ASSESSMENT REPORT

Rock and Soil Geochemical Sampling

on the

KM PROPERTY

Omineca Mining Division, British Columbia, Canada

Exploration on MTO claims: 653183, 632803, 632804, 632823, 632824, 632825.

NTS:	**93M .073, .083**
LATITUDE:	**55° 48’ 00”N**
LONGITUDE:	**127° 27' 00” W**
OWNER:	**Cavan Ventures Inc.**
OPERATOR:	**Cavan Ventures Inc**
CONSULTANTS:	**Rio Minerals Limited**
AUTHOR:	**Andris Kikauka, P. Geo**
DATE:	**December 20, 2011**

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDIX

1.0 SUMMARY

This report summarizes recent exploration work performed on the group of mineral claims known as the KM Property (KM) of which Cavan Ventures Limited of Vancouver, British Columbia owns a 100% interest. The KM Property is situated 60 kilometres northeast of the town of Hazelton, B.C. and consists of seven (7) MTO located mineral claims, covering an area of 1654 hectares. The claim group encompasses numerous polymetallic vein occurrences which host anomalous gold, silver, copper, lead, and zinc.

During August of 2011, a two-week program consisting of rock sampling, hand-trenching, and geologic mapping was performed on the Property. Re-sampling in areas of anomalous results identified by the 2010 programme has verified anomalous precious and base metal values. Reconnaissance geological mapping classified all feldspar +/- quartz porphyritic intrusives into sill-like bodies and one of two dike swarms, one trending E-W, and one trending N-S. The intrusive apophyses were found to host Pb-Zn-Ag+/-Au bearing quartz veins, which comprise the majority of mineralized occurrences. Zones of mineralized phyllic alteration within intrusive rock were identified and observed to outcrop to a greater extent on the previously unexplored North side of the property. A later dioritic stock in the southwest of the map area contains numerous, traceable, polymetallic quartz vein occurrences.

A third-phase program of geological mapping, continuous rock chip trench sampling, and detailed trench mapping of anomalous areas with a goal of establishing a economic drill targets is recommended. A short hole drill programme is warranted in the Gully Vein area. Future exploration should concentrate in new areas with high vein density in order to delineate zones with economic widths and strike lengths.

2.0 INTRODUCTION

This technical report highlights information obtained from an August 2011 geological and geochemical exploration program carried out on the KM mineral claims by Rio Minerals Limited on behalf of Cavan Ventures Limited. This exploration program tested previously reported anomalous zones and new areas for precious and base metal values. This report was prepared for assessment credit in the Province of British Columbia.

The property has been staked to cover the known extent of previously identified prospective polymetallic silver-lead-zinc-copper +/- gold vein occurrences (Hooper, 1987). Mineralization typically occurs within quartz veins. The veins for the most part are hosted in Bulkley Dioritic plugs and associated sills and dikes contained within Bowser Lake Group sediments.

The field program consisted of the collection of 40 soil, 28 silt, and 3 continuous rock chip samples for assay. Additional fieldwork consisted of regional prospecting.

Polymetallic vein (silver-lead-zinc+/- gold) occurrences typically occur along faults and fractures in sedimentary basins deformed, metamorphosed and intruded by igneous rocks (Lefebure, D.V. and Church, B.N., 2005). The depositional environment, geochemical signature (zinc, lead, silver, manganese, copper, and arsenic) and age (Cretaceous) of the host rocks on the KM property are consistent with a polymetallic vein (silver-lead-zinc +/- gold) environment.

The objective of the 2011 exploration program was to delineate anomalies on the areas surrounding the core KM claim, compile previous geological work, and validate previously reported exploration work.

3.0 PROPERTY DESCRIPTION AND LOCATION

The KM claims are located 2 kilometres north of Kisgegas Peak, approximately 60 kilometres north of the town of Hazelton, British Columbia (Figure 1 and Figure 2). The nearest major supply center to Hazelton and the project area is the town of Smithers (pop. 5500), located 67 kilometres south of Hazelton and 130 kilometres from the KM property.

The KM Project is currently accessible by helicopter, although logging roads and a helicopter staging area are located within 7 kilometres of the claim area. The claims can be found on BCGS map sheet 093M. 073 and .083 at Latitude 55 48' 00" N and Longitude 127 27' 00" W. The KM claim group consists of six contiguous Mineral Titles Online (MTO) tenures located in the Omineca Mining Division of British Columbia, Canada. The total claim area is 3457 hectares. Cavan Ventures Limited of Vancouver, BC owns a 100% interest in the tenures. Claim data is summarized in the following table and a map showing the claims is presented in Figure 2.

Table 1: Mineral Tenures

Tenure Number	Tenure Name	Good to Date*	Area in Hectares
653183	KM	2014/aug/31	1654.3561
632803	KM-7	2013/jan/12	436.2868
632804	KM-8	2013/jan/12	454.6709
632823	KM-9	2013/jan/12	436.1062
632824	KM-10	2013/jan/12	436.1715
632825	KM-11	2013/jan/12	36.367

*Pending acceptance of this report.

Figure 1: Regional Location Map of Property

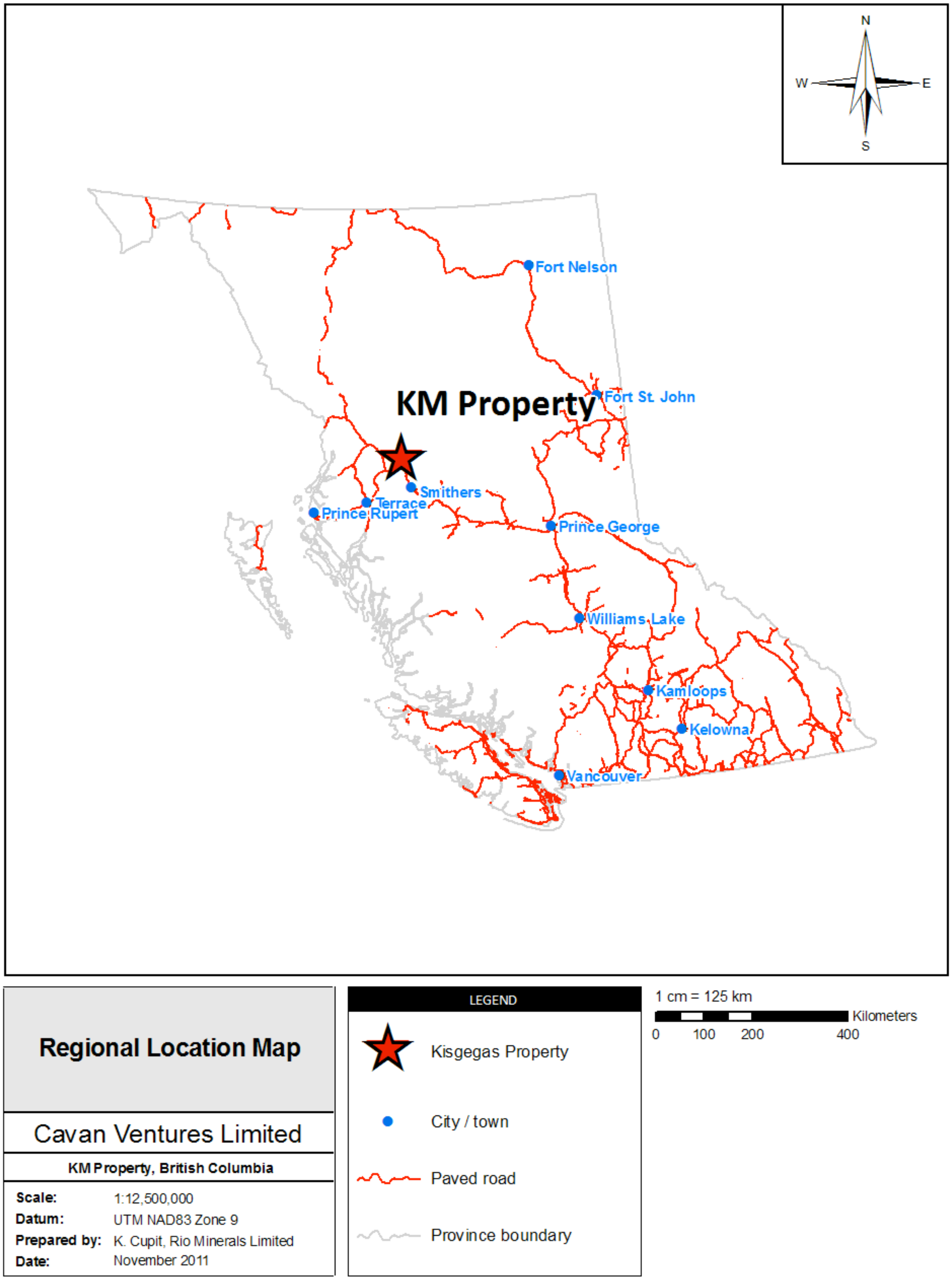
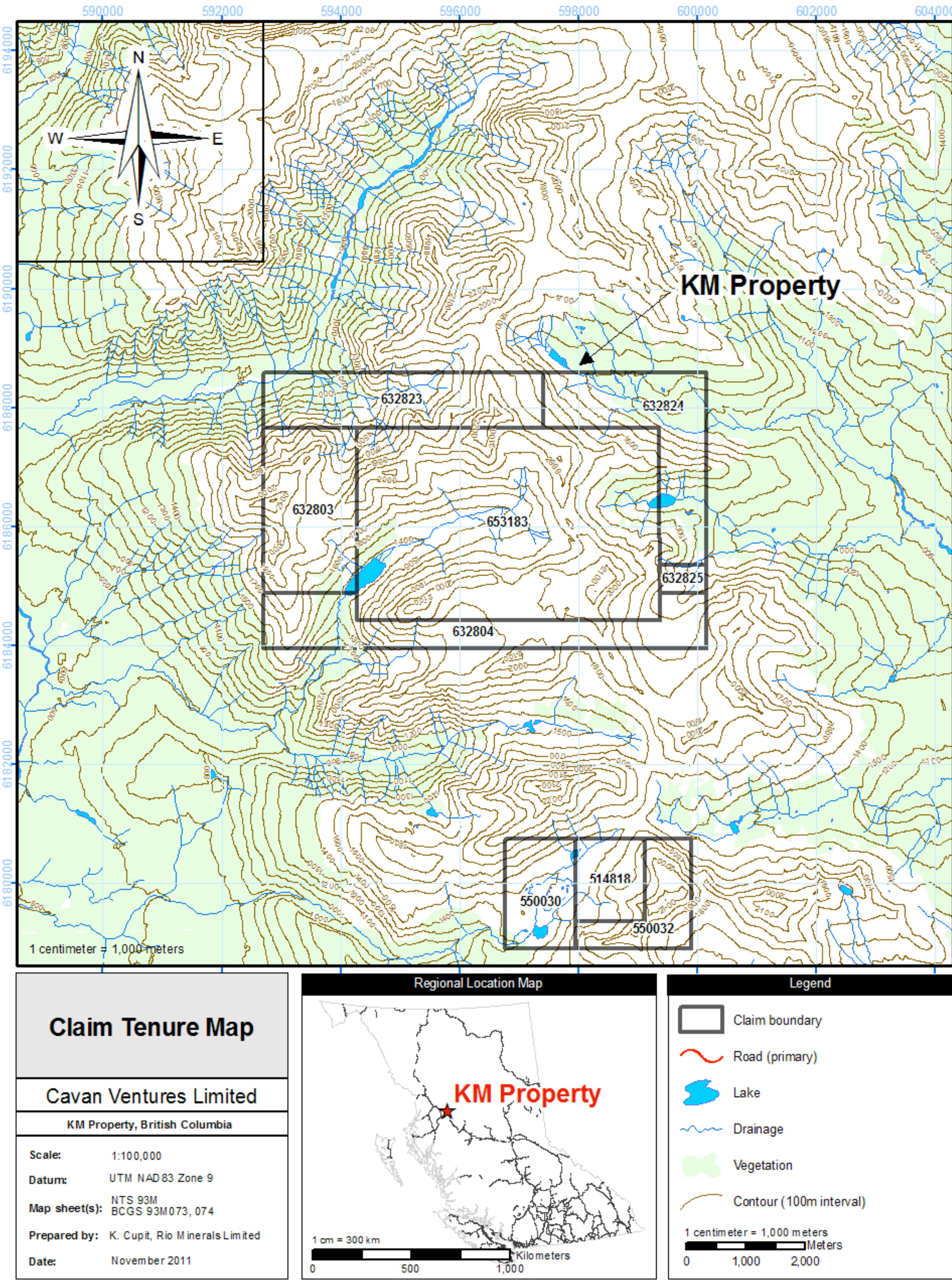


Figure 2: Claim Map



4.0 ACCESSIBILITY, CLIMATE, INFRASTRUCTURE

The KM property is located 60 kilometres northeast of Hazelton, British Columbia on the eastern boundary of the Skeena Mountains. The property is mostly above the tree-line and is centered over the headwaters of a west-flowing river draining an area of about nine square kilometres. The south side of the valley is composed of two cirques with three glacial lobes extending from the Kisgegas Peak ice field. To the north, the valley holds two alpine cirques whose bottoms exist at an elevation of 1700 metres. Elevations on the property range from 1200 to slightly over 2000 metres.

The exploration season is June to October. Temperatures in August can reach over 20 degrees centigrade. Alpine fir trees persist on south-facing slopes to 1600 meters and do not attain appreciable size above 1400 metres. A mix of alpine mosses, shrubs, and annuals persist to 1700 metres with grasses and lichens surviving above 1900 metres.

5.0 HISTORICAL EXPLORATION

Reconnaissance-style mapping and sampling was performed by D.G. Hooper in 1987 (Minfile Report #17542). Hooper states that five days were spent on the property during which geologic mapping and prospecting were performed. Twenty-nine grab samples of primarily quartz vein material containing galena, sphalerite, chalcopyrite, and pyrite were collected within a 2.4-kilometer area in the southeastern portion of the property. Resulting highlights from the programme include 1840 g/t Ag with 0.4 g/t gold (#51517), 670 g/t Ag with 1.54 g/t Au (#51503), and 112 g/t Ag with 0.6 g/t Au (#51522).

The report concludes that high silver values are in accordance with high base metal values. The report also recommends that future mapping concentrate on location of high vein density, and that sampling of host rock that may carry disseminated sulphides or may be incorporated in densely-veinleted stockworks should be performed to assess economically viable zones.

In August of 2009, exploration consisted of geochemical (rock, soil, silt) sampling and geological mapping which tested previously reported and newly discovered areas of anomalous multi-element precious and base metal values. A total of 72 rock samples, 14 stream-sediment, and 4 soil samples were collected. Rock sampling was focused on widespread mineralized (galena, chalcopyrite, pyrite, and sphalerite) quartz and quartz-carbonate veins hosted within Bulkley dykes/sills, Bulkley intrusive stocks/plugs, and Bowser Lake group of sediments and meta-sediments. Highlights of the 2009 exploration silt program included a multi-element gold+copper+lead+arsenic silt anomaly in a stream flowing from the East Glacier area. In addition, a multi-element anomaly was discovered in the northeast cirque area of the property.

The highest silt sample returned 40.1 ppb gold, 102.7 ppm copper, 85.9 ppm lead, and 112.1 ppm arsenic and occurs in two adjacent streams in the central portion of the claim group. Resulting highlights from the 2009 rock chip program includes the highest assay (441085) of 10.28 g/t gold, 300 g/t silver and 2.63% copper from a sub-crop quartz boulder immediate northeast end of Kisgegas lake (West end of the property). The widest vein found on the property to date is the Gully Vein (10 cm to 1.2 m) which returned values (441036) of 1.5 g/t gold with 64 g/t silver over 1.1 m. In addition, narrow 5-7 cm wide quartz veinlets return values of 0.85 g/t gold and 139 g/t silver at the North Central Cirque and 2.85 g/t gold and 55.9 g/t silver at the North East Cirque.

During the period August 7 to 31, 2010, a field program consisting of continuous rock chip sample trenching, prospecting/rock sampling and geological mapping in the Gully Vein - Gully Vein West areas and detailed mapping of trenches was performed. A temporary fly-camp was installed and acted as a base of operations for the duration of the program. Fieldwork consisted of the collection of at total of 93 rock samples (75 continuous chip, 7 grab from outcrop and 11 float samples) as well as prospecting and mapping trenches in new areas, including the previously unexplored west end of the main valley and the north and south slopes. The 2010 trench maps are included in this report for reference. Geologic prospecting discovered numerous new mineralized showings. In addition, a new type of mineralization was shown to exist in metasomatically-altered intrusive host rock.

6.0 GEOLOGICAL SETTING

An overview of the regional geology provided is reprinted from the B.C. Geological Survey mapping synopsis of the Hazelton Map Sheet 093M, G.S.C. Memoir 223, B.C. Minfile descriptions, B.C. Department of Mines annual reports, and filed assessment reports.

The Hazelton area is underlain primarily by rocks of the Stikinia Terrain and an overlap assemblage. The Stikinia Terrain consists of the Lower to Middle Jurassic Hazelton Group and the Upper Triassic Stuhini (Takla) Group island arc volcanic rocks. The overlap assemblage consists in part of the Middle Jurassic to Upper Cretaceous Bowser Lake Group. These mainly comprise clastic sedimentary and minor volcanic rocks deposited in local fault-bounded successor basins and in the Bowser basin.

Upper Cretaceous calc-alkaline volcanic rocks of the Kasalka Group extruded from several volcanic centers, while coeval plutonic rocks formed the Bulkley Intrusions. During the Cenozoic Era, important igneous activity occurred in the Eocene stage when the Babine intrusions and the Ootsa Lake Group calc-alkaline volcanic suite formed (Figure 3).

Structurally, the area is dominated by block faulting, which has controlled the location of the major mountain valley systems, as well as many of the intrusive rock suites and mineral deposits. Aside from contact effects near intrusive bodies, metamorphism is light, reaching prehnite-pumpellyite facies.

Geological mapping by T.A. Richards in 1980 shows the Kisgegas peak region to be a block fault bounded structure underlain by primarily Lower Bowser Lake Group sediments of Late Jurassic age. The sediments lie generally in a NW-SW attitude with fold axis oriented along a similar azimuth. The sediments are comprised mainly of sandstone, siltstone, and conglomerates. Late Cretaceous Bulkley intrusive stocks, plugs, dikes, and sills of granodioritic composition cut through the sediments and are interpreted by Richards to form the base of an uplifted block carrying the sediments in a roof pendant-type fashion. Later Tertiary age Babine intrusions are mapped to the south of the Kisgegas Prospect, but are possibly correlative with late-stage leucocratic microgranodioritic dikes observed on the claims (Hooper, 1987). (Figure 4)

Figure 3: Regional Geology Map

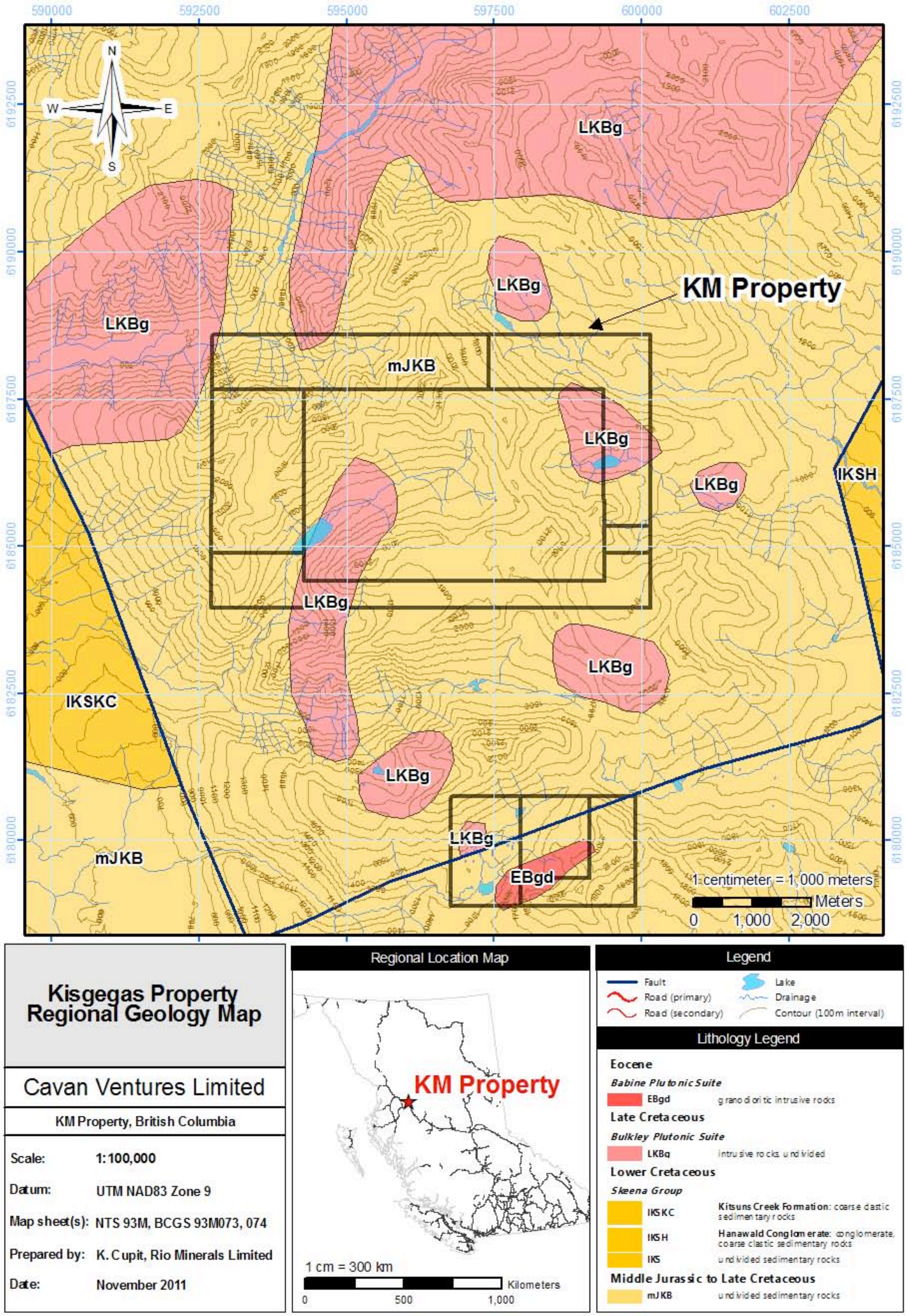
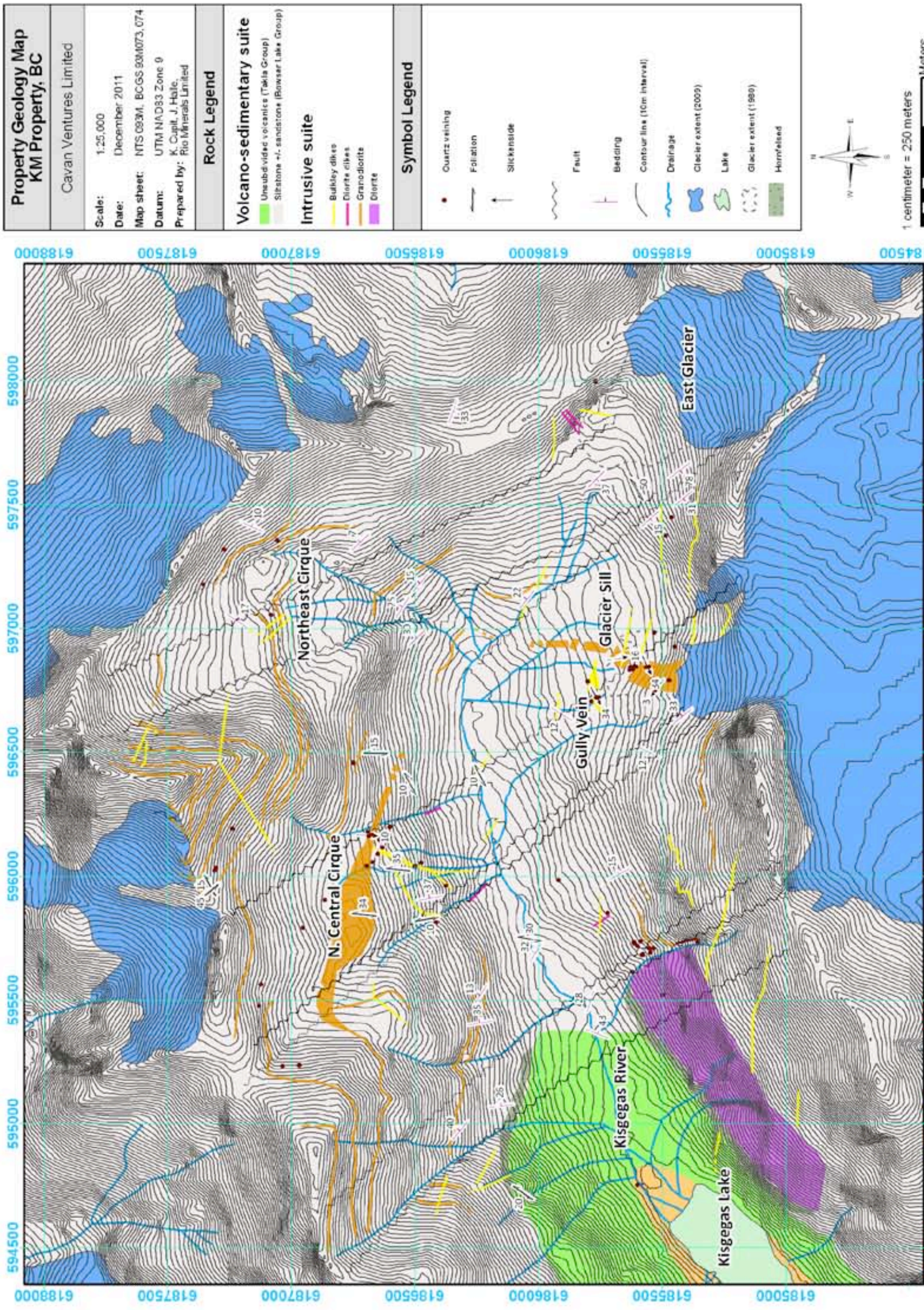


