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**ASSESSMENT REPORT**

describing

**SOIL SAMPLING, PROSPECTING, GEOLOGICAL  
MAPPING AND HAND TRENCHING**

at the

**FOUR CORNERS EAST PROPERTY**

4C 289-292	YC22874-YC22877
357-360	YC22924-YC22927
383-386	YC22950-YC22953
409-412	YC23114-YC23117
435-438	YC22994-YC22997
439	YC28800
440-450	YC29001-YC29011
451-460	YC97695-YC97704
461-482	YD33847-YD33868

NTS 105G/01

Latitude 61°02'N; Longitude 130°04'W

located in the

Watson Lake Mining District  
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

**STRATEGIC METALS LTD.**

by

S. Eaton, B.Sc., GIT  
March 2011

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## **INTRODUCTION**

The Four Corners East property covers volcanogenic massive sulphide (VMS) targets. It is located in the Finlayson Lake VMS District of southeastern Yukon. The property is owned by Strategic Metals Ltd.

This report describes work conducted on July 16, 2010 by Archer, Cathro & Associates (1981) Limited on behalf of Strategic Metals. The work consisted of soil sampling, prospecting, geological mapping and hand trenching. The author participated in and supervised the program. Appendix I contains the author's Statement of Qualifications.

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

The Four Corners East property is located in southeastern Yukon at latitude 61°02' north and longitude 130°04' west on NTS map sheet 105G/01 (Figure 1). The claims are registered with the Watson Lake Mining Recorder in the name of Archer Cathro, which holds them in trust for Strategic Metals. Claim registration data are listed below, while locations of individual claims are shown on Figure 2.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date*</u>
4C 289-292	YC22874-YC22877	March 13, 2015
357-360	YC22924-YC22927	March 13, 2015
383-386	YC22950-YC22953	March 13, 2015
409-412	YC23114-YC23117	March 13, 2015
435-438	YC22994-YC22997	March 13, 2015
439	YC28800	March 13, 2015
440-450	YC29001-YC29011	March 13, 2015
451-460	YC97695-YC97704	March 13, 2015
461-482	YD33847-YD33868	March 9, 2012

\* Expiry dates include 2010 work that has been filed for assessment credit but not yet accepted.

The 4C claims lie approximately 115 km northwest of Watson Lake. The closest road access is from the Robert Campbell Highway, which at its nearest point is 40 km east of the property. In 2010, the property was accessed by a Hughes 500D helicopter operated by Kluane Airways from a seasonal base at McEvoy Lake, 85 km to the north.

## **HISTORY**

Regional-scale geological mapping in the vicinity of the Four Corners East property was performed by the Geological Survey of Canada (GSC) in 1960 and 1977 (Poole *et al.*, 1960 and Tempelman-Kluit, 1977). Drainages in the area were sampled in 1978, during reconnaissance-scale stream sediment geochemical surveys supervised by the GSC (Hornbrook and Ballantyne, 1978 and Hornbrook and Friske, 1988).

The only record of previous exploration in the area now covered by the Four Corners East property is work conducted by Cominco Ltd. between 1995 and 1998. That work targeted VMS mineralization modelled on the Kudz Ze Kayah deposit, located 60 km north-northwest of the Four Corners East property. Cominco flew helicopter-borne geophysical surveys over most of the Finlayson Lake District following the discovery of Kudz Ze Kayah, and it later staked numerous claim blocks to cover the resulting geophysical anomalies. Results from the geophysical surveys were not reported for assessment credit.

In 1996 and 1997, Cominco staked three claim blocks (BL 1-93, Wat 1-165 and IC 1-28) in the area. Parts of the Wat and IC claim blocks overlapped with much of the current Four Corners East property. Cominco performed reconnaissance-scale soil and stream sediment sampling, geological mapping and prospecting. In 1998, Cominco completed more detailed mapping and prospecting around a stratiform pyrite showing hosted within siliceous felsic exhalite and argillite on the IC claims. This showing (IC Showing) is in the southeastern part of the Four Corners East property. Both Cominco's claim blocks were subsequently allowed to expire.

