Tuff: Siliceous** Rhyolite Lapilli Tuff. Light to medium grey. Fairly massive with vague tuffaceous texture, becoming more distinct downhole. Fine fragments, felsic, generally 1-3mm in diameter, rounded. Potentially continuous with previous unit, but significantly less chloritized. Sharp lower contact.	174.48	176.13	1.65	Q015075	0.02	0.3	0.012	0.001	0.011
			176.13	177.06	0.93	Q015076	0.07	0.3	0.002	0.001	0.002
			177.06	178.00	0.94	Q015077	0.04	2.2	0.034	0.033	0.083

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Fine to medium grained Pyrite throughout, disseminated in groundmass as well as forming small (mm scale) bands. Frequent small (1-3mm) often vuggy carbonate veins throughout.									
		160.54 162.09 Basalt Dyke Fine grained, dark green-grey, mafic dyke. Trace Pyrite. Sharp contacts. Wispy carboante veins throughout 1-5mm.									
		174.48 176.13 Basalt Dyke Fine grained, dark green-grey, mafic dyke. Sharp contacts. Wispy carbonate veins throughout 1-5mm. Strongly broken. Fine to medium grained Pyrite scattered throughout, 2% overall.									
		176.13 178.00 Quartz Sericite Pyrite Alteration Likely a Rhyolite Lapilli Tuff, but highly altered. Strongly silicified, moderately sericitized. ~10% fine to medium grained Pyrite disseminated in groundmass. Highly broken, clay infilling some fractures.									
178.00	207.10	Basalt Debris Flow: Siliceous; Chlorite Basalt Debris Flow? Strongly silicified and sometimes chloritized groundmass with chloritized fragments. Alteration can be quite variable, silcification is pervasive in sections. Fragments generally appear mafic (though this could be due to chlorite alteration), but can be siliceous, are generally subangular to angular, 1mm-2cm, rare fragments up to 5cm. Fine to medium grained subhedral Pyrite scattered throughout, ~3% overall. Trace blebby Chalcopyrite.	178.00	179.50	1.5	Q015078	0.01	0.2	0.018	0.004	0.014
			204.60	206.10	1.5	Q015079	<0.01	<0.2	0.071	0	0.004
			206.10	207.10	1	Q015081	0.01	0.3	0.123	0	0.004
		180.55 182.60 Basalt Dyke Fine grained mafic dyke. Dark green-grey. Blocky. Quartz/carbonate/chlorite veins throughout. Small intervals of host rock. Sharp contacts. Trace fine grained Pyrite.									
		183.94 184.10 Basalt Dyke Small fine grained mafic dyke. Dark green-grey. Sharp contacts.									
207.10	209.20	Basalt Dyke : Siliceous; Chlorite Fine grained mafic dyke. Medium to dark green-grey. Weakly silicified and chloritized, possibly an influence from nearby fault? Small (mm scale) carbonate veins. Blocky. Sharp contacts.	207.10	209.20	2.1	Q015082	<0.01	<0.2	0.009	0.001	0.011
209.20	210.03	Fault Zone Strongly broken fault zone. Partially healed with off-white carbonate. Host rock strongly silicified, moderately chloritized, likely fragmental. Fine to medium grained scattered Pyrite, ~2% overall. Sharp contacts.	209.20	210.03	0.83	Q015083	0.01	2.7	0.106	0.001	0.013
210.03	210.31	Basalt Dyke Small fine grained mafic dyke. Frequent small (mm scale) carbonate veins. Sharp contacts.	210.03	210.31	0.28	Q015084	<0.01	<0.2	0.014	0.001	0.016
210.31	213.00	Quartz Sericite Pyrite Alteration: Siliceous									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Quartz sericite pyrite alteration. Strongly silicified, decreasing in intensity downhole, weakly sericitized. Generally massive, light grey. Scattered fine to medium grained subhedral Pyrite, ~5% overall. Fairly blocky for the last ~1m of the unit, maybe be intermixed QSP and BDK. Lower contact lost.	210.31	211.67	1.36	Q015085	<0.01	<0.2	0.017	0	0.004
			211.67	213.00	1.33	Q015086	<0.01	0.3	0.03	0.001	0.008
213.00	222.12	Rhyolite Flow Breccias: Siliceous; Chlorite									
		Rhyolite Flow Breccia? Texture is somewhat obscured due to alteration (strong silicification, moderate chloritization). Fragments are occasionally apparent, appear felsic, angular, "puzzle breccia". Abundant fine to medium grained subhedral Pyrite scattered throughout, ~5% overall. Very trace Pyrrhotite near upper contact. Lower contact indistinct.	213.00	213.22	0.22	Q015087	0.01	0.6	0.057	0.001	0.006
			213.22	214.82	1.6	Q015088	<0.01	<0.2	0.008	0.001	0.008
			214.82	216.42	1.6	Q015089	<0.01	<0.2	0.008	0.001	0.007
			216.42	217.92	1.5	Q015092	<0.01	<0.2	0.014	0.001	0.008
		213.22 216.42 Basalt Dyke									
		Fine grained mafic dyke. Medium to dark green grey. Pervasively weakly silicified. Bands of alteration which appear to be in association with carbonate/anhydrite? veining. Minor Pyrrhotite and Chalcopyrite associated with alteration.									
222.12	230.85	Basalt Debris Flow: Siliceous; Chlorite									
		Basalt Debris Flow? Groundmass strongly silicified, fragments chloritized. Fragments generally appear mafic (though this could be due to alteration), but can be siliceous, are generally subangular to angular, 1mm-2cm, rare fragments up to 5cm. Generally medium grained subhedral Pyrite scattered throughout, ~5% overall. Weak small carbonate veins near upper contact.									
230.85	233.36	Rhyolite Flow Breccias: Siliceous									
		Rhyolite Flow Breccia? Fairly strongly silicified. Fragments distinct, felsic, angular, 2mm-3cm, poorly sorted. Rare small quartz veins, 1-3mm. Quartz-rich (felsic?) "pods" throughout, 2-10mm. Subhedral Pyrite scattered throughout, ~3% overall.									
233.36	243.78	Basalt Debris Flow: Siliceous; Chlorite									
		Basalt Debris Flow? Groundmass strongly silicified, fragments chloritized. Fragments generally appear mafic (though this could be due to alteration), but can be siliceous, are generally subangular to angular, 1mm-2cm, rare fragments up to 5cm. Rare small quartz veins, 1-3mm. Quartz-rich (felsic?) "pods" throughout, 2-10mm. Subhedral Pyrite scattered throughout, ~3% overall. Very trace fine grained Chalcopyrite.	242.28	243.78	1.5	Q015093	0.01	0.2	0.074	0	0.005
243.78	264.03	Rhyolite Flow Breccias: Siliceous									
		Rhyolite Flow Breccia? Strongly silicified. Texture is quite variable, from fairly massive to fragmental. Where fragmental, fragments are generally siliceous, angular, poorly sorted, 1mm-3cm. Sections appear to have sporadic angular biotite-rich fragments, though this may be infilling of breccia? Scattered blebs, veins of Chalcopyrite. Fine to medium grained subhedral Pyrite disseminated throughout, 3-5% overall. Rare broken white quartz veins. Contacts vague.	243.78	245.04	1.26	Q015094	<0.01	0.2	0.055	0	0.004
			245.04	246.30	1.26	Q015095	0.01	<0.2	0.031	0	0.002
			246.30	246.80	0.5	Q015096	0.04	0.7	0.123	0.001	0.003
			246.80	248.30	1.5	Q015097	0.03	0.5	0.069	0.001	0.003
			248.30	249.80	1.5	Q015098	0.01	0.2	0.008	0.001	0.004
			249.80	251.30	1.5	Q015099	0.01	0.2	0.016	0.001	0.005

From	To (m)	
264.03	284.04	**Basalt Debris Flow: Siliceous; Chlorite** Basalt Debris Flow? Groundmass strongly silicified, fragments chloritized. Fragments generally appear mafic (though this could be due to alteration), but can be siliceous, are generally subangular to angular, 1mm-2cm, rare fragments up to 5cm. Rare small quartz veins, 1-3mm. Quartz-rich (felsic?) "pods" throughout, 2-10mm. Subhedral Pyrite scattered throughout, ~5% overall (up to 10% in sections). 268.95 270.19 Basalt Dyke Fine grained mafic dyke. Dark green-grey. Weakly silicified. Small wispy carbonate veins throughout, sometimes with coarse Pyrite associated. Overall trace Pyrite. Sharp contacts. 270.79 271.30 Basalt Dyke Fine grained mafic dyke. Dark green-grey. Weakly silicified. Small wispy carbonate veins throughout. Sharp contacts. 279.88 280.47 Basalt Dyke Fine grained mafic dyke. Dark green-grey. Weakly silicified. Small wispy carbonate veins throughout. Sharp contacts. Inclusion of groundmass. Scattered fine Pyrite.
284.04	286.70	**Quartz Feldspar Porphyry Dyke** Quartz Feldspar Porphyry Dyke. Medium grey. Generally lathe shaped feldspar phenocrysts throughout, typically 1-3mm, finer grained within ~10cm of contacts. Sharp contacts. Trace fine grained Pyrite scattered throughout.
286.70	300.37	**Rhyolite Flow Breccias** Rhyolite Flow Breccia? Light to medium grey. Grades from a more biotite rich fragmental with rounded fragments to a siliceous puzzle breccia. Jasper fragments near lower contact. Elongate felsic "pods" near lower contact, very rarely with Sphalerite associated. Fine to medium grained subhedral Pyrite scattered throughout, more commonly associated with biotite rich areas, ~2% overall. Sharp, irregular lower contact. 290.65 291.00 Basalt Dyke Basalt dyke "fragment". Very sharp angular contacts.

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
251.30	252.80	1.5	Q015101	<0.01	0.6	0.071	0.004	0.006
252.80	254.30	1.5	Q015102	0.01	0.4	0.113	0.001	0.003
254.30	255.80	1.5	Q015103	0.01	0.2	0.028	0	0.002
255.80	257.30	1.5	Q015104	0.01	0.2	0.05	0	0.003
257.30	258.80	1.5	Q015105	0.01	0.3	0.088	0	0.003
258.80	260.30	1.5	Q015106	0.01	0.5	0.167	0.001	0.003
260.30	261.80	1.5	Q015107	0.01	0.2	0.031	0	0.002
261.80	262.91	1.11	Q015108	0.02	0.3	0.062	0	0.002
262.91	264.03	1.12	Q015109	<0.01	0.4	0.21	0	0.004
264.03	265.53	1.5	Q015111	<0.01	0.2	0.102	0	0.003
265.53	267.24	1.71	Q015112	<0.01	0.3	0.076	0	0.004
267.24	268.95	1.71	Q015113	<0.01	0.2	0.029	0	0.004
294.37	295.87	1.5	Q015114	0.02	0.3	0.004	0.001	0.018
295.87	297.37	1.5	Q015115	0.03	0.6	0.003	0.002	0.018
297.37	298.87	1.5	Q015116	0.02	0.4	0.001	0.001	0.005
298.87	300.37	1.5	Q015117	0.01	0.3	0.001	0.001	0.008

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
300.37	300.63	**Semi-Massive Sulphides: Biotite; Sericite** Fine to medium grained subhedral Pyrite hosted in biotite and sericite alteration. ~45% Pyrite overall. Pyrite occasionally forms weak erratically oriented, folded bands.	300.37	300.63	0.26	Q015118	0.03	0.6	0.002	0.002	0.027
300.63	332.05	**Rhyolite Flow: Feldspar; Siliceous; Sericite** Feldpsar Phyric Rhyolite Flow. Highly siliceous. Localized sericite alteration. Feldspar phenocrysts generally not apparent, but is similar in nature to Feldspar Phyric units in TC13066. Massive, homogenous, mottled due to alteration. Light to medium grey. Minor brecciation, likely secondary. Very frequent thick white quartz veins that are not present elsewhere in this hole, ~5% of unit overall, 0.5-25cm thick, often broken and containing fragments of host rock. Minor fine grained Pyrite scattered thoughout, ~1% overall, occasionally forming weak stringers and up to 5%. Sharp contacts.	300.63	302.13	1.5	Q015119	0.02	0.5	0.001	0.002	0.009
			302.13	303.63	1.5	Q015121	0.01	0.2	0.002	0.001	0.004
322.05	370.47	**Rhyolite Flow Breccias: Siliceous** Rhyolite Flow Breccia. Highly silicified, increasing towards lower contact. Especially altered 362.07-367.70m. Fragments, where present, are angular, felsic, and generally 1mm-2cm. Sections are more massive, potentially fragments absorbed due to alteration. Fine grained Pyrite scattered throughout, rarely forming weak bands, increasing near lower contact. Very rare 0.5-2cm white quartz veins. 333.70 340.50 Fault Zone Highly broken. Occasional white quartz veins healing fault breccia. 360.51 362.07 Basalt Dyke Medium grey, fine grained, mafic dyke. Weakly silicified or slightly more felsic in nature than most mafic dykes in this area. Sharp contacts.	367.50	369.00	1.5	Q015201	0.01	<0.2	0.016	0	0.002
			369.00	370.47	1.47	Q015202	0.02	0.3	0.086	0.001	0.004
370.47	371.08	**Semi-Massive Sulphides** Fine to medium grained Pyrite hosted in rhyolite fragmental, ~45% Pyrite overall. Appears to be a low angle stringer. Sharp contacts.	370.47	371.08	0.61	Q015203	0.14	1.8	0.317	0.005	0.011
371.08	394.35	**Rhyolite Flow Breccias: Siliceous** Rhyolite Flow Breccia? May be a debris flow. If so, contact between flow breccia and debris flow lost in alteration/dykes. Fragments are angular to subrounded, typically 1mm-3cm, and seem to be varied in composition (or are variably altered). Jasper fragments 381.90m to lower contact. Fragments? Of amygdaloidal basalt (composition similar to next unit) 390.08-390.96m, 391.57-391.90m with strong Pyrite and trace Chalopyrite, sharp irregular contacts. Otherwise ~2% scattered fine to coarse grained Pyrite throughout, very trace Chalcopyrite. Minor small, ~1cm, quartz veins, folded or broken throughout. Sharp lower contact. 372.36 373.90 Basalt Dyke Fine grained, dark grey, mafic dyke. Fine grained veins of Pyrite, ~1% overall. Sharp contacts. Lower half of unit is strongly broken.	371.08	372.36	1.28	Q015204	0.01	0.3	0.005	0.001	0.003
			372.36	373.90	1.54	Q015205	0.01	<0.2	0.005	0.001	0.012
			373.90	375.58	1.68	Q015206	0.02	<0.2	0.003	0.001	0.003
			375.58	376.50	0.92	Q015207	0.01	<0.2	0.006	0.001	0.013
			376.50	378.00	1.5	Q015208	0.02	0.2	0.01	0.001	0.003
			378.00	379.50	1.5	Q015122	<0.01	0.3	0.083	0	0.004
			379.50	381.00	1.5	Q015123	0.01	0.3	0.033	0.001	0.003
			381.00	382.50	1.5	Q015124	0.01	<0.2	0.018	0	0.003
			382.50	384.00	1.5	Q015125	0.01	<0.2	0.005	0.001	0.002
			384.00	385.50	1.5	Q015126	0.01	0.2	0.026	0.001	0.003
			385.50	387.00	1.5	Q015127	0.02	<0.2	0.009	0.001	0.002

From	To (m)			
		373.90	375.58	Quartz Sericite Pyrite Alteration Strongly silicified Rhyolite. Likely highly altered version of main unit. Original texture obscured. ~5% fine grained scattered Pyrite.
		375.58	376.50	Basalt Dyke Fine grained, dark grey, mafic dyke. Sharp contacts. Scattered veins of Pyrite throughout, ~1% overall.
394.35	563.40	Amygdaloidal basaltic flow: Amygdaloidal; Pyrite Amygdaloidal Basalt. Groundmass is fine grained, black, but can be mottled and appear almost fragmental. Amygdules generally range in size from 1-5mm, are most commonly infilled with quartz, but can also contain chlorite, epidote, jasper, and/or sulphides (pyrite, chalcopyrite), and vary greatly in abundance, generally 1-10%. Occasional weak foliation, elogate amygdules. Common reddish Jasper alteration throughout, rarely in amygdules, typically in blebs or large (cm scale) bands associated with quartz. Infrequent thin (<1cm) quartz/carbonate veins scattered throughout, more frequent where faulted. Generally weakly altered, though silicification/epidotization is present in places. Sulphide mineralization is frequent, ~10% sub-euhedral fine to medium grained Pyrite throughout, sometimes forming clusters or bands. Overall trace (locally up to 4%) fine to medium grained blebby Chalcopyrite, generally in amygdules or in tension fractures associated with Jasper alteration, very rarely in veins. Core is typically magnetic. Lower contact sharp? 542-548.2m: thin mafic bands, 3-15cm thick, very sharp high angle contact, possibly small dykes though texture appears tuffaceous?			
		400.00	401.00	Fault Zone Silicified, epidotized basalt groundmass. Weakly healed fault breccia. Frequent small quartz/carbonate veins.
		408.50	413.80	Fault Zone Silicified, epidotized basalt groundmass. Moderately healed fault breccia. Frequent small quartz/carbonate veins.
		451.76	452.52	Basalt Dyke Fine grained, dark grey mafic dyke. Composition very similar to main unit, but is near barren with respect to sulphides and amygdules are not present.
		458.75	459.22	Fault Zone Groundmass strongly silicified/epidotized. Strong fabric. Frequent carbonate veins.
		469.96	470.40	Fault Zone Groundmass strongly silicified/epidotized. Strong fabric. Frequent carbonate veins.
		508.55	511.24	Basalt Dyke : Siliceous Basalt Dyke. Fairly massive. Moderately silicified, weakly chloritized. Low angle quartz/carbonate veining. Generally trace Pyrite associated with veining.

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
387.00	388.50	1.5	Q015128	<0.01	<0.2	0.015	0.001	0.002
388.50	390.07	1.57	Q015129	0.01	<0.2	0.038	0.004	0.004
390.07	390.93	0.86	Q015132	0.01	<0.2	0.016	0.002	0.016
390.93	391.58	0.65	Q015133	<0.01	<0.2	0.018	0.001	0.003
391.58	391.90	0.32	Q015134	0.02	0.2	0.124	0.001	0.012
391.90	393.12	1.22	Q015135	<0.01	<0.2	0.075	0	0.004
393.12	394.35	1.23	Q015136	<0.01	<0.2	0.019	0	0.002
394.35	395.85	1.5	Q015137	0.01	<0.2	0.121	0.001	0.009
395.85	397.35	1.5	Q015138	0.01	<0.2	0.223	0	0.008
397.35	398.85	1.5	Q015139	0.01	0.3	0.383	0	0.009
398.85	400.00	1.15	Q015141	0.04	4.2	0.767	0.002	0.015
400.00	401.00	1	Q015142	0.01	1.2	0.061	0.001	0.01
401.00	402.50	1.5	Q015143	0.01	0.5	0.059	0.001	0.01
402.50	404.00	1.5	Q015144	0.01	1.2	0.103	0	0.01
404.00	405.50	1.5	Q015145	0.01	1.6	0.093	0	0.009
405.50	407.00	1.5	Q015146	0.01	1.9	0.129	0	0.011
407.00	408.50	1.5	Q015147	0.01	0.6	0.054	0.001	0.008
408.50	410.00	1.5	Q015148	0.01	0.8	0.037	0.001	0.007
410.00	411.50	1.5	Q015149	0.01	1.0	0.042	0.001	0.007
411.50	412.65	1.15	Q015150	0.02	1.4	0.091	0.001	0.009
412.65	413.80	1.15	Q015151	0.02	1.4	0.202	0.001	0.01
413.80	415.30	1.5	Q015153	<0.01	0.6	0.148	0.001	0.013
415.30	416.80	1.5	Q015154	<0.01	0.3	0.174	0.001	0.009
416.80	418.30	1.5	Q015155	<0.01	<0.2	0.171	0.001	0.008
418.30	419.80	1.5	Q015156	0.01	<0.2	0.067	0.001	0.009
419.80	421.30	1.5	Q015157	<0.01	<0.2	0.083	0.001	0.009
421.30	422.80	1.5	Q015158	<0.01	0.2	0.088	0.001	0.008
422.80	424.30	1.5	Q015159	<0.01	<0.2	0.038	0	0.009
424.30	425.80	1.5	Q015161	<0.01	<0.2	0.038	0.001	0.008
425.80	427.30	1.5	Q015162	<0.01	0.2	0.087	0.001	0.007
427.30	428.80	1.5	Q015163	<0.01	<0.2	0.024	0.001	0.007
428.80	430.30	1.5	Q015164	<0.01	<0.2	0.003	0.001	0.006
430.30	431.80	1.5	Q015165	<0.01	<0.2	0.072	0.001	0.009
431.80	433.30	1.5	Q015166	0.01	<0.2	0.148	0.001	0.009
433.30	434.80	1.5	Q015167	0.01	<0.2	0.091	0.001	0.007
434.80	436.30	1.5	Q015168	0.01	<0.2	0.006	0.001	0.009
436.30	437.80	1.5	Q015169	0.01	<0.2	0.014	0.001	0.008
437.80	439.30	1.5	Q015172	<0.01	0.2	0.164	0.001	0.014
439.30	440.80	1.5	Q015173	<0.01	0.3	0.166	0.001	0.012
440.80	442.30	1.5	Q015174	<0.01	0.3	0.11	0.001	0.012
442.30	443.80	1.5	Q015175	<0.01	0.2	0.124	0.001	0.012

From	To (m)		
	517.72	521.41	Basalt Dyke : Siliceous Basalt Dyke. Fairly massive. Moderately silicified, weakly chloritized. Low angle quartz/carbonate veining. Generally trace medium grained Pyrite or Magnetite assciated with veining.
	525.24	525.96	Basalt Dyke Fine grained, dark grey basalt dyke. Weakly silicified. Low angle fine (mm scale) carbonate vein. Scattered trace fine grained Pyrite.

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
443.80	445.30	1.5	Q015176	0.01	0.2	0.126	0.001	0.011
445.30	446.80	1.5	Q015177	<0.01	0.3	0.161	0.001	0.011
446.80	448.30	1.5	Q015178	<0.01	<0.2	0.098	0.001	0.011
448.30	449.80	1.5	Q015179	<0.01	<0.2	0.101	0.001	0.012
449.80	451.76	1.96	Q015181	<0.01	0.2	0.137	0.001	0.012
451.76	452.42	0.66	Q015182	<0.01	<0.2	0.012	0	0.01
452.42	454.00	1.58	Q015183	<0.01	0.4	0.125	0.001	0.013
454.00	455.50	1.5	Q015184	<0.01	0.2	0.138	0.001	0.011
455.50	457.00	1.5	Q015185	<0.01	0.3	0.18	0.001	0.011
457.00	458.75	1.75	Q015186	<0.01	0.3	0.14	0.001	0.014
458.75	459.22	0.47	Q015187	0.01	1.1	0.118	0.002	0.01
459.22	460.75	1.53	Q015188	<0.01	1.1	0.35	0.001	0.013
460.75	462.25	1.5	Q015189	<0.01	<0.2	0.145	0.001	0.013
462.25	463.75	1.5	Q015191	<0.01	0.2	0.127	0.001	0.013
463.75	465.25	1.5	Q015192	0.01	0.2	0.142	0.001	0.015
465.25	466.75	1.5	Q015193	<0.01	0.2	0.104	0.001	0.015
466.75	468.25	1.5	Q015194	0.01	<0.2	0.019	0.001	0.011
468.25	469.96	1.71	Q015195	<0.01	<0.2	0.049	0.001	0.008
469.96	471.40	1.44	Q015196	0.01	0.5	0.035	0.002	0.01
471.40	473.00	1.6	Q015197	0.04	0.7	0.042	0.002	0.009
473.00	474.50	1.5	Q015198	0.02	0.6	0.071	0.002	0.008
474.50	476.00	1.5	Q015199	0.01	<0.2	0.016	0.002	0.007
476.00	477.50	1.5	Q015209	0.03	0.2	0.021	0.003	0.007
477.50	479.00	1.5	Q015211	0.03	0.4	0.033	0.006	0.01
479.00	480.50	1.5	Q015212	0.02	0.3	0.009	0.009	0.012
480.50	482.00	1.5	Q015213	0.02	0.4	0.047	0.006	0.011
482.00	483.50	1.5	Q015214	0.01	0.3	0.039	0.002	0.009
483.50	485.00	1.5	Q015215	0.03	0.6	0.038	0.012	0.008
485.00	486.50	1.5	Q015216	0.01	0.2	0.046	0.001	0.009
486.50	488.00	1.5	Q015217	0.01	0.2	0.054	0.001	0.008
488.00	489.50	1.5	Q015218	0.01	0.3	0.052	0.001	0.009
489.50	491.00	1.5	Q015219	0.01	<0.2	0.038	0.001	0.01
491.00	492.50	1.5	Q015221	0.01	<0.2	0.02	0.002	0.011
492.50	494.00	1.5	Q015222	0.02	<0.2	0.004	0.002	0.013
494.00	495.50	1.5	Q015223	0.01	<0.2	0.003	0.001	0.015
495.50	497.00	1.5	Q015224	0.01	<0.2	0.053	0.001	0.013
497.00	498.50	1.5	Q015225	0.01	<0.2	0.017	0.001	0.013
498.50	500.00	1.5	Q015226	0.01	<0.2	0.023	0.001	0.014
500.00	501.50	1.5	Q015227	0.01	0.4	0.096	0.001	0.017
501.50	503.00	1.5	Q015228	0.03	0.8	0.183	0.001	0.018
503.00	504.50	1.5	Q015229	0.01	1.4	0.295	0.001	0.013
504.50	506.00	1.5	Q015232	0.02	0.9	0.228	0.001	0.019

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
			506.00	507.50	1.5	Q015233	0.01	0.7	0.221	0.001	0.017
			507.50	508.55	1.05	Q015234	0.01	0.5	0.126	0.001	0.014
			508.55	509.89	1.34	Q015235	<0.01	<0.2	0.016	0.002	0.013
			509.89	511.24	1.35	Q015236	<0.01	<0.2	0.014	0.001	0.012
			511.24	512.75	1.51	Q015237	0.01	0.9	0.201	0.001	0.012
			512.75	514.25	1.5	Q015238	0.02	1.3	0.383	0	0.01
			514.25	515.75	1.5	Q015239	0.02	0.5	0.169	0.001	0.013
			515.75	517.22	1.47	Q015241	0.01	0.5	0.205	0.001	0.009
			517.22	518.62	1.4	Q015242	<0.01	<0.2	0.053	0.002	0.01
			518.62	520.02	1.4	Q015243	<0.01	<0.2	0.01	0.002	0.009
			520.02	521.41	1.39	Q015244	<0.01	<0.2	0.009	0.002	0.01
			521.41	522.91	1.5	Q015245	0.01	0.3	0.087	0.001	0.012
			522.91	524.41	1.5	Q015246	0.04	<0.2	0.013	0.001	0.01
			524.41	525.42	1.01	Q015247	0.03	<0.2	0.014	0.001	0.01
			525.42	525.96	0.54	Q015248	<0.01	<0.2	0.01	0.001	0.011
			525.96	527.50	1.54	Q015249	0.03	<0.2	0.009	0.001	0.011
			527.50	529.00	1.5	Q015251	0.03	0.6	0.084	0.002	0.014
			529.00	530.50	1.5	Q015252	0.02	0.9	0.134	0.001	0.021
			530.50	532.00	1.5	Q015253	0.02	<0.2	0.004	0.001	0.014
			532.00	533.50	1.5	Q015254	0.03	0.3	0.006	0.001	0.017
			533.50	535.00	1.5	Q015255	0.02	0.7	0.056	0.001	0.017
			535.00	536.50	1.5	Q015256	0.03	1.2	0.074	0.001	0.021
			536.50	538.00	1.5	Q015257	0.03	1.3	0.127	0.001	0.022
			538.00	539.50	1.5	Q015258	0.05	0.8	0.053	0.001	0.026
			539.50	541.00	1.5	Q015259	0.03	0.9	0.106	0.001	0.014
			541.00	542.50	1.5	Q015261	0.03	0.3	0.058	0.001	0.011
			542.50	544.00	1.5	Q015262	0.03	0.7	0.154	0.002	0.013
			544.00	545.50	1.5	Q015263	0.03	0.9	0.179	0.001	0.017
			545.50	547.00	1.5	Q015264	0.04	2.0	0.517	0.001	0.024
			547.00	548.50	1.5	Q015265	0.02	1.9	0.343	0.001	0.041
			548.50	550.00	1.5	Q015266	0.03	1.6	0.265	0.002	0.05
			550.00	551.50	1.5	Q015267	0.04	1.5	0.215	0.001	0.034
			551.50	553.00	1.5	Q015268	0.01	<0.2	0.031	0.001	0.018
			553.00	554.50	1.5	Q015269	0.02	0.2	0.053	0.001	0.023
			554.50	556.00	1.5	Q015272	0.04	1.0	0.176	0.002	0.039
			556.00	557.50	1.5	Q015273	0.03	0.6	0.079	0.002	0.029
			557.50	559.00	1.5	Q015274	0.03	<0.2	0.007	0.001	0.019
			559.00	560.50	1.5	Q015275	0.02	<0.2	0.002	0.001	0.019
			560.50	562.00	1.5	Q015276	0.01	<0.2	0.004	0.001	0.027
			562.00	563.40	1.4	Q015277	0.01	<0.2	0.009	0.001	0.022
563.40	588.00	Basalt Flow: Amygdaloidal									

From	To (m)	
		Amygdaloidal Basalt Flow. Distinct from previous unit. Groundmass is massive, fine grained, black. Amygdules are faint, typically carbonate or chlorite filled, ± sulphides (very rarely epidotized), 1-5mm, typically elongate, and generally fewer than previous unit (1-5%). Pyrite scattered throughout, fine to medium grained disseminated in groundmass, infilling amygdules, or forming low angle bands (up to cm scale) ~3% overall. Chalcopyrite is generally trace and found in amygdules. Fairly common quartz/chlorite ± carbonate veins throughout, 0.5-3cm thick, straight, oriented ~45-65 degrees, angle generally decreases downhole.
588.00	588.00	End of Hole

From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
563.40	565.00	1.6	Q015278	0.02	0.2	0.023	0.001	0.015
565.00	566.50	1.5	Q015279	0.01	0.2	0.045	0.001	0.01
566.50	568.00	1.5	Q015281	0.02	0.3	0.075	0.001	0.011
568.00	569.50	1.5	Q015282	0.03	0.3	0.031	0.001	0.01
569.50	571.00	1.5	Q015283	0.01	0.3	0.037	0.001	0.011
571.00	572.50	1.5	Q015284	0.01	0.3	0.043	0.001	0.01
572.50	574.00	1.5	Q015285	0.02	0.2	0.026	0.001	0.011
574.00	575.50	1.5	Q015286	0.01	0.6	0.068	0.001	0.01
575.50	577.00	1.5	Q015287	0.02	<0.2	0.006	0.001	0.009
577.00	578.50	1.5	Q015288	0.01	<0.2	0.034	0.001	0.012
578.50	580.00	1.5	Q015289	0.05	0.6	0.016	0.046	0.016
580.00	581.50	1.5	Q015291	<0.01	<0.2	0.012	0.002	0.014
581.50	583.00	1.5	Q015292	<0.01	<0.2	0.013	0.001	0.01
583.00	584.50	1.5	Q015293	0.06	0.4	0.003	0.002	0.013
584.50	586.00	1.5	Q015294	0.01	<0.2	0.004	0.001	0.016
586.00	587.00	1	Q015295	0.01	<0.2	0.004	0.001	0.01
587.00	588.00	1	Q015296	0.02	<0.2	0.004	0.001	0.015

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q015051	41.81	43.31	1.5		0.025							<0.2	0.51	14	30	<0.5	<2	0.30	<0.5	11	3	4
Q015052	43.31	44.81	1.5		0.380							4.9	0.38	246	10	<0.5	12	0.24	0.8	48	5	38
Q015053	44.81	46.31	1.5		0.021							0.3	0.57	36	30	<0.5	2	0.34	<0.5	10	3	5
Q015054	46.31	47.11	0.8		0.604							25.2	0.38	172	10	<0.5	20	0.21	<0.5	34	3	74
Q015055	47.11	48.61	1.5		0.075							2.7	0.50	27	20	<0.5	6	0.35	<0.5	11	3	15
Q015056	69.54	71.04	1.5		0.028							<0.2	0.70	22	30	<0.5	4	0.31	<0.5	12	3	9
Q015057	71.04	72.17	1.13		0.172							1.1	0.57	72	20	<0.5	6	0.28	<0.5	24	2	22
Q015058	72.17	73.30	1.13		0.046							0.5	0.41	44	20	<0.5	6	0.25	<0.5	7	2	20
Q015059	73.30	73.72	0.42		0.250							3.0	0.44	128	10	<0.5	18	0.25	<0.5	38	2	33
Q015061	73.72	75.05	1.33		0.055							0.8	0.57	36	30	<0.5	<2	0.33	<0.5	7	2	11
Q015062	75.05	76.38	1.33		0.094							0.3	0.59	57	30	<0.5	<2	0.39	<0.5	7	2	9
Q015063	76.38	77.88	1.5		0.200							1.7	0.63	55	20	<0.5	<2	0.31	<0.5	6	2	15
Q015064	84.00	85.43	1.43		0.125							2.4	0.60	47	20	<0.5	2	0.22	0.5	5	3	29
Q015065	85.43	86.43	1		0.153							2.9	0.56	63	30	<0.5	<2	0.29	<0.5	3	2	86
Q015066	86.43	87.93	1.5		0.050							0.5	0.76	41	40	<0.5	<2	0.38	<0.5	4	2	25
Q015067	99.74	101.24	1.5		0.060							0.7	0.75	82	30	<0.5	<2	0.43	<0.5	14	2	21
Q015068	101.24	102.74	1.5		0.048							1.1	0.55	87	30	<0.5	<2	0.31	<0.5	11	1	92
Q015069	102.74	103.75	1.01		0.144							3.9	0.64	205	10	<0.5	3	0.38	<0.5	47	1	180
Q015071	103.75	105.25	1.5		0.024							0.2	0.81	52	30	<0.5	<2	0.38	<0.5	12	2	102
Q015072	124.00	125.00	1		0.008							0.2	1.03	24	40	<0.5	<2	0.37	<0.5	4	1	5
Q015073	125.00	126.00	1		0.043							0.9	0.77	48	40	<0.5	<2	0.36	<0.5	5	2	16
Q015074	126.00	127.00	1		0.042							0.7	0.70	38	50	<0.5	<2	0.32	<0.5	5	2	7
Q015075	174.48	176.13	1.65		0.018							0.3	6.61	22	50	0.5	<2	1.80	<0.5	34	49	120
Q015076	176.13	177.06	0.93		0.067							0.3	0.94	121	20	<0.5	<2	0.78	<0.5	19	3	22
Q015077	177.06	178.00	0.94		0.041							2.2	0.89	38	20	<0.5	<2	0.71	9.3	19	1	343
Q015078	178.00	179.50	1.5		0.014							0.2	1.80	8	30	<0.5	<2	0.63	<0.5	7	3	178
Q015079	204.60	206.10	1.5		<0.005							<0.2	1.20	9	150	<0.5	<2	0.20	<0.5	3	3	711
Q015081	206.10	207.10	1		0.009							0.3	1.44	10	30	<0.5	<2	0.28	<0.5	12	2	1225
Q015082	207.10	209.20	2.1		<0.005							<0.2	5.01	5	900	<0.5	<2	2.07	<0.5	35	163	92
Q015083	209.20	210.03	0.83		0.005							2.7	1.98	63	210	0.6	<2	5.91	<0.5	29	31	1065
Q015084	210.03	210.31	0.28		<0.005							<0.2	6.29	9	2270	0.8	<2	3.38	<0.5	34	109	135
Q015085	210.31	211.67	1.36		<0.005							<0.2	1.31	9	80	<0.5	<2	1.63	<0.5	9	11	170
Q015086	211.67	213.00	1.33		<0.005							0.3	3.03	24	120	0.5	<2	1.33	<0.5	16	33	298
Q015087	213.00	213.22	0.22		0.008							0.6	2.46	45	160	<0.5	<2	2.36	<0.5	15	12	570
Q015088	213.22	214.82	1.6		<0.005							<0.2	4.52	8	700	<0.5	<2	2.02	<0.5	35	140	81
Q015089	214.82	216.42	1.6		<0.005							<0.2	4.15	10	580	<0.5	<2	2.14	<0.5	34	152	83
Q015092	216.42	217.92	1.5		<0.005							<0.2	1.18	6	50	<0.5	<2	0.19	<0.5	7	3	145
Q015093	242.28	243.78	1.5		0.005							0.2	1.11	16	50	<0.5	<2	0.15	<0.5	10	3	736
Q015094	243.78	245.04	1.26		<0.005							0.2	0.83	25	40	<0.5	<2	0.15	<0.5	11	2	550
Q015095	245.04	246.30	1.26		0.011							<0.2	0.72	29	60	<0.5	<2	0.11	<0.5	11	4	308
Q015096	246.30	246.80	0.5		0.040							0.7	0.65	55	20	<0.5	3	0.08	<0.5	30	3	1225
Q015097	246.80	248.30	1.5		0.025							0.5	0.60	27	40	<0.5	<2	0.11	<0.5	18	3	690
Q015098	248.30	249.80	1.5		0.007							0.2	0.92	28	40	<0.5	<2	0.13	<0.5	10	4	76
Q015099	249.80	251.30	1.5		0.006							0.2	0.87	50	50	<0.5	2	0.11	<0.5	12	3	156
Q015101	251.30	252.80	1.5		<0.005							0.6	1.04	37	90	<0.5	<2	0.11	<0.5	8	2	708
Q015102	252.80	254.30	1.5		0.008							0.4	1.05	49	110	<0.5	5	0.12	<0.5	6	4	1135
Q015103	254.30	255.80	1.5		0.006							0.2	0.85	54	30	<0.5	<2	0.10	<0.5	7	3	284
Q015104	255.80	257.30	1.5		0.008							0.2	1.02	15	50	<0.5	2	0.12	<0.5	12	2	501

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q015051	2.75	1	0.35	10		0.08	86	1	0.01	1	710	5	2.93	<2	1			38	<0.01	<10	1	<10		13
Q015052	7.52	1	0.27	<10		0.06	80	87	0.01	8	600	124	9.25	11	1			35	<0.01	<10	1	<10		120
Q015053	2.57	<1	0.41	10		0.08	122	6	0.01	2	780	9	2.61	<2	2			15	<0.01	<10	1	<10		30
Q015054	10.55	1	0.28	<10		0.05	107	22	0.01	8	430	65	>10.00	10	1			33	<0.01	<10	1	<10		28
Q015055	3.14	1	0.36	10		0.07	130	7	0.01	1	720	10	3.34	3	2			22	<0.01	<10	1	<10		9
Q015056	3.88	<1	0.44	<10		0.14	129	4	0.03	<1	730	6	4.02	2	2			12	0.02	<10	1	<10		13
Q015057	5.82	1	0.37	<10		0.08	100	9	0.02	1	750	18	6.93	5	2			9	0.01	<10	2	<10		34
Q015058	3.95	<1	0.29	<10		0.04	66	5	0.01	<1	780	16	4.38	6	1			8	0.01	<10	1	<10		55
Q015059	23.10	1	0.32	<10		0.04	80	17	0.01	1	710	126	>10.00	9	1			9	0.02	<10	2	<10		45
Q015061	3.35	<1	0.37	<10		0.06	137	3	0.01	1	690	30	3.75	<2	1			12	0.01	<10	1	<10		39
Q015062	4.15	1	0.41	<10		0.09	162	3	<0.01	2	790	15	4.75	<2	2			15	0.01	<10	1	<10		49
Q015063	4.74	1	0.42	<10		0.07	113	4	0.01	2	640	19	5.84	<2	2			12	0.01	<10	2	<10		19
Q015064	4.64	<1	0.39	<10		0.08	92	6	0.01	5	540	45	5.37	2	2			10	0.01	<10	2	<10		77
Q015065	4.29	1	0.33	<10		0.13	134	3	0.03	1	570	29	4.92	16	2			12	0.01	<10	1	<10		35
Q015066	3.61	1	0.50	10		0.19	188	3	0.01	2	740	10	3.76	<2	2			19	0.01	<10	1	<10		32
Q015067	3.99	<1	0.46	10		0.19	219	4	0.03	1	760	14	4.39	3	2			22	0.01	<10	2	<10		21
Q015068	3.60	<1	0.37	<10		0.13	165	3	0.02	<1	690	8	3.95	6	2			15	0.01	<10	2	<10		21
Q015069	9.59	<1	0.41	<10		0.12	190	7	0.02	<1	900	27	>10.00	7	2			20	0.01	<10	3	<10		52
Q015071	4.16	<1	0.54	10		0.23	276	1	0.02	1	780	4	4.45	<2	2			20	0.01	<10	2	<10		33
Q015072	3.62	1	0.68	10		0.34	303	3	0.02	<1	760	3	3.57	<2	3			18	0.03	<10	2	<10		17
Q015073	3.05	<1	0.53	10		0.24	255	7	0.02	1	660	21	3.03	<2	2			18	0.02	<10	2	<10		18
Q015074	2.83	<1	0.47	10		0.19	203	2	0.02	4	730	7	2.88	<2	2			18	0.01	<10	2	<10		14
Q015075	7.28	1	3.31	<10		4.12	1235	3	0.40	36	830	12	3.01	16	29			131	0.28	<10	228	<10		109
Q015076	4.28	<1	0.49	<10		0.41	226	6	0.03	3	1010	11	4.45	3	3			55	0.02	<10	11	<10		23
Q015077	6.45	<1	0.37	<10		0.47	269	25	0.01	3	700	331	7.48	106	3			26	<0.01	<10	5	<10		827
Q015078	4.34	<1	0.90	<10		1.03	466	2	0.05	2	720	36	3.52	20	4			38	0.06	<10	6	<10		141
Q015079	2.50	<1	0.66	10		0.64	417	1	0.01	1	230	2	1.44	15	2			25	0.03	<10	2	<10		36
Q015081	4.30	<1	0.68	10		0.79	474	2	0.03	1	230	3	3.25	20	3			25	0.03	<10	4	<10		45
Q015082	6.05	<1	1.26	<10		5.01	1730	<1	0.17	62	520	8	0.13	17	29			86	0.19	<10	248	<10		109
Q015083	5.73	1	0.40	<10		3.11	2530	1	0.01	33	340	8	1.30	266	14			369	<0.01	<10	50	<10		132
Q015084	6.93	<1	3.44	<10		4.46	2360	<1	0.20	51	580	8	0.10	10	33			217	0.24	<10	232	<10		156
Q015085	3.39	<1	0.48	<10		0.88	787	2	0.05	5	250	2	2.07	14	5			86	0.01	<10	17	<10		39
Q015086	4.90	<1	0.59	<10		2.36	1055	2	0.10	16	350	9	1.73	19	13			96	0.04	<10	84	<10		83
Q015087	3.99	1	0.66	<10		1.82	1085	1	0.16	9	250	9	1.60	13	7			122	0.03	<10	41	<10		63
Q015088	5.62	<1	1.04	<10		4.35	1280	<1	0.19	56	590	10	0.32	11	24			102	0.18	<10	245	<10		82
Q015089	5.49	<1	0.69	<10		4.21	1245	<1	0.19	59	560	6	0.24	14	18			141	0.19	<10	222	<10		74
Q015092	3.00	1	0.69	10		0.53	261	1	0.04	2	250	6	2.29	4	2			26	0.04	<10	3	<10		82
Q015093	3.47	<1	0.67	10		0.56	253	2	0.01	2	240	3	2.84	12	2			12	0.03	<10	1	<10		46
Q015094	3.78	<1	0.51	10		0.39	190	2	0.01	1	230	<2	3.61	10	2			10	0.02	<10	1	<10		36
Q015095	3.42	<1	0.46	10		0.29	159	5	0.01	1	220	3	3.17	6	1			9	0.02	<10	2	<10		24
Q015096	6.05	<1	0.42	<10		0.21	124	8	<0.01	1	140	6	7.11	8	1			7	0.01	<10	3	<10		27
Q015097	4.08	<1	0.39	<10		0.21	112	5	<0.01	1	220	8	4.33	11	1			8	0.01	<10	2	<10		30
Q015098	4.25	<1	0.56	10		0.42	205	3	0.01	1	240	7	4.10	6	2			9	0.02	<10	1	<10		41
Q015099	3.84	<1	0.53	10		0.40	185	1	0.01	2	240	8	3.70	4	2			7	0.02	<10	1	<10		47
Q015101	3.20	<1	0.59	10		0.60	280	1	0.01	1	230	40	2.43	12	2			8	0.02	<10	2	<10		61
Q015102	3.02	<1	0.57	10		0.62	280	1	<0.01	<1	230	5	2.33	30	2			9	0.02	<10	3	<10		33
Q015103	4.38	<1	0.52	10		0.38	176	1	<0.01	2	260	4	4.38	17	2			6	0.02	<10	1	<10		21
Q015104	3.91	<1	0.58	10		0.59	264	1	0.01	2	230	3	3.18	20	2			8	0.02	<10	2	<10		28

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q015105	257.30	258.80	1.5		0.008							0.3	1.06	20	50	<0.5	<2	0.12	<0.5	10	3	877
Q015106	258.80	260.30	1.5		0.007							0.5	1.12	28	90	<0.5	<2	0.12	<0.5	5	3	1670
Q015107	260.30	261.80	1.5		0.009							0.2	0.86	46	90	<0.5	<2	0.10	<0.5	7	2	305
Q015108	261.80	262.91	1.11		0.020							0.3	0.72	50	80	<0.5	<2	0.08	<0.5	11	2	617
Q015109	262.91	264.03	1.12		<0.005							0.4	1.33	50	100	<0.5	2	0.11	<0.5	5	2	2100
Q015111	264.03	265.53	1.5		<0.005							0.2	1.40	34	150	<0.5	<2	0.18	<0.5	5	2	1025
Q015112	265.53	267.24	1.71		<0.005							0.3	1.70	14	90	<0.5	<2	0.17	<0.5	10	2	761
Q015113	267.24	268.95	1.71		<0.005							0.2	2.22	14	60	<0.5	2	0.24	<0.5	12	3	291
Q015114	294.37	295.87	1.5		0.023							0.3	0.61	28	30	<0.5	<2	0.19	1.0	20	2	38
Q015115	295.87	297.37	1.5		0.031							0.6	0.70	23	20	<0.5	<2	0.22	1.1	34	3	30
Q015116	297.37	298.87	1.5		0.019							0.4	0.67	24	40	<0.5	<2	0.25	<0.5	16	3	7
Q015117	298.87	300.37	1.5		0.010							0.3	0.91	12	30	<0.5	<2	0.26	<0.5	20	3	9
Q015118	300.37	300.63	0.26		0.026							0.6	0.74	24	20	<0.5	3	0.23	2.1	56	2	23
Q015119	300.63	302.13	1.5		0.015							0.5	0.46	19	30	<0.5	<2	0.27	0.9	8	5	10
Q015121	302.13	303.63	1.5		0.010							0.2	0.39	17	30	<0.5	<2	0.31	<0.5	9	6	17
Q015201	367.50	369.00	1.5		0.007							<0.2	0.57	8	30	<0.5	<2	0.32	<0.5	12	5	157
Q015202	369.00	370.47	1.47		0.018							0.3	0.92	21	20	<0.5	9	0.37	0.9	24	4	865
Q015203	370.47	371.08	0.61		0.144							1.8	0.75	83	10	<0.5	15	0.27	14.2	69	5	3170
Q015204	371.08	372.36	1.28		0.012							0.3	0.75	16	40	<0.5	2	0.91	<0.5	24	5	49
Q015205	372.36	373.90	1.54		0.011							<0.2	4.74	12	70	<0.5	<2	1.12	<0.5	26	2	49
Q015206	373.90	375.58	1.68		0.018							<0.2	1.44	14	30	<0.5	<2	0.82	<0.5	14	4	27
Q015207	375.58	376.50	0.92		0.007							<0.2	4.87	9	420	0.5	<2	1.03	<0.5	25	1	57
Q015208	376.50	378.00	1.5		0.017							0.2	1.05	17	40	<0.5	2	0.76	<0.5	24	4	103
Q015122	378.00	379.50	1.5		<0.005							0.3	0.94	10	60	<0.5	2	0.22	<0.5	20	4	828
Q015123	379.50	381.00	1.5		0.006							0.3	0.97	23	30	<0.5	<2	0.35	<0.5	25	4	328
Q015124	381.00	382.50	1.5		0.005							<0.2	0.94	19	30	<0.5	<2	0.29	<0.5	18	3	180
Q015125	382.50	384.00	1.5		0.008							<0.2	0.68	14	30	<0.5	<2	0.13	<0.5	19	3	52
Q015126	384.00	385.50	1.5		0.012							0.2	0.66	16	60	<0.5	<2	0.17	<0.5	14	3	265
Q015127	385.50	387.00	1.5		0.024							<0.2	0.53	23	20	<0.5	2	0.13	<0.5	20	3	93
Q015128	387.00	388.50	1.5		<0.005							<0.2	0.55	10	20	<0.5	<2	0.15	<0.5	23	4	146
Q015129	388.50	390.07	1.57		0.008							<0.2	0.62	36	20	<0.5	<2	0.31	<0.5	22	4	381
Q015132	390.07	390.93	0.86		0.006							<0.2	2.76	21	20	<0.5	<2	0.31	<0.5	33	10	160
Q015133	390.93	391.58	0.65		<0.005							<0.2	0.61	22	30	<0.5	<2	0.29	<0.5	19	4	179
Q015134	391.58	391.90	0.32		0.018							0.2	3.19	87	30	<0.5	5	0.29	0.5	48	8	1240
Q015135	391.90	393.12	1.22		<0.005							<0.2	1.00	24	50	<0.5	<2	0.49	<0.5	12	5	749
Q015136	393.12	394.35	1.23		<0.005							<0.2	0.89	16	60	<0.5	<2	0.41	<0.5	14	4	188
Q015137	394.35	395.85	1.5		0.011							<0.2	3.68	50	30	<0.5	4	0.29	<0.5	41	13	1210
Q015138	395.85	397.35	1.5		0.014							<0.2	3.65	30	40	<0.5	<2	0.25	<0.5	38	9	2230
Q015139	397.35	398.85	1.5		0.011							0.3	2.95	116	40	<0.5	<2	0.47	<0.5	34	9	3830
Q015141	398.85	400.00	1.15		0.035							4.2	3.18	322	30	<0.5	<2	1.11	1.7	44	9	7670
Q015142	400.00	401.00	1		0.013							1.2	2.49	46	20	<0.5	<2	2.98	0.5	52	6	610
Q015143	401.00	402.50	1.5		0.012							0.5	2.96	43	30	<0.5	2	0.42	<0.5	63	8	591
Q015144	402.50	404.00	1.5		0.007							1.2	3.38	21	50	<0.5	<2	0.77	<0.5	32	9	1030
Q015145	404.00	405.50	1.5		0.009							1.6	2.86	25	50	<0.5	<2	3.00	<0.5	25	8	926
Q015146	405.50	407.00	1.5		0.010							1.9	3.07	29	50	<0.5	<2	0.56	0.5	32	7	1290
Q015147	407.00	408.50	1.5		0.013							0.6	2.34	35	40	<0.5	2	0.61	<0.5	49	5	541
Q015148	408.50	410.00	1.5		0.014							0.8	2.05	22	50	<0.5	<2	2.10	<0.5	32	4	371
Q015149	410.00	411.50	1.5		0.013							1.0	2.12	24	40	<0.5	<2	5.29	<0.5	28	4	423

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q015105	3.49	<1	0.66	10		0.50	231	2	<0.01	2	240	4	2.92	29	2			8	0.02	<10	1	<10		27
Q015106	3.04	<1	0.67	10		0.59	271	3	<0.01	1	240	5	2.11	15	2			9	0.02	<10	1	<10		34
Q015107	2.86	<1	0.53	10		0.36	174	3	<0.01	1	240	2	2.40	10	2			9	0.02	<10	<1	<10		19
Q015108	3.01	<1	0.46	10		0.25	119	2	<0.01	1	250	3	2.80	35	2			6	0.02	<10	1	<10		15
Q015109	3.50	<1	0.69	10		0.72	390	2	0.01	1	220	2	2.13	60	2			9	0.03	<10	3	<10		40
Q015111	3.11	<1	0.83	10		0.76	351	1	0.01	1	220	<2	1.76	75	3			15	0.04	<10	2	<10		33
Q015112	3.96	<1	0.86	10		1.04	494	<1	0.02	2	240	2	2.43	36	3			12	0.05	<10	2	<10		39
Q015113	4.63	<1	0.81	<10		1.42	583	2	0.05	3	230	4	2.62	10	3			14	0.05	<10	7	<10		44
Q015114	3.83	<1	0.41	<10		0.20	145	10	0.01	2	240	13	4.19	8	2			9	0.02	<10	2	<10		180
Q015115	6.90	<1	0.43	<10		0.23	161	9	0.02	2	260	16	8.49	3	2			11	0.02	<10	2	<10		180
Q015116	3.82	<1	0.43	<10		0.25	182	9	0.01	1	260	10	4.14	4	2			12	0.02	<10	2	<10		52
Q015117	5.24	<1	0.59	10		0.40	229	1	0.01	<1	270	7	5.58	3	2			14	0.03	<10	6	<10		81
Q015118	12.20	<1	0.48	<10		0.22	137	3	0.01	<1	350	20	>10.00	6	2			10	0.01	<10	5	<10		268
Q015119	2.13	<1	0.28	10		0.13	148	6	0.05	1	230	24	2.12	4	2			46	0.01	<10	1	<10		94
Q015121	2.46	<1	0.24	10		0.08	154	3	0.03	1	240	14	2.53	5	1			46	<0.01	<10	1	<10		42
Q015201	2.94	<1	0.32	10		0.28	178	1	0.01	1	170	4	2.90	7	1			21	<0.01	<10	2	<10		18
Q015202	4.94	<1	0.49	10		0.50	241	3	0.02	2	160	10	5.03	25	2			22	0.01	<10	5	<10		38
Q015203	17.80	<1	0.34	<10		0.46	229	14	0.01	3	150	51	>10.00	199	2			8	0.01	<10	6	<10		108
Q015204	4.19	1	0.39	10		0.51	517	1	0.02	1	190	6	4.19	14	2			53	<0.01	<10	3	<10		28
Q015205	7.71	<1	2.93	10		3.58	1560	1	0.10	4	1620	8	1.81	<2	9			64	0.29	<10	163	<10		115
Q015206	4.13	<1	0.85	10		0.86	423	1	0.03	2	400	8	3.36	4	4			34	0.04	<10	21	<10		34
Q015207	7.41	<1	2.79	10		3.37	1360	1	0.06	4	1860	5	0.88	4	7			56	0.25	<10	134	<10		131
Q015208	3.90	1	0.38	10		0.67	397	3	0.01	2	230	6	3.37	23	2			23	<0.01	<10	9	<10		29
Q015122	3.13	<1	0.50	10		0.54	237	<1	<0.01	1	150	3	2.56	26	2			12	0.02	<10	7	<10		36
Q015123	4.87	<1	0.61	<10		0.53	275	<1	0.01	2	160	7	4.77	54	2			16	0.02	<10	5	<10		34
Q015124	3.16	<1	0.57	10		0.44	224	2	0.02	3	170	4	2.68	24	2			19	0.02	<10	5	<10		28
Q015125	3.34	<1	0.48	<10		0.32	139	2	0.02	2	180	7	3.28	7	1			12	0.02	<10	3	<10		20
Q015126	3.01	<1	0.45	10		0.32	168	<1	0.02	2	170	5	2.88	51	1			11	0.02	<10	3	<10		28
Q015127	4.83	1	0.37	10		0.17	99	1	0.01	2	190	8	5.16	15	1			9	0.01	<10	6	<10		19
Q015128	4.51	1	0.37	10		0.18	117	1	0.01	3	180	9	4.71	10	1			10	0.01	<10	7	<10		18
Q015129	3.87	<1	0.39	<10		0.26	151	4	0.02	3	150	36	3.87	87	1			33	0.01	<10	8	<10		43
Q015132	7.22	1	1.89	<10		1.88	746	<1	0.03	8	460	15	4.40	33	8			19	0.17	<10	94	<10		165
Q015133	3.17	<1	0.42	<10		0.25	159	<1	0.01	3	180	5	3.07	27	2			13	0.01	<10	7	<10		32
Q015134	8.53	<1	1.61	<10		2.49	852	<1	0.01	7	620	8	3.40	13	9			12	0.17	<10	108	<10		116
Q015135	2.82	<1	0.55	<10		0.61	320	1	0.01	1	200	3	2.06	33	2			17	0.02	<10	14	<10		37
Q015136	2.87	1	0.57	<10		0.46	241	<1	0.01	1	170	2	2.26	20	2			15	0.02	<10	11	<10		16
Q015137	8.78	<1	1.81	<10		2.75	1090	<1	0.01	8	620	7	4.75	29	10			12	0.19	<10	127	<10		85
Q015138	8.15	<1	1.22	<10		2.91	1130	1	0.01	7	700	4	3.58	47	9			9	0.15	<10	125	<10		81
Q015139	7.15	<1	1.65	<10		2.20	781	<1	0.01	4	700	2	4.13	211	8			13	0.17	<10	109	<10		85
Q015141	9.28	1	1.64	<10		2.45	1030	8	0.01	6	790	17	6.65	508	10			38	0.16	<10	130	<10		153
Q015142	7.96	<1	0.34	<10		2.08	1100	<1	0.01	8	680	9	5.09	86	8			96	0.01	<10	92	<10		101
Q015143	9.49	<1	0.90	<10		2.31	880	<1	0.01	8	720	7	6.75	2	7			19	0.10	<10	106	<10		104
Q015144	7.35	<1	1.14	<10		2.59	1040	<1	0.01	6	640	3	3.17	12	9			22	0.14	<10	122	<10		100
Q015145	7.03	<1	0.41	<10		2.41	1820	<1	0.01	5	540	4	3.43	4	8			259	0.03	<10	91	<10		93
Q015146	7.32	<1	0.46	<10		2.59	953	<1	<0.01	6	580	3	3.74	4	6			21	0.04	<10	85	<10		108
Q015147	7.28	1	0.45	<10		1.85	760	<1	0.01	7	620	6	4.81	3	5			30	0.02	<10	68	<10		76
Q015148	5.77	<1	0.49	<10		1.69	1230	1	0.01	5	730	8	3.69	7	6			48	0.03	<10	72	<10		67
Q015149	6.53	1	0.26	<10		1.86	2790	<1	0.01	6	430	5	4.28	3	7			254	0.01	<10	69	<10		72

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q015150	411.50	412.65	1.15		0.022							1.4	2.44	21	50	<0.5	2	1.90	<0.5	37	5	912
Q015151	412.65	413.80	1.15		0.020							1.4	2.83	12	60	<0.5	<2	0.57	<0.5	34	5	2020
Q015153	413.80	415.30	1.5		<0.005							0.6	4.66	16	70	<0.5	5	0.84	<0.5	28	8	1480
Q015154	415.30	416.80	1.5		<0.005							0.3	4.27	9	80	<0.5	3	0.85	<0.5	21	7	1740
Q015155	416.80	418.30	1.5		<0.005							<0.2	4.26	7	80	<0.5	2	0.66	<0.5	21	5	1710
Q015156	418.30	419.80	1.5		0.005							<0.2	3.70	16	50	<0.5	<2	0.77	<0.5	30	6	669
Q015157	419.80	421.30	1.5		<0.005							<0.2	4.26	13	40	<0.5	3	0.66	<0.5	47	7	830
Q015158	421.30	422.80	1.5		<0.005							0.2	3.88	11	60	<0.5	<2	0.61	<0.5	43	7	881
Q015159	422.80	424.30	1.5		<0.005							<0.2	4.08	5	60	<0.5	2	0.67	<0.5	33	8	377
Q015161	424.30	425.80	1.5		<0.005							<0.2	4.08	8	40	<0.5	3	0.78	<0.5	42	7	385
Q015162	425.80	427.30	1.5		<0.005							0.2	3.39	4	50	<0.5	<2	0.66	<0.5	33	5	874
Q015163	427.30	428.80	1.5		<0.005							<0.2	3.37	8	40	<0.5	<2	0.61	<0.5	50	5	244
Q015164	428.80	430.30	1.5		<0.005							<0.2	3.17	12	40	<0.5	<2	0.59	<0.5	49	5	29
Q015165	430.30	431.80	1.5		<0.005							<0.2	3.96	5	40	<0.5	2	0.55	<0.5	46	5	718
Q015166	431.80	433.30	1.5		0.005							<0.2	3.35	7	50	<0.5	<2	0.70	<0.5	53	5	1480
Q015167	433.30	434.80	1.5		0.006							<0.2	3.01	8	30	<0.5	<2	0.49	<0.5	49	5	911
Q015168	434.80	436.30	1.5		0.006							<0.2	3.56	9	40	<0.5	<2	0.46	<0.5	35	5	64
Q015169	436.30	437.80	1.5		0.012							<0.2	3.49	10	30	<0.5	2	0.53	<0.5	37	6	144
Q015172	437.80	439.30	1.5		<0.005							0.2	4.93	6	70	<0.5	4	0.93	<0.5	32	9	1640
Q015173	439.30	440.80	1.5		<0.005							0.3	5.45	3	70	<0.5	<2	0.98	<0.5	44	12	1660
Q015174	440.80	442.30	1.5		<0.005							0.3	6.00	20	80	<0.5	<2	1.27	<0.5	40	13	1100
Q015175	442.30	443.80	1.5		<0.005							0.2	4.98	8	60	<0.5	2	0.65	<0.5	43	12	1240
Q015176	443.80	445.30	1.5		0.005							0.2	4.49	11	40	<0.5	2	0.65	<0.5	44	8	1260
Q015177	445.30	446.80	1.5		<0.005							0.3	4.98	8	40	<0.5	5	1.05	<0.5	50	12	1610
Q015178	446.80	448.30	1.5		<0.005							<0.2	5.62	3	50	<0.5	<2	1.17	<0.5	54	13	985
Q015179	448.30	449.80	1.5		<0.005							<0.2	5.76	4	90	<0.5	<2	0.98	<0.5	40	8	1010
Q015181	449.80	451.76	1.96		<0.005							0.2	4.68	6	40	<0.5	2	0.91	<0.5	44	6	1370
Q015182	451.76	452.42	0.66		<0.005							<0.2	5.80	2	950	<0.5	<2	1.32	<0.5	35	237	123
Q015183	452.42	454.00	1.58		<0.005							0.4	4.40	6	40	<0.5	<2	0.65	<0.5	55	9	1250
Q015184	454.00	455.50	1.5		<0.005							0.2	4.34	5	50	<0.5	<2	0.61	<0.5	50	5	1380
Q015185	455.50	457.00	1.5		<0.005							0.3	4.51	8	60	<0.5	<2	0.74	<0.5	53	7	1800
Q015186	457.00	458.75	1.75		<0.005							0.3	4.85	17	60	<0.5	3	0.73	<0.5	61	5	1400
Q015187	458.75	459.22	0.47		0.005							1.1	2.49	17	130	<0.5	<2	6.11	<0.5	33	3	1180
Q015188	459.22	460.75	1.53		<0.005							1.1	4.51	10	80	<0.5	3	0.32	<0.5	30	6	3500
Q015189	460.75	462.25	1.5		<0.005							<0.2	4.74	6	80	<0.5	<2	0.50	<0.5	38	6	1450
Q015191	462.25	463.75	1.5		<0.005							0.2	4.44	4	70	<0.5	3	0.77	<0.5	46	6	1270
Q015192	463.75	465.25	1.5		0.009							0.2	4.65	19	80	<0.5	<2	0.78	<0.5	42	6	1420
Q015193	465.25	466.75	1.5		<0.005							0.2	4.44	14	120	<0.5	<2	0.96	<0.5	20	2	1040
Q015194	466.75	468.25	1.5		0.005							<0.2	4.27	13	90	<0.5	<2	1.13	<0.5	22	1	189
Q015195	468.25	469.96	1.71		<0.005							<0.2	4.31	6	70	<0.5	3	0.88	<0.5	42	11	494
Q015196	469.96	471.40	1.44		0.013							0.5	3.64	19	110	0.6	<2	4.04	<0.5	42	668	348
Q015197	471.40	473.00	1.6		0.038							0.7	2.52	19	30	<0.5	<2	0.37	<0.5	48	7	419
Q015198	473.00	474.50	1.5		0.015							0.6	2.85	17	30	<0.5	<2	0.41	<0.5	63	5	710
Q015199	474.50	476.00	1.5		0.009							<0.2	2.66	18	40	<0.5	<2	0.40	<0.5	39	7	156
Q015209	476.00	477.50	1.5		0.028							0.2	2.58	20	40	<0.5	<2	0.52	<0.5	27	5	206
Q015211	477.50	479.00	1.5		0.027							0.4	2.47	18	30	<0.5	<2	0.42	1.3	46	5	330
Q015212	479.00	480.50	1.5		0.020							0.3	2.77	19	30	<0.5	<2	0.52	3.3	65	6	89
Q015213	480.50	482.00	1.5		0.019							0.4	3.10	14	30	<0.5	<2	0.52	1.5	47	5	468

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q015150	6.79	<1	0.28	<10		2.16	1460	2	0.01	6	680	6	4.22	3	7			60	0.01	<10	85	<10		87
Q015151	7.20	<1	0.39	<10		2.18	878	<1	0.01	7	720	5	3.63	2	6			27	0.01	<10	79	<10		105
Q015153	8.75	<1	1.73	<10		3.09	1560	<1	0.08	7	700	7	2.49	7	13			42	0.20	<10	163	<10		126
Q015154	6.86	<1	1.67	<10		2.81	1320	<1	0.13	6	580	5	1.72	19	11			54	0.20	<10	150	<10		87
Q015155	6.65	<1	1.84	<10		2.91	1150	<1	0.12	3	760	6	1.98	42	10			49	0.22	<10	139	<10		83
Q015156	6.38	<1	1.52	<10		2.32	1050	<1	0.09	7	550	11	2.55	29	10			40	0.18	<10	122	<10		86
Q015157	8.03	<1	1.87	<10		2.89	1330	<1	0.10	9	630	9	3.29	16	11			38	0.22	<10	140	<10		86
Q015158	6.67	1	1.67	<10		2.62	1160	<1	0.11	7	750	5	2.57	12	10			35	0.21	<10	120	<10		80
Q015159	6.88	1	1.48	<10		2.86	1270	<1	0.14	7	700	4	2.33	10	10			42	0.21	<10	137	<10		90
Q015161	8.32	<1	1.41	<10		2.88	1210	<1	0.15	7	740	5	4.17	3	9			39	0.19	<10	138	<10		78
Q015162	6.11	1	1.44	<10		2.30	1000	<1	0.12	7	680	10	2.71	7	8			32	0.18	<10	116	<10		68
Q015163	7.73	1	1.37	<10		2.47	1025	<1	0.09	8	650	9	4.50	4	8			29	0.19	<10	121	<10		67
Q015164	7.59	<1	1.21	<10		2.33	880	1	0.09	6	700	11	4.95	4	7			28	0.20	<10	114	<10		63
Q015165	7.63	1	1.01	<10		3.12	1240	<1	0.09	6	560	6	3.29	6	8			28	0.16	<10	133	<10		91
Q015166	7.93	<1	1.08	<10		2.45	1005	<1	0.10	6	670	5	4.79	4	7			40	0.14	<10	117	<10		85
Q015167	6.82	1	1.17	<10		2.09	797	<1	0.10	4	660	6	4.12	3	7			26	0.14	<10	109	<10		75
Q015168	7.71	<1	1.24	<10		2.64	1010	<1	0.09	5	710	10	3.85	3	7			29	0.14	<10	123	<10		91
Q015169	7.79	1	1.07	<10		2.41	1005	<1	0.12	5	620	10	4.45	5	8			32	0.12	<10	126	<10		83
Q015172	8.08	1	1.54	<10		2.91	1410	<1	0.26	7	650	14	2.02	8	13			106	0.18	<10	187	<10		139
Q015173	9.27	<1	1.37	<10		3.19	1670	<1	0.28	9	640	8	2.22	8	14			88	0.17	<10	215	<10		121
Q015174	10.10	<1	1.10	<10		3.30	1880	<1	0.29	10	660	14	1.94	10	19			99	0.17	<10	245	<10		124
Q015175	9.13	1	1.09	<10		3.30	1440	<1	0.17	8	640	9	2.76	4	13			55	0.15	<10	191	<10		117
Q015176	8.87	1	1.20	<10		3.02	1265	<1	0.17	7	630	11	3.90	6	11			75	0.14	<10	175	<10		112
Q015177	8.84	<1	1.43	<10		3.13	1370	<1	0.28	8	540	12	3.99	14	15			75	0.18	<10	209	<10		111
Q015178	9.06	1	1.61	<10		3.42	1520	<1	0.34	10	630	13	3.00	8	19			83	0.20	<10	247	<10		108
Q015179	8.67	1	1.28	<10		3.69	1580	<1	0.25	6	820	9	1.80	3	20			57	0.19	<10	264	<10		115
Q015181	8.33	<1	1.22	<10		3.29	1245	<1	0.19	6	670	9	3.27	5	15			38	0.16	<10	206	<10		120
Q015182	6.65	1	1.17	<10		5.48	1700	<1	0.29	83	580	4	0.08	4	34			51	0.20	<10	283	<10		102
Q015183	8.77	<1	1.21	<10		3.17	1280	<1	0.16	7	730	8	4.00	6	13			50	0.17	<10	181	<10		127
Q015184	8.00	1	1.30	<10		3.11	1260	<1	0.14	5	730	8	3.02	10	12			40	0.17	<10	170	<10		112
Q015185	8.21	<1	1.40	<10		3.14	1315	<1	0.17	6	670	9	3.42	8	13			72	0.18	<10	173	<10		110
Q015186	8.96	<1	1.36	<10		3.37	1460	<1	0.15	6	810	9	3.31	10	13			55	0.18	<10	174	<10		142
Q015187	6.38	<1	0.31	<10		2.48	2230	1	0.02	7	760	17	2.71	22	8			330	0.03	<10	102	<10		100
Q015188	8.16	<1	1.09	<10		3.38	1405	<1	0.05	5	710	10	2.21	12	12			21	0.14	<10	159	<10		134
Q015189	8.78	2	1.09	<10		3.48	1545	<1	0.10	4	710	8	2.90	6	13			36	0.15	<10	182	<10		131
Q015191	8.52	<1	1.30	<10		2.95	1500	<1	0.15	5	780	9	2.57	10	14			58	0.18	<10	183	<10		132
Q015192	8.11	1	1.24	<10		3.00	1370	<1	0.16	5	730	11	2.48	22	12			67	0.16	<10	154	<10		150
Q015193	6.64	<1	1.21	<10		2.73	1105	<1	0.20	2	1590	9	1.44	17	11			63	0.17	<10	73	<10		152
Q015194	6.05	<1	1.39	<10		2.21	898	<1	0.23	2	1560	7	1.41	9	9			95	0.18	<10	44	<10		111
Q015195	6.98	1	1.60	<10		2.71	907	<1	0.17	7	1380	8	2.25	6	10			115	0.21	<10	74	<10		81
Q015196	4.60	<1	0.77	<10		5.01	1200	1	0.03	388	1620	16	1.15	13	8			222	0.08	<10	81	<10		96
Q015197	6.72	1	1.73	<10		1.79	653	3	0.03	6	600	15	4.14	10	8			35	0.19	<10	107	<10		94
Q015198	7.01	<1	1.99	<10		1.96	744	1	0.03	4	650	19	4.09	23	8			33	0.20	<10	111	<10		81
Q015199	6.22	<1	1.80	<10		1.86	710	1	0.03	5	640	21	3.39	8	7			27	0.18	<10	109	<10		69
Q015209	5.43	<1	1.66	<10		1.74	628	3	0.04	2	860	28	2.75	11	7			47	0.18	<10	93	<10		75
Q015211	7.22	<1	1.70	<10		1.69	647	3	0.04	3	800	60	5.08	17	7			70	0.20	<10	103	<10		104
Q015212	9.29	<1	1.78	<10		1.91	768	1	0.04	4	730	86	7.50	6	8			42	0.19	<10	115	<10		123
Q015213	8.89	<1	1.88	<10		2.13	859	1	0.05	3	770	64	6.59	22	9			43	0.20	<10	124	<10		114

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q015214	482.00	483.50	1.5		0.011							0.3	3.12	11	40	<0.5	2	0.66	<0.5	28	3	393
Q015215	483.50	485.00	1.5		0.034							0.6	2.32	23	30	<0.5	<2	0.44	0.7	49	5	382
Q015216	485.00	486.50	1.5		0.008							0.2	3.38	11	60	<0.5	<2	0.75	<0.5	16	2	461
Q015217	486.50	488.00	1.5		0.008							0.2	3.56	12	90	<0.5	<2	0.80	<0.5	16	2	543
Q015218	488.00	489.50	1.5		0.006							0.3	3.52	9	60	<0.5	<2	0.81	<0.5	22	2	523
Q015219	489.50	491.00	1.5		0.006							<0.2	3.90	8	60	<0.5	<2	0.67	<0.5	24	4	379
Q015221	491.00	492.50	1.5		0.007							<0.2	3.94	11	50	<0.5	2	0.60	<0.5	41	6	195
Q015222	492.50	494.00	1.5		0.017							<0.2	4.17	14	40	<0.5	<2	0.47	<0.5	41	5	45
Q015223	494.00	495.50	1.5		0.011							<0.2	4.98	13	60	<0.5	<2	0.47	<0.5	29	7	32
Q015224	495.50	497.00	1.5		0.014							<0.2	4.60	14	40	<0.5	<2	0.45	<0.5	43	5	527
Q015225	497.00	498.50	1.5		0.012							<0.2	4.35	22	40	<0.5	<2	0.45	<0.5	49	5	171
Q015226	498.50	500.00	1.5		0.011							<0.2	4.47	27	40	<0.5	<2	0.34	<0.5	45	5	229
Q015227	500.00	501.50	1.5		0.011							0.4	3.91	17	40	<0.5	<2	0.64	<0.5	39	5	963
Q015228	501.50	503.00	1.5		0.025							0.8	4.10	8	50	<0.5	<2	0.49	<0.5	33	5	1830
Q015229	503.00	504.50	1.5		0.013							1.4	3.78	9	40	<0.5	<2	0.64	<0.5	34	5	2950
Q015232	504.50	506.00	1.5		0.021							0.9	3.23	15	30	<0.5	<2	0.67	<0.5	49	6	2280
Q015233	506.00	507.50	1.5		0.010							0.7	4.32	9	50	<0.5	<2	0.64	<0.5	37	5	2210
Q015234	507.50	508.55	1.05		0.008							0.5	3.65	14	40	<0.5	2	0.53	<0.5	76	5	1260
Q015235	508.55	509.89	1.34		<0.005							<0.2	2.26	7	920	<0.5	<2	3.48	<0.5	22	112	163
Q015236	509.89	511.24	1.35		<0.005							<0.2	2.14	7	1090	<0.5	<2	2.20	<0.5	22	118	137
Q015237	511.24	512.75	1.51		0.009							0.9	3.55	8	70	<0.5	<2	0.86	<0.5	37	15	2010
Q015238	512.75	514.25	1.5		0.022							1.3	3.27	20	40	<0.5	<2	0.48	<0.5	52	5	3830
Q015239	514.25	515.75	1.5		0.016							0.5	4.22	15	50	<0.5	<2	0.53	<0.5	44	20	1690
Q015241	515.75	517.22	1.47		0.013							0.5	3.47	12	40	<0.5	<2	0.53	<0.5	83	8	2050
Q015242	517.22	518.62	1.4		<0.005							<0.2	2.93	3	1840	<0.5	<2	2.69	0.6	20	109	533
Q015243	518.62	520.02	1.4		<0.005							<0.2	1.76	6	2190	<0.5	<2	2.47	0.7	20	109	103
Q015244	520.02	521.41	1.39		<0.005							<0.2	2.04	3	2080	<0.5	<2	2.49	0.6	21	121	94
Q015245	521.41	522.91	1.5		0.014							0.3	4.81	21	50	<0.5	<2	0.64	<0.5	30	7	868
Q015246	522.91	524.41	1.5		0.039							<0.2	4.39	44	40	<0.5	<2	0.62	<0.5	34	5	128
Q015247	524.41	525.42	1.01		0.029							<0.2	4.28	37	30	<0.5	<2	0.57	<0.5	37	8	141
Q015248	525.42	525.96	0.54		<0.005							<0.2	5.44	2	1890	<0.5	<2	2.57	<0.5	25	137	98
Q015249	525.96	527.50	1.54		0.030							<0.2	4.63	31	50	<0.5	<2	0.92	<0.5	33	5	89
Q015251	527.50	529.00	1.5		0.025							0.6	3.82	49	40	<0.5	<2	0.57	<0.5	39	4	842
Q015252	529.00	530.50	1.5		0.019							0.9	3.36	31	40	<0.5	<2	0.98	0.5	39	4	1340
Q015253	530.50	532.00	1.5		0.024							<0.2	3.27	46	30	<0.5	<2	0.53	<0.5	39	4	40
Q015254	532.00	533.50	1.5		0.030							0.3	3.48	36	20	<0.5	<2	0.42	<0.5	48	5	58
Q015255	533.50	535.00	1.5		0.016							0.7	3.70	23	40	<0.5	<2	0.30	<0.5	38	5	560
Q015256	535.00	536.50	1.5		0.028							1.2	3.10	37	30	<0.5	<2	0.31	<0.5	46	5	737
Q015257	536.50	538.00	1.5		0.031							1.3	3.28	34	30	<0.5	<2	0.25	<0.5	48	5	1270
Q015258	538.00	539.50	1.5		0.052							0.8	3.36	38	30	<0.5	<2	0.32	<0.5	45	5	534
Q015259	539.50	541.00	1.5		0.033							0.9	4.40	37	40	<0.5	<2	0.73	<0.5	34	4	1060
Q015261	541.00	542.50	1.5		0.026							0.3	4.13	37	40	<0.5	<2	0.72	<0.5	31	8	581
Q015262	542.50	544.00	1.5		0.026							0.7	4.29	37	40	<0.5	<2	0.59	<0.5	38	4	1540
Q015263	544.00	545.50	1.5		0.030							0.9	4.23	27	50	<0.5	2	0.61	<0.5	35	6	1790
Q015264	545.50	547.00	1.5		0.044							2.0	4.41	20	40	<0.5	<2	0.76	0.6	37	7	5170
Q015265	547.00	548.50	1.5		0.023							1.9	4.45	10	50	<0.5	<2	0.83	0.8	29	13	3430
Q015266	548.50	550.00	1.5		0.027							1.6	3.87	9	50	<0.5	<2	0.50	1.2	42	5	2650
Q015267	550.00	551.50	1.5		0.036							1.5	4.37	12	40	<0.5	3	0.55	0.5	58	17	2150

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q015214	6.70	<1	1.67	<10		2.14	849	1	0.05	2	970	17	3.56	14	8			40	0.20	<10	81	<10		87
Q015215	7.51	<1	1.57	<10		1.48	515	3	0.04	4	700	115	6.14	19	6			27	0.17	<10	97	<10		81
Q015216	5.70	<1	1.78	<10		2.13	729	1	0.08	1	1610	14	2.17	9	7			57	0.20	<10	44	<10		90
Q015217	5.53	<1	1.89	<10		2.23	787	1	0.08	1	1700	7	1.55	8	8			61	0.21	<10	38	<10		84
Q015218	5.95	<1	1.59	<10		2.30	794	1	0.07	<1	1600	6	2.35	5	8			52	0.19	<10	46	<10		85
Q015219	6.62	<1	1.61	<10		2.77	972	1	0.04	1	1170	8	2.65	4	8			38	0.18	<10	89	<10		99
Q015221	7.81	<1	1.44	<10		2.89	1105	<1	0.04	3	600	23	4.13	3	9			36	0.17	<10	136	<10		111
Q015222	8.45	<1	1.44	<10		3.31	1140	<1	0.03	4	690	15	4.18	3	9			28	0.17	<10	144	<10		129
Q015223	8.09	<1	1.51	<10		4.10	1345	<1	0.03	4	740	7	2.36	3	10			25	0.17	<10	163	<10		146
Q015224	8.02	<1	1.60	<10		3.79	1155	<1	0.03	4	710	8	3.36	12	10			23	0.17	<10	150	<10		126
Q015225	8.74	<1	1.83	<10		3.50	1145	<1	0.04	6	740	6	4.35	10	10			24	0.18	<10	149	<10		126
Q015226	8.86	<1	2.04	<10		3.48	1100	1	0.03	4	650	6	4.20	4	11			21	0.19	<10	157	<10		145
Q015227	7.70	<1	2.10	<10		2.84	1125	<1	0.04	5	670	6	3.07	9	12			34	0.20	<10	147	<10		172
Q015228	8.25	1	1.94	<10		2.83	1325	<1	0.05	5	630	9	2.85	6	11			28	0.19	<10	148	<10		176
Q015229	7.64	<1	1.62	<10		2.39	1165	<1	0.07	5	680	8	3.26	15	9			37	0.16	<10	131	<10		134
Q015232	7.61	<1	1.50	<10		1.89	909	<1	0.08	5	720	12	4.35	14	8			41	0.16	<10	122	<10		185
Q015233	8.22	<1	1.61	<10		2.80	1280	<1	0.12	6	680	9	3.09	7	9			48	0.17	<10	144	<10		166
Q015234	8.01	<1	1.72	<10		2.40	822	<1	0.12	7	690	10	4.42	5	8			37	0.18	<10	132	<10		139
Q015235	5.55	<1	0.70	<10		1.93	1125	<1	0.18	43	2680	17	0.25	19	7			104	0.22	<10	156	<10		125
Q015236	4.41	<1	0.76	10		2.00	930	<1	0.14	48	2820	13	0.12	22	7			73	0.23	<10	158	<10		123
Q015237	7.09	<1	1.62	<10		2.27	882	<1	0.11	12	760	5	2.66	7	9			44	0.19	<10	136	<10		120
Q015238	8.61	<1	1.50	<10		2.24	917	<1	0.05	8	620	3	5.05	8	8			31	0.16	<10	115	<10		105
Q015239	9.79	<1	1.07	<10		3.01	1390	<1	0.05	13	790	5	3.86	<2	10			44	0.14	<10	132	<10		128
Q015241	7.85	<1	1.41	<10		2.25	860	<1	0.08	10	670	7	3.96	2	8			39	0.14	<10	113	<10		94
Q015242	4.91	<1	0.80	10		2.17	767	<1	0.23	43	2620	19	0.19	8	11			124	0.18	<10	175	<10		96
Q015243	4.26	<1	0.22	<10		1.82	710	<1	0.10	40	2750	16	0.18	14	6			106	0.17	<10	151	<10		86
Q015244	4.61	<1	0.43	10		2.06	752	<1	0.13	44	2710	16	0.17	10	8			122	0.20	<10	162	<10		98
Q015245	8.17	<1	1.58	<10		3.34	1265	<1	0.10	9	740	6	2.35	7	11			51	0.17	<10	155	<10		123
Q015246	8.55	<1	1.86	<10		2.93	1120	<1	0.08	8	740	11	4.03	6	10			44	0.18	<10	143	<10		98
Q015247	8.75	<1	1.82	<10		2.92	1065	<1	0.08	9	790	8	4.11	4	10			31	0.17	<10	137	<10		96
Q015248	5.39	<1	2.01	10		2.94	861	<1	0.44	53	2960	13	0.15	6	18			178	0.22	<10	194	<10		106
Q015249	8.86	<1	2.06	<10		3.24	1215	<1	0.09	8	700	8	3.29	12	12			54	0.18	<10	157	<10		109
Q015251	8.18	<1	1.70	<10		2.71	1090	<1	0.04	8	670	19	3.57	39	11			31	0.15	<10	132	<10		140
Q015252	6.93	<1	1.66	<10		2.32	957	<1	0.06	6	670	12	3.49	99	10			55	0.15	<10	121	<10		209
Q015253	8.55	<1	1.75	<10		2.13	807	<1	0.08	4	550	13	5.67	7	8			33	0.15	<10	96	<10		141
Q015254	8.43	<1	2.19	<10		2.21	768	<1	0.10	6	740	8	5.87	12	10			32	0.19	<10	130	<10		172
Q015255	7.72	<1	2.10	<10		2.63	1045	<1	0.08	8	640	10	3.56	23	13			26	0.21	<10	153	<10		169
Q015256	7.93	<1	1.88	<10		2.10	833	<1	0.09	9	610	8	4.54	14	11			25	0.20	<10	138	<10		213
Q015257	7.89	<1	1.94	<10		2.21	805	<1	0.06	9	710	8	4.22	17	10			18	0.19	<10	130	<10		223
Q015258	7.89	<1	2.13	<10		2.22	741	<1	0.10	8	660	8	4.62	21	10			29	0.20	<10	127	<10		256
Q015259	7.91	<1	2.41	<10		2.57	870	<1	0.17	7	720	12	4.00	10	11			49	0.22	<10	153	<10		142
Q015261	7.56	<1	1.95	<10		2.60	879	<1	0.13	10	760	10	3.43	7	10			57	0.20	<10	138	<10		112
Q015262	8.10	<1	1.79	<10		2.84	1010	<1	0.07	8	750	15	3.67	10	9			37	0.18	<10	134	<10		131
Q015263	8.05	<1	1.66	<10		2.80	1040	<1	0.06	7	660	9	3.49	12	10			30	0.16	<10	133	<10		170
Q015264	9.05	<1	1.80	<10		2.77	950	<1	0.09	7	730	10	4.93	11	10			43	0.17	<10	134	<10		244
Q015265	7.83	<1	1.64	<10		2.81	1020	<1	0.10	9	770	10	3.03	6	10			50	0.16	<10	136	<10		412
Q015266	7.91	<1	1.27	<10		2.59	1080	<1	0.04	7	670	17	3.38	4	8			19	0.14	<10	114	<10		497
Q015267	9.83	<1	1.32	<10		2.95	1460	1	0.05	10	810	12	4.46	17	11			22	0.16	<10	136	<10		342

Drill Hole Log - Assays

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q015268	551.50	553.00	1.5		0.007							<0.2	4.58	9	90	<0.5	<2	0.50	<0.5	17	7	306
Q015269	553.00	554.50	1.5		0.017							0.2	4.71	11	70	<0.5	<2	0.52	<0.5	31	6	528
Q015272	554.50	556.00	1.5		0.035							1.0	5.04	29	70	<0.5	<2	0.66	1.1	22	6	1760
Q015273	556.00	557.50	1.5		0.029							0.6	4.24	20	40	<0.5	<2	0.47	0.6	25	5	786
Q015274	557.50	559.00	1.5		0.034							<0.2	4.87	27	30	<0.5	<2	0.58	<0.5	28	6	69
Q015275	559.00	560.50	1.5		0.016							<0.2	5.18	18	40	<0.5	<2	0.62	<0.5	22	5	19
Q015276	560.50	562.00	1.5		0.010							<0.2	6.03	25	100	<0.5	<2	0.58	<0.5	19	5	37
Q015277	562.00	563.40	1.4		0.012							<0.2	4.99	21	100	<0.5	<2	0.56	<0.5	23	5	88
Q015278	563.40	565.00	1.6		0.017							0.2	4.31	20	90	<0.5	<2	0.56	<0.5	19	4	226
Q015279	565.00	566.50	1.5		0.012							0.2	3.05	17	80	<0.5	<2	0.59	<0.5	18	1	446
Q015281	566.50	568.00	1.5		0.020							0.3	3.14	22	80	<0.5	<2	0.57	<0.5	19	1	745
Q015282	568.00	569.50	1.5		0.029							0.3	3.04	23	50	<0.5	<2	0.63	<0.5	19	2	312
Q015283	569.50	571.00	1.5		0.012							0.3	3.31	15	60	<0.5	<2	0.61	<0.5	21	1	372
Q015284	571.00	572.50	1.5		0.014							0.3	3.36	19	50	<0.5	<2	0.62	<0.5	20	1	428
Q015285	572.50	574.00	1.5		0.016							0.2	2.96	24	60	<0.5	<2	0.56	<0.5	16	1	263
Q015286	574.00	575.50	1.5		0.010							0.6	2.88	7	90	<0.5	<2	0.54	<0.5	12	1	681
Q015287	575.50	577.00	1.5		0.023							<0.2	2.72	13	40	<0.5	<2	0.52	<0.5	24	1	64
Q015288	577.00	578.50	1.5		0.008							<0.2	3.10	9	250	<0.5	<2	0.53	<0.5	14	1	343
Q015289	578.50	580.00	1.5		0.053							0.6	3.17	42	40	<0.5	<2	0.53	0.5	30	2	156
Q015291	580.00	581.50	1.5		<0.005							<0.2	4.35	7	720	<0.5	<2	0.51	<0.5	31	34	121
Q015292	581.50	583.00	1.5		<0.005							<0.2	4.20	7	880	<0.5	<2	1.45	<0.5	29	27	132
Q015293	583.00	584.50	1.5		0.056							0.4	4.01	30	30	<0.5	2	0.26	<0.5	34	4	30
Q015294	584.50	586.00	1.5		0.010							<0.2	4.59	4	50	<0.5	<2	0.38	<0.5	32	5	36
Q015295	586.00	587.00	1		0.005							<0.2	4.37	61	100	<0.5	<2	1.19	<0.5	35	294	37
Q015296	587.00	588.00	1		0.019							<0.2	6.45	35	90	<0.5	2	2.43	<0.5	41	257	44

Drill Hole Log - Assays

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q015268	7.90	<1	1.45	<10		3.23	1420	<1	0.05	7	590	6	1.82	9	10			24	0.16	<10	128	<10		184
Q015269	8.22	<1	1.64	<10		3.26	1440	<1	0.05	6	590	11	2.47	3	11			21	0.17	<10	133	<10		231
Q015272	9.46	1	1.89	<10		3.43	1810	<1	0.06	6	560	22	2.66	13	13			28	0.20	<10	155	<10		393
Q015273	8.55	<1	1.30	<10		2.89	1355	<1	0.04	8	650	17	2.98	3	8			17	0.14	<10	123	<10		291
Q015274	10.50	<1	1.20	<10		3.34	1505	<1	0.04	7	570	14	4.63	<2	9			17	0.14	<10	134	<10		193
Q015275	9.67	<1	1.26	<10		3.57	1600	<1	0.04	6	610	6	3.14	<2	9			20	0.15	<10	136	<10		188
Q015276	10.25	<1	1.08	<10		4.26	2060	<1	0.05	5	600	10	2.53	<2	12			19	0.14	<10	173	<10		266
Q015277	8.12	1	1.33	<10		3.30	1720	<1	0.08	5	580	12	2.13	<2	10			21	0.17	<10	136	<10		224
Q015278	7.48	1	1.15	<10		2.86	1460	<1	0.11	4	1020	12	1.95	<2	8			23	0.15	<10	91	<10		151
Q015279	6.09	<1	1.03	<10		1.82	938	<1	0.11	1	1610	7	2.08	<2	5			19	0.14	<10	21	<10		104
Q015281	6.63	1	1.05	<10		1.96	1020	1	0.10	1	1650	7	2.11	<2	5			16	0.14	<10	25	<10		106
Q015282	6.18	1	1.28	<10		1.76	901	8	0.12	1	1640	14	2.29	2	5			20	0.16	<10	23	<10		98
Q015283	6.50	1	1.36	<10		2.01	1020	<1	0.12	<1	1680	12	2.28	2	5			22	0.17	<10	23	<10		110
Q015284	6.76	1	1.24	<10		2.09	1050	1	0.13	<1	1610	11	2.51	<2	6			19	0.15	<10	25	<10		104
Q015285	6.39	<1	1.19	<10		1.88	947	<1	0.11	1	1690	7	2.05	4	5			18	0.16	<10	23	<10		106
Q015286	5.73	<1	1.21	<10		1.83	906	<1	0.11	<1	1670	8	1.45	<2	5			17	0.16	<10	24	<10		102
Q015287	5.84	<1	1.34	<10		1.67	715	1	0.11	1	1630	14	2.54	2	6			14	0.17	<10	26	<10		93
Q015288	5.79	<1	0.84	<10		2.24	1135	<1	0.10	1	1590	5	0.44	3	7			74	0.14	<10	30	<10		122
Q015289	7.16	<1	1.60	<10		2.10	739	2	0.13	1	1600	456	3.70	3	8			18	0.18	<10	37	<10		162
Q015291	6.75	<1	0.54	<10		4.44	1300	<1	0.13	32	860	24	0.03	5	23			21	0.14	<10	272	<10		140
Q015292	6.08	<1	0.52	<10		3.98	1140	<1	0.16	26	910	8	0.28	9	21			45	0.12	<10	219	<10		97
Q015293	8.90	<1	1.29	<10		3.34	1080	1	0.06	5	700	21	4.36	3	14			14	0.15	<10	146	<10		126
Q015294	9.25	<1	0.98	<10		3.72	1355	<1	0.09	6	590	11	3.42	3	16			22	0.14	<10	186	<10		161
Q015295	5.70	1	0.67	<10		4.76	960	<1	0.08	255	780	11	1.33	11	12			92	0.11	<10	142	<10		102
Q015296	8.46	<1	0.95	<10		6.19	1450	1	0.12	162	770	12	1.87	9	21			180	0.13	<10	211	<10		152

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q015051			WH13197987				ALS: ME-ICP41				11/23/201	
Q015052			WH13197987				ALS: ME-ICP41				11/23/201	
Q015053			WH13197987				ALS: ME-ICP41				11/23/201	
Q015054			WH13197987				ALS: ME-ICP41				11/23/201	
Q015055			WH13197987				ALS: ME-ICP41				11/23/201	
Q015056			WH13197987				ALS: ME-ICP41				11/23/201	
Q015057			WH13197987				ALS: ME-ICP41				11/23/201	
Q015058			WH13197987				ALS: ME-ICP41				11/23/201	
Q015059			WH13197987				ALS: ME-ICP41				11/23/201	
Q015061			WH13197987				ALS: ME-ICP41				11/23/201	
Q015062			WH13197987				ALS: ME-ICP41				11/23/201	
Q015063			WH13197987				ALS: ME-ICP41				11/23/201	
Q015064			WH13197987				ALS: ME-ICP41				11/23/201	
Q015065			WH13197987				ALS: ME-ICP41				11/23/201	
Q015066			WH13197987				ALS: ME-ICP41				11/23/201	
Q015067			WH13197987				ALS: ME-ICP41				11/23/201	
Q015068			WH13197987				ALS: ME-ICP41				11/23/201	
Q015069			WH13197987				ALS: ME-ICP41				11/23/201	
Q015071			WH13197987				ALS: ME-ICP41				11/23/201	
Q015072			WH13197987				ALS: ME-ICP41				11/23/201	
Q015073			WH13197987				ALS: ME-ICP41				11/23/201	
Q015074			WH13197987				ALS: ME-ICP41				11/23/201	
Q015075			WH13197987				ALS: ME-ICP41				11/23/201	
Q015076			WH13197987				ALS: ME-ICP41				11/23/201	
Q015077			WH13197987				ALS: ME-ICP41				11/23/201	
Q015078			WH13197987				ALS: ME-ICP41				11/23/201	
Q015079			WH13197987				ALS: ME-ICP41				11/23/201	
Q015081			WH13197987				ALS: ME-ICP41				11/23/201	
Q015082			WH13197987				ALS: ME-ICP41				11/23/201	
Q015083			WH13197987				ALS: ME-ICP41				11/23/201	
Q015084			WH13197987				ALS: ME-ICP41				11/23/201	
Q015085			WH13197987				ALS: ME-ICP41				11/23/201	
Q015086			WH13197987				ALS: ME-ICP41				11/23/201	
Q015087			WH13197987				ALS: ME-ICP41				11/23/201	
Q015088			WH13197987				ALS: ME-ICP41				11/23/201	
Q015089			WH13197987				ALS: ME-ICP41				11/23/201	
Q015092			WH13197987				ALS: ME-ICP41				11/23/201	
Q015093			WH13197987				ALS: ME-ICP41				11/23/201	
Q015094			WH13197987				ALS: ME-ICP41				11/23/201	
Q015095			WH13197987				ALS: ME-ICP41				11/23/201	
Q015096			WH13197987				ALS: ME-ICP41				11/23/201	
Q015097			WH13197987				ALS: ME-ICP41				11/23/201	
Q015098			WH13197987				ALS: ME-ICP41				11/23/201	
Q015099			WH13197987				ALS: ME-ICP41				11/23/201	
Q015101			WH13197987				ALS: ME-ICP41				11/23/201	
Q015102			WH13197987				ALS: ME-ICP41				11/23/201	
Q015103			WH13197987				ALS: ME-ICP41				11/23/201	
Q015104			WH13197987				ALS: ME-ICP41				11/23/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q015105			WH13197987				ALS: ME-ICP41				11/23/201	
Q015106			WH13197987				ALS: ME-ICP41				11/23/201	
Q015107			WH13197987				ALS: ME-ICP41				11/23/201	
Q015108			WH13197987				ALS: ME-ICP41				11/23/201	
Q015109			WH13197987				ALS: ME-ICP41				11/23/201	
Q015111			WH13197987				ALS: ME-ICP41				11/23/201	
Q015112			WH13197987				ALS: ME-ICP41				11/23/201	
Q015113			WH13197987				ALS: ME-ICP41				11/23/201	
Q015114			WH13197987				ALS: ME-ICP41				11/23/201	
Q015115			WH13197987				ALS: ME-ICP41				11/23/201	
Q015116			WH13197987				ALS: ME-ICP41				11/23/201	
Q015117			WH13197987				ALS: ME-ICP41				11/23/201	
Q015118			WH13197987				ALS: ME-ICP41				11/23/201	
Q015119			WH13197987				ALS: ME-ICP41				11/23/201	
Q015121			WH13197987				ALS: ME-ICP41				11/23/201	
Q015201			WH13197987				ALS: ME-ICP41				11/23/201	
Q015202			WH13197987				ALS: ME-ICP41				11/23/201	
Q015203			WH13197987				ALS: ME-ICP41				11/23/201	
Q015204			WH13197987				ALS: ME-ICP41				11/23/201	
Q015205			WH13197987				ALS: ME-ICP41				11/23/201	
Q015206			WH13197987				ALS: ME-ICP41				11/23/201	
Q015207			WH13197987				ALS: ME-ICP41				11/23/201	
Q015208			WH13197987				ALS: ME-ICP41				11/23/201	
Q015122			WH13197987				ALS: ME-ICP41				11/23/201	
Q015123			WH13197987				ALS: ME-ICP41				11/23/201	
Q015124			WH13197987				ALS: ME-ICP41				11/23/201	
Q015125			WH13197987				ALS: ME-ICP41				11/23/201	
Q015126			WH13197987				ALS: ME-ICP41				11/23/201	
Q015127			WH13197987				ALS: ME-ICP41				11/23/201	
Q015128			WH13197987				ALS: ME-ICP41				11/23/201	
Q015129			WH13197987				ALS: ME-ICP41				11/23/201	
Q015132			WH13197987				ALS: ME-ICP41				11/23/201	
Q015133			WH13197987				ALS: ME-ICP41				11/23/201	
Q015134			WH13197987				ALS: ME-ICP41				11/23/201	
Q015135			WH13197987				ALS: ME-ICP41				11/23/201	
Q015136			WH13197987				ALS: ME-ICP41				11/23/201	
Q015137			WH13197987				ALS: ME-ICP41				11/23/201	
Q015138			WH13197987				ALS: ME-ICP41				11/23/201	
Q015139			WH13197987				ALS: ME-ICP41				11/23/201	
Q015141			WH13197987				ALS: ME-ICP41				11/23/201	
Q015142			WH13197987				ALS: ME-ICP41				11/23/201	
Q015143			WH13197987				ALS: ME-ICP41				11/23/201	
Q015144			WH13197987				ALS: ME-ICP41				11/23/201	
Q015145			WH13197987				ALS: ME-ICP41				11/23/201	
Q015146			WH13197987				ALS: ME-ICP41				11/23/201	
Q015147			WH13197987				ALS: ME-ICP41				11/23/201	
Q015148			WH13197987				ALS: ME-ICP41				11/23/201	
Q015149			WH13197987				ALS: ME-ICP41				11/23/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q015150			WH13197987				ALS: ME-ICP41				11/23/201	
Q015151			WH13197987				ALS: ME-ICP41				11/23/201	
Q015153			WH13197987				ALS: ME-ICP41				11/23/201	
Q015154			WH13197987				ALS: ME-ICP41				11/23/201	
Q015155			WH13197987				ALS: ME-ICP41				11/23/201	
Q015156			WH13197987				ALS: ME-ICP41				11/23/201	
Q015157			WH13197987				ALS: ME-ICP41				11/23/201	
Q015158			WH13197987				ALS: ME-ICP41				11/23/201	
Q015159			WH13197987				ALS: ME-ICP41				11/23/201	
Q015161			WH13197987				ALS: ME-ICP41				11/23/201	
Q015162			WH13197987				ALS: ME-ICP41				11/23/201	
Q015163			WH13197987				ALS: ME-ICP41				11/23/201	
Q015164			WH13197987				ALS: ME-ICP41				11/23/201	
Q015165			WH13197987				ALS: ME-ICP41				11/23/201	
Q015166			WH13197987				ALS: ME-ICP41				11/23/201	
Q015167			WH13197987				ALS: ME-ICP41				11/23/201	
Q015168			WH13197987				ALS: ME-ICP41				11/23/201	
Q015169			WH13197987				ALS: ME-ICP41				11/23/201	
Q015172			WH13197987				ALS: ME-ICP41				11/23/201	
Q015173			WH13197987				ALS: ME-ICP41				11/23/201	
Q015174			WH13197987				ALS: ME-ICP41				11/23/201	
Q015175			WH13197987				ALS: ME-ICP41				11/23/201	
Q015176			WH13197987				ALS: ME-ICP41				11/23/201	
Q015177			WH13197987				ALS: ME-ICP41				11/23/201	
Q015178			WH13197987				ALS: ME-ICP41				11/23/201	
Q015179			WH13197987				ALS: ME-ICP41				11/23/201	
Q015181			WH13197987				ALS: ME-ICP41				11/23/201	
Q015182			WH13197987				ALS: ME-ICP41				11/23/201	
Q015183			WH13197987				ALS: ME-ICP41				11/23/201	
Q015184			WH13197987				ALS: ME-ICP41				11/23/201	
Q015185			WH13197987				ALS: ME-ICP41				11/23/201	
Q015186			WH13197987				ALS: ME-ICP41				11/23/201	
Q015187			WH13197987				ALS: ME-ICP41				11/23/201	
Q015188			WH13197987				ALS: ME-ICP41				11/23/201	
Q015189			WH13197987				ALS: ME-ICP41				11/23/201	
Q015191			WH13197987				ALS: ME-ICP41				11/23/201	
Q015192			WH13197987				ALS: ME-ICP41				11/23/201	
Q015193			WH13197987				ALS: ME-ICP41				11/23/201	
Q015194			WH13197987				ALS: ME-ICP41				11/23/201	
Q015195			WH13197987				ALS: ME-ICP41				11/23/201	
Q015196			WH13197987				ALS: ME-ICP41				11/23/201	
Q015197			WH13197987				ALS: ME-ICP41				11/23/201	
Q015198			WH13197987				ALS: ME-ICP41				11/23/201	
Q015199			WH13197987				ALS: ME-ICP41				11/23/201	
Q015209			WH13197987				ALS: ME-ICP41				11/23/201	
Q015211			WH13197987				ALS: ME-ICP41				11/23/201	
Q015212			WH13197987				ALS: ME-ICP41				11/23/201	
Q015213			WH13197987				ALS: ME-ICP41				11/23/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q015214			WH13197987				ALS: ME-ICP41				11/23/201	
Q015215			WH13197987				ALS: ME-ICP41				11/23/201	
Q015216			WH13197987				ALS: ME-ICP41				11/23/201	
Q015217			WH13197987				ALS: ME-ICP41				11/23/201	
Q015218			WH13197987				ALS: ME-ICP41				11/23/201	
Q015219			WH13197987				ALS: ME-ICP41				11/23/201	
Q015221			WH13197987				ALS: ME-ICP41				11/23/201	
Q015222			WH13197987				ALS: ME-ICP41				11/23/201	
Q015223			WH13197987				ALS: ME-ICP41				11/23/201	
Q015224			WH13197987				ALS: ME-ICP41				11/23/201	
Q015225			WH13197987				ALS: ME-ICP41				11/23/201	
Q015226			WH13197987				ALS: ME-ICP41				11/23/201	
Q015227			WH13197987				ALS: ME-ICP41				11/23/201	
Q015228			WH13197987				ALS: ME-ICP41				11/23/201	
Q015229			WH13197987				ALS: ME-ICP41				11/23/201	
Q015232			WH13197987				ALS: ME-ICP41				11/23/201	
Q015233			WH13197987				ALS: ME-ICP41				11/23/201	
Q015234			WH13197987				ALS: ME-ICP41				11/23/201	
Q015235			WH13197987				ALS: ME-ICP41				11/23/201	
Q015236			WH13197987				ALS: ME-ICP41				11/23/201	
Q015237			WH13197987				ALS: ME-ICP41				11/23/201	
Q015238			WH13197987				ALS: ME-ICP41				11/23/201	
Q015239			WH13197987				ALS: ME-ICP41				11/23/201	
Q015241			WH13197987				ALS: ME-ICP41				11/23/201	
Q015242			WH13197987				ALS: ME-ICP41				11/23/201	
Q015243			WH13197987				ALS: ME-ICP41				11/23/201	
Q015244			WH13197987				ALS: ME-ICP41				11/23/201	
Q015245			WH13197987				ALS: ME-ICP41				11/23/201	
Q015246			WH13197987				ALS: ME-ICP41				11/23/201	
Q015247			WH13197987				ALS: ME-ICP41				11/23/201	
Q015248			WH13197987				ALS: ME-ICP41				11/23/201	
Q015249			WH13197987				ALS: ME-ICP41				11/23/201	
Q015251			WH13197987				ALS: ME-ICP41				11/23/201	
Q015252			WH13197987				ALS: ME-ICP41				11/23/201	
Q015253			WH13197987				ALS: ME-ICP41				11/23/201	
Q015254			WH13197987				ALS: ME-ICP41				11/23/201	
Q015255			WH13197987				ALS: ME-ICP41				11/23/201	
Q015256			WH13197987				ALS: ME-ICP41				11/23/201	
Q015257			WH13197987				ALS: ME-ICP41				11/23/201	
Q015258			WH13197987				ALS: ME-ICP41				11/23/201	
Q015259			WH13197987				ALS: ME-ICP41				11/23/201	
Q015261			WH13197987				ALS: ME-ICP41				11/23/201	
Q015262			WH13197987				ALS: ME-ICP41				11/23/201	
Q015263			WH13197987				ALS: ME-ICP41				11/23/201	
Q015264			WH13197987				ALS: ME-ICP41				11/23/201	
Q015265			WH13197987				ALS: ME-ICP41				11/23/201	
Q015266			WH13197987				ALS: ME-ICP41				11/23/201	
Q015267			WH13197987				ALS: ME-ICP41				11/23/201	

Sample No. Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q015268			WH13197987				ALS: ME-ICP41				11/23/201	
Q015269			WH13197987				ALS: ME-ICP41				11/23/201	
Q015272			WH13197987				ALS: ME-ICP41				11/23/201	
Q015273			WH13197987				ALS: ME-ICP41				11/23/201	
Q015274			WH13197987				ALS: ME-ICP41				11/23/201	
Q015275			WH13197987				ALS: ME-ICP41				11/23/201	
Q015276			WH13197987				ALS: ME-ICP41				11/23/201	
Q015277			WH13197987				ALS: ME-ICP41				11/23/201	
Q015278			WH13197987				ALS: ME-ICP41				11/23/201	
Q015279			WH13197987				ALS: ME-ICP41				11/23/201	
Q015281			WH13197987				ALS: ME-ICP41				11/23/201	
Q015282			WH13197987				ALS: ME-ICP41				11/23/201	
Q015283			WH13197987				ALS: ME-ICP41				11/23/201	
Q015284			WH13197987				ALS: ME-ICP41				11/23/201	
Q015285			WH13197987				ALS: ME-ICP41				11/23/201	
Q015286			WH13197987				ALS: ME-ICP41				11/23/201	
Q015287			WH13197987				ALS: ME-ICP41				11/23/201	
Q015288			WH13197987				ALS: ME-ICP41				11/23/201	
Q015289			WH13197987				ALS: ME-ICP41				11/23/201	
Q015291			WH13197987				ALS: ME-ICP41				11/23/201	
Q015292			WH13197987				ALS: ME-ICP41				11/23/201	
Q015293			WH13197987				ALS: ME-ICP41				11/23/201	
Q015294			WH13197987				ALS: ME-ICP41				11/23/201	
Q015295			WH13197987				ALS: ME-ICP41				11/23/201	
Q015296			WH13197987				ALS: ME-ICP41				11/23/201	

Dist (m)	Sa No.	Unit	Chemical Group	Alteration	Class By	Class Date	Lab	Year	Certificate	Method	Cert Date	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %
53.53	957147	0				1/1/2010			0 VAN13004665		1/1/2010	69.60	0.550	12.92	5.98
75.40	957148	0				1/1/2010			0 VAN13004665		1/1/2010	69.96	0.510	12.93	5.28
90.40	957149	0				1/1/2010			0 VAN13004665		1/1/2010	66.66	0.620	14.61	5.67
136.31	957150	0				1/1/2010			0 VAN13004665		1/1/2010	64.77	0.610	14.57	6.58
166.10	957151	0				1/1/2010			0 VAN13004665		1/1/2010	66.37	0.590	14.31	5.48
223.47	957152	0				1/1/2010			0 VAN13004665		1/1/2010	65.47	0.380	14.20	7.80
255.30	957153	0				1/1/2010			0 VAN13004665		1/1/2010	68.08	0.350	13.23	7.18
276.24	957154	0				1/1/2010			0 VAN13004665		1/1/2010	71.45	0.310	11.69	5.98
292.44	957155	0				1/1/2010			0 VAN13004665		1/1/2010	71.68	0.310	12.01	5.29
320.61	957156	0				1/1/2010			0 VAN13004665		1/1/2010	72.79	0.340	12.65	4.04
354.42	957157	0				1/1/2010			0 VAN13004665		1/1/2010	74.67	0.280	10.62	4.83
432.45	957158	0				1/1/2010			0 VAN13004665		1/1/2010	55.32	0.790	16.27	10.57
581.69	957159	0				1/1/2010			0 VAN13004665		1/1/2010	47.62	0.860	18.62	11.54

Dist (m)	Sa No.	MnO %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	Cr2O3 %	Ni ppm	Sc ppm	LOI %	C %	S %	Sum %	Ba ppm	Be ppm	Ce ppm	Co ppm	Cs ppm	Dy ppm	Er ppm	Eu ppm	Ga ppm
53.53	957147	0.03	0.76	0.42	1.60	3.75	0.170	<0.002	<20.0	15	3.9	0.0	3.7	99.62	2685	1	33.1	7.9	1.4	5.05	3.01	3.01	14.7
75.40	957148	0.04	1.23	0.40	0.10	4.93	0.160	<0.002	<20.0	16	4.0	0.0	3.1	99.54	3384	4	35.3	4.9	1.0	5.90	3.56	3.56	14.5
90.40	957149	0.03	0.80	0.51	3.21	3.46	0.190	<0.002	<20.0	19	4.0	0.1	3.8	99.71	1824	<1	40.1	3.9	1.2	5.75	3.41	3.41	15.6
136.31	957150	0.11	2.71	0.46	0.40	5.18	0.200	<0.002	<20.0	19	3.9	0.0	2.0	99.54	3430	<1	37.8	5.1	3.1	6.18	3.63	3.63	17.3
166.10	957151	0.05	1.81	0.58	0.19	5.79	0.190	<0.002	<20.0	18	4.0	0.0	2.4	99.34	5164	<1	36.6	8.4	1.6	5.40	3.66	3.66	15.1
223.47	957152	0.07	1.67	0.24	0.11	5.00	0.080	<0.002	<20.0	14	4.4	<0.0	3.9	99.47	3695	<1	50.1	11.4	2.3	6.31	4.46	4.46	18.3
255.30	957153	0.03	1.14	0.13	0.07	4.55	0.080	<0.002	<20.0	14	4.8	<0.0	4.3	99.64	2514	<1	49.1	5.9	1.6	4.04	2.80	2.80	16.2
276.24	957154	0.06	1.98	0.29	0.08	4.26	0.070	<0.002	<20.0	12	3.5	0.0	2.5	99.66	2280	1	49.0	12.1	2.3	5.71	3.60	3.60	14.5
292.44	957155	0.04	1.51	0.18	0.04	4.67	0.080	<0.002	<20.0	14	3.8	<0.0	2.7	99.60	2731	1	43.6	6.0	1.8	5.86	4.09	4.09	14.9
320.61	957156	0.04	0.95	0.30	0.24	4.72	0.080	<0.002	<20.0	14	3.1	0.1	1.8	99.30	5078	1	44.8	1.8	0.7	5.42	3.07	3.07	12.2
354.42	957157	0.03	1.38	0.32	0.12	4.08	0.070	<0.002	<20.0	12	3.2	0.0	2.6	99.55	2950	<1	44.9	10.0	1.7	5.09	3.05	3.05	10.4
432.45	957158	0.14	3.44	0.99	1.33	4.85	0.160	<0.002	<20.0	28	5.1	0.0	4.1	98.96	5796	<1	28.1	40.7	2.2	3.80	1.92	1.92	14.4
581.69	957159	0.27	9.18	2.41	4.66	0.73	0.220	0.007	45.0	40	3.7	0.0	0.0	99.81	571	1	15.5	38.4	0.8	2.40	2.02	2.02	17.4

Dist (m)	Sa No.	Gd ppm	Hf ppm	Ho ppm	La ppm	Lu ppm	Nb ppm	Nd ppm	Pr ppm	Rb ppm	Sm pp	Sn ppm	Sr ppm	Ta ppm	Tb ppm	Th ppm	Th ppm	U ppm	V ppm	W ppm	Y ppm	Yb ppm	Zr ppm
53.53	957147	4.73	3.3	1.02	16.2	0.47	5.2	19.1	4.36	52.3	4.8	1	43.6	0.4	0.83	3.4	0.41	1.5	14	1.7	26.5	2.99	100.3
75.40	957148	5.91	3.3	1.22	16.8	0.49	5.1	22.4	4.75	72.3	4.8	1	32.9	0.3	0.97	3.1	0.56	1.4	10	1.0	32.1	3.27	96.7
90.40	957149	5.25	2.9	1.16	18.9	0.56	6.1	22.7	5.08	51.0	5.5	2	62.0	0.3	0.98	3.4	0.57	1.4	10	1.5	31.4	3.72	116.0
136.31	957150	5.38	3.0	1.27	18.6	0.65	6.4	22.3	5.02	90.6	4.9	2	28.3	0.4	1.01	3.6	0.58	1.5	14	1.5	34.7	4.12	118.8
166.10	957151	5.71	3.4	1.28	18.4	0.57	5.7	21.5	4.57	84.7	4.6	1	41.3	0.4	1.03	3.0	0.53	1.4	18	0.9	34.0	3.76	109.0
223.47	957152	5.64	4.4	1.41	25.2	0.64	7.1	26.1	6.20	83.7	5.7	2	40.7	0.5	1.01	4.3	0.60	1.6	9	<0.5	37.8	4.32	150.9
255.30	957153	5.21	3.0	0.86	24.5	0.62	7.0	24.0	6.29	78.0	5.5	2	15.3	0.5	0.78	4.2	0.49	1.6	<8	2.1	26.2	3.65	147.4
276.24	957154	5.97	3.3	1.08	22.8	0.58	6.6	19.1	5.85	67.7	5.6	3	26.0	0.5	0.96	3.9	0.48	1.5	11	1.7	29.7	3.71	118.3
292.44	957155	5.49	3.8	1.38	21.8	0.64	6.6	24.4	5.59	80.5	4.9	1	19.0	0.4	0.96	3.3	0.63	1.6	<8	1.1	34.8	3.90	129.3
320.61	957156	5.25	4.0	1.14	21.6	0.58	6.8	24.5	5.85	72.9	6.1	2	73.7	0.5	0.88	4.2	0.58	1.9	<8	1.3	33.8	3.49	136.8
354.42	957157	5.81	2.5	1.14	21.3	0.51	5.6	25.1	5.55	72.9	6.0	2	33.8	0.4	0.97	3.4	0.48	1.5	12	1.0	28.4	3.75	116.9
432.45	957158	4.04	1.0	0.64	17.1	0.33	1.3	16.5	3.74	78.5	3.6	1	73.8	0.1	0.61	0.5	0.30	0.4	275	0.5	18.6	1.97	27.9
581.69	957159	3.11	0.2	0.67	6.6	0.26	1.2	7.9	2.08	13.7	2.4	<1	124.6	<0.1	0.47	0.5	0.25	0.2	359	1.1	14.3	1.86	24.3

Drill Hole Log - Litho Geochem

Dist (m)	Sa No.	Ag ppm	As ppm	Au ppb	Bi ppm	Cd ppm	Cu ppm	Hg ppm	Mo pp	Ni ppm	Pb ppm	Sb ppm	Se ppm	Tl ppm	Zn ppm	Al/Ti	La/Yb	Zr/Al	Zr/Nb	Zr/Ti	Zr/Y	Comments
53.53	957147	0.3	8.9	15.3	2.9	<0.1	4	0.03	2.9	0.8	6	0.5	2.8	0.1	10							QSP - silcified rh
75.40	957148	0.2	65.9	142.4	0.9	0.2	9	0.04	1.7	1.0	7	0.6	1.5	<0.1	49							Silicified rhyolite
90.40	957149	0.9	48.6	54.6	0.3	<0.1	23	0.13	1.5	0.9	11	2.5	0.8	0.2	8							Rhyolite flow bre
136.31	957150	<0.1	5.9	6.7	0.3	<0.1	5	<0.01	0.6	0.5	2	1.4	1.3	0.2	32							Basalt Lapilli Tuff
166.10	957151	0.5	12.2	43.0	2.3	<0.1	17	0.01	4.3	0.7	5	1.0	1.4	0.1	17							Rhyolite Tuff
223.47	957152	<0.1	4.7	4.9	0.5	<0.1	311	0.02	3.5	3.5	1	4.2	5.9	0.1	27							Basalt debris flo
255.30	957153	<0.1	39.4	6.4	0.7	<0.1	14	0.01	1.5	2.1	1	1.6	7.4	<0.1	11							rhyolite fragmen
276.24	957154	<0.1	5.2	4.0	0.2	<0.1	6	0.01	0.6	3.3	2	2.2	2.5	0.1	34							basalt debris flo
292.44	957155	<0.1	6.0	7.6	0.3	0.5	9	0.04	4.5	1.5	7	1.6	1.7	0.1	124							rhyolite flow bre
320.61	957156	0.2	29.5	6.8	0.5	<0.1	278	1.47	2.4	0.2	3	33.6	1.3	<0.1	38							feldspar phyric r
354.42	957157	<0.1	15.2	4.5	0.7	0.6	269	0.03	1.0	1.0	5	7.4	3.2	<0.1	41							rhyolite flow bre
432.45	957158	0.4	5.0	5.0	0.7	0.2	2510	0.01	0.3	5.2	3	1.9	8.7	0.1	68							amygdaloidal ba
581.69	957159	<0.1	4.3	0.7	<0.1	<0.1	31	<0.01	<0.1	40.0	2	3.5	<0.5	<0.1	88							massive amygdal

Drill Hole Log - Ez-Shot Survey

Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date	Dist (m)	Az Mag	Dip	Mag nT	Az True	Driller	Date
30.00	285	-61.8	5707	305.7	M.Smith	10/17/2013							
60.00	284.6	-62.1	5697	305.3	M.Smith	10/18/2013							
90.00	285.5	-62.3	5689	306.2	C.Baskin	10/18/2013							
120.00	286.2	-62.7	5689	306.9	C.Baskin	10/18/2013							
150.00	287.8	-62.7	5691	308.5	C.Baskin	10/18/2013							
180.00	290.7	-62.8	5681	311.4	M.Smith	10/18/2013							
210.00	290.4	-62.8	5691	311.1	M.Smith	10/19/2013							
240.00	293.3	-62.6	5677	314	C. Baskin	10/19/2013							
270.00	277.5	-63	5440	298.2	M Smith	10/19/2013							
300.00	293.2	-63	5670	313.9	M Smith	10/20/2013							
330.00	292	-62.7	5669	312.7	C Baskin	10/20/2013							
360.00	295.3	-62.9	5667	316	M Smith	10/21/2013							
390.00	294.9	-63.7	5658	315.6	C Baskin	10/21/2013							
420.00	296	-64.5	5625	316.7	C Baskin	10/22/2013							
450.00	298.4	-64.8	5590	319.1	Ryan	10/22/2013							
480.00	299.5	-65.4	5638	320.2	Ryan	10/23/2013							
501.00	299.4	-65.3	5636	320.1	Ryan	10/23/2013							
540.00	301.2	-66.2	5677	321.9	Ryan	10/24/2013							
570.00	301.4	-66.4	5624	322.1	Ryan	10/26/2013							

Drill Hole Log - Rock Quality Determination

TC13067

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
3.00	6.00	3	2.37	79	1.81	76.37	
6.00	9.00	3	2.59	86.33	2.09	80.69	
9.00	12.00	3	3.09	103	2.48	80.26	
12.00	15.00	3	2.85	95	2.01	70.53	
15.00	18.00	3	2.69	89.67	1.59	59.11	
18.00	21.00	3	2.88	96	1.2	41.67	
21.00	24.00	3	2.59	86.33	1.41	54.44	
24.00	27.00	3	2.89	96.33	2.36	81.66	
27.00	30.00	3	3	100	2.41	80.33	
30.00	33.00	3	2.43	81	1.97	81.07	
33.00	36.00	3	3.19	106.33	2.56	80.25	
36.00	39.00	3	2.91	97	2.52	86.6	
39.00	42.00	3	3	100	2.78	92.67	
42.00	45.00	3	3.03	101	2.66	87.79	
45.00	48.00	3	2.82	94	2.64	93.62	
48.00	51.00	3	3.04	101.33	2.75	90.46	
51.00	54.00	3	2.92	97.33	2.88	98.63	
54.00	57.00	3	3.1	103.33	2.61	84.19	
57.00	60.00	3	2.92	97.33	2.82	96.58	
60.00	63.00	3	3.02	100.67	3.02	100	
63.00	66.00	3	3	100	1.72	57.33	
66.00	69.00	3	2.9	96.67	2.9	100	
69.00	72.00	3	2.7	90	2.7	100	
72.00	75.00	3	3.05	101.67	2.8	91.8	
75.00	78.00	3	3.08	102.67	2.89	93.83	
78.00	81.00	3	2.79	93	2.25	80.65	
81.00	84.00	3	3.1	103.33	2.8	90.32	
84.00	87.00	3	3.1	103.33	2.91	93.87	
87.00	90.00	3	2.64	88	1.85	70.08	
90.00	93.00	3	3.05	101.67	1.96	64.26	
93.00	96.00	3	2.9	96.67	2.45	84.48	
96.00	99.00	3	2.6	86.67	2.57	98.85	
99.00	102.00	3	2.85	95	2.67	93.68	
102.00	105.00	3	2.95	98.33	2.95	100	
105.00	108.00	3	3.1	103.33	2.97	95.81	
108.00	111.00	3	3.05	101.67	2.76	90.49	
111.00	114.00	3	2.8	93.33	2.63	93.93	
114.00	117.00	3	3.05	101.67	2.86	93.77	
117.00	120.00	3	3.02	100.67	3.02	100	
120.00	123.00	3	2.98	99.33	2.88	96.64	
123.00	126.00	3	3	100	3	100	
126.00	129.00	3	3.07	102.33	2.91	94.79	
129.00	132.00	3	2.87	95.67	2.71	94.43	
132.00	135.00	3	3.04	101.33	2.79	91.78	
135.00	138.00	3	3	100	2.9	96.67	
138.00	141.00	3	2.96	98.67	2.81	94.93	
141.00	144.00	3	3.02	100.67	2.93	97.02	
144.00	147.00	3	2.94	98	2.94	100	
147.00	150.00	3	2.99	99.67	2.97	99.33	
150.00	153.00	3	2.97	99	2.86	96.3	
153.00	156.00	3	2.92	97.33	2.63	90.07	
156.00	159.00	3	3.06	102	3.06	100	
159.00	162.00	3	2.99	99.67	2.55	85.28	
162.00	165.00	3	2.92	97.33	2.66	91.1	
165.00	168.00	3	2.92	97.33	2.36	80.82	
168.00	171.00	3	2.71	90.33	2.31	85.24	
171.00	174.00	3	3.13	104.33	2.95	94.25	
174.00	177.00	3	3.1	103.33	1.13	36.45	
177.00	180.00	3	3.08	102.67	1.48	48.05	
180.00	183.00	3	2.98	99.33	1.5	50.34	
183.00	186.00	3	2.99	99.67	2.26	75.59	
186.00	189.00	3	2.93	97.67	2.3	78.5	
189.00	192.00	3	3.03	101	2.78	91.75	
192.00	195.00	3	2.95	98.33	2.69	91.19	
195.00	198.00	3	2.97	99	2.52	84.85	
198.00	201.00	3	2.94	98	2.89	98.3	
201.00	204.00	3	2.91	97	2.52	86.6	
204.00	207.00	3	3.05	101.67	2.9	95.08	
207.00	210.00	3	3.11	103.67	1.8	57.88	
210.00	213.00	3	2.88	96	1.88	65.28	
213.00	216.00	3	2.99	99.67	2.9	96.99	
216.00	219.00	3	2.95	98.33	2.85	96.61	
219.00	222.00	3	2.98	99.33	2.98	100	
222.00	225.00	3	2.98	99.33	2.34	78.52	
225.00	228.00	3	2.92	97.33	2.72	93.15	
228.00	231.00	3	2.92	97.33	2.84	97.26	
231.00	234.00	3	3.02	100.67	2.73	90.4	
234.00	237.00	3	3	100	3	100	
237.00	240.00	3	2.93	97.67	2.57	87.71	
240.00	243.00	3	3.02	100.67	2.58	85.43	
243.00	246.00	3	3.02	100.67	2.95	97.68	
246.00	249.00	3	2.95	98.33	2.95	100	
249.00	252.00	3	3.01	100.33	2.83	94.02	

Drill Hole Log - Rock Quality Determination

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
252.00	255.00	3	2.91	97	2.6	89.35	
255.00	258.00	3	2.93	97.67	2.74	93.52	
258.00	261.00	3	2.97	99	2.67	89.9	
261.00	264.00	3	3	100	2.9	96.67	
264.00	267.00	3	3	100	3	100	
267.00	270.00	3	2.94	98	2.72	92.52	
270.00	273.00	3	2.75	91.67	2.55	92.73	
273.00	276.00	3	3.13	104.33	2.98	95.21	
276.00	279.00	3	3.04	101.33	2.85	93.75	
279.00	282.00	3	2.91	97	2.63	90.38	
282.00	285.00	3	3.03	101	2.81	92.74	
285.00	288.00	3	3.08	102.67	2.25	73.05	
288.00	291.00	3	2.88	96	2.62	90.97	
291.00	294.00	3	3.1	103.33	2.98	96.13	
294.00	297.00	3	2.94	98	2.8	95.24	
297.00	300.00	3	2.97	99	2.83	95.29	
300.00	303.00	3	2.88	96	2.77	96.18	
303.00	306.00	3	3	100	2.92	97.33	
306.00	309.00	3	3.08	102.67	2.94	95.45	
309.00	312.00	3	3.02	100.67	2.73	90.4	
312.00	315.00	3	2.95	98.33	2.76	93.56	
315.00	318.00	3	3.08	102.67	2.47	80.19	
318.00	321.00	3	3.04	101.33	2.93	96.38	
321.00	324.00	3	2.95	98.33	2.82	95.59	
324.00	327.00	3	2.93	97.67	2.77	94.54	
327.00	330.00	3	2.98	99.33	2.83	94.97	
330.00	333.00	3	2.98	99.33	2.65	88.93	
333.00	336.00	3	2.3	76.67	0.8	34.78	
336.00	339.00	3	2.87	95.67	0.8	27.87	
339.00	342.00	3	2.7	90	1.64	60.74	
342.00	345.00	3	3.08	102.67	3.08	100	
345.00	348.00	3	2.88	96	2.88	100	
348.00	351.00	3	2.9	96.67	2.9	100	
351.00	354.00	3	2.94	98	2.94	100	
354.00	357.00	3	3.05	101.67	2.96	97.05	
357.00	360.00	3	3.03	101	2.96	97.69	
360.00	363.00	3	2.96	98.67	2.84	95.95	
363.00	366.00	3	2.97	99	2.7	90.91	
366.00	369.00	3	2.99	99.67	2.9	96.99	
369.00	372.00	3	3.01	100.33	2.89	96.01	
372.00	375.00	3	2.76	92	1.13	40.94	
375.00	378.00	3	2.63	87.67	1.54	58.56	
378.00	381.00	3	3.18	106	3.13	98.43	
381.00	384.00	3	2.93	97.67	2.89	98.63	
384.00	387.00	3	3.1	103.33	3.02	97.42	
387.00	390.00	3	3.04	101.33	2.96	97.37	
390.00	393.00	3	2.95	98.33	2.95	100	
393.00	396.00	3	3.04	101.33	2.93	96.38	
396.00	399.00	3	2.84	94.67	2.28	80.28	
399.00	402.00	3	3.08	102.67	1.41	45.78	
402.00	405.00	3	2.84	94.67	1.86	65.49	
405.00	408.00	3	3.05	101.67	2.23	73.11	
408.00	411.00	3	2.37	79	0.62	26.16	
411.00	414.00	3	2.95	98.33	1.93	65.42	
414.00	417.00	3	3.04	101.33	2.7	88.82	
417.00	420.00	3	2.6	86.67	1.58	60.77	
420.00	423.00	3	3.2	106.67	2.16	67.5	
423.00	426.00	3	3.03	101	2.75	90.76	
426.00	429.00	3	2.78	92.67	2	71.94	
429.00	432.00	3	2.82	94	2.4	85.11	
432.00	435.00	3	3.1	103.33	2.8	90.32	
435.00	438.00	3	3.03	101	2.54	83.83	
438.00	441.00	3	2.95	98.33	2.75	93.22	
441.00	444.00	3	3.13	104.33	2.42	77.32	
444.00	447.00	3	2.96	98.67	2.51	84.8	
447.00	450.00	3	3.03	101	2.92	96.37	
450.00	453.00	3	3.05	101.67	2.95	96.72	
453.00	456.00	3	2.94	98	2.76	93.88	
456.00	459.00	3	3.05	101.67	2.72	89.18	
459.00	462.00	3	2.99	99.67	2.74	91.64	
462.00	465.00	3	2.96	98.67	2.66	89.86	
465.00	468.00	3	2.94	98	2.94	100	
468.00	471.00	3	2.92	97.33	2.05	70.21	
471.00	474.00	3	2.9	96.67	1.76	60.69	
474.00	477.00	3	2.98	99.33	2.88	96.64	
477.00	480.00	3	3.03	101	2.51	82.84	
480.00	483.00	3	2.97	99	2.83	95.29	
483.00	486.00	3	3.07	102.33	2.67	86.97	
486.00	489.00	3	3.05	101.67	2.73	89.51	
489.00	492.00	3	2.93	97.67	2.78	94.88	
492.00	495.00	3	2.97	99	2.77	93.27	
495.00	498.00	3	2.96	98.67	2.96	100	
498.00	501.00	3	2.98	99.33	2.62	87.92	

From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments	From	To (m)	Int	Rec	Rec %	Rec >10cm	RQD	Comments
501.00	504.00	3	2.91	97	2.84	97.59									
504.00	507.00	3	3.02	100.67	2.94	97.35									
507.00	510.00	3	2.95	98.33	2.95	100									
510.00	513.00	3	2.93	97.67	2.38	81.23									
513.00	516.00	3	3.02	100.67	2.82	93.38									
516.00	519.00	3	2.92	97.33	2.81	96.23									
519.00	522.00	3	3.1	103.33	2.95	95.16									
522.00	525.00	3	3	100	2.78	92.67									
525.00	528.00	3	2.93	97.67	2.65	90.44									
528.00	531.00	3	3.01	100.33	2.56	85.05									
531.00	534.00	3	2.96	98.67	2.87	96.96									
534.00	537.00	3	2.91	97	2.78	95.53									
537.00	540.00	3	3.08	102.67	3	97.4									
540.00	543.00	3	2.97	99	2.79	93.94									
543.00	546.00	3	3.04	101.33	2.85	93.75									
546.00	549.00	3	2.91	97	2.69	92.44									
549.00	552.00	3	2.9	96.67	2.62	90.34									
552.00	555.00	3	3.03	101	2.85	94.06									
555.00	558.00	3	3.18	106	3.05	95.91									
558.00	561.00	3	2.96	98.67	2.68	90.54									
561.00	564.00	3	2.99	99.67	2.76	92.31									
564.00	567.00	3	2.99	99.67	2.8	93.65									
567.00	570.00	3	3.08	102.67	2.85	92.53									
570.00	573.00	3	2.97	99	2.75	92.59									
573.00	576.00	3	2.95	98.33	2.84	96.27									
576.00	579.00	3	3.02	100.67	2.96	98.01									
579.00	582.00	3	2.91	97	2.76	94.85									
582.00	585.00	3	3.11	103.67	3.02	97.11									
585.00	588.00	3	2.9	96.67	2.07	71.38									

Drill Hole Log - Structure

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
25.00		str										30	20				5/22/2011	pyrite stringer
46.90		str										10	80				5/22/2011	pyrite stringer
73.32		fol										35	90				5/22/2011	good confidence
144.50		fol										45	180				5/22/2011	low confidence
296.70		fol										35	350				5/22/2011	moderate confidence
297.20		fol										30	340				5/22/2011	low confidence
370.47		cont										20	200				5/22/2011	moderate confidence
396.80		fol										30	230				5/22/2011	moderate confidence
443.80		band										25	110				5/22/2011	
458.60		fol										35	120				5/22/2011	fair confidence
458.80		faul										40	310				5/22/2011	high confidence
464.40		fol										30	120				5/22/2011	low confidence in Act tool marks
485.85		fol										45	20				5/22/2011	weakly elongate amygdules
509.90		vn										25	240				5/22/2011	strong confidence
520.65		vn										35	100				5/22/2011	moderate confidence
531.30		band										25	130				5/22/2011	Band of alteration
536.80		fol										20	260				5/22/2011	faint sulphide banding
544.70		fol										30	160				5/22/2011	allignment of sulfide minerals
562.30		str										40	150				5/22/2011	pyrite stringer, moderate confidence
569.90		vn										25	120				5/22/2011	quartz vein
572.80		fol										35	100				5/22/2011	elongate amygdules and quartz vein
578.10		fol										50	300				5/22/2011	low confidence
579.10		vn										40	140				5/22/2011	quartz vein, high confidence
579.70		str										10	40				5/22/2011	pyrite stringer, high confidence
582.30		vn										30	20				5/22/2011	quartz vein
582.60		vn										45	200				5/22/2011	quartz vein
587.75		band										20	320				5/22/2011	alteration

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
3.00	13.50	dis		3										
13.50	18.00	dis		5										
18.00	41.80			5										
41.81	43.31			5										
43.31	44.81	str		8										
44.81	46.31	str		5										
46.31	47.11	str		30										
47.11	48.61	str		8										
48.61	69.54			5										
69.54	71.04			5										
71.04	72.17			8										
72.17	73.30			10										
73.30	73.72			75										
73.72	75.05			8										
75.05	76.38			8										
76.38	77.88			10										
77.88	79.20	dis		3										
79.20	84.00	dis		5										
84.00	85.43			10										
85.43	86.43			10	0.1									
86.43	87.93			8										
87.93	99.74	dis		5										
99.74	101.24			5										
101.24	102.74	str		10										
102.74	103.75	str		20										
103.75	105.25			8										
105.25	124.00	dis		5										
124.00	125.00			5										
125.00	126.00			5			0.1							
126.00	127.00			5										
127.00	129.10			5										
129.10	132.22	dis	band	10										
132.22	153.04			5										
153.04	174.48			5										
174.48	176.13			2										
176.13	177.06			5										
177.06	178.00			5										
178.00	179.50			5										
179.50	204.60			3	0.1									
204.60	206.10			5										
206.10	207.10			5	0.5									
207.10	209.20			0.1										
209.20	210.03			3										
210.03	210.31			0.1										
210.31	211.67			8										
211.67	213.00			8										
213.00	213.22			5							0.1			
213.22	214.82			2	0.1									

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
214.82	216.42			0.1	0.1									
216.42	217.92			5										
217.92	222.12			5										
222.12	230.85			5										
230.85	233.36			3										
233.36	242.28			3	0.1									
242.28	243.78			8										
243.78	245.04			8										
245.04	246.30			8										
246.30	246.80			5	2									
246.80	248.30			5	0.1									
248.30	249.80			10										
249.80	251.30			8	0.1									
251.30	252.80			5	0.1									
252.80	254.30			5	0.1									
254.30	255.80			8	0.1									
255.80	257.30			5	0.1									
257.30	258.80			5										
258.80	260.30			8	0.5									
260.30	261.80			5	0.1									
261.80	262.91			5	0.1									
262.91	264.03			5	0.1									
264.03	265.53			5	0.1									
265.53	267.24			5	0.1									
267.24	268.95			5	0.1									
268.95	284.04			5										up to 10%
284.04	286.70			0.1										
286.70	294.37			2										
294.37	295.87			5										
295.87	297.37			10			0.1							
297.37	298.87			5										
298.87	300.37			10										
300.37	300.63			45										
300.63	302.13			3										
302.13	303.63			3										
303.63	332.05			1										
332.05	367.50			5										
367.50	369.00			8										
369.00	370.47			12										
370.47	371.08			45	0.1									
371.08	372.36			8										
372.36	373.90			2										
373.90	375.58			8										
375.58	376.50			2										
376.50	378.00			5										
378.00	379.50			10	0.1									
379.50	381.00			10										
381.00	382.50			8										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
382.50	384.00			8										
384.00	385.50			8										
385.50	387.00			10										
387.00	388.50			8										
388.50	390.07			8										
390.07	390.93			12	0.1									
390.93	391.58			5										
391.58	391.90			8	0.1									
391.90	393.12			5	0.1									
393.12	394.35			5	0.1									
394.35	395.85			10	1									
395.85	397.35			10	0.1									
397.35	398.85			15	2									
398.85	400.00			12	1									
400.00	401.00			8										
401.00	402.50			12	1									
402.50	404.00			10	0.1									
404.00	405.50			10	1									
405.50	407.00			10	2									
407.00	408.50			10	1									
408.50	410.00			8	0.1									
410.00	411.50			8										
411.50	412.65			10										
412.65	413.80			10										
413.80	415.30			12	1									
415.30	416.80			10	0.1									
416.80	418.30			8	2									
418.30	419.80			8	0.1									
419.80	421.30			10	1									
421.30	422.80			8	1									
422.80	424.30			8	0.1									
424.30	425.80			10	0.1									
425.80	427.30			12	0.1									
427.30	428.80			8	0.1									
428.80	430.30			8	0.1									
430.30	431.80			5	0.5									
431.80	433.30			10	1									
433.30	434.80			10	0.5									
434.80	436.30			10	0.1									
436.30	437.80			10	0.1									
437.80	439.30			8	0.1									
439.30	440.80			10	0.1									
440.80	442.30			8	0.1									
442.30	443.80			10	0.1									
443.80	445.30			10	0.5									
445.30	446.80			12	1									
446.80	448.30			10	0.1									
448.30	449.80			6	0.1									

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
449.80	451.76			10	0.5									
451.76	452.42			0.1										
452.42	454.00			10	0.1									
454.00	455.50			10	0.5									
455.50	457.00			10	1									
457.00	458.75			10	0.1									
458.75	459.22			5	0.1									
459.22	460.75			8	2									
460.75	462.25			10	0.1									
462.25	463.75			10	0.1									
463.75	465.25			8	0.1									
465.25	466.75			8	1									
466.75	468.25			8	0.1									
468.25	469.96			10	1									
469.96	471.40			3										
471.40	473.00			8	0.1									
473.00	474.50			12	0.1									
474.50	476.00			8	0.1									
476.00	477.50			8										
477.50	479.00			8										
479.00	480.50			10										
480.50	482.00			12										
482.00	483.50			6										
483.50	485.00			10	0.1									
485.00	486.50			5										
486.50	488.00			5	0.1									
488.00	489.50			5										
489.50	491.00			6										
491.00	492.50			8										
492.50	494.00			8	0.1									
494.00	495.50			5										
495.50	497.00			8	0.1									
497.00	498.50			8	0.1									
498.50	500.00			10										
500.00	501.50			10	0.1									
501.50	503.00			10	0.1									
503.00	504.50			8	0.1									
504.50	506.00			8	0.5									
506.00	507.50			10	0.5									
507.50	508.55			10	0.1									
508.55	509.89			0.5										
509.89	511.24			0.1										
511.24	512.75			8	1									
512.75	514.25			10	0.1									
514.25	515.75			10	0.1									
515.75	517.22			10	0.1									
517.22	518.62			0.1										
518.62	520.02			0.5										

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
520.02	521.41			0.1									0.1	
521.41	522.91			10	0.1									
522.91	524.41			10	0.1									
524.41	525.42			8	0.1									
525.42	525.96			0.1										
525.96	527.50			8	0.1									
527.50	529.00			8	0.1									
529.00	530.50			10	0.1									
530.50	532.00			12	0.1									
532.00	533.50			12	0.1									
533.50	535.00			12	0.1									
535.00	536.50			12	0.1									
536.50	538.00			10	1									
538.00	539.50			10	1									
539.50	541.00			10	0.5									
541.00	542.50			8	0.1									
542.50	544.00			10	0.5									
544.00	545.50			12	0.1									
545.50	547.00			10	4									
547.00	548.50			10	3									
548.50	550.00			10	0.1									
550.00	551.50			10	0.1									
551.50	553.00			8	0.1									
553.00	554.50			10	0.1									
554.50	556.00			10	0.5									
556.00	557.50			10	0.1									
557.50	559.00			10	0.1									
559.00	560.50			10										
560.50	562.00			8										
562.00	563.40			8	0.1									
563.40	565.00			8										
565.00	566.50			8	0.1									
566.50	568.00			5	0.5									
568.00	569.50			5	0.1									
569.50	571.00			4	0.1									
571.00	572.50			6	0.5									
572.50	574.00			3	0.1									
574.00	575.50			3	0.1									
575.50	577.00			2										
577.00	578.50			2	0.1									
578.50	580.00			5										
580.00	581.50			0.1										
581.50	583.00			0.1										
583.00	584.50			6										
584.50	586.00			10										
586.00	587.00			6										
587.00	588.00			4										

CHIEFTAIN METALS INC

Drill Hole Log

BK13006

Hole-ID	Collar X: (m)	Collar Y: (m)	Collar Z: (m)	Length (m)	Azimuth	Dip
BK13006	582171.00	6504486.00	74.00	370	30	-45

Start Date:	End Date:	Core Size	Contractor	Logged Date	Logged By
9/24/2013	9/27/2013	NQ	Atlas Drilling	9/29/2013	C Taylor

Collar Survey Method	Collar Survey By	Collar Survey Date	Collar Azimuth Survey Method	Collar Azimuth Survey By	Collar Azimuth Survey Date
		1/24/2013			1/24/2013

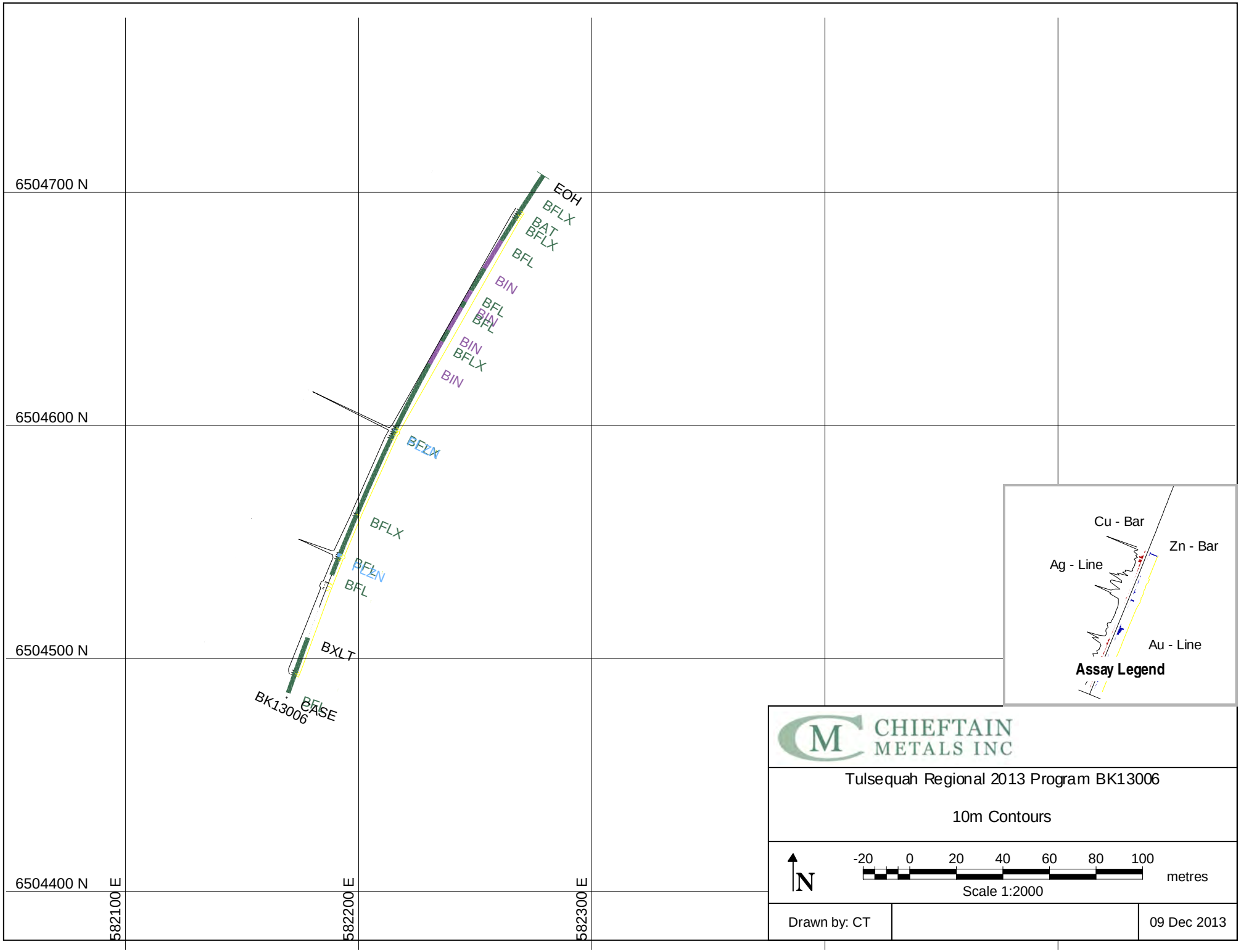
Purpose:

IP Target

Summary:

Collared in moderately altered Basalt Flows and Crystal Tuffs to 94.75m.
Significant mineralized Fault Zone 94.75-97.35m.
Moderately altered Basalt Flows 97.35-125.96.
Highly chloritized Basalt Flow Breccia with siliceous (QSP?) fragments 125.96-182.80m.
Significant mineralized Fault Zone 182.80-183.86m.
Chloritized and silicified mafic Flow Breccias, Flows, and Intrusions 182.80-344.45m
Chloritized Basalt Ash Tuff 344.45-357.03m
High chloritized Basalt (of indeterminate protolith) with significant brownish biotite? Alteration 357.03-370.00m (EOH)

IP target not readily explained.


