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**ASSESSMENT REPORT**

describing

**DIAMOND DRILLING**

at the

**LEA PROPERTY**

Lea 1-12 YC73908-YC73919

NTS 105G/10

Latitude 61°34'N; Longitude 130°40'W

located in the

Watson Lake Mining District  
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

**STRATEGIC METALS LTD.**

by

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## **INTRODUCTION**

The Lea property covers a coincident copper-lead-zinc soil anomaly within the Finlayson Lake Volcanogenic Massive Sulphide (VMS) District of Yukon Territory. The property is owned by Strategic Metals Ltd.

The 2010 exploration program consisted of 139.6 m of diamond drilling in one hole. The work was conducted between June 23 to 24 and July 6 to 11, 2010 by Archer, Cathro & Associates (1981) Limited on behalf of Strategic Metals. The authors participated in and supervised the program. Appendix I contains the authors' Statements of Qualifications.

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

The Lea property lies about 250 km northeast of Whitehorse and is centred at latitude 61°34' north and longitude 130°40' west on NTS mapsheet 105G/10 (Figure 1).

The property comprises 12 mineral claims that cover an area of approximately 245 ha (2.45 sq. km). The claims are registered with the Watson Lake Mining Recorder in the name of Archer Cathro, which holds them in trust for Strategic Metals. Specifics concerning claim registration are listed below, while the locations of individual claims are shown on Figure 2.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date*</u>
Lea 1-12	YC73908-YC73919	March 23, 2014

\* Expiry date does not include 2010 work that has not yet been filed for assessment credit.

In 2010, daily access to and from the property was provided by a Hughes 500D helicopter operated by Kluane Airways from the Inconnu Fishing Lodge on McEvoy Lake, which is located 37 km to the northeast of the property. A Bell 206B helicopter operated by Trans North Helicopters from the Ross River airport was also used for drill moves. All personnel stayed at Inconnu Lodge.

The Lea property lies about 104 km northwest of the community of Ross River, the nearest supply centre. The closest road access is from the Robert Campbell Highway, which at its nearest point is 12 km to the north of the property. The Robert Campbell Highway is usable in all seasons by two wheel drive vehicles.

## **HISTORY**

In 1995, Expatriate Resources Ltd. staked 302 claims (League Property) to protect previously unstaked targets selected from a regional geochemical database that documents results of 1973 exploration by Finlayson Joint Venture (Cathro, 1973). That year, Expatriate completed grid soil sampling, geological mapping, prospecting and geophysical surveys (magnetics, VLF and Maxmin) in the centre of its property (Eaton, 1997). Only the northern most portion of the League property overlapped with Strategic Metals' current Lea claim block.

In 1996, Expatriate performed airborne magnetic and electromagnetic surveys, geological mapping, prospecting, soils sampling, ground magnetic and Maxmin surveys and 1153 m of diamond drilling in six holes (Eaton, 1997). The area of diamond drilling does not lie within the bounds of the current Lea property.

In 1997, Expatriate conducted infill soil sampling within its main grid. Hand pits were dug by hand at sample sites that had previously returned extremely high lead and zinc values (Wengzynowski, 2000).

In 2000, soil sampling, geological mapping and prospecting were undertaken by Expatriate to follow-up a strong linear airborne magnetic target and previously identified lead-zinc soil geochemical anomaly in the northern part of the claim block (Wengzynowski, 2000). This work lies within the bounds of the Lea property.

In late 2002, Expatriate staked additional claims (NL property) just north of its League property. In 2003, Entourage Mining Ltd. optioned the NL property from Expatriate and carried out soil sampling to assess the property's gem potential (Verley, 2003). Entourage subsequently dropped the option due to poor results, and the NL claims were allowed to lapse.

In 2008, Strategic Metals staked the Lea 1 to 12 mineral claims following a research study that was designed to identify new VMS targets in the area.

In 2009, Strategic Metals completed geological mapping, prospecting and grid soil sampling to follow-up encouraging historical lead-zinc results (Gregory, 2009). Hand trenching was also performed at a soil sample site that had produced elevated copper, lead and zinc values.

### **GEOMORPHOLOGY**

The Lea property lies 30 km north of the Tintina Trench and covers an area of low relief on the northern flank of the Pelly Mountains. Creeks draining the property flow into Campbell Creek, which ultimately connects to the Pacific Ocean via the Pelly and Yukon Rivers.

Local elevations on the property range from about 1300 to 1350 m above sea level (asl). Topographic relief is gentle (0 to 10°). Little to no outcrop is present on the property. Most of the property is blanketed by Pleistocene colluvium deposits and glacial till.

The entire property lies below treeline, which is at approximately 1500 m asl in the district. Vegetation consists of isolated stands of stunted black spruce, alder and willow, with an understory of low shrubs and moss.

Much of the overburden in the region is associated with the most recent Cordilleran ice sheet, the McConnell glaciation, which is believed to have covered south and central Yukon between 26,500 and 10,000 years ago (Yukon Geological Survey, 2010). Finlayson Lake map area was affected by three lobes of that ice sheet. The Cassiar lobe, which flowed in a northwesterly direction, covered the area southwest of the Pelly Mountains. The Liard lobe, which flowed east to southeast, covered the area southeast of the Pelly Mountains. The area north of the Pelly

Mountains was covered by the east-northeast flowing Selwyn lobe. A complex system of ice-caps and cirque glaciers was active at high elevations in the Pelly Mountains and contributed to the ice bodies surrounding them.

The climate in the Lea property area is typical of northern continental regions with long, cold winters, truncated fall and spring seasons and short, mild summers. Although summers are relatively mild, arctic cold fronts often cover the area and snowfall can occur in any month. The property is mostly snow free from early June to late September.

### **REGIONAL GEOLOGY**

The Lea property lies within the Finlayson Lake VMS District. This district has recently 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. 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 3). 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 3). 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 Fire 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 serpentinized ultramafic rocks are present as sills and dikes in Fire Lake and North River Formations, respectively. Stratigraphically overlying Fire 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 Tutchitua 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**

Property-scale geological mapping was carried out by Expatriate in 2000 (Wengzynowski, 2000) and Strategic Metals performed limited mapping in 2009 (Gregory, 2009). No additional mapping was done in 2010. Geological mapping at the Off property is hindered by a lack of bedrock exposures. Thus, geology has been inferred from the examination of talus and rock chips collected from soil sample pits (Figure 4). The following geological descriptions are largely taken from the published reports.