In early spring 2003, Strategic Metals staked its initial 4C claims and later that spring it optioned those claims to Firestone Ventures Inc. (Wengzynowski, 2003). Exploration for emeralds was conducted in the western part of the property (did not overlap with current Four Corners East property). This work resulted in the discovery of a few small beryl crystals, but no green or gem quality stones were found.

In 2005, after Firestone dropped its option, Strategic Metals staked additional claims and explored the eastern corner of its property (overlapped with Four Corners East property) for VMS potential by soil sampling, prospecting and geological mapping. The most significant discovery from that program was the HS Showing, which comprises a limonite boxwork subcrop within quartz-carbonate altered metavolcanics. The limonite is believed to be the weathered product of Besshi-style VMS mineralization (Wengzynowski, 2006). The Fyre Lake Deposit, located 30 km to the northwest, is a Besshi-style deposit hosted in the same stratigraphic unit.

In 2006, Geotech Ltd. conducted helicopter-borne magnetic and variable time domain electromagnetic (VTEM) surveys over the eastern part of the 4C claim blocks (survey largely overlapped with Four Corners East property) on behalf of Strategic Metals (Wengzynowski, 2007). The VTEM data was reprocessed and interpreted by Condor Consulting, Inc. in spring 2009.

In 2009, Strategic Metals performed limited soil sampling, prospecting and geological mapping in the vicinity of the HS and IC Showings (Gregory, 2009). Results from this program confirmed the nature and extent of historical work.

## **GEOMORPHOLOGY**

The Four Corners East property lies within the Simpson Range of the Pelly Mountains, near the headwaters of the Liard River. Elevations range between 1100 and 1840 m. Topography is rugged with predominantly north flowing creeks draining U-shaped valleys that often emanate from cirques. Slopes are moderate to steep, typically ranging between 20 and 45°. Ridge crests

are mostly rounded uplands with extensive felsenmeer. Ice sheets covered the entire Pelly Mountain area during the Pleistocene with the main ice flows directed southeasterly along the larger river valleys. Alpine glacial features such as cirques, tarn lakes and lateral moraines are common.

Much of the property lies above tree line, which is at about 1500 m. Vegetation ranges from scattered stunted spruce, balsam and willow at lower elevations, giving way to buckbrush and moss and ultimately to grass and lichen at higher elevations.

The creeks draining the claim block flow into tributaries of the Liard River and then into the Arctic Ocean via the Mackenzie River.

### **REGIONAL GEOLOGY**

The Four Corners East property lies within the Finlayson Lake VMS District. This district has been the focus of numerous government and industry sponsored studies due to its VMS potential. The Geological Survey of Canada mapped the Finlayson Lake area (NTS map sheet 105G) twice at a 1:250,000 scale (Wheeler *et al.*, 1960 and Tempelman-Kluit, 1977). In the late 1990s and early 2000s, the Yukon Geological Survey performed more detailed (1:50,000 scale) mapping in the area and in 2002, it completed a geological compilation and updated the lithological names (Bond *et al.*, 2002). In 2003, Gordey and Makepeace incorporated this data into a Yukon-wide geological compilation. The following geological descriptions are based on the published data.

The Finlayson Lake District comprises an isolated outlier of Yukon-Tanana and Slide Mountain Terranes and affiliated overlap assemblages (Figure 3). The district is bounded by the Tintina Fault to the southwest and the Inconnu Thrust Fault to the northeast. Five major VMS deposits have been discovered in the district (Figure 4). The Fyre Lake, Kudz Ze Kayah, GP4F and Wolverine Deposits, all occur within Yukon-Tanana Terrane, while the Ice Deposit is hosted in Slide Mountain Terrane.

Yukon-Tanana and Slide Mountain Terranes represent continental arc and back-arc basin sequences that developed along the ancient Pacific margin of North America during late Devonian and through Permian (Piercey *et al.*, 2006). Pericratonic rocks of Yukon-Tanana Terrane and oceanic rocks of Slide Mountain Terrane are juxtaposed against rocks of the North American continental margin sequence along the post-Late Triassic Inconnu Thrust Fault (Murphy *et al.*, 2006). Rocks of Yukon-Tanana and Slide Mountain Terranes in the Finlayson Lake District are characterized by variably deformed and metamorphosed, lower greenschist to amphibolite facies metasedimentary and metavolcanic rocks and affiliated metaplutonic suites.