6504700 N
6504600 N
6504500 N
6504400 N
582100 E
582200 E
582300 E
EOH
BFLX
BAT
BFLX
BFL
BIN
BFL
BIN
BFL
BIN
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BIN
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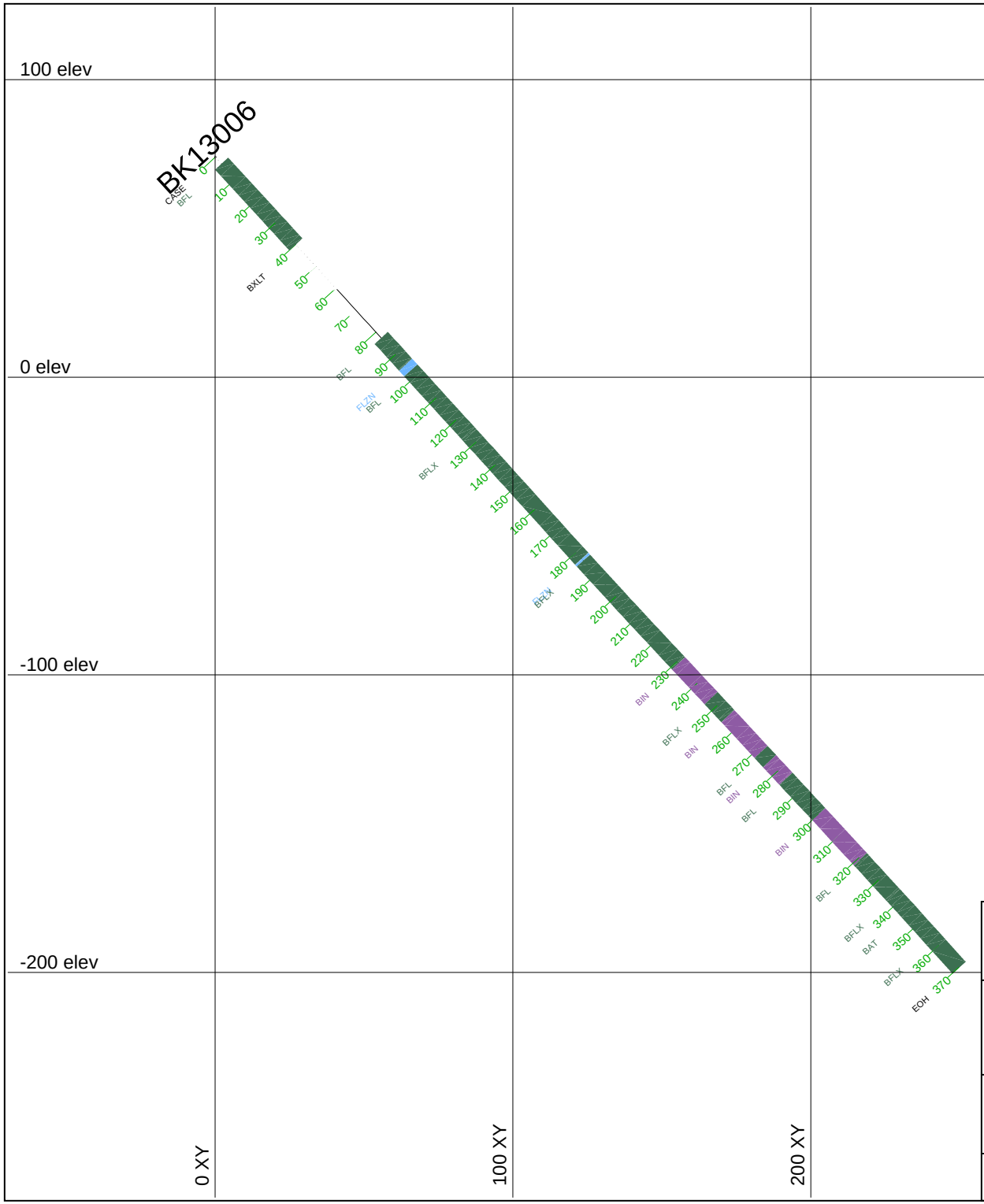
BFL
BXLT
BK13006
BFL
CASE
Cu - Bar
Zn - Bar
Ag - Line
Au - Line
Assay Legend
CHIEFTAIN
METALS INC
Tulsequah Regional 2013 Program BK13006
10m Contours
N
-20
0
20
40
60
80
100
metres
Scale 1:2000
Drawn by: CT
09 Dec 2013



CHIEFTAIN METALS INC

Tulsequah Regional 2013 Program BK13006

Vertical Section

-20 0 20 40 60 80 100 metres

Scale 1:2000

Drawn by: CT	Section: BK13006 Az: 20	30 Sept 2013

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments
0.00	20	-47.9	Compass Az/Maxib	CT/AF	9/27/2013	
2.95	20.1	-47.5	Maxibor	CT/AF	9/27/2013	
5.90	20.1	-47.1	Maxibor	CT/AF	9/27/2013	
11.80	20.3	-47.1	Maxibor	CT/AF	9/27/2013	
14.75	20.5	-47	Maxibor	CT/AF	9/27/2013	
17.70	20.6	-47	Maxibor	CT/AF	9/27/2013	
20.65	20.6	-47.2	Maxibor	CT/AF	9/27/2013	
23.60	20.7	-47.3	Maxibor	CT/AF	9/27/2013	
26.55	20.8	-47.3	Maxibor	CT/AF	9/27/2013	
29.50	20.9	-47.4	Maxibor	CT/AF	9/27/2013	
32.45	20.9	-47.4	Maxibor	CT/AF	9/27/2013	
35.40	21	-47.3	Maxibor	CT/AF	9/27/2013	
38.36	21.1	-47.3	Maxibor	CT/AF	9/27/2013	
41.31	21.2	-47.4	Maxibor	CT/AF	9/27/2013	
44.26	21.2	-47.5	Maxibor	CT/AF	9/27/2013	
47.21	21.4	-47.5	Maxibor	CT/AF	9/27/2013	
50.16	21.5	-47.5	Maxibor	CT/AF	9/27/2013	
53.11	21.6	-47.3	Maxibor	CT/AF	9/27/2013	
56.06	21.7	-47.3	Maxibor	CT/AF	9/27/2013	
59.01	21.8	-47.4	Maxibor	CT/AF	9/27/2013	
61.96	21.8	-47.5	Maxibor	CT/AF	9/27/2013	
64.91	21.9	-47.5	Maxibor	CT/AF	9/27/2013	
67.86	22	-47.5	Maxibor	CT/AF	9/27/2013	
70.81	22.1	-47.5	Maxibor	CT/AF	9/27/2013	
73.76	22.1	-47.5	Maxibor	CT/AF	9/27/2013	
76.71	22.3	-47.6	Maxibor	CT/AF	9/27/2013	
79.66	22.4	-47.6	Maxibor	CT/AF	9/27/2013	
82.61	22.5	-47.6	Maxibor	CT/AF	9/27/2013	
85.56	22.6	-47.6	Maxibor	CT/AF	9/27/2013	
88.51	22.8	-47.7	Maxibor	CT/AF	9/27/2013	
91.46	22.9	-47.7	Maxibor	CT/AF	9/27/2013	
94.41	23.1	-47.7	Maxibor	CT/AF	9/27/2013	
97.36	23.3	-47.8	Maxibor	CT/AF	9/27/2013	
100.31	23.4	-47.5	Maxibor	CT/AF	9/27/2013	
103.26	23.5	-47.7	Maxibor	CT/AF	9/27/2013	
106.21	23.6	-47.6	Maxibor	CT/AF	9/27/2013	
109.17	23.6	-47.7	Maxibor	CT/AF	9/27/2013	
112.12	23.8	-47.6	Maxibor	CT/AF	9/27/2013	
115.07	23.9	-47.6	Maxibor	CT/AF	9/27/2013	
118.02	24	-47.6	Maxibor	CT/AF	9/27/2013	
120.97	24.1	-47.6	Maxibor	CT/AF	9/27/2013	
123.92	24.3	-47.6	Maxibor	CT/AF	9/27/2013	
126.87	24.4	-47.6	Maxibor	CT/AF	9/27/2013	
129.82	24.4	-47.6	Maxibor	CT/AF	9/27/2013	
132.77	24.5	-47.7	Maxibor	CT/AF	9/27/2013	
135.72	24.6	-47.8	Maxibor	CT/AF	9/27/2013	

Drill Hole Log - Down Hole Survey

Dist (m)	Azimuth	Dip	Method	By	Date	Comments	Dist (m)	Azimuth	Dip	Method	By	Date	Comments
138.67	24.8	-47.8	Maxibor	CT/AF	9/27/2013		227.18	29.5	-46.9	Maxibor	CT/AF	9/27/2013	
141.62	24.9	-47.8	Maxibor	CT/AF	9/27/2013		230.13	29.6	-46.5	Maxibor	CT/AF	9/27/2013	
144.57	25	-47.8	Maxibor	CT/AF	9/27/2013		233.08	29.7	-46.9	Maxibor	CT/AF	9/27/2013	
147.52	25.1	-47.8	Maxibor	CT/AF	9/27/2013		238.98	29.9	-47	Maxibor	CT/AF	9/27/2013	
150.47	25.2	-47.9	Maxibor	CT/AF	9/27/2013		241.93	30	-47	Maxibor	CT/AF	9/27/2013	
153.42	25.3	-47.9	Maxibor	CT/AF	9/27/2013		244.88	30.2	-47.1	Maxibor	CT/AF	9/27/2013	
156.37	25.5	-48	Maxibor	CT/AF	9/27/2013		250.79	30.3	-46.8	Maxibor	CT/AF	9/27/2013	
165.22	26	-48	Maxibor	CT/AF	9/27/2013		253.74	30.4	-46.8	Maxibor	CT/AF	9/27/2013	
168.17	26.1	-48	Maxibor	CT/AF	9/27/2013		256.69	30.5	-47.4	Maxibor	CT/AF	9/27/2013	
171.12	26.3	-47.9	Maxibor	CT/AF	9/27/2013		262.59	30.8	-46.9	Maxibor	CT/AF	9/27/2013	
174.07	26.4	-47.8	Maxibor	CT/AF	9/27/2013		265.54	30.9	-47.3	Maxibor	CT/AF	9/27/2013	
179.98	26.7	-47.8	Maxibor	CT/AF	9/27/2013		268.49	31.1	-47.3	Maxibor	CT/AF	9/27/2013	
182.93	26.8	-48	Maxibor	CT/AF	9/27/2013		271.44	31.2	-47.1	Maxibor	CT/AF	9/27/2013	
191.78	27.3	-47.2	Maxibor	CT/AF	9/27/2013		277.34	31.5	-46.7	Maxibor	CT/AF	9/27/2013	
197.68	27.8	-47.2	Maxibor	CT/AF	9/27/2013		280.29	31.6	-47.3	Maxibor	CT/AF	9/27/2013	
200.63	28	-47.7	Maxibor	CT/AF	9/27/2013		283.24	31.7	-47.3	Maxibor	CT/AF	9/27/2013	
203.58	28.2	-47.1	Maxibor	CT/AF	9/27/2013		286.19	31.9	-46.6	Maxibor	CT/AF	9/27/2013	
206.53	28.4	-47.5	Maxibor	CT/AF	9/27/2013		289.14	31.9	-47.5	Maxibor	CT/AF	9/27/2013	
209.48	28.5	-47.3	Maxibor	CT/AF	9/27/2013		292.09	32	-46.9	Maxibor	CT/AF	9/27/2013	
212.43	28.7	-47	Maxibor	CT/AF	9/27/2013		295.04	32	-46.4	Maxibor	CT/AF	9/27/2013	
215.38	28.9	-46.8	Maxibor	CT/AF	9/27/2013		297.99	32.1	-47.4	Maxibor	CT/AF	9/27/2013	
218.33	29	-47	Maxibor	CT/AF	9/27/2013		309.79	32.4	-47	Maxibor	CT/AF	9/27/2013	
224.23	29.4	-47	Maxibor	CT/AF	9/27/2013		315.69	32.7	-47.3	Maxibor	CT/AF	9/27/2013	

Dist (m)	Azimuth	Dip	Method	By	Date	Comments	Dist (m)	Azimuth	Dip	Method	By	Date	Comments
318.64	32.8	-46.9	Maxibor	CT/AF	9/27/2013								
321.60	32.9	-47.3	Maxibor	CT/AF	9/27/2013								
324.55	33	-47.8	Maxibor	CT/AF	9/27/2013								
327.50	33.1	-47.4	Maxibor	CT/AF	9/27/2013								
330.45	33.3	-47.3	Maxibor	CT/AF	9/27/2013								
336.35	33.5	-47	Maxibor	CT/AF	9/27/2013								
339.30	33.6	-47.6	Maxibor	CT/AF	9/27/2013								
342.25	33.7	-47.4	Maxibor	CT/AF	9/27/2013								
348.15	33.9	-47.7	Maxibor	CT/AF	9/27/2013								
351.10	34	-47.8	Maxibor	CT/AF	9/27/2013								
354.05	34.1	-47.5	Maxibor	CT/AF	9/27/2013								
357.00	34.1	-47.8	Maxibor	CT/AF	9/27/2013								
359.95	34.2	-47.7	Maxibor	CT/AF	9/27/2013								

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
0.00	3.00	**Casing** Collared in road cut.									
3.00	40.06	**Basalt Flow** Basalt Flow. Fine grained, medium green, brecciated texture. Moderately chlorite altered, prevasivelY altered groundmass as well as in fractures. Weathered fairly strongly with rust coating fractures and patchy rusty groundmass to ~38.3m. Sections bleached (due to weathering?) Fine to medium grained Pyrite in fractures to ~25m (overall trace). Very frequent carbonate veining, veins generally 1-3mm thick, wispy, crosscutting, and often broken. Lower contact fairly sharp. Core is weakly magnetic, possible fine grained Magnetite in fractures. 30.93 32.15 Basalt Crystal Lapilli Tuff Basalt Crystal Lapilli Tuff. Fine feldspar crystals, 0.5-1mm. Upper contact appears sharp, lower contact gradational.	14.60 16.00 17.50	16.00 17.50 19.00	1.4 1.5 1.5	Q014463 Q014464 Q014465					
40.06	82.53	**Basalt Crystal Lapilli Tuff** Dominantly Basalt Crystal Lapilli Tuff intermixed with Basalt Flows. Moderately chloritized with moderate patchy epidotization (often pods of chlorite associated with epidotization) and rare epidote veins. Fine feldspar crystals throughout most of the unit, 0.5-2mm. Contacts between flows and tuff are generally indistinct or gradational. Sections of Basalt Flow generally ~1m, brecciated similar to previous unit. Abundant carbonate veins, generally 1-5mm, wispy, broken, crosscutting. Trace fine grained Pyrite associated with fractures in flows, occasionally with hematite associated. Core is variably weakly magnetic, possible fine grained magnetite associated with fractures. 73.50 77.25 Basalt Flow Basalt Flow. Chloritized. Brecciated. Fine to medium grained Pyrite associated with purplish veins (~1% overall). Gradational contacts.	72.50 73.50 75.10 76.60 77.25	73.50 75.10 76.60 77.25 78.25	1 1.6 1.5 0.65 1	Q014466 Q014467 Q014468 Q014469 Q014472					
82.53	94.75	**Basalt Flow: Chlorite** Basalt Flow. Medium green, fine grained, brecciated texture. Similar to 2.00-40.06m but with stronger chloritization. Groundmass moderately pervasively chloritized and fractures infilled with dark green chlorite. Minor patchy epidotization. Fine to medium grained Pyrite and fine grained Magnetite associated with fractures (overall weakly magnetic). Lower contact sharp, with weak foliation developing to lower contact.	93.22	94.75	1.5	Q014473					
94.75	97.35	**Fault Zone** Fault Zone. Strongly sheared. Strongly chlorite altered, silicified, weak sericite. Moderate greenish grey. Possibly a strongly sheared Basalt Flow. 3% fine to medium grained Pyrite, often elongated with foliation. Contacts sharp. Not consistent enough to measure accurate beta angles on measurements. 95.90 96.95 Quartz Vein Fractured mineralized quartz/maraposite vein with some brecciated	94.75 95.90 96.95	95.90 96.95 97.35	1.15 1.05 0.39	Q014474 Q014475 Q014476					

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		fragments of host rock. Mineralized with 1% Sphalerite, 2% Galena, 3% Pyrite. Partially washed away.									
97.35	125.96	Basalt Flow: Chlorite									
		Basalt Flow. Medium to dark green, fine grained, brecciated texture. Similar to 82.53-94.75m. Groundmass moderately pervasively chloritized with chlorite in fractures, up to 0.5cm thick. Moderate foliation at upper contact, waning within metres. Medium grained Pyrite associated with fractures, overall trace, but up to ~1%. Abundant carbonate veins throughout, 1-5mm, broken crosscutting. Occasional thicker (up to 1cm), straight white quartz/carbonate veins, increasing towards lower contact. Sharp lower contact.	97.35	98.85	0.5	Q014477					
			122.96	124.45	1.49	Q014478					
			124.45	125.96	1.51	Q014479					
125.96	182.80	Basalt Flow Breccia: Chlorite									
		Highly chloritized Basalt Flow Breccia? Strong foliation. Groundmass is dark green, intensely pervasively chlorite altered (coarser chlorite matrix appears crenulated). Fragments throughout, two apprent types of fragments: strongly silicified containing fine to medium grained Pyrite (QSP) and less altered massive mafic fragments. Fragments are generally 0.5-2cm (up to 5cm), are stretched with foliation and folded, and appear to make up 2-10% of the unit (though smaller fragments may have been absorbed into groundmass). Small fragments can be folded sigmoidally. Minor carbonate veining, regular straight veins up to 0.5cm. Finer carbonate in groundmass may be associated with digested carbonate veins? Pyrite generally not found in groundmass. Lower contact difficult to place, fairly massive (fragments not visable): 179.0-182.8m with Pyrite in groundmass (likely an effect from the below Fault Zone).	177.50	179.00	1.5	Q014481					
			179.00	180.50	1.5	Q014482					
			180.50	181.80	1.3	Q014483					
			181.80	182.80	1	Q014484					
		140.70 142.42 Basalt Flow: Chlorite									
		Highly chloritized Basalt Flow. Strongly brecciated with chlorite in fractures. Carbonate veins in groundmass. Trace medium grained Pyrite in groundmass. 141.4-141.7m : Fragmental									
		144.13 145.75 Basalt Flow: Chlorite									
		Highly chloritized Basalt Flow. Strongly brecciated with chlorite in fractures. Carbonate veins in groundmass, appear crenulated. Trace medium grained Pyrite in groundmass.									
182.80	183.68	Fault Zone									
		Chloritized Basalt of indeterminate protolith heavily intruded by low angle (30 degree) quartz/carbonate veins. Medium grained Pyrite (5%), Sphalerite (1%), and Galena (1%) associated with quartz veining. Distinct change in either alteration or rock unit on either side of this fault.	182.80	183.30	0.5	Q014485					
			183.30	183.68	0.38	Q014486					
183.68	230.75	Basalt Flow Breccia: Chlorite; Siliceous									
		Basalt Flow Breccia. Mottled, medium to dark green. Fragments throughout, generally appear to be mafic, generally between 0.3-2cm in size but up to 5cm, weakly stretched with foliation near upper contact, otherwise fragments are angular. Generally tightly packed. Some fragments appear scoreaceous, which can be chlorite and biotite altered. Fairly strongly chloritized	183.68	185.20	1.52	Q014487					
			185.20	187.70	1.5	Q014487					

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		groundmass, significantly less chloritized than 125.96-182.8m. Weakly silicified fragments. Trace epidotization. Strong carbonate veining, veins 1mm-1cm in thickness, crosscutting, broken. Small sections appear more massive, possibly interbedded basalt flow. Generally trace medium grained Pyrite scattered throughout in the groundmass, but can be slightly more concentrated. Lower contact appears weakly gradational.									
230.75	246.75	Basalt Intrusion: Chlorite Altered Basalt Intrusive. Generally a fine grained, phaneritic mafic intrusive with fairly frequent silicified inclusions of basalt flow or basalt fragmental, cm to dm scale. Moderately chloritized. In places, namely near the contacts, the intrusive appears brecciated (though potentially this could be a basalt flow). Frequent randomly oriented carbonate veins, fairly straight. Trace fine to medium grained Pyrite. Lower contact fairly sharp.									
246.76	255.04	Basalt Flow Breccia: Chlorite Basalt Flow Breccia. Strongly chlorite altered. Sheared strongly from 250.3-251.8m. Fragments are stretched, disgested where strongly sheared, but this unit appears to be similar to 183.68-230.75m. Fragments are generally mafic, sometimes scoreacous, generally 0.3-3cm, but up to 5cm. Scattered medium grained Pyrite in groundmass. Frequent carbonate veins, generally highly broken and folded. Lower contact approximate.									
255.04	271.48	Basalt Intrusion Basalt Intrusive. Fine grained, phaneritic. Medium green. Fairly hard, moderately chloritized, weakly silicified. Similar to 230.75-246.75m, but with few inclusions and more homogenous. Frequent quartz/carbonate veins, generally 1mm-1cm thick, croscutting, broken, whispy. Lower contact sharp.									
271.48	275.68	Basalt Flow: Siliceous; Chlorite Basalt Flow. Highly silicified, highly chloritized. Mottled light to medium green. Brecciated texture. Frequent quartz/carbonate and carbonate veins, 1mm to 1cm, quartz carbonate veins tend to appear fractured/weakly brecciated, carbonate veins are whispy. Trace fine grained Pyrite.									
275.68	283.75	Basalt Intrusion Fine grained homogenous Basalt Intrusive. Medium green. Sharp contacts. Carbonate veins throughout, cross cutting, weakly broken, 1mm-1cm. Similar to other Basalt Intrusives in this part of the hole, though seemingly slightly less altered. Sharp contacts.									
283.75	299.97	Basalt Flow: Chlorite Basalt Flow. Dark green/grey. Aphanitic. Weakly brecciated texture. Fractures infilled with chlorite. Fairly strongly chlorite altered. Abundant carbonate, fine grained in groundmass, as well as very frequent broken, whispy veins (1mm-1cm thick). Sharp contacts.									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
299.97	320.65	Basalt Intrusion Basalt Intrusive. Fairly homogenous, though grain size does vary somewhat, fine to medium grained, aphanitic. Moderately chloritized, increasing somewhat downhole. Minor fine grained silicified/epidotized basalt inclusions, cm scale. Quartz/carbonate and carbonate veins throughout, increasing in size and abundance downhole.									
320.65	337.10	Basalt Flow: Chlorite Basalt Flow. Dark to medium green. Intensely chloritized, decreasing (to strongly chloritized) gradationally downhole. Brecciated texture, chloritization infilling fractures and pervasively altering groundmass, texture less apparent where most intensely chloritized. Generally low core angles, though complexly folded. Strong carbonate veining, appear to be several generation of veins, older veins concordant with foliation, tend to be thicker, 1mm-2cm, younger small veins tend to be steeper and smaller (1-2mm). Trace fine grain Pyrite scattered throughout. 332.20 332.95 Diorite: Feldspar Feldspar Phyric Diorite. Very sharp, distinct contacts. Relatively unaltered. Medium grey. ~15% 1-2mm feldspar phenocrysts.									
337.10	344.45	Basalt Flow Breccia: Chlorite; Siliceous Basalt Flow Breccia. Mottled light to medium green. Similar in appearance to 183.68-230.75m. Strongly chloritized, moderately silicifed, variable biotite alteration. Fragments appear to be mafic, silicified, generally 0.5-5cm, tightly packed, and often scoreaceous. Fragments generally aligned with foliation. Scattered fine grained Pyrite, trace overall. VERY trace Chalcopyrite (a few specks at 338.3m). Occasional quartz/carbonate veins, 1-5mm, crosscutting, broken. Sharp lower contact. 343.23 343.53 Basalt Dyke Small mafic dyke. Sharp contacts. Fine grained, phaneritic, medium green. Moderately chloritized. Small crosscutting, fairly straight carbonate veins.	337.10	338.60	1.5	Q014489					
			338.60	340.10	1.5	Q014491					
			340.10	341.60	1.5	Q014492					
			341.60	343.10	1.5	Q014493					
			343.10	344.45	1.35	Q014494					
344.45	357.03	Basalt Ash Tuff: Chlorite Generally a fine Basalt Ash Tuff, with few sections of coarser fragmental (most significant 352.3-352.7m). Generally fairly homogenous though grain size does vary somewhat. Moderately chloritized. Occasional weak foliation. Alteration increases downhole. Trace fine grained Pyrite associated with quartz/carbonate veins. Generally ~1% quartz/carbonate veins overall, 1mm-1cm, weakly broken. Lower contact gradational. Minor whispy biotite alteration in the last ~1m. Lower contact fairly arbitrary. Marked where biotite alteration is significant. 348.18 349.00 Basalt Dyke Mafic Dyke. Massive, dark grey. Abundant quartz/carbonate veins with fine to medium grained Pyrite. Sharp contacts, with veining at contacts.									
357.03	370.00	Basalt Undivided: Chlorite; Biotite									

From	To (m)		From	To (m)	Int	Sa No.	Au g/T	Ag g/T	Cu %	Pb %	Zn %
		Highly altered. Intensely chloritized. Variable brownish biotite? alteration. Generally biotite alteration is patchy or occurs as altered fragments within dominantly chloritized rock. Generally strongly foliated, irregular, folded. Protolith may vary, potentially from an altered tuff to altered flow or fragmental, but intense alteration makes this difficult to determine. Common highly irregular quartz/carbonate veins, 1mm-2cm thick. Trace fine grained Pyrite in groundmass or in quartz/carbonate veins.									
370.00	370.00	End of Hole									

Sample No.	From	To (m)	Int	Au g/T MFA	Au g/T	Ag g/T	Cu %	Pb %	Zn %	As %	SG g/cm3	Ag ppm	AL %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
Q014463	14.60	16.00	1.4							0.00												
Q014464	16.00	17.50	1.5							0.00												
Q014465	17.50	19.00	1.5							0.00												
Q014466	72.50	73.50	1							0.00												
Q014467	73.50	75.10	1.6							0.00												
Q014468	75.10	76.60	1.5							0.00												
Q014469	76.60	77.25	0.65							0.00												
Q014472	77.25	78.25	1							0.00												
Q014473	93.22	94.75	1.5							0.00												
Q014474	94.75	95.90	1.15							0.00												
Q014475	95.90	96.95	1.05							0.00												
Q014476	96.95	97.35	0.39							0.00												
Q014477	97.35	98.85	0.5							0.00												
Q014478	122.96	124.45	1.49							0.00												
Q014479	124.45	125.96	1.51							0.00												
Q014481	177.50	179.00	1.5							0.00												
Q014482	179.00	180.50	1.5							0.00												
Q014483	180.50	181.80	1.3							0.00												
Q014484	181.80	182.80	1							0.00												
Q014485	182.80	183.30	0.5							0.00												
Q014486	183.30	183.68	0.38							0.00												
Q014487	183.68	185.20	1.52							0.00												
Q014487	185.20	187.70	1.5							0.00												
Q014489	337.10	338.60	1.5							0.00												
Q014491	338.60	340.10	1.5							0.00												
Q014492	340.10	341.60	1.5							0.00												
Q014493	341.60	343.10	1.5							0.00												
Q014494	343.10	344.45	1.35							0.00												

Sample No.	Fe %	Hg ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ti %	U ppm	V ppm	W ppm	Y ppm	Zn ppm
Q014463																								
Q014464																								
Q014465																								
Q014466																								
Q014467																								
Q014468																								
Q014469																								
Q014472																								
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Q014486																								
Q014487																								
Q014487																								
Q014489																								
Q014491																								
Q014492																								
Q014493																								
Q014494																								

Sample No.	Lab	Cert MFA	Cert Assay	Cert ICP	Cert SG	Method MFA	Method Assay	Method ICP	Method SG	Date MFA	Date Assay	Date ICP	Date SG
Q014463											1/1/2013	1/1/2013	1/1/2013
Q014464											1/1/2013	1/1/2013	1/1/2013
Q014465											1/1/2013	1/1/2013	1/1/2013
Q014466											1/1/2013	1/1/2013	1/1/2013
Q014467											1/1/2013	1/1/2013	1/1/2013
Q014468											1/1/2013	1/1/2013	1/1/2013
Q014469											1/1/2013	1/1/2013	1/1/2013
Q014472											1/1/2013	1/1/2013	1/1/2013
Q014473											1/1/2013	1/1/2013	1/1/2013
Q014474											1/1/2013	1/1/2013	1/1/2013
Q014475											1/1/2013	1/1/2013	1/1/2013
Q014476											1/1/2013	1/1/2013	1/1/2013
Q014477											1/1/2013	1/1/2013	1/1/2013
Q014478											1/1/2013	1/1/2013	1/1/2013
Q014479											1/1/2013	1/1/2013	1/1/2013
Q014481											1/1/2013	1/1/2013	1/1/2013
Q014482											1/1/2013	1/1/2013	1/1/2013
Q014483											1/1/2013	1/1/2013	1/1/2013
Q014484											1/1/2013	1/1/2013	1/1/2013
Q014485											1/1/2013	1/1/2013	1/1/2013
Q014486											1/1/2013	1/1/2013	1/1/2013
Q014487											1/1/2013	1/1/2013	1/1/2013
Q014487											1/1/2013	1/1/2013	1/1/2013
Q014489											1/1/2013	1/1/2013	1/1/2013
Q014491											1/1/2013	1/1/2013	1/1/2013
Q014492											1/1/2013	1/1/2013	1/1/2013
Q014493											1/1/2013	1/1/2013	1/1/2013
Q014494											1/1/2013	1/1/2013	1/1/2013

Drill Hole Log - Structure

DIstance	Rock	Structure	Mineralizati	Sence	Strike	Dip	Dip Dir	Trend	Plunge	DH Az	DH Dip	alpha	beta	gamma	Method	By	Date	Remarks
95.50		shr			0.00	0.00	0.00	0.00	0.00	0.00	0.00	40	65	0			9/29/2013	best beta angle in unit
96.93		vn			0.00	0.00	0.00	0.00	0.00	0.00	0.00	27	240	0			9/29/2013	questionable beta angle
98.75		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	35	0	0			9/29/2013	similar beta to 96.96m (240?)
126.30		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	20	140	0			9/29/2013	
134.85		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	50	80	0			9/29/2013	fair confidence
136.10		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	40	40	0			9/29/2013	fair confidence
147.35		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	60	20	0			9/29/2013	fair confidence
161.00		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	50	10	0			9/29/2013	fair confidence
183.30		vn			0.00	0.00	0.00	0.00	0.00	0.00	0.00	20	120	0			9/29/2013	fair confidence
251.15		shr			0.00	0.00	0.00	0.00	0.00	0.00	0.00	40	30	0			9/29/2013	low confidence, disturbed
322.50		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	20	0	0			9/29/2013	no beta angles, act tool broken
324.40		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	30	0	0			9/29/2013	
328.05		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	20	0	0			9/29/2013	
337.10		cont			0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	0	0			9/29/2013	
344.45		cont			0.00	0.00	0.00	0.00	0.00	0.00	0.00	10	0	0			9/29/2013	
359.30		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	45	0	0			9/29/2013	consistent over ~1m
369.00		fol			0.00	0.00	0.00	0.00	0.00	0.00	0.00	30	0	0			9/29/2013	foliation offset by fine faulting

Drill Hole Log - Mineralization

From	To (m)	Style 1	Style 2	% py	% cp	% gn	% sp	% tt	n vg	% Ba	% po	% bn	% mag	Remarks
3.00	14.60			0.1	0	0	0	0	**0**	0	0	0	0.1	
14.60	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
16.00	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
17.50	0.00			0.5	0	0	0	0	**0**	0	0	0	0	
19.00	25.00			0.1	0	0	0	0	**0**	0	0	0	0.1	
72.50	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
73.50	0.00			2	0	0	0	0	**0**	0	0	0	0	
75.10	0.00			2	0	0	0	0	**0**	0	0	0	0	
76.60	0.00			2	0	0	0	0	**0**	0	0	0	0	
77.25	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
82.53	93.22			0.1	0	0	0	0	**0**	0	0	0	0.1	
93.22	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
94.75	0.00			3	0	0	0	0	**0**	0	0	0	0	
95.90	0.00			3	0	2	1	0	**0**	0	0	0	0	some core washed away
96.95	0.00			3	0	0	0	0	**0**	0	0	0	0	
97.35	0.00			1	0	0	0	0	**0**	0	0	0	0	
98.85	122.96			0.1	0	0	0	0	**0**	0	0	0	0	overall trace, up to 1% locally
122.96	0.00			1	0	0	0	0	**0**	0	0	0	0	
124.45	0.00			1	0	0	0	0	**0**	0	0	0	0	
126.96	177.50			0.1	0	0	0	0	**0**	0	0	0	0	
177.50	0.00			0.5	0	0	0	0	**0**	0	0	0	0	
179.00	0.00			1	0	0	0	0	**0**	0	0	0	0	
180.50	0.00			1	0	0	0	0	**0**	0	0	0	0	
181.80	0.00			1	0	0	0	0	**0**	0	0	0	0	
182.80	0.00			5	0	1	2	0	**0**	0	0	0	0	
183.30	0.00			3	0	0.1	0.1	0	**0**	0	0	0	0	
183.68	0.00			2	0	0	0	0	**0**	0	0	0	0	
185.20	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
187.70	230.75			0.1	0	0	0	0	**0**	0	0	0	0	
230.75	246.75			0.1	0	0	0	0	**0**	0	0	0	0	
246.75	255.04			0.1	0	0	0	0	**0**	0	0	0	0	
271.48	275.68			0.1	0	0	0	0	**0**	0	0	0	0	
320.65	337.10			0.1	0	0	0	0	**0**	0	0	0	0	
337.10	0.00			0.1	0.1	0	0	0	**0**	0	0	0	0	
338.60	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
340.10	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
341.60	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
343.10	0.00			0.1	0	0	0	0	**0**	0	0	0	0	
344.45	357.03	vn		0.1	0	0	0	0	**0**	0	0	0	0	
357.03	370.00			0.1	0	0	0	0	**0**	0	0	0	0	

2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX II

DRILL SECTIONS

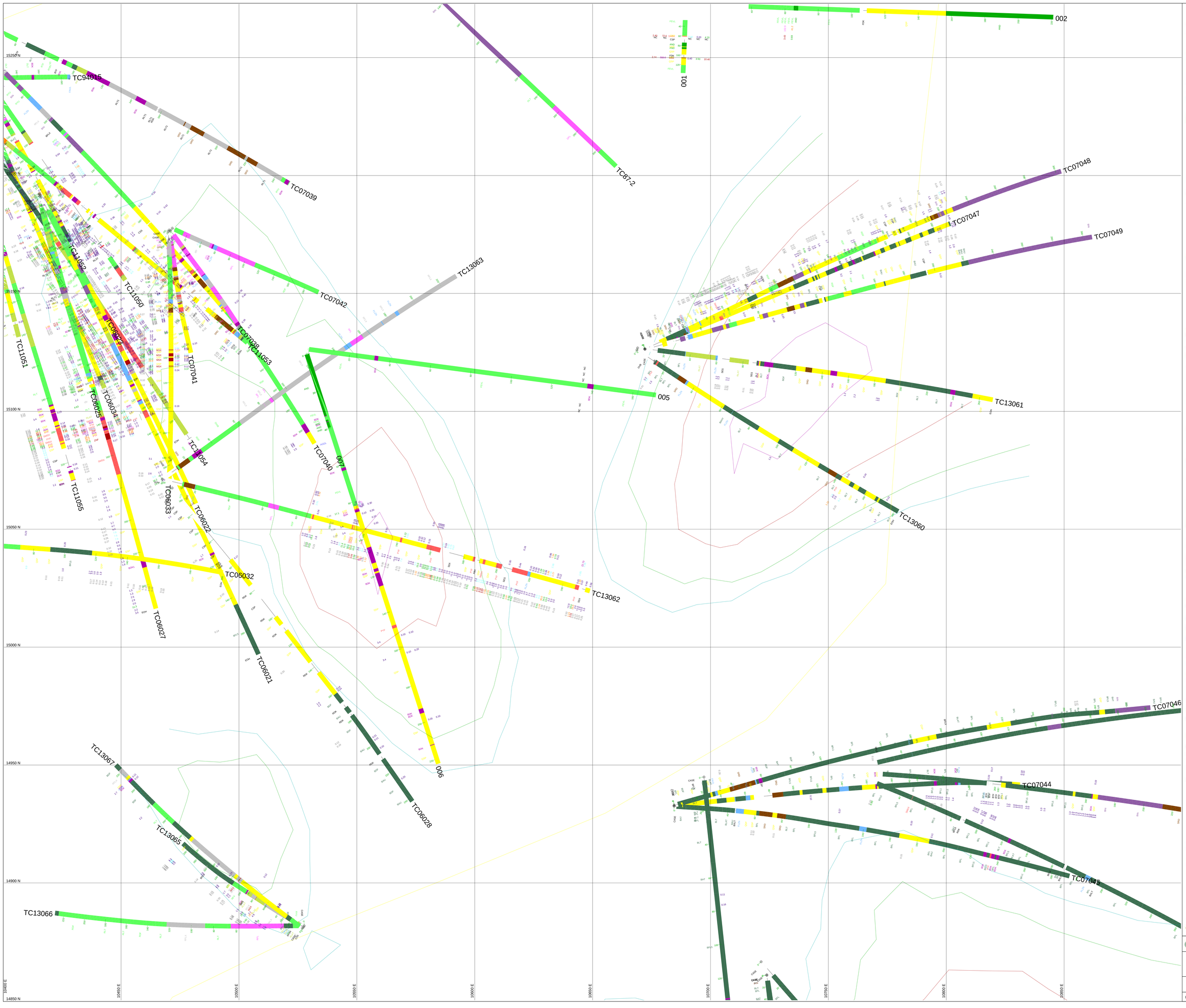
Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario



Geological Legend

Intrusive Rocks

- BDK Basalt Dyke
- BIN Basalt Intrusion
- ADK Andesite Dyke
- RDK Rhyolite Dyke
- SRD Rhyolite Dyke, Sisko Fm
- ANDfp Feldspar Porphyry Dyke
- ANDqfp Quartz Feldspar Porphyry Dyke
- DIAB Diabase
- DIOR Diorite
- GR Granite
- FDK Felsic Dyke

Extrusive Rocks

- BAU Basalt Undivided
- BFL Basalt Flow
- BFLX Basalt Flow Breccia
- BTF Basalt Tuff, Undivided
- BAT Basalt Ash Tuff
- BLAT Basalt Lapilli and Ash Tuff
- BLT Basalt Lapilli Tuff
- BRLT Basalt Crystal Lapilli Tuff
- BFX Basalt Fragmental, coarse
- BDF Basalt Debris Flow
- BAHY Basalt Hyaloclastite

- AND Andesite Undivided
- ANDev Evolved Andesite (lithogeochemical determination)
- AFL Andesite Flow
- ATF Andesite Tuff, Undivided
- AAT Andesite Ash Tuff
- ALAT Andesite Lapilli and Ash Tuff
- ALT Andesite Lapilli Tuff
- AHFM Hematitic Andesite (includes flows and tuffs)
- AFX Andesite Fragmental, Coarse
- ADF Andesite Debris Flow

- DAU Dacite, Undivided
- DFL Dacite Flow
- DFLX Dacite Flow Breccia
- DTF Dacite Tuff, Undivided
- DAT Dacite Ash Tuff
- DLAT Dacite Lapilli and Ash Tuff
- DLT Dacite Lapilli Tuff
- DFX Dacite Fragmental, Coarse
- DBF Dacite Debris Flow
- DACB Banded Dacite
- DAHM Hematitic Dacite (includes flows and tuffs)

- RYU Rhyolite, Undivided
- RFL Rhyolite Flow
- RFLX Rhyolite Flow Breccia
- RTF Rhyolite Tuff, Undivided
- RAT Rhyolite Ash Tuff
- RLAT Rhyolite Lapilli and Ash Tuff
- RLT Rhyolite Lapilli Tuff
- RALT Rhyolite Crystal Lapilli Tuff
- RFX Rhyolite Fragmental, Coarse
- RDF Rhyolite Debris Flow

Modeled Rhyolite

Sedimentary Rocks

- AGGL Agglomerate
- DOL Dolomite (rock type)
- LS Limestone
- ARG Argillite
- SH Shale
- MST Mudstone
- SLT Siltstone
- SS Sandstone
- CGM Conglomerate
- VSD Volcanic Sedimentary

Mineralized / Altered Zones

- MSX Massive Sulphides
- SMSX Semi-Massive Sulphides
- SSX Stringer Zone Sulphides
- SCBX Sulphide Clast Breccia

- CUF Copper Facies
- ZNF Zinc facies
- PBF Lead Facies
- PYF Pyrite Facies

- CHF Chert Facies
- GYF Gypsum Facies
- BAR Barite Facies
- HEMF Hematite Facies
- MTF Magnetite Facies
- MNF Manganese Facies
- IBTH Interbedded Tuff and Hematite

- QSP Quartz Sericite Pyrite Alteration
- CSP Chlorite Sericite Pyrite Alteration
- CSS Chlorite Sericite Alteration(Chlorite sericite Schist)
- SIL Silicreous
- EPI Epidote(CaFe-Silicate Alteration)

- HBX Hydrothermal Breccia (Silica Matrix)
- SBX Hydrothermal Breccia (Sulphide Matrix)
- HMBX Hematite Breccia

Faults

- FAUL Fault
- FLZN Fault Zone
- BX Breccia, Undivided
- FBX Fault Breccia
- FBXU Unconsolidated Mined Fault Breccia (The crush zone)

Veins

- CAVN Calcite Vein
- CABX Calcite Vein Breccia
- QZVN Quartz Vein
- QZBX Quartz Vein Breccia
- QSTK Quartz Stockwork
- QCVN Quartz-Carbonate Vein
- QCBX Quartz/Carbonate Vein Breccia

- PYVN Pyrite Vein
- SSTK Sulphide Stockwork

Mira Geoscience Chargeability Compactness Isoshell Model

- 15 mV/V
- 20 mV/V
- 25 mV/V
- 30 mV/V
- 40 mV/V

Drillhole Trace Information

Au(g/t) Ag(g/t) Lithology Depth(m) DH Trace Cu(%) Pb (%) Zn(%)

CHIEFTAIN METALS INC

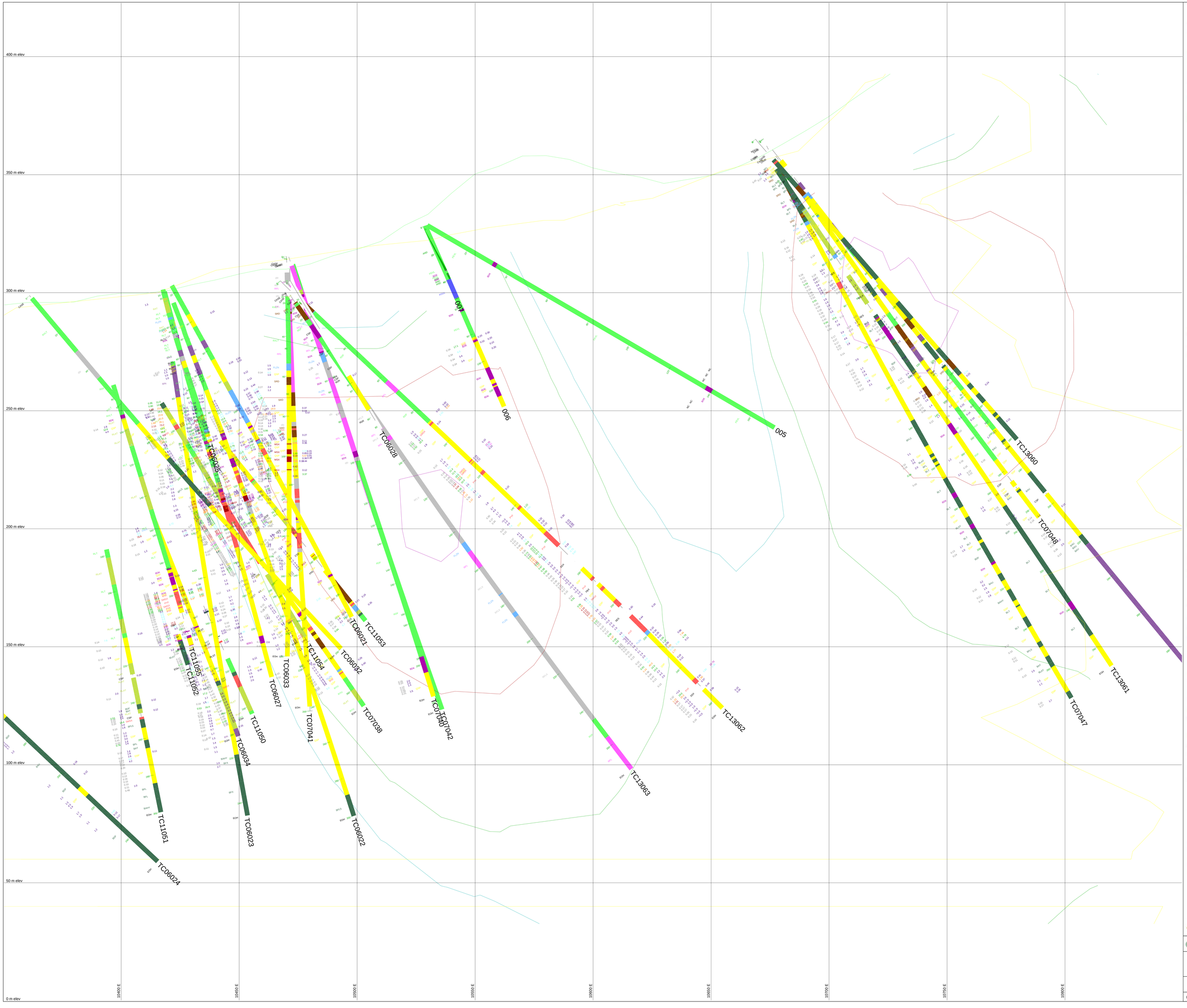
2013 Tulsequah Exploration: TC13060-63

Surface Drilling with Mira Geoscience Chargeability Compactness Model Isoshells and Modeled Rhyolite projected on the +280m plane

-5 0 5 10 15 20 25 metres

Scale 1:500

Drawn by: BA	Planview +280m; +100m / -150m	30 Oct 2014



Geological Legend

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- BDK Basalt Dyke
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- RDK Rhyolite Dyke
- SRD Rhyolite Dyke, Sliko Fm
- ANDfp Feldspar Porphyry Dyke
- ANDqfp Quartz Feldspar Porphyry Dyke
- DIAB Diabase
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Sedimentary Rocks

- AGGL Agglomerate
- DOL Dolomite (rock type)
- LS Limestone
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Drillhole Trace Information

Au(g/t)	Ag(g/t)	Lithology	Depth(m)	DH Trace	Cu(%)	Pb (%)	Zn(%)

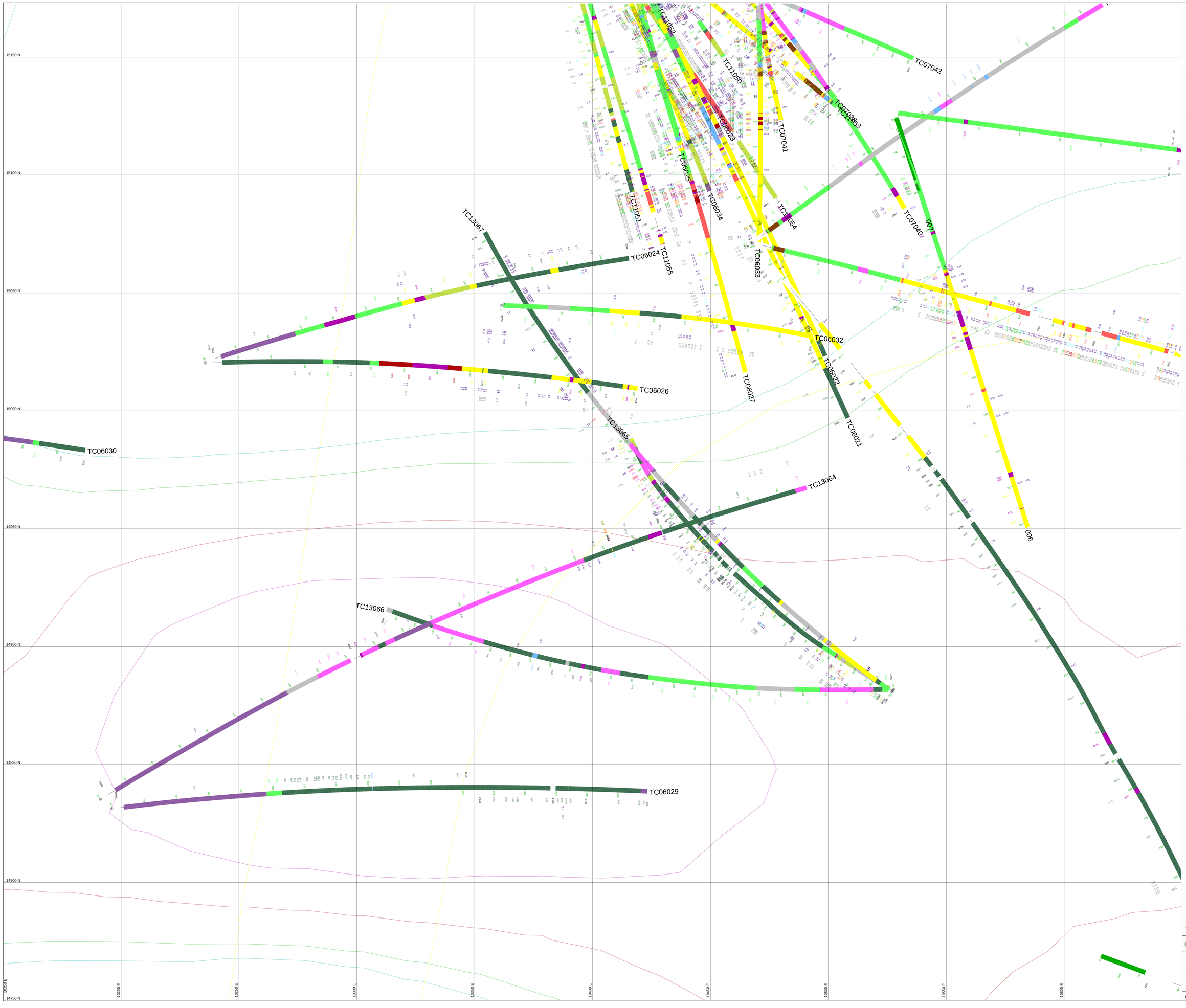
CHIEFTAIN METALS INC

2013 Tulsequah Exploration: TC13060-63

Surface Drilling with Mira Geoscience Chargeability Compactness Model Isoshells and Modeled Rhyolite projected on the 15000N plane

-5 0 5 10 15 20 25 metres
Scale 1:500

Drawn by: BA	Vertical 15000N; +80m / -80m	30 Oct 2014



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- 40 mV/V

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Au(g/t) Ag(g/t) Lithology Depth(m) DH Trace Cu(%) Pb (%) Zn(%)

CHIEFTAIN METALS INC

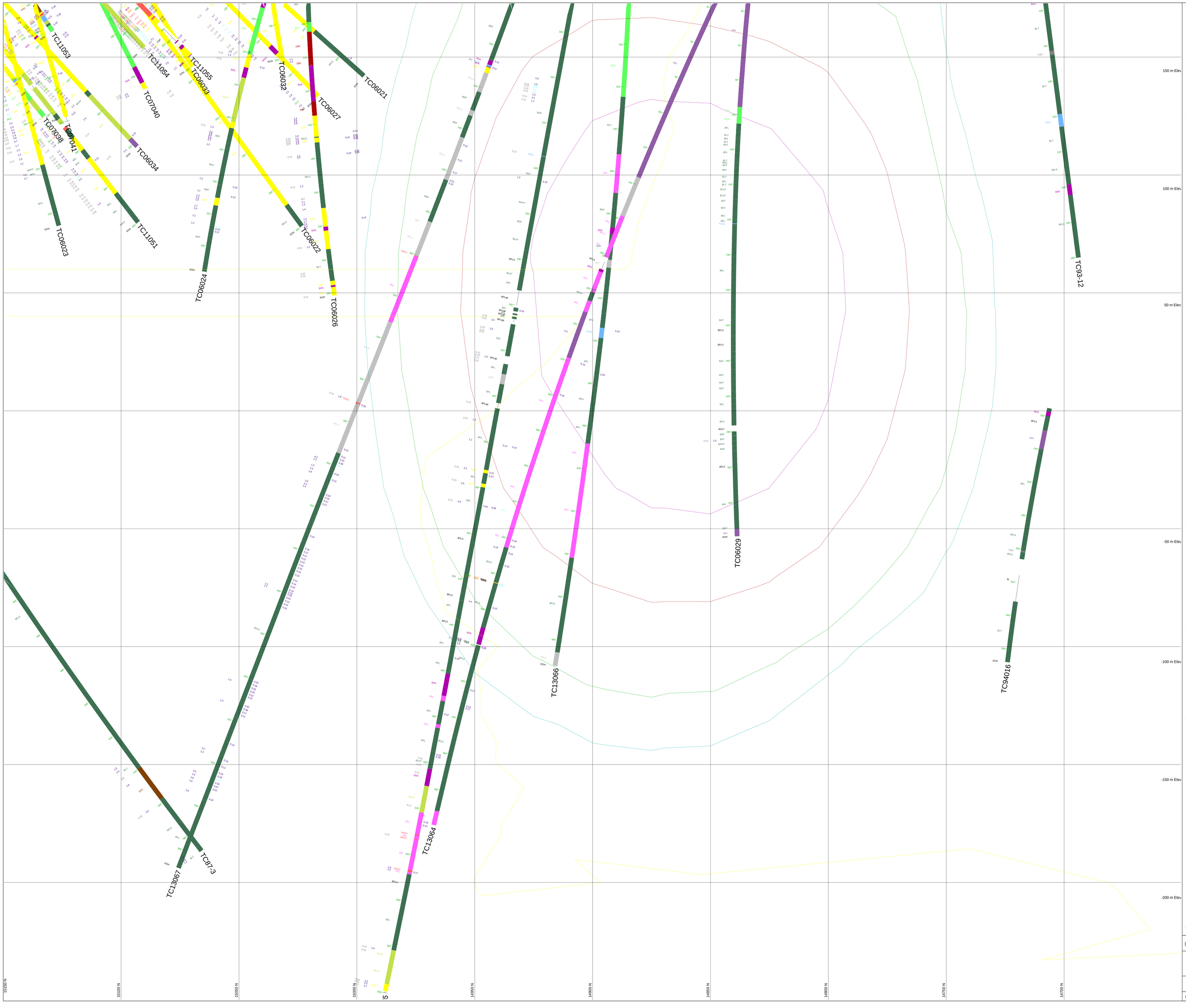
2013 Tulsequah Exploration: TC13064-67

Surface Drilling with Mira Geoscience Chargeability Compactness Model Isoshells and Modeled Rhyolite projected on the +0m plane

-5 0 5 10 15 20 25 metres

Scale 1:500

Drawn by: BA	Planview +0m; +500m / -500m	30 Oct 2014



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- ADK Andesite Dyke
- RDK Rhyolite Dyke
- SRD Rhyolite Dyke, Sisko Fm
- ANDfp Feldspar Porphyry Dyke
- ANDqfp Quartz Feldspar Porphyry Dyke
- DIAB Diabase
- DIOR Diorite
- GR Granite
- FDK Felsic Dyke

Extrusive Rocks

- BAU Basalt Undivided
- BFL Basalt Flow
- BFLX Basalt Flow Breccia
- BTF Basalt Tuff, Undivided
- BAT Basalt Ash Tuff
- BLAT Basalt Lapilli and Ash Tuff
- BLT Basalt Lapilli Tuff
- BRLT Basalt Crystal Lapilli Tuff
- BFX Basalt Fragmental, coarse
- BDF Basalt Debris Flow
- BAHY Basalt Hyaloclastite

- AND Andesite Undivided
- ANDev Evolved Andesite (lithogeochemical determination)
- AFL Andesite Flow
- ATF Andesite Tuff, Undivided
- AAT Andesite Ash Tuff
- ALAT Andesite Lapilli and Ash Tuff
- ALT Andesite Lapilli Tuff
- AHFM Hematitic Andesite (includes flows and tuffs)
- AFX Andesite Fragmental, Coarse
- ADF Andesite Debris Flow

- DAU Dacite, Undivided
- DFL Dacite Flow
- DFLX Dacite Flow Breccia
- DTF Dacite Tuff, Undivided
- DAT Dacite Ash Tuff
- DLAT Dacite Lapilli and Ash Tuff
- DLT Dacite Lapilli Tuff
- DFX Dacite Fragmental, Coarse
- DBF Dacite Debris Flow
- DACB Banded Dacite
- DAHM Hematitic Dacite (includes flows and tuffs)

- RYU Rhyolite, Undivided
- RFL Rhyolite Flow
- RFLX Rhyolite Flow Breccias
- RTF Rhyolite Tuff, Undivided
- RAT Rhyolite Ash Tuff
- RLAT Rhyolite Lapilli and Ash Tuff
- RLT Rhyolite Lapilli Tuff
- RALT Rhyolite Crystal Lapilli Tuff
- RFX Rhyolite Fragmental, Coarse
- RDF Rhyolite Debris Flow

Modeled Rhyolite

Sedimentary Rocks

- AGGL Agglomerate
- DOL Dolomite (rock type)
- LS Limestone
- ARG Argillite
- SH Shale
- MST Mudstone
- SLT Siltstone
- SS Sandstone
- CGM Conglomerate
- VSD Volcanic Sedimentary

Mineralized / Altered Zones

- MSX Massive Sulphides
- SMSX Semi-Massive Sulphides
- SSX Stringer Zone Sulphides
- SCBX Sulphide Clast Breccia

- CUF Copper Facies
- ZNF Zinc facies
- PBF Lead Facies
- PYF Pyrite Facies

- CHF Chert Facies
- GYF Gypsum Facies
- BAR Barite Facies
- HEMF Hematite Facies
- MTF Magnetite Facies
- MNF Manganese Facies
- IBTH Interbedded Tuff and Hematite

- QSP Quartz Sericite Pyrite Alteration
- CSP Chlorite Sericite Pyrite Alteration
- CSS Chlorite Sericite Alteration(Chlorite sericite Schist)
- SIL Silicreous
- EPI Epidote(Calc-Silicate Alteration)

- HBX Hydrothermal Breccia (Silica Matrix)
- SBX Hydrothermal Breccia (Sulphide Matrix)
- HMBX Hematite Breccia

Faults

- FAUL Fault
- FLZN Fault Zone
- BX Breccia, Undivided
- FBX Fault Breccia
- FBXU Unconsolidated Mined Fault Breccia (The crush zone)

Veins

- CAVN Calcite Vein
- CABX Calcite Vein Breccia
- QZVN Quartz Vein
- QZBX Quartz Vein Breccia
- QSTK Quartz Stockwork
- QCVN Quartz-Carbonate Vein
- QCBX Quartz/Carbonate Vein Breccia

- PYVN Pyrite Vein
- SSTK Sulphide Stockwork

Mira Geoscience Chargeability Compactness Isoshell Model

- 15 mV/V
- 20 mV/V
- 25 mV/V
- 30 mV/V
- 40 mV/V

Drillhole Trace Information

Au(g/t) Ag(g/t) **Lithology** Depth(m) **Drill Trace** Cu(%) Pb (%) Zn(%)

CHIEFTAIN METALS INC

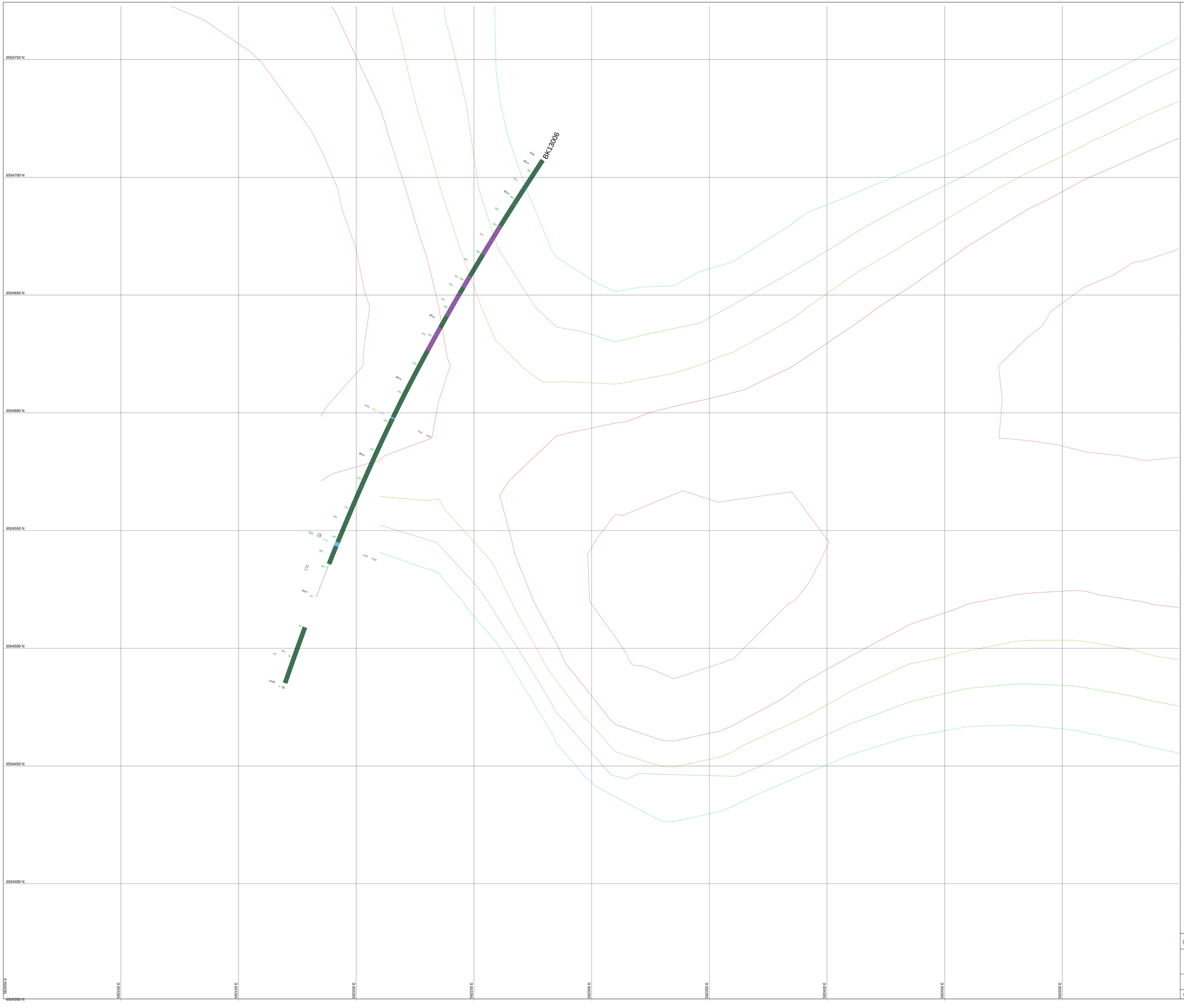
2013 Tulsequah Exploration: TC13064-67

Surface Drilling with Mira Geoscience Chargeability Compactness Model Isoshells and Modeled Rhyolite projected on the 10400E plane

-5 0 5 10 15 20 25 metres

Scale 1:500

Drawn by: BA	Vertical 10400E; +200m / -150m	30 Oct 2014



Geological Legend

Intrusive Rocks

- BDK Basalt Dyke
- BIN Basalt Intrusion
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- 30 mV/V
- 40 mV/V

Drillhole Trace Information

Au(g/t) Ag(g/t) Lithology Depth(m) Cu(%) Pb (%) Zn(%) DH Trace

CHIEFTAIN METALS INC

2013 Tulsequah Banker Exploration: BK13006

Surface Drilling with Mira Geoscience Chargeability Compactness Model Isoshells and Modeled Rhyolite projected on the +0m plane

-5 0 5 10 15 20 25 metres

Scale 1:500

Drawn by: BA	Planview +0m; +500m / -500m	30 Oct 2014

2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX III

ASSAY CERTIFICATES

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

2013 Tulsequah Chief Assay Certificate Index

Hole ID	Certificate ID	Sample From	Sample To	Comments
TC13060	WH13168474	41901	41956	ALS Minerals
TC13061	WH13170188	41957	QO14017	ALS Minerals
TC13062	WH13156165	Q014018	Q014173	ALS Minerals
TC13062	WH13181217	Q014023	Q014179	ALS Minerals
TC13063	WH13181217	Q014177	Q014179	ALS Minerals
TC13064	WH13178964	Q014374	Q014378	ALS Minerals
TC13064	WH13178965	Q014182	Q014462	ALS Minerals
TC13065	WH13193615	Q014496	Q014724	ALS Minerals
TC13065	WH13193616	Q014725	Q014971	ALS Minerals
TC13066	WH13196422	Q014972	Q015049	ALS Minerals
TC13067	WH13197987	Q015051	Q015296	ALS Minerals
BK13006	WH13181216	Q014463	Q014494	ALS Minerals
Lithogeochem	VAN13004665			Acme Labs
Check Assays	VAN13005352			Acme Labs

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 26-SEP-2013
Account: CHEMET

CERTIFICATE WH13168474

Project: Tulsequah Project
P.O. No.: 300534
This report is for 56 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 18-SEP-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 26-SEP-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13168474

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
41901		2.25	0.078		2.2	2.44	57	<10	20	<0.5	3	0.11	0.7	7	4	10
41902		3.14	0.406		8.5	1.38	217	<10	30	<0.5	15	0.07	5.2	28	1	48
41903		3.09	0.015		0.2	1.84	8	<10	160	<0.5	<2	0.04	<0.5	1	1	2
41904		2.91	0.087		1.3	1.84	23	<10	30	<0.5	2	0.04	0.7	2	2	11
41905		0.24	<0.005		<0.2	1.06	<2	<10	250	<0.5	<2	0.54	<0.5	4	9	1
41906		0.42	<0.005		0.3	2.91	7	<10	90	<0.5	<2	1.54	<0.5	25	5	88
41907		3.13	0.018		0.3	0.93	27	<10	110	<0.5	2	0.13	<0.5	7	1	4
41908		3.14	0.021		0.3	1.10	24	<10	100	<0.5	<2	0.18	<0.5	7	2	5
41909		1.36	0.016		0.3	0.82	19	<10	150	<0.5	<2	0.16	<0.5	4	1	4
41910		1.39	0.016		0.3	0.90	21	<10	140	<0.5	2	0.14	<0.5	4	1	4
41911		3.29	0.056		0.7	1.64	36	<10	40	<0.5	6	0.55	<0.5	13	<1	14
41912		3.56	0.059		1.0	0.81	29	<10	10	<0.5	4	0.34	<0.5	13	3	303
41913		3.46	0.038		0.3	1.71	49	<10	40	<0.5	2	0.48	<0.5	14	2	12
41914		3.40	0.013		<0.2	2.11	29	<10	50	<0.5	<2	0.44	<0.5	16	1	8
41915		0.27	<0.005		<0.2	1.06	<2	<10	230	<0.5	<2	0.62	<0.5	4	7	6
41916		0.37	<0.005		0.2	2.24	3	<10	40	<0.5	<2	5.16	<0.5	19	4	66
41917		3.08	0.013		<0.2	2.17	35	<10	70	<0.5	<2	0.35	<0.5	15	1	7
41918		0.37	1.215	3.51	4.9	1.20	906	<10	10	<0.5	10	0.37	<0.5	23	1	179
41919		3.31	0.065		4.0	1.23	97	<10	10	<0.5	<2	0.49	2.7	20	2	7370
41920		0.02	1.165	2.73												
41921		0.03		2.96	>100	0.61	5380	<10	40	0.5	10	12.3	299	19	16	2360
41922		3.65	0.063		2.0	1.34	75	<10	20	<0.5	5	0.56	0.9	16	3	2070
41923		3.10	0.045		0.6	0.74	56	<10	40	<0.5	2	0.48	0.5	14	3	37
41924		3.21	0.245		6.1	0.90	119	<10	20	<0.5	20	0.49	0.6	25	2	102
41925		0.28	<0.005		<0.2	1.08	<2	<10	240	<0.5	<2	0.59	<0.5	4	10	6
41926		0.67	<0.005		0.2	3.11	9	<10	70	<0.5	<2	1.94	<0.5	27	5	94
41927		3.13	0.020		0.4	1.92	35	<10	70	<0.5	<2	0.37	<0.5	13	2	12
41928		3.00	0.021		0.3	1.56	37	<10	60	<0.5	<2	0.36	1.7	13	2	15
41929		3.83	0.062		0.7	0.92	73	<10	20	<0.5	3	0.31	2.7	18	3	296
41930		0.02	6.06	2.68												
41931		0.03		2.75	80.5	1.54	453	10	40	<0.5	9	2.03	53.3	31	75	>10000
41932		3.90	0.039		0.7	1.51	53	<10	30	<0.5	<2	0.37	18.7	15	2	438
41933		3.54	0.014		<0.2	1.74	37	<10	70	<0.5	<2	0.34	<0.5	13	1	15
41934		3.47	0.017		<0.2	2.28	41	<10	70	<0.5	<2	0.37	<0.5	16	2	8
41935		0.19	<0.005		<0.2	1.12	<2	<10	240	<0.5	<2	0.63	<0.5	5	8	2
41936		0.45	<0.005		<0.2	2.40	6	<10	60	<0.5	<2	4.07	<0.5	22	4	25
41937		4.04	0.017		0.2	1.58	31	<10	90	<0.5	3	0.37	0.8	14	1	9
41938		3.31	0.026		0.5	1.05	62	<10	50	<0.5	3	0.90	0.8	17	1	35
41939		1.61	0.035		0.4	1.30	59	<10	60	<0.5	<2	0.55	<0.5	20	1	31
41940		1.56	0.033		0.4	1.28	56	<10	70	<0.5	<2	0.65	0.6	19	1	31

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

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 26-SEP-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13168474

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
41901		6.55	10	<1	0.55	<10	3.01	942	10	0.01	2	80	36	5.73	<2	3
41902		25.2	10	2	0.19	<10	1.65	517	9	<0.01	5	30	140	>10.0	<2	2
41903		2.60	<10	<1	0.56	10	2.01	614	2	0.01	<1	90	4	1.66	<2	3
41904		4.22	<10	<1	0.43	<10	2.16	665	4	<0.01	1	60	8	3.48	<2	2
41905		1.98	<10	<1	0.48	10	0.59	530	1	0.09	3	770	5	0.01	<2	2
41906		6.22	10	<1	0.32	<10	2.30	1100	1	0.05	6	1020	3	0.07	<2	5
41907		2.26	<10	<1	0.51	10	0.66	235	2	0.01	1	130	7	2.14	<2	2
41908		2.66	<10	<1	0.45	10	0.90	328	3	0.01	2	140	8	2.36	2	2
41909		1.87	<10	<1	0.44	10	0.58	217	2	<0.01	1	150	4	1.70	2	2
41910		1.94	<10	<1	0.50	10	0.54	203	2	<0.01	1	150	5	1.79	2	2
41911		5.81	<10	<1	0.83	<10	1.42	584	3	0.01	<1	1600	14	5.37	<2	5
41912		13.40	<10	<1	0.38	<10	0.45	201	16	0.01	1	530	10	>10.0	19	2
41913		6.45	<10	<1	0.61	<10	1.57	674	5	0.01	<1	1120	10	6.26	<2	4
41914		4.22	10	<1	0.93	<10	1.94	775	1	0.04	2	1220	10	3.31	<2	5
41915		2.01	10	<1	0.49	10	0.62	539	<1	0.09	3	770	4	0.02	<2	2
41916		4.76	10	<1	0.16	<10	1.69	1070	<1	0.05	5	880	3	0.06	<2	5
41917		4.13	10	<1	0.99	<10	2.08	785	1	0.02	2	1260	7	3.03	<2	5
41918		23.9	<10	<1	0.31	<10	1.12	542	4	<0.01	1	580	122	>10.0	6	3
41919		18.0	<10	<1	0.50	<10	0.95	579	13	0.01	<1	720	17	>10.0	31	3
41920																
41921		4.51	<10	9	0.13	10	0.45	5750	3	0.01	20	770	>10000	6.41	112	2
41922		9.22	<10	<1	0.52	<10	1.01	640	10	<0.01	1	930	36	>10.0	11	3
41923		4.49	<10	<1	0.38	<10	0.41	251	5	0.01	<1	950	16	4.72	<2	2
41924		9.51	<10	<1	0.48	<10	0.48	336	7	0.01	<1	870	101	>10.0	<2	2
41925		2.05	<10	<1	0.50	10	0.58	563	<1	0.10	3	780	4	0.03	<2	2
41926		6.65	10	<1	0.36	<10	2.47	1250	<1	0.05	7	1080	3	0.11	<2	5
41927		4.21	10	<1	0.44	<10	1.86	924	1	0.01	1	1140	9	3.12	<2	3
41928		4.05	<10	<1	0.54	<10	1.25	689	2	0.01	1	1050	15	3.41	2	3
41929		6.64	<10	<1	0.43	<10	0.62	388	5	0.01	1	890	18	7.42	4	2
41930																
41931		6.23	10	3	0.37	10	1.42	775	1230	0.10	249	1220	8240	4.12	68	6
41932		6.37	<10	<1	0.53	<10	1.16	590	7	0.01	1	1040	19	6.59	5	3
41933		4.28	<10	<1	0.55	<10	1.56	989	2	0.01	1	1120	9	3.31	<2	4
41934		4.98	10	<1	0.71	10	2.10	1190	1	0.01	2	1350	10	3.59	<2	5
41935		2.03	10	<1	0.51	10	0.62	560	<1	0.10	3	780	5	0.02	<2	3
41936		5.00	10	<1	0.26	<10	1.79	1050	<1	0.06	6	830	6	0.10	<2	6
41937		4.31	<10	<1	0.41	10	1.48	915	2	0.01	1	1300	11	3.46	<2	4
41938		4.29	<10	<1	0.43	10	0.99	1190	3	0.01	2	1400	12	3.93	5	4
41939		4.60	<10	<1	0.40	10	1.45	961	2	0.01	2	1360	15	4.08	<2	4
41940		4.43	<10	<1	0.43	10	1.40	1085	2	0.01	2	1430	14	3.84	2	4

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 26-SEP-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13168474

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
41901		16	<20	0.01	<10	<10	10	<10	161					
41902		26	<20	<0.01	<10	<10	14	<10	76					
41903		7	<20	0.01	<10	<10	3	<10	88					
41904		21	<20	0.01	<10	<10	5	<10	87					
41905		70	<20	0.14	<10	<10	37	<10	45					
41906		23	<20	0.29	<10	<10	123	<10	104					
41907		7	<20	0.01	<10	<10	1	<10	23					
41908		8	<20	<0.01	<10	<10	3	<10	32					
41909		8	<20	0.01	<10	<10	1	<10	20					
41910		7	<20	<0.01	<10	<10	1	<10	19					
41911		19	<20	0.04	<10	<10	16	<10	50					
41912		11	<20	<0.01	<10	<10	13	<10	25					
41913		20	<20	0.02	<10	<10	18	<10	57					
41914		19	<20	0.05	<10	<10	23	<10	63					
41915		69	<20	0.14	<10	<10	38	<10	47					
41916		37	<20	0.23	<10	<10	94	<10	89					
41917		15	<20	0.05	<10	<10	24	<10	59					
41918		9	<20	0.01	<10	<10	20	<10	74	7	0.022	0.016	0.013	0.12
41919		12	<20	0.02	<10	<10	20	<10	99					
41920										1	0.063	0.009	0.019	<0.01
41921		549	<20	<0.01	<10	<10	13	10	>10000	149	0.234	4.98	5.01	0.57
41922		15	<20	0.01	<10	<10	17	<10	75					
41923		14	<20	<0.01	<10	<10	8	<10	43					
41924		16	<20	0.01	<10	<10	11	<10	49					
41925		73	<20	0.15	<10	<10	41	<10	48					
41926		23	<20	0.33	<10	<10	139	<10	112					
41927		14	<20	0.02	<10	<10	16	<10	91					
41928		14	<20	0.02	<10	<10	15	<10	270					
41929		12	<20	0.01	<10	<10	10	<10	431					
41930										1	0.008	0.012	0.012	<0.01
41931		200	<20	0.11	<10	<10	78	20	9720	80	2.58	0.849	0.955	0.05
41932		18	<20	0.01	<10	<10	17	<10	2430					
41933		17	<20	0.02	<10	<10	17	<10	172					
41934		17	<20	0.02	<10	<10	22	<10	105					
41935		77	<20	0.15	<10	<10	39	<10	47					
41936		31	<20	0.23	<10	<10	109	<10	94					
41937		20	<20	<0.01	<10	<10	14	<10	198					
41938		52	<20	<0.01	<10	<10	11	<10	165					
41939		41	<20	<0.01	<10	<10	14	<10	149					
41940		48	<20	<0.01	<10	<10	14	<10	154					

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 26-SEP-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13168474

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
41941		3.21	0.020		0.3	1.43	41	<10	80	0.6	3	0.76	<0.5	21	1	50
41942		2.88	0.014		<0.2	0.81	34	<10	80	0.5	<2	0.69	<0.5	19	1	20
41943		2.30	0.011		0.2	1.08	26	<10	70	<0.5	<2	0.57	<0.5	15	1	135
41944		3.44	0.007		0.3	1.84	17	<10	130	<0.5	<2	0.49	<0.5	11	1	266
41945		0.24	<0.005		<0.2	1.12	<2	<10	230	<0.5	2	0.60	<0.5	4	9	2
41946		0.58	<0.005		0.5	2.07	2	<10	50	<0.5	<2	4.85	<0.5	17	3	195
41947		2.53	0.015		0.3	1.18	30	<10	60	<0.5	<2	0.74	0.9	12	1	353
41948		3.48	0.028		0.2	1.64	36	<10	60	<0.5	2	0.48	1.3	15	1	31
41949		3.46	0.077		0.9	1.53	78	<10	40	<0.5	3	0.39	<0.5	12	2	27
41950		0.02	1.300	2.76												
41951		0.03		3.03	>100	0.64	4810	<10	40	0.5	13	12.4	320	20	17	2450
41952		3.34	0.065		1.7	1.39	75	<10	50	<0.5	4	0.44	1.3	13	1	1285
41953		3.40	0.042		0.3	1.08	69	<10	50	<0.5	3	0.54	1.5	14	2	17
41954		1.98	<0.005		<0.2	4.43	15	<10	400	<0.5	<2	1.79	<0.5	38	434	110
41955		1.63	0.011		<0.2	2.20	22	<10	110	<0.5	<2	0.54	<0.5	13	6	7
41956		3.42	0.014		<0.2	2.28	21	<10	120	<0.5	2	0.55	<0.5	12	4	6

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 26-SEP-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13168474

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
41941		4.59	<10	<1	0.36	<10	1.57	715	1	0.03	2	1480	27	2.18	7	5
41942		4.44	<10	<1	0.34	10	1.16	701	<1	0.01	2	1520	13	3.29	<2	4
41943		3.59	<10	1	0.49	<10	1.10	802	1	0.01	2	1330	10	3.05	<2	4
41944		3.41	<10	<1	0.58	10	1.77	1205	1	0.03	2	1210	6	2.27	<2	4
41945		1.96	10	<1	0.49	10	0.59	550	<1	0.10	3	790	3	0.02	<2	2
41946		4.27	10	<1	0.21	<10	1.48	984	<1	0.06	4	860	<2	0.05	<2	5
41947		3.59	<10	1	0.57	10	0.88	740	<1	0.02	1	1340	8	3.32	<2	4
41948		4.47	<10	<1	0.64	10	1.44	917	1	0.01	2	1280	13	3.97	<2	4
41949		4.81	<10	<1	0.55	<10	1.28	716	1	0.01	1	1120	22	4.65	<2	3
41950																
41951		4.34	<10	9	0.13	10	0.46	5930	4	0.01	18	810	>10000	5.47	113	2
41952		4.77	<10	1	0.51	<10	1.17	635	3	<0.01	1	1260	31	4.57	16	3
41953		4.27	<10	<1	0.52	<10	0.67	433	2	0.01	1	1230	13	4.35	<2	3
41954		5.58	10	<1	0.45	<10	5.01	2010	<1	0.08	110	1280	16	0.88	4	18
41955		4.80	10	<1	0.15	10	2.48	1230	<1	0.05	2	1240	9	3.22	<2	7
41956		4.49	10	<1	0.25	10	2.57	1455	1	0.05	<1	1150	19	2.99	<2	7

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 26-SEP-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13168474

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
41941		70	<20	<0.01	<10	<10	13	<10	102					
41942		57	<20	<0.01	<10	<10	10	<10	84					
41943		48	<20	<0.01	<10	<10	10	<10	92					
41944		37	<20	0.01	<10	<10	17	<10	134					
41945		75	<20	0.14	<10	<10	38	<10	48					
41946		38	<20	0.24	<10	<10	83	<10	84					
41947		48	<20	0.01	<10	<10	10	<10	166					
41948		31	<20	0.01	<10	<10	14	<10	222					
41949		25	<20	0.01	<10	<10	13	<10	104					
41950										2	0.094	0.020	0.024	<0.01
41951		588	<20	<0.01	<10	<10	13	10	>10000	152	0.244	5.13	5.19	0.59
41952		24	<20	0.01	<10	<10	13	<10	198					
41953		28	<20	0.01	<10	<10	11	<10	227					
41954		73	<20	0.08	<10	<10	184	<10	126					
41955		22	<20	0.01	<10	<10	36	<10	110					
41956		17	<20	0.05	<10	<10	34	<10	98					

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 26-SEP-2013
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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13168474

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-24
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

ALS Canada Ltd.
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

CERTIFICATE WH13170188

Project: Tulsequah Project
P.O. No.: 300534
This report is for 111 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 23-SEP-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
41957		3.30	0.188		1.2	0.66	40	<10	30	<0.5	3	0.23	<0.5	3	3	24
41958		2.88	0.227		1.3	0.54	63	<10	70	<0.5	3	0.20	<0.5	4	1	16
41959		3.22	0.174		0.8	0.96	64	<10	20	<0.5	2	0.48	<0.5	6	2	25
41960		0.07	5.66	2.83												
41961		0.02		2.94	86.8	1.59	451	10	30	<0.5	7	1.98	55.9	31	77	>10000
41962		3.45	0.067		0.6	1.12	45	<10	20	<0.5	5	0.42	<0.5	10	3	27
41963		3.23	0.078		0.8	0.93	45	<10	20	<0.5	6	0.42	<0.5	7	3	62
41964		3.37	0.110		1.1	0.52	55	<10	50	<0.5	2	0.06	<0.5	2	1	17
41965		3.57	0.257		1.1	1.05	190	<10	20	<0.5	2	0.27	<0.5	16	1	43
41966		3.24	0.050		0.5	1.11	131	<10	10	<0.5	4	0.28	<0.5	19	2	28
41967		3.91	0.020		0.2	1.38	67	<10	10	<0.5	2	0.42	<0.5	28	2	36
41968		2.72	0.025		<0.2	1.31	152	<10	60	<0.5	<2	0.14	<0.5	25	2	30
41969		3.49	0.025		<0.2	1.97	153	<10	20	<0.5	2	0.28	<0.5	24	3	23
41970		0.83	<0.005		0.2	2.71	6	<10	60	<0.5	2	2.62	<0.5	24	5	79
41971		3.63	0.006		<0.2	2.93	53	<10	20	<0.5	<2	0.30	<0.5	24	4	127
41972		3.53	<0.005		<0.2	3.49	61	<10	20	<0.5	3	0.38	<0.5	24	4	69
41973		3.61	0.019		0.2	3.30	49	<10	20	<0.5	3	0.37	<0.5	24	4	235
41974		3.70	0.108		0.6	2.65	172	<10	20	<0.5	<2	0.38	<0.5	22	3	194
41975		2.15	0.018		0.4	3.23	112	<10	20	<0.5	2	0.27	<0.5	24	4	264
41976		3.36	0.060		0.8	1.32	140	<10	10	<0.5	2	0.28	<0.5	30	2	234
41977		3.79	0.038		0.8	1.16	112	<10	10	<0.5	2	0.21	<0.5	34	1	202
41978		3.73	0.178		1.1	1.26	237	<10	10	<0.5	2	0.32	<0.5	34	2	199
41979		1.56	0.097		1.5	1.21	208	<10	10	0.5	<2	0.45	<0.5	30	1	149
41980		1.35	0.102		1.2	0.92	194	<10	10	<0.5	3	0.31	<0.5	28	1	96
41981		2.65	0.023		0.3	2.98	64	<10	20	<0.5	3	0.62	<0.5	20	7	28
41982		1.01	<0.005		<0.2	2.56	12	<10	430	<0.5	2	0.49	<0.5	7	2	56
41983		2.46	0.050		0.6	1.39	70	<10	10	<0.5	5	0.59	<0.5	19	4	34
41984		3.51	0.027		0.5	2.27	28	<10	20	<0.5	3	0.49	<0.5	17	7	75
41985		3.32	0.031		0.4	2.35	38	<10	20	<0.5	4	0.47	<0.5	18	7	19
41986		3.44	<0.005		<0.2	2.23	7	<10	1220	<0.5	3	0.50	<0.5	7	1	51
41987		3.02	<0.005		<0.2	2.55	10	<10	870	<0.5	2	0.63	<0.5	8	1	47
41988		3.65	0.023		0.2	2.24	43	<10	20	<0.5	4	0.62	<0.5	18	2	10
41989		3.51	0.016		0.2	2.64	37	<10	20	<0.5	4	0.49	<0.5	14	2	8
41990		0.07	1.270	2.74												
41991		0.02		3.05	>100	0.65	4850	10	50	0.5	15	11.6	319	19	17	2420
41992		3.39	0.020		0.3	2.13	62	<10	20	<0.5	3	0.45	0.6	15	2	9
41993		3.39	0.015		0.2	2.21	44	<10	20	<0.5	3	0.47	<0.5	12	2	6
41994		3.54	0.021		0.2	1.84	44	<10	20	<0.5	3	0.64	<0.5	10	2	6
41995		3.24	0.022		0.3	2.10	46	<10	30	<0.5	4	0.87	<0.5	13	3	8
41996		3.48	0.036		0.6	1.93	42	<10	20	<0.5	4	0.44	<0.5	21	3	15

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
41957		2.84	<10	1	0.33	10	0.22	88	3	0.01	5	150	14	3.16	6	2
41958		2.34	<10	1	0.29	10	0.14	51	4	0.01	5	390	16	2.71	6	2
41959		3.44	<10	2	0.42	<10	0.31	155	2	0.04	5	550	20	3.89	6	3
41960																
41961		6.04	10	3	0.36	10	1.37	785	1260	0.09	250	1280	8360	4.13	71	7
41962		4.79	<10	<1	0.51	<10	0.51	207	5	0.02	6	1280	20	5.26	2	3
41963		4.62	<10	<1	0.44	<10	0.35	137	9	0.02	2	900	21	5.23	4	3
41964		2.48	<10	1	0.31	10	0.11	33	3	0.01	3	40	11	2.90	3	1
41965		8.27	<10	2	0.50	10	0.56	177	1	0.01	4	830	23	>10.0	3	4
41966		9.26	<10	1	0.43	<10	0.82	242	1	0.01	5	1020	10	>10.0	2	5
41967		8.18	<10	<1	0.57	<10	0.89	282	<1	0.01	7	1500	13	>10.0	2	6
41968		4.77	<10	1	0.47	<10	1.16	368	<1	<0.01	7	380	6	5.00	3	6
41969		6.44	<10	<1	0.67	<10	1.71	666	<1	0.01	7	880	6	6.90	<2	7
41970		5.47	10	<1	0.25	<10	1.94	1070	<1	0.05	6	1010	2	0.08	<2	6
41971		6.93	10	<1	0.98	<10	3.21	1225	<1	<0.01	7	900	4	6.20	2	10
41972		7.80	10	1	1.06	<10	3.98	1540	<1	0.02	7	990	5	7.05	<2	12
41973		8.55	10	<1	0.82	<10	3.81	1440	<1	0.01	7	1020	9	8.23	10	11
41974		7.94	10	1	0.81	<10	2.93	1210	<1	0.02	7	870	18	8.13	5	8
41975		7.97	10	<1	0.72	<10	3.59	1480	<1	0.01	8	930	10	7.67	6	9
41976		8.52	<10	1	0.66	<10	0.93	387	<1	0.01	9	690	19	>10.0	10	6
41977		8.30	<10	1	0.62	<10	0.46	181	<1	0.02	8	490	18	>10.0	14	5
41978		8.24	<10	<1	0.59	<10	0.74	292	1	0.01	9	1150	23	>10.0	12	5
41979		8.25	<10	1	0.55	<10	0.41	223	<1	0.03	7	520	19	>10.0	14	5
41980		7.72	<10	1	0.45	<10	0.25	142	<1	0.02	7	430	17	9.71	9	4
41981		7.20	10	1	1.45	<10	1.81	789	4	0.10	4	1080	10	6.11	3	12
41982		3.87	10	<1	0.32	10	2.01	1170	<1	0.11	1	1100	4	0.31	2	11
41983		9.53	<10	<1	0.59	<10	0.47	232	6	0.05	2	1040	16	>10.0	3	5
41984		5.91	<10	<1	1.18	<10	1.52	498	5	0.06	3	860	6	4.94	4	8
41985		5.95	10	1	1.31	<10	1.55	538	7	0.07	4	870	9	4.64	3	8
41986		3.69	10	1	0.67	10	1.49	879	<1	0.09	1	1090	<2	0.06	3	8
41987		3.94	10	<1	1.15	10	1.54	831	<1	0.09	<1	1100	5	0.33	8	7
41988		6.30	10	<1	1.07	<10	1.43	575	3	0.07	1	1140	6	5.51	6	7
41989		5.86	10	1	1.29	<10	2.03	844	3	0.06	1	1260	6	4.33	4	8
41990																
41991		4.22	<10	8	0.13	10	0.44	5680	4	0.01	18	790	>10000	5.77	114	2
41992		5.74	<10	<1	1.17	<10	1.58	666	3	0.05	<1	1160	26	5.02	3	6
41993		6.16	10	<1	1.17	<10	1.48	608	3	0.05	1	1240	10	5.84	2	6
41994		4.57	<10	<1	0.88	<10	1.13	524	4	0.06	1	1090	12	4.05	4	5
41995		4.93	<10	1	0.97	<10	1.55	734	3	0.04	<1	1160	9	4.10	4	5
41996		5.70	<10	1	0.96	<10	1.37	586	5	0.04	<1	1100	11	5.62	4	5

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

ALS Canada Ltd.
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
41957		20	<20	<0.01	<10	<10	1	<10	11					
41958		27	<20	<0.01	<10	<10	1	<10	7					
41959		45	<20	<0.01	<10	<10	4	<10	14					
41960										1	0.008	0.008	0.008	<0.01
41961		209	<20	0.11	<10	<10	77	20	9720	82	2.48	0.840	0.950	0.05
41962		30	<20	0.01	<10	<10	11	<10	32					
41963		30	<20	<0.01	<10	<10	8	<10	21					
41964		19	<20	<0.01	<10	<10	1	<10	23					
41965		19	<20	<0.01	<10	<10	17	<10	24					
41966		22	<20	<0.01	<10	<10	24	<10	17					
41967		27	<20	<0.01	<10	<10	39	<10	18					
41968		20	<20	<0.01	<10	<10	38	<10	24					
41969		20	<20	0.01	<10	<10	54	<10	34					
41970		34	<20	0.33	<10	<10	137	<10	108					
41971		16	<20	0.05	<10	<10	91	<10	66					
41972		24	<20	0.06	<10	<10	106	<10	84					
41973		23	<20	0.03	<10	<10	98	<10	95					
41974		28	<20	0.03	<10	<10	68	<10	91					
41975		23	<20	0.02	<10	<10	77	<10	101					
41976		26	<20	0.01	<10	<10	40	<10	32					
41977		28	<20	<0.01	<10	<10	35	<10	17					
41978		27	<20	0.01	<10	<10	43	<10	39					
41979		36	<20	0.01	<10	<10	32	<10	24					
41980		30	<20	<0.01	<10	<10	24	<10	15					
41981		59	<20	0.15	<10	<10	95	<10	89					
41982		48	<20	0.09	<10	<10	17	<10	98					
41983		36	<20	0.02	<10	<10	32	<10	24					
41984		44	<20	0.10	<10	<10	83	<10	73					
41985		47	<20	0.13	<10	<10	85	<10	82					
41986		24	<20	0.11	<10	<10	11	<10	92					
41987		34	<20	0.10	<10	<10	13	<10	94					
41988		35	<20	0.09	<10	<10	34	<10	56					
41989		32	<20	0.12	<10	<10	37	<10	77					
41990										<1	0.062	0.011	0.015	<0.01
41991		575	<20	<0.01	<10	<10	13	10	>10000	153	0.229	4.97	4.94	0.60
41992		44	<20	0.11	<10	<10	27	<10	93					
41993		44	<20	0.10	<10	<10	25	<10	65					
41994		45	<20	0.07	<10	<10	22	<10	48					
41995		37	<20	0.07	<10	<10	25	<10	57					
41996		24	<20	0.07	<10	<10	27	<10	54					

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
41997		3.43	0.024		0.3	1.93	36	<10	30	<0.5	3	0.39	0.5	10	3	6
41998		3.39	0.018		0.3	1.80	24	<10	30	<0.5	4	0.45	<0.5	11	3	7
41999		3.90	0.013		0.3	1.80	21	<10	30	<0.5	4	0.46	<0.5	8	4	5
42000		0.57	<0.005		<0.2	2.44	4	<10	50	<0.5	<2	3.59	<0.5	21	5	30
42001		4.36	0.024		0.6	1.39	23	<10	20	<0.5	5	0.48	<0.5	10	3	23
42002		3.39	0.008		0.2	1.77	22	<10	30	<0.5	3	0.55	<0.5	9	2	11
42003		3.39	0.008		0.2	1.63	14	<10	20	<0.5	3	0.53	<0.5	8	2	12
42004		3.36	0.023		0.2	0.90	49	<10	30	<0.5	4	0.50	<0.5	15	2	18
42005		3.44	0.010		<0.2	1.51	27	<10	30	<0.5	4	0.39	<0.5	12	3	11
42006		2.75	0.019		<0.2	2.35	55	<10	40	<0.5	2	0.42	<0.5	11	2	22
42007		1.69	<0.005		<0.2	0.59	10	<10	130	<0.5	2	0.78	0.8	<1	7	1
42008		2.46	<0.005		0.2	0.59	26	<10	80	0.5	3	0.70	0.8	<1	8	3
42009		3.36	0.015		0.2	1.88	46	<10	20	<0.5	2	0.53	<0.5	13	2	22
42010		0.07	5.69	2.89												
42011		0.02		2.98	86.2	1.60	464	10	30	<0.5	<2	1.96	57.1	31	76	>10000
42012		3.40	0.023		0.3	1.09	27	<10	20	<0.5	4	0.34	<0.5	17	2	35
42013		3.85	0.023		0.3	1.07	27	<10	10	<0.5	6	0.37	<0.5	17	2	21
42014		3.33	0.028		0.3	0.95	35	<10	10	<0.5	5	0.31	1.1	18	2	30
42015		3.51	0.029		0.5	0.85	77	<10	20	<0.5	8	0.40	1.3	20	3	50
42016		3.45	0.046		0.4	3.06	94	<10	50	<0.5	5	0.41	<0.5	20	2	26
42017		3.55	0.012		0.2	3.79	29	<10	50	<0.5	2	0.38	<0.5	17	1	17
42018		3.38	0.015		0.2	2.87	57	<10	40	<0.5	2	0.40	<0.5	21	1	30
42019		2.11	0.015		<0.2	3.28	54	<10	40	<0.5	3	0.48	<0.5	22	<1	59
42020		2.07	0.016		<0.2	3.39	54	<10	40	<0.5	<2	0.53	<0.5	23	1	108
42021		3.24	<0.005		<0.2	3.25	12	<10	1140	<0.5	2	2.56	<0.5	16	16	30
42022		3.32	<0.005		<0.2	2.22	12	<10	450	<0.5	2	2.37	<0.5	15	19	90
42023		4.27	<0.005		<0.2	2.28	15	<10	1680	<0.5	3	1.86	<0.5	15	21	21
42024		3.49	0.008		<0.2	3.21	84	<10	50	<0.5	4	0.47	<0.5	23	2	20
42025		3.42	0.043		0.3	2.80	110	<10	30	<0.5	5	0.39	<0.5	28	3	19
42026		2.61	0.041		0.2	2.29	127	<10	20	<0.5	4	0.46	<0.5	22	3	21
42027		3.25	0.034		0.2	3.02	121	<10	30	<0.5	2	0.33	<0.5	23	3	15
42028		3.68	0.033		0.2	1.57	104	<10	40	<0.5	4	0.39	<0.5	18	3	26
42029		3.56	0.056		1.2	0.69	73	<10	20	<0.5	2	0.39	<0.5	13	3	27
42030		0.02		3.12	>100	0.64	4590	10	50	0.5	13	11.8	322	18	17	2480
42031		0.07	1.195	2.76												
42032		3.55	0.050		0.7	0.59	85	<10	30	<0.5	5	0.37	<0.5	14	2	36
42033		3.50	0.017		<0.2	1.58	132	<10	20	<0.5	3	0.37	<0.5	19	2	42
42034		3.48	0.011		0.2	1.72	95	<10	20	<0.5	3	0.36	<0.5	20	2	457
42035		3.55	0.025		0.2	1.32	117	<10	20	0.5	3	0.45	<0.5	14	1	66
42036		3.82	0.093		2.2	1.16	197	<10	30	0.5	2	0.65	<0.5	16	1	90

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
41997		4.16	<10	<1	0.74	<10	1.45	612	3	0.04	<1	1040	8	3.38	<2	5
41998		4.38	<10	<1	0.66	<10	1.44	620	4	0.05	<1	1130	8	3.66	<2	5
41999		4.39	10	<1	0.58	<10	1.39	604	4	0.05	<1	1040	8	3.84	<2	6
42000		4.97	10	<1	0.20	<10	1.74	1025	<1	0.05	6	890	3	0.06	<2	6
42001		4.07	<10	<1	0.65	<10	0.82	412	5	0.04	1	1280	16	4.19	<2	4
42002		4.04	<10	<1	0.59	<10	1.54	673	1	0.02	<1	1480	14	4.02	<2	4
42003		4.00	<10	1	0.63	<10	1.28	568	1	0.02	<1	1380	19	4.11	2	4
42004		4.35	<10	1	0.47	<10	0.47	218	2	0.01	<1	1780	22	4.94	2	3
42005		3.77	<10	1	0.51	10	1.22	590	1	0.01	<1	1320	7	3.75	<2	3
42006		6.14	10	<1	0.63	<10	2.33	1040	1	0.01	<1	1680	11	6.09	4	5
42007		0.83	<10	<1	0.21	10	0.10	675	1	0.10	<1	90	65	0.05	2	1
42008		0.83	<10	1	0.21	20	0.10	630	2	0.09	<1	90	67	0.09	4	1
42009		4.92	<10	1	0.78	<10	1.54	741	2	0.02	1	1490	19	4.92	4	5
42010																
42011		6.15	10	2	0.35	10	1.38	779	1285	0.09	258	1290	8600	4.21	73	7
42012		4.81	<10	1	0.51	<10	0.70	337	3	0.01	1	1150	15	5.59	2	3
42013		6.56	<10	1	0.51	<10	0.52	302	3	0.02	<1	820	13	7.96	<2	3
42014		5.86	<10	<1	0.41	<10	0.54	275	4	0.01	1	1000	16	7.04	<2	2
42015		5.88	<10	<1	0.42	<10	0.22	139	2	0.02	2	1120	14	7.21	<2	3
42016		8.36	10	<1	0.48	<10	2.85	1205	<1	0.02	2	1320	14	8.01	<2	6
42017		7.11	10	1	0.43	<10	3.70	1570	<1	0.02	2	1450	4	5.50	<2	7
42018		8.55	10	1	0.49	<10	2.62	1260	<1	0.02	1	1470	10	8.81	<2	6
42019		7.36	10	1	0.54	<10	3.07	1425	<1	0.03	1	1340	10	6.92	2	7
42020		7.61	10	1	0.55	<10	3.20	1510	<1	0.04	1	1450	12	7.08	5	7
42021		4.03	10	<1	0.97	10	2.33	921	1	0.22	16	1740	18	0.22	2	9
42022		3.91	10	1	0.23	10	1.92	1135	1	0.09	16	1750	9	0.22	11	8
42023		4.00	10	<1	0.61	10	1.79	586	1	0.16	16	1750	16	0.08	8	9
42024		6.85	10	<1	0.57	<10	3.12	1155	1	0.03	3	1420	9	6.19	<2	7
42025		6.91	10	1	0.57	<10	2.72	1050	1	0.02	4	1580	15	6.89	<2	6
42026		6.80	10	<1	0.42	<10	2.36	1075	1	0.01	2	1480	13	6.91	2	5
42027		7.21	10	<1	0.44	<10	3.15	1225	1	0.01	6	1460	14	7.10	<2	7
42028		6.28	<10	1	0.37	<10	1.48	671	1	0.01	1	1420	10	6.95	2	4
42029		5.36	<10	<1	0.38	<10	0.14	82	1	0.01	1	1540	11	6.52	<2	2
42030		4.24	<10	8	0.13	10	0.44	5780	4	0.01	19	800	>10000	5.65	115	2
42031																
42032		4.95	<10	<1	0.29	<10	0.28	136	1	0.02	4	1320	12	5.84	3	2
42033		7.02	<10	<1	0.54	<10	1.24	440	1	0.02	3	1500	8	8.01	2	4
42034		7.38	<10	<1	0.47	<10	1.71	655	1	0.02	3	1430	7	8.25	2	4
42035		7.06	<10	<1	0.49	<10	1.02	359	1	0.02	1	1910	10	8.33	<2	4
42036		7.17	<10	1	0.47	<10	0.78	289	1	0.02	1	2880	18	8.50	3	4

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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
41997		19	<20	0.06	<10	<10	27	<10	61					
41998		16	<20	0.06	<10	<10	28	<10	52					
41999		16	<20	0.04	<10	<10	29	<10	51					
42000		30	<20	0.25	<10	<10	113	<10	101					
42001		20	<20	0.02	<10	<10	17	<10	34					
42002		28	<20	0.01	<10	<10	12	<10	64					
42003		24	<20	0.01	<10	<10	12	<10	79					
42004		22	<20	<0.01	<10	<10	7	<10	33					
42005		16	<20	0.01	<10	<10	11	<10	44					
42006		15	<20	0.02	<10	<10	15	<10	74					
42007		31	<20	0.01	<10	<10	1	<10	101					
42008		42	<20	0.01	<10	<10	1	<10	82					
42009		21	<20	0.02	<10	<10	13	<10	76					
42010										1	0.008	0.013	0.012	<0.01
42011		214	<20	0.11	<10	<10	75	20	9720	81	2.48	0.832	0.949	0.05
42012		16	<20	<0.01	<10	<10	8	<10	53					
42013		18	<20	0.01	<10	<10	7	<10	39					
42014		15	<20	<0.01	<10	<10	8	<10	92					
42015		21	<20	<0.01	<10	<10	15	<10	75					
42016		21	<20	0.03	<10	<10	54	<10	111					
42017		21	<20	0.03	<10	<10	67	<10	90					
42018		23	<20	0.02	<10	<10	54	<10	69					
42019		27	<20	0.02	<10	<10	61	<10	86					
42020		29	<20	0.02	<10	<10	64	<10	93					
42021		110	<20	0.17	<10	<10	110	<10	128					
42022		59	<20	0.08	<10	<10	102	<10	110					
42023		120	<20	0.16	<10	<10	112	<10	100					
42024		28	<20	0.02	<10	<10	69	<10	64					
42025		20	<20	0.01	<10	<10	57	<10	52					
42026		20	<20	0.01	<10	<10	42	<10	48					
42027		15	<20	0.01	<10	<10	68	<10	58					
42028		16	<20	<0.01	<10	<10	25	<10	34					
42029		17	<20	<0.01	<10	<10	6	<10	7					
42030		588	<20	<0.01	<10	<10	13	10	>10000	150	0.224	4.85	4.84	0.59
42031										<1	0.060	0.013	0.015	<0.01
42032		15	<20	<0.01	<10	<10	5	<10	12					
42033		15	<20	0.01	<10	<10	19	<10	22					
42034		16	<20	0.01	<10	<10	21	<10	34					
42035		18	<20	0.01	<10	<10	12	<10	23					
42036		24	<20	<0.01	<10	<10	11	<10	23					

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
42037		3.48	0.018		<0.2	1.31	65	<10	20	0.5	3	0.49	<0.5	15	<1	54
42038		3.56	0.007		<0.2	1.47	74	<10	20	0.5	3	0.32	<0.5	14	1	57
42039		3.27	0.008		<0.2	2.24	88	<10	20	0.5	2	0.32	<0.5	15	1	158
42040		0.64	<0.005		<0.2	2.94	7	<10	50	<0.5	<2	3.51	<0.5	23	5	34
42041		3.58	0.008		<0.2	2.60	89	<10	30	0.6	2	0.30	<0.5	13	1	272
42042		2.70	0.014		<0.2	2.16	99	<10	40	0.6	2	0.31	<0.5	12	1	100
42043		2.18	0.024		0.2	2.57	90	<10	30	0.5	3	1.13	<0.5	11	1	101
42044		3.31	0.012		<0.2	1.89	83	<10	20	0.5	3	0.40	<0.5	12	1	82
42045		3.36	0.024		<0.2	1.39	83	<10	20	0.5	<2	0.33	<0.5	13	3	92
42046		3.46	0.048		0.7	0.77	115	<10	50	0.5	<2	0.37	<0.5	11	2	123
42047		3.62	0.026		0.3	1.32	67	<10	20	0.6	2	0.40	<0.5	12	2	153
42048		3.80	0.056		0.9	0.87	81	<10	30	0.5	2	0.48	<0.5	14	1	60
42049		1.39	0.062		1.3	1.09	118	<10	20	0.5	2	0.44	<0.5	14	1	41
42050		1.38	0.062		1.3	0.84	125	<10	30	0.5	<2	0.44	<0.5	15	1	43
QO14001		3.44	0.048		1.0	0.88	81	<10	10	<0.5	3	0.32	<0.5	14	3	198
QO14002		3.29	0.024		0.2	0.83	90	<10	40	<0.5	3	0.42	<0.5	15	2	23
QO14003		2.85	0.050		0.8	0.89	63	<10	30	<0.5	4	0.36	<0.5	13	2	22
QO14004		3.69	0.007		<0.2	1.37	114	<10	20	<0.5	2	0.35	<0.5	13	2	44
QO14005		2.51	0.027		<0.2	2.23	29	<10	40	<0.5	2	0.29	<0.5	16	4	137
QO14006		3.45	0.019		<0.2	2.07	28	<10	80	<0.5	3	0.41	<0.5	19	42	47
QO14007		3.68	0.022		<0.2	2.01	35	<10	60	0.5	3	0.29	<0.5	14	2	68
QO14008		3.37	0.035		0.4	1.74	75	<10	60	<0.5	6	0.24	<0.5	19	3	598
QO14009		3.49	0.014		<0.2	1.59	48	<10	50	<0.5	3	0.34	<0.5	13	1	26
QO14010		0.02		2.88	80.2	1.49	444	20	30	<0.5	5	1.89	51.8	28	72	>10000
QO14011		0.07	5.69	2.85												
QO14012		3.38	0.014		<0.2	2.44	50	<10	80	0.5	2	0.41	<0.5	16	<1	19
QO14013		3.80	0.017		<0.2	2.12	44	<10	40	0.5	2	0.34	<0.5	12	2	19
QO14014		3.44	0.050		0.3	1.65	53	<10	30	<0.5	<2	0.31	<0.5	11	<1	137
QO14015		3.71	0.087		0.4	2.17	84	<10	30	<0.5	2	0.33	<0.5	13	1	17
QO14016		3.56	0.039		0.3	1.68	76	<10	70	<0.5	<2	0.30	<0.5	13	1	13
QO14017		3.13	0.032		0.2	2.18	76	<10	40	<0.5	3	0.31	<0.5	13	2	17

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
42037		6.74	<10	<1	0.52	<10	0.92	391	1	0.03	1	2190	11	7.85	<2	4
42038		6.38	<10	<1	0.46	<10	1.23	633	1	0.03	1	1350	8	6.92	2	4
42039		6.87	10	1	0.52	<10	2.15	993	1	0.03	2	1430	5	6.98	<2	4
42040		6.07	10	<1	0.24	<10	2.18	1195	<1	0.06	7	1030	2	0.07	<2	7
42041		6.19	10	<1	0.51	<10	2.70	1140	<1	0.02	2	1350	4	5.70	2	5
42042		5.55	10	<1	0.45	<10	2.29	930	1	0.02	2	1280	4	4.91	3	4
42043		5.59	10	<1	0.30	<10	3.17	2040	<1	0.02	2	1030	8	4.62	11	5
42044		5.63	<10	<1	0.42	<10	2.05	962	1	0.02	2	1670	6	5.78	2	4
42045		5.32	<10	<1	0.46	<10	1.22	549	1	0.02	1	1200	6	5.47	2	3
42046		4.52	<10	<1	0.33	<10	0.50	222	1	0.02	1	1440	7	4.90	3	2
42047		5.86	<10	<1	0.50	<10	0.98	460	1	0.02	2	1670	5	6.70	3	3
42048		5.14	<10	<1	0.38	<10	0.57	309	1	0.02	1	1860	10	5.97	3	3
42049		5.12	<10	1	0.52	<10	0.52	236	1	0.02	1	1880	10	5.98	2	3
42050		5.26	<10	<1	0.40	<10	0.49	238	1	0.02	1	1880	10	6.09	2	3
QO14001		5.65	<10	1	0.41	<10	0.35	183	1	0.02	1	1280	10	6.60	8	2
QO14002		5.03	<10	1	0.34	<10	0.51	239	1	0.02	1	1740	7	5.41	<2	3
QO14003		4.31	<10	1	0.37	<10	0.50	323	1	0.02	2	1290	8	4.59	2	3
QO14004		5.62	<10	<1	0.50	<10	1.21	554	1	0.02	1	1440	5	6.17	2	4
QO14005		5.26	10	<1	0.49	<10	2.06	989	<1	0.04	3	1220	5	4.02	<2	5
QO14006		4.57	10	<1	0.27	<10	2.08	1105	<1	0.03	13	1320	5	3.36	2	4
QO14007		4.06	<10	<1	0.52	<10	1.73	773	1	0.03	3	1180	5	3.25	2	4
QO14008		5.25	<10	<1	0.43	<10	1.66	711	1	0.02	6	990	5	4.91	4	4
QO14009		3.35	<10	1	0.48	<10	1.27	541	<1	0.03	2	1350	7	3.10	2	3
QO14010		5.89	10	2	0.35	10	1.34	727	1185	0.09	242	1200	8090	3.98	67	6
QO14011																
QO14012		3.82	10	<1	0.76	<10	2.28	873	1	0.04	2	1740	8	2.81	2	6
QO14013		4.14	10	<1	0.64	<10	1.79	835	<1	0.03	2	1320	7	3.41	3	4
QO14014		4.02	<10	<1	0.47	<10	1.43	624	<1	0.02	1	1330	9	3.80	4	3
QO14015		4.35	10	<1	0.63	<10	1.95	788	1	0.03	3	1400	17	3.91	<2	5
QO14016		3.73	<10	<1	0.46	<10	1.54	684	<1	0.02	3	1290	10	3.28	<2	3
QO14017		3.82	10	<1	0.64	<10	1.84	780	1	0.03	3	1330	10	3.01	2	4

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
42037		19	<20	0.01	<10	<10	14	<10	24					
42038		13	<20	0.01	<10	<10	15	<10	31					
42039		11	<20	0.01	<10	<10	20	<10	39					
42040		31	<20	0.25	<10	<10	122	<10	118					
42041		11	<20	0.02	<10	<10	23	<10	49					
42042		11	<20	0.01	<10	<10	18	<10	46					
42043		33	<20	<0.01	<10	<10	20	<10	87					
42044		16	<20	0.01	<10	<10	18	<10	37					
42045		14	<20	<0.01	<10	<10	13	<10	19					
42046		16	<20	<0.01	<10	<10	7	<10	11					
42047		19	<20	<0.01	<10	<10	10	<10	18					
42048		20	<20	<0.01	<10	<10	8	<10	17					
42049		20	<20	<0.01	<10	<10	10	<10	14					
42050		19	<20	<0.01	<10	<10	8	<10	14					
QO14001		16	<20	<0.01	<10	<10	10	<10	18					
QO14002		22	<20	<0.01	<10	<10	7	<10	15					
QO14003		19	<20	<0.01	<10	<10	11	<10	12					
QO14004		18	<20	0.01	<10	<10	10	<10	23					
QO14005		9	<20	0.03	<10	<10	33	<10	44					
QO14006		12	<20	0.01	<10	<10	30	<10	44					
QO14007		10	<20	0.01	<10	<10	21	<10	40					
QO14008		8	<20	0.02	<10	<10	34	<10	39					
QO14009		11	<20	0.01	<10	<10	17	<10	29					
QO14010		200	<20	0.10	<10	<10	74	40	9070	77	2.46	0.817	0.940	0.05
QO14011										1	0.008	0.012	0.015	<0.01
QO14012		13	<20	0.03	<10	<10	27	<10	45					
QO14013		11	<20	0.01	<10	<10	21	<10	39					
QO14014		9	<20	0.01	<10	<10	15	<10	31					
QO14015		11	<20	0.02	<10	<10	23	<10	41					
QO14016		9	<20	0.02	<10	<10	17	<10	34					
QO14017		10	<20	0.02	<10	<10	22	<10	40					

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 2-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13170188

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-24
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

CERTIFICATE WH13178965

Project: Tulsequah
P.O. No.: 300534
This report is for 276 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 3-OCT-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014180		0.08	5.25	2.77												
Q014181		0.02		2.83	77.7	1.52	440	20	30	<0.5	<2	2.00	52.7	30	75	>10000
Q014182		2.23	<0.005		<0.2	1.74	6	<10	100	<0.5	<2	1.93	<0.5	10	7	24
Q014183		2.32	<0.005		<0.2	1.39	3	<10	100	<0.5	<2	1.33	<0.5	6	5	20
Q014184		2.33	<0.005		<0.2	1.58	2	<10	120	0.6	<2	1.20	<0.5	6	5	16
Q014185		2.31	<0.005		<0.2	1.66	5	<10	120	0.6	<2	1.05	<0.5	5	4	17
Q014186		2.16	<0.005		<0.2	1.22	3	<10	100	0.5	<2	0.98	<0.5	4	3	22
Q014187		2.38	<0.005		<0.2	1.78	3	<10	130	0.6	<2	1.16	<0.5	6	6	30
Q014188		2.34	<0.005		<0.2	1.54	10	<10	100	0.5	<2	1.17	<0.5	6	8	35
Q014189		0.75	<0.005		<0.2	1.69	5	<10	120	<0.5	<2	1.62	<0.5	6	8	34
Q014190		0.72	<0.005		<0.2	1.48	4	<10	100	<0.5	<2	1.40	<0.5	6	7	28
Q014191		1.90	<0.005		<0.2	4.18	14	<10	110	0.5	<2	3.55	<0.5	25	75	93
Q014192		1.67	<0.005		<0.2	2.84	10	<10	30	<0.5	<2	2.13	<0.5	25	20	87
Q014193		2.65	<0.005		<0.2	3.28	11	<10	80	<0.5	<2	3.05	<0.5	21	18	93
Q014194		2.12	<0.005		<0.2	4.38	16	<10	160	<0.5	<2	2.85	<0.5	29	22	107
Q014195		2.44	<0.005		<0.2	3.22	7	<10	230	<0.5	<2	3.60	<0.5	14	9	37
Q014196		3.15	<0.005		<0.2	2.07	7	<10	120	<0.5	<2	2.34	<0.5	8	3	14
Q014197		3.01	0.010		<0.2	3.20	11	<10	110	<0.5	<2	2.49	<0.5	30	23	84
Q014198		2.86	<0.005		<0.2	3.37	6	<10	70	<0.5	<2	2.15	<0.5	31	23	70
Q014199		3.19	<0.005		<0.2	3.60	6	<10	30	<0.5	<2	1.84	<0.5	36	25	98
Q014200		0.08	1.255	2.76												
Q014201		0.03		2.97	>100	0.59	4350	<10	40	<0.5	9	11.6	288	18	16	2130
Q014202		1.45	<0.005		<0.2	3.22	9	<10	30	<0.5	<2	2.93	<0.5	28	24	63
Q014203		0.86	0.006		<0.2	1.68	12	<10	20	<0.5	<2	5.12	<0.5	19	14	41
Q014204		2.10	<0.005		<0.2	2.99	5	<10	50	<0.5	<2	1.80	<0.5	29	23	100
Q014205		1.92	<0.005		0.2	3.85	9	<10	130	<0.5	<2	2.36	<0.5	33	26	100
Q014206		3.22	<0.005		<0.2	3.34	5	<10	110	<0.5	<2	2.10	<0.5	28	22	62
Q014207		2.54	<0.005		<0.2	4.39	6	<10	160	<0.5	<2	1.14	<0.5	34	25	79
Q014208		2.29	<0.005		<0.2	3.70	2	<10	40	<0.5	<2	1.57	<0.5	35	22	87
Q014209		2.79	<0.005		<0.2	4.01	3	<10	90	<0.5	<2	1.49	<0.5	38	22	77
Q014210		0.73	<0.005		0.2	3.03	4	<10	60	<0.5	<2	3.26	<0.5	24	5	60
Q014211		1.97	0.007		0.2	4.24	47	<10	220	<0.5	<2	4.52	0.7	40	20	51
Q014212		3.56	0.044		0.8	5.23	14	<10	110	<0.5	<2	2.25	<0.5	33	43	58
Q014213		3.24	0.008		0.2	6.19	6	<10	230	<0.5	<2	1.33	<0.5	30	46	65
Q014214		3.11	0.007		0.2	4.97	8	<10	140	<0.5	<2	1.56	<0.5	32	35	73
Q014215		0.96	0.011		<0.2	4.49	11	<10	40	<0.5	<2	0.94	2.2	43	49	30
Q014216		1.70	0.005		<0.2	7.70	10	<10	230	<0.5	<2	3.49	<0.5	40	113	82
Q014217		2.76	0.006		0.2	4.68	11	<10	220	<0.5	<2	2.76	<0.5	29	10	83
Q014218		2.72	0.009		0.3	5.98	6	<10	170	<0.5	<2	1.33	<0.5	33	31	94
Q014219		2.66	0.013		0.5	4.90	16	<10	60	<0.5	<2	0.97	<0.5	31	28	100