Figure 4: Property Geology Map



7.0 DEPOSIT TYPES

The main type of mineralization found on the KM property may be termed polymetallic veins. The paragraphs below describe typical characteristics and features of this deposit type, as well as a current theory of its genesis. The metal-bearing veins of the KM property largely reflect this descriptive model.

Polymetallic veins are silver, lead, and zinc-bearing quartz-carbonate veins associated with felsic hypabyssal intrusions. Gangue minerals in the veins are quartz, chlorite, calcite, and possibly ankerite, barite, and/or fluorite. Sulphide minerals include pyrite (FeS_2), sphalerite (ZnS), chalcopyrite (Cu_2FeS_2), galena (PbS), arsenopyrite ($FeAsS$), and possibly tetrahedrite-tennantite, Ag sulfosalts, and argentite. Native metals such as gold and silver may also be present in the form of electrum. Coarse-grained sulphide minerals occur as patches and pods.

In most cases, polymetallic vein deposition occurs in clastic sedimentary rocks or in intermediate to felsic volcanic rocks. Veins are often compound veins with a complex, multi-phase, paragenetic sequence and may exhibit crustification, colloform, and/or drusy textures. Individual veins vary from centimetres up to more than 3 metres wide and can be followed from a few hundred to more than 1000 metres in length and depth. Veins may widen or grade into broad zones to tens of metres in width in stockwork zones or breccias. Typically, sets of parallel and offset veins are common. Veins postdate deformation and metamorphism.

In a typical polymetallic vein deposit, veins are deposited in areas of high permeability such as intrusive contacts, fault intersections, and breccias marginal to small, near-surface intrusions. The intrusive rocks are geochemically calc-alkaline to alkaline, and when in the form of small intrusions, range from diorite to monzonite to granodioritic in composition. Intrusive rocks may also occur as sub-volcanic necks and dykes of andesitic to rhyolitic composition. Texturally, they are fine to medium-grained, and equigranular to porphyroaphanitic.

A continuum from porphyry copper deposits to polymetallic veins exists. Porphyry copper stockwork vein deposits originate from an initial magmatic phase while polymetallic veins are paragenetically later and are derived from mixed meteoric and magmatic fluids. Each deposit type is typically found in close spatial proximity to strike-slip fault systems. Within these fault systems, extensional and compressional strain features develop that generate magmas at shallow crustal levels. In the case of polymetallic vein systems, brittle extensional and shear fractures allow meteoric waters to mix with magmatic fluids, introducing metals such as lead and zinc into the hydrothermal system. In host rocks of polymetallic vein deposits, alteration is broadly propylitic but argillic, sericitic, or chloritic alteration may be quite extensive as well. Meta-sedimentary rocks that host polymetallic veins typically display sericitization, silicification, and/or pyritization.

Examples of polymetallic vein districts include the Slocan-New Denver-Ainsworth district and the Hazelton district of British Columbia, the Elsa-Mayo-Keno district of the Yukon Territory, the Wallapai District of Arizona, the Marysville District of Montana, and Pachuca (Mexico). Individual vein systems can range from several hundred to several million tons grading from 5 to 1500 g/t silver, 0.5 to 20% lead and 0.5 to 8% zinc. Copper and gold are reported in some of the occurrences with average grades of 0.09% copper and 4 g/t gold.

Polymetallic silver-lead-zinc veins are the most common deposit type in British Columbia, with over 2,000 recorded occurrences. They have provided important sources of silver, lead, and zinc in the past, with larger vein deposits remaining attractive because of their high grades and relative ease of benefaction. They are also potential sources of cadmium and germanium. In British Columbia, these forms of vein deposits generally range in age from Cretaceous to Tertiary. In the Hazelton area, veins originating from Babine and Bulkley Intrusive stocks are hosted by Bowser Group meta-sedimentary or volcanic rocks.

8.0 MINERALIZATION

Mineralization on the KM property occurs in the form of polymetallic vein type mineralization, hosted in four types of veins in order of importance:

1) Quartz Veins
2) Massive Sulphide Veins
3) Quartz +/- ankerite veins
4) Sheeted and stockworked veins and veinlets

Quartz veins located on the property have been shown to comprise local stockworks but more commonly are lone, vuggy, and lacking of internal banding. However, in veins specific to the headwall area, veins are banded owing to thin sericitic/chloritic partings, have masses of earthy black material (possibly tourmaline), and blebby tetrahedrite equaling galena in abundance (5%). The source of these particular veins is assumed to be a dike-like structure in the headwall region whose precipitous location precludes direct observation. However, numerous angular boulders to over 30 centimeters in size exist in talus directly below the cliff-like outcrop.

Within the Babine dike lithology, quartz veins typically comprise to 2%, range from 1 to 4 centimetres, and have cores of ankerite +/- sulphides, occasionally approaching 100% ankerite. Mineralized cores of galena, pyrite, and chalcopyrite may be present; approaching 5% combined sulphides, although galena-chalcopyrite-rich veins may amount to 30% combined sulphides. Sample 441058 taken from within a Babine dike assayed 6l7ppb Au with >300 g/t Ag.

The quartz veins of the diorite stock are mineralized in similar abundances to those found in the granodiorite sills. However, unlike the veins found in the granodiorite sills and Bulkley dikes, they penetrate the surrounding host rock and are traceable along strike. The largest vein found on the property to date is the Gully Vein which returned values of 1.5 g/t Au with 64 g/t Ag (441036) and 0.798 g/t Au with 97 g/t Ag (441036). Samples taken of veins parallel to the Gully Vein on the margin of the dioritic stock returned 1.76 g/t Au with 109 g/t Ag (441052), and 1.25 g/t Au with 17.5 ppm Ag (441054). Approximately 200 metres northeast of this location, two samples from a previously unsampled quartz vein at the margin of a Bulkley dike assayed 0.75 g/t Au (441056), and 0.21 g/t Au with >300 g/t Ag (441055).

The highest assay reported from the property came from a quartz feldspar porphyry showing located immediately northeast of Kisgegas Lake. A grab sample of chalcopyrite-rich quartz boulder discovered immediately below a cliff of phyllically-altered sill-like intrusive assayed 10.28 g/t Au, >300 g/t Ag, and 2.63% Cu (441085). Follow-up work in this area is recommended.

9.0 2011 EXPLORATION PROGRAM

During the period October 11 to October 23, 2011, Rio Minerals Ltd. on behalf of Cavan Ventures Inc., enacted a field program consisting of prospecting, stream sediment sampling, soil sampling, hand-trenching, and rock chip sampling. Fieldwork consisted of the collection of at total of 40 soil samples, 3 rock samples, and 28 silt samples. Several hand-trenches were excavated in the area of sample 934402 (2010), and samples were taken of the exposed banded-quartz vein as well as the inferred extension of the vein to the south west.

The field crew for the 2011 program was supplied by Rio Minerals Limited of Vancouver, BC and consisted of the following personnel: Andrew Molnar, Bruce Brownlee, Jason Fast and Riley Molnar.

Goals for the field season were to verify and compile previous geological work, follow-up on anomalous areas identified by the 2010 programme and sample creeks and rivers draining the property. Figure 13 displays the results of the hand-trenching. Figures 14 to 19 display the results of the soil geochemical survey. Figures 20 to 23 display the results of the silt sampling programme, and Figure 6 is a compilation of rock samples taken to date on the property.

9.1 GEOLOGICAL MAPPING

Detailed geological investigations were conducted during the 2010 programme. These investigations focused on structure and mapping of bedrock outcroppings in the Gully Vein and west region, and detailed mapping of continuous chip sample trenches. Detailed mapping of continuous chip sample trenches was performed at a 1:100 scale and the Gully Vein region was mapped at a 1:500 scale (Figure 5). Thick lateral and terminal moraines cover much of the shallow slopes on the south side of the valley, whereas debris from outwash fans and talus cover much of the valley bottom. Exposure is excellent in areas where outcrop occurs due to limited vegetation and recent glaciation. Locally, trains of boulders measuring over 1 metre composed of like material have been mapped as "sub crop" which, for the purposes of this report, is defined as outcrop detached and having not moved significantly from source.

Lithology

It is believed that the oldest rocks underlying the KM Property are sub aerial to submarine volcanic rocks (andesite, basalt and rhyolite) of the Lower to Middle Jurassic Hazelton Group (Saddle Hill). These rocks are mostly green, maroon, and beige and include volcanic flows and tuffs. Halle (2009) describes the volcanic unit as a greater than 200 metres thick sequence of vesicular, feldspar, and pyroxene-porphyritic volcanic rocks. The maroon basalts (pervasive hematite content) in part contain up to 1 cm calcite amygdules and thus may be referred to as maroon amygdaloidal basalt. Other volcanic rocks include green andesites, beige rhyolitic flows, and related volcaniclastic rocks.

Middle Jurassic to Late Cretaceous Bowser Lake Group sediments+/- meta-sediments lie unconformably over the Lower to Middle Jurassic Hazelton Group (Saddle Hill) volcanic rocks. The sedimentary package is dominated by an ancient shallow marine environment interpreted from fossil evidence such as belemnites and bivalves observed on the property. The thick sequence of well-bedded, moderately east dipping sedimentary rock is comprised dominantly of shale with minor interbedded siltstones, sandstones and rare interbedded slate.

Halle (2009) recognized that higher up in the stratigraphy, well-sorted sandstones, fossiliferous sandstones, carbonaceous shales, and conglomerates exist. The Bowser Lake Group Sediments are over 500 meters in true thickness and are upright with rare minor folds in lower level strata, though tight folds in the uppermost strata exist to overturn bedding.

The Middle Jurassic to Late Cretaceous Bowser Lake Group sediments and minor meta-sedimentary package are intruded by numerous dykes and sills of the late Cretaceous Bulkley Plutonic Suite and earlier. Reconnaissance and detailed mapping at the Gully Vein region has recognized two types of dykes and one type of sill: Firstly, a medium-grained feldspar, quartz and quartz eye +/- muscovite (probably fine sericite) porphyry dyke intrudes the sediment package. This dyke is generally 70% feldspar, 15% quartz and 10% to less than 10% muscovite (sericite) and less chlorite after hornblende; Secondly, fine to medium-grained feldspar, quartz sill with approximately 70% feldspar and 15% quartz and less than 10% altered (sericite/muscovite/chlorite) mafics; Thirdly, a felsic dyke which is generally light green and too fine-grained to distinguish between the component crystals. Halle (2009) recognized the fine-grained felsite dykes and suggested that the untectonized and unmineralized nature of the intrusive suggests it is a relatively young rock on the property, possibly related to the dioritic stock. No sulphide mineralization was noted within this lithology. Halle (2009) states that the porphyritic rock intruding the Bowser Lake Group sediments are feldspar+/- quartz porphyritic rocks. These rocks are medium-grey to buff-coloured containing porphyritic plagioclase to 30%, potassic feldspar to 20%, and phyric interstitial quartz to 15%. Mafic minerals comprise 10% of the rock consisting of sericite and chlorite after hornblende. An aphanitic matrix is sericite dominated and may be coloured pink through fine-grained iron oxides. The rocks were termed ‘microgranodiorite’ by Hooper (BCAR 17542-1987) to encompass a range of massive to porphyritic to aphanitic textures exhibited. Feldspar-quartz porphyry is a more accurate description.

Mapping by Halle in 2009 has classified the porphyritic intrusive into sill-like bodies up to 10 metres wide and cross-cutting dyke swarms trending ESE and up to 3 metres wide. The rocks are widely-spaced throughout the property comprising 10% of exposures. Halle (2009) noted a dyke-like series of rocks cross-cutting the feldspar-quartz porphyry sills. These rocks are light grey and plagioclase feldspar porphyritic. They are difficult to distinguish from porphyritic sills, but tend to have a more dyke-like structure, are usually narrow (1-2.5 m wide), have a lower abundance of quartz veining (5%) and have more quartz content. Hooper (1987) describes this lithology as “Bulkley Dykes”.

A small stock or plug of Late Cretaceous Bulkley Plutonic Suite intrusive rock intrudes the Bowser Lake sediments on the southwest side of the property between 1400 and 1600 metres elevation. It consist of a dioritic to quartz diorite stock, elongated east-west. The stock contains plagioclase feldspar, euhedral hornblende to 30%, biotite to 10% and 2% to 3% quartz, and accessory pyrite. The textures are equigranular, medium-grained, and massive at its core to foliated and fine-grained near its margins.

Numerous sub-parallel quartz veins generally from 10 centimeters to 1.0 metre wide cut the diorite at its eastern end. These veins are late, planar, and can be traced for well over 100 metres each. A 0.5m to 1.2-meter thick milky quartz vein at the eastern edge of this stock is known as the 'Gully Vein'.

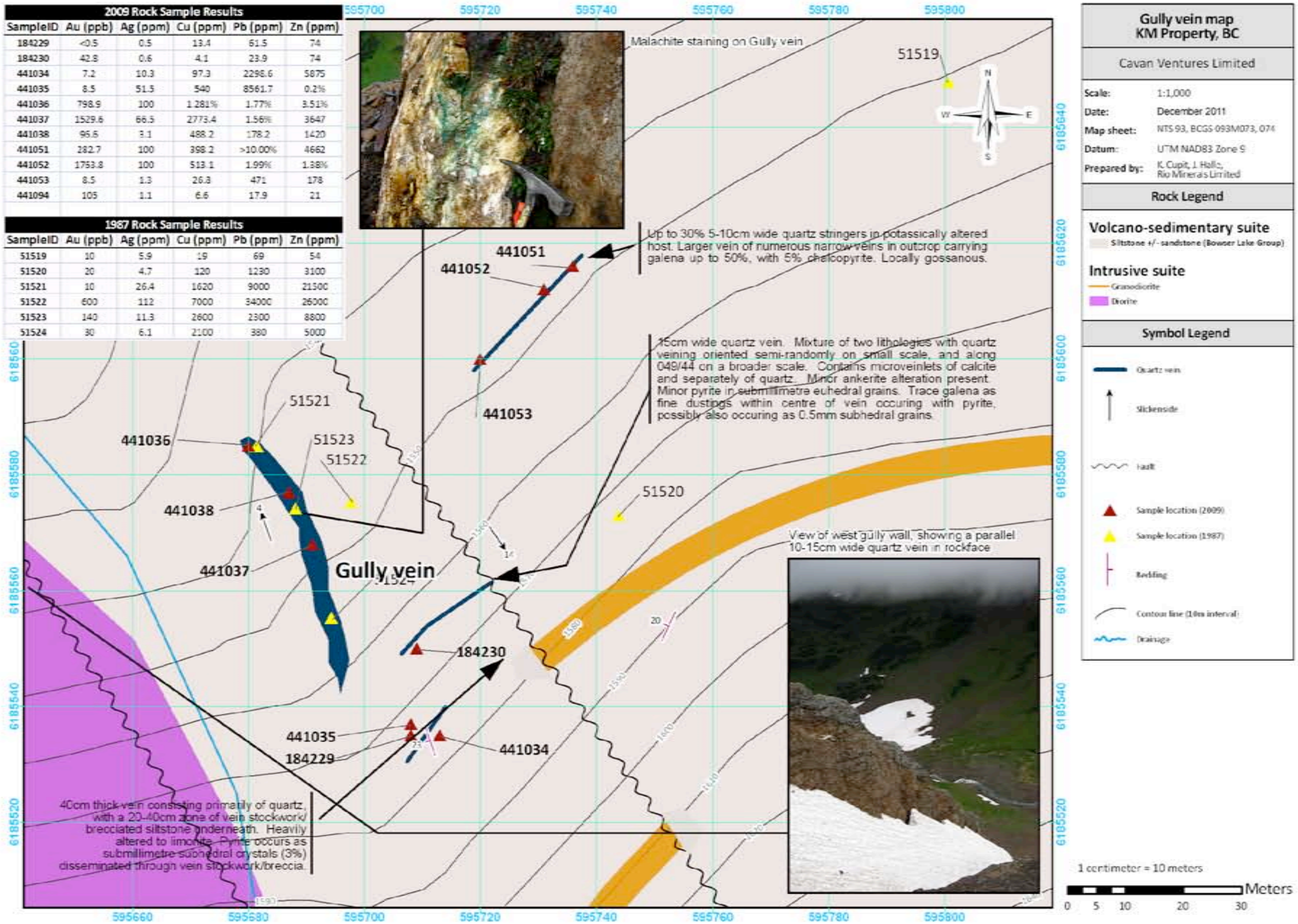
Figure 5: Gully Vein Map

2009 Rock Sample Results

SampleID	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
184229	<0.5	0.5	13.4	61.5	74
184230	42.8	0.6	4.1	23.9	74
441034	7.2	10.3	97.3	2298.6	5875
441035	8.5	51.5	540	8561.7	0.2%
441036	798.9	100	1.281%	1.77%	3.51%
441037	1529.6	66.5	2773.4	1.56%	3647
441038	96.6	3.1	488.2	178.2	1420
441051	282.7	100	398.2	>10.00%	4662
441052	1753.8	100	513.1	1.99%	1.38%
441053	8.5	1.3	26.8	471	178
441094	105	1.1	6.6	17.9	21

1987 Rock Sample Results

SampleID	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
51519	10	5.9	19	69	54
51520	20	4.7	120	1230	3100
51521	10	26.4	1620	9000	21500
51522	600	112	7000	34000	26000
51523	140	11.3	2600	2300	8800
51524	30	6.1	2100	380	5000



Alteration

Wall rock alteration adjacent to the veins hosted in dioritic intrusive rock is minimal. Weak zones of propylitic (calcite, epidote +/- chlorite) alteration and limonitic zones are common. One exception is the dioritic rocks next to the Gully Vein where moderate and sometimes strong carbonatization (calcite, ankerite, sericite +/- chlorite) occur next to the principle quartz vein.

A quartz vein (hosted in sediments) observed on the north-slope near the west end of the property showed strong sericite alteration adjacent and within the vein.

Three types of alteration zones occur elsewhere on the claims where mapped. These are, in order of abundance:

1) Halle (2009) noted that low grade metamorphism of the sedimentary rocks has re-crystallized coarse-grained pyrite along pre-existing iron-rich layers and local fractures in the shales. Elsewhere, boudined pods of carbonate+pyrite+pyrrhotite also trace original bedding planes.

2) Halle (2009) observed the feldspar-quartz porphyry sills appear as pink to grey, massive, weakly iron-stained and sericitized, homogeneous rock. However, strong phyllic alteration in 20% of the exposures exists resulting in the formation of pyrite, saussuritization of the feldspars, and liberation of quartz. In the most pervasive phyllically-altered feldspar-quartz porphyry, pyrite attains up to 15% of the rock, feldspars are completely altered to sericite, and quartz veins attain 10% of the host. Intense alteration can exist as a pervasive bleaching of the entire rock or can exist as envelopes adjacent to quartz veins, the largest of which extends to 10 centimetres. The original mafic constituents have been all but completely replaced by chlorite/sericite/iron oxides.

3) Bulkley dykes have been phyllically altered. However, saussuritization is weak overall and only a weak green hue and zonation of the feldspars alludes to alteration.

Structure

Many structural elements were mapped on the KM property. These include faults, dykes, sills, veins/veinlets and bedding.

