ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: 2014 Geochemical Assessment Report on the Sphal and Kim Claims

TOTAL COST:

AUTHOR(S): Carpenter, Alicia N.
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5530718

YEAR OF WORK: 2014

PROPERTY NAME: Kim Claims, Sphal Claims

CLAIM NAME(S) (on which work was done): 226788, 227134

COMMODITIES SOUGHT: Copper, Gold

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN:

MINING DIVISION: Liard
NTS / BCGS: 104G03
LATITUDE: _____57_____° ___02_____’ __32_____"
LONGITUDE: _____131_____° _____19_____’ ____03____" (at centre of work)
UTM Zone: EASTING: NORTHING:

OWNER(S): Galore Creek Mining Corporation

MAILING ADDRESS:
Suite 3300, 550 Burrard Street
Vancouver, BC
V6B 0B3

OPERATOR(S) [who paid for the work]: Galore Creek Mining Corporation

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

Stikine Assemblage, Stuhini Group, volcanics, porphyry, copper, gold, chalcopyrite, malachite, Paleozoic, Jurassic, monzonite, andesite, breccia, potassic alteration, Trek, Tangle zone, Wall zone, Galore Creek, Sphaler Creek, E-W shear zone, NE trending structures and dykes.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
1990 Geological, Geochemical and Geophysical Report on the Trek 1-6 Claims (AR #20956)
1988 Summary Report on the Trek 1-6 Claims (AR #18115)
1993 Drilling Report on the Trek 1-6 Claims (AR #23394)
2011 Geological, Geophysical, and Geochemical Report on the Trek Property (AR #32866)
1981 Report on Rock Chip Sampling of Sphal 7-12, 19-33, Kim 1-10, 38, 40 and 42, Sphal Fraction (AR #9614)
1980 Report on Geological Mapping, Magnetometer and Soil Sampling Surveys of Sphal 7-12, 19-33, Kim 1-10, 38, 40 and 42, Sphal Fraction (AR #8424)
1989 Rock Chip Sampling on Sphal 25, 27, 29, 31 and 33 and Kim 38, 40 and 42 claims (AR #19083)
2006 Geological and Geochemical Report on the Trek Property (AR #28624)
1964 Sphaler Creek Examination, Goat & Kim Claims (AR #565)

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			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for …)			
Soil			
Silt			
Rock	8 ICP	226788, 227134	5,295.06
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			
Petrographic			
Mineralographic			
Metallurgic			
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	Report Prep	226788, 227134	1,036
		TOTAL COST	6,331.06

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2014 GEOCHEMICAL ASSESSMENT REPORT ON THE SPHAL AND KIM CLAIMS

Event Number: 5530718
Claims Worked On: 226788 & 227134

Located in the Galore Creek Area
Liard Mining Division
British Columbia, Canada

NTS Map Sheet 104G03
BCGS Map Sheet 104G.004
57° 02' 32" North Latitude
131° 19' 03" West Longitude

Owned & Operated by
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January, 2015

TABLE OF CONTENTS

TABLE OF FIGURES

TABLES

APPENDICES

1.0 INTRODUCTION

The Kim-Sphal property is located in northwestern British Columbia, approximately 160 kilometres north of Stewart, and 12 km SE of the Galore Creek project. The claims are enclosed by the Trek property currently owned and operated by Romios Gold Resources. The property consists of 8 mineral claims totaling 200 hectares, and is owned by the Galore Creek Mining Corporation, a jointly controlled operating company established to direct the operation of the Galore Creek Project. Teck Cominco Ltd. and NovaGold Resources Inc. each hold a 50% interest in this partnership created to develop the Galore Creek copper-gold project. The 2014 field program on the Kim-Sphal claims was completed under the direction and effort of the Galore Creek Mining Corporation.

The claims are bisected by Sphaler Creek and the unfinished Galore Creek access road. The road begins approximately 15 kilometres north of the Bob Quinn Airstrip on the Stewart-Cassiar Highway and will, upon completion, provide access to the Galore Creek alkalic porphyry deposit 125 kilometres to the west.

This report documents the geological mapping and sampling program completed between August 16th and August 21st, 2014 on the Kim-Sphal property. The geochemical sampling and geological mapping program was conducted on mineral claims 226788 & 227134.

The claims contain Triassic Stuhini volcanic rocks, with monzonite dykes suspected to be of early Jurassic age. Copper mineralization within the claims is primarily associated with the contact zone between these two lithologies, as well as in mineralized breccia zones. The surrounding Trek property is an actively explored Cu-Au porphyry project, with a number of drill holes intercepting Cu-Au porphyry style mineralization.

The 2014 geochemical sampling and mapping program focused on the confirmation of copper values from sampling conducted in 2006 for Romios Gold Resources at the Tangle zone. Nine samples were taken within the Sphal claims during this 2006 program, all with anomalous copper values, and with one sample returning a value of 16.5% copper.

Figure 1: General Location Map

2.0 LOCATION, ACCESS & PHYSIOGRAPHY

The Kim-Sphal property lies in the Coast Range Mountains of northwestern British Columbia, approximately 160 km northwest of Stewart. The claims straddle Sphaler Creek, approximately fifteen kilometers above its confluence with the Porcupine River, and are currently only accessible by helicopter. The Galore Creek access road runs through the claims, south of Sphaler creek, and upon completion the claims will be accessible from HWY 37, north of Bob Quinn airport.

The 2014 field program was based out of the Schaft Creek camp owned and operated by Teck Resources Ltd., located north of the claims. During the 2014 field season the Schaft Creek camp was accessed by Hawk Air flights to the Dease Lake Airstrip from Vancouver via Smithers or Terrace. Helicopter travel between Dease Lake, Schaft Creek camp, and the Kim-Sphal claims was operated by Pacific Western Helicopters.

Topography is rugged, with elevations ranging between 500 metres on Sphaler Creek to over 1300 metres on the peak in the southeast corner of the property. The Kim claims follow a very steep mountain stream. Most of the mineralized zones found to date lie between 600 and 1300 metres in elevation on the south side of Sphaler Creek. Lower slopes are covered by a dense growth of hemlock and spruce with an undergrowth of devil's club and huckleberry. Steeper open slopes are covered by dense slide alder growth. Open alpine vegetation is present above tree line, which lies near 1200 metres on south-facing slopes and 1050 metres on north-facing slopes. Both summer and winter temperatures are moderate although annual rainfall may exceed 200 cm and several metres of snow commonly fall at higher elevations. The property can be worked from mid-June until October (Simmons, 2006).

3.0 EXPLORATION HISTORY

The Sphal-Kim claims are located in a well known porphyry district. They are located just 12km SE of the Galore Creek Cu-Au alkaline porphyry, and are surrounded by the Trek claims operated by Romios Gold Resources Inc.

Mineralization was first discovered in the upper Galore Creek valley in 1955 by M. Monson and W. Buchholz while prospecting for a subsidiary of Hudson Bay. Work conducted since discovery in 1955 outlined a significant copper-gold-silver mineralized zone in the Central Zone and identified several satellite mineralized zones.

Mineralization was discovered south of Sphaler creek in 1957, but not staked until 1962 by the BIK syndicate and Kennco Exploration. Between 1963 and 1970 they conducted geologic mapping and chip sampling programs, 3km of magnetic and I.P. surveys (Hallof, 1965), as well as seven diamond drill holes on the south side of Sphaler creek. The programs consistently returned anomalous copper and gold values associated with monzonite dykes, which cut Stuhini sediments and volcanics. Geochemical sampling and mapping was conducted in the claims in 1980, 1981 and again in 1989 by Silver Standard Resources (Folk, 1981).
BIK and Kennco Exploration eventually dropped all but the current 8 Sphal-Kim claim blocks which were sold to NovaGold Resources in 2004.

The Trek property surrounds the Kim-Sphal claims and was staked in 1987 by Equity Engineering Ltd. Due to the nature of the enclosed Kim-Sphal claims, work on the Trek claims often crosses into the Sphal-Kim block. Between 1988-1990 Lorica Resources Ltd carried out a number of soil, mag, and VLF lines on the claims, resulting in the discovery of the Wall zone, partially located in the Galore Creek Mining Corporation owned Sphal claims (Awmack, 1991). Warner Ventures optioned the Trek property in 1993 and drilled six holes (Baknes, 1994).

In 2006, Romios Gold completed geological sampling and mapping on the Trek property, which included sections of the enclosed Kim-Sphal claims. The sampling program returned a number of significant copper samples from the “Tangle” zone. Nine of these samples were taken within the current Sphal claim boundaries, with the highest grade sample returning an assay of 16.5% copper. The Tangle zone consists of massive chalcopyrite and pyrite veins associated with N-NE trending monzonite dykes. Soil sampling over the same zone indicates an anomaly over a large area, indicating the potential for underlying porphyry style mineralization (Simmons, 2006).

A diamond drilling program was completed by Romios in 2009 in the North zone, directly north of the Kim claims. Copper-gold porphyry mineralization was intersected in all nine holes. In

2010, Romios completed 8 diamond drilling holes, ground geophysics, and soil and rock sampling. The 2011 exploration season, led by Romios, consisted of a 15 hole diamond drilling program, ground geophysics, geological mapping, and a geochemical rock sampling program. This program included two drill holes in the Tangle Zone, just west of the 2014 Kim-Sphal field program. These drill holes intercepted massive pyrite associated with an interpreted thrust fault, with associated potassic alteration (Close & Danz, 2012).