Geological mapping was reportedly hindered by the lack of outcrop (Wengzynowski, 2000). Maps were produced by mapping frost-heaved boulders and cobbles and by examining rock chips gathered from soil sample pits (Figure 4).

The southern part of the property is underlain by regionally metamorphosed volcanic rocks of Kudz Ze Kayah Formation. This unit contains minor layers of limestone to the southwest of the property. To the northeast, it abuts against augen gneiss of the Grass Lakes Plutonic Suite. An argillite unit outcrops approximately 1000 m south of the property. It is overlain by Kudz Ze Kayah Formation and could project onto the property at depth.

Three intrusive units have been identified on the property. Granodiorite intrudes Kudz Ze Kayah Formation and is represented by a stock to the north of the property and a satellite plug in the east-central part. The granodiorite is undeformed and is believed to be one of several undifferentiated Mesozoic to Cenozoic intrusions in the area. A large mafic dyke in the east-central part of the property cuts gneiss of the Grass Lakes Plutonic Suite and schist of Kudz Ze Kayah Formation. This dyke is unfoliated and, therefore, was likely emplaced after the last major phase of deformation. Its age is uncertain relative to the granodiorite. The youngest unit on the property is diorite, which occurs as dykes that appear to cut the granodiorite.

A post-deformation listwaenite unit has also been identified but is not clearly linked to any of the intrusive units.

The lithologies of the various units are individually described in the following paragraphs.



### **Regionally Metamorphosed Units**

**Argillite** (Unit 1) is dark grey to black on fresh surfaces and weathers to thin platy chips and lesser slabs. It is thinly foliated and fissile, and is brittle across foliation planes. Most specimens are greasy along foliation surfaces because of weathered mica and a small component of graphite.

**Quartz-sericite-muscovite schist, quartz-phyric rhyolite and aphyric rhyolite** (Unit 2) is light brown to off-white on fresh surfaces and fractures to thin platy slabs. Foliation planes are generally thin in the schist where it fractures into 0.5 to 1.0 mm thick layers. The aphyric rhyolite is similar to the schist except that it weathers into 10 to 30 cm thick slabs. The quartz-phyric rhyolite is identical to the aphyric unit except that it contains 2 to 15% clear quartz eyes ranging from 1.0 to 2.5 mm in diameter.

**Limestone/marble** (Unit 3) is dull grey to white on fresh surfaces and buff on weathered surfaces. The matrix is composed of medium to coarsely crystalline calcite. Some specimens contain less than 1% cubic pyrite disseminations.

**Quartz augen gneiss** (Unit 4) is light grey on fresh surfaces and weathers to tan. It is well foliated and contains 50% quartz augen with 30% quartz, 10-15% feldspar and 5-10% mafics. The mafics are moderately altered to chlorite and yellow to green sericite, which are well developed along foliation planes. The augen are generally 1 to 2 mm in diameter but range up to 5 mm, with a uniform aspect ratio of 1:5. Thin wisps of fine limonite boxwork are present in some areas.

### **Post-Deformation Units**

**Mafic dyke** (Unit 5) is dark green on fresh surfaces and medium brown where weathered. Calcite stringers are common and a waxy green mineral (serpentine?) is sometimes present. This unit is found with dark green chloritic schist, which probably represents an alteration halo that surrounds the dyke.

**Listwaenite** (Unit 6) is cream to tan when fresh and orange to buff when weathered. It is present at two locations within the map area and is associated with steeply dipping structures that crosscut stratigraphy.

**Granodiorite** (Unit 7) is medium grey on fresh surfaces and beige on weathered surfaces. It is medium grained and equigranular with 50% feldspar (predominantly plagioclase), 30% quartz, 10% biotite and 10% hornblende. The mafics are weakly altered to chlorite. In some places the granodiorite is weakly foliated. Country rocks on the periphery of the granodiorite intrusions are metamorphosed to a dark grey phyllitic hornfels.

**Diorite sill/dyke** (Unit 8) is dark greenish grey. It is porphyritic with 5 to 10% plagioclase phenocrysts (up to 2 mm long) and 5 to 10% hornblende phenocrysts (up to 3 mm long) in a fine grained groundmass. Weak foliation is occasionally observed and is highlighted by minor biotite.

## **Structure**

Foliation is well developed in all regionally metamorphosed volcanic and sedimentary rocks observed in the map area. Six outcrops and/or subcrops in the vicinity of the property exhibit foliation that trends southeasterly and dips gently to the northeast between 10 and 35 degrees. Crenulation and minor kink bands are developed in some sericite-rich schists.

## **DEPOSIT MODEL**

Based on the lithologies mapped in the area, the Lea property has potential to host a Kuroko-style VMS deposit, similar to the Kudz Ze Kayah Deposit located 13 km to the west. The Kudz Ze Kayah Deposit comprises an inferred resource of 12,800,000 tonnes grading 5.9% zinc, 1.7% lead, 0.81% copper, and 1.38 g/t gold (Teck Cominco Ltd., 2009). The following description of the Kudz Ze Kayah Deposit provides a model for exploring and assessing the Lea property.

The Kudz Ze Kayah Deposit lies within Yukon-Tanana Terrane near the center of the Finlayson Lake VMS District. The main zone (previously known as the ABM Deposit) is hosted within an overturned assemblage of felsic fragmental, aphanitic massive meta-rhyolite and meta-siliclastic rocks of Kudz Ze Kayah Formation (Bond, 2002).

The host metavolcanic sequence has been structurally thickened to about 1000 m and is subdivided up into the following units: felsic tuffs, felsic flows, feldspar and quartz meta-intrusive rocks, feldspar augen crystal tuff, and undifferentiated mafic metavolcanic rocks.

Felsic tuffs are the most abundant unit. They are commonly thin bedded near the top of the structural sequence and at stratigraphic levels where argillaceous sediments occur as intercalations. Thin mafic tuffs are locally present in this unit as strongly foliated porphyroblastic chlorite-biotite-calcite and as coarse grained mafic schist with gabbroic texture (Schultze and Hall, 1997).