The following descriptions of Yukon-Tanana and Slide Mountain Terranes are largely summarized from Murphy *et al.* (2006).

Rocks of Yukon-Tanana Terrane in the Finlayson Lake District lie between the Tintina Fault and the Jules Creek Fault. Yukon-Tanana Terrane is subdivided into a number of fault- and unconformity-bounded groups and formations. From the structurally deepest levels of the district outwards, these include: (1) North River Formation, Grass Lakes and Wolverine Lake

Groups, and affiliated metaplutonic rocks in the Big Campbell Thrust Sheet; (2) North River, Waters Creek and Tuchitua River Formations and affiliated intrusions in the Money Creek Thrust Sheet; and (3) Cleaver Lake Formation and intrusions of the Cleaver Lake Thrust Sheet (Figure 4). Regional shortening, uplift, erosion and synorogenic clastic sedimentation took place during Early Permian. Lower Permian Money Creek Formation was deposited unconformably atop folded Mississippian and Pennsylvanian rocks and was subsequently folded and overthrust by the Cleaver Lake and Money Creek Thrust Faults. The movement of the Money Creek Thrust Fault is constrained to Early Permian because both the hanging wall and footwall are unconformably overlain by Lower Permian rocks of Campbell Range Formation of Slide Mountain Terrane.

North River Formation quartzose metaclastic rocks and metapelites are the oldest exposed rock units in the Big Campbell Thrust Sheet. North River Formation is overlain by chloritic schist and lesser carbonaceous phyllite of Fyre Lake Formation of Grass Lakes Group. This formation hosts the Besshi-style Fyre Lake VMS Deposit (Hunt, 2002). This Late Devonian deposit is associated with chloritic phyllite and greenstone of boninitic composition (Piercey *et al.*, 2004). Mafic and variably serpentized ultramafic rocks are present as sills and dikes in Fyre Lake and North River Formations, respectively. Stratigraphically overlying Fyre Lake Formation is a carbonaceous phyllite-dominated succession which has been divided into two parts. The lower part, Kudz Ze Kayah Formation, contains felsic metavolcanic rocks that host the Kuroko-style Kudz Ze Kayah and GP4F VMS Deposits, while the upper part, Wind Lake Formation, contains mafic metavolcanic rocks and quartzite (Murphy, 1998). Grass Lakes Group is intruded by Late Devonian to Early Mississippian Grass Lakes Plutonic Suite and Early Mississippian Simpson Range Plutonic Suite.

Wolverine Lake Group unconformably overlies Grass Lakes Group and hosts the Kuroko-style Wolverine VMS Deposit. This deposit occurs in a thick sequence of Carboniferous rhyolitic metavolcanic rocks and carbonaceous argillite (Tucker *et al.*, 1997). Together, the Grass Lakes and Wolverine Groups have been interpreted to represent a continental back-arc rift to back-arc basin assemblage.

During Early Permian, Yukon-Tanana Terrane experienced regional shortening and uplift. The deformation and erosion of the Mississippian and Pennsylvanian rocks were followed by unconformable deposition of Money Creek Formation. Money Creek Formation comprises carbonaceous phyllite and sandstone, varicoloured chert, chert-pebble conglomerate, and diamictite. This formation was emplaced atop units of Wolverine Lake Group in the Big Campbell Thrust Sheet and Tuchitua River Formation, Whitefish Limestone, White Lake Formation, King Arctic Formation and Finlayson Creek Limestone in the Money Creek Thrust Sheet by the Cleaver Lake and Money Creek Thrust Faults. Money Creek Formation is preserved in the Big Campbell and Money Creek Klippen.