The 2014 program focused on verifying assays collected within the Tangle/Wall zone identified by Equity Engineering in the 2006 program, and on collecting samples representing typical mineralization surrounding the high grade zones.

4.0 LAND TENURE AND CLAIM STATUS

The Kim-Sphal property consists of 8 mineral claims totalling 200 hectares. The claims are listed in Table 1 and displayed on a claim map in Figure 2. This report covers work completed on the Kim-Sphal property between August 16th and August 21st, 2014.

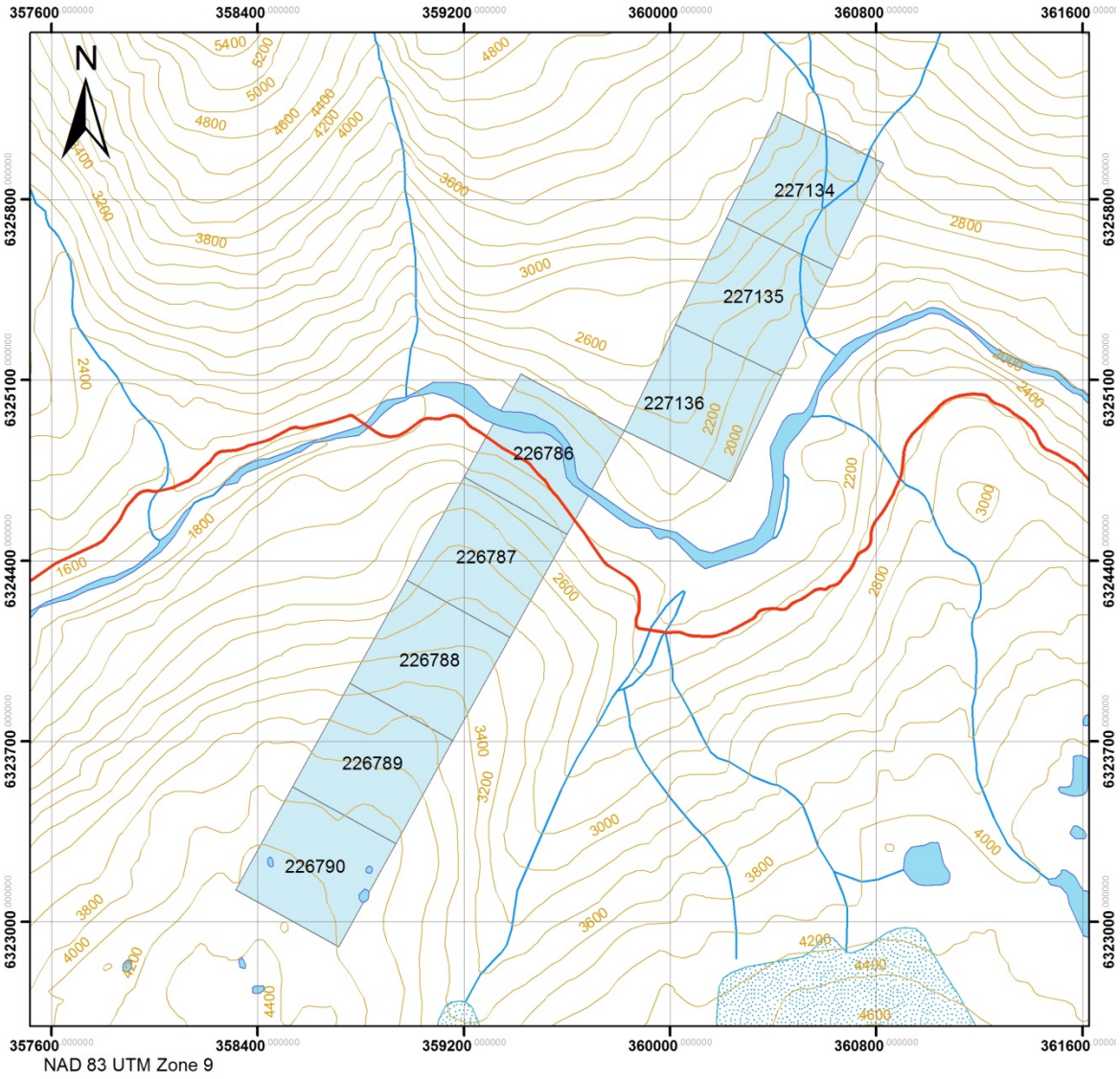
The 2014 field work at the Kim-Sphal claims consisted of geochemical sampling. Six (6) rock samples were taken for geochemical analysis from claims 227134 and 226788, and applied to selected and contiguous claims held by the Galore Creek Mining Corporation. Under Event Number 5530718, assessment work was applied to the claims listed in Table 1, which will be advanced to March, 2019, subject to government approval.

Table 1: Land tenure and Claim Status

Tenure No.	Claim Name	Owner	Good To Date	Area (ha.)
226786	SPHAL #25 M.C.	Galore Creek Mining Corp.	2019/Mar/31	25
226787	SPHAL #27 M.C.	Galore Creek Mining Corp.	2019/Mar/31	25
226788	SPHAL #29 M.C.	Galore Creek Mining Corp.	2019/Mar/31	25
226789	SPHAL #31 M.C.	Galore Creek Mining Corp.	2019/Mar/31	25
226790	SPHAL #33 M.C.	Galore Creek Mining Corp.	2019/Mar/31	25
227134	KIM #38	Galore Creek Mining Corp.	2019/Mar/31	25
227135	KIM #40	Galore Creek Mining Corp.	2019/Mar/31	25
227136	KIM #42	Galore Creek Mining Corp.	2019/Mar/31	25
Totals:	8 Claims		Area:	200

Note: Good to Dates indicated above are subject to the Government approval of Assessment Report filed under Event No. 5530718.

Figure 2: Kim-Sphal Property Claim Map



Sphaler-Kim Property Claim Map
Figure 2

Compiled by Alicia Carpenter
December 2014

500 250 0 500 Meters

Legend

- Sphaler-Kim Claims
- Galore Creek Access Road
- Icefields
- Lakes
- Rivers

5.0 2014 SUMMARY OF WORK

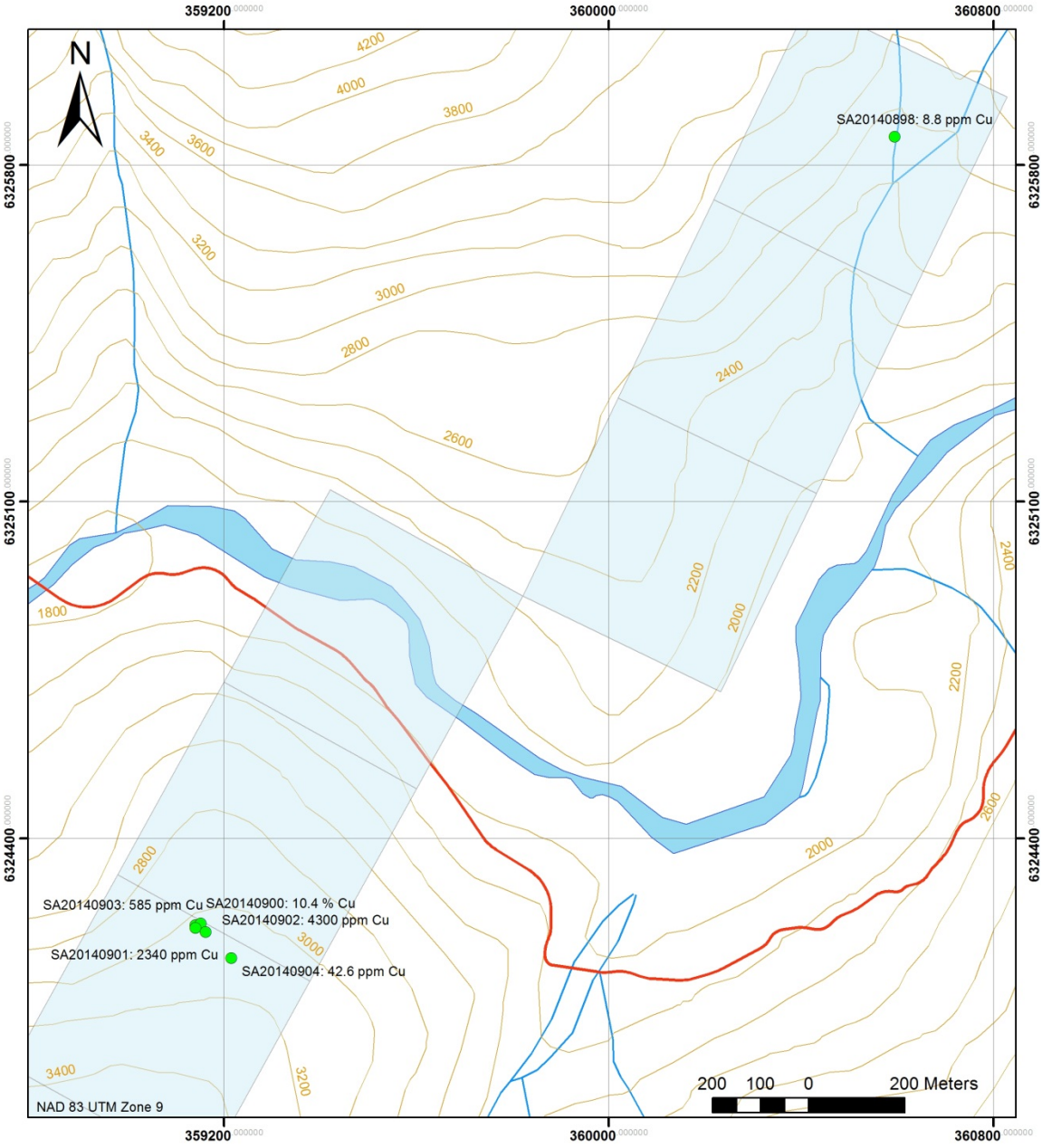
The 2014 Galore Creek Mining Corporation field program consisted of 1.5 field days of field work conducted between August 16th and August 21st at a cost of $6,331.06. Six rock samples

were collected for geochemical analysis from claims 227134 and 226788 (Figure 3). The focus of the field work was to confirm significant copper anomalies of the Tangle zone identified by Equity Engineering on the Trek property (Simmons, 2006), and to identify possible Cu porphyry mineralization in the area of these anomalies, by collecting representative rock chip samples across outcrop. This report discusses the work completed during this period. Details of the reported assessment work expenditures can be found in Appendix II.