The deposit subcrops beneath 2 to 20 m of glacial overburden and extends for 700 m along an east-west strike and up to 400 m down dip (Schultze and Hall, 1997). The deposit is tabular and forms a single layer over much of its extent; however, two layers of sulphides have been encountered in some areas within the southwest part of the deposit (Schultze and Hall, 1997). Economic minerals are sphalerite, chalcopyrite and galena with electrum occurring at the margins of galena and chalcopyrite grains (Hunt, 2002). Gangue minerals include a mixture of magnetite, barite, pyrrhotite, pyrite and carbonate. Alteration in the immediate hanging wall and footwall of the deposit is typically porphyroblastic, chlorite/biotite-ankerite-muscovite±albite, while the distal alteration assemblage is characterized by carbonate-sericite-silica±pyrite (Hunt, 2002).

The hanging wall of the host metavolcanic complex is a metasedimentary package that lies about 200 m above the deposit. Its composition varies between carbonaceous and calcareous mudstones, with minor quartzites, siltstones, limestones and intercalations of mafic and felsic volcanics. This sequence is thick and regionally extensive. A second metasedimentary package underlies the metavolcanic complex. It is coarser grained than the hanging wall package and is

largely composed of siltstones, phyllitic schists, light grey quartzites and more massive tuffaceous wackes interfingering with feldspar porphyry bodies. Locally, non-carbonaceous to carbonaceous mudstones, thin felsic tuffs, mafic sills and dykes (flows?) and banded cherty horizons are found in the footwall metasedimentary sequence. The thickness and extent of these units are unknown (Schultze and Hall, 1997).

The Kudz Ze Kayah Deposit and its host rocks display a sub-horizontal to moderately north-dipping penetrative schistosity and exhibit isoclinal, recumbent folding with bedding generally parallel to schistosity (Schultze, 1996). The zonation of base and precious metals and barium within the deposit, the proximal location of chloritic alteration above portions of the deposit, and the litho-geochemical signatures of the deposit and the overlying units led Schultze (1996) to suggest that the deposit is, at least in part, overturned.

Based on the geological and geochemical characteristics of Kudz Ze Kayah Formation, Piercey *et al.* (2001) proposed that it was deposited within a back-arc basin environment. Mortensen (1992) suggested that Devonian-Mississippian Yukon-Tanana Terrane arc magmas formed above a west-facing subduction zone proximal to North America and that the felsic rocks in Kudz Ze Kayah Formation represent rifting and subsequent ensialic back-arc basin generation within this arc. The arc rifting and the syn-volcanic faults associated with it are likely the regional-scale controls on the localization and formation of the Kudz Ze Kayah Deposit (Murphy and Piercey, 2000).

## **GEOCHEMISTRY**

### **Soil Sampling**

The ground within the bounds of the Lea property was soil sampled at various times between 1973 and 2010 by different operators. All historical results for copper, lead and zinc are shown thematically on Figures 5, 6 and 7, respectively.

Sampling has defined an approximately 1000 by 75 m, relatively linear, southeast trending copper-lead-zinc anomaly in the centre of the Lea property. The elevated values are discontinuous and range from 100 to 383 ppm copper, 100 to 2870 ppm lead and 500 to 2880 ppm zinc. Results from the remainder of the property are weakly anomalous or background levels.

### **Rock Sampling**

Seven rock samples have been collected from within the current Lea property by various operators. Results for copper, lead and zinc for these samples are plotted on Figures 5, 6 and 7. All of the samples yielded background values for these elements.

## **HAND TRENCHING**

In 2009, a 5 m long and 1 m deep hand trench was dug at the site of the highest historic lead-in-soil value (2870 ppm). Its location is plotted on Figures 5 to 7. Large rocks and a high water

table prevented the trench from reaching bedrock; however, a single cobble of limonite with minor coarse grained galena was uncovered directly below the soil sample pit. This mineralized cobble was associated with a thin, dark grey gouge zone that dips moderately to the northeast. The gouge zone contains 1 to 2% limonitic pods. Specimen samples were taken of the dark grey gouge material, the limonitic pods and the galena bearing cobble (Figure 8). These samples returned: 140 ppm copper, 416 ppm lead and 500 ppm zinc; 54 ppm copper, 177 ppm lead and 447 ppm zinc; and 68 ppm copper, 978 ppm lead and 831 ppm zinc, respectively. Three chip samples were also taken at one meter intervals across the north half of the trench, and one chip sample was taken across the dark grey gouge and an underlying limonitic gouge zone that were exposed along the side of the trench. The most anomalous results from these chip samples was from the gouge and limonite sample (H248504), which returned 192 ppm copper, 47 ppm lead and 1446 ppm zinc.

### **DIAMOND DRILLING**

A single hole diamond drill program was completed on the Lea property in 2010 to test the VMS potential below mineralization exposed in the 2009 hand trench.

The hole (LEA-10-01) was collared on July 6 and drilling was completed on July 8. The work was contracted to Top Rank Diamond Drilling Ltd. of Ste Rose du Lac, Manitoba, and was done with a heliportable JKS-300 diesel-powered drill equipped with NTW and BTW equipment. The drill was set up on a platform of 8"x 8" timbers covered with 2"x 8" planks, which were constructed on a site dug by hand. A total of 139.6 m of diamond drilling was completed.

The drill collar location for LEA-10-01 is shown on Figures 4 to 7, while a cross-section of the hole is illustrated on Figure 9. Sampling and Analytical Procedures for the core are explained in Appendix II, Certificates of Analyses are provided in Appendix III, and Geological and Geotechnical Logs are given in Appendix IV. Key data concerning the 2010 drill hole is shown on Table I.

**Table I – Drill Hole Data**

<b>Hole</b>	<b>Easting (m)</b>	<b>Northing (m)</b>	<b>Elevation (m)</b>	<b>Azimuth</b>	<b>Dip Angle</b>	<b>Length (m)</b>
LEA-10-01	410296	6827429	1370	180°	-50°	139.6

The units encountered in LEA-10-01 belong to Kudz Ze Kayah Formation. Although the hole did not intersect VMS style mineralization, it did cut favourable lithologies and alteration.

LEA-10-01 intersected quartz-chlorite schist to a depth of 67.90 m and quartz-sericite-muscovite schist in the remainder of the hole. The quartz-chlorite schist is cut by granodiorite and quartzofeldspathic dykes (sills?), while the quartz-sericite-muscovite schist is intruded by chloritic dykes (sills?).