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014180																
Q014181		6.16	10	3	0.36	10	1.36	757	1230	0.09	246	1200	8270	4.15	69	6
Q014182		1.39	<10	<1	0.57	10	0.47	266	<1	0.17	9	420	11	0.03	3	2
Q014183		0.98	<10	<1	0.44	<10	0.29	198	<1	0.12	3	240	7	0.02	2	1
Q014184		0.95	<10	<1	0.56	<10	0.35	193	<1	0.13	2	240	5	0.01	<2	1
Q014185		1.02	<10	<1	0.59	<10	0.41	183	<1	0.12	1	260	3	0.01	3	1
Q014186		0.82	<10	<1	0.45	<10	0.31	152	<1	0.08	2	210	4	0.01	3	1
Q014187		1.32	<10	<1	0.56	<10	0.44	210	<1	0.14	3	280	6	0.09	5	2
Q014188		1.26	<10	<1	0.41	<10	0.47	218	14	0.14	3	180	6	0.22	8	2
Q014189		1.48	<10	<1	0.46	<10	0.44	243	1	0.18	3	270	12	0.09	11	2
Q014190		1.20	<10	<1	0.37	<10	0.42	201	1	0.16	3	270	5	0.09	7	2
Q014191		3.99	10	<1	0.48	<10	2.94	577	<1	0.24	45	1730	24	0.23	21	8
Q014192		5.01	10	<1	0.08	<10	2.34	458	<1	0.13	10	530	<2	0.14	17	9
Q014193		5.84	10	<1	0.26	<10	2.34	552	<1	0.22	9	430	5	0.58	19	15
Q014194		7.06	20	<1	0.69	<10	2.47	679	<1	0.32	13	580	11	0.56	18	26
Q014195		4.51	10	<1	0.85	<10	1.55	521	<1	0.25	4	950	5	0.29	4	10
Q014196		2.62	10	<1	0.63	10	0.89	358	<1	0.18	1	1310	7	0.07	5	2
Q014197		6.41	10	<1	0.52	<10	2.19	607	1	0.24	12	510	9	0.94	10	19
Q014198		6.38	10	<1	0.22	<10	3.06	754	<1	0.13	12	530	4	0.15	5	12
Q014199		6.75	10	<1	0.09	<10	3.37	518	<1	0.10	18	380	<2	0.01	4	11
Q014200																
Q014201		4.09	<10	7	0.12	10	0.41	5370	3	<0.01	16	710	>10000	5.08	104	2
Q014202		6.45	10	<1	0.12	<10	2.87	522	<1	0.11	17	390	11	0.02	<2	15
Q014203		5.12	10	<1	0.09	<10	0.85	246	<1	0.06	12	400	5	0.06	6	7
Q014204		5.60	10	<1	0.17	<10	2.78	416	<1	0.09	13	520	<2	0.04	5	13
Q014205		6.66	10	<1	0.62	<10	2.91	618	<1	0.19	15	590	3	0.28	4	29
Q014206		5.81	10	<1	0.57	<10	3.06	387	<1	0.13	12	580	<2	0.02	6	18
Q014207		7.50	10	<1	0.89	<10	3.97	328	<1	0.19	17	420	2	0.03	11	14
Q014208		6.51	10	<1	0.18	<10	4.00	308	<1	0.09	14	550	<2	0.01	5	11
Q014209		6.90	10	<1	0.50	<10	3.77	334	<1	0.16	18	610	<2	0.10	5	17
Q014210		6.17	10	<1	0.28	<10	2.18	1135	<1	0.07	6	1020	2	0.04	<2	8
Q014211		7.70	10	<1	0.80	<10	3.55	1150	<1	0.07	19	440	8	1.53	9	19
Q014212		6.57	10	<1	2.48	<10	4.27	953	<1	0.22	26	890	8	2.41	9	23
Q014213		7.32	10	<1	2.12	<10	5.94	1200	<1	0.16	28	810	9	1.71	6	24
Q014214		7.41	10	<1	1.14	<10	5.23	1335	<1	0.07	22	1020	11	2.81	14	13
Q014215		10.70	10	<1	1.17	<10	4.49	1300	3	0.08	38	950	17	8.04	6	14
Q014216		7.80	20	<1	2.88	<10	5.29	1580	<1	0.39	29	1020	14	2.20	5	41
Q014217		6.02	10	<1	2.21	<10	2.87	1140	1	0.46	14	760	11	2.13	4	25
Q014218		7.16	10	<1	2.38	<10	4.09	1365	<1	0.40	18	830	10	1.60	4	26
Q014219		7.23	10	<1	1.93	<10	3.80	1060	1	0.24	19	790	81	3.45	7	17

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014180										2	0.008	0.011	0.009	<0.01
Q014181		193	<20	0.11	<10	<10	73	20	9230	79	2.43	0.842	0.969	0.05
Q014182		93	<20	0.07	<10	<10	11	<10	56					
Q014183		88	<20	0.06	<10	<10	5	<10	38					
Q014184		92	<20	0.06	<10	<10	4	<10	33					
Q014185		109	<20	0.06	<10	<10	4	<10	38					
Q014186		91	<20	0.06	<10	<10	3	<10	35					
Q014187		112	<20	0.08	<10	<10	5	<10	45					
Q014188		92	<20	0.07	<10	<10	8	<10	40					
Q014189		130	<20	0.07	<10	<10	9	<10	51					
Q014190		113	<20	0.06	<10	<10	9	<10	25					
Q014191		367	<20	0.20	<10	<10	107	<10	90					
Q014192		61	<20	0.17	<10	<10	157	<10	71					
Q014193		73	<20	0.14	<10	<10	230	<10	71					
Q014194		119	<20	0.16	<10	<10	280	<10	92					
Q014195		123	<20	0.12	<10	<10	130	<10	72					
Q014196		102	<20	0.13	<10	<10	69	<10	53					
Q014197		74	<20	0.16	<10	<10	190	<10	95					
Q014198		64	<20	0.16	<10	<10	209	<10	87					
Q014199		59	<20	0.17	<10	<10	166	<10	85					
Q014200										1	0.061	0.012	0.011	<0.01
Q014201		498	<20	<0.01	<10	<10	12	10	>10000	154	0.237	5.11	5.05	0.60
Q014202		78	<20	0.15	<10	<10	176	<10	87					
Q014203		139	<20	0.18	<10	<10	139	<10	39					
Q014204		56	<20	0.15	<10	<10	168	<10	83					
Q014205		63	<20	0.15	<10	<10	260	<10	102					
Q014206		59	<20	0.17	<10	<10	211	<10	84					
Q014207		55	<20	0.17	<10	<10	211	<10	79					
Q014208		57	<20	0.15	<10	<10	186	<10	78					
Q014209		99	<20	0.16	<10	<10	227	<10	90					
Q014210		35	<20	0.40	<10	<10	139	<10	109					
Q014211		159	<20	0.05	<10	<10	154	<10	141					
Q014212		114	<20	0.17	<10	<10	190	<10	83					
Q014213		69	<20	0.19	<10	<10	180	<10	112					
Q014214		56	<20	0.12	<10	<10	128	<10	159					
Q014215		32	<20	0.14	<10	<10	120	<10	586					
Q014216		73	<20	0.30	<10	<10	289	<10	208					
Q014217		44	<20	0.26	10	<10	228	<10	90					
Q014218		33	<20	0.29	<10	<10	222	<10	111					
Q014219		27	<20	0.24	<10	<10	141	<10	177					

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

ALS Canada Ltd.
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014220		0.07	5.64	2.80												
Q014221		0.03		2.86	85.5	1.61	443	10	30	<0.5	10	2.06	54.7	30	77	>10000
Q014222		3.81	<0.005		<0.2	6.95	12	<10	440	<0.5	<2	2.67	<0.5	31	21	95
Q014223		2.48	0.006		0.2	6.79	12	<10	100	0.5	<2	2.45	<0.5	34	25	90
Q014224		1.73	0.007		0.3	4.81	14	<10	150	<0.5	<2	2.40	<0.5	30	11	87
Q014225		2.96	0.014		0.5	5.05	24	<10	140	<0.5	<2	1.23	<0.5	33	37	92
Q014226		2.68	0.046		0.8	4.58	59	<10	210	<0.5	<2	0.54	1.2	27	12	125
Q014227		3.41	0.010		0.5	6.84	9	<10	440	0.5	<2	1.97	<0.5	24	9	93
Q014228		3.09	0.011		<0.2	3.83	5	<10	200	0.6	<2	2.44	<0.5	25	6	25
Q014229		1.27	0.036		0.9	1.92	27	<10	160	0.6	<2	0.94	18.8	11	6	537
Q014230		1.13	0.032		0.7	1.72	27	<10	210	0.6	<2	0.79	3.8	10	5	286
Q014231		3.11	0.006		<0.2	0.90	69	<10	200	<0.5	<2	1.11	<0.5	2	5	22
Q014232		3.06	0.006		0.3	0.75	41	<10	150	<0.5	<2	1.17	5.0	1	7	11
Q014233		2.99	<0.005		<0.2	0.73	11	<10	160	<0.5	<2	0.98	<0.5	1	7	5
Q014234		3.31	<0.005		<0.2	0.90	613	<10	170	<0.5	<2	0.73	<0.5	1	6	11
Q014235		3.22	<0.005		<0.2	1.58	11	<10	180	<0.5	<2	0.95	<0.5	1	5	10
Q014236		3.18	<0.005		<0.2	1.33	6	<10	160	<0.5	<2	0.48	<0.5	1	4	5
Q014237		3.13	<0.005		<0.2	1.30	9	<10	180	<0.5	<2	0.46	<0.5	1	5	6
Q014238		3.29	<0.005		<0.2	1.05	11	<10	130	<0.5	<2	0.49	<0.5	1	5	5
Q014239		3.41	<0.005		<0.2	1.10	7	<10	170	<0.5	<2	0.34	<0.5	1	5	19
Q014240		0.07	1.270	2.71												
Q014241		0.02		3.02	>100	0.66	4970	<10	50	0.5	10	12.5	313	19	17	2310
Q014242		3.38	<0.005		<0.2	1.19	9	<10	130	<0.5	<2	0.31	<0.5	1	4	65
Q014243		3.49	<0.005		<0.2	1.57	10	<10	160	<0.5	<2	0.53	<0.5	1	4	120
Q014244		3.51	0.005		<0.2	0.94	14	<10	180	<0.5	<2	0.62	<0.5	2	5	174
Q014245		1.50	0.008		<0.2	0.85	21	<10	120	<0.5	<2	0.47	<0.5	1	7	279
Q014246		0.66	<0.005		0.5	1.11	14	<10	150	<0.5	<2	0.62	<0.5	1	5	1910
Q014247		2.19	<0.005		<0.2	1.50	12	<10	160	<0.5	<2	0.26	<0.5	1	4	94
Q014248		3.45	<0.005		<0.2	1.21	19	<10	160	<0.5	<2	0.37	<0.5	1	4	134
Q014249		2.49	<0.005		<0.2	1.18	13	<10	200	<0.5	<2	0.32	0.5	1	3	213
Q014250		0.58	<0.005		0.2	3.07	6	<10	50	<0.5	<2	3.68	<0.5	26	7	65
Q014251		3.40	0.005		<0.2	1.39	8	<10	230	0.5	<2	0.40	<0.5	1	4	65
Q014252		3.28	<0.005		<0.2	1.22	8	<10	180	<0.5	<2	0.23	<0.5	1	4	15
Q014253		3.31	<0.005		<0.2	1.46	9	<10	200	0.5	<2	0.23	<0.5	1	3	12
Q014254		3.27	<0.005		<0.2	1.37	7	<10	190	0.5	<2	0.14	<0.5	<1	3	3
Q014255		3.35	<0.005		0.2	1.28	9	<10	200	<0.5	<2	0.23	<0.5	1	3	123
Q014256		3.39	0.009		<0.2	1.28	17	<10	170	<0.5	<2	0.21	<0.5	1	3	5
Q014257		3.26	0.010		0.3	1.00	24	<10	170	<0.5	<2	0.31	<0.5	1	4	10
Q014258		3.32	0.014		<0.2	0.86	12	<10	190	<0.5	<2	0.45	<0.5	1	5	7
Q014259		2.21	0.027		<0.2	0.65	22	<10	160	<0.5	<2	0.63	<0.5	2	5	5

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CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014220																
Q014221		6.19	10	3	0.37	10	1.43	770	1290	0.10	243	1260	8390	4.24	67	7
Q014222		6.82	10	<1	2.98	<10	4.03	1275	1	0.68	15	820	11	1.24	4	29
Q014223		7.26	10	<1	3.46	<10	3.79	1100	<1	0.55	19	840	17	2.66	9	26
Q014224		6.46	10	1	2.61	<10	3.11	1140	<1	0.45	15	880	21	2.82	10	26
Q014225		7.05	10	<1	2.61	<10	3.54	1020	<1	0.31	20	810	48	2.71	15	22
Q014226		6.79	10	<1	2.11	<10	3.73	1145	3	0.15	17	770	115	1.71	10	17
Q014227		6.50	10	<1	3.21	<10	3.77	991	<1	0.47	13	790	8	0.04	8	22
Q014228		5.37	10	<1	2.22	<10	1.88	996	<1	0.04	11	920	9	0.12	5	15
Q014229		4.98	10	<1	0.89	10	0.93	1000	<1	0.01	8	540	111	1.65	5	6
Q014230		4.94	<10	<1	0.77	10	0.89	987	<1	0.01	7	520	157	1.68	4	6
Q014231		1.53	<10	<1	0.54	10	0.17	367	1	0.05	1	330	4	0.54	2	2
Q014232		1.40	<10	<1	0.40	10	0.21	533	1	0.02	1	310	107	0.45	2	2
Q014233		1.18	<10	<1	0.42	10	0.15	387	<1	0.04	2	240	5	0.24	2	2
Q014234		1.47	<10	<1	0.56	10	0.20	373	<1	0.02	1	330	5	0.46	7	2
Q014235		2.08	<10	<1	0.67	10	0.42	605	<1	0.11	1	280	28	0.27	10	3
Q014236		2.19	<10	1	0.86	10	0.35	562	<1	0.08	1	290	2	0.24	4	4
Q014237		2.38	<10	<1	0.81	10	0.31	537	<1	0.09	1	300	3	0.40	4	4
Q014238		2.14	<10	<1	0.60	10	0.29	562	<1	0.06	1	290	3	0.30	3	4
Q014239		2.11	<10	<1	0.72	10	0.28	492	<1	0.06	1	290	2	0.28	3	3
Q014240																
Q014241		4.36	<10	9	0.14	10	0.46	5760	4	0.01	19	800	>10000	5.54	114	2
Q014242		2.61	<10	<1	0.74	20	0.38	590	<1	0.06	1	290	10	0.32	4	5
Q014243		3.62	10	<1	1.00	20	0.58	819	<1	0.08	1	280	3	0.42	6	6
Q014244		2.66	<10	<1	0.54	20	0.27	443	<1	0.06	1	250	3	0.65	6	4
Q014245		2.83	<10	<1	0.41	20	0.24	440	<1	0.08	1	270	4	0.96	8	4
Q014246		2.79	<10	<1	0.70	10	0.38	547	<1	0.05	1	240	3	0.69	6	4
Q014247		3.06	10	<1	0.94	20	0.58	637	<1	0.06	1	290	2	0.30	4	5
Q014248		2.82	<10	<1	0.68	10	0.41	541	5	0.07	1	280	5	0.50	4	5
Q014249		2.67	<10	<1	0.74	20	0.35	458	3	0.07	1	290	21	0.56	3	4
Q014250		6.36	10	<1	0.27	<10	2.26	1230	<1	0.07	8	1050	4	0.08	<2	8
Q014251		2.75	10	<1	0.90	20	0.47	544	4	0.07	2	300	16	0.51	3	5
Q014252		2.33	<10	<1	0.78	20	0.44	404	2	0.06	1	270	13	0.47	2	4
Q014253		2.44	10	<1	1.01	20	0.55	475	3	0.06	4	280	6	0.26	3	5
Q014254		2.28	10	<1	1.03	20	0.49	411	3	0.04	2	270	3	0.14	2	4
Q014255		2.89	10	<1	0.87	20	0.49	487	3	0.06	2	280	9	0.64	3	5
Q014256		3.33	10	<1	0.82	20	0.51	495	11	0.06	1	290	17	1.05	4	5
Q014257		2.23	<10	<1	0.54	10	0.38	352	21	0.08	2	290	6	0.65	5	5
Q014258		2.15	<10	<1	0.48	10	0.28	326	11	0.08	2	250	5	0.53	3	5
Q014259		2.23	<10	<1	0.34	10	0.19	217	4	0.08	1	250	6	1.20	2	4

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014220										2	0.008	0.010	0.010	<0.01
Q014221		204	<20	0.11	10	<10	79	10	9540	78	2.47	0.827	0.994	0.05
Q014222		43	<20	0.30	<10	<10	258	<10	85					
Q014223		50	<20	0.31	<10	<10	226	<10	148					
Q014224		40	<20	0.31	<10	<10	237	<10	159					
Q014225		22	<20	0.30	<10	<10	186	<10	183					
Q014226		13	<20	0.23	<10	<10	139	<10	530					
Q014227		40	<20	0.28	<10	<10	192	<10	132					
Q014228		39	<20	0.25	<10	<10	136	<10	179					
Q014229		38	<20	0.04	<10	<10	32	<10	1425					
Q014230		34	<20	0.03	<10	<10	30	<10	434					
Q014231		32	<20	0.02	<10	<10	2	<10	40					
Q014232		28	<20	<0.01	<10	<10	1	<10	192					
Q014233		19	<20	0.02	<10	<10	1	<10	29					
Q014234		11	<20	0.01	<10	<10	<1	<10	46					
Q014235		13	<20	0.05	<10	<10	1	<10	81					
Q014236		20	<20	0.08	<10	<10	1	<10	86					
Q014237		12	<20	0.08	<10	<10	1	<10	80					
Q014238		8	<20	0.07	<10	<10	<1	<10	66					
Q014239		7	<20	0.07	<10	<10	<1	<10	41					
Q014240										1	0.059	0.008	0.010	<0.01
Q014241		565	<20	<0.01	<10	<10	14	10	>10000	153	0.233	4.99	4.98	0.61
Q014242		7	<20	0.08	<10	<10	1	<10	58					
Q014243		26	<20	0.08	<10	<10	2	<10	69					
Q014244		34	<20	0.05	<10	<10	1	<10	41					
Q014245		24	<20	0.05	<10	<10	1	<10	42					
Q014246		32	<20	0.06	<10	<10	1	<10	46					
Q014247		8	<20	0.08	<10	<10	1	<10	57					
Q014248		10	<20	0.06	<10	<10	1	<10	45					
Q014249		10	<20	0.07	<10	<10	1	<10	90					
Q014250		41	<20	0.38	<10	<10	147	<10	124					
Q014251		16	<20	0.07	<10	<10	1	<10	46					
Q014252		8	<20	0.06	<10	<10	1	<10	36					
Q014253		7	<20	0.08	<10	<10	1	<10	41					
Q014254		6	<20	0.08	<10	<10	1	<10	38					
Q014255		7	<20	0.07	<10	<10	1	<10	39					
Q014256		6	<20	0.07	<10	<10	1	<10	43					
Q014257		7	<20	0.06	<10	<10	1	<10	30					
Q014258		19	<20	0.05	<10	<10	1	<10	29					
Q014259		25	<20	0.04	<10	<10	1	<10	21					

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014260		0.07	6.32	2.77												
Q014261		0.03		2.94	78.8	1.48	416	10	20	<0.5	3	1.88	53.6	29	73	>10000
Q014262		3.01	0.035		0.2	0.86	33	<10	120	<0.5	<2	0.46	<0.5	2	4	18
Q014263		2.64	<0.005		<0.2	1.08	14	<10	130	<0.5	<2	0.43	<0.5	1	4	5
Q014264		3.31	0.006		<0.2	1.32	20	<10	150	<0.5	<2	0.21	<0.5	2	3	4
Q014265		3.25	0.007		<0.2	1.25	29	<10	130	<0.5	<2	0.17	<0.5	1	3	6
Q014266		3.28	0.017		0.4	0.86	23	<10	100	<0.5	<2	0.36	0.5	1	4	22
Q014267		3.39	0.016		0.4	0.63	22	<10	70	<0.5	<2	0.22	<0.5	2	5	14
Q014268		3.33	0.010		<0.2	1.13	21	<10	110	0.5	<2	0.25	<0.5	1	3	6
Q014269		1.75	0.006		0.2	1.22	63	<10	130	<0.5	<2	0.25	<0.5	1	5	7
Q014270		1.45	0.005		0.2	1.07	66	<10	130	<0.5	<2	0.23	<0.5	2	2	7
Q014271		3.17	<0.005		<0.2	1.35	22	<10	200	<0.5	<2	0.30	<0.5	2	3	5
Q014272		3.21	<0.005		<0.2	1.48	18	<10	190	<0.5	<2	0.17	<0.5	2	3	3
Q014273		2.57	0.006		<0.2	1.43	19	<10	180	<0.5	<2	0.24	<0.5	2	3	4
Q014274		2.98	0.009		0.2	0.61	14	<10	140	<0.5	<2	0.15	<0.5	1	4	4
Q014275		3.39	0.013		<0.2	0.82	11	<10	200	<0.5	<2	0.17	<0.5	1	3	4
Q014276		3.68	0.018		0.4	0.75	27	<10	90	<0.5	<2	0.21	<0.5	4	3	9
Q014277		3.33	0.017		0.4	0.57	47	<10	30	<0.5	<2	0.16	<0.5	3	3	10
Q014278		3.44	0.008		0.4	0.75	38	<10	30	<0.5	<2	0.18	<0.5	2	3	6
Q014279		1.73	0.018		0.5	0.91	39	<10	40	<0.5	<2	0.27	<0.5	8	6	14
Q014280		1.04	<0.005		0.3	2.40	5	<10	60	<0.5	<2	2.26	<0.5	20	5	79
Q014281		2.49	0.007		<0.2	0.81	14	<10	180	<0.5	2	0.57	<0.5	11	24	5
Q014282		2.39	0.015		<0.2	1.11	23	<10	130	<0.5	<2	0.88	<0.5	13	21	13
Q014283		2.95	0.024		0.5	0.92	27	<10	50	<0.5	<2	0.40	<0.5	3	2	13
Q014284		3.59	0.007		<0.2	1.32	13	<10	190	0.5	<2	0.44	<0.5	1	2	3
Q014285		2.87	<0.005		<0.2	1.96	25	<10	250	0.6	<2	0.79	<0.5	2	3	8
Q014286		1.65	<0.005		0.2	2.65	17	<10	270	0.6	<2	1.79	<0.5	3	5	10
Q014287		3.85	0.016		<0.2	3.83	31	<10	40	0.6	<2	0.93	<0.5	22	7	39
Q014288		3.47	0.014		0.3	4.47	36	<10	30	0.5	<2	0.65	<0.5	26	8	69
Q014289		3.49	0.027		0.2	3.92	28	<10	30	<0.5	<2	0.72	<0.5	27	8	31
Q014290		0.09	1.835	2.93	>100	1.37	402	<10	70	<0.5	9	1.10	204	10	27	6160
Q014291		0.02	1.375	2.88	88.4	1.59	452	10	30	<0.5	9	2.04	55.7	30	76	>10000
Q014292		3.51	0.041		0.2	4.39	41	<10	50	<0.5	<2	0.66	<0.5	24	11	30
Q014293		3.81	0.007		0.2	4.76	18	<10	60	<0.5	<2	0.68	<0.5	23	10	229
Q014294		2.97	0.018		<0.2	5.34	35	<10	50	<0.5	<2	1.01	<0.5	26	11	38
Q014295		3.71	0.011		<0.2	5.86	24	<10	60	<0.5	<2	1.10	<0.5	25	12	28
Q014296		3.40	0.017		<0.2	6.46	20	<10	60	<0.5	<2	1.19	<0.5	27	12	11
Q014297		3.65	0.017		<0.2	6.22	9	<10	60	<0.5	<2	1.26	<0.5	27	11	10
Q014298		3.59	0.017		<0.2	6.45	25	<10	50	<0.5	<2	1.56	<0.5	29	12	42
Q014299		1.65	0.011		0.7	5.30	31	<10	50	<0.5	<2	1.59	<0.5	27	11	188

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014260																
Q014261		5.82	10	2	0.35	10	1.36	747	1240	0.09	245	1230	8040	3.96	66	6
Q014262		2.61	<10	<1	0.50	10	0.31	245	2	0.08	2	270	11	1.33	4	5
Q014263		1.98	<10	<1	0.71	10	0.48	286	6	0.07	1	270	3	0.60	5	4
Q014264		2.39	10	<1	0.87	10	0.63	293	5	0.07	2	260	4	0.83	5	5
Q014265		2.88	10	<1	0.86	10	0.60	264	3	0.07	2	280	5	1.49	4	5
Q014266		2.64	<10	<1	0.59	10	0.37	190	3	0.07	2	270	19	2.02	5	4
Q014267		3.21	<10	<1	0.42	10	0.17	120	2	0.10	2	270	23	2.98	10	3
Q014268		2.76	<10	<1	0.78	10	0.51	215	1	0.06	1	270	9	1.93	9	3
Q014269		2.71	<10	<1	0.78	10	0.55	298	2	0.05	2	250	12	1.68	11	3
Q014270		2.40	<10	<1	0.69	10	0.52	264	2	0.04	1	240	15	1.54	9	3
Q014271		2.46	<10	<1	0.86	20	0.52	409	<1	0.06	1	280	6	0.71	9	4
Q014272		2.77	<10	<1	0.99	10	0.70	427	3	0.06	1	260	9	0.67	8	4
Q014273		2.79	<10	<1	0.96	10	0.62	366	1	0.07	1	280	12	1.34	8	4
Q014274		2.09	<10	<1	0.45	10	0.16	132	7	0.06	1	250	11	1.87	6	2
Q014275		1.68	<10	<1	0.63	10	0.23	187	4	0.04	2	280	7	1.16	4	2
Q014276		2.12	<10	<1	0.53	10	0.20	185	2	0.05	2	270	12	1.96	6	2
Q014277		2.60	<10	<1	0.40	10	0.06	118	3	0.03	2	280	13	2.71	5	1
Q014278		2.95	<10	<1	0.55	10	0.13	189	2	0.03	2	300	10	2.96	5	2
Q014279		2.74	<10	<1	0.66	10	0.22	256	2	0.03	8	410	9	2.56	7	2
Q014280		4.89	10	<1	0.31	<10	1.73	973	<1	0.07	7	800	2	0.06	2	6
Q014281		1.74	<10	<1	0.56	<10	0.30	413	<1	0.02	18	440	4	1.10	5	3
Q014282		2.41	<10	<1	0.65	<10	0.46	586	1	0.05	17	430	6	1.67	9	4
Q014283		2.51	<10	<1	0.58	10	0.26	294	2	0.03	2	280	12	2.14	8	2
Q014284		2.26	<10	<1	0.78	10	0.45	346	1	0.05	1	280	5	1.35	7	3
Q014285		2.34	<10	<1	0.81	10	0.71	495	1	0.08	2	240	6	0.79	15	4
Q014286		2.72	10	<1	0.98	<10	1.05	609	1	0.12	3	400	9	1.12	12	5
Q014287		7.10	10	<1	2.10	<10	3.86	1615	<1	0.01	7	1120	13	3.23	13	14
Q014288		7.98	10	<1	2.19	<10	4.65	1780	1	0.01	9	1180	9	4.20	16	15
Q014289		7.01	10	<1	2.12	<10	3.66	1385	<1	0.05	9	790	18	4.04	7	12
Q014290		5.60	<10	1	0.11	<10	0.54	6950	39	0.10	21	410	>10000	2.48	205	3
Q014291		6.29	10	3	0.37	10	1.45	769	1320	0.10	250	1290	8600	4.32	74	7
Q014292		7.30	10	1	1.96	<10	3.74	1230	<1	0.12	8	560	20	4.12	5	12
Q014293		6.75	10	<1	2.10	<10	3.93	1185	<1	0.16	8	550	9	3.16	7	13
Q014294		6.81	10	<1	2.38	<10	3.86	1230	<1	0.30	7	520	11	3.22	4	16
Q014295		7.21	10	<1	2.52	<10	4.08	1280	<1	0.30	9	580	11	2.98	7	17
Q014296		7.58	10	1	2.30	<10	4.55	1445	<1	0.22	8	590	8	2.54	6	17
Q014297		7.31	10	2	2.70	<10	4.02	1405	<1	0.26	8	530	9	2.69	4	17
Q014298		7.68	10	<1	2.85	<10	3.77	1445	<1	0.20	9	600	12	2.76	8	18
Q014299		7.72	10	<1	2.17	<10	3.68	1315	<1	0.12	9	630	11	2.86	25	16

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CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014260										1	0.008	0.009	0.008	<0.01
Q014261		197	<20	0.10	<10	<10	72	10	9220	83	2.50	0.853	1.005	0.05
Q014262		11	<20	0.05	<10	<10	1	<10	33					
Q014263		18	<20	0.06	<10	<10	<1	<10	30					
Q014264		8	<20	0.06	<10	<10	2	<10	34					
Q014265		6	<20	0.06	<10	<10	1	<10	37					
Q014266		12	<20	0.04	<10	<10	1	<10	83					
Q014267		8	<20	0.01	<10	<10	2	<10	12					
Q014268		12	<20	0.04	<10	<10	1	<10	32					
Q014269		15	<20	0.03	<10	<10	1	<10	35					
Q014270		15	<20	0.03	<10	<10	1	<10	33					
Q014271		15	<20	0.06	<10	<10	<1	<10	35					
Q014272		11	<20	0.06	<10	<10	1	<10	45					
Q014273		15	<20	0.05	<10	<10	<1	<10	46					
Q014274		7	<20	0.02	<10	<10	<1	<10	15					
Q014275		7	<20	0.04	<10	<10	<1	<10	20					
Q014276		17	<20	0.01	<10	<10	<1	<10	15					
Q014277		16	<20	<0.01	<10	<10	<1	<10	5					
Q014278		12	<20	0.01	<10	<10	<1	<10	9					
Q014279		16	<20	0.03	<10	<10	4	<10	19					
Q014280		37	<20	0.33	<10	<10	119	<10	89					
Q014281		34	<20	0.03	<10	<10	12	<10	21					
Q014282		58	<20	0.04	<10	<10	17	<10	28					
Q014283		29	<20	0.01	<10	<10	1	<10	19					
Q014284		38	<20	0.03	<10	<10	<1	<10	25					
Q014285		60	<20	0.05	<10	<10	1	<10	34					
Q014286		99	<20	0.06	<10	<10	10	<10	47					
Q014287		58	<20	0.17	<10	<10	125	<10	182					
Q014288		23	<20	0.22	<10	<10	157	<10	182					
Q014289		23	<20	0.21	<10	<10	132	<10	160					
Q014290		45	<20	0.08	<10	<10	62	10	>10000	231	0.618	3.15	1.655	0.04
Q014291		206	<20	0.10	<10	<10	77	10	9640	80	2.49	0.827	1.000	0.05
Q014292		28	<20	0.18	<10	<10	119	<10	161					
Q014293		36	<20	0.19	10	<10	134	<10	146					
Q014294		52	<20	0.21	<10	<10	169	<10	137					
Q014295		56	<20	0.21	<10	<10	174	<10	150					
Q014296		59	<20	0.21	<10	<10	179	<10	158					
Q014297		75	<20	0.23	<10	<10	176	<10	147					
Q014298		89	<20	0.24	<10	<10	189	<10	149					
Q014299		63	<20	0.19	<10	<10	176	<10	137					

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014300		1.44	0.013		0.4	5.28	34	<10	60	<0.5	<2	1.67	<0.5	27	14	139
Q014301		2.24	0.009		0.2	4.87	13	<10	50	0.5	<2	0.55	<0.5	25	9	10
Q014302		2.26	0.036		0.2	3.84	33	<10	50	<0.5	<2	0.61	<0.5	25	9	10
Q014303		2.39	0.022		0.2	3.87	37	<10	80	<0.5	<2	4.09	<0.5	26	8	18
Q014304		3.56	0.013		0.2	4.85	22	<10	50	<0.5	<2	1.04	<0.5	28	9	330
Q014305		3.82	0.033		<0.2	4.40	39	<10	30	<0.5	<2	0.71	<0.5	29	5	158
Q014306		3.47	0.030		0.2	4.79	43	<10	40	<0.5	<2	0.84	<0.5	33	5	274
Q014307		3.47	<0.005		<0.2	5.48	13	<10	40	<0.5	<2	1.48	<0.5	29	6	376
Q014308		3.49	0.005		<0.2	4.40	15	<10	40	<0.5	<2	0.94	<0.5	26	5	75
Q014309		3.39	0.005		<0.2	4.28	11	<10	40	<0.5	<2	1.57	<0.5	23	5	14
Q014310		0.09	1.840	2.91	>100	1.42	417	<10	70	<0.5	15	1.14	212	12	28	6330
Q014311		0.03	0.231	NSS	>100	0.60	4640	<10	40	<0.5	9	11.7	293	18	16	2180
Q014312		2.72	<0.005		<0.2	4.80	8	<10	50	<0.5	<2	0.98	<0.5	24	6	25
Q014313		3.08	<0.005		<0.2	4.84	14	<10	40	<0.5	2	0.99	<0.5	26	6	100
Q014314		2.46	0.008		<0.2	4.64	25	<10	40	<0.5	<2	0.78	<0.5	24	5	62
Q014315		2.42	0.031		<0.2	4.69	32	<10	30	<0.5	2	0.68	<0.5	31	6	30
Q014316		2.13	0.011		0.2	4.61	12	<10	40	<0.5	<2	0.97	<0.5	28	6	77
Q014317		0.65	0.016		<0.2	5.15	7	<10	40	<0.5	5	0.81	<0.5	54	7	25
Q014318		2.87	0.008		0.4	5.08	17	<10	40	<0.5	<2	0.55	<0.5	45	7	1570
Q014319		2.45	0.014		<0.2	4.34	13	<10	40	<0.5	<2	1.20	<0.5	39	6	126
Q014320		0.08	5.59	2.77												
Q014321		0.03		2.82	84.2	1.64	460	10	30	<0.5	19	2.10	56.5	32	79	>10000
Q014322		2.30	0.007		0.2	5.02	11	<10	30	<0.5	<2	0.84	<0.5	40	7	387
Q014323		2.24	<0.005		0.3	5.55	4	<10	50	<0.5	<2	0.85	<0.5	33	8	951
Q014324		2.51	<0.005		<0.2	4.54	6	<10	40	<0.5	<2	0.59	<0.5	29	6	40
Q014325		2.15	0.010		<0.2	5.60	12	<10	50	<0.5	<2	0.71	<0.5	29	5	19
Q014326		1.86	<0.005		<0.2	6.15	6	<10	80	<0.5	<2	0.68	<0.5	26	6	12
Q014327		3.37	<0.005		<0.2	5.36	9	<10	80	<0.5	<2	0.62	<0.5	33	5	1290
Q014328		1.95	<0.005		<0.2	4.51	6	<10	50	<0.5	3	0.59	<0.5	35	5	191
Q014329		3.17	<0.005		<0.2	5.34	9	<10	50	<0.5	3	0.51	<0.5	29	5	22
Q014330		0.75	<0.005		0.3	3.66	5	<10	80	<0.5	<2	2.07	<0.5	30	5	99
Q014331		3.28	<0.005		<0.2	5.12	3	<10	70	<0.5	2	0.50	<0.5	26	5	101
Q014332		2.45	0.006		<0.2	4.84	19	<10	70	<0.5	2	0.55	<0.5	27	5	49
Q014333		2.44	<0.005		<0.2	5.41	25	<10	120	<0.5	<2	1.21	<0.5	25	6	158
Q014334		2.06	<0.005		0.2	5.37	7	<10	100	<0.5	<2	0.97	<0.5	25	6	1030
Q014335		2.49	0.007		0.3	4.89	15	<10	60	<0.5	<2	0.56	<0.5	30	5	514
Q014336		0.41	0.065		0.6	3.60	114	<10	20	<0.5	7	0.66	<0.5	44	4	37
Q014337		2.90	0.013		0.2	4.00	35	<10	50	<0.5	2	0.45	<0.5	31	5	768
Q014338		3.49	0.010		<0.2	4.47	30	<10	50	<0.5	<2	0.54	<0.5	32	5	172
Q014339		1.78	0.009		<0.2	4.27	21	<10	80	<0.5	<2	0.46	<0.5	29	5	178

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014300		7.93	10	<1	2.06	<10	3.79	1335	<1	0.11	10	680	12	3.06	19	16
Q014301		7.68	10	<1	2.40	<10	4.25	1355	<1	0.05	8	890	11	3.25	3	14
Q014302		7.24	10	<1	1.73	<10	3.12	947	<1	0.07	10	540	13	4.15	4	10
Q014303		7.74	10	1	0.89	<10	3.60	1545	1	0.04	8	600	14	4.23	5	10
Q014304		7.58	10	<1	2.43	<10	3.21	1170	<1	0.10	9	560	7	3.60	15	13
Q014305		8.68	10	1	2.07	<10	2.94	1155	<1	0.08	8	670	13	4.94	12	11
Q014306		9.05	10	<1	1.93	<10	3.24	1175	<1	0.08	9	730	12	4.95	16	11
Q014307		8.37	10	1	1.99	<10	3.02	1240	<1	0.14	10	610	6	4.00	14	14
Q014308		8.00	10	1	1.37	<10	3.14	1100	<1	0.09	9	650	5	4.34	10	11
Q014309		7.46	10	<1	1.07	<10	3.10	1160	<1	0.13	8	640	5	4.07	5	10
Q014310		5.82	<10	<1	0.11	<10	0.56	7190	40	0.11	22	430	>10000	2.53	213	3
Q014311		4.11	<10	8	0.13	10	0.43	5390	3	<0.01	18	750	>10000	5.26	109	2
Q014312		7.60	10	<1	1.54	<10	3.15	1155	<1	0.23	9	620	18	3.52	4	12
Q014313		7.86	10	<1	1.52	<10	3.18	1085	<1	0.22	9	650	8	4.03	11	12
Q014314		9.32	10	<1	1.40	<10	3.41	1125	1	0.13	8	770	8	5.61	10	11
Q014315		10.90	10	1	1.30	<10	3.66	1195	3	0.10	9	750	10	7.53	6	11
Q014316		7.87	10	<1	1.31	<10	3.29	1105	<1	0.19	7	700	7	4.10	7	12
Q014317		8.50	10	<1	1.63	<10	3.66	1180	<1	0.25	12	630	9	4.32	3	14
Q014318		9.59	10	<1	1.31	<10	3.76	1445	<1	0.14	11	690	4	4.08	4	14
Q014319		9.85	10	<1	0.90	<10	3.09	1125	<1	0.15	8	690	6	5.80	6	13
Q014320																
Q014321		6.37	10	3	0.38	10	1.47	788	1340	0.10	251	1290	8640	4.39	74	7
Q014322		9.92	10	<1	1.06	<10	3.74	1230	<1	0.18	7	910	7	4.99	3	15
Q014323		9.08	10	<1	1.27	<10	4.14	1390	<1	0.20	8	950	4	2.98	7	17
Q014324		8.33	10	<1	1.06	<10	3.64	1170	<1	0.16	6	610	8	3.94	2	12
Q014325		8.45	10	<1	1.04	<10	4.44	1355	<1	0.16	5	620	15	3.19	6	12
Q014326		8.66	10	<1	1.16	<10	4.67	1570	<1	0.18	7	640	4	1.75	2	15
Q014327		8.03	10	<1	0.99	<10	4.07	1430	1	0.15	9	600	3	2.04	2	13
Q014328		7.46	10	<1	0.98	<10	3.50	1115	<1	0.16	6	640	<2	3.27	<2	12
Q014329		8.24	10	<1	0.93	<10	4.50	1265	<1	0.16	7	550	<2	3.27	2	14
Q014330		7.34	10	<1	0.36	<10	2.82	1435	1	0.05	8	1290	2	0.09	<2	7
Q014331		7.47	10	<1	0.92	<10	4.40	1260	<1	0.15	6	500	<2	2.41	3	14
Q014332		7.38	10	<1	0.79	<10	4.09	1245	<1	0.15	6	430	<2	2.70	3	13
Q014333		6.88	10	<1	1.34	<10	3.28	1275	<1	0.38	5	680	2	1.43	7	19
Q014334		7.55	10	<1	1.26	<10	3.73	1345	<1	0.30	7	650	<2	1.66	3	18
Q014335		7.02	10	<1	1.00	<10	3.98	1095	<1	0.16	8	630	4	2.47	<2	13
Q014336		15.1	10	<1	0.82	<10	2.53	767	6	0.19	5	500	28	>10.0	8	10
Q014337		6.35	10	<1	1.01	<10	3.09	870	<1	0.15	5	610	4	2.83	2	11
Q014338		8.40	10	<1	0.72	<10	3.45	1140	1	0.14	6	640	4	3.83	2	12
Q014339		7.14	10	<1	0.77	<10	3.15	1160	<1	0.13	7	640	<2	1.89	5	12

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014300		60	<20	0.19	<10	<10	171	<10	134					
Q014301		32	<20	0.23	<10	<10	153	<10	163					
Q014302		37	<20	0.17	<10	<10	108	<10	99					
Q014303		146	<20	0.08	<10	<10	116	<10	108					
Q014304		66	<20	0.19	<10	<10	160	<10	128					
Q014305		47	<20	0.16	<10	<10	147	<10	115					
Q014306		50	<20	0.15	<10	<10	148	<10	108					
Q014307		99	<20	0.16	<10	<10	175	<10	95					
Q014308		45	<20	0.12	<10	<10	142	<10	96					
Q014309		66	<20	0.11	<10	<10	133	<10	97					
Q014310		46	<20	0.09	<10	<10	64	10	>10000	232	0.623	3.14	1.660	0.04
Q014311		529	<20	<0.01	<10	<10	13	<10	>10000	NSS	NSS	NSS	NSS	NSS
Q014312		68	<20	0.17	<10	<10	154	<10	114					
Q014313		54	<20	0.17	<10	<10	150	<10	91					
Q014314		40	<20	0.15	<10	<10	147	<10	98					
Q014315		30	<20	0.14	<10	<10	154	<10	105					
Q014316		55	<20	0.15	<10	<10	151	<10	91					
Q014317		54	<20	0.18	<10	<10	171	<10	98					
Q014318		33	<20	0.16	<10	<10	170	<10	127					
Q014319		66	<20	0.12	<10	<10	163	<10	94					
Q014320										1	0.008	0.010	0.007	<0.01
Q014321		211	<20	0.11	<10	<10	80	<10	9740	81	2.50	0.834	0.944	0.05
Q014322		46	<20	0.15	<10	<10	183	<10	97					
Q014323		42	<20	0.19	10	<10	188	<10	111					
Q014324		28	<20	0.17	<10	<10	151	<10	103					
Q014325		30	<20	0.15	<10	<10	147	<10	175					
Q014326		33	<20	0.17	<10	<10	186	<10	126					
Q014327		37	<20	0.15	<10	<10	164	<10	114					
Q014328		35	<20	0.16	<10	<10	152	<10	95					
Q014329		29	<20	0.15	<10	<10	165	<10	116					
Q014330		25	<20	0.44	<10	<10	161	<10	131					
Q014331		28	<20	0.15	<10	<10	160	<10	117					
Q014332		27	<20	0.15	<10	<10	160	<10	109					
Q014333		62	<20	0.21	<10	<10	223	<10	103					
Q014334		47	<20	0.20	<10	<10	208	<10	100					
Q014335		21	<20	0.15	<10	<10	154	<10	94					
Q014336		22	<20	0.11	<10	<10	123	<10	66					
Q014337		18	<20	0.15	<10	<10	132	<10	73					
Q014338		20	<20	0.13	<10	<10	157	<10	85					
Q014339		19	<20	0.14	<10	<10	157	<10	84					

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
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Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014340		1.41	0.009		<0.2	4.24	20	<10	80	<0.5	3	0.46	<0.5	29	5	380
Q014341		3.15	0.008		0.3	4.83	13	<10	90	<0.5	2	0.66	<0.5	25	6	663
Q014342		3.21	0.029		<0.2	4.02	44	<10	50	<0.5	<2	0.52	<0.5	26	7	36
Q014343		2.50	0.033		0.3	3.91	34	<10	50	<0.5	2	0.42	<0.5	30	6	26
Q014344		0.92	0.874		20.0	3.12	242	<10	10	<0.5	31	0.39	2.1	243	3	5600
Q014345		0.39	0.060		0.8	4.10	47	<10	30	<0.5	5	0.34	<0.5	43	3	189
Q014346		0.61	1.015	4.16	23.7	1.82	243	<10	10	<0.5	46	0.30	3.5	192	3	9690
Q014347		3.37	0.059		0.8	4.97	43	<10	40	<0.5	4	0.58	<0.5	45	12	451
Q014348		3.87	0.046		0.7	5.40	24	<10	40	<0.5	5	0.78	<0.5	44	13	452
Q014349		3.75	0.049		0.3	4.51	30	<10	40	<0.5	4	0.56	<0.5	32	11	149
Q014350		0.07	5.56	2.79												
Q014351		0.07		3.43	38.8	0.78	141	10	10	<0.5	37	0.49	231	185	47	>10000
Q014352		3.30	0.043		0.4	4.22	25	<10	40	<0.5	5	0.59	0.6	38	9	95
Q014353		3.76	0.025		0.3	4.52	21	<10	60	<0.5	2	1.04	<0.5	36	7	116
Q014354		3.80	0.006		0.3	5.34	7	<10	70	<0.5	3	0.85	<0.5	34	8	635
Q014355		3.58	<0.005		0.2	5.99	<2	<10	90	<0.5	2	0.98	<0.5	35	10	505
Q014356		3.79	<0.005		0.2	5.25	9	<10	40	<0.5	2	1.31	<0.5	43	10	648
Q014357		4.04	0.014		1.4	4.02	10	<10	60	<0.5	2	2.17	0.5	32	9	1540
Q014358		3.30	0.012		<0.2	5.39	24	<10	60	<0.5	3	1.34	<0.5	41	10	28
Q014359		3.86	0.006		0.6	4.89	3	<10	50	<0.5	4	2.06	<0.5	40	11	617
Q014361		3.63	0.010		<0.2	5.46	17	<10	70	<0.5	2	1.26	<0.5	27	10	264
Q014362		3.84	0.012		<0.2	5.41	19	<10	80	<0.5	2	1.02	<0.5	33	11	358
Q014363		3.77	0.006		<0.2	5.14	14	<10	60	<0.5	<2	0.91	<0.5	34	10	318
Q014364		3.86	0.013		<0.2	5.94	13	<10	110	0.5	<2	0.98	<0.5	35	10	320
Q014365		3.67	0.037		0.2	5.16	17	<10	30	0.5	4	0.75	<0.5	62	9	925
Q014366		1.86	0.005		0.2	5.99	9	<10	70	<0.5	2	0.62	<0.5	39	77	542
Q014367		3.37	<0.005		0.2	3.23	48	<10	2580	<0.5	<2	1.06	<0.5	32	786	81
Q014368		3.72	<0.005		0.5	2.59	45	<10	1700	<0.5	<2	2.16	<0.5	30	688	78
Q014369		1.84	<0.005		0.5	2.75	68	<10	1580	<0.5	2	2.01	<0.5	36	663	163
Q014370		1.75	<0.005		0.6	2.85	52	<10	1720	<0.5	<2	1.83	<0.5	34	688	168
Q014371		3.85	<0.005		0.2	3.39	30	<10	560	<0.5	<2	3.71	<0.5	44	985	68
Q014372		1.98	<0.005		0.4	2.64	134	<10	250	<0.5	<2	1.96	<0.5	39	476	217
Q014373		3.95	<0.005		0.2	2.97	16	<10	1060	<0.5	<2	1.06	<0.5	32	876	94
Q014379		3.61	0.008		<0.2	6.20	29	<10	50	<0.5	4	0.74	<0.5	40	83	32
Q014380		0.60	<0.005		0.2	2.96	7	<10	70	<0.5	<2	3.02	<0.5	24	13	28
Q014381		3.69	0.017		<0.2	5.36	35	<10	50	<0.5	3	0.71	<0.5	38	10	19
Q014382		3.80	0.029		0.3	4.85	36	<10	30	<0.5	4	0.79	<0.5	59	138	491
Q014383		3.72	0.007		<0.2	4.54	34	<10	50	<0.5	<2	0.58	<0.5	33	18	32
Q014384		3.73	0.006		<0.2	5.51	26	<10	70	<0.5	3	0.70	<0.5	32	11	70
Q014385		3.66	<0.005		<0.2	6.45	18	<10	70	<0.5	2	1.06	<0.5	35	11	24

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

ALS Canada Ltd.
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014340		7.22	10	<1	0.74	<10	3.12	1150	<1	0.13	6	620	2	2.01	5	12
Q014341		7.16	10	<1	1.01	<10	3.35	1200	<1	0.20	7	580	4	1.86	7	14
Q014342		7.52	10	<1	0.86	<10	3.09	922	1	0.14	8	650	5	3.87	4	11
Q014343		6.56	10	<1	0.86	<10	3.22	878	1	0.11	9	680	6	2.97	5	10
Q014344		27.8	10	2	0.65	<10	2.54	781	65	0.08	148	370	87	>10.0	45	6
Q014345		11.05	10	<1	0.95	<10	3.57	935	2	0.05	21	750	37	8.79	4	8
Q014346		25.5	<10	<1	0.36	<10	1.41	540	9	0.04	81	110	160	>10.0	20	4
Q014347		10.45	10	<1	1.07	<10	3.91	1130	3	0.14	13	760	12	6.75	4	17
Q014348		9.12	10	<1	1.15	<10	4.19	1195	1	0.19	12	740	7	4.23	3	19
Q014349		8.32	10	<1	1.18	<10	3.64	970	3	0.14	11	710	6	4.68	6	12
Q014350																
Q014351		17.6	10	14	0.15	10	0.54	706	33	0.03	45	220	6120	>10.0	23	1
Q014352		8.66	10	<1	1.32	<10	3.39	980	2	0.11	13	620	16	5.14	6	13
Q014353		8.52	10	<1	1.19	<10	4.10	1435	4	0.02	14	630	8	3.38	2	12
Q014354		7.84	10	<1	1.33	<10	4.23	1600	<1	0.15	10	850	4	2.12	2	15
Q014355		8.71	10	<1	1.00	<10	4.90	1885	<1	0.15	12	700	3	1.59	2	17
Q014356		8.77	10	<1	0.86	<10	4.33	1805	<1	0.13	13	740	5	3.02	2	18
Q014357		7.93	10	<1	0.20	<10	4.62	2030	<1	0.05	14	660	12	2.49	5	16
Q014358		7.87	10	<1	0.96	<10	4.68	1840	<1	0.15	15	710	10	2.49	3	16
Q014359		6.83	10	<1	0.78	<10	4.03	1765	<1	0.15	14	730	11	1.70	3	17
Q014361		7.67	10	<1	1.12	<10	4.53	1725	1	0.17	14	720	4	2.43	<2	15
Q014362		7.61	10	<1	1.24	<10	4.50	1750	<1	0.18	14	710	2	2.04	3	16
Q014363		7.18	10	<1	1.05	<10	4.16	1565	<1	0.17	16	640	2	1.97	3	13
Q014364		7.90	10	<1	1.26	<10	4.71	1730	<1	0.13	16	740	2	1.64	<2	13
Q014365		9.11	10	<1	1.21	<10	4.31	1480	2	0.08	17	740	6	3.86	<2	12
Q014366		8.54	10	<1	1.32	<10	5.26	1390	1	0.10	41	830	<2	1.56	<2	21
Q014367		3.43	10	<1	0.19	<10	4.48	514	<1	0.10	344	1670	9	0.22	11	2
Q014368		2.98	10	<1	0.13	<10	3.50	508	<1	0.15	259	1690	16	0.27	14	3
Q014369		3.04	10	<1	0.10	<10	3.79	516	<1	0.19	326	1500	9	0.37	10	3
Q014370		3.01	10	<1	0.12	<10	4.00	522	<1	0.19	326	1600	9	0.21	5	3
Q014371		3.62	10	<1	0.09	<10	6.00	904	1	0.10	452	1210	6	0.11	2	7
Q014372		4.44	10	<1	0.13	<10	3.66	493	<1	0.15	207	1230	17	0.96	12	8
Q014373		3.03	10	<1	0.18	<10	4.59	420	1	0.11	372	1540	7	0.09	3	2
Q014379		8.88	10	<1	1.54	<10	5.33	1595	1	0.16	30	790	5	2.85	<2	15
Q014380		5.85	10	<1	0.26	<10	2.19	1165	<1	0.08	11	980	<2	0.06	2	8
Q014381		7.92	10	<1	1.67	<10	4.00	1195	1	0.17	17	670	5	3.07	2	12
Q014382		10.85	10	<1	1.55	<10	4.06	1115	4	0.15	45	780	7	7.50	<2	14
Q014383		6.97	10	<1	1.63	<10	3.58	985	1	0.17	15	700	3	2.63	2	13
Q014384		7.64	10	<1	1.58	<10	4.41	1265	1	0.22	12	740	2	2.28	5	15
Q014385		8.36	10	<1	1.91	<10	4.58	1390	1	0.31	14	770	2	2.38	3	18

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014340		19	<20	0.14	<10	<10	156	<10	84					
Q014341		29	<20	0.16	<10	<10	169	<10	86					
Q014342		17	<20	0.13	<10	<10	137	<10	74					
Q014343		17	<20	0.13	<10	<10	134	<10	82					
Q014344		19	<20	0.07	10	<10	112	<10	108					
Q014345		11	<20	0.10	<10	<10	123	<10	172					
Q014346		7	<20	0.04	<10	<10	76	<10	88	23	0.908	0.020	0.012	0.03
Q014347		21	<20	0.16	<10	<10	212	<10	150					
Q014348		29	<20	0.18	<10	<10	229	<10	100					
Q014349		21	<20	0.16	<10	<10	152	<10	98					
Q014350										1	0.007	0.009	0.007	<0.01
Q014351		15	<20	0.04	<10	10	18	10	>10000	39	1.360	0.665	7.20	0.01
Q014352		26	<20	0.15	<10	<10	151	<10	159					
Q014353		58	<20	0.09	<10	<10	144	<10	113					
Q014354		81	<20	0.15	<10	<10	164	<10	108					
Q014355		98	<20	0.14	<10	<10	186	<10	120					
Q014356		129	<20	0.13	<10	<10	185	<10	109					
Q014357		144	<20	0.02	<10	<10	164	<10	137					
Q014358		72	<20	0.15	<10	<10	197	<10	109					
Q014359		117	<20	0.14	<10	<10	191	<10	108					
Q014361		73	<20	0.17	<10	<10	188	<10	114					
Q014362		81	<20	0.20	<10	<10	186	<10	122					
Q014363		73	<20	0.17	<10	<10	165	<10	110					
Q014364		67	<20	0.19	<10	<10	185	<10	109					
Q014365		44	<20	0.17	<10	<10	172	<10	101					
Q014366		50	<20	0.20	<10	<10	252	<10	107					
Q014367		91	<20	0.14	<10	<10	85	<10	61					
Q014368		119	<20	0.15	<10	<10	88	<10	54					
Q014369		125	<20	0.13	<10	<10	83	<10	61					
Q014370		103	<20	0.13	<10	<10	87	<10	61					
Q014371		248	<20	0.08	<10	<10	91	<10	75					
Q014372		155	<20	0.14	<10	<10	99	<10	69					
Q014373		48	<20	0.13	<10	<10	63	<10	48					
Q014379		60	<20	0.23	<10	<10	197	<10	116					
Q014380		30	<20	0.34	<10	<10	136	<10	118					
Q014381		44	<20	0.22	<10	<10	162	<10	97					
Q014382		63	<20	0.22	<10	<10	165	<10	98					
Q014383		44	<20	0.22	<10	<10	161	<10	76					
Q014384		48	<20	0.22	<10	<10	186	<10	89					
Q014385		88	<20	0.24	<10	<10	213	<10	95					

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014386		4.02	0.007		<0.2	6.75	26	<10	50	0.5	4	1.24	<0.5	40	11	178
Q014387		3.84	0.007		<0.2	6.64	23	<10	40	<0.5	2	0.91	<0.5	35	10	56
Q014388		3.84	<0.005		<0.2	5.37	9	<10	50	<0.5	3	0.91	<0.5	29	8	234
Q014389		3.79	0.010		0.3	4.25	18	<10	40	<0.5	3	1.24	<0.5	30	6	806
Q014390		0.08	5.35	2.77												
Q014391		0.07		3.40	40.2	0.82	150	10	10	<0.5	37	0.52	239	189	47	>10000
Q014392		3.55	0.018		<0.2	2.80	23	<10	30	<0.5	6	0.52	<0.5	32	5	133
Q014393		3.84	0.039		<0.2	2.74	48	<10	20	<0.5	9	0.36	<0.5	63	5	52
Q014394		3.93	0.037		<0.2	3.00	42	<10	20	<0.5	7	0.37	<0.5	66	5	54
Q014395		3.82	0.024		<0.2	2.64	27	<10	20	<0.5	7	0.36	<0.5	51	5	91
Q014396		3.61	0.015		0.4	3.90	20	<10	30	<0.5	<2	0.42	<0.5	32	139	1670
Q014397		3.69	0.011		<0.2	3.12	15	<10	30	<0.5	4	0.50	<0.5	28	6	480
Q014398		4.68	0.005		<0.2	4.06	11	<10	60	<0.5	3	1.03	<0.5	24	9	298
Q014399		1.67	<0.005		0.2	3.49	28	<10	870	<0.5	<2	2.96	0.5	37	652	92
Q014400		1.65	<0.005		<0.2	3.62	45	<10	360	<0.5	2	3.66	0.5	44	672	83
Q014401		3.65	<0.005		<0.2	3.34	28	<10	4230	<0.5	2	1.47	<0.5	31	729	40
Q014402		2.77	<0.005		<0.2	3.74	18	<10	3060	<0.5	2	1.45	<0.5	34	859	49
Q014403		2.69	0.007		0.2	5.04	6	<10	70	<0.5	2	1.62	<0.5	30	27	1250
Q014404		3.16	0.008		0.5	4.97	20	<10	40	<0.5	4	1.72	<0.5	46	286	1660
Q014405		3.73	0.007		<0.2	5.24	21	<10	40	<0.5	3	1.38	<0.5	39	11	139
Q014406		3.75	0.023		0.2	5.24	45	<10	30	<0.5	3	0.88	<0.5	52	17	216
Q014407		3.47	0.028		0.2	3.77	27	<10	30	<0.5	<2	1.32	<0.5	33	12	434
Q014408		1.20	0.025		<0.2	4.25	41	<10	30	<0.5	<2	1.37	<0.5	31	5	19
Q014409		1.75	0.055		0.2	3.12	42	<10	10	<0.5	5	1.16	<0.5	58	13	57
Q014411		2.16	0.018		<0.2	4.37	28	<10	10	<0.5	<2	1.36	<0.5	43	8	26
Q014412		3.88	0.018		<0.2	4.85	20	<10	20	<0.5	<2	1.04	<0.5	43	9	46
Q014413		Not Recvd														
Q014414		3.49	0.034		<0.2	3.39	50	<10	20	<0.5	<2	0.66	<0.5	23	3	21
Q014415		3.54	0.040		<0.2	2.97	56	<10	20	<0.5	2	0.49	<0.5	23	4	21
Q014416		4.06	0.024		<0.2	3.11	47	<10	20	<0.5	<2	0.49	<0.5	23	5	116
Q014417		3.56	0.030		0.2	3.36	41	<10	20	<0.5	<2	0.45	<0.5	31	4	198
Q014418		3.68	0.014		<0.2	4.51	24	<10	30	<0.5	<2	0.51	<0.5	20	4	6
Q014419		3.84	0.015		<0.2	3.31	20	<10	20	<0.5	<2	0.34	<0.5	25	5	20
Q014420		0.56	<0.005		0.3	3.14	4	<10	70	<0.5	<2	1.73	<0.5	26	6	96
Q014421		3.61	0.013		<0.2	3.26	19	<10	30	<0.5	<2	0.26	<0.5	25	5	14
Q014422		3.60	0.020		<0.2	2.86	32	<10	20	<0.5	2	0.25	<0.5	26	6	14
Q014423		3.59	0.035		<0.2	2.75	42	<10	30	<0.5	4	0.30	<0.5	32	6	33
Q014424		3.77	0.014		<0.2	3.33	25	<10	30	<0.5	<2	0.46	<0.5	32	10	235
Q014425		3.55	0.018		<0.2	2.82	19	<10	60	<0.5	4	0.32	<0.5	27	5	38
Q014426		3.58	0.017		<0.2	3.02	22	<10	30	<0.5	4	0.27	<0.5	29	6	32

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CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014386		9.41	10	<1	1.99	<10	4.62	1420	1	0.31	14	740	5	3.65	3	20
Q014387		9.29	10	<1	1.78	<10	5.09	1480	<1	0.21	13	680	<2	3.05	4	19
Q014388		7.52	10	<1	1.86	<10	3.97	1210	1	0.19	11	740	5	2.71	2	16
Q014389		7.38	10	<1	1.60	<10	2.93	1300	1	0.19	7	730	9	3.35	4	13
Q014390																
Q014391		18.0	20	15	0.16	10	0.57	733	36	0.04	47	230	6350	>10.0	22	1
Q014392		5.90	10	<1	1.47	<10	1.81	665	3	0.16	8	700	14	3.95	2	11
Q014393		8.01	10	<1	1.47	<10	1.93	758	4	0.11	6	720	9	6.84	5	9
Q014394		8.83	10	<1	1.25	<10	2.20	1010	3	0.10	7	690	8	7.18	3	9
Q014395		7.55	10	<1	1.26	<10	1.82	841	1	0.10	7	620	7	5.86	4	8
Q014396		7.46	10	<1	1.04	<10	3.57	1400	2	0.10	114	800	3	3.49	<2	14
Q014397		6.77	10	<1	1.38	<10	2.23	961	1	0.16	5	770	4	3.71	6	13
Q014398		6.35	10	<1	1.62	<10	2.63	1010	1	0.27	8	730	5	2.02	4	17
Q014399		3.03	10	<1	0.11	<10	3.98	663	<1	0.19	333	1270	14	0.52	29	3
Q014400		3.42	10	<1	0.12	<10	4.12	671	<1	0.19	329	1320	7	0.74	28	2
Q014401		2.80	10	<1	0.05	<10	4.25	473	<1	0.12	374	1400	8	0.10	27	3
Q014402		2.73	10	<1	0.06	<10	4.59	446	1	0.17	383	1270	4	0.11	11	2
Q014403		8.11	10	<1	1.47	<10	3.50	996	1	0.39	17	720	7	2.43	5	21
Q014404		7.74	10	<1	1.20	<10	3.86	1000	1	0.24	164	880	6	3.15	6	16
Q014405		8.76	10	<1	1.71	<10	2.91	1130	1	0.30	9	680	5	3.73	5	18
Q014406		10.30	10	<1	1.88	<10	3.36	1115	1	0.14	12	510	15	5.92	6	19
Q014407		7.29	10	<1	1.47	<10	1.70	750	1	0.21	15	570	13	4.50	4	12
Q014408		7.74	10	1	1.91	<10	1.84	826	3	0.25	8	680	17	4.98	3	15
Q014409		13.85	<10	<1	1.30	<10	1.06	423	6	0.27	18	520	17	>10.0	5	11
Q014411		10.75	10	<1	1.79	<10	2.01	715	1	0.29	12	700	14	9.56	6	14
Q014412		8.98	10	<1	1.61	<10	3.30	1080	<1	0.11	14	700	41	5.44	4	14
Q014413																
Q014414		7.61	10	1	0.83	<10	2.94	850	<1	0.01	4	660	25	4.76	5	7
Q014415		7.34	10	<1	1.02	<10	2.08	567	<1	0.04	4	630	19	5.82	3	6
Q014416		7.93	10	<1	1.11	<10	2.28	601	<1	0.05	4	640	16	6.23	3	7
Q014417		8.51	10	<1	1.02	<10	2.50	665	<1	0.06	4	620	12	6.63	2	6
Q014418		9.09	10	1	0.66	<10	4.10	946	<1	0.03	5	1070	13	4.95	2	8
Q014419		9.63	10	1	0.76	<10	2.70	686	<1	0.03	5	700	10	7.84	<2	7
Q014420		6.63	10	1	0.34	<10	2.39	1180	<1	0.05	8	1050	7	0.11	<2	6
Q014421		8.26	10	<1	0.57	<10	3.03	749	<1	0.01	5	800	7	5.19	3	6
Q014422		8.30	<10	1	0.56	<10	2.43	639	<1	0.02	5	590	8	6.36	2	5
Q014423		7.24	10	1	0.55	<10	2.27	591	1	0.03	8	720	7	5.12	3	5
Q014424		8.28	10	<1	0.66	<10	2.68	686	<1	0.05	10	990	6	5.48	<2	6
Q014425		5.44	<10	1	0.82	<10	2.21	599	<1	0.05	6	670	5	3.00	<2	5
Q014426		8.62	10	<1	0.65	<10	2.48	645	<1	0.04	7	640	10	6.54	2	5

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014386		122	<20	0.26	<10	<10	216	<10	95					
Q014387		75	<20	0.23	<10	<10	205	<10	106					
Q014388		78	<20	0.22	<10	<10	166	<10	82					
Q014389		86	<20	0.17	<10	<10	125	<10	82					
Q014390										1	0.009	0.009	0.007	<0.01
Q014391		16	<20	0.04	<10	<10	19	<10	>10000	38	1.340	0.644	7.06	0.02
Q014392		39	<20	0.18	<10	<10	114	<10	106					
Q014393		23	<20	0.18	<10	<10	110	<10	92					
Q014394		18	<20	0.17	<10	<10	110	<10	86					
Q014395		18	<20	0.16	<10	<10	98	<10	76					
Q014396		20	<20	0.16	<10	<10	156	<10	93					
Q014397		40	<20	0.20	<10	<10	162	<10	71					
Q014398		96	<20	0.21	<10	<10	207	<10	73					
Q014399		205	<20	0.08	<10	<10	55	<10	74					
Q014400		209	<20	0.08	<10	<10	56	<10	72					
Q014401		189	<20	0.12	<10	<10	58	<10	55					
Q014402		276	<20	0.11	<10	<10	56	<10	43					
Q014403		333	<20	0.21	<10	<10	235	<10	76					
Q014404		103	<20	0.22	<10	<10	167	<10	81					
Q014405		86	<20	0.24	<10	<10	180	<10	79					
Q014406		40	<20	0.19	<10	<10	180	<10	89					
Q014407		43	<20	0.19	<10	<10	119	<10	72					
Q014408		37	<20	0.28	<10	<10	159	<10	83					
Q014409		29	<20	0.16	<10	<10	82	<10	59					
Q014411		34	<20	0.20	<10	<10	137	<10	73					
Q014412		29	<20	0.21	<10	<10	155	<10	108					
Q014413														
Q014414		17	<20	0.12	<10	<10	94	<10	73					
Q014415		11	<20	0.10	<10	<10	84	<10	61					
Q014416		15	<20	0.11	<10	<10	90	<10	67					
Q014417		14	<20	0.11	<10	<10	86	<10	61					
Q014418		11	<20	0.09	<10	<10	106	<10	70					
Q014419		10	<20	0.08	<10	<10	91	<10	58					
Q014420		26	<20	0.36	<10	<10	146	<10	119					
Q014421		7	<20	0.09	<10	<10	78	<10	69					
Q014422		6	<20	0.07	<10	<10	74	<10	52					
Q014423		7	<20	0.07	<10	<10	73	<10	45					
Q014424		10	<20	0.12	<10	<10	87	<10	55					
Q014425		8	<20	0.12	<10	<10	75	<10	43					
Q014426		8	<20	0.09	<10	<10	70	<10	48					

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014427		3.40	0.029		<0.2	2.70	29	<10	20	<0.5	6	0.27	<0.5	25	5	15
Q014428		2.58	0.015		<0.2	3.31	14	<10	30	<0.5	4	0.41	<0.5	22	6	8
Q014429		2.54	0.015		<0.2	3.25	17	<10	30	<0.5	4	0.34	<0.5	20	5	8
Q014430		0.07	5.82	2.73												
Q014431		0.07		3.37	34.8	0.73	127	<10	<10	<0.5	41	0.47	203	166	43	>10000
Q014432		1.30	0.100		0.5	3.04	120	<10	10	<0.5	21	0.27	<0.5	52	5	42
Q014433		2.74	0.025		0.2	3.74	23	<10	30	<0.5	8	0.56	<0.5	32	5	15
Q014434		3.90	0.031		0.2	3.43	40	<10	20	<0.5	8	0.32	<0.5	26	6	10
Q014435		1.51	0.033		0.3	3.86	56	<10	20	<0.5	12	0.29	<0.5	44	5	11
Q014436		0.69	0.121		0.9	1.99	121	<10	<10	<0.5	34	0.16	<0.5	81	4	42
Q014437		2.98	0.050		0.2	3.10	60	<10	40	<0.5	11	0.24	<0.5	28	6	9
Q014438		3.96	0.050		0.2	3.06	44	<10	20	<0.5	10	0.26	<0.5	31	7	16
Q014439		1.33	0.037		<0.2	2.56	40	<10	30	<0.5	7	0.24	<0.5	27	8	16
Q014440		1.23	0.040		<0.2	2.65	37	<10	20	<0.5	8	0.24	<0.5	28	9	13
Q014441		1.78	0.117		0.8	1.38	114	<10	<10	<0.5	17	0.21	<0.5	39	7	17
Q014442		3.23	0.066		0.5	2.18	58	<10	10	<0.5	16	0.23	<0.5	34	8	11
Q014443		3.74	0.018		<0.2	2.96	21	<10	20	<0.5	5	0.27	<0.5	28	5	15
Q014444		3.73	0.020		<0.2	3.46	22	<10	20	<0.5	<2	0.21	<0.5	22	6	18
Q014445		3.82	0.044		<0.2	3.00	24	<10	20	<0.5	5	0.20	<0.5	27	5	8
Q014446		3.98	0.066		0.4	2.89	39	<10	20	<0.5	8	0.17	<0.5	34	6	10
Q014447		3.89	0.075		0.6	2.63	59	<10	20	<0.5	10	0.18	<0.5	35	4	10
Q014448		3.87	0.041		0.2	2.72	70	<10	30	<0.5	4	0.36	<0.5	35	5	11
Q014449		3.49	0.013		<0.2	2.50	45	<10	30	<0.5	3	0.29	<0.5	30	6	9
Q014450		0.09	1.890	2.92	>100	1.41	413	<10	70	<0.5	<2	1.08	207	11	28	6320
Q014451		3.64	0.017		<0.2	3.71	47	<10	40	<0.5	5	0.31	<0.5	26	6	12
Q014452		3.59	0.014		<0.2	3.14	27	<10	40	<0.5	4	0.29	<0.5	26	5	7
Q014453		4.05	0.032		<0.2	3.56	50	10	30	<0.5	6	0.16	<0.5	34	5	12
Q014454		3.25	0.054		0.2	3.35	89	10	30	<0.5	8	0.23	<0.5	40	5	19
Q014455		0.89	0.106		0.3	1.14	116	<10	10	<0.5	9	0.27	<0.5	35	6	17
Q014456		0.63	0.067		0.4	0.52	61	<10	10	<0.5	7	0.30	<0.5	58	5	14
Q014457		2.55	0.042		<0.2	0.59	31	<10	30	<0.5	3	0.12	<0.5	7	7	11
Q014458		3.41	0.021		<0.2	1.25	17	<10	20	<0.5	4	0.45	<0.5	4	6	5
Q014459		3.33	0.012		<0.2	1.47	11	<10	60	<0.5	2	0.16	<0.5	2	7	6
Q014460		1.19	<0.005		<0.2	3.41	11	<10	80	<0.5	2	1.97	<0.5	26	6	58
Q014461		3.47	0.011		<0.2	1.28	9	<10	90	<0.5	2	0.15	<0.5	1	6	6
Q014462		3.44	0.010		<0.2	1.25	11	<10	60	<0.5	2	0.19	<0.5	4	5	3

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014427		7.82	<10	<1	0.54	<10	2.18	599	3	0.03	6	500	5	5.98	<2	5
Q014428		7.48	10	<1	0.71	<10	2.55	734	<1	0.06	5	560	4	4.48	<2	6
Q014429		7.28	10	<1	0.83	<10	2.61	689	<1	0.06	4	500	5	4.38	<2	6
Q014430																
Q014431		16.6	10	14	0.15	10	0.50	645	32	0.02	44	200	6030	>10.0	22	1
Q014432		20.8	<10	<1	0.51	<10	2.34	688	4	0.04	6	230	20	>10.0	<2	7
Q014433		7.87	10	<1	1.11	<10	2.76	728	1	0.10	4	810	8	4.68	<2	8
Q014434		9.52	10	<1	0.68	<10	2.96	834	1	0.04	7	530	6	6.66	<2	6
Q014435		10.15	10	1	0.64	<10	3.33	896	2	0.05	10	570	8	6.91	<2	7
Q014436		25.9	<10	<1	0.17	<10	1.57	550	1	0.02	8	240	22	>10.0	<2	4
Q014437		7.80	10	<1	0.60	<10	2.69	681	2	0.04	8	600	7	4.90	<2	5
Q014438		8.95	10	1	0.59	<10	2.48	619	2	0.04	8	580	6	6.78	3	6
Q014439		6.93	<10	<1	0.64	<10	2.10	495	1	0.04	10	590	7	4.99	<2	5
Q014440		6.89	<10	<1	0.67	<10	2.15	510	1	0.04	10	580	6	4.80	<2	5
Q014441		18.2	<10	<1	0.44	<10	0.90	243	8	0.03	11	290	20	>10.0	<2	3
Q014442		10.25	<10	<1	0.74	<10	1.56	387	6	0.04	10	640	14	>10.0	4	5
Q014443		8.49	<10	1	0.71	<10	2.31	635	1	0.04	7	590	5	6.19	<2	6
Q014444		9.61	10	<1	0.54	<10	2.96	824	1	0.03	7	610	4	6.50	<2	6
Q014445		8.46	10	<1	0.67	<10	2.51	634	2	0.03	7	600	5	6.08	<2	6
Q014446		10.55	10	<1	0.64	<10	2.46	631	3	0.03	8	550	12	9.55	4	6
Q014447		8.94	10	1	0.96	<10	2.31	503	2	0.03	12	670	9	8.19	5	6
Q014448		7.03	10	<1	1.17	<10	2.09	558	2	0.09	10	790	6	5.36	6	8
Q014449		5.85	10	<1	0.88	<10	2.02	517	1	0.09	5	620	14	4.04	3	8
Q014450		5.55	<10	1	0.11	<10	0.55	7270	37	0.11	21	410	>10000	2.35	202	3
Q014451		7.13	10	<1	0.74	<10	3.18	853	3	0.08	6	780	29	3.68	4	9
Q014452		6.78	10	<1	0.68	<10	2.78	737	2	0.08	8	660	9	4.10	4	9
Q014453		9.92	10	1	0.45	<10	3.26	828	3	0.04	9	510	11	7.63	9	7
Q014454		11.70	10	<1	0.58	<10	3.07	767	6	0.04	11	720	14	>10.0	7	6
Q014455		15.5	<10	<1	0.50	<10	0.50	184	4	0.05	6	350	15	>10.0	6	3
Q014456		24.7	<10	<1	0.13	<10	0.12	78	4	0.05	1	20	18	>10.0	<2	1
Q014457		4.12	<10	<1	0.31	10	0.12	65	5	0.04	1	100	7	4.38	3	1
Q014458		3.46	<10	<1	0.44	10	0.38	206	3	0.13	1	100	9	3.54	3	2
Q014459		3.18	<10	<1	0.63	10	0.97	349	2	0.06	1	100	7	2.41	4	2
Q014460		7.22	10	<1	0.39	<10	2.66	1365	1	0.05	7	1170	9	0.07	<2	9
Q014461		2.46	<10	<1	0.54	10	0.88	329	2	0.06	1	110	2	1.79	5	2
Q014462		2.80	<10	1	0.58	10	0.81	316	2	0.05	<1	110	3	2.26	2	2

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Finalized Date: 18-OCT-2013
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Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014427		7	<20	0.08	<10	<10	71	<10	38					
Q014428		9	<20	0.11	<10	<10	87	<10	44					
Q014429		8	<20	0.13	<10	<10	86	<10	52					
Q014430										1	0.008	0.010	0.007	<0.01
Q014431		13	<20	0.04	<10	<10	17	<10	>10000	38	1.385	0.666	7.28	0.02
Q014432		6	<20	0.06	<10	<10	92	<10	82					
Q014433		13	<20	0.16	<10	<10	104	<10	57					
Q014434		6	<20	0.11	<10	<10	91	<10	54					
Q014435		6	<20	0.11	<10	<10	97	<10	57					
Q014436		3	<20	0.03	<10	<10	59	<10	30					
Q014437		5	<20	0.09	<10	<10	82	<10	43					
Q014438		6	<20	0.08	<10	<10	80	<10	41					
Q014439		6	<20	0.09	<10	<10	63	<10	39					
Q014440		6	<20	0.09	<10	<10	66	<10	39					
Q014441		5	<20	0.03	<10	<10	38	<10	19					
Q014442		5	<20	0.07	<10	<10	61	<10	33					
Q014443		6	<20	0.11	<10	<10	82	<10	39					
Q014444		4	<20	0.09	<10	<10	92	<10	49					
Q014445		5	<20	0.10	<10	<10	88	<10	42					
Q014446		4	<20	0.09	<10	<10	89	<10	42					
Q014447		4	<20	0.11	<10	<10	91	<10	36					
Q014448		13	<20	0.13	<10	<10	101	<10	40					
Q014449		9	<20	0.13	<10	<10	101	<10	45					
Q014450		46	<20	0.09	<10	<10	65	20	>10000	226	0.610	3.17	1.595	0.04
Q014451		9	<20	0.12	<10	<10	124	<10	63					
Q014452		8	<20	0.13	<10	<10	124	<10	58					
Q014453		6	<20	0.07	<10	<10	112	<10	83					
Q014454		8	<20	0.08	10	<10	91	<10	66					
Q014455		9	<20	0.02	<10	<10	28	<10	17					
Q014456		8	<20	<0.01	<10	<10	9	<10	8					
Q014457		5	<20	<0.01	<10	<10	1	<10	10					
Q014458		29	<20	0.01	<10	<10	3	<10	13					
Q014459		9	<20	0.02	<10	<10	2	<10	27					
Q014460		22	<20	0.43	<10	<10	158	<10	135					
Q014461		8	<20	0.02	<10	<10	3	<10	20					
Q014462		9	<20	0.02	<10	<10	4	<10	21					

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178965

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

NSS is non-sufficient sample.

Applies to Method: ALL METHODS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:				
	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:				
	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

ALS Canada Ltd.
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To: **CHIEFTAIN METALS INC**
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

CERTIFICATE WH13181217

Project: Tulsequah Project
P.O. No.: 300534
This report is for 82 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 7-OCT-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: **CHIEFTAIN METALS INC**
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014020		0.51	<0.005		<0.2	2.58	3	<10	30	<0.5	<2	5.75	<0.5	18	4	22
Q014023		2.56	0.266		3.7	1.15	179	<10	20	<0.5	<2	0.31	0.8	7	2	381
Q014024		2.40	0.515		18.3	0.69	950	<10	20	<0.5	<2	0.11	2.2	18	<1	2420
Q014025		1.71	0.020		0.4	4.64	10	<10	130	<0.5	<2	1.32	<0.5	27	397	72
Q014026		2.31	0.230		1.8	1.42	38	<10	20	<0.5	<2	0.67	0.5	10	31	105
Q014027		3.58	0.062		0.8	0.65	143	<10	50	<0.5	<2	0.17	<0.5	8	1	34
Q014028		3.29	0.042		0.2	0.80	27	<10	190	<0.5	<2	0.30	<0.5	4	1	10
Q014029		3.48	0.005		<0.2	0.59	13	<10	210	<0.5	<2	0.25	<0.5	2	2	8
Q014030		0.07	1.130	3.90												
Q014031		0.02		2.98	>100	0.65	4690	10	50	0.5	15	12.4	310	19	17	2410
Q014032		3.47	0.020		0.3	0.66	38	<10	170	<0.5	<2	0.24	<0.5	3	2	12
Q014033		2.33	0.045		0.6	0.69	56	<10	130	<0.5	2	0.43	<0.5	6	2	22
Q014034		2.65	0.043		0.5	0.68	53	<10	150	<0.5	<2	0.20	<0.5	4	1	14
Q014035		3.53	0.126		1.7	0.41	97	<10	20	<0.5	<2	0.09	0.6	4	5	90
Q014036		3.59	0.078		1.6	0.43	68	<10	20	<0.5	<2	0.12	0.8	3	5	90
Q014037		3.39	0.060		1.1	0.40	23	<10	30	<0.5	3	0.13	<0.5	2	5	47
Q014038		3.61	0.148		8.0	0.47	90	<10	20	<0.5	4	0.08	<0.5	5	2	285
Q014039		1.54	0.143		11.4	0.43	180	<10	30	<0.5	3	0.07	1.0	3	2	611
Q014040		1.59	0.134		12.6	0.46	192	<10	30	<0.5	2	0.07	1.4	3	3	762
Q014041		3.85	0.260		11.5	0.47	218	<10	20	<0.5	2	0.07	3.4	10	1	736
Q014053		3.49	0.352		3.1	0.40	40	<10	30	<0.5	2	0.04	2.1	1	8	63
Q014054		3.92	1.120	2.92	6.1	0.47	270	<10	30	<0.5	2	0.05	1.7	12	5	108
Q014055		3.22	0.031		4.2	0.52	27	<10	100	<0.5	2	0.09	<0.5	3	2	43
Q014056		3.50	0.035		0.5	0.58	75	<10	80	<0.5	<2	0.15	<0.5	4	2	36
Q014057		3.43	0.014		0.4	1.25	48	<10	60	<0.5	2	0.63	<0.5	3	3	28
Q014058		3.38	0.017		1.8	1.85	12	<10	50	<0.5	3	1.24	2.5	6	22	472
Q014059		3.57	0.012		0.7	1.09	9	<10	80	<0.5	<2	0.33	<0.5	2	4	982
Q014060		0.03	1.145	2.74												
Q014061		0.02		2.97	>100	0.62	4640	10	50	<0.5	13	11.8	297	18	16	2260
Q014062		3.49	0.042		3.7	0.52	36	<10	80	<0.5	4	0.13	1.5	8	4	99
Q014063		2.90	0.304		4.4	0.53	41	<10	20	<0.5	5	0.08	<0.5	5	2	90
Q014064		1.08	0.005		0.3	3.20	12	<10	870	<0.5	4	2.70	<0.5	27	80	34
Q014065		3.65	0.165		1.7	0.57	58	<10	50	<0.5	5	0.18	<0.5	8	1	76
Q014066		3.89	0.343		2.5	0.44	79	<10	10	<0.5	7	0.08	<0.5	3	4	56
Q014067		2.90	0.088		0.4	0.51	29	<10	20	<0.5	3	0.11	<0.5	5	3	24
Q014073		3.77	0.120		7.4	1.19	210	<10	20	<0.5	<2	0.20	4.2	4	1	5970
Q014074		3.57	0.055		0.5	1.67	19	<10	40	<0.5	5	0.22	<0.5	4	3	28
Q014075		3.78	0.056		0.6	2.19	22	<10	30	<0.5	6	0.23	<0.5	6	3	24
Q014076		3.53	0.369		4.1	2.22	111	<10	50	<0.5	6	0.45	<0.5	15	1	212
Q014077		2.42	0.212		1.5	2.15	73	<10	40	<0.5	7	0.44	<0.5	17	1	87

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014020		5.53	10	<1	0.13	<10	1.84	1160	<1	0.06	5	1120	2	0.03	2	6
Q014023		6.04	<10	<1	0.34	<10	0.50	79	10	0.06	7	90	142	7.20	26	1
Q014024		6.13	<10	2	0.36	<10	0.10	39	13	0.03	23	40	78	7.62	174	1
Q014025		4.68	10	<1	0.32	<10	5.06	732	<1	0.14	202	2030	14	1.28	3	9
Q014026		11.80	<10	<1	0.33	<10	0.51	107	13	0.08	36	410	112	>10.0	16	2
Q014027		3.18	<10	<1	0.29	10	0.08	30	6	0.03	5	100	28	3.47	8	1
Q014028		1.07	<10	<1	0.31	10	0.13	46	1	0.05	2	140	15	1.09	3	1
Q014029		0.90	<10	<1	0.28	10	0.08	35	1	0.02	2	140	12	0.97	3	1
Q014030																
Q014031		4.37	<10	6	0.14	10	0.45	5830	4	0.01	19	790	>10000	5.75	115	2
Q014032		1.31	<10	<1	0.30	<10	0.09	39	1	0.03	2	120	35	1.43	4	1
Q014033		1.41	<10	1	0.28	<10	0.12	58	2	0.04	6	130	23	1.54	5	2
Q014034		1.44	<10	<1	0.32	<10	0.10	36	2	0.03	3	140	33	1.57	4	2
Q014035		6.33	<10	<1	0.21	<10	0.06	40	8	0.01	4	10	53	7.63	9	<1
Q014036		6.09	<10	<1	0.23	<10	0.07	43	4	0.01	2	<10	42	7.33	7	<1
Q014037		4.44	<10	<1	0.21	<10	0.06	41	1	0.01	1	10	29	4.97	4	<1
Q014038		6.80	<10	<1	0.28	<10	0.03	28	3	0.01	1	20	142	8.28	14	1
Q014039		4.39	<10	<1	0.25	10	0.02	24	3	0.01	1	20	39	4.99	21	1
Q014040		4.32	<10	<1	0.26	10	0.03	24	3	0.01	<1	20	37	4.92	30	1
Q014041		9.29	<10	<1	0.28	<10	0.03	37	4	0.01	4	10	128	>10.0	20	1
Q014053		6.32	<10	<1	0.24	<10	0.02	15	1	0.01	2	40	41	7.63	<2	<1
Q014054		5.76	<10	1	0.28	<10	0.02	22	4	0.01	9	50	83	6.98	2	<1
Q014055		2.16	<10	<1	0.29	10	0.05	28	3	0.01	1	50	38	2.38	2	1
Q014056		3.13	<10	2	0.30	10	0.10	43	3	0.02	<1	60	16	3.43	7	1
Q014057		3.20	<10	<1	0.38	<10	0.43	195	2	0.09	1	100	19	3.28	4	1
Q014058		3.17	<10	<1	0.52	<10	0.92	420	<1	0.14	10	460	33	2.71	14	3
Q014059		3.15	<10	<1	0.42	<10	0.39	126	2	0.05	1	120	6	3.19	7	1
Q014060																
Q014061		4.18	<10	6	0.13	10	0.43	5530	4	0.01	19	750	>10000	5.22	111	2
Q014062		3.72	<10	<1	0.28	10	0.07	34	2	0.02	4	90	124	4.20	3	1
Q014063		8.26	<10	<1	0.29	<10	0.07	21	4	0.01	<1	30	64	>10.0	<2	1
Q014064		5.69	10	<1	0.92	10	2.58	556	1	0.29	60	2320	27	0.33	5	7
Q014065		5.80	<10	<1	0.30	<10	0.08	34	3	0.02	4	50	38	6.88	3	1
Q014066		12.10	<10	<1	0.25	<10	0.07	19	7	0.01	1	20	75	>10.0	6	1
Q014067		7.55	<10	<1	0.28	<10	0.04	16	10	0.01	1	150	15	9.28	2	1
Q014073		10.45	<10	<1	0.34	<10	0.80	150	8	0.03	<1	160	89	>10.0	93	1
Q014074		9.40	<10	<1	0.35	<10	1.39	244	6	0.03	1	290	20	>10.0	3	1
Q014075		6.68	<10	<1	0.31	<10	2.24	389	7	0.03	1	220	24	7.28	<2	1
Q014076		6.04	<10	<1	0.46	10	1.75	325	5	0.08	5	320	101	6.72	8	1
Q014077		4.55	<10	<1	0.51	10	1.59	301	6	0.09	8	170	41	4.70	4	1

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014020		34	<20	0.25	<10	<10	101	<10	108					
Q014023		34	<20	<0.01	<10	<10	2	<10	240					
Q014024		12	<20	<0.01	<10	10	1	<10	371					
Q014025		83	<20	0.07	<10	<10	100	<10	214					
Q014026		42	<20	<0.01	<10	<10	9	<10	117					
Q014027		14	<20	<0.01	<10	<10	1	<10	21					
Q014028		15	<20	<0.01	<10	<10	1	<10	17					
Q014029		12	<20	<0.01	<10	<10	1	<10	14					
Q014030										1	0.060	0.010	0.014	<0.01
Q014031		577	<20	<0.01	<10	<10	13	10	>10000	153	0.230	4.99	4.84	0.58
Q014032		11	<20	0.01	<10	10	1	<10	50					
Q014033		12	<20	<0.01	<10	80	2	<10	37					
Q014034		10	<20	<0.01	<10	110	2	<10	49					
Q014035		4	<20	<0.01	<10	<10	1	<10	107					
Q014036		4	<20	<0.01	<10	<10	1	<10	159					
Q014037		5	<20	<0.01	<10	<10	1	<10	60					
Q014038		7	<20	<0.01	<10	<10	1	<10	127					
Q014039		7	<20	<0.01	<10	<10	1	<10	228					
Q014040		7	<20	<0.01	<10	<10	1	<10	285					
Q014041		8	<20	<0.01	10	<10	1	<10	955					
Q014053		4	<20	<0.01	<10	<10	1	<10	559					
Q014054		4	<20	<0.01	10	<10	2	<10	732	6	0.011	0.012	0.078	0.03
Q014055		8	<20	<0.01	<10	<10	1	<10	21					
Q014056		9	<20	<0.01	10	<10	1	<10	12					
Q014057		18	<20	0.01	<10	<10	2	<10	33					
Q014058		41	<20	0.03	<10	<10	23	<10	400					
Q014059		12	<20	<0.01	<10	<10	2	<10	35					
Q014060										1	0.059	0.008	0.011	<0.01
Q014061		540	<20	<0.01	<10	<10	12	10	>10000	152	0.228	4.93	4.84	0.58
Q014062		8	<20	<0.01	<10	<10	1	<10	256					
Q014063		7	<20	<0.01	<10	<10	1	<10	36					
Q014064		107	<20	0.22	10	<10	154	<10	101					
Q014065		9	<20	<0.01	<10	<10	3	<10	18					
Q014066		5	<20	<0.01	<10	<10	3	<10	92					
Q014067		7	<20	<0.01	<10	<10	4	<10	22					
Q014073		9	<20	<0.01	<10	<10	4	<10	799					
Q014074		11	<20	<0.01	<10	<10	6	<10	57					
Q014075		11	<20	<0.01	<10	<10	6	<10	90					
Q014076		22	<20	<0.01	<10	<10	5	<10	138					
Q014077		22	<20	<0.01	10	<10	5	<10	93					

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

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To: CHIEFTAIN METALS INC
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PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014078		3.57	0.127		2.6	1.26	230	<10	50	<0.5	4	0.34	<0.5	9	1	3210
Q014079		1.79	0.486		5.3	0.90	671	<10	30	<0.5	6	0.19	1.3	14	1	3210
Q014080		1.69	0.352		5.3	0.94	693	<10	30	<0.5	5	0.21	1.2	16	1	3230
Q014081		3.67	1.515	2.76	15.4	0.99	517	<10	70	<0.5	62	0.37	1.6	10	4	1220
Q014112		2.83	<0.005		<0.2	0.35	27	<10	60	<0.5	<2	6.34	<0.5	<1	<1	4
Q014113		2.73	0.559		2.3	0.54	51	<10	20	<0.5	5	0.72	<0.5	7	1	48
Q014114		2.28	1.285	3.10	6.6	0.54	113	<10	20	<0.5	12	0.83	<0.5	22	1	118
Q014115		4.00	4.10	3.45	7.3	0.47	154	<10	10	<0.5	17	1.27	<0.5	18	1	215
Q014116		2.67	3.12	3.00	5.7	0.54	112	<10	10	<0.5	7	0.47	<0.5	8	1	102
Q014117		2.71	2.31	3.20	9.3	0.52	89	<10	10	<0.5	10	0.21	<0.5	8	1	95
Q014118		2.67	3.07	3.26	6.8	0.50	73	<10	10	<0.5	5	0.21	<0.5	7	1	78
Q014119		4.39	0.995		3.6	0.56	97	<10	20	<0.5	6	0.64	<0.5	10	1	107
Q014120		0.03	1.130	2.69												
Q014121		0.02		3.02	>100	0.67	5180	<10	40	<0.5	10	11.9	311	19	17	2350
Q014142		3.39	0.154		3.7	0.32	805	<10	30	<0.5	2	10.8	2.3	4	1	3350
Q014143		3.52	0.130		2.1	0.27	327	<10	30	<0.5	3	12.1	2.7	2	1	2570
Q014144		3.68	0.056		1.4	0.38	137	<10	40	<0.5	<2	13.1	0.7	2	<1	4210
Q014145		3.57	0.118	3.04	2.3	0.63	316	<10	30	<0.5	<2	11.9	1.4	3	1	>10000
Q014146		3.66	0.414	3.12	6.2	0.67	916	<10	20	<0.5	4	7.1	2.2	8	1	>10000
Q014147		3.59	0.608	2.98	9.5	0.35	448	<10	20	<0.5	<2	11.0	42.3	4	1	4050
Q014148		3.80	1.140	3.03	43.1	0.34	2610	<10	20	<0.5	<2	9.0	358	1	1	>10000
Q014149		1.44	0.381	2.83	13.8	0.30	638	<10	10	<0.5	<2	9.0	222	2	<1	8380
Q014150		1.55	0.380	2.88	14.1	0.31	646	<10	20	<0.5	<2	8.6	205	2	<1	>10000
Q014151		3.33	0.492	2.83	11.9	0.43	1580	<10	20	<0.5	10	4.99	6.2	3	2	>10000
Q014152		3.42	0.428		2.2	0.53	103	<10	30	<0.5	<2	1.37	0.5	7	2	129
Q014153		3.63	0.130		4.3	0.74	60	<10	30	<0.5	<2	1.29	1.3	3	4	1870
Q014154		3.31	0.079		2.0	0.75	35	<10	30	<0.5	<2	0.74	0.7	3	5	1170
Q014155		3.50	0.127		0.5	0.85	26	<10	20	<0.5	<2	0.49	0.5	4	6	69
Q014156		3.36	0.015		0.2	1.74	14	<10	50	<0.5	<2	0.31	<0.5	4	3	55
Q014157		3.67	0.012		<0.2	1.80	13	<10	50	<0.5	<2	0.15	<0.5	3	4	28
Q014158		2.99	0.012		0.3	1.97	20	<10	90	<0.5	<2	0.10	<0.5	3	4	443
Q014159		3.36	0.015		0.2	1.30	42	<10	90	<0.5	<2	0.13	<0.5	5	3	253
Q014160		0.03	1.180	2.73												
Q014161		0.02		3.01	>100	0.69	5100	<10	40	0.5	10	12.1	311	19	17	2450
Q014174		3.89	0.053		0.9	0.93	178	<10	20	<0.5	2	0.32	1.6	48	4	106
Q014175		4.12	0.039		0.7	0.86	91	<10	10	<0.5	3	0.23	4.6	62	3	126
Q014176		2.46	0.054		0.7	0.75	102	<10	20	<0.5	7	0.32	17.6	41	3	121
Q014177		2.81	<0.005		<0.2	3.15	9	<10	380	0.5	<2	1.01	<0.5	2	3	8
Q014178		3.45	<0.005		<0.2	3.43	7	<10	250	0.5	<2	1.39	<0.5	2	6	7
Q014179		3.43	0.008		0.2	3.40	7	<10	260	0.5	<2	1.53	<0.5	2	5	35

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014078		3.14	<10	<1	0.49	10	0.57	112	2	0.05	5	180	30	3.32	10	1
Q014079		6.03	<10	<1	0.38	<10	0.41	83	15	0.03	9	60	77	7.24	42	1
Q014080		4.57	<10	<1	0.41	<10	0.38	82	13	0.03	10	40	65	5.15	43	1
Q014081		2.22	<10	1	0.32	<10	0.39	101	6	0.05	7	120	395	2.36	54	1
Q014112		0.07	<10	<1	0.22	<10	0.01	6	4	0.02	<1	20	<2	6.05	2	<1
Q014113		6.60	<10	1	0.31	<10	0.02	23	8	0.04	8	40	28	8.62	2	<1
Q014114		8.57	<10	1	0.31	<10	0.01	15	17	0.04	17	30	66	>10.0	5	<1
Q014115		20.8	<10	6	0.25	<10	0.01	8	8	0.03	20	20	137	>10.0	5	<1
Q014116		8.74	<10	7	0.29	<10	0.01	47	17	0.04	9	60	41	>10.0	3	1
Q014117		12.70	<10	2	0.28	<10	0.01	36	16	0.04	7	40	60	>10.0	3	<1
Q014118		14.5	<10	2	0.28	<10	0.01	10	11	0.04	6	20	33	>10.0	3	<1
Q014119		7.96	<10	1	0.31	<10	0.01	18	10	0.05	7	40	34	>10.0	3	1
Q014120																
Q014121		4.44	<10	8	0.14	10	0.45	5950	3	0.01	21	810	>10000	6.21	111	2
Q014142		3.64	<10	2	0.19	<10	0.03	12	6	0.02	3	60	60	>10.0	52	<1
Q014143		5.22	<10	1	0.16	<10	0.02	5	8	0.02	3	90	63	>10.0	11	<1
Q014144		3.04	<10	1	0.17	<10	0.10	22	3	0.02	1	70	40	>10.0	3	<1
Q014145		5.76	<10	1	0.20	<10	0.31	59	4	0.03	2	130	70	>10.0	5	<1
Q014146		8.94	<10	1	0.29	<10	0.13	29	9	0.04	10	90	125	>10.0	23	<1
Q014147		4.87	<10	3	0.19	<10	0.04	10	7	0.02	5	30	156	>10.0	23	<1
Q014148		6.14	<10	12	0.17	<10	0.04	27	11	0.02	6	30	218	>10.0	179	<1
Q014149		3.11	<10	10	0.17	<10	0.03	17	7	0.02	4	20	>10000	>10.0	41	<1
Q014150		3.74	<10	8	0.18	<10	0.03	16	7	0.02	4	20	>10000	>10.0	43	<1
Q014151		6.04	<10	2	0.23	<10	0.04	15	7	0.02	4	<10	111	>10.0	136	<1
Q014152		3.51	<10	<1	0.27	<10	0.03	21	2	0.03	3	30	123	4.99	<2	<1
Q014153		4.45	<10	<1	0.32	<10	0.25	49	3	0.04	1	90	104	5.87	2	1
Q014154		4.03	<10	<1	0.32	<10	0.29	61	2	0.02	2	140	20	4.90	<2	1
Q014155		4.79	<10	1	0.31	<10	0.42	78	3	0.02	1	60	17	5.55	2	1
Q014156		5.35	<10	<1	0.41	10	1.21	198	2	0.05	1	130	5	5.63	<2	1
Q014157		3.56	<10	<1	0.30	<10	1.60	257	1	0.03	1	170	2	3.33	<2	1
Q014158		3.17	<10	<1	0.28	10	1.77	324	<1	0.02	2	130	<2	2.50	2	1
Q014159		2.92	<10	<1	0.31	<10	0.86	181	1	0.03	3	180	14	2.85	<2	1
Q014160																
Q014161		4.50	<10	8	0.14	10	0.46	5990	3	0.02	21	820	>10000	6.21	114	2
Q014174		9.72	<10	1	0.36	<10	0.32	237	5	0.02	21	1100	67	>10.0	3	3
Q014175		16.0	<10	1	0.32	<10	0.35	265	5	0.02	26	730	42	>10.0	2	3
Q014176		10.95	<10	2	0.35	<10	0.19	179	2	0.02	18	930	38	>10.0	2	3
Q014177		1.93	10	<1	1.20	<10	1.25	325	<1	0.27	1	210	8	0.04	4	2
Q014178		1.93	10	<1	0.99	10	0.91	300	<1	0.37	2	230	8	0.02	3	2
Q014179		2.21	10	<1	0.84	<10	0.75	256	<1	0.33	1	260	11	0.32	5	2

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014078		19	<20	<0.01	<10	<10	4	<10	72					
Q014079		11	<20	<0.01	<10	<10	3	<10	231					
Q014080		11	<20	<0.01	<10	<10	3	<10	220					
Q014081		23	<20	<0.01	<10	<10	3	<10	331	15	0.122	0.040	0.033	0.05
Q014112		312	<20	<0.01	<10	<10	1	<10	6					
Q014113		68	<20	<0.01	10	<10	1	<10	27					
Q014114		46	<20	<0.01	10	<10	1	<10	46	6	0.011	0.007	0.005	0.01
Q014115		100	<20	<0.01	30	<10	1	<10	39	7	0.020	0.014	0.005	0.02
Q014116		33	<20	<0.01	30	<10	1	<10	31	5	0.010	0.004	0.003	0.01
Q014117		24	<20	<0.01	10	<10	1	<10	36	9	0.009	0.006	0.004	0.01
Q014118		18	<20	<0.01	10	<10	1	<10	38	7	0.008	0.004	0.004	0.01
Q014119		53	<20	<0.01	10	<10	1	<10	31					
Q014120										1	0.061	0.008	0.010	<0.01
Q014121		583	<20	<0.01	<10	<10	14	<10	>10000	155	0.231	5.01	4.88	0.59
Q014142		656	<20	<0.01	<10	<10	1	<10	484					
Q014143		756	<20	<0.01	<10	<10	1	<10	656					
Q014144		850	<20	<0.01	<10	<10	2	<10	135					
Q014145		744	<20	<0.01	<10	<10	3	<10	286	2	1.085	0.008	0.032	0.02
Q014146		435	<20	<0.01	<10	<10	3	<10	425	6	1.215	0.014	0.056	0.08
Q014147		664	<20	<0.01	<10	<10	1	<10	>10000	9	0.378	0.017	0.960	0.04
Q014148		549	<20	<0.01	<10	<10	3	10	>10000	40	1.975	0.031	7.44	0.25
Q014149		573	<20	<0.01	<10	<10	2	<10	>10000	14	0.782	2.36	4.79	0.06
Q014150		534	<20	<0.01	<10	<10	2	<10	>10000	14	1.085	2.19	4.52	0.06
Q014151		308	<20	<0.01	<10	<10	3	<10	1060	13	1.765	0.013	0.114	0.15
Q014152		100	<20	<0.01	10	<10	1	<10	133					
Q014153		94	<20	<0.01	<10	<10	1	<10	347					
Q014154		36	<20	<0.01	<10	<10	1	<10	194					
Q014155		23	<20	<0.01	<10	<10	1	<10	158					
Q014156		23	<20	<0.01	<10	<10	2	<10	82					
Q014157		15	<20	<0.01	<10	<10	1	<10	53					
Q014158		12	<20	<0.01	<10	<10	4	<10	44					
Q014159		7	<20	<0.01	<10	<10	7	<10	24					
Q014160										1	0.061	0.009	0.011	<0.01
Q014161		602	<20	<0.01	<10	<10	14	10	>10000	155	0.234	5.07	4.94	0.59
Q014174		11	<20	<0.01	<10	<10	23	<10	288					
Q014175		8	<20	<0.01	<10	<10	24	<10	1010					
Q014176		8	<20	<0.01	<10	<10	19	<10	3430					
Q014177		117	<20	0.04	<10	<10	6	<10	102					
Q014178		126	<20	0.06	<10	<10	8	<10	87					
Q014179		149	<20	0.05	<10	<10	8	<10	69					

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014180		Not Recvd														
Q014181		Not Recvd														

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

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method Analyte Units LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014180																
Q014181																

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-OG46	ME-OG46	ME-OG46	ME-OG46	ME-OG46
	Analyte	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Pb	Zn	As
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%
	LOR	1	20	0.01	10	10	1	10	2	1	0.001	0.001	0.001	0.01
Q014180														
Q014181														

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

ALS Canada Ltd.
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 19-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181217

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

CERTIFICATE WH13178964

Project: Tulsequah
P.O. No.: 300534
This report is for 7 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 3-OCT-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Ag-OG46	Ore Grade Ag - Aqua Regia	VARIABLE
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Cu-OG46	Ore Grade Cu - Aqua Regia	VARIABLE
Pb-OG46	Ore Grade Pb - Aqua Regia	VARIABLE
Zn-OG46	Ore Grade Zn - Aqua Regia	VARIABLE
As-OG46	Ore Grade As - Aqua Regia	VARIABLE
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178964

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	OA-GRA08b S.G. Unity 0.01	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014360		0.09		1.950	>100	1.38	397	<10	120	<0.5	7	1.05	202	10	26	6310
Q014374		2.35	2.95	<0.005	0.2	3.94	5	<10	2290	<0.5	<2	0.44	<0.5	41	1120	66
Q014375		0.63	3.09	0.079	0.7	3.28	45	<10	20	<0.5	5	0.20	<0.5	68	64	687
Q014376		1.22	3.46	0.223	10.8	1.14	104	<10	10	<0.5	13	0.21	3.6	97	11	>10000
Q014377		2.39	3.06	0.071	0.9	2.25	48	<10	10	<0.5	6	0.42	<0.5	53	7	2690
Q014378		3.75	3.04	0.020	<0.2	4.45	28	<10	20	<0.5	2	0.49	<0.5	41	10	129
Q014410		0.09		2.03	>100	1.39	414	<10	70	<0.5	<2	1.13	208	11	28	6230

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178964

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014360		5.46	<10	<1	0.10	<10	0.53	7040	38	0.11	23	400	>10000	2.44	196	3
Q014374		3.98	10	<1	0.13	<10	6.35	697	<1	0.01	501	1140	23	0.06	4	2
Q014375		9.21	10	<1	0.39	<10	4.04	606	13	0.02	43	690	20	5.70	5	12
Q014376		20.7	<10	<1	0.49	<10	0.85	201	30	0.03	20	360	30	>10.0	2	4
Q014377		9.42	<10	<1	1.25	<10	1.51	393	13	0.06	11	630	21	9.02	<2	6
Q014378		8.61	10	<1	1.50	<10	3.79	1055	2	0.12	12	610	15	4.53	<2	12
Q014410		5.88	<10	1	0.11	<10	0.54	7140	38	0.10	23	410	>10000	2.49	207	3

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

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178964

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Ag-OG46	Cu-OG46	Pb-OG46	Zn-OG46	As-OG46
	Analyte	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Pb	Zn	As
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%
	LOR	1	20	0.01	10	10	1	10	2	1	0.001	0.001	0.001	0.01
Q014360		47	<20	0.09	<10	<10	60	10	>10000	228	0.594	3.13	1.510	0.04
Q014374		86	<20	0.11	<10	<10	72	<10	61	<1	0.007	0.004	0.008	<0.01
Q014375		129	<20	0.11	<10	<10	141	<10	187	<1	0.066	0.003	0.019	0.01
Q014376		18	<20	0.04	<10	<10	51	<10	292	10	3.28	0.005	0.030	0.01
Q014377		18	<20	0.12	<10	<10	80	<10	88	1	0.260	0.002	0.010	<0.01
Q014378		19	<20	0.20	<10	<10	148	<10	108	1	0.014	0.004	0.015	<0.01
Q014410		42	<20	0.09	<10	<10	63	10	>10000	233	0.620	3.20	1.560	0.04

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178964

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Ag-OG46	As-OG46	Au-AA23	Cu-OG46
	ME-ICP41	ME-OG46	OA-GRA08b	Pb-OG46
	Zn-OG46			

ALS Canada Ltd.
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

CERTIFICATE WH13178964

Project: Tulsequah
P.O. No.: 300534
This report is for 7 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 3-OCT-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Ag-OG46	Ore Grade Ag - Aqua Regia	VARIABLE
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Cu-OG46	Ore Grade Cu - Aqua Regia	VARIABLE
Pb-OG46	Ore Grade Pb - Aqua Regia	VARIABLE
Zn-OG46	Ore Grade Zn - Aqua Regia	VARIABLE
As-OG46	Ore Grade As - Aqua Regia	VARIABLE
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: ADRIAN FORSYTH
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178964

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	OA-GRA08b S.G. Unity 0.01	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014360		0.09		1.950	>100	1.38	397	<10	120	<0.5	7	1.05	202	10	26	6310
Q014374		2.35	2.95	<0.005	0.2	3.94	5	<10	2290	<0.5	<2	0.44	<0.5	41	1120	66
Q014375		0.63	3.09	0.079	0.7	3.28	45	<10	20	<0.5	5	0.20	<0.5	68	64	687
Q014376		1.22	3.46	0.223	10.8	1.14	104	<10	10	<0.5	13	0.21	3.6	97	11	>10000
Q014377		2.39	3.06	0.071	0.9	2.25	48	<10	10	<0.5	6	0.42	<0.5	53	7	2690
Q014378		3.75	3.04	0.020	<0.2	4.45	28	<10	20	<0.5	2	0.49	<0.5	41	10	129
Q014410		0.09		2.03	>100	1.39	414	<10	70	<0.5	<2	1.13	208	11	28	6230

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178964

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014360		5.46	<10	<1	0.10	<10	0.53	7040	38	0.11	23	400	>10000	2.44	196	3
Q014374		3.98	10	<1	0.13	<10	6.35	697	<1	0.01	501	1140	23	0.06	4	2
Q014375		9.21	10	<1	0.39	<10	4.04	606	13	0.02	43	690	20	5.70	5	12
Q014376		20.7	<10	<1	0.49	<10	0.85	201	30	0.03	20	360	30	>10.0	2	4
Q014377		9.42	<10	<1	1.25	<10	1.51	393	13	0.06	11	630	21	9.02	<2	6
Q014378		8.61	10	<1	1.50	<10	3.79	1055	2	0.12	12	610	15	4.53	<2	12
Q014410		5.88	<10	1	0.11	<10	0.54	7140	38	0.10	23	410	>10000	2.49	207	3

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178964

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Ag-OG46	Cu-OG46	Pb-OG46	Zn-OG46	As-OG46
	Analyte	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Pb	Zn	As
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%
	LOR	1	20	0.01	10	10	1	10	2	1	0.001	0.001	0.001	0.01
Q014360		47	<20	0.09	<10	<10	60	10	>10000	228	0.594	3.13	1.510	0.04
Q014374		86	<20	0.11	<10	<10	72	<10	61	<1	0.007	0.004	0.008	<0.01
Q014375		129	<20	0.11	<10	<10	141	<10	187	<1	0.066	0.003	0.019	0.01
Q014376		18	<20	0.04	<10	<10	51	<10	292	10	3.28	0.005	0.030	0.01
Q014377		18	<20	0.12	<10	<10	80	<10	88	1	0.260	0.002	0.010	<0.01
Q014378		19	<20	0.20	<10	<10	148	<10	108	1	0.014	0.004	0.015	<0.01
Q014410		42	<20	0.09	<10	<10	63	10	>10000	233	0.620	3.20	1.560	0.04

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

ALS Canada Ltd.
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 11-OCT-2013
Account: CHEMET

Project: Tulsequah

CERTIFICATE OF ANALYSIS WH13178964

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Ag-OG46	As-OG46	Au-AA23	Cu-OG46
	ME-ICP41	ME-OG46	OA-GRA08b	Pb-OG46
	Zn-OG46			

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

CERTIFICATE WH13156165

Project: Tulsequah Project
P.O. No.: 300534
This report is for 85 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 30-SEP-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

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

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Ag-OG46	Ore Grade Ag - Aqua Regia	VARIABLE
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Cu-OG46	Ore Grade Cu - Aqua Regia	VARIABLE
Pb-OG46	Ore Grade Pb - Aqua Regia	VARIABLE
Zn-OG46	Ore Grade Zn - Aqua Regia	VARIABLE
As-OG46	Ore Grade As - Aqua Regia	VARIABLE
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	OA-GRA08b S.G. Unity 0.01	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014018		3.62	2.83	0.029	0.7	1.94	26	<10	180	<0.5	<2	0.50	1.9	3	2	91
Q014019		3.40	2.90	0.086	3.7	2.30	42	<10	10	<0.5	<2	0.35	22.2	4	2	703
Q014020		Not Recvd														
Q014021		1.72	2.89	0.167	3.0	1.68	143	<10	20	<0.5	<2	0.35	4.4	4	3	373
Q014022		2.35	3.22	0.532	9.9	2.57	203	<10	40	<0.5	<2	0.46	189.5	3	<1	475
Q014042		1.98	3.01	0.212	6.4	0.61	144	<10	10	<0.5	<2	0.06	0.8	9	<1	237
Q014043		1.60	3.42	0.205	14.4	0.56	478	<10	10	<0.5	<2	0.25	846	<1	<1	1250
Q014044		1.53	2.98	0.071	6.1	0.46	199	<10	10	<0.5	<2	0.07	51.6	3	<1	428
Q014045		1.02	3.34	0.242	20.9	0.64	1000	<10	20	<0.5	<2	0.38	636	<1	<1	2240
Q014046		3.33	3.05	2.47	15.0	0.67	405	<10	10	<0.5	<2	0.04	4.2	6	1	1140
Q014047		3.53	2.99	3.04	10.7	0.47	87	<10	30	<0.5	<2	0.04	0.5	6	1	63
Q014048		3.55	2.94	0.580	7.1	0.53	58	<10	<10	<0.5	<2	0.03	2.0	4	2	74
Q014049		1.75	2.88	0.107	2.8	0.63	38	<10	50	<0.5	<2	0.05	0.6	2	1	38
Q014050		0.80	2.91	0.006	0.2	2.14	4	<10	30	<0.5	<2	2.76	<0.5	17	4	71
Q014051		3.77	3.46	1.345	8.3	0.54	87	<10	<10	<0.5	2	0.03	<0.5	8	<1	138
Q014052		3.52	3.18	1.105	7.7	0.67	53	<10	<10	<0.5	<2	0.03	<0.5	9	2	114
Q014068		3.05	3.05	0.035	0.2	0.53	34	<10	<10	<0.5	<2	0.18	<0.5	3	3	22
Q014069		3.06	3.53	0.043	0.4	0.80	31	<10	<10	<0.5	3	0.30	<0.5	2	2	45
Q014070		0.07		5.69												
Q014071		0.02			83.0	1.59	429	10	20	<0.5	6	2.01	54.2	30	75	>10000
Q014072		3.84	3.17	0.205	4.8	1.21	62	<10	10	<0.5	8	0.47	2.2	5	1	>10000
Q014082		3.97	2.86	0.349	3.4	1.26	95	<10	20	<0.5	22	0.50	1.4	5	4	97
Q014083		3.65	4.60	0.732	13.2	0.27	917	<10	10	<0.5	33	0.16	10.1	3	4	1460
Q014084		3.34	4.23	0.492	9.2	0.23	504	<10	<10	<0.5	10	0.03	1.2	8	4	394
Q014085		3.30	4.06	0.832	15.0	0.44	555	<10	<10	<0.5	17	0.04	0.8	8	5	461
Q014086		3.33	4.29	1.600	9.5	0.57	538	<10	<10	<0.5	17	0.02	5.6	16	4	636
Q014087		3.90	5.03	1.650	7.4	0.28	477	<10	<10	<0.5	13	0.05	5.3	19	3	730
Q014088		3.70	4.95	1.735	9.9	0.36	878	<10	<10	<0.5	19	0.02	5.6	21	3	682
Q014089		1.82	3.80	2.06	8.6	1.03	390	<10	<10	<0.5	96	0.21	5.4	12	5	445
Q014090		0.49	2.85	<0.005	0.3	3.25	6	<10	60	<0.5	<2	1.92	<0.5	25	5	77
Q014091		1.97	3.18	0.537	2.1	0.75	172	<10	<10	<0.5	12	0.13	<0.5	9	2	179
Q014092		2.75	4.25	1.220	3.2	0.67	420	<10	<10	<0.5	17	0.16	1.6	3	3	548
Q014093		3.54	3.22	0.670	5.8	0.26	1490	<10	<10	<0.5	3	0.05	3.7	20	9	5890
Q014094		3.72	2.94	0.584	1.5	0.29	370	<10	<10	<0.5	2	0.03	0.9	6	9	1970
Q014095		4.02	3.46	0.498	3.0	0.50	686	<10	<10	<0.5	3	0.07	1.9	17	6	5590
Q014096		3.74	3.11	0.458	3.4	0.33	769	<10	<10	<0.5	14	0.08	2.0	13	8	8150
Q014097		3.78	3.30	0.431	2.5	0.29	537	<10	<10	<0.5	17	0.05	1.8	12	9	6990
Q014098		3.73	3.11	0.249	1.1	0.29	291	<10	10	<0.5	5	0.05	1.0	19	8	674
Q014099		3.92	3.21	0.357	0.8	0.38	338	<10	10	<0.5	8	0.04	1.0	9	8	577
Q014100		0.07		5.15												

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014018		1.82	<10	<1	0.39	10	1.30	203	1	0.10	1	190	84	1.07	4	2
Q014019		4.32	<10	2	0.38	<10	2.02	228	2	0.07	1	180	3150	4.58	10	1
Q014020																
Q014021		3.58	<10	<1	0.44	<10	0.93	129	4	0.07	2	150	373	3.96	35	1
Q014022		4.72	10	34	0.37	<10	2.59	270	3	0.05	1	420	>10000	8.03	25	1
Q014042		4.39	<10	<1	0.34	<10	0.03	27	5	0.02	2	10	88	5.21	4	1
Q014043		3.36	<10	69	0.29	<10	0.08	103	2	0.02	1	<10	44	9.52	<2	<1
Q014044		2.53	<10	5	0.28	<10	0.03	19	4	0.02	<1	<10	56	3.56	7	<1
Q014045		4.03	<10	66	0.34	<10	0.04	90	2	0.02	1	<10	96	9.83	39	<1
Q014046		5.22	<10	<1	0.38	<10	0.02	15	6	0.03	7	10	38	6.48	29	1
Q014047		4.40	<10	<1	0.29	<10	0.01	10	7	0.02	10	<10	40	5.14	<2	1
Q014048		6.32	<10	<1	0.30	<10	0.02	19	4	0.02	3	<10	49	7.81	<2	1
Q014049		3.06	<10	<1	0.36	<10	0.03	17	4	0.03	1	10	24	3.59	<2	1
Q014050		4.30	10	<1	0.19	<10	1.52	895	<1	0.06	5	840	6	0.06	<2	5
Q014051		15.9	<10	<1	0.31	<10	0.01	14	8	0.02	6	10	97	>10.0	6	<1
Q014052		10.15	<10	<1	0.38	<10	0.02	18	6	0.03	9	<10	82	>10.0	<2	<1
Q014068		9.21	<10	<1	0.25	<10	0.07	24	4	0.03	1	210	13	>10.0	<2	1
Q014069		23.1	<10	<1	0.36	<10	0.17	44	3	0.03	<1	600	93	>10.0	<2	1
Q014070																
Q014071		6.07	10	2	0.36	10	1.42	765	1260	0.10	251	1220	8520	4.17	70	6
Q014072		9.70	<10	<1	0.40	10	0.67	149	12	0.04	<1	220	66	>10.0	17	1
Q014082		4.41	<10	<1	0.37	<10	0.54	141	5	0.06	30	490	358	4.95	6	1
Q014083		23.6	<10	2	0.09	<10	0.10	94	1	0.01	3	70	300	>10.0	29	<1
Q014084		22.9	<10	1	0.11	<10	0.02	66	<1	0.01	3	<10	237	>10.0	11	<1
Q014085		25.5	<10	1	0.23	<10	0.03	115	3	0.01	10	<10	390	>10.0	19	<1
Q014086		25.9	<10	2	0.31	<10	0.03	47	5	0.01	4	10	154	>10.0	10	<1
Q014087		24.0	<10	2	0.13	<10	0.03	37	3	0.01	2	<10	90	>10.0	14	<1
Q014088		25.7	<10	3	0.18	<10	0.03	36	3	0.01	14	<10	151	>10.0	23	<1
Q014089		24.7	<10	2	0.43	<10	0.16	64	7	0.05	29	70	713	>10.0	23	1
Q014090		6.60	10	<1	0.32	<10	2.48	1280	1	0.05	7	1110	5	0.13	<2	6
Q014091		8.81	<10	<1	0.41	<10	0.05	32	8	0.02	15	240	110	>10.0	8	1
Q014092		23.4	<10	2	0.30	<10	0.12	39	4	0.02	12	30	117	>10.0	18	1
Q014093		13.50	<10	2	0.13	<10	0.03	21	16	0.01	<1	<10	20	>10.0	61	1
Q014094		8.92	<10	1	0.15	<10	0.02	28	4	0.01	1	10	36	>10.0	11	1
Q014095		21.3	<10	1	0.26	<10	0.04	24	10	0.02	1	70	65	>10.0	19	1
Q014096		10.95	<10	1	0.17	<10	0.03	26	4	0.01	3	80	25	>10.0	20	1
Q014097		16.3	<10	1	0.14	<10	0.03	26	5	0.01	2	<10	55	>10.0	18	1
Q014098		11.00	<10	1	0.15	<10	0.03	5	4	0.02	6	<10	69	>10.0	9	1
Q014099		12.90	<10	1	0.22	<10	0.02	30	9	0.02	3	<10	54	>10.0	13	1
Q014100																

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Ag-OG46 Ag ppm 1	Cu-OG46 Cu % 0.001	Pb-OG46 Pb % 0.001	Zn-OG46 Zn % 0.001	As-OG46 As % 0.01
Q014018		27	<20	0.01	<10	<10	4	<10	582	1	0.009	0.010	0.065	<0.01
Q014019		35	<20	<0.01	<10	<10	3	<10	6020	3	0.068	0.319	0.603	<0.01
Q014020														
Q014021		40	<20	<0.01	10	<10	3	<10	969	4	0.037	0.038	0.103	0.01
Q014022		27	<20	<0.01	10	<10	3	<10	>10000	9	0.045	2.51	5.51	0.02
Q014042		7	<20	<0.01	<10	<10	1	<10	236	7	0.023	0.010	0.031	0.01
Q014043		10	<20	<0.01	<10	<10	1	10	>10000	18	0.158	0.004	22.2	0.06
Q014044		13	<20	<0.01	<10	<10	1	<10	>10000	6	0.044	0.006	1.445	0.02
Q014045		26	<20	<0.01	<10	<10	2	<10	>10000	24	0.265	0.009	16.40	0.11
Q014046		6	<20	<0.01	10	10	2	<10	1110	15	0.119	0.001	0.101	0.04
Q014047		6	<20	<0.01	<10	<10	1	<10	196	10	0.007	0.002	0.015	0.01
Q014048		5	<20	<0.01	<10	<10	2	<10	597	7	0.007	0.005	0.061	0.01
Q014049		6	<20	<0.01	<10	<10	2	<10	195	2	0.004	0.002	0.020	<0.01
Q014050		29	<20	0.28	<10	<10	101	<10	113	2	0.006	0.001	0.010	<0.01
Q014051		5	<20	<0.01	10	<10	2	<10	54	8	0.012	0.014	0.015	0.01
Q014052		5	<20	<0.01	10	<10	2	<10	140	9	0.011	0.009	0.013	0.01
Q014068		7	<20	<0.01	<10	<10	2	<10	16	<1	0.001	0.001	0.005	<0.01
Q014069		8	<20	<0.01	<10	<10	2	<10	60	1	0.005	0.009	0.008	<0.01
Q014070														
Q014071		202	<20	0.11	<10	<10	74	<10	9810	78	2.47	0.839	0.975	0.04
Q014072		10	<20	<0.01	<10	<10	3	<10	543	4	1.215	0.007	0.058	0.01
Q014082		17	<20	<0.01	<10	<10	6	<10	422	3	0.009	0.035	0.044	0.01
Q014083		5	<20	<0.01	10	<10	4	<10	2880	15	0.147	0.031	0.302	0.11
Q014084		3	<20	<0.01	10	<10	2	<10	360	12	0.040	0.029	0.036	0.06
Q014085		3	<20	<0.01	10	10	6	<10	206	17	0.048	0.049	0.027	0.06
Q014086		3	<20	<0.01	10	10	8	<10	1460	10	0.064	0.017	0.154	0.06
Q014087		2	<20	<0.01	10	<10	5	<10	1490	8	0.076	0.010	0.157	0.06
Q014088		2	<20	<0.01	20	10	8	<10	1480	11	0.069	0.017	0.156	0.12
Q014089		7	<20	<0.01	10	30	12	<10	1460	9	0.044	0.069	0.150	0.04
Q014090		21	<20	0.38	<10	<10	143	<10	127	<1	0.008	<0.001	0.012	<0.01
Q014091		6	<20	<0.01	<10	10	5	<10	118	1	0.016	0.010	0.010	0.02
Q014092		5	<20	<0.01	10	<10	9	<10	398	3	0.058	0.011	0.041	0.05
Q014093		2	<20	<0.01	<10	<10	3	<10	884	6	0.574	0.002	0.094	0.15
Q014094		3	<20	<0.01	<10	<10	3	<10	201	1	0.190	0.003	0.019	0.04
Q014095		4	<20	<0.01	<10	<10	9	<10	464	3	0.518	0.007	0.048	0.07
Q014096		3	<20	<0.01	<10	<10	7	<10	609	3	0.747	0.002	0.062	0.07
Q014097		2	<20	<0.01	<10	<10	7	<10	500	2	0.671	0.005	0.053	0.06
Q014098		3	<20	<0.01	<10	<10	10	<10	392	1	0.069	0.006	0.042	0.03
Q014099		2	<20	<0.01	<10	<10	13	<10	210	<1	0.054	0.005	0.019	0.03
Q014100														

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	OA-GRA08b S.G. Unity 0.01	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014101		0.02			80.5	1.61	458	10	30	<0.5	9	1.99	53.6	30	76	>10000
Q014102		3.69	3.09	0.235	1.4	0.53	148	<10	10	<0.5	6	0.05	0.7	23	7	286
Q014103		2.30	3.06	0.221	1.5	0.65	87	<10	10	<0.5	10	0.10	<0.5	30	4	129
Q014104		2.14	2.99	0.132	0.7	0.85	61	<10	20	<0.5	6	0.06	<0.5	30	4	86
Q014105		3.85	3.27	0.169	2.5	0.70	152	<10	20	<0.5	4	3.80	0.8	6	1	450
Q014106		3.64	3.14	0.100	1.1	0.30	53	<10	20	<0.5	3	10.5	<0.5	3	1	235
Q014107		3.36	3.03	0.059	1.2	0.47	38	<10	20	<0.5	3	7.6	0.6	4	1	141
Q014108		2.71	2.96	0.189	0.4	0.71	25	<10	30	<0.5	3	1.09	<0.5	4	1	24
Q014109		1.64	3.28	0.509	1.1	0.50	40	<10	10	<0.5	6	1.96	<0.5	6	1	58
Q014110		1.54	3.48	0.581	1.4	0.55	52	<10	10	<0.5	8	1.90	<0.5	6	1	66
Q014111		3.03	2.73	0.086	0.4	0.57	38	<10	60	<0.5	<2	7.4	<0.5	3	<1	19
Q014122		4.53	2.98	1.100	1.4	0.41	47	<10	30	<0.5	3	8.2	<0.5	3	<1	46
Q014123		3.16	4.04	0.571	3.2	0.46	49	<10	10	<0.5	8	2.30	<0.5	3	1	61
Q014124		1.60	3.09	0.154	0.8	0.75	35	<10	30	<0.5	4	0.84	<0.5	3	<1	19
Q014125		5.32	3.98	0.234	1.9	0.48	53	<10	10	<0.5	7	2.76	<0.5	2	1	89
Q014126		3.45	2.94	0.097	0.9	0.68	44	<10	30	<0.5	2	4.60	<0.5	2	1	100
Q014127		3.81	2.91	0.171	2.8	0.44	365	<10	20	<0.5	2	7.8	0.9	4	1	983
Q014128		3.63	3.00	0.219	3.6	0.62	889	<10	20	<0.5	4	3.83	1.8	8	1	3160
Q014129		3.82	2.94	0.578	1.2	0.77	75	<10	80	<0.5	2	1.10	<0.5	4	1	44
Q014130		0.85	2.89	<0.005	0.2	4.00	8	<10	120	<0.5	<2	2.02	<0.5	27	2	30
Q014131		4.46	3.93	1.970	6.6	0.20	54	<10	10	<0.5	4	3.53	<0.5	6	2	131
Q014132		4.50	3.79	0.677	4.4	0.26	53	<10	10	<0.5	6	3.99	1.1	11	1	160
Q014133		4.03	3.63	0.534	5.3	0.33	338	<10	10	<0.5	7	4.20	3.7	6	1	4290
Q014134		2.03	2.96	0.068	<0.2	2.98	31	<10	150	<0.5	4	2.82	<0.5	18	40	337
Q014135		1.59	4.14	0.175	1.4	1.01	70	<10	20	<0.5	9	0.94	0.5	11	15	186
Q014136		3.99	4.29	0.134	1.6	0.31	52	<10	10	<0.5	5	2.44	1.4	3	2	170
Q014137		3.25	4.05	0.130	1.4	0.47	44	<10	20	<0.5	6	1.26	<0.5	15	1	133
Q014138		3.13	3.51	0.214	2.2	0.37	95	<10	10	<0.5	8	4.20	0.9	11	2	247
Q014139		4.97	3.17	0.209	2.6	0.66	276	<10	20	<0.5	4	4.14	2.8	6	2	1035
Q014140		0.02			79.9	1.58	434	10	40	<0.5	3	1.87	50.5	29	71	>10000
Q014141		0.07		5.33												
Q014160		Not Recvd														
Q014161		Not Recvd														
Q014162		4.15	2.97	0.324	0.8	1.22	272	<10	40	<0.5	<2	0.18	<0.5	7	3	116
Q014163		4.87	4.25	1.225	18.9	1.66	2150	<10	20	<0.5	2	0.10	950	<1	4	4120
Q014164		3.36	4.12	2.01	24.7	2.92	3670	<10	50	<0.5	<2	0.07	82.8	39	7	>10000
Q014165		3.52	2.99	0.273	2.5	0.69	154	<10	10	<0.5	<2	0.09	<0.5	22	2	3530
Q014166		3.61	2.95	0.173	1.2	0.59	120	<10	20	<0.5	2	0.07	0.9	13	4	875
Q014167		1.88	2.88	0.170	2.8	0.46	77	<10	50	<0.5	<2	0.11	<0.5	4	6	5120
Q014168		3.48	2.96	0.166	0.9	0.84	104	<10	20	<0.5	<2	0.15	<0.5	3	1	514

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

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014101		6.14	10	3	0.37	10	1.41	769	1230	0.10	260	1230	8490	4.15	72	6
Q014102		8.63	<10	1	0.30	<10	0.02	60	7	0.02	13	<10	31	>10.0	3	2
Q014103		7.79	<10	<1	0.36	<10	0.04	74	5	0.03	13	10	35	9.91	3	3
Q014104		6.16	<10	1	0.48	<10	0.06	87	5	0.03	12	10	36	7.62	2	4
Q014105		12.60	<10	1	0.32	<10	0.10	26	10	0.04	7	60	58	>10.0	9	1
Q014106		8.52	<10	<1	0.16	<10	0.04	5	9	0.02	3	60	33	>10.0	<2	<1
Q014107		7.37	<10	1	0.25	<10	0.03	15	9	0.03	3	60	39	>10.0	2	<1
Q014108		3.71	<10	1	0.39	<10	0.02	17	7	0.05	3	30	8	5.01	<2	1
Q014109		16.6	<10	1	0.28	<10	0.02	<5	5	0.04	4	20	34	>10.0	<2	<1
Q014110		18.1	<10	<1	0.30	<10	0.02	5	5	0.04	4	10	40	>10.0	<2	<1
Q014111		0.85	<10	1	0.33	<10	0.01	7	6	0.04	2	30	5	7.79	<2	<1
Q014122		6.70	<10	1	0.24	<10	0.01	<5	9	0.03	3	30	13	>10.0	<2	<1
Q014123		25.4	<10	1	0.24	<10	0.02	<5	1	0.03	1	20	61	>10.0	<2	<1
Q014124		4.70	<10	<1	0.40	<10	0.02	13	9	0.05	2	60	11	6.55	<2	1
Q014125		25.3	<10	1	0.25	<10	0.01	<5	4	0.03	3	20	76	>10.0	<2	<1
Q014126		4.78	<10	1	0.35	<10	0.03	17	3	0.04	2	960	23	>10.0	2	1
Q014127		6.61	<10	1	0.24	<10	0.02	12	2	0.03	3	50	41	>10.0	33	<1
Q014128		6.58	<10	2	0.33	<10	0.03	17	6	0.04	6	80	19	>10.0	73	1
Q014129		1.83	<10	<1	0.41	<10	0.04	15	4	0.04	4	120	17	2.93	2	1
Q014130		7.91	10	<1	0.48	<10	2.63	1520	<1	0.04	5	1370	6	0.14	<2	8
Q014131		25.4	<10	2	0.08	<10	0.02	<5	4	0.02	10	<10	145	>10.0	11	<1
Q014132		23.0	<10	<1	0.12	<10	0.03	<5	6	0.02	8	<10	129	>10.0	10	<1
Q014133		23.9	<10	1	0.18	<10	0.03	<5	11	0.01	11	<10	218	>10.0	30	<1
Q014134		5.38	10	<1	0.32	10	1.43	410	1	0.38	18	1530	31	1.89	12	5
Q014135		28.3	<10	1	0.13	<10	0.49	123	4	0.15	11	410	84	>10.0	2	3
Q014136		26.7	<10	<1	0.16	<10	0.03	<5	4	0.02	5	<10	159	>10.0	<2	<1
Q014137		24.6	<10	1	0.25	<10	0.04	<5	7	0.02	3	<10	101	>10.0	<2	<1
Q014138		23.8	<10	1	0.15	<10	0.06	<5	4	0.03	6	<10	96	>10.0	<2	<1
Q014139		10.80	<10	1	0.34	<10	0.06	14	9	0.03	7	10	86	>10.0	20	1
Q014140		5.91	10	2	0.36	10	1.34	724	1165	0.10	245	1180	8080	4.04	68	6
Q014141																
Q014160																
Q014161																
Q014162		4.27	<10	<1	0.34	<10	0.81	195	6	0.02	14	300	73	4.68	5	1
Q014163		15.6	10	27	0.09	<10	2.11	540	6	0.01	6	50	>10000	>10.0	97	<1
Q014164		25.7	10	10	0.04	<10	3.38	827	18	0.01	10	30	222	>10.0	115	3
Q014165		7.35	<10	<1	0.29	<10	0.20	88	8	0.03	9	10	55	9.38	3	1
Q014166		4.40	<10	<1	0.30	<10	0.06	46	3	0.02	5	20	61	5.11	3	2
Q014167		3.28	<10	<1	0.19	<10	0.10	65	3	0.03	2	20	25	3.72	5	1
Q014168		3.46	<10	<1	0.43	10	0.11	59	5	0.03	3	260	27	4.06	2	2