The imbricated rocks of Yukon-Tanana Terrane are juxtaposed against rocks of Slide Mountain Terrane along the Jules Creek Fault. Slide Mountain Terrane of the Finlayson Lake District consists of Mississippian to Lower Permian Fortin Creek Group, Lower Permian Campbell Range Formation and spatially associated plutonic rocks, and Lower Permian limestone and quartzite. The Ice VMS Deposit is hosted in Campbell Range Formation basalt (Hunt, 2002).

Middle Permian and younger sequences in the Finlayson Lake District are derived from, or deposited on both Yukon-Tanana and Slide Mountain Terranes. Middle Permian to Triassic Simpson Lake Group is composed of clastic rocks derived from both terranes and Middle Permian felsic and mafic metavolcanic rocks (Mortensen *et al.*, 1999). Slide Mountain Terrane, Yukon-Tanana Terrane and overlapping rocks are juxtaposed against Triassic shale and siltstone and older rocks of the North American continental margin sequence along the Inconnu Thrust Fault.

During the Mesozoic era, two types of intrusion were emplaced in the Finlayson area. The first comprises several unmetamorphosed Early Jurassic mafic and intermediate composition plutons. The second consists of Late Cretaceous two-mica quartz monzonite and granite (Mortensen and Jilson, 1985).

### **PROPERTY GEOLOGY**

Geology of the Four Corners East property is shown on Figure 5. The lithological units and contacts are inferred because little detailed property mapping has been done and most contacts are obscured by talus, glacial till or vegetation. Unit descriptions and terminology used throughout this section are based on mapping done by the Yukon Geological Survey (Murphy and Piercey, 1999 and Murphy *et al.*, 2003).

Yukon-Tanana Terrane rocks on the Four Corners East property comprise stratigraphic volcanic units and laterally extensive ultramafic intrusions. The lowest stratigraphic unit consists of mafic metavolcanic rocks of Late Devonian Fyre Lake Formation (DF). This unit is conformably overlain by felsic metavolcanic rocks of Late Devonian Kudz Ze Kayah Formation (DK). These stratigraphic units have been intruded by Late Devonian, variably serpentized ultramafic rocks (Dum). The youngest rocks in close proximity to the Four Corners East property are found four kilometres to the west of the claim block, where the older units are cut by a north-northwesterly elongated, approximately 10 km long granitic stock (Kg). Unit descriptions are summarized in the following table.

**Table II: Lithological Units at the Four Corners East Property**  
(after Murphy and Piercey, 1999 and Murphy *et al.*, 2003)

<u>Unit (Age)</u>	<u>Description</u>
Kg (Mid-Cretaceous)	Massive to weakly foliated, medium to coarse grained biotite-muscovite granite, generally equigranular.
Dum (Late Devonian)	Brown weathering, dark green to black, variably serpentized dunite, includes gabbro and/or pyroxenite locally.



DK (Late Devonian)	Kudz Ze Kayah felsic metavolcanic formation: feldspar-muscovite-quartz schist.
DF (Late Devonian)	Fyre Lake mafic metavolcanic formation: massive to subtly layered chlorite-biotite-plagioclase-actinolite schist.

Foliation attitudes strike northwesterly and dip moderately to the north. Compositional layering in the stratified rocks is approximately parallel to foliation.

Although no high angle faults have been mapped on the property, abundant quartz veins in the central part of the claim block indicate that extensional structures are present.

The Four Corners East property lies in a thrust window that is bound to the north and south by the Money Creek Thrust Fault. No faults have been mapped on the property.

### MINERALIZATION

VMS-type mineralization has been discovered at two locations (IC and HS Showings) on the Four Corners East property (Figure 5). Nineteen rock and chip samples were collected from the HS Showing in 2010. Locations of these samples are shown on Figure 6. Figure 7 illustrates the detailed geology of HS Showing, along with the trench location and rock samples results for copper. Figures 8 to 11 show copper, silver, lead and zinc results for all samples within the Four Corners East property. Sampling and Analytical Procedures are provided in Appendix II, Rock Sample Descriptions for 2010 samples are given in Appendix III and Certificates of Analysis are in Appendix IV. The showings are briefly described in the following paragraphs.