On November 14, 2014, under Event Number 5530718, assessment work totalling $6,300 and PAC credits totalling $2,686.62 were applied to the Kim-Sphal claims in Table 1, with the claim expiry date advancing to March 31, 2019 upon government approval of this assessment report.

Helicopter support for the project was provided by Pacific Western Helicopters, of Prince George, BC. The following helicopter was supplied under charter arrangement or sublease: one Eurocopter (Astar) AS350B2.

Figure 3: Geochemical Sample Results



Sphal-Kim 2014 Sampling Results
Figure 3

Legend

- 2014 ICP samples
- Sphaler-Kim Claims
- Galore Creek Access Road
- Icefields
- Rivers

Compiled by Alicia Carpenter December 2014

6.0 GEOLOGY

6.1 Regional Geology

The following description of the regional geology is an excerpt from Simpson (2003). It has been divided into three parts: stratigraphy, intrusives, and structure.

The Sphal-Kim claims lie in the Stikinia Terrane, an accreted package of Mesozoic volcanic and sedimentary rocks intruded by Cretaceous to Eocene plutonic and volcanic rocks. The eastern boundary of the Coast Plutonic complex lies about 7 kilometres to the west of the claims. The property lies within a regional transcurrent structure known as the Stikine Arch.

Stratigraphy

Stikine Terrane at this latitude can be grouped into four tectonostratigraphic successions. The first, and most important one in this area, is a Late Paleozoic to Middle Jurassic island arc suite represented by the Stikine assemblage of Monger (1970), the Stuhini Group (Kerr, 1948) and Hazelton Group equivalent rocks. The other successions are; Middle Jurassic to early Late Cretaceous successor-basin sediments of the Bowser Lake Group (Tipper and Richards, 1976); Late Cretaceous to Tertiary transtensional continental volcanic-arc assemblages of the Sloko Group (Aiken, 1959); and Late Tertiary to Recent post-orogenic plateau basalt bimodal volcanic rocks of the Edziza and Spectrum ranges.

The oldest stratigraphy in the area is known as the Stikine assemblage and comprises Permian and older argillites, mafic to felsic flows and tuffs. These rocks grade upward into two distinctive Mississippian limestone members separated by intercalated volcanics and clastic sediments. The topmost stratigraphy consists of two regionally extensive Permian carbonate units which suggest a stable continental shelf depositional environment.

The Middle to Upper Triassic Stuhini Group unconformably overlies the Stikine assemblage. Stuhini Group rocks comprise a variety of flows, tuffs, volcanic breccia and sediments, and are important host rocks to the alkaline-intrusive related gold-silver-copper mineralization at Galore Creek. They define a volcanic edifice centered on Galore Creek and represent an emergent Upper Triassic island arc characterized by shoshonitic and leucitic volcanics (de Rosen-Spence, 1985), distal volcaniclastics and sedimentary turbidites. The succession at Galore Creek was divided by Panteleyev

(1975) into a submarine basalt and andesite lower unit overlain by more differentiated, partly subaerial alkali-enriched flows and pyroclastic rocks.

A fault-bounded wedge of unnamed Jurassic sediments unconformably overlies the Stuhini Group rocks. Within this unnamed Jurassic succession is a basal purple to red polymictic boulder and cobble conglomerate with an arkosic matrix. It contains granitic clasts including distinctive Potassium feldspar porphyries that are Galore Creek equivalents.

Intrusives

Three intrusive episodes have been recognized in the region. The earliest and most important is the Middle Triassic to Middle Jurassic Hickman plutonic suite that is coeval with Upper Triassic Stuhini Group volcanic flows. The Mount Hickman batholith comprises three plutons known as Hickman, Yehinko and Nightout. The latter two are exposed north of the map area. The Schaft Creek porphyry copper deposit is associated with the Hickman stock, and is located 39 km northeast of Galore Creek. This stock is crudely zoned with a pyroxene diorite core and biotite granodiorite margins. Alkali syenites of the Galore complex like those found at the nearby Copper Canyon deposit and the pyroxene diorite bodies of the zoned Hickman pluton have been interpreted as differentiated end members of the Stuhini volcanic-Hickman plutonic suite, by Souther (1972) and Barr (1966). The alkali syenites are associated with important copper-gold-silver mineralization at Galore Creek and at Copper Canyon. These rocks are believed to be at least as old as Early Jurassic in age, based on K-Ar dating of hydrothermal biotite in the syenites intruding the sequences (Allen, 1966). An Ar-Ar age of 212 Ma (Logan et al., 1989) in syenite may give the time of crystallization of the intrusive rocks at Copper Canyon, to the east of Galore Creek. More recent U-Pb dates of Galore Creek syenites have given ages ranging from 205-210 Ma (Mortensen, 1995).

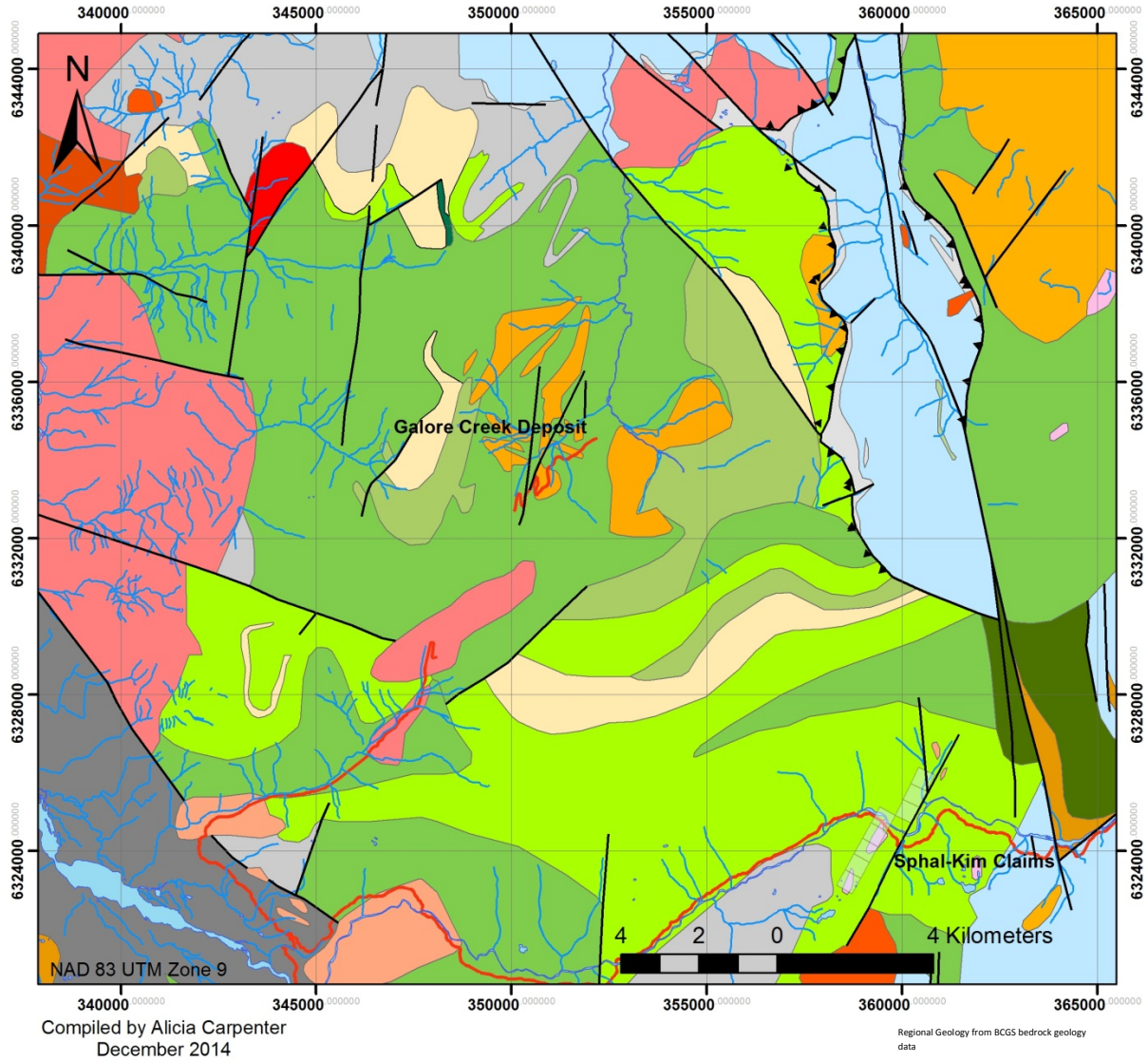
Coast Range intrusions comprise the large plutonic mass west of the map area. Three texturally and compositionally distinct intrusive phases were mapped by previous workers. From inferred oldest to youngest, they are potassium feldspar megacrystic granite to monzonite; biotite hornblende diorite to granodiorite; and biotite granite. Small tertiary intrusive stocks and dikes are structurally controlled in their distribution. At Galore Creek young post-mineral basalt and felsite dikes are abundant as a dike swarm in the northwest part of the property. Elsewhere, Tertiary intrusions may be important in their association with small gold occurrences.