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Ag-OG46	Cu-OG46	Pb-OG46	Zn-OG46	As-OG46
	Analyte	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Pb	Zn	As
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%
	LOR	1	20	0.01	10	10	1	10	2	1	0.001	0.001	0.001	0.01
Q014101		206	<20	0.11	<10	<10	78	10	9700	84	2.51	0.860	0.987	0.05
Q014102		6	<20	<0.01	<10	<10	17	<10	163	1	0.029	0.003	0.015	0.01
Q014103		8	<20	<0.01	<10	<10	22	<10	48	1	0.012	0.003	0.003	0.01
Q014104		9	<20	<0.01	<10	<10	27	<10	43	<1	0.008	0.003	0.002	<0.01
Q014105		254	<20	<0.01	<10	<10	3	<10	108	2	0.043	0.005	0.011	0.01
Q014106		691	<20	<0.01	<10	<10	2	<10	45	<1	0.021	0.001	0.003	<0.01
Q014107		490	<20	<0.01	<10	<10	2	<10	136	1	0.012	0.003	0.012	<0.01
Q014108		58	<20	<0.01	<10	<10	2	<10	12	<1	0.002	0.001	<0.001	<0.01
Q014109		169	<20	<0.01	<10	<10	2	<10	14	1	0.005	0.004	<0.001	<0.01
Q014110		168	<20	<0.01	<10	<10	2	<10	17	1	0.005	0.003	<0.001	<0.01
Q014111		411	<20	<0.01	<10	<10	1	<10	15	<1	0.001	0.001	0.001	<0.01
Q014122		494	<20	<0.01	10	<10	2	<10	44	1	0.004	<0.001	0.003	0.01
Q014123		196	<20	<0.01	<10	<10	4	<10	100	3	0.005	0.005	0.010	0.01
Q014124		54	<20	<0.01	<10	<10	3	<10	11	<1	0.001	<0.001	<0.001	<0.01
Q014125		194	<20	<0.01	<10	<10	4	<10	95	1	0.008	0.007	0.009	<0.01
Q014126		266	<20	<0.01	<10	<10	2	<10	41	<1	0.009	0.002	0.003	<0.01
Q014127		503	<20	<0.01	<10	<10	2	<10	224	2	0.093	0.004	0.022	0.04
Q014128		296	<20	<0.01	10	<10	3	<10	394	3	0.302	0.001	0.043	0.09
Q014129		71	<20	<0.01	<10	<10	3	<10	16	1	0.004	0.002	0.001	0.01
Q014130		29	<20	0.40	<10	<10	125	<10	162	<1	0.002	0.001	0.016	<0.01
Q014131		254	<20	<0.01	<10	<10	4	<10	408	7	0.013	0.015	0.049	0.01
Q014132		274	<20	<0.01	<10	<10	3	<10	476	4	0.017	0.015	0.058	<0.01
Q014133		241	<20	<0.01	<10	<10	4	<10	1320	6	0.441	0.023	0.158	0.04
Q014134		271	<20	0.35	<10	<10	133	<10	86	<1	0.032	0.002	0.007	<0.01
Q014135		118	<20	0.14	<10	<10	45	<10	481	1	0.018	0.008	0.052	0.01
Q014136		100	<20	<0.01	<10	<10	4	<10	617	<1	0.020	0.021	0.080	<0.01
Q014137		80	<20	<0.01	<10	<10	5	<10	91	<1	0.016	0.011	0.010	0.01
Q014138		297	<20	<0.01	<10	<10	4	<10	480	1	0.024	0.010	0.051	0.01
Q014139		239	<20	<0.01	<10	<10	3	<10	782	1	0.104	0.009	0.088	0.03
Q014140		203	<20	0.10	<10	<10	75	<10	9180	79	2.48	0.853	0.977	0.05
Q014141														
Q014160														
Q014161														
Q014162		9	<20	<0.01	10	<10	5	<10	60	<1	0.013	0.008	0.006	0.03
Q014163		32	<20	<0.01	10	<10	20	<10	>10000	19	0.411	1.850	22.7	0.23
Q014164		16	<20	<0.01	10	<10	43	20	>10000	25	1.895	0.030	2.36	0.36
Q014165		12	<20	<0.01	<10	<10	6	<10	111	2	0.368	0.007	0.014	0.02
Q014166		8	<20	<0.01	<10	<10	6	<10	206	<1	0.085	0.007	0.022	0.01
Q014167		6	<20	<0.01	<10	<10	3	<10	41	1	0.494	0.004	0.005	0.01
Q014168		10	<20	<0.01	<10	<10	1	<10	85	<1	0.052	0.003	0.006	0.01

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	OA-GRA08b S.G. Unity 0.01	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014169		3.63	3.24	0.248	2.7	1.46	165	<10	10	<0.5	<2	0.08	0.6	7	2	3760
Q014170		0.49	2.90	<0.005	0.2	2.13	5	<10	100	<0.5	2	3.35	<0.5	17	4	61
Q014171		3.75	3.07	0.214	1.6	0.67	135	<10	20	<0.5	<2	0.11	<0.5	47	2	441
Q014172		3.45	3.01	0.093	0.6	2.08	178	<10	30	<0.5	4	0.26	<0.5	32	9	86
Q014173		3.81	3.25	0.156	0.8	1.59	238	<10	20	0.5	3	0.31	<0.5	38	6	100

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CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014169		10.55	<10	1	0.41	<10	0.93	339	8	0.03	9	120	69	>10.0	<2	2
Q014170		4.04	10	<1	0.32	<10	1.39	945	<1	0.07	4	1100	2	0.11	<2	8
Q014171		5.53	<10	<1	0.36	<10	0.04	86	2	0.03	25	110	53	7.02	2	4
Q014172		6.13	<10	1	0.51	<10	1.38	654	1	0.03	13	830	26	6.66	<2	6
Q014173		7.65	<10	<1	0.49	<10	0.84	443	2	0.03	14	880	48	9.25	2	5

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CERTIFICATE OF ANALYSIS WH13156165

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Ag-OG46	Cu-OG46	Pb-OG46	Zn-OG46	As-OG46
	Analyte	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Pb	Zn	As
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%
	LOR	1	20	0.01	10	10	1	10	2	1	0.001	0.001	0.001	0.01
Q014169		6	<20	<0.01	<10	<10	3	<10	370	1	0.375	0.008	0.036	0.02
Q014170		52	<20	0.39	<10	<10	118	<10	82	<1	0.007	<0.001	0.006	<0.01
Q014171		10	<20	<0.01	<10	<10	23	<10	74	<1	0.043	0.005	0.005	0.01
Q014172		11	<20	<0.01	<10	<10	43	<10	311	<1	0.009	0.004	0.044	0.02
Q014173		11	<20	<0.01	<10	<10	38	<10	191	<1	0.011	0.005	0.031	0.02

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 6-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13156165

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	PUL-31
	PUL-QC	SPL-21	WEI-21	

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Ag-OG46	As-OG46	Au-AA23	Cu-OG46
	ME-ICP41	ME-OG46	OA-GRA08b	Pb-OG46
	Zn-OG46			

ALS Canada Ltd.
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To: **CHIEFTAIN METALS INC**
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

CERTIFICATE WH13193615

Project: Tulsequah Project
P.O. No.: 300534
This report is for 230 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 30-OCT-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: **CHIEFTAIN METALS INC**
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014413		1.71	0.027		<0.2	3.42	25	<10	30	<0.5	4	0.42	<0.5	33	6	52
Q014496		3.65	0.007		<0.2	0.92	4	<10	10	<0.5	<2	0.48	<0.5	34	2	41
Q014497		1.78	0.033		0.6	0.85	13	<10	<10	<0.5	<2	0.51	<0.5	30	2	1100
Q014498		1.94	0.019		1.8	0.77	12	<10	<10	<0.5	3	0.51	0.9	62	3	4250
Q014499		2.72	0.039		5.1	0.71	119	<10	<10	<0.5	17	0.44	3.6	73	2	2160
Q014500		0.68	0.005		0.3	3.45	3	<10	80	<0.5	3	1.52	<0.5	27	5	119
Q014501		3.65	0.023		1.1	0.80	30	<10	10	<0.5	2	0.36	0.5	27	3	265
Q014502		3.72	0.015		<0.2	0.84	26	<10	10	<0.5	3	0.53	<0.5	10	2	29
Q014503		3.54	0.049		0.2	0.95	24	<10	20	<0.5	4	0.59	<0.5	12	2	14
Q014504		3.36	0.033		<0.2	0.81	21	<10	<10	<0.5	4	0.56	<0.5	40	2	19
Q014505		3.93	0.067		1.2	0.94	23	<10	30	<0.5	2	0.55	<0.5	11	3	13
Q014506		3.60	0.049		0.4	0.48	27	<10	40	<0.5	<2	0.48	<0.5	9	3	12
Q014507		3.65	0.045		0.9	0.40	30	<10	10	<0.5	<2	0.45	<0.5	10	2	8
Q014508		3.44	0.035		0.7	0.46	20	<10	<10	<0.5	5	0.37	<0.5	26	2	14
Q014509		3.60	0.055		1.0	0.48	22	<10	<10	<0.5	5	0.42	0.6	36	2	24
Q014510		0.07	1.910	2.94	>100	1.42	413	<10	50	<0.5	5	1.08	212	10	28	6380
Q014511		3.80	0.078		1.8	0.45	27	<10	<10	<0.5	6	0.33	<0.5	22	3	20
Q014512		3.86	0.043		0.7	0.56	28	<10	40	<0.5	3	0.39	<0.5	11	3	12
Q014513		3.34	0.012		0.2	0.66	7	<10	70	<0.5	4	0.35	<0.5	6	2	9
Q014514		3.98	0.015		0.2	0.65	4	<10	20	<0.5	5	0.31	<0.5	7	3	10
Q014515		3.02	0.024		0.2	0.59	12	<10	20	<0.5	4	0.33	<0.5	11	2	8
Q014516		2.43	0.026		0.2	0.62	8	<10	10	<0.5	3	0.28	<0.5	13	2	18
Q014517		3.31	0.011		<0.2	0.66	5	<10	20	<0.5	2	0.29	<0.5	9	2	10
Q014518		3.41	0.019		0.2	0.65	6	<10	<10	<0.5	3	0.29	<0.5	8	3	7
Q014519		3.66	0.017		<0.2	0.65	4	<10	10	<0.5	5	0.30	<0.5	7	3	9
Q014520		0.06	5.70	2.77												
Q014521		0.05		3.34	38.6	0.77	137	<10	<10	<0.5	60	0.46	218	174	44	>10000
Q014522		3.21	0.026		0.2	0.72	15	<10	30	<0.5	5	0.30	<0.5	6	2	18
Q014523		3.17	0.031		0.2	0.53	13	<10	30	<0.5	3	0.25	<0.5	10	2	8
Q014524		2.64	0.036		0.4	0.59	27	<10	10	<0.5	4	0.32	<0.5	10	2	13
Q014525		0.92	0.283		8.7	0.37	183	<10	<10	<0.5	26	0.17	4.7	103	2	163
Q014526		3.82	0.146		1.8	0.43	104	<10	<10	<0.5	5	0.29	<0.5	16	2	17
Q014527		4.20	0.321		6.0	0.34	164	<10	<10	<0.5	12	0.30	2.3	28	5	38
Q014528		2.61	0.052		0.5	0.39	33	<10	<10	<0.5	3	0.42	0.5	8	4	13
Q014529		1.27	0.361		15.2	0.39	199	<10	<10	<0.5	14	0.30	9.2	35	2	187
Q014530		0.92	<0.005		<0.2	2.69	5	<10	80	<0.5	<2	4.58	<0.5	20	5	40
Q014531		3.38	0.026		0.3	0.54	19	<10	20	<0.5	3	0.33	<0.5	6	2	10
Q014532		0.93	0.130		3.0	0.44	49	<10	<10	<0.5	9	0.40	19.1	28	3	113
Q014533		3.36	0.012		<0.2	0.70	4	<10	40	<0.5	4	0.27	<0.5	4	2	116
Q014534		3.66	0.043		0.4	0.72	84	<10	10	<0.5	5	0.22	<0.5	10	2	11

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Finalized Date: 18-NOV-2013
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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014413		8.45	10	2	0.73	<10	2.74	941	1	0.03	10	640	3	5.73	4	10
Q014496		4.08	<10	1	0.66	<10	0.34	309	<1	0.03	3	990	<2	3.94	2	3
Q014497		4.33	<10	<1	0.61	<10	0.29	250	<1	0.02	3	930	4	4.43	11	3
Q014498		5.98	<10	2	0.51	<10	0.24	248	1	0.03	3	930	6	6.97	29	2
Q014499		6.72	<10	2	0.48	<10	0.14	153	5	0.02	2	1020	17	8.46	872	2
Q014500		7.02	10	2	0.38	<10	2.59	1370	1	0.05	9	1220	2	0.11	3	7
Q014501		4.16	<10	1	0.52	<10	0.11	96	3	0.02	2	1070	10	4.70	115	2
Q014502		2.54	<10	1	0.56	10	0.17	135	3	0.03	17	1190	4	2.73	10	3
Q014503		2.61	<10	1	0.57	10	0.22	190	5	0.04	3	1220	11	2.62	<2	3
Q014504		4.22	<10	<1	0.54	<10	0.14	130	2	0.02	2	1170	9	4.74	3	3
Q014505		2.05	<10	1	0.54	<10	0.16	134	3	0.06	3	1070	9	2.13	3	3
Q014506		2.30	<10	1	0.32	<10	0.10	117	3	0.03	3	1180	8	2.48	<2	2
Q014507		2.72	<10	1	0.28	<10	0.10	131	3	0.03	3	1040	8	2.99	2	2
Q014508		4.69	<10	1	0.33	<10	0.09	135	5	0.02	3	980	9	5.65	<2	2
Q014509		6.96	<10	1	0.34	<10	0.09	135	10	0.03	3	960	22	8.80	4	2
Q014510		5.57	<10	2	0.11	<10	0.53	7230	38	0.12	25	420	>10000	2.31	210	3
Q014511		5.96	<10	<1	0.30	<10	0.08	113	17	0.03	3	950	48	7.37	3	2
Q014512		1.73	<10	1	0.34	<10	0.13	141	3	0.04	4	1050	15	1.74	<2	2
Q014513		2.34	<10	1	0.48	<10	0.17	146	2	0.03	2	1150	3	2.30	<2	2
Q014514		3.21	<10	1	0.46	<10	0.19	127	2	0.03	1	1050	3	3.33	<2	2
Q014515		2.20	<10	1	0.40	<10	0.13	134	5	0.03	3	1090	5	2.22	<2	2
Q014516		4.11	<10	<1	0.48	<10	0.16	125	5	0.03	2	880	4	4.43	<2	2
Q014517		2.98	<10	1	0.50	<10	0.16	125	4	0.03	3	1080	2	3.07	<2	2
Q014518		4.88	<10	<1	0.49	<10	0.15	131	3	0.03	2	1000	4	5.73	<2	2
Q014519		3.76	<10	1	0.50	<10	0.17	155	3	0.02	2	940	<2	3.95	<2	2
Q014520																
Q014521		17.3	10	15	0.16	10	0.51	684	33	0.04	52	220	6230	>10.0	18	1
Q014522		2.35	<10	<1	0.56	<10	0.16	141	5	0.03	2	1080	7	2.45	<2	2
Q014523		2.45	<10	1	0.42	<10	0.12	130	4	0.02	3	910	6	2.59	<2	2
Q014524		3.58	<10	1	0.46	<10	0.12	148	6	0.03	2	1100	17	3.91	<2	2
Q014525		24.7	<10	1	0.26	<10	0.09	108	40	0.04	14	720	118	>10.0	4	2
Q014526		4.62	<10	1	0.30	<10	0.07	109	20	0.03	4	1100	33	5.61	4	2
Q014527		7.73	<10	1	0.21	<10	0.08	154	43	0.05	3	830	159	9.92	8	2
Q014528		2.68	<10	1	0.21	<10	0.14	184	4	0.05	2	1050	35	2.89	2	3
Q014529		16.6	<10	1	0.29	<10	0.07	123	37	0.03	7	990	325	>10.0	20	2
Q014530		5.55	10	1	0.23	<10	1.91	1175	1	0.09	7	970	2	0.07	<2	8
Q014531		1.97	<10	1	0.37	<10	0.14	158	4	0.03	3	1050	13	2.00	<2	2
Q014532		8.31	<10	2	0.23	<10	0.15	194	37	0.04	4	870	95	>10.0	11	3
Q014533		2.77	<10	1	0.53	<10	0.23	151	1	0.02	2	960	<2	2.79	<2	2
Q014534		3.99	<10	<1	0.40	<10	0.19	139	4	0.02	2	980	6	3.87	6	2

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014413		20	<20	0.11	<10	<10	132	<10	73					
Q014496		36	<20	0.02	<10	<10	6	<10	17					
Q014497		37	<20	0.01	<10	<10	5	<10	18					
Q014498		34	<20	0.01	<10	<10	5	<10	20					
Q014499		34	<20	<0.01	<10	<10	3	<10	109					
Q014500		21	<20	0.43	<10	<10	162	<10	134					
Q014501		27	<20	0.01	<10	<10	4	<10	19					
Q014502		37	<20	0.01	<10	<10	4	<10	10					
Q014503		36	<20	0.01	<10	<10	8	<10	16					
Q014504		33	<20	<0.01	<10	<10	5	<10	13					
Q014505		28	<20	0.01	<10	<10	4	<10	10					
Q014506		27	<20	0.01	<10	<10	4	<10	9					
Q014507		25	<20	<0.01	<10	<10	2	<10	9					
Q014508		28	<20	0.01	<10	<10	2	<10	11					
Q014509		26	<20	0.01	<10	<10	2	<10	35					
Q014510		47	<20	0.09	<10	<10	65	10	>10000	226	0.604	3.10	1.620	0.04
Q014511		22	<20	<0.01	<10	<10	3	<10	25					
Q014512		32	<20	0.01	<10	<10	3	<10	12					
Q014513		24	<20	0.03	<10	<10	4	<10	12					
Q014514		22	<20	0.03	<10	<10	4	<10	11					
Q014515		25	<20	0.02	<10	<10	3	<10	10					
Q014516		16	<20	0.03	<10	<10	4	<10	13					
Q014517		20	<20	0.03	<10	<10	3	<10	10					
Q014518		23	<20	0.03	<10	<10	3	<10	11					
Q014519		17	<20	0.03	<10	<10	3	<10	13					
Q014520										1	0.008	0.011	0.008	0.01
Q014521		16	<20	0.04	<10	<10	18	<10	>10000	38	1.380	0.661	7.21	0.01
Q014522		20	<20	0.03	<10	<10	3	<10	48					
Q014523		18	<20	0.02	<10	<10	2	<10	15					
Q014524		21	<20	0.03	<10	<10	3	<10	28					
Q014525		17	<20	0.01	10	<10	3	<10	211					
Q014526		29	<20	0.01	<10	<10	3	<10	21					
Q014527		36	<20	0.01	<10	<10	3	<10	54					
Q014528		40	<20	0.01	<10	<10	4	<10	34					
Q014529		29	<20	0.01	10	<10	3	<10	609					
Q014530		42	<20	0.35	<10	<10	118	<10	111					
Q014531		28	<20	0.01	<10	<10	3	<10	28					
Q014532		34	<20	0.01	<10	<10	3	<10	1185					
Q014533		20	<20	0.02	<10	<10	3	<10	17					
Q014534		18	<20	0.01	<10	<10	3	<10	22					

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014535		3.60	0.031		0.4	0.49	15	<10	40	<0.5	4	0.27	<0.5	10	3	9
Q014536		2.45	0.031		<0.2	0.53	28	<10	40	<0.5	2	0.27	<0.5	7	2	12
Q014537		2.56	0.017		<0.2	0.63	9	<10	40	<0.5	4	0.28	<0.5	10	2	7
Q014538		1.70	0.246		1.3	1.05	207	<10	10	<0.5	8	0.19	0.7	101	3	120
Q014539		1.82	0.150		0.3	3.25	1640	<10	20	<0.5	14	0.26	<0.5	78	3	233
Q014540		0.03		2.95	>100	0.65	5640	10	50	0.5	10	12.5	333	19	18	2620
Q014541		2.36	<0.005		<0.2	3.10	394	<10	390	<0.5	<2	3.33	1.3	14	48	18
Q014542		0.73	0.135		<0.2	3.61	629	<10	20	<0.5	68	0.24	<0.5	27	4	69
Q014543		3.64	0.027		<0.2	1.13	186	<10	30	<0.5	11	0.25	<0.5	12	2	327
Q014544		3.29	0.039		0.3	0.60	25	<10	40	<0.5	3	0.27	<0.5	7	2	9
Q014545		0.53	0.013		<0.2	0.60	9	<10	60	<0.5	2	0.33	<0.5	7	2	28
Q014546		3.42	0.016		0.4	0.93	10	<10	60	<0.5	2	0.32	<0.5	6	2	439
Q014547		3.42	0.006		<0.2	1.01	4	<10	60	<0.5	<2	0.29	<0.5	6	3	644
Q014548		3.53	0.007		<0.2	0.83	10	<10	50	<0.5	<2	0.30	<0.5	6	2	288
Q014549		1.57	<0.005		<0.2	0.84	7	<10	40	<0.5	<2	0.32	<0.5	8	2	244
Q014550		1.58	<0.005		<0.2	0.81	5	<10	40	<0.5	<2	0.33	<0.5	8	2	167
Q014551		3.30	0.008		<0.2	0.85	9	<10	40	<0.5	3	0.30	<0.5	10	3	204
Q014552		3.60	0.014		<0.2	0.98	19	<10	40	<0.5	<2	0.35	<0.5	13	3	119
Q014553		3.46	0.006		<0.2	1.12	9	<10	40	<0.5	2	0.28	<0.5	19	3	102
Q014554		3.38	0.008		<0.2	0.60	11	<10	40	<0.5	2	0.20	<0.5	8	3	241
Q014555		3.31	<0.005		<0.2	0.80	3	<10	60	<0.5	<2	0.22	<0.5	9	3	213
Q014556		3.36	<0.005		<0.2	0.96	4	<10	90	<0.5	4	0.26	<0.5	5	3	309
Q014557		3.49	0.005		0.2	0.71	4	<10	80	<0.5	3	0.24	<0.5	6	2	326
Q014558		3.26	0.009		<0.2	0.94	7	<10	110	<0.5	2	0.29	<0.5	7	2	8
Q014559		2.43	0.009		<0.2	1.04	9	<10	120	<0.5	2	0.20	<0.5	7	2	54
Q014560		0.06	5.68	2.78												
Q014561		0.05		3.48	39.3	0.77	139	<10	10	<0.5	22	0.47	221	180	42	>10000
Q014562		3.59	0.035		<0.2	2.74	39	<10	40	<0.5	4	0.40	<0.5	22	10	26
Q014563		3.36	0.005		<0.2	3.60	10	<10	60	<0.5	3	0.37	<0.5	16	12	802
Q014564		3.77	<0.005		<0.2	3.40	9	<10	40	<0.5	<2	0.44	<0.5	15	12	72
Q014565		3.66	<0.005		<0.2	3.88	10	<10	50	<0.5	<2	0.44	<0.5	14	12	131
Q014566		3.74	<0.005		<0.2	3.89	6	<10	40	<0.5	<2	0.45	<0.5	15	12	25
Q014567		3.80	0.007		<0.2	3.83	14	<10	40	<0.5	2	0.81	<0.5	17	7	40
Q014568		3.79	<0.005		<0.2	4.32	5	<10	50	<0.5	<2	0.89	<0.5	16	8	183
Q014569		3.97	0.005		<0.2	4.17	4	<10	40	<0.5	5	0.77	<0.5	22	7	1315
Q014570		0.05	5.86	2.74												
Q014571		0.05		3.43	38.8	0.77	134	<10	10	<0.5	26	0.47	223	179	41	>10000
Q014572		3.83	<0.005		<0.2	3.94	4	<10	40	<0.5	2	0.69	<0.5	17	6	729
Q014573		3.95	0.010		<0.2	3.21	33	<10	40	<0.5	2	0.60	<0.5	19	8	23
Q014574		3.57	0.016		<0.2	2.87	12	<10	50	<0.5	3	0.37	<0.5	17	11	11

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ca ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014535		2.40	<10	<1	0.35	<10	0.14	140	6	0.01	2	900	10	2.48	<2	2
Q014536		2.76	<10	<1	0.38	<10	0.16	179	3	<0.01	2	870	6	2.87	2	1
Q014537		3.13	<10	1	0.50	<10	0.22	152	2	<0.01	1	940	6	3.30	<2	2
Q014538		25.1	<10	2	0.34	<10	0.47	282	13	<0.01	3	900	39	>10.0	15	2
Q014539		22.8	10	1	0.32	<10	1.25	588	15	<0.01	2	1230	20	>10.0	30	8
Q014540		4.62	<10	7	0.14	10	0.47	6130	4	0.01	23	840	>10000	7.23	124	2
Q014541		5.65	10	1	0.21	10	2.33	1115	<1	0.02	23	1580	53	0.58	20	13
Q014542		15.1	10	1	0.32	<10	0.83	447	20	<0.01	2	1130	15	7.37	12	6
Q014543		7.56	<10	<1	0.53	10	0.32	206	5	0.01	3	890	9	5.07	7	3
Q014544		2.52	<10	<1	0.46	10	0.18	133	4	0.01	1	980	10	2.50	<2	2
Q014545		2.73	<10	<1	0.46	10	0.21	170	3	0.01	1	1100	3	2.67	2	2
Q014546		3.10	<10	<1	0.67	10	0.41	323	<1	0.02	2	1010	3	2.44	2	3
Q014547		3.42	<10	1	0.76	10	0.51	385	<1	0.01	2	970	3	2.41	<2	3
Q014548		3.26	<10	<1	0.61	10	0.38	251	<1	0.01	1	910	3	2.67	<2	2
Q014549		3.51	<10	<1	0.62	10	0.35	230	<1	0.02	2	970	2	3.07	3	2
Q014550		3.71	<10	<1	0.58	10	0.35	221	<1	0.02	1	970	3	3.37	<2	2
Q014551		3.98	<10	1	0.67	10	0.39	267	<1	0.01	2	950	5	3.55	<2	2
Q014552		4.09	<10	<1	0.72	10	0.53	327	<1	0.01	1	1040	6	3.47	2	3
Q014553		3.90	<10	<1	0.76	10	0.65	423	<1	0.02	1	800	5	3.13	<2	2
Q014554		2.79	<10	<1	0.48	10	0.23	172	1	<0.01	1	510	4	2.74	<2	2
Q014555		2.97	<10	1	0.55	10	0.40	309	<1	0.02	1	520	<2	2.46	2	2
Q014556		2.73	<10	<1	0.68	10	0.51	408	<1	0.02	1	640	<2	1.78	3	3
Q014557		2.44	<10	1	0.49	10	0.32	230	1	0.01	1	550	2	2.00	2	2
Q014558		2.42	<10	<1	0.49	10	0.59	375	1	0.04	<1	430	3	1.41	2	3
Q014559		2.36	<10	<1	0.74	10	0.57	242	<1	0.04	1	410	5	1.46	2	3
Q014560																
Q014561		17.7	10	14	0.16	10	0.52	706	33	0.03	48	220	6400	>10.0	27	1
Q014562		5.82	10	<1	1.18	<10	1.81	649	2	0.07	5	650	11	3.24	4	6
Q014563		6.41	10	1	0.94	<10	2.80	1020	<1	0.07	5	560	2	2.08	5	8
Q014564		6.47	10	1	1.01	<10	2.50	882	<1	0.09	6	590	5	2.67	3	7
Q014565		6.93	10	<1	0.96	<10	2.93	1070	<1	0.08	5	560	2	2.26	5	8
Q014566		7.60	10	<1	1.03	<10	2.92	1035	<1	0.08	6	620	6	3.11	6	9
Q014567		7.22	10	<1	0.74	<10	3.08	1100	<1	0.08	4	1820	8	2.48	3	11
Q014568		7.69	10	<1	1.07	<10	3.14	1135	<1	0.14	4	1780	6	2.12	7	18
Q014569		8.53	10	1	0.91	<10	3.02	1050	<1	0.11	4	1590	3	3.41	3	13
Q014570																
Q014571		17.7	10	15	0.16	10	0.53	722	33	0.03	49	230	6530	>10.0	28	1
Q014572		8.00	10	1	0.88	<10	2.95	1030	<1	0.07	4	1490	8	3.01	6	12
Q014573		7.33	10	<1	0.90	<10	2.41	794	1	0.05	8	1270	9	3.36	7	10
Q014574		6.29	10	<1	0.71	<10	2.42	811	1	0.02	5	590	4	2.55	2	6

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014535		21	<20	0.01	<10	<10	3	<10	13					
Q014536		18	<20	0.02	<10	<10	2	<10	16					
Q014537		18	<20	0.02	<10	<10	3	<10	15					
Q014538		18	<20	0.01	<10	<10	11	<10	47					
Q014539		20	<20	0.01	<10	<10	36	<10	46					
Q014540		583	<20	<0.01	<10	<10	14	10	>10000	152	0.229	4.96	4.88	0.58
Q014541		67	<20	0.04	<10	<10	121	<10	155					
Q014542		25	<20	0.01	<10	<10	19	<10	45					
Q014543		17	<20	0.03	<10	<10	5	<10	23					
Q014544		22	<20	0.02	<10	<10	2	<10	16					
Q014545		23	<20	0.03	<10	<10	2	<10	15					
Q014546		23	<20	0.07	<10	<10	3	<10	23					
Q014547		19	<20	0.09	<10	<10	4	<10	25					
Q014548		22	<20	0.06	<10	<10	4	<10	16					
Q014549		23	<20	0.06	<10	<10	3	<10	15					
Q014550		23	<20	0.06	<10	<10	3	<10	15					
Q014551		19	<20	0.07	<10	<10	4	<10	19					
Q014552		21	<20	0.08	<10	<10	5	<10	25					
Q014553		17	<20	0.06	<10	<10	5	<10	29					
Q014554		12	<20	0.03	<10	<10	1	<10	13					
Q014555		11	<20	0.06	<10	<10	1	<10	19					
Q014556		15	<20	0.07	<10	<10	2	<10	24					
Q014557		11	<20	0.04	<10	<10	2	<10	15					
Q014558		12	<20	0.05	<10	<10	7	<10	22					
Q014559		12	<20	0.06	<10	<10	12	<10	19					
Q014560										2	0.008	0.009	0.007	<0.01
Q014561		16	<20	0.04	<10	<10	18	20	>10000	39	1.380	0.669	7.22	0.01
Q014562		21	<20	0.14	<10	<10	77	<10	87					
Q014563		22	<20	0.12	<10	<10	87	<10	68					
Q014564		26	<20	0.13	<10	<10	85	<10	60					
Q014565		23	<20	0.14	<10	<10	94	<10	66					
Q014566		21	<20	0.14	<10	<10	94	<10	73					
Q014567		36	<20	0.14	<10	<10	95	<10	66					
Q014568		48	<20	0.18	<10	<10	141	<10	68					
Q014569		33	<20	0.16	<10	<10	106	<10	84					
Q014570										1	0.008	0.008	0.007	<0.01
Q014571		17	<20	0.04	<10	<10	18	10	>10000	38	1.350	0.649	7.08	0.01
Q014572		27	<20	0.15	<10	<10	97	<10	102					
Q014573		23	<20	0.10	<10	<10	87	<10	55					
Q014574		12	<20	0.07	<10	<10	76	<10	60					

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014575		3.64	0.009		<0.2	3.52	8	<10	50	<0.5	<2	1.47	<0.5	19	12	8
Q014576		3.53	<0.005		<0.2	3.85	8	<10	50	<0.5	2	0.96	<0.5	17	11	10
Q014577		3.24	0.031		0.6	3.54	21	<10	40	<0.5	2	0.80	<0.5	19	6	426
Q014578		3.24	<0.005		0.2	3.00	6	<10	50	<0.5	<2	0.81	<0.5	17	8	782
Q014579		2.83	<0.005		<0.2	2.37	5	<10	60	<0.5	2	0.39	<0.5	14	10	444
Q014580		1.81	<0.005		<0.2	2.92	5	<10	120	<0.5	<2	0.55	<0.5	10	7	186
Q014581		1.45	<0.005		<0.2	2.91	5	<10	140	<0.5	<2	0.52	<0.5	10	8	249
Q014582		3.06	<0.005		<0.2	2.69	5	<10	150	<0.5	<2	0.45	<0.5	9	11	16
Q014583		4.32	<0.005		<0.2	3.67	7	<10	60	<0.5	3	0.64	<0.5	13	8	4
Q014584		3.71	0.011		<0.2	3.89	19	<10	50	<0.5	3	0.80	<0.5	19	8	13
Q014585		3.76	0.014		0.2	3.30	29	<10	50	<0.5	4	0.54	<0.5	20	3	10
Q014586		3.56	<0.005		<0.2	3.35	12	<10	40	<0.5	2	0.57	<0.5	20	3	74
Q014587		3.65	<0.005		0.2	3.42	10	<10	50	<0.5	<2	0.87	<0.5	20	3	792
Q014588		2.75	0.005		<0.2	3.30	4	<10	50	<0.5	<2	0.62	<0.5	16	4	1200
Q014589		3.62	0.005		<0.2	3.22	7	<10	40	<0.5	2	0.53	<0.5	18	3	41
Q014590		0.02		3.03	>100	0.64	4840	10	50	0.5	12	12.6	329	18	17	2500
Q014591		3.75	0.006		0.2	3.16	9	<10	40	<0.5	4	0.57	<0.5	15	3	9
Q014592		3.60	0.009		<0.2	3.26	8	<10	30	<0.5	2	0.49	0.5	16	3	9
Q014593		3.75	0.008		<0.2	2.34	7	<10	40	<0.5	3	0.66	<0.5	20	3	12
Q014594		3.77	0.006		<0.2	2.86	4	<10	40	<0.5	3	0.51	<0.5	18	3	8
Q014595		3.70	0.005		<0.2	3.31	6	<10	30	<0.5	2	0.44	<0.5	20	4	8
Q014596		3.68	0.007		<0.2	3.46	5	<10	40	<0.5	2	0.40	<0.5	21	3	8
Q014597		3.57	0.006		<0.2	3.11	5	<10	40	<0.5	2	0.45	<0.5	22	5	28
Q014598		3.65	0.005		<0.2	3.06	7	<10	50	<0.5	<2	0.57	<0.5	19	4	6
Q014599		3.54	0.005		<0.2	3.52	7	<10	50	<0.5	3	0.53	<0.5	14	3	5
Q014600		0.09	<0.005		0.3	3.05	6	<10	110	<0.5	2	1.68	<0.5	22	3	46
Q014601		3.64	0.013		<0.2	3.18	15	<10	40	<0.5	3	0.48	<0.5	15	2	7
Q014602		3.77	0.010		<0.2	3.26	14	<10	50	<0.5	3	0.61	<0.5	15	3	17
Q014603		3.68	0.005		<0.2	2.95	8	<10	50	<0.5	<2	0.73	<0.5	15	2	28
Q014604		3.41	0.009		<0.2	2.89	10	<10	50	<0.5	<2	0.75	<0.5	17	3	234
Q014605		3.05	0.005		0.2	3.02	5	<10	50	<0.5	5	0.57	<0.5	18	3	7
Q014606		2.80	0.015		<0.2	5.63	18	<10	1630	<0.5	<2	2.78	0.7	34	62	122
Q014607		3.13	0.005		<0.2	4.80	14	<10	880	<0.5	2	2.38	<0.5	32	59	121
Q014608		2.76	0.009		<0.2	2.67	15	<10	30	<0.5	5	0.66	0.5	26	5	40
Q014609		2.25	0.014		0.3	3.11	16	<10	40	<0.5	2	0.71	<0.5	24	4	12
Q014610		0.09	2.09	2.85	>100	1.46	428	<10	70	<0.5	6	1.17	220	10	29	6700
Q014611		2.19	0.009		0.4	2.59	12	<10	30	<0.5	4	0.64	<0.5	21	4	15
Q014612		3.09	0.012		0.3	0.96	27	<10	30	<0.5	2	2.18	<0.5	28	2	324
Q014613		0.94	0.014		<0.2	1.69	12	<10	30	<0.5	5	0.72	<0.5	21	2	11
Q014614		4.34	0.024		<0.2	3.89	36	<10	40	<0.5	2	0.90	<0.5	23	20	80

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014575		7.93	10	<1	0.43	<10	3.01	1105	1	0.04	6	590	3	3.46	6	7
Q014576		7.77	10	<1	0.77	<10	3.13	1030	<1	0.06	6	810	5	2.89	6	9
Q014577		7.50	10	<1	0.85	<10	2.59	802	4	0.12	4	1520	6	3.24	9	12
Q014578		6.81	10	<1	0.92	<10	1.98	711	<1	0.12	4	1240	4	3.36	8	11
Q014579		5.03	10	1	0.81	<10	1.64	543	2	0.08	4	840	2	2.13	6	7
Q014580		4.95	10	<1	1.16	<10	2.12	667	<1	0.09	3	890	3	1.10	7	8
Q014581		4.98	10	<1	1.17	<10	2.10	669	<1	0.09	4	850	2	1.20	10	8
Q014582		4.66	10	<1	0.78	<10	1.96	603	<1	0.07	4	850	4	1.26	5	7
Q014583		6.84	10	<1	0.81	<10	2.78	800	<1	0.10	4	890	2	2.58	4	10
Q014584		7.69	10	<1	1.01	<10	2.74	864	1	0.12	4	980	4	3.30	8	11
Q014585		7.57	10	<1	0.79	<10	2.47	748	3	0.09	3	1260	8	3.66	6	8
Q014586		7.14	10	<1	0.88	<10	2.50	710	1	0.10	3	1190	4	3.42	2	9
Q014587		7.15	10	<1	0.85	<10	2.54	738	1	0.11	3	1200	3	3.19	4	9
Q014588		6.87	10	<1	0.90	<10	2.46	748	<1	0.10	3	1310	<2	2.92	3	10
Q014589		7.50	10	<1	0.78	<10	2.57	703	1	0.08	3	1090	5	3.91	<2	9
Q014590		4.39	<10	7	0.14	10	0.47	6050	4	<0.01	20	830	>10000	5.87	121	2
Q014591		6.93	10	<1	0.74	<10	2.60	682	1	0.08	4	1080	32	3.42	3	10
Q014592		8.13	10	<1	0.73	<10	2.71	815	<1	0.07	4	1050	20	4.54	<2	9
Q014593		7.76	10	<1	0.54	<10	2.15	874	1	0.04	4	1000	12	4.96	3	6
Q014594		7.47	10	<1	0.70	<10	2.31	750	1	0.07	3	1080	8	4.54	2	8
Q014595		7.86	10	<1	0.71	<10	2.74	801	<1	0.05	4	970	6	3.94	2	9
Q014596		7.90	10	<1	0.73	<10	2.91	792	<1	0.05	4	1110	7	3.66	4	9
Q014597		7.30	10	<1	0.78	<10	2.51	693	<1	0.07	4	1030	7	3.77	5	9
Q014598		6.26	10	<1	0.78	<10	2.49	636	<1	0.08	4	1300	6	2.68	<2	9
Q014599		6.31	10	<1	0.89	<10	2.94	650	<1	0.08	4	1320	7	2.53	2	7
Q014600		6.28	10	<1	0.40	<10	2.11	1190	1	0.07	4	1390	6	0.13	2	7
Q014601		6.48	10	1	0.79	<10	2.68	604	2	0.07	4	1220	8	3.18	5	6
Q014602		6.27	10	<1	0.78	<10	2.60	626	1	0.08	3	1160	8	2.94	2	6
Q014603		5.33	<10	<1	1.06	<10	2.15	471	1	0.09	3	1480	5	2.57	3	6
Q014604		5.68	10	<1	1.11	<10	2.12	493	1	0.08	3	1110	8	2.93	6	7
Q014605		5.62	10	<1	1.01	<10	2.46	528	<1	0.09	3	1270	7	2.51	5	9
Q014606		6.94	10	<1	1.63	<10	5.14	1360	1	0.31	48	940	2	0.18	9	28
Q014607		6.87	10	1	0.48	<10	5.56	1340	<1	0.11	47	850	3	0.03	6	30
Q014608		6.29	10	<1	0.74	<10	2.30	534	<1	0.08	4	1120	10	3.48	4	12
Q014609		6.42	10	<1	1.05	<10	2.46	701	1	0.09	4	1220	10	3.30	4	9
Q014610		5.84	<10	1	0.12	<10	0.57	7570	39	0.10	24	440	>10000	2.49	214	3
Q014611		6.64	10	<1	0.98	<10	2.19	888	<1	0.04	3	1280	26	3.76	4	7
Q014612		6.50	<10	<1	0.43	<10	1.71	1030	3	0.01	5	970	16	4.08	76	6
Q014613		5.72	<10	<1	0.66	<10	1.59	730	9	0.05	3	1380	8	3.60	5	7
Q014614		7.53	10	<1	0.91	<10	3.75	1355	1	0.08	18	1080	12	2.65	13	14

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014575		30	<20	0.05	<10	<10	98	<10	73					
Q014576		25	<20	0.11	<10	<10	91	<10	66					
Q014577		42	<20	0.14	<10	<10	98	<10	59					
Q014578		41	<20	0.15	<10	<10	83	<10	57					
Q014579		17	<20	0.11	<10	<10	47	<10	54					
Q014580		26	<20	0.12	<10	<10	61	<10	53					
Q014581		26	<20	0.13	<10	<10	62	<10	53					
Q014582		21	<20	0.11	<10	<10	50	<10	50					
Q014583		34	<20	0.12	<10	<10	116	<10	58					
Q014584		38	<20	0.14	<10	<10	120	<10	60					
Q014585		24	<20	0.13	<10	<10	80	<10	48					
Q014586		25	<20	0.13	<10	<10	81	<10	47					
Q014587		28	<20	0.12	<10	<10	86	<10	61					
Q014588		25	<20	0.14	<10	<10	90	<10	52					
Q014589		19	<20	0.12	<10	<10	93	<10	53					
Q014590		589	<20	<0.01	<10	<10	14	10	>10000	157	0.230	5.01	4.91	0.60
Q014591		23	<20	0.14	<10	<10	99	<10	87					
Q014592		21	<20	0.13	<10	<10	95	<10	82					
Q014593		44	<20	0.05	<10	<10	60	<10	67					
Q014594		21	<20	0.12	<10	<10	81	<10	60					
Q014595		17	<20	0.13	<10	<10	99	<10	59					
Q014596		15	<20	0.13	<10	<10	101	<10	54					
Q014597		17	<20	0.14	<10	<10	102	<10	46					
Q014598		21	<20	0.14	<10	<10	93	<10	44					
Q014599		21	<20	0.14	<10	<10	83	<10	49					
Q014600		35	<20	0.37	<10	<10	128	<10	125					
Q014601		19	<20	0.13	<10	<10	75	<10	44					
Q014602		24	<20	0.11	<10	<10	70	<10	49					
Q014603		26	<20	0.14	<10	<10	66	<10	44					
Q014604		23	<20	0.14	<10	<10	76	<10	48					
Q014605		23	<20	0.13	<10	<10	99	<10	44					
Q014606		129	<20	0.23	<10	<10	307	<10	92					
Q014607		164	<20	0.14	<10	<10	298	<10	80					
Q014608		26	<20	0.13	<10	<10	129	<10	53					
Q014609		32	<20	0.13	<10	<10	109	<10	48					
Q014610		49	<20	0.09	<10	<10	66	20	>10000	228	0.620	3.11	1.650	0.04
Q014611		27	<20	0.08	<10	<10	91	<10	53					
Q014612		122	<20	0.01	<10	<10	36	<10	50					
Q014613		43	<20	0.03	<10	<10	58	<10	39					
Q014614		47	<20	0.08	<10	<10	134	<10	78					

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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014615		1.99	<0.005		<0.2	6.59	6	<10	1280	<0.5	2	1.75	<0.5	33	64	120
Q014616		3.58	0.011		0.2	3.24	7	<10	90	<0.5	<2	0.47	<0.5	22	20	201
Q014617		3.37	0.017		<0.2	3.22	9	<10	80	<0.5	4	0.45	<0.5	24	21	41
Q014618		3.62	0.026		0.3	3.56	17	<10	60	<0.5	4	0.55	<0.5	29	14	41
Q014619		3.75	0.038		0.4	2.61	35	<10	30	<0.5	5	0.67	<0.5	48	2	23
Q014620		0.06	6.72	2.76												
Q014621		0.06		3.28	41.8	0.82	144	<10	10	<0.5	40	0.52	234	188	49	>10000
Q014622		3.64	0.026		0.3	2.65	14	<10	40	<0.5	5	0.40	<0.5	64	6	24
Q014623		3.60	0.030		0.3	2.53	12	<10	40	<0.5	6	0.52	<0.5	45	6	87
Q014624		3.45	0.034		0.5	2.58	14	<10	50	<0.5	6	0.52	<0.5	41	5	87
Q014625		3.39	0.058		0.4	2.82	41	<10	30	<0.5	4	0.41	<0.5	63	4	130
Q014626		3.48	0.012		<0.2	2.32	6	<10	40	<0.5	3	0.59	<0.5	31	3	199
Q014627		3.95	0.008		<0.2	2.66	8	<10	40	<0.5	6	0.52	<0.5	27	4	40
Q014628		3.06	0.012		<0.2	2.37	15	<10	40	<0.5	5	0.57	<0.5	30	3	26
Q014629		1.66	0.016		0.3	2.29	34	<10	50	<0.5	5	0.59	<0.5	27	3	242
Q014630		1.52	0.016		0.4	2.31	40	<10	50	<0.5	4	0.64	<0.5	27	2	335
Q014631		3.69	0.028		1.0	2.19	67	<10	40	<0.5	6	0.53	<0.5	34	3	166
Q014632		3.92	0.017		0.5	2.72	36	<10	40	<0.5	5	0.46	<0.5	60	2	31
Q014633		1.59	0.042		1.5	2.11	91	<10	40	<0.5	9	0.49	<0.5	72	2	24
Q014634		0.96	0.105		9.0	1.39	79	<10	20	<0.5	9	0.47	<0.5	61	2	36
Q014635		2.80	0.127		8.3	1.81	87	<10	20	<0.5	6	0.53	<0.5	44	3	19
Q014636		3.18	0.134		6.9	1.52	88	<10	20	<0.5	6	0.52	<0.5	38	3	22
Q014637		2.22	0.143		6.9	2.00	121	<10	20	<0.5	8	0.47	<0.5	51	3	71
Q014638		2.60	0.087		1.4	3.36	43	<10	30	<0.5	4	0.54	<0.5	24	4	17
Q014639		3.94	0.142		3.1	2.74	37	<10	30	<0.5	8	0.62	<0.5	36	4	15
Q014640		0.31	<0.005		0.2	2.90	6	<10	70	<0.5	<2	2.26	<0.5	21	6	84
Q014641		3.68	0.109		1.7	3.61	33	<10	40	<0.5	7	0.74	<0.5	47	3	10
Q014642		2.35	0.012		0.4	4.36	7	<10	80	<0.5	6	0.63	<0.5	26	4	6
Q014643		3.79	0.007		<0.2	3.96	9	<10	90	<0.5	<2	0.61	<0.5	21	4	7
Q014644		3.59	<0.005		<0.2	3.92	14	<10	90	<0.5	5	0.56	<0.5	15	3	13
Q014645		3.63	0.006		<0.2	3.55	6	<10	50	<0.5	4	0.62	<0.5	18	3	75
Q014646		3.55	0.006		<0.2	3.22	12	<10	40	<0.5	6	0.61	<0.5	21	3	127
Q014647		3.60	<0.005		<0.2	3.09	5	<10	80	<0.5	2	0.50	<0.5	16	4	76
Q014648		3.71	0.005		<0.2	3.00	10	<10	160	<0.5	2	0.60	<0.5	16	5	272
Q014649		3.27	<0.005		<0.2	4.14	6	<10	520	<0.5	<2	1.65	<0.5	30	127	71
Q014650		0.08	1.990	3.00	>100	1.41	399	<10	70	<0.5	<2	1.07	207	9	28	6460
Q014651		3.36	<0.005		<0.2	3.97	6	<10	1270	<0.5	2	2.91	<0.5	32	144	85
Q014652		3.56	<0.005		<0.2	3.55	9	<10	70	<0.5	<2	0.48	<0.5	23	5	13
Q014653		3.51	<0.005		<0.2	2.64	<2	<10	60	<0.5	<2	0.53	<0.5	18	5	2
Q014654		3.56	<0.005		<0.2	2.75	<2	<10	40	<0.5	<2	0.52	<0.5	26	4	152

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method	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	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
Q014615		7.52	10	<1	1.29	<10	6.08	1700	1	0.26	48	910	9	0.19	8	33
Q014616		4.78	10	<1	1.11	<10	3.03	659	2	0.08	16	1080	3	1.31	7	14
Q014617		4.97	10	<1	0.89	<10	3.07	695	1	0.07	17	1070	3	1.73	5	11
Q014618		5.20	10	<1	1.11	<10	2.94	655	4	0.10	17	900	8	1.91	9	9
Q014619		5.62	10	<1	1.25	<10	1.69	339	14	0.08	7	1420	9	3.90	6	6
Q014620																
Q014621		18.6	10	14	0.17	10	0.57	736	35	0.03	54	240	6820	>10.0	25	1
Q014622		6.27	10	1	0.85	<10	2.00	492	5	0.03	9	1100	11	3.97	7	4
Q014623		5.22	10	<1	0.87	<10	1.96	474	5	0.03	7	1670	12	2.85	9	5
Q014624		5.32	10	<1	0.86	<10	1.96	477	3	0.03	6	1510	10	3.02	9	5
Q014625		7.79	10	<1	0.79	<10	2.22	527	16	0.03	10	970	10	5.79	10	5
Q014626		4.92	10	<1	0.93	<10	1.57	362	2	0.06	9	1550	5	3.20	13	4
Q014627		5.37	10	<1	0.93	<10	1.99	460	2	0.07	7	1230	3	3.00	5	6
Q014628		4.82	10	<1	1.09	10	1.65	368	5	0.07	7	1490	7	2.96	6	6
Q014629		4.56	<10	<1	0.97	10	1.56	353	7	0.07	8	1520	7	2.86	8	5
Q014630		4.65	<10	<1	0.97	10	1.63	355	7	0.06	7	1780	5	2.93	12	5
Q014631		4.71	<10	<1	1.02	<10	1.50	350	18	0.05	6	1390	9	3.14	13	5
Q014632		5.81	10	<1	1.10	<10	2.02	454	4	0.03	7	1260	8	3.68	5	6
Q014633		5.12	<10	<1	0.95	<10	1.56	383	11	0.02	8	1420	10	3.65	10	5
Q014634		7.02	<10	<1	0.85	<10	0.72	223	9	0.04	10	920	23	7.73	9	4
Q014635		5.90	<10	<1	0.93	<10	1.11	328	6	0.04	6	930	18	5.21	5	4
Q014636		5.73	<10	<1	0.92	<10	0.78	223	4	0.06	6	960	20	5.94	7	4
Q014637		7.58	<10	<1	1.00	<10	1.36	354	13	0.06	6	810	20	7.45	9	5
Q014638		6.45	10	<1	1.09	<10	2.88	705	6	0.07	5	1060	12	3.60	7	7
Q014639		5.77	<10	<1	1.19	<10	2.03	478	4	0.09	6	1180	11	3.89	6	7
Q014640		5.99	10	<1	0.34	<10	2.22	1175	<1	0.05	7	1020	5	0.06	2	6
Q014641		6.50	10	<1	0.96	<10	2.88	664	6	0.10	6	1280	10	3.53	8	7
Q014642		6.63	10	1	0.82	<10	3.73	900	2	0.08	7	1380	4	2.10	4	8
Q014643		6.14	10	<1	0.87	<10	3.27	811	<1	0.09	7	1360	3	2.16	7	8
Q014644		6.08	10	<1	1.01	<10	3.41	828	<1	0.06	8	1590	9	1.78	6	10
Q014645		6.24	10	<1	0.92	<10	3.05	710	<1	0.07	9	1690	3	2.59	18	11
Q014646		6.14	10	<1	0.87	<10	2.70	650	<1	0.07	13	1640	9	3.07	18	11
Q014647		5.20	10	1	0.75	<10	2.62	694	<1	0.07	6	1060	5	1.98	9	10
Q014648		5.34	10	<1	0.33	<10	2.74	770	<1	0.05	4	1190	6	1.67	8	13
Q014649		5.85	10	1	0.10	<10	5.04	1200	<1	0.07	53	620	7	0.21	7	28
Q014650		5.52	<10	<1	0.11	<10	0.54	7170	37	0.10	23	410	>10000	2.31	204	3
Q014651		5.68	10	1	0.10	<10	4.77	1405	<1	0.08	58	540	22	0.18	8	27
Q014652		6.81	10	1	0.40	<10	3.16	909	<1	0.06	4	1080	7	2.75	5	13
Q014653		4.97	10	<1	0.72	<10	2.14	555	<1	0.08	3	1280	4	2.64	3	8
Q014654		6.13	10	<1	0.61	<10	2.26	662	2	0.06	4	1410	<2	3.58	7	8

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To: CHIEFTAIN METALS INC
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PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014615		62	<20	0.15	<10	<10	297	<10	97					
Q014616		19	<20	0.13	<10	<10	104	<10	57					
Q014617		18	<20	0.12	<10	<10	93	<10	56					
Q014618		23	<20	0.14	<10	<10	105	<10	60					
Q014619		26	<20	0.12	<10	<10	132	<10	44					
Q014620										1	0.010	0.009	0.007	<0.01
Q014621		18	<20	0.04	10	<10	19	20	>10000	39	1.375	0.652	7.19	0.02
Q014622		16	<20	0.10	<10	<10	43	<10	98					
Q014623		18	<20	0.10	<10	<10	40	<10	74					
Q014624		17	<20	0.09	10	<10	40	<10	64					
Q014625		15	<20	0.10	<10	<10	61	<10	67					
Q014626		21	<20	0.09	<10	<10	36	<10	44					
Q014627		19	<20	0.12	<10	<10	63	<10	55					
Q014628		22	<20	0.13	<10	<10	61	<10	46					
Q014629		24	<20	0.11	<10	<10	55	<10	46					
Q014630		24	<20	0.10	<10	<10	56	<10	48					
Q014631		22	<20	0.10	<10	<10	51	<10	48					
Q014632		17	<20	0.10	<10	<10	64	<10	60					
Q014633		19	<20	0.09	<10	<10	50	<10	45					
Q014634		18	<20	0.04	<10	<10	38	<10	23					
Q014635		19	<20	0.08	<10	<10	40	<10	47					
Q014636		18	<20	0.07	10	<10	38	<10	29					
Q014637		14	<20	0.09	<10	<10	53	<10	41					
Q014638		18	<20	0.13	<10	<10	89	<10	71					
Q014639		22	<20	0.14	<10	<10	72	<10	47					
Q014640		28	<20	0.35	<10	<10	153	<10	112					
Q014641		24	<20	0.13	<10	<10	81	<10	58					
Q014642		20	<20	0.12	<10	<10	101	<10	75					
Q014643		19	<20	0.13	<10	<10	105	<10	67					
Q014644		19	<20	0.14	<10	<10	131	<10	79					
Q014645		17	<20	0.14	<10	<10	144	<10	70					
Q014646		17	<20	0.13	<10	<10	152	<10	64					
Q014647		13	<20	0.13	<10	<10	180	<10	62					
Q014648		12	<20	0.14	<10	<10	152	<10	64					
Q014649		49	<20	0.15	<10	<10	261	<10	83					
Q014650		46	<20	0.09	<10	<10	64	20	>10000	231	0.608	3.14	1.630	0.04
Q014651		110	<20	0.16	<10	<10	254	<10	87					
Q014652		13	<20	0.11	<10	<10	145	<10	72					
Q014653		15	<20	0.13	<10	<10	71	<10	46					
Q014654		14	<20	0.11	<10	<10	94	<10	49					

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Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014655		3.78	<0.005		0.4	2.70	5	<10	90	<0.5	<2	0.60	<0.5	15	3	317
Q014656		3.59	<0.005		0.3	2.93	12	<10	60	<0.5	<2	0.38	<0.5	18	4	89
Q014657		2.24	0.005		0.2	2.78	3	<10	30	<0.5	<2	0.36	<0.5	40	4	64
Q014658		0.54	0.118		0.7	2.98	30	<10	80	<0.5	2	1.42	1.9	21	3	63
Q014659		3.21	<0.005		<0.2	3.45	4	<10	100	<0.5	<2	0.34	<0.5	14	4	40
Q014660		0.06	6.05	2.75												
Q014661		0.06		3.31	39.5	0.80	141	<10	10	<0.5	32	0.48	225	184	44	>10000
Q014662		3.51	0.012		<0.2	3.75	7	<10	40	<0.5	<2	0.54	<0.5	24	5	21
Q014663		3.73	<0.005		<0.2	4.20	4	<10	120	<0.5	<2	0.44	<0.5	11	4	76
Q014664		3.03	0.005		0.4	3.35	2	<10	130	<0.5	<2	0.82	<0.5	10	4	71
Q014665		3.68	0.011		<0.2	2.64	4	<10	80	<0.5	3	0.45	<0.5	18	3	17
Q014666		2.41	0.020		0.3	2.86	13	<10	40	<0.5	2	0.40	<0.5	27	3	26
Q014667		3.69	0.037		<0.2	2.01	22	<10	20	<0.5	5	0.35	<0.5	51	3	21
Q014668		0.66	0.088		1.2	0.76	44	<10	10	<0.5	15	0.72	1.1	63	3	1505
Q014669		1.01	0.025		<0.2	1.96	15	<10	30	<0.5	5	0.46	<0.5	32	2	36
Q014670		1.12	0.025		<0.2	1.93	14	<10	30	<0.5	3	0.44	<0.5	29	2	41
Q014671		3.66	0.040		0.2	1.36	13	<10	30	<0.5	3	0.44	<0.5	14	3	20
Q014672		3.20	0.034		<0.2	1.67	21	<10	30	<0.5	4	0.43	<0.5	17	2	18
Q014673		3.31	0.039		<0.2	1.48	19	<10	20	<0.5	2	0.56	<0.5	21	1	28
Q014674		1.70	0.082		0.2	0.78	23	<10	20	<0.5	4	0.36	<0.5	28	1	43
Q014675		3.36	0.092		0.2	0.50	23	<10	10	<0.5	3	0.34	<0.5	30	1	43
Q014676		3.69	0.050		<0.2	0.54	24	<10	10	<0.5	<2	0.35	<0.5	30	1	38
Q014677		2.85	0.030		<0.2	0.62	45	<10	10	<0.5	<2	0.38	<0.5	35	1	24
Q014678		3.73	0.027		<0.2	0.67	51	<10	10	<0.5	<2	0.40	<0.5	32	1	61
Q014679		4.03	0.017		<0.2	0.77	48	<10	10	<0.5	<2	0.31	<0.5	30	1	54
Q014680		0.54	<0.005		0.3	2.67	8	<10	50	<0.5	3	2.52	<0.5	30	7	112
Q014681		4.10	0.016		<0.2	0.91	30	<10	20	<0.5	<2	0.46	<0.5	33	1	55
Q014682		3.07	0.006		<0.2	1.81	6	<10	120	<0.5	2	0.75	<0.5	17	2	346
Q014683		3.52	0.007		<0.2	1.50	4	<10	130	<0.5	<2	0.62	<0.5	19	2	148
Q014684		3.79	<0.005		<0.2	1.90	2	<10	140	<0.5	<2	0.55	<0.5	7	2	271
Q014685		3.16	<0.005		<0.2	2.43	3	<10	80	<0.5	2	0.69	<0.5	8	3	67
Q014686		4.41	0.009		<0.2	2.63	22	<10	60	<0.5	2	0.49	<0.5	18	28	11
Q014687		3.10	0.068		0.2	0.61	26	<10	30	<0.5	3	0.61	<0.5	29	1	53
Q014688		2.26	0.017		<0.2	3.08	28	<10	30	<0.5	<2	0.65	<0.5	24	115	52
Q014689		2.58	0.041		<0.2	0.81	87	<10	20	0.5	<2	0.66	<0.5	34	3	72
Q014690		0.07	1.880	2.87	>100	1.36	411	<10	80	<0.5	4	1.06	208	9	27	6310
Q014691		2.87	0.005		0.2	4.63	7	<10	550	<0.5	2	0.62	<0.5	31	175	41
Q014692		4.21	0.048		0.2	0.66	63	<10	30	<0.5	2	0.80	0.5	34	2	63
Q014693		2.37	0.048		0.2	3.86	25	<10	60	<0.5	<2	0.69	<0.5	39	120	54
Q014694		2.18	0.022		<0.2	2.70	12	<10	50	<0.5	3	0.79	<0.5	25	68	36

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014655		5.54	10	<1	0.31	<10	2.27	862	<1	0.03	4	1300	3	2.39	6	8
Q014656		6.86	10	<1	0.43	<10	2.42	1005	<1	0.02	3	1010	13	3.59	6	7
Q014657		8.39	10	<1	0.40	<10	2.21	936	<1	0.04	4	1060	7	6.28	4	7
Q014658		7.49	10	<1	0.15	<10	2.77	1255	<1	0.01	3	1120	67	4.33	12	7
Q014659		6.43	10	<1	0.48	<10	2.88	1130	<1	0.01	4	930	<2	2.09	4	7
Q014660																
Q014661		18.1	10	15	0.16	10	0.54	723	33	0.03	52	230	6610	>10.0	23	1
Q014662		8.75	10	1	0.38	<10	3.52	1120	<1	0.01	4	1380	7	5.61	5	6
Q014663		6.97	10	1	0.46	<10	4.03	1230	<1	0.01	5	1290	3	2.24	2	8
Q014664		5.91	10	1	0.23	<10	3.08	1205	<1	0.02	5	1190	32	1.95	5	6
Q014665		5.37	10	<1	0.37	<10	2.19	896	<1	0.02	7	1170	6	2.48	2	5
Q014666		6.51	10	1	0.56	<10	2.26	843	<1	0.03	6	940	7	3.52	4	7
Q014667		6.70	10	1	0.64	<10	1.40	484	2	0.02	7	920	6	5.94	4	5
Q014668		17.3	<10	1	0.31	<10	0.38	189	38	0.03	3	320	18	>10.0	42	2
Q014669		6.02	<10	<1	0.88	<10	1.44	451	1	0.03	5	1030	6	4.83	5	6
Q014670		5.73	<10	<1	0.93	<10	1.40	438	1	0.03	6	1070	7	4.51	5	6
Q014671		4.84	<10	<1	0.74	<10	0.88	335	1	0.03	6	820	6	4.28	5	5
Q014672		5.60	<10	<1	0.65	<10	1.21	438	<1	0.01	7	930	5	4.68	6	5
Q014673		5.99	<10	<1	0.58	<10	0.96	386	1	0.02	10	890	7	6.29	6	5
Q014674		6.76	<10	<1	0.34	<10	0.42	204	4	0.01	7	470	8	8.41	12	2
Q014675		7.03	<10	2	0.34	<10	0.09	73	1	<0.01	8	790	11	9.61	13	2
Q014676		7.67	<10	1	0.36	<10	0.09	56	2	<0.01	9	1210	14	>10.0	11	2
Q014677		9.57	<10	1	0.37	<10	0.10	50	1	<0.01	9	1630	11	>10.0	9	3
Q014678		8.20	<10	<1	0.38	<10	0.16	101	1	<0.01	9	1280	14	>10.0	11	2
Q014679		6.62	<10	1	0.41	<10	0.26	110	1	<0.01	8	910	11	8.41	8	2
Q014680		5.67	10	<1	0.24	<10	1.96	1085	<1	0.04	9	1000	12	0.37	2	6
Q014681		6.79	<10	1	0.42	<10	0.47	182	3	<0.01	9	870	8	8.38	9	3
Q014682		3.19	<10	<1	0.65	10	1.33	475	<1	0.03	7	1360	3	1.80	19	5
Q014683		2.94	<10	<1	0.61	10	1.14	420	<1	0.02	10	1120	3	1.60	3	4
Q014684		3.18	<10	<1	0.94	10	1.42	501	<1	0.03	3	1010	2	1.45	8	5
Q014685		3.78	10	<1	1.16	<10	1.80	505	<1	0.09	2	820	<2	1.92	3	7
Q014686		4.87	10	<1	1.16	<10	2.33	607	<1	0.03	19	1090	3	2.62	<2	7
Q014687		7.27	<10	1	0.37	<10	0.21	108	1	0.01	9	1440	7	9.09	14	2
Q014688		7.08	10	2	1.26	<10	2.69	820	1	0.08	54	1360	8	5.68	6	10
Q014689		8.96	<10	<1	0.46	<10	0.25	124	2	0.02	17	1560	15	>10.0	18	3
Q014690		5.57	<10	<1	0.10	<10	0.54	7170	37	0.10	23	410	>10000	2.35	207	3
Q014691		5.48	10	1	1.83	<10	4.43	1470	<1	0.06	115	840	20	0.34	<2	13
Q014692		8.18	<10	<1	0.38	<10	0.25	136	2	0.01	15	1190	16	>10.0	12	3
Q014693		6.62	10	<1	2.07	<10	3.44	1150	1	0.04	90	930	8	2.96	3	11
Q014694		4.64	10	1	1.67	<10	1.85	597	1	0.11	43	1140	6	2.87	6	9

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014655		16	<20	0.09	<10	<10	87	<10	69					
Q014656		11	<20	0.09	<10	<10	79	<10	81					
Q014657		10	<20	0.08	<10	<10	70	<10	76					
Q014658		26	<20	0.01	<10	<10	74	<10	159					
Q014659		9	<20	0.12	<10	<10	76	<10	83					
Q014660										1	0.009	0.010	0.009	<0.01
Q014661		17	<20	0.04	<10	<10	19	10	>10000	40	1.360	0.660	7.13	0.01
Q014662		14	<20	0.08	<10	<10	85	<10	106					
Q014663		12	<20	0.09	<10	<10	90	<10	92					
Q014664		16	<20	0.03	<10	<10	88	<10	105					
Q014665		13	<20	0.06	<10	<10	126	<10	77					
Q014666		11	<20	0.10	<10	<10	96	<10	77					
Q014667		10	<20	0.10	<10	<10	61	<10	81					
Q014668		15	<20	0.01	<10	<10	31	<10	132					
Q014669		11	<20	0.12	<10	<10	67	<10	105					
Q014670		11	<20	0.12	<10	<10	65	<10	100					
Q014671		11	<20	0.07	<10	<10	46	<10	46					
Q014672		13	<20	0.07	<10	<10	51	<10	46					
Q014673		21	<20	0.02	<10	<10	38	<10	34					
Q014674		12	<20	<0.01	<10	<10	18	<10	18					
Q014675		10	<20	<0.01	<10	<10	12	<10	6					
Q014676		12	<20	<0.01	<10	<10	14	<10	5					
Q014677		13	<20	<0.01	<10	<10	16	<10	12					
Q014678		14	<20	<0.01	<10	<10	16	<10	11					
Q014679		10	<20	<0.01	<10	<10	18	<10	11					
Q014680		30	<20	0.34	<10	<10	138	<10	107					
Q014681		14	<20	<0.01	<10	<10	21	<10	17					
Q014682		25	<20	0.04	<10	<10	45	<10	43					
Q014683		20	<20	0.04	<10	<10	39	<10	38					
Q014684		17	<20	0.10	<10	<10	48	<10	45					
Q014685		23	<20	0.12	<10	<10	61	<10	45					
Q014686		15	<20	0.10	<10	<10	63	<10	58					
Q014687		14	<20	<0.01	<10	<10	15	<10	9					
Q014688		24	<20	0.10	<10	<10	77	<10	47					
Q014689		16	<20	0.01	10	<10	20	<10	13					
Q014690		45	<20	0.08	<10	<10	61	10	>10000	231	0.620	3.15	1.670	0.04
Q014691		20	<20	0.19	<10	<10	115	<10	86					
Q014692		16	<20	<0.01	<10	<10	19	<10	12					
Q014693		18	<20	0.16	<10	<10	99	<10	70					
Q014694		30	<20	0.12	<10	<10	84	<10	40					

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014695		3.73	0.021		0.2	2.14	9	<10	40	<0.5	2	0.74	<0.5	28	3	20
Q014696		3.20	0.041		<0.2	1.84	9	<10	30	<0.5	<2	0.72	<0.5	25	2	51
Q014697		2.57	0.057		<0.2	2.17	8	<10	40	<0.5	<2	0.75	<0.5	26	7	74
Q014698		2.35	<0.005		<0.2	4.84	3	<10	430	<0.5	<2	0.84	<0.5	34	418	62
Q014699		3.54	0.040		<0.2	2.33	4	<10	30	<0.5	3	0.62	<0.5	22	7	28
Q014700		0.05	5.92	2.79												
Q014701		0.05		3.41	39.2	0.76	140	<10	20	<0.5	45	0.48	224	175	42	>10000
Q014702		3.71	0.022		<0.2	2.28	6	<10	40	<0.5	2	0.58	<0.5	23	2	92
Q014703		2.34	0.035		<0.2	1.55	12	<10	30	<0.5	2	0.50	<0.5	34	3	43
Q014704		2.29	0.081		0.2	1.59	25	<10	30	<0.5	6	0.53	<0.5	38	3	23
Q014705		3.40	0.043		<0.2	0.76	27	<10	20	<0.5	2	0.51	<0.5	30	1	49
Q014706		3.12	0.052		<0.2	0.85	36	<10	30	<0.5	<2	0.84	<0.5	38	1	61
Q014707		2.90	0.025		<0.2	2.21	24	<10	40	<0.5	2	0.66	<0.5	23	4	36
Q014708		3.80	0.030		<0.2	3.09	27	<10	40	<0.5	3	0.50	<0.5	25	5	614
Q014709		1.59	0.023		<0.2	4.92	19	<10	70	<0.5	3	1.03	<0.5	29	73	51
Q014710		1.71	0.025		<0.2	4.94	23	<10	60	<0.5	3	1.02	<0.5	31	74	51
Q014711		2.30	0.024		0.2	3.30	17	<10	40	<0.5	3	0.53	<0.5	18	6	11
Q014712		3.62	0.074		0.8	0.67	64	<10	30	<0.5	2	0.56	<0.5	33	3	27
Q014713		3.43	0.048		0.4	0.60	40	<10	30	<0.5	5	0.45	<0.5	26	3	19
Q014714		3.54	0.037		0.5	0.44	32	<10	30	<0.5	<2	0.38	<0.5	42	3	227
Q014715		3.71	0.066		0.3	0.51	68	<10	20	<0.5	5	0.62	<0.5	71	2	34
Q014716		3.99	0.037		0.4	0.56	48	<10	30	<0.5	2	0.56	<0.5	39	3	65
Q014717		3.57	0.012		0.2	2.60	26	<10	40	<0.5	4	0.79	<0.5	42	6	1570
Q014718		3.14	0.009		<0.2	2.27	9	<10	40	<0.5	2	1.13	<0.5	24	4	23
Q014719		2.40	0.015		<0.2	2.11	22	<10	40	<0.5	<2	0.77	<0.5	33	7	550
Q014720		0.30	<0.005		<0.2	2.16	5	<10	60	<0.5	<2	5.56	<0.5	17	4	39
Q014721		2.33	0.064		0.3	2.31	92	<10	30	<0.5	5	0.55	<0.5	42	5	10
Q014722		2.98	0.186		0.7	0.78	119	<10	20	<0.5	4	0.45	<0.5	55	3	12
Q014723		2.72	0.333		1.0	0.70	114	<10	20	<0.5	2	0.46	<0.5	59	5	15
Q014724		2.87	0.075		0.2	1.83	61	<10	20	<0.5	4	0.60	<0.5	71	4	12

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014695		5.69	<10	<1	1.07	<10	1.58	448	1	0.05	5	1350	6	4.34	<2	7
Q014696		5.50	10	<1	0.83	<10	1.24	374	1	0.07	5	1050	6	4.64	7	7
Q014697		6.04	10	1	0.59	<10	1.93	540	1	0.07	6	1380	7	4.48	5	10
Q014698		5.56	10	1	0.42	<10	6.41	1540	<1	0.12	144	620	2	0.05	<2	33
Q014699		6.40	10	<1	0.71	<10	2.02	553	1	0.07	8	1250	5	4.65	2	10
Q014700																
Q014701		17.6	20	17	0.15	10	0.54	723	33	0.03	50	220	6510	>10.0	24	1
Q014702		5.89	10	1	1.12	<10	1.70	479	<1	0.07	3	1210	12	4.18	5	8
Q014703		4.94	<10	<1	0.87	<10	0.97	349	1	0.04	11	1090	6	4.18	8	6
Q014704		5.93	<10	<1	0.69	<10	1.15	397	1	0.05	8	900	7	5.41	5	7
Q014705		6.63	<10	2	0.50	<10	0.29	116	1	0.01	8	450	12	8.07	4	3
Q014706		7.40	<10	1	0.50	<10	0.39	197	2	0.01	13	920	10	8.85	6	4
Q014707		5.48	10	<1	1.10	<10	1.46	533	2	0.07	9	1060	6	4.10	<2	7
Q014708		7.05	10	1	1.01	<10	2.33	927	1	0.08	8	630	7	4.34	2	8
Q014709		6.83	10	1	1.67	<10	4.04	1445	<1	0.23	35	590	2	1.86	<2	22
Q014710		7.25	10	1	1.71	<10	4.04	1480	<1	0.23	34	600	3	2.37	<2	22
Q014711		7.09	10	1	1.34	<10	2.45	1195	<1	0.09	9	500	4	3.75	<2	9
Q014712		6.44	<10	1	0.43	<10	0.21	237	1	0.03	8	580	14	7.77	6	3
Q014713		4.99	<10	<1	0.40	<10	0.16	210	2	0.01	9	540	12	5.89	5	2
Q014714		5.60	<10	<1	0.32	<10	0.13	186	5	<0.01	8	510	8	6.77	13	2
Q014715		8.29	<10	1	0.35	<10	0.22	309	7	0.01	10	580	12	>10.0	3	2
Q014716		6.99	<10	<1	0.35	<10	0.28	325	1	0.01	8	540	9	8.30	8	2
Q014717		7.20	<10	1	1.38	<10	2.00	1460	1	0.02	6	900	5	4.06	<2	9
Q014718		6.57	10	<1	0.49	<10	2.06	1365	1	0.01	5	980	6	3.27	<2	7
Q014719		6.21	<10	1	0.84	<10	1.66	1110	1	0.02	6	610	7	3.85	20	6
Q014720		4.29	10	1	0.23	<10	1.52	1050	<1	0.05	8	830	4	0.07	<2	5
Q014721		6.87	<10	<1	1.51	<10	1.48	1030	6	0.05	7	680	11	5.86	2	6
Q014722		6.21	<10	<1	0.51	<10	0.30	266	5	0.02	7	510	17	7.39	4	3
Q014723		6.71	<10	<1	0.40	<10	0.25	205	5	0.02	5	430	20	8.13	4	2
Q014724		8.52	<10	1	1.03	<10	0.89	463	1	0.09	6	620	10	9.42	4	4

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Finalized Date: 18-NOV-2013
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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014695		20	<20	0.09	<10	<10	67	<10	48					
Q014696		22	<20	0.08	<10	<10	65	<10	36					
Q014697		19	<20	0.09	<10	<10	82	<10	46					
Q014698		37	<20	0.16	<10	<10	232	<10	73					
Q014699		15	<20	0.12	<10	<10	83	<10	46					
Q014700										2	0.010	0.012	0.012	<0.01
Q014701		16	<20	0.04	10	<10	17	<10	>10000	40	1.395	0.653	7.25	0.01
Q014702		15	<20	0.15	<10	<10	62	<10	107					
Q014703		14	<20	0.10	<10	<10	59	<10	35					
Q014704		11	<20	0.09	<10	<10	62	<10	43					
Q014705		11	<20	0.05	<10	<10	26	<10	12					
Q014706		14	<20	0.03	<10	<10	31	<10	15					
Q014707		17	<20	0.12	<10	<10	77	<10	48					
Q014708		16	<20	0.13	<10	<10	106	<10	77					
Q014709		33	<20	0.18	<10	<10	208	<10	88					
Q014710		33	<20	0.18	<10	<10	206	<10	88					
Q014711		18	<20	0.14	<10	<10	96	<10	83					
Q014712		15	<20	0.02	<10	<10	26	<10	30					
Q014713		10	<20	0.02	<10	<10	21	<10	10					
Q014714		13	<20	0.01	<10	<10	14	<10	8					
Q014715		21	<20	<0.01	10	<10	15	<10	14					
Q014716		25	<20	<0.01	<10	<10	18	<10	15					
Q014717		25	<20	0.15	<10	<10	101	<10	69					
Q014718		43	<20	0.03	<10	<10	70	<10	64					
Q014719		26	<20	0.06	<10	<10	70	<10	57					
Q014720		40	<20	0.22	<10	<10	99	<10	90					
Q014721		24	<20	0.14	<10	<10	80	<10	54					
Q014722		18	<20	0.02	<10	<10	27	<10	16					
Q014723		17	<20	0.02	<10	<10	24	<10	13					
Q014724		20	<20	0.10	<10	<10	56	<10	29					

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193615

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

CERTIFICATE WH13193616

Project: Tulsequah Project
P.O. No.: 300534
This report is for 247 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 30-OCT-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014725		3.50	0.093		0.4	2.43	92	<10	20	<0.5	<2	0.53	<0.5	29	5	35
Q014726		3.23	0.227		1.0	1.31	152	<10	20	<0.5	2	0.37	<0.5	43	3	17
Q014727		2.31	0.120		0.8	2.14	80	<10	20	<0.5	5	0.45	<0.5	53	3	15
Q014728		1.36	0.174		0.8	3.45	89	<10	20	<0.5	7	0.74	<0.5	77	5	64
Q014729		1.98	0.032		<0.2	3.82	33	<10	30	<0.5	2	0.59	<0.5	40	4	8
Q014730		0.04	1.915	2.91	>100	1.47	416	<10	70	<0.5	7	1.15	211	11	30	6480
Q014731		2.41	0.083		0.2	4.07	65	<10	20	<0.5	<2	0.65	<0.5	59	4	12
Q014732		1.75	0.094		0.4	3.42	107	<10	20	<0.5	3	0.52	<0.5	81	3	13
Q014733		2.50	0.039		0.2	3.36	63	<10	20	<0.5	2	0.60	<0.5	63	3	8
Q014734		3.78	0.016		<0.2	5.21	42	<10	30	<0.5	<2	0.72	<0.5	36	5	12
Q014735		2.14	0.035		0.5	5.66	54	<10	30	<0.5	2	0.61	<0.5	47	4	14
Q014736		3.03	0.060		0.7	2.84	52	<10	10	<0.5	7	0.56	<0.5	78	3	14
Q014737		3.09	0.022		<0.2	3.67	51	<10	30	<0.5	3	0.76	<0.5	56	4	9
Q014738		2.19	0.130		0.7	1.43	100	<10	20	<0.5	<2	0.48	<0.5	24	4	10
Q014739		2.12	0.177		1.0	1.24	131	<10	20	<0.5	4	0.35	<0.5	34	3	14
Q014740		0.06	5.90	2.76												
Q014741		0.05		3.56	40.2	0.80	140	10	10	<0.5	40	0.51	224	183	54	>10000
Q014742		2.89	0.114		0.7	1.41	57	<10	20	<0.5	2	0.43	<0.5	35	3	17
Q014743		2.93	0.125		0.7	4.07	62	<10	20	<0.5	9	0.51	<0.5	75	6	14
Q014744		3.17	0.056		0.5	5.11	21	<10	20	<0.5	6	0.57	<0.5	49	5	9
Q014745		1.14	0.063		0.4	6.53	54	<10	20	<0.5	2	0.55	<0.5	89	5	12
Q014746		3.20	0.020		<0.2	5.21	20	<10	40	<0.5	2	0.57	<0.5	34	6	11
Q014747		2.78	<0.005		<0.2	2.79	4	<10	280	<0.5	2	2.95	<0.5	23	67	35
Q014748		3.32	<0.005		0.2	2.35	2	<10	180	<0.5	<2	2.14	<0.5	17	55	28
Q014749		1.55	<0.005		<0.2	3.15	6	<10	350	<0.5	3	2.76	<0.5	20	73	7
Q014750		1.38	<0.005		<0.2	3.18	4	<10	340	<0.5	<2	2.81	<0.5	18	74	7
Q014751		3.19	0.009		<0.2	4.93	9	<10	40	<0.5	<2	0.75	<0.5	33	7	10
Q014752		3.47	0.015		<0.2	3.49	15	<10	20	<0.5	<2	0.62	<0.5	52	5	17
Q014753		3.26	0.010		<0.2	4.26	11	<10	30	<0.5	<2	0.63	<0.5	48	5	35
Q014754		3.37	0.026		0.4	2.97	31	<10	30	<0.5	<2	0.57	<0.5	47	20	19
Q014755		3.28	0.019		0.3	2.84	20	<10	30	<0.5	4	0.45	<0.5	44	4	31
Q014756		1.84	0.056		0.3	2.59	71	<10	20	<0.5	3	0.48	<0.5	75	4	74
Q014757		2.56	0.089		0.3	2.12	46	<10	10	<0.5	7	0.45	<0.5	138	5	49
Q014758		2.88	0.134		0.4	2.74	77	<10	10	<0.5	11	0.46	<0.5	159	7	65
Q014759		2.97	0.028		0.2	3.82	32	<10	30	<0.5	4	0.49	<0.5	54	4	86
Q014760		0.44	<0.005		<0.2	2.74	3	<10	60	<0.5	<2	2.79	<0.5	19	5	11
Q014761		3.27	0.020		<0.2	3.12	18	<10	20	<0.5	3	0.46	<0.5	30	5	8
Q014762		3.23	0.006		<0.2	3.93	9	<10	30	<0.5	<2	0.48	<0.5	26	5	7
Q014763		3.51	0.012		<0.2	3.79	17	<10	30	<0.5	<2	0.54	<0.5	33	5	6
Q014764		2.24	0.220		1.2	3.08	169	<10	10	<0.5	5	0.38	<0.5	143	5	527

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014725		7.28	<10	<1	1.40	<10	1.32	571	2	0.11	9	570	15	6.74	<2	7
Q014726		5.57	<10	<1	0.83	<10	0.51	229	3	0.06	7	540	19	6.06	3	5
Q014727		6.87	<10	<1	1.20	<10	1.11	411	7	0.08	6	630	14	6.71	4	6
Q014728		10.90	10	<1	1.36	<10	2.64	1180	13	0.04	7	430	21	8.99	5	9
Q014729		6.45	10	<1	1.99	<10	2.46	851	2	0.07	8	730	8	3.41	<2	9
Q014730		5.65	<10	1	0.11	<10	0.56	7290	39	0.11	24	420	>10000	2.49	198	3
Q014731		7.28	10	<1	2.08	<10	2.61	835	2	0.07	7	710	25	4.20	<2	10
Q014732		8.45	10	1	1.74	<10	2.26	761	3	0.05	6	700	15	6.48	2	8
Q014733		7.26	10	<1	1.61	<10	2.18	701	2	0.06	6	760	10	4.94	3	8
Q014734		9.18	10	<1	1.39	<10	4.33	1380	1	0.05	7	620	6	4.05	<2	13
Q014735		11.25	10	<1	1.35	<10	4.91	1625	<1	0.04	6	610	6	5.98	<2	12
Q014736		8.49	<10	<1	1.31	<10	1.73	534	4	0.05	6	730	8	7.97	2	7
Q014737		6.59	10	<1	2.08	<10	2.13	629	1	0.07	9	720	4	4.49	<2	9
Q014738		4.50	<10	<1	0.65	<10	0.38	211	1	0.07	5	410	11	4.65	2	4
Q014739		5.08	<10	<1	0.75	<10	0.31	196	6	0.06	6	650	14	5.87	<2	4
Q014740																
Q014741		17.8	20	16	0.17	10	0.55	730	35	0.03	58	230	6510	>10.0	20	1
Q014742		4.11	<10	<1	0.80	<10	0.42	232	1	0.08	6	600	10	4.07	2	4
Q014743		9.51	10	<1	1.97	<10	2.91	896	4	0.06	7	660	13	7.26	<2	9
Q014744		9.51	10	1	1.93	<10	3.91	1070	2	0.05	7	660	11	5.24	<2	13
Q014745		16.4	10	1	1.31	<10	5.62	1560	1	0.05	8	520	12	>10.0	<2	17
Q014746		7.85	10	<1	1.91	<10	3.98	990	1	0.06	7	730	5	3.27	<2	14
Q014747		4.24	10	<1	0.70	10	2.22	776	1	0.18	30	830	13	0.19	<2	13
Q014748		3.90	10	<1	0.40	10	1.77	702	1	0.17	28	830	21	0.10	2	7
Q014749		4.40	10	<1	1.00	10	2.33	794	1	0.26	34	860	12	0.09	2	14
Q014750		4.44	10	<1	1.01	10	2.34	792	<1	0.26	34	850	11	0.08	2	14
Q014751		6.98	10	<1	1.97	<10	3.25	845	<1	0.14	7	620	6	2.81	<2	16
Q014752		6.72	10	1	1.54	<10	2.11	617	<1	0.17	6	640	5	4.38	<2	11
Q014753		7.08	10	1	1.50	<10	2.88	893	<1	0.17	7	690	7	3.21	<2	12
Q014754		5.51	10	<1	1.24	<10	1.95	508	1	0.12	13	590	6	3.65	<2	8
Q014755		5.56	10	1	1.06	<10	2.01	570	1	0.11	7	650	7	3.59	<2	7
Q014756		7.73	<10	<1	0.96	<10	1.80	483	6	0.11	7	570	6	6.91	<2	7
Q014757		7.85	<10	1	0.88	<10	1.24	341	9	0.10	7	750	9	7.90	2	5
Q014758		10.95	10	1	0.81	<10	1.92	550	3	0.10	7	500	9	>10.0	3	7
Q014759		7.21	10	1	1.03	<10	2.99	750	<1	0.12	7	600	4	4.24	5	9
Q014760		5.77	10	1	0.24	<10	2.05	1130	<1	0.05	6	860	3	0.06	2	7
Q014761		6.09	10	1	0.93	<10	2.41	601	<1	0.11	4	540	4	3.75	<2	8
Q014762		6.68	10	<1	0.87	<10	3.28	786	<1	0.12	5	510	3	3.21	2	9
Q014763		6.60	10	1	0.90	<10	3.01	777	<1	0.14	5	560	4	3.33	3	9
Q014764		15.8	10	<1	0.60	<10	2.39	706	3	0.10	7	230	24	>10.0	8	7

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118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014725		21	<20	0.12	<10	<10	94	<10	40					
Q014726		12	<20	0.07	<10	<10	49	<10	20					
Q014727		17	<20	0.10	<10	<10	70	<10	29					
Q014728		22	<20	0.12	<10	<10	131	<10	64					
Q014729		27	<20	0.18	<10	<10	120	<10	52					
Q014730		50	<20	0.09	<10	<10	67	20	>10000	234	0.624	3.19	1.595	0.04
Q014731		29	<20	0.16	<10	<10	123	<10	65					
Q014732		22	<20	0.15	<10	<10	108	<10	55					
Q014733		26	<20	0.14	<10	<10	106	<10	53					
Q014734		31	<20	0.17	<10	<10	162	<10	95					
Q014735		27	<20	0.17	<10	<10	162	<10	105					
Q014736		28	<20	0.11	<10	<10	92	<10	40					
Q014737		30	<20	0.17	<10	<10	117	<10	52					
Q014738		19	<20	0.04	<10	<10	42	<10	11					
Q014739		15	<20	0.05	<10	<10	39	<10	12					
Q014740										<1	0.008	0.007	0.008	<0.01
Q014741		16	<20	0.04	<10	<10	19	20	>10000	39	1.370	0.646	7.17	0.02
Q014742		17	<20	0.06	<10	<10	41	<10	36					
Q014743		25	<20	0.15	<10	<10	121	<10	69					
Q014744		27	<20	0.17	<10	<10	171	<10	80					
Q014745		22	<20	0.13	10	<10	258	<10	102					
Q014746		23	<20	0.15	<10	<10	190	<10	94					
Q014747		152	<20	0.20	<10	<10	121	<10	76					
Q014748		111	<20	0.24	<10	<10	103	<10	88					
Q014749		166	<20	0.27	<10	<10	132	<10	73					
Q014750		167	<20	0.27	<10	<10	132	<10	74					
Q014751		33	<20	0.16	<10	<10	202	<10	72					
Q014752		30	<20	0.17	<10	<10	139	<10	54					
Q014753		29	<20	0.18	<10	<10	158	<10	62					
Q014754		18	<20	0.13	<10	<10	109	<10	39					
Q014755		15	<20	0.12	<10	<10	99	<10	46					
Q014756		14	<20	0.11	<10	<10	92	<10	39					
Q014757		13	<20	0.08	<10	<10	63	<10	26					
Q014758		13	<20	0.09	<10	<10	94	<10	41					
Q014759		16	<20	0.12	<10	<10	126	<10	59					
Q014760		21	<20	0.29	<10	<10	131	<10	122					
Q014761		15	<20	0.11	<10	<10	116	<10	48					
Q014762		18	<20	0.13	<10	<10	112	<10	63					
Q014763		21	<20	0.14	<10	<10	105	<10	61					
Q014764		12	<20	0.09	<10	<10	100	<10	52					

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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014765		2.95	0.006		<0.2	3.71	16	<10	50	<0.5	<2	0.50	<0.5	23	5	7
Q014766		3.41	0.010		0.2	4.29	12	<10	60	<0.5	3	0.52	<0.5	18	6	6
Q014767		3.21	0.012		<0.2	3.65	23	<10	30	<0.5	<2	0.55	<0.5	23	5	14
Q014768		2.76	0.018		<0.2	4.51	25	<10	40	<0.5	<2	0.60	<0.5	24	5	20
Q014769		2.95	0.020		<0.2	4.49	13	<10	40	<0.5	2	0.53	<0.5	22	5	16
Q014770		0.04	1.940	2.93	>100	1.37	380	<10	70	<0.5	<2	1.07	197.5	10	27	6280
Q014771		2.70	0.072		1.1	3.72	26	<10	20	<0.5	2	0.94	9.8	31	5	275
Q014772		3.67	0.043		0.7	2.80	21	<10	50	<0.5	<2	1.43	3.6	26	4	164
Q014773		2.51	0.019		0.4	3.74	9	<10	120	<0.5	<2	0.55	<0.5	20	5	279
Q014774		3.76	0.020		0.3	4.59	8	<10	50	<0.5	<2	0.63	<0.5	27	5	303
Q014775		0.69	0.026		0.3	3.91	10	<10	30	<0.5	2	0.73	<0.5	26	5	16
Q014776		2.10	0.010		<0.2	4.23	8	<10	50	<0.5	2	0.61	<0.5	25	5	49
Q014777		3.24	0.029		0.4	3.61	14	<10	30	<0.5	3	0.57	<0.5	27	5	53
Q014778		3.33	0.021		0.3	3.77	9	<10	40	<0.5	2	0.47	<0.5	25	4	64
Q014779		3.29	0.035		0.4	4.63	18	<10	40	<0.5	2	0.71	<0.5	24	5	26
Q014780		0.06	5.71	2.73												
Q014781		0.05		3.49	37.7	0.77	133	<10	10	<0.5	45	0.48	212	172	50	>10000
Q014782		1.05	0.041		0.4	5.55	13	<10	70	<0.5	2	0.89	<0.5	19	5	31
Q014783		3.49	0.247		2.2	1.14	58	<10	10	<0.5	15	0.39	5.1	57	7	2090
Q014784		3.37	0.026		0.4	4.72	18	<10	130	<0.5	<2	0.98	<0.5	26	9	1340
Q014785		3.25	0.038		<0.2	4.46	13	<10	140	<0.5	<2	1.10	<0.5	23	7	285
Q014786		3.42	0.065		0.3	4.30	33	<10	60	<0.5	<2	1.05	<0.5	21	4	21
Q014787		2.35	0.150		0.9	1.29	51	<10	10	<0.5	3	0.45	<0.5	44	7	722
Q014788		1.26	0.074		2.5	2.70	29	<10	30	<0.5	<2	0.66	1.9	49	15	5540
Q014789		1.28	0.094		0.3	4.94	42	<10	60	<0.5	3	1.07	<0.5	117	9	537
Q014790		1.14	0.077		0.2	4.73	38	<10	60	<0.5	<2	1.02	<0.5	104	9	317
Q014791		3.23	0.026		<0.2	5.64	38	<10	50	<0.5	2	1.57	<0.5	32	9	519
Q014792		3.53	0.013		<0.2	5.68	23	<10	80	<0.5	<2	2.03	<0.5	22	9	485
Q014793		3.35	0.014		<0.2	6.09	18	<10	170	0.5	<2	1.91	<0.5	20	9	820
Q014794		2.77	0.025		<0.2	6.44	30	<10	100	0.5	<2	1.56	<0.5	21	9	156
Q014795		2.88	0.209	3.13	4.8	6.22	60	<10	20	0.6	15	2.71	132.5	35	7	4240
Q014796		3.29	0.044		<0.2	6.78	26	<10	70	0.5	<2	2.03	<0.5	27	9	53
Q014797		3.21	0.028		<0.2	5.18	28	<10	60	<0.5	2	1.34	1.6	27	8	225
Q014798		3.37	0.015		<0.2	6.88	12	<10	80	0.5	<2	2.21	<0.5	25	9	542
Q014799		3.40	0.026		<0.2	6.28	30	<10	80	0.5	<2	1.91	<0.5	21	8	373
Q014800		0.43	<0.005		0.2	3.84	4	<10	90	<0.5	3	1.32	<0.5	29	5	91
Q014801		3.46	0.034		<0.2	6.10	32	<10	90	<0.5	<2	1.42	<0.5	21	9	384
Q014802		3.47	0.058		<0.2	6.26	45	<10	50	<0.5	3	1.79	<0.5	41	9	240
Q014803		3.42	0.027		<0.2	6.49	24	<10	50	<0.5	<2	2.04	<0.5	48	9	125
Q014804		3.37	0.008		<0.2	6.61	16	<10	60	0.5	<2	2.12	<0.5	25	9	54

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014765		5.36	10	1	0.88	<10	3.04	722	<1	0.12	5	780	3	1.87	<2	9
Q014766		6.13	10	1	0.77	<10	3.57	998	<1	0.13	6	570	4	1.61	2	10
Q014767		6.18	10	1	0.79	<10	3.02	799	<1	0.10	6	570	8	2.62	5	10
Q014768		7.57	10	<1	0.50	<10	4.00	1085	1	0.10	7	630	9	2.74	3	10
Q014769		6.97	10	1	0.64	<10	3.95	1010	1	0.09	6	570	18	2.05	4	10
Q014770		5.43	<10	2	0.10	<10	0.52	7280	37	0.11	23	390	>10000	2.33	186	3
Q014771		7.29	10	2	0.82	<10	2.75	812	3	0.19	7	440	1065	4.35	8	13
Q014772		5.97	10	1	0.31	<10	2.34	893	4	0.05	6	590	207	2.69	23	8
Q014773		6.32	10	1	0.48	<10	2.91	1000	<1	0.07	7	660	6	1.17	4	10
Q014774		7.31	10	1	0.81	<10	3.38	1100	1	0.14	7	710	10	1.80	3	12
Q014775		7.40	10	1	0.58	<10	3.02	1005	2	0.13	7	420	12	2.92	5	12
Q014776		6.55	10	<1	0.92	<10	3.01	975	<1	0.16	7	700	7	1.57	2	14
Q014777		6.72	10	2	0.75	<10	2.84	812	1	0.12	8	770	14	3.00	5	12
Q014778		6.42	10	1	0.67	<10	3.14	828	1	0.08	8	760	15	2.42	6	10
Q014779		7.73	10	2	0.57	<10	3.88	1110	2	0.11	8	660	26	2.53	5	10
Q014780																
Q014781		17.3	10	14	0.16	10	0.52	677	35	0.04	55	210	6450	>10.0	21	1
Q014782		7.79	10	1	1.00	<10	4.67	1390	3	0.11	9	620	135	1.29	3	14
Q014783		13.25	<10	1	0.14	<10	0.81	328	10	0.02	19	200	621	>10.0	15	3
Q014784		6.54	10	1	0.69	<10	3.07	1090	4	0.11	12	520	17	0.95	6	12
Q014785		6.06	10	1	0.83	<10	2.99	1070	5	0.12	11	610	35	1.00	4	12
Q014786		5.90	10	1	1.01	<10	3.10	851	2	0.13	9	900	46	1.75	7	9
Q014787		14.7	<10	1	0.16	<10	0.93	395	12	0.03	19	290	107	>10.0	12	2
Q014788		7.29	10	<1	0.08	<10	2.28	913	21	0.02	18	380	340	3.67	9	7
Q014789		7.26	10	<1	0.79	<10	3.37	1190	5	0.09	13	460	47	1.69	7	15
Q014790		6.86	10	1	0.77	<10	3.21	1160	5	0.09	12	420	29	1.38	6	15
Q014791		7.42	10	1	1.38	<10	3.25	1235	4	0.13	12	520	18	2.23	4	17
Q014792		6.84	10	<1	1.08	<10	3.33	1340	1	0.11	10	530	13	1.49	11	15
Q014793		6.74	10	<1	1.13	<10	3.73	1375	<1	0.13	13	600	12	0.96	8	14
Q014794		6.88	10	<1	1.47	<10	4.08	1360	1	0.15	12	630	23	1.24	3	16
Q014795		9.33	10	1	1.31	<10	2.25	819	31	0.27	9	580	5510	8.74	21	19
Q014796		7.76	10	1	1.55	<10	3.81	1385	1	0.19	12	600	22	1.77	5	18
Q014797		6.74	10	1	1.10	<10	3.02	1065	5	0.17	11	600	155	1.75	8	14
Q014798		7.45	10	<1	1.66	<10	3.78	1360	<1	0.19	12	600	21	1.28	6	19
Q014799		7.24	10	<1	1.35	<10	3.67	1340	<1	0.15	12	590	18	1.31	6	16
Q014800		8.05	10	1	0.37	<10	2.91	1495	<1	0.04	7	1210	3	0.09	<2	8
Q014801		8.03	10	1	0.73	<10	4.51	1600	1	0.09	12	620	12	1.47	6	14
Q014802		8.93	10	<1	0.89	<10	4.22	1530	2	0.15	15	610	14	2.66	6	15
Q014803		8.18	10	1	0.96	<10	3.88	1425	1	0.24	13	590	16	2.32	3	18
Q014804		7.19	10	1	1.13	<10	3.89	1485	<1	0.33	16	700	17	1.73	10	16

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014765		36	<20	0.14	<10	<10	99	<10	67					
Q014766		23	<20	0.15	<10	<10	117	<10	78					
Q014767		24	<20	0.15	<10	<10	115	<10	76					
Q014768		22	<20	0.15	<10	<10	150	<10	96					
Q014769		35	<20	0.11	<10	<10	144	<10	121					
Q014770		46	<20	0.09	<10	<10	62	10	>10000	237	0.636	3.24	1.625	0.04
Q014771		33	<20	0.11	<10	<10	156	<10	1410					
Q014772		28	<20	0.03	<10	<10	105	<10	657					
Q014773		24	<20	0.11	<10	<10	124	<10	145					
Q014774		30	<20	0.15	<10	<10	158	<10	95					
Q014775		28	<20	0.12	<10	<10	161	<10	83					
Q014776		33	<20	0.16	<10	<10	157	<10	76					
Q014777		24	<20	0.13	<10	<10	142	<10	66					
Q014778		21	<20	0.10	<10	<10	142	<10	120					
Q014779		33	<20	0.11	<10	<10	150	<10	216					
Q014780										<1	0.009	0.009	0.010	<0.01
Q014781		15	<20	0.04	10	<10	18	<10	>10000	38	1.345	0.643	7.07	0.01
Q014782		47	<20	0.14	<10	<10	181	<10	284					
Q014783		14	<20	0.03	<10	<10	43	<10	599					
Q014784		64	<20	0.20	<10	<10	145	<10	120					
Q014785		63	<20	0.18	<10	<10	138	<10	149					
Q014786		58	<20	0.13	<10	<10	122	<10	178					
Q014787		15	<20	0.03	<10	<10	47	<10	127					
Q014788		26	<20	0.08	<10	<10	112	<10	337					
Q014789		66	<20	0.20	<10	<10	165	<10	117					
Q014790		70	<20	0.19	<10	<10	157	<10	111					
Q014791		145	<20	0.22	<10	<10	188	<10	97					
Q014792		129	<20	0.24	<10	<10	216	<10	95					
Q014793		136	<20	0.25	<10	<10	215	<10	116					
Q014794		103	<20	0.24	<10	<10	207	<10	426					
Q014795		106	<20	0.15	<10	<10	259	<10	>10000	4	0.421	0.556	1.920	0.01
Q014796		150	<20	0.21	<10	<10	227	<10	378					
Q014797		135	<20	0.16	10	<10	169	<10	467					
Q014798		204	<20	0.23	<10	<10	231	<10	207					
Q014799		147	<20	0.22	10	<10	210	<10	157					
Q014800		18	<20	0.46	<10	<10	185	<10	153					
Q014801		102	<20	0.21	<10	<10	197	<10	161					
Q014802		116	<20	0.19	<10	<10	202	<10	136					
Q014803		140	<20	0.20	<10	<10	223	<10	145					
Q014804		163	<20	0.23	<10	<10	218	<10	137					

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Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014805		3.30	0.006		<0.2	5.76	10	<10	70	0.5	3	1.86	<0.5	20	9	80
Q014806		3.05	0.014		0.3	6.24	13	<10	70	0.5	<2	1.82	<0.5	29	9	896
Q014807		3.26	0.062		0.3	6.08	29	<10	40	<0.5	2	1.39	7.8	43	9	524
Q014808		3.28	0.015		<0.2	5.67	15	<10	50	<0.5	<2	1.59	<0.5	19	9	209
Q014809		3.31	0.015		<0.2	5.31	6	<10	40	<0.5	<2	1.40	<0.5	33	9	144
Q014810		0.03	1.810	2.91	>100	1.33	401	<10	70	<0.5	6	1.04	202	10	27	6110
Q014811		3.23	0.011		<0.2	4.64	8	<10	50	<0.5	<2	1.42	<0.5	29	9	263
Q014812		3.51	<0.005		<0.2	5.06	9	<10	90	<0.5	<2	1.49	<0.5	17	9	31
Q014813		3.22	<0.005		<0.2	4.53	14	<10	60	<0.5	4	1.76	<0.5	21	9	9
Q014814		2.04	<0.005		<0.2	4.90	6	<10	130	<0.5	<2	1.77	<0.5	23	9	170
Q014815		3.21	0.006		0.2	4.76	7	<10	140	<0.5	<2	1.94	<0.5	24	7	214
Q014816		3.15	<0.005		<0.2	5.92	5	<10	110	<0.5	<2	2.07	<0.5	26	8	547
Q014817		3.18	<0.005		<0.2	6.61	5	<10	90	0.5	2	2.29	<0.5	26	6	415
Q014818		3.10	<0.005		<0.2	5.99	<2	<10	990	<0.5	2	1.83	<0.5	21	8	196
Q014819		2.91	0.006		<0.2	5.44	3	<10	110	<0.5	<2	1.41	<0.5	25	7	441
Q014820		0.06	5.55	2.70												
Q014821		0.06		3.51	38.2	0.74	136	<10	10	<0.5	40	0.47	218	175	49	>10000
Q014822		3.18	0.020		<0.2	4.63	13	<10	40	<0.5	<2	1.10	<0.5	27	6	788
Q014823		3.42	0.013		<0.2	3.77	14	<10	60	<0.5	2	0.84	<0.5	26	6	156
Q014824		2.55	0.008		<0.2	3.85	17	<10	40	<0.5	<2	0.96	<0.5	34	5	349
Q014825		2.65	0.006		<0.2	4.93	13	<10	80	<0.5	<2	1.00	<0.5	20	10	30
Q014826		3.19	0.006		<0.2	4.42	14	<10	50	<0.5	<2	1.15	<0.5	23	9	128
Q014827		3.83	0.008		<0.2	4.96	11	<10	80	<0.5	2	0.89	<0.5	37	11	621
Q014828		2.62	0.007		<0.2	4.61	6	<10	70	<0.5	<2	0.95	<0.5	33	12	345
Q014829		1.53	0.007		<0.2	5.00	7	<10	80	<0.5	3	1.09	<0.5	28	11	488
Q014830		1.31	0.009		<0.2	4.89	6	<10	60	<0.5	<2	1.02	<0.5	32	11	545
Q014831		3.49	0.007		<0.2	5.40	14	<10	60	<0.5	2	1.78	<0.5	23	6	437
Q014832		3.05	0.013		<0.2	5.33	25	<10	70	<0.5	3	1.34	<0.5	17	10	30
Q014833		2.94	0.016		<0.2	5.49	30	<10	50	<0.5	2	0.61	<0.5	27	10	144
Q014834		3.32	0.014		<0.2	5.83	21	<10	40	<0.5	3	1.07	<0.5	25	10	21
Q014835		3.27	0.006		0.9	3.84	10	<10	60	<0.5	<2	2.91	0.6	19	7	283
Q014836		3.08	0.005		0.5	3.71	8	<10	50	<0.5	<2	1.87	<0.5	19	5	416
Q014837		3.19	0.009		0.2	4.46	11	<10	70	<0.5	<2	1.36	<0.5	19	9	129
Q014838		1.83	0.005		<0.2	4.24	11	<10	150	<0.5	<2	1.74	<0.5	14	8	45
Q014839		3.13	0.008		0.3	3.70	10	<10	40	<0.5	3	1.52	<0.5	24	6	236
Q014840		0.28	<0.005		0.2	2.95	6	<10	140	<0.5	5	1.47	<0.5	25	2	80
Q014841		3.09	0.010		0.8	2.91	17	<10	100	<0.5	<2	3.20	0.9	27	5	691
Q014842		2.91	<0.005		<0.2	4.37	8	<10	230	<0.5	2	1.90	0.5	21	9	58
Q014843		3.21	0.006		<0.2	4.77	10	<10	130	<0.5	<2	1.53	<0.5	23	6	768
Q014844		3.34	0.008		<0.2	5.25	14	<10	50	<0.5	<2	1.50	<0.5	21	7	826

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014805		6.26	10	<1	1.23	<10	3.49	1435	<1	0.30	13	640	9	1.45	9	13
Q014806		7.15	10	<1	1.12	<10	3.94	1575	<1	0.26	14	690	12	1.43	6	15
Q014807		8.54	10	<1	1.16	<10	4.22	1605	5	0.20	15	700	237	2.60	5	15
Q014808		7.47	10	<1	0.92	<10	3.56	1500	<1	0.30	14	670	25	2.13	3	16
Q014809		7.88	10	1	0.98	<10	3.41	1535	1	0.28	13	710	6	2.74	6	13
Q014810		5.43	<10	1	0.10	<10	0.52	6930	36	0.09	21	400	>10000	2.38	192	3
Q014811		6.71	10	<1	0.67	<10	3.26	1425	<1	0.21	13	680	15	2.05	6	12
Q014812		6.40	10	<1	0.92	<10	3.27	1570	<1	0.29	12	670	10	1.36	5	14
Q014813		6.78	10	1	0.69	<10	3.14	1580	1	0.26	15	630	6	2.04	2	14
Q014814		7.17	10	<1	0.49	<10	3.68	1890	<1	0.22	16	650	7	1.46	3	15
Q014815		7.08	10	1	0.35	<10	3.50	1795	1	0.24	14	670	6	1.61	3	17
Q014816		7.33	10	<1	1.22	<10	3.04	1595	<1	0.45	6	790	9	1.04	3	20
Q014817		6.89	10	1	1.56	<10	3.26	1540	1	0.51	7	700	7	1.23	2	19
Q014818		5.91	10	1	1.45	<10	3.12	1460	1	0.48	8	740	7	0.36	5	16
Q014819		6.44	10	<1	1.36	<10	3.26	1430	<1	0.38	7	800	7	1.14	6	20
Q014820																
Q014821		17.2	10	15	0.15	10	0.52	694	33	0.02	52	220	6300	>10.0	19	1
Q014822		7.13	10	<1	1.11	<10	3.12	1235	<1	0.27	7	780	8	2.81	7	18
Q014823		5.67	10	1	0.99	<10	2.61	1090	1	0.21	7	740	4	1.88	4	14
Q014824		5.88	10	1	1.22	<10	2.54	1085	1	0.22	6	710	6	2.46	4	14
Q014825		6.58	10	<1	0.93	<10	3.78	1580	<1	0.17	14	760	4	1.27	4	14
Q014826		6.50	10	1	0.79	<10	3.19	1450	1	0.18	11	710	2	1.76	6	12
Q014827		7.38	10	1	0.80	<10	4.03	1770	<1	0.15	14	650	5	1.57	3	14
Q014828		6.61	10	1	0.99	<10	3.23	1470	1	0.25	9	690	3	1.38	5	16
Q014829		6.68	10	<1	1.22	<10	3.31	1580	<1	0.31	12	660	6	1.20	6	16
Q014830		6.81	10	<1	1.19	<10	3.25	1550	<1	0.30	11	640	6	1.57	5	15
Q014831		6.60	10	1	1.49	<10	2.71	1435	<1	0.38	8	640	8	1.74	6	16
Q014832		7.37	10	<1	0.93	<10	3.86	1885	<1	0.21	16	610	5	1.19	3	15
Q014833		8.45	10	1	0.71	<10	4.64	2000	<1	0.11	17	680	5	1.72	3	15
Q014834		9.38	10	1	0.62	<10	4.81	2370	1	0.14	24	600	6	2.25	3	18
Q014835		6.79	10	<1	0.55	<10	2.95	1785	<1	0.14	11	640	61	1.51	3	16
Q014836		5.83	10	<1	0.87	<10	2.40	1550	<1	0.22	7	730	14	1.38	2	16
Q014837		6.99	10	<1	0.67	<10	3.79	2140	<1	0.12	17	660	19	1.19	2	17
Q014838		7.28	10	1	0.35	<10	4.22	2240	<1	0.02	16	640	13	1.14	2	14
Q014839		6.81	10	<1	0.55	<10	2.68	1575	1	0.15	9	620	12	2.41	3	13
Q014840		6.06	10	<1	0.63	<10	2.04	1195	<1	0.03	6	1550	<2	0.11	<2	8
Q014841		7.93	10	1	0.21	<10	3.39	2260	<1	0.02	12	710	17	2.29	<2	15
Q014842		8.26	10	1	0.54	<10	4.16	2430	<1	0.01	17	680	6	1.29	<2	18
Q014843		7.07	10	1	1.08	<10	3.31	1755	<1	0.24	14	740	5	1.12	4	19
Q014844		7.44	10	<1	1.41	<10	3.33	1470	<1	0.34	15	790	9	2.19	<2	22

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014805		193	<20	0.24	10	<10	201	<10	111					
Q014806		163	<20	0.24	10	<10	205	<10	145					
Q014807		120	<20	0.23	<10	<10	204	<10	1390					
Q014808		132	<20	0.22	<10	<10	205	<10	217					
Q014809		106	<20	0.24	<10	<10	196	<10	102					
Q014810		42	<20	0.08	<10	<10	61	10	>10000	227	0.614	3.11	1.595	0.04
Q014811		92	<20	0.21	10	<10	180	<10	92					
Q014812		94	<20	0.25	<10	<10	200	<10	90					
Q014813		80	<20	0.25	<10	<10	200	<10	86					
Q014814		78	<20	0.24	<10	<10	211	<10	101					
Q014815		69	<20	0.23	<10	<10	234	<10	104					
Q014816		126	<20	0.25	<10	<10	264	<10	124					
Q014817		147	<20	0.24	10	<10	252	<10	101					
Q014818		146	<20	0.25	<10	<10	235	<10	91					
Q014819		105	<20	0.24	<10	<10	271	<10	95					
Q014820										1	0.010	0.007	0.012	<0.01
Q014821		13	<20	0.04	10	<10	18	<10	>10000	38	1.330	0.640	7.03	0.01
Q014822		55	<20	0.21	<10	<10	242	<10	111					
Q014823		55	<20	0.20	<10	<10	194	<10	75					
Q014824		70	<20	0.22	<10	<10	183	<10	75					
Q014825		55	<20	0.24	<10	<10	187	<10	103					
Q014826		68	<20	0.22	<10	<10	176	<10	86					
Q014827		46	<20	0.22	<10	<10	190	<10	111					
Q014828		61	<20	0.22	<10	<10	216	<10	93					
Q014829		73	<20	0.24	<10	<10	216	<10	108					
Q014830		67	<20	0.24	<10	<10	209	<10	104					
Q014831		113	<20	0.23	<10	<10	209	<10	90					
Q014832		73	<20	0.17	<10	<10	198	<10	122					
Q014833		40	<20	0.14	<10	<10	179	<10	144					
Q014834		74	<20	0.12	<10	<10	194	<10	150					
Q014835		211	<20	0.10	<10	<10	172	<10	125					
Q014836		204	<20	0.14	<10	<10	184	<10	114					
Q014837		111	<20	0.09	<10	<10	190	<10	169					
Q014838		95	<20	0.02	<10	<10	162	<10	159					
Q014839		88	<20	0.06	<10	<10	152	<10	85					
Q014840		21	<20	0.42	<10	<10	98	<10	133					
Q014841		201	<20	0.01	<10	<10	127	<10	124					
Q014842		120	<20	0.03	<10	<10	155	<10	105					
Q014843		88	<20	0.15	<10	<10	227	<10	89					
Q014844		85	<20	0.21	<10	<10	267	<10	99					

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014845		2.22	0.005		<0.2	5.64	7	<10	60	<0.5	4	2.08	0.6	21	6	217
Q014846		2.56	0.007		0.2	6.38	11	<10	40	0.5	<2	1.68	0.5	27	5	837
Q014847		2.77	0.010		<0.2	5.48	9	<10	30	<0.5	4	1.62	<0.5	39	6	984
Q014848		3.63	0.014		<0.2	5.09	9	<10	40	<0.5	<2	1.20	<0.5	36	7	843
Q014849		3.38	0.012		<0.2	5.73	13	<10	80	<0.5	<2	1.30	0.5	31	11	569
Q014850		0.07	1.765	2.91	>100	1.36	387	<10	70	<0.5	<2	1.04	199.5	8	26	6300
Q014851		3.04	0.017		<0.2	5.38	12	<10	60	<0.5	<2	1.19	<0.5	22	12	158
Q014852		2.16	0.008		<0.2	5.27	10	<10	40	<0.5	<2	1.39	<0.5	29	12	16
Q014853		2.48	0.007		<0.2	4.39	10	<10	40	<0.5	2	0.91	<0.5	39	7	874
Q014854		2.29	<0.005		<0.2	2.78	7	<10	750	<0.5	<2	0.90	<0.5	30	682	95
Q014855		1.63	<0.005		<0.2	2.66	22	<10	440	<0.5	<2	0.86	<0.5	27	677	47
Q014856		2.62	0.010		0.3	3.51	27	<10	30	<0.5	<2	0.67	0.8	51	264	382
Q014857		2.20	0.012		0.3	3.45	6	<10	80	<0.5	<2	0.68	<0.5	38	412	878
Q014858		3.38	0.019		<0.2	3.32	19	<10	30	<0.5	4	0.35	<0.5	31	11	44
Q014859		3.70	0.007		<0.2	4.04	21	<10	40	<0.5	<2	0.71	<0.5	30	12	180
Q014860		0.06	5.55	2.82												
Q014861		0.06		3.49	36.7	0.75	131	<10	10	<0.5	25	0.46	207	168	44	>10000
Q014862		3.34	0.009		<0.2	4.48	8	<10	50	<0.5	2	1.08	0.6	23	15	908
Q014863		3.36	0.040		0.6	3.94	13	<10	30	<0.5	2	0.61	0.8	32	11	1190
Q014864		3.12	0.030		<0.2	4.19	31	<10	20	<0.5	5	0.46	<0.5	48	12	40
Q014865		2.63	0.021		<0.2	4.51	24	<10	20	<0.5	4	0.39	<0.5	51	13	33
Q014866		3.59	0.007		<0.2	4.68	22	<10	30	<0.5	<2	0.40	<0.5	51	18	21
Q014867		3.59	0.010		<0.2	2.58	20	<10	20	<0.5	2	0.40	<0.5	35	8	9
Q014868		2.66	0.011		<0.2	4.34	28	<10	20	<0.5	4	0.64	<0.5	35	6	10
Q014869		1.62	0.008		<0.2	3.98	12	<10	30	<0.5	2	0.67	<0.5	37	6	8
Q014870		1.52	0.009		<0.2	3.71	11	<10	20	<0.5	<2	0.53	<0.5	38	5	8
Q014871		3.28	0.007		<0.2	4.01	15	<10	40	<0.5	<2	0.64	<0.5	36	9	51
Q014872		3.43	0.007		<0.2	4.24	20	10	30	<0.5	<2	0.59	<0.5	30	10	383
Q014873		1.91	0.010		<0.2	3.86	209	<10	30	<0.5	<2	0.41	<0.5	40	7	49
Q014874		1.17	0.017		<0.2	3.50	80	<10	20	<0.5	<2	0.39	<0.5	64	7	52
Q014875		3.33	0.008		<0.2	4.28	27	<10	20	<0.5	2	0.45	<0.5	38	9	27
Q014876		1.56	0.010		<0.2	5.00	29	<10	30	<0.5	<2	0.50	<0.5	38	9	74
Q014877		3.25	0.019		<0.2	4.32	40	<10	20	<0.5	<2	0.44	<0.5	86	8	203
Q014878		1.83	<0.005		0.2	4.72	17	<10	30	<0.5	<2	0.61	<0.5	35	9	1165
Q014879		1.98	0.007		0.2	4.22	23	<10	20	<0.5	3	0.38	<0.5	40	8	1835
Q014880		0.28	<0.005		0.2	3.30	6	<10	50	<0.5	<2	3.58	0.5	25	6	92
Q014881		2.92	<0.005		<0.2	4.37	10	<10	30	<0.5	2	0.51	<0.5	29	9	18
Q014882		3.35	<0.005		<0.2	5.03	6	<10	40	<0.5	<2	0.70	<0.5	26	9	16
Q014883		2.44	<0.005		<0.2	4.37	4	<10	30	<0.5	<2	0.58	0.5	31	9	142
Q014884		2.30	<0.005		<0.2	4.23	5	<10	30	<0.5	<2	0.55	<0.5	28	10	68

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Finalized Date: 17-NOV-2013
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CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014845		8.12	10	<1	1.41	<10	3.08	1550	<1	0.40	6	860	15	1.77	6	18
Q014846		8.15	20	<1	1.89	<10	3.12	1485	<1	0.47	6	700	7	2.49	3	19
Q014847		8.19	10	1	1.44	<10	2.84	1300	<1	0.39	6	740	11	3.17	6	19
Q014848		7.79	10	<1	1.55	<10	2.96	1320	<1	0.21	9	670	7	2.99	<2	14
Q014849		8.41	10	1	1.14	<10	3.98	1800	<1	0.08	16	740	5	1.74	4	16
Q014850		5.44	<10	1	0.10	<10	0.52	7090	36	0.10	24	390	>10000	2.39	190	3
Q014851		7.54	10	<1	1.30	<10	3.70	1565	<1	0.08	13	710	18	1.48	2	18
Q014852		8.00	10	<1	1.12	<10	3.71	1565	<1	0.13	14	820	8	2.46	5	17
Q014853		7.96	10	<1	0.98	<10	3.50	1285	<1	0.17	10	680	6	2.37	4	18
Q014854		3.49	10	<1	0.16	<10	4.26	630	<1	0.05	309	1230	2	0.30	4	4
Q014855		2.61	10	1	0.06	<10	4.00	471	<1	0.09	336	1180	10	0.07	10	1
Q014856		6.99	10	1	0.07	<10	4.64	727	8	0.06	174	800	23	2.73	5	14
Q014857		5.91	10	<1	0.06	<10	4.68	779	7	0.07	184	980	6	2.05	9	11
Q014858		7.55	10	<1	1.18	<10	2.77	854	<1	0.08	10	690	5	4.05	2	15
Q014859		7.30	10	<1	1.72	<10	2.62	1130	<1	0.17	11	740	9	2.82	6	13
Q014860																
Q014861		16.5	10	14	0.16	10	0.50	672	30	0.03	49	210	6140	>10.0	22	1
Q014862		7.18	10	<1	1.38	<10	2.64	1355	<1	0.27	12	690	14	2.01	5	16
Q014863		7.57	10	1	1.11	<10	2.56	1020	<1	0.16	12	670	12	3.19	11	15
Q014864		10.25	10	1	1.39	<10	3.07	1160	1	0.11	15	660	10	6.40	6	15
Q014865		10.60	10	<1	1.07	<10	3.43	1345	<1	0.12	14	510	6	5.39	5	18
Q014866		11.00	10	<1	0.96	<10	3.87	1450	3	0.11	13	550	7	5.62	2	19
Q014867		8.13	10	<1	0.59	<10	2.03	728	<1	0.08	7	920	7	5.83	3	12
Q014868		9.42	10	<1	1.14	<10	3.29	1110	1	0.16	9	1010	8	5.68	<2	18
Q014869		8.65	10	<1	0.68	<10	3.12	1155	<1	0.17	10	860	6	4.29	3	20
Q014870		8.53	10	1	0.66	<10	3.11	1120	<1	0.12	8	850	5	4.28	2	19
Q014871		7.56	10	<1	1.05	<10	3.02	1100	<1	0.19	22	930	8	3.06	2	19
Q014872		7.70	10	<1	1.20	<10	3.32	1235	<1	0.13	11	640	4	2.89	<2	16
Q014873		8.57	10	<1	0.66	<10	3.24	1125	<1	0.06	10	540	13	4.11	9	12
Q014874		9.36	10	<1	0.32	<10	2.87	936	2	0.04	12	730	4	5.57	2	10
Q014875		9.55	10	<1	0.88	<10	3.67	1310	<1	0.08	11	610	3	4.82	<2	14
Q014876		9.74	10	1	1.33	<10	4.10	1480	<1	0.12	10	640	4	4.41	3	15
Q014877		14.3	10	<1	1.21	<10	3.43	1265	2	0.12	10	550	6	>10.0	2	12
Q014878		8.66	10	<1	1.28	<10	3.77	1415	<1	0.15	11	630	5	3.50	<2	14
Q014879		9.19	10	<1	1.46	<10	3.49	1165	<1	0.10	11	650	4	5.09	<2	13
Q014880		6.83	10	1	0.23	<10	2.47	1375	<1	0.06	8	1090	<2	0.11	<2	9
Q014881		7.82	10	<1	1.36	<10	3.65	1280	<1	0.13	11	680	6	3.13	<2	14
Q014882		8.03	10	<1	1.48	<10	4.03	1405	<1	0.16	13	700	<2	2.74	<2	16
Q014883		8.72	10	<1	1.49	<10	3.67	1185	<1	0.13	13	700	3	4.36	2	15
Q014884		7.81	10	<1	1.40	<10	3.71	1105	<1	0.11	12	800	4	3.29	2	17

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014845		157	<20	0.26	<10	<10	279	<10	99					
Q014846		118	<20	0.23	<10	<10	251	<10	94					
Q014847		148	<20	0.21	<10	<10	247	<10	88					
Q014848		128	<20	0.21	<10	<10	184	<10	80					
Q014849		122	<20	0.26	<10	<10	227	<10	101					
Q014850		46	<20	0.08	<10	<10	60	10	>10000	235	0.618	3.11	1.620	0.04
Q014851		92	<20	0.26	<10	<10	237	<10	98					
Q014852		106	<20	0.24	<10	<10	244	<10	95					
Q014853		123	<20	0.20	<10	<10	237	<10	94					
Q014854		68	<20	0.12	<10	<10	81	<10	49					
Q014855		55	<20	0.13	<10	<10	53	<10	64					
Q014856		34	<20	0.17	<10	<10	177	<10	133					
Q014857		32	<20	0.16	<10	<10	154	<10	80					
Q014858		23	<20	0.20	<10	<10	170	<10	79					
Q014859		64	<20	0.23	<10	<10	161	<10	81					
Q014860										1	0.010	0.007	0.011	<0.01
Q014861		16	<20	0.04	10	<10	17	<10	>10000	39	1.335	0.649	7.28	0.01
Q014862		85	<20	0.21	<10	<10	185	<10	115					
Q014863		54	<20	0.15	<10	<10	149	<10	92					
Q014864		27	<20	0.19	<10	<10	161	<10	89					
Q014865		26	<20	0.16	<10	<10	188	<10	96					
Q014866		22	<20	0.19	<10	<10	211	<10	102					
Q014867		13	<20	0.17	<10	<10	142	<10	57					
Q014868		22	<20	0.22	<10	<10	238	<10	90					
Q014869		27	<20	0.21	<10	<10	266	<10	82					
Q014870		20	<20	0.18	<10	<10	257	<10	81					
Q014871		30	<20	0.25	<10	<10	238	<10	79					
Q014872		28	<20	0.19	<10	<10	187	<10	87					
Q014873		16	<20	0.14	<10	<10	145	<10	84					
Q014874		12	<20	0.13	<10	<10	143	<10	59					
Q014875		17	<20	0.18	<10	<10	173	<10	95					
Q014876		26	<20	0.18	<10	<10	190	<10	110					
Q014877		22	<20	0.17	<10	<10	161	<10	93					
Q014878		42	<20	0.20	<10	<10	178	<10	103					
Q014879		20	<20	0.18	<10	<10	169	<10	93					
Q014880		34	<20	0.35	<10	<10	156	<10	136					
Q014881		37	<20	0.20	<10	<10	173	<10	98					
Q014882		65	<20	0.21	<10	<10	197	<10	107					
Q014883		56	<20	0.21	<10	<10	190	<10	99					
Q014884		66	<20	0.20	<10	<10	233	<10	99					

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118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014885		1.42	<0.005		<0.2	3.93	8	<10	40	<0.5	<2	0.59	<0.5	24	21	80
Q014886		3.12	<0.005		<0.2	2.77	12	<10	1450	<0.5	<2	1.04	<0.5	28	717	95
Q014887		3.63	<0.005		<0.2	2.61	13	<10	440	<0.5	2	1.85	<0.5	25	522	108
Q014888		2.81	<0.005		<0.2	4.17	14	<10	1010	0.6	<2	3.81	<0.5	39	837	56
Q014889		3.43	<0.005		<0.2	3.81	43	<10	210	0.5	<2	2.89	<0.5	37	869	57
Q014890		0.08	1.755	3.08	>100	1.50	429	<10	70	<0.5	<2	1.15	211	12	30	6500
Q014891		3.59	<0.005		<0.2	2.92	14	<10	1020	<0.5	<2	2.18	<0.5	28	490	82
Q014892		3.00	0.014		<0.2	4.02	20	<10	30	<0.5	3	0.65	<0.5	36	20	41
Q014893		3.21	0.005		<0.2	5.09	10	<10	40	<0.5	<2	0.78	<0.5	32	13	17
Q014894		2.42	<0.005		<0.2	5.50	3	<10	70	<0.5	<2	1.37	<0.5	27	13	48
Q014895		2.89	<0.005		<0.2	5.96	7	<10	60	<0.5	<2	1.02	<0.5	29	12	46
Q014896		3.09	<0.005		0.2	5.70	7	<10	50	<0.5	<2	1.27	<0.5	36	14	97
Q014897		3.49	0.006		<0.2	5.76	12	<10	30	<0.5	<2	1.21	0.5	39	14	26
Q014898		3.06	<0.005		<0.2	5.45	8	<10	40	<0.5	<2	1.49	0.6	30	13	48
Q014899		3.50	<0.005		<0.2	5.96	5	<10	40	<0.5	<2	1.81	<0.5	33	12	19
Q014900		0.06	5.59	2.77												
Q014901		0.05		3.52	40.3	0.84	148	10	10	<0.5	<2	0.52	226	187	49	>10000
Q014902		1.45	<0.005		<0.2	5.66	12	<10	60	<0.5	<2	2.60	0.5	25	12	31
Q014903		3.33	0.017		0.4	4.55	19	<10	40	<0.5	4	1.13	<0.5	25	10	855
Q014904		3.45	0.006		<0.2	4.87	11	<10	30	<0.5	3	0.51	<0.5	21	9	360
Q014905		3.29	0.007		0.3	4.88	10	<10	30	<0.5	3	0.65	<0.5	29	11	1760
Q014906		3.48	0.012		0.2	4.88	17	<10	30	<0.5	6	0.57	<0.5	23	7	1160
Q014907		2.90	0.006		<0.2	4.69	9	<10	30	<0.5	2	0.54	<0.5	22	8	56
Q014908		3.10	0.008		<0.2	4.42	20	<10	30	<0.5	4	0.51	0.5	33	7	830
Q014909		1.19	0.011		<0.2	4.47	18	<10	50	<0.5	4	0.88	<0.5	31	4	280
Q014910		1.05	0.010		<0.2	4.24	20	<10	40	<0.5	3	0.86	<0.5	30	4	343
Q014911		1.08	0.083		0.7	0.96	90	<10	10	<0.5	8	0.30	1.0	68	3	221
Q014912		3.07	0.017		<0.2	2.10	14	<10	20	<0.5	2	0.37	<0.5	23	4	43
Q014913		1.13	0.022		0.2	2.06	29	<10	10	<0.5	4	0.33	<0.5	31	4	58
Q014914		0.54	0.095		0.8	1.45	89	<10	10	<0.5	12	0.25	0.8	69	3	103
Q014915		3.32	0.035		0.3	2.20	40	<10	20	<0.5	5	0.33	<0.5	29	3	29
Q014916		2.35	0.069		0.2	2.87	47	<10	20	<0.5	7	0.35	0.5	37	5	38
Q014917		2.80	0.071		0.2	2.96	55	<10	20	<0.5	6	0.33	<0.5	31	3	26
Q014918		3.46	0.050		0.3	3.33	87	<10	20	<0.5	7	0.28	<0.5	31	3	30
Q014919		3.82	0.029		0.2	3.01	35	<10	20	<0.5	3	0.25	<0.5	28	3	31
Q014920		0.26	<0.005		0.2	3.28	5	<10	90	<0.5	3	2.86	<0.5	25	4	61
Q014921		2.91	0.029		0.2	2.92	24	<10	30	<0.5	3	0.28	<0.5	22	3	25
Q014922		1.55	0.048		<0.2	2.38	49	<10	20	<0.5	6	0.25	0.8	33	2	41
Q014923		2.99	0.054		0.4	2.99	59	<10	10	<0.5	6	0.33	<0.5	53	5	73
Q014924		4.23	0.068		0.4	2.19	59	<10	20	<0.5	6	0.52	1.1	42	3	47

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014885		7.84	10	<1	0.50	<10	4.43	1135	<1	0.09	16	710	<2	2.46	<2	15
Q014886		3.13	10	<1	0.09	<10	3.84	497	<1	0.11	309	1410	8	0.26	19	2
Q014887		3.09	10	<1	0.07	<10	3.20	478	<1	0.16	233	1730	18	0.44	23	3
Q014888		4.44	10	<1	0.06	<10	6.46	952	<1	0.07	467	1200	10	0.12	3	10
Q014889		3.69	10	<1	0.06	<10	6.15	699	<1	0.07	532	1080	10	0.11	2	6
Q014890		5.74	<10	<1	0.12	<10	0.58	7410	39	0.11	26	420	>10000	2.54	206	3
Q014891		3.33	10	<1	0.05	<10	3.61	628	<1	0.14	242	1310	27	0.34	13	4
Q014892		8.33	10	<1	0.96	<10	3.82	1165	<1	0.08	13	630	9	3.74	3	17
Q014893		8.01	10	<1	1.75	<10	4.13	1175	<1	0.20	14	760	6	2.65	6	23
Q014894		6.93	10	<1	1.18	<10	3.57	974	<1	0.32	11	760	17	1.77	9	23
Q014895		7.83	10	<1	1.56	<10	4.44	1270	<1	0.27	13	770	11	2.11	8	24
Q014896		8.06	10	<1	1.26	<10	4.37	1230	<1	0.29	13	900	12	2.42	8	26
Q014897		9.44	10	1	1.08	<10	4.87	1285	<1	0.28	14	860	15	4.30	8	24
Q014898		7.48	10	1	1.01	<10	4.20	1215	<1	0.32	14	810	10	1.99	7	20
Q014899		8.23	10	<1	1.26	<10	4.33	1275	<1	0.41	12	810	12	2.79	<2	26
Q014900																
Q014901		18.7	10	16	0.18	10	0.57	751	33	0.04	54	210	6680	>10.0	22	1
Q014902		6.54	10	<1	1.14	<10	3.57	1455	<1	0.33	8	590	13	2.03	<2	22
Q014903		9.11	10	<1	0.78	<10	3.90	1385	1	0.05	18	680	11	3.43	9	13
Q014904		9.11	10	<1	0.95	<10	4.13	1440	<1	0.04	13	580	4	3.24	2	12
Q014905		8.82	10	<1	0.97	<10	3.89	1250	<1	0.03	12	850	3	3.16	4	10
Q014906		9.66	10	<1	0.91	<10	4.14	1405	<1	0.03	12	620	6	4.54	4	10
Q014907		8.41	10	<1	0.90	<10	3.84	1445	<1	0.03	14	620	6	2.98	4	9
Q014908		9.59	10	<1	0.88	<10	3.51	1640	<1	0.03	15	610	7	4.14	3	8
Q014909		8.31	10	1	1.30	<10	2.98	1470	<1	0.06	8	1140	3	2.68	<2	6
Q014910		8.03	10	<1	1.22	<10	2.76	1350	<1	0.06	7	1060	4	2.89	3	6
Q014911		21.1	<10	<1	0.62	<10	0.39	159	5	0.02	2	420	17	>10.0	6	2
Q014912		6.94	10	<1	1.05	<10	1.38	370	<1	0.04	3	530	9	6.58	<2	4
Q014913		7.75	<10	<1	1.18	<10	1.26	404	<1	0.03	4	560	12	7.80	<2	5
Q014914		20.0	<10	<1	0.99	<10	0.84	317	8	0.02	6	550	32	>10.0	<2	3
Q014915		7.83	<10	<1	0.69	<10	1.66	494	3	0.03	4	540	15	7.61	2	4
Q014916		8.98	10	<1	0.99	<10	2.37	656	2	0.03	4	550	18	8.03	2	5
Q014917		9.31	10	1	0.91	<10	2.50	661	2	0.03	3	520	19	8.70	<2	6
Q014918		9.37	10	<1	0.80	<10	2.93	725	2	0.02	5	630	24	7.93	5	6
Q014919		8.27	10	<1	0.85	<10	2.62	687	<1	0.02	3	580	15	7.08	<2	5
Q014920		6.65	10	1	0.43	<10	2.50	1375	<1	0.04	5	1060	2	0.09	<2	5
Q014921		6.36	10	<1	0.78	<10	2.56	654	1	0.02	3	560	7	4.33	4	5
Q014922		7.63	<10	<1	0.94	<10	1.72	447	1	0.02	4	600	10	7.41	2	5
Q014923		11.70	10	1	0.97	<10	2.51	649	3	0.02	9	610	17	>10.0	<2	6
Q014924		9.78	10	<1	0.98	<10	1.48	453	3	0.03	8	580	27	>10.0	3	5