The **IC Showing** is located in the easternmost part of the property. It comprises strataform, 1 to 15 cm thick bands of massive pyrite with rare sphalerite and galena that are hosted in siliceous felsic exhalite and argillite of the Kudz Ze Kayah Formation. Specimens of this banded mineralization reportedly contain up to 8000 ppm lead and 2000 ppm zinc, but the locations of these samples were not specified (Bannister and Holroyd, 1998; Senft, 1997; and Senft, 1998). Samples collected in the area by Strategic Metals in 2006 returned more subdued values, which range from 25 to 254 ppm copper (average of 118 ppm), 0.2 to 1.4 g/t silver (average of 0.8 g/t), 35 to 457 ppm lead (average of 181 ppm) and 47 to 387 ppm zinc (average of 170 ppm).

The **HS Showing** lies in the east-central part of the property. The terrain is moderately steep, but outcrop is rare due to thick vegetation. Mineralization discovered at this location in 2006 consists of limonite boxwork and limonitic chlorite schist in a small vegetation “kill zone” within the Fyre Lake Formation metavolcanics. Specimens of this limonite-rich material assayed between 0.42 and 0.97% copper with near background values for most other metals except cobalt (119 to 184 ppm) and zinc (262 to 2850 ppm). Malachite and azurite coated carbonate float was found downslope of the limonite showing. Two samples of this material assayed 2.07 and 0.47% copper (Wengzynowski, 2006). Detailed prospecting and geological mapping conducted in 2010 along trend to the northwest of the showing delineated a 400 m long by about 10 m wide band of strongly quartz-carbonate altered Fyre Lake Formation metavolcanics (chloritic schist) with

minor chalcopyrite and locally strong malachite and azurite coatings (Figure 7). Ten rock samples were collected along strike to the northwest of the HS Showing (the other nine were taken from a hand trench – see Hand Trenching section). Eight of these samples averaged 3104 ppm copper. Most samples returned subdued values for gold and silver, except one that yielded 301 ppb gold and 4.0 g/t silver. Zinc and cobalt values were generally weak, with the exception of one sample that returned 277 ppm cobalt.

### **SOIL GEOCHEMISTRY**

Different parts of the area covered by the Four Corners East property have been soil sampled at various times since 1996. In 2010, 55 soil samples were taken on five lines centered over the HS Showing. Sampling and Analytical Procedures used during the various soil sampling programs can be found in Appendix II and Certificates of Analysis for 2010 samples are in Appendix III. 2010 soil sample locations are shown on Figure 6, while copper, silver, lead and zinc results for all samples are illustrated thematically on Figure 8 to 11.

Collectively, sampling has defined a discontinuous 3000 by 500 m copper anomaly in the central part of the property. Values within this anomaly range from 100 to 1220 ppm copper (Figure 8). The area of anomalous copper closely conforms to the inferred trace of the Fyre Lake metavolcanic strata and encompasses the HS Showing. The largest cluster of high copper values is in a well vegetated area with no outcrop, about 2200 m west-northwest of the HS Showing.

The strongest silver response is found within a 1000 by 300 m area in the southeastern corner of the claim block, at the southeast end of the main copper anomaly (Figure 9). This anomaly features values ranging from 1 to 5.9 ppm silver and is open to the east. The strongest values were from samples hosted by Kudz Ze Kayah Formation metavolcanics. The IC Showing lies at the northwest edge of this anomaly. Scattered anomalous silver values (between 1 and 2.4 g/t) were also identified in the northwest corner of the property within the Fyre Lake and Kudz Ze Kayah Formations.

Lead values are closely correlated with silver, and the strongest values (50 to 825 ppm) are clustered in a 700 by 200 m area around the IC Showing (Figure 10).

Elevated zinc values (200 to 1130 ppm) are concentrated within Kudz Ze Kayah Formation in the southeast and central parts of the property (Figure 11). There is no sample coverage between these two areas. Scattered zinc anomalies are also present within Fyre Lake Formation.