The quartz-chlorite schist is fissile and well-foliated. Foliation angles vary between 62 to 82° to core axis. The quartz-sericite-muscovite schist is associated with strong to intense chlorite-altered zones and peachy sericite stringers. Black chloritic seams are present interstitially and

along fractures. Quartz eyes are prevalent in both schist units. The type and intensity of alteration varies throughout the hole. Alteration includes weak to extreme chloritization; sericite-alteration of medium to coarse grained feldspar crystals; local clay alteration; and sporadic quartz flooding.

The granodiorite and quartzo-feldspathic dykes are weakly foliated and have sharp upper and lower contacts, which are coated with a white, pasty, non-calcareous mineral (gypsum or clay?).

Mineralization in LEA-10-01 comprises fine to medium grained, subhedral to euhedral, pyrite crystals that are weakly disseminated throughout the hole. A 2.60 m long interval between 6.10 m and 8.70 m of interstitial and fracture-hosted limonite yielded 0.304 g/t gold. The remainder of the hole was also sampled, but returned uniformly subdued results for gold, copper, lead and zinc.

### **DISCUSSION AND CONCLUSIONS**

The 2010 diamond drilling program failed to explain the copper-lead-zinc soil anomaly near the centre of the Lea property and did not intersect any VMS mineralization. However, it did confirm that the underlying lithological units are part of Grass Lakes Group, which hosts the nearby Kudz Ze Kayah and GP4F VMS deposits.

Given the favourable geological setting, presence of a multi-element soil anomaly and relative proximity to major deposits, the Lea property should receive further exploration. A detailed study of the local glacial movements should be undertaken prior to future field work on the property. Glacial transport could have caused a down-ice shift in the location and distribution of the observed soil anomaly. Once local glacial movements have been more precisely determined, further drilling should be completed up-ice from the 2010 hole.

Respectfully submitted,

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**APPENDIX I**  
**STATEMENTS OF QUALIFICATIONS**

## **STATEMENT OF QUALIFICATIONS**

I, Oliver Fu, geologist, with business addresses in Vancouver, British Columbia and Ottawa, Ontario and residential address in Vancouver, British Columbia, do hereby certify that:

1. I graduated from McGill University in 2007 with a B.Sc. in Earth & Planetary Sciences.
2. From 2007 to present, I have been actively engaged in mineral exploration in Quebec, Newfoundland & Labrador, British Columbia, and the Yukon Territory.
3. I have personally participated in the core logging reported herein.

Oliver Fu, B.Sc. Earth & Planetary Sciences

## 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**  
**SAMPLE HANDLING AND ANALYTICAL PROCEDURES**

## **2010 Drill Core**

The collar locations were marked with 1 m long 4"x 4" timbers. A metal tag listing the hole number, azimuth, dip and total depth was secured to each collar marker. Survey control was established by chain and compass measurements.

Core was transported by helicopter from the drill sites to a temporary storage area at the Sawmill Lake Float base. From there, it was transported by truck to the Archer Cathro lot in Whitehorse, Yukon, escorted by a representative of Archer Cathro. In Whitehorse, recovery was measured and geological and geotechnical logging was performed. Both holes were split with one-half bagged and sent for analysis and the other half returned to the core box. Two blank and two standard samples were randomly included in every batch of 32 core samples. All core is stored in Whitehorse.

The core samples were transported to the ALS Chemex preparation lab in Whitehorse where they were dried and crushed to 70% minus 2 mm, before a 1.5 kg split was taken and pulverized to better than 85% minus 75 microns. Splits of the pulverized fraction were routinely analyzed for 35 elements using an aqua regia digestion and inductively coupled plasma-atomic emission spectroscopy analysis (ME-ICP41). Samples were also analyzed for gold by fire assay finished with atomic absorption spectroscopy (Au-AA24).

**APPENDIX III**  
**CERTIFICATES OF ANALYSIS**



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

To: **STRATEGIC METALS LTD.**

**C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED**

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 VANCOUVER BC V6B 1L8**

**Page: 1**  
**Finalized Date: 5- OCT- 2010**  
**Account: MTT**

**CERTIFICATE WH10135270**

Project: Lea  
 P.O. No.: Batch 1  
 This report is for 17 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 21- SEP- 2010.  
 The following have access to data associated with this certificate:  
 JOAN MARIACHER                      BILL WENGZYNOWSKI

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

<b>ANALYTICAL PROCEDURES</b>		
ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Ag- OG46	Ore Grade Ag - Aqua Regia	VARIABLE

To: **STRATEGIC METALS LTD.**  
**ATTN: JOAN MARIACHER**  
**C/ O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED**  
**1016- 510 W HASTINGS ST**  
**VANCOUVER BC V6B 1L8**

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

**Signature:**   
 Colin Ramshaw, Vancouver Laboratory Manager



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Page: 2 - A  
 Total # Pages: 2 (A - C)  
 Finalized Date: 5- OCT- 2010  
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Project: Lea