Structure

The regional geology has been affected by polyphase deformation and four main sets of faults. The oldest phase of folding is pre-Permian to post-Mississippian and affected the Paleozoic rocks between Round Lake and Sphaler Creek. This deformation is characterized by bedding plane parallel foliation in sediments and fragment flattening in volcaniclastics. Pre-Late Triassic folding is characterized by large, upright, tight to open folds with north to northwest trend of axial plane traces and westerly fold vergence. Metamorphism accompanying the first two phases of deformation reached greenschist facies. The third phase of folding is manifested as generally upright chevron folds with fold axes pointed west-northwesterly.

The oldest and longest-lived fault structures in the area have a north strike and sub-vertical dip. The best example occurs on the west flank of the Hickman batholith, where a major fault juxtaposes Permian limestone with a narrow belt of Stuhini Group volcanics. The second important fault type occurs at Copper Canyon as a west directed thrust fault with a north strike and east dip of 30 to 50 degrees. It juxtaposes overturned Permian limestone and Middle Triassic shale with Stuhini volcanics below. Early to Middle Jurassic syenite intrusions occupy this contact. A third important set of faults with north-west strike mark the boundary between Upper Triassic and Paleozoic rocks between Scud River and Jack Wilson Creek. The youngest faults have a northeast strike direction and are of great local importance. At Galore Creek, some of these faults show considerable post-mineral movement of up to 200 metres while others appear to control the emplacement of mineralized intrusive phases and breccia bodies.

Figure 4: Kim-Sphal Property Geology



Compiled by Alicia Carpenter
December 2014

Regional Geology from BCGS bedrock geology data

Intrusive Rocks

- EMH - Major Hart granite
- PeEShgr- Sloko-Hyder Granite
- PeEgd - Sloko-Hyder Granite
- EJTCS - Texas Creek Coarse grained Hbl-granodiorite
- EJTCdg -Texas Creek granodiorite
- MLTrqd - Granodiorite
- LTrJCsy - Copper Mountain Plutonic suite
- LTrgd - Hornblende Granodiorite
- LTrqm - Quartz Monzonite

Stratified Rocks

- mTrsf - Fine grained sedimentary rocks
- uTrJvk -alkaline volcanics with pseudoleucite
- uTrSs Stuhini sedimentary rocks
- uTrSst Stuhini graywacke, mudstone
- uTrSsv Stuhini arc volcanics and sedimentary rocks
- uTrSv Stuhini undivided volcanics
- uTrSvb Stuhini Augite-phyric hyaloclastite
- lPS - Stikine Volcanics
- lPSlm - Stikine Limestone
- PnSv -Stikine Volcanics
- CSsc -Coarse Clastic Stikine
- DPSs - Coarse Clastic Stikine

Sphal-Kim Regional Geology
Figure 4

6.2 Property Geology

The Kim-Sphal claims are dominated by Early to Middle Jurassic Stuhini andesite flows and volcaniclastics. In general, these rocks trend northeasterly across the property and are disrupted to the east and west by a major northeast trending fault which bound Stuhini Group rocks and Paleozoic Stikine Assemblage rocks. Porphyry style Cu-Au mineralization is associated with contact zones between the Stuhini volcanics and monzonite intrusions.

Late Triassic to early Jurassic magmatism is represented as multiple intrusive bodies throughout the claims. The monzonite to dioritic, dominantly northeast trending dykes, are thought to belong to the Galore Creek series of intrusions based on similar petrologic characteristics (Close & Danz 2012).

In addition to porphyry style mineralization associated with monzonite dykes, copper mineralization is also associated with shear zones in the andesite (Holtby, 1989). Contact alteration is associated with mineralization; hornblende-biotite alteration, as well as leucocratic potassic alteration, has been described by previous workers.

Drilling by Romios north of the Kim claims intersected porphyry style mineralization hosted in andesite tuffs, and intrusive breccias. Drilling in the Tangle zone, adjacent to the southern Sphal claims, intersected garnet bearing potassically altered conglomerate and breccia with a footwall of potassically altered conglomerates, tuffs, orthoclase and pseudoleucite bearing dykes, and orthomagmatic breccias. This fault has an interpreted orientation of 342°/44° (Close & Danz 2012).

Mineralization in the Trek property is associated with contact zones between the Stuhini volcanics, and monzonite dykes assumed to be of Early Jurassic age, analogous to the porphyry deposits of the district.

High grade grab samples collected in 2006 from within the Sphal claim boundaries returned values of up to 16.5% copper (Simmons, 2006). 34 chip samples were collected in 1980 and 1981 by Silver Standard from the camp zone, located at tree line in the Sphal claims. These samples returned a weighted average of 0.37% Cu and 0.58 g/tonne Au across an average length of 8.4 metres (Folk, 1981) indicating the presence for low grade, bulk tonnage porphyry style mineralization.

7.0 GEOCHEMICAL SAMPLING PROGRAM

7.1 Introduction

The 2014 geochemical sampling program at the Kim-Sphal claims was carried out over 1.5 days between August 16th and 21st. Six (6) rock outcrop samples were collected for ICP assay. Only one sample was taken in the Kim zone due to the difficulty of the terrain. Sampling in the Sphal claims, south of Sphaler Creek was focused near historical samples in the Tangle zone. Sampling in 2006, within the Sphal claim boundaries, returned copper values of up to 16.5%. The goal of the 2014 field program was to confirm the Cu grade in this sample, collect additional chip samples in order to determine representative values of mineralization, and to explore for any extension of this zone.

7.2 Geochemical Sampling

Four grab samples, and two chip samples were collected during the sampling program by geologists Alicia Carpenter and Sarah Henderson. At each sample location, approximately 1 kg of rock was chipped using a hammer and collected for assay. At grab locations, samples were selected to represent mineralization in the outcrop. The two chip samples were collected over 5 metre distances, with material taken every metre. The outcrop where chip sampling was conducted was strongly silicified and material was difficult to collect.

All samples were given field descriptions of lithology, and alteration and mineralization (where present). Samples were bagged in poly sample bags, zap strapped, and flown to Schaft Creek camp, where they were stored in a secure location until shipment.

Samples were shipped to ALS Minerals Laboratories for preparation and analysis. Sample preparation and analysis was conducted in North Vancouver. Sample preparation consisted of typical drying, crushing, splitting, and pulverizing (Prep Code PREP-31). ICP samples were then analyzed by aqua regia digestion with ICP-MS (ME-MS41). Gold assays were performed by fire assay with an atomic absorption finish (Au-AA23), and copper values above 10,000 ppm were assayed by aqua regia digestion with ICP-AES finish (ME-OG46).

Geochemical quality control was monitored by inserting standards of known composition at an interval rate of one standard, and one blank every 6 samples. These standards and blanks were added to monitor the accuracy and cleanliness of the laboratory. The standard analyses

indicate that the sample batch results are reporting within the acceptable failure limit of 3 standard deviations. The results of the blank analyses indicate that there is no evidence of cross-contamination within the sample batch. The location information for the geochemical samples is provided in Table 2. Eastings and Northings for samples were recorded in the field using a handheld GPS with 3 to 5 metres accuracy.

Table 2: 2014 Kim-Sphal Sampling and Results

Field Station	UTM_E	UTM_N	Sample type and description	Sample	Au ppm	Cu ppm
898	360594	6325858	GRAB-Light grey limestone-Kim Claims.	SA20140898	0.0025	8.8
900	359140	6324220	GRAB-Verification of 16% Cu sample from 2006 ARIS report (#28624) on the Trek property. Hbl and bio phyric andesite? ~30-40% cpy in groundmass. Weak shearing marked by flattened phenos @ 118/20.	SA20140900	7.11	104000
901	359152	6324223	CHIP -Porphyry - white aphanitic groundmass (possibly feldspar) with ~30-50%, 2-10mm mafic phenos of hbl, bio. Shear zone @ 252/60. Outcrop is mineralized with malachite and chalcopyrite. Locally silicified. Porphyry fines westwards towards the mineralized, sheared zone at WPT 900. 5m chip sample taken every 1m.	SA20140901	1.28	2340
902	359141	6324214	CHIP-Fine-grained, white, silicified rock. High grade zone to the east of both 900 & 901. 5m chip sample taken every 1m.	SA20140902	0.25	4300
903	359162	6324206	GRAB-White to light grey, aphanitic groundmass, with 20-30%, 1-3mm, white feldspar, quartz, biotite, and hornblende phenocrysts. Possibly dioritic.	SA20140903	0.099	585
904	359215	6324151	GRAB-Andesite. Not mineralized. 1-2mm plag phenos visible.	SA20140904	0.0025	42.6

***UTM Nad 83 Zone 9**

Four samples collected during the 2014 field program returned elevated Cu values. None of the samples had significantly elevated values of other metals. Samples SA20140900, 0901, and 0902 were collected from the outcrop where a historical 16.5% Cu sample was collected during 2006 in the Tangle Zone. Sample SA20140900 was a grab sample taken from outcrop with localized 30-40% massive chalcopyrite hosted in a shear zone, which is believed to be the same origin as the 2006 16.5% Cu sample. Sample 0900 returned a 10.4% Cu assay value, verifying the 2006 results. To determine if porphyry style mineralization is present or if mineralization is

confined to shear zones or veins, samples 901 and 902 were chipped over 5m distances to the east and west away from the high grade zone, to represent more typical mineralization across the outcrop. Chip samples 901 and 902 returned anomalous Cu grades, consistent with porphyry style mineralization, of 0.23% and 0.43% Cu respectively. This mineralized outcrop is a coarse grained hbl-bio phyric intrusive in contact with an aphanitic, bleached rock, likely Stuhini volcaniclastics.