### **HAND TRENCHING**

In 2010, a 17.2 m long hand trench was dug perpendicular to the trend of quartz-carbonate alteration at the HS Showing (Figure 12). The trench is located in a saddle along a northeast trending ridge – this site was chosen for its likelihood of reaching bedrock, and did not cross the strongest historical mineralization. The trench started in relatively unaltered Fyre Lake Formation biotite-chlorite schist (0.0 to 0.75 m) at its southwest end then transitioned into strongly quartz-carbonate altered schist. The transition zone was marked by gouge. Trace limonite and rare malachite were encountered within the quartz-carbonate alteration. At 16.5 m,

the trench passed back into unaltered biotite-chlorite schist and once again the transition was marked by gouge. The strongest values were from the first three samples (southwest end), which averaged 2903 ppm copper over 4.20 m. The remainder of the samples yielded subdued values for all elements.

### **HELICOPTER-BORNE VTEM SURVEYS**

In 2006, helicopter-borne VTEM surveys were flown by Geotech Ltd. over a large portion of the Four Corners East property. In spring of 2009, data from those surveys were reprocessed and analyzed by Condor Consulting, Inc. Condor identified two northwesterly trending conductors that may be related to VMS-style mineralization (Figures 5, 8, 9, 10 and 11). One of these conductors is located in the north-central part of the claim block. Although it overlies ultramafic rocks, the favourable Fyre Lake Formation is projected to dip beneath these rocks at a moderate angle. The strongest part of the copper-in-soil anomaly lies directly updip from this conductor. The other conductor coincides with the surface trace of the IC Showing.

### **DISCUSSION AND CONCLUSIONS**

Previous work at the Four Corners East property suggests potential for Kuroko- and Besshi-type VMS mineralization within the Kudz Ze Kayah and Fyre Lake Formations, respectively. Both of these formations have produced soil geochemical anomalies and are locally associated with VTEM conductors.

The IC Showing contains low grade stratiform massive sulphide mineralization that could mark the outer edge of a buried deposit. However, the associated VTEM conductor was relatively shallow, which suggests that mineralization does not improve at depth.

The HS Showing features limonitic boxwork in a kill zone, which may be the surface representation of a massive sulphide horizon. If so, most of the copper in sulphide minerals may have been leached by oxygenated groundwater and hydraulically transported downslope, where it was precipitated as malachite and azurite in carbonate-rich environments. This proposed transport mechanism is similar to conditions at the Ice deposit where limonite boxwork talus marks the leached sulphide horizon at surface and malachite-covered glacial till was found downslope. The strongest copper-in-soil geochemical response is located in a heavily vegetated area about 2200 m west-northwest of the limonite kill zone. The VTEM survey identified a strong conductor downdip of the highest soil values.

The next phase of exploration should consist of diamond drilling to test the HS Showing copper-in-soil geochemical anomaly and related geophysical conductor. Additional grid soil sampling should be performed around the IC Showing in order to determine the extents of the existing silver-lead-zinc anomaly. Grid soil sampling (or contour sampling if it is too steep) should also be completed to the southwest of the HS Showing, where previous sampling has left a large gap.

Respectfully submitted,

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



## **STATEMENT OF QUALIFICATIONS**

I, Sarah Eaton, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in North Vancouver, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 2007 with a B.Sc. in Honours Geological Sciences.
2. From 2002 to present, I have been actively engaged in mineral exploration in Yukon Territory, British Columbia and Northwest Territories.
3. I am a Geoscientist in Training (GIT) with the Association of Professional Engineers and Geoscientists of British Columbia (Member Number 154922).
4. I have personally participated in the field work reported herein and have interpreted all data resulting from this work.

Sarah Eaton, B.Sc. (Hon.) Geology, GIT

**APPENDIX II**  
**SAMPLING AND ANALYTICAL PROCEDURES**

## **ASSAY METHODS FOR GEOCHEMICAL SAMPLING**

### **1996 to 1998 Soil Samples**

In 1996, 1997 and 1998 Cominco conducted soil sampling in the vicinity of the current 4C claim block. The samples were taken from B or C horizon soil at 100 m intervals on lines spaced approximately 100 m apart. Analytical techniques were not reported; however, judging from similar programs conducted by Cominco at the same time, the samples were probably sent to Cominco's exploration laboratory in Vancouver, B.C., where they were dried, sieved to -80 mesh and dissolved in aqua regia. They were likely then analyzed for 27 elements using the induced coupled plasma (ICP) technique, for gold using atomic absorption and for Ba using loose packed pellet X-ray fluorescence (XRF).