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CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014885		100	<20	0.18	<10	<10	262	<10	105					
Q014886		101	<20	0.15	<10	<10	70	<10	51					
Q014887		159	<20	0.16	<10	<10	84	<10	61					
Q014888		316	<20	0.14	<10	<10	114	<10	75					
Q014889		192	<20	0.12	<10	<10	82	<10	58					
Q014890		50	<20	0.09	<10	<10	67	20	>10000	228	0.626	3.20	1.650	0.04
Q014891		163	<20	0.14	<10	<10	94	<10	64					
Q014892		67	<20	0.23	<10	<10	220	<10	113					
Q014893		51	<20	0.22	<10	<10	273	<10	104					
Q014894		125	<20	0.20	<10	<10	251	<10	101					
Q014895		113	<20	0.23	<10	<10	276	<10	115					
Q014896		69	<20	0.24	<10	<10	297	<10	114					
Q014897		51	<20	0.22	<10	<10	339	<10	117					
Q014898		55	<20	0.20	<10	<10	270	<10	106					
Q014899		52	<20	0.20	<10	<10	310	<10	107					
Q014900										2	0.010	0.007	0.009	<0.01
Q014901		17	<20	0.04	<10	<10	19	10	>10000	38	1.380	0.647	7.27	0.01
Q014902		73	<20	0.20	<10	<10	241	<10	112					
Q014903		40	<20	0.17	<10	<10	159	<10	126					
Q014904		24	<20	0.14	<10	<10	147	<10	112					
Q014905		22	<20	0.16	<10	<10	142	<10	120					
Q014906		18	<20	0.16	<10	<10	134	<10	121					
Q014907		18	<20	0.15	<10	<10	127	<10	92					
Q014908		18	<20	0.14	<10	<10	121	<10	118					
Q014909		30	<20	0.16	<10	<10	112	<10	98					
Q014910		29	<20	0.15	<10	<10	106	<10	92					
Q014911		10	<20	0.03	<10	<10	30	<10	64					
Q014912		11	<20	0.10	<10	<10	58	<10	61					
Q014913		11	<20	0.09	<10	<10	63	<10	57					
Q014914		9	<20	0.05	<10	<10	45	<10	45					
Q014915		11	<20	0.06	<10	<10	57	<10	66					
Q014916		11	<20	0.10	<10	<10	76	<10	73					
Q014917		11	<20	0.08	<10	<10	79	<10	74					
Q014918		9	<20	0.07	<10	<10	92	<10	79					
Q014919		9	<20	0.07	<10	<10	77	<10	88					
Q014920		26	<20	0.27	<10	<10	134	<10	133					
Q014921		9	<20	0.08	<10	<10	71	<10	77					
Q014922		7	<20	0.07	<10	<10	64	<10	71					
Q014923		9	<20	0.11	<10	<10	79	<10	85					
Q014924		12	<20	0.11	<10	<10	66	<10	58					

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014925		2.73	0.074		0.6	1.62	64	<10	10	<0.5	7	0.33	0.9	47	3	57
Q014926		2.11	0.092		2.4	1.89	85	<10	10	<0.5	11	0.39	2.1	59	4	1730
Q014927		2.25	0.055		1.0	2.46	148	<10	20	<0.5	10	0.45	1.0	48	3	391
Q014928		3.18	0.010		<0.2	3.31	12	<10	40	<0.5	3	0.27	<0.5	16	3	13
Q014929		3.42	0.026		0.2	2.98	18	<10	20	<0.5	4	0.30	<0.5	19	3	67
Q014930		0.08	1.890	3.05	>100	1.39	415	<10	70	<0.5	13	1.10	204	11	27	6260
Q014931		3.58	0.015		<0.2	4.03	11	<10	30	<0.5	3	0.48	<0.5	21	4	34
Q014932		3.34	0.009		0.2	3.85	8	<10	30	<0.5	4	0.49	<0.5	18	3	269
Q014933		3.22	0.010		0.4	3.73	8	<10	30	<0.5	4	0.41	<0.5	18	4	418
Q014934		0.87	<0.005		<0.2	2.99	38	<10	210	<0.5	<2	3.66	<0.5	16	36	41
Q014935		1.25	0.012		<0.2	2.84	21	<10	30	<0.5	2	0.31	<0.5	27	3	13
Q014936		2.44	0.010		<0.2	3.48	15	<10	30	<0.5	4	0.45	<0.5	27	4	9
Q014937		3.39	0.048		<0.2	3.54	39	<10	40	<0.5	5	0.61	<0.5	29	3	10
Q014938		3.50	0.036		<0.2	3.24	33	<10	30	<0.5	6	0.52	<0.5	28	3	15
Q014939		3.43	0.034		<0.2	4.08	31	<10	30	<0.5	4	0.56	<0.5	30	4	13
Q014940		0.06	5.99	2.80												
Q014941		0.05		3.53	39.7	0.84	138	<10	10	<0.5	38	0.51	230	190	48	>10000
Q014942		3.48	0.040		0.3	4.02	28	<10	30	<0.5	5	0.50	<0.5	33	4	101
Q014943		3.61	0.062		0.3	3.95	25	<10	30	<0.5	7	0.56	<0.5	39	3	33
Q014944		3.46	0.037		0.3	3.69	22	<10	30	<0.5	5	0.51	<0.5	35	4	18
Q014945		3.16	0.031		0.8	3.62	24	<10	30	<0.5	4	0.55	11.4	36	4	237
Q014946		3.51	0.085		0.6	4.22	29	<10	30	<0.5	7	0.52	<0.5	43	4	103
Q014947		3.53	0.022		0.4	3.98	15	<10	30	<0.5	5	0.50	<0.5	40	5	243
Q014948		3.12	0.067		0.4	3.91	58	<10	30	<0.5	7	0.59	<0.5	35	6	25
Q014949		1.72	0.035		0.3	3.68	21	<10	20	<0.5	7	0.49	<0.5	23	4	209
Q014950		1.56	0.047		1.1	3.44	23	<10	20	<0.5	6	0.49	0.9	23	3	798
Q014951		3.54	0.030		<0.2	4.34	20	<10	30	<0.5	5	0.46	<0.5	24	4	15
Q014952		3.63	0.018		<0.2	4.24	18	<10	30	<0.5	5	0.42	<0.5	30	4	15
Q014953		3.81	0.016		0.2	4.12	22	<10	30	<0.5	5	0.37	<0.5	30	4	34
Q014954		3.52	0.022		0.2	3.21	23	<10	30	<0.5	5	0.36	<0.5	26	3	12
Q014955		2.44	0.032		0.2	3.40	31	<10	30	<0.5	4	0.31	0.9	26	4	15
Q014956		3.59	0.102		1.0	2.58	80	<10	20	<0.5	12	0.29	2.4	32	3	23
Q014957		3.09	0.096		0.9	1.26	104	<10	10	<0.5	10	0.19	0.6	36	2	33
Q014958		3.15	0.076		0.4	1.75	110	<10	20	<0.5	8	0.17	<0.5	41	5	42
Q014959		1.54	0.080		0.4	1.79	68	<10	20	<0.5	8	0.17	<0.5	43	3	35
Q014960		0.46	<0.005		0.2	3.14	3	<10	60	<0.5	3	3.10	<0.5	26	5	18
Q014961		3.18	0.021		<0.2	3.08	55	<10	30	<0.5	5	0.17	<0.5	25	3	17
Q014962		3.47	0.039		0.3	2.37	51	<10	30	<0.5	4	0.18	<0.5	29	3	28
Q014963		3.69	0.043		0.2	2.04	63	<10	20	<0.5	5	0.22	<0.5	31	3	23
Q014964		3.48	0.091		0.5	2.85	118	<10	20	<0.5	5	0.18	<0.5	30	3	20

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014925		12.20	<10	<1	0.88	<10	0.87	246	8	0.02	6	510	30	>10.0	<2	4
Q014926		15.7	<10	2	0.59	<10	1.33	406	6	0.02	7	470	17	>10.0	16	4
Q014927		11.90	10	<1	0.72	<10	1.79	499	4	0.02	7	530	18	>10.0	7	6
Q014928		5.92	10	<1	0.79	<10	2.74	771	<1	0.02	3	610	4	2.72	<2	6
Q014929		8.87	10	<1	0.70	<10	2.43	661	<1	0.02	2	560	11	7.52	3	6
Q014930		5.53	10	<1	0.11	<10	0.54	7050	37	0.11	23	410	>10000	2.45	197	3
Q014931		8.76	10	<1	0.87	<10	3.57	973	<1	0.02	3	630	19	5.12	<2	8
Q014932		7.78	10	<1	1.15	<10	3.16	894	<1	0.02	3	620	7	4.25	2	9
Q014933		7.57	10	<1	1.16	<10	3.08	854	<1	0.02	3	600	3	4.13	5	9
Q014934		4.76	10	1	0.30	10	2.32	1225	<1	0.11	17	1170	12	1.13	4	13
Q014935		6.34	10	<1	0.90	<10	2.12	682	<1	0.02	4	540	6	3.80	2	6
Q014936		7.31	10	<1	0.79	<10	2.89	963	<1	0.01	4	650	5	3.75	<2	6
Q014937		7.62	10	<1	0.86	<10	2.97	934	<1	0.02	6	710	8	4.20	<2	7
Q014938		6.69	10	<1	1.04	<10	2.56	720	<1	0.02	4	690	9	3.96	<2	6
Q014939		7.78	10	<1	1.17	<10	2.97	878	<1	0.02	5	730	9	4.42	<2	7
Q014940																
Q014941		18.4	20	14	0.17	10	0.56	737	34	0.04	51	220	6890	>10.0	21	1
Q014942		7.91	10	1	1.13	<10	2.98	862	<1	0.02	4	730	12	4.54	<2	7
Q014943		7.81	10	<1	1.28	<10	2.73	794	1	0.03	5	740	11	4.81	<2	7
Q014944		7.36	10	<1	1.09	<10	2.62	761	<1	0.02	5	750	9	4.73	<2	6
Q014945		7.55	10	<1	1.07	<10	2.57	692	<1	0.03	5	740	8	5.21	<2	6
Q014946		8.79	10	<1	1.11	<10	3.16	890	1	0.03	12	710	14	6.25	<2	8
Q014947		8.15	10	<1	0.94	<10	2.98	858	<1	0.03	17	700	8	5.15	<2	7
Q014948		6.99	10	<1	1.09	<10	2.83	751	2	0.04	26	630	7	4.27	<2	7
Q014949		8.20	10	<1	0.92	<10	2.77	721	1	0.03	5	630	8	6.38	<2	6
Q014950		7.71	10	<1	0.92	<10	2.48	661	3	0.03	6	570	7	6.13	<2	6
Q014951		8.09	10	<1	0.86	<10	3.49	921	1	0.03	6	660	7	4.68	<2	7
Q014952		8.69	10	<1	0.76	<10	3.41	962	<1	0.02	6	630	6	5.85	<2	7
Q014953		8.69	10	<1	0.70	<10	3.37	1015	<1	0.02	5	650	8	5.62	<2	7
Q014954		6.67	10	<1	0.75	<10	2.49	713	1	0.02	4	650	9	4.49	<2	6
Q014955		8.21	10	<1	0.63	<10	2.91	794	1	0.02	5	690	15	6.57	<2	5
Q014956		7.98	<10	<1	0.71	<10	2.02	686	3	0.02	6	720	27	7.84	<2	5
Q014957		6.42	<10	<1	0.65	<10	0.63	208	3	0.01	5	660	16	7.49	<2	3
Q014958		8.31	<10	<1	0.60	<10	1.17	337	4	0.01	6	580	14	9.09	<2	4
Q014959		7.16	<10	<1	0.66	<10	1.04	309	6	0.01	6	620	15	7.75	<2	4
Q014960		6.30	10	<1	0.22	<10	2.28	1260	<1	0.04	7	1100	<2	0.11	<2	8
Q014961		6.64	10	1	0.47	<10	2.59	734	1	0.01	4	560	8	4.35	<2	5
Q014962		6.26	<10	<1	0.60	<10	1.74	532	3	0.01	6	630	8	5.17	<2	5
Q014963		7.92	<10	<1	0.51	<10	1.43	449	2	0.01	4	650	8	8.25	<2	4
Q014964		8.57	<10	<1	0.53	<10	2.29	717	3	0.01	4	660	13	8.15	<2	5

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014925		8	<20	0.05	<10	<10	48	<10	32					
Q014926		6	<20	0.12	<10	<10	54	<10	58					
Q014927		11	<20	0.09	<10	<10	80	<10	57					
Q014928		8	<20	0.09	<10	<10	94	<10	68					
Q014929		7	<20	0.07	<10	<10	85	<10	65					
Q014930		46	<20	0.09	<10	<10	62	20	>10000	237	0.618	3.13	1.610	0.04
Q014931		9	<20	0.10	<10	<10	123	<10	98					
Q014932		8	<20	0.14	<10	<10	114	<10	87					
Q014933		12	<20	0.12	<10	<10	130	<10	78					
Q014934		103	<20	0.08	<10	<10	134	<10	84					
Q014935		12	<20	0.08	<10	<10	85	<10	58					
Q014936		8	<20	0.10	<10	<10	87	<10	68					
Q014937		11	<20	0.11	<10	<10	98	<10	71					
Q014938		9	<20	0.12	<10	<10	90	<10	58					
Q014939		11	<20	0.14	<10	<10	106	<10	68					
Q014940										1	0.009	0.006	0.008	<0.01
Q014941		17	<20	0.04	<10	<10	19	10	>10000	40	1.365	0.648	7.20	0.01
Q014942		11	<20	0.15	<10	<10	101	<10	99					
Q014943		13	<20	0.16	<10	<10	102	<10	70					
Q014944		13	<20	0.14	<10	<10	95	<10	79					
Q014945		14	<20	0.13	<10	<10	89	<10	335					
Q014946		13	<20	0.13	<10	<10	109	<10	71					
Q014947		13	<20	0.13	<10	<10	93	<10	63					
Q014948		16	<20	0.13	<10	<10	97	<10	55					
Q014949		13	<20	0.12	<10	<10	92	<10	54					
Q014950		13	<20	0.12	<10	<10	86	<10	49					
Q014951		13	<20	0.11	<10	<10	100	<10	68					
Q014952		11	<20	0.10	<10	<10	99	<10	70					
Q014953		9	<20	0.09	<10	<10	98	<10	73					
Q014954		10	<20	0.08	<10	<10	86	<10	59					
Q014955		9	<20	0.06	<10	<10	79	<10	80					
Q014956		7	<20	0.04	<10	<10	63	<10	56					
Q014957		5	<20	0.02	<10	<10	37	<10	31					
Q014958		5	<20	0.03	<10	<10	44	<10	48					
Q014959		6	<20	0.03	<10	<10	46	<10	37					
Q014960		25	<20	0.30	<10	<10	137	<10	129					
Q014961		5	<20	0.05	<10	<10	75	<10	63					
Q014962		7	<20	0.03	<10	<10	60	<10	43					
Q014963		6	<20	0.03	<10	<10	49	<10	42					
Q014964		6	<20	0.03	<10	<10	67	<10	62					

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014965		3.71	0.045		0.4	3.87	104	<10	30	<0.5	5	0.22	<0.5	43	4	25
Q014966		3.43	0.061		0.5	3.40	129	<10	30	<0.5	4	0.19	<0.5	38	3	37
Q014967		1.63	0.057		0.7	2.93	240	<10	20	<0.5	2	0.24	<0.5	72	3	57
Q014968		1.88	0.161		2.2	0.93	200	<10	20	<0.5	3	0.23	<0.5	34	1	53
Q014969		2.24	0.205		2.2	0.71	202	<10	20	<0.5	7	0.14	<0.5	23	1	46
Q014970		0.08	1.865	2.85	>100	1.51	434	<10	70	<0.5	6	1.19	218	12	29	6640
Q014971		2.59	0.168		1.2	0.67	103	<10	20	<0.5	4	0.09	<0.5	9	2	34

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CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014965		8.00	10	<1	0.70	<10	3.17	856	1	0.02	12	930	17	5.76	<2	8
Q014966		7.51	10	<1	0.80	<10	2.80	899	1	0.02	8	800	15	5.52	<2	7
Q014967		7.12	10	<1	0.91	<10	2.31	903	1	0.02	27	980	18	6.46	<2	7
Q014968		5.25	<10	1	0.56	<10	0.27	101	1	0.02	8	880	26	6.52	<2	3
Q014969		5.76	<10	<1	0.46	<10	0.16	54	1	0.01	5	480	25	7.26	<2	2
Q014970		5.88	<10	1	0.12	<10	0.57	7630	41	0.11	24	430	>10000	2.66	210	3
Q014971		3.13	<10	<1	0.40	10	0.09	41	2	0.01	2	270	33	3.67	<2	2

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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014965		6	<20	0.07	<10	<10	102	<10	85					
Q014966		7	<20	0.05	<10	<10	95	<10	83					
Q014967		7	<20	0.04	<10	<10	79	<10	83					
Q014968		7	<20	0.01	<10	<10	28	<10	19					
Q014969		6	<20	<0.01	<10	<10	14	<10	14					
Q014970		49	<20	0.09	<10	<10	68	20	>10000	235	0.618	3.11	1.595	0.04
Q014971		6	<20	<0.01	<10	<10	9	<10	18					

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13193616

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

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118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

CERTIFICATE WH13196422

Project: Tulsequah Project
P.O. No.: 300534
This report is for 79 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 1-NOV-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: **CHIEFTAIN METALS INC**
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13196422

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014972		3.06	<0.005		0.2	1.08	7	<10	30	<0.5	<2	0.31	<0.5	4	3	330
Q014973		3.40	<0.005		0.2	0.93	3	<10	30	<0.5	2	0.30	<0.5	4	2	297
Q014974		3.46	<0.005		0.2	0.66	10	<10	40	<0.5	<2	0.67	<0.5	3	3	23
Q014975		3.33	0.005		<0.2	2.12	12	<10	30	0.5	2	0.37	<0.5	6	3	378
Q014976		3.28	<0.005		<0.2	1.57	8	<10	30	<0.5	<2	0.28	<0.5	5	2	91
Q014977		3.33	<0.005		<0.2	1.83	4	<10	40	<0.5	2	0.31	<0.5	7	2	182
Q014978		3.42	<0.005		0.2	2.23	8	<10	20	<0.5	<2	0.35	<0.5	9	3	394
Q014979		3.41	<0.005		<0.2	2.59	6	<10	30	<0.5	<2	0.33	<0.5	14	2	45
Q014980		0.04	5.95	2.60												
Q014981		0.04		3.48	39.0	0.82	141	<10	10	<0.5	27	0.48	218	182	46	>10000
Q014982		3.23	0.009		0.2	2.20	6	<10	170	0.5	<2	0.74	<0.5	1	3	84
Q014983		3.24	0.007		<0.2	2.23	9	<10	170	0.5	<2	0.70	<0.5	2	3	61
Q014984		3.35	<0.005		<0.2	1.71	9	<10	180	<0.5	<2	1.10	<0.5	2	6	19
Q014985		4.04	<0.005		<0.2	4.97	19	<10	640	<0.5	3	2.37	<0.5	27	232	59
Q014986		3.12	0.005		<0.2	1.31	6	<10	170	<0.5	<2	0.62	1.7	2	4	31
Q014987		3.22	<0.005		<0.2	1.51	12	<10	120	<0.5	2	0.70	0.5	1	4	71
Q014988		3.44	<0.005		0.3	2.16	10	<10	90	<0.5	<2	0.82	3.5	2	4	84
Q014989		1.34	<0.005		0.2	3.69	39	<10	200	0.7	<2	1.77	1.3	10	68	48
Q014990		1.31	<0.005		0.2	3.90	42	<10	220	0.7	2	1.65	1.5	10	83	51
Q014991		3.44	<0.005		<0.2	6.41	7	<10	840	0.8	<2	2.04	3.0	31	201	63
Q014992		3.06	<0.005		<0.2	2.35	5	<10	260	<0.5	<2	1.10	<0.5	4	22	17
Q014993		3.43	<0.005		<0.2	1.58	8	<10	200	<0.5	<2	0.77	0.6	1	3	23
Q014994		3.64	<0.005		<0.2	1.32	7	<10	130	<0.5	<2	0.58	0.8	1	4	34
Q014995		3.51	<0.005		<0.2	4.96	29	<10	840	<0.5	3	2.37	<0.5	28	132	43
Q014996		4.32	<0.005		<0.2	1.47	460	<10	120	<0.5	<2	0.78	<0.5	3	5	11
Q014997		3.47	<0.005		<0.2	1.96	7	<10	200	<0.5	<2	0.58	<0.5	1	3	3
Q014998		1.11	<0.005		<0.2	8.24	21	<10	710	1.3	5	4.09	<0.5	28	140	66
Q014999		3.12	<0.005		<0.2	2.55	170	<10	160	<0.5	<2	1.21	<0.5	1	3	7
Q015000		0.43	<0.005		0.3	3.74	5	<10	80	<0.5	4	2.30	<0.5	29	5	82
Q015001		3.38	<0.005		<0.2	2.30	1900	<10	140	0.5	<2	1.13	<0.5	1	3	3
Q015002		3.41	<0.005		<0.2	2.39	288	<10	180	0.5	<2	0.69	<0.5	1	2	<1
Q015003		3.40	<0.005		<0.2	2.73	2	<10	150	0.5	<2	0.81	<0.5	1	2	1
Q015004		2.46	<0.005		<0.2	2.90	2	<10	150	0.7	<2	0.91	<0.5	1	3	<1
Q015005		2.46	<0.005		<0.2	3.16	9	<10	200	0.6	<2	0.82	<0.5	2	4	2
Q015006		3.58	<0.005		<0.2	3.37	26	<10	290	<0.5	<2	3.18	<0.5	20	88	21
Q015007		2.39	<0.005		<0.2	1.68	<2	<10	190	<0.5	<2	0.33	<0.5	1	2	1
Q015008		2.27	<0.005		<0.2	1.72	4	<10	200	<0.5	2	0.34	<0.5	1	2	2
Q015009		3.37	<0.005		0.4	1.47	9	<10	300	0.5	2	1.57	<0.5	2	2	32
Q015010		0.05	2.14	2.76	>100	1.50	418	<10	70	<0.5	7	1.17	218	11	30	6660
Q015011		2.24	<0.005		0.2	1.59	2	<10	210	<0.5	2	0.26	<0.5	1	2	6

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13196422

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014972		3.88	<10	1	0.63	10	0.79	558	1	0.03	4	720	3	3.47	10	3
Q014973		3.68	<10	<1	0.52	10	0.75	579	1	0.02	2	750	4	3.24	4	3
Q014974		3.62	<10	<1	0.36	10	0.73	766	1	0.02	2	680	5	2.75	9	2
Q014975		4.86	<10	<1	0.78	10	1.68	889	<1	0.07	2	930	5	4.02	4	4
Q014976		3.89	<10	<1	0.65	<10	1.23	693	<1	0.06	2	710	4	3.21	2	3
Q014977		4.65	<10	<1	0.72	10	1.45	804	<1	0.06	2	810	4	3.81	4	4
Q014978		8.15	10	<1	0.71	10	1.86	1075	<1	0.07	3	870	7	8.13	5	4
Q014979		8.82	10	<1	0.63	10	2.38	1465	<1	0.05	2	740	8	8.28	7	5
Q014980																
Q014981		17.7	10	13	0.16	10	0.54	711	34	0.04	52	220	6640	>10.0	21	1
Q014982		3.23	10	1	0.83	10	0.76	734	1	0.20	1	300	13	1.38	4	5
Q014983		3.36	10	<1	0.91	10	0.72	727	1	0.20	1	280	8	1.40	2	5
Q014984		2.83	10	<1	0.54	10	0.62	639	<1	0.20	1	280	8	1.15	6	6
Q014985		4.36	10	<1	1.55	<10	3.34	1210	<1	0.42	83	560	8	0.51	20	17
Q014986		2.88	10	<1	0.47	<10	0.64	648	<1	0.11	1	250	8	1.13	7	6
Q014987		3.24	10	<1	0.69	10	0.49	726	<1	0.16	1	290	11	1.89	7	6
Q014988		4.11	10	<1	0.85	10	0.69	1085	1	0.24	1	270	22	2.21	4	7
Q014989		4.70	10	<1	1.34	10	1.36	1680	2	0.33	30	420	69	1.23	17	13
Q014990		4.85	10	<1	1.51	10	1.47	1680	1	0.33	38	460	74	1.20	20	14
Q014991		5.58	10	<1	2.26	<10	3.99	1665	<1	0.55	81	750	12	0.46	15	27
Q014992		3.39	10	1	0.85	10	0.81	1265	2	0.20	9	290	29	0.44	11	8
Q014993		2.75	10	<1	0.66	10	0.44	871	1	0.14	1	290	20	0.60	8	5
Q014994		2.30	<10	<1	0.49	10	0.43	640	1	0.14	1	250	32	0.81	7	6
Q014995		5.16	10	<1	2.05	<10	3.56	1265	<1	0.36	50	490	12	0.42	15	23
Q014996		2.49	10	1	0.56	<10	0.74	533	<1	0.11	2	230	13	0.64	22	5
Q014997		2.55	10	<1	0.99	10	0.68	573	<1	0.14	1	280	6	0.27	7	5
Q014998		6.13	20	<1	2.90	<10	3.01	1605	<1	0.71	48	520	19	0.73	14	27
Q014999		2.67	10	<1	0.84	10	0.96	616	<1	0.23	1	280	10	0.37	11	7
Q015000		7.31	10	<1	0.38	<10	2.77	1430	<1	0.06	8	1180	6	0.10	<2	8
Q015001		2.59	10	<1	0.69	10	0.79	527	<1	0.20	1	260	9	0.94	26	5
Q015002		2.29	10	<1	1.15	10	0.78	473	<1	0.21	1	270	6	0.22	15	5
Q015003		2.50	10	<1	1.30	10	0.89	605	<1	0.23	<1	290	6	0.04	<2	6
Q015004		2.61	10	<1	1.31	10	0.86	631	<1	0.24	1	300	4	0.07	3	6
Q015005		3.35	10	<1	1.62	10	1.13	695	<1	0.23	2	320	4	0.08	5	9
Q015006		4.56	10	1	0.75	10	2.37	1020	1	0.17	33	900	16	0.33	<2	16
Q015007		2.71	10	1	1.07	10	0.45	353	<1	0.10	1	330	4	0.03	3	6
Q015008		2.70	10	<1	1.00	10	0.59	529	<1	0.11	<1	310	4	0.20	8	6
Q015009		1.92	<10	<1	0.60	10	0.63	655	2	0.06	2	300	461	0.49	10	3
Q015010		5.88	<10	1	0.11	<10	0.57	7640	40	0.11	24	440	>10000	2.61	213	3
Q015011		2.51	10	<1	1.08	10	0.47	377	<1	0.08	1	330	30	0.04	4	5

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13196422

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014972		26	<20	0.02	<10	<10	2	<10	26					
Q014973		25	<20	0.01	<10	<10	2	<10	26					
Q014974		37	<20	<0.01	<10	<10	2	<10	31					
Q014975		17	<20	0.08	<10	<10	3	<10	87					
Q014976		13	<20	0.07	<10	<10	2	<10	73					
Q014977		13	<20	0.09	<10	<10	3	<10	95					
Q014978		15	<20	0.08	<10	<10	3	<10	142					
Q014979		14	<20	0.08	<10	<10	3	<10	148					
Q014980										1	0.008	0.010	0.011	<0.01
Q014981		16	<20	0.04	<10	<10	18	<10	>10000	39	1.325	0.632	7.14	0.01
Q014982		20	<20	0.10	<10	<10	<1	<10	101					
Q014983		18	<20	0.09	<10	<10	<1	<10	73					
Q014984		19	<20	0.09	<10	<10	3	<10	71					
Q014985		78	<20	0.19	<10	<10	151	<10	133					
Q014986		14	<20	0.07	<10	<10	3	<10	381					
Q014987		18	<20	0.10	<10	<10	1	<10	206					
Q014988		22	<20	0.10	<10	<10	3	<10	900					
Q014989		43	<20	0.16	<10	<10	45	<10	536					
Q014990		42	<20	0.18	<10	<10	50	<10	630					
Q014991		81	<20	0.23	<10	<10	208	<10	430					
Q014992		31	<20	0.10	<10	<10	11	<10	133					
Q014993		15	<20	0.10	<10	<10	1	<10	181					
Q014994		16	<20	0.10	<10	<10	1	<10	104					
Q014995		111	<20	0.27	<10	<10	248	<10	124					
Q014996		17	<20	0.05	<10	<10	5	<10	74					
Q014997		21	<20	0.07	<10	<10	1	<10	83					
Q014998		211	<20	0.31	<10	<10	227	<10	181					
Q014999		42	<20	0.08	<10	<10	4	<10	71					
Q015000		28	<20	0.39	<10	<10	152	<10	139					
Q015001		40	<20	0.04	<10	<10	1	<10	54					
Q015002		23	<20	0.07	<10	<10	<1	<10	87					
Q015003		23	<20	0.11	<10	<10	1	<10	108					
Q015004		30	<20	0.10	<10	<10	<1	<10	96					
Q015005		24	<20	0.12	<10	<10	5	<10	92					
Q015006		121	<20	0.24	<10	<10	137	<10	100					
Q015007		14	<20	0.10	<10	<10	1	<10	104					
Q015008		15	<20	0.09	<10	<10	1	<10	116					
Q015009		57	<20	0.02	<10	<10	2	<10	70					
Q015010		49	<20	0.09	<10	<10	68	20	>10000	239	0.634	3.15	1.625	0.04
Q015011		13	<20	0.09	<10	<10	1	<10	170					

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Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13196422

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q015012		2.89	<0.005		0.5	0.53	13	<10	130	<0.5	<2	0.42	<0.5	1	7	32
Q015013		2.77	<0.005		<0.2	0.71	13	<10	200	<0.5	<2	0.55	<0.5	1	9	27
Q015014		2.94	<0.005		<0.2	1.29	11	<10	230	<0.5	<2	0.87	<0.5	1	6	5
Q015015		2.59	<0.005		<0.2	0.92	8	<10	220	<0.5	<2	0.54	<0.5	2	5	32
Q015016		3.31	0.007		<0.2	1.97	3	<10	340	0.5	2	0.43	<0.5	2	2	2
Q015017		3.75	<0.005		<0.2	1.66	2	<10	260	<0.5	<2	0.56	<0.5	2	3	2
Q015018		3.31	<0.005		<0.2	1.75	3	<10	210	0.5	2	0.60	<0.5	1	2	3
Q015019		3.39	<0.005		<0.2	1.59	6	<10	250	0.5	<2	0.43	<0.5	1	1	2
Q015020		0.04	5.64	2.69												
Q015021		0.03		3.45	41.3	0.87	143	10	10	<0.5	44	0.52	233	197	48	>10000
Q015022		3.54	<0.005		<0.2	0.98	9	<10	170	<0.5	<2	0.46	<0.5	1	4	18
Q015023		3.25	<0.005		<0.2	1.56	6	<10	180	0.5	<2	0.50	<0.5	2	2	16
Q015024		3.32	<0.005		<0.2	1.61	7	<10	210	0.5	<2	0.69	<0.5	1	3	27
Q015025		2.95	<0.005		<0.2	1.42	7	<10	300	<0.5	<2	0.32	<0.5	1	4	13
Q015026		3.60	0.005		0.2	1.44	13	<10	140	<0.5	2	0.34	3.5	1	3	42
Q015027		3.57	<0.005		<0.2	1.43	5	<10	300	<0.5	<2	0.46	<0.5	1	3	47
Q015028		3.60	<0.005		<0.2	1.23	6	<10	170	<0.5	<2	0.41	<0.5	2	7	41
Q015029		1.19	0.009		0.4	1.33	15	<10	120	<0.5	<2	0.43	0.5	2	4	2400
Q015030		1.21	0.007		0.3	1.42	10	<10	150	<0.5	<2	0.48	<0.5	2	6	2070
Q015031		3.53	<0.005		<0.2	1.49	13	<10	260	<0.5	<2	0.48	<0.5	1	4	204
Q015032		3.49	<0.005		<0.2	1.19	2	<10	180	<0.5	<2	0.59	<0.5	1	2	10
Q015033		3.41	<0.005		<0.2	1.08	<2	<10	140	<0.5	<2	0.65	<0.5	1	4	6
Q015034		2.81	<0.005		<0.2	1.49	6	<10	210	0.6	<2	0.46	<0.5	1	4	8
Q015035		3.10	<0.005		<0.2	1.49	573	<10	160	0.6	<2	1.00	<0.5	1	2	13
Q015036		3.26	<0.005		<0.2	1.24	29	<10	190	<0.5	<2	1.30	<0.5	1	4	20
Q015037		2.67	0.015		0.2	0.81	12	<10	130	<0.5	3	0.25	1.0	3	3	20
Q015038		3.59	0.014		0.4	0.82	9	<10	80	<0.5	<2	0.40	6.6	2	3	101
Q015039		3.18	<0.005		<0.2	0.79	3	<10	300	<0.5	<2	0.36	<0.5	1	3	4
Q015040		0.63	<0.005		0.2	2.38	4	<10	40	<0.5	<2	3.66	<0.5	21	5	44
Q015041		3.30	<0.005		<0.2	0.82	2	<10	250	<0.5	<2	0.35	<0.5	2	4	4
Q015042		1.14	<0.005		<0.2	2.69	10	<10	370	0.8	<2	3.69	<0.5	15	103	103
Q015043		3.89	<0.005		<0.2	0.96	12	<10	300	0.5	<2	0.92	<0.5	1	5	21
Q015044		3.67	0.005		<0.2	1.38	13	<10	310	0.6	<2	1.14	<0.5	8	38	137
Q015045		3.53	0.017		0.2	0.72	13	<10	160	<0.5	<2	0.36	<0.5	2	4	42
Q015046		3.75	0.008		<0.2	6.03	16	<10	70	0.6	4	0.65	<0.5	16	8	153
Q015047		3.97	0.007		<0.2	5.25	13	<10	130	0.6	3	0.31	<0.5	19	6	614
Q015048		3.69	0.007		0.2	5.78	20	<10	110	0.8	2	0.45	<0.5	18	7	414
Q015049		3.62	<0.005		<0.2	1.56	166	<10	150	<0.5	<2	0.37	<0.5	2	3	30
Q015050		0.06	1.940	2.78	>100	1.43	420	<10	70	<0.5	<2	1.08	213	10	28	6650

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13196422

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q015012		0.82	<10	<1	0.25	<10	0.16	158	<1	0.02	1	190	952	0.38	30	1
Q015013		1.00	<10	<1	0.31	10	0.18	239	1	0.03	1	270	48	0.36	14	1
Q015014		1.58	<10	<1	0.46	10	0.32	276	1	0.12	1	320	9	0.61	6	3
Q015015		1.39	<10	<1	0.41	10	0.25	297	1	0.05	1	230	4	0.33	7	3
Q015016		3.18	10	<1	1.01	10	0.62	625	<1	0.08	1	310	5	0.27	2	4
Q015017		2.44	10	<1	0.94	10	0.41	403	<1	0.11	1	370	5	0.10	4	4
Q015018		2.12	<10	<1	0.84	10	0.42	387	<1	0.13	1	320	5	0.14	6	4
Q015019		1.94	<10	1	0.87	10	0.33	320	1	0.09	<1	300	3	0.26	7	4
Q015020																
Q015021		19.2	20	15	0.17	10	0.57	746	36	0.03	53	230	7100	>10.0	23	1
Q015022		1.67	<10	1	0.45	20	0.19	253	<1	0.09	1	310	11	0.69	5	3
Q015023		2.37	<10	<1	0.77	10	0.36	399	1	0.13	<1	290	10	0.80	6	4
Q015024		2.21	<10	<1	0.70	10	0.41	405	<1	0.12	<1	350	8	0.45	9	4
Q015025		2.59	<10	<1	0.93	10	0.54	447	1	0.05	1	310	8	0.45	3	4
Q015026		2.64	<10	1	0.89	10	0.58	335	7	0.08	<1	290	130	1.21	9	3
Q015027		2.53	<10	<1	0.86	10	0.61	486	<1	0.08	<1	260	8	0.54	3	4
Q015028		2.97	10	<1	0.48	10	0.57	502	<1	0.11	1	250	6	0.94	9	6
Q015029		3.48	<10	1	0.59	10	0.53	504	<1	0.09	1	260	8	1.83	15	5
Q015030		3.47	<10	<1	0.66	10	0.54	526	<1	0.11	1	260	9	1.75	17	5
Q015031		2.90	10	<1	0.91	10	0.64	463	<1	0.08	1	320	2	0.70	2	5
Q015032		2.00	<10	<1	0.71	10	0.52	369	<1	0.07	1	300	<2	0.52	2	4
Q015033		2.66	<10	<1	0.57	10	0.52	456	<1	0.08	<1	280	2	1.35	2	5
Q015034		2.57	<10	<1	0.84	10	0.67	440	2	0.08	1	300	4	0.91	4	4
Q015035		2.43	<10	<1	0.73	10	0.60	531	<1	0.04	<1	270	7	1.14	11	3
Q015036		2.08	<10	1	0.59	10	0.45	621	1	0.06	1	250	30	0.95	8	2
Q015037		2.16	<10	1	0.55	10	0.27	219	12	0.04	1	270	99	1.69	6	2
Q015038		2.50	<10	<1	0.54	10	0.31	291	6	0.04	<1	260	861	2.14	25	2
Q015039		1.21	<10	<1	0.49	10	0.28	261	9	0.04	1	240	10	0.49	2	2
Q015040		4.78	10	1	0.18	<10	1.67	1045	1	0.07	10	860	6	0.07	<2	7
Q015041		1.24	<10	<1	0.50	10	0.30	249	4	0.06	2	230	14	0.55	<2	2
Q015042		3.56	10	<1	1.42	<10	1.50	1770	<1	0.06	44	690	5	0.40	11	11
Q015043		1.86	<10	<1	0.46	10	0.45	432	1	0.03	2	280	7	0.61	6	3
Q015044		2.97	<10	<1	0.76	10	0.80	733	<1	0.02	18	440	5	0.70	6	7
Q015045		2.59	<10	<1	0.37	10	0.23	420	1	0.08	3	260	6	1.29	9	3
Q015046		9.80	20	<1	3.03	<10	4.04	1890	<1	0.08	9	820	9	1.93	18	17
Q015047		9.76	10	<1	3.19	<10	3.29	1670	<1	0.05	10	800	4	1.69	16	15
Q015048		10.15	20	<1	3.57	<10	3.28	1710	<1	0.07	14	910	4	1.53	17	17
Q015049		2.84	<10	<1	0.84	10	0.76	471	<1	0.07	2	320	2	1.15	16	5
Q015050		5.74	<10	<1	0.11	<10	0.55	7340	39	0.11	24	430	>10000	2.54	213	3

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13196422

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q015012		15	<20	<0.01	<10	<10	1	<10	29					
Q015013		17	<20	0.01	<10	<10	2	<10	22					
Q015014		25	<20	0.03	<10	<10	1	<10	36					
Q015015		17	<20	0.03	<10	<10	2	<10	26					
Q015016		22	<20	0.06	<10	<10	1	<10	87					
Q015017		22	<20	0.07	<10	<10	1	<10	69					
Q015018		23	<20	0.06	<10	<10	1	<10	72					
Q015019		18	<20	0.04	<10	<10	1	<10	59					
Q015020										1	0.008	0.010	0.006	<0.01
Q015021		16	<20	0.04	<10	<10	20	10	>10000	39	1.405	0.665	7.34	0.02
Q015022		17	<20	0.04	<10	<10	1	<10	95					
Q015023		17	<20	0.05	<10	<10	1	<10	73					
Q015024		23	<20	0.05	<10	<10	<1	<10	65					
Q015025		13	<20	0.07	<10	<10	<1	<10	81					
Q015026		17	<20	0.06	<10	<10	<1	<10	537					
Q015027		16	<20	0.08	<10	<10	<1	<10	78					
Q015028		13	<20	0.07	<10	<10	1	<10	64					
Q015029		14	<20	0.06	<10	<10	1	<10	157					
Q015030		15	<20	0.06	<10	<10	1	<10	110					
Q015031		30	<20	0.09	<10	<10	1	<10	71					
Q015032		18	<20	0.07	<10	<10	1	<10	54					
Q015033		25	<20	0.07	<10	<10	1	<10	48					
Q015034		18	<20	0.07	<10	<10	1	<10	53					
Q015035		22	<20	0.03	<10	<10	<1	<10	66					
Q015036		28	<20	0.02	<10	<10	<1	<10	70					
Q015037		13	<20	0.03	<10	<10	<1	<10	151					
Q015038		22	<20	0.03	<10	<10	1	<10	934					
Q015039		22	<20	0.02	<10	<10	<1	<10	39					
Q015040		34	<20	0.26	<10	<10	109	<10	99					
Q015041		22	<20	0.02	<10	<10	2	<10	35					
Q015042		94	<20	0.11	<10	<10	61	<10	160					
Q015043		48	<20	0.01	<10	<10	2	<10	39					
Q015044		49	<20	0.03	<10	<10	29	<10	89					
Q015045		11	<20	0.03	<10	<10	1	<10	29					
Q015046		36	<20	0.27	<10	<10	170	<10	148					
Q015047		17	<20	0.30	<10	<10	147	<10	129					
Q015048		26	<20	0.33	10	<10	151	<10	130					
Q015049		22	<20	0.07	<10	<10	11	<10	39					
Q015050		48	<20	0.09	<10	<10	65	10	>10000	232	0.627	3.21	1.645	0.04

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 17-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13196422

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

CERTIFICATE WH13197987

Project: Tulsequah Project
P.O. No.: 300557
This report is for 248 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 7-NOV-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver 8C V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q015051		3.75	0.025		<0.2	0.51	14	<10	30	<0.5	<2	0.30	<0.5	11	3	4
Q015052		3.81	0.380		4.9	0.38	246	<10	10	<0.5	12	0.24	0.8	48	5	38
Q015053		3.67	0.021		0.3	0.57	36	<10	30	<0.5	2	0.34	<0.5	10	3	5
Q015054		2.10	0.604		25.2	0.38	172	<10	10	<0.5	20	0.21	<0.5	34	3	74
Q015055		3.72	0.075		2.7	0.50	27	<10	20	<0.5	6	0.35	<0.5	11	3	15
Q015056		3.70	0.028		<0.2	0.70	22	<10	30	<0.5	4	0.31	<0.5	12	3	9
Q015057		2.74	0.172		1.1	0.57	72	<10	20	<0.5	6	0.28	<0.5	24	2	22
Q015058		2.83	0.046		0.5	0.41	44	<10	20	<0.5	6	0.25	<0.5	7	2	20
Q015059		1.19	0.250		3.0	0.44	128	<10	10	<0.5	18	0.25	<0.5	38	2	33
Q015060		0.04	1.900	2.94	>100	1.49	449	<10	70	<0.5	<2	1.11	212	12	28	6570
Q015061		3.01	0.055		0.8	0.57	36	<10	30	<0.5	<2	0.33	<0.5	7	2	11
Q015062		2.74	0.094		0.3	0.59	57	<10	30	<0.5	<2	0.39	<0.5	7	2	9
Q015063		3.71	0.200		1.7	0.63	55	<10	20	<0.5	<2	0.31	<0.5	6	2	15
Q015064		3.41	0.125		2.4	0.60	47	<10	20	<0.5	2	0.22	0.5	5	3	29
Q015065		2.31	0.153		2.9	0.56	63	<10	30	<0.5	<2	0.29	<0.5	3	2	86
Q015066		3.60	0.050		0.5	0.76	41	<10	40	<0.5	<2	0.38	<0.5	4	2	25
Q015067		3.41	0.060		0.7	0.75	82	<10	30	<0.5	<2	0.43	<0.5	14	2	21
Q015068		3.39	0.048		1.1	0.55	87	<10	30	<0.5	<2	0.31	<0.5	11	1	92
Q015069		1.28	0.144		3.9	0.64	205	<10	10	<0.5	3	0.38	<0.5	47	1	180
Q015070		1.10	0.147		2.7	0.66	171	<10	20	<0.5	3	0.48	<0.5	39	<1	324
Q015071		3.36	0.024		0.2	0.81	52	<10	30	<0.5	<2	0.38	<0.5	12	2	102
Q015072		2.16	0.008		0.2	1.03	24	<10	40	<0.5	<2	0.37	<0.5	4	1	5
Q015073		2.22	0.043		0.9	0.77	48	<10	40	<0.5	<2	0.36	<0.5	5	2	16
Q015074		2.13	0.042		0.7	0.70	38	<10	50	<0.5	<2	0.32	<0.5	5	2	7
Q015075		3.85	0.018		0.3	6.61	22	<10	50	0.5	<2	1.80	<0.5	34	49	120
Q015076		2.64	0.067		0.3	0.94	121	<10	20	<0.5	<2	0.78	<0.5	19	3	22
Q015077		2.40	0.041		2.2	0.89	38	<10	20	<0.5	<2	0.71	9.3	19	1	343
Q015078		3.47	0.014		0.2	1.80	8	<10	30	<0.5	<2	0.63	<0.5	7	3	178
Q015079		3.29	<0.005		<0.2	1.20	9	<10	150	<0.5	<2	0.20	<0.5	3	3	711
Q015080		0.61	<0.005		<0.2	3.12	4	<10	60	<0.5	<2	3.26	<0.5	24	5	26
Q015081		2.20	0.009		0.3	1.44	10	<10	30	<0.5	<2	0.28	<0.5	12	2	1225
Q015082		4.74	<0.005		<0.2	5.01	5	<10	900	<0.5	<2	2.07	<0.5	35	163	92
Q015083		1.72	0.005		2.7	1.98	63	<10	210	0.6	<2	5.91	<0.5	29	31	1065
Q015084		0.71	<0.005		<0.2	6.29	9	<10	2270	0.8	<2	3.38	<0.5	34	109	135
Q015085		3.04	<0.005		<0.2	1.31	9	<10	80	<0.5	<2	1.63	<0.5	9	11	170
Q015086		2.68	<0.005		0.3	3.03	24	<10	120	0.5	<2	1.33	<0.5	16	33	298
Q015087		0.49	0.008		0.6	2.46	45	<10	160	<0.5	<2	2.36	<0.5	15	12	570
Q015088		3.69	<0.005		<0.2	4.52	8	<10	700	<0.5	<2	2.02	<0.5	35	140	81
Q015089		3.84	<0.005		<0.2	4.15	10	<10	580	<0.5	<2	2.14	<0.5	34	152	83
Q015090		0.04	6.38	2.72												

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q015051		2.75	<10	1	0.35	10	0.08	86	1	0.01	1	710	5	2.93	<2	1
Q015052		7.52	<10	1	0.27	<10	0.06	80	87	0.01	8	600	124	9.25	11	1
Q015053		2.57	<10	<1	0.41	10	0.08	122	6	0.01	2	780	9	2.61	<2	2
Q015054		10.55	<10	1	0.28	<10	0.05	107	22	0.01	8	430	65	>10.0	10	1
Q015055		3.14	<10	1	0.36	10	0.07	130	7	0.01	1	720	10	3.34	3	2
Q015056		3.88	<10	<1	0.44	<10	0.14	129	4	0.03	<1	730	6	4.02	2	2
Q015057		5.82	<10	1	0.37	<10	0.08	100	9	0.02	1	750	18	6.93	5	2
Q015058		3.95	<10	<1	0.29	<10	0.04	66	5	0.01	<1	780	16	4.38	6	1
Q015059		23.1	<10	1	0.32	<10	0.04	80	17	0.01	1	710	126	>10.0	9	1
Q015060		5.75	<10	<1	0.11	<10	0.56	7470	40	0.11	24	410	>10000	2.61	209	3
Q015061		3.35	<10	<1	0.37	<10	0.06	137	3	0.01	1	690	30	3.75	<2	1
Q015062		4.15	<10	1	0.41	<10	0.09	162	3	<0.01	2	790	15	4.75	<2	2
Q015063		4.74	<10	1	0.42	<10	0.07	113	4	0.01	2	640	19	5.84	<2	2
Q015064		4.64	<10	<1	0.39	<10	0.08	92	6	0.01	5	540	45	5.37	2	2
Q015065		4.29	<10	1	0.33	<10	0.13	134	3	0.03	1	570	29	4.92	16	2
Q015066		3.61	<10	1	0.50	10	0.19	188	3	0.01	2	740	10	3.76	<2	2
Q015067		3.99	<10	<1	0.46	10	0.19	219	4	0.03	1	760	14	4.39	3	2
Q015068		3.60	<10	<1	0.37	<10	0.13	165	3	0.02	<1	690	8	3.95	6	2
Q015069		9.59	<10	<1	0.41	<10	0.12	190	7	0.02	<1	900	27	>10.0	7	2
Q015070		8.28	<10	<1	0.42	<10	0.15	240	6	0.03	<1	930	20	>10.0	6	2
Q015071		4.16	<10	<1	0.54	10	0.23	276	1	0.02	1	780	4	4.45	<2	2
Q015072		3.62	<10	1	0.68	10	0.34	303	3	0.02	<1	760	3	3.57	<2	3
Q015073		3.05	<10	<1	0.53	10	0.24	255	7	0.02	1	660	21	3.03	<2	2
Q015074		2.83	<10	<1	0.47	10	0.19	203	2	0.02	4	730	7	2.88	<2	2
Q015075		7.28	10	1	3.31	<10	4.12	1235	3	0.40	36	830	12	3.01	16	29
Q015076		4.28	<10	<1	0.49	<10	0.41	226	6	0.03	3	1010	11	4.45	3	3
Q015077		6.45	<10	<1	0.37	<10	0.47	269	25	0.01	3	700	331	7.48	106	3
Q015078		4.34	<10	<1	0.90	<10	1.03	466	2	0.05	2	720	36	3.52	20	4
Q015079		2.50	<10	<1	0.66	10	0.64	417	1	0.01	1	230	2	1.44	15	2
Q015080		6.05	10	1	0.27	<10	2.21	1290	<1	0.07	7	1000	3	0.06	<2	8
Q015081		4.30	<10	<1	0.68	10	0.79	474	2	0.03	1	230	3	3.25	20	3
Q015082		6.05	10	<1	1.26	<10	5.01	1730	<1	0.17	62	520	8	0.13	17	29
Q015083		5.73	<10	1	0.40	<10	3.11	2530	1	0.01	33	340	8	1.30	266	14
Q015084		6.93	10	<1	3.44	<10	4.46	2360	<1	0.20	51	580	8	0.10	10	33
Q015085		3.39	<10	<1	0.48	<10	0.88	787	2	0.05	5	250	2	2.07	14	5
Q015086		4.90	10	<1	0.59	<10	2.36	1055	2	0.10	16	350	9	1.73	19	13
Q015087		3.99	10	1	0.66	<10	1.82	1085	1	0.16	9	250	9	1.60	13	7
Q015088		5.62	10	<1	1.04	<10	4.35	1280	<1	0.19	56	590	10	0.32	11	24
Q015089		5.49	10	<1	0.69	<10	4.21	1245	<1	0.19	59	560	6	0.24	14	18
Q015090																

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

ALS Canada Ltd.
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q015051		38	<20	<0.01	<10	<10	1	<10	13					
Q015052		35	<20	<0.01	10	<10	1	<10	120					
Q015053		15	<20	<0.01	<10	<10	1	<10	30					
Q015054		33	<20	<0.01	10	<10	1	<10	28					
Q015055		22	<20	<0.01	<10	<10	1	<10	9					
Q015056		12	<20	0.02	<10	<10	1	<10	13					
Q015057		9	<20	0.01	<10	<10	2	<10	34					
Q015058		8	<20	0.01	<10	<10	1	<10	55					
Q015059		9	<20	0.02	10	<10	2	<10	45					
Q015060		46	<20	0.09	<10	<10	64	10	>10000	234	0.624	3.24	1.610	0.04
Q015061		12	<20	0.01	<10	<10	1	<10	39					
Q015062		15	<20	0.01	<10	<10	1	<10	49					
Q015063		12	<20	0.01	<10	<10	2	<10	19					
Q015064		10	<20	0.01	<10	<10	2	<10	77					
Q015065		12	<20	0.01	<10	<10	1	<10	35					
Q015066		19	<20	0.01	<10	<10	1	<10	32					
Q015067		22	<20	0.01	<10	<10	2	<10	21					
Q015068		15	<20	0.01	<10	<10	2	<10	21					
Q015069		20	<20	0.01	10	<10	3	<10	52					
Q015070		23	<20	0.01	<10	<10	3	<10	49					
Q015071		20	<20	0.01	<10	<10	2	<10	33					
Q015072		18	<20	0.03	<10	<10	2	<10	17					
Q015073		18	<20	0.02	<10	<10	2	<10	18					
Q015074		18	<20	0.01	<10	<10	2	<10	14					
Q015075		131	<20	0.28	<10	<10	228	<10	109					
Q015076		55	<20	0.02	<10	<10	11	<10	23					
Q015077		26	<20	<0.01	<10	<10	5	<10	827					
Q015078		38	<20	0.06	<10	<10	6	<10	141					
Q015079		25	<20	0.03	<10	<10	2	<10	36					
Q015080		27	<20	0.30	<10	<10	134	<10	133					
Q015081		25	<20	0.03	<10	<10	4	<10	45					
Q015082		86	<20	0.19	<10	<10	248	<10	109					
Q015083		369	<20	<0.01	<10	<10	50	<10	132					
Q015084		217	<20	0.24	<10	<10	232	<10	156					
Q015085		86	<20	0.01	<10	<10	17	<10	39					
Q015086		96	<20	0.04	<10	<10	84	<10	83					
Q015087		122	<20	0.03	<10	<10	41	<10	63					
Q015088		102	<20	0.18	<10	<10	245	<10	82					
Q015089		141	<20	0.19	<10	<10	222	<10	74					
Q015090										2	0.008	0.009	0.009	<0.01

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q015091		0.04		3.29	38.4	0.83	147	<10	10	<0.5	37	0.49	217	180	45	>10000
Q015092		3.30	<0.005		<0.2	1.18	6	<10	50	<0.5	<2	0.19	<0.5	7	3	145
Q015093		3.49	0.005		0.2	1.11	16	<10	50	<0.5	<2	0.15	<0.5	10	3	736
Q015094		2.63	<0.005		0.2	0.83	25	<10	40	<0.5	<2	0.15	<0.5	11	2	550
Q015095		2.89	0.011		<0.2	0.72	29	<10	60	<0.5	<2	0.11	<0.5	11	4	308
Q015096		1.12	0.040		0.7	0.65	55	<10	20	<0.5	3	0.08	<0.5	30	3	1225
Q015097		3.40	0.025		0.5	0.60	27	<10	40	<0.5	<2	0.11	<0.5	18	3	690
Q015098		3.29	0.007		0.2	0.92	28	<10	40	<0.5	<2	0.13	<0.5	10	4	76
Q015099		3.31	0.006		0.2	0.87	50	<10	50	<0.5	2	0.11	<0.5	12	3	156
Q015100		0.06	1.975	3.03	>100	1.46	414	<10	70	<0.5	6	1.11	206	11	29	6470
Q015101		3.34	<0.005		0.6	1.04	37	<10	90	<0.5	<2	0.11	<0.5	8	2	708
Q015102		3.38	0.008		0.4	1.05	49	<10	110	<0.5	5	0.12	<0.5	6	4	1135
Q015103		2.87	0.006		0.2	0.85	54	<10	30	<0.5	<2	0.10	<0.5	7	3	284
Q015104		3.11	0.008		0.2	1.02	15	<10	50	<0.5	2	0.12	<0.5	12	2	501
Q015105		3.37	0.008		0.3	1.06	20	<10	50	<0.5	<2	0.12	<0.5	10	3	877
Q015106		3.49	0.007		0.5	1.12	28	<10	90	<0.5	<2	0.12	<0.5	5	3	1670
Q015107		3.28	0.009		0.2	0.86	46	<10	90	<0.5	<2	0.10	<0.5	7	2	305
Q015108		2.49	0.020		0.3	0.72	50	<10	80	<0.5	<2	0.08	<0.5	11	2	617
Q015109		1.12	<0.005		0.4	1.33	50	<10	100	<0.5	2	0.11	<0.5	5	2	2100
Q015110		1.20	<0.005		0.3	1.39	49	<10	80	<0.5	2	0.11	<0.5	7	2	1820
Q015111		3.44	<0.005		0.2	1.40	34	<10	150	<0.5	<2	0.18	<0.5	5	2	1025
Q015112		4.03	<0.005		0.3	1.70	14	<10	90	<0.5	<2	0.17	<0.5	10	2	761
Q015113		3.80	<0.005		0.2	2.22	14	<10	60	<0.5	2	0.24	<0.5	12	3	291
Q015114		3.46	0.023		0.3	0.61	28	<10	30	<0.5	<2	0.19	1.0	20	2	38
Q015115		3.40	0.031		0.6	0.70	23	<10	20	<0.5	<2	0.22	1.1	34	3	30
Q015116		3.35	0.019		0.4	0.67	24	<10	40	<0.5	<2	0.25	<0.5	16	3	7
Q015117		3.43	0.010		0.3	0.91	12	<10	30	<0.5	<2	0.26	<0.5	20	3	9
Q015118		0.74	0.026		0.6	0.74	24	<10	20	<0.5	3	0.23	2.1	56	2	23
Q015119		3.22	0.015		0.5	0.46	19	<10	30	<0.5	<2	0.27	0.9	8	5	10
Q015120		0.85	<0.005		0.3	2.32	7	<10	130	<0.5	2	2.57	<0.5	17	4	40
Q015121		3.37	0.010		0.2	0.39	17	<10	30	<0.5	<2	0.31	<0.5	9	6	17
Q015122		3.46	<0.005		0.3	0.94	10	<10	60	<0.5	2	0.22	<0.5	20	4	828
Q015123		3.12	0.006		0.3	0.97	23	<10	30	<0.5	<2	0.35	<0.5	25	4	328
Q015124		3.55	0.005		<0.2	0.94	19	<10	30	<0.5	<2	0.29	<0.5	18	3	180
Q015125		3.24	0.008		<0.2	0.68	14	<10	30	<0.5	<2	0.13	<0.5	19	3	52
Q015126		3.60	0.012		0.2	0.66	16	<10	60	<0.5	<2	0.17	<0.5	14	3	265
Q015127		3.32	0.024		<0.2	0.53	23	<10	20	<0.5	2	0.13	<0.5	20	3	93
Q015128		3.68	<0.005		<0.2	0.55	10	<10	20	<0.5	<2	0.15	<0.5	23	4	146
Q015129		3.72	0.008		<0.2	0.62	36	<10	20	<0.5	<2	0.31	<0.5	22	4	381
Q015130		0.04	6.01	2.85												

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

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Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q015091		18.6	10	12	0.16	10	0.55	734	35	0.03	47	220	6520	>10.0	16	1
Q015092		3.00	<10	1	0.69	10	0.53	261	1	0.04	2	250	6	2.29	4	2
Q015093		3.47	<10	<1	0.67	10	0.56	253	2	0.01	2	240	3	2.84	12	2
Q015094		3.78	<10	<1	0.51	10	0.39	190	2	0.01	1	230	<2	3.61	10	2
Q015095		3.42	<10	<1	0.46	10	0.29	159	5	0.01	1	220	3	3.17	6	1
Q015096		6.05	<10	<1	0.42	<10	0.21	124	8	<0.01	1	140	6	7.11	8	1
Q015097		4.08	<10	<1	0.39	<10	0.21	112	5	<0.01	1	220	8	4.33	11	1
Q015098		4.25	<10	<1	0.56	10	0.42	205	3	0.01	1	240	7	4.10	6	2
Q015099		3.84	<10	<1	0.53	10	0.40	185	1	0.01	2	240	8	3.70	4	2
Q015100		5.66	<10	<1	0.11	<10	0.56	7430	38	0.11	23	410	>10000	2.43	211	3
Q015101		3.20	<10	<1	0.59	10	0.60	280	1	0.01	1	230	40	2.43	12	2
Q015102		3.02	<10	<1	0.57	10	0.62	280	1	<0.01	<1	230	5	2.33	30	2
Q015103		4.38	<10	<1	0.52	10	0.38	176	1	<0.01	2	260	4	4.38	17	2
Q015104		3.91	<10	<1	0.58	10	0.59	264	1	0.01	2	230	3	3.18	20	2
Q015105		3.49	<10	<1	0.66	10	0.50	231	2	<0.01	2	240	4	2.92	29	2
Q015106		3.04	<10	<1	0.67	10	0.59	271	3	<0.01	1	240	5	2.11	15	2
Q015107		2.86	<10	<1	0.53	10	0.36	174	3	<0.01	1	240	2	2.40	10	2
Q015108		3.01	<10	<1	0.46	10	0.25	119	2	<0.01	1	250	3	2.80	35	2
Q015109		3.50	<10	<1	0.69	10	0.72	390	2	0.01	1	220	2	2.13	60	2
Q015110		3.80	<10	<1	0.70	10	0.75	396	2	0.01	1	230	4	2.37	63	2
Q015111		3.11	<10	<1	0.83	10	0.76	351	1	0.01	1	220	<2	1.76	75	3
Q015112		3.96	<10	<1	0.86	10	1.04	494	<1	0.02	2	240	2	2.43	36	3
Q015113		4.63	10	<1	0.81	<10	1.42	583	2	0.05	3	230	4	2.62	10	3
Q015114		3.83	<10	<1	0.41	<10	0.20	145	10	0.01	2	240	13	4.19	8	2
Q015115		6.90	<10	<1	0.43	<10	0.23	161	9	0.02	2	260	16	8.49	3	2
Q015116		3.82	<10	<1	0.43	<10	0.25	182	9	0.01	1	260	10	4.14	4	2
Q015117		5.24	<10	<1	0.59	10	0.40	229	1	0.01	<1	270	7	5.58	3	2
Q015118		12.20	<10	<1	0.48	<10	0.22	137	3	0.01	<1	350	20	>10.0	6	2
Q015119		2.13	<10	<1	0.28	10	0.13	148	6	0.05	1	230	24	2.12	4	2
Q015120		4.54	10	1	0.35	<10	1.47	954	<1	0.05	2	1250	4	0.09	2	6
Q015121		2.46	<10	<1	0.24	10	0.08	154	3	0.03	1	240	14	2.53	5	1
Q015122		3.13	<10	<1	0.50	10	0.54	237	<1	<0.01	1	150	3	2.56	26	2
Q015123		4.87	<10	<1	0.61	<10	0.53	275	<1	0.01	2	160	7	4.77	54	2
Q015124		3.16	<10	<1	0.57	10	0.44	224	2	0.02	3	170	4	2.68	24	2
Q015125		3.34	<10	<1	0.48	<10	0.32	139	2	0.02	2	180	7	3.28	7	1
Q015126		3.01	<10	<1	0.45	10	0.32	168	<1	0.02	2	170	5	2.88	51	1
Q015127		4.83	<10	1	0.37	10	0.17	99	1	0.01	2	190	8	5.16	15	1
Q015128		4.51	<10	1	0.37	10	0.18	117	1	0.01	3	180	9	4.71	10	1
Q015129		3.87	<10	<1	0.39	<10	0.26	151	4	0.02	3	150	36	3.87	87	1
Q015130																

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q015091		15	<20	0.04	10	<10	19	<10	>10000	38	1.330	0.649	7.12	0.02
Q015092		26	<20	0.04	<10	<10	3	<10	82					
Q015093		12	<20	0.03	<10	<10	1	<10	46					
Q015094		10	<20	0.02	<10	<10	1	<10	36					
Q015095		9	<20	0.02	<10	<10	2	<10	24					
Q015096		7	<20	0.01	<10	<10	3	<10	27					
Q015097		8	<20	0.01	<10	<10	2	<10	30					
Q015098		9	<20	0.02	<10	<10	1	<10	41					
Q015099		7	<20	0.02	<10	<10	1	<10	47					
Q015100		48	<20	0.09	<10	<10	65	10	>10000	236	0.629	3.24	1.640	0.04
Q015101		8	<20	0.02	<10	<10	2	<10	61					
Q015102		9	<20	0.02	<10	<10	3	<10	33					
Q015103		6	<20	0.02	<10	<10	1	<10	21					
Q015104		8	<20	0.02	<10	<10	2	<10	28					
Q015105		8	<20	0.02	<10	<10	1	<10	27					
Q015106		9	<20	0.02	<10	<10	1	<10	34					
Q015107		9	<20	0.02	<10	<10	<1	<10	19					
Q015108		6	<20	0.02	<10	<10	1	<10	15					
Q015109		9	<20	0.03	<10	<10	3	<10	40					
Q015110		8	<20	0.04	<10	<10	3	<10	40					
Q015111		15	<20	0.04	<10	<10	2	<10	33					
Q015112		12	<20	0.05	<10	<10	2	<10	39					
Q015113		14	<20	0.05	<10	<10	7	<10	44					
Q015114		9	<20	0.02	<10	<10	2	<10	180					
Q015115		11	<20	0.02	<10	<10	2	<10	180					
Q015116		12	<20	0.02	<10	<10	2	<10	52					
Q015117		14	<20	0.03	<10	<10	6	<10	81					
Q015118		10	<20	0.01	<10	<10	5	<10	268					
Q015119		46	<20	0.01	<10	<10	1	<10	94					
Q015120		52	<20	0.36	<10	<10	104	<10	91					
Q015121		46	<20	<0.01	<10	<10	1	<10	42					
Q015122		12	<20	0.02	<10	<10	7	<10	36					
Q015123		16	<20	0.02	<10	<10	5	<10	34					
Q015124		19	<20	0.02	<10	<10	5	<10	28					
Q015125		12	<20	0.02	<10	<10	3	<10	20					
Q015126		11	<20	0.02	<10	<10	3	<10	28					
Q015127		9	<20	0.01	<10	<10	6	<10	19					
Q015128		10	<20	0.01	<10	<10	7	<10	18					
Q015129		33	<20	0.01	<10	<10	8	<10	43					
Q015130										1	0.008	0.011	0.008	0.01

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q015131		0.04		3.29	38.6	0.77	136	<10	10	<0.5	30	0.47	216	179	49	>10000
Q015132		2.18	0.006		<0.2	2.76	21	<10	20	<0.5	<2	0.31	<0.5	33	10	160
Q015133		1.58	<0.005		<0.2	0.61	22	<10	30	<0.5	<2	0.29	<0.5	19	4	179
Q015134		0.70	0.018		0.2	3.19	87	<10	30	<0.5	5	0.29	0.5	48	8	1240
Q015135		2.75	<0.005		<0.2	1.00	24	<10	50	<0.5	<2	0.49	<0.5	12	5	749
Q015136		2.71	<0.005		<0.2	0.89	16	<10	60	<0.5	<2	0.41	<0.5	14	4	188
Q015137		3.51	0.011		<0.2	3.68	50	<10	30	<0.5	4	0.29	<0.5	41	13	1210
Q015138		3.46	0.014		<0.2	3.65	30	<10	40	<0.5	<2	0.25	<0.5	38	9	2230
Q015139		3.26	0.011		0.3	2.95	116	<10	40	<0.5	<2	0.47	<0.5	34	9	3830
Q015140		0.06	1.895	3.00	>100	1.45	444	<10	80	<0.5	<2	1.14	221	11	29	6520
Q015141		2.62	0.035		4.2	3.18	322	<10	30	<0.5	<2	1.11	1.7	44	9	7670
Q015142		2.07	0.013		1.2	2.49	46	<10	20	<0.5	<2	2.98	0.5	52	6	610
Q015143		3.69	0.012		0.5	2.96	43	<10	30	<0.5	2	0.42	<0.5	63	8	591
Q015144		3.33	0.007		1.2	3.38	21	<10	50	<0.5	<2	0.77	<0.5	32	9	1030
Q015145		3.23	0.009		1.6	2.86	25	<10	50	<0.5	<2	3.00	<0.5	25	8	926
Q015146		3.07	0.010		1.9	3.07	29	<10	50	<0.5	<2	0.56	0.5	32	7	1290
Q015147		3.58	0.013		0.6	2.34	35	<10	40	<0.5	2	0.61	<0.5	49	5	541
Q015148		2.83	0.014		0.8	2.05	22	<10	50	<0.5	<2	2.10	<0.5	32	4	371
Q015149		2.11	0.013		1.0	2.12	24	<10	40	<0.5	<2	5.29	<0.5	28	4	423
Q015150		2.49	0.022		1.4	2.44	21	<10	50	<0.5	2	1.90	<0.5	37	5	912
Q015151		1.25	0.020		1.4	2.83	12	<10	60	<0.5	<2	0.57	<0.5	34	5	2020
Q015152		1.21	0.042		7.4	2.69	15	<10	50	<0.5	26	0.82	<0.5	42	5	3250
Q015153		3.32	<0.005		0.6	4.66	16	<10	70	<0.5	5	0.84	<0.5	28	8	1480
Q015154		3.49	<0.005		0.3	4.27	9	<10	80	<0.5	3	0.85	<0.5	21	7	1740
Q015155		3.25	<0.005		<0.2	4.26	7	<10	80	<0.5	2	0.66	<0.5	21	5	1710
Q015156		2.75	0.005		<0.2	3.70	16	<10	50	<0.5	<2	0.77	<0.5	30	6	669
Q015157		3.14	<0.005		<0.2	4.26	13	<10	40	<0.5	3	0.66	<0.5	47	7	830
Q015158		3.57	<0.005		0.2	3.88	11	<10	60	<0.5	<2	0.61	<0.5	43	7	881
Q015159		3.87	<0.005		<0.2	4.08	5	<10	60	<0.5	2	0.67	<0.5	33	8	377
Q015160		0.49	<0.005		0.3	3.87	6	<10	100	<0.5	<2	1.62	<0.5	31	6	113
Q015161		3.36	<0.005		<0.2	4.08	8	<10	40	<0.5	3	0.78	<0.5	42	7	385
Q015162		3.48	<0.005		0.2	3.39	4	<10	50	<0.5	<2	0.66	<0.5	33	5	874
Q015163		2.86	<0.005		<0.2	3.37	8	<10	40	<0.5	<2	0.61	<0.5	50	5	244
Q015164		3.42	<0.005		<0.2	3.17	12	<10	40	<0.5	<2	0.59	<0.5	49	5	29
Q015165		3.16	<0.005		<0.2	3.96	5	<10	40	<0.5	2	0.55	<0.5	46	5	718
Q015166		3.58	0.005		<0.2	3.35	7	<10	50	<0.5	<2	0.70	<0.5	53	5	1480
Q015167		3.46	0.006		<0.2	3.01	8	<10	30	<0.5	<2	0.49	<0.5	49	5	911
Q015168		3.39	0.006		<0.2	3.56	9	<10	40	<0.5	<2	0.46	<0.5	35	5	64
Q015169		3.50	0.012		<0.2	3.49	10	<10	30	<0.5	2	0.53	<0.5	37	6	144
Q015170		0.04	5.63	2.79												

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q015131		17.7	10	14	0.16	10	0.52	691	31	0.04	54	210	6460	>10.0	24	1
Q015132		7.22	10	1	1.89	<10	1.88	746	<1	0.03	8	460	15	4.40	33	8
Q015133		3.17	<10	<1	0.42	<10	0.25	159	<1	0.01	3	180	5	3.07	27	2
Q015134		8.53	10	<1	1.61	<10	2.49	852	<1	0.01	7	620	8	3.40	13	9
Q015135		2.82	<10	<1	0.55	<10	0.61	320	1	0.01	1	200	3	2.06	33	2
Q015136		2.87	<10	1	0.57	<10	0.46	241	<1	0.01	1	170	2	2.26	20	2
Q015137		8.78	10	<1	1.81	<10	2.75	1090	<1	0.01	8	620	7	4.75	29	10
Q015138		8.15	10	<1	1.22	<10	2.91	1130	1	0.01	7	700	4	3.58	47	9
Q015139		7.15	10	<1	1.65	<10	2.20	781	<1	0.01	4	700	2	4.13	211	8
Q015140		5.88	<10	2	0.11	<10	0.58	7700	39	0.11	21	440	>10000	2.61	214	3
Q015141		9.28	10	1	1.64	<10	2.45	1030	8	0.01	6	790	17	6.65	508	10
Q015142		7.96	10	<1	0.34	<10	2.08	1100	<1	0.01	8	680	9	5.09	86	8
Q015143		9.49	10	<1	0.90	<10	2.31	880	<1	0.01	8	720	7	6.75	2	7
Q015144		7.35	10	<1	1.14	<10	2.59	1040	<1	0.01	6	640	3	3.17	12	9
Q015145		7.03	10	<1	0.41	<10	2.41	1820	<1	0.01	5	540	4	3.43	4	8
Q015146		7.32	10	<1	0.46	<10	2.59	953	<1	<0.01	6	580	3	3.74	4	6
Q015147		7.28	10	1	0.45	<10	1.85	760	<1	0.01	7	620	6	4.81	3	5
Q015148		5.77	<10	<1	0.49	<10	1.69	1230	1	0.01	5	730	8	3.69	7	6
Q015149		6.53	<10	1	0.26	<10	1.86	2790	<1	0.01	6	430	5	4.28	3	7
Q015150		6.79	<10	<1	0.28	<10	2.16	1460	2	0.01	6	680	6	4.22	3	7
Q015151		7.20	10	<1	0.39	<10	2.18	878	<1	0.01	7	720	5	3.63	2	6
Q015152		7.66	<10	<1	0.38	<10	2.06	931	<1	0.01	7	690	8	4.44	3	6
Q015153		8.75	10	<1	1.73	<10	3.09	1560	<1	0.08	7	700	7	2.49	7	13
Q015154		6.86	10	<1	1.67	<10	2.81	1320	<1	0.13	6	580	5	1.72	19	11
Q015155		6.65	10	<1	1.84	<10	2.91	1150	<1	0.12	3	760	6	1.98	42	10
Q015156		6.38	10	<1	1.52	<10	2.32	1050	<1	0.09	7	550	11	2.55	29	10
Q015157		8.03	10	<1	1.87	<10	2.89	1330	<1	0.10	9	630	9	3.29	16	11
Q015158		6.67	10	1	1.67	<10	2.62	1160	<1	0.11	7	750	5	2.57	12	10
Q015159		6.88	10	1	1.48	<10	2.86	1270	<1	0.14	7	700	4	2.33	10	10
Q015160		7.85	10	<1	0.45	<10	2.97	1500	<1	0.05	7	1290	<2	0.10	<2	7
Q015161		8.32	10	<1	1.41	<10	2.88	1210	<1	0.15	7	740	5	4.17	3	9
Q015162		6.11	10	1	1.44	<10	2.30	1000	<1	0.12	7	680	10	2.71	7	8
Q015163		7.73	10	1	1.37	<10	2.47	1025	<1	0.09	8	650	9	4.50	4	8
Q015164		7.59	10	<1	1.21	<10	2.33	880	1	0.09	6	700	11	4.95	4	7
Q015165		7.63	10	1	1.01	<10	3.12	1240	<1	0.09	6	560	6	3.29	6	8
Q015166		7.93	10	<1	1.08	<10	2.45	1005	<1	0.10	6	670	5	4.79	4	7
Q015167		6.82	10	1	1.17	<10	2.09	797	<1	0.10	4	660	6	4.12	3	7
Q015168		7.71	10	<1	1.24	<10	2.64	1010	<1	0.09	5	710	10	3.85	3	7
Q015169		7.79	10	1	1.07	<10	2.41	1005	<1	0.12	5	620	10	4.45	5	8
Q015170																

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

ALS Canada Ltd.
2103 Dollarton Hwy
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY 5T
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q015131		17	<20	0.04	10	<10	18	10	>10000	39	1.355	0.657	7.14	0.01
Q015132		19	<20	0.17	<10	<10	94	<10	165					
Q015133		13	<20	0.01	<10	<10	7	<10	32					
Q015134		12	<20	0.17	<10	<10	108	<10	116					
Q015135		17	<20	0.02	<10	<10	14	<10	37					
Q015136		15	<20	0.02	<10	<10	11	<10	16					
Q015137		12	<20	0.19	<10	<10	127	<10	85					
Q015138		9	<20	0.15	<10	<10	125	<10	81					
Q015139		13	<20	0.17	<10	<10	109	<10	85					
Q015140		47	<20	0.09	<10	<10	66	20	>10000	237	0.628	3.20	1.595	0.04
Q015141		38	<20	0.16	<10	<10	130	<10	153					
Q015142		96	<20	0.01	<10	<10	92	<10	101					
Q015143		19	<20	0.10	<10	<10	106	<10	104					
Q015144		22	<20	0.14	<10	<10	122	<10	100					
Q015145		259	<20	0.03	<10	<10	91	<10	93					
Q015146		21	<20	0.04	<10	<10	85	<10	108					
Q015147		30	<20	0.02	<10	<10	68	<10	76					
Q015148		48	<20	0.03	<10	<10	72	<10	67					
Q015149		254	<20	0.01	<10	<10	69	<10	72					
Q015150		60	<20	0.01	<10	<10	85	<10	87					
Q015151		27	<20	0.01	<10	<10	79	<10	105					
Q015152		55	<20	0.01	<10	<10	75	<10	96					
Q015153		42	<20	0.20	<10	<10	163	<10	126					
Q015154		54	<20	0.20	<10	<10	150	<10	87					
Q015155		49	<20	0.22	<10	<10	139	<10	83					
Q015156		40	<20	0.18	<10	<10	122	<10	86					
Q015157		38	<20	0.22	<10	<10	140	<10	86					
Q015158		35	<20	0.21	<10	<10	120	<10	80					
Q015159		42	<20	0.21	<10	<10	137	<10	90					
Q015160		22	<20	0.42	<10	<10	175	<10	144					
Q015161		39	<20	0.19	<10	<10	138	<10	78					
Q015162		32	<20	0.18	<10	<10	116	<10	68					
Q015163		29	<20	0.19	<10	<10	121	<10	67					
Q015164		28	<20	0.20	<10	<10	114	<10	63					
Q015165		28	<20	0.16	<10	<10	133	<10	91					
Q015166		40	<20	0.14	<10	<10	117	<10	85					
Q015167		26	<20	0.14	<10	<10	109	<10	75					
Q015168		29	<20	0.14	<10	<10	123	<10	91					
Q015169		32	<20	0.12	<10	<10	126	<10	83					
Q015170										1	0.008	0.011	0.008	<0.01

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q015171		0.04		3.32	39.4	0.83	145	<10	10	<0.5	56	0.51	232	191	46	>10000
Q015172		3.63	<0.005		0.2	4.93	6	<10	70	<0.5	4	0.93	<0.5	32	9	1640
Q015173		3.49	<0.005		0.3	5.45	3	<10	70	<0.5	<2	0.98	<0.5	44	12	1660
Q015174		3.56	<0.005		0.3	6.00	20	<10	80	<0.5	<2	1.27	<0.5	40	13	1100
Q015175		3.65	<0.005		0.2	4.98	8	<10	60	<0.5	2	0.65	<0.5	43	12	1240
Q015176		3.50	0.005		0.2	4.49	11	<10	40	<0.5	2	0.65	<0.5	44	8	1260
Q015177		3.69	<0.005		0.3	4.98	8	<10	40	<0.5	5	1.05	<0.5	50	12	1610
Q015178		3.74	<0.005		<0.2	5.62	3	<10	50	<0.5	<2	1.17	<0.5	54	13	985
Q015179		1.49	<0.005		<0.2	5.76	4	<10	90	<0.5	<2	0.98	<0.5	40	8	1010
Q015180		1.60	<0.005		<0.2	5.73	4	<10	120	<0.5	<2	1.22	<0.5	37	8	1000
Q015181		4.41	<0.005		0.2	4.68	6	<10	40	<0.5	2	0.91	<0.5	44	6	1370
Q015182		1.53	<0.005		<0.2	5.80	2	<10	950	<0.5	<2	1.32	<0.5	35	237	123
Q015183		3.66	<0.005		0.4	4.40	6	<10	40	<0.5	<2	0.65	<0.5	55	9	1250
Q015184		3.44	<0.005		0.2	4.34	5	<10	50	<0.5	<2	0.61	<0.5	50	5	1380
Q015185		3.54	<0.005		0.3	4.51	8	<10	60	<0.5	<2	0.74	<0.5	53	7	1800
Q015186		4.11	<0.005		0.3	4.85	17	<10	60	<0.5	3	0.73	<0.5	61	5	1400
Q015187		1.15	0.005		1.1	2.49	17	<10	130	<0.5	<2	6.11	<0.5	33	3	1180
Q015188		3.38	<0.005		1.1	4.51	10	<10	80	<0.5	3	0.32	<0.5	30	6	3500
Q015189		3.50	<0.005		<0.2	4.74	6	<10	80	<0.5	<2	0.50	<0.5	38	6	1450
Q015190		0.05	1.755	3.06	>100	1.47	425	<10	70	<0.5	<2	1.10	215	12	29	6400
Q015191		3.47	<0.005		0.2	4.44	4	<10	70	<0.5	3	0.77	<0.5	46	6	1270
Q015192		3.54	0.009		0.2	4.65	19	<10	80	<0.5	<2	0.78	<0.5	42	6	1420
Q015193		3.47	<0.005		0.2	4.44	14	<10	120	<0.5	<2	0.96	<0.5	20	2	1040
Q015194		3.40	0.005		<0.2	4.27	13	<10	90	<0.5	<2	1.13	<0.5	22	1	189
Q015195		4.00	<0.005		<0.2	4.31	6	<10	70	<0.5	3	0.88	<0.5	42	11	494
Q015196		2.89	0.013		0.5	3.64	19	<10	110	0.6	<2	4.04	<0.5	42	668	348
Q015197		3.60	0.038		0.7	2.52	19	<10	30	<0.5	<2	0.37	<0.5	48	7	419
Q015198		3.53	0.015		0.6	2.85	17	<10	30	<0.5	<2	0.41	<0.5	63	5	710
Q015199		3.49	0.009		<0.2	2.66	18	<10	40	<0.5	<2	0.40	<0.5	39	7	156
Q015200		0.73	<0.005		0.2	3.11	5	<10	70	<0.5	<2	1.70	<0.5	25	6	99
Q015201		3.32	0.007		<0.2	0.57	8	<10	30	<0.5	<2	0.32	<0.5	12	5	157
Q015202		3.24	0.018		0.3	0.92	21	<10	20	<0.5	9	0.37	0.9	24	4	865
Q015203		1.49	0.144		1.8	0.75	83	<10	10	<0.5	15	0.27	14.2	69	5	3170
Q015204		2.86	0.012		0.3	0.75	16	<10	40	<0.5	2	0.91	<0.5	24	5	49
Q015205		2.64	0.011		<0.2	4.74	12	<10	70	<0.5	<2	1.12	<0.5	26	2	49
Q015206		3.63	0.018		<0.2	1.44	14	<10	30	<0.5	<2	0.82	<0.5	14	4	27
Q015207		2.01	0.007		<0.2	4.87	9	<10	420	0.5	<2	1.03	<0.5	25	1	57
Q015208		2.72	0.017		0.2	1.05	17	<10	40	<0.5	2	0.76	<0.5	24	4	103
Q015209		1.66	0.028		0.2	2.58	20	<10	40	<0.5	<2	0.52	<0.5	27	5	206
Q015210		1.61	0.035		0.3	2.50	21	<10	50	<0.5	<2	0.52	<0.5	26	5	304

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q015171		18.8	20	15	0.17	10	0.57	756	36	0.03	48	210	6890	>10.0	21	1
Q015172		8.08	10	1	1.54	<10	2.91	1410	<1	0.26	7	650	14	2.02	8	13
Q015173		9.27	10	<1	1.37	<10	3.19	1670	<1	0.28	9	640	8	2.22	8	14
Q015174		10.10	10	<1	1.10	<10	3.30	1880	<1	0.29	10	660	14	1.94	10	19
Q015175		9.13	10	1	1.09	<10	3.30	1440	<1	0.17	8	640	9	2.76	4	13
Q015176		8.87	10	1	1.20	<10	3.02	1265	<1	0.17	7	630	11	3.90	6	11
Q015177		8.84	10	<1	1.43	<10	3.13	1370	<1	0.28	8	540	12	3.99	14	15
Q015178		9.06	10	1	1.61	<10	3.42	1520	<1	0.34	10	630	13	3.00	8	19
Q015179		8.67	10	1	1.28	<10	3.69	1580	<1	0.25	6	820	9	1.80	3	20
Q015180		8.76	20	<1	1.22	<10	3.76	1655	<1	0.25	7	800	6	1.54	6	20
Q015181		8.33	10	<1	1.22	<10	3.29	1245	<1	0.19	6	670	9	3.27	5	15
Q015182		6.65	10	1	1.17	<10	5.48	1700	<1	0.29	83	580	4	0.08	4	34
Q015183		8.77	10	<1	1.21	<10	3.17	1280	<1	0.16	7	730	8	4.00	6	13
Q015184		8.00	10	1	1.30	<10	3.11	1260	<1	0.14	5	730	8	3.02	10	12
Q015185		8.21	10	<1	1.40	<10	3.14	1315	<1	0.17	6	670	9	3.42	8	13
Q015186		8.96	10	<1	1.36	<10	3.37	1460	<1	0.15	6	810	9	3.31	10	13
Q015187		6.38	10	<1	0.31	<10	2.48	2230	1	0.02	7	760	17	2.71	22	8
Q015188		8.16	10	<1	1.09	<10	3.38	1405	<1	0.05	5	710	10	2.21	12	12
Q015189		8.78	10	2	1.09	<10	3.48	1545	<1	0.10	4	710	8	2.90	6	13
Q015190		5.78	<10	2	0.12	<10	0.57	7590	39	0.11	24	420	>10000	2.56	210	3
Q015191		8.52	10	<1	1.30	<10	2.95	1500	<1	0.15	5	780	9	2.57	10	14
Q015192		8.11	10	1	1.24	<10	3.00	1370	<1	0.16	5	730	11	2.48	22	12
Q015193		6.64	10	<1	1.21	<10	2.73	1105	<1	0.20	2	1590	9	1.44	17	11
Q015194		6.05	10	<1	1.39	<10	2.21	898	<1	0.23	2	1560	7	1.41	9	9
Q015195		6.98	10	1	1.60	<10	2.71	907	<1	0.17	7	1380	8	2.25	6	10
Q015196		4.60	10	<1	0.77	<10	5.01	1200	1	0.03	388	1620	16	1.15	13	8
Q015197		6.72	10	1	1.73	<10	1.79	653	3	0.03	6	600	15	4.14	10	8
Q015198		7.01	10	<1	1.99	<10	1.96	744	1	0.03	4	650	19	4.09	23	8
Q015199		6.22	<10	<1	1.80	<10	1.86	710	1	0.03	5	640	21	3.39	8	7
Q015200		6.35	10	<1	0.37	<10	2.38	1240	<1	0.05	6	1040	4	0.07	<2	5
Q015201		2.94	<10	<1	0.32	10	0.28	178	1	0.01	1	170	4	2.90	7	1
Q015202		4.94	<10	<1	0.49	10	0.50	241	3	0.02	2	160	10	5.03	25	2
Q015203		17.8	<10	<1	0.34	<10	0.46	229	14	0.01	3	150	51	>10.0	199	2
Q015204		4.19	<10	1	0.39	10	0.51	517	1	0.02	1	190	6	4.19	14	2
Q015205		7.71	10	<1	2.93	10	3.58	1560	1	0.10	4	1620	8	1.81	<2	9
Q015206		4.13	<10	<1	0.85	10	0.86	423	1	0.03	2	400	8	3.36	4	4
Q015207		7.41	10	<1	2.79	10	3.37	1360	1	0.06	4	1860	5	0.88	4	7
Q015208		3.90	<10	1	0.38	10	0.67	397	3	0.01	2	230	6	3.37	23	2
Q015209		5.43	<10	<1	1.66	<10	1.74	628	3	0.04	2	860	28	2.75	11	7
Q015210		5.36	10	<1	1.68	<10	1.71	604	3	0.04	2	960	25	2.72	15	7

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q015171		16	<20	0.04	<10	<10	19	20	>10000	38	1.350	0.651	7.22	0.01
Q015172		106	<20	0.18	<10	<10	187	<10	139					
Q015173		88	<20	0.17	<10	<10	215	<10	121					
Q015174		99	<20	0.17	<10	<10	245	<10	124					
Q015175		55	<20	0.15	<10	<10	191	<10	117					
Q015176		75	<20	0.14	<10	<10	175	<10	112					
Q015177		75	<20	0.18	<10	<10	209	<10	111					
Q015178		83	<20	0.20	<10	<10	247	<10	108					
Q015179		57	<20	0.19	<10	<10	264	<10	115					
Q015180		63	<20	0.19	<10	<10	273	<10	116					
Q015181		38	<20	0.16	<10	<10	206	<10	120					
Q015182		51	<20	0.20	<10	<10	283	<10	102					
Q015183		50	<20	0.17	<10	<10	181	<10	127					
Q015184		40	<20	0.17	<10	<10	170	<10	112					
Q015185		72	<20	0.18	<10	<10	173	<10	110					
Q015186		55	<20	0.18	<10	<10	174	<10	142					
Q015187		330	<20	0.03	<10	<10	102	<10	100					
Q015188		21	<20	0.14	<10	<10	159	<10	134					
Q015189		36	<20	0.15	<10	<10	182	<10	131					
Q015190		47	<20	0.09	<10	<10	66	20	>10000	234	0.626	3.17	1.605	0.04
Q015191		58	<20	0.18	<10	<10	183	<10	132					
Q015192		67	<20	0.16	<10	<10	154	<10	150					
Q015193		63	<20	0.17	<10	<10	73	<10	152					
Q015194		95	<20	0.18	<10	<10	44	<10	111					
Q015195		115	<20	0.21	<10	<10	74	<10	81					
Q015196		222	<20	0.08	<10	<10	81	<10	96					
Q015197		35	<20	0.19	<10	<10	107	<10	94					
Q015198		33	<20	0.20	<10	<10	111	<10	81					
Q015199		27	<20	0.18	<10	<10	109	<10	69					
Q015200		26	<20	0.33	<10	<10	135	<10	119					
Q015201		21	<20	<0.01	<10	<10	2	<10	18					
Q015202		22	<20	0.01	<10	<10	5	<10	38					
Q015203		8	<20	0.01	<10	<10	6	<10	108					
Q015204		53	<20	<0.01	<10	<10	3	<10	28					
Q015205		64	<20	0.29	<10	<10	163	<10	115					
Q015206		34	<20	0.04	<10	<10	21	<10	34					
Q015207		56	<20	0.25	<10	<10	134	<10	131					
Q015208		23	<20	<0.01	<10	<10	9	<10	29					
Q015209		47	<20	0.18	<10	<10	93	<10	75					
Q015210		53	<20	0.18	<10	<10	87	<10	75					

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PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
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Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q015211		3.42	0.027		0.4	2.47	18	<10	30	<0.5	<2	0.42	1.3	46	5	330
Q015212		3.73	0.020		0.3	2.77	19	<10	30	<0.5	<2	0.52	3.3	65	6	89
Q015213		3.53	0.019		0.4	3.10	14	<10	30	<0.5	<2	0.52	1.5	47	5	468
Q015214		3.76	0.011		0.3	3.12	11	<10	40	<0.5	2	0.66	<0.5	28	3	393
Q015215		3.48	0.034		0.6	2.32	23	<10	30	<0.5	<2	0.44	0.7	49	5	382
Q015216		3.54	0.008		0.2	3.38	11	<10	60	<0.5	<2	0.75	<0.5	16	2	461
Q015217		3.51	0.008		0.2	3.56	12	<10	90	<0.5	<2	0.80	<0.5	16	2	543
Q015218		3.68	0.006		0.3	3.52	9	<10	60	<0.5	<2	0.81	<0.5	22	2	523
Q015219		3.40	0.006		<0.2	3.90	8	<10	60	<0.5	<2	0.67	<0.5	24	4	379
Q015220		0.06	1.935	2.94	>100	1.46	444	<10	80	<0.5	4	1.14	217	10	29	6620
Q015221		3.48	0.007		<0.2	3.94	11	<10	50	<0.5	2	0.60	<0.5	41	6	195
Q015222		3.77	0.017		<0.2	4.17	14	<10	40	<0.5	<2	0.47	<0.5	41	5	45
Q015223		3.43	0.011		<0.2	4.98	13	<10	60	<0.5	<2	0.47	<0.5	29	7	32
Q015224		3.54	0.014		<0.2	4.60	14	<10	40	<0.5	<2	0.45	<0.5	43	5	527
Q015225		3.57	0.012		<0.2	4.35	22	<10	40	<0.5	<2	0.45	<0.5	49	5	171
Q015226		3.61	0.011		<0.2	4.47	27	<10	40	<0.5	<2	0.34	<0.5	45	5	229
Q015227		3.77	0.011		0.4	3.91	17	<10	40	<0.5	<2	0.64	<0.5	39	5	963
Q015228		3.47	0.025		0.8	4.10	8	<10	50	<0.5	<2	0.49	<0.5	33	5	1830
Q015229		3.46	0.013		1.4	3.78	9	<10	40	<0.5	<2	0.64	<0.5	34	5	2950
Q015230		0.05	5.70	2.96												
Q015231		0.04		3.29	40.3	0.81	140	<10	10	<0.5	48	0.51	229	189	50	>10000
Q015232		3.68	0.021		0.9	3.23	15	<10	30	<0.5	<2	0.67	<0.5	49	6	2280
Q015233		3.71	0.010		0.7	4.32	9	<10	50	<0.5	<2	0.64	<0.5	37	5	2210
Q015234		2.35	0.008		0.5	3.65	14	<10	40	<0.5	2	0.53	<0.5	76	5	1260
Q015235		3.10	<0.005		<0.2	2.26	7	<10	920	<0.5	<2	3.48	<0.5	22	112	163
Q015236		2.82	<0.005		<0.2	2.14	7	<10	1090	<0.5	<2	2.20	<0.5	22	118	137
Q015237		3.32	0.009		0.9	3.55	8	<10	70	<0.5	<2	0.86	<0.5	37	15	2010
Q015238		3.87	0.022		1.3	3.27	20	<10	40	<0.5	<2	0.48	<0.5	52	5	3830
Q015239		3.52	0.016		0.5	4.22	15	<10	50	<0.5	<2	0.53	<0.5	44	20	1690
Q015240		1.04	<0.005		0.2	3.45	<2	<10	80	<0.5	<2	2.00	<0.5	27	6	112
Q015241		3.62	0.013		0.5	3.47	12	<10	40	<0.5	<2	0.53	<0.5	83	8	2050
Q015242		3.35	<0.005		<0.2	2.93	3	<10	1840	<0.5	<2	2.69	0.6	20	109	533
Q015243		3.00	<0.005		<0.2	1.76	6	<10	2190	<0.5	<2	2.47	0.7	20	109	103
Q015244		3.33	<0.005		<0.2	2.04	3	<10	2080	<0.5	<2	2.49	0.6	21	121	94
Q015245		3.70	0.014		0.3	4.81	21	<10	50	<0.5	<2	0.64	<0.5	30	7	868
Q015246		3.49	0.039		<0.2	4.39	44	<10	40	<0.5	<2	0.62	<0.5	34	5	128
Q015247		2.62	0.029		<0.2	4.28	37	<10	30	<0.5	<2	0.57	<0.5	37	8	141
Q015248		1.18	<0.005		<0.2	5.44	2	<10	1890	<0.5	<2	2.57	<0.5	25	137	98
Q015249		3.53	0.030		<0.2	4.63	31	<10	50	<0.5	<2	0.92	<0.5	33	5	89
Q015250		0.06	1.830	3.01	>100	1.43	428	<10	70	<0.5	10	1.13	210	10	28	6340

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q015211		7.22	<10	<1	1.70	<10	1.69	647	3	0.04	3	800	60	5.08	17	7
Q015212		9.29	<10	<1	1.78	<10	1.91	768	1	0.04	4	730	86	7.50	6	8
Q015213		8.89	10	<1	1.88	<10	2.13	859	1	0.05	3	770	64	6.59	22	9
Q015214		6.70	10	<1	1.67	<10	2.14	849	1	0.05	2	970	17	3.56	14	8
Q015215		7.51	<10	<1	1.57	<10	1.48	515	3	0.04	4	700	115	6.14	19	6
Q015216		5.70	10	<1	1.78	<10	2.13	729	1	0.08	1	1610	14	2.17	9	7
Q015217		5.53	10	<1	1.89	<10	2.23	787	1	0.08	1	1700	7	1.55	8	8
Q015218		5.95	10	<1	1.59	<10	2.30	794	1	0.07	<1	1600	6	2.35	5	8
Q015219		6.62	10	<1	1.61	<10	2.77	972	1	0.04	1	1170	8	2.65	4	8
Q015220		5.88	10	<1	0.12	<10	0.58	7640	40	0.11	23	440	>10000	2.63	214	3
Q015221		7.81	10	<1	1.44	<10	2.89	1105	<1	0.04	3	600	23	4.13	3	9
Q015222		8.45	10	<1	1.44	<10	3.31	1140	<1	0.03	4	690	15	4.18	3	9
Q015223		8.09	10	<1	1.51	<10	4.10	1345	<1	0.03	4	740	7	2.36	3	10
Q015224		8.02	10	<1	1.60	<10	3.79	1155	<1	0.03	4	710	8	3.36	12	10
Q015225		8.74	10	<1	1.83	<10	3.50	1145	<1	0.04	6	740	6	4.35	10	10
Q015226		8.86	10	<1	2.04	<10	3.48	1100	1	0.03	4	650	6	4.20	4	11
Q015227		7.70	10	<1	2.10	<10	2.84	1125	<1	0.04	5	670	6	3.07	9	12
Q015228		8.25	10	1	1.94	<10	2.83	1325	<1	0.05	5	630	9	2.85	6	11
Q015229		7.64	10	<1	1.62	<10	2.39	1165	<1	0.07	5	680	8	3.26	15	9
Q015230																
Q015231		18.2	10	13	0.17	10	0.57	747	33	0.04	52	230	6830	>10.0	23	1
Q015232		7.61	10	<1	1.50	<10	1.89	909	<1	0.08	5	720	12	4.35	14	8
Q015233		8.22	10	<1	1.61	<10	2.80	1280	<1	0.12	6	680	9	3.09	7	9
Q015234		8.01	10	<1	1.72	<10	2.40	822	<1	0.12	7	690	10	4.42	5	8
Q015235		5.55	10	<1	0.70	<10	1.93	1125	<1	0.18	43	2680	17	0.25	19	7
Q015236		4.41	10	<1	0.76	10	2.00	930	<1	0.14	48	2820	13	0.12	22	7
Q015237		7.09	10	<1	1.62	<10	2.27	882	<1	0.11	12	760	5	2.66	7	9
Q015238		8.61	10	<1	1.50	<10	2.24	917	<1	0.05	8	620	3	5.05	8	8
Q015239		9.79	10	<1	1.07	<10	3.01	1390	<1	0.05	13	790	5	3.86	<2	10
Q015240		7.05	10	<1	0.38	<10	2.66	1385	<1	0.06	8	1150	4	0.09	<2	6
Q015241		7.85	10	<1	1.41	<10	2.25	860	<1	0.08	10	670	7	3.96	2	8
Q015242		4.91	10	<1	0.80	10	2.17	767	<1	0.23	43	2620	19	0.19	8	11
Q015243		4.26	10	<1	0.22	<10	1.82	710	<1	0.10	40	2750	16	0.18	14	6
Q015244		4.61	10	<1	0.43	10	2.06	752	<1	0.13	44	2710	16	0.17	10	8
Q015245		8.17	10	<1	1.58	<10	3.34	1265	<1	0.10	9	740	6	2.35	7	11
Q015246		8.55	10	<1	1.86	<10	2.93	1120	<1	0.08	8	740	11	4.03	6	10
Q015247		8.75	10	<1	1.82	<10	2.92	1065	<1	0.08	9	790	8	4.11	4	10
Q015248		5.39	10	<1	2.01	10	2.94	861	<1	0.44	53	2960	13	0.15	6	18
Q015249		8.86	10	<1	2.06	<10	3.24	1215	<1	0.09	8	700	8	3.29	12	12
Q015250		5.68	<10	<1	0.10	<10	0.56	7530	39	0.11	24	420	>10000	2.53	204	3

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

ALS Canada Ltd.
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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q015211		70	<20	0.20	<10	<10	103	<10	104					
Q015212		42	<20	0.19	<10	<10	115	<10	123					
Q015213		43	<20	0.20	<10	<10	124	<10	114					
Q015214		40	<20	0.20	<10	<10	81	<10	87					
Q015215		27	<20	0.17	<10	<10	97	<10	81					
Q015216		57	<20	0.20	<10	<10	44	<10	90					
Q015217		61	<20	0.21	<10	<10	38	<10	84					
Q015218		52	<20	0.19	<10	<10	46	<10	85					
Q015219		38	<20	0.18	<10	<10	89	<10	99					
Q015220		48	<20	0.09	<10	<10	66	20	>10000	235	0.617	3.16	1.580	0.04
Q015221		36	<20	0.17	<10	<10	136	<10	111					
Q015222		28	<20	0.17	<10	<10	144	<10	129					
Q015223		25	<20	0.17	<10	<10	163	<10	146					
Q015224		23	<20	0.17	<10	<10	150	<10	126					
Q015225		24	<20	0.18	<10	<10	149	<10	126					
Q015226		21	<20	0.19	<10	<10	157	<10	145					
Q015227		34	<20	0.20	<10	<10	147	<10	172					
Q015228		28	<20	0.19	<10	<10	148	<10	176					
Q015229		37	<20	0.16	<10	<10	131	<10	134					
Q015230										1	0.007	0.011	0.009	<0.01
Q015231		16	<20	0.04	<10	<10	18	10	>10000	37	1.320	0.639	7.08	0.01
Q015232		41	<20	0.16	<10	<10	122	<10	185					
Q015233		48	<20	0.17	<10	<10	144	<10	166					
Q015234		37	<20	0.18	<10	<10	132	<10	139					
Q015235		104	<20	0.22	<10	<10	156	<10	125					
Q015236		73	<20	0.23	<10	<10	158	<10	123					
Q015237		44	<20	0.19	<10	<10	136	<10	120					
Q015238		31	<20	0.16	<10	<10	115	<10	105					
Q015239		44	<20	0.14	<10	<10	132	<10	128					
Q015240		26	<20	0.38	10	<10	159	<10	133					
Q015241		39	<20	0.14	<10	<10	113	<10	94					
Q015242		124	<20	0.18	<10	<10	175	<10	96					
Q015243		106	<20	0.17	<10	<10	151	<10	86					
Q015244		122	<20	0.20	<10	<10	162	<10	98					
Q015245		51	<20	0.17	<10	<10	155	<10	123					
Q015246		44	<20	0.18	<10	<10	143	<10	98					
Q015247		31	<20	0.17	<10	<10	137	<10	96					
Q015248		178	<20	0.22	<10	<10	194	<10	106					
Q015249		54	<20	0.18	<10	<10	157	<10	109					
Q015250		47	<20	0.09	<10	<10	64	10	>10000	232	0.614	3.13	1.565	0.04

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

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q015251		3.60	0.025		0.6	3.82	49	<10	40	<0.5	<2	0.57	<0.5	39	4	842
Q015252		3.42	0.019		0.9	3.36	31	<10	40	<0.5	<2	0.98	0.5	39	4	1340
Q015253		3.60	0.024		<0.2	3.27	46	<10	30	<0.5	<2	0.53	<0.5	39	4	40
Q015254		3.59	0.030		0.3	3.48	36	<10	20	<0.5	<2	0.42	<0.5	48	5	58
Q015255		3.46	0.016		0.7	3.70	23	<10	40	<0.5	<2	0.30	<0.5	38	5	560
Q015256		3.44	0.028		1.2	3.10	37	<10	30	<0.5	<2	0.31	<0.5	46	5	737
Q015257		3.52	0.031		1.3	3.28	34	<10	30	<0.5	<2	0.25	<0.5	48	5	1270
Q015258		3.49	0.052		0.8	3.36	38	<10	30	<0.5	<2	0.32	<0.5	45	5	534
Q015259		1.56	0.033		0.9	4.40	37	<10	40	<0.5	<2	0.73	<0.5	34	4	1060
Q015260		1.77	0.035		1.0	4.25	42	<10	30	<0.5	<2	0.67	<0.5	38	5	1370
Q015261		3.51	0.026		0.3	4.13	37	<10	40	<0.5	<2	0.72	<0.5	31	8	581
Q015262		3.44	0.026		0.7	4.29	37	<10	40	<0.5	<2	0.59	<0.5	38	4	1540
Q015263		3.50	0.030		0.9	4.23	27	<10	50	<0.5	2	0.61	<0.5	35	6	1790
Q015264		3.46	0.044		2.0	4.41	20	<10	40	<0.5	<2	0.76	0.6	37	7	5170
Q015265		3.27	0.023		1.9	4.45	10	<10	50	<0.5	<2	0.83	0.8	29	13	3430
Q015266		3.34	0.027		1.6	3.87	9	<10	50	<0.5	<2	0.50	1.2	42	5	2650
Q015267		3.30	0.036		1.5	4.37	12	<10	40	<0.5	3	0.55	0.5	58	17	2150
Q015268		3.39	0.007		<0.2	4.58	9	<10	90	<0.5	<2	0.50	<0.5	17	7	306
Q015269		3.46	0.017		0.2	4.71	11	<10	70	<0.5	<2	0.52	<0.5	31	6	528
Q015270		0.04	5.76	2.85												
Q015271		0.04		3.28	39.9	0.83	145	<10	10	<0.5	70	0.51	227	188	49	>10000
Q015272		3.38	0.035		1.0	5.04	29	<10	70	<0.5	<2	0.66	1.1	22	6	1760
Q015273		3.51	0.029		0.6	4.24	20	<10	40	<0.5	<2	0.47	0.6	25	5	786
Q015274		3.55	0.034		<0.2	4.87	27	<10	30	<0.5	<2	0.58	<0.5	28	6	69
Q015275		3.46	0.016		<0.2	5.18	18	<10	40	<0.5	<2	0.62	<0.5	22	5	19
Q015276		3.84	0.010		<0.2	6.03	25	<10	100	<0.5	<2	0.58	<0.5	19	5	37
Q015277		3.27	0.012		<0.2	4.99	21	<10	100	<0.5	<2	0.56	<0.5	23	5	88
Q015278		3.54	0.017		0.2	4.31	20	<10	90	<0.5	<2	0.56	<0.5	19	4	226
Q015279		3.24	0.012		0.2	3.05	17	<10	80	<0.5	<2	0.59	<0.5	18	1	446
Q015280		0.77	<0.005		0.2	2.60	5	<10	50	<0.5	<2	3.66	<0.5	21	5	42
Q015281		3.39	0.020		0.3	3.14	22	<10	80	<0.5	<2	0.57	<0.5	19	1	745
Q015282		3.72	0.029		0.3	3.04	23	<10	50	<0.5	<2	0.63	<0.5	19	2	312
Q015283		3.49	0.012		0.3	3.31	15	<10	60	<0.5	<2	0.61	<0.5	21	1	372
Q015284		3.52	0.014		0.3	3.36	19	<10	50	<0.5	<2	0.62	<0.5	20	1	428
Q015285		3.57	0.016		0.2	2.96	24	<10	60	<0.5	<2	0.56	<0.5	16	1	263
Q015286		3.46	0.010		0.6	2.88	7	<10	90	<0.5	<2	0.54	<0.5	12	1	681
Q015287		3.58	0.023		<0.2	2.72	13	<10	40	<0.5	<2	0.52	<0.5	24	1	64
Q015288		3.48	0.008		<0.2	3.10	9	<10	250	<0.5	<2	0.53	<0.5	14	1	343
Q015289		3.63	0.053		0.6	3.17	42	<10	40	<0.5	<2	0.53	0.5	30	2	156
Q015290		0.06	1.880	3.04	>100	1.40	418	<10	70	<0.5	<2	1.05	208	10	28	6240

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

ALS Canada Ltd.
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To: CHIEFTAIN METALS INC
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PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q015251		8.18	10	<1	1.70	<10	2.71	1090	<1	0.04	8	670	19	3.57	39	11
Q015252		6.93	10	<1	1.66	<10	2.32	957	<1	0.06	6	670	12	3.49	99	10
Q015253		8.55	<10	<1	1.75	<10	2.13	807	<1	0.08	4	550	13	5.67	7	8
Q015254		8.43	10	<1	2.19	<10	2.21	768	<1	0.10	6	740	8	5.87	12	10
Q015255		7.72	10	<1	2.10	<10	2.63	1045	<1	0.08	8	640	10	3.56	23	13
Q015256		7.93	10	<1	1.88	<10	2.10	833	<1	0.09	9	610	8	4.54	14	11
Q015257		7.89	10	<1	1.94	<10	2.21	805	<1	0.06	9	710	8	4.22	17	10
Q015258		7.89	10	<1	2.13	<10	2.22	741	<1	0.10	8	660	8	4.62	21	10
Q015259		7.91	10	<1	2.41	<10	2.57	870	<1	0.17	7	720	12	4.00	10	11
Q015260		8.20	10	<1	2.33	<10	2.52	853	<1	0.15	7	670	9	4.37	10	11
Q015261		7.56	10	<1	1.95	<10	2.60	879	<1	0.13	10	760	10	3.43	7	10
Q015262		8.10	10	<1	1.79	<10	2.84	1010	<1	0.07	8	750	15	3.67	10	9
Q015263		8.05	10	<1	1.66	<10	2.80	1040	<1	0.06	7	660	9	3.49	12	10
Q015264		9.05	10	<1	1.80	<10	2.77	950	<1	0.09	7	730	10	4.93	11	10
Q015265		7.83	10	<1	1.64	<10	2.81	1020	<1	0.10	9	770	10	3.03	6	10
Q015266		7.91	10	<1	1.27	<10	2.59	1080	<1	0.04	7	670	17	3.38	4	8
Q015267		9.83	10	<1	1.32	<10	2.95	1460	1	0.05	10	810	12	4.46	17	11
Q015268		7.90	10	<1	1.45	<10	3.23	1420	<1	0.05	7	590	6	1.82	9	10
Q015269		8.22	10	<1	1.64	<10	3.26	1440	<1	0.05	6	590	11	2.47	3	11
Q015270																
Q015271		18.7	10	14	0.15	10	0.57	741	34	0.04	55	240	6900	>10.0	17	1
Q015272		9.46	10	1	1.89	<10	3.43	1810	<1	0.06	6	560	22	2.66	13	13
Q015273		8.55	10	<1	1.30	<10	2.89	1355	<1	0.04	8	650	17	2.98	3	8
Q015274		10.50	10	<1	1.20	<10	3.34	1505	<1	0.04	7	570	14	4.63	<2	9
Q015275		9.67	10	<1	1.26	<10	3.57	1600	<1	0.04	6	610	6	3.14	<2	9
Q015276		10.25	10	<1	1.08	<10	4.26	2060	<1	0.05	5	600	10	2.53	<2	12
Q015277		8.12	10	1	1.33	<10	3.30	1720	<1	0.08	5	580	12	2.13	<2	10
Q015278		7.48	10	1	1.15	<10	2.86	1460	<1	0.11	4	1020	12	1.95	<2	8
Q015279		6.09	10	<1	1.03	<10	1.82	938	<1	0.11	1	1610	7	2.08	<2	5
Q015280		5.24	10	<1	0.22	<10	1.88	1100	1	0.08	5	960	6	0.05	<2	6
Q015281		6.63	10	1	1.05	<10	1.96	1020	1	0.10	1	1650	7	2.11	<2	5
Q015282		6.18	10	1	1.28	<10	1.76	901	8	0.12	1	1640	14	2.29	2	5
Q015283		6.50	10	1	1.36	<10	2.01	1020	<1	0.12	<1	1680	12	2.28	2	5
Q015284		6.76	10	1	1.24	<10	2.09	1050	1	0.13	<1	1610	11	2.51	<2	6
Q015285		6.39	10	<1	1.19	<10	1.88	947	<1	0.11	1	1690	7	2.05	4	5
Q015286		5.73	10	<1	1.21	<10	1.83	906	<1	0.11	<1	1670	8	1.45	<2	5
Q015287		5.84	10	<1	1.34	<10	1.67	715	1	0.11	1	1630	14	2.54	2	6
Q015288		5.79	10	<1	0.84	<10	2.24	1135	<1	0.10	1	1590	5	0.44	3	7
Q015289		7.16	10	<1	1.60	<10	2.10	739	2	0.13	1	1600	456	3.70	3	8
Q015290		5.60	<10	1	0.11	<10	0.54	7320	38	0.10	23	410	>10000	2.51	208	3

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q015251		31	<20	0.15	<10	<10	132	<10	140					
Q015252		55	<20	0.15	<10	<10	121	<10	209					
Q015253		33	<20	0.15	10	<10	96	<10	141					
Q015254		32	<20	0.19	<10	<10	130	<10	172					
Q015255		26	<20	0.21	<10	<10	153	<10	169					
Q015256		25	<20	0.20	<10	<10	138	<10	213					
Q015257		18	<20	0.19	<10	<10	130	<10	223					
Q015258		29	<20	0.20	<10	<10	127	<10	256					
Q015259		49	<20	0.22	<10	<10	153	<10	142					
Q015260		46	<20	0.21	<10	<10	146	<10	150					
Q015261		57	<20	0.20	<10	<10	138	<10	112					
Q015262		37	<20	0.18	<10	<10	134	<10	131					
Q015263		30	<20	0.16	<10	<10	133	<10	170					
Q015264		43	<20	0.17	<10	<10	134	<10	244					
Q015265		50	<20	0.16	<10	<10	136	<10	412					
Q015266		19	<20	0.14	<10	<10	114	<10	497					
Q015267		22	<20	0.16	<10	<10	136	<10	342					
Q015268		24	<20	0.16	<10	<10	128	<10	184					
Q015269		21	<20	0.17	<10	<10	133	<10	231					
Q015270										1	0.007	0.013	0.013	<0.01
Q015271		17	<20	0.04	10	<10	19	<10	>10000	37	1.320	0.646	7.03	0.01
Q015272		28	<20	0.20	<10	<10	155	<10	393					
Q015273		17	<20	0.14	<10	<10	123	<10	291					
Q015274		17	<20	0.14	<10	<10	134	<10	193					
Q015275		20	<20	0.15	<10	<10	136	<10	188					
Q015276		19	<20	0.14	<10	<10	173	<10	266					
Q015277		21	<20	0.17	<10	<10	136	<10	224					
Q015278		23	<20	0.15	<10	<10	91	<10	151					
Q015279		19	<20	0.14	<10	<10	21	<10	104					
Q015280		32	<20	0.30	<10	<10	126	<10	101					
Q015281		16	<20	0.14	<10	<10	25	<10	106					
Q015282		20	<20	0.16	<10	<10	23	<10	98					
Q015283		22	<20	0.17	<10	<10	23	<10	110					
Q015284		19	<20	0.15	<10	<10	25	<10	104					
Q015285		18	<20	0.16	<10	<10	23	<10	106					
Q015286		17	<20	0.16	<10	<10	24	<10	102					
Q015287		14	<20	0.17	<10	<10	26	<10	93					
Q015288		74	<20	0.14	<10	<10	30	<10	122					
Q015289		18	<20	0.18	<10	<10	37	<10	162					
Q015290		45	<20	0.08	<10	<10	63	20	>10000	231	0.616	3.16	1.575	0.04

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q015291		3.28	<0.005		<0.2	4.35	7	<10	720	<0.5	<2	0.51	<0.5	31	34	121
Q015292		2.96	<0.005		<0.2	4.20	7	<10	880	<0.5	<2	1.45	<0.5	29	27	132
Q015293		3.89	0.056		0.4	4.01	30	<10	30	<0.5	2	0.26	<0.5	34	4	30
Q015294		3.61	0.010		<0.2	4.59	4	<10	50	<0.5	<2	0.38	<0.5	32	5	36
Q015295		2.18	0.005		<0.2	4.37	61	<10	100	<0.5	<2	1.19	<0.5	35	294	37
Q015296		1.88	0.019		<0.2	6.45	35	<10	90	<0.5	2	2.43	<0.5	41	257	44
Q015297		1.37	0.230		4.5	0.22	66	<10	10	<0.5	<2	0.13	1.3	1	2	611
Q015298		1.78	0.178		3.0	0.24	62	<10	10	<0.5	3	0.13	<0.5	2	1	415

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Finalized Date: 23-NOV-2013
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CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q015291		6.75	10	<1	0.54	<10	4.44	1300	<1	0.13	32	860	24	0.03	5	23
Q015292		6.08	10	<1	0.52	<10	3.98	1140	<1	0.16	26	910	8	0.28	9	21
Q015293		8.90	10	<1	1.29	<10	3.34	1080	1	0.06	5	700	21	4.36	3	14
Q015294		9.25	10	<1	0.98	<10	3.72	1355	<1	0.09	6	590	11	3.42	3	16
Q015295		5.70	10	1	0.67	<10	4.76	960	<1	0.08	255	780	11	1.33	11	12
Q015296		8.46	10	<1	0.95	<10	6.19	1450	1	0.12	162	770	12	1.87	9	21
Q015297		24.5	<10	<1	0.11	<10	0.03	17	1	0.02	1	<10	238	>10.0	9	<1
Q015298		23.8	<10	<1	0.10	<10	0.03	10	1	0.05	<1	<10	87	>10.0	3	<1

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Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q015291		21	<20	0.14	<10	<10	272	<10	140					
Q015292		45	<20	0.12	<10	<10	219	<10	97					
Q015293		14	<20	0.15	<10	<10	146	<10	126					
Q015294		22	<20	0.14	<10	<10	186	<10	161					
Q015295		92	<20	0.11	<10	<10	142	<10	102					
Q015296		180	<20	0.13	<10	<10	211	<10	152					
Q015297		10	<20	<0.01	<10	<10	4	<10	566					
Q015298		26	<20	<0.01	<10	<10	3	<10	274					

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

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To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 23-NOV-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13197987

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

CERTIFICATE WH13181216

Project: Tulsequah Project
P.O. No.: 300534
This report is for 33 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 7-OCT-2013.
The following have access to data associated with this certificate:

ACCOUNTS PAYABLE GARY MACSPORRAN	BRETT ARMSTRONG CHRISTINA TAYLOR	ADRIAN FORSYTH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
OA-GRA08b	Specific Gravity for Pulps	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: CHIEFTAIN METALS INC
ATTN: BRETT ARMSTRONG
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

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

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

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181216

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	OA-GRA08b S.G. Unity 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
Q014463		3.23	0.006		0.2	3.05	17	<10	40	<0.5	<2	6.32	<0.5	24	56	27
Q014464		3.39	0.011		0.9	3.34	11	<10	40	<0.5	2	5.30	<0.5	29	49	157
Q014465		3.39	0.029		1.2	3.80	600	<10	30	<0.5	<2	6.56	<0.5	33	171	80
Q014466		2.41	0.006		0.3	3.32	8	<10	20	<0.5	<2	5.19	<0.5	31	53	120
Q014467		3.60	0.019		1.1	3.02	62	<10	30	<0.5	<2	5.82	<0.5	29	49	142
Q014468		3.53	0.042		1.1	3.07	96	<10	30	<0.5	<2	6.14	<0.5	30	48	117
Q014469		1.63	0.062		1.1	3.37	121	<10	30	<0.5	<2	5.41	<0.5	35	65	122
Q014470		0.07	5.90	2.73												
Q014471		0.08		3.33	38.3	0.79	139	10	10	<0.5	53	0.48	217	178	44	>10000
Q014472		2.33	0.011		0.4	3.24	11	<10	30	<0.5	<2	4.86	<0.5	31	58	95
Q014473		3.32	0.041		<0.2	4.44	6	<10	20	<0.5	2	8.4	<0.5	42	328	23
Q014474		2.91	0.034		0.8	4.26	483	<10	10	<0.5	<2	6.03	<0.5	50	591	101
Q014475		1.60	0.612	2.86	17.5	0.39	>10000	<10	10	<0.5	<2	8.5	26.9	24	72	153
Q014476		1.01	0.121		1.9	3.03	2290	<10	20	<0.5	<2	5.84	1.4	39	259	102
Q014477		3.71	0.047		1.0	3.26	79	<10	50	<0.5	<2	6.03	<0.5	30	70	117
Q014478		3.38	0.029		<0.2	3.66	17	<10	60	<0.5	<2	6.70	<0.5	33	116	48
Q014479		3.42	0.053		0.3	3.74	10	<10	40	<0.5	2	6.29	<0.5	34	76	90
Q014480		0.09	1.830	2.90	>100	1.38	401	<10	70	<0.5	5	1.06	204	10	26	6100
Q014481		3.67	<0.005		0.6	3.43	119	<10	40	<0.5	<2	3.41	<0.5	43	734	110
Q014482		3.52	<0.005		0.5	3.66	233	<10	30	<0.5	<2	4.40	<0.5	47	774	82
Q014483		2.89	<0.005		0.5	3.48	230	<10	30	<0.5	<2	3.92	<0.5	43	748	65
Q014484		2.40	0.010		0.3	3.42	743	<10	20	<0.5	<2	4.68	<0.5	42	737	51
Q014485		1.12	0.451	2.83	39.1	2.59	>10000	<10	10	<0.5	3	3.70	90.0	36	546	125
Q014486		0.86	0.128		0.8	2.87	8230	<10	10	<0.5	<2	12.0	5.8	37	539	53
Q014487		3.51	0.011		0.6	4.02	391	<10	20	<0.5	<2	5.03	<0.5	46	600	102
Q014488		3.40	<0.005		0.2	3.50	65	<10	20	<0.5	<2	4.37	<0.5	37	395	115
Q014489		1.58	<0.005		<0.2	4.06	9	<10	40	<0.5	3	5.89	<0.5	37	187	138
Q014490		1.64	<0.005		<0.2	3.96	5	<10	30	<0.5	2	5.95	<0.5	35	170	119
Q014491		1.46	<0.005		<0.2	3.67	5	<10	30	<0.5	3	7.03	<0.5	33	153	136
Q014492		5.23	<0.005		<0.2	4.09	5	<10	40	<0.5	2	5.45	<0.5	37	179	136
Q014493		3.61	<0.005		<0.2	4.10	5	<10	40	<0.5	<2	5.67	<0.5	37	196	130
Q014494		3.21	<0.005		<0.2	4.17	3	<10	30	<0.5	<2	5.71	<0.5	37	181	143
Q014495		0.77	<0.005		0.2	3.75	7	<10	70	<0.5	4	1.58	<0.5	30	8	80

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181216

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
Q014463		5.16	10	<1	0.27	<10	2.47	1060	<1	0.05	23	860	<2	0.23	2	16
Q014464		5.64	10	<1	0.25	<10	2.85	1030	<1	0.06	24	630	<2	0.56	3	16
Q014465		5.81	10	<1	0.21	<10	3.80	1305	<1	0.03	57	1060	4	0.54	5	16
Q014466		5.23	10	<1	0.17	<10	2.95	949	<1	0.06	30	850	<2	0.07	3	17
Q014467		5.06	10	<1	0.21	<10	2.70	957	<1	0.05	28	790	2	0.61	4	13
Q014468		5.17	10	<1	0.23	<10	2.75	991	<1	0.05	28	830	<2	0.64	<2	15
Q014469		5.76	10	<1	0.26	<10	3.07	1015	<1	0.04	37	750	2	0.86	<2	15
Q014470																
Q014471		17.5	10	13	0.16	10	0.52	678	34	0.04	47	210	6280	>10.0	24	1
Q014472		5.23	10	<1	0.32	<10	2.84	915	<1	0.05	30	780	2	0.31	3	17
Q014473		6.15	10	1	0.13	<10	5.15	1400	<1	0.03	193	1090	<2	0.08	<2	23
Q014474		6.15	10	<1	0.08	<10	7.05	1310	<1	0.02	241	790	3	1.18	11	25
Q014475		4.06	<10	<1	0.14	<10	4.50	1565	<1	0.01	117	400	1550	2.02	451	9
Q014476		5.76	10	<1	0.24	<10	4.76	1255	<1	0.03	111	860	79	1.65	16	23
Q014477		5.50	10	<1	0.26	<10	3.16	1045	<1	0.04	40	830	10	0.74	6	17
Q014478		5.64	10	<1	0.66	<10	3.36	1090	<1	0.03	44	790	4	0.23	<2	20
Q014479		6.07	10	<1	0.34	<10	3.42	1200	<1	0.04	30	1090	4	0.21	2	19
Q014480		5.41	<10	1	0.11	<10	0.52	6950	37	0.11	21	400	>10000	2.22	202	3
Q014481		4.33	10	<1	0.95	<10	5.21	718	<1	0.04	225	750	9	0.32	3	5
Q014482		4.47	10	<1	0.79	<10	5.71	774	<1	0.04	245	650	3	0.37	<2	5
Q014483		4.14	10	<1	0.75	<10	5.39	702	<1	0.03	247	680	3	0.29	<2	4
Q014484		4.11	10	<1	0.42	<10	5.44	810	<1	0.03	239	670	4	0.53	3	6
Q014485		4.21	10	<1	0.09	<10	4.51	749	<1	0.03	202	450	3620	1.64	14	16
Q014486		4.01	10	<1	0.06	<10	4.88	1550	<1	0.03	200	510	79	1.15	5	15
Q014487		5.30	10	<1	0.31	<10	5.83	978	<1	0.05	213	750	11	0.57	2	9
Q014488		4.76	10	<1	0.34	<10	4.46	835	<1	0.05	108	670	2	0.20	2	9
Q014489		6.39	10	<1	0.31	<10	4.11	1110	<1	0.06	59	830	<2	0.16	2	29
Q014490		6.21	10	<1	0.32	<10	4.03	1090	<1	0.06	55	820	3	0.14	2	29
Q014491		5.79	10	<1	0.24	<10	3.80	1110	<1	0.07	48	820	2	0.12	<2	27
Q014492		6.44	10	<1	0.56	<10	4.05	1070	<1	0.06	59	840	2	0.11	<2	29
Q014493		6.41	10	<1	0.43	<10	4.21	1100	<1	0.06	62	820	2	0.19	3	30
Q014494		6.48	10	<1	0.39	<10	4.25	1160	<1	0.06	58	830	<2	0.10	<2	28
Q014495		7.51	10	<1	0.37	<10	2.79	1390	<1	0.08	6	1220	<2	0.07	<2	9

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181216

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	ME-OG46 Ag ppm 1	ME-OG46 Cu % 0.001	ME-OG46 Pb % 0.001	ME-OG46 Zn % 0.001	ME-OG46 As % 0.01
Q014463		149	<20	0.13	<10	<10	151	<10	69					
Q014464		120	<20	0.06	<10	<10	165	<10	76					
Q014465		154	<20	0.02	<10	<10	153	<10	92					
Q014466		116	<20	0.20	<10	<10	179	<10	65					
Q014467		104	<20	0.14	<10	<10	141	<10	62					
Q014468		126	<20	0.13	<10	<10	144	<10	64					
Q014469		108	<20	0.12	<10	<10	156	<10	72					
Q014470										1	0.011	0.014	0.013	<0.01
Q014471		15	<20	0.04	<10	<10	18	<10	>10000	39	1.370	0.667	7.09	0.01
Q014472		95	<20	0.18	<10	<10	163	<10	97					
Q014473		233	<20	0.02	<10	<10	190	<10	89					
Q014474		205	<20	0.02	<10	<10	167	<10	86					
Q014475		421	<20	<0.01	<10	<10	23	<10	959	17	0.016	0.159	0.104	1.09
Q014476		220	<20	0.01	<10	<10	126	<10	111					
Q014477		184	<20	0.01	<10	<10	146	<10	74					
Q014478		251	<20	0.12	<10	<10	154	<10	68					
Q014479		229	<20	0.13	<10	<10	172	<10	78					
Q014480		45	<20	0.08	<10	<10	60	10	>10000	232	0.615	3.23	1.625	0.04
Q014481		161	<20	0.18	<10	<10	116	<10	50					
Q014482		239	<20	0.16	<10	<10	98	<10	47					
Q014483		177	<20	0.16	<10	<10	89	<10	42					
Q014484		229	<20	0.14	<10	<10	91	<10	44					
Q014485		263	<20	0.05	<10	<10	97	<10	2320	37	0.012	0.371	0.242	1.23
Q014486		947	<20	0.06	<10	<10	108	<10	232					
Q014487		216	<20	0.19	<10	<10	159	<10	67					
Q014488		152	<20	0.21	<10	<10	160	<10	53					
Q014489		191	<20	0.14	<10	<10	242	<10	74					
Q014490		191	<20	0.15	<10	<10	232	<10	71					
Q014491		217	<20	0.16	<10	<10	227	<10	66					
Q014492		162	<20	0.20	<10	<10	237	<10	71					
Q014493		183	<20	0.20	<10	<10	236	<10	71					
Q014494		186	<20	0.24	<10	<10	238	<10	75					
Q014495		22	<20	0.46	<10	<10	172	<10	141					

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

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

To: CHIEFTAIN METALS INC
118-1515 BROADWAY ST
PORT COQUITLAM BC V3C 6M2

Finalized Date: 18-OCT-2013
Account: CHEMET

Project: Tulsequah Project

CERTIFICATE OF ANALYSIS WH13181216

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	LOG-23
	PUL-31	PUL-QC	SPL-21	WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	Au-AA23	ME-ICP41	ME-OG46	OA-GRA08b

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Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Submitted By:	Brett Armstrong
Receiving Lab:	Canada-Vancouver
Received:	November 04, 2013
Report Date:	December 05, 2013
Page:	1 of 3

CERTIFICATE OF ANALYSIS VAN13004665.1

CLIENT JOB INFORMATION

Project:	Tulsequah
Shipment ID:	
P.O. Number	300558
Number of Samples:	59

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.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	59	Crush, split and pulverize 250 g rock to 200 mesh			VAN
XWSH	59	Extra Wash with Glass between each sample			VAN
4AB1	59	Whole Rock Analysis Majors and Trace Elements	0.2	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Chieftain Metals Inc.
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2
CANADA

CC: Adrian Forsyth
Christina Taylor

BRITISH COLUMBIA CERTIFIED ASSAYER
Marcus Lau
MARCUS LAU
Geochemical Laboratory Manager

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.