Numerous faults were mapped on the property within the Late Cretaceous Bulkley Plutonic Suite (quartz diorite intrusive), the Bowser Lake Group sediments and the Lower to Middle Jurassic Hazelton Group volcanic. Four types of faulting were recognized and are listed below in order of abundance:

1) Strike-slip faults are most common in all rock types on the property and are typically on the hanging wall of most quartz veins. These faults are caused by shearing forces. The strike-slip faults along veins in the Gully Vein and Gully Vein west region generally trend northwest-southeast dipping moderately and steeply to the southwest. Two strike-slip faults mapped in the Hazelton Group volcanic rocks trend northeast-southwest dipping moderately to steeply to the northwest. One strike-slip fault within the volcanics again trends northwest-southeast but dips shallowly to the northeast. Within the Bowser Lake Group sediments a quartz carbonate vein breccias emplaced along a strike-slip fault trends northwest-southeast dipping shallowly to the northeast.

2) Oblique-slip faults were seen in all rock units mapped on the property but are less common than strike-slip faults and host less quartz veins. These faults result from a combination of shearing and tension produced by compressional forces. At the Gully Vein region the oblique-slip faults generally trend northwest-southeast dipping moderately to steeply southwest and northeast. Slickensides generally pitch steeply to the southeast. Within the Bowser Lake Group sediments oblique–slip faults were mapped trending northwest-southeast dipping moderately and steeply to the southwest. Slickensides pitch steeply to the southeast. In the volcanic rocks oblique-slip faults were mapped trending both northwest-southeast and northeast-southwest dipping rather steeply to the southwest and southeast.

3) Normal faults were mapped at the Gully Vein region and in the Stuhini (Takla) Group volcanic rocks. These faults are caused by tensional forces and result in extension. At the Gully Vein region normal faults generally trend northwest-southeast dipping rather steeply to the northeast. In the volcanic unit normal faults trend northwest-southeast dipping moderately to the southwest.

4) Reverse faults were mapped in the Gully Vein region and the north side of the property. This fault motion is caused by compressional forces and results in shortening. In the Gully Vein region reverse faults trend northwest-southeast dipping moderately to the southwest and northeast. Halle (2009) recognized widely spaced east dipping reverse faults within the sediments on the north side of the property, but with dip slips of less than 5 metres.

Dykes are fairly common on the KM property and range from 30 cm wide to many metres. Dyke contacts are generally sharp in contact with sediments and intrusive rock and have chilled margins. No dykes were mapped in the volcanic units. The most common dyke on the property are feldspar-quartz porphyry dykes and they trend generally northwest-southeast dipping fairly steeply to the southwest. It appears these dykes are filling zones of weakness and previously faulted zones since most of the strike-slip faults trend this direction.

Sills appear to be as common as dykes on the KM property and are generally many metres wide. A sill approximately 2 metres wide, mapped in the Gully Vein region, trends northeast-southwest dipping shallowly to the southeast. Halle (2009) observed sills to be uniform along their exposed length and exhibit true thicknesses of 4 to 10 metres.

Numerous veins and veinlets were observed on the KM property and they generally fall into four modes of occurrence (listed in order of importance or potential for drill target);

1) Fault hosted veins associated with Late Cretaceous Bulkley Plutonic Suite. These veins were studied the most during the 2010 program and appeared to have the best potential for locating a drill target even though they were weak in sulphide composition. The veins generally trend northwest-southeast dipping moderately and steeply to the southwest and include the main Gully vein (Figure 9, 10, 11 and 12). All veins are typically hosted along strike-slip faults with a few veins hosted along oblique-slip fault. These veins are typically the widest on the property and range from 0.10 metres to just over 1.0 metres.

2) Massive sulphide veins and quartz vein breccias are hosted in oblique-slip faults and strike-slip faults. They are associated with and cut across (not conformable to bedding) the Middle Jurassic to Late Cretaceous Bowser Lake sediments. The massive sulphide veins (Figure 14) trend northeast-southwest dipping relatively steeply to the southwest. These veins were located in one area of the property and range in width from 10 cm to 35 cm and trend approximately 15.0 metres but quickly drop to 2-3 cm and disappear (discontinuous). A continuous chip trench across this massive sulphide zone (Figure 14) showed two parallel sheeted massive sulphide veins. One is 35 cm wide and the other is approximately 10 cm wide.

3) Shallowly dipping quartz veins (0.10-0.35 m wide) hosted within strike-slip faults associated with Lower to Middle Jurassic Hazelton Group andesite (green) and related volcaniclastic rocks. The veins, with moderate sulphides (chalcopyrite, bornite, malachite and azurite) trend northwest-southeast and northeast-southwest dipping shallowly to the northeast and northwest.

4) Stockworked and sheeted vein and veinlets hosted within dykes and sills of the Bulkley Plutonic Suite. These vein and veinlets range from a few centimeters to approximately 50 cm in width represent the least economic vein/veinlet system on the property even though they comprise the majority of mineral occurrences. The vein and veinlets are generally narrow and discontinuous and are rarely seen trending outside of the dyke or sill. A sill mapped in the Gully Vein region trends northeast-southwest dipping shallowly to the southeast. Halle (2009) noticed some sills show a gash-fracturing and en echelon quartz veining. This style of veining indicates early brittle-ductile deformation from northeast-directed shears. They are locally common in the largest sills and may be contemporaneous with mineralization.

Bedding in the sedimentary package has an eastward dip throughout the property. The dip is moderately steep on the west side of the property, becoming increasingly shallow further east, and obtaining sub-horizontality on the far eastern side of the property.

2011 Rock Sample Results					
SampleID	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
938916	1541.5	462 g/t	1.41%	203.3	135
938917	599.7	162 g/t	6837.6	404.7	76
938918	96.7	10.5	873.9	142.6	129