Grab sample SA20140903 was taken from a diorite approximately 25 metres to the southeast of the high grade shear zone, and returned a value of 0.06% Cu.

8.0 DISCUSSION AND CONCLUSIONS

During the 2014 field season, ICP sampling and groundtruthing of historical work was completed on the Kim-Sphal claims. A total of 6 (six) ICP rock samples, including four grab samples, and two chip samples were collected.

The main objective of the geochemical program was to follow up on historical sampling completed in 2006, during exploration of the surrounding Trek property. The Kim-Sphal claims and the surrounding Trek property have been explored for copper and gold since 1957. Drilling and surface work in the area has indicated the potential for an economic porphyry style deposit in the area. The Kim claims lie south of Romios Gold Resources North Zone, which has returned positive drill results. An attempt was made to prospect for an extension of this zone, but the terrain in the Kim claims does not easily support extensive surface work.

The focus for the 2014 season in the Sphal claims, south of Sphaler Creek was the Tangle Zone. 2014 sampling from this zone returned Cu grades of 10.4%, which verified historical Cu grades from the Tangle Zone (Simmons, 2006). Sampling for this report confirmed the presence of massive chalcopyrite hosted in E-W shear zones, as well as disseminated porphyry grade mineralization in the surrounding wall rock.

Only a small section of the GCMC claim package was able to be mapped and sampled during the 2014 field season. More compilation and field work is required in order to determine the mineralization style of the copper occurrences within the Kim-Sphal claims, and to further outline the potential for a bulk tonnage, porphyry-style copper deposit.

APPENDIX I

REFERENCES

References

Awmack, H.J. (1991); 1990 Geological, Geochemical and Geophysical Report on the Trek 1-6 Claims; British Columbia Ministry of Energy and Mines Assessment Report #20956.

Awmack, H.J. and B.K. Yamamura (1988); 1988 Summary Report on the Trek 1-6 Claims; British Columbia Ministry of Energy and Mines Assessment Report #18115

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Close, S. and Danz, N. (2012); 2011 Geological, Geophysical, and Geochemical Report on the Trek Property; British Columbia Ministry of Energy and Mines Assessment Report #32866

Folk, P.G. (1981); Report on Rock Chip Sampling of Sphal 7-12, 19-33, Kim 1-10, 38, 40 and 42, Sphal Fraction; British Columbia Ministry of Energy and Mines Assessment Report #9614.

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Panteleyev, A. (1975); Galore Creek Map-Area, B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1974, Paper 1976-1, pages 79-81.

Rayner, G.H. and C.S. Ney (1964); Sphaler Creek Examination, Goat & Kim Claims; British Columbia Ministry of Energy and Mines Assessment Report #565.

Simmons, A. (2006); 2006 Geological and Geochemical Report on the Trek Property, British Columbia Ministry of Energy and Mines Assessment Report #28624.

Simpson, R.G. (2003); Independent Technical Report for the Galore Creek Property, A report prepared for SpectrumGold Inc.

APPENDIX II

STATEMENT OF EXPENDITURES

Statement of Expenditures

Kim-Sphal Geochemical Sampling program

Period of Field Work: August 16th to August 21st, 2014
Work Performed on Claims: 226788 & 227134

Indirect Sampling Costs:	
Helicopter Support – Pacific Western Helicopters	
Astar 350B2 ($1498/hr) – 1.2 hours	$1,797
Helicopter Fuel ($1.28/litre)	
Astar 350B2 rate – 161 litres/hr, 193.2 litres	$247.2
Camp Support Costs (Schaft Creek):	
Helicopter, fuel, food, safety, and maintenance crews	
Camp accommodation rate per day: $340 (2 crew/day, 1.5 days)	$1,020
Sample Assaying and Freight Costs:	
8 ICP samples analyzed at ALS Minerals	$403.86
Geochemical Sampling and Report Preparation Costs:	
Geologists Alicia Carpenter and Sarah Henderson (August 16th to August 21st, 2014)	$1,827
Report preparation (GCMC)	$1,036
Subtotal:	**$6,331.06**

TOTAL WORK AVAILABLE FOR ASSESSMENT CREDIT:	**$6,300**
FUNDS DEBITED FROM PAC (211373)	**$2,686.32**
Total Assessment Work Applied to Mineral Claims:	**$8,986.32**

Event Number: 5530718

APPENDIX III

STATEMENT OF QUALIFICATION

Galore Creek Mining CORPORATION

GEOLOGIST'S CERTIFICATE

I, Alicia N. Carpenter, do hereby certify that:

1. I am a geologist in the minerals exploration industry employed by:
   Galore Creek Mining Corporation
   3300-550 Burrard Street
   Vancouver, BC, V6C 0B3

2. I graduated from the University of British Columbia, Vancouver, British Columbia, with a Bachelor of Science degree in Earth and Ocean Science in 2007.

3. I am a member in good standing of the Association of Professional Engineers and Geologists of British Columbia.

4. I have practiced my profession with exploration companies in British Columbia and Nunavut, Canada for five years.

5. I am the author of the '2014 Geochemical Assessment Report on the Sphal and Kim Claims', dated January, 2015.

6. The Assessment Report is based on mapping and sampling conducted by the author and Sarah L. Henderson of the Galore Creek Mining Corporation, historical reports, and from information available from public files.

7. I have no interest in the property herein.

Dated at Revelstoke, British Columbia, Canada this 9th day of January, 2015.

APPENDIX IV

ASSAY CERTIFICATES
(Attached Digitally)

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

To: GALORE CREEK MINING CORPORATION
SUITE 3300, 550 BURRARD STREET
VANCOUVER BC V6C 0B3

Finalized Date: 9- SEP- 2014
Account: GALCRE

CERTIFICATE VA14133678

Project: Galore Creek

P.O. No.: 13053

This report is for 8 Rock samples submitted to our lab in Vancouver, BC, Canada on 2- SEP- 2014.

The following have access to data associated with this certificate:

ALICIA CARPENTER	SARAH HENDERSON	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
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
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS41	51 anal. aqua regia ICPMS	
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
Au- AA23	Au 30g FA- AA finish	AAS

To: GALORE CREEK MINING CORPORATION
ATTN: SARAH HENDERSON
SUITE 3300, 550 BURRARD STREET
VANCOUVER BC V6C 0B3

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: 9- SEP- 2014
Account: GALCRE

Project: Galore Creek

CERTIFICATE OF ANALYSIS VA14133678

Sample Description	Method	WEI- 21	Au- AA23	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Recvd Wt.	Au	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOR	0.02	0.005	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1
SA20140898		0.84	<0.005	0.20	0.02	0.5	<0.2	<10	20	0.05	0.02	>25.0	0.56	2.09	0.6	2
SA20140900		2.84	7.11	14.90	0.08	77.7	4.4	<10	<10	0.15	1.68	0.73	3.55	3.00	748	<1
SA20140901		1.02	1.280	0.79	2.04	10.3	1.1	<10	20	0.21	0.04	1.44	0.20	7.55	20.7	144
SA20140902		0.68	0.250	0.40	1.59	10.9	0.2	10	20	0.33	0.05	2.97	0.72	8.61	26.1	7
SA20140903		0.68	0.099	0.19	1.39	5.8	<0.2	10	10	0.22	0.02	1.41	0.13	9.27	6.4	4
SA20140904		1.00	<0.005	0.03	2.27	6.5	<0.2	<10	20	0.20	0.02	1.21	0.06	9.34	13.4	1
SA20140906		1.70	<0.005	0.02	1.08	0.2	<0.2	<10	220	0.34	0.07	0.60	0.01	24.8	4.6	9
SA20140908		0.10	1.375	17.00	1.90	22.4	1.1	<10	90	0.29	0.75	1.03	5.91	8.95	15.3	35

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

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CERTIFICATE OF ANALYSIS VA14133678

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
	LOR	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01
SA20140898		<0.05	8.8	0.08	0.09	0.05	<0.02	0.03	<0.005	0.01	3.7	0.2	0.17	159	0.16	0.01
SA20140900		<0.05	>10000	27.6	1.21	0.63	0.02	0.88	3.31	0.01	1.7	0.2	0.08	18	0.95	0.01
SA20140901		0.39	2340	2.78	5.30	0.08	0.23	0.17	0.121	0.09	4.3	22.8	1.96	414	0.94	0.07
SA20140902		0.26	4300	1.94	5.24	0.07	0.43	0.13	0.147	0.10	4.1	13.3	1.00	326	0.49	0.08
SA20140903		0.33	585	1.47	4.98	0.08	0.38	0.03	0.026	0.08	4.5	13.3	0.66	190	1.50	0.10
SA20140904		0.37	42.6	4.08	9.41	0.10	0.21	0.02	0.026	0.11	4.4	14.0	1.21	643	0.23	0.11
SA20140906		3.01	14.0	2.11	5.84	0.11	0.15	0.01	0.017	0.49	12.7	33.5	0.59	569	0.35	0.09
SA20140908		2.73	7730	5.01	5.47	0.07	0.12	0.08	0.171	0.26	4.3	15.4	0.72	926	600	0.10