**CERTIFICATE OF ANALYSIS WH10135270**

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- AA24 Au ppm	ME- ICP41 Ag ppm	ME- ICP41 Al %	ME- ICP41 As ppm	ME- ICP41 B ppm	ME- ICP41 Ba ppm	ME- ICP41 Be ppm	ME- ICP41 Bi ppm	ME- ICP41 Ca %	ME- ICP41 Cd ppm	ME- ICP41 Co ppm	ME- ICP41 Cr ppm	ME- ICP41 Cu ppm	ME- ICP41 Fe %
		0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
E146906		9.24	0.304	0.4	2.63	12	<10	370	<0.5	<2	3.54	0.9	20	361	82	4.28
E146907		8.92	0.010	0.3	1.36	33	<10	130	<0.5	<2	2.71	0.8	11	40	50	3.70
E146908		8.03	0.006	<0.2	2.93	24	<10	130	<0.5	<2	4.40	<0.5	27	507	35	4.42
E146909		3.82	0.005	<0.2	0.49	11	<10	190	<0.5	<2	2.42	<0.5	10	9	28	2.56
E146910		2.56	<0.005	<0.2	0.06	5	<10	20	<0.5	<2	20.2	<0.5	<1	1	2	0.44
E146911		2.63	0.006	<0.2	0.42	17	<10	310	<0.5	<2	3.00	<0.5	14	6	41	3.57
E146912		4.81	<0.005	<0.2	0.44	6	<10	120	<0.5	<2	1.55	<0.5	13	6	34	3.08
E146913		4.06	<0.005	<0.2	1.52	<2	<10	260	<0.5	<2	1.44	<0.5	12	13	27	3.25
E146914		4.62	<0.005	<0.2	0.40	3	<10	430	<0.5	<2	1.94	<0.5	13	4	26	2.83
E146915		0.32	0.310	>100	1.33	255	<10	100	<0.5	7	0.66	24.3	10	29	6280	5.28
E146916		1.95	<0.005	<0.2	0.53	9	<10	240	<0.5	<2	4.03	<0.5	12	5	42	2.88
E146917		1.52	0.006	<0.2	0.48	13	<10	180	<0.5	<2	10.1	<0.5	9	3	32	4.25
E146918		4.65	<0.005	<0.2	0.42	16	<10	130	<0.5	<2	3.86	<0.5	11	3	18	3.13
E146919		3.70	<0.005	<0.2	0.45	28	<10	70	<0.5	<2	3.40	<0.5	14	7	36	3.23
E146920		1.80	<0.005	<0.2	0.40	22	<10	100	<0.5	<2	3.81	<0.5	12	3	28	2.97
E146921		3.92	0.005	<0.2	0.35	32	<10	60	0.6	<2	2.61	<0.5	7	3	18	2.00
E146922		3.60	<0.005	<0.2	0.44	13	<10	20	0.9	<2	0.40	<0.5	<1	<1	3	0.41





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 Finalized Date: 5- OCT- 2010  
 Account: MTT

Project: Lea

**CERTIFICATE OF ANALYSIS WH10135270**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
E146906		<10	<1	0.16	10	3.84	1090	1	0.02	41	930	88	0.95	5	12	233
E146907		<10	<1	0.26	10	1.93	822	1	0.02	17	1200	102	2.16	2	3	92
E146908		<10	<1	0.15	10	4.97	1040	1	0.02	57	630	11	1.26	3	11	164
E146909		<10	<1	0.30	20	1.09	778	2	0.01	16	650	17	0.22	3	3	109
E146910		<10	<1	0.03	<10	12.50	200	<1	0.02	<1	230	2	<0.01	3	<1	60
E146911		<10	<1	0.19	10	1.59	902	1	0.01	27	720	12	1.00	2	3	120
E146912		<10	<1	0.25	10	1.04	567	<1	0.01	22	480	5	0.98	<2	2	35
E146913		<10	<1	0.23	10	1.38	522	<1	0.02	24	440	8	0.24	2	2	25
E146914		<10	<1	0.19	20	1.16	675	<1	0.01	18	420	12	0.41	3	2	33
E146915		<10	1	0.11	<10	0.79	1635	19	0.07	23	420	9820	2.36	435	4	28
E146916		<10	<1	0.21	10	2.04	1195	1	0.01	19	620	16	0.68	5	4	71
E146917		<10	<1	0.12	10	4.83	2330	1	0.02	15	400	13	1.04	2	3	105
E146918		<10	<1	0.19	10	2.01	709	<1	0.01	21	240	12	1.51	2	2	87
E146919		<10	<1	0.20	10	2.15	474	<1	0.01	34	480	21	0.82	2	3	80
E146920		<10	<1	0.21	10	2.18	490	<1	0.01	29	440	18	0.73	3	2	95
E146921		<10	<1	0.23	10	1.24	416	1	0.01	30	320	26	0.79	3	3	81
E146922		<10	<1	0.34	30	0.18	87	<1	<0.01	<1	40	52	0.09	<2	1	24



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**CERTIFICATE OF ANALYSIS WH10135270**

Sample Description	Method Analyte Units LOR	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Ag- OG46
		Th	Ti	Tl	U	V	W	Zn	Ag
		ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
		20	0.01	10	10	1	10	2	1
E146906		<20	0.01	<10	<10	79	<10	283	
E146907		<20	0.01	<10	<10	17	<10	186	
E146908		<20	0.01	<10	<10	85	<10	104	
E146909		<20	<0.01	<10	<10	11	<10	51	
E146910		<20	<0.01	<10	<10	2	<10	14	
E146911		<20	<0.01	<10	<10	15	<10	64	
E146912		<20	<0.01	<10	<10	9	<10	57	
E146913		<20	<0.01	<10	<10	17	<10	61	
E146914		<20	<0.01	<10	<10	10	<10	58	
E146915		<20	0.10	<10	<10	43	<10	4920	97
E146916		<20	<0.01	<10	<10	19	<10	61	
E146917		<20	<0.01	<10	<10	16	<10	61	
E146918		<20	<0.01	<10	<10	7	<10	52	
E146919		<20	<0.01	<10	<10	9	<10	96	
E146920		<20	<0.01	<10	<10	8	<10	101	
E146921		<20	<0.01	<10	<10	5	<10	60	
E146922		30	<0.01	<10	<10	<1	<10	30	

**APPENDIX IV**  
**GEOLOGICAL AND GEOTECHNICAL LOGS**

# LEA PROPERTY

Grid East	Grid North	Easting	Northing	Elev. (m)	Depth (m)
		410296	6827429	1370	139.60

**ZONE:** \_\_\_\_\_

**SECTION:** \_\_\_\_\_

**HOLE:** LEA-10-01

**CLAIM:** YC73908-YC73919

Contractor: Top Rank Diamond Drilling Ltd

Drill: JKS-300

Core size: NTW and BTW

Casing depth: 6.10 (m) in / out

Drilling dates: July 6th to July 8th, 2010

Geology logged by: Oliver Fu

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	180	-50.0	compass				

**TARGET:** Lead anomaly

SUMMARY				
From (m)	To (m)	Interval	Unit	Comments
0.00	6.10	6.10	OVB	Overburden
6.10	67.90	61.80	SCH	Quartz chlorite schist with cross-cutting granodiorite dykes
67.90	137.30	69.40	SCH	Quartz sericite muscovite schist with interfingering shaley layers
137.30	139.60	2.30	MSED	Quartzo feldspathic meta-sedimentary unit with interfingering shaley graphitic layers
EOH				

SAMPLES
Numbers: <u>E146906 to E146922</u>
Total: <u>17</u>
Batch: <u>1</u>
Date Sent: <u>September 20th, 2010</u>
Certificate: <u>WH10135270</u>

COMMENTS
The hole intersected a thick sequence of altered schist. The types of alteration encountered were carbonate, chlorite, and sericite. Pyrite was disseminated throughout the entire hole. Granodiorite and felsic dykes cross-cut the main lithologies. No VMS mineralization was encountered. The hole reached its planned depth and was shut down.