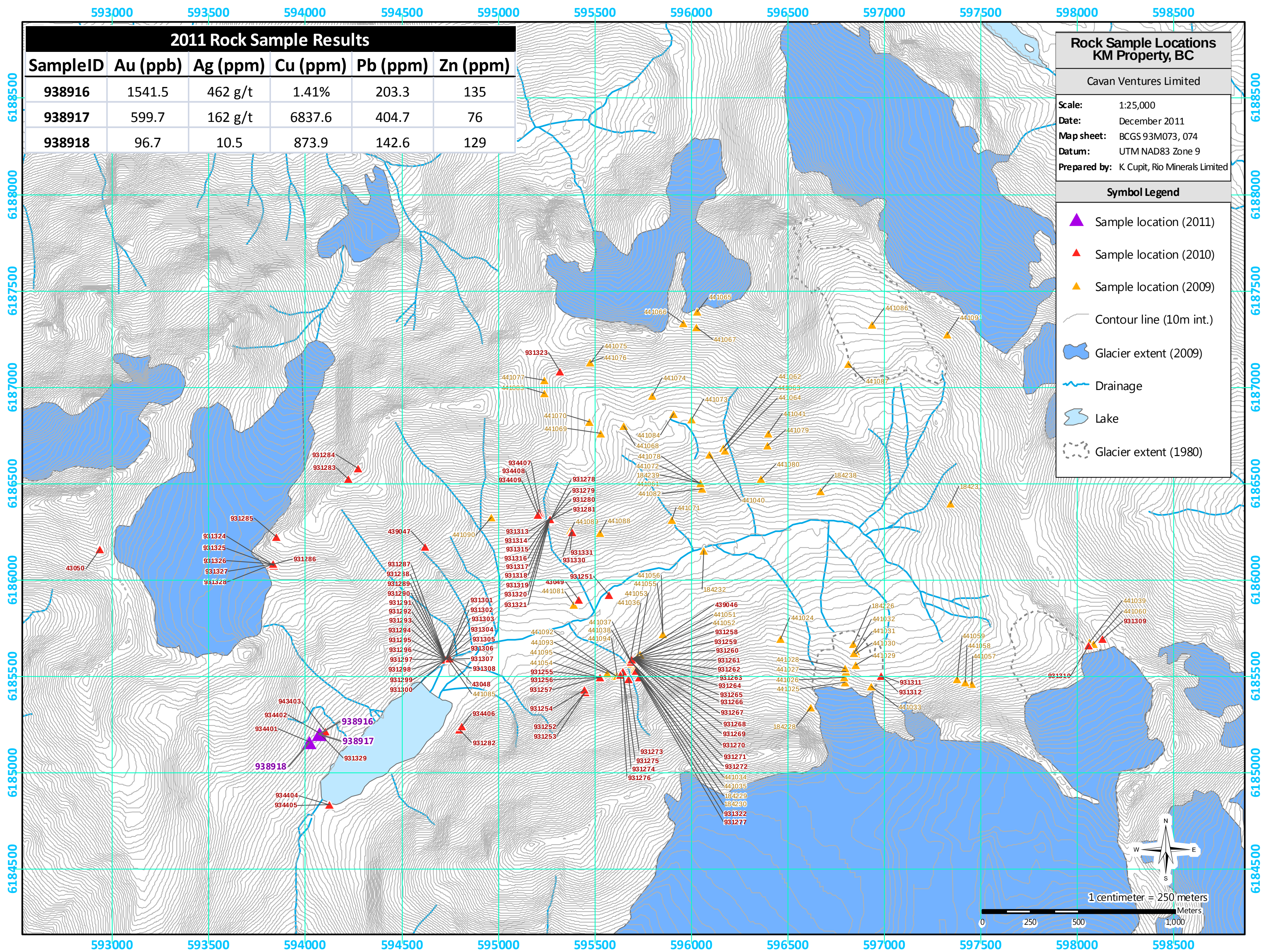


Figure 6: Rock Sample Location

Figure 7: Trench KMTR10-01

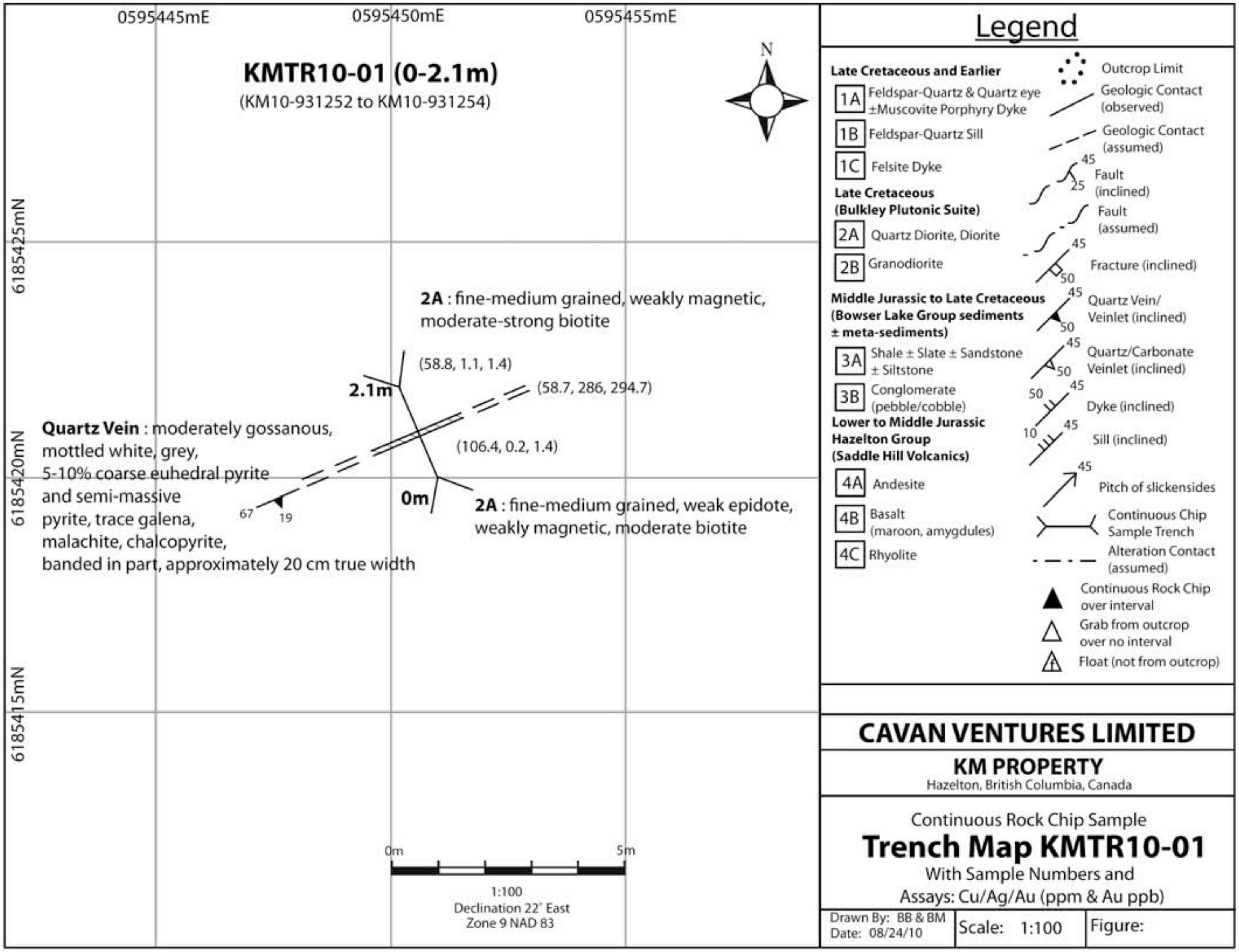


Figure 8: Trench KMTR10-02

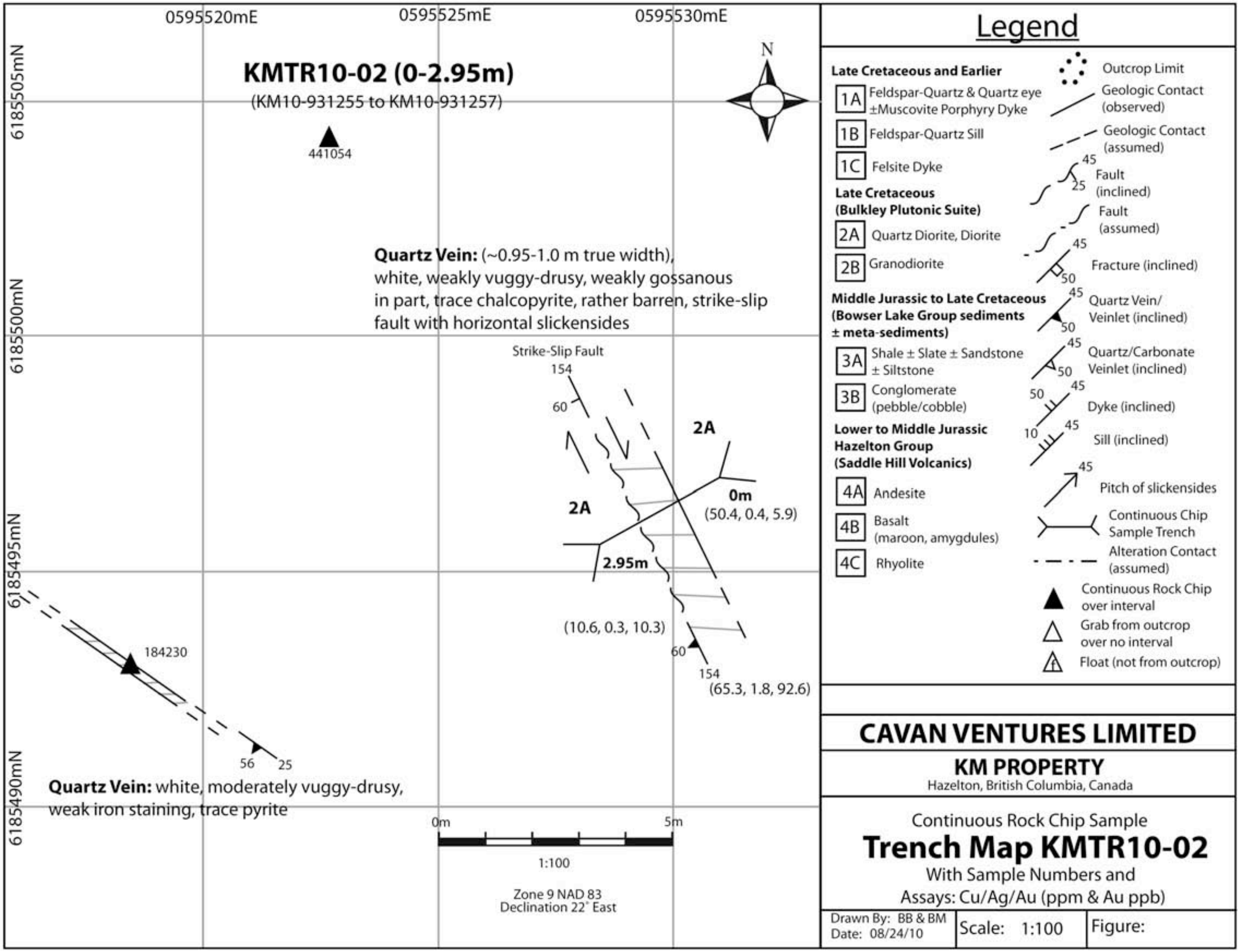


Figure 9: Trench KMTR10-03

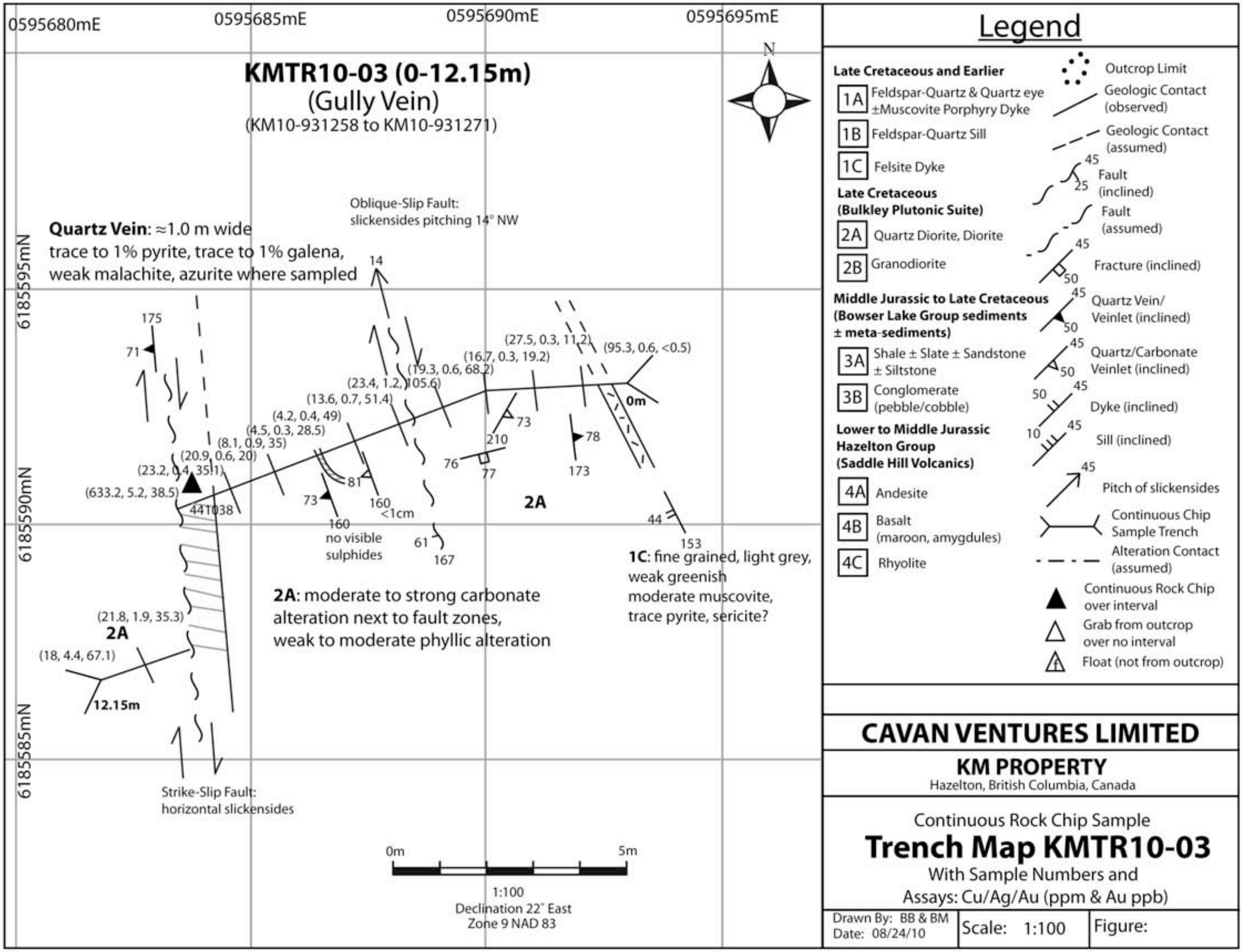


Figure 10: Trench KMTR10-04

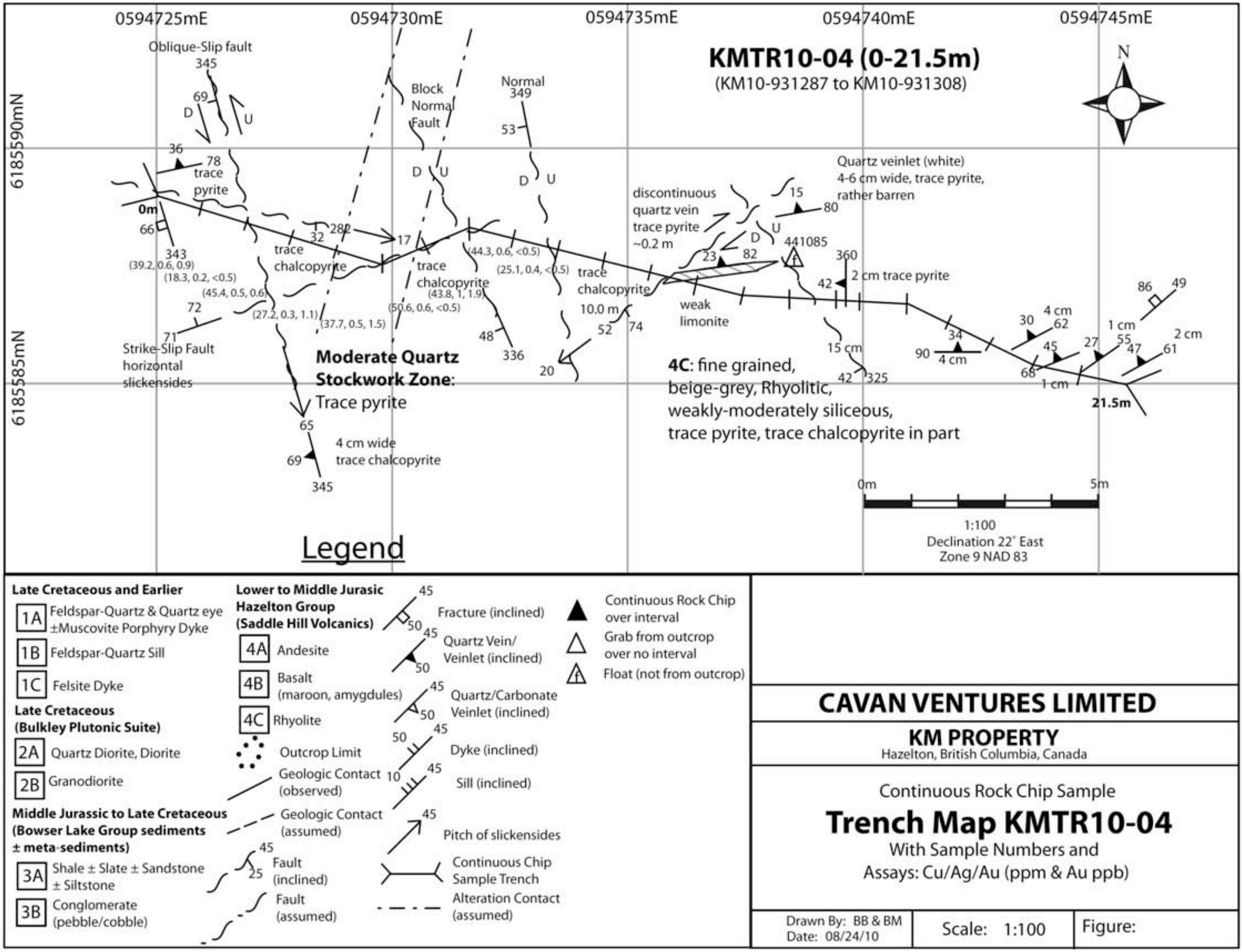


Figure 11: Trench KMTR10-05, KMTR10-06

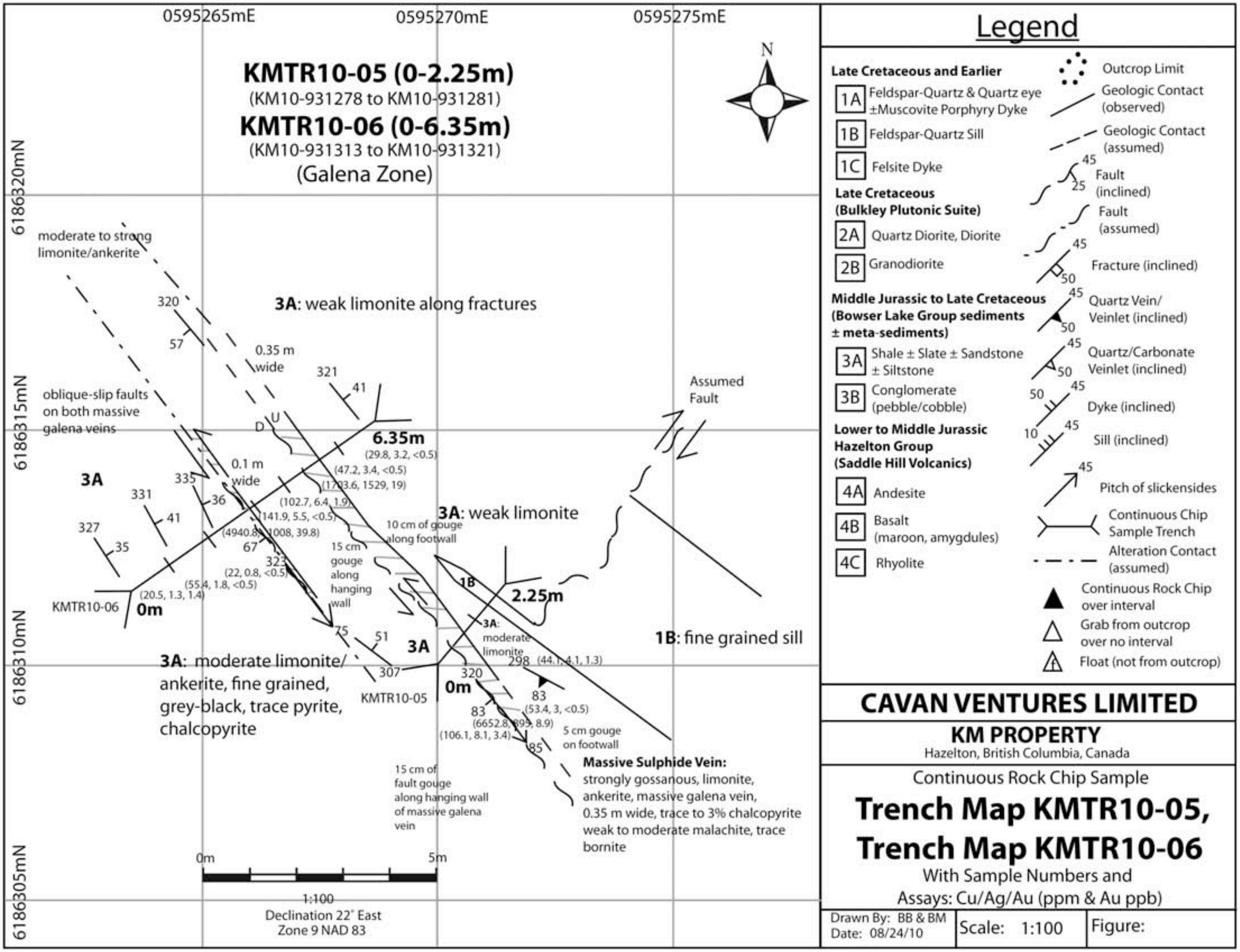
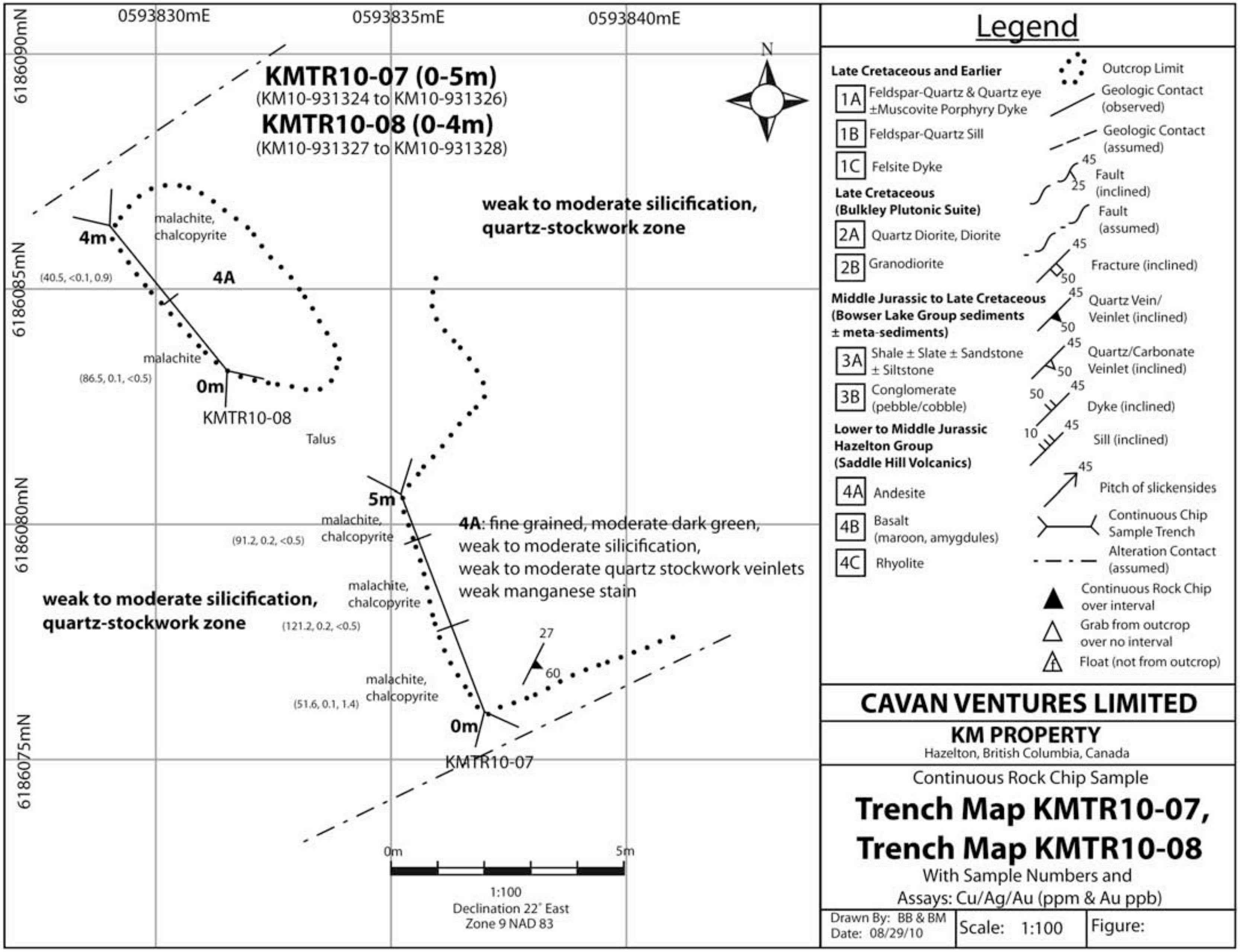


Figure 12: Trench KMTR10-07, KMTR10-08



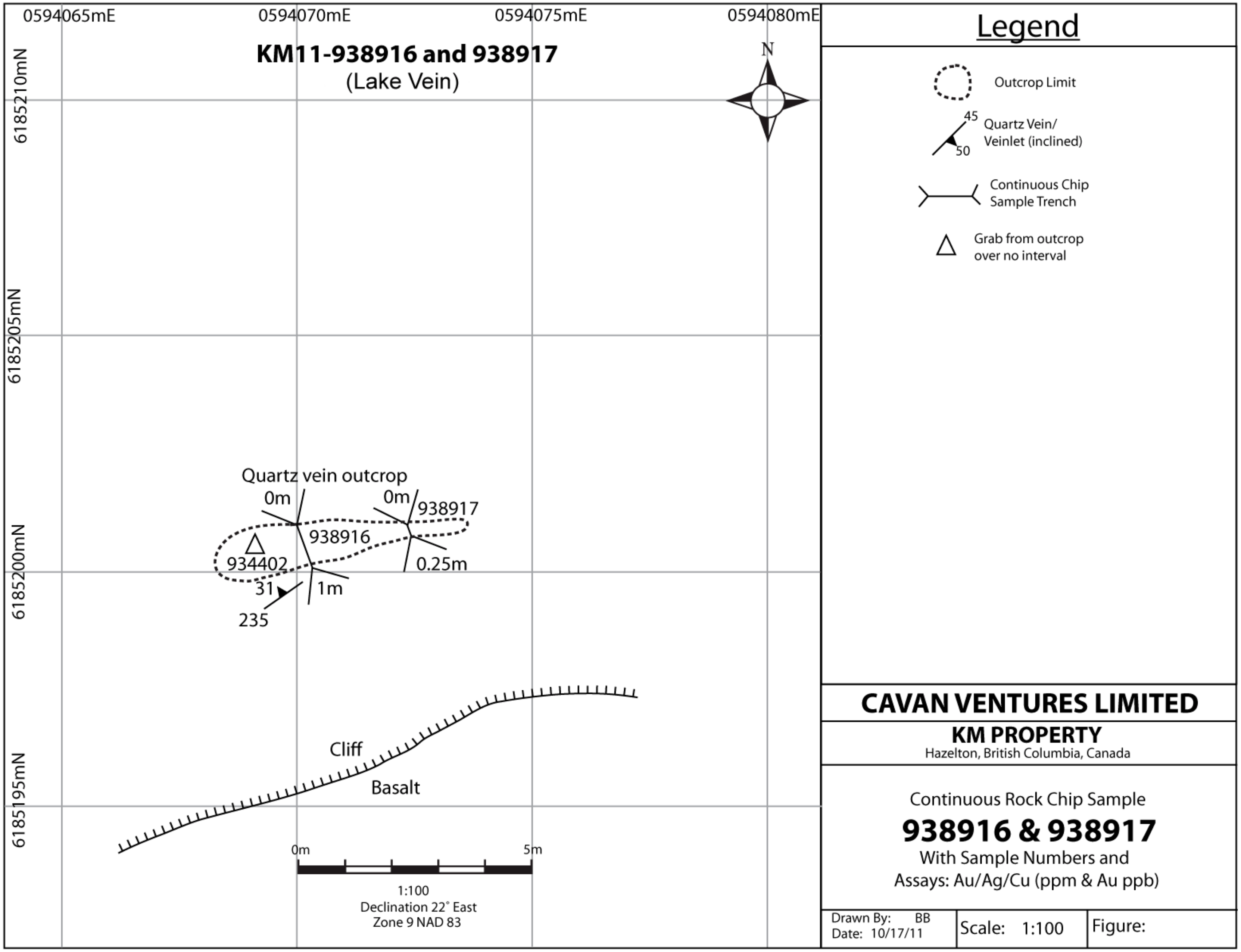


Figure 13: Lake Vein Trench Map

10.0 Geochemical Survey

A detailed soil grid consisting of 2 - 200 hundred meter lines spaced 25 meters apart were placed over the area of the Lake Vein. The lines were centered on the vein area and run along the inferred 50˚ strike of the vein in order to determine the extent of the structure.

B- horizon soil samples were taken on 10 meter centres. The purpose of this survey was to determine the below ground extent of the newly discovered 5-meter long quartz sulphide vein.

The results show above background gold for 8 sample locations with results ranging from 6.1 ppb to 14.0 ppb Au.

Anomalous silver was returned from 2 locations and does not correlate with gold.

Copper results are encouraging with 13 samples returning results from 47.8 ppm to 103.3 ppm.

Lead values are fairly consistiant and range from 7.5 ppm to 69.5 ppm.

Zinc results reveal a high background with 14 samples ranging from 105 ppm to 196 ppm.

Arsenic results show 3 samples ranging from 99.5 ppm to 916.2 ppm and display a correlation with gold.