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Acme Analytical Laboratories (Vancouver) Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

CERTIFICATE OF ANALYSIS VAN13004665.1

	Method	WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs
	Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1
957101	Drill Core	0.67	47.55	19.32	10.32	7.81	1.90	1.03	5.54	0.90	0.12	0.30	0.003	<20	36	4.8	99.58	2635	<1	21.2	3.6
957102	Drill Core	1.13	43.67	8.44	10.69	17.62	10.28	0.46	1.03	0.41	0.17	0.19	0.190	394	36	6.6	99.84	320	<1	66.4	8.9
957103	Drill Core	1.24	45.45	12.07	10.45	11.12	10.94	1.95	0.94	0.62	0.19	0.19	0.070	124	42	5.8	99.82	272	2	47.5	4.3
957104	Drill Core	1.18	43.41	9.69	10.45	10.31	12.64	1.16	0.44	0.48	0.23	0.18	0.080	107	44	10.8	99.86	59	1	50.7	5.2
957105	Drill Core	1.24	48.53	15.27	11.04	6.59	9.50	2.74	0.88	0.75	0.25	0.19	0.015	31	34	4.1	99.80	260	1	37.9	3.6
957106	Drill Core	1.16	44.06	15.80	10.51	6.90	7.83	2.16	1.98	0.70	0.15	0.13	0.014	32	39	9.6	99.83	325	1	37.0	3.8
957107	Drill Core	0.98	41.51	9.21	9.57	13.22	11.02	0.07	1.54	0.46	0.20	0.17	0.119	304	35	12.7	99.83	142	<1	57.1	19.8
957108	Drill Core	0.56	45.69	13.12	9.61	7.35	9.13	2.98	0.65	0.70	0.22	0.15	0.030	51	33	10.2	99.82	173	<1	35.4	5.4
957109	Drill Core	1.14	46.01	15.32	9.59	6.49	8.04	4.16	0.44	0.82	0.26	0.15	0.021	45	35	8.5	99.81	245	<1	33.3	4.4
957110	Drill Core	1.07	45.11	11.94	9.10	10.14	9.07	1.92	1.23	0.58	0.23	0.15	0.078	208	31	10.3	99.83	117	<1	42.5	20.6
957111	Drill Core	1.37	64.46	13.66	7.59	2.26	0.55	0.08	5.34	0.57	0.18	0.07	0.002	<20	18	4.7	99.47	3885	<1	6.1	3.4
957112	Drill Core	1.11	65.91	13.96	5.61	1.87	0.65	0.09	5.63	0.71	0.26	0.06	0.002	<20	21	4.5	99.26	5770	<1	5.4	2.4
957113	Drill Core	0.97	65.02	14.21	6.49	1.60	0.51	0.15	5.77	0.73	0.30	0.06	<0.002	<20	21	4.5	99.35	5002	<1	11.4	1.5
957114	Drill Core	0.65	65.89	14.58	5.57	1.75	0.49	0.56	5.90	0.73	0.28	0.06	<0.002	<20	23	3.5	99.35	4919	<1	5.7	2.0
957115	Drill Core	0.67	63.23	14.06	8.45	3.08	1.02	2.83	2.47	0.73	0.21	0.13	0.003	<20	22	3.4	99.55	2660	3	14.4	1.4
957116	Drill Core	0.93	54.07	15.10	12.08	5.31	1.03	1.72	2.71	0.94	0.28	0.15	0.002	<20	27	6.2	99.61	2529	1	18.7	3.4
957117	Drill Core	1.01	55.04	17.87	8.72	3.62	1.05	1.35	5.23	1.17	0.41	0.10	<0.002	<20	31	4.9	99.46	3641	<1	33.4	2.9
957118	Drill Core	0.75	54.35	18.32	8.70	4.06	1.12	2.75	4.08	1.20	0.30	0.12	<0.002	<20	33	4.6	99.61	2544	1	20.4	2.1
957119	Drill Core	0.72	63.54	13.96	8.65	3.30	0.40	0.53	3.71	0.84	0.16	0.13	0.002	<20	24	4.4	99.61	2612	4	23.5	3.5
957120	Drill Core	0.83	37.11	24.36	15.28	1.35	0.54	0.13	8.15	1.60	0.38	0.02	0.002	<20	44	10.5	99.42	3959	1	35.7	3.6
957121	Drill Core	0.75	57.39	18.52	6.74	3.30	0.69	1.16	5.78	1.21	0.26	0.11	<0.002	<20	32	4.4	99.52	3274	1	8.9	3.8
957122	Drill Core	0.81	44.19	23.49	10.35	2.05	0.68	0.28	8.58	1.47	0.11	0.03	<0.002	<20	41	8.1	99.29	5149	2	28.9	5.2
957123	Drill Core	0.79	57.74	17.38	8.20	1.78	0.55	0.21	6.48	0.72	0.13	0.04	0.003	<20	27	5.9	99.14	6831	<1	21.5	2.3
957124	Drill Core	0.77	55.98	13.37	13.03	4.43	1.44	2.35	1.90	0.64	0.16	0.13	<0.002	<20	23	6.2	99.59	1994	2	46.2	1.7
957125	Drill Core	0.79	51.90	15.15	11.16	6.21	4.37	0.55	2.16	0.80	0.13	0.31	0.003	<20	28	4.2	96.98	24236	<1	22.5	1.8
957126	Drill Core	0.69	51.75	16.35	12.70	7.92	1.60	1.08	1.90	0.91	0.16	0.37	<0.002	<20	33	4.9	99.66	1656	2	26.3	1.7
957127	Drill Core	1.50	46.33	10.01	9.21	18.37	7.56	1.25	0.18	0.48	0.27	0.17	0.241	683	26	5.7	99.82	454	2	63.5	0.7
957128	Drill Core	0.69	47.46	17.07	14.67	6.88	2.62	1.59	2.74	0.92	0.16	0.29	<0.002	<20	33	5.3	99.71	1402	2	38.7	1.6
957129	Drill Core	0.72	51.67	14.40	15.68	6.56	0.86	0.09	2.84	0.73	0.13	0.30	0.003	<20	26	6.3	99.59	2616	<1	36.9	1.1
957130	Drill Core	0.71	52.61	16.63	11.93	6.11	0.38	0.09	4.16	0.80	0.14	0.17	<0.002	<20	28	6.6	99.57	2926	<1	26.3	1.7

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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Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

CERTIFICATE OF ANALYSIS VAN13004665.1

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05
957101	Drill Core	19.9	1.6	2.7	102.7	1	96.7	0.1	0.6	0.2	315	1.7	28.3	13.1	6.7	14.5	2.03	10.2	2.49	0.93	2.85
957102	Drill Core	9.7	0.4	0.9	31.2	<1	179.0	<0.1	0.2	0.2	196	<0.5	16.8	7.6	3.2	7.6	1.02	5.8	1.01	0.53	1.79
957103	Drill Core	12.6	0.7	1.3	19.4	2	283.2	<0.1	0.7	0.3	266	<0.5	29.2	13.1	4.3	9.3	1.28	4.9	2.00	0.69	2.39
957104	Drill Core	11.6	0.5	1.2	15.9	1	263.9	0.2	0.6	0.2	238	0.5	20.0	9.9	4.4	10.3	1.30	7.3	2.00	0.53	2.24
957105	Drill Core	15.2	1.8	1.3	15.6	2	329.5	<0.1	0.9	0.5	339	<0.5	33.5	14.6	5.6	12.1	1.66	8.9	1.98	0.83	3.19
957106	Drill Core	16.4	0.5	1.4	49.8	1	214.3	0.2	0.9	0.2	300	0.8	33.4	12.4	5.2	10.7	1.64	8.9	2.13	0.88	2.75
957107	Drill Core	10.1	0.7	1.0	62.1	<1	450.6	0.1	0.5	0.3	215	<0.5	21.0	8.7	4.3	9.3	1.25	5.5	1.78	0.57	2.16
957108	Drill Core	13.6	1.3	1.4	16.6	1	302.1	<0.1	0.8	0.5	282	<0.5	35.9	14.2	4.8	11.5	1.51	8.2	2.01	0.86	2.90
957109	Drill Core	15.4	1.3	2.1	11.3	1	370.8	<0.1	0.7	0.2	307	<0.5	37.0	16.3	5.0	12.8	1.69	9.6	2.48	1.00	2.96
957110	Drill Core	13.4	1.2	1.7	59.9	1	396.0	<0.1	1.3	0.7	227	0.8	37.9	13.3	7.2	13.9	2.07	7.0	2.53	0.76	2.59
957111	Drill Core	15.8	3.5	6.4	104.9	1	66.3	0.3	3.7	1.3	17	2.0	114.0	31.7	19.5	41.4	5.27	22.8	5.22	1.10	6.08
957112	Drill Core	16.2	2.1	4.9	93.2	2	92.6	0.5	2.4	1.2	39	2.2	90.8	22.5	18.6	36.5	4.97	23.1	5.90	1.39	5.45
957113	Drill Core	17.3	3.0	5.3	87.4	2	44.9	0.3	2.9	1.1	30	3.9	93.1	27.9	20.6	43.8	5.57	22.0	5.86	1.10	6.03
957114	Drill Core	17.6	2.7	5.9	89.7	2	63.9	0.6	3.2	1.2	25	3.6	104.8	26.6	21.3	43.1	5.21	20.3	4.28	1.37	5.56
957115	Drill Core	16.1	2.4	5.4	44.6	2	58.5	0.2	2.6	0.9	106	1.5	96.0	33.9	20.3	38.6	5.33	22.6	5.38	1.50	5.45
957116	Drill Core	17.1	1.6	3.0	43.0	2	72.8	0.1	1.2	0.7	269	2.1	55.6	10.8	6.9	15.0	1.92	9.5	2.06	0.69	2.70
957117	Drill Core	18.8	2.4	4.2	84.5	1	45.0	0.2	1.4	0.9	230	2.3	70.1	29.9	24.0	57.8	6.91	29.3	5.97	1.93	7.02
957118	Drill Core	16.9	1.9	4.4	72.7	1	49.7	0.2	1.5	1.0	175	2.4	74.3	21.5	15.7	31.4	4.29	19.5	3.89	1.44	4.67
957119	Drill Core	15.9	1.0	3.2	57.0	1	21.7	<0.1	1.1	0.7	240	1.3	52.5	13.5	8.1	18.4	2.50	12.7	3.17	0.89	3.05
957120	Drill Core	25.4	2.0	5.5	100.0	1	34.1	0.3	1.8	0.9	370	3.1	86.3	29.8	15.1	35.4	4.40	22.7	5.64	0.84	6.68
957121	Drill Core	18.8	2.4	4.6	89.9	2	32.2	0.3	1.7	0.4	222	2.3	73.8	20.6	17.1	45.6	5.75	21.5	5.69	1.90	5.68
957122	Drill Core	25.2	3.5	5.1	129.8	2	29.4	0.3	2.0	0.8	343	2.0	85.9	21.3	14.0	31.1	4.17	18.8	4.62	1.22	5.05
957123	Drill Core	16.0	0.5	1.5	102.0	<1	37.5	<0.1	0.6	0.3	290	1.5	27.7	10.4	2.7	6.7	1.02	6.0	1.83	0.42	2.16
957124	Drill Core	11.8	1.3	1.4	37.6	<1	66.7	<0.1	0.5	0.4	222	1.5	25.6	10.1	3.7	7.0	1.18	5.8	1.82	0.51	1.99
957125	Drill Core	16.4	1.2	1.8	39.3	<1	811.2	0.1	0.6	0.3	285	1.9	34.1	15.3	6.5	14.2	1.97	6.9	2.07	1.21	2.70
957126	Drill Core	17.9	1.9	1.6	34.1	<1	120.8	<0.1	0.6	0.2	313	4.4	37.1	12.9	8.3	21.4	2.83	15.4	2.97	0.81	2.89
957127	Drill Core	11.7	0.6	1.7	2.6	1	212.0	0.1	0.9	0.7	173	0.9	37.7	10.3	6.1	14.4	1.79	8.8	1.97	0.50	2.33
957128	Drill Core	17.5	1.1	1.8	56.3	<1	176.5	<0.1	0.7	0.2	302	1.3	37.3	16.6	7.9	16.3	2.23	12.5	2.89	1.21	3.60
957129	Drill Core	13.1	1.3	1.7	55.4	1	28.8	0.1	0.5	0.3	256	1.7	32.8	14.2	6.5	14.2	1.90	8.1	2.20	0.82	2.77
957130	Drill Core	18.7	0.9	1.6	68.9	<1	16.2	<0.1	0.8	0.3	267	1.7	32.5	17.9	3.8	8.9	1.26	7.5	2.12	0.58	2.74

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PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

CERTIFICATE OF ANALYSIS VAN13004665.1

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	2A Leco	2A Leco	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	Tb	Dy	Ho	Er	Tm	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb
	MDL	0.01	0.05	0.02	0.03	0.01	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5
957101	Drill Core	0.46	2.61	0.47	1.23	0.24	1.75	0.27	0.05	2.24	0.1	23.3	7.6	134	8.0	17.7	<0.1	1.0	<0.1	<0.1	13.3
957102	Drill Core	0.27	2.36	0.32	1.10	0.13	0.92	0.13	0.80	0.15	0.3	101.0	1.4	38	289.3	9.6	<0.1	0.5	<0.1	0.2	<0.5
957103	Drill Core	0.42	2.66	0.62	1.34	0.21	1.60	0.24	0.83	0.07	0.4	112.8	1.9	41	97.0	5.2	<0.1	0.4	<0.1	0.1	<0.5
957104	Drill Core	0.32	2.37	0.38	1.12	0.23	1.15	0.18	2.11	0.07	0.4	85.6	2.8	50	101.8	3.5	0.1	0.3	<0.1	<0.1	<0.5
957105	Drill Core	0.55	3.15	0.65	1.58	0.27	1.97	0.28	0.41	0.09	0.4	158.4	1.0	59	34.7	14.4	0.2	0.5	<0.1	0.2	<0.5
957106	Drill Core	0.38	2.80	0.57	1.24	0.25	1.57	0.24	1.60	<0.02	<0.1	29.8	1.6	67	37.1	2.9	<0.1	0.3	<0.1	<0.1	<0.5
957107	Drill Core	0.29	1.88	0.39	1.07	0.21	1.10	0.19	2.36	0.18	0.4	99.7	3.2	64	284.7	3.4	0.1	0.1	<0.1	0.2	<0.5
957108	Drill Core	0.46	2.64	0.49	1.80	0.27	1.60	0.27	1.88	0.15	0.4	145.3	2.0	67	62.7	4.4	<0.1	0.4	<0.1	<0.1	<0.5
957109	Drill Core	0.55	3.26	0.60	1.88	0.29	1.92	0.26	1.49	0.17	0.9	120.2	1.2	66	48.1	2.5	<0.1	0.5	<0.1	0.2	0.8
957110	Drill Core	0.42	2.66	0.59	1.65	0.20	1.48	0.22	1.89	0.16	0.5	146.0	2.9	66	219.6	24.9	0.3	0.8	<0.1	0.5	<0.5
957111	Drill Core	0.99	6.48	1.28	3.51	0.56	3.58	0.55	0.10	3.01	2.1	12.4	4.5	26	0.7	14.4	<0.1	1.9	1.3	<0.1	4.8
957112	Drill Core	0.81	4.69	0.95	2.88	0.41	3.25	0.54	0.24	2.07	0.6	16.5	1.9	19	1.8	4.8	<0.1	0.6	0.8	<0.1	0.8
957113	Drill Core	1.03	6.18	1.31	3.11	0.47	3.31	0.54	<0.02	3.28	5.2	7.4	6.2	15	1.1	12.2	<0.1	0.4	2.2	0.2	16.6
957114	Drill Core	0.82	5.16	1.17	3.24	0.48	2.93	0.49	<0.02	1.91	0.8	91.8	2.6	16	1.4	8.2	<0.1	0.5	1.0	0.2	12.8
957115	Drill Core	1.01	5.98	1.32	3.94	0.57	3.88	0.53	0.03	1.98	0.1	387.0	1.9	42	5.3	3.8	<0.1	1.5	0.6	<0.1	<0.5
957116	Drill Core	0.45	3.07	0.55	1.38	0.28	1.72	0.31	0.16	3.70	3.0	26.1	8.5	57	6.5	18.6	<0.1	3.1	2.0	0.1	19.4
957117	Drill Core	1.07	6.39	1.24	2.96	0.48	3.12	0.46	0.02	3.06	4.7	25.4	5.2	46	6.5	18.3	<0.1	2.3	6.0	0.2	11.4
957118	Drill Core	0.79	3.81	0.92	2.34	0.37	2.44	0.39	0.04	2.98	1.2	2.9	1.3	41	3.6	2.1	<0.1	1.4	0.4	<0.1	<0.5
957119	Drill Core	0.47	2.08	0.58	1.29	0.25	1.87	0.29	0.02	2.80	1.5	14.2	3.7	52	5.3	11.3	<0.1	1.0	2.0	0.1	14.5
957120	Drill Core	1.06	6.68	1.33	3.89	0.56	3.76	0.62	<0.02	10.81	1.5	36.1	9.1	12	10.5	66.5	<0.1	3.5	0.5	0.1	23.3
957121	Drill Core	0.88	5.22	0.89	2.08	0.41	2.74	0.41	0.05	2.03	<0.1	29.8	0.6	35	1.0	2.0	<0.1	1.5	<0.1	<0.1	<0.5
957122	Drill Core	0.80	5.53	1.01	2.70	0.41	2.66	0.40	0.08	6.60	1.9	47.6	11.8	9	7.3	25.2	<0.1	2.8	<0.1	<0.1	14.3
957123	Drill Core	0.33	1.96	0.52	1.50	0.19	1.28	0.22	<0.02	4.79	0.8	10.7	9.7	7	5.8	75.9	<0.1	2.5	2.4	0.8	64.9
957124	Drill Core	0.34	2.21	0.34	0.94	0.18	0.93	0.18	0.08	5.90	3.2	60.7	199.7	528	6.4	55.1	1.4	2.7	1.3	0.4	99.5
957125	Drill Core	0.49	2.85	0.44	1.51	0.26	1.52	0.31	0.07	1.85	0.2	903.2	9.6	120	11.9	10.4	0.1	3.4	0.4	0.4	9.6
957126	Drill Core	0.47	2.61	0.57	1.72	0.25	1.51	0.28	0.06	0.99	0.2	211.0	4.2	129	14.2	20.9	<0.1	1.6	0.2	<0.1	7.7
957127	Drill Core	0.35	1.94	0.42	1.00	0.18	1.23	0.21	0.21	0.03	1.5	73.9	4.3	44	436.6	1.5	<0.1	0.3	<0.1	0.1	<0.5
957128	Drill Core	0.56	3.31	0.69	2.26	0.34	2.01	0.32	<0.02	3.39	<0.1	23.3	2.8	101	10.0	11.7	<0.1	0.6	0.7	<0.1	2.9
957129	Drill Core	0.43	2.79	0.65	1.13	0.22	1.50	0.19	0.02	3.88	<0.1	54.8	6.6	113	16.9	15.4	0.3	2.6	0.9	<0.1	3.4
957130	Drill Core	0.50	3.17	0.68	2.13	0.32	1.81	0.34	<0.02	4.13	2.0	21.2	8.9	91	3.9	21.5	0.2	0.9	2.9	0.1	24.1

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

CERTIFICATE OF ANALYSIS VAN13004665.1

	Method	1DX	1DX	1DX
	Analyte	Hg	Tl	Se
	Unit	ppm	ppm	ppm
	MDL	0.01	0.1	0.5
957101	Drill Core	0.02	0.3	<0.5
957102	Drill Core	<0.01	0.2	<0.5
957103	Drill Core	<0.01	<0.1	<0.5
957104	Drill Core	<0.01	<0.1	<0.5
957105	Drill Core	0.01	<0.1	0.6
957106	Drill Core	0.01	<0.1	<0.5
957107	Drill Core	<0.01	0.4	<0.5
957108	Drill Core	<0.01	<0.1	<0.5
957109	Drill Core	<0.01	<0.1	<0.5
957110	Drill Core	<0.01	0.4	<0.5
957111	Drill Core	0.05	0.2	2.3
957112	Drill Core	0.03	<0.1	1.6
957113	Drill Core	0.03	0.2	2.3
957114	Drill Core	0.05	0.1	0.7
957115	Drill Core	<0.01	<0.1	1.2
957116	Drill Core	0.02	<0.1	1.6
957117	Drill Core	0.04	0.2	1.5
957118	Drill Core	0.01	0.1	1.2
957119	Drill Core	0.02	0.1	1.7
957120	Drill Core	0.17	0.2	0.9
957121	Drill Core	<0.01	0.2	<0.5
957122	Drill Core	0.09	0.2	0.8
957123	Drill Core	0.03	0.2	0.7
957124	Drill Core	0.05	0.2	4.5
957125	Drill Core	<0.01	<0.1	0.6
957126	Drill Core	<0.01	<0.1	<0.5
957127	Drill Core	<0.01	<0.1	<0.5
957128	Drill Core	0.02	0.1	2.9
957129	Drill Core	0.02	<0.1	4.1
957130	Drill Core	0.07	0.2	1.8

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

CERTIFICATE OF ANALYSIS VAN13004665.1

	Method	WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs
	Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1
957131	Drill Core	0.74	51.15	17.66	12.26	4.75	0.85	0.14	5.16	0.84	0.18	0.14	0.002	<20	30	6.3	99.41	4107	<1	38.1	1.5
957132	Drill Core	0.72	58.21	15.25	10.66	2.75	0.27	0.11	4.73	0.77	0.15	0.06	0.002	<20	28	6.6	99.56	3005	3	31.8	1.4
957133	Drill Core	0.68	73.92	13.82	2.95	0.91	0.06	0.11	4.58	0.27	0.03	0.01	0.004	<20	13	3.0	99.64	2255	<1	3.7	1.3
957134	Drill Core	1.15	73.37	10.83	4.99	1.04	0.84	1.30	2.87	0.47	0.14	0.04	<0.002	<20	15	3.7	99.59	2744	2	12.5	1.7
957135	Drill Core	1.20	62.62	13.39	8.66	3.24	0.67	2.60	2.64	0.56	0.18	0.18	<0.002	<20	18	5.0	99.73	1565	1	8.6	1.8
957136	Drill Core	0.99	71.05	13.58	4.07	1.46	0.63	2.52	3.39	0.36	0.08	0.07	<0.002	<20	14	2.5	99.72	1643	2	2.1	2.4
957137	Drill Core	0.93	69.80	14.08	4.15	1.65	1.42	4.22	1.92	0.36	0.08	0.09	<0.002	<20	14	2.0	99.77	1266	2	1.2	1.4
957138	Drill Core	1.05	69.91	14.31	4.77	1.61	1.09	3.10	2.59	0.38	0.09	0.11	<0.002	<20	15	1.8	99.76	1362	3	1.1	1.5
957139	Drill Core	0.46	69.67	14.24	4.47	1.16	1.12	3.91	2.61	0.39	0.08	0.11	<0.002	<20	15	2.0	99.70	1530	2	1.4	1.5
957140	Drill Core	1.11	68.94	14.78	4.65	1.47	0.94	3.98	2.76	0.40	0.08	0.10	<0.002	<20	16	1.7	99.77	1033	3	1.1	1.8
957141	Drill Core	0.55	67.46	14.87	5.79	1.81	0.44	2.34	4.36	0.39	0.08	0.11	<0.002	<20	15	2.0	99.67	2018	<1	1.1	2.1
957142	Drill Core	0.62	68.89	15.22	3.53	1.48	0.56	1.58	5.17	0.44	0.09	0.05	<0.002	<20	18	2.6	99.59	2777	3	1.4	1.7
957143	Drill Core	0.88	71.00	13.93	4.43	0.84	0.50	4.36	2.67	0.37	0.09	0.06	<0.002	<20	16	1.5	99.75	1364	<1	2.2	1.5
957144	Drill Core	1.02	69.93	13.65	5.27	1.16	0.39	1.44	4.88	0.37	0.09	0.09	<0.002	<20	15	2.5	99.73	1665	2	2.2	2.2
957145	Drill Core	1.27	50.74	17.19	10.34	6.75	4.73	2.95	3.46	0.85	0.19	0.35	<0.002	<20	31	2.1	99.67	1478	<1	30.0	2.5
957146	Drill Core	0.95	77.17	10.95	2.98	0.56	0.37	3.65	2.30	0.29	0.07	0.05	0.002	<20	11	1.4	99.79	1201	<1	1.6	0.3
957147	Drill Core	1.02	69.60	12.92	5.98	0.76	0.42	1.60	3.75	0.55	0.17	0.03	<0.002	<20	15	3.9	99.62	2685	1	7.9	1.4
957148	Drill Core	0.55	69.96	12.93	5.28	1.23	0.40	0.10	4.93	0.51	0.16	0.04	<0.002	<20	16	4.0	99.54	3384	4	4.9	1.0
957149	Drill Core	1.24	66.66	14.61	5.67	0.80	0.51	3.21	3.46	0.62	0.19	0.03	<0.002	<20	19	4.0	99.71	1824	<1	3.9	1.2
957150	Drill Core	1.14	64.77	14.57	6.58	2.71	0.46	0.40	5.18	0.61	0.20	0.11	<0.002	<20	19	3.9	99.54	3430	<1	5.1	3.1
957151	Drill Core	0.96	66.37	14.31	5.48	1.81	0.58	0.19	5.79	0.59	0.19	0.05	<0.002	<20	18	4.0	99.34	5164	<1	8.4	1.6
957152	Drill Core	0.98	65.47	14.20	7.80	1.67	0.24	0.11	5.00	0.38	0.08	0.07	<0.002	<20	14	4.4	99.47	3695	<1	11.4	2.3
957153	Drill Core	0.47	68.08	13.23	7.18	1.14	0.13	0.07	4.55	0.35	0.08	0.03	<0.002	<20	14	4.8	99.64	2514	<1	5.9	1.6
957154	Drill Core	1.01	71.45	11.69	5.98	1.98	0.29	0.08	4.26	0.31	0.07	0.06	<0.002	<20	12	3.5	99.66	2280	1	12.1	2.3
957155	Drill Core	0.97	71.68	12.01	5.29	1.51	0.18	0.04	4.67	0.31	0.08	0.04	<0.002	<20	14	3.8	99.60	2731	1	6.0	1.8
957156	Drill Core	1.12	72.79	12.65	4.04	0.95	0.30	0.24	4.72	0.34	0.08	0.04	<0.002	<20	14	3.1	99.30	5078	1	1.8	0.7
957157	Drill Core	1.05	74.67	10.62	4.83	1.38	0.32	0.12	4.08	0.28	0.07	0.03	<0.002	<20	12	3.2	99.55	2950	<1	10.0	1.7
957158	Drill Core	0.59	55.32	16.27	10.57	3.44	0.99	1.33	4.85	0.79	0.16	0.14	<0.002	<20	28	5.1	98.96	5796	<1	40.7	2.2
957159	Drill Core	0.75	47.62	18.62	11.54	9.18	2.41	4.66	0.73	0.86	0.22	0.27	0.007	45	40	3.7	99.81	571	1	38.4	0.8

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PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

CERTIFICATE OF ANALYSIS VAN13004665.1

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05
957131	Drill Core	15.4	0.8	1.7	92.7	<1	24.5	<0.1	0.8	0.3	266	1.3	33.5	20.0	8.7	22.1	2.85	15.5	3.25	0.87	3.61
957132	Drill Core	16.0	0.7	1.6	84.0	1	12.1	<0.1	0.7	0.5	268	3.6	30.2	10.6	3.1	5.8	0.96	4.0	1.34	0.37	2.13
957133	Drill Core	16.0	5.0	8.5	70.6	2	15.9	0.6	5.1	2.0	12	2.3	184.2	48.5	26.1	55.3	7.06	32.3	7.28	0.99	6.89
957134	Drill Core	10.1	2.4	4.9	50.0	1	73.9	0.3	2.7	0.9	13	2.8	92.0	25.1	14.3	29.6	3.91	18.6	4.05	1.37	4.57
957135	Drill Core	17.2	2.9	6.4	51.1	2	48.7	0.4	3.7	1.4	<8	1.6	115.7	34.8	21.7	41.3	5.16	22.8	5.59	1.72	5.75
957136	Drill Core	18.1	4.6	8.6	61.6	2	65.2	0.7	4.7	1.6	<8	1.0	149.7	45.6	32.9	65.3	8.24	32.9	8.30	1.85	8.87
957137	Drill Core	14.1	4.5	8.0	31.0	2	111.0	0.4	4.3	2.1	<8	0.7	136.9	34.4	20.5	44.0	5.53	24.6	5.45	1.32	5.62
957138	Drill Core	17.7	3.7	8.2	41.2	2	58.9	0.4	4.9	2.1	<8	1.6	152.1	37.5	21.6	43.7	5.86	22.2	6.69	1.21	6.40
957139	Drill Core	17.6	3.8	8.5	45.8	3	66.2	0.3	5.1	1.9	<8	0.7	160.8	42.5	24.3	50.6	6.58	25.6	7.30	1.53	6.74
957140	Drill Core	18.3	4.1	9.0	54.6	2	84.6	0.4	5.3	2.1	<8	0.7	162.5	41.6	23.0	49.4	6.79	33.2	7.39	1.90	7.69
957141	Drill Core	17.3	4.8	8.7	84.0	2	49.4	0.6	4.9	1.8	<8	1.5	171.3	42.8	17.7	42.9	5.73	22.9	5.95	1.27	5.85
957142	Drill Core	18.0	4.7	9.6	89.9	2	47.2	0.5	5.0	2.5	<8	1.4	179.0	44.1	19.9	41.8	5.34	19.6	5.54	1.21	5.82
957143	Drill Core	14.4	3.6	8.0	44.5	1	52.9	0.6	4.4	1.8	<8	1.4	160.2	34.1	26.2	57.8	6.95	28.6	7.38	1.87	7.19
957144	Drill Core	15.0	3.5	7.0	85.2	1	35.9	0.4	3.7	1.6	<8	0.9	141.1	34.1	13.4	28.3	3.85	16.9	4.59	1.16	5.06
957145	Drill Core	15.0	1.4	3.9	56.5	<1	187.6	0.2	1.3	0.5	265	0.6	51.1	18.5	9.1	22.1	2.62	12.9	3.13	1.17	3.27
957146	Drill Core	10.7	4.1	6.2	29.8	2	43.7	0.5	3.7	1.5	<8	0.9	124.4	33.7	19.2	39.8	4.44	20.7	4.53	1.22	4.79
957147	Drill Core	14.7	3.3	5.2	52.3	1	43.6	0.4	3.4	1.5	14	1.7	100.3	26.5	16.2	33.1	4.36	19.1	4.76	1.05	4.73
957148	Drill Core	14.5	3.3	5.1	72.3	1	32.9	0.3	3.1	1.4	10	1.0	96.7	32.1	16.8	35.3	4.75	22.4	4.84	1.63	5.91
957149	Drill Core	15.6	2.9	6.1	51.0	2	62.0	0.3	3.4	1.4	10	1.5	116.0	31.4	18.9	40.1	5.08	22.7	5.48	1.56	5.25
957150	Drill Core	17.3	3.0	6.4	90.6	2	28.3	0.4	3.6	1.5	14	1.5	118.8	34.7	18.6	37.8	5.02	22.3	4.94	1.40	5.38
957151	Drill Core	15.1	3.4	5.7	84.7	1	41.3	0.4	3.0	1.4	18	0.9	109.0	34.0	18.4	36.6	4.57	21.5	4.62	1.28	5.71
957152	Drill Core	18.3	4.4	7.1	83.7	2	40.7	0.5	4.3	1.6	9	<0.5	150.9	37.8	25.2	50.1	6.20	26.1	5.69	1.15	5.64
957153	Drill Core	16.2	3.0	7.0	78.0	2	15.3	0.5	4.2	1.6	<8	2.1	147.4	26.2	24.5	49.1	6.29	24.0	5.48	1.12	5.21
957154	Drill Core	14.5	3.3	6.6	67.7	3	26.0	0.5	3.9	1.5	11	1.7	118.3	29.7	22.8	49.0	5.85	19.1	5.64	0.86	5.97
957155	Drill Core	14.9	3.8	6.6	80.5	1	19.0	0.4	3.3	1.6	<8	1.1	129.3	34.8	21.8	43.6	5.59	24.4	4.92	0.82	5.49
957156	Drill Core	12.2	4.0	6.8	72.9	2	73.7	0.5	4.2	1.9	<8	1.3	136.8	33.8	21.6	44.8	5.85	24.5	6.05	0.83	5.25
957157	Drill Core	10.4	2.5	5.6	72.9	2	33.8	0.4	3.4	1.5	12	1.0	116.9	28.4	21.3	44.9	5.55	25.1	5.96	1.22	5.81
957158	Drill Core	14.4	1.0	1.3	78.5	1	73.8	0.1	0.5	0.4	275	0.5	27.9	18.6	17.1	28.1	3.74	16.5	3.62	1.23	4.04
957159	Drill Core	17.4	0.2	1.2	13.7	<1	124.6	<0.1	0.5	0.2	359	1.1	24.3	14.3	6.6	15.5	2.08	7.9	2.36	1.22	3.11

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

CERTIFICATE OF ANALYSIS VAN13004665.1

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	2A Leco	2A Leco	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	Tb	Dy	Ho	Er	Tm	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb
	MDL	0.01	0.05	0.02	0.03	0.01	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5
957131	Drill Core	0.64	3.33	0.75	2.18	0.32	1.95	0.25	<0.02	4.75	0.8	21.5	8.9	193	6.5	29.4	<0.1	1.1	3.1	0.2	31.1
957132	Drill Core	0.34	2.18	0.51	1.36	0.18	1.14	0.21	<0.02	6.04	1.7	29.1	14.1	52	4.9	50.2	0.9	0.8	6.4	0.5	57.7
957133	Drill Core	1.17	7.26	1.60	5.08	0.80	5.42	0.86	<0.02	1.73	2.0	28.3	12.3	7	0.6	81.5	<0.1	0.8	1.5	0.8	147.4
957134	Drill Core	0.81	5.04	0.90	2.94	0.50	2.72	0.49	0.37	2.11	0.1	53.7	37.1	92	0.5	252.0	1.2	8.3	0.7	0.1	13.5
957135	Drill Core	0.99	5.85	1.26	3.06	0.51	3.79	0.65	0.03	4.75	1.0	125.1	3.4	81	1.8	11.6	<0.1	0.4	0.4	0.2	12.7
957136	Drill Core	1.51	8.25	1.80	4.17	0.64	4.35	0.72	0.03	1.56	5.2	11.3	6.0	24	0.8	2.2	<0.1	1.8	0.2	<0.1	1.9
957137	Drill Core	1.04	5.92	1.34	4.07	0.57	4.15	0.54	0.12	0.61	1.7	13.0	3.9	50	0.8	8.6	<0.1	3.5	<0.1	<0.1	7.4
957138	Drill Core	1.10	7.56	1.44	4.56	0.71	4.38	0.73	0.07	0.45	1.5	11.2	5.7	67	0.7	8.8	0.1	5.6	<0.1	<0.1	3.7
957139	Drill Core	1.19	6.98	1.52	4.87	0.67	4.99	0.70	0.06	1.08	1.1	39.2	6.2	313	0.4	6.0	1.5	1.8	<0.1	0.1	5.6
957140	Drill Core	1.19	6.96	1.68	4.37	0.72	4.53	0.81	0.08	<0.02	<0.1	25.8	2.6	101	0.2	1.6	<0.1	4.3	<0.1	<0.1	<0.5
957141	Drill Core	1.13	7.26	1.47	4.43	0.72	5.00	0.79	0.03	0.63	0.3	16.2	3.2	82	0.2	9.9	<0.1	1.7	<0.1	<0.1	<0.5
957142	Drill Core	1.17	5.91	1.50	4.54	0.67	5.35	0.83	0.09	0.44	19.5	4.9	11.5	34	0.4	2.5	<0.1	1.5	0.1	<0.1	1.6
957143	Drill Core	1.13	6.58	1.38	3.89	0.65	5.06	0.75	0.06	0.55	<0.1	21.1	2.1	36	0.3	15.6	<0.1	5.6	<0.1	<0.1	1.2
957144	Drill Core	0.94	5.92	1.26	4.00	0.50	3.93	0.65	0.03	1.12	0.7	9.6	4.8	29	0.4	16.8	<0.1	2.7	0.2	<0.1	5.6
957145	Drill Core	0.55	2.67	0.56	1.79	0.27	1.91	0.31	0.20	0.19	0.4	163.6	5.4	202	16.2	11.5	<0.1	3.6	<0.1	<0.1	1.3
957146	Drill Core	0.90	5.42	1.25	3.44	0.58	4.16	0.65	0.06	0.67	12.5	3.8	1.2	16	0.5	16.0	<0.1	3.8	0.2	<0.1	2.9
957147	Drill Core	0.83	5.05	1.02	3.01	0.41	2.99	0.47	0.03	3.69	2.9	4.6	6.1	10	0.8	8.9	<0.1	0.5	2.9	0.3	15.3
957148	Drill Core	0.97	5.90	1.22	3.56	0.56	3.27	0.49	0.04	3.06	1.7	9.7	7.8	49	1.0	65.9	0.2	0.6	0.9	0.2	142.4
957149	Drill Core	0.98	5.75	1.16	3.41	0.57	3.72	0.56	0.06	3.75	1.5	23.1	11.2	8	0.9	48.6	<0.1	2.5	0.3	0.9	54.6
957150	Drill Core	1.01	6.18	1.27	3.63	0.58	4.12	0.65	0.03	2.02	0.6	5.1	2.1	32	0.5	5.9	<0.1	1.4	0.3	<0.1	6.7
957151	Drill Core	1.03	5.40	1.28	3.66	0.53	3.76	0.57	0.03	2.35	4.3	17.1	5.8	17	0.7	12.2	<0.1	1.0	2.3	0.5	43.0
957152	Drill Core	1.01	6.31	1.41	4.46	0.60	4.32	0.64	<0.02	3.90	3.5	311.6	1.7	27	3.5	4.7	<0.1	4.2	0.5	<0.1	4.9
957153	Drill Core	0.78	4.04	0.86	2.80	0.49	3.65	0.62	<0.02	4.33	1.5	14.7	1.8	11	2.1	39.4	<0.1	1.6	0.7	<0.1	6.4
957154	Drill Core	0.96	5.71	1.08	3.60	0.48	3.71	0.58	0.02	2.45	0.6	6.2	2.8	34	3.3	5.2	<0.1	2.2	0.2	<0.1	4.0
957155	Drill Core	0.96	5.86	1.38	4.09	0.63	3.90	0.64	<0.02	2.67	4.5	9.5	7.7	124	1.5	6.0	0.5	1.6	0.3	<0.1	7.6
957156	Drill Core	0.88	5.42	1.14	3.07	0.58	3.49	0.58	0.06	1.77	2.4	278.8	3.6	38	0.2	29.5	<0.1	33.6	0.5	0.2	6.8
957157	Drill Core	0.97	5.09	1.14	3.05	0.48	3.75	0.51	0.04	2.55	1.0	269.1	5.3	41	1.0	15.2	0.6	7.4	0.7	<0.1	4.5
957158	Drill Core	0.61	3.80	0.64	1.92	0.30	1.97	0.33	0.03	4.13	0.3	2510.4	3.3	68	5.2	5.0	0.2	1.9	0.7	0.4	5.0
957159	Drill Core	0.47	2.40	0.67	2.02	0.25	1.86	0.26	0.04	0.04	<0.1	31.5	2.1	88	40.0	4.3	<0.1	3.5	<0.1	<0.1	0.7

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

CERTIFICATE OF ANALYSIS VAN13004665.1

	Method	1DX	1DX	1DX
	Analyte	Hg	Tl	Se
	Unit	ppm	ppm	ppm
	MDL	0.01	0.1	0.5
957131	Drill Core	0.05	0.2	3.0
957132	Drill Core	0.05	0.5	5.9
957133	Drill Core	0.05	<0.1	0.8
957134	Drill Core	0.04	<0.1	2.9
957135	Drill Core	<0.01	<0.1	0.9
957136	Drill Core	<0.01	0.1	<0.5
957137	Drill Core	0.01	0.1	<0.5
957138	Drill Core	<0.01	0.1	<0.5
957139	Drill Core	0.02	0.1	<0.5
957140	Drill Core	0.01	0.1	<0.5
957141	Drill Core	<0.01	0.2	<0.5
957142	Drill Core	<0.01	<0.1	<0.5
957143	Drill Core	<0.01	0.1	<0.5
957144	Drill Core	<0.01	<0.1	<0.5
957145	Drill Core	<0.01	0.3	<0.5
957146	Drill Core	<0.01	<0.1	<0.5
957147	Drill Core	0.03	0.1	2.8
957148	Drill Core	0.04	<0.1	1.5
957149	Drill Core	0.13	0.2	0.8
957150	Drill Core	<0.01	0.2	1.3
957151	Drill Core	0.01	0.1	1.4
957152	Drill Core	0.02	0.1	5.9
957153	Drill Core	0.01	<0.1	7.4
957154	Drill Core	0.01	0.1	2.5
957155	Drill Core	0.04	0.1	1.7
957156	Drill Core	1.47	<0.1	1.3
957157	Drill Core	0.03	<0.1	3.2
957158	Drill Core	0.01	0.1	8.7
957159	Drill Core	<0.01	<0.1	<0.5

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

QUALITY CONTROL REPORT VAN13004665.1

	Method	WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs
	Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1
957109	Drill Core	1.14	46.01	15.32	9.59	6.49	8.04	4.16	0.44	0.82	0.26	0.15	0.021	45	35	8.5	99.81	245	<1	33.3	4.4
Pulp Duplicates																					
957101	Drill Core	0.67	47.55	19.32	10.32	7.81	1.90	1.03	5.54	0.90	0.12	0.30	0.003	<20	36	4.8	99.58	2635	<1	21.2	3.6
REP 957101	QC																				
957105	Drill Core	1.24	48.53	15.27	11.04	6.59	9.50	2.74	0.88	0.75	0.25	0.19	0.015	31	34	4.1	99.80	260	1	37.9	3.6
REP 957105	QC		48.46	15.29	11.07	6.57	9.56	2.71	0.87	0.75	0.25	0.19	0.015	35	33	4.1	99.80	254	<1	37.6	3.1
957137	Drill Core	0.93	69.80	14.08	4.15	1.65	1.42	4.22	1.92	0.36	0.08	0.09	<0.002	<20	14	2.0	99.77	1266	2	1.2	1.4
REP 957137	QC																				
957153	Drill Core	0.47	68.08	13.23	7.18	1.14	0.13	0.07	4.55	0.35	0.08	0.03	<0.002	<20	14	4.8	99.64	2514	<1	5.9	1.6
REP 957153	QC		68.08	13.22	7.20	1.15	0.13	0.07	4.55	0.35	0.07	0.03	<0.002	<20	14	4.8	99.64	2523	2	5.7	1.7
Core Reject Duplicates																					
957138	Drill Core	1.05	69.91	14.31	4.77	1.61	1.09	3.10	2.59	0.38	0.09	0.11	<0.002	<20	15	1.8	99.76	1362	3	1.1	1.5
DUP 957138	Drill Core		70.04	14.24	4.76	1.61	1.09	3.08	2.53	0.37	0.09	0.11	<0.002	<20	15	1.8	99.73	1528	2	1.1	1.8
Reference Materials																					
STD DS10	Standard																				
STD DS10	Standard																				
STD GS311-1	Standard																				
STD GS311-1	Standard																				
STD GS910-4	Standard																				
STD GS910-4	Standard																				
STD OREAS45EA	Standard																				
STD OREAS45EA	Standard																				
STD SO-18	Standard		58.07	14.11	7.62	3.35	6.29	3.72	2.17	0.70	0.83	0.41	0.564	45	26	1.9	99.74	507	<1	28.9	7.3
STD SO-18	Standard		58.19	14.08	7.52	3.34	6.33	3.72	2.19	0.69	0.81	0.40	0.555	36	25	1.9	99.75	476	1	25.6	6.4
STD SO-18	Standard		57.80	14.20	7.62	3.40	6.38	3.73	2.18	0.70	0.85	0.41	0.569	41	25	1.9	99.76	492	3	24.4	7.9
STD DS10 Expected																					
STD OREAS45EA Expected																					
STD GS311-1 Expected																					
STD GS910-4 Expected																					

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9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

QUALITY CONTROL REPORT VAN13004665.1

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05
957109	Drill Core	15.4	1.3	2.1	11.3	1	370.8	<0.1	0.7	0.2	307	<0.5	37.0	16.3	5.0	12.8	1.69	9.6	2.48	1.00	2.96
Pulp Duplicates																					
957101	Drill Core	19.9	1.6	2.7	102.7	1	96.7	0.1	0.6	0.2	315	1.7	28.3	13.1	6.7	14.5	2.03	10.2	2.49	0.93	2.85
REP 957101	QC																				
957105	Drill Core	15.2	1.8	1.3	15.6	2	329.5	<0.1	0.9	0.5	339	<0.5	33.5	14.6	5.6	12.1	1.66	8.9	1.98	0.83	3.19
REP 957105	QC	16.1	1.2	1.4	17.2	2	350.1	0.1	0.7	0.4	340	<0.5	35.2	15.1	6.4	12.5	1.88	8.2	2.75	0.83	3.17
957137	Drill Core	14.1	4.5	8.0	31.0	2	111.0	0.4	4.3	2.1	<8	0.7	136.9	34.4	20.5	44.0	5.53	24.6	5.45	1.32	5.62
REP 957137	QC																				
957153	Drill Core	16.2	3.0	7.0	78.0	2	15.3	0.5	4.2	1.6	<8	2.1	147.4	26.2	24.5	49.1	6.29	24.0	5.48	1.12	5.21
REP 957153	QC	14.3	3.4	7.6	73.0	2	14.5	0.4	4.0	1.6	9	2.1	139.7	24.4	25.0	44.6	5.67	25.6	4.80	1.10	4.43
Core Reject Duplicates																					
957138	Drill Core	17.7	3.7	8.2	41.2	2	58.9	0.4	4.9	2.1	<8	1.6	152.1	37.5	21.6	43.7	5.86	22.2	6.69	1.21	6.40
DUP 957138	Drill Core	18.5	5.4	8.4	40.9	3	63.5	0.2	4.9	1.8	<8	1.6	159.2	41.4	24.2	51.8	5.94	22.5	6.37	1.24	6.73
Reference Materials																					
STD DS10	Standard																				
STD DS10	Standard																				
STD GS311-1	Standard																				
STD GS311-1	Standard																				
STD GS910-4	Standard																				
STD GS910-4	Standard																				
STD OREAS45EA	Standard																				
STD OREAS45EA	Standard																				
STD SO-18	Standard	17.1	10.0	18.4	25.7	16	403.0	6.2	9.7	15.2	202	14.5	273.6	29.2	12.8	26.0	3.25	13.4	2.49	0.87	3.06
STD SO-18	Standard	16.9	9.1	20.3	26.5	16	397.9	7.2	9.2	15.7	198	13.6	286.2	29.6	11.8	24.1	2.99	13.4	2.88	1.02	2.77
STD SO-18	Standard	17.3	8.6	18.4	26.8	14	387.8	5.5	9.2	16.0	200	13.2	271.1	28.5	12.1	23.8	3.21	10.5	2.70	0.88	3.26
STD DS10 Expected																					
STD OREAS45EA Expected																					
STD GS311-1 Expected																					
STD GS910-4 Expected																					

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PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

QUALITY CONTROL REPORT VAN13004665.1

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	2A Leco	2A Leco	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	Tb	Dy	Ho	Er	Tm	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb
	MDL	0.01	0.05	0.02	0.03	0.01	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5
957109	Drill Core	0.55	3.26	0.60	1.88	0.29	1.92	0.26	1.49	0.17	0.9	120.2	1.2	66	48.1	2.5	<0.1	0.5	<0.1	0.2	0.8
Pulp Duplicates																					
957101	Drill Core	0.46	2.61	0.47	1.23	0.24	1.75	0.27	0.05	2.24	0.1	23.3	7.6	134	8.0	17.7	<0.1	1.0	<0.1	<0.1	13.3
REP 957101	QC								0.05	2.20	<0.1	23.8	7.8	138	7.5	18.0	<0.1	1.1	<0.1	<0.1	12.5
957105	Drill Core	0.55	3.15	0.65	1.58	0.27	1.97	0.28	0.41	0.09	0.4	158.4	1.0	59	34.7	14.4	0.2	0.5	<0.1	0.2	<0.5
REP 957105	QC	0.48	2.80	0.63	2.07	0.29	2.19	0.30													
957137	Drill Core	1.04	5.92	1.34	4.07	0.57	4.15	0.54	0.12	0.61	1.7	13.0	3.9	50	0.8	8.6	<0.1	3.5	<0.1	<0.1	7.4
REP 957137	QC								0.12	0.62	1.4	12.3	3.9	46	0.7	8.2	<0.1	3.6	0.1	<0.1	5.9
957153	Drill Core	0.78	4.04	0.86	2.80	0.49	3.65	0.62	<0.02	4.33	1.5	14.7	1.8	11	2.1	39.4	<0.1	1.6	0.7	<0.1	6.4
REP 957153	QC	0.73	3.56	0.92	3.07	0.54	3.78	0.56													
Core Reject Duplicates																					
957138	Drill Core	1.10	7.56	1.44	4.56	0.71	4.38	0.73	0.07	0.45	1.5	11.2	5.7	67	0.7	8.8	0.1	5.6	<0.1	<0.1	3.7
DUP 957138	Drill Core	1.23	7.24	1.74	4.83	0.69	5.09	0.85	0.06	0.43	1.4	10.5	5.6	61	0.6	8.1	0.2	5.3	<0.1	<0.1	3.8
Reference Materials																					
STD DS10	Standard										15.1	171.4	164.1	396	78.3	44.3	2.6	6.7	11.9	2.0	85.4
STD DS10	Standard										16.0	166.5	160.9	361	77.8	47.8	2.5	6.5	12.2	2.0	77.8
STD GS311-1	Standard								0.99	2.33											
STD GS311-1	Standard								0.99	2.33											
STD GS910-4	Standard								2.61	8.40											
STD GS910-4	Standard								2.62	8.06											
STD OREAS45EA	Standard										1.5	713.6	14.9	31	399.1	9.6	<0.1	0.2	0.2	0.3	48.8
STD OREAS45EA	Standard										1.5	725.0	14.6	32	403.6	11.7	<0.1	0.1	0.2	0.3	54.0
STD SO-18	Standard	0.54	3.12	0.62	1.87	0.27	2.05	0.28													
STD SO-18	Standard	0.52	2.74	0.55	1.69	0.22	1.64	0.27													
STD SO-18	Standard	0.48	2.93	0.60	1.89	0.30	1.86	0.26													
STD DS10 Expected											14.69	154.61	150.55	352.9	74.6	43.7	2.48	9.51	11.65	1.96	91.9
STD OREAS45EA Expected											1.39	709	14.3	28.9	381	9.1	0.02	0.2	0.26	0.26	53
STD GS311-1 Expected									1.02	2.35											
STD GS910-4 Expected									2.65	8.27											

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

QUALITY CONTROL REPORT VAN13004665.1

	Method	1DX	1DX	1DX
	Analyte	Hg	Tl	Se
	Unit	ppm	ppm	ppm
	MDL	0.01	0.1	0.5
957109	Drill Core	<0.01	<0.1	<0.5
Pulp Duplicates				
957101	Drill Core	0.02	0.3	<0.5
REP 957101	QC	0.01	0.3	<0.5
957105	Drill Core	0.01	<0.1	0.6
REP 957105	QC			
957137	Drill Core	0.01	0.1	<0.5
REP 957137	QC	<0.01	<0.1	<0.5
957153	Drill Core	0.01	<0.1	7.4
REP 957153	QC			
Core Reject Duplicates				
957138	Drill Core	<0.01	0.1	<0.5
DUP 957138	Drill Core	<0.01	0.1	<0.5
Reference Materials				
STD DS10	Standard	0.32	5.0	2.6
STD DS10	Standard	0.28	5.1	2.2
STD GS311-1	Standard			
STD GS311-1	Standard			
STD GS910-4	Standard			
STD GS910-4	Standard			
STD OREAS45EA	Standard	0.01	<0.1	1.0
STD OREAS45EA	Standard	0.02	<0.1	1.5
STD SO-18	Standard			
STD SO-18	Standard			
STD SO-18	Standard			
STD DS10 Expected		0.289	4.79	2.3
STD OREAS45EA Expected			0.072	0.6
STD GS311-1 Expected				
STD GS910-4 Expected				

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

QUALITY CONTROL REPORT VAN13004665.1

		WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
		Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs
		kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm
		0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1
STD SO-18 Expected			58.47	14.23	7.67	3.35	6.42	3.71	2.17	0.69	0.83	0.39	0.55	44	25			514		26.2	7.1
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank		<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<20	<1	0.0	<0.01	<1	<1	0.3	<0.1
BLK	Blank		0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<20	<1	0.0	0.03	3	<1	0.3	<0.1
Prep Wash																					
G1	Prep Blank		66.92	15.77	3.30	1.09	3.49	3.71	3.78	0.39	0.18	0.10	0.002	<20	5	1.0	99.69	1044	4	4.1	5.1
G1	Prep Blank		66.81	15.84	3.23	1.09	3.49	3.72	3.88	0.38	0.18	0.10	0.002	<20	5	1.0	99.68	1103	4	4.5	5.4

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

QUALITY CONTROL REPORT VAN13004665.1

		4A-4B Ga ppm 0.5	4A-4B Hf ppm 0.1	4A-4B Nb ppm 0.1	4A-4B Rb ppm 0.1	4A-4B Sn ppm 1	4A-4B Sr ppm 0.5	4A-4B Ta ppm 0.1	4A-4B Th ppm 0.2	4A-4B U ppm 0.1	4A-4B V ppm 8	4A-4B W ppm 0.5	4A-4B Zr ppm 0.1	4A-4B Y ppm 0.1	4A-4B La ppm 0.1	4A-4B Ce ppm 0.1	4A-4B Pr ppm 0.02	4A-4B Nd ppm 0.3	4A-4B Sm ppm 0.05	4A-4B Eu ppm 0.02	4A-4B Gd ppm 0.05
STD SO-18 Expected		17.6	9.8	21.3	28.7	15	407.4	7.4	9.9	16.4	200	14.8	280	31	12.3	27.1	3.45	14	3	0.89	2.93
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.5	<0.1	0.2	0.3	1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	0.1	0.1	<0.1	<0.1	0.04	<0.3	<0.05	0.05	0.20
BLK	Blank	<0.5	0.2	0.2	0.3	<1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	0.3	<0.1	<0.1	<0.1	<0.02	<0.3	0.14	0.04	0.17
Prep Wash																					
G1	Prep Blank	21.5	4.0	26.1	143.4	2	774.3	1.5	9.6	3.4	51	<0.5	144.4	16.0	32.3	64.4	7.62	23.7	4.59	1.10	3.89
G1	Prep Blank	19.1	5.5	26.0	146.7	3	788.6	1.3	9.3	3.1	47	<0.5	160.1	14.5	32.9	66.0	7.04	25.1	4.35	1.04	3.74

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah
Report Date: December 05, 2013

QUALITY CONTROL REPORT VAN13004665.1

		4A-4B Tb ppm 0.01	4A-4B Dy ppm 0.05	4A-4B Ho ppm 0.02	4A-4B Er ppm 0.03	4A-4B Tm ppm 0.01	4A-4B Yb ppm 0.05	4A-4B Lu ppm 0.01	2A Leco TOT/C % 0.02	2A Leco TOT/S % 0.02	1DX Mo ppm 0.1	1DX Cu ppm 0.1	1DX Pb ppm 0.1	1DX Zn ppm 1	1DX Ni ppm 0.1	1DX As ppm 0.5	1DX Cd ppm 0.1	1DX Sb ppm 0.1	1DX Bi ppm 0.1	1DX Ag ppm 0.1	1DX Au ppb 0.5
STD SO-18 Expected		0.53	3	0.62	1.84	0.27	1.79	0.27													
BLK	Blank										<0.1	<0.1	<0.1	<1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5
BLK	Blank										<0.1	<0.1	<0.1	<1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5
BLK	Blank								<0.02	<0.02											
BLK	Blank								<0.02	<0.02											
BLK	Blank	0.02	0.05	0.02	0.09	0.02	0.10	<0.01													
BLK	Blank	0.02	0.18	<0.02	0.05	0.02	0.16	<0.01													
Prep Wash																					
G1	Prep Blank	0.56	3.00	0.61	1.92	0.28	2.02	0.37	0.06	<0.02	<0.1	3.5	4.2	48	3.0	0.6	<0.1	<0.1	<0.1	<0.1	<0.5
G1	Prep Blank	0.55	3.15	0.48	2.07	0.24	1.92	0.29	0.06	<0.02	<0.1	3.3	3.7	43	2.6	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5

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QUALITY CONTROL REPORT VAN13004665.1

		1DX Hg ppm 0.01	1DX Tl ppm 0.1	1DX Se ppm 0.5
STD SO-18 Expected				
BLK	Blank	<0.01	<0.1	<0.5
BLK	Blank	<0.01	<0.1	<0.5
BLK	Blank			
BLK	Blank			
BLK	Blank			
BLK	Blank			
Prep Wash				
G1	Prep Blank	0.01	0.4	<0.5
G1	Prep Blank	0.01	0.3	<0.5

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Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Submitted By: Brett Armstrong
Receiving Lab: Canada-Vancouver
Received: December 18, 2013
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

CLIENT JOB INFORMATION

Project: Tulsequah Checks
Shipment ID:
P.O. Number 300576
Number of Samples: 74

SAMPLE DISPOSAL

RTRN-PLP Return

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SPLP	74	Sorting, labeling and boxing samples received as pulps			VAN
G601	72	Lead Collection Fire - Assay Fusion - AAS Finish	30	Completed	VAN
1D01	72	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
7AR2	30	1:1:1 Aqua Regia digestion ICP-ES analysis	1	Completed	VAN
G812	24	Specific Gravity on Pulp		Completed	VAN
7AR.1	1	1:1:1 Aqua Regia Digestion ICP-ES Finish	0.1	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Chieftain Metals Inc.
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2
CANADA

CC: Gary MacSporran

BRITISH COLUMBIA CERTIFIED ASSAYER
Marcus Lau
MARCUS LAU
Geochemical Laboratory Manager

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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.

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	G6	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.005	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01	0.001	1
41901	Rock Pulp	0.077	11	9	22	162	2.5	2	7	970	7.73	63	<2	15	0.7	<3	<3	11	0.10	0.009	3
41922	Rock Pulp	0.060	10	1966	12	53	2.0	2	16	580	10.08	69	<2	13	<0.5	9	<3	16	0.50	0.087	2
41928	Rock Pulp	0.020	3	13	7	295	0.4	<1	12	665	4.60	41	<2	15	1.7	<3	<3	14	0.35	0.106	4
41937	Rock Pulp	0.017	1	7	4	197	<0.3	2	14	894	4.81	34	<2	18	0.6	<3	<3	13	0.36	0.124	4
41978	Rock Pulp	0.168	<1	187	16	35	1.1	9	33	268	9.17	224	<2	24	<0.5	8	<3	33	0.31	0.106	2
42007	Rock Pulp	<0.005	1	1	44	97	<0.3	<1	<1	631	0.80	11	10	29	0.8	3	<3	<1	0.77	0.009	12
QO14002	Rock Pulp	0.024	1	19	<3	14	<0.3	1	16	243	5.92	84	<2	21	<0.5	<3	<3	6	0.42	0.170	3
Q014019	Rock Pulp	0.062	2	694	3308	6021	3.8	1	5	218	5.11	43	<2	33	24.0	6	<3	3	0.35	0.019	3
Q014021	Rock Pulp	0.158	4	380	363	1041	3.5	3	4	122	4.13	154	<2	35	4.7	22	<3	2	0.35	0.016	3
Q014022	Rock Pulp	0.497	4	453	>10000	>10000	10.9	1	5	276	6.11	232	<2	24	207.7	18	<3	4	0.46	0.045	2
957161	Rock Pulp	5.979																			
957162	Rock Pulp		49	>10000	8177	>10000	42.4	36	206	745	21.54	155	<2	14	249.9	19	47	19	0.49	0.023	8
Q014043	Rock Pulp	0.211	4	1395	25	>10000	15.6	<1	5	108	5.63	562	<2	7	981.5	<3	<3	2	0.25	<0.001	<1
Q014045	Rock Pulp	0.231	5	1888	83	>10000	21.6	3	6	101	8.77	912	<2	15	772.5	9	<3	2	0.41	<0.001	<1
Q014046	Rock Pulp	2.421	7	1211	17	996	17.6	10	7	14	6.34	444	2	5	2.2	12	<3	2	0.04	0.001	2
Q014053	Rock Pulp	0.360	2	65	23	588	3.2	3	2	14	7.38	45	<2	3	1.8	<3	<3	1	0.03	0.004	<1
Q014054	Rock Pulp	1.101	4	113	58	771	6.4	11	13	21	6.68	285	<2	4	2.0	<3	<3	2	0.05	0.005	1
Q014058	Rock Pulp	0.017	<1	453	24	413	1.5	10	5	417	3.34	11	<2	37	2.8	11	<3	23	1.30	0.045	2
Q014072	Rock Pulp	0.201	11	>10000	51	545	5.2	2	5	140	11.56	62	<2	8	1.7	7	<3	3	0.45	0.021	4
Q014073	Rock Pulp	0.119	10	6224	79	872	7.9	2	4	167	13.09	202	<2	8	4.3	52	<3	5	0.21	0.017	4
Q014081	Rock Pulp	1.473	7	1329	383	351	15.8	7	10	102	2.38	552	<2	23	1.6	35	59	3	0.38	0.012	4
957163	Rock Pulp	1.685	44	6696	>10000	>10000	>100	25	11	7916	6.76	451	<2	43	226.3	179	<3	63	1.09	0.042	4
Q014085	Rock Pulp	0.810	11	476	525	211	21.7	16	13	135	39.69	725	<2	2	<0.5	8	14	8	0.04	0.001	<1
Q014086	Rock Pulp	1.443	15	676	166	1606	13.4	7	25	54	>40	683	<2	2	7.0	<3	12	11	0.02	0.002	1
Q014087	Rock Pulp	1.566	10	716	111	1573	9.7	5	33	34	>40	606	<2	2	6.4	5	9	7	0.05	0.002	1
Q014094	Rock Pulp	0.637	5	2083	15	204	1.6	3	6	27	10.90	400	<2	2	<0.5	9	<3	4	0.03	<0.001	2
Q014109	Rock Pulp	0.503	7	56	37	13	1.2	4	4	12	19.04	45	<2	160	<0.5	<3	<3	2	2.01	0.002	<1
Q014118	Rock Pulp	3.017	13	82	23	39	7.5	8	6	13	17.56	74	<2	17	<0.5	<3	<3	2	0.21	0.002	1
Q014131	Rock Pulp	1.904	11	140	169	449	8.2	12	7	20	36.01	55	<2	212	2.2	8	<3	3	3.69	<0.001	<1
Q014147	Rock Pulp	0.610	8	3631	173	>10000	9.9	5	5	14	5.31	440	<2	557	45.9	13	<3	1	12.44	0.001	2

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PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	7AR	7AR	7AR	7AR	7AR	7AR
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Mo	Cu	Pb	Zn	Ag	Ni
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	%	%	%	gm/t	%
	MDL	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.001	0.01	0.01	2	0.001
41901	Rock Pulp	2	3.14	22	0.009	<20	2.58	<0.01	0.55	<2	5.15	<1	<5	8	<5						
41922	Rock Pulp	3	0.94	22	0.007	<20	1.20	<0.01	0.45	<2	8.66	<1	<5	<5	<5						
41928	Rock Pulp	2	1.27	129	0.011	<20	1.52	<0.01	0.53	2	3.37	<1	<5	<5	<5						
41937	Rock Pulp	2	1.47	147	0.003	<20	1.46	<0.01	0.37	<2	3.22	<1	<5	<5	<5						
41978	Rock Pulp	<1	0.70	28	0.004	<20	0.96	0.01	0.49	<2	8.28	<1	<5	<5	<5						
42007	Rock Pulp	7	0.11	117	0.006	<20	0.56	0.10	0.21	<2	0.05	<1	<5	<5	<5						
QO14002	Rock Pulp	2	0.53	92	0.001	<20	0.74	0.01	0.29	<2	5.22	<1	<5	<5	<5						
Q014019	Rock Pulp	3	1.94	66	0.002	<20	2.22	0.06	0.35	38	4.64	3	<5	<5	<5	<0.001	0.070	0.32	0.60	5	<0.001
Q014021	Rock Pulp	3	0.87	43	0.002	<20	1.51	0.06	0.40	8	3.97	1	6	<5	<5	<0.001	0.038	0.04	0.10	3	<0.001
Q014022	Rock Pulp	10	2.59	90	0.002	<20	2.49	0.05	0.33	>100	7.23	40	12	5	<5	<0.001	0.049	2.47	5.80	10	<0.001
957161	Rock Pulp																				
957162	Rock Pulp	33	0.58	11	0.034	<20	0.80	0.03	0.16	>100	>10	19	<5	15	<5	0.005	1.432	0.64	7.36	42	0.004
Q014043	Rock Pulp	1	0.08	12	<0.001	<20	0.51	0.02	0.26	>100	9.32	>50	<5	<5	<5	<0.001	0.168	<0.01	>20	19	<0.001
Q014045	Rock Pulp	<1	0.04	9	<0.001	<20	0.61	0.02	0.33	>100	>10	>50	<5	<5	<5	<0.001	0.272	<0.01	16.84	25	<0.001
Q014046	Rock Pulp	1	0.01	29	<0.001	<20	0.61	0.02	0.36	8	6.18	2	6	<5	<5	<0.001	0.120	<0.01	0.10	17	<0.001
Q014053	Rock Pulp	7	0.01	50	<0.001	<20	0.35	0.01	0.22	5	6.97	<1	<5	<5	<5						
Q014054	Rock Pulp	5	0.02	45	<0.001	<20	0.42	0.02	0.27	6	6.67	<1	10	<5	<5	<0.001	0.011	<0.01	0.07	6	<0.001
Q014058	Rock Pulp	20	0.93	69	0.024	<20	1.77	0.15	0.52	3	2.74	<1	<5	7	<5						
Q014072	Rock Pulp	2	0.63	31	0.002	<20	1.01	0.03	0.34	<2	9.77	<1	<5	<5	<5	0.001	1.260	<0.01	0.06	5	<0.001
Q014073	Rock Pulp	<1	0.88	25	0.001	<20	1.18	0.03	0.33	5	>10	<1	<5	<5	<5						
Q014081	Rock Pulp	5	0.41	142	0.001	<20	0.93	0.05	0.32	2	2.42	<1	<5	<5	<5	<0.001	0.124	0.04	0.03	16	<0.001
957163	Rock Pulp	39	0.60	72	0.077	<20	1.47	0.12	0.12	>100	2.35	2	<5	14	<5	0.004	0.645	3.11	1.66	247	0.002
Q014085	Rock Pulp	6	0.01	<1	0.002	<20	0.45	0.01	0.22	3	>10	<1	9	<5	<5	<0.001	0.048	0.05	0.02	21	0.001
Q014086	Rock Pulp	7	<0.01	1	0.002	<20	0.58	0.01	0.29	12	>10	<1	9	<5	<5	0.001	0.065	0.02	0.15	12	<0.001
Q014087	Rock Pulp	5	<0.01	11	0.001	<20	0.30	0.01	0.12	11	>10	1	<5	<5	<5	0.002	0.079	<0.01	0.16	11	<0.001
Q014094	Rock Pulp	10	0.01	23	<0.001	<20	0.28	<0.01	0.16	<2	9.92	1	<5	<5	<5	<0.001	0.204	<0.01	0.02	2	<0.001
Q014109	Rock Pulp	<1	<0.01	17	<0.001	<20	0.43	0.03	0.24	<2	>10	<1	<5	<5	<5	<0.001	0.005	<0.01	<0.01	<2	<0.001
Q014118	Rock Pulp	<1	<0.01	16	<0.001	<20	0.45	0.03	0.26	<2	>10	2	6	<5	<5	0.001	0.008	<0.01	<0.01	7	<0.001
Q014131	Rock Pulp	1	<0.01	3	<0.001	<20	0.19	0.02	0.07	5	>10	<1	<5	<5	<5	<0.001	0.014	0.01	0.05	7	0.001
Q014147	Rock Pulp	<1	0.03	21	<0.001	<20	0.33	0.01	0.18	67	>10	3	<5	<5	<5	<0.001	0.386	0.01	0.96	10	<0.001

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	G8SG	7AR.1
	Analyte	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	Mg	Al	Na	K	W	Hg	S	SG	Zn
	Unit	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		%
	MDL	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	0.01	0.01	0.01	0.01	0.001	0.001	0.05	0	0.01
41901	Rock Pulp																				
41922	Rock Pulp																				
41928	Rock Pulp																				
41937	Rock Pulp																				
41978	Rock Pulp																				
42007	Rock Pulp																				
QO14002	Rock Pulp																				
Q014019	Rock Pulp	<0.001	0.02	4.72	<0.01	0.005	0.002	0.001	<0.01	0.35	0.021	<0.001	2.10	2.51	0.07	0.49	<0.001	<0.001	4.77	2.81	
Q014021	Rock Pulp	<0.001	0.01	3.90	0.01	0.006	<0.001	0.004	<0.01	0.36	0.017	<0.001	1.04	2.01	0.07	0.61	<0.001	<0.001	4.32	2.82	
Q014022	Rock Pulp	<0.001	0.03	5.63	0.02	0.004	0.021	0.005	<0.01	0.47	0.046	<0.001	2.70	2.81	0.05	0.50	<0.001	0.004	8.36	2.91	
957161	Rock Pulp																				
957162	Rock Pulp	0.019	0.07	17.96	0.01	0.002	0.025	0.003	<0.01	0.51	0.024	0.004	0.58	0.84	0.04	0.19	<0.001	0.002	19.62		
Q014043	Rock Pulp	<0.001	0.01	5.09	0.06	0.002	0.092	0.004	<0.01	0.25	0.001	<0.001	0.09	0.65	0.02	0.37	<0.001	0.008	13.10	3.14	21.75
Q014045	Rock Pulp	<0.001	<0.01	7.25	0.12	0.004	0.068	0.008	<0.01	0.38	0.002	<0.001	0.05	0.75	0.02	0.45	<0.001	0.007	14.20	3.23	
Q014046	Rock Pulp	<0.001	<0.01	5.60	0.04	<0.001	<0.001	0.004	<0.01	0.04	0.003	<0.001	0.02	0.81	0.03	0.51	<0.001	<0.001	6.76	2.92	
Q014053	Rock Pulp																				
Q014054	Rock Pulp	0.001	<0.01	5.94	0.03	<0.001	<0.001	<0.001	<0.01	0.04	0.006	<0.001	0.02	0.57	0.02	0.37	<0.001	<0.001	7.05	2.82	
Q014058	Rock Pulp																				
Q014072	Rock Pulp	<0.001	0.01	10.33	<0.01	<0.001	<0.001	0.001	<0.01	0.45	0.024	<0.001	0.71	1.37	0.04	0.52	<0.001	<0.001	11.48	3.01	
Q014073	Rock Pulp																				
Q014081	Rock Pulp	<0.001	0.01	2.27	0.05	0.003	<0.001	0.007	<0.01	0.36	0.013	<0.001	0.43	1.11	0.05	0.42	<0.001	<0.001	2.48	2.75	
957163	Rock Pulp	<0.001	0.77	6.22	0.04	0.005	0.023	0.023	<0.01	1.17	0.042	0.004	0.58	1.53	0.12	0.14	<0.001	<0.001	2.60		
Q014085	Rock Pulp	0.001	0.01	30.87	0.06	<0.001	<0.001	0.003	<0.01	0.03	0.001	<0.001	0.04	0.58	0.01	0.32	<0.001	<0.001	36.39	3.92	
Q014086	Rock Pulp	0.002	<0.01	30.25	0.06	<0.001	0.001	0.002	<0.01	0.01	0.002	<0.001	0.04	0.65	0.01	0.37	<0.001	<0.001	36.03	4.00	
Q014087	Rock Pulp	0.003	<0.01	41.29	0.06	<0.001	0.001	0.002	<0.01	0.04	0.002	<0.001	0.04	0.36	0.01	0.17	<0.001	<0.001	46.71	4.40	
Q014094	Rock Pulp	<0.001	<0.01	9.56	0.04	<0.001	<0.001	0.001	<0.01	0.03	0.002	0.001	0.02	0.31	<0.01	0.18	<0.001	<0.001	10.94	2.87	
Q014109	Rock Pulp	<0.001	<0.01	16.51	<0.01	0.018	<0.001	<0.001	<0.01	2.03	0.002	<0.001	0.01	0.54	0.03	0.32	<0.001	<0.001	20.50	3.22	
Q014118	Rock Pulp	<0.001	<0.01	14.33	<0.01	0.002	<0.001	<0.001	<0.01	0.20	0.003	<0.001	0.01	0.56	0.03	0.35	<0.001	<0.001	16.86	3.18	
Q014131	Rock Pulp	<0.001	<0.01	30.11	<0.01	0.028	<0.001	0.002	<0.01	4.33	0.002	<0.001	0.02	0.23	0.02	0.10	<0.001	<0.001	37.28	3.75	
Q014147	Rock Pulp	<0.001	<0.01	4.92	0.04	0.077	0.005	0.003	<0.01	15.48	0.003	<0.001	0.04	0.42	0.02	0.26	<0.001	<0.001	17.27	2.96	

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	G6	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.005	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01	0.001	1
Q014148	Rock Pulp	1.086	12	>10000	220	>10000	40.6	5	4	31	7.15	2305	<2	457	387.3	108	<3	1	9.23	0.001	2
957164	Rock Pulp	0.024	3	22	<3	34	0.7	18	6	285	1.83	7	<2	27	<0.5	<3	<3	45	0.62	0.047	5
Q014149	Rock Pulp	0.374	11	7152	>10000	>10000	14.3	4	4	19	3.49	557	<2	490	247.1	21	<3	<1	9.81	<0.001	2
Q014151	Rock Pulp	0.541	8	>10000	96	990	13.2	5	4	21	7.34	1532	<2	296	5.7	69	<3	1	5.76	<0.001	<1
Q014155	Rock Pulp	0.122	3	54	12	156	0.4	<1	3	76	5.45	28	<2	20	0.7	<3	<3	<1	0.47	0.005	3
Q014169	Rock Pulp	0.256	9	3940	52	385	2.7	12	7	355	13.85	168	<2	6	<0.5	<3	<3	3	0.08	0.012	3
Q014176	Rock Pulp	0.040	2	119	28	3454	0.7	20	44	176	13.07	105	<2	7	17.3	<3	6	17	0.30	0.092	1
Q014186	Rock Pulp	<0.005	<1	20	6	33	<0.3	2	3	129	0.67	<2	<2	65	<0.5	<3	<3	2	0.76	0.020	2
Q014224	Rock Pulp	0.013	<1	78	22	143	<0.3	12	27	1039	5.27	12	<2	28	<0.5	4	<3	221	1.88	0.079	1
Q014292	Rock Pulp	0.043	<1	20	18	142	<0.3	6	22	1036	6.18	40	<2	22	<0.5	3	<3	110	0.55	0.051	<1
Q014304	Rock Pulp	0.012	<1	318	12	125	<0.3	8	29	1118	6.83	19	<2	57	<0.5	8	<3	158	0.95	0.054	<1
957165	Rock Pulp	1.719	38	5822	>10000	>10000	>100	21	11	6891	4.92	410	<2	37	219.9	179	<3	52	0.92	0.039	3
Q014336	Rock Pulp	0.061	7	35	46	70	0.8	4	42	645	12.51	109	<2	17	<0.5	<3	<3	114	0.56	0.045	<1
Q014375	Rock Pulp	0.089	13	621	24	148	0.7	34	65	493	7.80	42	<2	64	<0.5	<3	<3	116	0.18	0.064	<1
Q014376	Rock Pulp	0.214	31	>10000	35	285	11.0	16	103	187	17.69	98	<2	15	1.6	4	<3	45	0.21	0.035	<1
Q014416	Rock Pulp	0.030	<1	77	19	63	<0.3	3	22	490	6.56	45	<2	13	<0.5	<3	<3	81	0.41	0.060	<1
Q014457	Rock Pulp	0.036	5	9	4	9	<0.3	<1	8	59	3.70	30	<2	5	<0.5	<3	<3	<1	0.11	0.008	3
Q014473	Rock Pulp	0.042	<1	18	8	75	<0.3	196	41	1461	5.48	10	<2	199	<0.5	<3	<3	187	7.55	0.103	3
Q014524	Rock Pulp	0.037	7	11	20	23	<0.3	<1	11	97	3.54	28	<2	20	<0.5	<3	7	1	0.27	0.105	3
Q014527	Rock Pulp	0.320	46	42	159	53	6.4	3	31	132	7.67	180	<2	19	1.4	8	9	2	0.31	0.084	<1
Q014554	Rock Pulp	0.011	1	245	8	11	<0.3	<1	8	127	2.75	11	<2	12	<0.5	<3	3	1	0.20	0.050	5
957166	Rock Pulp	<0.005	3	21	5	32	<0.3	17	9	290	1.83	4	<2	27	<0.5	<3	3	42	0.58	0.048	4
Q014558	Rock Pulp	0.008	2	7	3	20	<0.3	<1	7	299	2.42	5	<2	12	<0.5	<3	5	7	0.29	0.043	6
Q014592	Rock Pulp	0.006	<1	7	21	62	<0.3	2	15	722	7.21	7	<2	17	<0.5	<3	<3	87	0.43	0.096	2
Q014684	Rock Pulp	<0.005	<1	282	6	44	<0.3	2	9	378	3.22	3	<2	17	<0.5	8	<3	49	0.55	0.105	3
Q014771	Rock Pulp	0.062	4	268	975	1321	1.1	7	34	772	6.98	27	<2	28	10.6	5	<3	159	0.90	0.045	<1
Q014789	Rock Pulp	0.088	6	485	47	101	<0.3	12	115	1073	6.38	44	<2	57	<0.5	5	<3	155	1.00	0.044	<1
Q014795	Rock Pulp	0.185	35	3978	5248	>10000	4.6	11	39	751	8.68	65	<2	97	153.4	13	17	259	2.70	0.056	<1
Q014968	Rock Pulp	0.155	1	53	34	29	2.1	10	34	93	5.15	219	<2	7	<0.5	4	<3	23	0.21	0.088	<1
Q014987	Rock Pulp	<0.005	2	70	6	193	<0.3	2	2	609	3.09	11	<2	16	<0.5	5	<3	<1	0.64	0.027	4

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PHONE (604) 253-3158

Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	7AR	7AR	7AR	7AR	7AR	7AR
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Mo	Cu	Pb	Zn	Ag	Ni
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	%	%	%	gm/t	%
	MDL	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.001	0.01	0.01	2	0.001
Q014148	Rock Pulp	2	0.03	16	<0.001	<20	0.31	0.01	0.15	*	>10	15	<5	<5	<5	0.001	2.063	0.02	8.22	42	<0.001
957164	Rock Pulp	22	0.50	83	0.095	<20	1.04	0.06	0.08	15	<0.05	<1	<5	18	<5						
Q014149	Rock Pulp	11	0.02	9	<0.001	<20	0.27	0.01	0.15	>100	>10	11	<5	<5	<5	<0.001	0.800	2.33	4.86	14	<0.001
Q014151	Rock Pulp	2	0.04	20	<0.001	<20	0.43	0.02	0.22	6	>10	2	5	<5	<5	<0.001	1.815	0.01	0.10	13	<0.001
Q014155	Rock Pulp	5	0.42	31	<0.001	<20	0.74	0.02	0.28	<2	5.38	<1	<5	<5	<5						
Q014169	Rock Pulp	<1	0.97	24	<0.001	<20	1.43	0.02	0.37	2	>10	<1	<5	<5	<5	<0.001	0.381	<0.01	0.04	3	<0.001
Q014176	Rock Pulp	2	0.18	23	<0.001	<20	0.63	0.01	0.30	25	>10	3	<5	<5	<5						
Q014186	Rock Pulp	6	0.29	90	0.034	<20	0.98	0.07	0.43	<2	<0.05	<1	<5	<5	<5						
Q014224	Rock Pulp	<1	2.63	164	0.237	<20	3.87	0.31	2.45	<2	2.30	<1	<5	<5	24						
Q014292	Rock Pulp	9	3.18	78	0.112	<20	3.76	0.09	1.87	<2	3.52	<1	<5	<5	11						
Q014304	Rock Pulp	7	2.96	81	0.153	<20	4.47	0.09	2.48	<2	3.27	<1	<5	<5	13						
957165	Rock Pulp	22	0.50	65	0.054	<20	1.23	0.10	0.10	4	2.17	<1	<5	<5	<5	0.004	0.632	3.16	1.63	242	0.002
Q014336	Rock Pulp	5	2.26	26	0.068	<20	3.10	0.17	0.81	<2	>10	<1	<5	<5	9						
Q014375	Rock Pulp	46	3.27	38	0.057	<20	2.82	0.01	0.39	<2	4.91	<1	<5	<5	10	0.001	0.067	<0.01	0.02	3	0.004
Q014376	Rock Pulp	14	0.82	13	0.032	<20	1.01	0.03	0.48	<2	>10	<1	<5	<5	<5	0.004	3.381	<0.01	0.03	12	0.002
Q014416	Rock Pulp	1	1.99	71	0.064	<20	2.81	0.04	1.04	<2	5.08	<1	<5	<5	6						
Q014457	Rock Pulp	9	0.11	67	0.002	<20	0.45	0.04	0.26	<2	4.08	<1	<5	<5	<5						
Q014473	Rock Pulp	320	4.74	18	0.016	<20	4.13	<0.01	0.11	<2	0.08	<1	<5	9	22						
Q014524	Rock Pulp	2	0.10	87	0.015	<20	0.44	0.01	0.40	<2	3.88	<1	<5	<5	<5						
Q014527	Rock Pulp	<1	0.08	14	0.003	<20	0.26	0.03	0.19	<2	8.81	<1	<5	<5	<5						
Q014554	Rock Pulp	2	0.23	129	0.015	<20	0.50	<0.01	0.45	<2	2.64	<1	<5	<5	<5						
957166	Rock Pulp	24	0.50	85	0.077	<20	1.02	0.06	0.08	18	<0.05	<1	<5	<5	<5						
Q014558	Rock Pulp	4	0.60	304	0.025	<20	0.86	0.04	0.48	<2	1.39	<1	<5	<5	<5						
Q014592	Rock Pulp	<1	2.41	49	0.074	<20	2.95	0.07	0.70	<2	4.15	<1	<5	<5	8						
Q014684	Rock Pulp	5	1.43	290	0.056	<20	1.85	0.03	0.97	<2	1.45	<1	<5	<5	5						
Q014771	Rock Pulp	<1	2.70	56	0.075	<20	3.65	0.17	0.89	<2	4.19	<1	<5	5	13						
Q014789	Rock Pulp	<1	3.09	97	0.127	<20	4.54	0.08	0.80	<2	1.52	<1	<5	<5	13						
Q014795	Rock Pulp	8	2.21	41	0.106	<20	5.95	0.29	1.36	<2	7.27	<1	<5	8	18	0.003	0.420	0.55	1.99	5	<0.001
Q014968	Rock Pulp	4	0.27	48	0.004	<20	0.76	0.02	0.53	<2	5.89	<1	<5	<5	<5						
Q014987	Rock Pulp	8	0.47	187	0.068	<20	1.34	0.15	0.67	<2	1.68	<1	<5	<5	5						

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	G8SG	7AR.1
	Analyte	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	Mg	Al	Na	K	W	Hg	S	SG	Zn
	Unit	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		%
	MDL	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	0.01	0.01	0.01	0.01	0.001	0.001	0.05	0	0.01
Q014148	Rock Pulp	<0.001	<0.01	7.03	0.27	0.059	0.039	0.022	<0.01	11.12	0.003	<0.001	0.04	0.38	0.01	0.21	<0.001	0.001	19.45	3.03	
957164	Rock Pulp																				
Q014149	Rock Pulp	<0.001	<0.01	3.31	0.06	0.060	0.023	0.005	<0.01	10.33	0.002	<0.001	0.03	0.34	0.01	0.21	<0.001	<0.001	14.40	2.92	
Q014151	Rock Pulp	<0.001	<0.01	6.36	0.16	0.032	<0.001	0.016	<0.01	5.38	0.001	<0.001	0.04	0.49	0.02	0.28	<0.001	<0.001	11.46	2.84	
Q014155	Rock Pulp																				
Q014169	Rock Pulp	<0.001	0.04	11.60	0.02	<0.001	<0.001	<0.001	<0.01	0.07	0.014	<0.001	0.97	1.62	0.02	0.51	<0.001	<0.001	12.67	3.07	
Q014176	Rock Pulp																				
Q014186	Rock Pulp																				
Q014224	Rock Pulp																				
Q014292	Rock Pulp																				
Q014304	Rock Pulp																				
957165	Rock Pulp	<0.001	0.76	6.21	0.04	0.005	0.022	0.023	<0.01	1.18	0.042	0.004	0.57	1.54	0.12	0.13	<0.001	<0.001	2.51		
Q014336	Rock Pulp																				
Q014375	Rock Pulp	0.007	0.07	10.29	<0.01	0.022	<0.001	<0.001	<0.01	0.21	0.073	0.007	4.17	3.54	0.02	0.51	<0.001	<0.001	5.84	2.98	
Q014376	Rock Pulp	0.010	0.02	20.25	<0.01	0.002	<0.001	0.001	<0.01	0.22	0.039	<0.001	0.91	1.31	0.03	0.61	<0.001	<0.001	20.59	3.44	
Q014416	Rock Pulp																				
Q014457	Rock Pulp																				
Q014473	Rock Pulp																				
Q014524	Rock Pulp																				
Q014527	Rock Pulp																				
Q014554	Rock Pulp																				
957166	Rock Pulp																				
Q014558	Rock Pulp																				
Q014592	Rock Pulp																				
Q014684	Rock Pulp																				
Q014771	Rock Pulp																				
Q014789	Rock Pulp																				
Q014795	Rock Pulp	0.003	0.10	10.31	<0.01	0.013	0.015	0.004	<0.01	3.00	0.060	0.001	2.39	6.51	0.29	1.44	<0.001	<0.001	8.55	2.92	
Q014968	Rock Pulp																				
Q014987	Rock Pulp																				

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	G6	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.005	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01	0.001	1
Q015009	Rock Pulp	<0.005	2	30	401	61	0.5	3	1	588	1.70	9	<2	49	<0.5	6	<3	2	1.38	0.027	6
957167	Rock Pulp	5.720																			
957168	Rock Pulp		48	>10000	6745	>10000	41.2	37	195	732	16.04	144	<2	14	254.0	15	49	16	0.46	0.022	6
Q015035	Rock Pulp	<0.005	<1	12	11	60	<0.3	1	1	505	2.32	594	<2	20	<0.5	10	4	<1	0.93	0.026	4
Q015051	Rock Pulp	<0.005	2	3	4	12	<0.3	2	11	78	2.68	20	<2	32	<0.5	<3	<3	<1	0.28	0.067	3
Q015052	Rock Pulp	0.356	80	37	117	112	5.1	11	48	73	6.74	238	<2	20	<0.5	8	12	<1	0.22	0.055	1
Q015053	Rock Pulp	0.023	6	4	11	28	0.8	3	11	113	2.55	37	<2	15	<0.5	<3	8	1	0.33	0.075	6
Q015077	Rock Pulp	0.038	24	339	339	808	2.3	4	20	261	6.39	35	<2	23	10.2	78	4	4	0.71	0.070	2
Q015141	Rock Pulp	0.035	9	7168	9	135	3.8	10	45	965	8.70	304	<2	34	<0.5	358	<3	125	1.07	0.073	1
Q015167	Rock Pulp	0.005	<1	879	8	69	<0.3	6	46	689	6.35	10	<2	22	<0.5	<3	<3	99	0.44	0.062	1
Q015229	Rock Pulp	0.008	<1	2856	6	132	1.4	7	35	1073	7.42	13	<2	32	<0.5	8	<3	129	0.62	0.065	<1
Q015266	Rock Pulp	0.020	<1	2459	24	461	1.9	6	42	976	7.33	12	<2	17	<0.5	4	<3	109	0.46	0.063	<1
957169	Rock Pulp	1.759	40	6300	>10000	>10000	>100	24	12	7166	5.53	435	<2	42	233.1	185	10	59	1.04	0.041	4
Q015297	Rock Pulp	0.226	5	715	235	630	5.3	<1	3	3	34.38	90	<2	9	4.3	5	<3	<1	0.14	<0.001	<1

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Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	7AR	7AR	7AR	7AR	7AR	7AR
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Mo	Cu	Pb	Zn	Ag	Ni
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	%	%	%	gm/t	%
	MDL	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.001	0.01	0.01	2	0.001
Q015009	Rock Pulp	4	0.57	242	0.010	<20	1.22	0.05	0.53	<2	0.43	<1	<5	<5	<5						
957167	Rock Pulp																				
957168	Rock Pulp	34	0.56	14	0.031	<20	0.74	0.03	0.16	*	>10	15	<5	<5	<5	0.005	1.427	0.65	7.43	42	0.004
Q015035	Rock Pulp	2	0.58	146	0.018	<20	1.36	0.04	0.71	<2	1.06	<1	<5	<5	<5						
Q015051	Rock Pulp	3	0.08	92	0.001	<20	0.45	0.01	0.35	<2	2.86	<1	<5	<5	<5						
Q015052	Rock Pulp	2	0.06	12	0.001	<20	0.32	0.01	0.26	<2	7.77	<1	8	<5	<5						
Q015053	Rock Pulp	3	0.08	143	0.002	<20	0.48	0.01	0.39	<2	2.61	<1	6	<5	<5						
Q015077	Rock Pulp	<1	0.46	37	0.002	<20	0.76	<0.01	0.34	<2	6.75	<1	<5	<5	<5						
Q015141	Rock Pulp	1	2.28	39	0.136	<20	2.94	<0.01	1.63	<2	5.41	<1	<5	<5	10						
Q015167	Rock Pulp	4	1.91	42	0.091	<20	2.74	0.09	1.09	<2	3.69	<1	<5	<5	6						
Q015229	Rock Pulp	<1	2.28	54	0.119	<20	3.58	0.07	1.62	<2	2.92	<1	<5	<5	9						
Q015266	Rock Pulp	<1	2.33	90	0.097	<20	3.58	0.03	1.19	<2	2.98	<1	<5	6	7						
957169	Rock Pulp	26	0.56	71	0.069	<20	1.37	0.11	0.12	<2	2.37	<1	<5	<5	<5	0.004	0.635	3.17	1.64	245	0.002
Q015297	Rock Pulp	4	0.03	2	<0.001	<20	0.19	0.03	0.11	<2	>10	<1	7	<5	<5	<0.001	0.068	0.03	0.06	7	<0.001

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Client: **Chieftain Metals Inc.**
Unit 118, 1515 Broadway Street
Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

CERTIFICATE OF ANALYSIS VAN13005352.1

	Method	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	G8SG	7AR.1
	Analyte	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	Mg	Al	Na	K	W	Hg	S	SG	Zn
	Unit	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		%
	MDL	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	0.01	0.01	0.01	0.01	0.001	0.001	0.05	0	0.01
Q015009	Rock Pulp																				
957167	Rock Pulp																				
957168	Rock Pulp	0.020	0.07	18.16	0.01	0.002	0.025	0.004	<0.01	0.52	0.023	0.004	0.59	0.84	0.04	0.19	<0.001	0.002	19.73		
Q015035	Rock Pulp																				
Q015051	Rock Pulp																				
Q015052	Rock Pulp																				
Q015053	Rock Pulp																				
Q015077	Rock Pulp																				
Q015141	Rock Pulp																				
Q015167	Rock Pulp																				
Q015229	Rock Pulp																				
Q015266	Rock Pulp																				
957169	Rock Pulp	<0.001	0.77	6.21	0.04	0.005	0.022	0.023	<0.01	1.19	0.043	0.004	0.58	1.56	0.12	0.14	<0.001	<0.001	2.49		
Q015297	Rock Pulp	<0.001	<0.01	37.56	<0.01	0.002	<0.001	0.001	<0.01	0.11	0.002	<0.001	0.02	0.27	0.03	0.15	<0.001	<0.001	43.06		

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QUALITY CONTROL REPORT VAN13005352.1

	Method	G6	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.005	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01	0.001	1
Pulp Duplicates																					
Q014043	Rock Pulp	0.211	4	1395	25	>10000	15.6	<1	5	108	5.63	562	<2	7	981.5	<3	<3	2	0.25	<0.001	<1
REP Q014043	QC																				
Q014118	Rock Pulp	3.017	13	82	23	39	7.5	8	6	13	17.56	74	<2	17	<0.5	<3	<3	2	0.21	0.002	1
REP Q014118	QC																				
Q014131	Rock Pulp	1.904	11	140	169	449	8.2	12	7	20	36.01	55	<2	212	2.2	8	<3	3	3.69	<0.001	<1
REP Q014131	QC		12	146	189	469	8.7	12	7	22	38.58	57	<2	216	1.3	8	<3	4	3.56	<0.001	1
Q015052	Rock Pulp	0.356	80	37	117	112	5.1	11	48	73	6.74	238	<2	20	<0.5	8	12	<1	0.22	0.055	1
REP Q015052	QC		78	37	120	109	4.9	10	47	71	6.65	235	<2	19	<0.5	10	7	<1	0.22	0.054	1
Reference Materials																					
STD CCU-1C	Standard																				
STD CDN-ME-9A	Standard																				
STD CDN-ME-14A	Standard																				
STD CZN-4	Standard																				
STD DS10	Standard		13	135	163	412	2.0	77	12	887	2.65	48	9	65	2.6	9	13	43	1.06	0.078	15
STD DS10	Standard		14	166	138	387	2.0	77	12	905	2.98	48	5	64	2.5	6	11	45	1.08	0.079	17
STD GBM997-6	Standard																				
STD OREAS45EA	Standard		2	638	25	27	<0.3	346	53	374	19.31	9	<2	3	<0.5	<3	<3	280	0.03	0.028	6
STD OREAS45EA	Standard		2	663	11	29	0.6	380	53	397	26.40	11	8	3	<0.5	<3	<3	306	0.03	0.030	7
STD OXC109	Standard	0.197																			
STD OXC109	Standard	0.198																			
STD OXI96	Standard	1.689																			
STD OXI96	Standard	1.811																			
STD OXL93	Standard	5.610																			
STD OXL93	Standard	5.668																			
STD PTC-1A	Standard																				
STD DS10 Expected			14.69	154.61	150.55	352.9	1.96	74.6	12.9	861	2.7188	43.7	7.5	67.1	2.48	7.8	11.65	43	1.0355	0.073	17.5
STD OREAS45EA Expected			1.39	709	14.3	28.9	0.26	381	52	400	23.51	9	10.7	3.5				303	0.036	0.029	6.57
STD OXC109 Expected		0.201																			

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Port Coquitlam BC V3C 6M2 CANADA

Project: Tulsequah Checks
Report Date: January 31, 2014

QUALITY CONTROL REPORT VAN13005352.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	7AR	7AR	7AR	7AR	7AR	7AR
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Mo	Cu	Pb	Zn	Ag	Ni
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	%	%	%	gm/t	%
	MDL	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001	0.001	0.01	0.01	2	0.001
Pulp Duplicates																					
Q014043	Rock Pulp	1	0.08	12	<0.001	<20	0.51	0.02	0.26	>100	9.32	>50	<5	<5	<5	<0.001	0.168	<0.01	>20	19	<0.001
REP Q014043	QC																				
Q014118	Rock Pulp	<1	<0.01	16	<0.001	<20	0.45	0.03	0.26	<2	>10	2	6	<5	<5	0.001	0.008	<0.01	<0.01	7	<0.001
REP Q014118	QC															0.001	0.008	<0.01	<0.01	7	<0.001
Q014131	Rock Pulp	1	<0.01	3	<0.001	<20	0.19	0.02	0.07	5	>10	<1	<5	<5	<5	<0.001	0.014	0.01	0.05	7	0.001
REP Q014131	QC	1	<0.01	4	<0.001	<20	0.20	0.02	0.07	4	>10	<1	<5	<5	<5						
Q015052	Rock Pulp	2	0.06	12	0.001	<20	0.32	0.01	0.26	<2	7.77	<1	8	<5	<5						
REP Q015052	QC	<1	0.06	13	0.001	<20	0.30	0.01	0.25	<2	7.77	<1	6	<5	<5						
Reference Materials																					
STD CCU-1C	Standard																				
STD CDN-ME-9A	Standard															<0.001	0.664	<0.01	<0.01	4	0.947
STD CDN-ME-14A	Standard															0.002	1.284	0.48	3.03	45	0.002
STD CZN-4	Standard																				
STD DS10	Standard	54	0.76	395	0.067	<20	0.98	0.07	0.35	2	0.25	<1	5	<5	<5						
STD DS10	Standard	57	0.81	384	0.073	<20	1.00	0.07	0.34	5	0.30	<1	<5	14	<5						
STD GBM997-6	Standard																				
STD OREAS45EA	Standard	794	0.08	144	0.078	<20	2.80	0.02	0.05	<2	<0.05	<1	<5	<5	77						
STD OREAS45EA	Standard	890	0.07	154	0.088	<20	3.15	0.02	0.05	<2	<0.05	<1	<5	19	84						
STD OXC109	Standard																				
STD OXC109	Standard																				
STD OXI96	Standard																				
STD OXI96	Standard																				
STD OXL93	Standard																				
STD OXL93	Standard																				
STD PTC-1A	Standard																				
STD DS10 Expected		54.6	0.7651	349	0.0817		1.0259	0.0638	0.3245	3.34	0.2743	0.289	4.79	4.3	2.8						
STD OREAS45EA Expected		849	0.095	148	0.0875		3.13	0.02	0.053		0.036			11.7	78						
STD OXC109 Expected																					

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QUALITY CONTROL REPORT VAN13005352.1

	Method	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	G8SG	7AR.1
	Analyte	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	Mg	Al	Na	K	W	Hg	S	SG	Zn
	Unit	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		%
	MDL	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	0.01	0.01	0.01	0.01	0.001	0.001	0.05	0	0.01
Pulp Duplicates																					
Q014043	Rock Pulp	<0.001	0.01	5.09	0.06	0.002	0.092	0.004	<0.01	0.25	0.001	<0.001	0.09	0.65	0.02	0.37	<0.001	0.008	13.10	3.14	21.75
REP Q014043	QC																				22.59
Q014118	Rock Pulp	<0.001	<0.01	14.33	<0.01	0.002	<0.001	<0.001	<0.01	0.20	0.003	<0.001	0.01	0.56	0.03	0.35	<0.001	<0.001	16.86	3.18	
REP Q014118	QC	<0.001	<0.01	14.09	<0.01	0.002	<0.001	0.001	<0.01	0.20	0.003	<0.001	0.01	0.57	0.03	0.36	<0.001	<0.001	16.85		
Q014131	Rock Pulp	<0.001	<0.01	30.11	<0.01	0.028	<0.001	0.002	<0.01	4.33	0.002	<0.001	0.02	0.23	0.02	0.10	<0.001	<0.001	37.28	3.75	
REP Q014131	QC																				
Q015052	Rock Pulp																				
REP Q015052	QC																				
Reference Materials																					
STD CCU-1C	Standard																				3.99
STD CDN-ME-9A	Standard	0.017	0.07	11.91	<0.01	0.006	<0.001	<0.001	<0.01	1.38	0.063	0.015	2.87	2.27	0.32	0.19	<0.001	<0.001	3.37		
STD CDN-ME-14A	Standard	0.018	0.06	17.65	0.01	<0.001	0.010	0.003	<0.01	0.30	0.015	0.002	0.89	1.17	0.03	0.38	<0.001	<0.001	16.80		
STD CZN-4	Standard																				54.32
STD DS10	Standard																				
STD DS10	Standard																				
STD GBM997-6	Standard																				15.32
STD OREAS45EA	Standard																				
STD OREAS45EA	Standard																				
STD OXC109	Standard																				
STD OXC109	Standard																				
STD OXI96	Standard																				
STD OXI96	Standard																				
STD OXL93	Standard																				
STD OXL93	Standard																				
STD PTC-1A	Standard																				0.14
STD DS10 Expected																					
STD OREAS45EA Expected																					
STD OXC109 Expected																					

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		G6 Au ppm 0.005	1D Mo ppm 1	1D Cu ppm 1	1D Pb ppm 3	1D Zn ppm 1	1D Ag ppm 0.3	1D Ni ppm 1	1D Co ppm 1	1D Mn ppm 2	1D Fe % 0.01	1D As ppm 2	1D Th ppm 2	1D Sr ppm 1	1D Cd ppm 0.5	1D Sb ppm 3	1D Bi ppm 3	1D V ppm 1	1D Ca % 0.01	1D P % 0.001	1D La ppm 1
STD OXI96 Expected		1.802																			
STD OXL93 Expected		5.841																			
STD CDN-ME-9A Expected																					
STD CDN-ME-14A Expected																					
STD CZN-4 Expected																					
STD CCU-1C Expected																					
STD GBM997-6 Expected																					
BLK	Blank		<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	4	<1	<0.01	<0.001	<1
BLK	Blank		<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01	<0.001	<1
BLK	Blank	<0.005																			
BLK	Blank	<0.005																			
BLK	Blank	<0.005																			
BLK	Blank	<0.005																			
BLK	Blank																				
BLK	Blank																				

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		1D Cr ppm 1	1D Mg % 0.01	1D Ba ppm 1	1D Ti % 0.001	1D B ppm 20	1D Al % 0.01	1D Na % 0.01	1D K % 0.01	1D W ppm 2	1D S % 0.05	1D Hg ppm 1	1D Tl ppm 5	1D Ga ppm 5	1D Sc ppm 5	7AR Mo % 0.001	7AR Cu % 0.001	7AR Pb % 0.01	7AR Zn % 0.01	7AR Ag gm/t 2	7AR Ni % 0.001
STD OXI96 Expected																					
STD OXL93 Expected																					
STD CDN-ME-9A Expected																	0.654		0.01		0.912
STD CDN-ME-14A Expected																	1.221	0.495	3.1	42.3	0.002
STD CZN-4 Expected																					
STD CCU-1C Expected																					
STD GBM997-6 Expected																					
BLK	Blank	2	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5						
BLK	Blank	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5						
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank															<0.001	<0.001	<0.01	<0.01	<2	<0.001
BLK	Blank																				

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		7AR Co % 0.001	7AR Mn % 0.01	7AR Fe % 0.01	7AR As % 0.01	7AR Sr % 0.001	7AR Cd % 0.001	7AR Sb % 0.001	7AR Bi % 0.01	7AR Ca % 0.01	7AR P % 0.001	7AR Cr % 0.001	7AR Mg % 0.01	7AR Al % 0.01	7AR Na % 0.01	7AR K % 0.01	7AR W % 0.001	7AR Hg % 0.001	7AR S % 0.05	G8SG SG 0	7AR.1 Zn % 0.01
STD OXI96 Expected																					
STD OXL93 Expected																					
STD CDN-ME-9A Expected		0.017	0.067	11.7		0.0063				1.4	0.059	0.014	2.82	2.2	0.32	0.19			3.46		
STD CDN-ME-14A Expected		0.0174	0.06	17.56	0.01		0.009		0.01	0.305	0.013	0.002	0.8835	1.09	0.032	0.35			16.75		
STD CZN-4 Expected																					55.24
STD CCU-1C Expected																					3.99
STD GBM997-6 Expected																					15.83
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.01	<0.01	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.05		
BLK	Blank																				0.01

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2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX IV

ANALYTICAL PROCEDURES

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

Rock drill core samples are shipped to ALS Minerals Preparation Laboratory at Mt Sima Road, Whitehorse YK, where the individual core samples weighting between 1-5kg are prepared by crushing the entire sample to 70% passing -2mm, and splitting off 250g and pulverizing the split to better than 85% passing 75 microns (ALS method: PREP-31). This subsequent pulverized split is sent to ALS Minerals Dollarton Hwy, North Vancouver, BC Laboratory for analysis.

All samples are analyzed by a 30g fire assay for Au by Atomic Absorption Spectroscopy (ALS method: Au-AA23), and a 35 element ICP-AES with 0.5g digested in aqua regia and analyzed by multi-element inductively coupled plasma-atomic emission (ALS method: ME-ICP41). Any sample over limit for element: Ag, As, Cu, Pb or Zn is sent for assay grade analysis for all elements Ag, As, Cu, Pb and Zn, as well as Specific Gravity from Pulp. All massive sulphide samples and adjacent hanging wall and footwall samples are also designated for assay grade methods.

The Assay Grade method uses 0.5g digested in aqua regia and inductively coupled plasma-atomic emission analysis optimized for high concentrations(ALS method: ME-OG46). The specific gravity from pulps is calculated by weighing 3.0g into an empty pycnometer and filling with methanol solvent and calculating the weight of the solvent displaced (ALS method: OA-GRA08b).

ALS Minerals Whitehorse and North Vancouver Laboratory's are both registered to ISO 9001:2008, and the North Vancouver Laboratory is ISO 17025:2005 by the Standards Council of Canada Accreditation No. 579, including specific ALS methods Au-AA, ME-ICP41, and OG46.

ALS Minerals

SAMPLE PREPARATION PACKAGE

PREP- 31

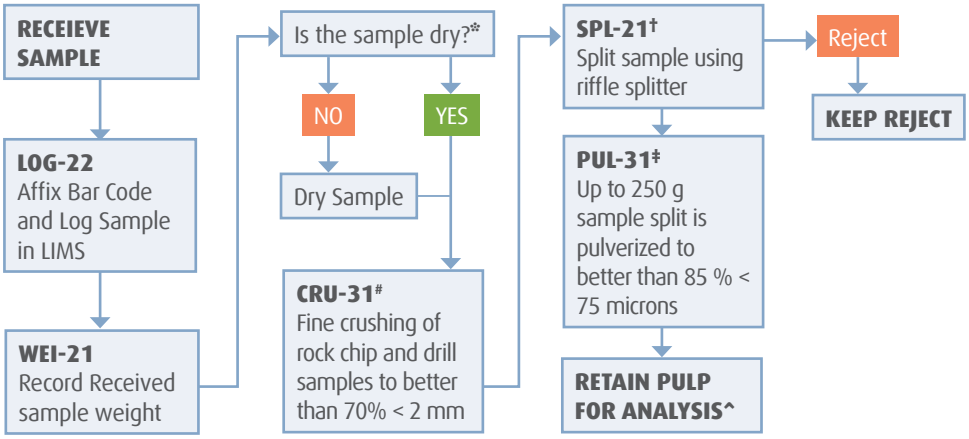
STANDARD SAMPLE PREPARATION: DRY, CRUSH, SPLIT AND PULVERIZE

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

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

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

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



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

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

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

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

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

ALS Minerals

FIRE ASSAY PROCEDURE

Au-AA23 & Au-AA24

FIRE ASSAY FUSION, AAS FINISH

SAMPLE DECOMPOSITION

Fire Assay Fusion (FA-FUS01 & FA-FUS02)

ANALYTICAL METHOD

Atomic Absorption Spectroscopy (AAS)

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

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

METHOD CODE	ELEMENT	SYMBOL	UNITS	SAMPLE WEIGHT (G)	LOWER LIMIT	UPPER LIMIT	DEFAULT OVERLIMIT METHOD
Au-AA23	Gold	Au	ppm	30	0.005	10.0	Au-GRA21
Au-AA24	Gold	Au	ppm	50	0.005	10.0	Au-GRA21

ALS Minerals

GEOCHEMICAL PROCEDURE

ME-ICP41

TRACE LEVEL METHODS USING CONVENTIONAL ICP-AES ANALYSIS

SAMPLE DECOMPOSITION

Nitric Aqua Regia Digestion (GEO-AR01)

ANALYTICAL METHOD

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

A prepared sample is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 mL with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter-element spectral interferences.

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

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Silver	Ag	ppm	0.2	100	Ag-OG46
Alumininm	Al	%	0.01	25	
Arsenic	As	ppm	2	10,000	
Boron	B	ppm	10	10,000	
Barium	Ba	ppm	10	10,000	
Beryllium	Be	ppm	0.5	1,000	
Bismuth	Bi	ppm	2	10,000	
Calcium	Ca	%	0.01	25	
Cadmium	Cd	ppm	0.5	1,000	
Cobalt	Co	ppm	1	10,000	
Chromium	Cr	ppm	1	10,000	
Copper	Cu	ppm	1	10,000	Cu-OG46
Iron	Fe	%	0.01	50	
Gallium	Ga	ppm	10	10,000	
Mercurgy	Hg	ppm	1	10,000	
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10,000	

ALS Minerals

ME-ICP41

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Magnesium	Mg	%	0.01	25	
Manganese	Mn	ppm	5	50,000	
Molybdenum	Mo	ppm	1	10,000	
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	1,000	
Phosphorus	P	ppm	10	1,000	
Lead	Pb	ppm	2	1,000	Pb-OG46
Sulfur	S	%	0.01	10	
Antimony	Sb	ppm	2	1,000	
Scandium	Sc	ppm	1	1,000	
Strontium	Sr	ppm	1	1,000	
Thorium	Th	ppm	20	1,000	
Titanium	Ti	%	0.01	10	
Thallium	Tl	ppm	10	1,000	
Uranium	U	ppm	10	1,000	
Vanadium	V	ppm	1	1,000	
Tungsten	W	ppm	10	1,000	
Zinc	Zn	ppm	2	1,000	Zn-OG46

ELEMENTS LISTED BELOW ARE AVAILABLE UPON REQUEST

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Cerium	Ce	ppm	10	10,000	
Hafnium	Hf	ppm	10	10,000	
Indium	In	ppm	10	10,000	
Lithium	Li	ppm	10	10,000	
Niobium	Nb	ppm	10	10,000	
Rubidium	Rb	ppm	10	10,000	
Selenium	Se	ppm	10	10,000	
Silicon	Si	ppm	10	10,000	
Tin	Sn	ppm	10	10,000	
Tantalum	Ta	ppm	10	10,000	
Tellurium	Te	ppm	10	10,000	
Yttrium	Y	ppm	10	10,000	
Zirconium	Zr	ppm	5	10,000	

ALS Minerals

ASSAY PROCEDURE

ME- OG46

ORE GRADE ELEMENTS BY AQUA REGIA DIGESTION USING CONVENTIONAL ICP- AES ANALYSIS

SAMPLE DECOMPOSITION

HNO_3 -HCl Digestion (ASY-4R01)

ANALYTICAL METHOD

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

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

A prepared sample is digested in 75% aqua regia for 120 minutes. After cooling, the resulting solution is diluted to volume (100 mL) with de-ionized water, mixed and then analyzed by inductively coupled plasma - atomic emission spectrometry or by atomic absorption spectrometry.

***NOTE:** ICP-AES is the default finish technique for ME-OG46. However, under some conditions and at the discretion of the laboratory an AA finish may be substituted. The certificate will clearly reflect which instrument finish was used.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Silver	Ag	ppm	1	1,500
Arsenic	As	%	0.01	30
Cadmium	Cd	%	0.001	10
Cobalt	Co	%	0.001	20
Copper	Cu	%	0.001	40
Iron	Fe	%	0.01	100
Manganese	Mn	%	0.01	50
Molybdenum	Mo	%	0.001	10
Nickel	Ni	%	0.001	10
Lead	Pb	%	0.001	20
Zinc	Zn	%	0.001	60

ALS Minerals

SPECIALTY ASSAY PROCEDURE

OA- GRA08

SPECIFIC GRAVITY

ANALYTICAL METHOD

Gravimetric (XRF)

Two methods of analysis can be used, depending on the nature of the sample.

1. BULK SAMPLES (OA- GRA08 & OA- GRA08A)

The rock or core section (up to 6 kg) is weighed dry for method OA-GRA08 or is covered in a paraffin wax coat in the case of OA-GRA08a and weighed. The sample is then weighed while it is suspended in water. The specific gravity is calculated from either of the following equations.

OA- GRA08 Specific Gravity = $\frac{\text{Weight of sample (g)}}{\text{Weight in air (g) - Weight in water (g)}}$

OA- GRA08 Specific Gravity = $\frac{\Delta}{B - C - [(B - A) / Dwax]}$

A = weight of sample in air **B** = weight of waxed sample in air
C = weight of waxed sample suspended in water **D** = density of wax

2. PULVERIZED MATERIAL (OA- GRA08B & OA- GRA08D)

A prepared sample (3.0 g) is weighed into an empty pycnometer. The pyncometer is filled with a solvent (either methanol or acetone) and then weighed. From the weight of the sample and the weight of the solvent displaced by the sample, the specific gravity is calculated according to the equation below.

Specific Gravity = $\frac{\text{Weight of Sample (g)}}{\text{Weight of solvent displaced (g)}}$ X Specific Gravity of Solvent

METHOD CODE	UNITS	LOWER LIMIT	UPPER LIMIT	DESCRIPTION
OA- GRA08	Unity	0.01	20	Specific Gravity – without paraffin coat
OA- GRA08a	Unity	0.01	20	Specific Gravity – with paraffin coat
OA- GRA08b	Unity	0.01	20	Specific Gravity – pyncometer with Methanol
OA- GRA08d	Unity	0.01	20	Specific Gravity – pyncometer with Acetone

OA- GRA08

CONVERSION OF SPECIFIC GRAVITY TO DENSITY

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

Factors for converting specific gravity to density are tabulated below:

TEMP (° C)	DENSITY (G/CM³)	TEMP (° C)	DENSITY (G/CM³)
19	0.9984	23	0.9975
20	0.9982	24	0.9973
21	0.998	25	0.997
22	0.9978	26	0.9968

2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX V

QUALITY CONTROL / QUALITY ASSURANCE

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

1. SUMMARY

The QA-QC program conducted by Chieftain Metals Inc. during the 2013 Tulsequah Exploration Program involved the insertion of 10% standards, blanks and duplicates into the sample shipment stream. At the conclusion of the program 5% of the sample pulps were submitted to Acme Labs for 3rd party checks.

These results were monitored in real time with the lab requested to reanalyze and explain discrepancies. Eight samples results out of the 1449 sample submitted were investigated. Three of these were related to samples outside the maximum 3 standard deviation allowed for standards, four were differences in the duplicate samples and one was related to elevated blank material in the initial evaluation tests.

The blank sample results are acceptable and pass the QC with the lab having adequate hygiene practices. A small number of Cu samples are above the background levels, and is related to the source material having a higher background level. The results of the standard reference material pass the QC with good accuracy, with two Zn and one Au sample above 3SD. The results of the field duplicates pass the QC with good correlation of precision. The Results of the Acme 2nd Lab checks of the principal Laboratory pass the QC with good correlation of precision and accuracy.

The Chieftain QA-QC program as a whole has confirmed the accuracy and precision of the sample results from the 2013 Exploration Program, passing the QA-QC protocols. As such the results can be used with confidence in future resource calculation exercises. This is inconsideration that rare samples returned results outside the QA-QC protocol parameters but are considered acceptable due to the small number of occurrences and the occasional local inherent variability of the material being sampled.

2. INTRODUCTION

Chieftain's Quality assurance program consists of using Quality Control "QC" samples in the sample stream including: standard reference material "SRM", blank material and duplicate samples. The Quality Control samples are inserted into the sample stream at frequency of 1 QC sample per 10 samples. As part of the Quality Assurance program "QA" the results of the QC samples are reviewed with the SRM values compared to the expected values, the blank material compared to the background values/detection limits and the Duplicate values compared to the Original values. Once the QC results from the sample batch have been approved the results are used for subsequent work and calculations. At the conclusion of the program 5% of the samples are sent to a second laboratory for further check analysis.

ALS Minerals Lab's North Vancouver Location was the laboratory used with the samples prepared in their Whitehorse preparation facility. The analysis was conducted between 16th Sep – 23rd November 2013. Every tenth sample a: blank or reference standard or duplicate was selected by the geologist and submitted into the sample stream. From the total 1449 samples 49 blanks, 124 standards and 37 duplicates were submitted to ALS Minerals. At the conclusion of the program 65 pulps and 9 standards were submitted to Acme Labs Vancouver for check analysis.

The results are presented in the charts following the text with the standards plotted with the 1, 2 and 3SD lines for reference; the Blank samples are plotted with a warning line representing 5x the background level; the duplicates are plotted with 1:1 original duplicate plots and also mean v's relative difference; and the check assays are plotted with 1:1 original check plots and also quantile-quantile plots.

3. PERFORMANCE OF BLANK MATERIAL

Blank samples are used to monitor the sample preparation hygiene process at the preparation lab to test for any contamination between samples. The Blank material used was sourced from and agglomerate basaltic outcrop located at km 10 on the Barge access road. Approx. 0.5kg of 2-8cm sized pieces was included for sample submission.

All 49 blank samples that were assayed were below the warning level for Au, Ag, Pb and Zn. For copper 5 samples were above the warn level, which is likely too low for the sourced basaltic material. The blank material does have above background levels of Cu, with the most erroneous value in the initial suite used to test the blank material and preceded in the laboratory sequence by the previous granite grit used for blank material in the 2011 drilling program. It is recommended that a felsic granitic source in the Shazah valley is sourced for blanks in future programs. As such the blank sample preparation hygiene is acceptable and the results presented pass the QC.

4. PERFORMANCE OF CERTIFIED REFERENCE MATERIAL

Six standards were used in the 2013 exploration program obtained from Canadian Resource labs: both low and high gold and separate high and low base metal standards; with 65g labeled envelopes of gold fire assay standards and 15g labeled envelopes of base metal standards. The polymetallic standards are low and high in different metals; to ease confusion the standards were sequentially designated: low grade standard is CDN-ME-7 and the high grade standard CDN-ME-11. When all of the low grade standards CDN-GS-1F and CDN-ME-7 was consumed it was replaced by single standard CDN-ME-1305; and standard CDN-ME-11 by CDN-ME-17.

Canadian Resource Labs Reference Material Values ± 2 standard deviations

	Au	limit	Ag	limit	Cu	limit	Pb	limit	Zn	limit
CDN-GS-1F	1.16	±0.16								
CDN-GS-6A	5.69	±0.48								
CDN-ME-7	0.219	±0.024	150.7	±8.7	0.227	±0.016	4.95	±0.3	4.84	±0.17
CDN-ME-11	1.38	±0.1	79.3	±6.0	2.44	±0.11	0.86	±0.10	0.96	±0.06
CDN-ME-1305	1.92	±0.18	231	±12	0.617	±0.024	3.21	±0.09	1.61	±0.05
CDN-ME-17	0.452	±0.058	38.2	±3.3	1.36	±0.10	0.676	±0.054	7.34	±0.37

Of the 124 standard reference material samples submitted 121 pass the Quality control tests. For sample 41951 that did not pass the Zn at 4.1SD, the re-assayed sample was within the 2SD, the limits for this standard are quite narrow, with the original sample only 7% relative difference. Sample Q014360 was similar to the above explanation for Zn, with the re-analysis within the 2SD and the original sample 6.4% relative difference from the standard value. The only other sample outside the 2SD was Q014620 in the Au analysis at 4.3SD, the re-analysis was 2.7SD, this is acceptable with less than 1% of the samples above 3SD. One lab repeated sample was also above 3SD for this standard. The accuracy of the certified reference material is acceptable and the results presented pass the QC.

5. PERFORMANCE OF CORE DUPLICATE SAMPLES

The precision of the analysis is evaluated by comparing duplicate ¼ core split samples with the original. Four duplicate samples were re-analyzed because the original relative difference was deemed high. In all cases the results returned were similar, with the difference attributed to heterogeneity of the original sample material. The 1:1 duplicate comparison plots show very good correlation precision between the original and duplicate samples. The mean v's the absolute relative difference plots show very good results for all metals except Cu which shows increased variability with increasing grade. The precision of the analysis is acceptable and the results presented pass the QC.

6. PERFORMANCE OF ACME 2ND LABORATORY PULP CHECK SAMPLES

To check the performance of the principal ALS Lab 74 samples were sent for check assay at Acme Labs Vancouver. The precision can be evaluated graphically with original ALS/ Acme checks 1:1 plots and also quantile-quantile plots showing the difference between the labs. The accuracy of the Acme lad was also evaluated with standards inserted with the check sample material, all were within the 2SD. The precision and accuracy is acceptable and the performance of the principal lab is satisfactory, passing the QC.

7. PERFORMANCE MONITORING OF QA-QC PROGRAM

During the exploration program real time monitoring of the QA-QC program 8 discrepancies were identified, between the submitted blanks/standards/duplicates and the results received. In each case the lab was requested to re-assay the quality control samples and also the surrounding samples to determine an explanation for the value. In all cases the original results were replicated and the lab was determined to be performing satisfactory.

SAMPLE _NO	CERT_NO	ISSSUE	ACTION	RESOLUTION
41951	WH13168474	LG_BM2011 CDN-ME-7 lab result is +4.1 SD at 5.19% Zn with the 0SD Zn at 4.84% and +2 SD ZN at 5.01%. The Cu% is also +2.1SD	Request Re-Analysis Assay(ME-OG46) of samples 41951, 41921, and 41931 - the two preceding base metal standards in certificate WH13168474.	Re-Analysis ICP(ME-ICP41) of sample 41951 returned 4.82 %Zn(-0.2SD) - the rerun value is within the ±2 SD for this reference material. The original value of 5.19 is only 7.0% Absolute Relative Difference from the 4.84 reference value. The original assay is correct with the narrow range of acceptable assays for this reference material noted. The Standards also re-run 41921 and 41931 are within the ± 2SD.
Q014360	WH13178964	LG_2013 CDN-ME-1305 lab result is -4.0 SD at 1.51% Zn with the 0SD Zn at 1.61 and -2 SD ZN at 1.56%.	Request Re-Analysis Assay(ME-OG46) of samples Q014360, Q014374, Q014375, and Q014410. This is the two subsequent sample to the standard that were assayed and also standard sample Q014410, that was already replicated assayed in the certificate, so there may not be enough material for a re-assay?	Re-Analysis ICP(ME-ICP41) of sample Q014360 returned 1.625 %Zn(+0.6SD) - the rerun value is within the ±2 SD for this reference material. The original value of 1.51 is only 6.4% Absolute Relative Difference from the 1.61 reference value. The original assay is correct with the narrow range of acceptable assays for this reference material noted. The Samples also re-run Q014374 and Q14375 are also very similar to the original values and correct.

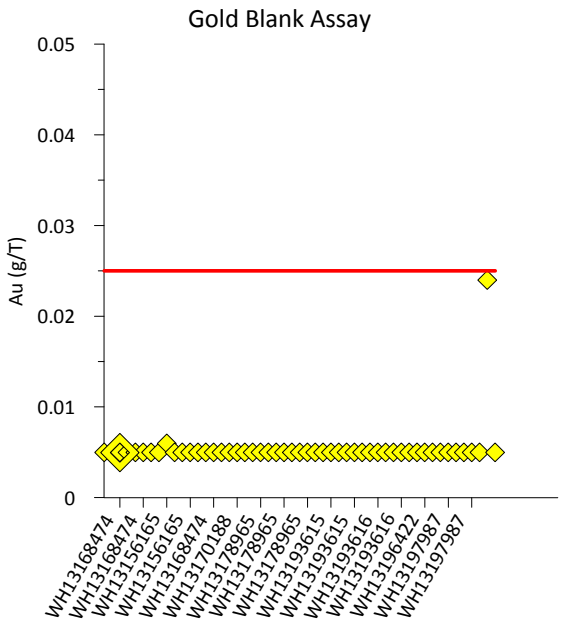
41946	WH13168474	Blank sample Cu ppm is high at 195ppm Cu. This was the initial new blank selection to confirm source material. The preceding sample 41945 was the 2011 granite grit blank material and would not have been put through the Jaw crusher, the next preceding sample 41944 was 266ppm Cu.	Request Re-Analysis ICP(ME-ICP41) of sample 41946	Re-Analysis ICP(ME-ICP41) of sample 41946 returned 205ppm Cu - the original value is correct.
Q014620	WH13193615	FA_HG2013 CDN-GS-6A lab result is +4.3 SD at 6.72g/t Au with the 0SD Au at 5.69 and +2 SD Au at 6.17.	Request Re-Analysis Assay(Au-AA23) of samples Q014619, Q014620, and Q014622 - the two adjacent sample and standards in certificate WH13193615.	Re-Assay (Au-AA23) of sample Q014629 returned 6.34g/t Au(+2.7SD) - this rerun value is above the ±2 SD for this reference material and within the ±3 SD warn range, but now below the ±4 SD unacceptable level of the original assay. The original assay is likely correct with possibly some variability within the standard material. The adjacent samples Q014619 and Q014622 were also re-run with the same results as the original assays(both 0.001 g/t Au lower).
Q014079	WH13181217	Original sample Q014079 is 32% Absolute Relative Difference from Duplicate sample Q014080 for Au: 0.486 / 0.352 Au g/t. Sample weights for samples Q014079 and Q014080 are comparable at 1.79 and 1.69kg.	Request Re-Analysis Assay(Au-AA23) of samples Q014078, Q014079, Q014080 and Q014081 - the original, duplicate and two adjacent sample and standards in certificate WH13181217.	Re-Assay (Au-AA23) of all samples Q014078, Q014079, Q014080 and Q014081 were the same as the original assay ±0.005 Au g/t and maximum of 0.8% absolute relative difference. Sample Au g/t - Original/Re-Run: Q014078 - 0.127 / 0.126; Q014079 - 0.486 / 0.484; Q014080 - 0.352 / 0.351; Q014081 - 1.515 / 1.52. The discrepancy of 32% absolute relative difference Au between original sample Q014079 and duplicate sample Q014080 is related to difference in heterogeneity of the separate original and duplicate quarter core split samples sent to the lab.
Q014229	WH13178965	Original sample Q014229 is 106% Absolute Relative Difference from Duplicate sample Q014230 for Zn: 1425 / 434 Zn ppm. Sample weights for samples Q014229 and Q014230 are comparable at 1.27 and 1.13kg.	Request Re-Analysis Assay(ME-ICP41) of samples Q014228, Q014229, Q014230 and Q014231 - the original, duplicate and two adjacent sample and standards in certificate WH13178965.	Re-ICP (ME-ICP41) of all samples Q014228, Q014229, Q014230 and Q014231 were the same as the original ICP for Zn ±35 ppm and maximum of 13.3% absolute relative difference. Sample Zn ppm - Original/Re-Run; Q014228 - 179 / 185; Q014229 - 1425 / 1390; Q014230 - 434 / 403; Q014231 - 40 / 35. The discrepancy of 114% absolute relative difference Zn between original sample Q014229 and duplicate sample Q014230 is related to difference in heterogeneity of the separate original and duplicate quarter core split samples sent to the lab.

Q014949	WH13193616	Original sample Q014949 is 114% Absolute Relative Difference from Duplicate sample Q014950 for Ag: 1425 / 434 Ag ppm; also 117% Absolute Relative Difference from Duplicate sample Q014950 for Cu: 209 / 798 Cu ppm. Sample weights for samples Q014949 and Q014950 are comparable at 1.72 and 1.56kg.	Request Re-Analysis Assay(ME-ICP41) of samples Q014948, Q014949, Q014950 and Q014951 - the original, duplicate and two adjacent sample and standards in certificate WH13193616.	Re-ICP (ME-ICP41) of all samples Q014948, Q014949, Q014950 and Q014951 were the similar as the original ICP for Ag ±0.3 ppm and maximum of 32% absolute relative difference, except for sample at the detection limit which were 67% absolute relative difference ; and check samples the same for Cu were the same as the originals ±46 ppm and maximum of 15% absolute relative difference. Sample Ag ppm - Original/Re-Run; Q014948 - 0.4 / <0.2; Q014949 - 0.3 / <0.2; Q014950 - 1.1 / 0.8; Q014951 - <0.2 / <0.2. Sample Cu ppm - Original/Re-Run; Q014948 - 25 / 29; Q014949 - 209 / 209; Q014950 - 798 / 844; Q014951 - 15 / 15. The discrepancy of 114% absolute relative difference Ag and 117% absolute relative difference Cu between original sample Q014949 and duplicate sample Q014950 is related to difference in heterogeneity of the separate original and duplicate quarter core split samples sent to the lab.
Q015152	WH13197987	Original sample Q015151 is 71% Absolute Relative Difference from Duplicate sample Q015152 for Au: 0.02 / 0.042 Au gpt; also 136% Absolute Relative Difference from Duplicate sample Q015151 for Ag: 1.4 / 7.4 Ag ppm; also 47% Absolute Relative Difference from Duplicate sample Q014152 for Cu: 2020 / 3250 Cu ppm. Sample weights for samples Q015151 and Q015152 are comparable at 1.25 and 1.21kg.	Request Re-Analysis Assay(ME-ICP41) of samples Q015150, Q015151, Q0145152 and Q015153 - the original, duplicate and two adjacent sample and standards in certificate WH13197987.	Re-ICP (ME-ICP41) of all samples Q015150, Q015151, Q0145152 and Q015153 were the similar as the original ICP for Ag ±0.3 ppm and maximum of 15% absolute relative difference, and check samples the same for Cu were the same as the originals ±90 ppm and maximum of 6.3% absolute relative difference. Sample Ag ppm - Original/Re-Run; Q015150 - 1.4 / 1.4; Q015151 - 1.4 / 1.5; Q015152 - 7.4 / 7.7; Q015153 - 0.6 / 0.7. Sample Cu ppm - Original/Re-Run; Q015150 - 912 / 953; Q015151 - 2020 / 2030; Q015152 - 3250 / 3210; Q015153 - 1480 / 1390 The discrepancy of 136% absolute relative difference Ag and 46% absolute relative difference Cu between original sample Q015151 and duplicate sample Q015152 is related to difference in heterogeneity of the separate original and duplicate quarter core split samples sent to the lab. The 71% Au absolute relative difference check was inadvertently omitted from the re-assay request, but the heterogeneity is supported by this and the other duplicate results.

8. CONCLUSIONS

The Chieftain QA-QC program as a whole has confirmed the accuracy and precision of the sample results from the 2013 Exploration Program, passing the QA-QC protocols. As such the results can be used with confidence in future resource calculation exercises. This is inconsideration that rare samples returned results outside the QA-QC protocol parameters but are considered acceptable due to the small number of occurrences and the occasional local inherent variability of the material being sampled.