## GEOLOGY LOG

HOLE: LEA-10-01

INTERVAL			SUB-INTERVAL			LITHOLOGY			STRUCTURE				ALTERATION					MINERALS					Photo	DETAILED DESCRIPTION			
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Chlorite	Carbonate	Sericite	Silicification	Other		Pyrite			Type			Intensity	Type	Intensity
																	Type	Intensity	Type	Intensity	Type	Intensity			Type	Intensity	Type
0.00	6.10	6.10				OVB																					Overburden. 20 cm recovered. Rounded pebbles.
6.10	67.90	61.80				SCH			FO	82			i	w					CLY	m	s						Grey to medium forest green, coarse to medium grained, soft, fissile, quartz-chlorite schist with intermittent cross-cutting granodiorite dykes. Well developed foliation and greasy along foliation planes. Fine to medium grained euhedral, cubic pyrite. Pyrite is disseminated throughout, slightly tarnished and mainly follows foliation planes. Few needle-like mafics remain, while 95% have been chloritized. Few local zones have undergone minor to strong clay alteration (faint remnant foliation in these zones). Clay altered zones typically host augen-like, lenticular quartz crystals between 0.2-0.9 mm. Quartz augens also occur along foliation planes as lenses between 1-2 mm wide. Crenulation cleavage occurs locally in zones between 1-3 cm wide (i.e.. 17.15m). Trace carbonate alteration occurs on fractured surfaces.
			6.10	8.70	2.60	SCH			FO	82			s								w		Li	s			Rusty limonite occurs interstitially along fractured surfaces. Local zones have undergone quartz flooding. Black, graphitic scintery material occurs interstitially throughout.
			7.62	8.10	0.48	GRD			DY				m	f							f						
			17.40	17.99	0.59	GRD			ICN	72			m	f							f						
									uCN	55																	Grey, medium grained, hard, equigranular, weakly foliated granodiorite dyke with disseminated pyrite. Needle-like biotite crystals have undergone weak chloritization. Few coarse grained mafics remain. Sharp lower and upper contacts.
			22.20	57.50	35.30	SCH																					First sign of quartz-eyes. Rounded to subrounded and between 1-3 mm.
			24.25	24.64	0.39	GRD			ICN	70			m	f							f						
			31.37	31.87	0.50				uCN	60											f						
						GRD																					Grey, medium grained, hard, equigranular, weakly foliated granodiorite dyke with disseminated pyrite. Needle-like biotite crystals have undergone weak chloritization. Few coarse grained mafics remain. Sharp lower and upper contacts.
									ICN	70																	

**GEOLOGY LOG**

INTERVAL			SUB-INTERVAL			LITHOLOGY			STRUCTURE				ALTERATION					MINERALS					Photo	DETAILED DESCRIPTION			
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Chlorite	Carbonate	Sericite	Silicification	Other		Pyrite			Other			Other		
																	Type	Intensity				Type			Intensity	Type	Intensity
			38.30	40.95	2.65	FEL			DY				f	m						f							
			40.95	139.60	98.65										m												Peachy-white, pervasive sericite alteration. Most noticeable on quartz crystals and lenses.
			42.94	43.84	0.90	GRD									m					f						Same unit as 31.37-31.87 m. First sign of sericite alteration. Pyrite is disseminated. Very weak foliation.	
			43.84	45.71	1.87	SCH							w		m					m						Quartz-sericite schist with abundant quartz-eyes.	
			45.71	46.91	1.20	GRD			uCN 60 ICN 55						m					f						Same unit as 31.37-31.87 m. Moderately sericite altered. Pyrite is disseminated. Very weak foliation.	
			46.91	57.50	10.59	SCH																				Quartz-sericite schist with abundant quartz-eyes. Section is mainly broken up with few 2-30 cm competent sections. A white, non-calcareous clay-like coating occurs on fractured surfaces. Dark grey graphite occurs mainly on fractured surfaces, occasionally interstitial. Overall foliation is weak, locally strong in graphite-rich zones. Interval has undergone moderate sericite and weak chlorite alteration.	
			57.50	69.19	11.69	SCH							w		m					m							
67.90	137.30	69.40				SCH							w		s	m				ms						Light greenish-beige to tan, medium to coarse grained, moderate to strong foliation, quartz-sericite-muscovite schist with interfingering shaley layers. Pyrite is fine to medium grained, mainly disseminated and occurs as subhedral to euhedral cubic crystals. Peachy sericite alteration occurs throughout, mainly as a secondary coating or as 1 to <1 mm stringers. Black shaley layers/seams occur interstitially - these zones are local and distinct. Foliation surrounds quartz crystals and lenses (lenticular to lathe shaped). Quartz is abundant and not syngenetic.	

## GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			STRUCTURE				ALTERATION					MINERALS					Photo	DETAILED DESCRIPTION			
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Chlorite	Carbonate	Sericitic	Silicification	Other		Pyrite			Other			Other		
																	Type	Intensity				Type			Intensity		
			78.21	79.40	1.19																						
			82.20	83.20	1.00																						Chlorite alteration intensity increases to strong. The dark forest green alteration occurs alongside pale buff colored sericitic altered zones. Interval is moderately hard and has silicified. Moderate to strong foliation.
			84.40	96.75	12.35	SCH							s		s	m			ms								Dark forest green, fine to medium grained chloritic dyke speckled with fine grained sericitic altered patches. Top 20 cm of dyke is intensely sericitic altered, producing a dense buff to dark peachy colour. White pasty, patchy, soft and non-calcareous minerals occurs in clumps interstitially and on fractured surfaces. Weakly foliated and fragmental (fragments are randomly oriented and oblique compared to foliation). Weakly clay altered at lower contact.
			104.90	105.60	0.70				DY				i		i											Weakly brecciated and moderately deformed meta schist. A remnant foliation is still apparent in local zones.	
			110.50	137.30	26.80	SCH			DE																	Greenish with a pinkish tinge, medium grained, equigranular granodiorite(?) dyke. Mafics have been altered to chlorite. Feldspar crystals are deformed and show a peachy sericitic halo around its borders. Sharp lower contact to the dyke beneath (no physical break in the core itself).	
			114.78	114.90	0.12	GRD			DY				m		w											Same dark forest green chloritic dyke as 104.9 to 105.6 m.	
			114.90	115.31	0.41				DY	uCN 44	ICN 44																
			127.00	136.42	9.42	SCH			DE				s		s			CLY	w							Deformation and alteration increase to strong. Local zones are weakly clay altered. Shaley graphitic layers are abundant and between <1 to 2 mm wide. Possibly a meta-sedimentary unit (intrusion into wet sediment?). Fragments occurring obliquely to the foliation occur throughout.	
			127.41	128.50	1.09				DY					w				CLY	m	f						Dark grey, medium grained, brecciated, clay altered quart-rich dyke with disseminated pyrite. Graphitic seams are abundant. Few carbonate infilled vugs.	