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Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th
	Units	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2
SA20140898		<0.05	0.8	320	3.5	0.2	<0.001	<0.01	0.54	0.3	0.3	<0.2	281	<0.01	<0.01	<0.2
SA20140900		0.13	173.5	1980	18.5	0.1	0.198	>10.0	15.35	0.3	67.3	1.2	6.2	<0.01	1.92	0.6
SA20140901		0.27	89.1	1940	1.1	4.7	0.004	0.17	3.35	3.6	1.6	0.4	39.7	<0.01	0.28	0.5
SA20140902		1.10	34.2	1790	2.3	4.7	<0.001	0.14	27.0	4.1	1.9	1.0	52.5	0.01	0.18	1.1
SA20140903		1.50	4.2	1940	1.1	5.7	0.003	0.03	0.77	2.2	0.5	0.6	56.8	<0.01	0.06	1.2
SA20140904		1.19	1.8	1500	1.2	7.1	<0.001	<0.01	0.54	3.7	0.3	0.3	34.8	0.01	0.02	0.6
SA20140906		1.84	3.7	870	3.0	45.2	<0.001	<0.01	0.09	2.8	<0.2	0.7	71.8	0.01	<0.01	5.9
SA20140908		0.22	26.6	740	2800	12.1	0.393	2.56	11.95	4.1	3.4	2.4	59.4	<0.01	0.38	2.0

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Account: GALCRE

Project: Galore Creek

CERTIFICATE OF ANALYSIS VA14133678

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	Cu- OG46
	Analyte	Ti	Tl	U	V	W	Y	Zn	Zr	Cu
	Units	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.02	0.05	1	0.05	0.05	2	0.5	0.001
SA20140898		<0.005	<0.02	0.06	4	<0.05	10.50	7	<0.5	
SA20140900		0.015	0.10	0.07	86	0.14	1.19	592	0.7	10.40
SA20140901		0.232	0.02	0.64	77	0.29	5.34	77	6.3	
SA20140902		0.222	0.03	0.74	79	0.47	8.62	112	9.7	
SA20140903		0.217	0.03	0.48	59	0.26	7.05	35	7.6	
SA20140904		0.343	0.03	0.22	92	0.24	9.29	41	4.5	
SA20140906		0.150	0.33	1.90	42	0.08	7.72	48	2.0	
SA20140908		0.088	0.22	0.44	54	1.17	6.57	747	3.5	

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Account: GALCRE

Project: Galore Creek

CERTIFICATE OF ANALYSIS VA14133678

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

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

LABORATORY ADDRESSES

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

Au- AA23	CRU- 31	Cu- OG46	LOG- 22
LOG- 24	ME- MS41	ME- OG46	PUL- 31
PUL- QC	SPL- 21	WEI- 21	

APPENDIX V

ANALYTICAL PROCEDURES

(Attached Digitally)

QUALITY ASSURANCE OVERVIEW

Laboratory Accreditation and Certification

ISO/IEC 17025

ALS Minerals North Vancouver, Reno and Val d'Or have received ISO/IEC 17025 accreditation from the Standards Council of Canada under CAN-P-4E (ISO/IEC 17025:2005), the General Requirements for the Competence of Testing and Calibration Laboratories, and the PALCAN Handbook (CAN-P-1570).

The scope of accreditation for ALS Minerals Vancouver includes the following methods:

- Au-AA: Determination of Au by Lead Collection Fire Assay and AAS
- Au/Ag-GRA: Determination of Au and Ag by Lead Collection Fire Assay and Gravimetric Finish
- PGM-ICP: Determination of Au, Pt and Pd by Lead Collection Fire Assay and ICP-AES
- ME-ICP41: Multi-Element (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Ti, Tl, U, V, W, Zn) Determination by Aqua Regia Digestion and ICP-AES
- ME-MS41: Multi-Element (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) Determination by Aqua Regia Digestion and ICP-AES and ICP-MS
- ME-ICP61: Multi-Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Ti, Tl, U, V W, Y, Zn and Zr) Determination by 4-Acid Digestion and ICP-AES
- ME-MS61: Multi-Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) Determination by 4-Acid Digestion and ICP-AES and ICP-MS
- ICP81: Al, Co, CU, Fe, Mg, Mn, Ni, Pb, S and Zn by Sodium Peroxide Fusion and ICP-AES

- OG46: Ag, Cu, Mo, Pb, and Zn – Determination of Ores and High Grade Material Using ICP-AES Following an Aqua Regia Digestion
- OG62: Ag, Cu, Mo, Pb and Zn – Determination of Ores and High Grade Material Using ICP-AES Following a Four-Acid Digestion
- AA45: Ag, Cu, Pb and Zn – Determination of Base Meals Using AAS Following an Aqua Regia Digestion
- AA46: Ag, Cu, Pb, Zn and Mo – Determination of Ores and High Grade materials Using AAS Following an Aqua Regia Digestion
- AA61: Ag, Co, Cu, Ni, Pb and Zn – Determination of Base Metals Using AAS Following a Four-Acid Digestion
- AA62: Ag, Co, CU, Mo, Ni, Pb and Zn – Determination of Ores and High Grade Materials Using AAS Following a Four-Acid Digestion

The scope of accreditation for ALS Minerals Reno includes the following method:

- Au-AA: Determination of Au by Lead Collection Fire Assay and AAS

The scope of accreditation for ALS Minerals Val d'Or includes the following methods:

- Au-AA: Determination of Au by Lead Collection Fire Assay and AAS
- Au-GRA: Determination Au by Lead Collection Fire Assay and Gravimetric Finish

ISO 9001

ALS Minerals laboratories in North America are registered to ISO 9001:2008 for the "provision of assay and geochemical analytical services" by QMI-SAI Global Quality Registrars.

The ISO 9001: 2008 registration provides evidence of a quality management system covering all aspects of our organization. ISO/IEC 17025 accreditation provides specific assessment of our laboratory's analytical capabilities. In our opinion, the combination of the two ISO standards provides our clients complete assurance regarding the quality of every aspect of ALS Minerals operations.

Aside from laboratory accreditation, ALS Minerals has been a leader in participating in, and sponsoring, the assayer certification program in British Columbia. Many of our analysts have completed this demanding program that includes extensive theoretical and practical examinations. Upon successful completion of these examinations, they are awarded the title of Registered Assayer.

Quality Assurance Program

The quality assurance program is an integral part of all day-to-day activities at ALS Minerals and involves all levels of staff. Responsibilities are formally assigned for all aspects of the quality assurance program.

Sample Preparation Quality Specifications

Standard specifications for sample preparation are clearly defined and monitored. The specifications for our most common methods are as follows:

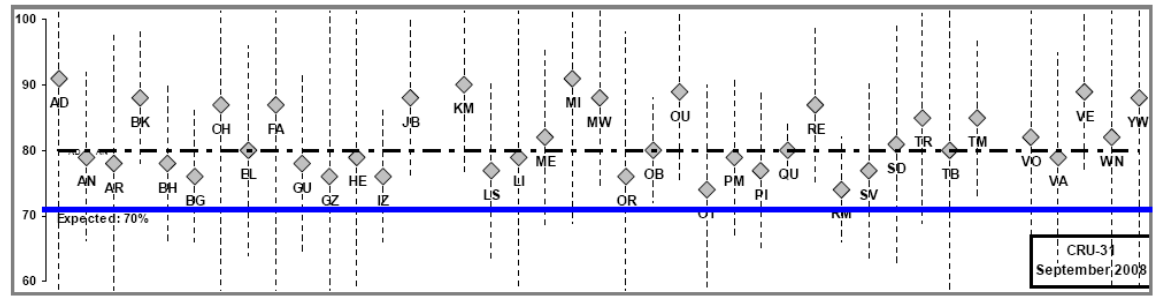
- Crushing (CRU-31)
  > 70% of the crushed sample passes through a 2 mm screen
- Ringing (PUL-31)
  > 85% of the ring pulverized sample passes through a 75 micron screen (Tyler 200 mesh)
- Samples Received as Pulps
  >85% of the sample passes through a 75 micron screen (Tyler 200 mesh)

These characteristics are measured and results reported to verify the quality of sample preparation. Our standard operating procedures require that samples at every preparation station are tested regularly throughout each shift. Measurement

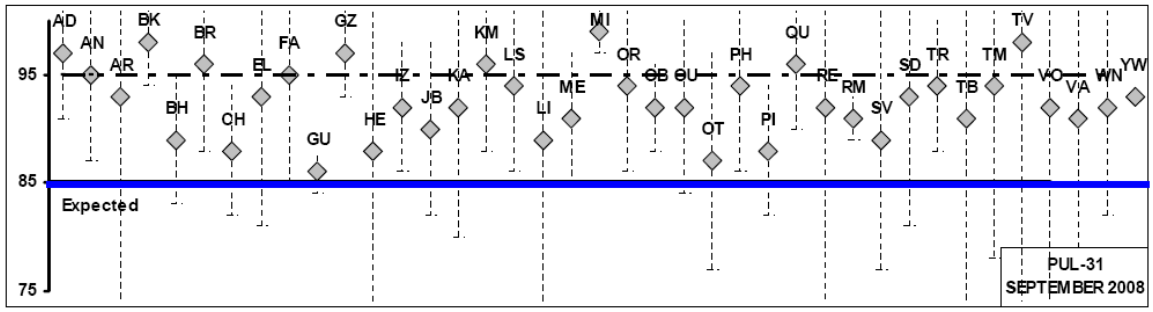
of sample preparation quality allows the identification of equipment, operators and processes that are not operating within specifications.