Brett Armstrong
Exploration Manager
30th October 2014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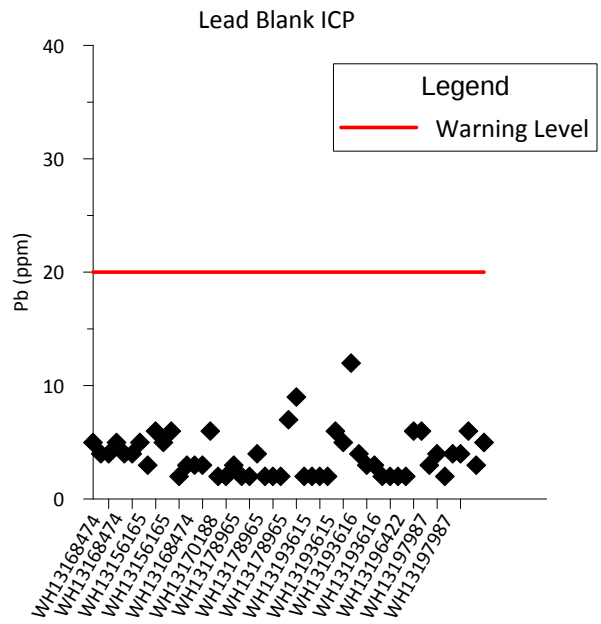
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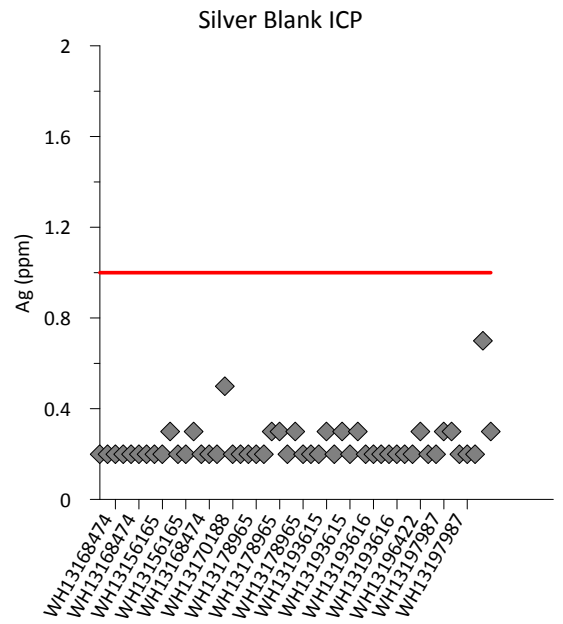
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1.2
0.8
0.4
0
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WH13168474
WH13156165
WH13156165
WH13168474
WH13170188
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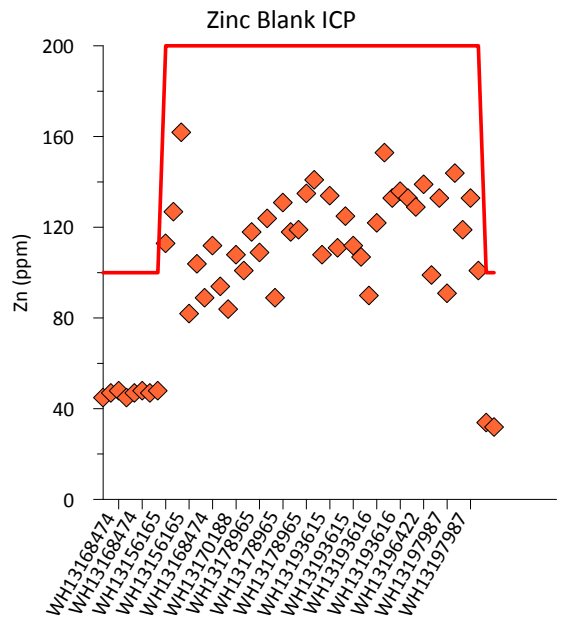
WH13197987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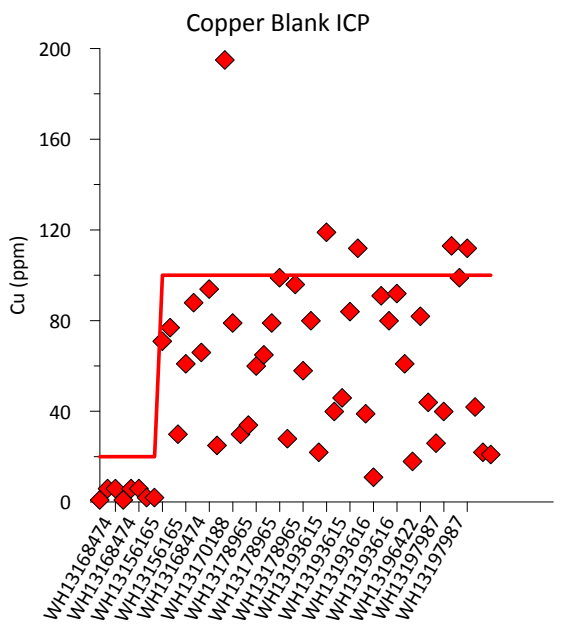
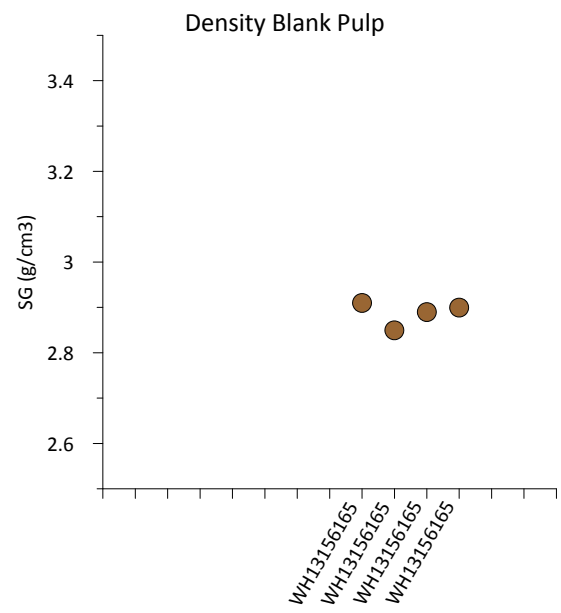
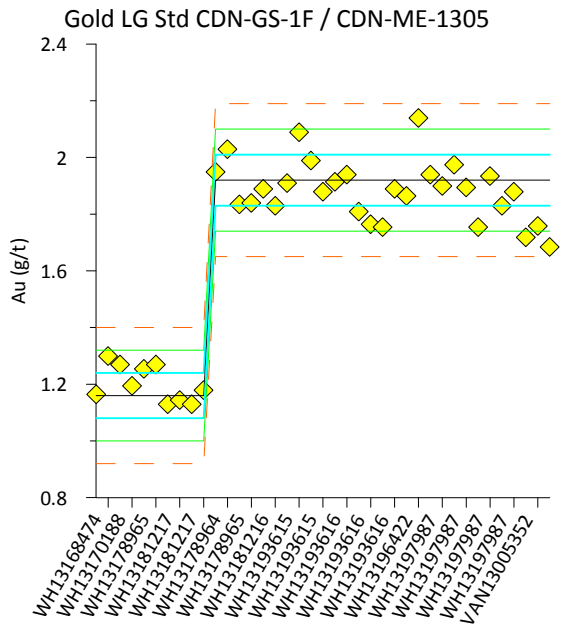
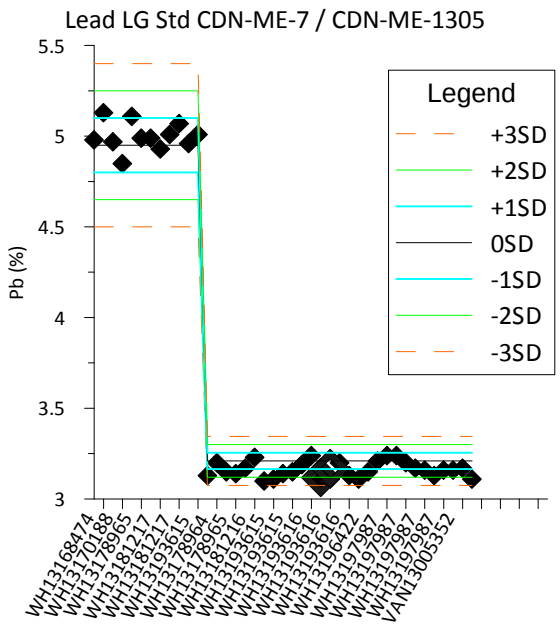
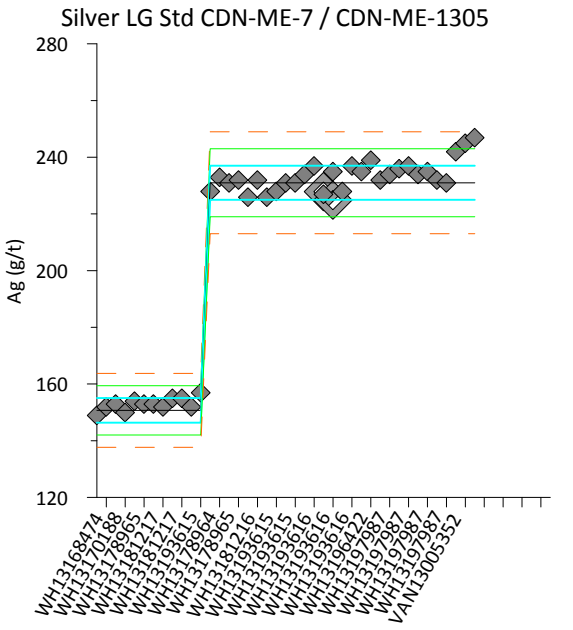
Zn (ppm)
200
160
120
80
40
0
WH13168474
WH13168474
WH13156165
WH13156165
WH13168474
WH13170188
WH13178965
WH13178965
WH13193615
WH13193615
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987

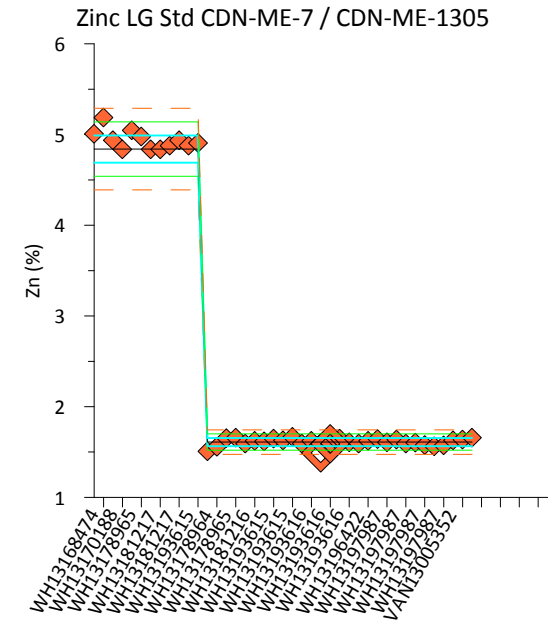

Copper Blank ICP
Cu (ppm)
200
160
120
80
40
0
WH13168474
WH13168474
WH13156165
WH13156165
WH13168474
WH13170188
WH13178965
WH13178965
WH13193615
WH13193615
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987

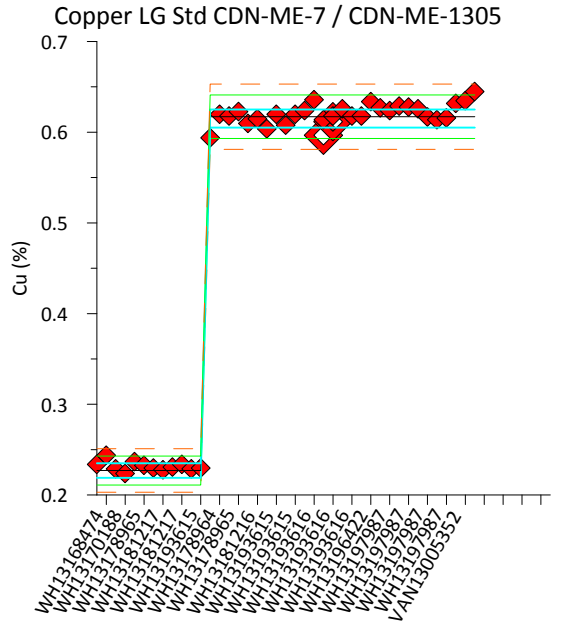

Density Blank Pulp
SG (g/cm3)
3.4
3.2
3
2.8
2.6
WH13156165
WH13156165
WH13156165
WH13156165

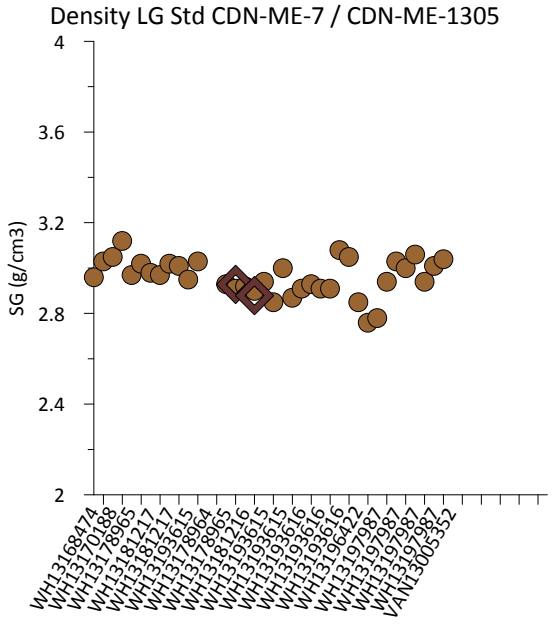

Gold LG Std CDN-GS-1F / CDN-ME-1305
Au (g/t)
2.4
2
1.6
1.2
0.8
WH13168474
WH13170188
WH13178965
WH13181217
WH13181217
WH13178964
WH13178965
WH13181216
WH13193615
WH13193615
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
WH13197987
VAN13005352

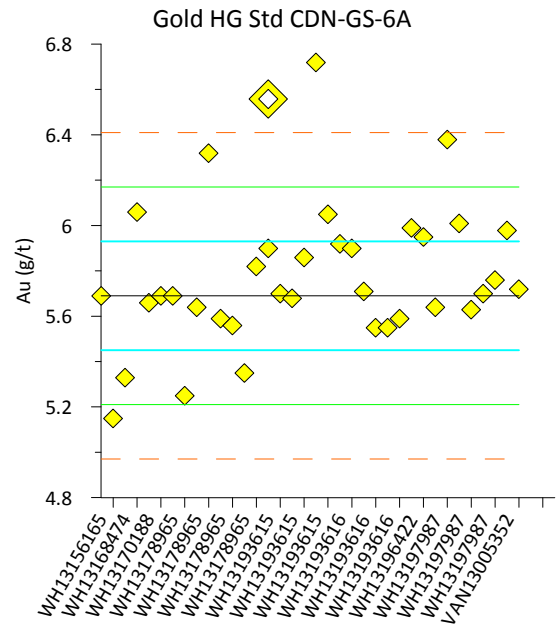

Lead LG Std CDN-ME-7 / CDN-ME-1305
Pb (%)
5.5
5
4.5
4
3.5
3
Legend
+3SD
+2SD
+1SD
0SD
-1SD
-2SD
-3SD
WH13168474
WH13170188
WH13178965
WH13181217
WH13181217
WH13178964
WH13178965
WH13181216
WH13193615
WH13193615
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
WH13197987
VAN13005352

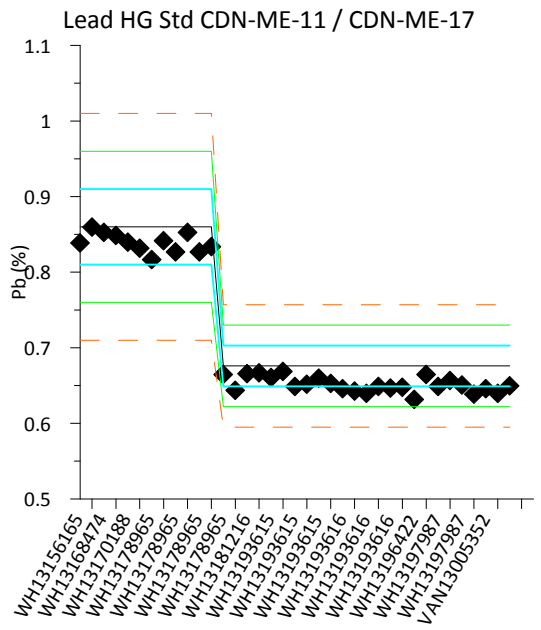

Silver LG Std CDN-ME-7 / CDN-ME-1305
Ag (g/t)
280
240
200
160
120
WH13168474
WH13170188
WH13178965
WH13181217
WH13181217
WH13193615
WH13178964
WH13178965
WH13181216
WH13193615
WH13193615
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
WH13197987
VAN13005352

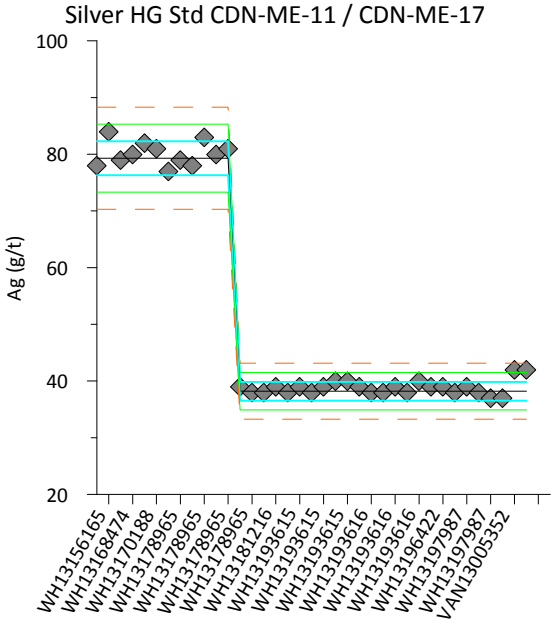

Zinc LG Std CDN-ME-7 / CDN-ME-1305
Zn (%)
6
5
4
3
2
1
WH13168474
WH13170188
WH13178965
WH13181217
WH13181217
WH13193615
WH13178964
WH13178965
WH13181216
WH13193615
WH13193615
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
WH13197987
VAN13005352

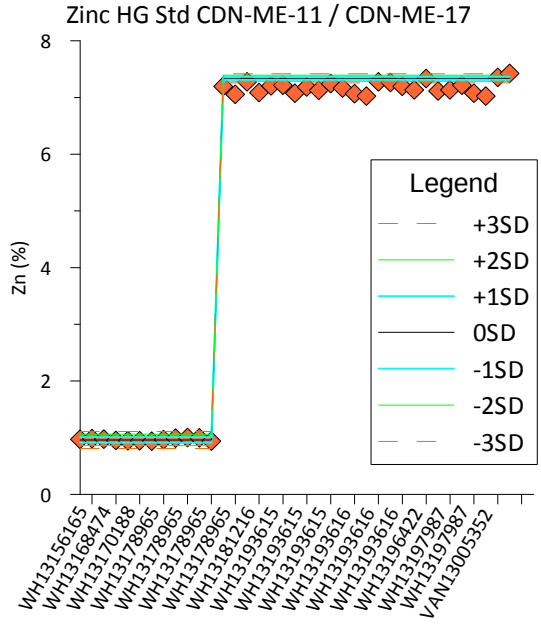

Copper LG Std CDN-ME-7 / CDN-ME-1305
Cu (%)
0.7
0.6
0.5
0.4
0.3
0.2
WH13168474
WH13170188
WH13178965
WH13181217
WH13181217
WH13193615
WH13178964
WH13178965
WH13181216
WH13193615
WH13193615
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
WH13197987
VAN13005352

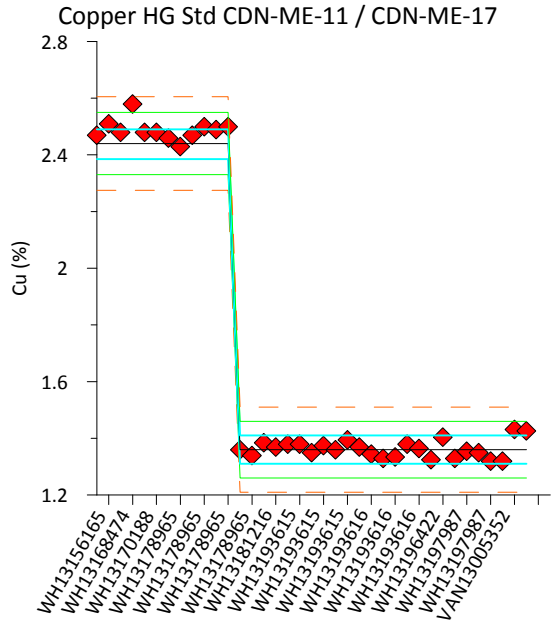

Density LG Std CDN-ME-7 / CDN-ME-1305
SG (g/cm3)
4
3.6
3.2
2.8
2.4
2
WH13168474
WH13170188
WH13178965
WH13181217
WH13181217
WH13193615
WH13178964
WH13178965
WH13181216
WH13193615
WH13193615
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
WH13197987
VAN13005352

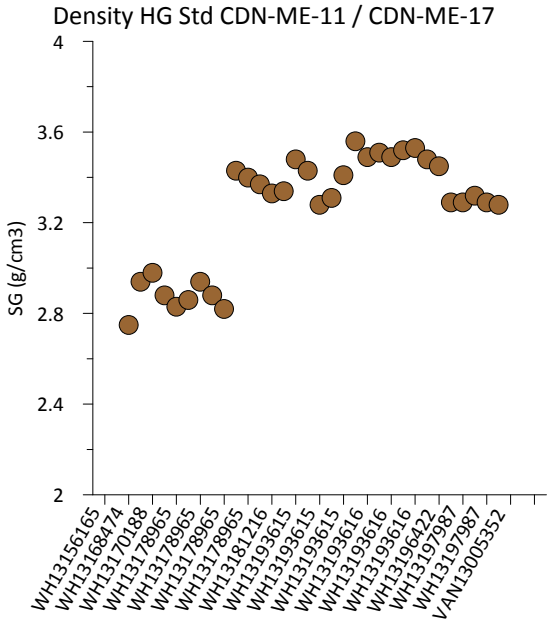

Gold HG Std CDN-GS-6A
Au (g/t)
6.8
6.4
6
5.6
5.2
4.8
WH13156165
WH13168474
WH13170188
WH13178965
WH13178965
WH13178965
WH13178965
WH13178965
WH13193615
WH13193615
WH13193615
WH13193616
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
VAN13005352

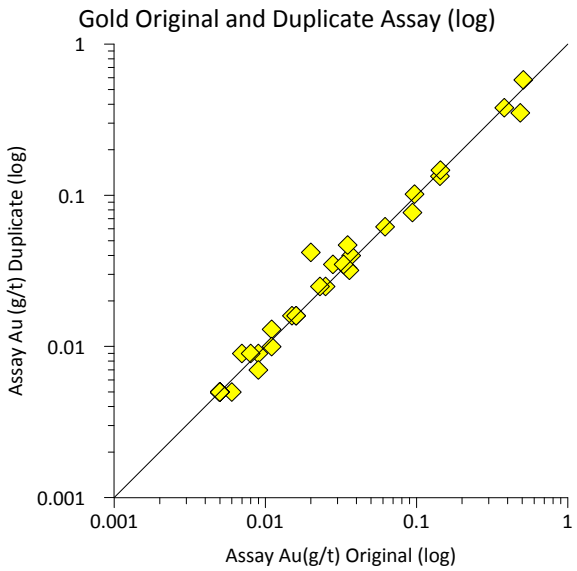

Lead HG Std CDN-ME-11 / CDN-ME-17
Pb (%)
1.1
1
0.9
0.8
0.7
0.6
0.5
WH13156165
WH13168474
WH13170188
WH13178965
WH13178965
WH13178965
WH13178965
WH13178965
WH13181216
WH13193615
WH13193615
WH13193615
WH13193616
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
VAN13005352

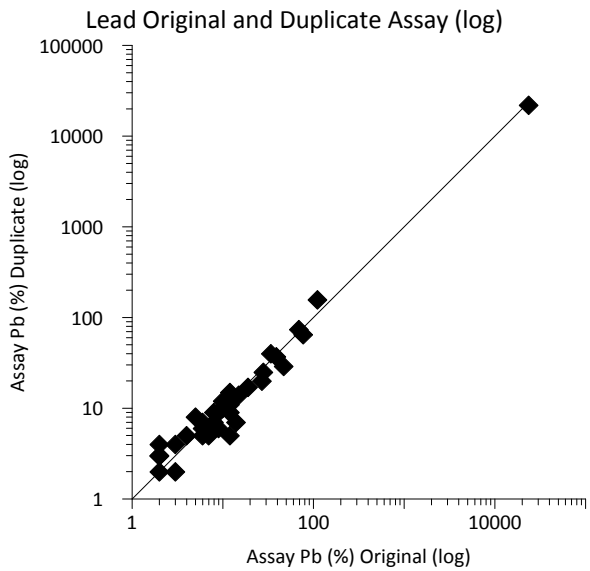

Silver HG Std CDN-ME-11 / CDN-ME-17
Ag (g/t)
100
80
60
40
20
WH13156165
WH13168474
WH13170188
WH13178965
WH13178965
WH13178965
WH13178965
WH13178965
WH13181216
WH13193615
WH13193615
WH13193615
WH13193616
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
VAN13005352

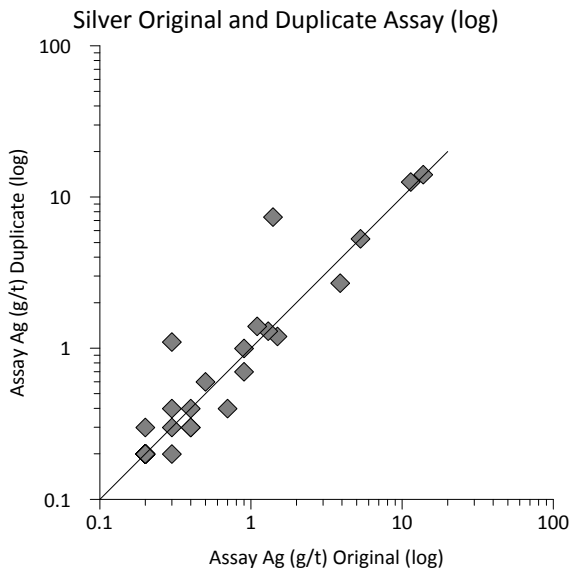

Zinc HG Std CDN-ME-11 / CDN-ME-17
Zn (%)
8
6
4
2
0
Legend
+3SD
+2SD
+1SD
0SD
-1SD
-2SD
-3SD
WH13156165
WH13168474
WH13170188
WH13178965
WH13178965
WH13178965
WH13178965
WH13178965
WH13181216
WH13193615
WH13193615
WH13193615
WH13193616
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
VAN13005352

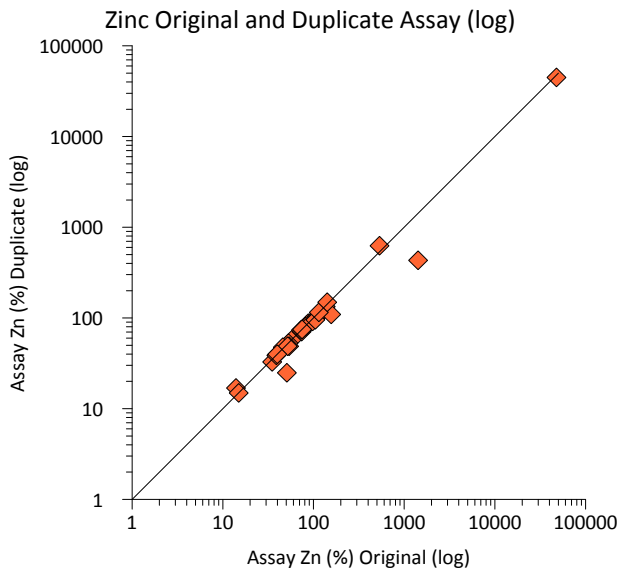

Copper HG Std CDN-ME-11 / CDN-ME-17
Cu (%)
2.8
2.4
2
1.6
1.2
WH13156165
WH13168474
WH13170188
WH13178965
WH13178965
WH13178965
WH13178965
WH13178965
WH13181216
WH13193615
WH13193615
WH13193615
WH13193616
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
VAN13005352

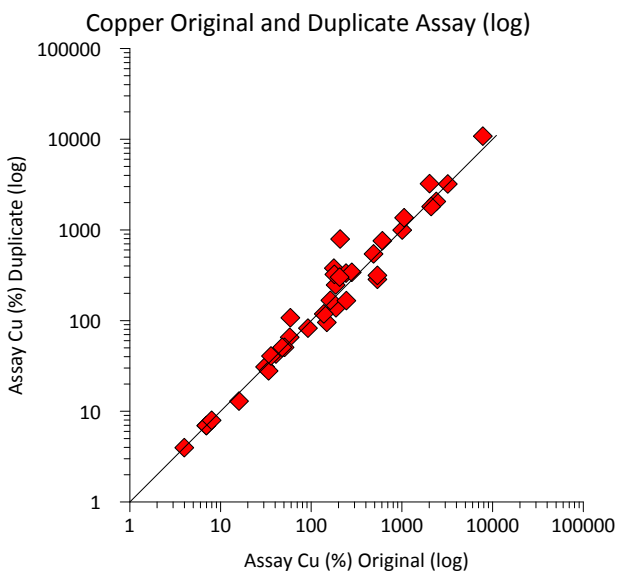

Density HG Std CDN-ME-11 / CDN-ME-17
SG (g/cm3)
4
3.6
3.2
2.8
2.4
2
WH13156165
WH13168474
WH13170188
WH13178965
WH13178965
WH13178965
WH13178965
WH13178965
WH13181216
WH13193615
WH13193615
WH13193615
WH13193616
WH13193616
WH13193616
WH13196422
WH13197987
WH13197987
VAN13005352

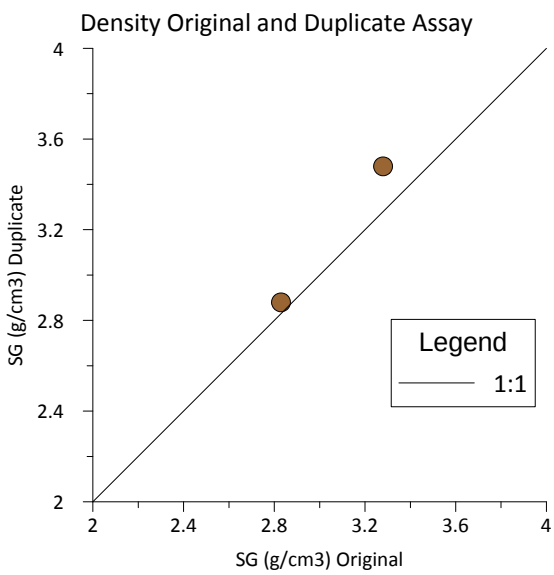

Gold Original and Duplicate Assay (log)
Assay Au (g/t) Duplicate (log)
Assay Au(g/t) Original (log)
1
0.1
0.01
0.001
0.001
0.01
0.1
1

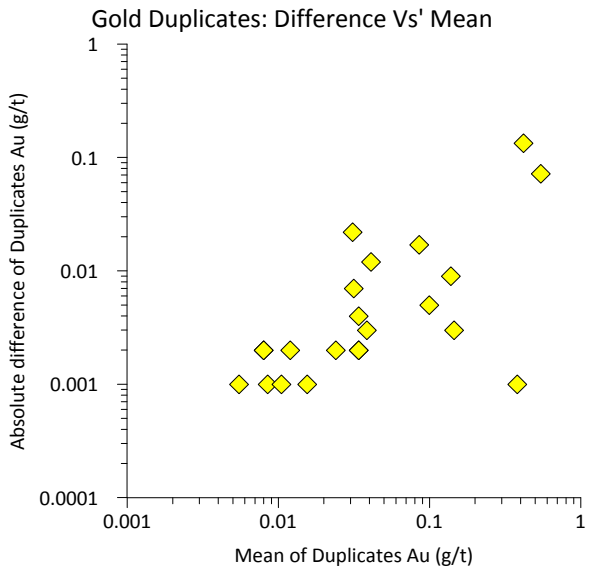

Lead Original and Duplicate Assay (log)
Assay Pb (%) Duplicate (log)
Assay Pb (%) Original (log)
100000
10000
1000
100
10
1
1
100
10000

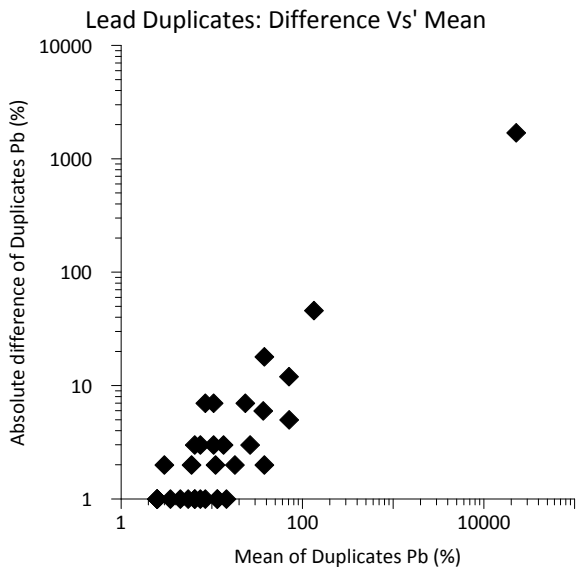

Silver Original and Duplicate Assay (log)
Assay Ag (g/t) Duplicate (log)
Assay Ag (g/t) Original (log)
100
10
1
0.1
0.1
1
10
100

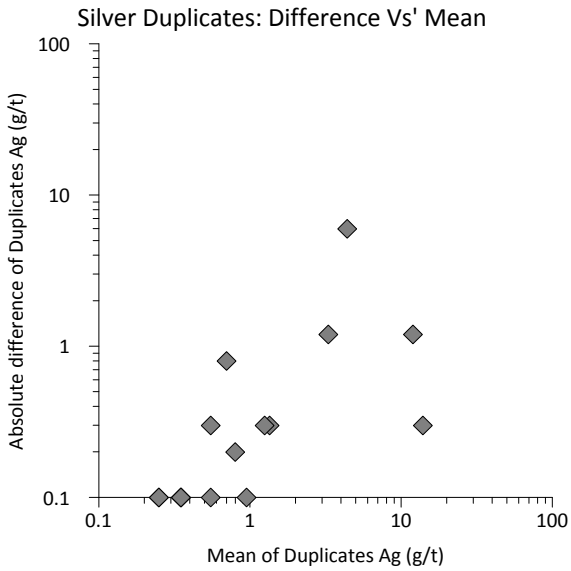

Zinc Original and Duplicate Assay (log)
Assay Zn (%) Duplicate (log)
Assay Zn (%) Original (log)
100000
10000
1000
100
10
1
1
10
100
1000
10000
100000

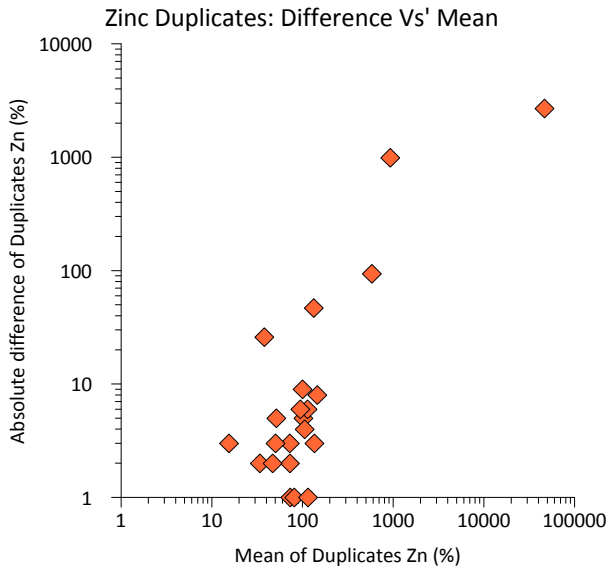

Copper Original and Duplicate Assay (log)
Assay Cu (%) Duplicate (log)
Assay Cu (%) Original (log)
100000
10000
1000
100
10
1
1
10
100
1000
10000
100000

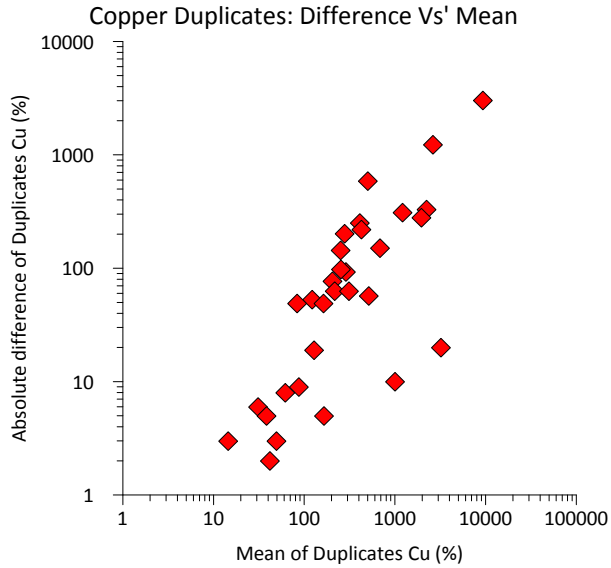

Density Original and Duplicate Assay
SG (g/cm3) Duplicate
SG (g/cm3) Original
4
3.6
3.2
2.8
2.4
2
2
2.4
2.8
3.2
3.6
4
Legend
1:1

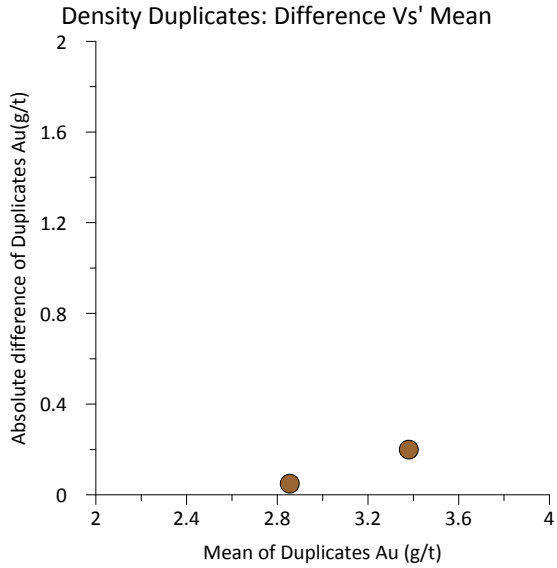

Gold Duplicates: Difference Vs' Mean
Absolute difference of Duplicates Au (g/t)
Mean of Duplicates Au (g/t)
1
0.1
0.01
0.001
0.0001
0.001
0.01
0.1
1

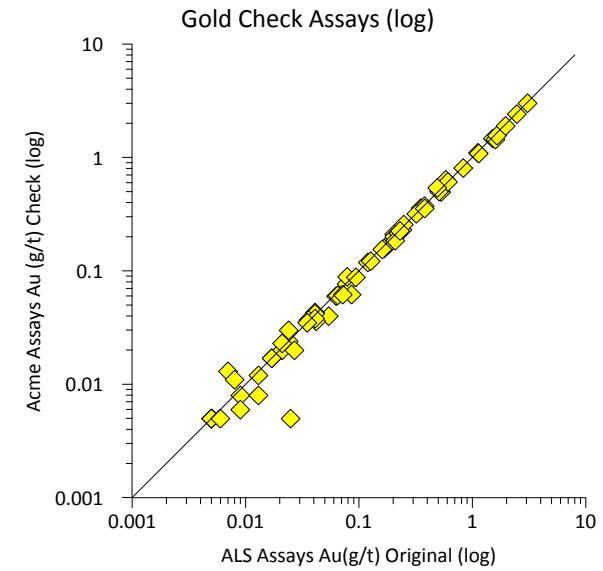

Lead Duplicates: Difference Vs' Mean
Absolute difference of Duplicates Pb (%)
Mean of Duplicates Pb (%)
10000
1000
100
10
1
1
100
10000

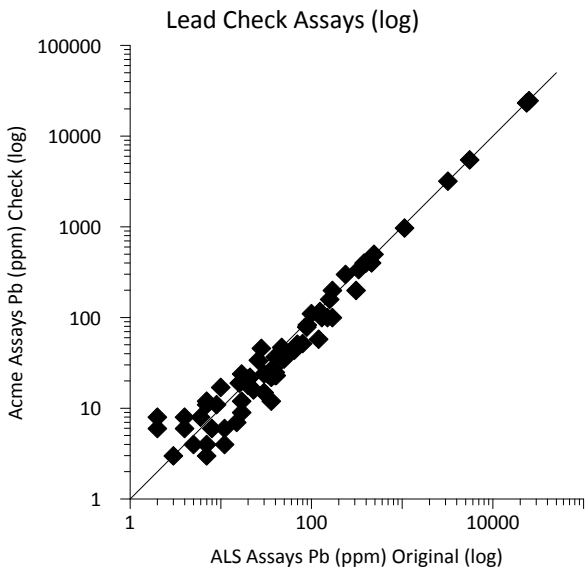

Silver Duplicates: Difference Vs' Mean
Absolute difference of Duplicates Ag (g/t)
Mean of Duplicates Ag (g/t)
100
10
1
0.1
0.1
1
10
100

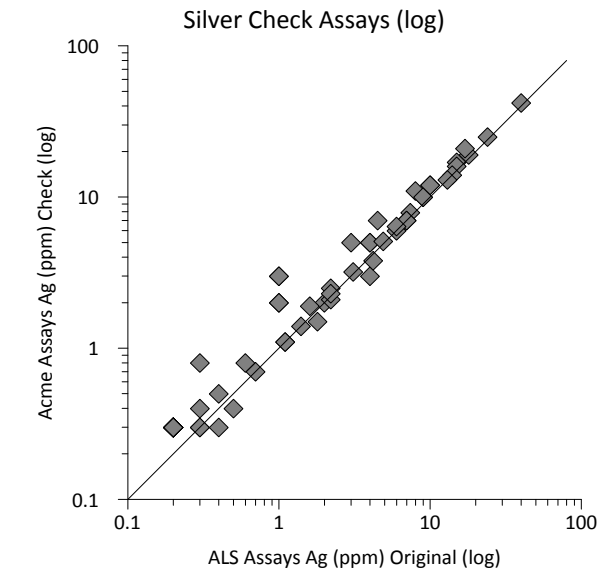

Zinc Duplicates: Difference Vs' Mean
Absolute difference of Duplicates Zn (%)
Mean of Duplicates Zn (%)
10000
1000
100
10
1
1
10
100
1000
10000
100000

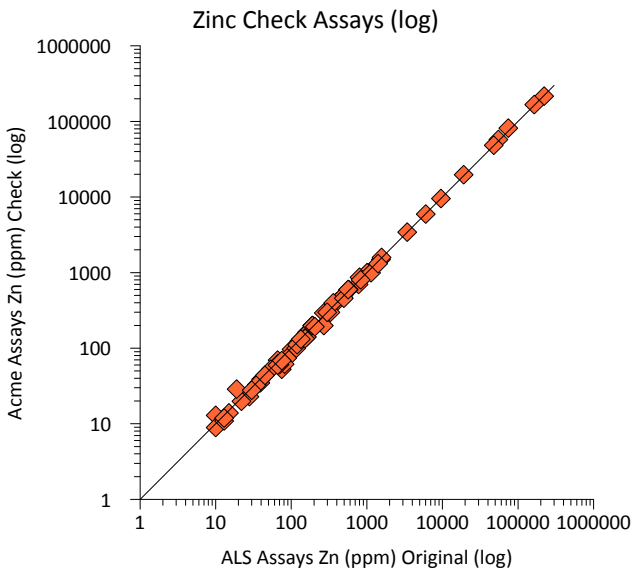

Copper Duplicates: Difference Vs' Mean
Absolute difference of Duplicates Cu (%)
Mean of Duplicates Cu (%)
10000
1000
100
10
1
1
10
100
1000
10000
100000

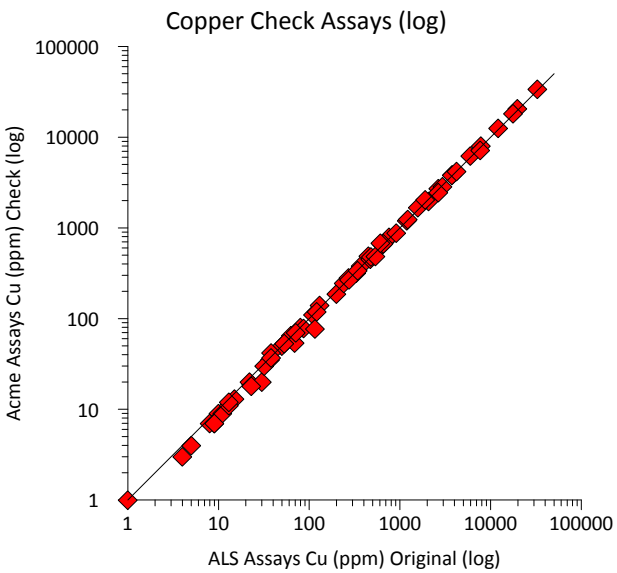

Density Duplicates: Difference Vs' Mean
Absolute difference of Duplicates Au(g/t)
Mean of Duplicates Au (g/t)
2
1.6
1.2
0.8
0.4
0
2
2.4
2.8
3.2
3.6
4

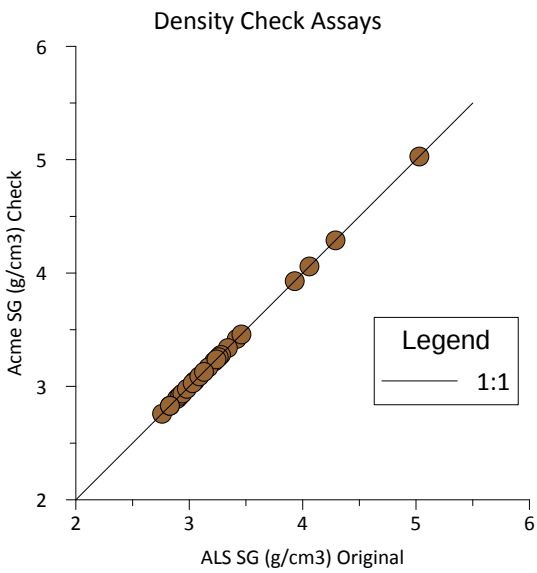

Gold Check Assays (log)
Acme Assays Au (g/t) Check (log)
ALS Assays Au(g/t) Original (log)
10
1
0.1
0.01
0.001
0.001
0.01
0.1
1
10

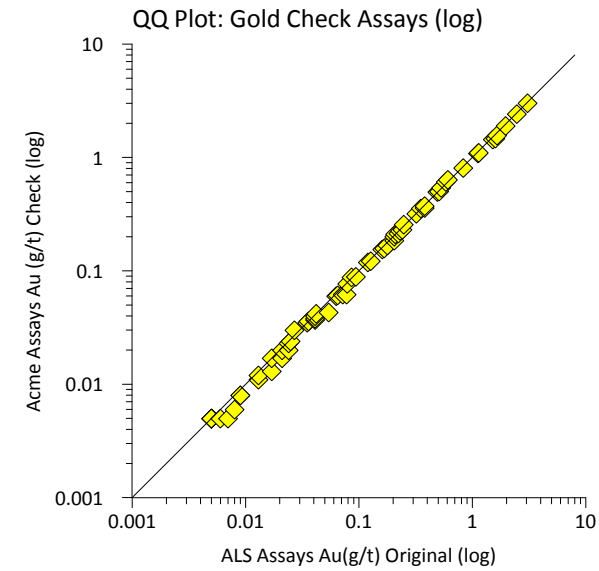

Lead Check Assays (log)
Acme Assays Pb (ppm) Check (log)
ALS Assays Pb (ppm) Original (log)
100000
10000
1000
100
10
1
1
100
10000


Silver Check Assays (log)
Acme Assays Ag (ppm) Check (log)
ALS Assays Ag (ppm) Original (log)
100
10
1
0.1
0.1
1
10
100


Zinc Check Assays (log)
Acme Assays Zn (ppm) Check (log)
ALS Assays Zn (ppm) Original (log)
1000000
100000
10000
1000
100
10
1
1
10
100
1000
10000
100000
1000000


Copper Check Assays (log)
Acme Assays Cu (ppm) Check (log)
ALS Assays Cu (ppm) Original (log)
100000
10000
1000
100
10
1
1
10
100
1000
10000
100000


Density Check Assays
Acme SG (g/cm3) Check
ALS SG (g/cm3) Original
6
5
4
3
2
2
3
4
5
6
Legend
1:1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Acme Assays Au (g/t) Check (log)
ALS Assays Au(g/t) Original (log)
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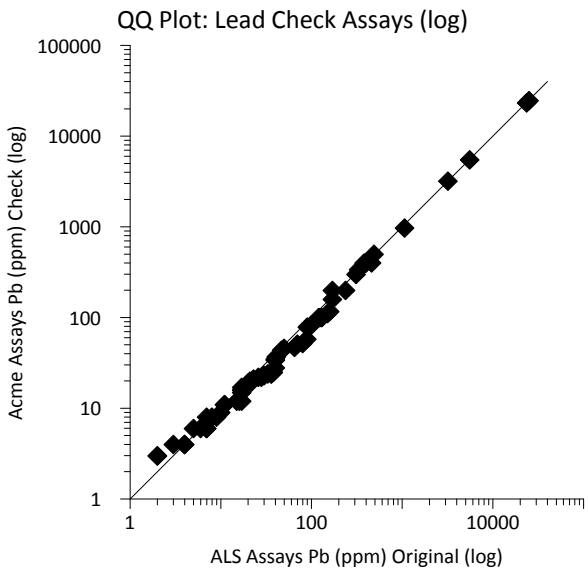
0.01
0.001
0.001
0.01
0.1
1
10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Acme Assays Pb (ppm) Check (log)
ALS Assays Pb (ppm) Original (log)
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10
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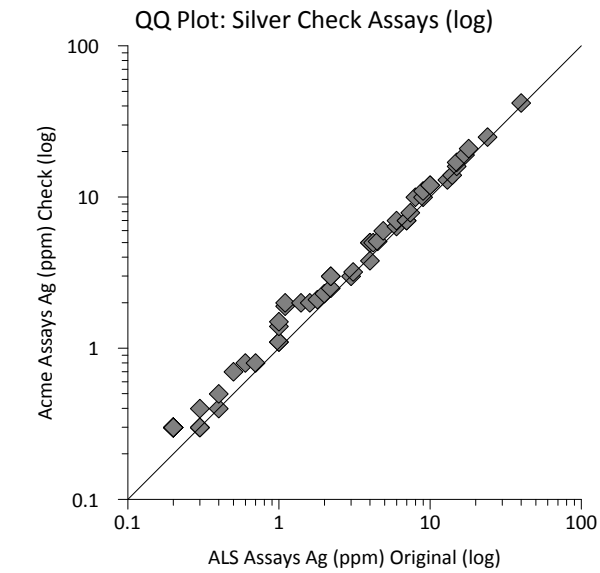
100
10000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Acme Assays Ag (ppm) Check (log)
ALS Assays Ag (ppm) Original (log)
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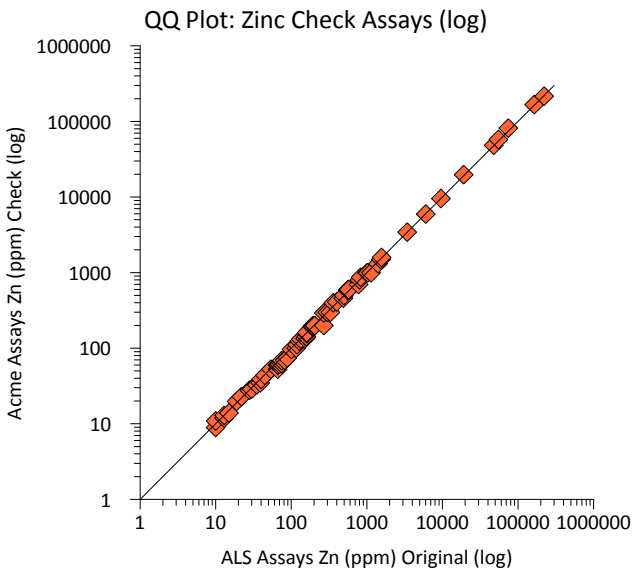
0.1
1
10
100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Acme Assays Zn (ppm) Check (log)
ALS Assays Zn (ppm) Original (log)
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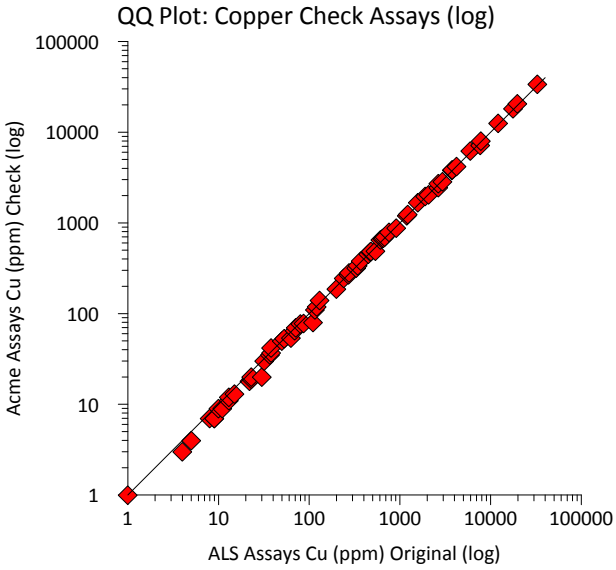
1000
10000
100000
1000000


QQ Plot: Copper Check Assays (log)
Acme Assays Cu (ppm) Check (log)
ALS Assays Cu (ppm) Original (log)
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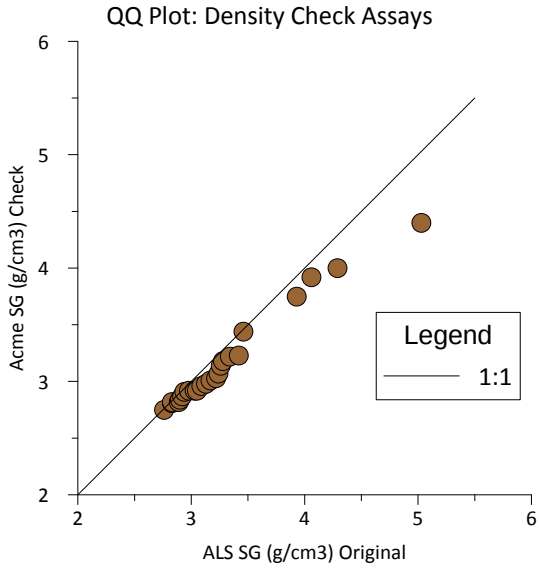
100
1000
10000
100000


QQ Plot: Density Check Assays
Acme SG (g/cm3) Check
ALS SG (g/cm3) Original
6
5
4
3
2
2
3
4
5
6
Legend
1:1

2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX VI
MIRA GEOSCIENCE:

Third Party Data Distribution Permission

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

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Advanced Geophysical Interpretation Centre

409 Granville, Suite 512B, Vancouver, BC, Canada, V6C 1T2, ph: +1 778 329 0430

April 11, 2013

Brett Armstrong
Exploration Manager
Chieftain Metals, Inc.
Unit 118, 1515 Broadway Street
Port Coquitlam, BC V3C 6M2

Dear Brett,

Mira Geoscience Ltd. hereby grants permission to Chieftain Metals, Inc. to share the results of our study of the Tulsequah project (described in a proposal dated April 11, 2013) with the provincial government of British Columbia as part of a mineral exploration assessment report. Mira Geoscience understands that this would place our work in the public domain.

Yours truly,

Jeff Witter

Jeff Witter

2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX VII

MIRA GEOSCIENCE REPORT:

Interpretation of Unconstrained Inversion Modelling IP data:
Big Bull, Banker, and Southeast Grids
Chieftain Metals Inc.
Tulsequah Project, British Columbia

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

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Interpretation of Unconstrained Inversion Modelling of IP data: Big Bull, Banker, and Southeast grids

Chieftain Metals Inc.

Tulsequah Project, British Columbia

Advanced Geophysical Interpretation Centre

Project : 4084

Jeff Witter

15 October 2013

Outline

- Introduction
- Geophysical Modelling Overview
- Interpretation of the IP modelling results for the Big Bull, Banker, and Southeast grids with comparison to their geologic contexts
- Interpretation of legacy DIGHEM and INPUT survey reports in the context of the IP survey areas

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Introduction

Mira Geoscience understands the following about the geology of the study area and targeted mineralization:

- The target resource is polymetallic massive sulphide deposits which have been exploited in the past at both the Tulsequah Chief and Big Bull mines

- The regional geology is characterized by Paleozoic island arc volcanic assemblages of low metamorphic grade and are part of the Stikine Terrane of northwest British Columbia

- Mapped faults are present in the area predominantly oriented N-S, NNW-SSE, and NW-SE with some cross faults oriented NE-SW and E-W

- N-S to NW-SE oriented fold axes have been mapped with some folds identified as overturned

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Introduction

- At the Tulsequah Chief VMS deposit, the volcanic stratigraphy includes rhyolite units sandwiched between mafic volcanic units with associated deposits of stacked sulphide lenses.

- A thick diorite/gabbro sill intrudes the rhyolite above the sulphide deposits. Basaltic dykes that feed the sill cut through this sequence.

- The known Tulsequah Chief VMS deposit dips >60 degrees and has thicknesses from 3 to over 25 m.

- Other VMS deposits in the Tulsequah project area may be similar in nature to the one discovered at Tulsequah Chief

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Modelling Overview

- Mira Geoscience performed unconstrained 3D geophysical inversions, using the Compactness algorithm, on IP data collected from the Big Bull, Banker, and Southeast grids.

- This effort yielded 3D models of chargeability for the Big Bull, Banker, and Southeast grids.

- In a previous work effort (May 2013), Mira Geoscience performed unconstrained 3D inversions of magnetic data collected at all five grids shown at right, as well as unconstrained 3D inversions of IP data collected at the Tulsequah Chief grid.

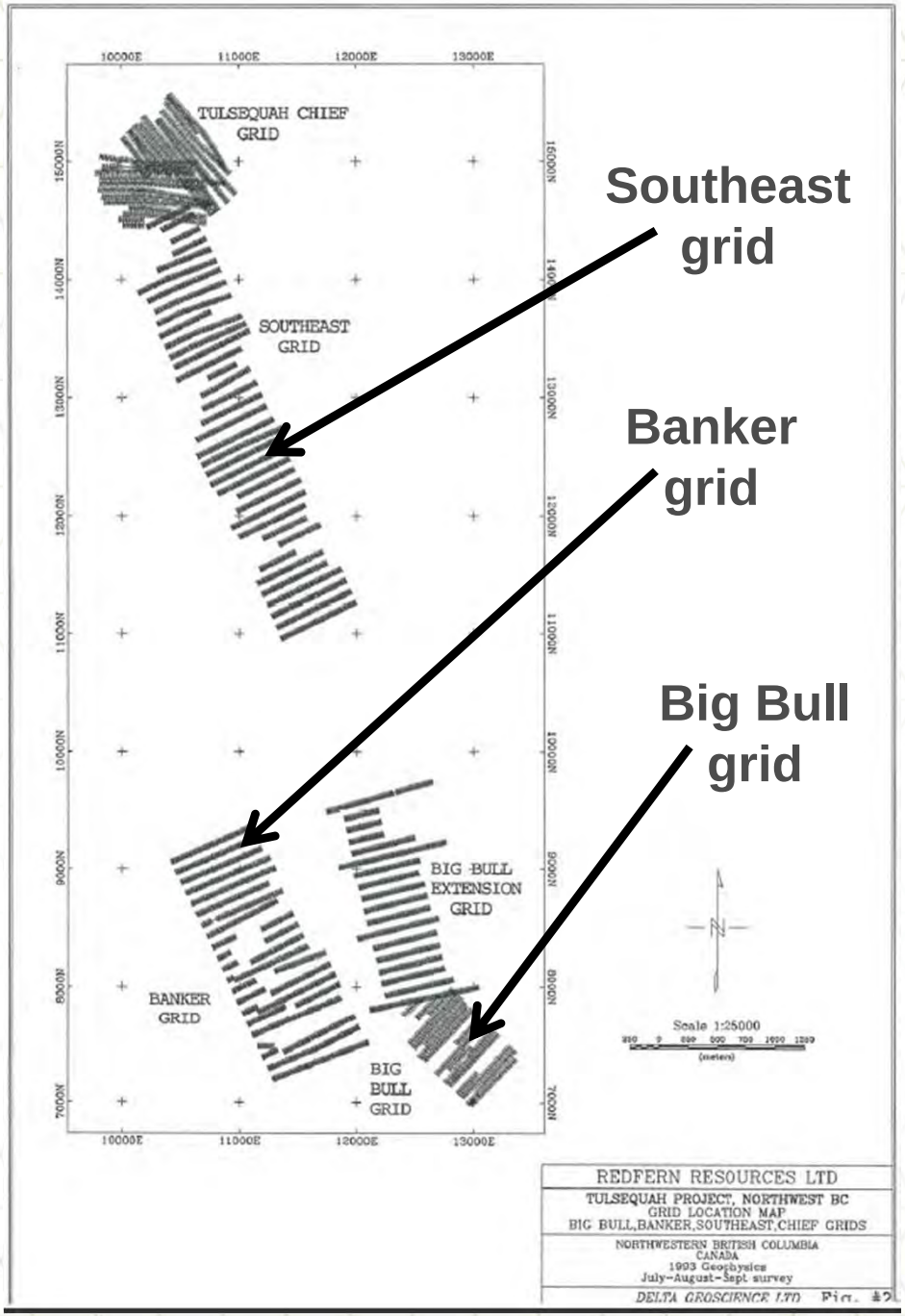

Figure 1: Layout of the five geophysical survey grids at the Tulsequah project area

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Big Bull grid – IP modelling

- Results of the Compactness inversion model are interpreted here. The total range of chargeability values in the recovered 3D model is 0 – 105 mV/V.

- However, ~95% of the data covers the range 0 – 35 mV/V. The 3D model extends to -500 masl but is reliable to only ~400 m below topography.

- A strong, chargeability anomaly of (~60-100 mV/V) lies on the southeast edge of the study area, extending from the surface to about -100 masl (labelled Anomaly A in Figures 2-5). This strong anomaly coincides with the southeast edge of the Big Bull mine site. It also appears to coincide with a mapped fold axis.

- A zone of moderate chargeability (~30-50 mV/V) extends E-W across the southern corner of the grid and covers a depth range from the surface to about -150 masl (labelled Anomaly B in Figures 2-5).

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Big Bull grid – IP modelling

- A chargeability anomaly of ~30-40 mV/V occupies the center of the grid at ~0 masl (labelled Anomaly C in Figures 2-5).

- A zone of broad, moderate chargeability (~30 mV/V) occupies the northwest edge of the grid (labelled Anomaly D in Figures 4-5).

- The chargeability model is likely unreliable at levels deeper than about 0 masl on the northwest side of the grid due to the great depth below topography.

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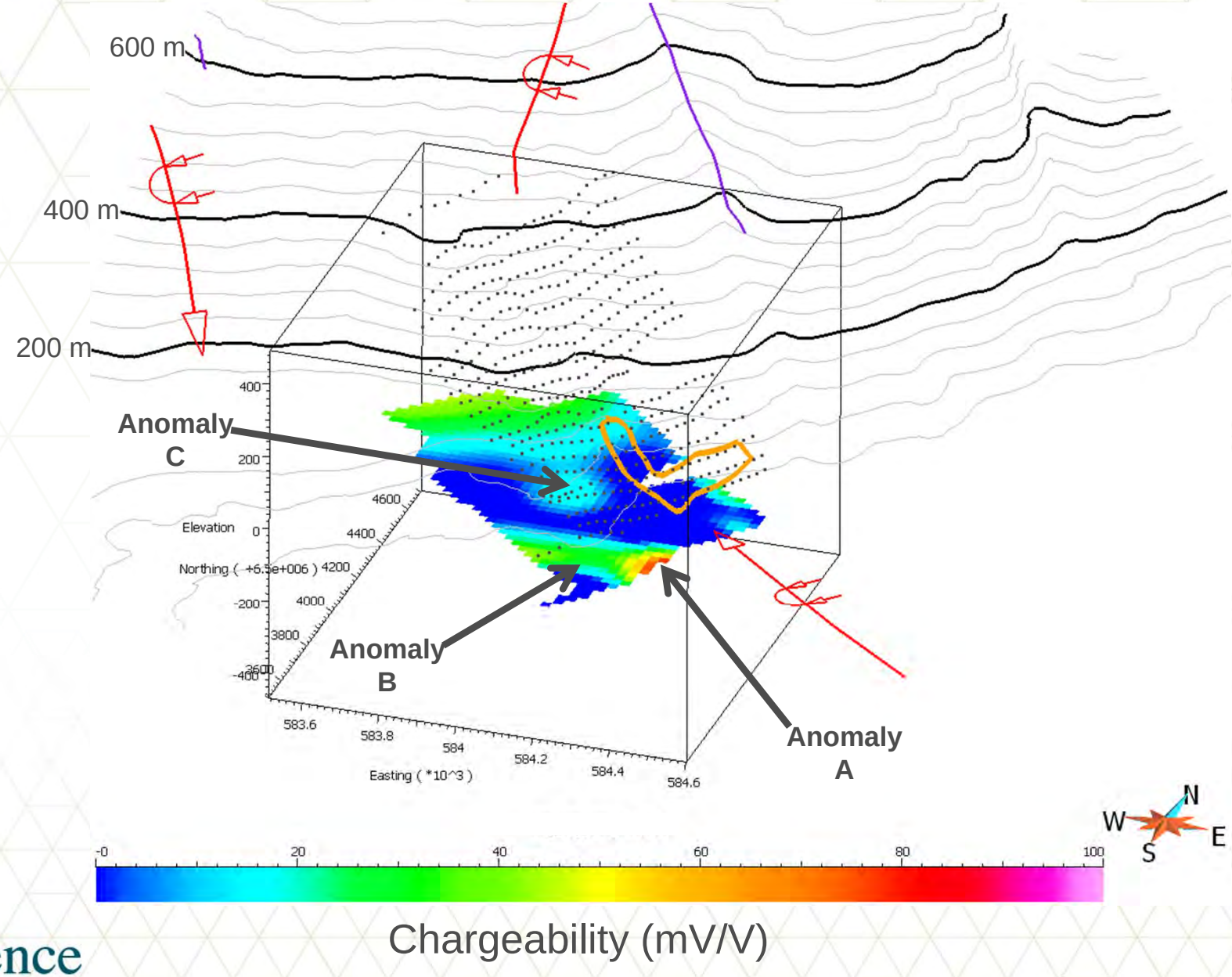
Big Bull grid – IP modelling

Figure 2: 3D perspective view from the SSE of a slice through the chargeability model at a depth of -100 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red. The Big Bull mine site is shown as an orange outline.



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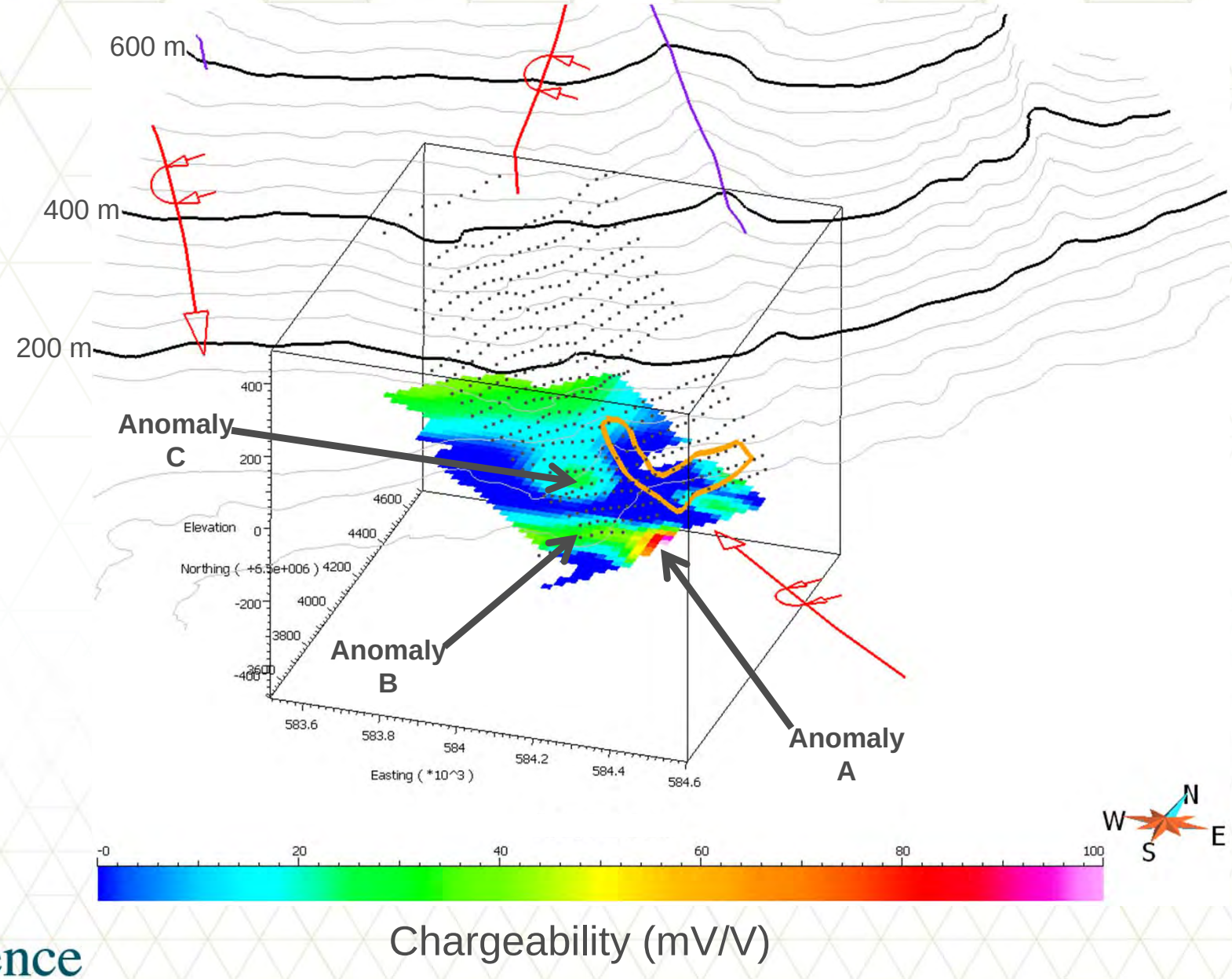
Big Bull grid – IP modelling

Figure 3: 3D perspective view from the SSE of a slice through the chargeability model at a depth of -50 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red. The Big Bull mine site is shown as an orange outline.



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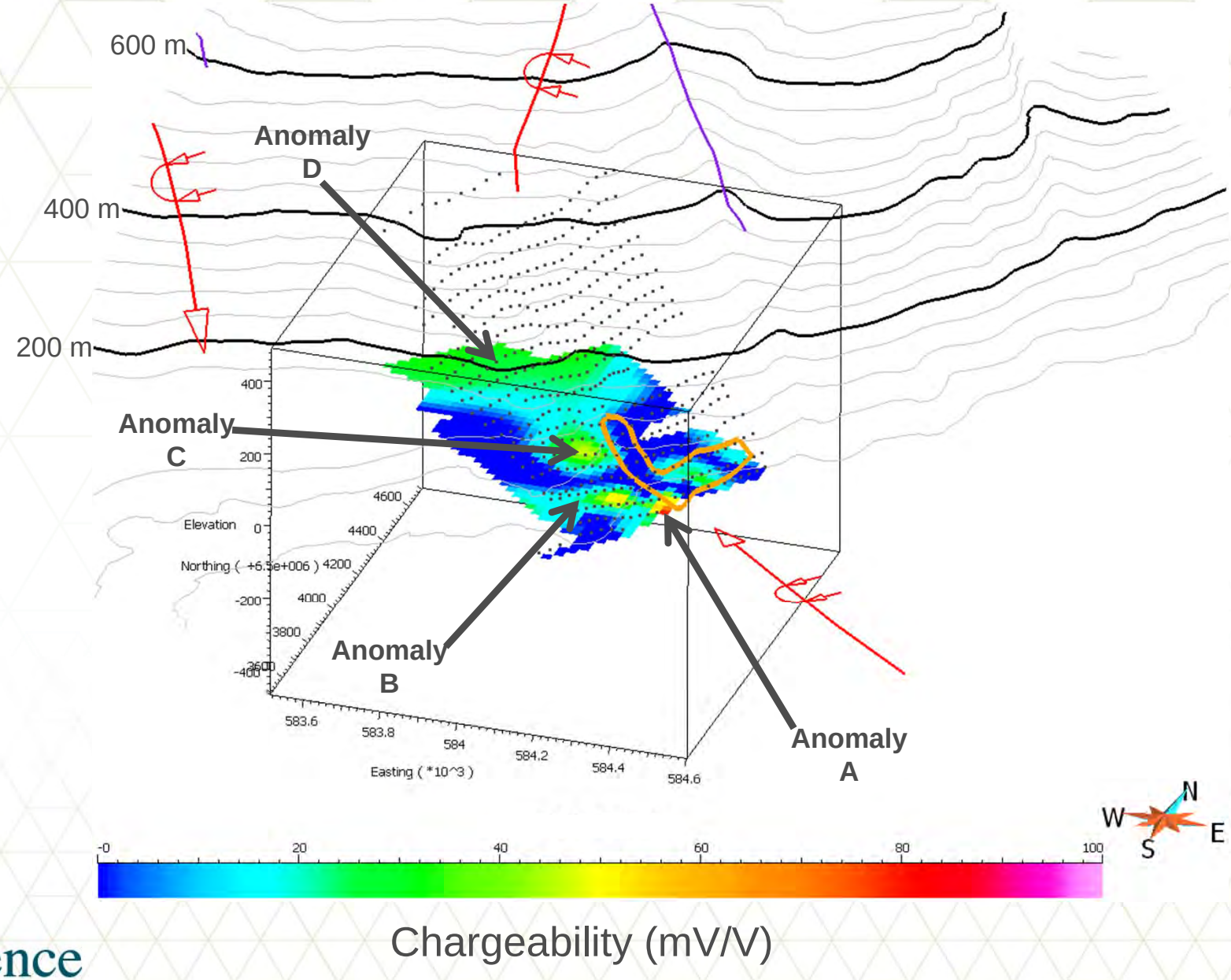
Big Bull grid – IP modelling

Figure 4: 3D perspective view from the SSE of a slice through the chargeability model at a depth of +20 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red. The Big Bull mine site is shown as an orange outline.



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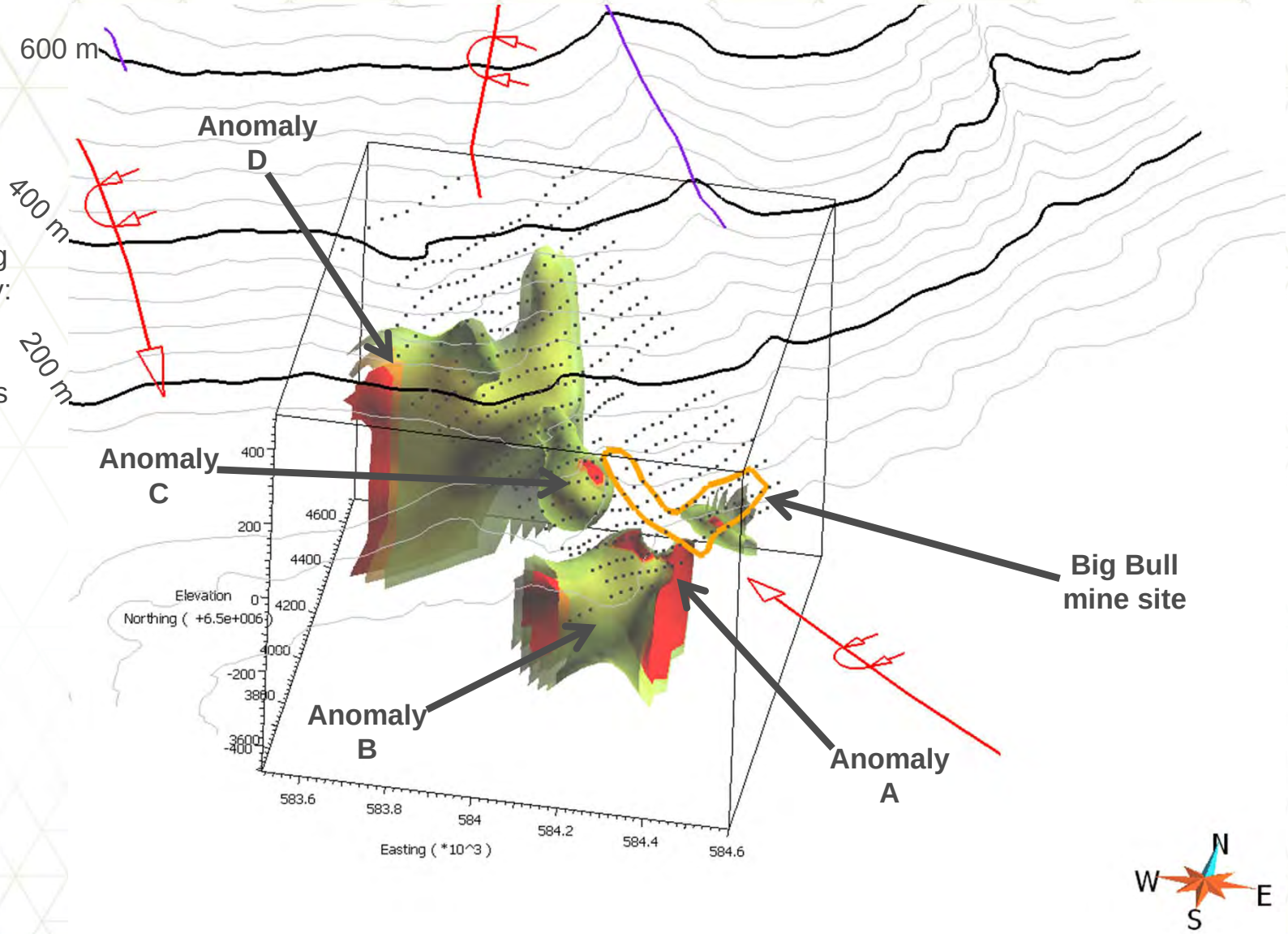
Big Bull grid – IP modelling

Figure 5: 3D perspective view from the SSE showing isosurfaces of chargeability: 20 mV/V (green), 25m V/V (orange), and 30 mV/V (red). Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red. The Big Bull mine site is shown as an orange outline.



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Big Bull grid – Model results & Geology

- The rock types that dominate the area covered by the Big Bull grid include (see Figure 6):
  - Felsic volcanic rocks (unit MSvf)
  - Basaltic volcanic rocks (unit MSvb)
  - Gabbro intrusion (unit MSgb)
  - Undivided volcanic rocks and tuff (unit PnSv)

- The observed chargeability anomalies appear to lie:
  - Within the undivided volcanic rocks (PnSv)
  - On the boundary of the felsic volcanic rocks (MSvf) and undivided volcanic rocks (PnSv)
  - On the edge of the felsic volcanic rock unit (MSvf)

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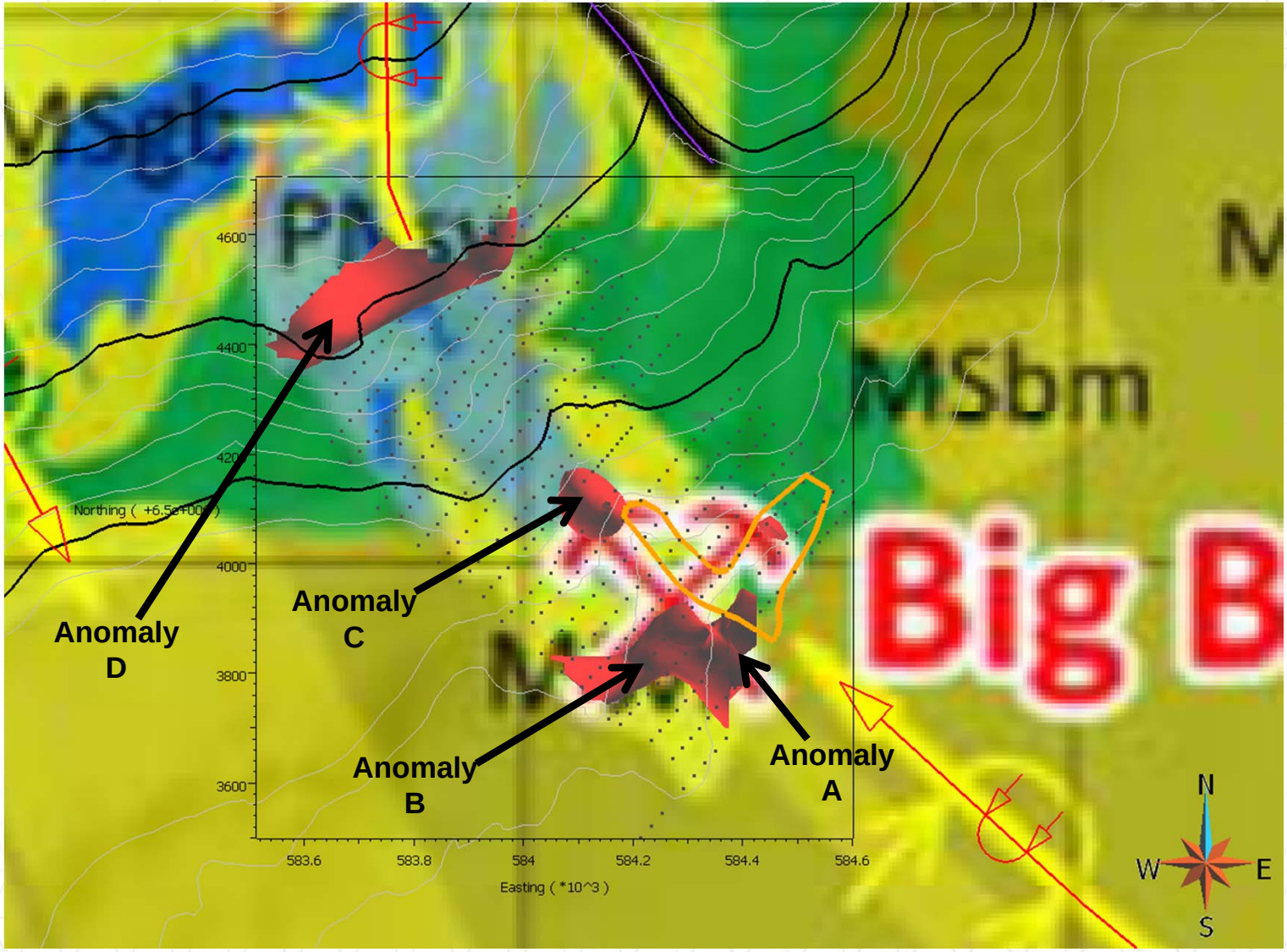
Big Bull grid – Model results & Geology

Figure 6: Map view of the regional geology map plotted with the 30 mV/V chargeability isosurface (shown as red bodies). Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped fold axes are shown in red. The Big Bull mine site is shown as an orange outline.

Geologic map units are: MSgb = blue; MSvb = green; MSvf = yellow; PNsv = light blue

.



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Banker grid – IP modelling

- Results of the Compactness inversion model are interpreted here. Total range of chargeability values in the recovered 3D model is 0 – 115 mV/V.

- However, ~95% of the data covers the range 0 – 80 mV/V. The 3D model extends to -400 masl but is reliable to only ~400 m below topography.

- The strongest observed chargeability anomaly found within the depth range of reliability occupies the northwest corner of the survey area, has a magnitude of of ~30-60 mV/V, and extends from about -150 to +50 masl (labelled Anomaly E in Figures 7-8 & 11). This anomaly coincides with a mapped fault.

- A zone of moderate chargeability (~30-45 mV/V) occupies the centre of the grid and covers a depth range from the about 0 to +400 masl (labelled Anomaly F in Figures 8-11).

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Banker grid – IP modelling

- Additional small-sized and lower magnitude chargeability anomalies of ~30 mV/V occupy the northern and eastern corners of the grid over a depth range of a couple hundred metres (labelled as Anomalies G & H in Figures 9-11).

- The chargeability model is likely unreliable at levels deeper than about ~200 masl on the north-northeast side of the grid due to the great depth below topography.

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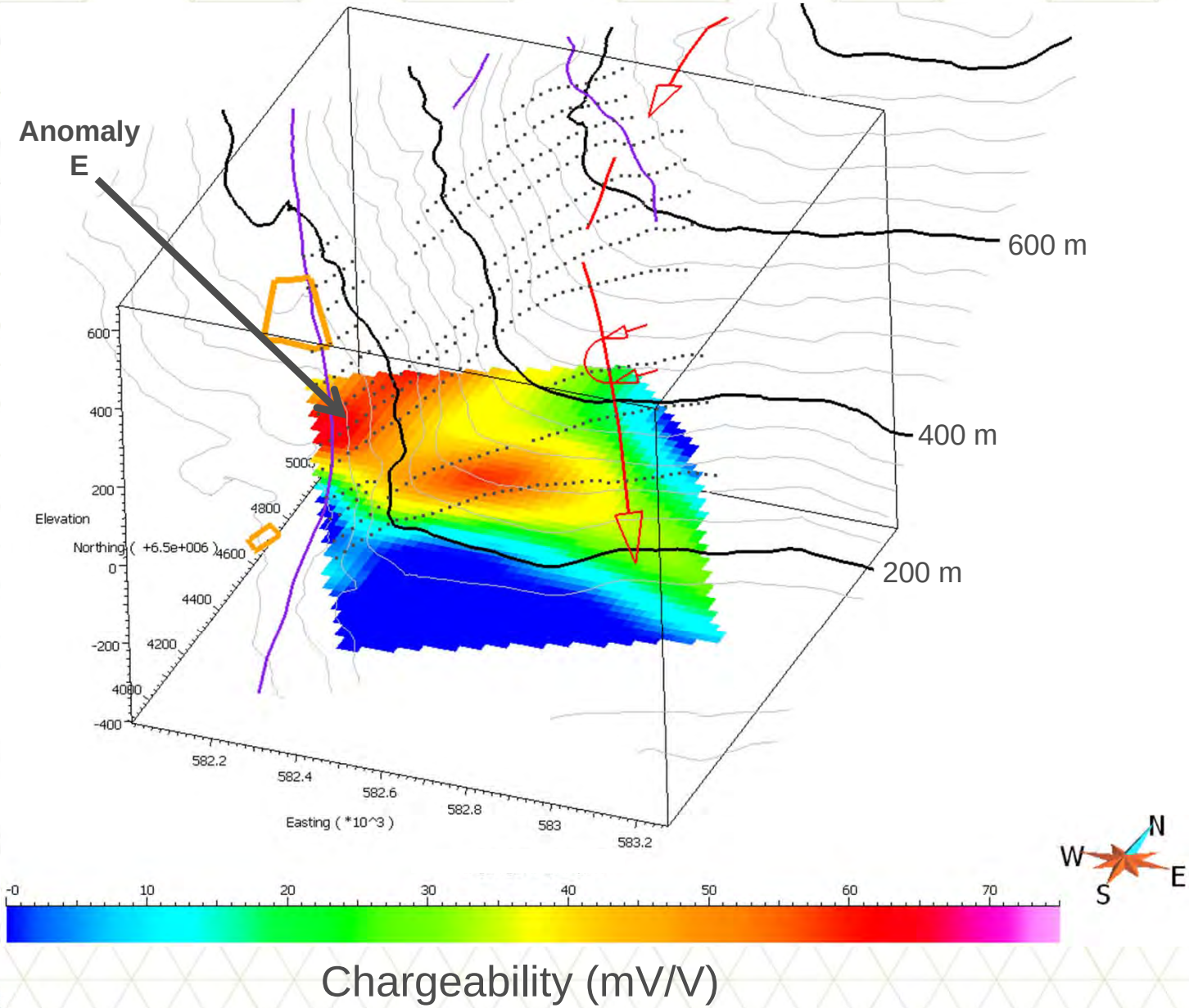
Banker grid – IP modelling

Figure 7: 3D perspective view from the SSE of a slice through the chargeability model at a depth of -120 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.



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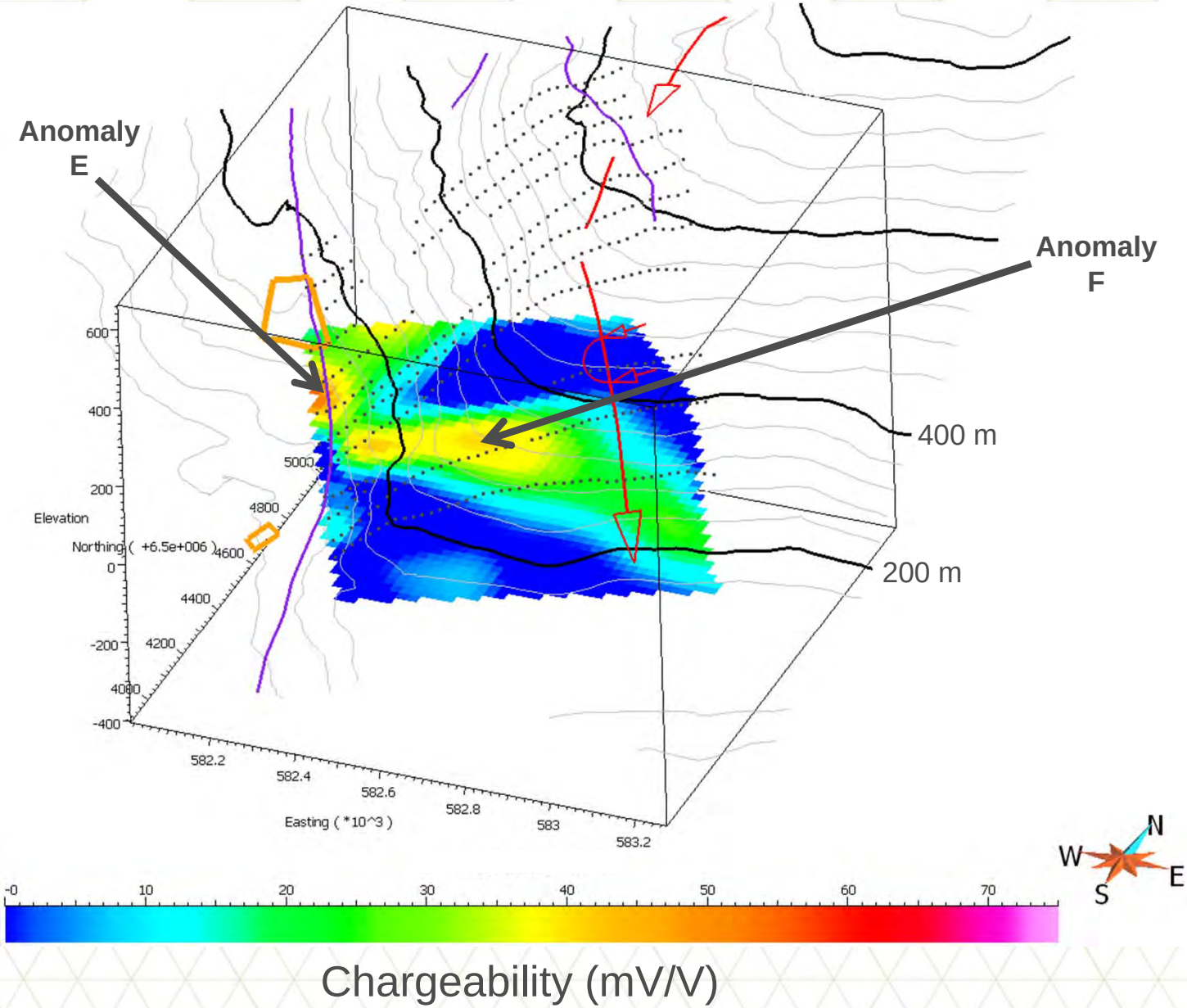
Banker grid – IP modelling

Figure 8: 3D perspective view from the SSE of a slice through the chargeability model at a depth of +10 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.



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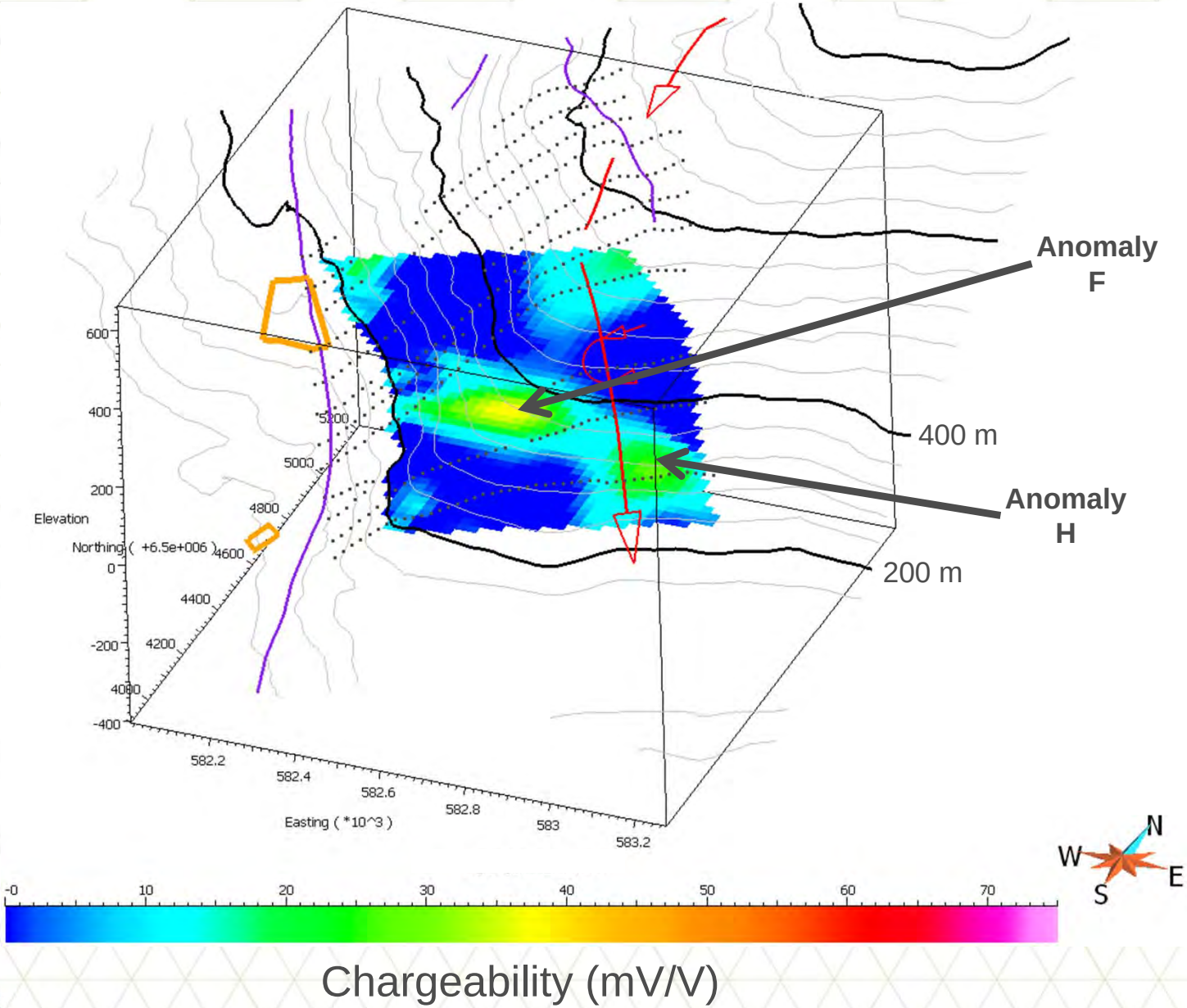
Banker grid – IP modelling

Figure 9: 3D perspective view from the SSE of a slice through the chargeability model at a depth of +180 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.



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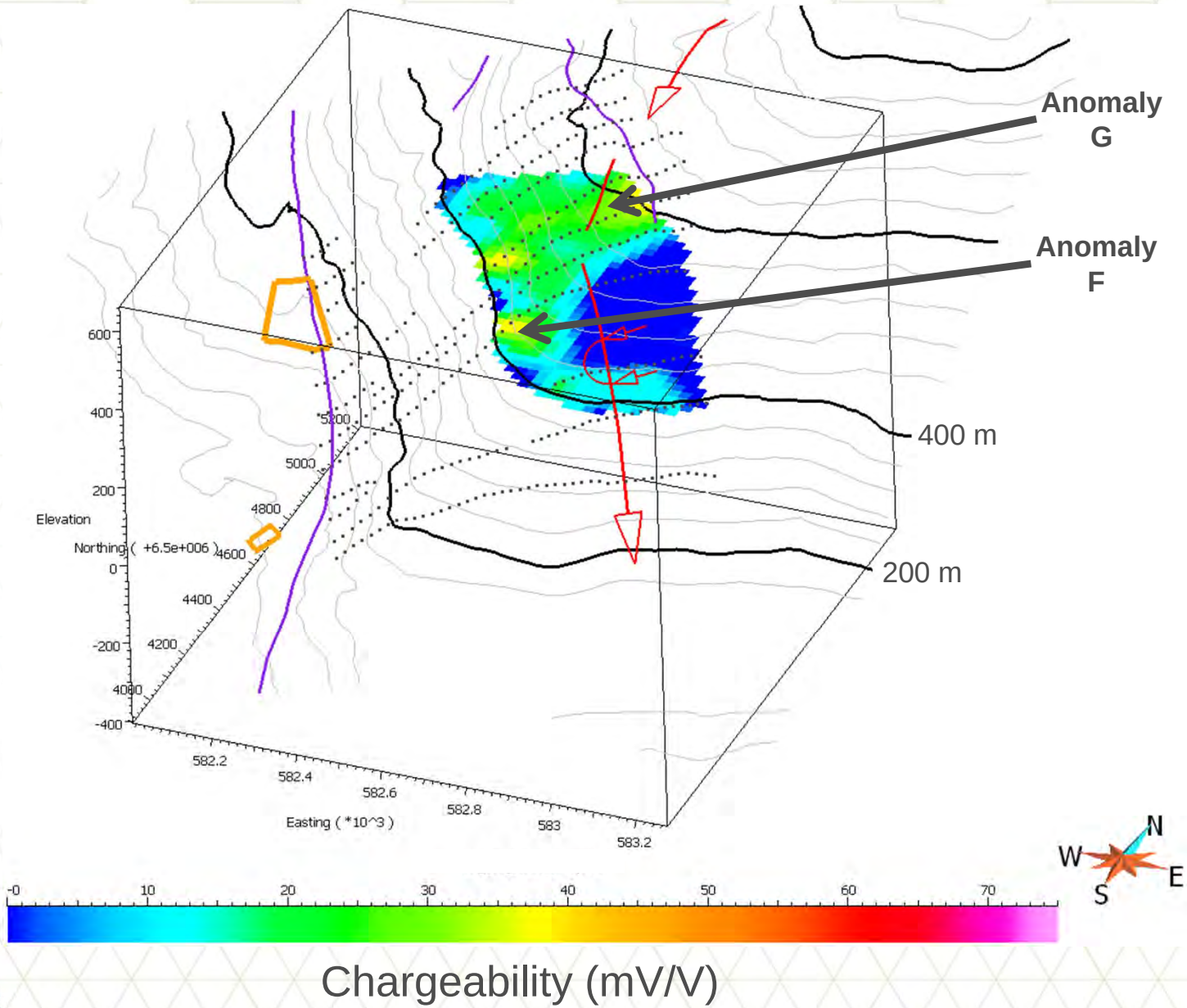
Banker grid – IP modelling

Figure 10: 3D perspective view from the SSE of a slice through the chargeability model at a depth of +380 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.



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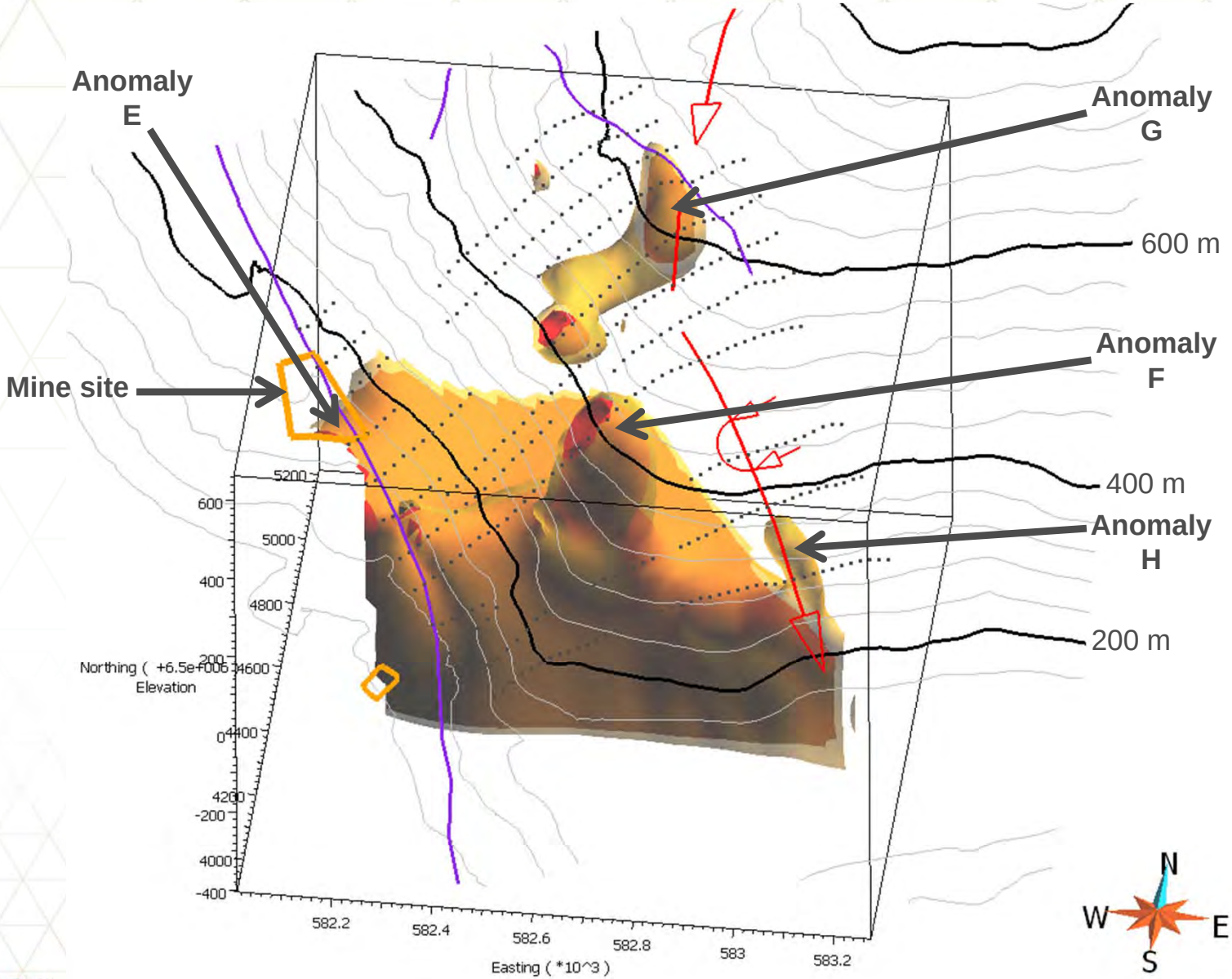
Banker grid – IP modelling

Figure 11: 3D perspective view from the SSE showing isosurfaces of chargeability: 25m V/V (orange), and 30 mV/V (red). Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red. A mine site is shown as an orange outline.



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Banker grid – Model results & Geology

- The rock types that dominate the area covered by the Banker grid include (see Figure 12):
  - Felsic volcanic rocks (unit MSvf)
  - Basaltic volcanic rocks (unit MSvb)
  - Gabbro intrusion (unit MSgb)

- The observed chargeability anomalies appear to lie:
  - Along the faulted contact between the gabbro intrusion (MSgb) and the felsic volcanic rocks (MSvf)
  - Along the lithologic contacts between the basaltic volcanic rocks (MSvb) and the felsic volcanic rocks (MSvf)

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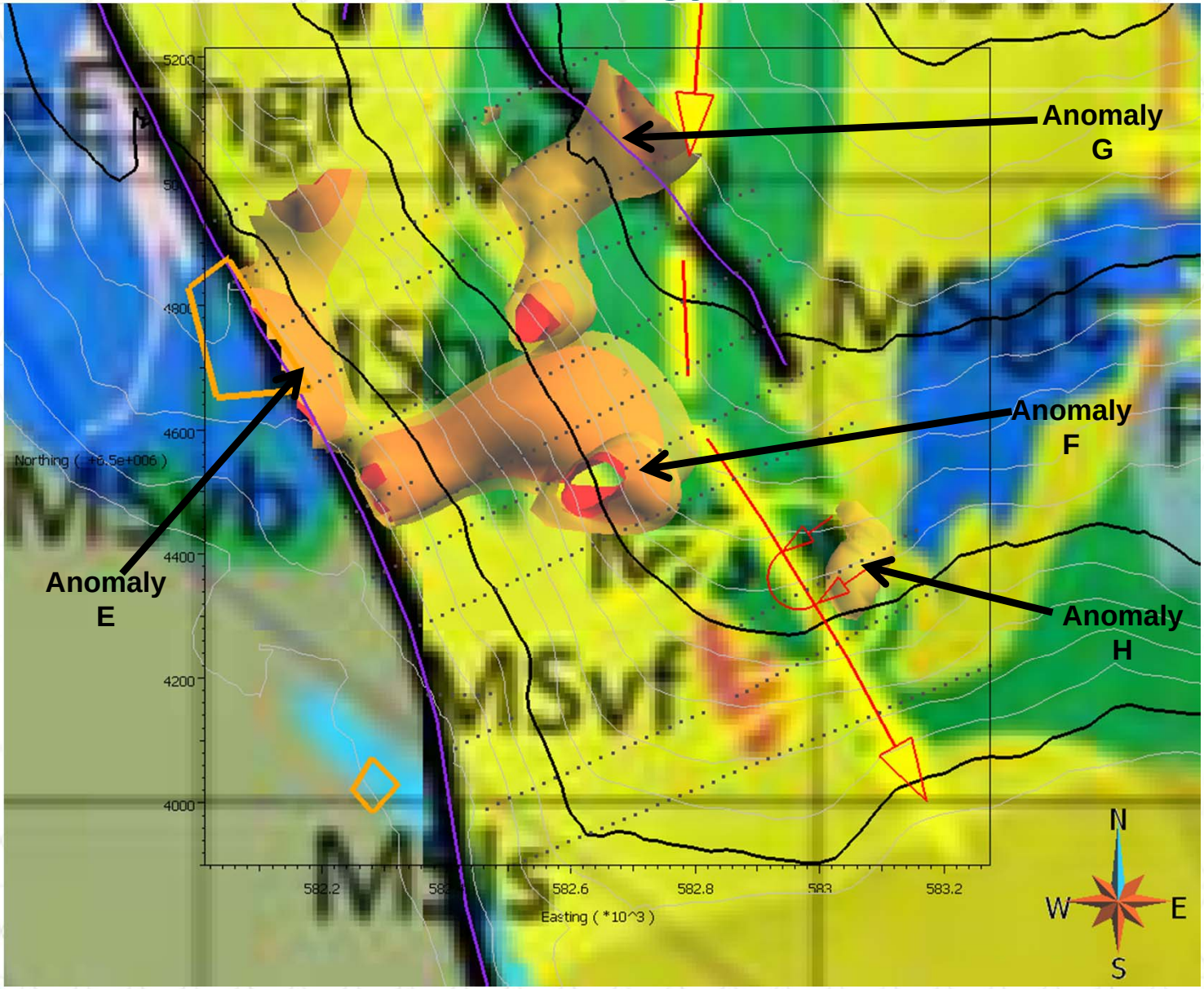
Banker grid – Model results & Geology

Figure 12: Map view of the regional geology map plotted with the 25 and 30 mV/V chargeability isosurfaces (shown as orange and red bodies, respectively). Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.

Geologic map units are:
MSgb = blue; MSvb = green;
MSvf = yellow
.



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Southeast grid – IP modelling

- Results of the Compactness Inversion model are interpreted here. Total range of chargeability values in the recovered 3D model is 0 – 92 mV/V.

- However, ~95% of the data covers the range 0 – 65 mV/V. The 3D model extends to -460 masl but is reliable to only ~400 m below topography.

- In the northern half of the SE grid, two chargeability anomalies with moderate magnitude (~30-45 mV/V) are found (labelled Anomalies J & K in Figures 13 and 17). The northernmost of the two is the larger one and has a depth extent of approximately -200 to -50 m.

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Southeast grid – IP modelling

- The southern half of the SE grid is characterized by higher magnitude chargeability anomalies (~40-70 mV/V) that lie along the NE and SW edges of the grid (labelled Anomalies L, M, & N in Figures 14-17). These anomalies extend several tens to a few hundred metres beneath the surface.

- The chargeability model is likely unreliable at levels deeper than about ~400 masl on the southeast end of the grid due to the great depth below topography.

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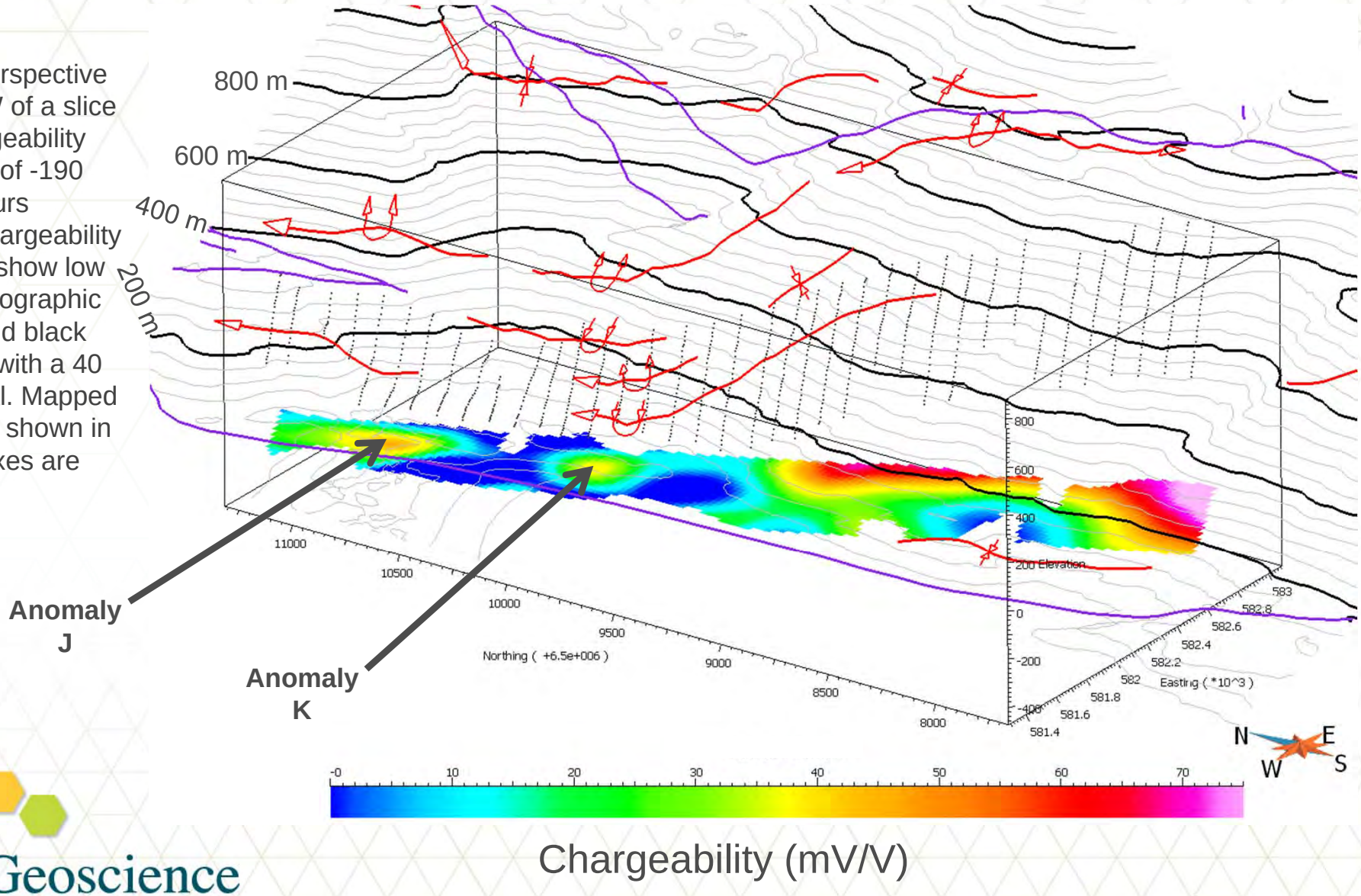
Southeast grid – IP modelling

Figure 13: 3D perspective view from the SW of a slice through the chargeability model at a depth of -190 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.



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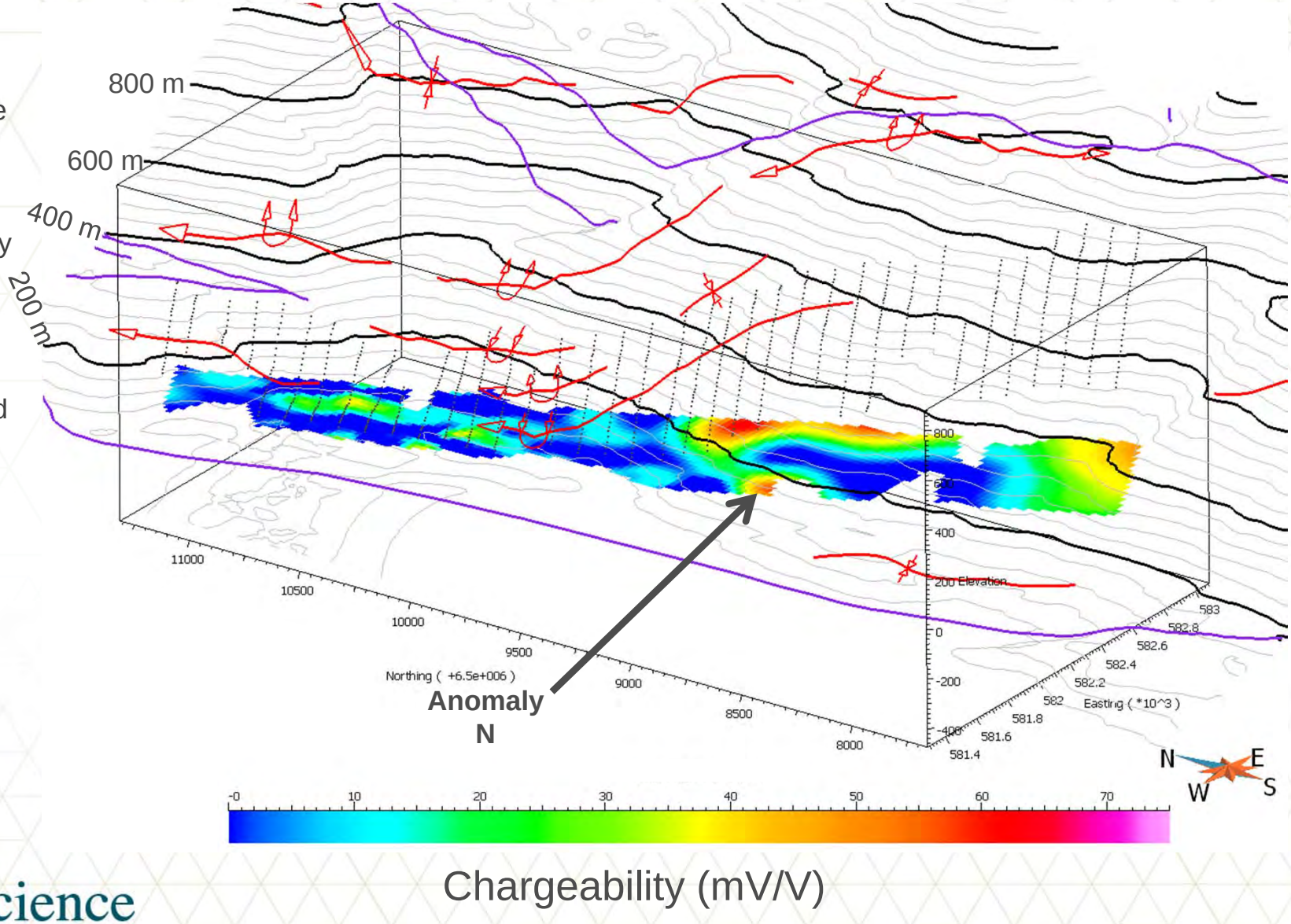
Southeast grid – IP modelling

Figure 14: 3D perspective view from the SW of a slice through the chargeability model at a depth of +10 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.



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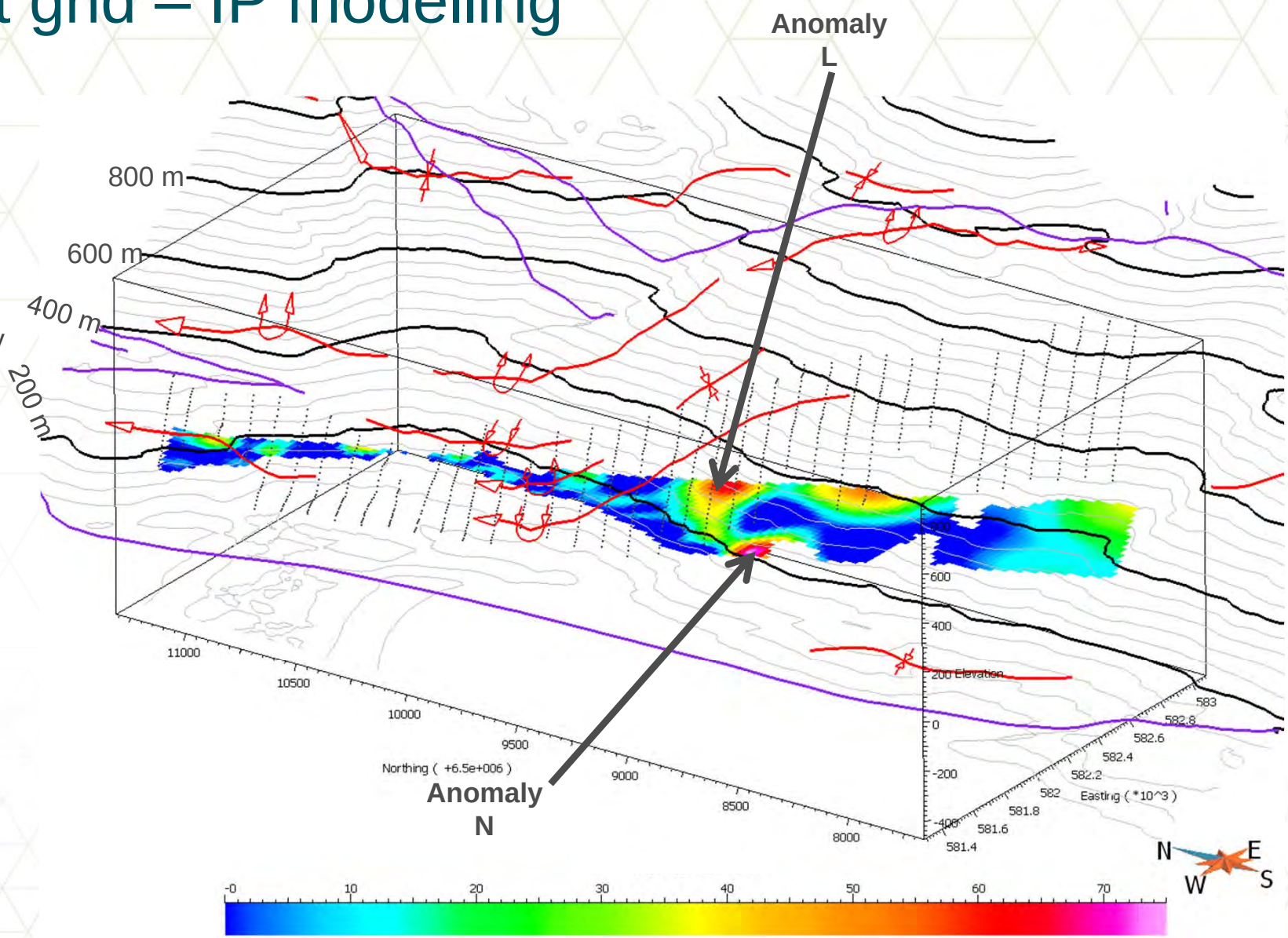
Southeast grid – IP modelling

Figure 15: 3D perspective view from the SW of a slice through the chargeability model at a depth of +140 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.



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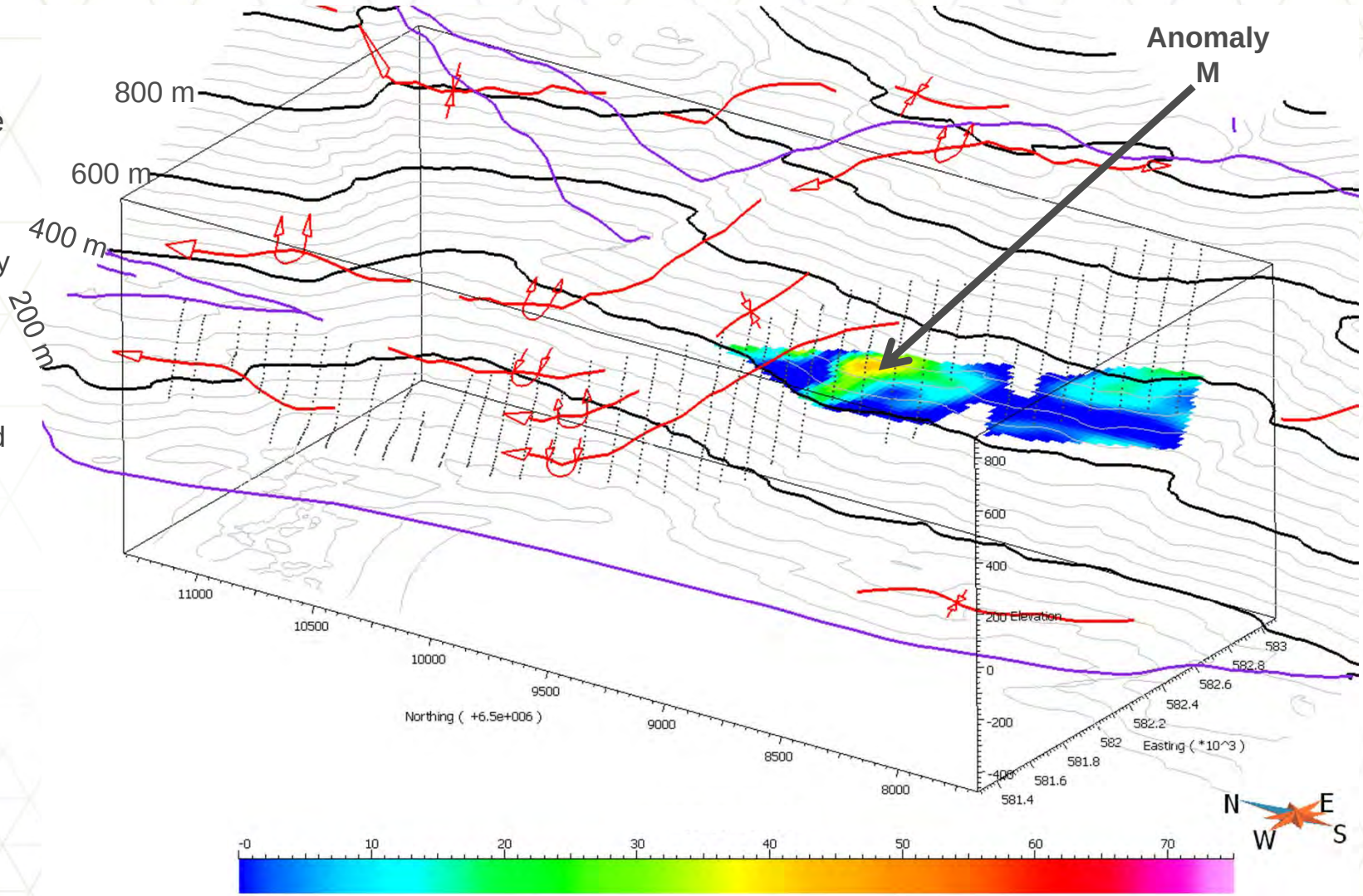
Southeast grid – IP modelling

Figure 16: 3D perspective view from the SW of a slice through the chargeability model at a depth of +390 masl. Warm colours represent high chargeability and cool colours show low chargeability. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.



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Southeast grid – IP modelling

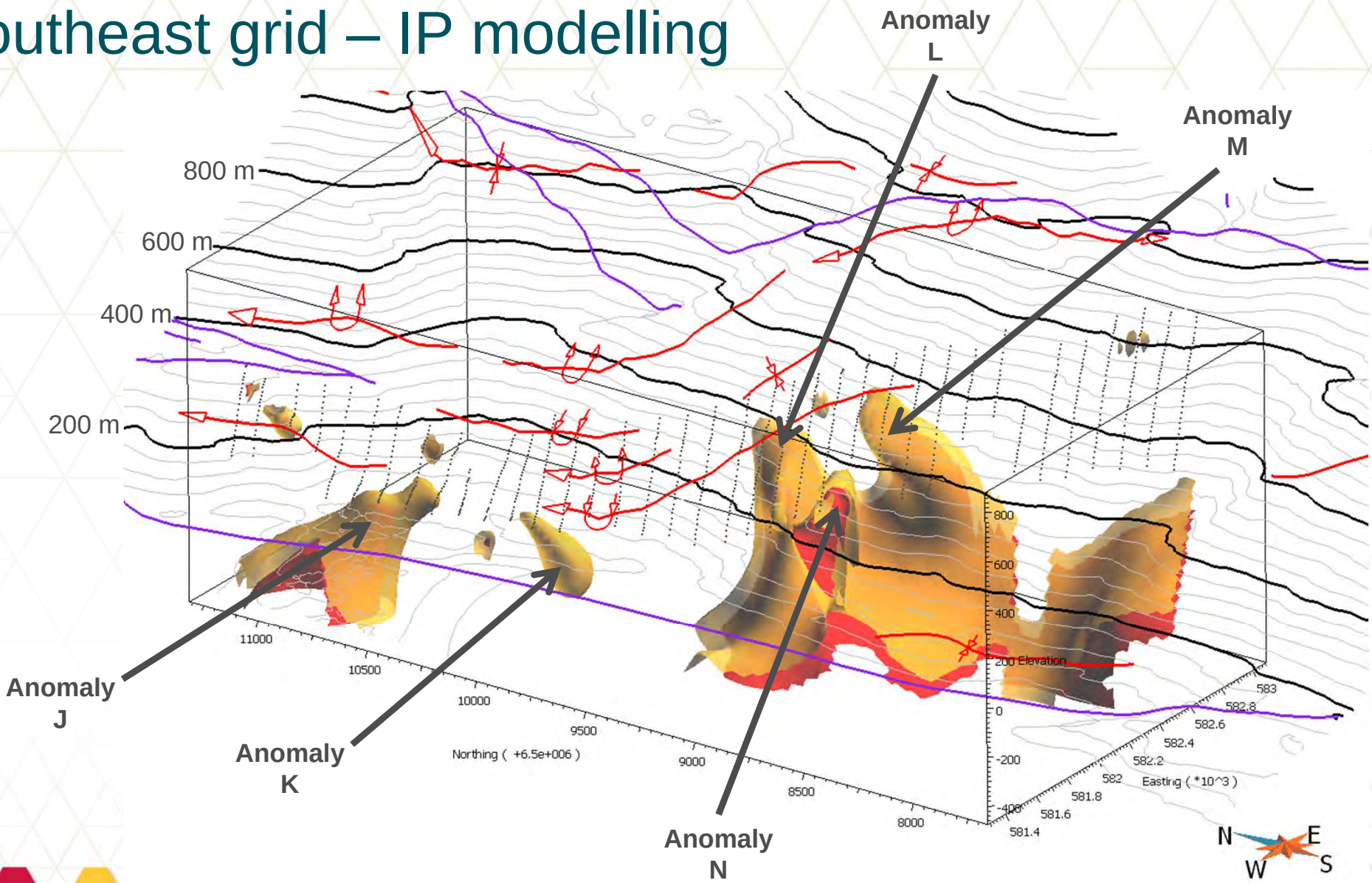

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Figure 17: 3D perspective view from the SW showing isosurfaces of chargeability: 30 mV/V (orange), and 40 mV/V (red). Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.

Southeast grid – Model results & Geology

- The rock types that dominate the area covered by the Southeast grid include (see Figure 18):
  - Basaltic volcanic rocks (unit MSvb)
  - Felsic volcanic rocks (unit MSvf)
  - A variety of Eocene intrusive rocks

- The observed chargeability anomalies appear to lie:
  - Along the lithologic contacts between the basaltic volcanic rocks (MSvb) and the felsic volcanic rocks (MSvf)
  - Along the lithologic contacts between the basaltic volcanic rocks (MSvb) and the Eocene intrusive rocks
  - Some of the chargeability anomalies also lie along the mapped fold axes

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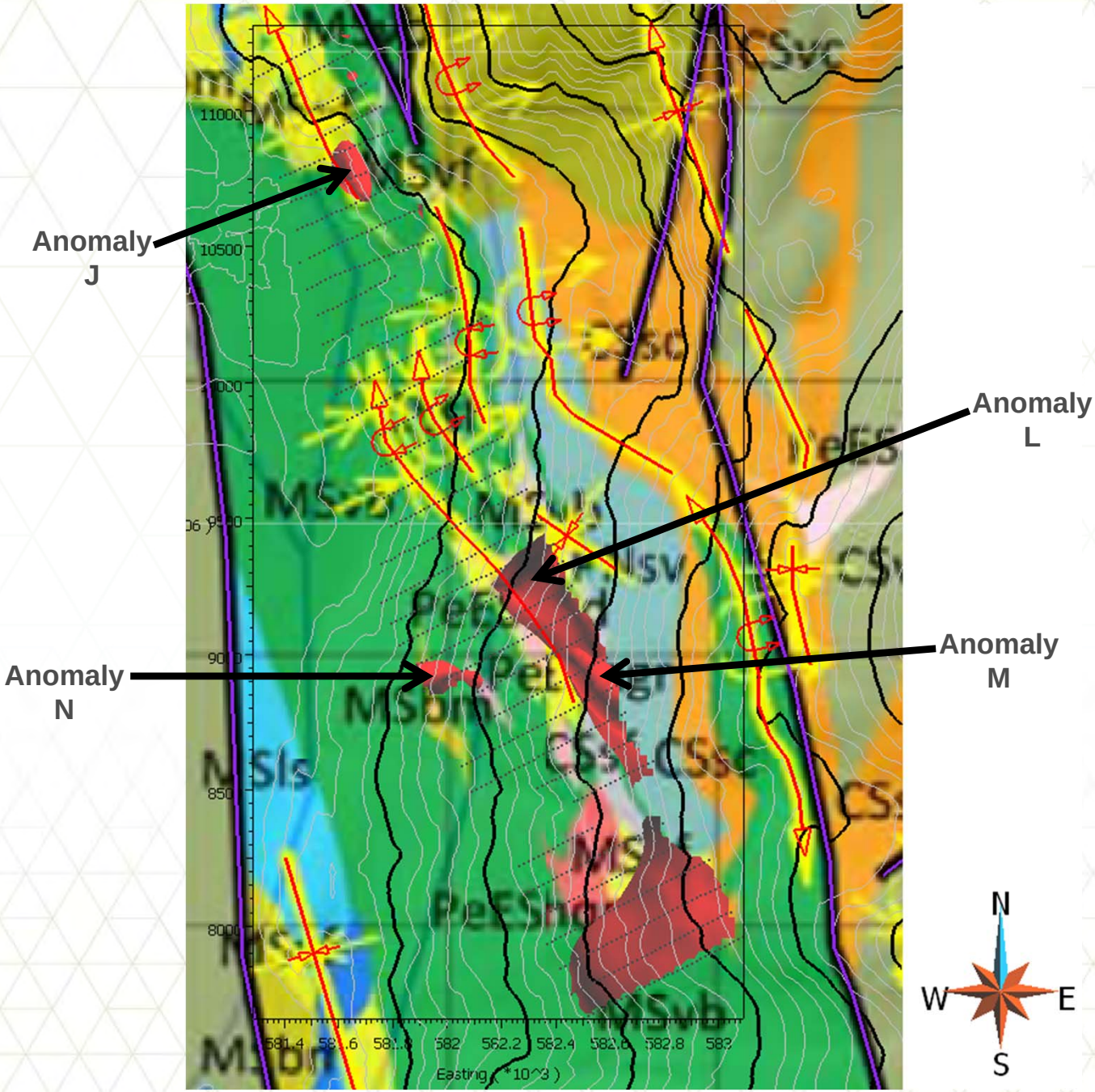
Southeast grid – Geology

Figure 18: Map view of the regional geology map plotted with the 40 mV/V chargeability isosurfaces (shown as red bodies). Topographic contours (grey and black lines) are shown with a 40 m contour interval. Mapped surface faults are shown in purple and fold axes are shown in red.

Geologic map units are:
MSvb = green; MSvf = yellow
Intrusive rocks = shades of pink



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Review of DIGHEM report

- Mira Geoscience reviewed the following report provided by the client: “Report on a DIGHEM helicopter EM and magnetic survey over the Tulsequah Property” written by J. Klein in July 1982

- This report describes a DIGHEM airborne geophysical survey conducted at the Tulsequah project area from May – June 1982. This survey consisted of 13 survey lines with ~200 m line spacing, totalling ~180 line km.

- The main conclusions of the report are:
  - EM anomalies appear to cluster near the river valleys and most likely indicate the presence of saline waters in the valley sediments
  - Only two weak conductors were identified which fall outside the area of conductive valley fill
  - No strong conductivity anomalies were detected in the survey area apart from those identified along the Taku and Tulsequah rivers

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Review of DIGHEM report

- Mira Geoscience geo-registered the EM anomaly map contained in the DIGHEM report and digitized the locations of the DIGHEM conductivity anomalies for comparison with the IP survey areas (see Figure 20).

- We digitized only the conductivity anomalies with an “anomaly grade” of 1-6 (i.e. conductance >5 mhos)

- The digitized locations of the EM anomalies are approximate – the effort to geo-register the EM anomaly map was hampered due to a lack of known points to fix the coordinates

- The two weak conductors that fall outside the river valleys include:
  - One which is located ~400 m NE of the edge of the Tulsequah Chief grid
  - Another which is located in the north-central portion of the Banker grid (see Figure 19)

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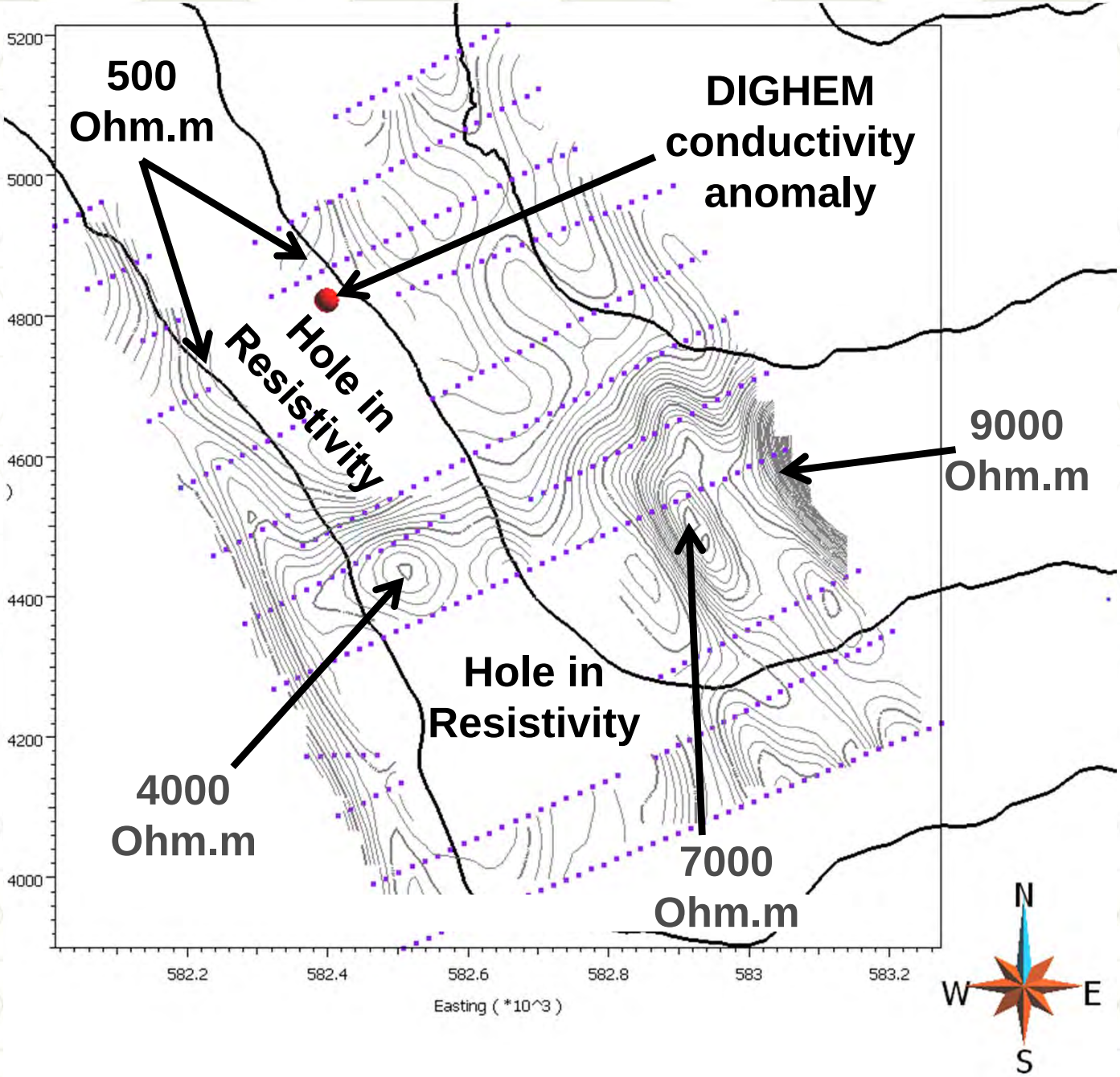
Comparison of DIGHEM conductivity and ground-based resistivity measurements

Figure 19: Map view of the Banker grid showing the location of the DIGHEM conductivity anomaly (red sphere). Ground geophysical survey stations are shown as purple dots. Holes in the data are shown. Also shown are 2D resistivity contours (grey) from the 1994 Delta Geoscience data acquisition report. Resistivity highs and lows are labeled. The lower resistivity area of the map (i.e. ~500 ohm.m) appears to coincide with the DIGHEM conductivity anomaly, however, a significant hole in the Delta Geoscience resistivity data obscures the comparison. Topographic contours (black lines) are shown with a 200 m contour interval.