### GEOLOGY LOG

INTERVAL			SUB-INTERVAL			LITHOLOGY			STRUCTURE				ALTERATION					MINERALS					DETAILED DESCRIPTION								
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Chlorite	Carbonate	Sericite	Silicification	Other		Pyrite			Other		Type	Intensity	Type	Intensity	Photo			
																	Type	Intensity				Type							Intensity		
137.30	139.60	2.30				MSED				FO	62				w				CLY	w											
EOH																															



## Sample Log

Hole: LEA-10-01

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	Sample	Batch	Au (g/t)	Ag (g/t)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Comments
6.10	8.70	2.60	2.60	100	E146906	1	0.304	0.4	12	82	88	283	
8.70	11.70	3.00	3.00	100	E146907	1	0.010	0.3	33	50	102	186	
11.70	14.70	3.00	3.00	100	E146908	1	0.006	<0.2	24	35	11	104	
63.25	66.25	3.00	2.95	98	E146909	1	0.005	<0.2	11	28	17	51	
-	-	-	-	-	E146910	1	<0.005	<0.2	5	2	2	14	Blank
66.25	69.20	2.95	2.95	100	E146911	1	0.006	<0.2	17	41	12	64	
69.20	72.20	3.00	3.00	100	E146912	1	<0.005	<0.2	6	34	5	57	
88.97	92.00	3.03	3.00	99	E146913	1	<0.005	<0.2	<2	27	8	61	
119.00	122.00	3.00	2.93	98	E146914	1	<0.005	<0.2	3	26	12	58	
-	-	-	-	-	E146915	1	0.310	97.0	255	6280	9820	4920	Standard - CDN-ME-6
124.36	127.41	3.05	1.40	46	E146916	1	<0.005	<0.2	9	42	16	61	
127.41	128.50	1.09	1.09	100	E146917	1	0.006	<0.2	13	32	13	61	
128.50	131.50	3.00	3.00	100	E146918	1	<0.005	<0.2	16	18	12	52	
131.50	134.40	2.90	2.90	100	E146919	1	<0.005	<0.2	28	36	21	96	
131.50	134.40	2.90	2.90	100	E146920	1	<0.005	<0.2	22	28	18	101	
134.40	137.30	2.90	2.90	100	E146921	1	0.005	<0.2	32	18	26	60	
137.30	139.60	2.30	2.30	100	E146922	1	<0.005	<0.2	13	3	52	30	

## GEOTECHNICAL LOG

HOLE: LEA-10-01

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
0.00	6.10	6.10	0.20	3	0	0		MW	
6.10	7.62	1.52	2.60	171	0.00	0		W	
7.62	9.14	1.52	1.05	69	0.40	26		W	
9.14	10.67	1.53	1.42	93	0.95	62		FR	
10.67	12.19	1.52	1.47	97	1.15	76		FR	
12.19	13.72	1.53	1.38	90	0.64	42		MW	
13.72	15.24	1.52	1.51	99	0.96	63		MW	
15.24	17.06	1.82	1.54	85	0.90	49		F	
17.06	18.59	1.53	1.52	99	1.45	95		F	
18.59	20.11	1.52	1.52	100	1.42	93		F	
20.11	21.64	1.53	1.40	92	1.29	84		F	
21.64	23.16	1.52	1.50	99	1.40	92		F	
23.16	24.69	1.53	1.42	93	1.20	78		F	
24.69	26.21	1.52	1.17	77	1.02	67		F	
26.21	27.73	1.52	1.35	89	1.21	80		SW	
27.73	29.26	1.53	1.40	92	0.94	61		F	
29.26	30.78	1.52	1.43	94	1.03	68		F	
30.78	32.30	1.52	1.52	100	1.30	86		F	End of NTW - Start of BTW
32.30	32.91	0.61	0.40	66	0.00	0		F	
32.91	35.97	3.06	3.02	99	2.96	97		F	
35.97	39.01	3.04	2.83	93	2.26	74		F	
39.01	42.06	3.05	2.60	85	1.00	33		F	
42.06	45.11	3.05	3.06	100	2.89	95		F	
45.11	48.15	3.04	3.04	100	2.95	97		F	
48.15	51.20	3.05	3.04	100	2.99	98		F	
51.20	54.25	3.05	3.05	100	2.94	96		F	
54.25	57.30	3.05	3.00	98	2.94	96		F	
57.30	60.35	3.05	3.06	100	0.15	5		MW	
60.35	63.39	3.04	3.03	100	0.00	0		MW	
63.39	66.45	3.06	2.90	95	0.95	31		SW	
66.45	69.49	3.04	2.85	94	0.45	15		SW	
69.49	72.54	3.05	3.05	100	2.84	93		F	
72.54	75.59	3.05	3.03	99	2.25	74		F	
75.59	78.63	3.04	2.60	86	1.95	64		F	
78.63	81.68	3.05	2.61	86	1.78	58		SW	
81.68	84.73	3.05	3.04	100	2.89	95		FR	
84.73	87.78	3.05	2.96	97	2.80	92		FR	
87.78	90.83	3.05	3.01	99	2.94	96		FR	
90.83	93.88	3.05	2.97	97	2.80	92		FR	
93.88	96.93	3.05	3.07	101	2.99	98		FR	
96.93	99.97	3.04	3.08	101	3.00	99		FR	
99.97	103.02	3.05	3.08	101	2.94	96		FR	
103.02	106.07	3.05	2.85	93	1.26	41		FR	
106.07	109.11	3.04	3.04	100	2.89	95		FR	
109.11	112.17	3.06	3.08	101	2.67	87		FR	
112.17	115.21	3.04	3.07	101	2.84	93		FR	
115.21	118.26	3.05	2.97	97	2.80	92		FR	
118.26	121.31	3.05	3.00	98	2.89	95		FR	
121.31	124.36	3.05	3.02	99	2.78	91		SW	
124.36	127.41	3.05	1.40	46	1.32	43		SW	