QC results from all global sample preparation laboratories are captured by the LIM System and the QA Department compiles a monthly review report for senior management on the performance of each laboratory from this data.

CRU-31



PUL-31



Other Sample Preparation Specifications

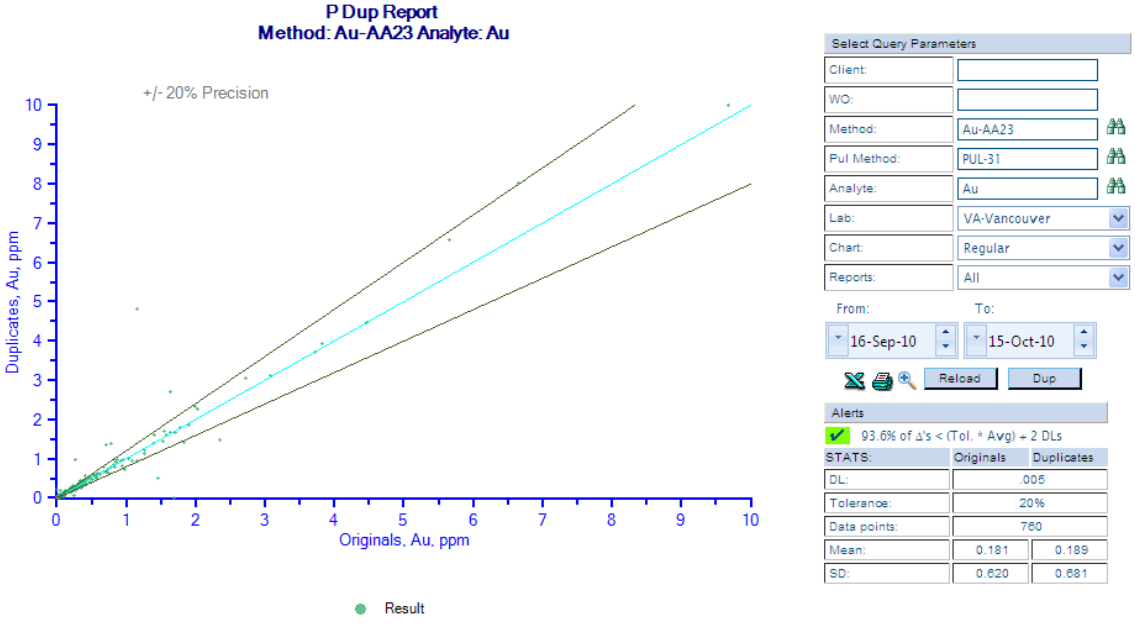
Sample preparation is a vital part of any analysis protocol. Many projects require sample preparation to other specifications, for instance >90% of the crushed sample to pass through a 2 mm screen. These procedures can easily be accommodated and the Prep QC monitoring system is essential in ensuring the required specifications are routinely met.

Sample Preparation Duplicates

In addition to routine screen tests, sample preparation quality is monitored at ALS Minerals through the insertion of sample preparation duplicates. For every 50 samples prepared, an additional split is taken from the coarse crushed material to create a pulverizing duplicate. The additional split is processed and analyzed in a similar manner to the other samples in the submission. It should be noted that the precision of the preparation duplicate results is highly dependent on the individual sample mineralogy, analytes of interest and

procedures selected for sample preparation. Therefore the data is most relevant at the client /project level.

All preparation duplicate data is automatically captured, sorted and retained in the QC Database and available on Webtrieve™ for client review. The data is also available on the QC Data Certificates.



Analytical Quality Control – Reference Materials, Blanks & Duplicates

The LIMS inserts quality control samples (reference materials, blanks and duplicates) on each analytical run, based on the rack sizes associated with the method. The rack size is the number of sample including QC samples included in a batch. The blank is inserted at the beginning, standards are inserted at random intervals, and duplicates are analysed at the end of the batch. Quality control samples are inserted based on the following rack sizes specific to the method:

Rack Size	Methods	Quality Control Sample Allocation
20	Specialty methods including specific gravity, bulk density, and acid insolubility	2 standards, 1 duplicate, 1 blank
28	Specialty fire assay, assay-grade, umpire and concentrate methods	1 standard, 1 duplicate, 1 blank
39	XRF methods	2 standards, 1 duplicate, 1 blank
40	Regular AAS, ICP-AES and ICP-MS methods	2 standards, 1 duplicate, 1 blank
84	Regular fire assay methods	2 standards, 3 duplicates, 1 blank

Laboratory staff analyse quality control samples at least at the frequency specified above. If necessary, they may include additional quality control samples above the minimum specifications.

All data gathered for quality control samples – blanks, duplicates and reference materials – are automatically captured, sorted and retained in the QC Database.

Quality Control Limits and Evaluation

Quality Control Limits for reference materials and duplicate analyses are established according to the precision and accuracy requirements of the particular method. Data outside control limits are identified and investigated and require corrective actions to be taken. Quality control data is scrutinised at a number of levels. Each analyst is responsible for ensuring the data submitted is within control specifications. In addition, there are a number of other checks.

Certificate Approval

If any data for reference materials, duplicates, or blanks falls beyond the control limits established, it is automatically flagged red by the computer system for serious failures, and yellow for borderline results. The Department Manager(s) conducting the final review of the Certificate is thus made aware that a problem may exist with the data set.

Precision Specifications and Definitions

Most geochemical procedures are specified to have a precision of ± 10%, and assay procedures ± 5%. The precision of Au analyses is dominated by the sampling precision.

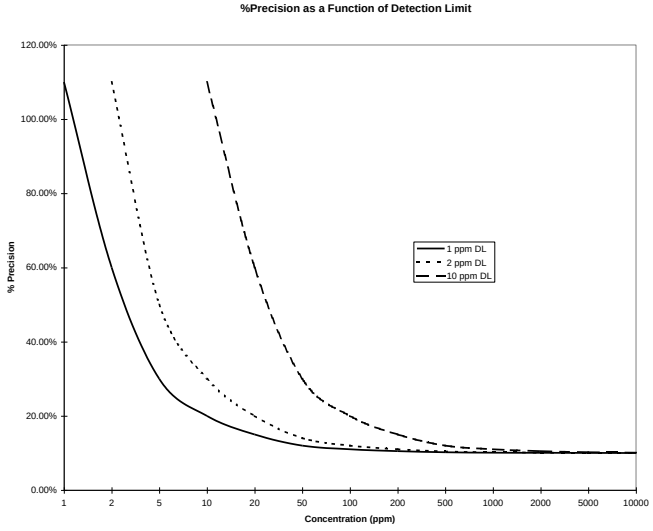
Precision can be expressed as a function of concentration:

$$P_c = \left(\frac{DetectionLimit}{c} + P\right) \times 100\%$$

where P_c - the precision at concentration c
c - concentration of the element
P - the "Precision Factor" of the element. This is the precision of the method at very high concentrations, i.e. 0.05 for 5%.

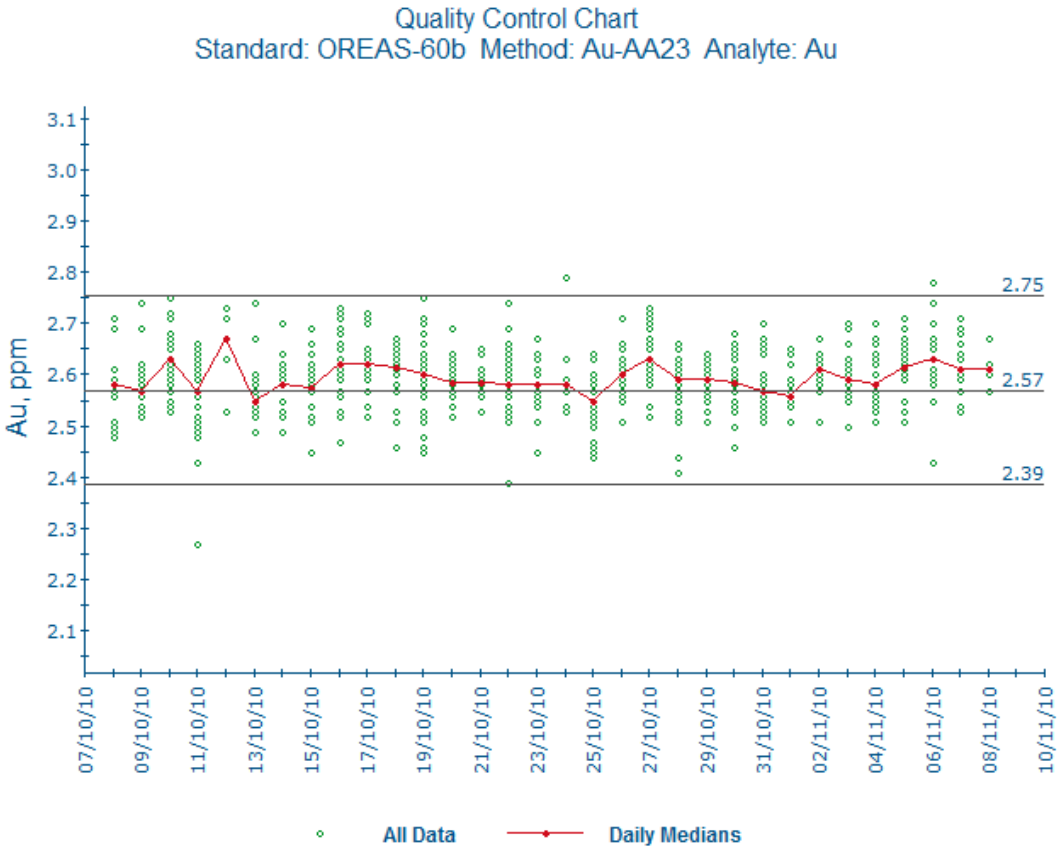
(M. Thompson, 1988. Variation of precision with concentration in an analytical system. Analyst, 113: 1579-1587.)