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Review of INPUT report

- Mira Geoscience reviewed the following report provided by the client: “Airborne geophysical report on the SEQ1 and SEQ2 mineral claims record nos. 933(1) and 934(1) claim sheet no. 104K/12E Tulsequah River Area” written by Ken Lintott in February 1983

- This report describes an INPUT airborne geophysical survey conducted by Questor Surveys Ltd. at the Tulsequah project area in May 1982. This survey had 200-400 m line spacing with ~232 line km surveyed.

- The main conclusions of the report are:
  - The survey identified a number of conductivity anomalies along the Tulsequah river, most likely caused by conductive overburden
  - Only a handful of weak-to-moderate conductivity anomalies were identified in areas away from the river

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Review of INPUT report

- Mira Geoscience geo-registered the EM anomaly map contained in the INPUT report and digitized the locations of the INPUT conductivity anomalies for comparison with the IP survey areas (see Figure 20).

- We digitized all the identified conductivity anomalies with positive or negative responses. None of them lie within the IP survey areas.

- The digitized locations of the EM anomalies are approximate – the effort to geo-register the EM anomaly map was hampered due to a lack of known points to fix the coordinates

- Five conductivity anomalies, not located along the river, are found lying ~2-3 km east of the Tulsequah Chief grid at an elevation of 1000-1200 masl amidst porphyry agglomerate volcaniclastic rocks of the Stikine Assemblage (unit CSvc).

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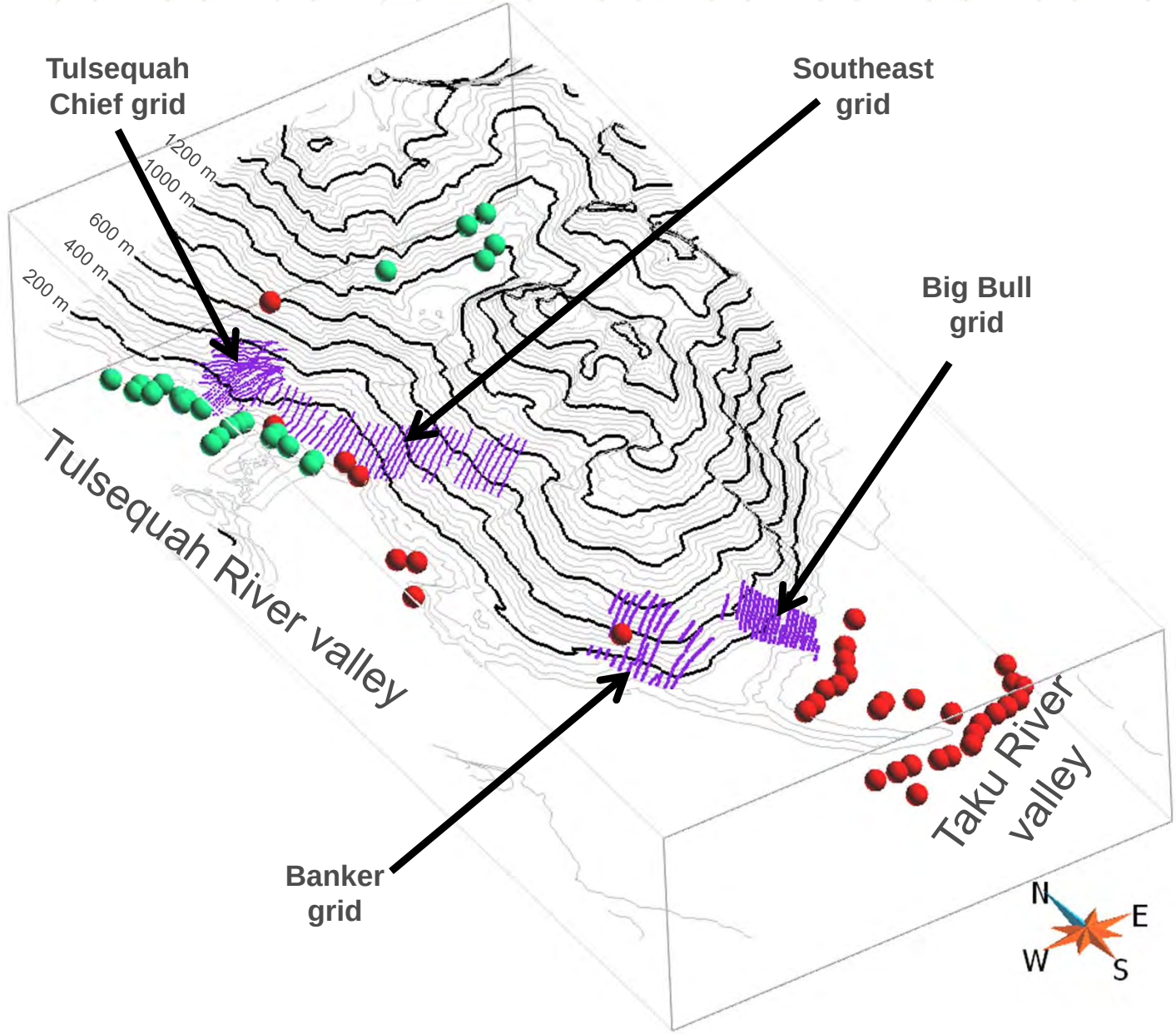
Review of DIGHEM & INPUT reports

Figure 20: 3D perspective view from the SW showing the locations of conductivity anomalies identified in the DIGHEM (red spheres) and INPUT (green spheres) geophysical surveys. Topographic contours (grey and black lines) are shown with a 40 m contour interval. Survey lines for the various IP geophysical survey grids are shown in purple.



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Conclusions

- This IP modelling effort has identified multiple chargeability anomalies at all three surveyed areas: Big Bull, Banker, and Southeast grids.

- The identified chargeability anomalies commonly occur at the contacts between major lithologic units shown in the regional geologic map (e.g. the contact between felsic volcanic (MSvf) and basaltic volcanics (MSvb)).

- The conductivity anomalies identified in the legacy DIGHEM and INPUT geophysical surveys predominantly lie in the river valleys (outside of the IP survey areas) and are interpreted to be caused by conductive valley fill sediments.

- The seven DIGHEM and INPUT conductivity anomalies located away from the river valleys may merit follow-up investigations. Only one lies within an existing IP survey grid.

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Recommendations

- A comprehensive review of all geoscience model results from the Tulsequah project area (e.g. chargeability models, magnetic susceptibility models, geological models and drilling data) would be useful to help decipher the relationships between geology, rock physical properties, and mineralization.

- Borehole geophysical measurements of rock physical properties (e.g. magnetic susceptibility, conductivity, etc.) in sufficient quantities would be valuable data to use as constraints in future 3D geophysical modelling. Physical property-constrained geophysical modelling is superior to unconstrained modelling in that it directly relates the measured geophysical responses with the actual physical properties measured in the rocks.

- Surface measurements of rock physical properties are also helpful for physical property-constrained geophysical modelling and collection of such data is also recommended.

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Recommendations

- Geologically-constrained geophysical modelling of the existing magnetic and IP data using geological information from the client's 3D Gemcom model may be useful to more confidently relate the actual geology with their geophysical responses. Such an analysis could potentially help predict the geology in areas that have not yet been drilled. Rock physical property data will be required for this effort to be effective.

- A magnetic survey covering the entire project area, followed by 3D geophysical modelling of the collected magnetic data, would be useful to fill in the gaps between the existing ground magnetic datasets and avoid the difficulties of interpreting features on the edges of grids.

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Recommendations

- New ground-based DCIP geophysical surveys, followed by 3D geophysical modelling of the collected data, would be useful to help delineate zones of high and low chargeability in new areas of exploration as well as provide better data on the details of conductivity in the subsurface.

- It is possible that CGG Veritas (the company who now owns the DIGHEM and INPUT airborne EM technology) has in their digital archive a copy of the original DIGHEM and INPUT data collected over the Tulsequah project area. It would be worth asking CGG to check their archive for these data. Mira Geoscience would be happy to assist in this regard. If CGG has these data, they may be able to retrieve them for a nominal fee.

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Recommendations

- Geophysical inversion modelling of this legacy DIGHEM and INPUT data should help significantly in the understanding of the distribution and characteristics of conductivity anomalies in the subsurface at Tulsequah. It is not known whether or not data this old can be inverted successfully. If such an effort is possible, it could be much more cost-effective than the collection of a new airborne EM dataset. However, significant advances have been made in the field of airborne EM acquisition in the last 30 years. A survey using up-to-date technology will see more subtle features and see much deeper than 1980's technology.

- If an airborne EM system is to be flown in this terrain, it will be important to ensure that the helicopter is capable of flying at a consistent drape elevation in this rough topography. If the contractor is concerned about drape then consider EM survey lines flown along elevation contours rather than across geologic strike.

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2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX VIII

MIRA GEOSCIENCE REPORT:

3d Induced Polarisation Modelling:
Phase 2:
Tulsequah Project, BC
For Chieftain Metals Inc.

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

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3D Induced Polarisation Modelling Phase 2: **Tulsequah Project, BC for Chieftain Metals Inc.**

Advanced Geophysical Interpretation Centre

Project : 4084

Stanislawa Hickey

October 16, 2013

Outline

- Introduction
- Data
- Processing
- 3D Inversions
- Results
- Conclusion and Recommendations
- Deliverables

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Introduction

- The Advanced Geophysical Interpretation Centre (AGIC) at Mira Geoscience has completed a second phase of 3D inversion of Induced Polarisation (IP) data over the Tulsequah project area (British Columbia) for Chieftain Metals.

- During the first phase of the project, the modelling was performed on IP data collected at the Tulsequah Chief Grid (Figure 1). For this second phase of the project the inversion work was carried out on IP data collected at the Southeast, Banker and Big Bull grids (Figure 1).

- Similar to the first phase of this project, the gradient-array IP data were inverted using the UBC-GIF MAG3D suite of algorithms in order to introduce depth information into the model.

- The gradient-array IP data can be modeled as magnetic data since both inducing fields are generated by a dipole source whose moment is proportional to the current density vector.

- The results are presented as 3D chargeability physical property models.

- This is a brief presentation which describes the steps and results of the modelling.

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Data

- Gradient-array Induced Polarization data was collected by Delta Geoscience Inc. in 1994, at the Tulsequah project in northwest BC.

- The 37 IP lines were surveyed over the Southeast Grid, 12 lines were surveyed over the Banker Grid and 21 lines were surveyed over the Big Bull Grid. Each grid was modelled separately.

- The line spacing varies between 50 m and 100 m for the Banker grid and 50 m and 150 m for the Big Bull grid. The Southeast grid was surveyed with a 100 m line spacing.

- The potential electrode spacing is 50 m and the current electrode separation is 1400 m.

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Data

- The topography data (Figure 1) provided by the client were used for the inversion.

- Coordinates system: NAD83 UTM Zone 8N.

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Data

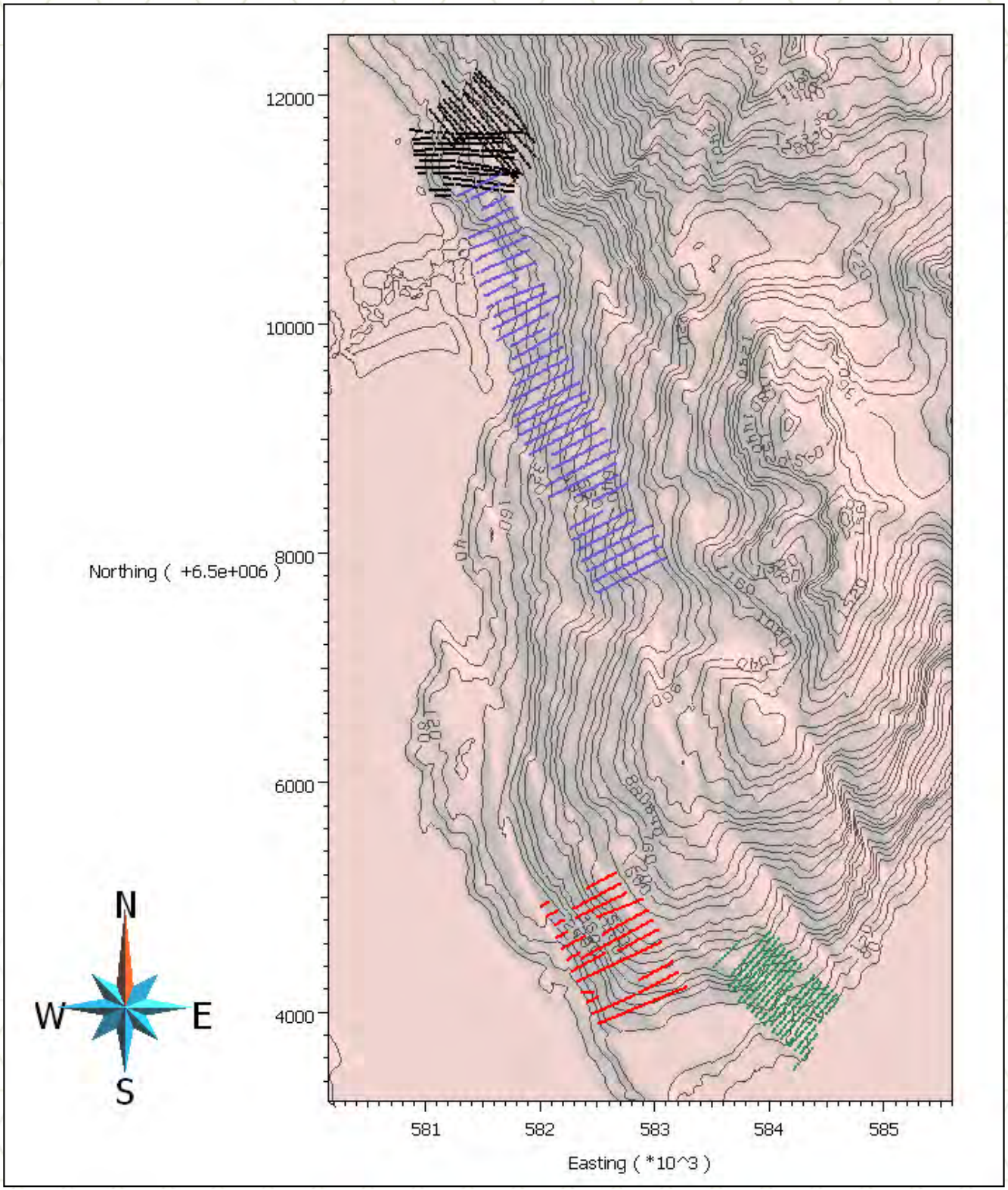

Figure 1: Plan view of the IP survey grids at the Tulsequah project: Tulsequah Chief Grid (black lines), Southeast Grid (purple lines), Banker Grid (red lines), and Big Bull Grid (green lines). Topography contours (grey lines) shown in meters.

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Processing

- The data from each grid were analyzed for quality control.
- The data were upward continued a height of 12.5 m to reduce near surface and discretization effects.
- The IP data from each grid were prepared separately to be inverted with the MAG3D suite of algorithms. To be modelled as magnetic data, the inducing field is set antiparallel with respect to the location of the current electrodes with an inclination of 0° and a declination depending on the line orientation.
- The Southeast Grid and Banker Grid have a line orientation of 245° and the Big Bull Grid has a line orientation of 222°.

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Processing

- We observed that a removal of the regional response due to a large-scale chargeable feature at depth was necessary for each grid. Thus, a regional removal step was applied to each dataset.

- A standard deviation of 2% of the data amplitude with a floor of 3% of the measurements magnitude was assigned to the data for modelling purposes. This was done to account for data noise.

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3D Inversions

- The datasets from each grid were inverted with the MAG3D algorithm on a 25 x 25 x 25 m cell size mesh.

- Using this first inversion result, the signal due to a large scale geological feature at depth was removed from each dataset and a second inversion was then performed on the new data.

- The data that had been corrected for the regional signal were then used in the final modelling effort. This final model used the Compactness algorithm in order to recover anomaly shapes that are more similar to the geology.

- The topography was utilized in the inversions.

- The modelling depth of investigation is estimated to 400 m below the topography.

- The inversions parameters of each grid are defined in Tables 1-3.

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3D Inversions

- Figures 2 to 10 show the observed and predicted data resulting from the different inversions.

- Figures 11 to 25 show different views of the 3D modelling results.

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3D Inversions – Southeast Grid

Data used in each inversion	Original data	Data with regional signal removed	Data with regional signal removed
Inversion type	UBC standard	UBC standard	UBC with Compactness
Convergence Criteria	Fixed Chi Factor	Fixed Chi Factor	Fixed Chi Factor
3D Mesh	Core 25 m x 25 m x 25 m cell size mesh.	Core 25 m x 25 m x 25 m cell size mesh.	Core 25 m x 25 m x 25 m cell size mesh.
Number of Cells in Mesh	1,768,704	1,768,704	1,768,704
Length Scales	75, 75, 75 (Le, Ln, Lz)	75, 75, 75 (Le, Ln, Lz)	75, 75, 75 (Le, Ln, Lz)
Number of Data Inverted	1,000	1,000	1,000
Achieved Misfit	5.116199E+02	1.180065E+03	4.267765E+02

Table 1: Modelling parameters for the different types of inversions for the Southeast Grid.

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3D Inversions – Banker Grid

Data used in each inversion	Original data	Data with regional signal removed	Data with regional signal removed
Inversion type	UBC standard	UBC standard	UBC with Compactness
Convergence Criteria	Fixed Chi Factor	Fixed Chi Factor	Fixed Chi Factor
3D Mesh	Core 25 m x 25 m x 25 m cell size mesh.	Core 25 m x 25 m x 25 m cell size mesh.	Core 25 m x 25 m x 25 m cell size mesh.
Number of Cells in Mesh	354,552	354,552	354,552
Length Scales	75, 75, 75 (Le, Ln, Lz)	75, 75, 75 (Le, Ln, Lz)	75, 75, 75 (Le, Ln, Lz)
Number of Data Inverted	380	380	380
Achieved Misfit	1.081319E+02	6.970523E+01	1.240202E+02

Table 2: Modelling parameters for the different types of inversions for the Banker Grid.

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3D Inversions – Big Bull Grid

Data used in each inversion	Original data	Data with regional signal removed	Data with regional signal removed
Inversion type	UBC standard	UBC standard	UBC with Compactness
Convergence Criteria	Fixed Chi Factor	Fixed Chi Factor	Fixed Chi Factor
3D Mesh	Core 25 m x 25 m x 25 m cell size mesh.	Core 25 m x 25 m x 25 m cell size mesh.	Core 25 m x 25 m x 25 m cell size mesh.
Number of Cells in Mesh	298,304	298,304	298,304
Length Scales	75, 75, 75 (Le, Ln, Lz)	75, 75, 75 (Le, Ln, Lz)	75, 75, 75 (Le, Ln, Lz)
Number of Data Inverted	443	443	443
Achieved Misfit	2.498007E+02	1.939498E+02	1.837230E+02

Table 3: Modelling parameters for the different types of inversions for the Big Bull Grid.

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Results – Southeast Grid

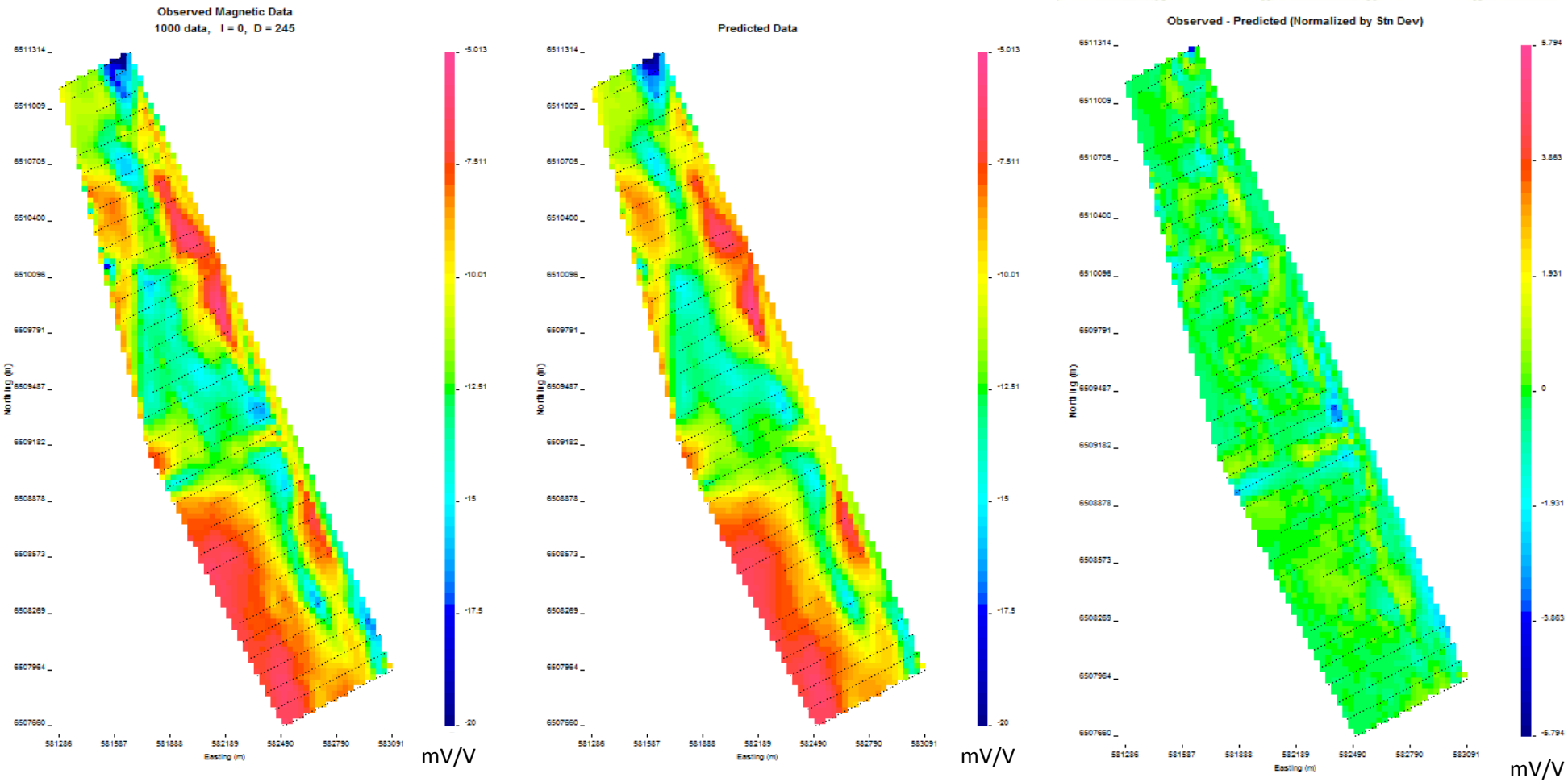

Figure 2: Observed (left) and predicted (middle) IP data from the inversion on the original data with the difference normalized by the standard deviation (right) in mV/V.

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Results – Southeast Grid

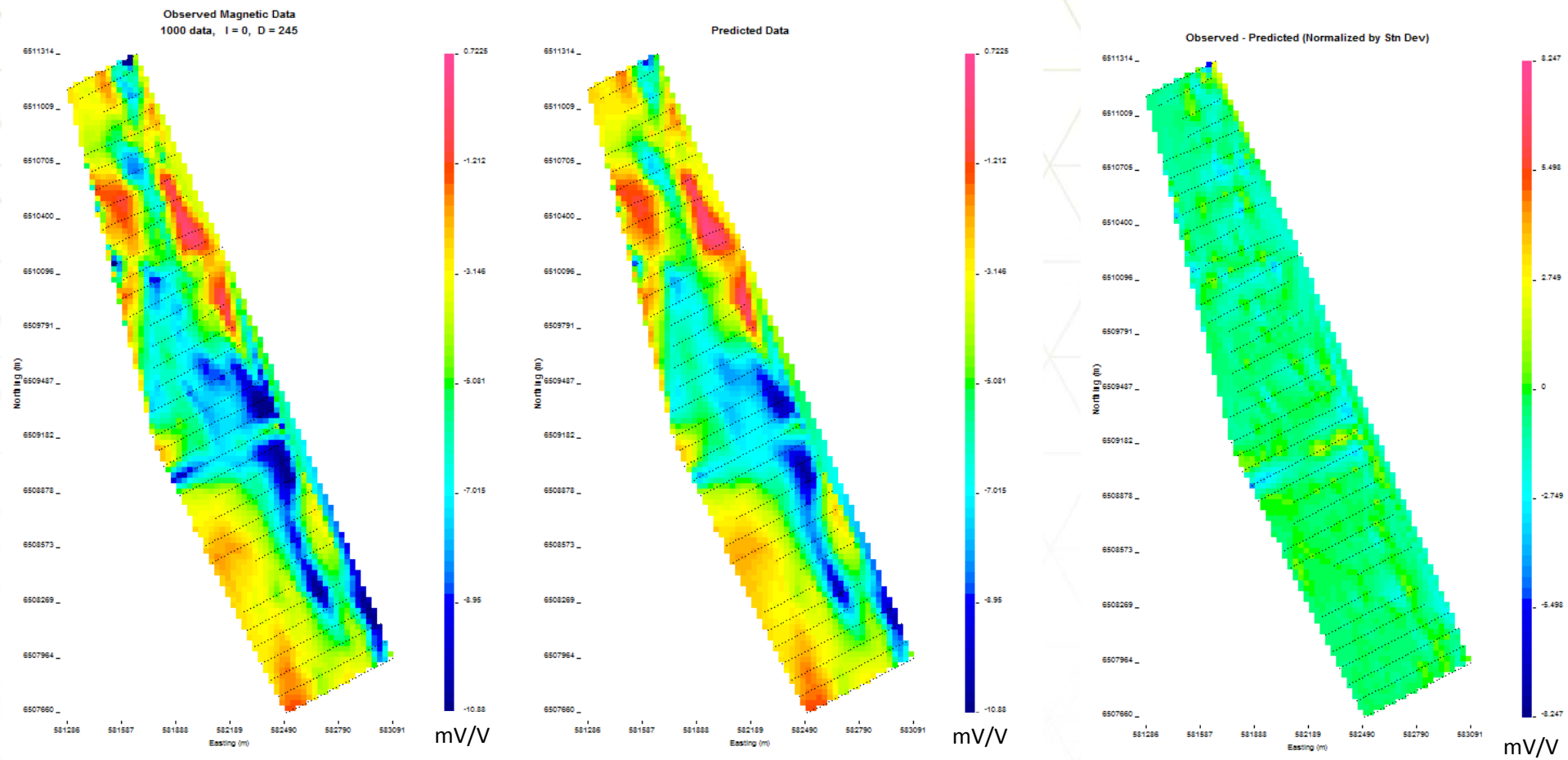

Figure 3: Observed (left) and predicted (middle) IP data from the inversion with regional signal removed and the difference normalized by the standard deviation (right) in mV/V.

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Results – Southeast Grid

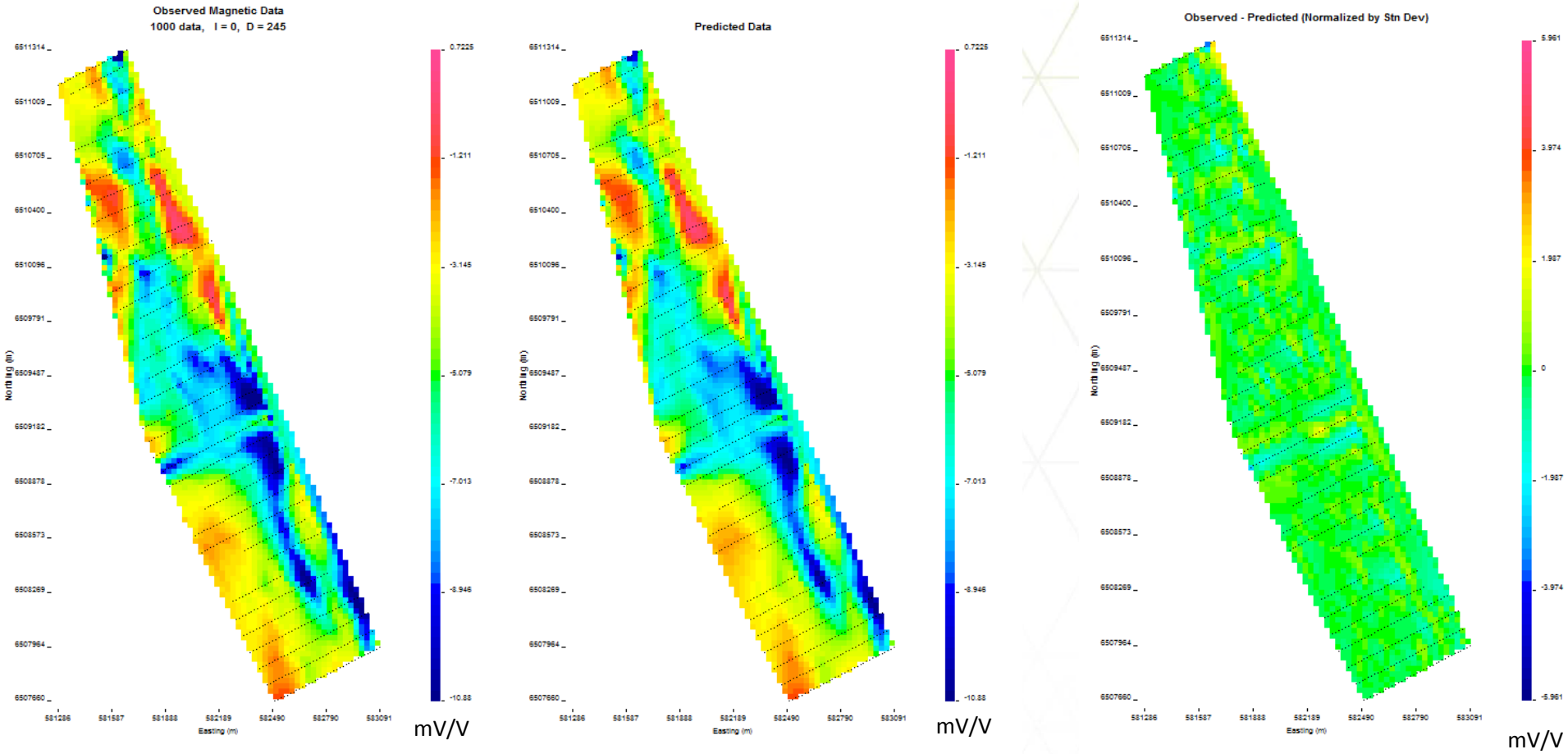

Figure 4: Observed (left) and predicted (middle) IP data from the Compactness inversion and the difference normalized by the standard deviation (right) in mV/V.

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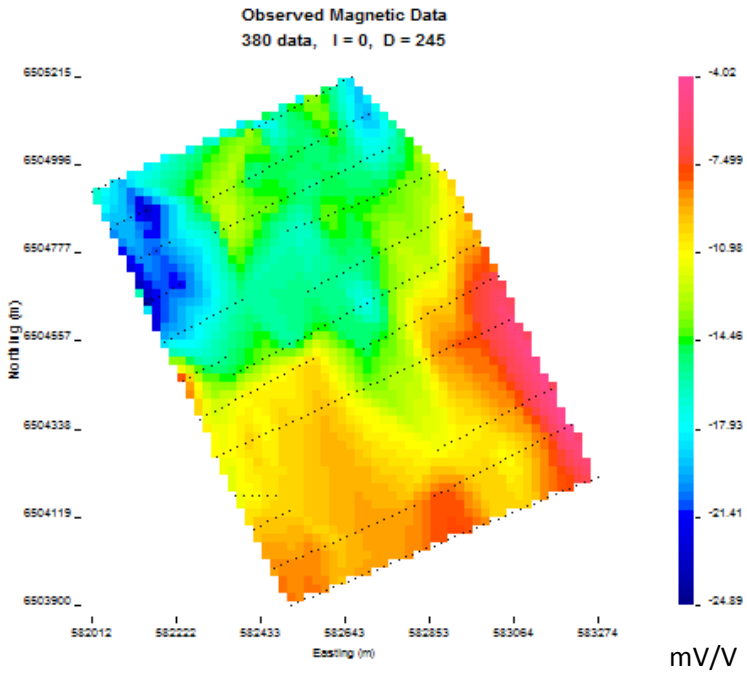
Results – Banker Grid



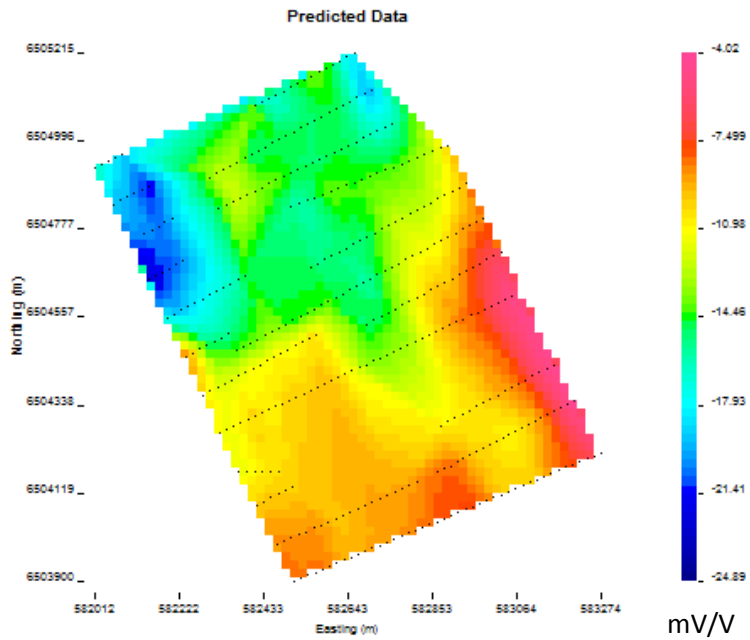
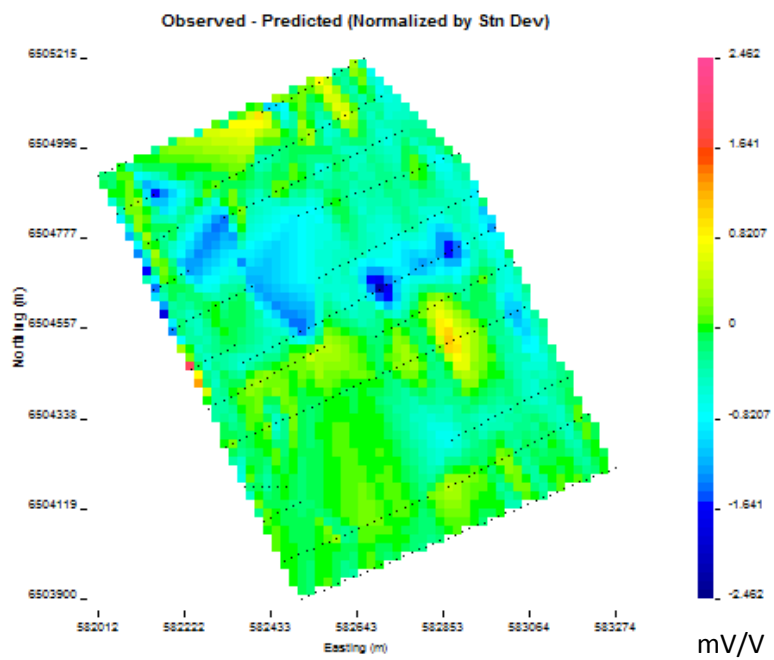


Figure 5: Observed (left) and predicted (right) IP data from the inversion on the original data with the difference normalized by the standard deviation (bottom) in mV/V.



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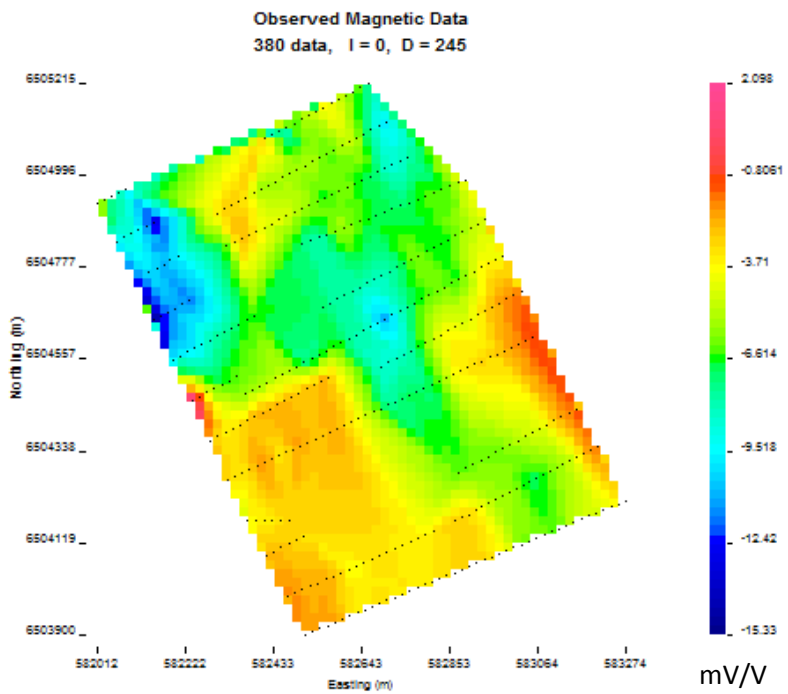
Results – Banker Grid



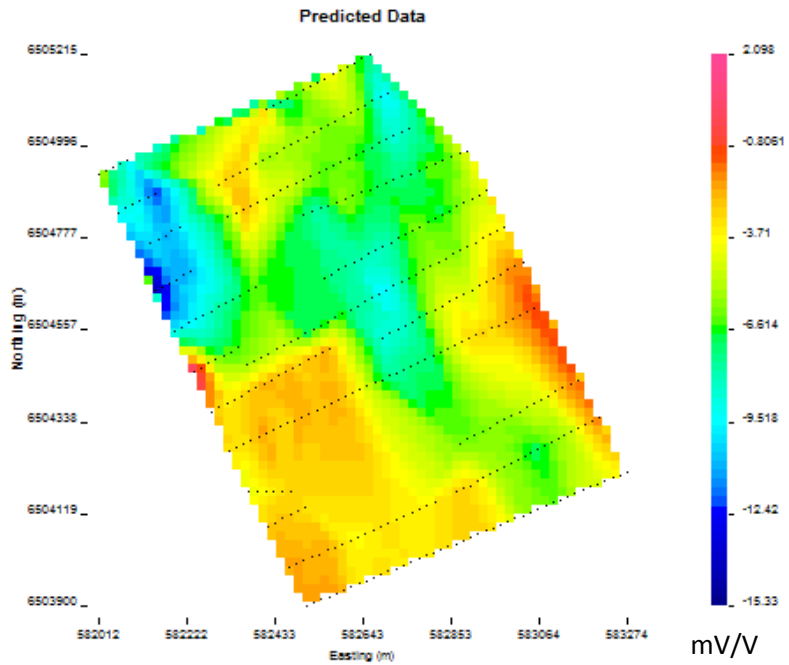
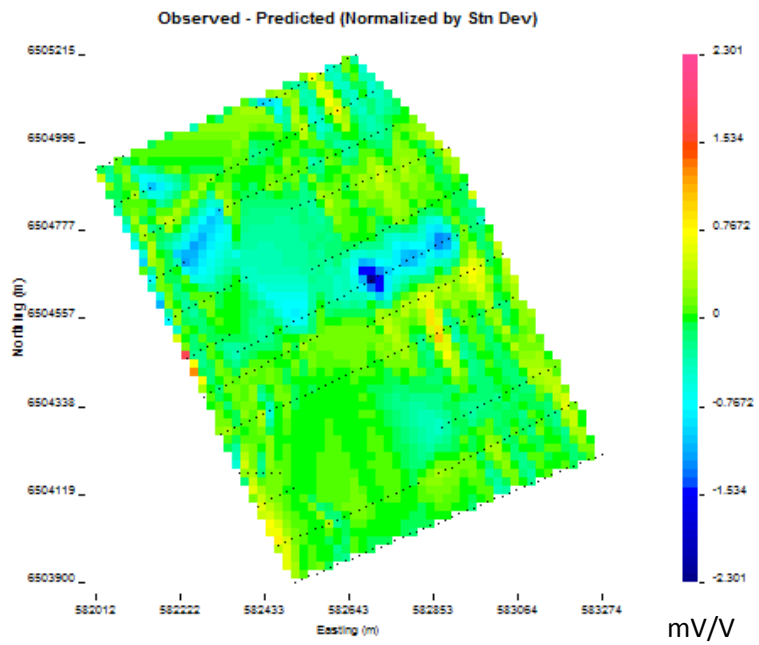


Figure 6: Observed (left) and predicted (right) IP data from the inversion with regional signal removed and the difference normalized by the standard deviation (bottom) in mV/V.



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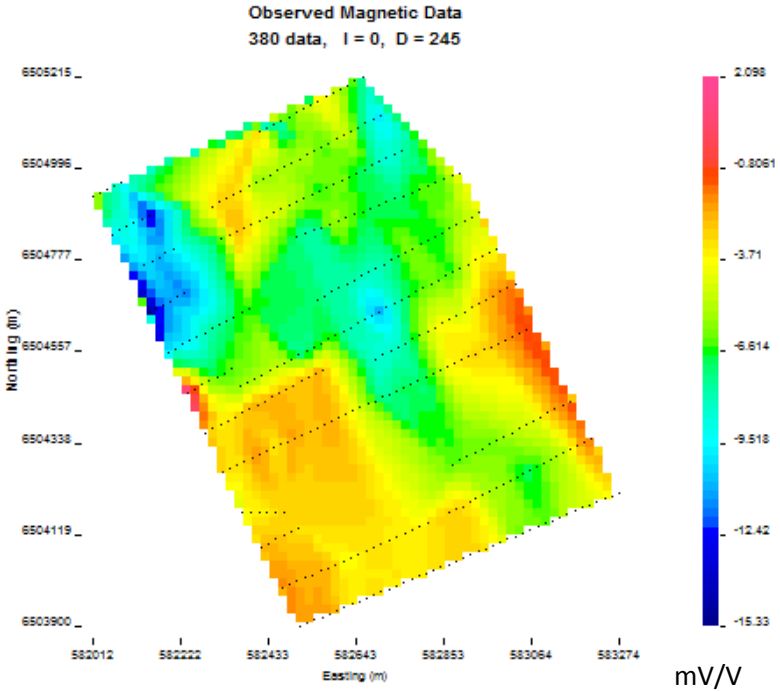
Results – Banker Grid



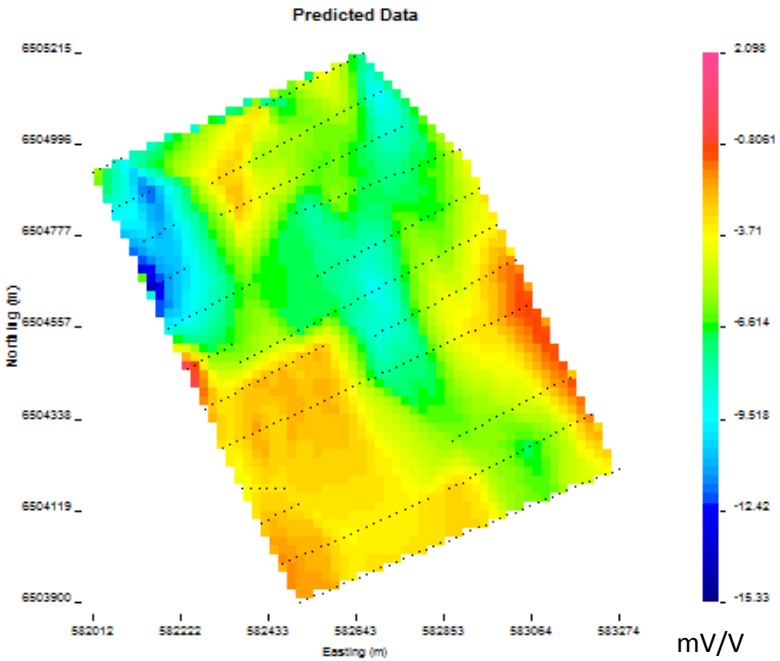
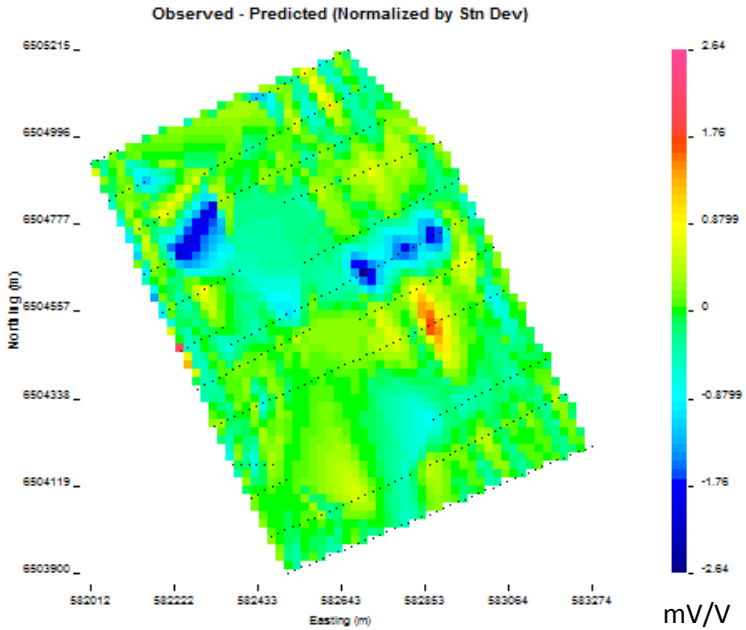


Figure 7: Observed (left) and predicted (right) IP data from the Compactness inversion and the difference normalized by the standard deviation (bottom) in mV/V.



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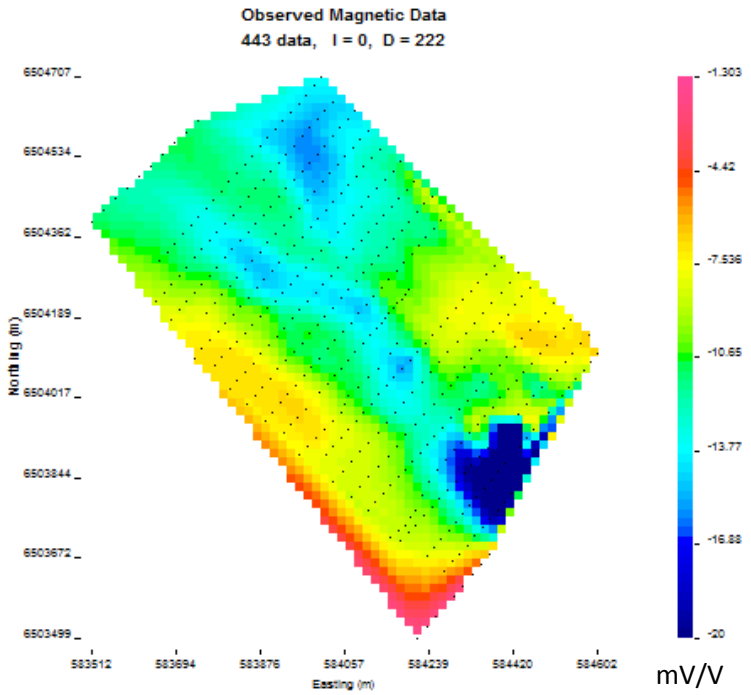
Results – Big Bull Grid



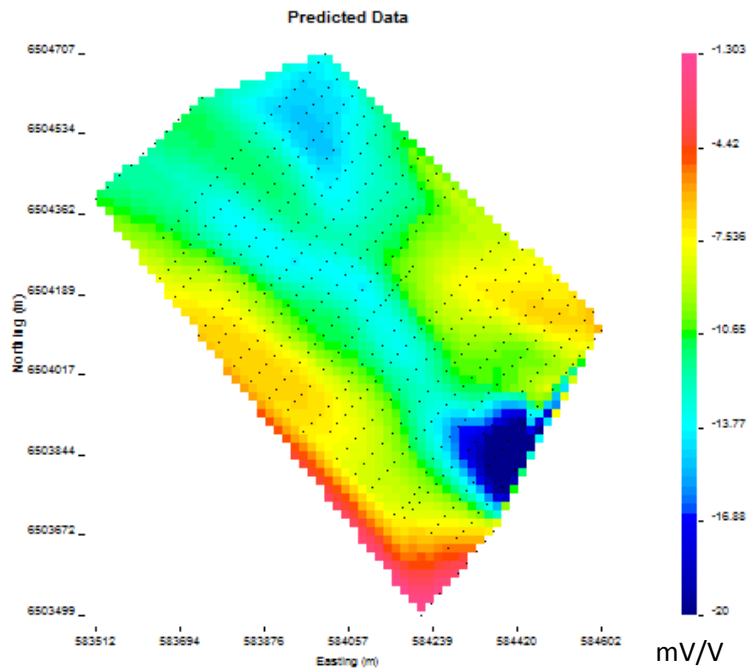
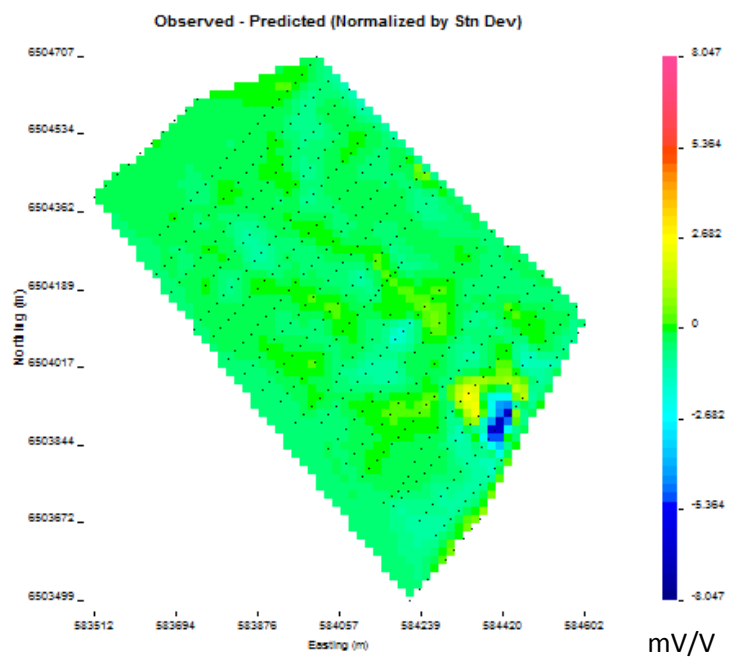


Figure 8: Observed (left) and predicted (right) IP data from the inversion on the original data with the difference normalized by the standard deviation (bottom) in mV/V.



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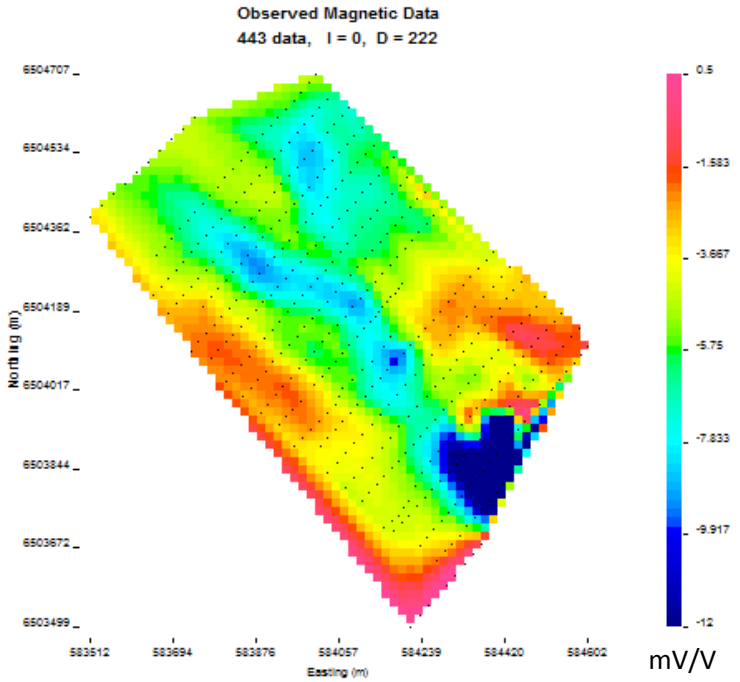
Results – Big Bull Grid



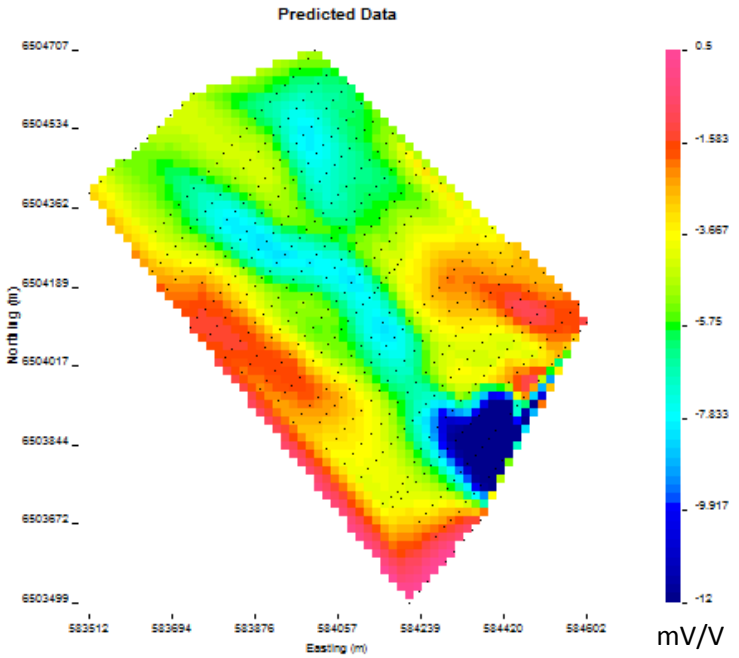
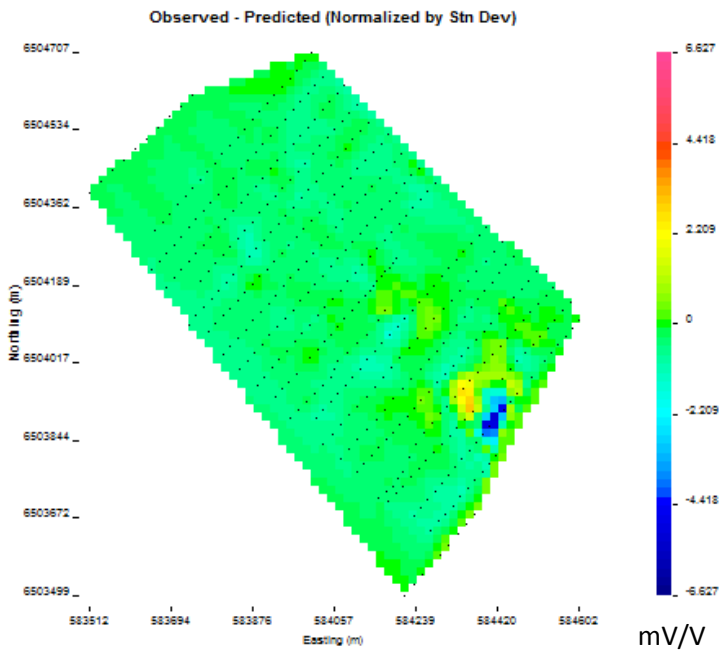


Figure 9: Observed (left) and predicted (right) IP data from the inversion with regional signal removed and the difference normalized by the standard deviation (bottom) in mV/V.



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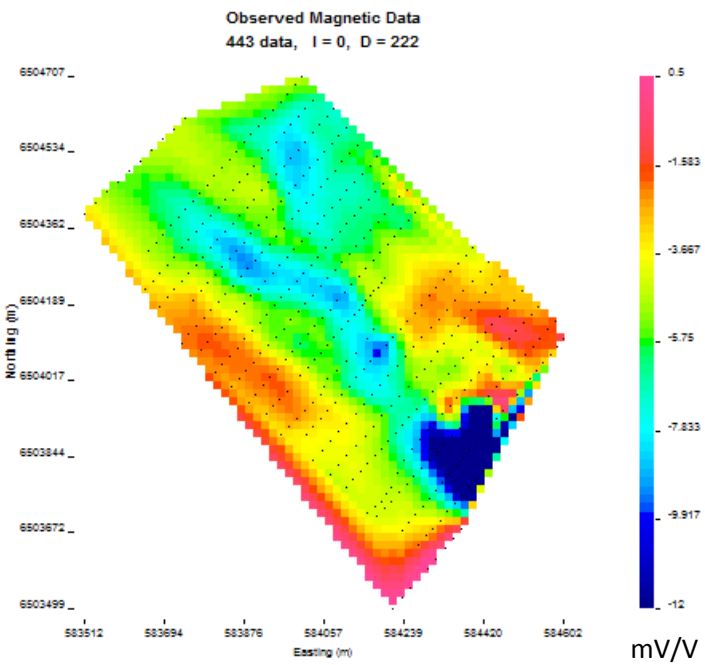
Results – Big Bull Grid



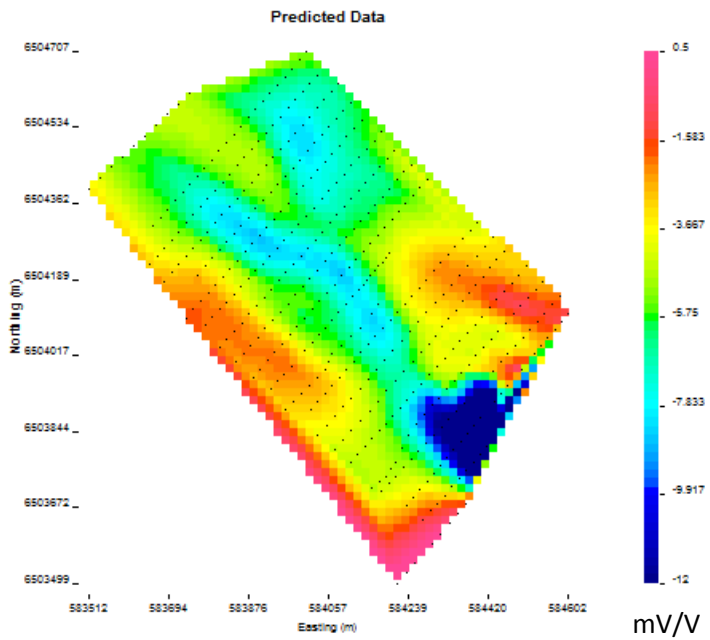
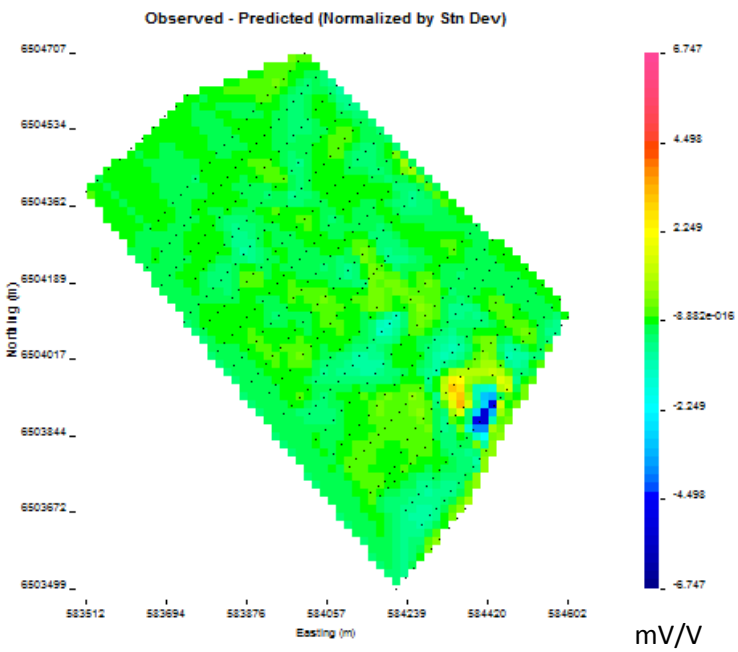


Figure 10: Observed (left) and predicted (right) IP data from the Compactness inversion and the difference normalized by the standard deviation (bottom) in mV/V.



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Results – Southeast Grid

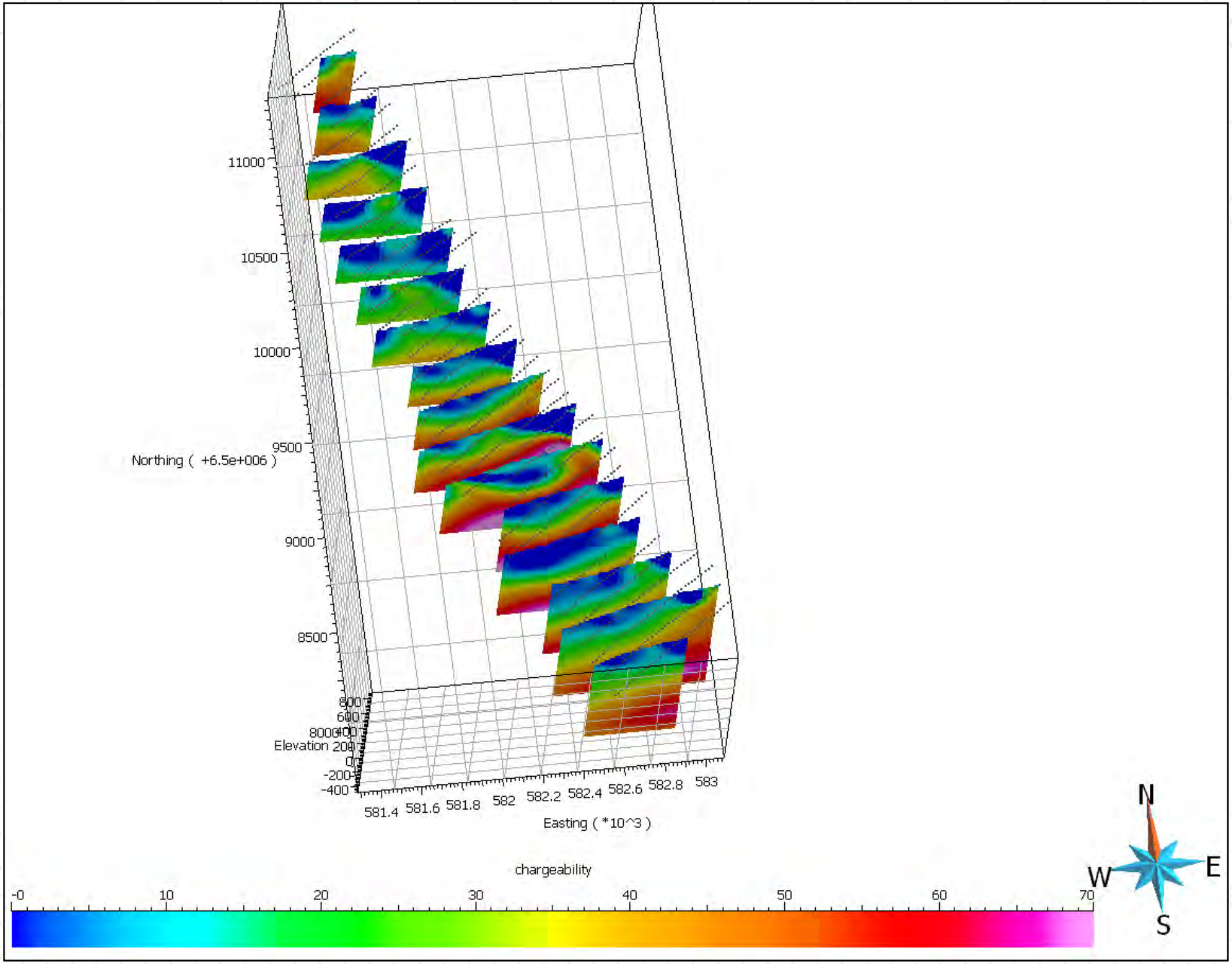

Figure 11: Perspective view showing the chargeability model sections (in mV/V) from the inversion on the original data. The survey stations are also represented (dots).

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Results – Southeast Grid

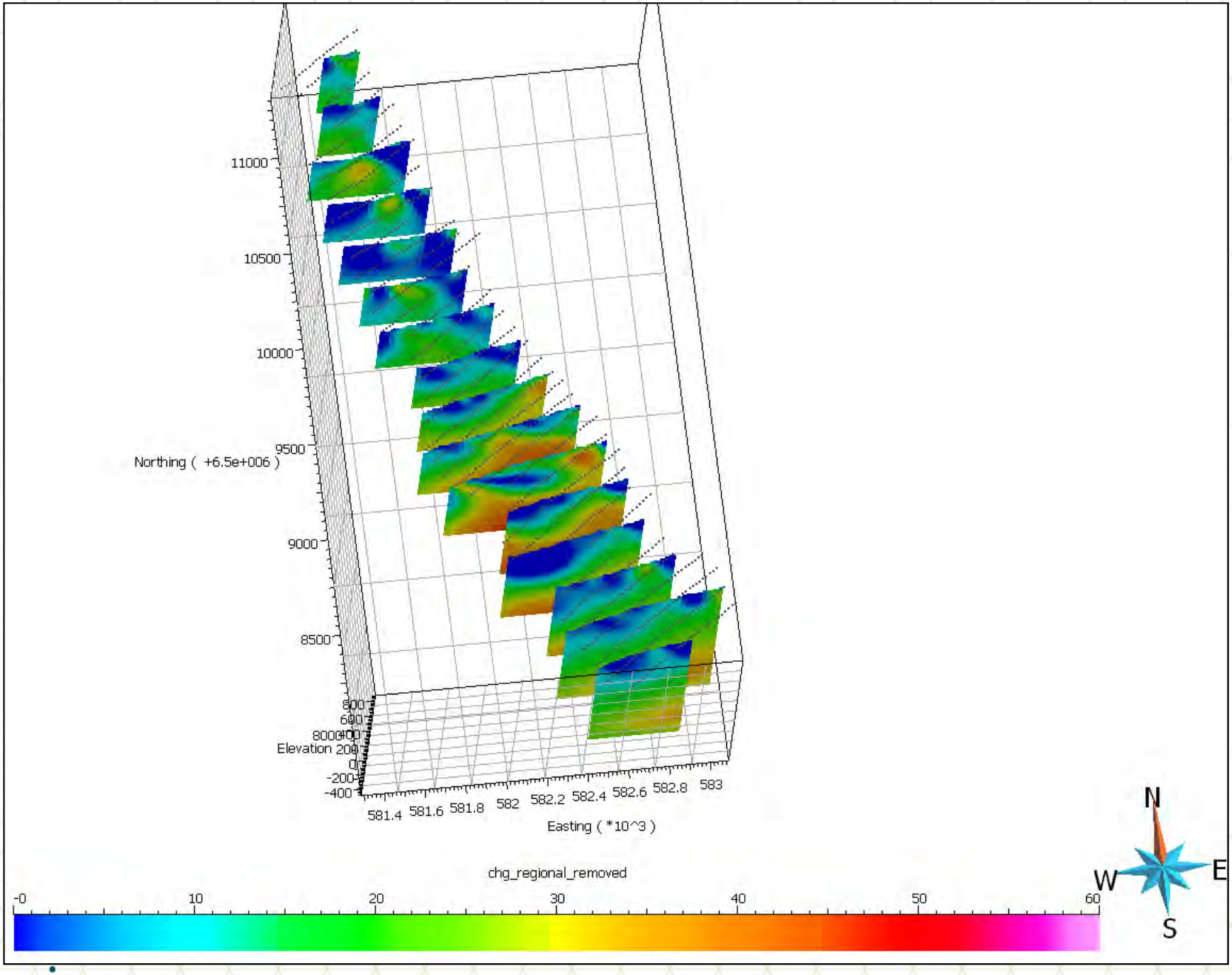

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Figure 12: Perspective view showing the chargeability model sections (in mV/V) from the inversion on the data after regional signal removed.

Results – Southeast Grid

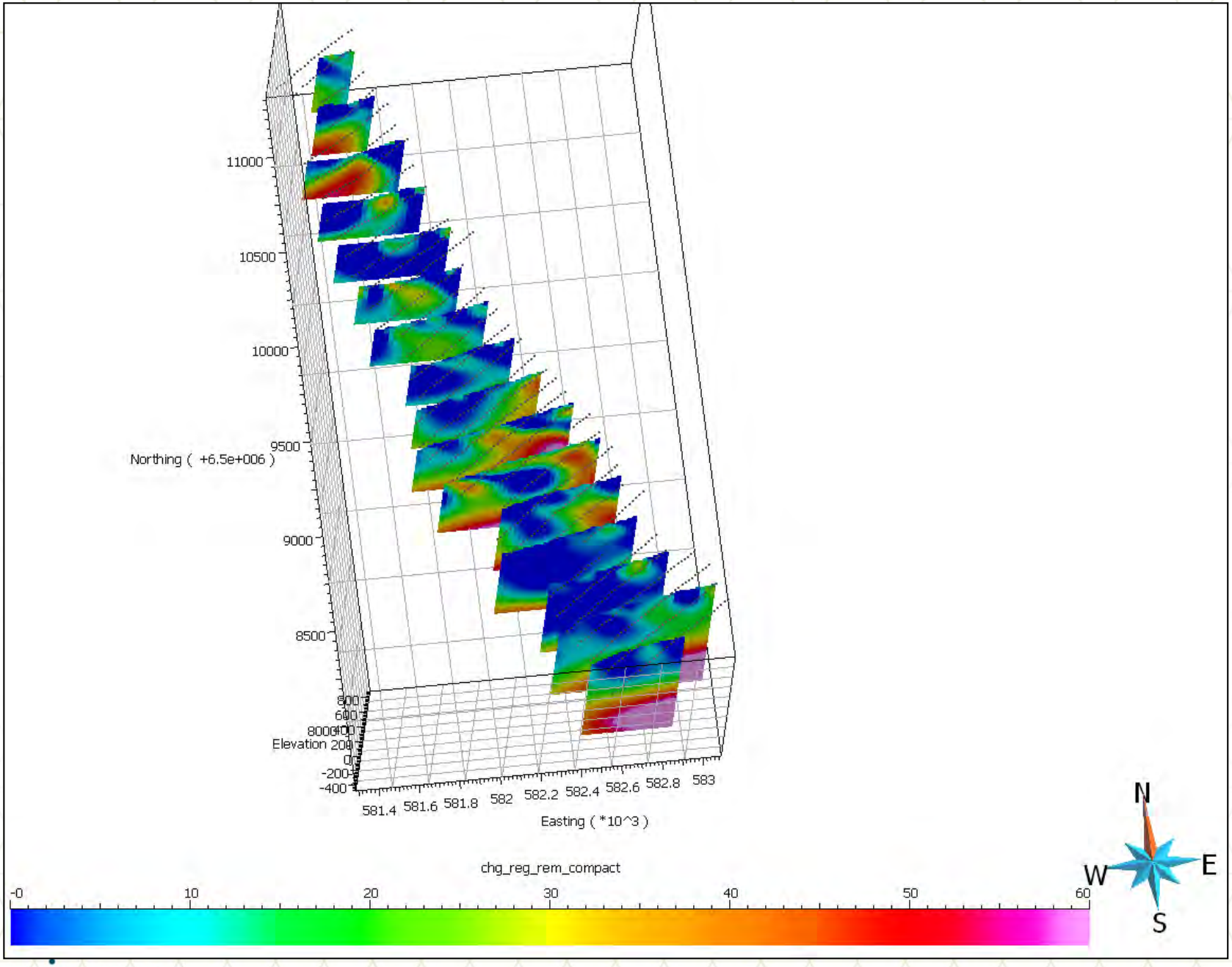

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Figure 13: Perspective view showing the chargeability model sections (in mV/V) from the Compactness inversion on the data after regional signal removed.

Results – Southeast Grid

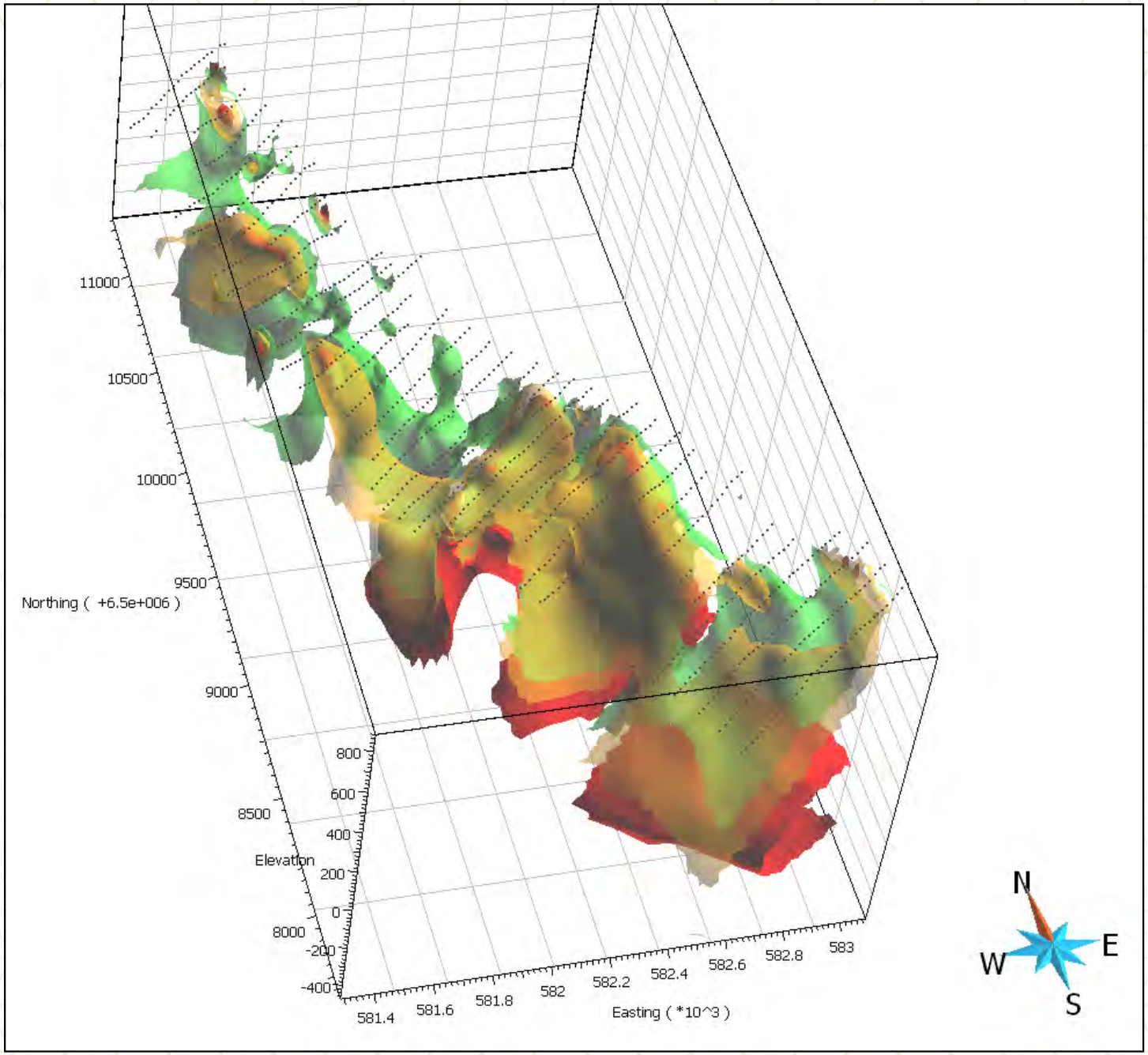

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Figure 14: Perspective view showing chargeability iso-surfaces of 10 mV/V (green), 20 mV/V (yellow) and 30 mV/V (red) from the inversion on the data after regional signal removed.

Results – Southeast Grid

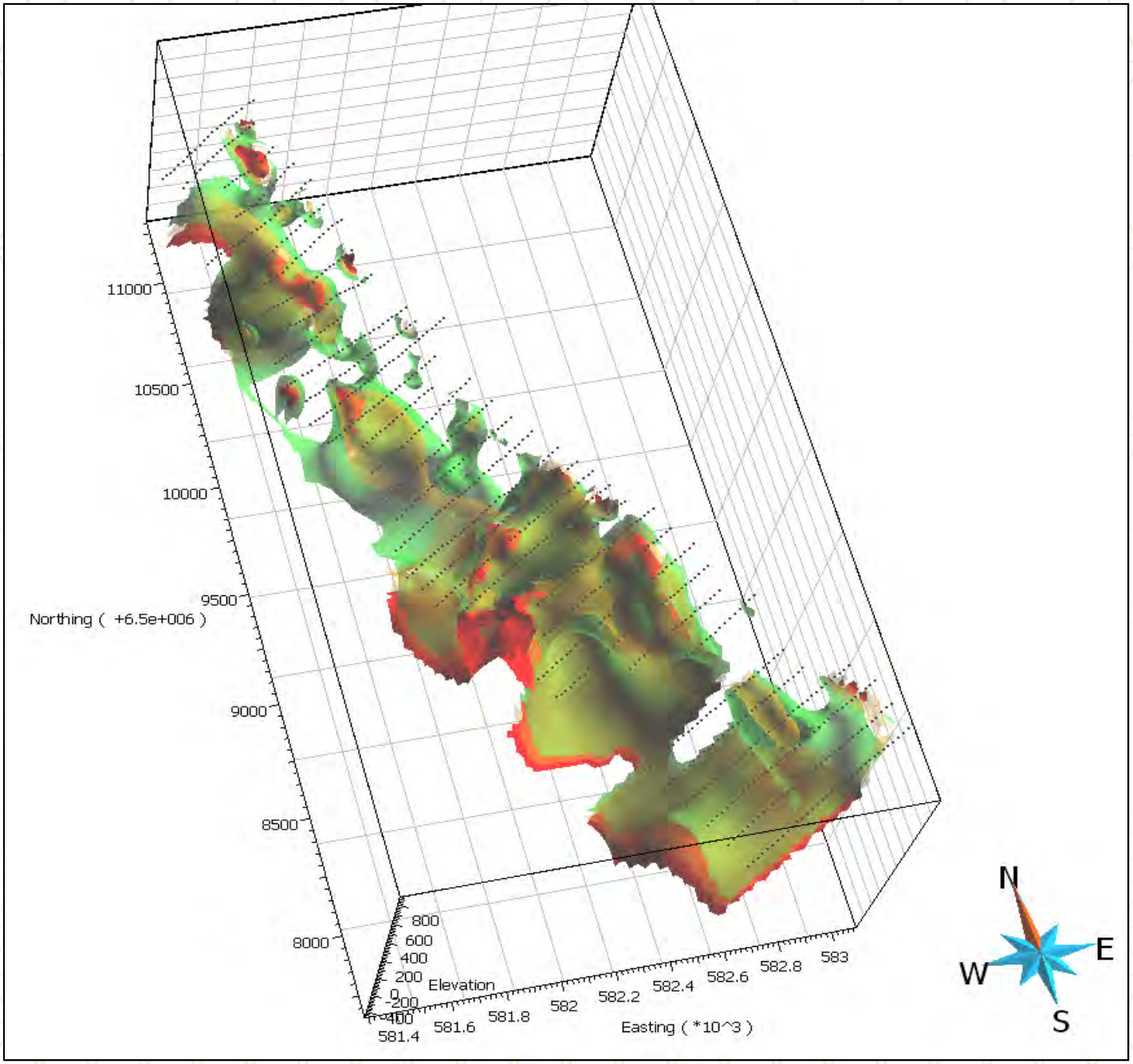

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Figure 15: Perspective view showing chargeability iso-surfaces of 10 mV/V (green), 20 mV/V (yellow) and 30 mV/V (red) from the Compactness inversion on the data after regional signal removed.

Results – Banker Grid

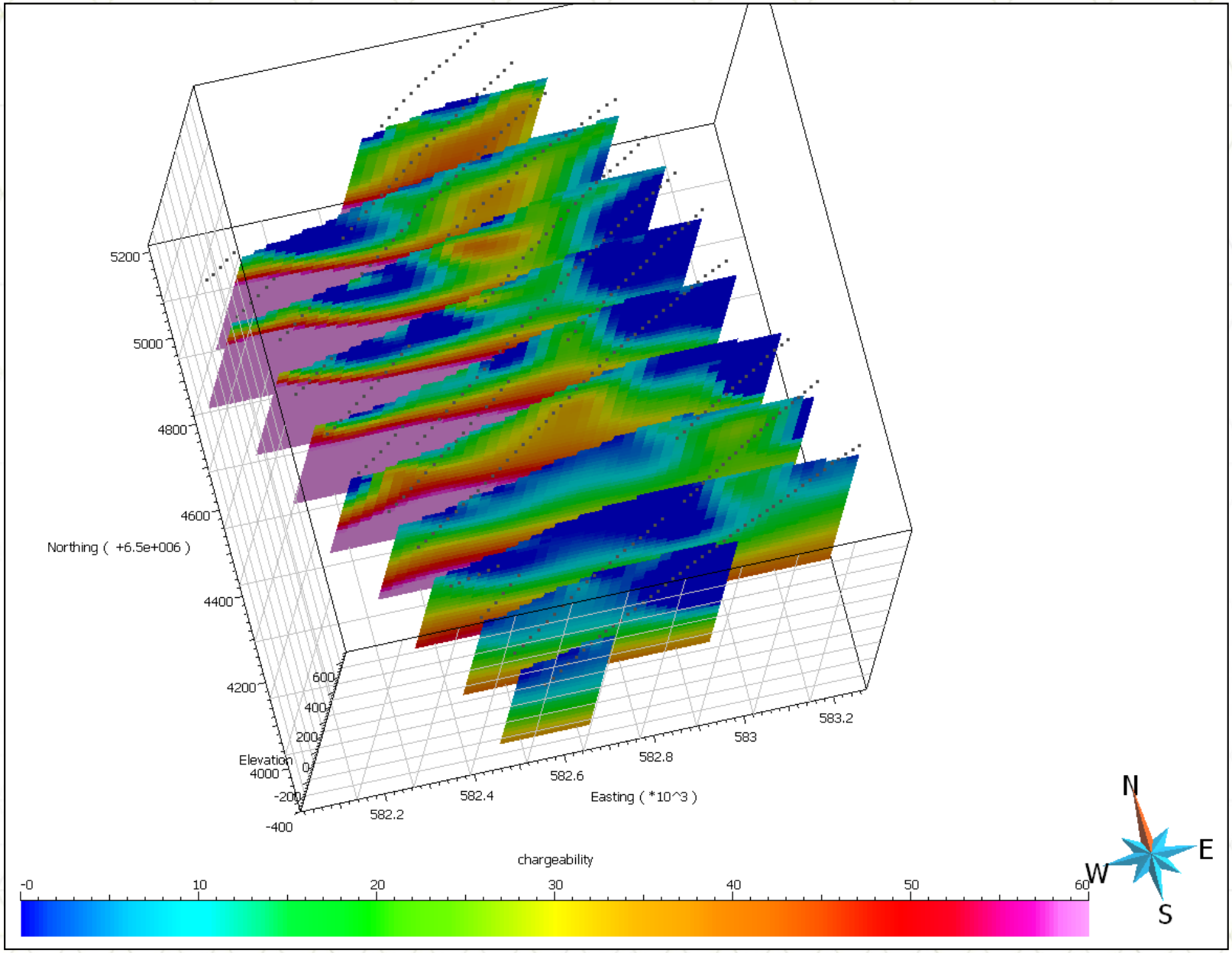

Figure 16: Perspective view showing the chargeability model sections (in mV/V) from the inversion on the original data. The survey stations are also represented (dots).

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Results – Banker Grid

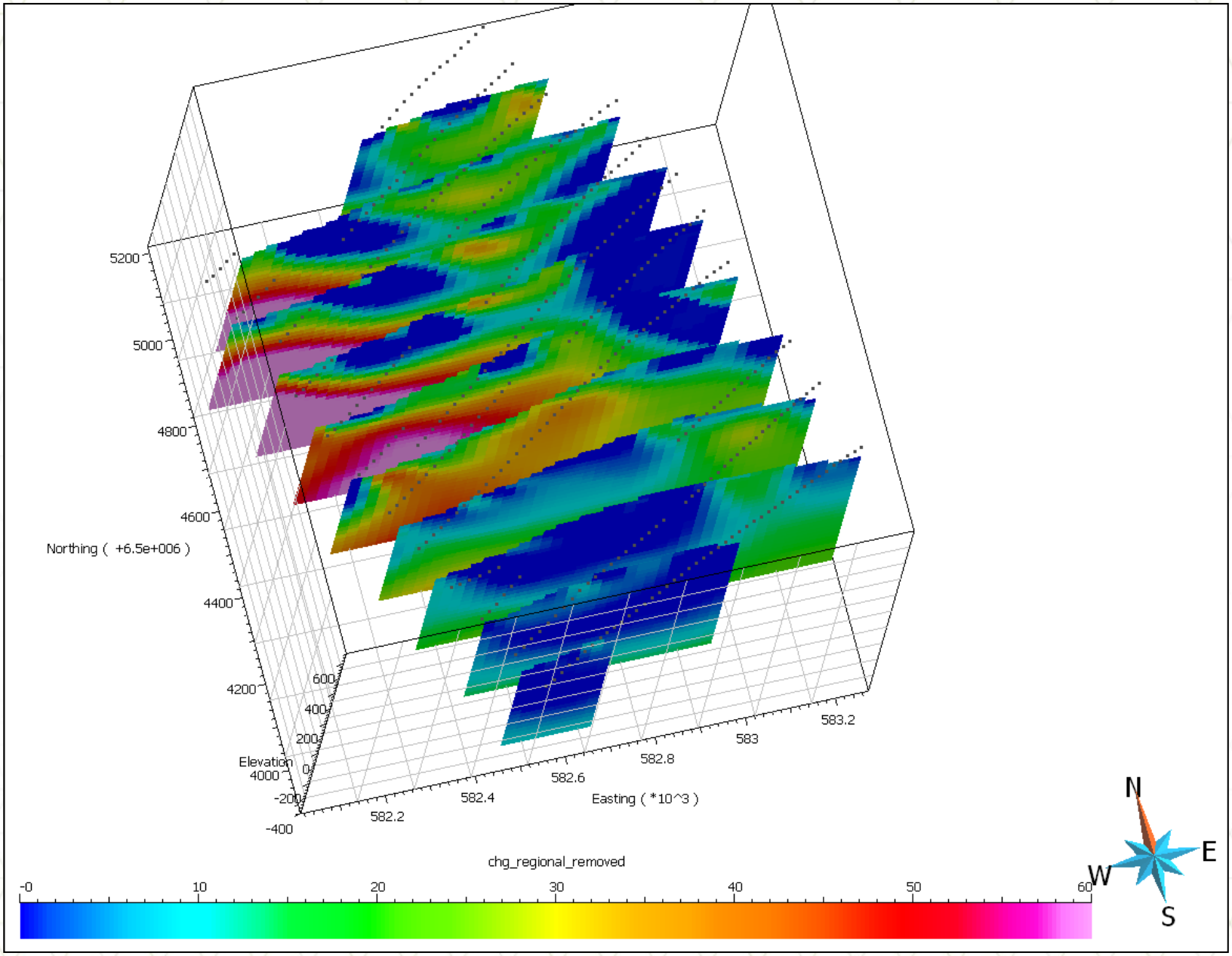

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Figure 17: Perspective view showing the chargeability model sections (in mV/V) from the inversion on the data after regional signal removed.

Results – Banker Grid

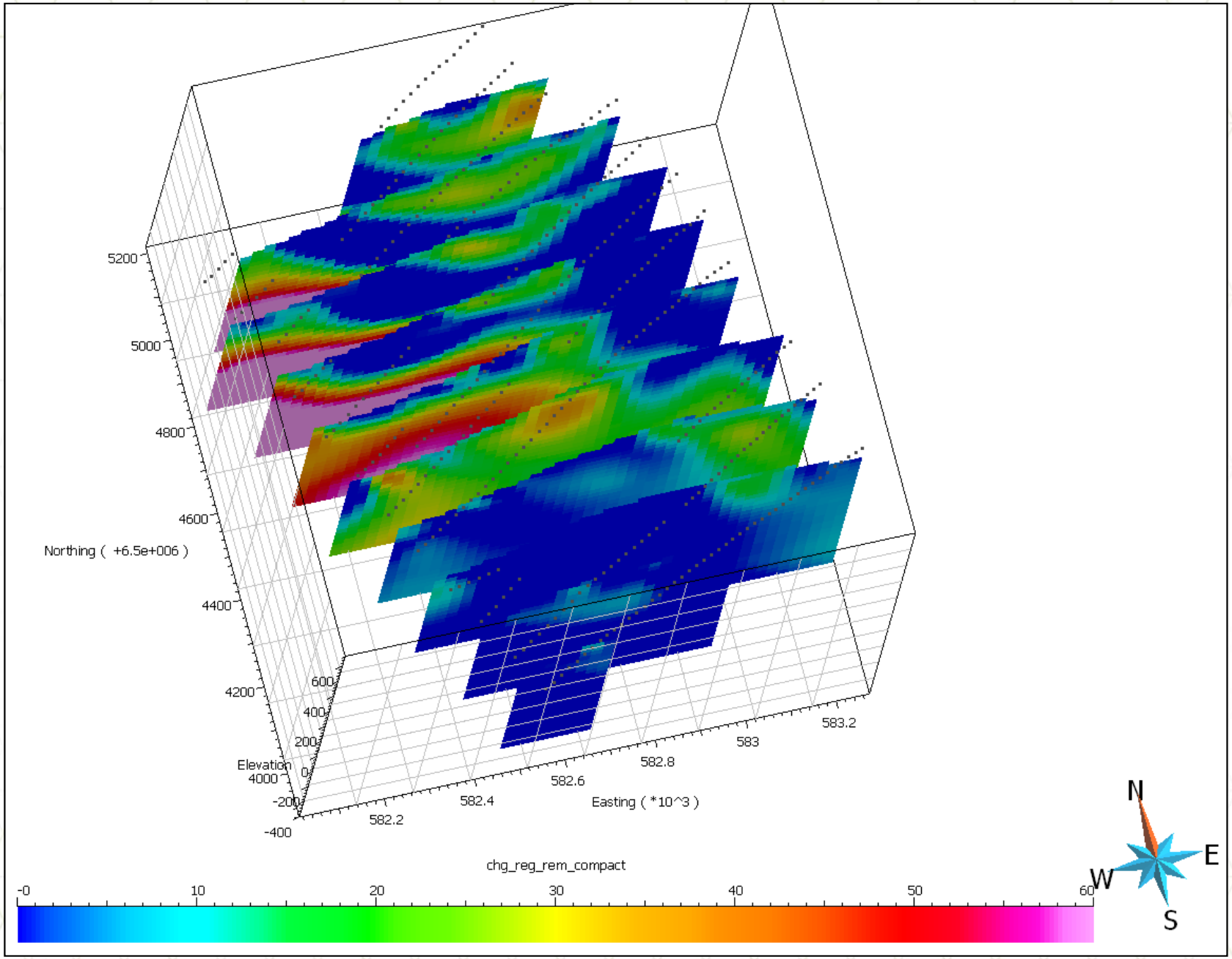

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Figure 18: Perspective view showing the chargeability model sections (in mV/V) from the Compactness inversion on the data after regional signal removed.

Results – Banker Grid

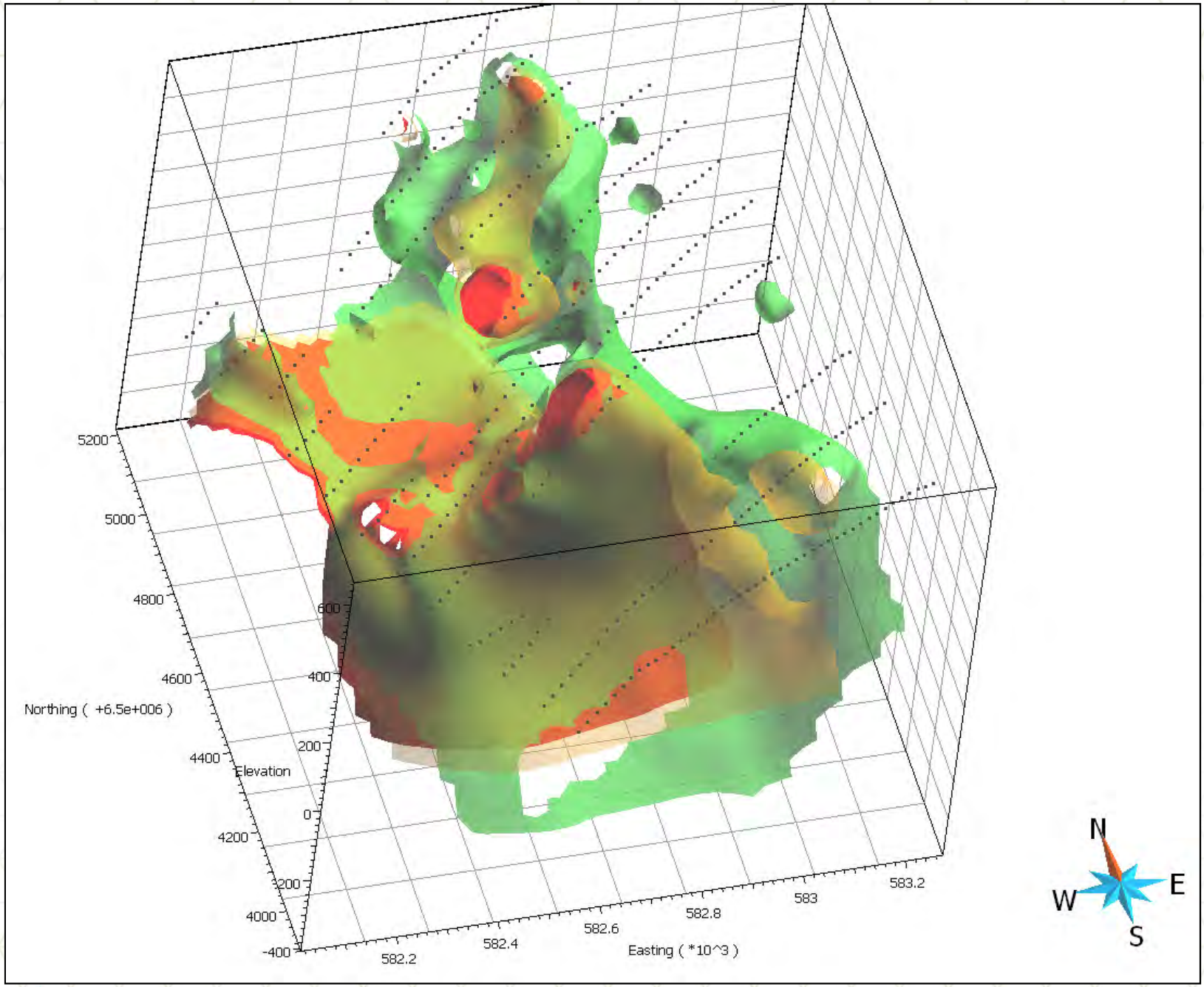

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Figure 19: Perspective view showing chargeability iso-surfaces of 15 mV/V (green), 25 mV/V (yellow) and 30 mV/V (red) from the inversion on the data after regional signal removed.

Results – Banker Grid

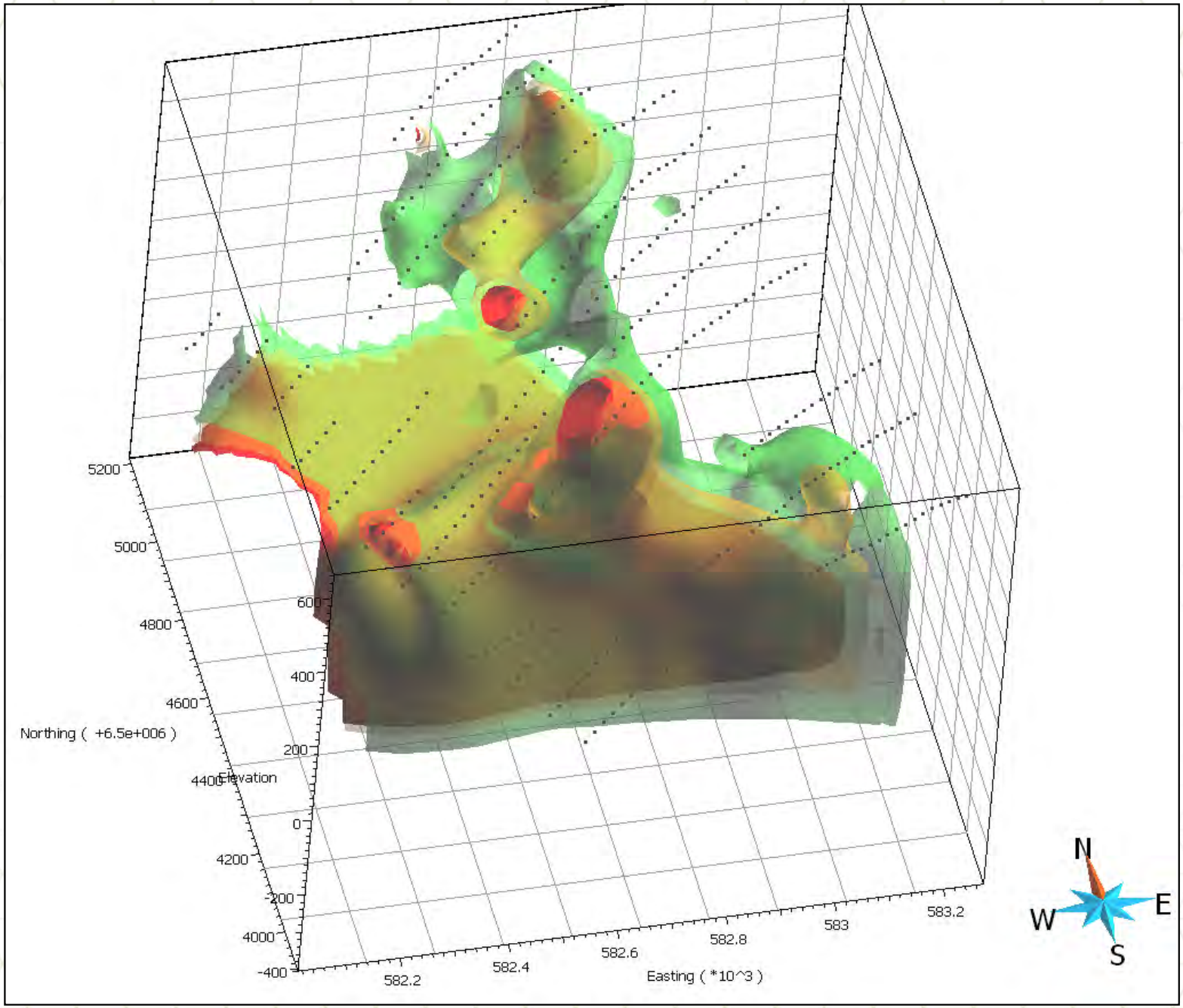

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Figure 20: Perspective view showing chargeability iso-surfaces of 15 mV/V (green), 25 mV/V (yellow) and 30 mV/V (red) from the Compactness inversion on the data after regional signal removed.

Results – Big Bull Grid

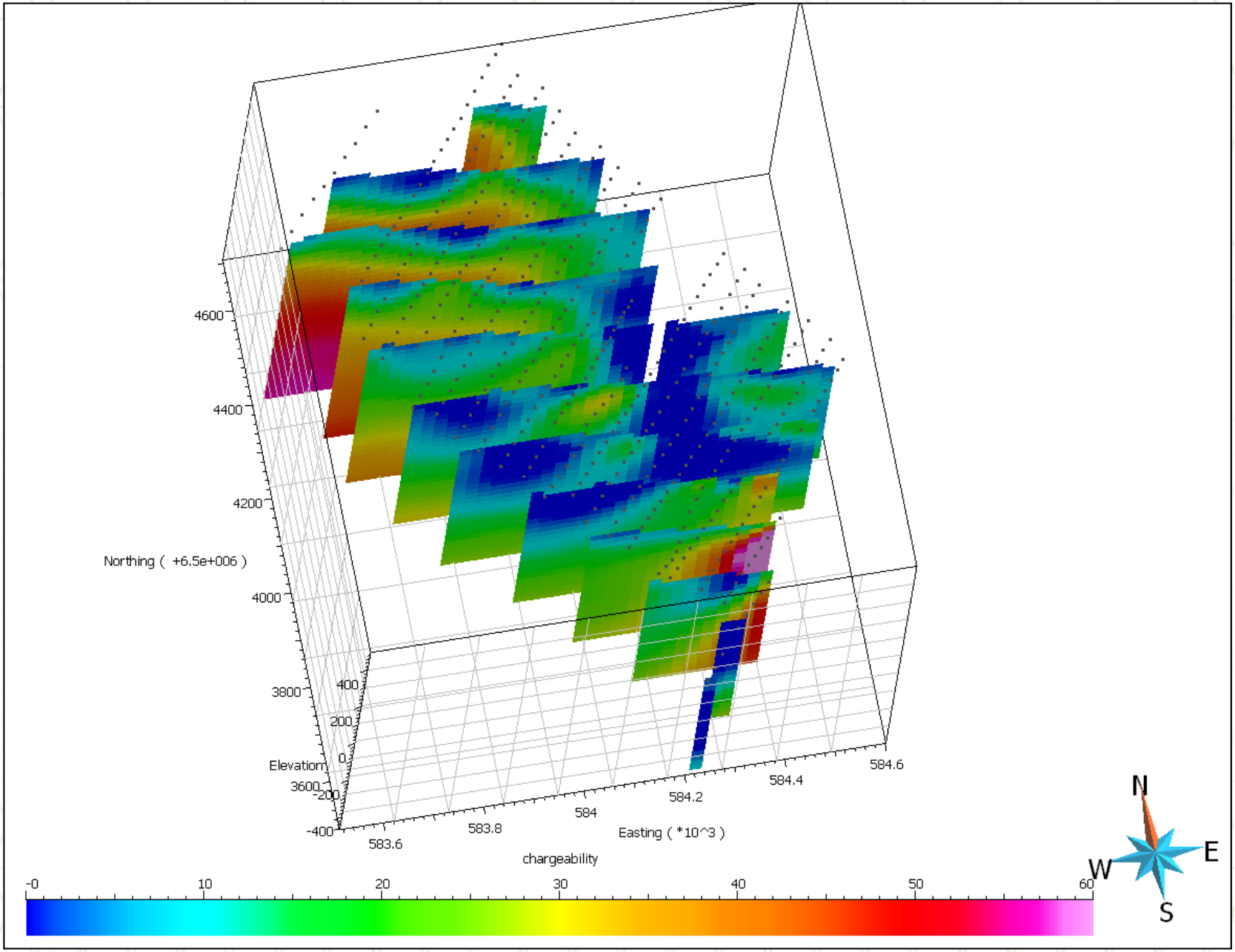

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Figure 21: Perspective view showing the chargeability model sections (in mV/V) from the inversion on the original data. The survey stations are also represented (dots).

Results – Big Bull Grid

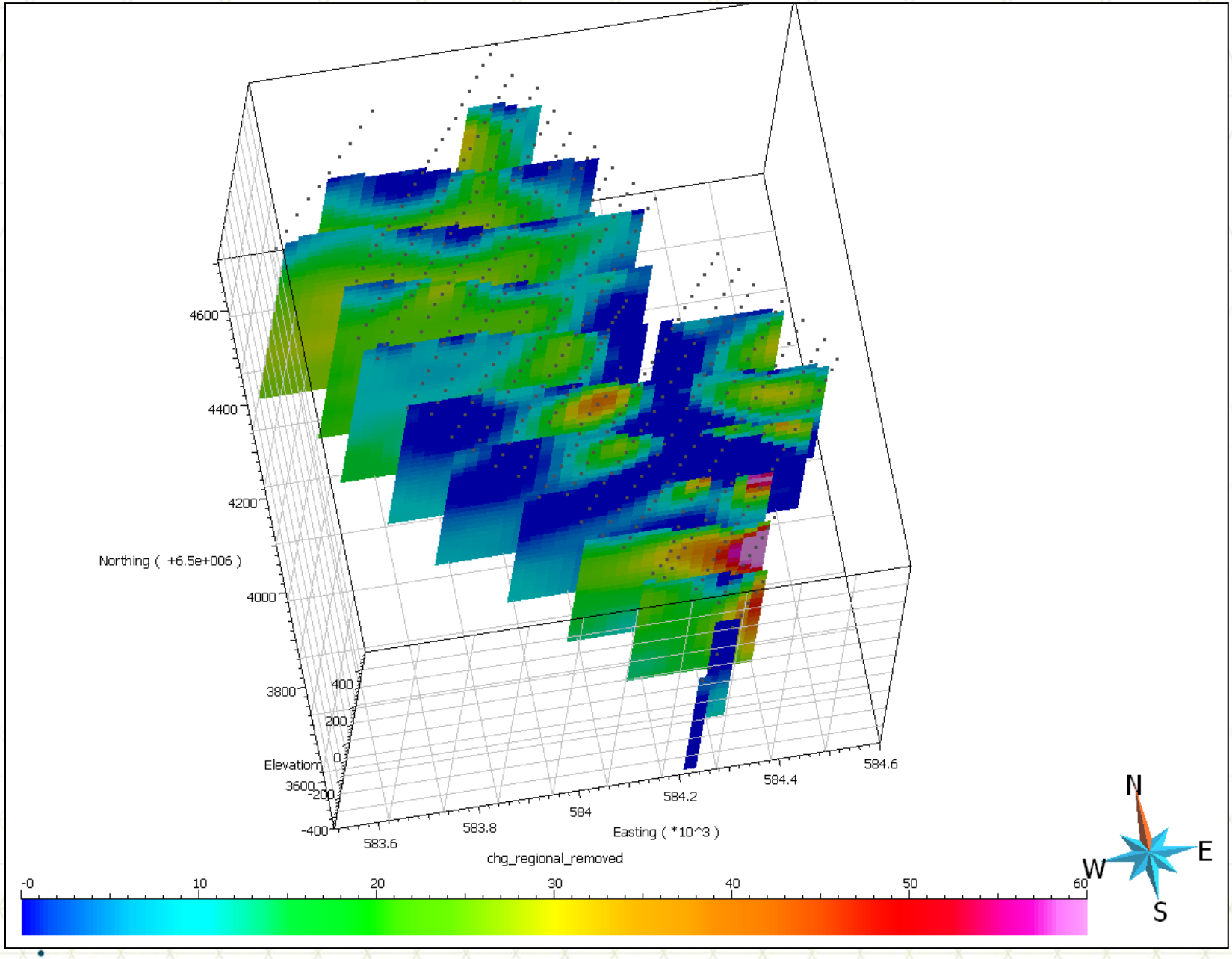

Figure 22: Perspective view showing the chargeability model sections (in mV/V) from the inversion on the data after regional signal removed.

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Results – Big Bull Grid

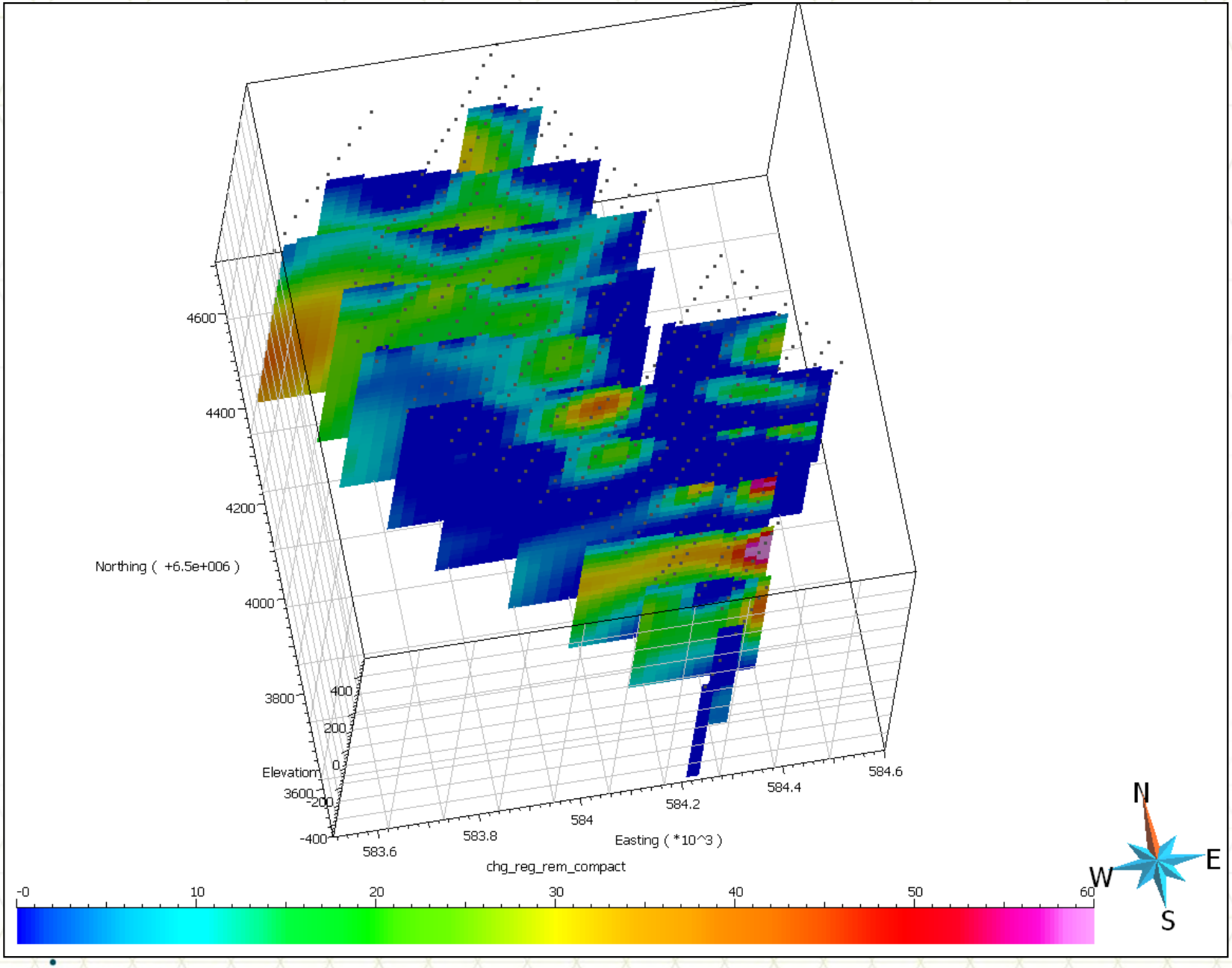

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Figure 23: Perspective view showing the chargeability model sections (in mV/V) from the Compactness inversion on the data after regional signal removed.

Results – Big Bull Grid

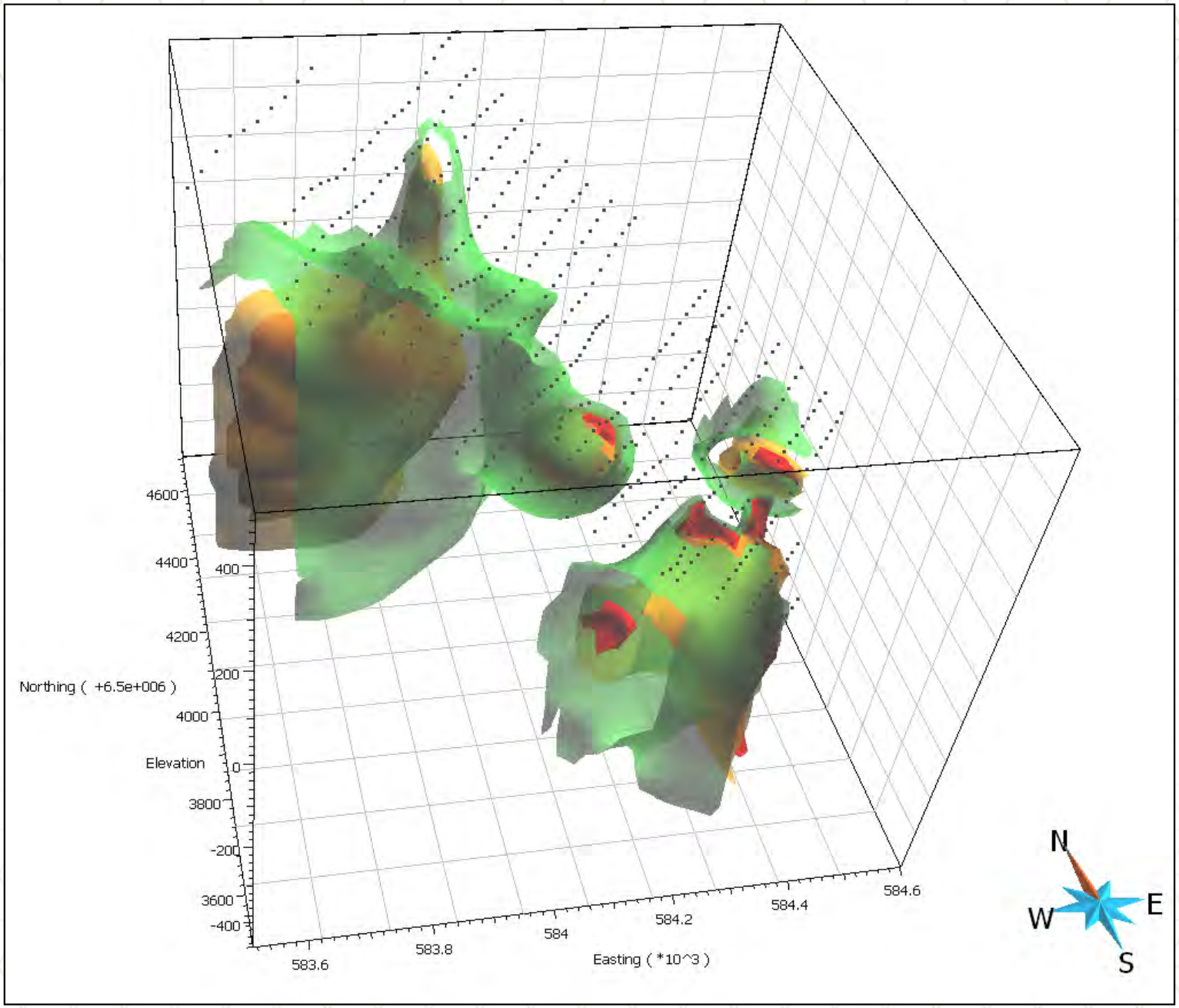

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Figure 24: Perspective view showing chargeability iso-surfaces of 15 mV/V (green), 25 mV/V (yellow) and 30 mV/V (red) from the inversion on the data after regional signal removed.

Results – Big Bull Grid

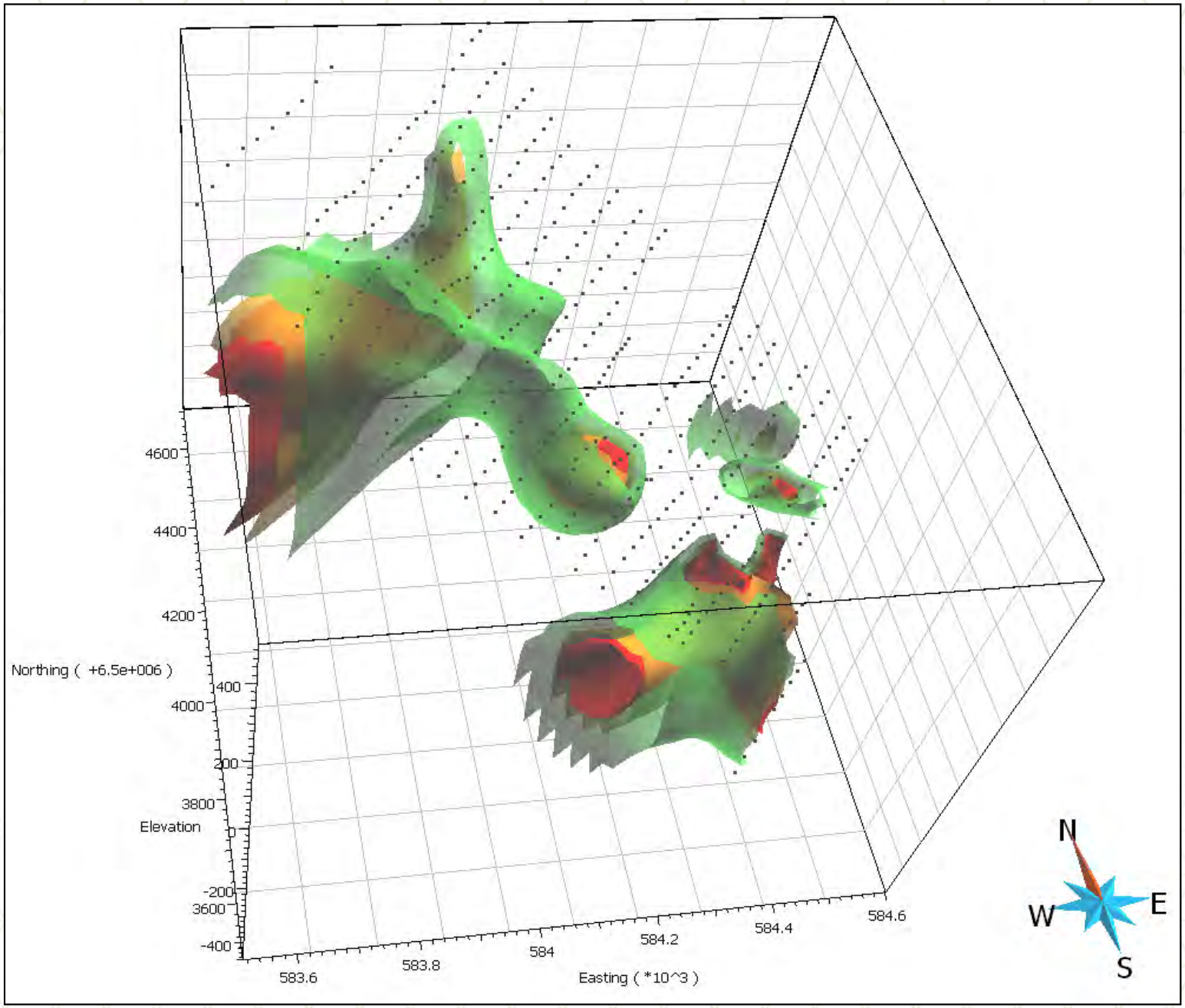

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Figure 25: Perspective view showing chargeability iso-surfaces of 15 mV/V (green), 25 mV/V (yellow) and 30 mV/V (red) from the Compactness inversion on the data after regional signal removed.

Conclusion and Recommendations

- 3D inversions have been performed on the gradient-array IP survey lines of the Southeast Grid, Banker Grid and Big Bull Grid at the Tulsequah project area.

- Apart from small-scale chargeable features, most of the sources have been well represented in the models as shown by the good agreement between the observed field data and the data predicted by the inversion modelling results.

- Large gaps between survey stations (i.e. “holes in the data) are present at the Banker and Big Bull Grids. Therefore, the chargeability distribution interpolated under these gaps remain uncertain and should be interpreted with caution.

- After the regional signal was removed from the datasets, a large scale chargeable anomaly remains at depth for the three grids. These chargeable anomalies are in the south part of the Southeast Grid, the northern part of the Banker Grid and the northern part of the Big Bull Gird. The Compactness inversions performed on the three datasets enhanced the geometry of shallow chargeable anomalies.

- In order to improve the resolution of the deeper anomalies, further DC and IP survey work is recommended using pole-dipole or dipole-dipole arrays over areas of interest.

- At this stage, any available geologic or physical property information (such as mapping and drilling results) can be included in order to perform constrained inversions.

- The inversion models should be correlated with known targets and existing results from past exploration activities such as prospecting, geologic mapping, ground geophysical surveys and drilling.

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Project Deliverables

Format	Name	Description
PPT	3D Induced Polarisation Modelling Phase 2: Tulsequah Project, BC for Chieftain Metals Inc.	Procedure report detailing the unconstrained IP inversions process and results.
DXF	Example filenames: iso_chg_15_withregional.dxf iso_chg_15_regionalremoved.dxf iso_chg_15_compactness.dxf	Chargeability iso-surfaces (in mV/V) in DXF format from the inversions on the original data, after regional signal removed and from the Compactness inversion.
UBC-GIF - ASCII	Example filenames: Mesh_SE.msh Chargeability.cha cha_regional_rem.cha cha_regional_rem_compactness.cha	Mesh file (.msh) for the chargeability models (.cha) from the inversion on the original data, the data corrected from the regional signal and the Compactness inversion in UBC-ASCII format.

Table 4: Project Deliverables

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Project Deliverables

Format	Name	Description
Gocad	TulsequahChief_IP_Modelling_Phase2.gprj	Gocad compilation project.
Geosoft Binary Grid	chg_regional_rem_compactness_Northing_ chg_regional_rem_compactness_Easting_ chg_regional_rem_compactness_Elevation_ chg_regional_rem_Northing_ chg_regional_rem_Easting_ chg_regional_rem_Elevation_	Vertical and horizontal sections through the chargeability models in 2D binary grid file format.

Table 4: Project Deliverables, continued

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2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX IX

COMPUTER SOFTWARE

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

A list of the computer software used in the execution and reporting of the 2013 Tulsequah Project Magnetic and Induced Polarization 3D Inversion study:

Gems 6.5 - Gemcom Software International

General mining package software with Microsoft Access database for storage of drillhole data. Used heavily for interpretations with the drill holes visualized in 3 dimensions and various plan, vertical and inclined sections. The delivered geophysical iso-shells are also modeled in this package.

Mapinfo v.11 & Discover 2011 – Pitney Bowes

Geographic information system (GIS) software used for surface mapping data and analysis.

Microsoft Access 2010

Microsoft Access database was used with field laptops for direct digital data entry by the logging geologists in the core shack. A subsequent text file export of the complete drill log was imported into the gems drillhole database. Access was also used to link to the gems database and generate the drill log reports.

SProcess v1.9 – Reflex Instruments

Part of the Maxibor II survey system with the software used to download and process the survey data.

Geocalculator v.4.9.3 – Holcombe Coughlin & Associates Australia

Used for calculating the strike and dip using the drillhole orientation information and the oriented core alpha and beta measurements.

UBC-GIF MAG3Dinv

Used in combination with the compactness algorithm by Mira Geoscience for inversion of magnetic and gradient array induced polarization data sets; producing physical properties models of magnetic susceptibility and chargeability.

Gocad

GIS 3D modeling program used by Mira Geoscience.

2013 Tulsequah Project:
Tulsequah Chief and Banker Exploration Drilling

APPENDIX X

STATEMENT OF EXPENDITURES

Tulsequah River Area
Northwestern BC
NTS 104K/12

Atlin Mining Division

Latitude 58°44'N, Longitude 133°35'W

Owner & Operator:

Chieftain Metals Inc.
2 Bloor Street West, Suite 2510
Toronto, Ontario

The cost statement lists the eligible exploration expenses incurred during Chieftain Metals 2013 $1.2M Tulsequah Project exploration program was conducted over 63 days with 3,540m of NQ coring in 9 drill holes. Seven holes were drilled on Chieftain Crown Grants : 5668, 5670, 5676, 5679, covered by Chieftain Mineral Claims 590422'TCMINE'; One hole on Crown Grants 6165, 6166: covered by Chieftain Mineral Claims 1011222'BANKER' and 513820. One hole TC13067 was drilled on Both Crown Grant 5670 and Mineral claim 590422'TCMINE' from 560m to 588m depth. From the full program cost of $1.2M, the partial $266,148.11 in costs directly related to DDH TC13067 drilled on Mineral claim 590422'TCMINE' is being registered in this statement of exploration and development expenses, including: drilling mob/demob (15 days); technical costs (4 days); proportioned total program support costs(15/63 days); proportioned program planning and execution costs(1/9 drill holes).

Exploration Work type		**Comment**	**Days**			**Totals**
Personnel (Name) / Company	**Position**	**Field Days (list actual days)**	**Days**	**Rate**	**Subtotal**	
Exploration Manager	Exploration Manager	5/9/13 - 6/9/13 (2); 26/09/13 - 28/09/13 (2); 17/10/13 - 29/10/13 (13)	17	$555.84	$9,449.35	
Exploration Geologist1	Exploration Geologist	26/10/13 - 29/10/13 (4)	4	$563.16	$2,252.63	
Consulting Geologist	Consulting Geologist	20/9/13-21/9/13 (2)	2	$895.24	$1,790.48	
Core Technician1	Core Technician	28/10/13 - 30/10/13 (3)	3	$325.68	$977.03	
Core Technician	Core Technician	29/10/13 - 28/10/13 (1.5)	1.5	$314.47	$471.71	
Camp Manager	Camp Manager	5/9/13 - 6/9/13 (2); 17/10/13 - 29/10/13 (13)	15	$547.30	$8,209.57	
Camp Maintenance	Camp Maintenance	5/9/13 - 6/9/13 (2); 17/10/13 - 29/10/13 (13)	15	$364.87	$5,473.01	
Cook1	Cook	5/9/13 - 6/9/13 (2); 17/10/13 - 29/10/13 (13)	15	$423.03	$6,345.49	
Cook's Assistant	Cook's Assistant	5/9/13 - 6/9/13 (2); 17/10/13 - 29/10/13 (13)	15	$260.25	$3,903.69	
						$38,872.96
Office Studies		**List Personnel (note - Office only, do not include field days)**			**Subtotal**	
Exploration Manager	Planning		1.1	$517.51	$575.01	
Exploration Manager	Database compilation		0.6	$517.51	$287.51	
Exploration Manager	Computer modeling		0.6	$517.51	$287.51	
Exploration Manager	Report preparation		1.1	$517.51	$575.01	
Consulting Geologist	Database compilation		1.1	$850.00	$944.44	
Consulting Geologist	Computer modeling		1.1	$850.00	$944.44	
Consulting Geologist	Planning		1.1	$850.00	$944.44	
Exploration Geologist1	Database compilation		1.1	$510.03	$566.70	
Exploration Geologist1	Report preparation		1.1	$510.03	$566.70	
Exploration Geologist2	Computer modeling		1.7	$510.03	$850.05	

Exploration Work type		Comment	Days			Totals
Exploration Geologist2	Report preparation		0.6	$510.03	$283.35	
Mira Geoscience	Reprocessing of data				$15,880.00	
						$22,705.17
Geochemical Surveying		**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Drill core Assays			20.0	$46.84	$936.85	
Drill Core Whole Rock Assays			1.0	$61.17	$61.17	
						$998.03
Drilling		**No. of Holes, Size of Core and Metres**	**No.**	**Rate**	**Subtotal**	
Drilling		9 Holes, NQ: 3,540m	588.00	$107.57	$63,252.00	
Reflex Rental		Maxibor, ACT-II, APS Finder			$4,766.66	
Fuel				$1.29	$2,960.29	
Pad Building					$2,292.68	
Pad Timber					$902.50	
						$74,174.12
Transportation			**No.**	**Rate**	**Subtotal**	
Airfare		Whitehorse to Vancouver			$690.99	
Taxi		Whitehorse to Atlin			$190.89	
Hotel		Whitehorse			$265.86	
Meals					$142.30	
Fixed Wing					$57,621.76	
Helicopter including fuel					$40,824.52	
Vehicle Fuel				$1.29	$617.35	
						$100,353.66
Accommodation & Food		**Rates per day**		**Rate**	**Subtotal**	
Groceries					$7,992.34	
Camp Generator Fuel				$1.29	$4,747.02	
Camp Supplies					$2,414.78	
						$15,154.14
Miscellaneous					**Subtotal**	
Communication					$807.56	
Office Supplies					$333.94	
Supplies					$1,418.40	
Software					$5,181.16	
						$7,741.07
Freight, rock samples					**Subtotal**	
Shipping					$506.47	

Exploration Work type	Comment	Days		Totals
Expediting			$5,642.50	
				$6,148.97

TOTAL Claim Maintenance Expenditures - Claim 590422 'TCMINE' **$266,148.11**

Work Conducted 2013/sep/5 - 2013/oct/29; Mines Act Permit MX-1-910; Approval 13-0100019-0816; Property Tulsequah Chief: M-232

Event Number: 5516065, 5-Aug-2014

Exploration Work type		Comment	Days	
Personnel (Name) / Company	**Position**	**Field Days (list actual days)**	**Days**	**Rate**
Exploration Manager	Exploration Manager	5/9/13 - 6/9/13 (2); 26/09/13 - 28/09/13 (2); 17/10/13 - 29/10/13 (13)	17	$555.84
Exploration Geologist1	Exploration Geologist	26/10/13 - 29/10/13 (4)	4	$563.16
Consulting Geologist	Consulting Geologist	20/9/13-21/9/13 (2)	2	$895.24
Core Technician1	Core Technician	28/10/13 - 30/10/13 (3)	3	$325.68
Core Technician	Core Technician	29/10/13 - 28/10/13 (1.5)	1.5	$314.47
Camp Manager	Camp Manager	5/9/13 - 6/9/13 (2); 17/10/13 - 29/10/13 (13)	15	$547.30
Camp Maintenance	Camp Maintenance	5/9/13 - 6/9/13 (2); 17/10/13 - 29/10/13 (13)	15	$364.87
Cook1	Cook	5/9/13 - 6/9/13 (2); 17/10/13 - 29/10/13 (13)	15	$423.03
Cook's Assistant	Cook's Assistant	5/9/13 - 6/9/13 (2); 17/10/13 - 29/10/13 (13)	15	$260.25
Office Studies		**List Personnel (note - Office only, do not include field days)**		
Exploration Manager	Planning		1.1	$517.51
Exploration Manager	Database compilation		0.6	$517.51
Exploration Manager	Computer modeling		0.6	$517.51
Exploration Manager	Report preparation		1.1	$517.51
Consulting Geologist	Database compilation		1.1	$850.00
Consulting Geologist	Computer modeling		1.1	$850.00
Consulting Geologist	Planning		1.1	$850.00
Exploration Geologist1	Database compilation		1.1	$510.03
Exploration Geologist1	Report preparation		1.1	$510.03
Exploration Geologist2	Computer modeling		1.7	$510.03
Exploration Geologist2	Report preparation		0.6	$510.03
Mira Geoscience	Reprocessing of data			
Geochemical Surveying		**Number of Samples**	**No.**	**Rate**
Drill core Assays			20.0	$46.84
Drill Core Whole Rock Assays			1.0	$61.17
Drilling		**No. of Holes, Size of Core and Metres**	**No.**	**Rate**
Drilling		9 Holes, NQ: 3,540m	588.00	$107.57
Reflex Rental		Maxibor, ACT-II, APS Finder		
Fuel				$1.29
Pad Building				
Pad Timber				
Transportation			**No.**	**Rate**
Airfare		Whitehorse to Vancouver		
Taxi		Whitehorse to Atlin		
Hotel		Whitehorse		
Meals				
Fixed Wing				
Helicopter including fuel				
Vehicle Fuel				$1.29
Accommodation & Food		**Rates per day**		**Rate**
Groceries				

Camp Generator Fuel	$1.29
Camp Supplies	
Miscellaneous	
Communication	
Office Supplies	
Supplies	
Software	
Freight, rock samples	
Shipping	
Expediting	

TOTAL Claim Maintenance Expenditures - Claim 590422 'TCMINE'

The cost statement lists the eligible exploration expenses incurred during Chieftain Metals 2013 $1.2M Tulsequah Project exploration prog days with 3540m of NQ coring in 9 drill holes. Seven holes were drilled on Chieftain Crown Grants : 5668, 5670, 5676, 5679, covered by 590422'TCMINE'; One hole on Crown Grants 6165, 6166: covered by Chieftain Mineral Claims 1011222'BANKER' and 513820. One hole Crown Grant 5670 and Mineral claim 590422'TCMINE' from 560m to 588m depth. From the full program cost of $1.2M, the partial $266, related to DDH TC13067 drilled on Mineral claim 590422'TCMINE' is being registered in this statement of exploration and development ex mob/demob (15 days); technical costs (4 days); proportioned total program support costs(15/63 days); proportioned program planning a holes).

Brett Armstrong - Exploration Manager - 5-Aug-2014

Work Conducted 2013/sep/5 - 2013/oct/29; Mines Act Permit MX-1-910; Approval 13-0100019-0816; Property Tulsequah Chief: M-232

Event Number: 5516065

	Totals
Subtotal	
$9,449.35	
$2,252.63	
$1,790.48	
$977.03	
$471.71	
$8,209.57	
$5,473.01	
$6,345.49	
$3,903.69	
	$38,872.96
Subtotal	
$575.01	
$287.51	
$287.51	
$575.01	
$944.44	
$944.44	
$944.44	
$566.70	
$566.70	
$850.05	
$283.35	
$15,880.00	
	$22,705.17
Subtotal	
$936.85	
$61.17	
	$998.03
Subtotal	
$63,252.00	
$4,766.66	
$2,960.29	
$2,292.68	
$902.50	
	$74,174.12
Subtotal	
$690.99	
$190.89	
$265.86	
$142.30	
$57,621.76	
$40,824.52	
$617.35	
	$100,353.66
Subtotal	
$7,992.34	

$4,747.02	
$2,414.78	
	$15,154.14
Subtotal	
$807.56	
$333.94	
$1,418.40	
$5,181.16	
	$7,741.07
Subtotal	
$506.47	
$5,642.50	
	$6,148.97
	$266,148.11

gram was conducted over 63
' Chieftain Mineral Claims
TC13067 was drilled on Both
,148.11 in costs directly
xpenses, including: drilling
and execution costs(1/9 drill