## GEOTECHNICAL LOG

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness	Weathering	Comments
127.41	130.45	3.04	2.91	96	1.55	51		MW	
130.45	133.50	3.05	2.80	92	2.20	72		SW	
133.50	136.55	3.05	2.57	84	1.98	65		SW	
136.55	139.60	3.05	3.09	101	2.30	75		FR	
EOH									

## MAGNETIC SUSCEPTIBILITY LOG

**HOLE:** LEA-10-01

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
1.00			N/A	
2.00			N/A	
3.00			N/A	
4.00			N/A	
5.00			N/A	
6.00	SCH		0.27	
7.00	SCH		0.42	
8.00	GRD		0.23	
9.00	SCH		0.07	
10.00	SCH		0.31	
11.00	SCH		0.18	
12.00	SCH		0.25	
13.00	SCH		0.43	
14.00	SCH		0.38	
15.00	SCH		0.45	
16.00	SCH		0.42	
17.00	SCH		0.42	
18.00	SCH		0.36	
19.00	SCH		0.42	
20.00	SCH		0.47	
21.00	SCH		0.23	
22.00	SCH		0.34	
23.00	SCH		0.38	
24.00	SCH		0.12	
25.00	SCH		0.29	
26.00	SCH		0.36	
27.00	SCH		0.75	
28.00	SCH		0.27	
29.00	SCH		0.20	
30.00	SCH		0.29	
31.00	SCH		0.49	
32.00	SCH		0.49	
33.00	SCH		0.07	
34.00	SCH		0.14	
35.00	SCH		1.09	
36.00	SCH		0.32	
37.00	SCH		0.09	
38.00	SCH		0.53	
39.00	FEL		0.16	
40.00	FEL		0.18	
41.00	SCH		0.29	
42.00	SCH		0.25	
43.00	GRD		0.54	
44.00	SCH		2.06	

## MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
45.00	SCH		0.10	
46.00	GRD		0.29	
47.00	SCH		1.44	
48.00	SCH		3.93	
49.00	SCH		2.08	
50.00	SCH		0.12	
51.00	SCH		0.25	
52.00	SCH		0.16	
53.00	SCH		0.25	
54.00	SCH		0.23	
55.00	SCH		0.21	
56.00	SCH		0.98	
57.00	SCH		0.27	
58.00	SCH		0.12	
59.00	SCH		0.12	
60.00	SCH		0.14	
61.00	SCH		0.18	
62.00	SCH		0.65	
63.00	SCH		0.20	
64.00	SCH		0.18	
65.00	SCH		0.25	
66.00	SCH		0.21	
67.00	SCH		1.07	
68.00	SCH		0.12	
69.00	SCH		0.21	
70.00	SCH		0.14	
71.00	SCH		0.16	
72.00	SCH		0.09	
73.00	SCH		0.32	
74.00	SCH		0.42	
75.00	SCH		0.12	
76.00	SCH		0.27	
77.00	SCH		0.31	
78.00	SCH		0.67	
79.00	SCH		0.12	
80.00	SCH		0.16	
81.00	SCH		0.31	
82.00	SCH		0.31	
83.00	SCH		0.45	
84.00	SCH		1.02	
85.00	SCH		0.23	
86.00	SCH		0.16	
87.00	SCH		0.18	
88.00	SCH		0.32	
89.00	SCH		1.42	

## MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
90.00	SCH		0.34	
91.00	SCH		0.96	
92.00	SCH		0.21	
93.00	SCH		0.45	
94.00	SCH		0.21	
95.00	SCH		0.29	
96.00	SCH		0.56	
97.00	SCH		0.20	
98.00	SCH		0.23	
99.00	SCH		1.07	
100.00	SCH		0.32	
101.00	SCH		0.20	
102.00	SCH		0.12	
103.00	SCH		0.21	
104.00	SCH		0.20	
105.00	SCH		0.49	
106.00	SCH		0.23	
107.00	SCH		0.20	
108.00	SCH		0.84	
109.00	SCH		0.09	
110.00	SCH		0.32	
111.00	SCH		0.12	
112.00	SCH		0.54	
113.00	SCH		0.54	
114.00	SCH		0.32	
115.00	SCH		0.58	
116.00	SCH		0.58	
117.00	SCH		0.51	
118.00	SCH		0.18	
119.00	SCH		0.20	
120.00	SCH		0.16	
121.00	SCH		0.29	
122.00	SCH		0.27	
123.00	SCH		0.30	
124.00	SCH		0.16	
125.00	SCH		0.28	
126.00	SCH		N/A	
127.00	SCH		0.24	
128.00	SCH		0.26	
129.00	SCH		0.24	
130.00	SCH		0.47	
131.00	SCH		0.34	
132.00	SCH		0.24	
133.00	SCH		0.20	
134.00	SCH		0.22	

## MAGNETIC SUSCEPTIBILITY LOG

Depth (m)	Unit	Modifier	Magnetic Susceptibility	Comments
135.00	SCH		0.22	
136.00	SCH		0.14	
137.00	SCH		0.98	
138.00	MSED		0.14	
139.00	MSED		0.08	
EOH				

## BOX LOG

HOLE: LEA-10-01

BOX	FROM (m)	TO (m)
1	5.90	8.23
2	8.23	12.19
3	12.19	16.30
4	16.30	20.60
5	20.60	24.69
6	24.69	29.26
7	29.26	32.30
8	32.30	37.70
9	37.70	42.92
10	42.92	48.05
11	48.05	53.45
12	53.45	58.46
13	58.46	62.74
14	62.74	67.74
15	67.74	67.50
16	67.50	72.80
17	72.80	83.57
18	83.57	88.97
19	88.97	94.64
20	94.64	100.23
21	100.23	105.65
22	105.65	111.63
23	111.63	117.15
24	117.15	122.75
25	122.75	129.87
26	129.87	135.87
27	135.87	139.60
	EOH	