### **2005 Rock Samples**

The 2005 soil and rock samples were sent to ALS Chemex Labs in North Vancouver. At ALS Chemex, the rocks were fine crushed to better than 70% - 2mm, then a 1 kg split was pulverized to better than 85% passing 75 microns. The resulting rock fractions were then dissolved in aqua regia and subsequently analyzed by inductively coupled plasma with atomic emission spectroscopy (ME-ICP41).

### **2005 Soil Samples**

The 2005 soil samples were located by means of compass and hip-chain surveys with frequent checks using handheld GPS units. Sample sites are marked by aluminum tags inscribed with the sample numbers and affixed to 0.5 m thick wooden laths that were driven into the ground. Soil samples were collected from 40 to 60 cm deep holes dug by hand auger. They were placed into individually pre-numbered Kraft paper bags.

The soil samples were sent to ALS Chemex Labs in North Vancouver, where they were dried and sieved to minus 180 microns. The resulting soil fractions were then dissolved in aqua regia and subsequently analyzed by inductively coupled plasma with atomic emission spectroscopy (ME-ICP41).

### **2009 Rock Samples**

Rock geochemical sample sites on the property were marked with orange flagging tape labelled with the sample number. The location of each sample was determined using a handheld GPS unit.

The rock samples were sent to ALS Chemex in North Vancouver, B.C. where they were dried and fine crushed to better than 70% passing 2 mm. A 250 g split was then pulverized to better than 85% passing 75 micron. A portion of this material was digested in aqua regia and analysed for 35 elements by inductively coupled plasma-atomic emission spectroscopy technique (ME-ICP41).

## **2009 Soil Samples**

The 2009 soil samples were located by means of compass and hip-chain surveys with frequent checks using handheld GPS units. Sample sites are marked by aluminum tags inscribed with the sample numbers and affixed to 0.5 m thick wooden lath that were driven into the ground. Soil samples were collected from 40 to 60 cm deep holes dug by hand auger. They were placed into individually pre-numbered Kraft paper bags.

The samples were sent to ALS Chemex in North Vancouver, B.C. where they were dried, screened to -180 microns, dissolved in an aqua regia solution and then analyzed for 35 elements using the inductively coupled plasma-atomic emission spectroscopy technique (ME-ICP41).

## **2010 Rock Samples**

Rock geochemical sample sites on the property were marked with orange flagging tape labelled with the sample number. The location of each sample was determined using a handheld GPS unit.

Multi-element analyses for rock samples were carried out at ALS Chemex in North Vancouver, B.C. Each sample was dried, fine crushed to better than 70% passing 2mm and then a 250 g split was pulverized to better than 85% passing 75 micron. The fine fraction was then analyzed for gold using fire assay with inductively coupled plasma-atomic emission spectroscopy finish (Au-ICP21) and for 35 other elements using an aqua regia digestion and inductively coupled plasma-atomic emission spectroscopy analysis (ME-ICP41).

## **2010 Soil Samples**

The 2010 soil samples were located by means of handheld GPS. Sample sites are marked by aluminum tags inscribed with the sample numbers and affixed to 0.5 m thick wooden lath that were driven into the ground. Soil samples were collected from 40 to 60 cm deep holes dug by hand auger. They were placed into individually pre-numbered Kraft paper bags.

The soil samples were sent to ALS Chemex, where they were dried, screened to -180 microns, and then analyzed for 35 elements using ME-ICP41. An additional 30 g charge was further analysed for gold using fire assay with inductively coupled plasma-atomic emission spectroscopy finish (Au-ICP21).

**APPENDIX III**  
**ROCK SAMPLE DESCRIPTIONS**

**APPENDIX IV**  
**CERTIFICATES OF ANALYSIS**