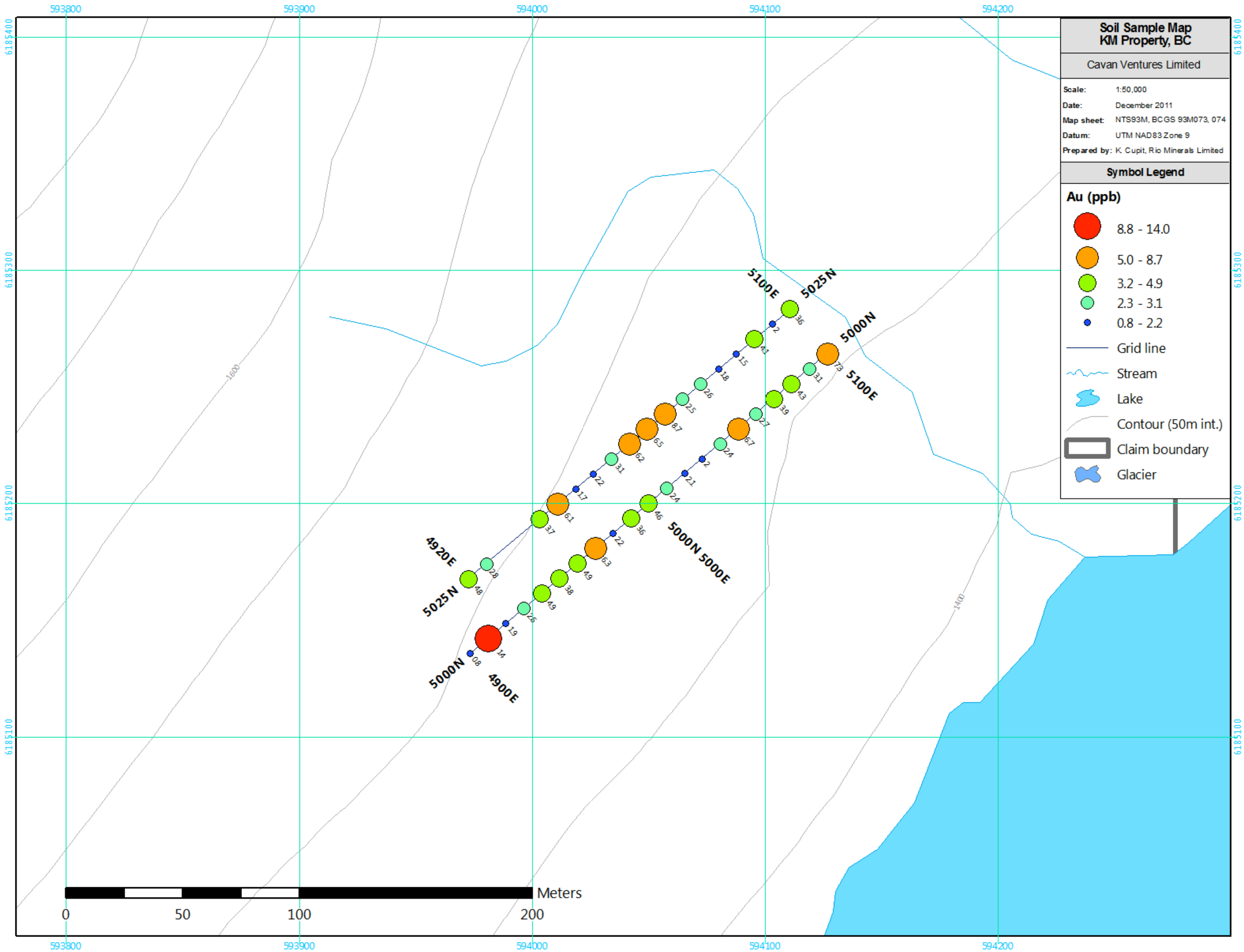


Figure 14: Gold Soil Sample Map

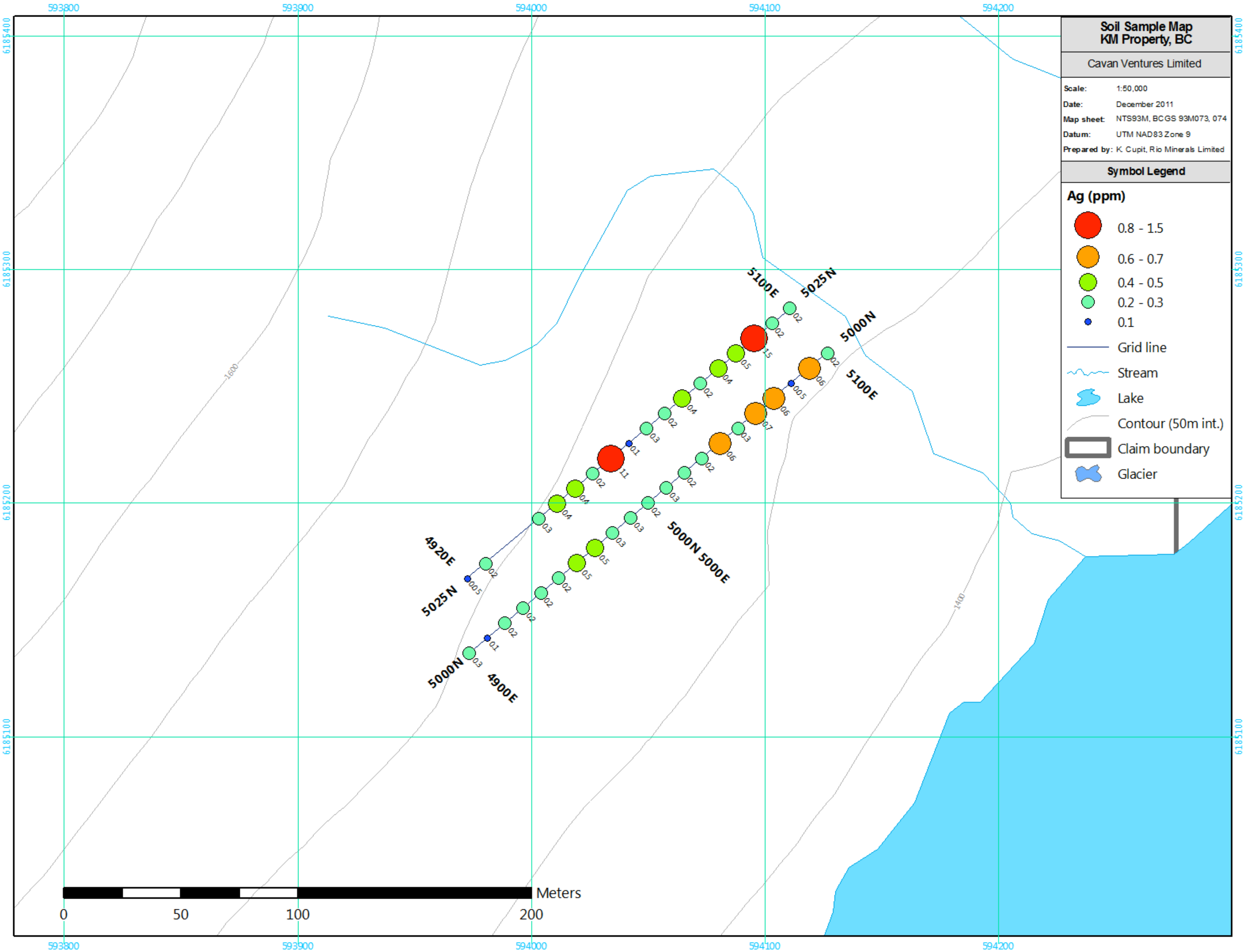


Figure 15: Silver Soil Sample Map

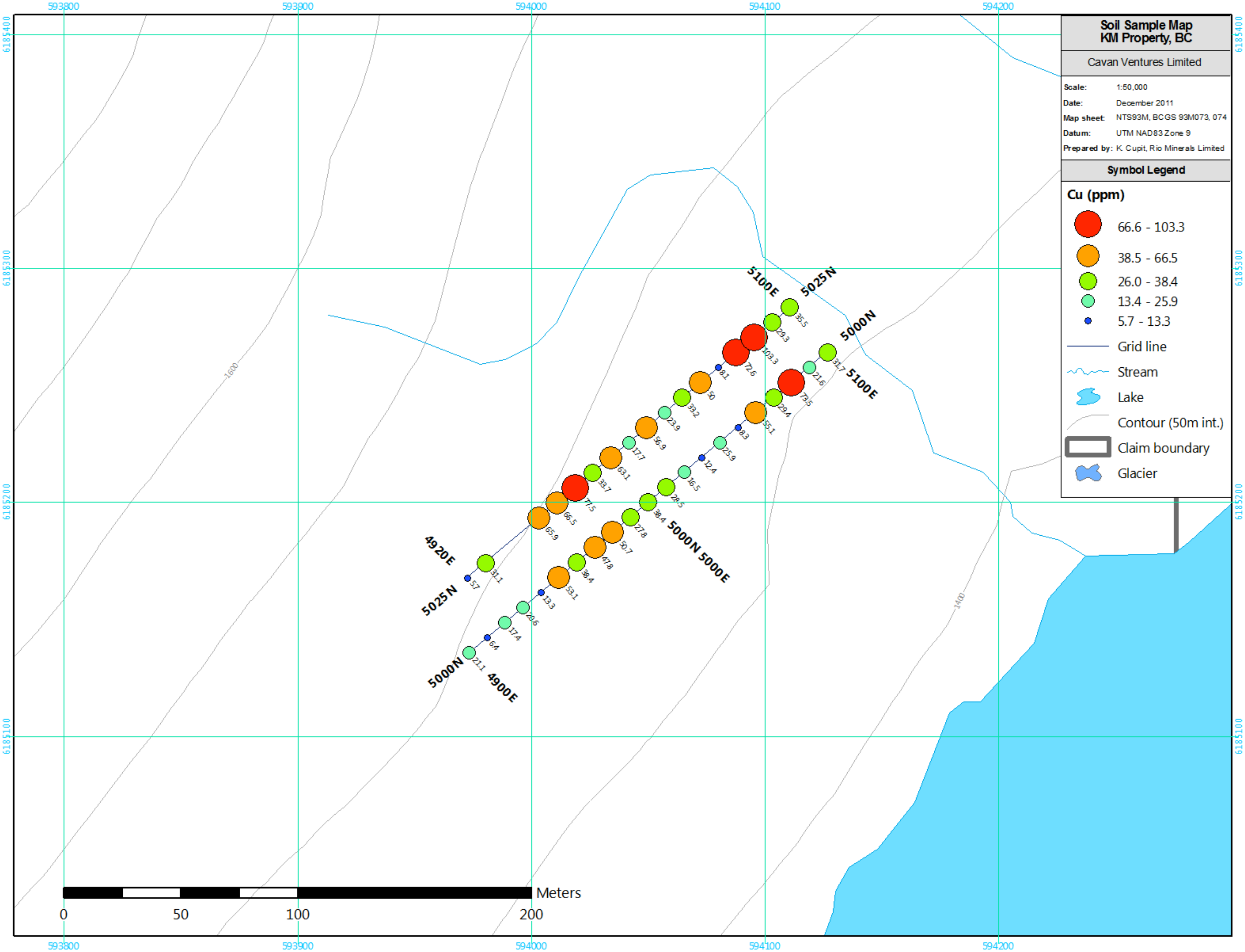
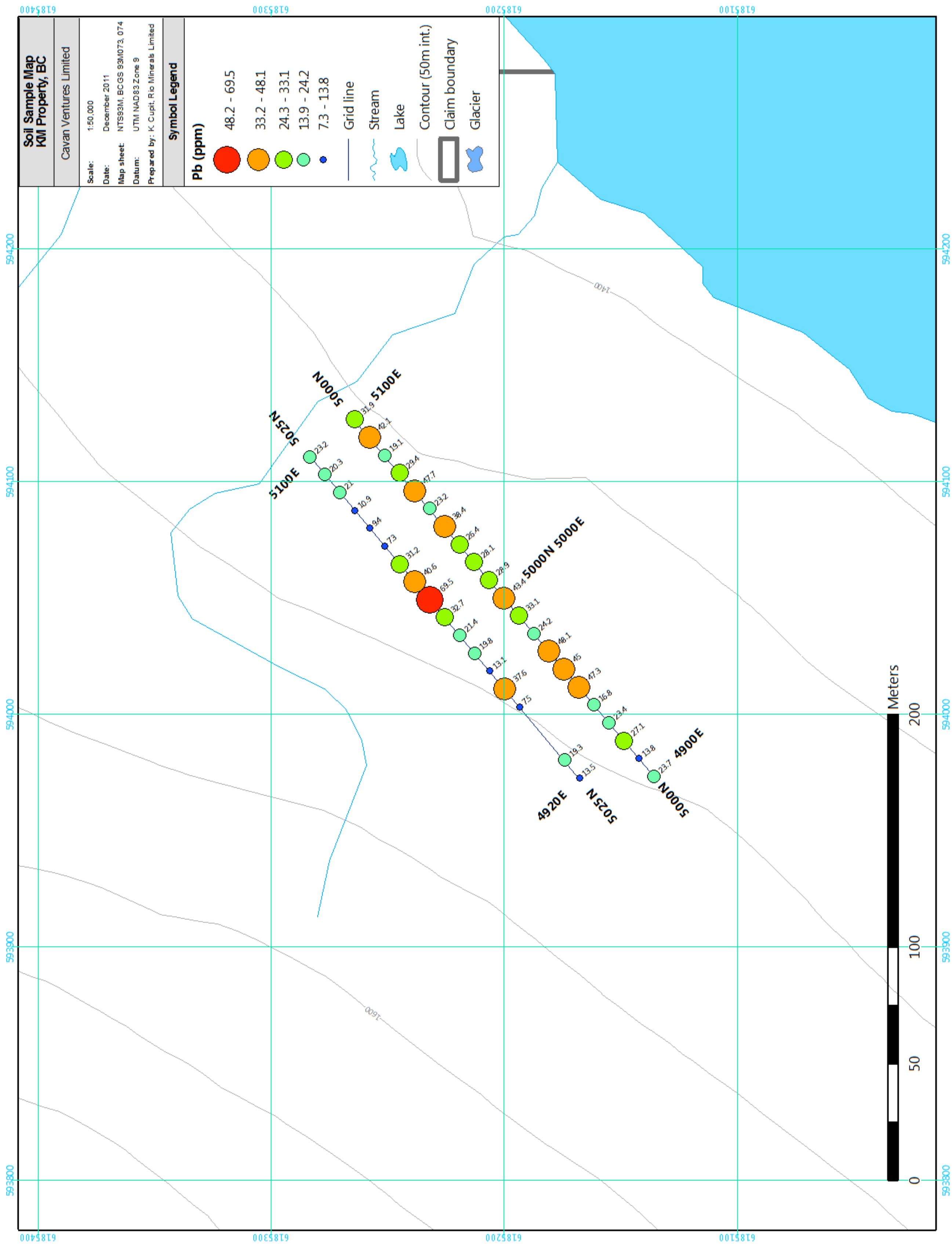


Figure 16: Copper Soil Sample Map

Figure 17: Lead Soil Sample Map



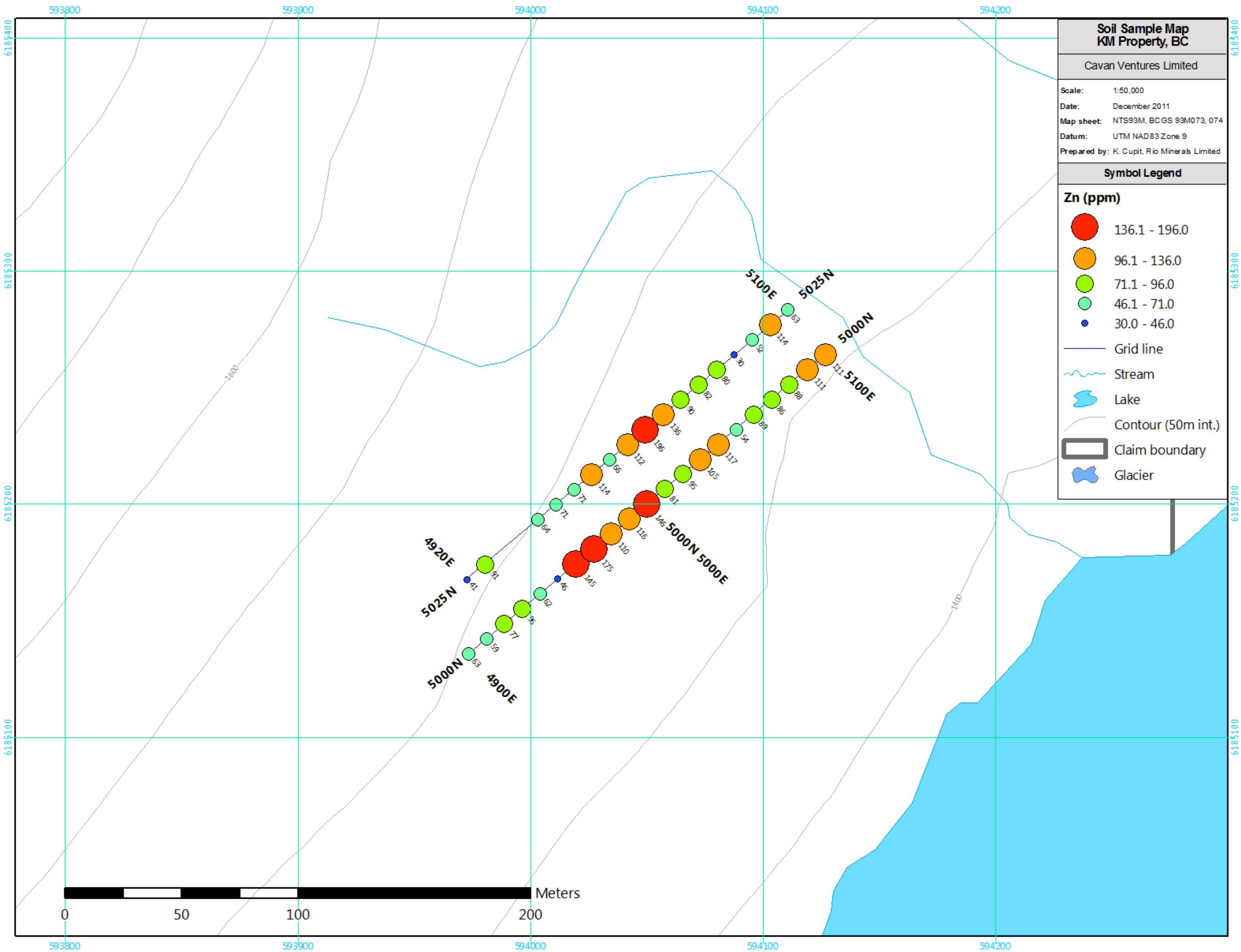


Figure 18: Zinc Soil Sample Map

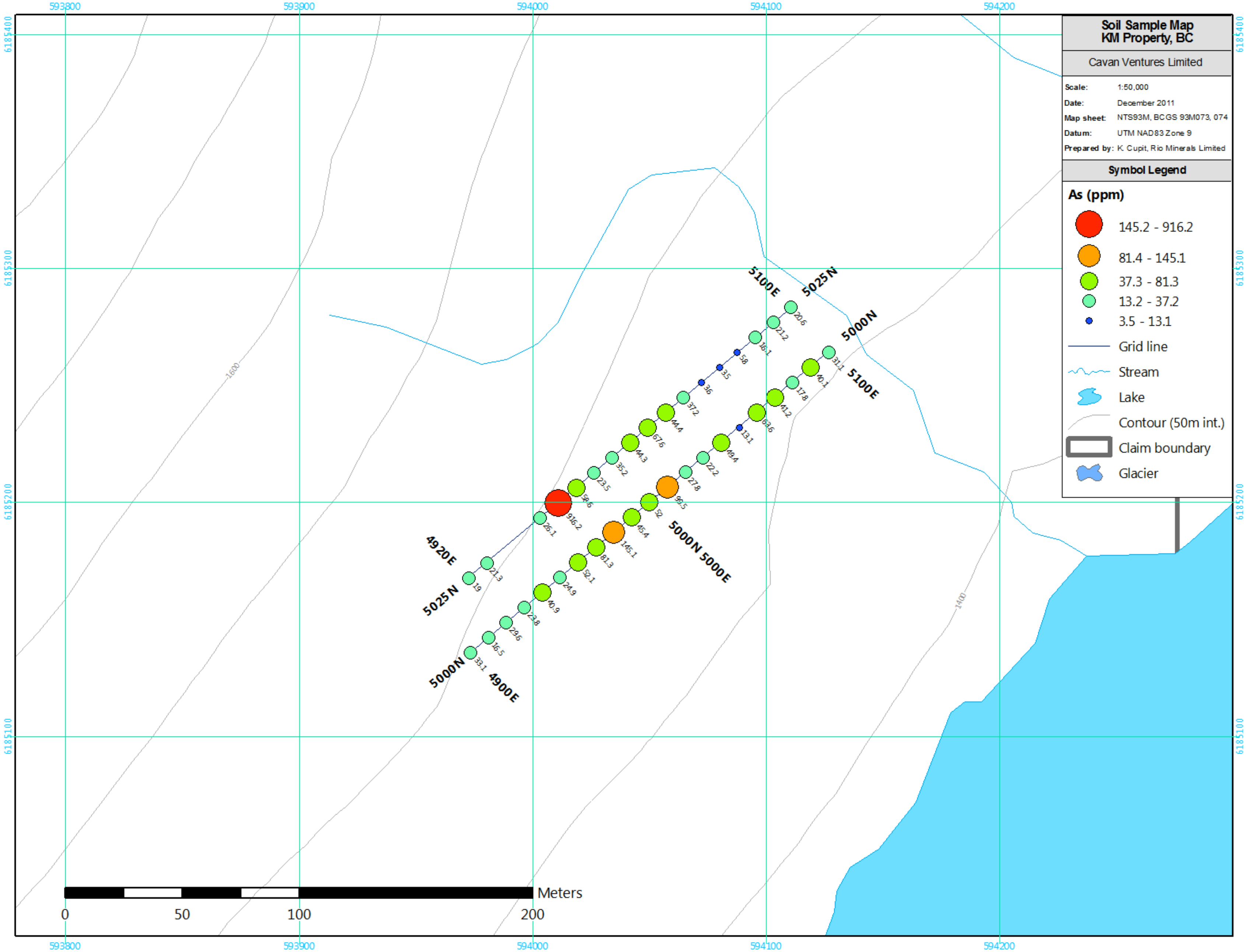


Figure 19: Arsenic Soil Sample Map

11.0 Silt Sample Survey

28 silt samples were collected from drainages within the property boudaries as well as from main creeks that drain the property.

Samples from several areas returned anomalous results and require follow-up investigation.

Sample 5197 returned values of 15.2 ppb Au and 36.9 As and drains a large basin from which the glacier is rapidly retreating.

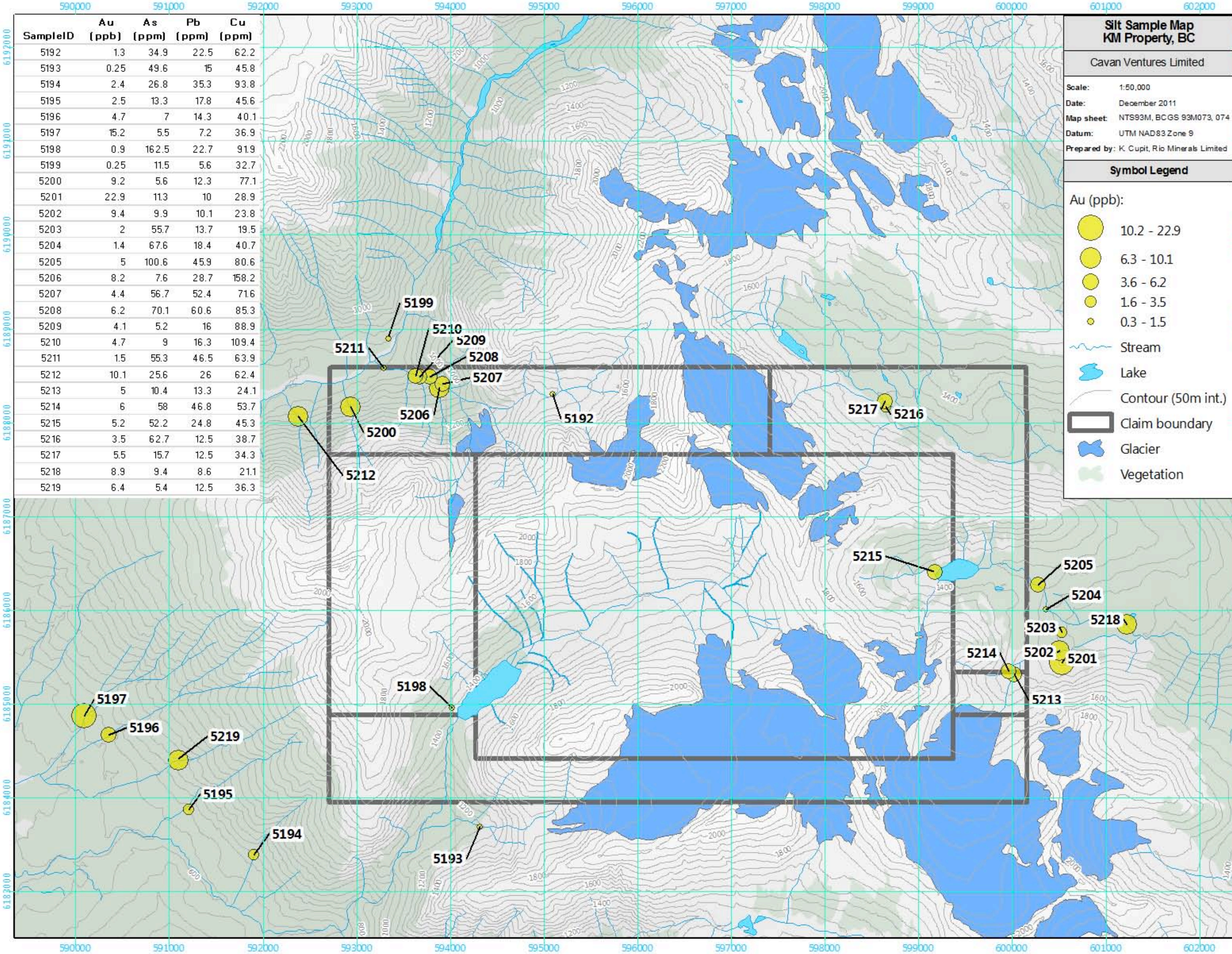
Sample 5201 returned 22.9 ppb Au and 11.3 As and drains an area in which quartz veining in cliff facies was observed.

Sample 5205 returned 5.0 ppb Au, 100.6 ppm As, 45.9 ppm Pb, and 80.6 ppm Cu and was taken below a possible fault zone.

Samples 5206 - 5211 were taken from an unexplored north-west draining basin and dislpay values from 1.5 to 8.2 ppb Au, 5.2 - 70.1 ppm As, 16.0 - 60.6 ppm Pb, and 71.6 ppm - 158.2 ppm Cu.

Several other samples returned anomalous gold and base metals and require follow-up investegation to determine the sources of the anomalies.

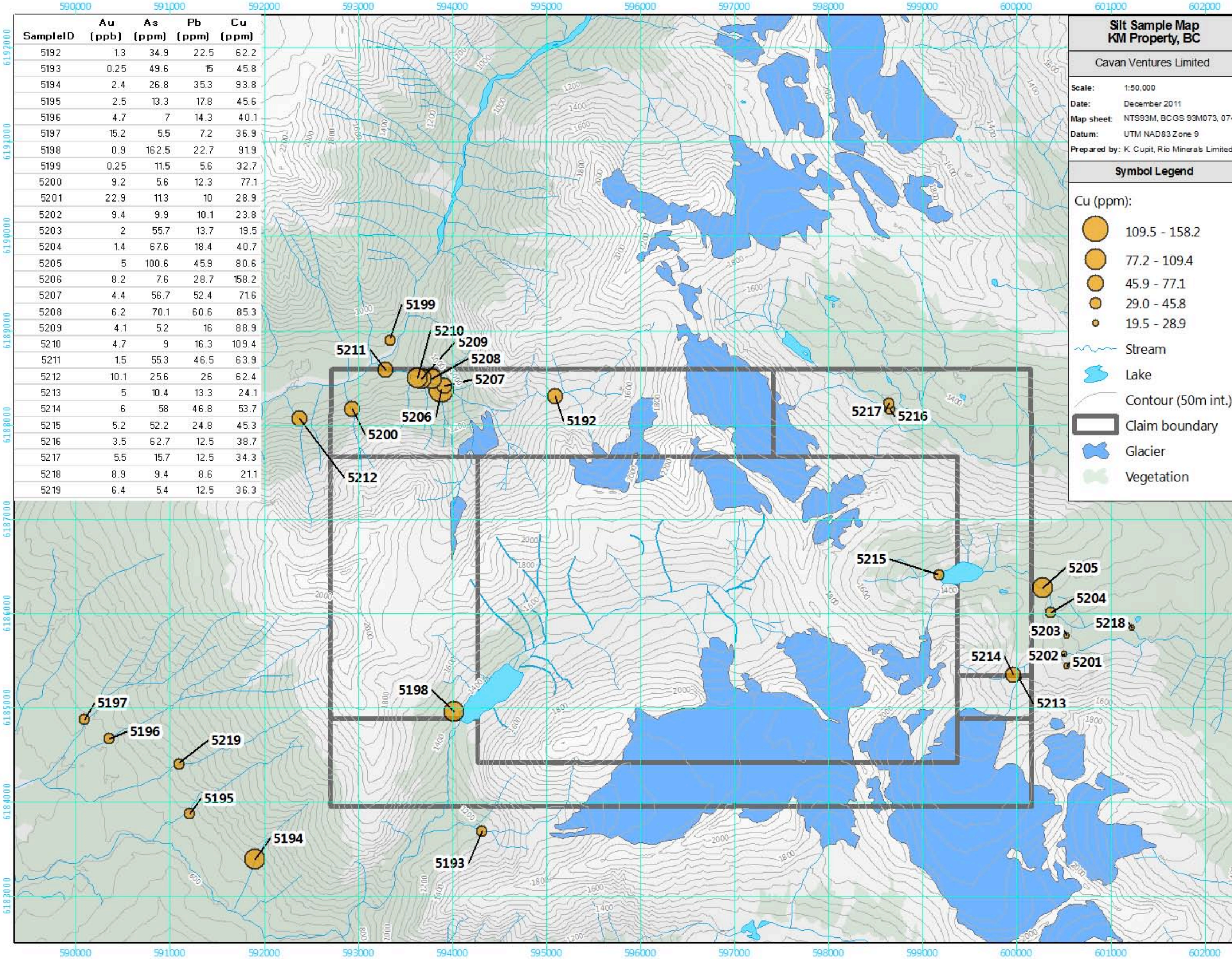
Figure 20: Gold Silt Sample Map



SampleID	Au (ppb)	As (ppm)	Pb (ppm)	Cu (ppm)
5192	1.3	34.9	22.5	62.2
5193	0.25	49.6	15	45.8
5194	2.4	26.8	35.3	93.8
5195	2.5	13.3	17.8	45.6
5196	4.7	7	14.3	40.1
5197	15.2	5.5	7.2	36.9
5198	0.9	162.5	22.7	91.9
5199	0.25	11.5	5.6	32.7
5200	9.2	5.6	12.3	77.1
5201	22.9	11.3	10	28.9
5202	9.4	9.9	10.1	23.8
5203	2	55.7	13.7	19.5
5204	1.4	67.6	18.4	40.7
5205	5	100.6	45.9	80.6
5206	8.2	7.6	28.7	158.2
5207	4.4	56.7	52.4	71.6
5208	6.2	70.1	60.6	85.3
5209	4.1	5.2	16	88.9
5210	4.7	9	16.3	109.4
5211	1.5	55.3	46.5	63.9
5212	10.1	25.6	26	62.4
5213	5	10.4	13.3	24.1
5214	6	58	46.8	53.7
5215	5.2	52.2	24.8	45.3
5216	3.5	62.7	12.5	38.7
5217	5.5	15.7	12.5	34.3
5218	8.9	9.4	8.6	21.1
5219	6.4	5.4	12.5	36.3