As an example, precision as a function of concentration (10% precision) is plotted for three different detection limits. The impact of detection limit on precision of results for low-level determinations can be dramatic.



Evaluation of Trends

Control charts for frequently used method codes are generated and evaluated by laboratory staff on a regular basis. The control charts are evaluated to ensure internal specifications for precision and accuracy are met. The data is also reviewed for any long-term trends and drifts.



External Proficiency Tests

Proficiency testing provides an independent assessment of laboratory performance by an outside agency. Test materials are regularly distributed to the participants and results are processed by a central agency. The results are usually converted to a Z-Score to rate the laboratory's result against the consensus value from all participating labs.

All ALS Minerals analytical facilities in North America participate in proficiency tests for the analytical procedures routinely done at each laboratory. ALS Minerals has participated for many years in proficiency tests organized by organizations such as Canadian Certified Reference Materials Projects, and

Geostats as well as a number of independent studies organized by consultants for specific clients. We have participated also participated in several certification studies for new certified reference materials by CANMET and Rocklabs.

Feedback from these studies is invaluable in ensuring our continuing accuracy and validation of methods.

Quality Assurance Meetings

A review of quality assurance issues is held regularly at Technical and Quality Assurance Meetings. The meetings cover such topics as:

- Results of internal round robin exchanges, external proficiency tests and performance evaluation samples
- Monitoring of control charts for reference materials
- Review of quality system failures
- Incidents raised by clients
- Results of internal quality audits
- Other quality assurance issues

The Quality Assurance Department and senior laboratory management participate in these meetings.

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.

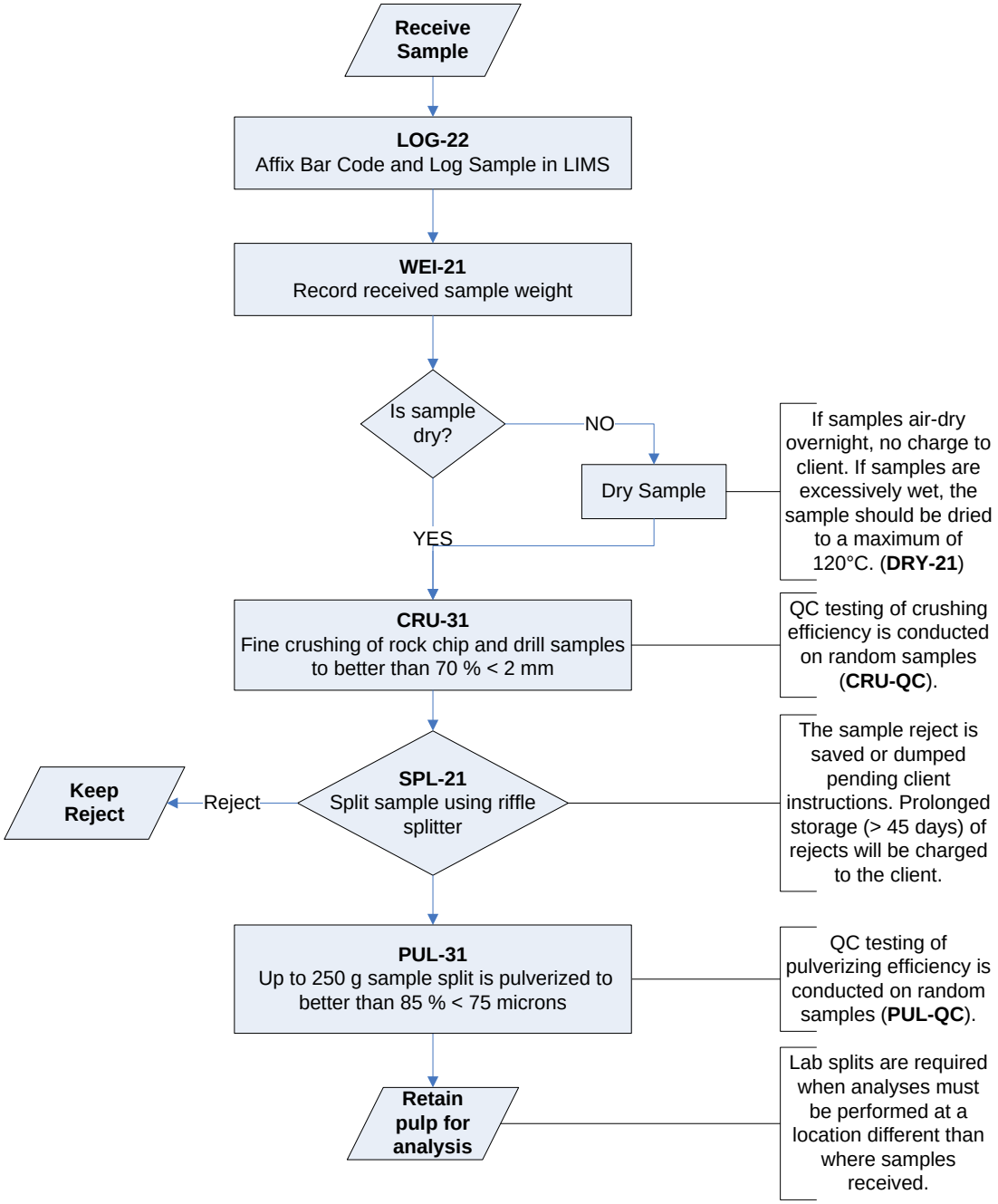
The sample is logged in the tracking system, weighed, dried and finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen. A split of up to 250 g is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh, US Std. No. 200) screen. This method is appropriate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

Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
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



Geochemical Procedure

ME- MS41
Ultra- Trace Level Methods Using ICP- MS and ICP- AES

Sample Decomposition:

Aqua Regia Digestion (GEO-AR01)

Analytical Method:

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

A prepared sample (0.50 g) is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, silver and tungsten and diluted accordingly. Samples are then analysed by ICP-MS for the remaining suite of elements. The analytical results are corrected for inter-element spectral interferences.

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	0.01	100
Aluminum	Al	%	0.01	25
Arsenic	As	ppm	0.1	10 000
Gold	Au	ppm	0.2	25
Boron	B	ppm	10	10 000
Barium	Ba	ppm	10	10 000
Beryllium	Be	ppm	0.05	1 000
Bismuth	Bi	ppm	0.01	10 000
Calcium	Ca	%	0.01	25
Cadmium	Cd	ppm	0.01	1 000
Cerium	Ce	ppm	0.02	500
Cobalt	Co	ppm	0.1	10 000
Chromium	Cr	ppm	1	10 000

Geochemical Procedure

Element	Symbol	Units	Lower Limit	Upper Limit
Cesium	Cs	ppm	0.05	500
Copper	Cu	ppm	0.2	10 000
Iron	Fe	%	0.01	50
Gallium	Ga	ppm	0.05	10 000
Germanium	Ge	ppm	0.05	500
Hafnium	Hf	ppm	0.02	500
Mercury	Hg	ppm	0.01	10 000
Indium	In	ppm	0.005	500
Potassium	K	%	0.01	10
Lanthanum	La	ppm	0.2	10 000
Lithium	Li	ppm	0.1	10 000
Magnesium	Mg	%	0.01	25
Manganese	Mn	ppm	5	50 000
Molybdenum	Mo	ppm	0.05	10 000
Sodium	Na	%	0.01	10
Niobium	Nb	ppm	0.05	500
Nickel	Ni	ppm	0.2	10 000
Phosphorus	P	ppm	10	10 000
Lead	Pb	ppm	0.2	10 000
Rubidium	Rb	ppm	0.1	10 000
Rhenium	Re	ppm	0.001	50
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	0.05	10 000
Scandium	Sc	ppm	0.1	10 000
Selenium	Se	ppm	0.2	1 000
Tin	Sn	ppm	0.2	500
Strontium	Sr	ppm	0.2	10 000

Element	Symbol	Units	Lower Limit	Upper Limit
Tantalum	Ta	ppm	0.01	500
Tellurium	Te	ppm	0.01	500
Thorium	Th	ppm	0.2	10000
Titanium	Ti	%	0.005	10
Thallium	Tl	ppm	0.02	10 000
Uranium	U	ppm	0.05	10 000
Vanadium	V	ppm	1	10 000
Tungsten	W	ppm	0.05	10 000
Yttrium	Y	ppm	0.05	500
Zinc	Zn	ppm	2	10 000
Zirconium	Zr	ppm	0.5	500

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

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-GRA22