Figure 21: Copper Silt Sample Map

SampleID	Au (ppb)	As (ppm)	Pb (ppm)	Cu (ppm)
5192	1.3	34.9	22.5	62.2
5193	0.25	49.6	15	45.8
5194	2.4	26.8	35.3	93.8
5195	2.5	13.3	17.8	45.6
5196	4.7	7	14.3	40.1
5197	15.2	5.5	7.2	36.9
5198	0.9	162.5	22.7	91.9
5199	0.25	11.5	5.6	32.7
5200	9.2	5.6	12.3	77.1
5201	22.9	11.3	10	28.9
5202	9.4	9.9	10.1	23.8
5203	2	55.7	13.7	19.5
5204	1.4	67.6	18.4	40.7
5205	5	100.6	45.9	80.6
5206	8.2	7.6	28.7	158.2
5207	4.4	56.7	52.4	71.6
5208	6.2	70.1	60.6	85.3
5209	4.1	5.2	16	88.9
5210	4.7	9	16.3	109.4
5211	1.5	55.3	46.5	63.9
5212	10.1	25.6	26	62.4
5213	5	10.4	13.3	24.1
5214	6	58	46.8	53.7
5215	5.2	52.2	24.8	45.3
5216	3.5	62.7	12.5	38.7
5217	5.5	15.7	12.5	34.3
5218	8.9	9.4	8.6	21.1
5219	6.4	5.4	12.5	36.3



SampleID	Au (ppb)	As (ppm)	Pb (ppm)	Cu (ppm)
5192	1.3	34.9	22.5	62.2
5193	0.25	49.6	15	45.8
5194	2.4	26.8	35.3	93.8
5195	2.5	13.3	17.8	45.6
5196	4.7	7	14.3	40.1
5197	15.2	5.5	7.2	36.9
5198	0.9	162.5	22.7	91.9
5199	0.25	11.5	5.6	32.7
5200	9.2	5.6	12.3	77.1
5201	22.9	11.3	10	28.9
5202	9.4	9.9	10.1	23.8
5203	2	55.7	13.7	19.5
5204	1.4	67.6	18.4	40.7
5205	5	100.6	45.9	80.6
5206	8.2	7.6	28.7	158.2
5207	4.4	56.7	52.4	71.6
5208	6.2	70.1	60.6	85.3
5209	4.1	5.2	16	88.9
5210	4.7	9	16.3	109.4
5211	1.5	55.3	46.5	63.9
5212	10.1	25.6	26	62.4
5213	5	10.4	13.3	24.1
5214	6	58	46.8	53.7
5215	5.2	52.2	24.8	45.3
5216	3.5	62.7	12.5	38.7
5217	5.5	15.7	12.5	34.3
5218	8.9	9.4	8.6	21.1
5219	6.4	5.4	12.5	36.3

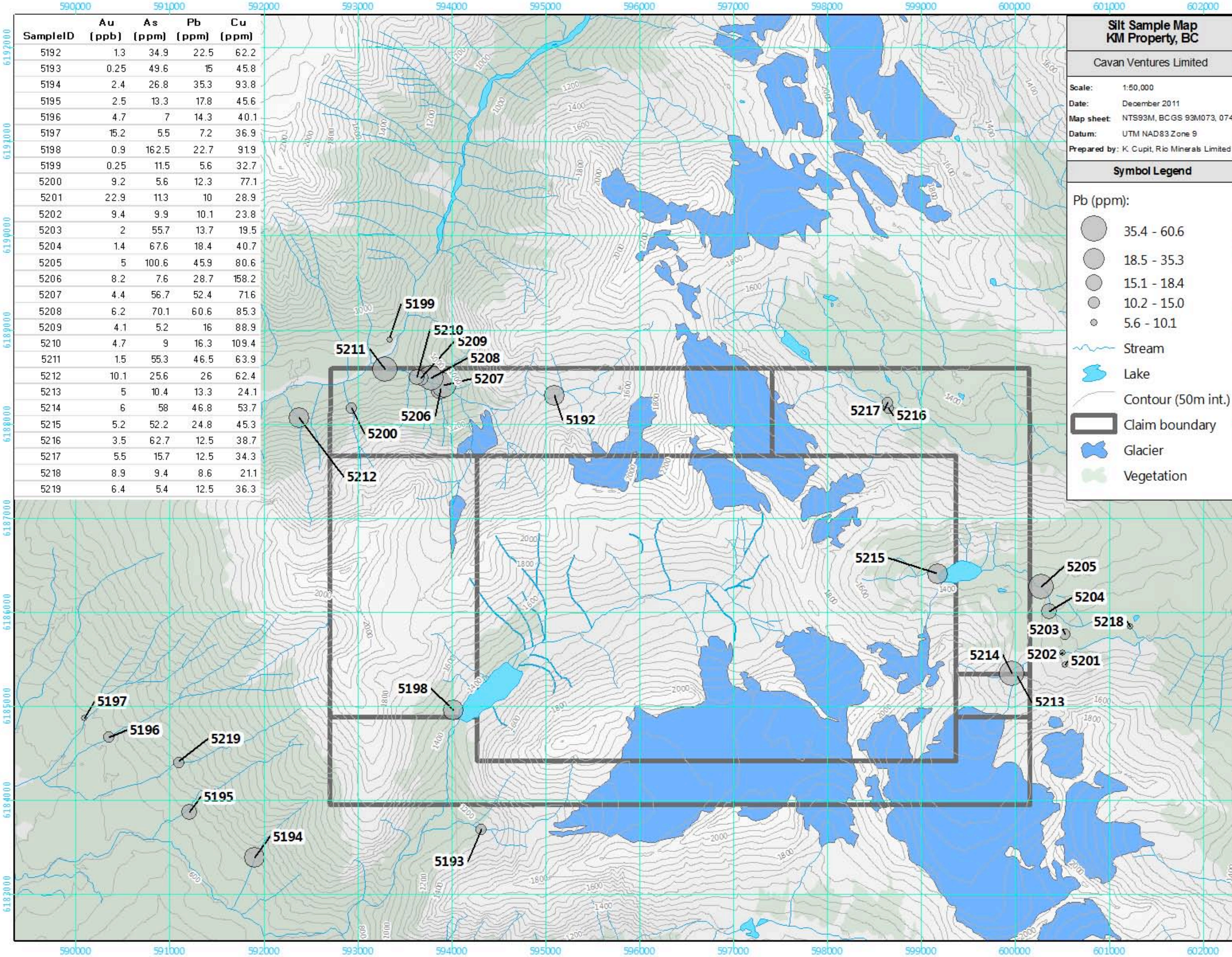


Figure 22: Lead Silt Sample Map

SampleID	Au (ppb)	As (ppm)	Pb (ppm)	Cu (ppm)
5192	1.3	34.9	22.5	62.2
5193	0.25	49.6	15	45.8
5194	2.4	26.8	35.3	93.8
5195	2.5	13.3	17.8	45.6
5196	4.7	7	14.3	40.1
5197	15.2	5.5	7.2	36.9
5198	0.9	162.5	22.7	91.9
5199	0.25	11.5	5.6	32.7
5200	9.2	5.6	12.3	77.1
5201	22.9	11.3	10	28.9
5202	9.4	9.9	10.1	23.8
5203	2	55.7	13.7	19.5
5204	1.4	67.6	18.4	40.7
5205	5	100.6	45.9	80.6
5206	8.2	7.6	28.7	158.2
5207	4.4	56.7	52.4	71.6
5208	6.2	70.1	60.6	85.3
5209	4.1	5.2	16	88.9
5210	4.7	9	16.3	109.4
5211	1.5	55.3	46.5	63.9
5212	10.1	25.6	26	62.4
5213	5	10.4	13.3	24.1
5214	6	58	46.8	53.7
5215	5.2	52.2	24.8	45.3
5216	3.5	62.7	12.5	38.7
5217	5.5	15.7	12.5	34.3
5218	8.9	9.4	8.6	21.1
5219	6.4	5.4	12.5	36.3

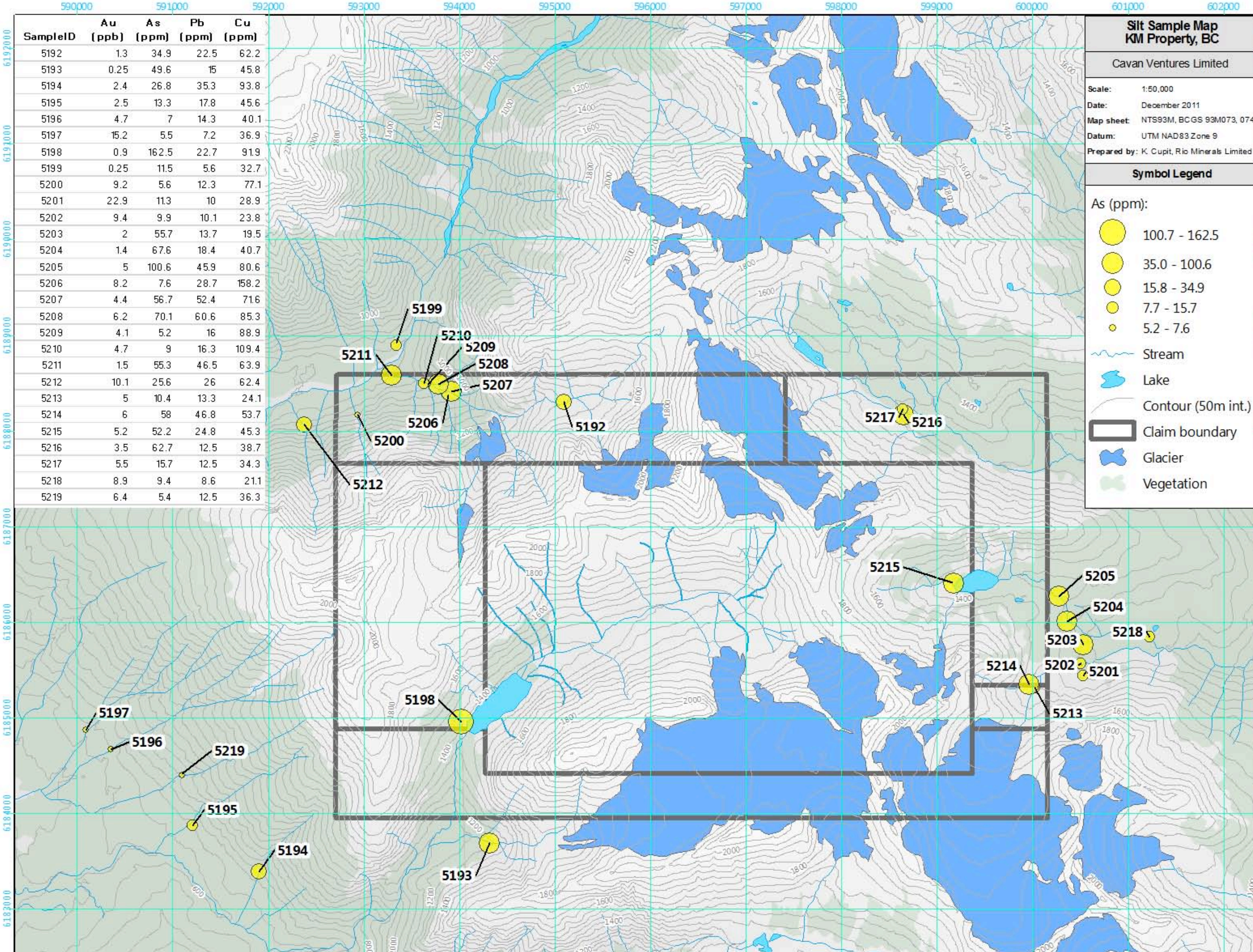


Figure 23: Arsenic Silt Sample Map

12.0 SAMPLING METHOD AND APPROACH

Rock samples were collected by Bruce Brownlee and Jason Fast. Rock sampling consisted of continuous chip sampling across widths of in situ veins and host rock.

All rock sample sites were marked with labeled metal tags and flagging tape. Samples and tags were placed in poly-ore bags having individual weights of at least 2 kilograms, and zap-strapped. Sample locations were recorded by GPS, given a UTM grid designation using the NAD 83 datum, and photographed.

Soil samples were dug approximately 30 cm to the B-horizon using a shovel. Material from the bottom of the hole was extracted using a spoon and this material was placed in a Kraft soil sample bag. The samples were placed in poly ore bags which were sealed using Zap straps.

Silt samples were taken from various drainages throughout and surrounding the property by sampling fine material from the creek with a spoon and placing the material into Hubco bags. The bags were then tied, placed into poly ore bags, and sealed with a Zap strap.

All of the samples were taken directly to Acme Analytical Laboratories in Smithers, BC for drying and sample preparation. They were then sent by the Acme Prep Lab to Vancouver, BC where they were analyzed for 36-element ICP-MS with a Group 1DX2 analysis. See appendix B for details on analytical methods and procedures. A witness sample of each rock sample was retained and is available for viewing. Descriptions of rock samples are displayed in Appendix A.

13.0 INTERPRETATION AND CONCLUSIONS

During the 2011 field season, trenching in the area north of the lake resulted in the discovery and extension of a five meter long banded-quartz vein that ranges in width from 20 to 100 cm. Geologic prospecting discovered two new showings in this area which were sampled and returned anomalous gold and base metal values.

Rock samples 938916 - 938918 returned values indicative of polymetallic mineralization which may extend beyond the boundaries of the current area of trenching.

The soil sampling programme carried out over the Lake Showing returned anomalous results in gold and base metals which may represent a continuation of the mineralization discovered in the Lake Vein area..

The silt survey returned above-background values in gold and base metals from several unexplored drainages.

Geologic mapping has increased the understanding of the property-wide distribution of rock types and the major structures that affect the rock types present on the property. Previously-known mineralized quartz vein showings have been reassessed and reclassified into two main types of occurrences: those associated with granodioritic dikes and sills and those associated with the dioritic stock.

Extensive north-trending fault systems seem to be centers for metasomatism. In addition to the central cirque area, the generally unprospected and unmapped area around Kisgegas Lake has shown potential for this style of mineralization.

A number of continuous, undeformed, wide, quartz veins cutting the dioritic stock (which includes the Gully Vein), must be systematically assessed. Numerous veins observed from the air have yet to be assessed and require mapping and sampling.

14.0 RECOMMENDATIONS

It is recommended that further work be conducted on the KM property. The main elements of future exploration on the KM property include the following:

i) Anomalies displayed by the Lake Vein soil sample results should be trenched to investigate possible vein mineralization.

ii) Anomalous silt sample results from the unexplored drainages located in the in the valley to the north of the lake and in the large basin located to the west of the of the Lake valley should be invested for possible in situ mineralization.

iii) The property in general requires further reconnaissance prospecting, continuous chip sampling, and detailed trench mapping of areas not covered during previous exploration programmes with the goal of establishing viable economic drill targets. The entire property would benefit from a regional structural mapping program. This would develop better understanding of the of the polymetallic veins in the area.

15.0 REFERENCES

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16.0 STATEMENT OF COSTS

Personnel		Rate	Days	Total
Bruce Brownlee	October 12 - 22, 2011	$450	11	$ 4950.00
Jason Fast	October 11 - 22, 2011	$450	12	$ 5400.00
Andrew Molnar	October 11 - 24, 2011	$500	14	$ 7000.00
Riley Molnar	October 12 - 23, 2011	$450	12	$ 5400.00
Report	Geological	-	-	$ 9500.00
Sub total				$ 32250.00
Analytical	ACME Labs: 40 soil, 28 silt, 3 rock – 1DX2	-	-	$ 1668.00
Vehicles	19 x 110		$ 2090.00	
Communications			$ 616.00	
Helicopter			$ 20126.95	
Field Supplies			$ 387.04	
Fuel			$ 1298.67	
Lodging & Meals			$ 4249.38	
Rentals			$ 550.00	
Shipping			$ 57.00	
Airfare			$ 1356.90	
Sub total			$ 32399.94	
Administration	5%		$ 1612.50	
otal:			$ 66262.44	

17.0 STATEMENT OF QUALIFICATIONS

I, Andris Kikauka, of 406-4901 East Sooke Rd, in the city of Sooke in the Province of British Columbia do hereby certify that:

1. I am a Consulting Geologist working in Sooke, British Columbia.
2. I hold a Honours Bachelor of Science in Geology (1980).
3. I have been employed in the mineral exploration industry since 1980 and have practiced my profession since graduation.
4. The information for this report has been taken from government and old geological reports.
5. I am a member in good standing with Association of Professional Engineers, Geoscientist of British Columbia, and am a Fellow in good standing with the Geological Association of Canada.
6. The assessment costs presented in this report are true and accurate to the best of my knowledge.

DATED at Sooke, British Columbia, this day of December 20th , 2011

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
A. A. KIKAUKA

Andris Kikauka, P.Geo.

APPENDIX A - ROCK SAMPLE DESCRIPTIONS

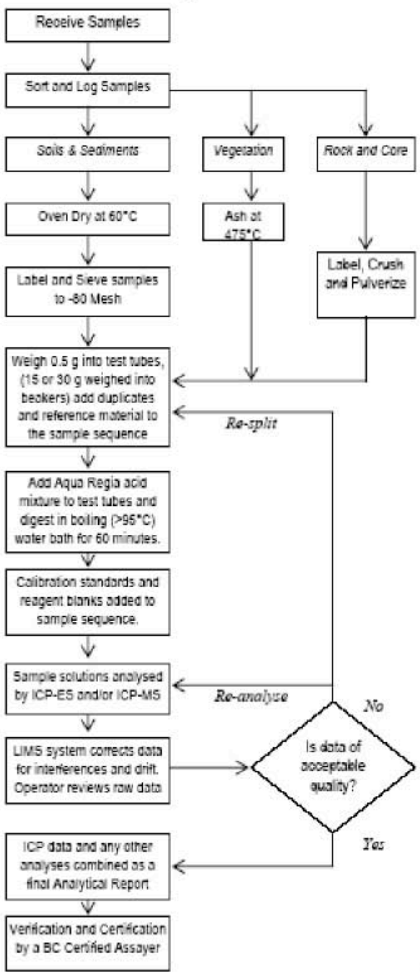
Sample #	Easting	Northing	Elevation (m)	Locality	Texture	Structure (000/00)	Width (m)	Cpy %	Gln %	QVN %	Lim %	Description
938916	594070	6185201	1477	Lake vein	banded	235/31	1	3		80	10	1m chip sample, Quartz vein, Banded, moderate limonite following banding, up to 5% malachite, up to 3% chalcopyrite in patches, limonite ~10%, up to 5% chalcosite, hosted in basalts
938917	594072	6185201	1477	Lake vein	banded	235/31	0.25	3	tr	85	10	0.25m Chip, Quartz vein, same as above with banding less apparent more massive quartz with strong limonite band on footwall side, up to 5% malachite, 10% limonite dominantly as separate band, up to 5%chalosite, 2-3% chalcopyrite strongly concentrated within the limonite band, same orientation as previous, trace galena
938918	594017	6185155	1480	Lake vein	banded	240/62	0.2	2	tr	90	10	0.20 chip, Quartz vein, hosted in bleached strongly foliated basalt, semi banded parallel to foliation, limonite blebs elongated parallel to foliation, up to 5% malachite, some malachite into the basalt, sample taken along south edge of valley which likely defines a fault/shear zone.

APPENDIX B: SAMPLE PREPARATION AND ANALYSES

AcmeLabs ACME ANALYTICAL LABORATORIES LTD.

METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE
GROUP 1D & 1DX – ICP & ICP-MS ANALYSIS – AQUA REGIA

Analytical Process



Comments

Sample Preparation

All samples are dried at 60°C. Soil and sediment are sieved to -80 mesh (-180 μm). Moss-mats are disaggregated then sieved to yield -80 mesh sediment. Vegetation is pulverized or ashed (475°C). Rock and drill core is jaw crushed to 70% passing 10 mesh (2 mm), a 250 g riffle split is then pulverized to 85% passing 200 mesh (75 μm) in a mild-steel ring-and-puck mill. Pulp splits of 0.5 g are weighed into test tubes, 15 and 30 g splits are weighed into beakers.

Sample Digestion

A modified Aqua Regia solution of equal parts concentrated ACS grade HCl and HNO_3 and de-mineralised H_2O is added to each sample to leach for one hour in a heating block or hot water bath (>95°C). After cooling the solution is made up to final volume with 5% HCl. Sample weight to solution volume is 1 g per 20 mL.

Sample Analysis

Group 1D: solutions aspirated into a Spectro Ciros Vision or Varian 735 emission spectrometer are analysed for 30 elements: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

Group 1DX: solutions aspirated into a Perkin Elmer Elan 6000/9000 ICP mass spectrometer are analysed for 36 elements: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, *Ga*, *Hg*, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, *S*, Sb, *Sc*, *Se*, *Tl*, Sr, Th, Ti, U, V, W, Zn.

Quality Control and Data Verification

QA/QC protocol incorporates a sample-prep blank (G-1) as the first sample in the job which is carried through all stages of preparation to analysis. An Analytical Batch comprises 36 client samples and incorporates a pulp duplicate to monitor analytical precision, a -10 mesh rejects duplicate to monitor sub-sampling variation (drill core only), a reagent blank to measure background and aliquots of in-house Reference Material like STD DS7. Data undergoes a final verification by a British Columbia Certified Assayer who then validates results before it is released to the client.

1020 Cordova St East, Vancouver BC V6A 4A3
Phone (604) 253 3158 Fax (604) 253 1716 e-mail: acmeinfo@acmelab.com

Group 1D_1DX version1.6 Revision Date: May 6, 2009

APPENDIX C: GEOCHEMICAL RESULTS

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada

www.acmelab.com

Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Submitted By:	Derrick Strickland
Receiving Lab:	Canada-Smithers
Received:	October 18, 2011
Report Date:	November 09, 2011
Page:	1 of 2

CERTIFICATE OF ANALYSIS SMI11000629.1

CLIENT JOB INFORMATION

Project:	KM-11
Shipment ID:	
P.O. Number	11-397
Number of Samples:	2

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

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	2	Crush, split and pulverize 250 g rock to 200 mesh			SMI
1DX2	2	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
G6Gr	2	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN
7AR	1	1:1:1 Aqua Regia Digestion ICP-ES Finish	0.4	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Rio Minerals Ltd.
910 - 475 Howe Street
Vancouver BC V6C 2B3
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL 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.

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 09, 2011

CERTIFICATE OF ANALYSIS SMI11000629.1

	Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
938916	Rock	2.09	65.2	>10000	203.3	135	>100	10.4	11.8	1382	2.30	23.9	1542	<0.1	118	2.8	0.8	3.4	16	1.59	0.025
938917	Rock	1.88	91.6	6838	404.7	76	>100	6.2	7.7	1209	1.76	27.8	599.7	<0.1	19	1.0	0.8	3.6	12	0.07	0.015

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 09, 2011

CERTIFICATE OF ANALYSIS SMI11000629.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	G6Gr	7AR
Analyte		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Cu
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	50	0.001
938916	Rock	<1	7	0.44	304	0.007	3	0.28	0.004	0.28	0.4	0.72	2.3	<0.1	0.33	<1	4.2	0.5	462	1.412
938917	Rock	<1	10	0.07	564	0.004	4	0.30	0.006	0.27	0.3	0.36	2.1	<0.1	0.27	<1	1.6	0.8	162	

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Phone (604) 253-3158 Fax (604) 253-1716
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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 09, 2011

QUALITY CONTROL REPORT SMI11000629.1

	Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Reference Materials																					
STD AGPROOF	Standard																				
STD CDN-ME-3	Standard																				
STD DS8	Standard		13.5	111.3	121.0	294	1.7	39.2	8.0	574	2.43	22.9	99.4	6.9	58	2.1	4.8	6.2	41	0.70	0.075
STD GC-7	Standard																				
STD GC-7	Standard																				
STD DS8 Expected			13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08
STD GC-7 Expected																					
STD CDN-ME-3 Expected																					
STD AGPROOF Expected																					
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
G1	Prep Blank		<0.1	3.1	2.9	47	<0.1	2.2	4.1	542	1.93	<0.5	0.8	5.8	57	<0.1	<0.1	<0.1	37	0.45	0.068

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 09, 2011

QUALITY CONTROL REPORT SMI11000629.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	G6Gr	7AR
Analyte		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Cu
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	%
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	50	0.001
Reference Materials																				
STD AGPROOF	Standard																		98	
STD CDN-ME-3	Standard																		271	
STD DS8	Standard	14	117	0.60	260	0.118	2	0.90	0.083	0.40	2.8	0.19	1.9	5.0	0.16	4	4.3	4.6		
STD GC-7	Standard																			0.556
STD GC-7	Standard																			0.554
STD DS8 Expected		14.6	115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5		
STD GC-7 Expected																				0.555
STD CDN-ME-3 Expected																			276	
STD AGPROOF Expected																			94	
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank																			<0.001
BLK	Blank																		<50	
BLK	Blank																		<50	
Prep Wash																				
G1	Prep Blank	12	6	0.48	151	0.123	<1	0.90	0.089	0.47	<0.1	<0.01	1.8	0.3	<0.05	5	<0.5	<0.2		

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www.acmelab.com

Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Submitted By:	Derrick Strickland
Receiving Lab:	Canada-Smithers
Received:	October 18, 2011
Report Date:	November 28, 2011
Page:	1 of 3

CERTIFICATE OF ANALYSIS SMI11000630.1

CLIENT JOB INFORMATION

Project:	KM-11
Shipment ID:	
P.O. Number	11-397
Number of Samples:	40

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT-SOIL	Immediate Disposal of Soil Reject

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

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	40	Dry at 60C			SMI
SS80	40	Dry at 60C sieve 100g to -80 mesh			SMI
1DX2	38	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
1DX1	2	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Rio Minerals Ltd.
910 - 475 Howe Street
Vancouver BC V6C 2B3
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL 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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Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 28, 2011

CERTIFICATE OF ANALYSIS SMI11000630.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
5000N 4900E	Soil	2.0	21.1	23.7	63	0.3	44.1	16.4	1827	2.00	33.1	0.8	0.1	39	0.4	0.4	0.1	46	0.49	0.156	8
5000N 4910E	Soil	0.8	6.4	13.8	59	0.1	26.9	15.6	1383	2.68	16.5	14.0	<0.1	8	0.2	0.5	0.1	27	0.09	0.070	3
5000N 4920E	Soil	2.1	17.4	27.1	77	0.2	59.9	22.7	2972	2.86	29.6	1.9	<0.1	14	0.3	0.5	0.1	61	0.13	0.146	4
5000N 4930E	Soil	1.3	20.6	23.4	96	0.2	80.5	24.3	1200	3.25	23.8	2.6	0.2	24	0.2	0.5	0.1	70	0.23	0.082	5
5000N 4940E	Soil	1.3	13.3	16.8	62	0.2	28.9	16.7	3538	2.27	40.9	4.9	<0.1	7	0.2	0.5	0.1	34	0.08	0.126	6
5000N 4950E	Soil	1.1	53.1	47.3	46	0.2	22.0	12.6	1306	1.72	24.9	3.8	<0.1	19	0.1	0.4	0.1	34	0.19	0.194	4
5000N 4960E	Soil	2.9	38.4	45.0	145	0.5	22.1	13.9	1290	3.41	52.1	4.9	0.2	15	0.5	0.9	0.2	48	0.08	0.100	7
5000N 4970E	Soil	3.4	47.8	48.1	175	0.5	21.0	13.1	1206	3.70	81.3	6.3	0.3	22	0.6	1.0	0.2	38	0.10	0.072	8
5000N 4980E	Soil	1.9	50.7	24.2	110	0.3	25.5	24.7	2877	3.80	145.1	2.2	<0.1	22	0.4	0.4	0.2	67	0.32	0.172	4
5000N 4990E	Soil	3.9	27.8	33.1	116	0.3	16.2	7.6	543	3.13	45.4	3.6	0.2	17	0.3	0.8	0.2	28	0.08	0.075	7
5000N 5000E	Soil	4.3	38.4	43.4	146	0.2	23.3	11.4	1269	3.20	52.0	4.6	0.3	20	0.5	0.9	0.2	29	0.12	0.059	7
5000N 5010E	Soil	6.4	28.5	28.9	81	0.3	26.4	18.6	2333	3.15	99.5	2.4	0.1	24	0.3	0.7	0.2	64	0.27	0.083	7
5000N 5020E	Soil	2.9	16.5	28.1	95	0.2	53.1	19.6	822	3.25	27.8	2.1	0.2	28	0.2	0.5	0.2	68	0.31	0.056	6
5000N 5030E	Soil	3.6	12.4	26.4	105	0.2	44.6	22.1	957	3.98	22.2	2.0	0.5	10	0.1	0.5	0.1	132	0.09	0.035	4
5000N 5040E	Soil	4.6	25.9	38.4	117	0.6	36.8	17.3	1447	3.59	49.4	2.4	0.2	19	0.2	0.6	0.2	74	0.18	0.086	8
5000N 5050E	Soil	2.5	8.3	23.2	54	0.3	46.4	14.8	308	2.53	13.1	6.7	0.3	15	0.1	0.4	0.1	54	0.12	0.034	4
5000N 5060E	Soil	8.1	55.1	47.7	89	0.7	17.4	14.3	1104	3.56	63.6	2.7	0.2	31	0.3	0.7	0.3	59	0.28	0.061	11
5000N 5070E	Soil	3.1	29.4	29.4	86	0.6	12.0	6.4	683	2.67	41.2	3.9	0.2	30	0.2	0.7	0.2	26	0.26	0.063	8
5000N 5080E	Soil	1.6	73.5	19.1	88	<0.1	45.6	17.1	1223	3.16	17.8	4.3	0.2	18	0.2	0.4	0.2	77	0.16	0.067	6
5000N 5090E	Soil	5.1	21.6	42.1	111	0.6	15.8	12.3	1683	3.51	40.1	3.1	0.1	16	0.2	0.8	0.2	33	0.12	0.053	8
5000N 5100E	Soil	3.5	31.7	31.9	111	0.2	24.1	10.3	694	2.97	31.1	7.3	0.3	16	0.1	0.7	0.2	38	0.07	0.047	9
5025N 4920E	Soil	1.0	5.7	13.5	41	<0.1	18.9	11.8	1208	2.70	19.0	4.8	<0.1	7	<0.1	0.5	0.1	41	0.05	0.044	3
5025N 4930E	Soil	1.9	31.1	19.3	91	0.2	83.3	25.7	2194	2.70	21.3	2.8	0.2	61	0.3	0.6	<0.1	64	0.72	0.079	6
5025N 4940E	Soil	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
5025N 4950E	Soil	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
5025N 4960E	Soil	0.9	65.9	7.5	64	0.3	48.9	28.1	3694	3.80	26.1	3.7	0.1	55	0.1	0.3	<0.1	133	0.77	0.053	4
5025N 4970E	Soil	1.6	66.5	37.6	71	0.4	28.7	32.2	3022	3.83	916.2	6.1	0.1	90	0.3	0.5	0.1	69	1.18	0.132	5
5025N 4980E	Soil	0.8	77.5	13.1	71	0.4	35.2	22.0	1875	3.56	58.6	1.7	0.2	54	0.4	0.3	0.1	106	0.87	0.103	4
5025N 4990E	Soil	1.8	33.7	19.8	114	0.2	107.1	30.8	1761	3.21	23.5	2.2	0.3	59	0.3	0.6	<0.1	66	0.73	0.071	5
5025N 5000E	Soil	2.3	63.1	21.4	66	1.1	38.1	14.9	1582	2.21	35.2	3.1	0.1	87	0.3	0.6	0.2	53	1.13	0.174	7

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Project: KM-11
Report Date: November 28, 2011

CERTIFICATE OF ANALYSIS SMI11000630.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX	1DX	1DX	1DX
Analyte		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Mo	Cu	Pb	Zn
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.1	0.1	0.1	1
5000N 4900E	Soil	91	1.26	299	0.019	3	1.55	0.005	0.07	0.1	0.03	2.3	<0.1	0.15	5	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4910E	Soil	26	1.32	131	0.040	3	1.43	0.005	0.10	0.2	0.04	1.8	0.1	0.10	5	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4920E	Soil	115	1.70	172	0.016	2	1.97	0.005	0.09	<0.1	0.04	1.4	0.2	0.13	6	0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4930E	Soil	151	2.36	135	0.060	2	2.35	0.008	0.10	0.1	0.04	5.0	0.1	0.10	7	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4940E	Soil	23	1.17	116	0.035	2	2.20	0.006	0.11	0.1	0.07	1.2	0.1	0.10	6	0.6	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4950E	Soil	30	0.80	149	0.013	2	1.31	0.008	0.09	0.1	0.06	1.3	0.1	0.16	3	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4960E	Soil	23	0.92	95	0.031	2	1.64	0.006	0.11	0.1	0.04	2.8	0.1	<0.05	4	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4970E	Soil	23	0.70	112	0.026	2	1.59	0.006	0.10	0.2	0.04	2.5	0.1	<0.05	4	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4980E	Soil	31	1.21	209	0.026	2	1.71	0.006	0.10	<0.1	0.07	4.4	0.1	0.10	6	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 4990E	Soil	24	0.52	83	0.022	1	1.36	0.004	0.08	0.2	0.05	1.5	<0.1	<0.05	4	0.6	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5000E	Soil	31	0.63	105	0.022	<1	1.41	0.005	0.09	0.2	0.04	2.2	0.1	<0.05	4	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5010E	Soil	50	0.97	134	0.031	<1	1.40	0.007	0.10	0.2	0.03	1.8	0.2	0.07	8	0.6	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5020E	Soil	101	1.76	101	0.083	2	1.61	0.005	0.12	0.1	0.02	4.7	0.1	<0.05	6	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5030E	Soil	66	2.16	68	0.170	<1	2.11	0.005	0.09	<0.1	0.02	7.3	<0.1	<0.05	8	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5040E	Soil	66	1.33	115	0.047	1	2.24	0.006	0.08	0.1	0.06	3.8	0.2	0.06	7	0.9	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5050E	Soil	97	1.38	162	0.094	1	1.34	0.004	0.09	<0.1	0.02	3.8	0.1	<0.05	6	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5060E	Soil	33	0.56	161	0.030	1	1.69	0.007	0.10	0.2	0.06	2.0	0.1	0.07	7	1.1	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5070E	Soil	20	0.42	123	0.019	<1	1.22	0.004	0.04	0.2	0.03	1.4	<0.1	<0.05	3	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5080E	Soil	89	1.44	112	0.068	1	1.71	0.005	0.09	0.2	0.02	3.3	0.1	<0.05	7	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5090E	Soil	28	0.47	121	0.018	<1	1.33	0.004	0.06	0.1	0.04	0.8	0.1	<0.05	6	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5000N 5100E	Soil	53	0.70	92	0.031	<1	1.62	0.004	0.08	0.3	0.03	1.9	0.1	<0.05	5	0.6	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 4920E	Soil	23	0.94	110	0.035	1	1.05	0.004	0.08	0.2	0.04	1.4	0.1	<0.05	5	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 4930E	Soil	157	2.59	175	0.067	2	2.14	0.005	0.10	0.1	0.04	7.0	0.2	0.08	6	1.5	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 4940E	Soil	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	1.5	29.3	9.4	62
5025N 4950E	Soil	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	1.3	120.6	17.6	40
5025N 4960E	Soil	59	3.25	297	0.154	2	2.82	0.004	0.25	<0.1	0.05	9.1	0.4	0.06	8	1.7	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 4970E	Soil	34	1.02	326	0.020	2	2.94	0.005	0.07	<0.1	0.08	6.2	0.1	0.21	7	0.8	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 4980E	Soil	77	1.77	244	0.113	<1	1.94	0.007	0.43	<0.1	0.16	12.1	0.7	0.13	8	0.7	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 4990E	Soil	181	2.82	156	0.081	2	2.08	0.006	0.12	<0.1	0.04	9.0	0.2	0.05	6	0.8	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5000E	Soil	74	1.21	229	0.025	2	1.72	0.006	0.06	<0.1	0.08	2.3	0.2	0.16	6	1.6	<0.2	N.A.	N.A.	N.A.	N.A.

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Project: KM-11
Report Date: November 28, 2011

CERTIFICATE OF ANALYSIS SMI11000630.1

	Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti
	Unit	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%
	MDL	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	1	0.01	1	0.001
5000N 4900E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4910E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4920E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4930E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4940E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4950E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4960E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4970E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4980E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4990E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5000E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5010E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5020E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5030E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5040E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5050E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5060E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5070E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5080E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5090E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5100E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4920E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4930E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4940E	Soil	0.2	18.0	11.0	2204	0.87	17.2	15.4	<0.1	122	0.5	0.9	<0.1	13	1.70	0.133	3	21	0.77	312	0.015
5025N 4950E	Soil	1.0	25.7	11.2	2188	1.13	23.2	5.0	<0.1	129	0.4	0.8	<0.1	21	1.78	0.194	9	47	0.90	383	0.015
5025N 4960E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4970E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4980E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4990E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5000E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

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Project: KM-11
Report Date: November 28, 2011

CERTIFICATE OF ANALYSIS SMI11000630.1

	Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
5000N 4900E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4910E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4920E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4930E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4940E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4950E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4960E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4970E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4980E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 4990E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5000E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5010E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5020E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5030E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5040E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5050E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5060E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5070E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5080E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5090E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5000N 5100E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4920E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4930E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4940E	Soil	<20	0.92	0.006	0.08	0.2	0.12	0.7	<0.1	0.22	2	5.4	<0.2
5025N 4950E	Soil	<20	1.34	0.009	0.10	0.1	0.13	1.5	0.1	0.24	2	6.1	<0.2
5025N 4960E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4970E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4980E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 4990E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5000E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

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Project: KM-11
Report Date: November 28, 2011

CERTIFICATE OF ANALYSIS SMI11000630.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
5025N 5010E	Soil	3.5	17.7	32.7	112	0.1	52.4	18.0	1048	3.63	44.3	6.2	0.2	21	0.1	0.7	0.2	57	0.22	0.067	6
5025N 5020E	Soil	7.3	56.9	69.5	196	0.3	57.1	21.4	897	5.10	67.6	6.5	0.9	17	0.2	1.5	0.3	49	0.17	0.058	11
5025N 5030E	Soil	6.2	23.9	40.6	136	0.2	59.7	23.5	1444	4.28	44.4	8.7	0.6	29	0.2	0.9	0.2	68	0.31	0.040	6
5025N 5040E	Soil	3.4	33.2	31.2	90	0.4	37.2	18.2	1752	3.32	37.2	2.5	0.2	49	0.3	0.5	0.2	60	0.64	0.103	6
5025N 5050E	Soil	0.4	50.0	7.3	82	0.2	22.4	26.5	1756	5.71	3.6	2.6	<0.1	9	0.1	0.1	<0.1	202	0.13	0.048	2
5025N 5060E	Soil	0.6	8.1	9.4	80	0.4	24.4	25.9	1217	3.62	3.5	1.8	0.1	32	<0.1	0.1	<0.1	161	0.37	0.059	3
5025N 5070E	Soil	1.2	72.6	10.9	30	0.5	13.9	8.7	1200	1.55	5.8	1.5	<0.1	140	0.4	0.4	<0.1	38	2.49	0.088	6
5025N 5080E	Soil	2.7	103.3	21.0	52	1.5	23.2	10.1	1911	1.73	16.1	4.1	0.2	89	0.5	0.7	0.1	31	1.66	0.278	16
5025N 5090E	Soil	1.7	29.3	20.3	114	0.2	46.3	19.3	2621	2.49	21.2	2.0	<0.1	59	0.8	0.5	0.1	44	0.71	0.123	6
5025N 5100E	Soil	2.7	35.5	23.2	63	0.2	23.6	15.2	3555	1.99	20.6	3.6	<0.1	44	0.5	0.4	0.1	41	0.60	0.127	6

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CERTIFICATE OF ANALYSIS SMI11000630.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX	1DX	1DX	1DX
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Mo	Cu	Pb	Zn
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.1	0.1	0.1	1
5025N 5010E	Soil	96	1.65	107	0.039	<1	1.70	0.005	0.08	<0.1	0.03	4.2	0.1	<0.05	7	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5020E	Soil	103	1.63	76	0.064	<1	1.74	0.004	0.09	0.2	0.06	6.3	0.2	<0.05	5	0.8	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5030E	Soil	110	1.84	91	0.098	<1	1.77	0.005	0.11	0.1	0.02	6.1	0.1	<0.05	6	1.2	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5040E	Soil	68	1.44	139	0.038	<1	1.74	0.006	0.08	<0.1	0.06	4.1	0.2	0.07	5	1.1	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5050E	Soil	24	2.67	142	0.125	<1	2.84	0.005	0.10	<0.1	0.03	11.8	0.1	<0.05	12	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5060E	Soil	24	2.53	276	0.086	<1	2.20	0.008	0.11	<0.1	0.18	11.3	0.1	<0.05	10	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5070E	Soil	25	0.51	274	0.030	1	1.14	0.009	0.06	<0.1	0.12	2.5	0.2	0.13	3	1.6	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5080E	Soil	62	0.64	181	0.018	2	1.98	0.008	0.05	<0.1	0.15	2.7	0.1	0.28	4	4.1	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5090E	Soil	83	1.51	253	0.039	3	1.70	0.006	0.10	<0.1	0.07	2.5	0.2	0.12	5	0.8	<0.2	N.A.	N.A.	N.A.	N.A.
5025N 5100E	Soil	55	0.92	173	0.030	2	1.36	0.006	0.08	0.1	0.04	1.4	0.2	0.12	4	1.3	<0.2	N.A.	N.A.	N.A.	N.A.

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CERTIFICATE OF ANALYSIS SMI11000630.1

	Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti
	Unit	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%
	MDL	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	1	0.01	1	0.001
5025N 5010E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5020E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5030E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5040E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5050E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5060E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5070E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5080E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5090E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5100E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

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Project: KM-11
Report Date: November 28, 2011

CERTIFICATE OF ANALYSIS SMI11000630.1

	Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
5025N 5010E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5020E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5030E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5040E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5050E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5060E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5070E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5080E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5090E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5025N 5100E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

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Project: KM-11
Report Date: November 28, 2011

QUALITY CONTROL REPORT SMI11000630.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Pulp Duplicates																					
5000N 5020E	Soil	2.9	16.5	28.1	95	0.2	53.1	19.6	822	3.25	27.8	2.1	0.2	28	0.2	0.5	0.2	68	0.31	0.056	6
REP 5000N 5020E	QC	2.9	15.9	28.1	91	0.2	51.1	18.8	784	3.15	26.5	2.6	0.2	28	0.2	0.5	0.2	64	0.31	0.052	6
5025N 4950E	Soil	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
REP 5025N 4950E	QC																				
5025N 5020E	Soil	7.3	56.9	69.5	196	0.3	57.1	21.4	897	5.10	67.6	6.5	0.9	17	0.2	1.5	0.3	49	0.17	0.058	11
REP 5025N 5020E	QC	7.2	56.4	72.5	198	0.3	57.3	21.2	898	5.03	68.5	8.8	0.9	18	0.2	1.4	0.3	50	0.17	0.058	11
Reference Materials																					
STD DS8	Standard	13.5	111.0	127.3	313	1.9	35.0	7.7	599	2.49	24.9	117.0	6.8	70	2.5	5.9	6.7	40	0.65	0.078	15
STD DS8	Standard	13.8	113.3	130.2	300	1.8	39.4	7.5	576	2.35	24.6	108.1	7.2	62	2.5	5.3	6.4	43	0.66	0.068	15
STD DS8	Standard																				
STD OREAS45CA	Standard																				
STD DS8 Expected		13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08	14.6
STD OREAS45CA Expected																					
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank																				

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QUALITY CONTROL REPORT SMI11000630.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX	1DX	1DX	1DX
Analyte		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Mo	Cu	Pb	Zn
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.1	0.1	0.1	1
Pulp Duplicates																					
5000N 5020E	Soil	101	1.76	101	0.083	2	1.61	0.005	0.12	0.1	0.02	4.7	0.1	<0.05	6	<0.5	<0.2	N.A.	N.A.	N.A.	N.A.
REP 5000N 5020E	QC	97	1.70	99	0.079	2	1.57	0.005	0.12	<0.1	0.02	4.6	0.1	<0.05	6	<0.5	<0.2				
5025N 4950E	Soil	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	1.3	120.6	17.6	40
REP 5025N 4950E	QC																	1.5	117.6	13.3	49
5025N 5020E	Soil	103	1.63	76	0.064	<1	1.74	0.004	0.09	0.2	0.06	6.3	0.2	<0.05	5	0.8	<0.2	N.A.	N.A.	N.A.	N.A.
REP 5025N 5020E	QC	102	1.64	80	0.064	<1	1.78	0.004	0.10	0.1	0.05	6.5	0.2	<0.05	5	0.6	<0.2				
Reference Materials																					
STD DS8	Standard	118	0.60	269	0.109	2	0.92	0.096	0.44	2.8	0.20	2.6	5.6	0.15	5	5.9	4.6				
STD DS8	Standard	121	0.58	254	0.121	2	0.88	0.088	0.40	2.8	0.19	2.3	5.5	0.14	5	4.9	5.1				
STD DS8	Standard																	12.4	103.9	125.4	299
STD OREAS45CA	Standard																	0.8	453.1	19.5	59
STD DS8 Expected		115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5	13.44	110	123	312
STD OREAS45CA Expected																		1	494	20	60
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2				
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2				
BLK	Blank																	<0.1	<0.1	<0.1	<1

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 28, 2011

QUALITY CONTROL REPORT SMI11000630.1

		1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti
	Unit	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%
	MDL	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	1	0.01	1	0.001
Pulp Duplicates																					
5000N 5020E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
REP 5000N 5020E	QC																				
5025N 4950E	Soil	1.0	25.7	11.2	2188	1.13	23.2	5.0	<0.1	129	0.4	0.8	<0.1	21	1.78	0.194	9	47	0.90	383	0.015
REP 5025N 4950E	QC	1.0	25.9	11.0	2202	1.12	23.8	4.9	<0.1	127	0.5	0.8	<0.1	21	1.70	0.198	9	46	0.89	382	0.014
5025N 5020E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
REP 5025N 5020E	QC																				
Reference Materials																					
STD DS8	Standard																				
STD DS8	Standard																				
STD DS8	Standard	1.8	35.6	7.2	566	2.37	25.3	98.2	6.5	59	2.4	4.5	6.4	38	0.67	0.074	13	107	0.58	287	0.100
STD OREAS45CA	Standard	0.3	211.0	82.1	850	14.93	4.2	37.5	6.6	13	<0.1	0.1	0.2	187	0.41	0.036	15	643	0.13	154	0.110
STD DS8 Expected		1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	4.8	6.67	41.1	0.7	0.08	14.6	115	0.6045	279	0.113
STD OREAS45CA Expected		0.275	240	92	943	15.69	3.8	43	7	15	0.1	0.13	0.19	215	0.4265	0.0385	15.9	709	0.1358	164	0.128
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1	<1	<0.01	<1	<0.001

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QUALITY CONTROL REPORT SMI11000630.1

	Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
	Analyte	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates													
5000N 5020E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
REP 5000N 5020E	QC												
5025N 4950E	Soil	<20	1.34	0.009	0.10	0.1	0.13	1.5	0.1	0.24	2	6.1	<0.2
REP 5025N 4950E	QC	<20	1.30	0.008	0.10	0.2	0.12	1.4	0.1	0.23	2	6.6	<0.2
5025N 5020E	Soil	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
REP 5025N 5020E	QC												
Reference Materials													
STD DS8	Standard												
STD DS8	Standard												
STD DS8	Standard	<20	0.81	0.078	0.39	2.7	0.19	2.0	5.4	0.14	5	5.9	5.2
STD OREAS45CA	Standard	<20	3.20	0.011	0.06	<0.1	0.03	35.3	<0.1	<0.05	17	1.0	<0.2
STD DS8 Expected		2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5
STD OREAS45CA Expected			3.592	0.0075	0.0717		0.03	39.7	0.07	0.021	18.4	0.5	
BLK	Blank												
BLK	Blank												
BLK	Blank	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

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Submitted By:	Derrick Strickland
Receiving Lab:	Canada-Smithers
Received:	October 18, 2011
Report Date:	November 10, 2011
Page:	1 of 2

CERTIFICATE OF ANALYSIS SMI11000631.1

CLIENT JOB INFORMATION

Project:	KM-11
Shipment ID:	
P.O. Number	11-304
Number of Samples:	16

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT-SOIL	Immediate Disposal of Soil Reject

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

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	16	Dry at 60C			SMI
SS80	16	Dry at 60C sieve 100g to -80 mesh			SMI
1DX2	16	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Rio Minerals Ltd.
910 - 475 Howe Street
Vancouver BC V6C 2B3
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

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Project: KM-11
Report Date: November 10, 2011

CERTIFICATE OF ANALYSIS SMI11000631.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
5192	Silt	1.7	62.2	22.5	135	0.3	16.1	16.3	607	4.88	34.9	1.3	1.0	12	0.6	1.7	0.3	29	0.26	0.093	7
5193	Silt	1.8	45.8	15.0	118	0.4	14.0	12.2	511	4.57	49.6	<0.5	0.9	15	0.3	1.8	0.2	26	0.29	0.078	4
5194	Silt	0.7	93.8	35.3	150	0.4	38.4	22.4	2086	2.67	26.8	2.4	0.3	49	0.3	0.5	<0.1	68	0.59	0.077	4
5195	Silt	0.6	45.6	17.8	145	0.2	24.3	19.4	1877	2.72	13.3	2.5	0.4	32	0.8	0.7	0.1	46	0.42	0.079	5
5196	Silt	3.7	40.1	14.3	158	0.2	14.1	14.2	1323	2.68	7.0	4.7	0.5	52	0.3	0.3	0.1	60	0.42	0.070	5
5197	Silt	5.3	36.9	7.2	166	0.1	7.6	13.2	1030	2.57	5.5	15.2	0.8	47	0.2	0.3	0.2	62	0.37	0.076	5
5198	Silt	8.1	91.9	22.7	72	0.6	27.8	11.4	905	3.05	162.5	0.9	0.1	91	0.2	1.4	0.2	61	0.56	0.078	8
5199	Silt	1.3	32.7	5.6	70	0.1	9.0	9.6	450	3.56	11.5	<0.5	6.4	41	0.3	0.6	0.1	56	0.43	0.110	8
5200	Silt	1.1	77.1	12.3	169	0.3	41.0	21.3	1722	3.13	5.6	9.2	0.7	26	0.1	0.3	2.3	70	0.35	0.066	5
5206	Silt	2.3	158.2	28.7	114	0.7	40.2	15.5	1367	2.91	7.6	8.2	0.7	38	0.5	0.5	2.1	33	0.29	0.056	7
5207	Silt	3.5	71.6	52.4	164	0.6	17.5	11.3	1116	3.44	56.7	4.4	1.4	58	1.6	1.5	0.4	19	0.75	0.076	8
5208	Silt	5.0	85.3	60.6	235	0.8	30.5	16.9	1444	4.63	70.1	6.2	1.2	29	2.0	1.9	0.5	27	0.34	0.090	10
5209	Silt	2.0	88.9	16.0	95	0.3	53.0	17.6	1636	2.87	5.2	4.1	0.8	30	0.3	0.3	0.8	43	0.33	0.059	7
5210	Silt	2.1	109.4	16.3	94	0.5	53.1	18.2	1513	2.87	9.0	4.7	0.7	32	0.3	0.3	0.7	49	0.35	0.060	6
5211	Silt	4.7	63.9	46.5	194	0.5	21.7	12.4	985	4.08	55.3	1.5	1.3	30	1.6	1.8	0.4	22	0.31	0.078	8
5212	Silt	4.3	62.4	26.0	111	0.4	36.2	12.5	1132	2.92	25.6	10.1	1.3	33	0.5	0.9	0.7	31	0.31	0.080	6

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910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 10, 2011

CERTIFICATE OF ANALYSIS SMI11000631.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
5192	Silt	11	0.72	28	0.013	<1	1.65	0.007	0.03	<0.1	<0.01	3.0	<0.1	0.10	4	1.0	<0.2
5193	Silt	11	0.73	25	0.052	2	1.51	0.016	0.04	0.4	0.02	2.9	<0.1	0.27	4	1.1	<0.2
5194	Silt	65	2.27	1076	0.122	<1	1.74	0.005	0.31	0.2	0.05	5.3	0.3	<0.05	5	0.8	<0.2
5195	Silt	38	1.47	801	0.064	<1	1.40	0.005	0.21	0.2	0.06	4.0	0.2	<0.05	4	<0.5	<0.2
5196	Silt	21	1.21	550	0.102	<1	1.28	0.008	0.28	0.9	0.02	3.8	0.2	<0.05	5	0.7	<0.2
5197	Silt	8	1.06	531	0.111	<1	1.06	0.009	0.41	0.3	<0.01	3.2	0.3	<0.05	4	0.7	<0.2
5198	Silt	56	0.93	538	0.028	2	1.95	0.005	0.08	0.3	0.07	1.7	0.1	0.06	7	2.1	<0.2
5199	Silt	10	0.51	83	0.047	<1	1.17	0.018	0.15	1.0	<0.01	2.7	0.1	<0.05	4	<0.5	<0.2
5200	Silt	76	2.11	579	0.136	<1	1.85	0.007	0.49	1.2	0.01	5.8	0.4	<0.05	6	<0.5	0.9
5206	Silt	72	1.17	171	0.051	<1	1.21	0.005	0.08	0.4	0.02	3.9	<0.1	<0.05	3	<0.5	0.7
5207	Silt	16	0.53	64	0.023	<1	0.81	0.015	0.06	0.3	0.02	3.5	<0.1	0.07	2	0.6	<0.2
5208	Silt	29	0.75	87	0.023	1	1.22	0.009	0.06	0.3	0.05	4.3	<0.1	<0.05	3	1.2	0.2
5209	Silt	103	1.58	244	0.073	<1	1.35	0.006	0.17	0.3	0.01	5.3	0.2	<0.05	4	0.5	0.4
5210	Silt	105	1.64	291	0.077	<1	1.45	0.005	0.18	0.4	0.02	5.1	0.2	<0.05	4	<0.5	0.3
5211	Silt	19	0.63	66	0.024	<1	1.08	0.007	0.07	0.3	0.03	3.6	<0.1	0.06	3	0.9	<0.2
5212	Silt	66	1.21	204	0.059	1	1.00	0.007	0.19	0.5	<0.01	3.3	<0.1	0.08	3	<0.5	0.5

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Project: KM-11
Report Date: November 10, 2011

QUALITY CONTROL REPORT SMI11000631.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Pulp Duplicates																					
5209	Silt	2.0	88.9	16.0	95	0.3	53.0	17.6	1636	2.87	5.2	4.1	0.8	30	0.3	0.3	0.8	43	0.33	0.059	7
REP 5209	QC	1.9	89.8	15.9	95	0.3	54.3	17.8	1649	2.89	5.2	3.9	0.9	30	0.4	0.4	0.8	43	0.33	0.058	7
Reference Materials																					
STD DS8	Standard	12.0	106.5	125.6	304	1.8	36.4	7.2	586	2.35	23.8	116.2	6.6	63	2.3	5.5	6.2	40	0.65	0.075	14
STD DS8	Standard	11.4	98.1	118.1	287	1.8	33.9	6.5	565	2.28	23.6	103.5	6.0	68	2.3	5.5	6.3	37	0.64	0.073	14
STD DS8 Expected		13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08	14.6
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1

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Project: KM-11
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QUALITY CONTROL REPORT SMI11000631.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																	
5209	Silt	103	1.58	244	0.073	<1	1.35	0.006	0.17	0.3	0.01	5.3	0.2	<0.05	4	0.5	0.4
REP 5209	QC	103	1.58	242	0.073	<1	1.36	0.005	0.17	0.5	0.01	5.2	0.2	<0.05	4	<0.5	0.4
Reference Materials																	
STD DS8	Standard	112	0.58	272	0.109	2	0.87	0.089	0.40	2.9	0.20	2.4	5.3	0.15	5	5.4	4.7
STD DS8	Standard	103	0.56	269	0.105	3	0.89	0.102	0.42	2.8	0.20	2.9	5.1	0.13	5	4.6	5.0
STD DS8 Expected		115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Submitted By:	Derrick Strickland
Receiving Lab:	Canada-Smithers
Received:	October 19, 2011
Report Date:	October 31, 2011
Page:	1 of 2

CERTIFICATE OF ANALYSIS SMI11000636.1

CLIENT JOB INFORMATION

Project:	KM-11
Shipment ID:	
P.O. Number	
Number of Samples:	11

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT-SOIL	Immediate Disposal of Soil Reject

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

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	11	Dry at 60C			SMI
SS80	11	Dry at 60C sieve 100g to -80 mesh			SMI
1DX2	11	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Rio Minerals Ltd.
910 - 475 Howe Street
Vancouver BC V6C 2B3
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL 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.

AcmeLabs Acme Analytical Laboratories (Vancouver) Ltd.
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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: October 31, 2011

CERTIFICATE OF ANALYSIS SMI11000636.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
5201	Silt	4.5	28.9	10.0	58	0.3	6.1	9.5	663	2.99	11.3	22.9	3.6	55	0.2	1.6	0.3	55	0.51	0.132	18
5202	Silt	1.4	23.8	10.1	51	0.4	5.8	9.1	452	3.09	9.9	9.4	3.5	36	0.2	0.8	<0.1	59	0.50	0.148	14
5203	Silt	11.8	19.5	13.7	113	0.5	11.4	16.8	6281	3.62	55.7	2.0	0.2	71	1.7	1.3	0.2	42	0.91	0.140	13
5204	Silt	7.1	40.7	18.4	103	0.7	9.9	13.4	4294	2.31	67.6	1.4	0.2	89	2.8	1.9	0.2	26	1.94	0.175	20
5205	Silt	5.4	80.6	45.9	198	0.6	21.6	27.3	2231	4.82	100.6	5.0	1.6	56	1.4	2.7	0.6	45	0.50	0.108	11
5213	Silt	1.7	24.1	13.3	52	0.7	6.7	10.9	402	4.49	10.4	5.0	3.4	27	0.1	1.0	0.1	92	0.42	0.126	11
5214	Silt	2.0	53.7	46.8	157	0.9	13.5	15.3	876	3.86	58.0	6.0	2.0	22	1.0	3.4	0.4	36	0.31	0.098	9
5215	Silt	1.8	45.3	24.8	128	0.4	15.3	16.6	898	3.86	52.2	5.2	1.3	21	0.7	1.8	0.4	32	0.31	0.099	7
5216	Silt	1.5	38.7	12.5	88	0.1	13.5	15.8	648	3.94	62.7	3.5	1.1	26	0.2	1.4	0.1	28	0.29	0.085	8
5217	Silt	1.0	34.3	12.5	81	0.2	11.4	12.6	686	3.33	15.7	5.5	1.3	13	0.3	1.0	0.2	25	0.19	0.069	8
5218	Silt	1.7	21.1	8.6	47	0.3	5.6	8.5	351	4.02	9.4	8.9	3.9	28	<0.1	0.8	0.1	88	0.47	0.155	13

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: October 31, 2011

CERTIFICATE OF ANALYSIS SMI11000636.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
5201	Silt	7	0.34	190	0.037	2	0.94	0.023	0.09	2.3	0.04	2.8	<0.1	<0.05	4	1.2	<0.2
5202	Silt	8	0.36	106	0.046	1	0.78	0.020	0.08	3.1	<0.01	2.1	<0.1	<0.05	3	<0.5	<0.2
5203	Silt	13	0.28	147	0.011	<1	1.95	0.007	0.05	0.4	0.11	1.3	0.2	0.12	5	2.8	<0.2
5204	Silt	14	0.22	101	0.009	4	1.59	0.007	0.07	0.5	0.18	1.4	0.2	0.22	3	8.5	<0.2
5205	Silt	17	0.68	148	0.018	2	2.15	0.026	0.13	0.6	0.05	4.3	<0.1	<0.05	6	0.9	<0.2
5213	Silt	11	0.34	71	0.032	<1	0.64	0.017	0.05	3.4	0.02	1.5	<0.1	0.17	3	<0.5	<0.2
5214	Silt	10	0.51	97	0.019	1	1.29	0.014	0.07	1.3	0.02	2.7	<0.1	<0.05	4	0.8	<0.2
5215	Silt	15	0.64	56	0.028	<1	1.49	0.008	0.04	0.3	0.02	2.6	<0.1	<0.05	4	<0.5	<0.2
5216	Silt	10	0.52	33	0.009	<1	1.36	0.006	0.03	0.1	0.01	2.7	<0.1	<0.05	4	<0.5	<0.2
5217	Silt	11	0.57	25	0.016	<1	1.34	0.004	0.02	0.3	<0.01	2.1	<0.1	<0.05	4	<0.5	<0.2
5218	Silt	8	0.33	68	0.032	<1	0.72	0.015	0.05	3.8	0.02	1.8	<0.1	<0.05	3	<0.5	<0.2

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910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: October 31, 2011

QUALITY CONTROL REPORT SMI11000636.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Pulp Duplicates																					
5214	Silt	2.0	53.7	46.8	157	0.9	13.5	15.3	876	3.86	58.0	6.0	2.0	22	1.0	3.4	0.4	36	0.31	0.098	9
REP 5214	QC	2.1	55.9	48.1	162	1.0	13.6	15.5	925	3.92	58.8	5.7	2.0	23	1.0	3.5	0.5	38	0.33	0.100	10
Reference Materials																					
STD DS8	Standard	12.9	113.5	126.2	311	1.9	38.8	7.8	608	2.48	25.2	119.8	6.7	74	2.4	5.6	6.4	43	0.68	0.080	14
STD DS8 Expected		13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08	14.6
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1

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910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: October 31, 2011

QUALITY CONTROL REPORT SMI11000636.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																	
5214	Silt	10	0.51	97	0.019	1	1.29	0.014	0.07	1.3	0.02	2.7	<0.1	<0.05	4	0.8	<0.2
REP 5214	QC	11	0.53	99	0.020	<1	1.32	0.013	0.07	1.5	0.03	2.7	<0.1	<0.05	4	<0.5	<0.2
Reference Materials																	
STD DS8	Standard	118	0.62	301	0.113	2	0.97	0.109	0.48	3.0	0.18	2.6	5.7	0.15	5	4.4	5.1
STD DS8 Expected		115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

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Client: Rio Minerals Ltd.
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Submitted By:	Derrick Strickland
Receiving Lab:	Canada-Smithers
Received:	October 21, 2011
Report Date:	November 05, 2011
Page:	1 of 2

CERTIFICATE OF ANALYSIS SMI11000642.1

CLIENT JOB INFORMATION

Project:	KM-11
Shipment ID:	
P.O. Number	
Number of Samples:	1

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	1	Crush, split and pulverize 250 g rock to 200 mesh			SMI
1DX2	1	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

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.

ADDITIONAL COMMENTS

Invoice To: Rio Minerals Ltd.
910 - 475 Howe Street
Vancouver BC V6C 2B3
Canada

CC: Andrew Molnar

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL 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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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 05, 2011

CERTIFICATE OF ANALYSIS SMI11000642.1

	Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
938918	Rock	3.50	18.3	873.9	142.6	129	10.5	8.5	7.8	1241	1.80	5.1	96.7	0.2	61	1.4	1.2	1.0	18	0.80	0.051

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 05, 2011

CERTIFICATE OF ANALYSIS SMI11000642.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
938918	Rock	4	12	0.10	2176	0.006	5	0.44	0.005	0.40	0.2	0.13	2.9	<0.1	0.07	1	0.5	<0.2

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 05, 2011

QUALITY CONTROL REPORT SMI11000642.1

	Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Reference Materials																					
STD DS8	Standard		12.0	106.1	111.6	282	1.6	35.4	7.3	543	2.28	21.3	104.2	6.4	55	1.9	4.6	5.3	39	0.71	0.068
STD DS8 Expected			13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08
BLK	Blank		<0.1	2.7	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
G1	Prep Blank		0.2	3.1	3.9	43	<0.1	2.8	3.8	542	1.93	<0.5	1.6	6.8	64	<0.1	<0.1	<0.1	36	0.63	0.067

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: November 05, 2011

QUALITY CONTROL REPORT SMI11000642.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Reference Materials																		
STD DS8	Standard	13	114	0.57	234	0.107	3	0.85	0.080	0.38	2.5	0.17	1.7	4.5	0.16	4	5.0	4.3
STD DS8 Expected		14.6	115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
G1	Prep Blank	13	8	0.48	149	0.122	1	0.92	0.085	0.46	<0.1	<0.01	1.7	0.3	<0.05	4	0.5	<0.2

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Submitted By: Derrick Strickland
Receiving Lab: Canada-Smithers
Received: October 21, 2011
Report Date: October 31, 2011

CERTIFICATE OF ANALYSIS SMI11000643.1

CLIENT JOB INFORMATION

Project: KM-11
Shipment ID:
P.O. Number
Number of Samples: 1

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

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

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	1	Dry at 60C			SMI
SS80	1	Dry at 60C sieve 100g to -80 mesh			SMI
1DX2	1	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Rio Minerals Ltd.
910 - 475 Howe Street
Vancouver BC V6C 2B3
Canada

CC: Andrew Molnar

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

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Client: **Rio Minerals Ltd.**
910 - 475 Howe Street
Vancouver BC V6C 2B3 Canada

Project: KM-11
Report Date: October 31, 2011

CERTIFICATE OF ANALYSIS SMI11000643.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
5219	Silt	0.9	36.3	12.5	130	0.5	16.0	10.8	682	1.86	5.4	6.4	0.2	43	0.2	0.4	0.2	40	0.70	0.068	4

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Project: KM-11
Report Date: October 31, 2011

CERTIFICATE OF ANALYSIS SMI11000643.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
5219	Silt	25	0.91	1028	0.052	<1	1.12	0.012	0.13	0.1	0.05	2.4	0.1	0.06	3	<0.5	<0.2

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Project: KM-11
Report Date: October 31, 2011

QUALITY CONTROL REPORT SMI11000643.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Reference Materials																					
STD DS8	Standard	12.9	113.5	126.2	311	1.9	38.8	7.8	608	2.48	25.2	119.8	6.7	74	2.4	5.6	6.4	43	0.68	0.080	14
STD DS8 Expected		13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08	14.6
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1

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QUALITY CONTROL REPORT SMI11000643.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Reference Materials																	
STD DS8	Standard	118	0.62	301	0.113	2	0.97	0.109	0.48	3.0	0.18	2.6	5.7	0.15	5	4.4	5.1
STD DS8 Expected		115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

APPENDIX D: ABBREVIATIONS

alt. – alteration
ank – ankerite
aspy – arsenopyrite
az –azurite
bas – basalt
bio – biotite
bn – bornite
bx – breccia
calc – calcite
carb – carbonate
cpy – chalcopyrite
chl – chlorite
cgl – conglomerate
D – down
dio – diorite
dissem – disseminated
ep – epidote
FP – fault plane
Feld – feldspar
f.g. – fine grained
fls – felsite
gln – galena
gd – granodiorite
hem – hematite
hb – hornblende
lim – limonite
mal – malachite
mod – moderate
modly – moderately
mus – muscovite
O/C – outcrop
plag – plagioclase
py – pyrite
pyx – pyroxene
po – pyrrhotite
Qtz – quartz
rhy – rhyolite
ss – sandstone
ser – sericite
sh – shale
slst – siltstone
sph – sphalerite
str – strong
tr – trace
U – up
V – very
wk – weak
ze - zeolite